



इंटरनेशनल एडवांस्ड रिसर्च सेंटर फॉर पाउडर मेटलर्जी एंड न्यू मटेरियल्स) एआरसीआई,
बालापुरपीओ हैदराबाद
INTERNATIONAL ADVANCED RESEARCH CENTRE FOR
POWDER METALLURGY AND NEW MATERIALS (ARCI), BALAPUR P.O
500005

Tender No. SC20240091

Date:02.07.2025

e-TENDER DOCUMENT
ANNUAL RATE CONTRACT FOR SUPPLY OF ELECTRICAL ITEMS AND WORKS EXECUTION AT ARCI, HYDERABAD.

1.	Earnest Money Deposit/Bid Security	INR. 1,00,000/-
2.	Tender Fee	INR 1500+18% GST(INR 1770/-)
3.	e-Tender document published date	02.07.2025
4.	Bid documents can be accessed from	https://eprocure.gov.in/eprocure/app www.arci.res.in
5.	Clarification start date and end date	02.07.2025 to 07.07.2025
6.	Bid submission start date and time	08.07.2025 Time 09.00 AM
7.	Bid submission end date and time	23.07.2025 upto 15:30 Hrs
8.	Online Bids opening date and time (for cover 1 Tender Fee and EMD)	25.07.2025 at 11:00 Hrs
9.	Mode of Tender	eProcurement (Online) https://eprocure.gov.in/eprocure/app
10.	Bid Submission	Cover 1: Tender Fee and EMD Cover 2: Technical Bid (Online and Offline) Cover 3: Commercial Bid (Online ONLY)



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INTERNATIONAL ADVANCED RESEARCH CENTRE FOR
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NOTICE FOR INVITING OPEN E-TENDER

1. International Advanced Research Centre for Powder Metallurgy and New Materials (henceforth referred to as ARCI) is an Autonomous Research and Development Centre of Department of Science and Technology (DST), Government of India with main campus at Hyderabad and with operations in Chennai and Gurugram.
2. AMC works to be provided at: International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI) RCI Road, Opp. Balapur Village Hyderabad – 500005
Phone No: 040-24452376, 24452476
Fax: 040-24442699
Email : stores@arci.res.in
3. **NAME OF THE WORK: ANNUAL RATE CONTRACT FOR SUPPLY OF ELECTRICAL ITEMS AND WORKS EXECUTION AT ARCI, HYDERABAD.**
4. **Tender Enquiry No: (Case No.) SC20240091/WO Dated: 02.07.2025.**
5. Last date and time of submission of Tender online (Tender Fee, EMD, Technical bid, and Price bid): **23.07.2025 before 15:30 hrs.**
6. **Annual Rate Contract for Electrical Works / Service Period:**
 - a) The term of agreement / purchase order / work order for Annual Rate Contract for Supply of Electrical items and Works execution shall be for a period of One year. If the services are found to be satisfactory for first year, the contract may be extended for second year or part thereof, with the quoted BOQ price bid, on the same terms and conditions mutually agreed to by both the parties. In case of any further extension is needed by ARCI, same conditions for third year also.
 - b) The contract / service provider / successful bidder (L1) will be decided based lowest price quoted.
 - c) If rates are found on higher side, ARCI will negotiate with L1 supplier to reduce the rates of individual BOQ items.
 - d) No escalation will be given/ awarded for all BOQ items.
 - e) If the GST on supply/works changes, same will be applicable for that financial year. To this effect government G.O should be submitted to ARCI.
7. The agreement shall be liable for termination on giving three (03) months' notice by either side. During the period of notice, both the parties shall continue to discharge their duties and obligations. In case of termination for convenience by purchaser/contractor shall be paid proportionate contract price for supply and services rendered and work /service in progress till the effective date of termination.

8. The contractor has to submit the rates for the BOQ items in commercial bid (Cover 3) and **without rates** in technical bid (Cover2).
9. The contract / service provider / successful bidder (L1) will be decided based lowest price quoted.
10. The contractor shall not be entitled to any price escalation for the rate contract items/works/services during the tenure of contract, i.e. on any statutory account etc. except GST.
11. Contractors are invited to submit their most competitive ONLINE quotation through CPP Portal (Central Public Procurement Portal) website <https://eprocure.gov.in> on or before the prescribed due date. Manual bids shall not be accepted except for the original documents, if any mentioned in this tender.
12. Complete tender can be viewed and submitted through <https://eprocure.gov.in/eprocure/app>. To use the Electronic tender portal <https://eprocure.gov.in/eprocure/app> the bidders need to register on the portal.
13. **Validity of Bid:** Quotation should have minimum validity of **120 days** from the date of opening.

14. Bid Submission:

14.1. Tender Fee and Earnest Money Deposit (COVER 1):

Bidder shall select the payment option as online or offline to pay the Tender Fee and EMD (as per the ARCI bank account detail given below) in the form of demand draft/ Banker's Cheque, etc. All scanned documents of Tender Fee and EMD should be uploaded in the CPP portal (Any other relevant document pertaining to EMD and Tender fee may be uploaded and also submit the hard copies in cover-1). Original Proof of payment of Tender Fee and EMD to be submitted in a sealed envelope super scribed as COVER-1 with following information:

1. Tender Reference No. **SC20240091/WO Dt: 02.07.2025**
2. Type of bid: Two bid system (i.e. Cover-1: EMD and Tender Fees, Cover-2: Technical bid and without rates of BOQ and Cover-3: Commercial bid (rates of BOQ items))
3. Tender Due Date & Time: **23.07.2025 IST 15:30 hrs**
4. Bidder name:
5. Bidder Address:
6. Bidder e-mail ID for correspondence:
7. Bidder Mobile contact details:

14.2. Details of ARCI Account:

Name of the Institution	International Advanced Research Centre for Powder Metallurgy & New Materials
Name of Account Holder (As per Bank Record)	ARCI TECHNOLOGY PROGRAM FUND
Account Number of above account	1849101016974
Complete Contact Address	RCI Road, Balapur, Opposite Balapur Vilage, Hyderabad -500005
Telephone No	0091-040-24452361
Fax No	0091-040-24442699

Bank Account Details

Bank Name	CANARA BANK
Branch Name	Kanchanbagh
Beneficiary's Name	ARCI Technology Program Fund
Complete Contact Address	Kanchanbagh, Hyderabad 5000059
Telephone No	040-23438704
9- Digit Code No of Bank & Branch	500015032
Account Number	1849101016974
Account Type (SB/Current/Cash/Credit/Etc)	Savings Account
IFSC Code No of Bank	CNRB0001849
PAN Number	AAAAI0324C
TIN Number	36980207289
Service Tax Number	AAAAI0324CST001
GSTIN Number	36AAAAI0324C1ZG
E.Mail	fao@arci.res.in

- 14.3. **Technical Bid (COVER 2):** Technical bid will be opened if the bidder is submitted the Tender Fee and Earnest Money Deposit in Cover-1 (online or off-line). All scanned documents of Technical bid should be uploaded in the CPP portal (Cover-2), such as self-attested Signed copies of all the tender document pages as a mark that the bidder has read and understood the all the terms and conditions, BOQ item list without quoted prices, all Certified Experience related documents for last five years (Works completed as on date of issue of this tender notice), organization chart, manpower and related equipment available with the bidder, pan card details, last three years Chartered Accountant audited IT submitted returns, last three years chartered accountant certified turnover certificate, bank details of the bidder, solvency certificate from nationalized banks, GST details, Firm or company registration certificate, list of present works being executed by the bidder/contractor with documentary proofs such as work orders/purchase orders, latest profile of the bidder, any

other Government of India agencies/departments/organizations/PSUs / CPWD/MES/ ISRO/ Atomic Energy, registration/ empanelment certificates, any litigation history of the firm to be certified by the head/ARCI of the company. original certified and signed copies of the uploaded documents to be submitted in a sealed envelope super scribed as COVER-2 with details given above and in following paras.

Both the Cover 1 and Cover 2 shall be submitted in online and offline of the documents of the Tender No. SC20240091/WO due date on 23.07.2025 along with the name of the work and the same should reach the address: International Advanced Research Centre for Powder Metallurgy and New Materials, Balapur Post, Hyderabad – 500 005, Telangana on or before 23.07.2025

Price Bid (COVER 3): Price bid (BOQ) to be uploaded **ONLINE only** in COVER-3 and no other mode of submission is acceptable.

- 15. All the tenders, in which any of the prescribed conditions are not fulfilled or incomplete in any respect are liable to be rejected. List of any deviations shall be separately submitted in a deviation statement. It may be noted that major deviations from ARCI terms and conditions are also liable to be rejected.**

Clarification on bid:

Bidders can seek clarification as per the schedule start date and end date through email IDs given below:

1. For technical clarifications : **vbalajirao@arci.res.in, nirmala@arci.res.in, arsrinivas@arci.res.in,**
2. For commercial clarifications : **ramesh.e@arci.res.in, stores@arci.res.in, nsrinivas@arci.res.in, sspoarci@arci.res.in**

a. Opening of the tender:

3. Only the Cover 1 containing Tender Fee and EMD shall be opened online on the date of the tender opening.
4. Price bids of only those firms meeting all tender requirements including compliance to technical specifications, confirming with all tender conditions and passing technical evaluation and eligibility criteria will be considered for opening and further process.
5. After opening of the price bid, detailed comparative statement will be generated online and the finalization of successful bidder will be decided on L-1 (lowest price) as per CPP Portal.

16. Award of Contract:

Contract will be awarded to successful bidder and a copy of the award of the contract will be uploaded in CPP portal after finalizing the tender.

17. Validity of Rate contract:

Total period of contract is for One (1) year i.e. initial period of this contract is for 12 months from the date of purchase Order. If the services are found to be satisfactory for first year, the contract may be extended for second year or part thereof, with the quoted BOQ price bid, on the same terms and conditions mutually agreed to by both the parties. In case of any further extension is needed by ARCI, same conditions for third year also.

- 18. Disqualification of tenders:** The tenders are liable for rejection in the following circumstances.

1. Not meeting the eligibility criteria
 2. Tenders without Tender Fee and EMD
 3. If they are not in line with the terms and conditions of this tender notice
 4. Conditional quotations
 5. Incomplete tenders
 6. Tenders submitted through Fax or e-mail
 7. Tenders not following two bid system.
 8. The bidder shall quote all the charges/prices as per the tender requirement. If any firm quotes nil/consideration, the bid shall be treated as **unresponsive bid and will not be considered. Zero /null prices will not be considered for commercial evaluation and summarily be rejected. In this the decision of Director, ARCI will be final, without assigning any reason.**
 9. **During technical evaluation the bidder / tenderer has to respond to ARCI quires or clarifications within the specified time period.**
19. Director, ARCI reserves the right to accept or reject any or all tenders either in part or in full or to split the order without assigning any reasons thereof.

IMPORTANT NOTE:

Amendment, Corrigendum if any to this tender document, WILL BE HOSTED ONLY IN ARCI WEBSITE and CPP Portal and no separate Press Notification will be issued. Bidders are advised to visit our website and CPP Portal regularly to know such details.

Director, ARCI, Hyderabad

SPECIAL INSTRUCTIONS FOR ONLINE BID SUBMISSION:

Instructions to the Bidders to submit the bids online through the Central Public Procurement Portal for e-Procurement are at <https://eprocure.gov.in/eprocure/app>. The bidders must carefully follow the instructions.

1. Possession of valid Digital Signature Certificate (DSC) and enrolment/registration of the contractors/bidders on the e-procurement/e-tender portal is a prerequisite for e-tendering.
2. Bidder should do the enrolment in the e-Procurement site using the "Click here to Enroll" option available on the home page. Portal enrolment is generally free of charge. During enrolment/registration, the bidders should provide the correct/true information including valid e-mail-id. All the correspondence shall be made directly with the contractors/bidders through e-mail-id provided.
3. Bidder need to login to the site through their user ID/ password chosen during enrolment/registration.
4. Then the Digital Signature Certificate (Class III Certificates with signing key usage) issued by NIC/SIFY/TCS/nCode/eMudra or any Certifying Authority recognized by CCA India on e-Token / Smart Card, should be registered.
5. The DSC that is registered only should be used by the bidder and should ensure safety of the same.
6. Contractor / Bidder may go through the tenders published on the site and download the required tender documents/ Annexures for the tenders he/she is interested.
7. After downloading / getting the tender document/ Annexures/ Appendices, the Bidder should go through them carefully and then submit the documents as asked, otherwise bid will be rejected.
8. If there are any clarifications, this may be obtained online through the tender site, or through the contact details. Bidder should take into account the corrigendum / addendum published in **website** before submitting the bids online.
9. Bidder then logs in to the site through the secured login by giving the user id/ password chosen during enrolment/registration and then by giving the password of the e-Token/ Smart Card to access DSC.
10. Bidder selects the tender which he/she is interested in by using the search option & then moves it to the 'my tenders' folder.

11. From “my tender” folder, he selects the tender to view all the details indicated.
12. It is construed that the bidder has read all the terms and conditions before submitting their offer. Bidder should go through the tender Annexures, and appendices and scope of work carefully and upload the documents as called for; otherwise, the bid will be rejected.
13. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document/ Annexure and generally, they can be in PDF/xls/rar/zip/dwf formats. If there is more than one document, they can be clubbed together and can be provided in the requested format. Each document to be uploaded through online for the tenders should be less than 2 MB. If any document is more than 2MB, it can be reduced through zip/rar and the same can be uploaded, if permitted. Bidders Bid documents may be scanned with 100 dpi with black and white option. However, if the file size is less than 1 MB the transaction uploading time will be very fast.
14. Bidder should take into account the corrigendum / addendum published from time to time before submitting the online bids.
15. The Bidders can update well in advance, the documents such as certificates, annual report details etc., under My Space option and these can be selected as per tender requirements and then send along with bid documents during bid submission. This will facilitate the bid submission process faster by reducing upload time of bids.
16. Bidder should submit the EMD as specified in the tender. The original should be posted/couriered/given in person to the Tender Inviting Authority, within the bid submission due date & time for the tender. **Scanned copy of the instrument should be uploaded as part of the offer.**
17. While submitting the bids online, the bidder reads the terms & conditions and accepts the same to proceed further to submit the bid packets.
18. The bidder has to select the payment option as offline to pay the EMD as applicable and enter details of the instruments.
19. **The details of the DD/BC, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise submitted bid will not be acceptable.**

- 20.**The bidder has to digitally sign and upload the required bid documents one by one as indicated. Bidders to note that the very act of using DSC for downloading the bids and uploading their offers shall be deemed to be a confirmation that they have read all sections and pages of the bid document including General conditions of contract, special conditions of contract, scope of work, BOQ specification, time frame eligible criteria without any exception and have understood the entire document and are clear about the requirements of the tender requirements.
- 21.**The bidder has to upload the relevant files required as indicated in the covered content. In case of any irrelevant files, the bid will be rejected.
- 22.**If the price bid format is provided in a spread sheet file like BOQ_xls, the rates offered should be entered in the allotted space only and uploaded after filling the relevant columns. The Price Bid/ BOQ template must not be modified/replaced by the bidder, else the bid submitted is liable to be rejected for this tender.
- 23.**The bidders are requested to submit the bids through online e - tendering system to the Tender Inviting Authority (TIA) well before the bid submission end date & time (as per Server System Clock). The TIA will not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the bidders at the eleventh hour.
- 24.**After the bid submission (i.e. after Clicking "Freeze Bid Submission" in the portal), the acknowledgement number, given by the system should be printed by the bidder and kept as a record of evidence for online submission of bid for the particular tender and will also act as an entry pass to participate in the bid opening date.
- 25.**The time settings fixed in the server side & displayed at the top of the tender site, will be valid for all actions of requesting, bid submission, bid opening etc., in the e-tender system. The bidders should follow this time during bid submission.
- 26.**All the data being entered by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered will not be viewable by unauthorized persons during bid submission & not be viewable by any one until the time of bid opening.

- 27.**Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to a symmetric encryption using buyers/bid openers public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers. The confidentiality of the bids is maintained since the secured Socket Layer 128bit encryption technology is used. Data storage encryption of sensitive fields is done.
- 28.**The bidder should logout of the tendering system using the normal logout option available at the top right hand corner and not by selecting the (X) exit option in the browser.
- 29.**For any queries regarding e-tendering process, the bidders are requested to contact as provided in the tender document. For any further queries, the bidders are asked to contact over phone as mentioned in the CPP website or send an email to - cphp-nic@nic.in.

GENERAL INSTRUCTIONS TO TENDERER ALONG WITH ELIGIBILITY CRITERIA AND DOCUMENTS TO BE UPLOADED IN THE TECHNICAL BID COVER IN THE CPP PORTAL

1. Scope of Tender:

International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI) invites Tenders for Annual Rate Contract for Supply of Electrical items and Works execution at ARCI, Hyderabad (**The BoQ items will be operated based on the site requirement decided by ARCI from time to time. The contractor will not be eligible for any compensation/claim for any item/items not operated/used during the period of contract. The rates quoted should be firm for the operation period of the contract**).

2. Non Association / Relation:

Should a contractor or a tenderer have a relative, employed in ARCI or in case of partnership firm or company incorporated under the Indian company act, should a partner or relative of the partner or a shareholder be employed in a responsible capacity in ARCI, the authority inviting the tender should be informed of the fact at the time of submission of tender, failing which the tender may be rejected. If such fact is suppressed at the time of tendering and comes to light at any time after acceptance of tender, the contract may be rescinded.

3. Eligibility Criteria and minimum marks for individual qualification criteria:

A. General Electrical Works Experience (Annual Turnover): The Contractor should have achieved minimum annual value of general construction works (as certified by Chartered Accountant and at least 50% estimated value (Rs.40 lakhs) of which is from Engineering **Electrical installation & commissioning works** i.e. Rs.20 lakhs, carried out in any of the year over a period of 05 (five) years ending 31.03.2025. (i.e. **providing audited balance sheet along with income tax returns**). – 10 marks

B. Particular Electrical Installation and commissioning Experience:

The Contractors should have successfully completed similar works for a prominent Govt./Semi Govt./Autonomous Bodies/Corporate Bodies or Public Sector Undertaking during last 05 (Five) years ending 31.03.2025 should have either of the following (i.e. **attach documentary proof**). – 30 marks

- One similar nature of work (Industrial) costing not less than **Rs.32 Lakhs**
or
- Two similar nature of works (Industrial) costing not less than **Rs.24 lakhs**
or
- Three similar nature of works (Industrial) costing not less than **Rs.16 lakhs.**

Similar works means:

Supply, installation and testing of Electrical items/works, for industrial wiring, Trench excavation and Cable laying, cable termination, Cable jointing works, and Internal electrification works for office buildings.

- C. The contractor should be registered with any of the prominent Govt./Semi Govt./ Govt. of India Autonomous Bodies/ Corporate Bodies or Public Sector Undertaking
– **10 marks**
- D. Contractor should have **Grade 'A' Electrical Inspectorate License**. – **15 marks**
- E. The tenderer must be registered for GST & with other statutory Departments of Govt. of Telangana State / India and should submit the registration certificates of GST, PAN Card and any registered certificate. – **10 marks**
- F. Constitution of the tendering firm including Latest profile of the contractor and List of qualified engineers and staff (technical and non-technical) employed by the contractor.
– **5 marks**
- G. List of last 05 (Five) years executed similar works for any prominent Govt./Semi Govt./ Govt. of India Autonomous Bodies/ Corporate Bodies or Public Sector Undertaking along with Xerox copies of work orders / purchase orders along with completion certificates and certified by chartered account for electrical works and statement showing the turn over during the past 05 (five) years supported by balance sheets / income tax returns. – **10 marks**
- H. Current original Solvency Certificate, minimum 40% of the estimated cost of the work which is Rs. 16 lakhs, issued from any nationalized bank (online bank details may be submitted). – **10 marks**

Important Note: -

1. All above clauses should be satisfied to qualify technically and documentary proof should be submitted. The completion certificate along with the Work order copy or Purchase order copy shall be issued by authorized official not below the rank of superintending engineer.
2. The eligibility criteria score should be minimum 75 marks (Out of 100 marks) and A, B, C, D are mandatory criteria
3. Based on the above minimum criteria marks only commercial bid will be considered.
4. The bidders not obtaining minimum **75** marks shall be disqualified.

4. Other Terms:

- A. Total tender document enclosed each page duly signed by the tenderer as token of acceptance. If any deviation is proposed by the tenderer the same must be clearly indicated and enclosed as deviation list but tenders with significant deviations list and merely enclosing tenderer's printed conditions or their own terms and conditions will make the tender liable for rejection.

- B. Any person signing the tender shall submit documentary evidence that his signature on the tender, submitted by him is legally binding upon himself, his firm or company, as the case may be.
- C. The tenderer shall produce satisfactory proof that he is financially in a position to fulfill the contractual obligations offered to be undertaken by him. The tenderer shall indicate the details of his banker.
- D. The bidder should submit the scanned copy of the Technical Bid for online submission and original hard copy of all the documents must be submitted in an organized and structured manner. No brochures/leaflets etc. should be submitted in loose form. Please indicate page nos. on your quotation. The price should not be mentioned anywhere in this document.
- E. The original hard copies of Technical Bid documents along with EMD should be submitted on or before the due date. The bidder should ensure that all the technical documents submitted through online and hard copies are one and the same. If any deviation is found, the tender is liable to be rejected.**
- F. Price Bid (BOQ) should be submitted online only and no other mode of submission is acceptable.**
- G. The technical offer should be complete to indicate that all products and services asked for are quoted. Each page of the bid and strikeout/corrections shall be duly signed and stamped by the bidder. Unsigned Tenders are liable to be rejected. Failure to comply with this requirement may result in the bid being rejected.
- H. The purpose of certain specific conditions is to get or procure best product/service etc. for ARCI.
- I. Cost of Tendering:**
The Tenderer shall bear all costs associated with the preparation and submission of this Tender, and the ARCI will in no case/ way be responsible and liable for those costs. The Tenderer, at the Tenderer's own responsibility and risk is encouraged to visit and examine the Site of Works and its surroundings and obtain all information that may be necessary for preparing the Tender and entering into an annual rate contract works at ARCI, Hyderabad. The costs of visiting the Site shall be at the Tenderer's own expense.
- J. The Tenders not accompanying with EMD and unconditional acceptance letter will be summarily rejected.
- K. Period of validity of Tender:**
The Tender shall remain valid for a period of 120 days after the last date of the submission of Tender. A Tender valid for a shorter period, may be rejected by the ARCI as non-responsive and the EMD paid along with it will be forfeited.
- L. The rates quoted by the Contractor will hold good for the entire period of contract and no compensation / escalation will be paid by ARCI in any circumstances. The statutory taxes increase/decrease, if any during the contract period will be considered by ARCI subject to submission of documentary evidence by contractor.

- M. Language of Tender: The document shall be written in English language and the amount in words should be written in English language.

The following original hard copies of technical bid should be submitted on or before due date:

- a. Total tender document enclosed each page duly signed by the tenderer as token of acceptance. If any deviation is proposed by the tenderer the same must be clearly indicated and enclosed as deviation list, but tenders with significant deviations list and merely enclosing tenderer's printed conditions or their own terms and conditions will make the tender liable for rejection.
- b. Copy of the tenderer's price schedule but without prices.
- c. Earnest money deposit as laid down in this instructions to tenderers.
- d. Constitution of the tendering firm
- e. List of eligibility criteria documents
- f. List of last 05 (Five) years executed similar works for any prominent Govt./Semi Govt./ Govt. of India Autonomous Bodies/ Corporate Bodies or Public Sector Undertaking along with Xerox copies of work orders / purchase orders along with completion certificates.
- g. Statement showing the annual turnover during the last five years supported by balance sheets or income tax returns.
- h. Current original solvency certificate from any nationalized bank for minimum **16 Lakhs**.
- i. Copies of GST registration certificates and PAN card.
- j. Other State/ Central Government agencies/Central Govt. PSUs registration certificate.
- k. Firm registration certificate (In case of Firm).
- l. Latest profile of the contractor
- m. List of qualified engineers employed by the contractor.
- n. The contractor should have relevant statutory government licenses.
- o. Labour Licenses from central labour authorities.
- p. The work force (labour) deployed during the work shall be covered under works men compensation act/ Insurance from govt. companies/ accredited agencies. The contractor should immune ARCI from all liabilities related to the men and material engaged by the contractor during the contract period.

N. ARCI is not responsible for the loss of documents or for the delay in transit.

O. All the above documents forming of the tender shall be kept in one envelope which shall be SEALED and super-scribed with as technical bid, Technical bid -Name of work, **Tender No. SC202400091/WO & Due on 23.07.2025 up to 15:30 Hrs and should be addressed to: The Director, International Advanced Research Center for Powder Metallurgy and New Materials (ARCI), Balapur PO, RR District, Hyderabad – 500 005, Telangana**

P. Important Note: - *Based on the technical bid qualification the commercial bid will be considered.*

TENDER FEE, EARNEST MONEY DEPOSIT AND SECURITY DEPOSIT

1. Bid should be accompanied by Tender Processing Fee of INR 1500 +18%GST (INR 1770/-) in the form of Account Payee Demand Draft drawn on in favor of **Director, International Advanced Research Centre, Payable at Hyderabad.** Tender Fee is not refundable. Bids submitted without tender processing fee will not be considered for further processing.
2. Bid should be accompanied by EMD **INR 1,00,000/-** from Indian bidders in the form of Demand Draft or Banker's Cheque or Fixed Deposit Receipt or TDR duly endorsed in the name of Director ARCI from any of the Indian nationalized banks (RBI Recognized), payment online like RTGS/NEFT/ECS in an acceptable form in favor of **Director, International Advanced Research Centre, Payable at Hyderabad.** In case of online payment receipt should be submitted along with the bid document.
3. The details of transaction for Tender Fee and EMD viz Name of Bidder firm, tender description, Transaction ID/No. of Transfer, Transaction date, Amount of Transaction, Name of Bank, Address of Bank shall be furnished by the TENDERER ON THEIR LETTER HEAD SEPARATELY ENCLOSED IN COVER-1 (Online and Offline) ALONG WITH TENDER.
4. Online Payment Account details are as follows:

Name of the Institution	International Advanced Research Centre for Powder Metallurgy & New Materials
Name of Account Holder (As per Bank Record)	ARCI TECHNOLOGY PROGRAM FUND
Account Number of above account	1849101016974
Complete Contact Address	RCI Road, Balapur, Opposite Balapur Vilage, Hyderabad -500005
Telephone No	0091-040-24452361
Fax No	0091-040-24442699

5. Bank Account Details

Bank Name	CANARA BANK
Branch Name	Kanchanbagh
Beneficiary's Name	ARCI Technology Program Fund
Complete Contact Address	Kanchanbagh, Hyderabad 5000059
Telephone No	040-23438704
9- Digit Code No of Bank & Branch	500015032
Account Number	1849101016974
Account Type (SB/Current/Cash/Credit/Etc)	Savings Account

IFSC Code No of Bank	CNRB0001849
PAN Number	AAAAI0324C
TIN Number	36980207289
Service Tax Number	AAAAI0324CST001
GSTIN Number	36AAAAI0324C1ZG
E.Mail	fao@arci.res.in

6. No interest is payable on EMD and Security deposit.
7. The EMD shall be valid for a minimum period of 120 days from the date of closure of the bid.
8. Bidder registered with National Small Industries Corporation (NSIC) or Udyam registration or any other body specified by Ministry of Micro, Small and Medium Enterprises as MSMES or Startups as recognized by Department of Industrial Policy and Promotion (DIPP), Govt. of India in the relevant field / tendered activity (electrical instalation works) are exempted from payment of tender fee and Earnest Money Deposit (EMD) subject to submission of valid documentary evidences throughout the time of the contract. Copies of MSME, NSIC registration certificates and other supporting documents should be submitted along with bid. Failure to submit the required documents shall lead to rejection of bid.
9. The successful bidder should submit security deposit(SD) / performance guarantee amount 5 percent of the tendered amount i.e Rs. 2,00,000.00 (Rupees Two lakhs only)in the form of Demand Draft or Banker's Cheque or Fixed Deposit Receipt or TDR duly endorsed in the name of Director ARCI from any of the Indian nationalized banks (RBI Recognized), payment online like RTGS/NEFT/ECS in an acceptable form in favor of Director, International Advanced Research Centre, Payable at Hyderabad. In case of online payment receipt should be submitted. The payment of SD shall be made within 15 days from date of intimation letter from ARCI
10. **Refund of Security Deposit (SD) / performance guarantee:**
The security deposit(SD) / performance guarantee amount will be returned without interest to the contractor after closing of contract, subject to submission of following documents:
 - a. No claim certificate by the contractor for works executed at ARCI.
 - b. Completion certificate issued by ARCI
 - c. Inventory handing over, if any
 - d. Indemnify ARCI that the contractor discharged all the payments such as salaries, labour payments, statutory taxes, material payments, insurance payments, EPF, ESI and etc. as per latest labour and relevant acts of state and central government.

- e. The proceeds of the security deposit/performance guarantee shall be payable to the ARCI as compensation for any loss or dues resulting from the Contractor's failure to complete its obligations under the contract.

11 Refund of EMD:

EMD amount of the unsuccessful bidders will be returned, without any interest, within 60 days of the finalization of tender. EMD of the successful bidder gets converted into Security deposit / performance guarantee and balance is required to be submitted as per the tender norms or collect the EMD amount by submitting security deposit / performance guarantee amount.

12 Forfeiture of EMD:

EMD of tenderer will be forfeited, if the tenderer withdraws or amends its tender or derogates from the tender in any respect within the period of validity of its tender. Further, if the successful tenderer fails to furnish the required performance security within the specified period, its EMD will be forfeited.

ANNEXURE – I
GENERAL & SPECIAL CONDITIONS OF
CONTRACT

GENERAL CONDITIONS OF CONTRACT

1.0 Definitions

In this contract, the following terms shall be interpreted as indicated:

- (a) "The Contract" means the agreement entered into between ARCI and the Contractor, as recorded in the contract form signed by the parties, including all the attachments and appendices there to and all documents incorporated by reference therein.
- (b) "The Contract Value" means the amount payable to the Contractor under the contract for the full and proper performance of its contractual obligations.
- (c) "Contract Data" means any information provided in the Tender document and agreed to by the Contractor.
- (d) "The Work" means all labour, materials, tools & tackles, insurances (labour & material), statutory payments (taxes & wages) and plant, equipment including government taxes and transport, that may be required in preparation of and for and in the full and entire execution and completion of "the Work". The contractor is obligatory to show the performance guarantee of the executed works.
- (e) "Services" means services ancillary to the execution of the work such as transportation and insurance, and any other incidental services, such as installation, testing, integration, commissioning, provision of technical assistance, training and other obligations of the Contractor covered under the contract.
- (f) "GCC" means the General Conditions of Contract contained in this section.
- (g) "SCC" means the Special Conditions of Contract.
- (h) "ARCI" means the organization getting the work done, and or its representatives
- (i) "The Contractor" means the individual or the firm executing the works.
- (j) "The Site" where applicable, means the place or places named in individual work wise rate contract purchase order/ Indenting Officer.
- (k) "Day" means calendar day.
- (l) "GST" means Goods and Service Tax as applicable for HSN / SAC codes.

- 2.0** The Contractor shall offer the Engineer or any representative of ARCI every facility and assistance for examining the works and materials. The Engineer or any representative of the ARCI shall have power to give notice to the Contractor or to his staff, of non-approval of any work or materials and such work shall be suspended or the use of such materials shall be discontinued until the decision of the ARCI. Such examinations shall not in any way exonerate the contractor from the obligations to remedy any defects which may be found to exist at any stage of the work or after the same is completed.

3.0 Interpretation and Application

- 3.1 These general conditions shall apply to the extent that provisions in other parts of the contract do not supersede them.
- 3.2 In interpreting these Conditions of Contract, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The ARCI will provide instructions clarifying queries about the Conditions of Contract.

4.0 Standards

- 4.1 The works executed by the Contractor should be carried out in most professional manner, both as regards material and otherwise, in every respect, in strict accordance with the Technical Specifications. All materials and workmanship shall so far as procurable be of the respective kinds described in the priced schedule of quantities and/ or specifications and in accordance with the ARCI instructions, and the Contractor shall upon the request of the ARCI, furnish them with all invoices, accounts, receipts and other vouchers to prove that the material procured complies therewith. When no applicable standard is mentioned, the work shall be carried out as per the directions of the ARCI. The Contractor shall at ARCI cost arrange for and / or carry out any test of materials which the ARCI may require. In case of discrepancies in tender wording as regards the specifications of materials workmanship etc., written instructions will supersede the tender wording unless otherwise mentioned.
- 4.2 The ARCI in their absolute discretion from time to time shall issue further drawings and/ or written instructions, details, directions and explanations which are hereafter collectively referred to as “the ARCI instructions” in regard to: -
- a. The variation or modification of the design quality or quantity of works or the addition or omission or submission on any work.
 - b. Any discrepancy in the drawings or between the schedule of quantities and / or drawings and /or specifications/ dimensions etc.
 - c. The removal and / or re-execution of any works executed by the Contractor.
 - d. The removal from the site of any materials brought thereon by the Contractor and the substitution of any other materials therefore / or rejection of the material brought on site.
 - e. **Payment will be made as per actual site measurements.**

5.0 Use of Contract Documents and Information

- 5.1 The Contractor shall not, without the ARCI prior written consent, disclose the contract or any provision thereof, or any specifications, plan, drawing, pattern, sample or information furnished by or on behalf of the ARCI in connection therewith, to any person other than a person employed by the Contractor in performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far, as may be necessary for purposes of such performance.
- 5.2 The Contractor shall not, without the ARCI prior written consent make use of any document or information enumerated in Para 5.1 except for the purposes of performing the contract.
- 5.3 All documents included but not limited to contract agreement shall remain the property of the ARCI and shall be returned (in all copies) to the ARCI on completion of the Contractor’s performance under the contract, if so required by the ARCI.

6.0 Site order Book:

The contractor shall maintain a site order book at site for the purpose of quick communication between the contractor and ARCI. Any communication relating to the work may be conveyed through site order book. Such a communication from one party to other shall be deemed to have been adequately served in terms of contract. Each site order book shall have machine numbered pages in triplicate and shall be carefully maintained and preserved by the contractor, and shall be made available to the ARCI as and when demanded. Any instructions which the ARCI may like to issue to the contractor or the contractor may like to bring to the ARCI two copies of such instructions shall be taken from the site order book and will be handed over to the ARCI and second copy will be retained with contractor.

7.0 Contractor to provide everything necessary for proper execution of work

- 7.1 The Contractor shall provide everything necessary for the proper execution of the works according to the intent and meaning of the drawings, priced schedule of quantities and specifications taken together whether the same may or may not be particularly shown or described therein provided that the same can reasonably be inferred there from. If the Contractor finds any discrepancy therein he shall immediately and in writing refer the same to the ARCI whose decision shall be final and binding. Further, if any sample(s) of material(s), fittings, fixtures or finished item(s), to be used in the electrical/civil/LAN/telephone works, has/have been called for from the contractor, no work related to it/these shall be executed unless the same has/ have been approved by the ARCI failing which no payment shall be made to the contractor on this account. Any sample, duly approved by the ARCI shall become part of the supply to be used in “the works”.
- 7.2 The Contractor shall supply fix and maintain at his cost, during the execution of any works, all the necessary power supply, water supply, scaffolding, watching and lighting by night as well as by day, required not only for the proper execution but also for protection of the public and the safety of men and material, equipment’s nearby, any adjacent roads, streets, pavements, walls houses, building and other erections, matters or things.
- 7.3 Throughout the execution of the work, the Contractor or his representative duly authorized and fully responsible and technically conversant with the work under this agreement, acting on his behalf shall be available at the site for supervising the work. The Contractor shall make adequate arrangements for watchmen to guard the materials brought by them to the site and shall ensure the safety, breakage and any theft of materials fixed or unfixed by him. Any material, brought to the site for bonafide use of the site shall not be removed/ shifted from the site without the prior written permission of the ARCI
- 7.4 The contractor has to provide at his cost for electrical works (i.e. leveling pipe/spirit level, steel/ metallic tapes, testing multi meter, meggar, test lamp, tester & etc.). required by the supervising staff of the ARCI representative during execution of the work.
- 7.5 Wherever the specifications of any item indicate the usage of approved equivalent of any material, the Contractor shall get the sample of the equivalent material approved from the ARCI before execution. The approval of the equivalent material is entirely at the discretion of the ARCI.

8.0 Site Establishment

- The contractor shall provide all stores, workmen and materials. All materials likely to deteriorate in the open shall be stored under suitable cover.
- 8.1 The contractor shall not be allowed to construct huts for accommodation of his employee or workmen, within the site area. The contractor’s employees or workmen will not be allowed to stay overnight at the site area.
 - 8.2 The security of the contractor’s equipment and materials is his own responsibility. The ARCI accepts no liability for loss or damage to the contractor’s plant tools and tackles & materials.

- 8.3 The materials issued to the contractor if any by the ARCI will remain under the custody of contractor as a trustee. However, title on the same will remain with the ARCI. The contractor will be responsible for loss or damage to such materials and shall preserve them in good working conditions as required for the contract and good executional practices till such time that they are incorporated in the works and erected, aligned and fully installed in position and handed over to the ARCI. In case the ARCI feels that arrangements made by the contractor are not adequate he shall so advise the contractor and the contractor shall promptly take corrective action. In case the contractor fails to take corrective action, ARCI shall take such corrective actions and recover the cost thereof from the contractor's bills. Accounts of such material on completion of work shall be rendered and surplus material returned to the ARCI as per instructions of ARCI.
- 8.4 The contractor shall clear away periodically or as instructed by ARCI any rubbish, scrap materials, etc. and dump the same in the authorized dump sites notified by local authority or area indicated by the ARCI. All construction materials shall be neatly stacked in an orderly manner as directed by the ARCI and care shall be taken to allow proper access to workmen and easy movement of men, vehicles, cranes and materials.
- 8.5 The contractor shall not permit the entry to the site of any person not directly connected/concerned with the work without first having obtained the written permission of ARCI.
- 8.6 The contractor shall submit a list of equipment's, tools, tackles, etc. which he will use, to perform the work. These tools, etc. shall not be removed from the site till the completion of job. A gate pass must be obtained from the ARCI's representative in order to remove from site any testing equipment, tools and materials.
- 8.7 All items such as instructions and other pertinent data regarding erection/ commissioning and maintenance should be typed and classified for transmittal in a manner approved by the ARCI.
- 8.8 All employees of the contractor shall confirm to rules of conduct, etc. established by the ARCI, Failure to do so will be sufficient cause for removal of such person from the site.

9.0 Messing & Accommodation

The contractor will make his own arrangements for messing and accommodation and the same shall not be done at site. No accommodation and messing shall be provided by the ARCI.

10.0 Procurement, Consumption and Storage of Materials

- 10.1 The contractor shall at his own expenses, provide all materials required for the works. Adequate stocks of all materials required for the work are to be maintained at site. No material (unless as provided elsewhere in this document) shall be supplied by the ARCI.
- 10.2 All materials to be provided by the contractor shall be in conformity with the detailed specifications laid down in the contract and the contractor shall, if requested by the ARCI furnish prior to the satisfaction of the ARCI that the materials conform to the laid down specifications.
- 10.3 All materials required for execution of work must be got approved by the ARCI before they are actually put to use. All facilities for prior inspection of materials and subsequent inspection of work by the Site representative of the contractor must be made available.

- 10.4 The contractor shall, at his own expenses and without delay, supply to the ARCI samples of materials proposed to be used in the work. The ARCI shall within seven days of supply of samples, or within such further period as ARCI may require and intimate the contractor in writing, whether samples are approved by ARCI or not. If samples are not approved, the contractor shall forth with arrange to supply, for their approval, fresh samples complying with the specification laid down in the contract.
- 10.5 The ARCI shall have full power to require removal of any or all the materials brought to site by the contractor which are not in accordance with the contract specifications or do not confirm in character or quality to the samples approved by ARCI. In case of default on the part of the contractor in removing rejected materials, the ARCI shall be at liberty to have them removed by other means. The ARCI shall have full powers to direct other proper materials to be substituted for rejected materials and in the event of the contractor refusing to comply. ARCI may cause the same to be supplied by other means. All risks and costs which may attend upon such removal and/or substitution shall be borne by the contractor.
- 10.6 Contractor shall be responsible for procurement of all materials/equipment's etc. No delay due to non-availability of any material equipment will be entertained by ARCI.

11.0 Method of storing the materials

- 11.1 The contractor shall at his own cost, provide for all necessary storage on the site in specified areas for all materials which are likely to deteriorate by the action of sun, wind, rain, dampness or other natural causes due to exposure in the compounds or in stores in such a manner that all materials, tools and tackles etc. shall be duly protected from damage by weather or any other cause.
- 11.2 Materials required for the works, by the contractor be stored by the contractor only at places approved by the ARCI. Storage and safe custody of materials shall be the responsibility of the contractor.
- 11.3 All the materials including contractor's tools & tackles, testing & erection equipment's brought by the contractor to the site shall become and remain the property of the ARCI and shall not be removed off the site without prior written approval of the ARCI. But whenever the works are finally completed and advances, if any, in respect of such materials are fully recovered, the contractor shall at his own expenses forthwith remove from the site all surplus materials supplied by him and upon such removal, the same shall revert in and become the property of the contractor.

12.0 Scaffolding Materials

- 12.1 It shall be desirable to have adequate amount of scaffolding materials / ladders to complete the work speedily and ARCI decision so as to the quantum of these desirable / resources at the site shall be final and binding.

13.0 Completion of Work

- 13.1 Before finally leaving site, all the Contractors stores, tools & tackles, testing equipment's and rubbish / Debris / waste materials shall be removed and the site left clean and tidy. The space allocated by ARCI shall be vacated and handed over to the ARCI.

14.0 Employment of Labour

- 14.1 The contractor shall comply with the requirement of statutory provisions and shall be solely responsible for fulfillment of all legal obligations under Contract Labour (reg. & abolition) Act, Inter State Migrant Workmen Registration of Employment and condition of Service Act, payment of Wages Act., Minimum Wages Act, Workmen's Compensation act, Employee's Provident Fund & Miscellaneous Provisions Act, Payment of Bonus Act, Payment of Gratuity Act, Industrial Disputes Act and all other Industrial/Labour enactments and Rules made there under as applicable from time to time. In case ARCI incurs any liability towards payment of any dues, compensation, cost of any other liability of any kind whatsoever, due to non-fulfillment of statutory provisions under any industrial/labour laws by the contractor, the same shall be made good by the contractor and ARCI shall have full right to recover and claim the same against the contractor from his outstanding bills or security deposit or EMD or any other payments to be made by ARCI.
- 14.2 The contractor will be expected to employ on the work only his regular skilled employees with experience of this particular work. The permission of the ARCI must be obtained before tradesmen are recruited locally for the work. This rule does not apply to unskilled labour. No female labour shall be employed in dark hours/ i.e. hours prohibited under the applicable law. No person below the age of eighteen years shall be employed at any point of time. The contractor shall pay, to each person, the wages as per minimum Wages Act of the State Government.
- 14.3 All traveling expenses including provision of all necessary transport to and fro, lodging allowances and other payments to the contractor's employees are his own responsibility.
- 14.4 The hours of work on the site shall be decided by the ARCI and contractor shall adhere to the same.
- 14.5 All contractors' employees shall wear safety shoes, helmet, goggles, hand gloves, nose masks and any other required personal protection equipment such identifications marks as may be provided by contractor on work site and duly approved by ARCI.
- 14.6 All notices displayed on the site and any instructions issued by the ARCI shall be strictly adhered to by the Contractor's and/or his sub-contractor's employees.
- 14.7 The contractor shall be required to maintain Group Insurance and other Acts for the workmen working at site towards safety, statutory regulations and insurance aspects applicable as per latest government (central & state) acts.
- 14.8 No Labour to stay at site.
- 14.9 Immediately after acceptance of the contract, the contractor shall submit the list showing the names of the individuals, he wishes to employ in the work, with their particulars to the department for arranging the temporary pass for them up to security gate only and subsequently to inside the technical area, the contractor should submit Aadhar card for all employees the contractor shall provide security to the supervisors.

15.0 Working and Safety Regulations

- 15.1 The contractor shall observe all statutory, safety, and legal requirements / regulations issued by Central and State Governments applicable to the work as well as any local regulations applicable to the site.
- 15.2 The contractor has to fulfill the safety obligations at site and ensure that all safety equipment required for the execution of the work is available and used by the workmen at site.
- 15.3 Required safety signage and other requirement as per safety norms must be complied as per the instructions of the ARCI.

- 15.4 The contractor shall be responsible for the provision of all safety notices safety equipment's including the safety gadgets for his workmen required by both the relevant legislation and such as the ARCI may deem necessary. While working at heights, safety belts, nets, and safety helmets shall necessarily be used.

16.0 Particular attention is drawn to the following:

In case of accident, the ARCI shall be informed in writing forthwith and First-Aid, Hospitalization shall be provided by the Contractor. The contractor shall strictly follow regulations laid down by Govt. and State authorities in this regard and all cases are to be defended by the Contractor. The ARCI shall not entertain any insurance claims.

- 16.1 Contractor shall fence his site area, excavations and etc.
- 16.2 **Compliance with all electricity regulations should be ensured.**
- 16.3 Compliance with statutory requirements for inspection and test of all lifting appliances and auxiliary lifting gear is to be ensured.
- 16.4 Staircase, doors or gangways shall not be obstructed in any way that will interfere with means of access / escape.
- 16.5 Where it is necessary to provide and/or store petroleum products or petroleum mixtures and explosive, the contractor shall be responsible for carrying out such provision and/or storage in accordance with the rules and regulation laid down in Petroleum Act 1934. Explosive Act 1948 and Petroleum and Carbide of Calcium Manual Published by the Chief Inspector of Explosive of India. All such storage shall have prior approvals of the ARCI. In case any approval or clearance from Chief Inspector of Explosive or any statutory authorities is required, the contractor shall be responsible for obtaining the same.

17.0 Contractor's Risks

- 17.1 Contractor's Risks- All risks of loss or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the Contract are the responsibility of the Contractor.
- 17.2 The Contractor shall be responsible for injury to persons if any, animals or things and for all damages to the structural and/or decorative part of property which may arise from the operations or neglect of himself or of any sub-contractor or of any of his or sub- Contractor's employees whether such injury or damage arises from carelessness accident or any other causes whatsoever in any way connected while carrying out the Contract. This clause shall be held to include interalia any damage to buildings, whether immediately adjacent or otherwise and any damage to roads, footpaths, or ways as well as all damage caused to the buildings and the work forming the subject to this Contract. The Contractor shall indemnify the ARCI and hold him harmless in respect of all and any expenses arising from any such injury or damage to persons or property as aforesaid and also in respect of any claim made in respect of injury or damage under any acts of Government or otherwise and also in respect of an award of compensation or damages consequent upon such claim.

The contractor shall make good all damages of every sort mentioned in the Clause, as to deliver up the whole of the Contract works complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damage to the property of third parties.

- 17.3 **Risk Purchases:** If for any reasons, except for force majeure conditions, the contractor is unable to deliver the materials ordered within the delivery period or replace the rejected quantity within allowed/permitted period, the ARCI reserves the right to resort to purchase

of the said material from any other source. Such extra cost as may be incurred in resorting to such risk purchases shall be borne by the contractor. The purchaser also reserves the right to deduct such extra cost from any of the amounts outstanding to the supplier's credit.

- 17.4 The cost of repairs/rectification's necessitated due to negligence of contractor's employee shall be recovered from the contractor as per assessment made by the Director, ARCI. If the contractor fails to repair/rectify the defects in installations within the time given to him, the same will be got repaired/rectified from other agency at the risk and cost of the Contractor. The decision of Director, ARCI shall be final and binding on both the parties.

18.0 Insurance

- 18.1 The contractor shall provide workmen compensation policy, obtained in his name.
- 18.2 Policies and certificates for insurance shall be delivered by the Contractor to the ARCI for the ARCI approval before the Date of Start of work. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.
- 18.3 If the Contractor does not provide any of the policies and certificates required, the ARCI may affect the insurance which the Contractor should have provided and recover the premiums the ARCI has paid, from the contractor bills, security deposit, EMD or any other payments due. Otherwise due to the Contractor or if no payment is due, the payment of the premiums shall be a debt due. The cost of premium will be deducted from the contractor's bill, if at any time the workmen remains uninsured.
- 18.4 Alterations to the terms of the insurance shall not be made without the approval of the ARCI.
- 18.5 Both parties shall comply with the conditions in the insurance policy.
- 18.6 All policies in original shall be submitted to the ARCI after award of the contract
- 18.7 The contractor should provide all site risk policy from Government of India insurance company for Rs.5 lakhs per person per incident. Minimum 3 persons per single incident, minimum total 15 lakhs. This policy should be submitted along with the 1st bill. The premium should be paid within 10 days from 1st incident to cover the policy for the contract period. This policy document be submitted along with the first bill.

19.0 Setting out Works

- 19.1 The contractor shall set out the works and shall be responsible for the true and perfect setting out of the same and for the correctness of the positions, levels, dimensions and alignment of all parts thereof, if at any time any error shall appear during the progress of any part of works the contractor shall at his own expenses rectify such error, if called upon to the satisfaction of the ARCI.
- 19.2 **The Contractor has to check the issued P.O. with the actual site requirements of BOQ items & quantities mentioned in the P.O. if any shortfall envisaged, same may be brought to the Notice of ARCI officials in writing to issue amended P.O. to complete the job in to to. Without amended P.O. the Contractor should not start / execute the work.**

20.0 Contractor to remove non-suitable material etc. immediately.

All debris, excavated soil, scrap etc. shall be at once carted away by the contractor out the site to a place directed by the ARCI. Under intimation to concerned authorities. Any material

brought on site if found unsuitable / surplus shall be removed from site at once by the Contractor under intimation to the concerned authorities.

21.0 Inspections by ARCI

- 21.1 The representative of the ARCI at all times have free access to the works and /or to the workshops, factories or other places where materials are being prepared or executed for the Contract and also to any place where materials are lying or from which they are being obtained. No person except the representatives of Public authorities shall be allowed on the work at any time without the written permission of the ARCI. If any work is to be done at a place other than the site of the works, the Contractor shall obtain written permission of the ARCI for doing so.
- 21.2 The ARCI and their representatives shall have the right to test and/ or inspect the works to confirm their conformity to the contract, at all times, whenever in progress either on the site or on the Contractor's premises wherever situated or any firm or company where work in connection with this contract may be in progress. All records, registers or documents relating to the works including materials used on works shall be kept open to the inspection of the ARCI or his Authorized representative when so called for in writing.
- 21.3 The Contractor shall get the quality of work done inspected for material and workmanship at different stages of execution as per instructions given by the ARCI or their representative from time to time. Any item of work done which is found not conforming to the Contract shall be rejected by the ARCI. The decision of the ARCI in such cases shall be final.
- 21.4 The inspections and tests may be conducted on the premises of the Contractor or at the site. When carried out on the premises of the Contractor or its sub-Contractor(s), all reasonable facilities and assistance including access to drawings and production data shall be furnished to the inspectors at no charge to the ARCI.
- 21.5 Should any inspected items of work fail to conform to the specifications, the ARCI shall communicate them and the Contractor shall either replace them or make all alterations necessary to meet specification requirements free of cost to the ARCI.

22.0 Covering Up/Uncovering of Works

- 22.1 No part of the works shall be covered up without the approval of ARCI and the Contractor shall afford full opportunity for examination and inspection by the ARCI. The contractor shall give due notice to the ARCI about the work to be covered up for its measurements and examination. The ARCI shall within a reasonable time attend for the purpose of examining such work, unless the ARCI specifically advises the Contractor in writing of his unwillingness not to attend for such examination in which case the Contractor may proceed further with the Contract work.
- 22.2 Should the ARCI consider it necessary in order to satisfy himself as to the quality of the work, the Contractor shall at any time during the continuance of the contract pull down or cut into any part of the work and make such opening into and to such an extent through the same, as the ARCI may direct and the Contractor shall make good the whole to the satisfaction of the ARCI, should the work prove to be faulty or in any respect not in accordance with the terms of the contract documents, the ARCI shall be at liberty to order such further removal as he may consider necessary and the whole of the expenses incurred shall be borne by the contractor. If however, the work proves to be sound and in accordance with the contract document, the actual expenses incurred in such examination will be borne by the ARCI.

- 22.3 Rates charged by the Contractor for works performed under the contract shall not vary from the rates quoted by the Contractor in this Tender.
- 22.4 **If requested by the ARCI, the Contractor shall provide the ARCI with a detailed cost breakdown of any rate in the Schedule of Quantities.**

23.0 Change in the order/ Extra items of work

- 23.1 The ARCI may at any time, by written order given to the Contractor, make alterations in, omissions from, additions to, or substitutions for, in drawings, designs or specifications or quantities of the items of work
- 23.2 ARCI reserves to itself the right of omission of any item of work from the awarded tender at any time / stage during the execution of work.
- 23.3 The ARCI may at any time, by written order given to the Contractor, increase the scope of work or include any new item of work. The Contractor shall be bound to carry out such works, the rates for which shall be arrived at on the basis of the CPWD/NRSC-Hyderabad Schedule of Rates or if the Schedule is silent by standard methods of rate analysis as derived by the ARCI.
- 23.4 If any such changes cause an increase or decrease in the cost of, or the time required for the Contractor's performance of any part of the work under the contract, whether changed or not changed by the order, an equitable adjustment shall be made in the contract value or work schedule, or both, and the contract shall accordingly be amended. Any claims by the Contractor for adjustment under this clause must be asserted within seven (7) days from the date of the Contractor's receipt of the ARCI change order.

24.0 Payment Terms and Documentation for payment:

- 24.1 Supply & erection amount will be paid after successful completion of entire works i.e. inspection, erection, testing, commissioning and integration of the items with the total designed scheme, subject to Joint measurement / joint inspection of the above works, bill amounting to 100% of value of supply done as per site measurements / inspection will be paid after duly signed by the representative of ARCI.
- a. 100% basic and applicable GST will be released after satisfactorily completion and acceptance of work/service.
 - b. Bill is to be submitted for each work after execution. Payment will be released against each work within 30 days from the date of satisfactory completion and acceptance of the works.
 - c. TDS as applicable under IT Act shall be deducted from the payment.
 - d. ARCI reserves the right to adjust any excess /short payment made in the earlier bills, at the time of making payment for each bill.
 - e. Computerization /typing of Detailed Measurements of bills: The detailed measurement sheets of the bills shall be prepared and submitted by the contractor for verification and certification by ARCI Staff. The computer formats of the same are as specified by ARCI Authorities.
 - f. Payment will be made as per actual site measurements/joint measurements.
 - g. Delivery challan with ARCI gate entry stamp in triplicate
 - h. Invoices with (SAC/HSN code if Required)
 - i. The BOQ items listed in the tender are tentative/indicative in nature. For non-operated BOQ

items, the contractor is not entitled for any claim.

- j. The Contractor shall furnish the documents along with the 1st bill.
- k. The contractor should provide all site risk policy from Government of India insurance company for Rs.5 lakhs per person per incident. Minimum 3 persons per single incident, minimum total 15 lakhs
- l. The Director, ARCI shall deduct/recover such amounts towards penalty, if any, cost of items not returned to stores, etc.
- m. The net payment so arrived at shall be paid by crossed cheque / RTGS payable to the Contractor.
- n. PF, ESI and insurance working people, accidental insurance policy should be submitted after award of the contract before submission of the 1st RA bill.

25 Claims for Extra or for Deviations

- 25.1 The ARCI shall not be responsible for the payment of any claim for extra work not included in the contract nor the Contractor shall be entitled to claim any addition to the contract sum in respect of any changes or alterations in the materials used unless the same shall have been ordered or sanctioned, as the case may be, in writing by the ARCI.
- 25.2 If any work shall be ordered by the ARCI and executed by the Contractor for the payment of which no provision in the opinion of the ARCI have been made in the priced schedule of quantities or the specifications, the ARCI shall fix and determine such prices for the same based on the prices appearing in the priced schedule of quantities, such allowance being made as may seem to the ARCI sufficient for any difference in the character of conditions of the work. Or the rates for extra items shall be fixed on the basis of actual rate analysis / CPWD/NRSC-Hyderabad schedule of rates

26 Removal of Imperfect Work & Replacement of rejected material:

- 26.1 If, it shall appear that the work has been executed with unsound, imperfect or unskilled workmanship, or with material of any imperfect or any inferior quality or otherwise not in accordance with the contract documents the Contractor shall at his own cost rectifies, reform, remove, or reconstruct the same, either in the whole or in part, as may be directed by the ARCI, whether or not the value of any such work or materials shall have been included in any payment made to the Contractor.
- 26.2 The Contractor shall remove all debris etc., clean the floors and hand over the site quite clean on the completion of the work to the satisfaction of the ARCI.
- 26.3 On inspection/test carried out within/outside by the ARCI and if any material/items are found to be defective/faulty/not conforming to the specifications, the ARCI may reject all/part of the supplies, as deemed fit. The contractor shall replace such of the rejected material within a reasonable period/such time as may be intimated in the rejection letter, at contractor's cost.

27 Delay in the Contractor's performance

- 27.1 Execution of the work and performance of the services shall be done by the Contractor in accordance with the time schedule specified by the ARCI in the purchase order.
- 27.2 If, at any time during performance of the contract, the Contractor should encounter conditions impeding timely execution of the works and performance of services, the

Contractor shall promptly notify ARCI in writing of the fact of the delay, its likely duration and its cause(s). As soon as possible, after receipt of the Contractor's notice, the ARCI shall evaluate the situation and may, entirely at its discretion, extend the Contractor's time for performance with or without liquidated damages.

28 Liquidated Damages / Penalty Clause:

If the Contractor fails to execute any or all of the works or to perform the services within the period(s) specified in the contract, the ARCI shall deduct from the contract value, as liquidated damages, minimum 0.5% per week up to a maximum of 5% (Five percent) of the PO value from the stipulated date of completion. for each week or part thereof delay until actual completion or performance, up to a maximum deduction of the percentage specified. Once the maximum is reached, the ARCI may consider termination of the contract. The pro-rata progress envisaged and expected from the contractor shall be maintained, time being the essence of the contract. In all except force majeure conditions and for genuine reasons for which documentary evidence should be produced. Director, ARCI decision is final in this matter.

29 Termination by Default

29.1 The ARCI may without prejudice to any other right or remedy, by written notice of default sent to the Contractor, terminate the contract in whole or part:

- a) if the Contractor fails to complete any or all of the works within the period(s) specified in the NIT or any amendment thereof, or within any extension thereof granted by the ARCI, or
- b) if the Contractor fails to perform any other obligation(s) under the contract

29.2 In the event, the ARCI terminates the contract in whole or in part, the ARCI may procure, such items and in such manner as it deems appropriate, works or services similar to those unexecuted and the Contractor shall be liable to the ARCI for any excess costs for such similar work or services. However, the Contractor shall continue the performance of the contract to the extent not terminated.

30 Force Majeure

30.1 The Contractor shall not be liable for forfeiture of its security deposit/performance security, liquidated damages or termination by default, if and to the extent that, its delay in performance or other failure to perform its obligations under the contract is the result of an event of Force Majeure.

30.2 For purposes of this clause, "Force Majeure" means an unforeseeable event beyond the control of the Contractor and is not because of the Contractor's fault or negligence. Such events may include acts of the ARCI either in its sovereign or contractual capacity, wars, revolutions, fires, floods, epidemics and such events.

30.3 If a Force Majeure situation arises, the Contractor shall promptly notify the ARCI in writing of such conditions and the cause thereof. Unless otherwise directed by the ARCI in writing, the Contractor shall continue to perform its obligations under the contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

31 Termination for Insolvency

- 31.1 The ARCI may at any time terminate the contract by giving written minimum fifteen days' notice to the Contractor, if the Contractor becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Contractor, provided such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the ARCI.

32 Termination for Convenience

The ARCI, by written notice of fifteen days sent to the Contractor, may terminate the contract, in whole or in part, at any time for its convenience. The notice shall specify that the termination is for ARCI's convenience, the extent to which performance of the Contractor under the contract is terminated, and the date upon which such termination becomes effective.

The items of work those are complete and ready after the Contractor's receipt of notice of termination shall be accepted, if completed within the notice period, by the ARCI at the contract terms and values. For the remaining works, the ARCI may elect;

- a) to have any portion completed at the contract terms and value and/or
- b) to cancel the remainder and pay to the Contractor an amount, finalized by the ARCI, for partially completed works and for materials and parts previously procured by the Contractor.
- c) The contractor shall obtain written permission from the ARCI to complete the incomplete items of work during the notice period.

33 Resolution of Disputes & Arbitration:

- A. This Contract shall be governed by, and construed in accordance with the laws of India. Any dispute which cannot be amicably settled by the parties may be submitted, by one of the parties, to the International Centre for Alternate Dispute Resolution (ICADR), Hyderabad. The dispute will be settled following the provisions of Arbitration and Conciliation Act, 2015. Both Parties agree that the results and awards of any such arbitration shall be final and binding on both Parties. Venue of Arbitration shall be Hyderabad.
- B. If the contractor has to go in for subcontracting, he has to take prior written approval from the Director, ARCI for the same. But the prime contractor is held responsible for all the works. The Director, ARCI will in no way have contacts with the sub-contractor so appointed by the prime contractor.
- C. All disputes, other than quality, quantity, workmanship, specification, design, drawing, extension of time and rates for extra items, arising out of or relating to this contract whether arising during the progress of the work or after cancellation, termination, completion or abandonment thereof shall be dealt with mentioned herein after. The decision of ARCI on the above said excepted matters shall be final and binding.
- D. If the contractor considers any work demanded of him to be outside the requirements of the contract or disputes any drawings, record or decision given in writing in connection with or

arising out of the contract or carrying out of the work, he shall promptly within 15 days request the ARCI in writing for written instruction or decision.

34 Governing language

The contract shall be written in English language. All correspondence and other documents pertaining to the contract that are exchanged by the parties shall be written in the same language

35 Governing law

The contract shall be governed by the laws of The Union of India for the time being in force. All disputes arising out of or in any way connected with this agreement shall be deemed to have arisen in Hyderabad and only the courts in Hyderabad alone shall have exclusive jurisdiction to determine the same.

36 Notices

Any notice given by one party to the other pursuant to this contract shall be sent to other party in writing or by cable, email, or facsimile/FAX and confirmed in writing to the other party's address. A notice shall be effective on the date on which it is delivered, or on the notice's effective date, whichever is later.

37 Discoveries

Anything of historical or other interest or of significant value unexpectedly discovered on the Site is the property of the ARCI. The Contractor is to notify the ARCI in writing of such discoveries and carry out the ARCI's instructions for dealing with them.

38 Dismissal of workmen:

The contractor on request from the ARCI, immediately dismiss from the works any person employed by him who may be found in the opinion of the ARCI to be unsuitable or incompetent or who has shown misconduct.

39 Working Hours, Materials Transports & etc.:

39.1 Normal working hours shall be from 9.00 a.m. to 5.30 p.m. Any executional works of important nature should not be carried out on Sundays, Holidays and during nights. However, permission to work beyond normal working hours can be granted by the ARCI in exceptional circumstances to achieve the target schedule of completion.

39.2 Contractor's materials, transport, etc. shall normally be permitted to go out of the area between 9 AM to 5 PM only. Contractor may also be allowed to carry out the work beyond 5 PM and up to 9 AM (day and night) with special permission from the Director ARCI. However, no movement of materials and transport out of site of works shall be permitted during night or during holidays unless special permission obtained from the Director, ARCI.

40 Delay and Extension of time

If in the opinion of the ARCI the work be delayed:

(a) by force majeure

or

(b) by reason of any exceptionally inclement weather

or

- (c) by reason of proceedings taken or threatened by or disputes with adjoining or neighboring ARCI or public authorities
or
- (d) by delays of other contractor or Tradesmen engaged by the ARCI and the works not referred to in the Schedule of Quantities and/or specification
or
- (e) by reasons of ARCI instruction
or
- (f) by reason of civil commotion, local combination of workmen or strike or lockout affecting any of the building trades
or
- (g) in consequence of the contractor not having received in due time necessary instructions from the ARCI for which he shall have specially applied in writing
or
- (h) from other cause which the ARCI may certify as beyond the control of the contractor
or
- (i) by reason of non-payment of interim certificate at specified time, the ARCI shall recommend for approval a fair and reasonable extension of time for completion of the Contract works. In case of strike or lockout the contractor shall as soon as may be given written notice thereof to the ARCI, but the contractor shall nevertheless constantly use his endeavors to prevent delay and shall do all that may reasonably be required to the satisfaction of ARCI to proceed with the work.

41 Completion Certificate:

The Contractor shall request the ARCI to issue a Certificate of Completion of the Works and the ARCI will do so upon deciding that the Work is completed.

42 Final Account:

The Contractor shall put up a detailed account of the total amount payable under the Contract before the end of the defects liability period. The ARCI shall issue a defect liability certificate and certify any final payment that is due to the Contractor within 30 days of receiving the Contractor's account if it is correct and complete. If it is not, the ARCI shall issue within 60 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the ARCI shall decide on the amount payable to the Contractor and issue a payment certificate within 90 days of receiving the Contractor's revised account.

43 No Claim Certificate:

No claim certificate shall be submitted by the Contractor as per ARCI format along with the final bill (if the final bill is correct and complete).

44 Taxes (electrical works):

Cheque for taxes (as applicable) such as minerals and etc. to be deducted at source will be issued to the contractor. The contractor will be required to deliver the cheque to the concerned authorities, and the acknowledgement is to be deposited with ARCI along with subsequent bills.

45 Validity of Rate contract:

The term of agreement / purchase order / work order for Annual Rate Contract and for supply of electrical items and works execution shall be for a period of One year. If the services are found to be satisfactory for first year, the contract may be extended for second year or part thereof, with the quoted BOQ price bid, on the same terms and conditions mutually agreed to by both the parties. In case of any further extension is needed by ARCI, same conditions for third year also.

46 Delivery/Completion Period:

Depending upon the site requirement and the same will be intimated through the individual Rate Contract Work/Service/purchase order.

47 Delivery/Works: for ARC-International, Hyderabad**48 Price, Taxes & Duties:** The contract price should be inclusive of all applicable taxes and duties.**49 Packing, forwarding and transportation:**

Packing & forwarding is included in the above price. The stores ordered shall be in packed condition in accordance with standard practice to avoid damages/losses in transit etc. ARCI is not responsible for damages/losses during the transit.

50 Inspection/Test Certificates:

50.1 The products supplied shall carry with them the quality control/loading/Brake test certificate from the manufacturer /any authorized laboratory if required by ARCI.

50.2 Further, ARCI reserves the right to get the materials inspected/tested at any recognized laboratory/test centers and if, the materials are found not to be as per specifications, the same may be rejected and the charges for testing shall be borne by the supplier (in case of rejection) for items/works.

50.3 In respect of items which do not carry any test/quality reports, the Competent Authority from ARCI shall depute/assign his representative the Duty for inspection, certification and acceptance of the subject items/works at suppliers works.

50.4 If ARCI requires, the catalogues of each spare should be submitted for reference. All items/components shall be carefully examined to determine their conformity with their specification with respect to material and workmanship, finish, marking, dimensions, arrangements and to assess its conformity with other requirements stated or reasonably

implied and not covered by specific tests.

51 Tools and Tackles:

- 51.1 All tools and tackles required for the work including testing equipment's shall be arranged by contractor in consultation with ARCI Officials.
- 51.2 The tenderer shall be fully responsible for arranging & safe custody of required tools and tackles supply/ brought by the Contractor.
- 52 The work shall be governed by ARCI's general conditions and security regulations of the contract from time to time.
- 53 The tenderer / Contractor should sign in each page of tender document all the terms and conditions of the contract as a mark of his acceptance of contract. The signed tender copy has to be submitted to ARCI & uploaded in government portal.
- 54 The submission of tender by a tenderer / Contractor implies that he has read this notice and the conditions of contract and has made himself aware of the scope of supply and specifications of the work to be done and of the conditions, insurances, testing and rates at which stores, tools and plant etc. and local conditions and other factors bearing on the execution of the work.
- 55 No foreign exchange and import license for import of technical know-how or equipment, components, spares or materials will be arranged or provided by the ARCI. In case the offered equipment involves any foreign exchange, this shall be clearly indicated together with a statement as to how this is being arranged by the tenderer / Contractor.
- 56 **Deviations List / Statements: Any exclusion, deviation from specification shall be clearly spelt out and listed at one place only and tenderer shall substantiate the same with appropriate reasons. In absence of the same, it will be considered that tenderer has followed the specification fully in words and spirit.**
- 57 It is the responsibility of the successful tenderer to complete the work within the due date.

SPECIAL CONDITIONS OF CONTRACT

The following Special Conditions of Contract are supplementary, to the General Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract. The corresponding clause number of the General Conditions of Contract is indicated in parentheses.

1.0 Definition

- (A) ARCI means: **International Advanced Research Centre for Powder Metallurgy And New Materials (ARCI), an autonomous Research and Development Centre of Department of Science & Technology, Government of India)**
Balapur P.O., RCI Road, Hyderabad- 500005.
- (B) Site means the project site situated **at various section** buildings at ARCI, Balapur campus, on RCI road, OPP Balapur, Hyderabad

2.0 Contractor scope of work/ Scope of supply/works:

The scope of work includes estimation, design of small works (i.e. Electrical – SLD, Switch Gear & etc.), taking of completion certificates, satisfactory supply, fixing and removing of old items/repairs as per purchase order items at internal & external building as per ARCI staff instructions.

3.0 Accidents or Injury or loss or death to Workman:

- 3.1 The Director, ARCI shall not be responsible for any injury or loss of any workers of the contractor that may take place while on work. Any compensation or expenditure towards treatment for such injury or loss of life shall be the sole responsibility of the contractor.
- 3.2 The contractor is solely responsible for any damage, injury or accident that may occur to any of his personnel working under this contract. He will not claim any compensation from the Director, ARCI.
- 3.3 The contractor shall take suitable group personal accident insurance cover for taking care of injury, damage loss, death or any other risks in respect of his engineering supervisory staff and workmen and submit the same to ARCI before starting the work.
- 3.4 The contractor shall provide workmen compensation policy, obtained in his name.
- 3.5 Policies and certificates for insurance shall be delivered by the Contractor to the ARCI for the ARCI approval before the Date of Start of work. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.
- 3.6 If the Contractor does not provide any of the policies and certificates required, the ARCI may affect the insurance which the Contractor should have provided and recover the premiums the ARCI has paid, from the contractor bills, security deposit, EMD or any other

payments due. Otherwise due to the Contractor or if no payment is due, the payment of the premiums shall be a debt due. The cost of premium will be deducted from the contractor's bill, if at any time the workmen remains uninsured.

- 3.7 Alterations to the terms of the insurance shall not be made without the approval of the ARCI.
- 3.8 Both parties shall comply with the conditions in the insurance policy.
- 3.9 All policies in original shall be submitted to the ARCI after award of the contract
- 3.10 The contractor should provide all site risk policy from Government of India insurance company for Rs.5 lakhs per person per incident. Minimum 3 persons per single incident, minimum total 15 lakhs. This policy should be submitted along with the 1st bill. The premium should be paid within 10 days from 1st incident to cover the policy for the contract period. This policy document be submitted along with the first bill.

4.0 Warranty / Guarantee:

The contractor shall submit guarantee/warranty certificates for the bought out items for manufacturing defects & faulty material for a period of 12 months from the date of supply/works by the contractor from the OEM where applicable or on his letter head in other cases.

5.0 Others:

- 5.1 ARCI reserves all rights to add, alter, modify, amend and delete the terms of the Contract suitable to the requirements.
- 5.2 Acceptance of the order may please be conveyed at the earliest within 15 days, failing which it will be deemed that the order is accepted.
- 5.3 This contract shall be valid for a period of 12 months without change of rates quoted in the BOQ from the date of commencement of order.
- 5.4 If the services are found to be satisfactory for first year, the contract may be extended for second year or part thereof, with the quoted BOQ price bid, on the same terms and conditions mutually agreed to by both the parties. In case of any further extension is needed by ARCI, same conditions for third year also.
- 5.5 All items mentioned in the schedule may or may not be operated for which the contractor cannot claim any compensation.
- 5.6 All dismantled /replaced materials shall remain ARCI property and transported to the specified location in-side ARCI by the contractor.

- 5.7 Un-used (new) materials brought by contractor shall be taken back by contractor for Which ARCI will issue Non-returnable gate pass.
- 5.8 In case of urgent repairs, contractor shall attend the same immediately with the written permission of Director, ARCI and also report the matter immediately to the ARCI authorities. To be followed up with ARCI officials / authorities for regularizing the P.O. for release of payments.
- 5.9 The contractor should obtain performance/completion certificate from the end user and submit the same to concerned authority so as to enable them to issue inspection certificate for each work to the contractor.
- 5.10 The work completion will be done as per the actual site measurement and priced as per the rates quoted in the BOQ
- 5.11 If GST (i.e. statutory charges) are changed same will be applicable to the rate contract, as on date supply to ARCI.
- 5.12 The Rate contract items are used, depending up on the site conditions and requirements of ARCI during the contract period.
- 5.13 The estimated cost of works/items may or may not be awarded to the contractor for which contractor cannot claim any compensation and the cumulative cost purely depends on the site requirements
- 6.0 SITE CLEARENCE:**
Clearing the site of all rubbish, debris, tanks, materials, temporary structures, plants, bushes and grass, machinery, scaffolding and filling of all pits and handing over the site in a neat and tidy condition is the responsibility of the contractor.
- 7.0 LIQUIDATION, DEATH, BANKRUPTCY, ETC**
If the contractor died or become insane or dissolves his firm or becomes bankrupt or insolvent or wind up the business and a receiver is appointed to take care its assets and liabilities. The ARCI shall be at liberty: -
- 7.1 To terminate the contract forth with up on coming to know of the happening of any such event as afore said by notice in writing to the contractor or to the receiver or liquidator or to any person on whom the contract may become vested to
- 8.0 No escalation:**
The contractor is not entitled to claim escalation because of market rate variations or on any account.

9. Tender Price

- 9.1 The contract shall be for the period as described in tender document based on the priced Schedule of Quantities submitted by the Tenderer.
- 9.2 The tender submitted on behalf of a Firm/Company, shall be signed by a person who has the proper legal authority on behalf of the Company to enter into the contract; otherwise, the tender is liable to be rejected. Each page of the tender document and each drawing accompanying is required to be signed by the authorized person submitting the tender / uploading in government portal, affixing the Firm /company seal in token of their having examined and acquainted themselves with the contents of each page. The forms of tender are to be filled in completely. Any tender with any of the documents not duly signed is liable to be rejected.
- 9.3 The Tenderer shall fill in the rates for all items of the Works described in the Schedule of Quantities along with total Tender price.
- 9.4 All duties, taxes, and other levies payable by the Contractor under the contract, or for any other cause, shall be included in the rates, prices and total Tender Price submitted by the Tenderer. Tenderers must include in their rates, the cost of transportation of materials to site, applicable GST, Income tax, Mines & Mineral Tax and any other taxes and duty levied by the Central / State Government. None of the above taxes & levies will be entertained separately by the ARCI and no tax exemption forms will be issued by the ARCI. All the taxes levied other than IT should be paid either directly by the contractor to the statutory authorities and challans/proof of payment with acknowledgement shall be provided by the contractor before release of the payment of next bill or shall be deducted at source. Contractor should also take a Group Insurance Policy for his Workmen, Supervisors and Engineers working on site for an adequate insurance cover. ARCI shall not be responsible for any accident or any untoward/unforeseen event involving workmen, labour, supervisor or engineer or any person directly or indirectly associated with the execution of work. The insurance policy to be obtained by the successful Tenderer must be comprehensive and shall cover all associated risks (known and unknown) from any Government Insurance Company.
- 9.5 The rates quoted in the tender shall include cost of telephone rent and call charges, for execution of work at site, hire for any tools and plants, shed for materials, marking out and transportation complete, cleaning the buildings and surroundings after execution of the total works and dumping the waste at designated place as directed by the ARCI in all respects. The rates quoted in the tender shall be treated as rates for finally completing the item of work.
- 9.6 The quantities furnished in the schedule of quantities are only probable quantities and are liable to alterations, by omission, deductions or additions to any extent at the discretion of ARCI. Payments will be regulated on the actual quantities of work done at accepted rates. Any item of work may be omitted from the schedule of quantities and may be awarded to another agency at any time / stage of the work for which no compensation will be paid by the ARCI i.e. for non-operated BOQ items and short closed BOQ items.

- 9.7 The rates and prices quoted by the Tenderer shall be fixed for the duration of the contract and shall not be subject to escalation or adjustment on any account even if the work is delayed due to unavoidable circumstances beyond the control of ARCI.
- 9.8 The calculations made by the tenderer should be based upon quantities of the items of work which are furnished in the Schedule of Quantities, but it must be clearly understood that the contract is not a lump sum contract. The ARCI does not in any way assure, represent or guarantee that the said probable quantities are correct or that the work would correspond thereto. The items of work irrespective of the quantities which may vary shall be carried out at the same accepted tender rates and no escalation in the rates will be entertained whatsoever. Any item of work may be omitted from the schedule of quantities and may be awarded to another agency at any time / stage of the work.
- 9.9 The tenderers must obtain for themselves on their own responsibility and their own expenses all the information which may be necessary, including risks, local site conditions, contingencies and other circumstances to enable them in making a proper tender and for entering into a contract, and must examine the drawings, specifications and conditions and inspect the site of the work, nature of the work, availability of power & water (ARCI will provide Power & Water free of cost. However, necessary accessories to tap the power & water is under the contractor scope) shelter for workmen and all the matters pertaining thereto before submitting the tender.

10. Evaluation, Comparison of Tenders and Award criteria:

The ARCI will evaluate and compare only the tenders which are technically qualified as per eligibility criteria

10.1 The ARCI reserves the right to accept or reject any variation, deviation or alternative offer and other factors which are in excess of the requirement of the Tendering.

- 10.1 The acceptance of Tender will rest with the ARCI, which does not bind itself to accept the lowest tender and reserves to itself the authority to reject completely / partially, any or all of the Tender/s received without the assignment of a reason.
- 10.2 The ARCI reserves to itself the right of accepting the whole or any part of the Tender and the Tenderer shall be bound to perform the same at the rate quoted.
- 10.3 The ARCI reserves to itself the right of omission of any item of work from the awarded tender at any time / stage during the execution of work and award the same to another agency / contractor

11.0 During Execution:

The Contractor shall carry out all the works strictly in accordance with the specification, details and instructions of the ARCI. If in the opinion of the ARCI, changes have to be made in the design, and they desire the contractor to carry out the same, the Contractor shall be bound to comply. The ARCI decisions in such cases shall be final.

The Contractor is bound to carry out any items of work necessary for the completion of the job even though such items are not included in the schedule of quantities and rates.

Schedule of instructions in respect of such additional items and their quantities will be issued in writing by the ARCI. Rates for such items of work will be recommended by the ARCI on the basis of Analysis of Rates which will be derived from **actual prevailing market rates of similar item along with 15% as contractor's profit, transport, overhead and etc.** The rates approved by the ARCI in such cases will be final.

- 11.0** The ARCI during discussion / stage of execution demand for the Analysis of Rates for any item / items of work which in their opinion is are abnormally high / low rates or required for the Analysis of Rates of other tender / extra item / items. The Contractor is bound to present the same and if the Contractor is unable to present a justified Analysis of Rates for any item / items, the rate / rates for such item may be adjusted accordingly and the decision of the ARCI in such cases shall be final.
- 11.1** The Contractor shall get the quality of work done inspected for material and workmanship at different stages of execution as per instructions given by the ARCI or their representative time to time. Any item of work done which is found not conforming to the Contract shall be rejected by the ARCI. The decision of the ARCI in such cases shall be final.
- 11.2** The ARCI may instruct at any stage of execution for testing of samples of any material taken at random. The ARCI will decide the testing laboratory / agency and the cost of testing including the expenses for sending the samples to the laboratory / agency and receipt of test reports shall be borne by the ARCI. The material shall be rejected in case the test reports are not within the permissible limits. In case material is found to be of sub- standard quality, the same shall be rejected by the ARCI. The decision of the Director, ARCI in such cases shall be final.
- 11.3** The Contractor shall not be entitled to any compensation suffered by him on account of delays in commencing or executing the work whatever the cause of delay may be, including delays arising out of modifications to the work entrusted to him or in any subcontracts connected therewith or delays in awarding contracts for other trades of the project or in commencement or completion of such other works or in procuring Government controlled or other building materials for any other reasons whatsoever. The ARCI shall not be liable for any sum besides the tender amount, subject to such variations as are provided for herein and as instructed by ARCI. However, necessary time extension will be given if the delays are not attributed to the Contractor.
- 12.0 Water and Electricity Charges:** ARCI will provide free of cost Electricity and water at one point. The required accessories for tapping the power & water under the scope of Contractor. The contractor has to make his own arrangements for distribution of water and electricity. The standard safety and procedures of ARCI should be followed.

13.0 Mobilization Advance: Mobilization advance **nil**.

14.0 Material Advance: Material advance **nil**.

15.0 Payments

- 15.1 Supply & erection amount will be paid after successful completion of entire works i.e. inspection, erection, testing, commissioning and integration of the items with the total designed scheme, subject to Joint measurement / joint inspection of the above works, bill amounting to 100% of value of supply done as per site measurements / inspection will be paid after duly signed by the representative of ARCI.
- 15.2 Computerized detailed measurements, and Final Bill will be prepared by contractor and submitted to ARCI for approval.
- 15.3 Payment shall be made on bills submitted by the Contractor.
- 15.4 The Contractor shall furnish the following documents along with the bills.
- a. Delivery Challan with ARCI gate entry stamp & Invoices with SAC/ HSN code in triplicate.
 - b. Joint Site Measurement and Inspection Certificate given by ARCI.
 - c. All bills should be enclosed with ARC I gate entry stamp on delivery challans, abstract details of detailed joint measurements taken along with ARC I officials.
 - d. The contractor should supply the materials by procuring the electrical items from the authorized dealer of the item, and he should enclose the proof/bill with his bill.
- 15.5 The Director, ARCI shall deduct/recover such amounts towards penalty, if any, cost of items not returned to stores, etc.
- 15.6 TDS under IT Act, as applicable shall be deducted from the payment.
- 15.7 The net payment so arrived at shall be paid by online / RTGS payable to the Contractor.
- 15.8 The Director, ARCI reserves the right to adjust any excess/short payment, made in the earlier bills, at the time of making payment.
- 15.9 The BOQ items and quantities mentioned in PO are approximate in nature, depending upon the site conditions the requirement for BOQ items are operated as per actual site measurements, the payments will be released as per actual site measurements.
- 15.10 PF, ESI and insurance working people, accidental insurance policy should be submitted after award of the contract before submission of the RA bill.

16 Notices

For the purpose of all notices, the following shall be the address of the ARCI and the Contractor.

The Director, ARCI

International Advanced Research Centre for Powder

Metallurgy and New Materials (ARCI),

Balapur P.O., RCI Road,

Hyderabad- 500005.

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17.0 Labour

17.1 The Contractor shall make his own arrangements for the engagement of all staff and labour, local or other, and for their payment, housing, feeding and transport. **No labour to stay at ARCI site / campus.**

17.2 The Contractor shall, if required by the ARCI, deliver to the ARCI a return in detail, in such form and at such intervals as the ARCI may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the Contractor on the Site and such other information as the ARCI may require.

17.3 Compliance with labour regulation:

During continuance of the contract, the Contractor and his sub-Contractors shall abide at all times by all existing labour enactments and rules made thereunder, regulations, notifications and bye-laws of the State or Central Government or local authority and any other labour law (including rules), regulation by laws that may be passed or notifications that may be issued under any labour law in future either by the State or the Central Government or the local Authority. The Contractor shall keep the ARCI indemnified in case any action is taken against the ARCI by the competent authority on account of contravention of any of the provisions of any Acts or rules made thereunder, regulation or notifications including amendments. If the ARCI is caused to pay or reimburse, such amount as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/bye laws/Acts/Rules /regulations including amendments, if any, on the part of the Contractor, the ARCI shall have the right to deduct any money due to the Contractor including his amount of performance security. The ARCI shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the ARCI

17.4 The employees of the Contractor and/or the Sub-Contractor in no case shall be treated as the employees of the ARCI at any point of time.

17.5 No labour shall stay at site. Temporary storage space provision should be made by contractor with the permission of Director, ARCI.

17.6 The rates shall be complete in all respects i.e. inclusive of all taxes, octroi, local taxes, packing and forwarding, work contract tax, Mines & Minerals Tax, Insurance charges

nothing on any account shall be paid over the approved rate.

- 17.7 All specialized and specific jobs shall be carried out by approved agencies / vendors only.
- 17.8 The Contractor shall arrange temporary drinking water and sanitation facilities for his workmen.

18.0 Fair Wage Clause:

- 18.1 The contractor shall pay not less than fair wages to labourers engaged by him on the work.
- 18.2 "Fair" wages means wages whether for time of piecework notified by the Government from time to time, for the locality of works.
- 18.3 The contractor shall not with-standing the revisions of any contract to the contrary cause to be paid to the labour, in directly engaged on the work including any labour engaged by the sub-contractor in connection with the said work, as if the labourers had been directly employed by him.
- 18.4 In respect of labour directly or indirectly employed in the works for the purpose of the contractor's part of the agreement the contractor shall comply with the rules and regulations on the maintenance of suitable records prescribed for this purpose from time to time by the Government. He shall maintain his accounts and vouchers on the payment of wages to the labourers to the satisfaction of the ARCI.
- 18.5 The ARCI shall have the right to call for such record as required to satisfy himself on the payment of fair wages to the labourers and shall have the right to deduct from the contract amount a suitable amount for making good the loss suffered by the worker or workers by reason of the "fair wages" clause to the workers.
- 18.6 The contractor shall be primarily liable for all payments to be made and for the observance of the regulations framed by the Govt., from time to time without prejudice to his right to claim indemnity from his sub-contractors.
- 18.7 As per contract labour (Regulation and abolition) Act. 1970 the contractor has to produce the license obtained from the licensing officers of the labour department along with the tender or at the time of agreement as per the act.
- 18.8 Any violation of the conditions above shall be deemed to be a breach of his contract.
- 18.9 Equal wages are to be paid for both men and women if the nature of work is same and similar.
- 18.10 The contractor shall arrange for the recruitment of skilled and unskilled labour local and imported to the extent necessary to complete the work within the agreed period as directed by the ARCI.

19.0 Safety Measures:

- 19.1 The contractor shall take necessary precautions for safety of the workers and preserving their health while working in such jobs, which require special protection and precautions. The following are some of the measures listed but they are not exhaustive and contractor shall add to and augment these precautions on his own initiative where necessary and shall comply with directions issued by the ARCI or on his behalf from time to time and at all times.
- 19.2 Providing protective foot wear, Goggles, nose masks, electrical hand Gloves, helmet to the workers as per the site requirement.
- 19.3 Getting the workers in such jobs periodically examined for chest trouble due to too much breathing in to fine dust.

- 19.4 Taking such normal precautions like fencing and lighting in excavation of trenches, working at the heights during night times and etc. As per the site requirement.
- 19.5 Supply work men with proper belts, ropes etc., when working in precarious slopes and heights etc. As per the site requirement.
- 19.6 Avoiding un-insulated electrical wire etc., as they would electrocute the workers.
- 19.7 Taking necessary steps towards training the workers concerned on the machinery tools and tackles before they are allowed to handle them independently and taking all necessary precautions in and around the areas where machines hoists cable pulleys, rollers, hydraulic crimping tools and heat sink cable jointing kits and similar units are working.
- 19.8 The Contractor should isolate the work spot by providing safety barricades, Signage boards and etc.

20.0 Firefighting measures:

- 20.1 The contractor shall provide and maintain adequate firefighting equipment and take adequate fire precaution measures for the safety of all personnel and temporary and permanent works and shall take action to prevent damage to destruction by fire of trees shrubs and grasses.
- 20.2 Separate payment will not be made for the provision of fire prevention measures at work spot.

21.0 Protection of environment

- 21.1 The Contractor shall take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his methods of operation.
- 21.2 During continuance of the contract, the Contractor and his sub-contractors shall at all times abide by all existing enactment on environmental protection and rules made thereunder, regulations, notifications and bye-law of the State or Central Government, or local authorities and any other law, by-law, regulations that may be passed or notification that may be issued in this respect in future by the State or Central Government or the local authority.
- 21.3 Salient features of some of the major laws that are applicable are given below: The Water (Prevention and Control of Pollution) Act, 1974 This provides for the prevention and control of water pollution and the maintaining and restoring of wholesomeness of water. 'Pollution' means such contamination of water or such alteration of the physical, chemical or biological properties of water or such discharge of any sewage or trade effluent or of any other liquid, gaseous or solid substance into water (whether directly or indirectly) as may, or is likely to create a nuisance or render such water harmful or injurious to public health or safety, or to domestic, commercial, industrial agricultural or other legitimate uses, or to the life and health of animals or plants or of aquatic organisms.
- 21.4 The Air (Prevention and Control of Pollution) Act, 1981. This provides for prevention, control and abatement of air pollution, 'Air Pollution' means the presence in the atmosphere of any air pollutant', which means any solid, liquid or gaseous substance (including noise) present in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment.
- 22.5 The Environment (Prevention and Control of Pollution) Act, 1986 This provides for the

protection and improvement of environment and for matters connected to herewith, and the prevention of hazards to human beings. Other living creatures, plants and property, 'Environment' includes water, air and land and the interrelationship which exists among and between water, air and land, and human beings, other living creatures, plants, micro-organism and property.

- 22.6 The Public Liability Insurance ACT 1991. This provides for public liability insurance for the purpose of providing immediate relief to the persons affected by accident occurring while handling hazardous substance means any substance or preparation which is defined as hazardous substance under the Environment (Protection) Act 1986, and exceeding such quantity as may be specified by notification by the Central Government.

23.0 Deployment of Manpower:

The contractor shall deploy the following minimum man power at site to take instructions from ARCI Staff & Report the site activities on day to day basis as per works schedule execution of quality work and maintain all statutory records as per Govt. norms / as directed by ARCI staff.

- 23.1 Diploma in electrical for Electrical works & Diploma in Civil for Civil works to supervise the entire works along with safety aspects of working manpower and to coordinate with ARCI officials.
- 23.2 ITI / Tradesman / qualified competent Technicians along with helper to carried out the Electrical / Civil works, and measurement and etc.
- 23.3 PF, ESI and insurance working people, accidental insurance policy should be submitted after award of the contract before submission of the RA bill.

24. The quantity mentioned in the purchase order is only approximate in nature i.e., approximate quantified scope. Hence, the contractor should **not claim any compensation towards non-operation of the part or total quantities and non-operated items listed in the Purchase order.**

25.0 Accident or Injury to Workman:

- 25.1 ARCI shall not be responsible for any injury or loss of life of any worker of the contractor that may take place while on work. Any compensation or expenditure towards treatment for such injury or loss of life shall be the sole responsibility of the contractor.
- 25.2 The contractor is solely responsible for any damage injury or accident that may occur to any of his personnel working under this contract. He will not claim any compensation from ARCI.

- 26.0 Since the payments are based on actual site measurement, the contractors are advised to procure the materials based on actual site requirement. Payment will not be made for left out and unused materials.

- 27.0 **Income tax:** During the currency of the contract, deduction of TDS as applicable from the gross value of each bill of the contract.

- 28.0 GST rates and SAC/ HSN codes as per rule as applicable will be shown separately by the contractor.

- 29.0** The Contractor will be required to keep all the codes mentioned in the document at site. It will be the responsibility of the contractor to obtain GST rates and SAC/ HSN codes for supply and services, where ever applicable.
- 30.0** It would be necessary for the contractor to get his materials gate entry at ARCI Main gate with duly signed by the duty officer of ARCI before unloading at the site.
- 31.0** BOQ Items: The quantity mentioned in the BOQ schedule is one in number. The contractor has to supply more than one quantity as per site demand during contract period in operation.

ARTICLES OF AGREEMENT

Made at This day of 2025.
Between

..... (hereinafter referred to as ARCI which expression shall include its heirs,
Executors, Administrators & Assignees) of the one part and

.....

..... (Hereinafter referred to as the Contractor which expression shall include his heirs, Executors, Administrators & Assignees) of the other part
WHEREAS the ARCI is desirous of carrying out **ANNUAL RATE CONTRACT FOR SUPPLY OF ELECTRICAL ITEMS AND WORKS EXECUTION AT ARCI, HYDERABAD**, the priced Schedule of quantities have been signed by or on behalf of the parties hereto and WHEREAS the Contractor has agreed to execute up to and subject to the conditions set forth herein (hereinafter referred to as "the Annual Rate Contract" described in "Scope of works" and etc. the said "Priced Schedule of Quantities at the respective Rates mentioned in the Priced Schedule/ Purchase Order of Quantities attached.

And WHEREAS the Contractor has agreed to submit the performance guarantee to ARCI for Rs. (Rupees.....

.....Only) by him as performance guarantee for the due fulfillment of the contract to the satisfaction of ARCI

NOW IT IS HEREBY AGREED AS FOLLOWS:

- (1) In consideration of the payments to be made to the Contractor as hereinafter provided he shall upon and subject to the conditions of contract execute and complete the works shown upon the said scope of works.
- (2) ARCI shall pay the Contractor such sums as shall become due and payable hereunder at the times and in the manner specified in the said conditions.
- (3) The tender agreement, documents, terms & conditions of NIT, GCC and SCC above mentioned shall form the basis of this Contract and the decision of the ARCI for the time being as mentioned in the Conditions of the Contract in reference to all matters of dispute as to the material, workmanship or account and as to the intended interpretation of the clauses of this agreement or any other document attached hereto shall be final and binding on both parties.
- (4) The said Contract comprises the work above mentioned and all subsidiary works connected there to within the same site as may be ordered to be done from time to time by the said ARCI.
- (5) Time shall be considered as essence of the agreement and the contractor hereby agrees to commence to work as soon as his tender is accepted by ARCI by issuing LOI/WO/PO
- (6) The said conditions shall be read and construed to be forming part of this agreement and the Parties hereto will respectively abide by and submit themselves to the conditions and stipulations and perform the agreement on their parts respectively in such conditions

contained.

- (7) All disputes arising out of or in any way connected with this agreement shall be deemed to have arisen in Hyderabad and only the courts in Hyderabad alone shall have jurisdiction to determine the same.
- (8) Any Disputes for fulfilling the duties set forth in the "Resolution of Disputes and Arbitration" clauses as defined with tender conditions of contract.
- (9) Resolution of Disputes and Arbitration: The Contract shall be governed by, and construed in accordance with the laws of India. Any dispute which cannot be amicably settled by the parties may be submitted, by the ARCI, to the International Center for Dispute Resolution (ICADR), Hyderabad. The dispute will be settled following the provisions of Arbitration and Conciliation Act, 2015. Both Parties agree that the results and awards of any such arbitration shall be binding on both Parties. Venue of Arbitration shall be Hyderabad.
- (10) The several parts of this contract have been read to us and fully understood by us. As witness our hands this.....day of 2025.

..... Signed by the ARCI

..... in the presence of

..... Signed by the said Contractor

..... in the presence of

Indemnity Bond

The tenderer should submit Indemnity Bond at the time of the Agreement as specified below. (*On Stamp Paper of Rs.100/-*)

The deed of indemnity is made and executed on this(Date).....(Month)2025 at Hyderabad by ----- represented by ----- here in after referred to as the contractor which terms shall unless repugnant to the context and include its successors-in-interest and

assigns. IN FAVOUR OF:

International Advanced Research Centre for Powder Metallurgy and New Materials, (ARC International-ARCI), Balapur PO, Hyderabad-500 005.

Here in after referred to as ARCI (which term shall unless repugnant to the context mean and include its successors –in-interest and assigns).

Whereas ARCI has entrusted the work for ANNUAL RATE CONTRACT FOR SUPPLY OF ELECTRICAL ITEMS AND WORKS EXECUTION AT ARCI, HYDERABAD to the Contractor on the terms and conditions contained in the Tender document and subsequent ARCI PO NO.----- (herein after collectively referred to as the Contract).

As per the specific terms of the aforesaid contract, the contractor is required to execute in favor of ARCI an indemnity Bond in relation to and connected with the employment of labour and any other activity related with performing of the contract by the contractor and compliance by the contractor with all statutory provisions relating hereto.

ARCI has called up on the contractor to execute an Indemnity Bond in terms of the aforesaid contract, to, which the contractor has agreed.

NOW THIS DEED OF INDEMNITY WITNESSES AS FOLLOWS:

The contractor hereby irrevocably and unconditionally indemnifies and agrees to keep indemnified ARCI against from all causes and claims cost, damages, expenses, compensation, prosecution, legal proceedings, civil and /or criminal, penalties, fines ex- gratia payments or any other similar liability of any nature that may arise or be caused by or on account of the contractor's failure, intentional or otherwise, including any event / accident to comply with every prescribed statutory requirement and /or every condition contained in the contract relating to employment of labour, personnel, material, welfare, safety, health of such labour, personnel and any other activity related with performing of the contract including compliance with Employee's Provident Fund Act, Employee's State Insurance Act, Workmen's Compensation Act, Contract Labour Act, all statutory payments to state and central governments or any other similar welfare legislation that may be applicable to all or any material /

workmen engaged by the contractor in or about execution under the contract. The contractor further agrees and confirms that under the scope of this indemnity the contractor shall at his cost and expense defend all legal proceedings ,civil and /or Criminal that may be instituted against ARCI caused or occasioned by the contractor's failure to comply with the statutory and contractual requirements herein before referred to and pay and bear all consequential costs ,expenses, compensation, damages, penalties, fines, ex- gratia payments without any demand / request by ARCI and without claiming any right to contribution from ARCI to such liability.

IN WITNESS WHERE OF the contractor has signed this Deed of Indemnity on the date month and year first above written in the presence of the following witness.

Contractor:

Signature:

Date:

WITNESS:

1.

2.

TECHNICAL SPECIFICATIONS FOR SUPPLY OF ELECTRICAL ITEMS AND WORK EXECUTION

Detailed scope of work involved in supply of electrical items and work execution.**I. Annual Electrical Rate Contract:-**

1. The rates quoted in the tender shall be for the finished items of work. They shall include all the charges, labour, materials, transportation of material & equipment, double scaffolding, tool and tackles, marking out and cleaning of site, to do all things necessary to provide complete finished item for work consistent with the specifications attached to this tender documents. The rates shall be inclusive (erection rate contract) of octroi duty, GST, packing and forwarding, loading or unloading or any other duties or fees levied by any government, public or local bodies and labour.
2. The rates shall be firm no escalation charges allowed and shall not be subjected to change, variations, labour conditions or any conditions whatsoever till the completion of the contract.
3. During erection any damage to civil structure it may make good to original position.
4. **Delivery / Completion Period:** as per rate contract Purchase Order.
5. After receipt of purchase order the contractor should visit the work location and procure the items as per actual site requirement.
6. Hence he should depute adequate engineering and technical staff shall be appointed at site by the contractor. He should inform ARCI about their number and qualifications. Approval of ARCI shall be taken prior to appointing such technical staff on site and documentary proof should be submitted for their qualifications and experience.
7. The contract shall execute works strictly as per ARCI approved drawings. The contractor shall be responsible for any errors in this connection and shall have to rectify all the defects at his own cost, failing which ARCI reserves the right to get the same rectified at the risk and cost of contractor.
8. No claim for extra item or deviation from specification shall be entertained unless the same is pointed out by the contractor and accepted such by ARCI before the work is taken in hand.
9. The contractor shall comply with all bye-laws applicable GST rates for supply HSN code and SAC code for services and other statutory authorities having jurisdiction over the works and shall be responsible for the payment of all the fees and other charges and the giving and receiving of all necessary notices drawings and test certificates.
10. All bills should be enclosed with ARC I gate entry stamp on delivery challans, abstract details of detailed joint measurements taken along with ARC I officials.
11. **Packing, forwarding, transit insurance and transportation:**
Packing, forwarding transit insurance and transportation is included in the price quoted. The stores ordered shall be in packed condition in accordance with standard practice to avoid damages/losses in transit etc.

12. DIMENSIONS:

Before commencing any work the contractor shall verify all measurements of site and compare with dimensions / number / etc as per PO. If any discrepancies are found they should immediately be brought to the notice of ARC I. In no event the contractor shall scale the drawings. The contractor has to actually measure the site.

13. CUTTING AND MAKING GOOD:

Where it is found necessary to interfere with finished work in order to execute this contract, the contractor will be required to do all cutting and patching up all the work at his own expenses. Only approved cutting machines of HILTI or Bosch make shall be used to cut floor walls for cables. Wooden plugs will not be permitted. Holes shall be made with electric drills whenever possible. Structural members shall not be cut or drilled without prior consent of the ARCI.

GENERAL TECHNICAL SPECIFICATIONS

All materials shall conform to relevant IS specifications.

1. CONDUIT PIPES

- All PVC conduit pipes shall be of approved make (not less than 2.0mm thick for conduits of size up to 40mm) All PVC conduit accessories of 40mm dia shall be of approved make.
- Conduit shall be laid on GI base cum saddles and for every 1 mtr 3 Nos. of GI base cum saddles spaced as required, conduits shall be laid in straight runs.

2. CEILING ROSE

- Should be of three pin terminals type, White / cream color PVC ceiling rose IS 371:1999

3. SWITCHES AND SOCKETS

- The switch boards shall be sheet clad, floor mounting or wall mounting type as required and built out of 14 gauge sheet steel. The switch boards shall comply with the Indian Standards IS 3854: 1999, IS 1293: 1988 and approved from ARCI.
- All switches shall be placed in the live conductor of the circuit and no single pole switch for fuse shall be inserted in the earth or earthed neutral conductor of the circuit.
- Every socket outlet shall be controlled by a switch.
- The switch controlling the socket outlet shall be on the 'Live' side of the line.
- For location of 6A and 16A socket outlets, corresponding drawings may be referred.
- The third terminal of the 3 pin socket outlet shall be connected to the general earth

4. POWER DISTRIBUTION BOARDS AND METERING PANEL

The salient features of the panels shall be as follows:

- Sheet steel – 2mm thick for frames and equipment mounting plates 2.0mm thick for partitions.
- Welded construction – With transport sections bolted together. All such joints to be casketed.
- The cubicles shall be totally dust and vermin proof conforming to IP-54 as per IS 8623.
- All the doors to be Hinged type except bus bar chamber covers which shall be bolted type. The panels shall be of flush front design, suitable for access from front and rear, except where the boards are mounted against the wall in which case the boards shall be designed for maintenances with front access only.
- The construction shall be as to facilitate easy extension at both ends.
- The design shall be such as to have individual feeders in separate segregated compartments, with proper barriers between adjacent feeders, bus bar chamber and cable termination chambers.
- All incoming terminations shall be properly terminated to receive aluminum heavy duty power cable or 1.1kv grade or standard proper cable as the case may be. Adequate space shall be provided to facilitate proper and easy termination.
- Wherever necessary, if the Distribution board are to be mounted on a wall, the layout of the components and inter connections shall be design to facilitate maintenance from the front.
- The design of the distribution boards shall be such that clear segregation shall be provided for the various components, feeders and inter connection- such as bus bar, incoming or outgoing feeders, cable chambers etc. The height of the panel shall not exceed 2200mm. The maximum operating height of any components shall not exceed 1800mm and shall not be below 300mm.
- An aluminum earth strip of adequate section shall be run through out the length of the distribution board to which all earth terminals of the various components shall be connected.
- All control wiring shall be carried out with 1.1KV grade sub core PVC cables with standard copper conductors of minimum 1.5Sqmm for potential circuits and 2.5Sqmm for current

transformer circuits. The wiring shall be neatly bunched adequately supported and properly routed. The wires shall be identified by ferrules at both ends.

- Terminal blocks shall be of 500 volts grade and with minimum current rating of 10 Amps.
- All routine tests as specified in the Indian Standards shall be carried out in the presence of the ARCI officials and test certificates submission for approval.
- Test certificates shall also be submitted for all major components like MCCB's, CTs, Energy Meters and Relays etc.
- Prior to fabrication of the panels, the contractor has to submit the following drawings for approval:
 - a. Single line diagram – power circuit
 - b. Control circuit diagram
 - c. Front view showing layout of components.
 - d. Sectional view.
 - e. Foundation drawings.

5. WIRES FOR CONCEALED WIRING

- PVC insulated single core cables with flame retardant properties (FRLS) and multistrand bare copper conductor for voltage grade of 1100V as per IS: 694/1990.
- The following color codes for the wiring shall be applicable.

Phase – R	: Red
Y	: Yellow / white
B	: Blue
Neutral:	Black
Earth	: Green

6. MOULDED CASE CIRCUIT BREAKERS

- Moulded case circuit breaker (Thermal magnetic relays) of 25 kA breaking capacity and should comply the latest standards of IEC 60947-2 and IS 13947-2, and meets the requirements for CE marking. Ergonomic design, adjustable over load setting, adjustable short circuit setting, manual and fixed version.

7. RESIDUAL CURRENT CIRCUIT BREAKER

- Conforms to IS 12640 (part 1) IEC 61008-1
- RCCBs are available in DP and FP versions from 25 to 100A ratings with 300mA sensitivity
- Truly current operated – operation even at nominal voltage
- Operates on Core Balance Current Transformer (CBCT) principle
- Operation even in case of neutral failure

The exact locations of these RCCB in circuits can be had from the single line diagrams.

8. MINIATURE CIRCUIT BREAKERS

- Conforms to IS/IEC 60898
- Breaking capacity of 10kA
- Should be of B and C curves
- Tripe free mechanism
- Design based on advanced current limiting hammer trip mechanism
- No Line Load bias
- Suitable for accessory fitment

9. MCB DISTRIBUTION BOARDS

- Should confirm to IS 8623 and IP 43
- Aesthetically superior to suit the interiors
- Suitable for surface mounting on GI angle frame

- Ready to use DBs provided with 100A phase bus bar, Neutral bar, Cement spill protector, earth bar and interconnecting wires as standard accessories
- Provided with removable top and bottom gland plates with adequate knockouts for easy wiring
- DBs made up of thick CRCA sheet steel & powder coated with RAL 9003 shade
- 200A vertical bus bar with 10kA fault with stand capacity for 1 sec. in VTPN DBs

10. ENERGY METER

- Panel-mount, LED display.
- 3-phase, 4-quadrant metering, class 0.5 accuracy (IEC 60687, ANSI).
- Voltage, current, power-Kw, KVA, KVAR, KWH, KVAH, KVARH, frequency, power factor.
- Total harmonic distortion.
- 2 optically isolated digital outputs.
- RS-485 communications port.
- Protocol: Modbus or Industrial ether Net.

11. WORKMAN SHIP

CONDUIT WIRING SYSTEM & CONDUIT LAYING

Conduit shall be laid on GI base cum saddles and for every 1 mtr 3 Nos. of GI base cum saddles spaced as required, conduits shall be laid in straight runs.

1. DRAWING OF WIRES

Guidelines as stipulated in IS shall be followed and the contractor shall also obtain approval from the ARCI / owner prior to commencement of work.

2. BUNCHING OF CABLES

Cables carrying alternating current shall be so bunched that the outgoing and return cables are always drawn into the same conduit.

3. SURFACE CONDUIT JOINTS

Conduit pipes shall be joined by means of screwed couplers and screwed accessories only. In long distance straight run on conduit, junction boxes inspection boxes at intervals not exceeding 5 mtrs, shall be used, where there are bends / curves, the same shall be reduced suitably, as directed by the owner.

4. CONCEALED CONDUIT JOINTS

Conduit pipes shall be joined by means of screwed couplers along with jointing solution and wiring accessories only. In long distance straight run on conduit, junction boxes inspection boxes at intervals not exceeding 5 mtrs, shall be used, where there are bends / curves, the same shall be reduced suitably, as directed by the owner/engineer.

5. BENDS IN CONDUITS

All necessary bends in the system including diversion shall be done by bending pipes as far as possible or by inserting suitable solid or inspection type normal bends, elbows or similar fittings. Radius of bends in conduit pipes shall not be less than 7.5 cms. No dent / crack shall be made on the pipes while bending. Pipes shall be bent with pipe bender only.

6. FIXING OF CONDUIT IN CHASE

The conduit pipe shall be fixed by means of GI nails or by means of saddles not more than 60 cm apart or by any other approved means of fixing. Fixing of standard bends or elbows shall be avoided as far as practicable and all curves maintained by bending the conduit pipe itself with a long radius which will permit easy drawings in of conductors.

7. WIRE MESH (CHICKEN)

To facilitate crack free plastering in wall chases GI chicken mesh should be fixed on PVC conduit by means of GI nails and plastering should be carried out as directed by the owner/engineer.

8. TERMINATION OF CONDUITS

Wherever conduits are terminate in an outlet box or a distribution board, cut & bend shall be fixed and completely sealed with sealant. Junction boxes fixed in position and wires are drawn, any open outlets shall be properly plugged using PVC stoppers and sealants as per site requirement.

9. POINT WIRING

Point wiring shall include all works necessary in complete wiring of a switch circuit in conduit wiring from the corresponding one way on the MCB distribution board to the following via the switch:

- Ceiling rose
- Socket outlet
- Lamp holder

Description / Scope

- **1.5 Sqmm Point wiring:** for Light fittings, Fans and etc.,
- 3 runs (P,N,E) of 1.5 Sqmm copper FRLS wires should be drawn from switch board to first ceiling, Neutral and Earth should be looped from first ceiling rose to second ceiling rose and then on, up to 800w per circuit (maximum of 6 fittings).
- But one separate run of Phase wire should be drawn to second ceiling rose and then on.
- Maximum 9 no's of 1.5 Sqmm size wire are allowed in a single 25mm dia PVC pipe.
- Measurements will be taken per meter as per site installation per run of three wires (P, N, E).
- Jointing of wires are not allowed between switch board to ceiling rose
- Color code shall be as per IS only.
- A separate three core 1.5 Sqmm PVC flexible copper cable should be used to tap the power from the ceiling rose to light fittings, Fans and etc.,
- **2.5 Sqmm Circuit wiring:** for switch boards, 5A Power sockets and etc.,
- 3 runs (P,N,E) of 2.5 Sqmm copper FRLS wires should be drawn from distribution board (LDB/PDB) to switch board.
- If the circuit wiring for 5A power sockets maximum loop of 4 no's of power sockets for Neutral and Earth should be looped from first power socket to second power socket and then on. But one separate run of Phase wire should be drawn from LDB/PDB to second power socket and then on.
- Maximum 8 no's of 2.5 Sqmm size wire are allowed in a single 25mm dia PVC pipe.
- Measurements will be taken per meter as per site installation per run of three wires (P, N, E).
- Jointing of wires are not allowed between LDB/PDB to switch board / power sockets.
- Color code shall be as per IS only
- **4.0 Sqmm Circuit wiring:** for AC points, 16A/20A Power sockets and etc.,
- 3 runs (P, N, E) of 4.0 Sqmm copper FRLS wires should be drawn from distribution board (PDB) to each AC points, each 16A/20A Power sockets.
- Maximum 6 no's of 4.0 Sqmm size wire are allowed in a single 25mm dia PVC pipe.
- Measurements will be taken per meter as per site installation per run of three wires (P, N, E).
- Jointing of wires are not allowed between PDB to AC points, 16A/20A Power sockets.
- Color code shall be as per IS only.
- The following tests should be conducted and submitted for approval from the owner/engineer before charging the wiring for all the DB's, switch boards, power sockets and ceiling roses.

10. CAPACITY OF CIRCUITS

- Lights, 6A socket points, call bell points and ceiling fans may be wired on a common circuit. Such circuit shall not have more than a total of six points of light, fan and socket outlets or a load or 800 watts, whichever is less.
- Each 16A 3 pin socket outlet shall have its own circuit from the distribution board, unless shown otherwise in the drawing. Separate phase and neutral wires should be brought from controlling MCB for 16A and above power points.

11. INSTALLATION OF DISTRIBUTION BOARDS / LDB / PDB's

- The distribution boards should be mounted/installed on 25X3mm GI angle frame and that frame should be grouted in wall.
- Distribution boards should be double door as per IP 43-degree protection supplied with bus bar, wire sets, blanking plates, identification of labels, earth bar and insulated neutral bar as standard.
- Two-point earthing should be done with 25X3 mm GI strip.
- Incoming and outgoing cable terminations should be done using suitable double compression gland, crimping with copper/aluminum lugs, aluminum cable tags as directed by the owner/engineer.
- In wiring a distribution board, the total load of the consuming devices shall be divided as far as possible, evenly between the number of ways of the board to balance the phase distribution.

12. L.T. CABLE – SUPPLY, INSTALLATION, TESTING AND COMMISSIONING

- Should be of 1.1Kv grade XLPE insulated unarmored and armored cables with copper/aluminum conductor confirming to IS 7098/part 1/1988
- All relevant factory tests report along with warranty and guarantee should be submitted along with the supply of cables.
- Cable drums should be stored on a plain vibration-free ground.
- Drums should be stored and kept in such a way that the bottom of the cable should not be damaged.
- While laying the cable in a trench, the cable end should be pulled with a pulling eye only after mounting the drum on the jacks. Do not keep drum on its flange while pulling the cable. This will result in the twist in the cable.
- The cables should be laid in the excavated cable trench (600mmX750mm) and a fine sand bed of 150mm thick and dressing to be carried out as per owner/engineer instructions. And cover the cable by providing fine sand bed of 150mm as cushioning to the laid cables and for protection cover with red bricks with single layer entire excavated trench area. Back fill the excavated earth soil and complete the reinstatement.
- While laying the minimum bending radius of the cable should not be less than 12D (where D = outer diameter of the cable).
- As per the site requirement cable jointing should be done with 1.1Kv grade straight through heat shrinkable jointing kits should provide.
- Cable markers (as specified by the tender document) should installed at every 20 mtrs distance along the cable trench.
- Cable shall be laid in Class 'B' GI pipes at all entry to buildings. The open ends of the pipes shall be sealed at both ends after the cables are laid, using bituminous compound with Jute material and any other suitable material to prevent entry of any foreign matter into the building.
- While crossing the roads the cables should be laid in class "B" GI pipe minimum dia of 100mm.
- All out door cables shall be laid in around not less than 750mm below ground level.

- Indoor cables should be laid along the walls, RCC structures with required fixing materials as per the site requirement, including GI base saddle at every 500mm in building premises with suitable GI clamps.
- While lying in underground/overhead cable trays at every 1000mm the cables should be properly dressed with cable ties.
- Testing of cables after installation should be carried, insulation resistance should be measured with 500V megger between the cores and all the cores to earth (Armour) and results to be recorded for the approval of the owner/engineer for charging.
- Both the ends of cable terminations should be done using suitable double compression gland, crimping with copper/aluminum lugs, aluminum cable tags as directed by the owner/engineer.
- Cable terminations shall be provided at either ends of each cable using suitable glands, cable lugs, soldering material, insulating tape, etc.
- Cable laying: Contractor should use latest equipment's for unrolling and laying the PVC / XLPE cable in underground trenches / Cable trays / Hume / GI pipe. Ensure that no damage to the cable even to outer PVC sheath. ARCI official's prior permission to be obtained to ensure the quality of workmanship.
- At no point of time the cable should not touch the ground while pulling or laying i.e., it should be always on the Rollers or Cable pullers entire length of cable.

13. GENERAL

- All the electrical, computer networking (LAN) and Telephone installation works to be carried as per the latest applicable IEEE, IEC and IS codes.
- All switches, sockets, fan regulators etc., shall be housed in proper sheet steel enclosure as given in the specifications and covered with modular plate. The mounting heights and exact locations should be as per the drawings.
- Wherever power supply is drawn from 3 phase, 415 volts, it shall be endeavored to obtain a balanced loading on each of the 3 phases.
- All circuits / points in any room shall preferably be fed by phase only-either R or Y or B.
- All 3 phase energy meter boards shall have LED type phase indication lamps for indication of availability of power supply.
- Suitable lugs should be used for same size cable conductor core to avoid extra lead cuts of the conductor core.
- All cables shall be laid neatly properly supported and clamped. All materials and accessories such as clamps, supports, saddles and other accessories as required for installing and laying the cables shall be included in the rates quoted. Wherever the cables laying are buried in ground, the cost shall include excavation, supply and laying of bricks, sand, refilling and consolidation.
- All fittings shall be complete with necessary brackets, hooks, clamps, supports etc., and complete with connecting wires as required for the installation.
- Fan hook shall be provided for all ceiling fans directed at site.
- Height position of light / fan fittings, distribution boards, switches, sockets etc., as shown in the drawing are all indicative. If during execution the position, of any of these fittings needs to be changed, the same shall be carried out without any extra cost.
- The contractor shall provide safety equipment as necessary and as required and insisted upon by the Electrical Inspectorate. Wherever a separate item has been foreseen in the bill of quantities for the same, the contractor shall quote against this particular item otherwise, the rates quoted for other items shall absorb the cost towards safety equipment.
- In case of light fittings suspended from the ceiling, the rates to be quoted shall include the cost of connecting standard wires also.

- All light fixtures, ceiling fans, exhaust fans, the power supply should be tapped from the ceiling rose.
- Wherever street lights fittings are to be mounted on street lighting poles, the street lighting poles shall be complete with MCB, terminal blocks for looping of armoured heavy duty cables, connecting wires from the terminal block to the fitting and necessary installation arrangements for fixing of pole in foundation. The rate quoted shall include civil works for foundation.
- The bill of quantities clearly stipulates the interconnection wiring between the distribution boards / metering boards to the control switch points which normally do not come in the purview of light point wiring. It may be noted that only such interconnection wirings shall be allowed for as specifically mentioned as a separate item in the bill of quantities.
- In certain cases, where fittings are located quite distant from the control points, the costs are reckoned on per meter basis for wiring. The bill of quantities and the relevant drawings clearly state the items which are allowed for wiring meter basis.
- All bill of quantities shall be read conjunction with the relevant drawings.
- In certain cases, master control switches have been foreseen for lighting and power circuits. These switches are to be mounted at the entrance of rooms in order to externally switch off power supply to the particular rooms whenever they are vacant.
- Minor civil works required to complete the electrical scope of work deemed to be included. Such as making of grooves/channels with the help of wall cutting machine to lay the concealed conduits, making holes in the walls to run the cables, PVC pipes, cable trays and as directed by the owner/engineer, making the floor cutting to lay the floor race ways below the finished floor level, laying of PVC conduits of required size in RCC structure as directed by the owner/engineer (i.e. Beams, Columns, Slabs) and make good to the original condition by engaging competent civil manpower. Caution should be taken to install GI chicken mesh over the PVC pipes which are laid in the grooves on walls, and finish to the original condition with proper water curing, this is to avoid the cracks on the walls.
- The electrical / clean room contractor as to coordinate/co-operate with other contractors of the building to complete the work specified in the tender in integrated manner and the complete the work as per the owner instructions.

14. LIGHT AND FAN FIXTURES

- All light and fan fixtures, call bell etc., shall be installed in locations, as shown in various drawings and as per the directions of the Engineer using necessary fixing materials such as SS chain, eyelid anchor fasteners and etc.
- Unless other wise specified, all light fittings shown hanged / recessed mounted from ceiling.
- In specific cases where the ceiling lights are to be suspended from the ceilings, the costs towards the suspension conducts joints, wires etc., shall be included in the offer.
- Building external lighting required accessories materials such as class "B" GI pipe of required dia, fabricated GI base plate cum clamps of required size, minimum 10 mm anchor bolts, required civil work, and welding works are included and the work to be carried out as directed by the owner.
- For Exhaust fans required accessories materials such as GI louvers of required size, fabricated GI base frame (minimum angle of frame should be 25x3 mm)cum clamps of required size, minimum 10 mm anchor bolts for grouting, required civil work, and welding works are included and the work to be carried out as directed by the owner/engineer.

15. CERTIFICATES

- On completion of an electric installation a certificate for each type of block as per the proforma enclosed shall be furnished by the contractor counter signed by the qualified supervisor under whose direct supervision the installation was carried out.

- Should the above tests not comply with the limits laid down in the Indian electricity regulations, the contractor should rectify the faults until the required results are obtained. The contractor shall be responsible for providing the necessary instruments and accessories for carrying out tests.

16. EARTHING:

- All non-current carrying metal parts of electrical installations shall be earthed as per IS : 3043 – 1996. All metal conduits, trunkings, cable sheaths, glands, switchgear, DB's, light fixtures, fans switch outlets boxes and all other parts made of metal shall be bounded together and connected to the general earth. PVC Insulated copper conductor earth wire shall be run for all the lightning / power circuits, inside the conduits. All the DB's shall be earthed with two runs earth wire/strip as specified to the respective earth electrodes. Earth electrodes shall be as per IS : 3043.
- All civil, fabrication, minor works are included in the scope for erection of all the electrical items. The erection should be discussed with the client and as per the proposed scheme should be carried out.
- The earth electrodes shall be installed at least 3 meters away from the outer face of the wall. The distance between the two earth electrodes shall not be less than 3 Meters.
- Joints between any two earth wires shall not be permitted. All earth wires shall be continuous. The earth pits shall be filled with salt, charcoal and sand in the presence of the owner.
- Earth pit resistance test will be conducted with earth tester equipment and the resistance values should be recorded in the presence of the owner. The earth resistance tester equipment within the calibration due date.
- The insulation resistance shall be measured by applying between earth end the whole system of conductors or any section thereof with all fuses in place and all switches closed and expect in earthed concentric wiring, all lamps in position or both poles of the installation otherwise electrically connected together, a D.C voltage of not less than twice the working voltage provided that it does not exceed 500 volts for medium of voltage circuits. Where the supply is derived from the three wire or a poly phase system, the neutral pole of which is connected to earth either direct or through added resistance, the working pressure shall be deemed to be that which is maintained between the outer or phase conductor and the neutral.
- The insulation resistance for whole section or any section thereof measured as above shall not be less than 50 mega ohms divided by the number of points and shall confirm to relevant clause of IS: 732
- The insulation resistance shall also be measured between all conductors connected to one pole or phase conductor of the supply and all the conductors connected to the middle wire of the neutral or to the other pole or phase conductors of the supply and its value shall to be less than that specified in sub Para (d)
- The earth continuity conductor including metal conduits and metallic envelops of cables in all cases shall be tested for electrical continuity and the electrical resistance of the same along with the earthing lead in the completed installation shall not exceed one ohm.

LIST OF I.S. CODES FOR ELECTRICAL INSTALLATIONS

An indicative list of codes is given below which is only indicative. Codes with latest amendments and / or other relevant codes shall be followed as applicable.

1. Electrical wiring installations (system voltage not exceeding 650V)	IS 732 – 1989
2. Graphical symbols used in electrical-technology	
Art-XI-Electrical installation buildings	IS 2032 – 1969
3. Fire safety of buildings (General) Electrification Installation	IS 1646-1997
4. PVC insulated cables	IS 694-1990
5. XLPE Insulated cables	IS 7098/part 1/1988
6. 5 / 15 A Modular switches	IS 3854 – 1997
7. 3 / 5 -pin plugs and sockets	IS 1293 – 1988
8. Earthing	IS 3043-1966
9. LED Fittings	IS 10322 part 5/sec 1 1987
10. Distribution Boards	IS 8623/IEC61439
11. Energy meters	
12. MCCB	IS/IEC 60947-2
13. MCB	IS/IEC 60898
14. Current Transformer	IS 2705
15. Voltage Transformer	IS 3156
16. Indicating Instruments	IS 1248
17. Auxiliary switches and push buttons	IS 6875
18. Enclosed distribution fuse board and cutouts for voltage 100V	IS 2675-1964
19. General and safety requirements for electric lighting fittings	IS 1913-1969
20. Lighting public thorough fares	IS 1944-1970
21. Water proof electric lighting fittings	IS 3528-1966
22. Water tight electric lighting fittings	IS 35553-1966
23. Luminaries for street lighting	IS 2149-1970
24. Mild steel tubulars and other wrought steel pipe fittings	IS 1239-1968
25. Ceiling fans	IS 374-1951
26. Protecting of buildings and allied structures against lightning	IS 2309-1967
27. Interior illumination	IS 3636-1966
28. Degree of protection provided by enclosing for low voltages switchgear	IS 2147

Notes for electrical panel works/ bus duct / General Specifications for the panel fabrication :

DETAILED TECHNICAL SPECIFICATION OF LT PANELS AS PER IS/IEC 61439

1. GENERAL

This section covers the detailed requirements of LT Panels shall be as under

- a. Supply voltage : 415V \pm 10%, 3Ph
- b. Frequency : 50 Hz \pm 2%
- c. Pollution degree : 3
- d. System earthing : Solidly Earthed

This specification covers the design, manufacture and testing of Power Switchgears & Controlgears (PSC) Assemblies (LT Panel) used in electrical systems of up to 1000V.

2. CODES AND STANDARDS

- a. The LV Switchgear shall be designed manufactured and tested in accordance with the latest applicable IS/IEC standards with amendments.
- b. Conflicts between referenced documents shall be brought to the notice of the Department in writing for resolution. In general, the order of precedence is:
 - i. Single-Line Diagram (When reference to the Single-line diagram is made in the following part of this specification, it shall be deemed to include reference to the associated BOQ)
 - ii. Approved Drawings & Datasheets
 - iii. Specification
 - iv. BOQ
 - v. IS/ International Standards

IEC /IS STANDARDS (with latest Amendment as applicable)

IEC 61439 (Part-1 & 2)	Low-voltage Switchgear and Control gear assemblies
IEC 60044 (Part-1 & 2)	Instrument Transformers (Current Transformer & Potential Transformer)
IS/IEC 60947 (Part-1 to 5)	Low voltage switchgear and Controlgear
IEC 61641 : 2008 / IS: 2147:1962	Specification for Internal Arc Containment Test
IS/ IEC 60529	Degree of protection provided by enclosures (IP code)

IEC 60073	Basic and Safety Principles for Man-Machine Interface, Marking and Identification – Coding Principles for Indicators and Actuators.
IEC 60417	Graphical symbols for use on equipment.
IEC 62052-11	Electricity metering equipment (AC) General requirements, tests and test conditions Part 11: Metering equipment-First Edition.
IEC 62052-21	Electricity metering equipment (A.C.) General requirements, tests and test conditions Part 21: Tariff and load control equipment-First Edition
IEC 62208	Empty enclosures for low-voltage switchgear and Control gear assemblies General requirements
IEC 60228	Conductors of Insulated Cables.
IS 694	PVC insulated cables for voltage including 1100 V with copper conductor.

All other relevant IS/IEC standards shall also be applicable.

3. GENERAL

- a. The LT panels shall in all respects, be suitable for operations in service conditions and shall withstand the stresses due to the seismic conditions.
- b. All Components shall be rated as per BOQ/SLD.
- c. The Short circuit current level shall be as indicated in BOQ/SLD, with minimum duration of 1 sec.
- d. The LT Panel along with Switchgears, Busbars and connections shall have all type tests as defined in latest IS/IEC 61439-1 & 2 with latest amendments for the ratings specified from CPRI/ERDA/Independent international test house. All type test reports as per IS/IEC 61439 shall be submitted along with the offer for verification.
- e. LT Panels shall be tested to withstand internal arc fault and valid Type Test Certificates have to be provided as per IEC 61641 (with latest amendments). IP test certificate shall be furnished along with the offer in accordance with the IP rating specified in the BOQ.
- f. The LT Panel shall be designed for a minimum ambient temperature of +40 °C and relative humidity as high as 100% at a temperature of + 25 °C.
- g. The LT Panel shall be designed for usage up to an altitude of 2000 m as per IS/IEC 61439.
- h. The LT panel enclosures shall be designed to take care of normal stress as well as abnormal electro- mechanical stress due to short circuit conditions. All covers and doors provided shall offer adequate safety to operating persons and provide minimum ingress protection of IP 2X, unless otherwise specified in BOQ. Ventilating openings and vent outlets, if provided, shall be arranged such that same ingress protection of IP 2X is retained.
- i. LT panels shall have a short circuit level withstand capacity as per BOQ and drawings.

- j. LT panels shall also have test certificate for Seismic withstand capacity as per relevant standards.
- k. LT panel shall be of Form-3b or Form-4b (as per IEC61439), unless specified in BOQ. Only metallic covers shall be used for form separations, Hylam / PVC sheets shall not be allowed.
- l. The LT Panel and the associated equipment, including switchgear, control gear and busbar assemblies shall be certified for the category of duty specified.
- m. Separate current transformers shall be provided for each protection device and for instrumentation.
- n. The switchgear assembly/sub-assemblies or panels shall be termite and rodent proof. The sub-assemblies of similar equipment shall be interchangeable.
- o. Gland plates shall be provided for termination of armoured single/ multicore cables. Glanding plates shall be removable and shall be of adequate size for termination of all required cables specified in BOQ.

4. LT PANEL CONFIGURATION

- a. The LT panel shall be configured with Air Circuit Breakers, MCCBs, MCBs, MPCBs, Contactors, Capacitors and other indicating, metering and protection equipments as specified in the BOQ.
- b. The MCCBs shall be arranged in multi-tier formation whereas the Air Circuit Breakers shall be arranged in single or double tier formation as per manufacturing standard and as per type tested design as per IS/IEC 61439.
- c. The LT Panels shall have adequate dimensions with provision of spare space to accommodate possible future additional switchgears.
- d. The configuration of LT panel shall be such that it shall be extensible on both sides by addition of vertical sections after removal of the end covers.

5. CONSTRUCTIONAL FEATURES

- a. The equipment shall be arranged within each compartment such that all normal maintenance can be carried out through hinged access doors or removable covers. The LT panel shall have a rated short time withstand current as per BOQ/SLD for a supply voltage of 440V AC between phases at 50Hz.
- b. Protection against shock under normal service condition shall be achieved by providing of barriers between both vertical and horizontal compartments and between adjacent units to ensure segregation and prevent accidental contact with live parts, or by complete insulation all live parts.
- c. LT panel construction shall employ the principle of compartmentalized design and

segregation for each circuit. LT panels shall be made up of requisite vertical sections, which when coupled together, shall form continuous dead front panel.

- d. LT panel shall be designed such that ease of inspections, cleaning and repairs while maintaining continuity of operation shall be ensured.
- e. LT panels required to be installed against the wall, for such application – the detailed design of panels, support structure and associated design drawings shall be provided.
- f. All Control cables shall be segregated from primary conductors and all components of LT panels shall be properly assembled. The LT panels shall be floor/ wall mounted, free standing type with bolted/ welded design suitable for indoor/ outdoor mounting.
- g. The LT panels shall be provided with front and back access and the maximum height of the panel shall not exceed 2300 mm. All operating devices on the LT panel shall be positioned at an accessible height.
- h. The incomers shall be suitable for terminating bus trunking / single or multiple runs of armoured LT cables as specified.
- i. Special care to be taken to ensure effective earthing of the frame and doors of the LT panel.
- j. LT Panels shall be mounted on a robust base frame made up of steel channels with a minimum height of 75mm. The base frame shall be able to withstand the static and dynamic loads of the LT Panels. The steel channels shall be painted with two coats of black enamel paint over a coat of zinc chromate primer. The steel channels shall have slots/ holes provided for fixing the panels
- k. LT panels shall be provided with Sheet steel hinged lockable doors for each separate compartment and duly interlocked with the breaker in "ON" and "OFF" position.

6. LT PANEL COMPARTMENTS

- a. For all Circuit Breakers separate and adequate compartments shall be provided for accommodating instruments, indicating lamps, control contactors and control MCB etc. These shall be accessible for testing and maintenance without any danger of accidental contact with live parts of the circuit breaker, busbars and connections.
- b. Neutral link of suitable size and having same rating as neutral busbars shall be provided in the panel for triple pole switchgears and controlgears.
- c. Each switchgear cubicles shall be fitted with label in front and back identifying the circuit, switchgear type, rating and duty. All operating device shall be located in front of switchgear only.
- d. A horizontal interconnection with screwed cover shall be provided at the top to take interconnecting control wiring between vertical sections.
- e. Separate cable compartments running the height of the LT panel in the case of

front access panels shall be provided for incoming and outgoing cables. Cable compartments shall be of adequate size for easy termination of all incoming and outgoing cables entering from bottom or top. The construction shall include necessary and adequate support provided for cable compartments to support and clamping the cable in the cable alley / cable chamber.

- f. All switchgear, controlgear and metering compartment shall be provided with hinged access doors with two number of locks and keys.
- g. Sheet steel used in the fabrication of LT panel shall undergo a rigorous cleaning and seven tank or higher treatment process. The sheet steel shall be powder coated and oven baked with RAL7032 colour and shall have matt finish.
- h. The minimum powder coating thickness of LT panel shall be 60 microns as per IS 13871.

7. BUS BARS

- a. Construction of Busbar, Busbar connections, Busbar chamber, supports and conductors shall be as per the type tested/ verified design in compliance to IS/IEC 61439. Busbars shall be provided with colour coded sleeves for phases and Neutral identification.
- b. The short-time withstand current rating shall be as specified in the BOQ.
- c. Busbars shall be of rectangular section with hard drawn high conductivity with minimum 99.0% purity, copper/ aluminium conductor adequately rated and supported by Moulded insulators spaced at suitable intervals. The complete assembly shall be capable of withstanding the maximum mechanical stresses to which it may be subjected to under fault conditions.
- d. All conductors between the busbars and the switchgear shall be of high conductivity copper/ aluminium, having a current rating as specified in the BOQ.
- e. The busbars shall be extendible from both ends of LT panel.
- f. The cross section of neutral busbar shall be same as that of the phase busbars.
- g. Auxiliary buses for control power supply, space heater power supply or any other specified service shall be provided. These buses shall be insulated, adequately supported and sized to suit specific requirement.
- h. Clearances between phases-phases, phase – Earth/ neutral should be in line with IS/IEC 61439.
- i. Barriers shall be provided between the busbar chamber cover and live busbar in order to avoid accidental contact with live parts.

8. LT PANEL INTERCONNECTIONS

- a. All connection and tap offs shall be through adequately sized connectors appropriate

for the specified fault level at the location. This shall include tap off to feeders and instrument/control transformers.

- b. All connections, tapings, clamping, shall be made in an approved manner to ensure minimum contact resistance. All connections shall be firmly bolted and clamp with even tension. Before assembly joint surfaces shall be filed or finished to remove burrs, dents and oxides and tinned to maintain good continuity at all joints. All screws, bolts, nuts, washers etc. shall be made of tinned brass/ copper. High Tensile grade nuts and bolts shall be used for busbar connections.

9. INSTRUMENT ACCOMMODATION

- a. All digital voltmeter and digital ammeter and other digital instruments shall be flushed mounted type with a minimum accuracy class of 0.5 for metering, unless specified in BOQ. All measurement, indicating, protection and control equipments or circuits shall be protected with suitably rated MCB's.
- b. The current transformers for metering and for protection shall be mounted on the busbars with proper supports.
- c. All LT panel incomers shall be protected by providing a suitable Surge Protection Device (SPD) having voltage protection level ≤ 1.5 kV. At the line entrance into the structure (at the boundary of Lightning Protection Zone-1, for example at the main LT panel), SPD tested typical 10/350 impulse current waveform and tested with 8/20 impulse current waveform i.e. SPD Class1 & 2 shall be provided. Sub-distribution panels (at the boundary of Lightning Protection Zone- 2 and higher) shall be protected with SPD tested with typical 8/20 impulse current waveform i.e. SPD Class 2.
- e. SPD for main LT panel shall have rated impulse current not less than 50 kA (10/350 μ S) between Neutral and Protective Earth conductor and not less than 12.5 kA between Line and Neutral.
- f. SPD for Sub-distribution panel i.e. Class-2 SPD, shall have rated impulse current not less than 20 kA between Neutral and Protective Earth conductor and not less than 5kA between Line and Neutral.
- g. SPD shall be installed in LT panel in such a way that the maximum length of wire/ cable connecting SPD and Earth Bus shall be lesser than 0.50m.
- h. On all the incomers of LT panels ON/OFF indicators lamps shall be provided suitable for operation on AC 230 Volts supply. All indication lamps shall be of LED type.

10. WIRING

- a. All wiring for relays and meters shall be with FRLS copper conductor wires. The wiring shall be coded and labeled with approved ferrules for identification. The minimum size of copper conductor control wires shall be 1.5 sq. mm. All CT connections/ circuits

shall be provided with copper conductor control wires with a minimum size of 2.5sq.mm. Runs of wires shall be neatly bunched and suitably supported and clamped. Identification ferrules shall be used at both end of wires. All control wires meant for external connections are to be brought out on a terminal board.

11. HEATING & VENTILLATION OF PANEL

- a. Anti-condensation space heaters shall be fitted in cubicles together with an ON/OFF isolating switch suitable for electrical operation at 230 volts 50 Hz AC supply. The space heater shall be of sufficient capacity to raise the internal temperature of LT panel by 5⁰ C over the outside ambient temperature. The design shall be such that the maximum permitted rise in temperature inside panel is not exceeded if the heaters are energized while the LT panel is in operation. Heaters shall be provided with protection against overheating such as thermostats, sensors etc. and associated disconnecting circuits.
- b. LT Panel cubicles shall be properly ventilated with grills, louvers, fans etc. as per the design verified by IS/IEC 61439.

12. EARTHING

- a. Continuous earth bus suitably sized (as per IS/IEC 61439) for prospective fault current to be provided with arrangement for connecting to station earth at two points. Hinged doors / frames to be connected to earth through adequately sized flexible braids.

13. NAME PLATES AND LABELS

- a. Suitable engraved metal name plates and identification labels shall be provided for all LT panels and Circuits. These shall indicate the feeder number, feeder designation, rating of switchgear. Nameplate shall carry the name of the LT panel manufacturer and / or Original Manufacturer.
- b. LT panel shall be provided with "Danger Notice Plate" conforming to relevant Indian Standards, preferably on busbar chamber cover.
- c. Permanent marking of SLD shall be provided on the LT panel.

14. TEST REPORTS

- a. Following complete set of type test reports/ design verification reports as per IS/IEC 61439 for the offered panel shall be submitted along with the offer and along with the GA drawings submitted for Department clearance.
 - i. Strength of material and parts:
 - a. Resistance to corrosion
 - b. Properties of insulating materials
 - c. Thermal stability

- d. Resistance to abnormal heat and fire due to internal electric effects
- e. Resistance to ultra-violet (UV) radiation (Applicable to outdoor installations)
- f. Lifting
- g. Mechanical impact
- h. Marking
- ii. Degree of protection of enclosures
- iii. Clearances
- iv. Creepage Distances
- v. Protection against electric shock and integrity of protective circuit
 - a. Effective continuity between the exposed conductive parts of the assembly and the protective circuit
 - b. Short-circuit withstand strength of the protective circuit.
- vi. Dielectric properties:
 - a. Power-frequency withstand voltage
 - b. Impulse withstand voltage
- vii. Temperature-rise limits
- viii. Short-circuit withstand strength
- ix. Mechanical operation

The relevant drawings of type tested/ design verified panels shall be submitted to the department along with GA drawing of offered panel for verification.

- b. Type test reports as per IS/IEC 60947 for all type of switchgears proposed for the LT panel, shall be furnished to the department.
- c. Following routine tests shall be carried out as per IS/IEC standards at the LT panel fabricators shop in the presence of Department representative prior to despatch.
 - i. Physical verification and dimensional check
 - ii. Verification of bill of materials, SLD, control circuits etc.
 - iii. Functionality check
 - iv. HV test
 - v. Insulation resistance test
- d. Following pre-commissioning tests shall be carried out at site on LT panels:
 - i. Physical verification and dimensional check
 - ii. Verification of bill of materials, SLD, control circuits etc.
 - iii. Check cleanliness of cubicles, busbar chamber and interconnections and Check the tightness of busbar interconnections.
 - iv. Functionality check
 - v. Earth continuity test
 - vi. Insulation resistance test

15. SWITCHGEARS

- a. **Miniature Circuit Breakers (MCB):**

- i. MCB shall comply with the Indian/ International Standards such as IS/IEC 60947-2 & IS/IEC 60898-1
- ii. The minimum breaking capacity of all MCBs shall be 10kA and shall provide protection against overload and short circuit current faults.
- iii. All MCBs shall have a minimum rated impulse withstand voltage of 6kV.
- iv. MCBs are classified in to following based on operating characteristics:

MCB Type	Electro-magnetic Release		Thermal Releases	
	Trip Current	Trip Time	Trip Current	Trip Time
B Type	5 x I _n	< 0.1s	1.45 x I _n	< 1 h
C Type	10 x I _n	< 0.1s	1.45 x I _n	< 1 h
D Type	20 x I _n	< 0.1s	1.45 x I _n	< 1 h
K Type	14 x I _n	< 0.2s	1.20 x I _n	< 1 h
Z Type	3 x I _n	< 0.2s	1.20 x I _n	< 1 h
Note : I _n is the Rated current of MCB				

- v. MCBs shall be used for protecting circuits up to a current rating of 63A. MCB shall have an integrated pad locking provision.
- vi. MCB shall have separate contact status indication irrespective of operating handle position.
- vii. MCB shall be rated for Energy limit class-3 as per IS/IEC 60898-1.
- viii. All terminals of MCB shall be rated for IP20 for finger safety. For Multipole MCBs rigid multipole coupling shall be provided.
- ix. MCB shall have snap fixing mechanism suitable for mounting on standard DIN rail profile (35 x 7.5 mm).
- x. MCB shall have terminals suitable for cables up to a size of 35 sq. mm.

b. Moulded Case Circuit Breakers (MCCB):

- i. MCCB shall conform to latest IS/IEC 60947-2 with latest amendments. MCCBs are preferred for usage up to a current rating of 630A.
- ii. MCCB shall have Microprocessor based releases and minimum rated impulse withstand voltage of 6kV.
- iii. MCCB shall be rated for a degree of protection of IP40.
- iv. MCCB shall have an integrated padlocking provision. Padlocks shall not be installed unless the contacts are open.
- v. MCCB shall be suitable for mounting on DIN rail and Plate without any extra parts/ accessories.
- vi. MCCB shall have overload protection, Short-circuit protection and earth fault protection

with following settings:

- a. Overload Settings : 0.4 to 1 times rated current
- b. Short Circuit Settings : 1.5 to 10 times rated current
- c. Earth-fault Settings : 0.2 to 1 times rated current
- vii. MCCB shall have 3 pole or 4 pole configuration. For 4-pole MCCBs, provision shall be available for neutral protection setting at 0%, 50% & 100% of rated phase current.
- viii. MCCB shall have communication interface over open standard protocols such as ModBus for status as well as command signals.
- ix. MCCB shall be provided with an inbuilt/ external earth leakage module/ protection device.
- x. MCCB shall be provided with following accessories depending on the installation / BOQ requirements:
 - a. Direct rotary handle/ Extended rotary handle/ Side rotary handle.
 - b. Spreader Terminals and interphase barriers/ terminal shields
 - c. Under-voltage releases
 - d. Shunt release
 - e. Auxiliary contact
 - f. Trip Alarm Contact & Auxiliary Contact
 - g. Panel mounted Key-lock
 - h. Motor operated closing mechanism
 - i. Mechanical Interlock Kit
 - j. Communication modules

c. Air Circuit Breakers (ACB):

- i. ACB shall conform to latest IS/IEC 60947-2 with latest amendments.
- ii. ACB shall be of selectivity Category-B as per IS/IEC 60947-2 and all ACB shall have $I_{cs} = I_{cu} = I_{cw}$ for 1sec at 440V.
- iii. ACB shall have Microprocessor based releases and minimum rated impulse withstand voltage of 12kV.
- iv. ACB shall have inbuilt protection against overload, short-circuit, and Earth fault. All protection shall operate without any auxiliary supply.
- v. ACB shall have provision for providing earth leakage protection as per IS/IEC 60947-2 Annex B. ACB shall be provided with earth leakage protection device as specified in BOQ.
- vi. ACB shall have provision for providing protection against under/ over voltage, under/over frequency, reverse power flow,
- vii. ACB shall have 3 pole or 4 pole configuration. For 4-pole ACB, provision shall be available for neutral protection setting at 0%, 50% & 100% of rated phase current.
- viii. ACB shall have Overload protection, Short circuit protection and earth fault protection with following settings:
 - a. Overload Settings : 0.4 to 1 times rated current 0.5s to 20s delay

- b. Short Time Settings : 1.5 to 10 times rated current 0.1s to 0.4s delay
- c. Instantaneous Settings : 2 to 15 times rated current
- d. Earth-fault Settings : 0.2 to 1 times rated current to 0.4s delay
- ix. ACB shall have communication interface for status as well as command signals through open standard protocol such as ModBus, IEC61850 etc. as per the requirement.
- x. ACB shall be draw out type. ACB shall have electric motor (AC/DC) for automatic spring charging. ACB shall have separate handle for spring charging as a backup when auxiliary supply is absent.
- xi. ACB shall have safety provisions such as padlocks/ keylock, racking interlock, door interlock, safety shutters, terminal block shield, Anti-pumping device etc.
- xii. ACB shall be provided with following accessories depending on the installation/ BOQ requirements:

a. Mandatory Accessories (shall be provided along with ACB):

- i. Spreaders
- ii. Inter-phase barriers
- iii. Connection adaptors
- iv. Mounting brackets
- v. Indication contacts
- vi. Mechanical operation counter
- vii. Fault-trip indication contact
- viii. On/Off indication contact
- ix. Ready to close contact
- x. Combined connected/ closed contact
- xi. Programmable contacts
- xii. Electric Motor to Charge the spring
- xiii. ModBus TCP/RTU Communication Interface Module
- xiv. Auxiliary contacts minimum 2 NO + 2 NC

b. Optional Accessories (shall be provided if specified in BOQ) :

- i. Under/ Over voltage release
- ii. Under/ Over frequency release
- iii. Wireless push button
- iv. AC to DC power converter module
- v. Energy management module
- vi. Metering module
- vii. Display module
- viii. IEC 61850 Communication Interface Module
- ix. Bluetooth/ NFC Wireless Interface Module

16. CURRENT TRANSFORMERS (CT)

- a. Current transformers ratings shall be as indicated in BOQ.
- b. Protection CTs shall be of accuracy class 5 P 10 and metering CTs shall conform to

the metering ratio and accuracy class 0.5 of IS 2705.

- c. Current transformers shall conform to latest edition to relevant standards. The Current transformers shall be epoxy resin cast with bar Primary or ring type.
- d. The design and construction shall be sufficiently robust to withstand thermal and dynamic stresses due to the maximum short circuit current of the circuit. CT core laminations shall be of high grade silicon steel.
- e. Secondary terminals of CT shall be brought out suitably to a terminal block which will be easily accessible for testing and terminal connections.
- f. Space shall be provided in the LT panel to mount one set of three number dual core ratio CT's for metering and protection purposes. Access to the CTs for cleaning, testing or changing shall be from front, back or top of the panel.
- g. Name plate details and terminal markings shall be according to the latest edition of relevant Indian Standard.

17. DRAWINGS AND INFORMATION

- a. The Vendor shall furnish following drawings/documents in accordance with enclosed requirements:
 - i. General Arrangement drawing of the LT Panel, showing front view, plan, foundation plan, floor cut-outs/trenches for external cables and elevations, transport sections and weights.
 - ii. Sectional drawings of the circuit breaker panels, showing general constructional features, mounting details of various devices, bus bars, current transformers, cable boxes, terminal boxes for control cables etc.
 - iii. Schematic and control wiring diagram for circuit breaker and protection including indicating devices, metering instruments, alarms, space heaters etc.
 - iv. Terminal plans showing terminal numbers, ferrules markings, device terminal numbers and function details etc.
 - v. Relay wiring diagrams.
 - vi. Equipment List.
- b. Vendor shall furnish required number of copies of above drawings for Department review. Fabrication of switch boards shall start only after clearance from Department. After final review, required number of copies (reproducible) shall be furnished as final certified drawings. The information furnished shall include the following:
 - i. Technical literature giving complete information of the equipment.
 - ii. Erection, Operation and Maintenance Manual complete with all relevant information, drawings and literature for auxiliary equipment and accessories, characteristics curves for relays etc.
 - iii. A comprehensive spare parts catalogue.

18. OTHER CONDITIONS

- a. Switchgears, metering, indicating, control and protection equipments used in the LT panels shall of department approved makes only. **Switchgears used in the LT panels shall also be of same make with which the design verification/ type tests have been obtained.**
- b. The LT panel and all the associated equipments/ components supplied shall be **guaranteed for 12 months** from the date of completion and handing over the installation. Defects if any noticed during this period shall be attended at site by the supplier including replacement of defective parts, components/ equipments for free of cost.

Note:

- a. *All switchgears and relays in the LT panel shall be of numerical type and shall have electronic releases.*
- b. *Panel manufacturer shall be OEM (ABB, Siemens, Schneider, L&T, Legrand, Rittal India Pvt. Ltd.) or its authorized license partner of OEM as per CEPO/DOS Approved LT panel manufacturer.*
- c. *Authorized license partner of OEM with valid Authorization/ Licensing Certificate with Original Manufacturer shall alone be considered*

LED Luminaire Specifications.

S. No.	Criteria	Specification
1	Luminaries configuration/ technical requirement	As per the description mentioned in BOQ
2	Housing/ body of fitting	a) CRCA/Extruded Aluminum for Indoor fittings. b) Pressure Die cast aluminum for outdoor fittings
3	Cover/ Diffuser	Poly carbonate/ Acrylic UV protected/ PMMA for indoor / Toughened glass for outdoor.
4	Finish	Aesthetically designed housing with corrosion resistant powder coating.
5	Operating Voltage	100V to 300V universal electronic driver with internal surge protection.
6	Voltage Dips& Interrupts	As per IEC 61000-4-11
7	Frequency	47 to 50 Hz
8	Fixture Ambient temperature	+ 40 °C
9	Operating temperature	Range from 0 °C to +55 °C
10	Power Factor	>0.95
11	Optical Assembly	Array of medium power LEDs/ COB
12	Luminous Flux	As per BOQ
13	Efficacy of Luminaire system (including power loss)	>85 lumen per watt for indoor and >80 lumens for outdoor
14	Efficacy of LED	>100 lumen per watt
15	Co-related Colour Temperature	As per BOQ
16	C.R.I.	For indoor Lightings >80 and for outdoor Lighting >70
17	Heat dissipation/ Heat sink	Well-designed thermal management system with aluminium heat sink.
18	Driver Efficiency	> 85%
19	Make of LED	PHILIPS/ WIPRO/ BAJAJ/ CROMPTON
20	LED Lifespan & Luminaire Photometric Data	IESLM79 and IESLM80 respectively (50000 Hrs)
21	THD Harmonics	< 10%
22	Lumen Maintenance @85deg c on LED Life	Minimum 70% up to 50000 hrs (Indoor application) and Life expectancy 50,000 hrs for LED
23	Surge Voltage	Minimum 2 kV L, N for Indoor Lighting , minimum 4kV for outdoor Lighting
24	Outer Body Luminaire Temperature	Max. up to 70 Deg C (with +/-5 Deg) at 30 Deg C ambient Temperature
25	Standard Warranty	2 years

TECHNICAL SPECIFICATIONS FOR BoQ ITEMS
(To be Quoted and submitted only in Cover 3 (Financial Bid) as per BoQ)

S. NO.	ITEM CODE	ITEM NAME	ITEM SPESIFICATION
1	304005325	Point Wiring	<p>POINT WIRING: Supply and wiring for light point/fan point/exhaust fan point/call bell point with 1.5 sq.mm, 1.1 KV grade, ISI marked, PVC insulated , stranded, FRLS Copper conductor cable conforming to IS:694 (with latest amendments) in 20 mm dia. 2mm thick electrical grade PVC conduit surface run with saddles on wall/ ceiling/ column including supply & fixing of 5A modular switches and covered with modular switch plates,suitable GI box and earthing with 1.5 sq.mm insulated copper wire run inside the conduit including supply of all fixing materials, accessories and interconnections complete as required.</p> <p>NOTES: 1. Rates for all the point wiring items are inclusive of necessary circuit mains from the distribution board to the first switch board and also sub circuits from one switch board to the subsequent switch boards in the same circuit. 2. The point wiring means – distance / length between DB and switch board and switch board and the point shall be considered as 6 mtr. Beyond 6 mtr, the length of wires including conduit laid shall be considered as extra and measured under run of mains. 3) For multiple point wiring please refer the size of conduit as per annexure</p> <p>3.PREFERRED MAKES: i) Wires: Finolex/ RR Kabel/ Havells ii) PVC Conduit: Avon Plast/ Precision/ GM III) Modular Switches: Legrand (Arteor)/ Panosonic (Vision)/ GM (G-Nine)</p>
2	304005326	20 mm Dia 2.0mm PVC Conduit Surface/recess	<p>20 mm Dia 2.0mm PVC Conduit Surface/ Recess : Supply laying installation of 20mm dia 2.0mm thick rigid PVC conduit pipe with all required accessories such as long bends, junction boxes, GI base saddles (One base saddle at every 500mm) to draw the circuit wiring (wires are not in scope) seperately in different conduits. the complete scope inclues minor civil works such as entry of 20mm PVC pipe surface through walls and finishing the wall to the original condition after laying the pipe includes civil plastering, painting. all other accessories materials should be included in the item rate such as 20mm</p>

			<p>Saddles, Screws, junction boxes, long bends, T-bends,PVC Fasteners etc</p> <p>Makes: PRECISION / AVONPLAST/ GM</p> <p>Note: The laying of conduit on surface or concealed shall be as required and as directed by ARCI officials.</p>
3	304005327	25 mm Dia 2.0mm PVC Conduit Surface/recess	<p>25 mm Dia 2.0mm PVC Conduit Surface/ Recess :</p> <p>Supply laying installation of 20mm dia 2.0mm thick rigid PVC conduit pipe with all required accessories such as long bends, junction boxes, GI base saddles (One base saddle at every 500mm) to draw the circuit wiring (wires are not in scope) seperately in different conduits. the complete scope inclues minor civil works such as entry of 25mm PVC pipe surface through walls and finishing the wall to the original condition after laying the pipe includes civil plastering, painting. all other accessories materials should be included in the item rate such as 25mm Saddles, Screws, junction boxes, long bends, T-bends, PVC Fasteners etc</p> <p>Makes: PRECISION / AVONPLAST/ GM</p> <p>Note: The laying of conduit on surface or concealed shall be as required and as directed by ARCI officials.</p>
4	304005328	32 mm dia 2.0mm PVC Conduit Surface/recess	<p>32 mm Dia 2.0mm PVC Conduit Surface/ Recess :</p> <p>Supply laying installation of 20mm dia 2.0mm thick rigid PVC conduit pipe with all required accessories such as long bends, junction boxes, GI base saddles (One base saddle at every 500mm) to draw the circuit wiring (wires are not in scope) seperately in different conduits. the complete scope inclues minor civil works such as entry of 32mm PVC pipe surface through walls and finishing the wall to the original condition after laying the pipe includes civil plastering, painting. all other accessories materials should be included in the item rate such as 32mm Saddles, Screws, junction boxes, long bends, T-bends,PVC Fasteners etc</p> <p>Makes: PRECISION / AVONPLAST/ GM</p> <p>Note: The laying of conduit on surface or concealed shall be as required and as directed by ARCI officials.</p>
5	304005329	40 mm dia 2.0mm PVC Conduit Surface/recess	<p>40 mm Dia 2.0mm PVC Conduit Surface/ Recess :</p> <p>Supply laying installation of 20mm dia 2.0mm thick rigid PVC conduit pipe with all required accessories such as long bends, junction boxes, GI base saddles (One base saddle at every 500mm) to draw the circuit wiring (wires are not in scope) seperately in different conduits. the</p>

			<p>complete scope includes minor civil works such as entry of 40mm PVC pipe surface through walls and finishing the wall to the original condition after laying the pipe includes civil plastering, painting. all other accessories materials should be included in the item rate such as 40mm Saddles, Screws, junction boxes, long bends, T-bends,PVC Fasteners etc</p> <p>Makes: PRECISION / AVONPLAST/ GM</p> <p>Note: The laying of conduit on surface or concealed shall be as required and as directed by ARCI officials..</p>
6	304005330	1.5 sqmm copper Wiring - FRLS	<p>1.5 sqmm Copper Wring-FRLS: Supply and wiring of circuit wiring from Power distribution board to power point with two runs of 1.5 sq.mm, 1.1 KV grade, ISI marked, PVC insulated , stranded, FRLS single core, stranded Copper conductor cable conforming to IS:694 (with latest amendments) in already existing PVC conduit (PVC Pipe not in scope) and Earthing with one run of 1.5 sq.mm FRLS insulated, single core, stranded copper conductor cable as earth wire with interconnections complete as required and as directed by ARCI officials.</p> <p>PI Note:</p> <ol style="list-style-type: none"> 1. Measurements will be taken per meters as per site installation per run of three wires i.e. 2 X 1.5 sqmm + 1 X 1.5 sqmm earth wire. 2. Maximum 10 Nos of 1.5 sqmm size wires are allowed in a 25mm dia PVC conduit. 3. Color code shall be as per IS only. <p>Makes: Finolex/ RR Kabel/ Havells fire retardant low smoke type wires are only accepted.</p>
7	304005331	2.5 sqmm copper Wiring - FRLS	<p>2.5 sqmm Copper Wring-FRLS: Supply and wiring of circuit wiring from Power distribution board to power point with two runs of 2.5 sq.mm, 1.1 KV grade, ISI marked, PVC insulated , stranded, FRLS single core, stranded Copper conductor cable conforming to IS:694 (with latest amendments) in already existing PVC conduit (PVC Pipe not in scope) and earthing with one run of 2.5 sq.mm FRLS insulated,single core, stranded copper conductor cable as earth wire with interconnections complete as required and as directed by ARCI officials.</p> <p>PI Note:</p> <ol style="list-style-type: none"> 1. Measurements will be taken per meters as per site installation per run of three wires i.e. 2 X 2.5 sqmm + 1 X 2.5 sqmm earth wire.

			<p>2. Maximum 8 Nos of 2.5 sqmm size wires are allowed in a 25mm dia PVC conduit.</p> <p>3. Color code shall be as per IS only.</p> <p>Makes: Finolex/ RR Kabel/ Havells fire retardant low smoke type wires are only accepted.</p>
8	304005332	4.0 sqmm copper Wiring - FRLS	<p>4.0 sqmm Copper Wring-FRLS: Supply and wiring of circuit wiring from Power distribution board to power point with two runs of 4.0 sq.mm, 1.1 KV grade, ISI marked, PVC insulated, stranded, FRLS single core, stranded Copper conductor cable conforming to IS:694 (with latest amendments) in already existing PVC conduit (PVC Pipe not in scope) and earthing with one run of 4.0 sq.mm FRLS insulated, single core, stranded copper conductor cable as earth wire with interconnections complete as required and as directed by ARCI officials.</p> <p>PI Note:</p> <p>1. Measurements will be taken per meters as per site installation per run of three wires i.e. 2 X 4.0 sqmm + 1 X 4.0 sqmm earth wire.</p> <p>2. Maximum 7 Nos of 4 sqmm size wires are allowed in a 25mm dia PVC conduit.</p> <p>3. Color code shall be as per IS only.</p> <p>Makes: Finolex/ RR Kabel/ Havells fire retardant low smoke type wires are only accepted.</p>
9	304005333	6.0 sqmm copper Wiring - FRLS	<p>6.0 sqmm Copper Wring-FRLS: Supply and wiring of circuit wiring from Power distribution board to power point with two runs of 6.0 sq.mm, 1.1 KV grade, ISI marked, PVC insulated, stranded, FRLS single core, stranded Copper conductor cable conforming to IS:694 (with latest amendments) in already existing PVC conduit (PVC Pipe not in scope) and earthing with one run of 6.0 sq.mm FRLS insulated, single core, stranded copper conductor cable as earth wire with interconnections complete as required and as directed by ARCI officials.</p> <p>PI Note:</p> <p>1. Measurements will be taken per meters as per site installation per run of three wires i.e. 2 X 6.0 sqmm + 1 X 6.0 sqmm earth wire.</p> <p>2. Maximum 5 Nos of 6 sqmm size wires are allowed in a 25mm dia PVC conduit.</p> <p>3. Color code shall be as per IS only.</p> <p>Makes: Finolex/ RR Kabel/ Havells fire retardant low smoke type wires are only accepted.</p>

10	304005334	10 sqmm copper Wiring - FRLS	<p>10 sqmm Copper Wring-FRLS: Supply and wiring of circuit wiring from Power distribution board to power point with two runs of 10 sq.mm, 1.1 KV grade, ISI marked, PVC insulated, stranded, FRLS single core, stranded Copper conductor cable conforming to IS:694 (with latest amendments) in already existing PVC conduit (PVC Pipe not in scope) and earthing with one run of 10 sq.mm FRLS insulated, single core, stranded copper conductor cable as earth wire with interconnections complete as required and as directed by ARCI officials.</p> <p>PI Note: 1. Measurements will be taken per meters as per site installation per run of three wires i.e. 2 X 10 sqmm + 1 X 10 sqmm earth wire. 2. Maximum 3 Nos of 10 sqmm size wires are allowed in a 25mm dia PVC conduit. 3. Color code shall be as per IS only.</p> <p>Makes: Finolex/ RR Kabel/ Havells fire retardant low smoke type wires are only accepted.</p>
11	304005335	16 sqmm copper Wiring - FRLS	<p>16 sqmm Copper Wring-FRLS: Supply and wiring of circuit wiring from Power distribution board to power point with two runs of 16 sq.mm, 1.1 KV grade, ISI marked, PVC insulated, stranded, FRLS single core, stranded Copper conductor cable conforming to IS:694 (with latest amendments) in already existing PVC conduit (PVC Pipe not in scope) and earthing with one run of 16 sq.mm FRLS insulated, single core, stranded copper conductor cable as earth wire with interconnections complete as required and as directed by ARCI officials.</p> <p>PI Note: 1. Measurements will be taken per meters as per site installation per run of three wires i.e. 2 X 16 sqmm + 1 X 16 sqmm earth wire. 2. Maximum 3 Nos of 16 sqmm size wires are allowed in a 32mm dia PVC conduit. 3. Color code shall be as per IS only.</p> <p>Makes: Finolex/ RR Kabel/ Havells fire retardant low smoke type wires are only accepted.</p>
12	304005336	1.5 sqmm, 3 phase copper wiring- FRLS	<p>1.5 sqmm, 3 phase copper wiring- FRLS: Supply and wiring of circuit wiring from Power distribution board to power point with four runs of 1.5 sq.mm, 1.1 KV grade, ISI marked, PVC insulated, stranded, FRLS single core, stranded Copper conductor cable conforming to IS:694 (with latest amendments) in already existing PVC conduit</p>

			<p>(PVC Pipe not in scope) and earthing with two runs of 1.5 sq.mm FRLS insulated copper wire for earthing with interconnections complete as required and as directed by ARCI officials.</p> <p>PI Note:</p> <ol style="list-style-type: none"> 1. Measurements will be taken per meters as per site installation per run of three wires i.e. 4 X 1.5 sqmm + 2 X 1.5 sqmm earth wire. 2. Maximum 10 Nos of 1.5 sqmm size wires are allowed in a 25mm dia PVC conduit. 3. Color code shall be as per IS only. <p>Makes: Finolex/ RR Kabel/ Havells fire retardant low smoke type wires are only accepted.</p>
13	304005337	2.5 sqmm , 3 phase copper wiring- FRLS	<p>2.5 sqmm, 3 phase copper wiring- FRLS:</p> <p>Supply and wiring of circuit wiring from Power distribution board to power point with four runs of 2.5 sq.mm, 1.1 KV grade, ISI marked, PVC insulated , stranded, FRLS single core, stranded Copper conductor cable conforming to IS:694 (with latest amendments) in already existing PVC conduit (PVC Pipe not in scope) and earthing with two runs of 2.5 sq.mm FRLS insulated copper wire for earthing with interconnections complete as required and as directed by ARCI officials.</p> <p>PI Note:</p> <ol style="list-style-type: none"> 1. Measurements will be taken per meters as per site installation per run of three wires i.e. 4 X 2.5 sqmm + 2 X 2.5 sqmm earth wire. 2. Maximum 8 Nos of 2.5 sqmm size wires are allowed in a 25mm dia PVC conduit. 3. Color code shall be as per IS only. <p>Makes: Finolex/ RR Kabel/ Havells fire retardant low smoke type wires are only accepted.</p>
14	304005338	4.0 sqmm , 3 phase copper wiring- FRLS	<p>4.0 sqmm, 3 phase copper wiring- FRLS:</p> <p>Supply and wiring of circuit wiring from Power distribution board to power point with four runs of 4.0 sq.mm, 1.1 KV grade, ISI marked, PVC insulated , stranded, FRLS single core, stranded Copper conductor cable conforming to IS:694 (with latest amendments) in already existing PVC conduit (PVC Pipe not in scope) and earthing with two runs of 4.0 sq.mm FRLS insulated copper wire for earthing with interconnections complete as required and as directed by ARCI officials.</p> <p>PI Note:</p> <ol style="list-style-type: none"> 1. Measurements will be taken per meters as per site installation per run of three wires i.e. 4 X 4.0 sqmm + 2 X 4.0 sqmm earth wire. 2. Maximum 7 Nos of 4.0 sqmm size wires are allowed in a 25mm dia PVC conduit.

			<p>3. Color code shall be as per IS only.</p> <p>Makes: Finolex/ RR Kabel/ Havells fire retardant low smoke type wires are only accepted.</p>
15	304005339	6.0 sqmm , 3 phase copper wiring- FRLS	<p>6.0 sqmm, 3 phase copper wiring- FRLS: Supply and wiring of circuit wiring from Power distribution board to power point with four runs of 6.0 sq.mm, 1.1 KV grade, ISI marked, PVC insulated , stranded, FRLS single core, stranded Copper conductor cable conforming to IS:694 (with latest amendments) in already existing PVC conduit (PVC Pipe not in scope) and earthing with two runs of 6.0 sq.mm FRLS insulated copper wire for earthing with interconnections complete as required and as directed by ARCI officials.</p> <p>PI Note:</p> <ol style="list-style-type: none"> 1. Measurements will be taken per meters as per site installation per run of three wires i.e. 4 X 6.0 sqmm + 2 X 6.0 sqmm earth wire. 2. Maximum 8 Nos of 6.0 sqmm size wires are allowed in a 32 mm dia PVC conduit. 3. Color code shall be as per IS only. <p>Makes: Finolex/ RR Kabel/ Havells fire retardant low smoke type wires are only accepted.</p>
16	304005340	10 sqmm, 3 phase copper wiring- FRLS	<p>10 sqmm, 3 phase copper wiring- FRLS: Supply and wiring of circuit wiring from Power distribution board to power point with four runs of 10 sq.mm, 1.1 KV grade, ISI marked, PVC insulated , stranded, FRLS single core, stranded Copper conductor cable conforming to IS:694 (with latest amendments) in already existing PVC conduit (PVC Pipe not in scope) and earthing with two runs of 6 sq.mm FRLS insulated copper wire for earthing with interconnections complete as required and as directed by ARCI officials.</p> <p>PI Note:</p> <ol style="list-style-type: none"> 1. Measurements will be taken per meters as per site installation per run of three wires i.e. 4 X 10 sqmm + 2 X 6 sqmm earth wire. 2. Maximum 6 Nos of 10 sqmm size wires are allowed in a 40 mm dia PVC conduit. 3. Color code shall be as per IS only. <p>Makes: Finolex/ RR Kabel/ Havells fire retardant low smoke type wires are only accepted.</p>

17	304005652	16 sqmm, 3 phase copper wiring- FRLS	<p>16 sqmm, 3 phase copper wiring- FRLS: Supply and wiring of circuit wiring from Power distribution board to power point with four runs of 16 sq.mm, 1.1 KV grade, ISI marked, PVC insulated, stranded, FRLS single core, stranded Copper conductor cable conforming to IS:694 (with latest amendments) in already existing PVC conduit (PVC Pipe not in scope) and earthing with two runs of 6 sq.mm FRLS insulated copper wire for earthing with interconnections complete as required and as directed by ARCI officials.</p> <p>PI Note: 1. Measurements will be taken per meters as per site installation per run of three wires i.e. 4 X 16 sqmm + 2 X 6 sqmm earth wire. 2. Maximum 6 Nos of 16 sqmm size wires are allowed in a 40 mm dia PVC conduit. 3. Color code shall be as per IS only.</p> <p>Makes: Finolex/ RR Kabel/ Havells fire retardant low smoke type wires are only accepted.</p>
18	304005341	Telephone point	<p>Telephone point: Supply & wiring for telephone point with supply and drawing of 2 pair 0.5 mm dia PVC insulated annealed and tinned copper conductor unarmoured telephone cable in 20 mm dia. 2 mm thick Electrical Grade PVC conduit surface/ concealed in ceiling or wall, or floor or column, including supply and fixing of modular RJ - 11 telephone socket in a suitable size metal sheet flush box suitable for modular socket and covered with modular switch plates concealed in wall including supply of all fixing materials, painting with approved shade of paint and associated civil works complete as required & as directed by ARCI officials.</p> <p>Makes: Finolex/Legrand/D Link</p>
19	304005342	LAN point	<p>LAN Point: Supply & wiring for LAN point with supply and drawing of Cat - 6 copper conductor unarmoured LAN cable in 25 mm dia. 2mm thick Electrical Grade PVC conduit surface/ concealed in ceiling or wall, or floor or column, including supply and fixing of modular RJ - 45 LAN socket suitable for Cat -6 LAN cable in a suitable size metal sheet flush box, suitable for modular socket and covered with modular switch plates concealed in wall including supply of all fixing materials, painting with approved shade of paint and associated civil works complete as required & as directed by ARCI officials.</p> <p>Makes: D Link/ Legrand/ Beldan</p>

20	304005343	2 pair Telephone wire	2 Pair Telephone wire: Supply & drawing of 2pair 0.5mm dia PVC insulated annealed and tinned conductor un armoured telephone cables in the already laid conduits including making interconnections at the telephone tag box end and telephone junction box end complete as required. Makes: Finolex/ RR Kabel/D Link
21	304005344	LAN Cable	LAN Cable: Supplying and drawing of one run of cable of UTP 4 Pair CAT 6 LAN Cable in the existing surface/ recessed PVC conduit as required. Makes: Finolex/ RR Kabel/D Link
22	304005345	MS BOX : 150mm X 150mm X 60mm deep	MS BOX : 150mm X 150mm X 60mm deep Supply installation & commissioning of MS box of 14 gauge size 150mm X 150mm X 60mm depth with 3.0mm phenolic laminated sheet cover cutted to required shape to mount / fixing no of switches / sockets as required by site / ARCI officials. Painting initially two coats of red oxide finally one coat of required colour enamel paint to be mounted on walls / RCC beams / MS structures / concealed as directed by ARCI staff provision should be made to enter the 25mm dia no of PVC pipes as per site requirement earthing provision for the box to be made inside. (switches & sockets are not in scope).
23	304005346	MS BOX : 200mm X 150mm X 60mm deep	MS BOX : 200mm X 150mm X 60mm deep Supply installation & commissioning of MS box of 14 gauge size 200mm X 150mm X 60mm depth with 3.0mm phenolic laminated sheet cover cutted to required shape to mount / fixing no of switches / sockets as required by site / ARCI officials. Painting initially two coats of red oxide finally one coat of required colour enamel paint to be mounted on walls / RCC beams / MS structures / concealed as directed by ARCI staff provision should be made to enter the 25mm dia no of PVC pipes as per site requirement earthing provision for the box to be made inside. (switches & sockets are not in scope).
24	304005347	MS BOX : 200mm X 250mm X 60mm deep	MS BOX : 200mm X 250mm X 60mm deep Supply installation & commissioning of MS box of 14 gauge size 200mm X 250mm X 60mm depth with 3.0mm phenolic laminated sheet cover cutted to required shape to mount / fixing no of switches / sockets as required by site / ARCI officials. Painting initially two coats of red oxide finally one coat of required colour enamel paint to be mounted on walls / RCC beams / MS

			structures / concealed as directed by ARCI staff provision should be made to enter the 25mm dia no of PVC pipes as per site requirement earthing provision for the box to be made inside. (switches & sockets are not in scope).
25	304005348	MS BOX : 200mm X 300mm X 60mm deep	MS BOX : 200mm X 300mm X 60mm deep Supply installation & commissioning of MS box of 14 gauge size 200mm X 300mm X 60mm depth with 3.0mm phenolic laminated sheet cover cutted to required shape to mount / fixing no of switches / sockets as required by site / ARCI officials. Painting initially two coats of red oxide finally one coat of required colour enamel paint to be mounted on walls / RCC beams / MS structures / concealed as directed by ARCI staff provision should be made to enter the 25mm dia no of PVC pipes as per site requirement earthing provision for the box to be made inside. (switches & sockets are not in scope).
26	304005349	MS BOX : 250mm X 300mm X 100mm deep	MS BOX : 250mm X 300mm X 100mm deep Supply installation & commissioning of MS box of 14 gauge size 250mm X 300mm X 100mm depth with 3.0mm phenolic laminated sheet cover cutted to required shape to mount / fixing no of switches / sockets as required by site / ARCI officials. Painting initially two coats of red oxide finally one coat of required colour enamel paint to be mounted on walls / RCC beams / MS structures / concealed as directed by ARCI staff provision should be made to enter the 25mm dia no of PVC pipes as per site requirement earthing provision for the box to be made inside. (switches & sockets are not in scope).
27	304005350	5/6A One way switch, Piano type	5/6A One way switch, Piano type ISI Marked: Supplying and fixing 6A piano type switch on the existing switch box / cover including connections etc. as required. Make: Anchor Panasonic / Maru
28	304005351	5/6A Two way switch, Piano type	5/6A Two way switch, Piano type ISI Marked: Supplying and fixing 6A piano type two wayswitch on the existing switch box / cover including connections etc. as required. Make: Anchor Panasonic / Maru

29	304005352	15/16A switch, Piano type	15/16A switch, Piano type ISI Marked: Supplying and fixing 15/16A piano type switch on the existing switch box / cover including connections etc. as required. Make: Anchor Panasonic / Maru /
30	304005353	3 pin 5/6A socket outlet, Piano type	3 pin 5/6A socket outlet, Piano type ISI Marked: Supplying and fixing 5/6A piano type socket outlet on the existing switch box / cover including connections etc. as required. Make: Anchor Panasonic / Maru /
31	304005354	6 pin 15/16A socket outlet, Piano type	6 pin 15/16A socket outlet, Piano type ISI Marked: Supplying and fixing 15/16A piano type socket outlet on the existing switch box / cover including connections etc. as required. Make: Anchor Panasonic / Maru /
32	304005355	6A Switch & Socket Combined	6A Switch & Socket Combined ISI Marked: Supplying and fixing of 2-in-1 S.S. Combined 6A on the existing switch box / cover including connections etc. as required. Make: Anchor Panasonic / Maru
33	304005356	16A Switch & Socket Combined	16A Switch & Socket Combined ISI Marked: Supplying and fixing of 2-in-1 S.S. Combined 16A on the existing switch box / cover including connections etc. as required. Make: Anchor Panasonic / Maru
34	304005357	Switch Type Dimmer	Switch type Dimmer ISI Marked: Supplying and fixing of switch type dimmer on the existing switch box / cover including connections etc. as required. Make: Anchor Panasonic / Maru
35	304005358	6A Plug Top	6A Plug Top : Supply of 6A Plug Top piano type, ISI Marked Make: Anchor Panasonic / Maru
36	304005359	16A Plug Top	16A Plug Top : Supply of 16A Plug Top piano type, ISI Marked Make: Anchor Panasonic / Maru

37	304005360	Batten Holder	Batten Holder: Supplying and fixing brass batten / angle holder including connection etc. as required. Make: Panasonic / Maru
38	304005361	Call Bell/ Buzzer	Call Bell / Buzzer: Supplying and fixing call bell / buzzer suitable for single phase, 230V, complete as required. Make: Panasonic / GM /
39	304005362	Bell Push	5/6A Bell Push, Piano type ISI Marked: Supplying and fixing 6A piano type Bell Push on the existing switch box / cover including connections etc. as required. Make: Anchor Panasonic / Maru /
40	304005363	2 Module GI Box with front cover plate	2 Module Metal Flush Box and Cover Plate with Frame: Supply, Installation & Commissioning of metal flush mounting box - 2 module, along with modular base & cover plate with frame for modular switches in recess to mount number of switches/ sockets as required at site/directed by ARCI officials. Provisions should be made for entry of 25mm dia PVC conduits as per the site requirement. Earthing point provision to be made inside the box.Location as shown in drawings/ as directed by ARCI officials and technical specifications.civil part (cutting,making good & painting) Make: Legrand - (Arteor 6890 07, 5757 10)/ Havells (Crabtree)/ GM (G-Nine)
41	304005364	3 Module GI Box with front cover plate	3 Module Metal Flush Box and Cover Plate with Frame: Supply, Installation & Commissioning of metal flush mounting box - 3 module, along with modular base & cover plate with frame for modular switches in recess to mount number of switches/ sockets as required at site/directed by ARCI officials. Provisions should be made for entry of 25mm dia PVC conduits as per the site requirement. Earthing point provision to be made inside the box.Location as shown in drawings/ as directed by ARCI officials and technical specifications.civil part (cutting,making good & painting) Make: Legrand - (Arteor 6890 08, 5757 20)/ Havells (Crabtree)/ GM (G-Nine)
42	304005365	4 Module GI Box with front	4 Module Metal Flush Box and Cover Plate with Frame: Supply, Installation & Commissioning of metal flush mounting box - 4 module, along with

		cover plate	modular base & cover plate with frame for modular switches in recess to mount number of switches/ sockets as required at site/directed by ARCI officials. Provisions should be made for entry of 25mm dia PVC conduits as per the site requirement. Earthing point provision to be made inside the box.Location as shown in drawings/ as directed by ARCI officials and technical specifications.civil part (cutting,making good & painting) Make: Legrand - (Arteor 6890 09, 5757 30)/ Havells (Crabtree)/ GM (G-Nine)
43	304005366	6 Module GI Box with front cover plate	6 Module Metal Flush Box and Cover Plate with Frame: Supply, Installation & Commissioning of metal flush mounting box - 6 module, along with modular base & cover plate with frame for modular switches in recess to mount number of switches/ sockets as required at site/directed by ARCI officials. Provisions should be made for entry of 25mm dia PVC conduits as per the site requirement. Earthing point provision to be made inside the box.Location as shown in drawings/ as directed by ARCI officials and technical specifications.civil part (cutting,making good & painting) Make: Legrand - (Arteor 6890 10, 5757 40)/ Havells (Crabtree)/ GM (G-Nine)
44	304005367	8 Module GI Box with front cover plate	8 Module Metal Flush Box and Cover Plate with Frame: Supply, Installation & Commissioning of metal flush mounting box - 8 module, along with modular base & cover plate with frame for modular switches in recess to mount number of switches/ sockets as required at site/directed by ARCI officials. Provisions should be made for entry of 25mm dia PVC conduits as per the site requirement. Earthing point provision to be made inside the box.Location as shown in drawings/ as directed by ARCI officials and technical specifications.civil part (cutting,making good & painting) Make: Legrand - (Arteor 6890 31, 5757 60)/ Havells (Crabtree)/ GM (G-Nine)
45	304005368	12 Module GI Box with front cover plate	12 Module Metal Flush Box and Cover Plate with Frame: Supply, Installation & Commissioning of metal flush mounting box - 12 module, along with modular base & cover plate with frame for modular switches in recess to mount number of switches/ sockets as required at site/directed by ARCI officials. Provisions should be made for entry of 25mm dia PVC conduits as per the site requirement. Earthing point provision to be made inside the box.Location as shown in drawings/ as directed by ARCI officials and technical specifications.civil part (cutting,making good & painting) Make: Legrand - (Arteor 6890 11, 5757 70)/ Havells (Crabtree)/ GM (G-Nine)

46	304005369	18 Module GI Box with front cover plate	18 Module Metal Flush Box and Cover Plate with Frame: Supply, Installation & Commissioning of metal flush mounting box - 18 module, along with modular base & cover plate with frame for modular switches in recess to mount number of switches/ sockets as required at site/directed by ARCI officials. Provisions should be made for entry of 25mm dia PVC conduits as per the site requirement. Earthing point provision to be made inside the box. Location as shown in drawings/ as directed by ARCI officials and technical specifications. civil part (cutting, making good & painting) Make: Legrand - (Arteor 6890 12, 5757 90)/ Havells (Crabtree)/ GM (G-Nine)
47	304005370	2 Module base & cover plate	2 Module Base & Cover Plate : Supply and fixing 2 Modular base and cover plate with frame on existing modular metal boxes etc. as required. Make: Legrand - (Arteor - 5757 10)/ Havells (Crabtree)/ GM (G-Nine)
48	304005371	3 Module base & cover plate	3 Module Base & Cover Plate : Supply and fixing 3 Modular base and cover plate with frame on existing modular metal boxes etc. as required. Make: Legrand - (Arteor - 5757 20)/ Havells (Crabtree)/ GM (G-Nine)
49	304005372	4 Module base & cover plate	4 Module Base & Cover Plate : Supply and fixing 4 Modular base and cover plate with frame on existing modular metal boxes etc. as required. Make: Legrand - (Arteor - 5757 30)/ Havells (Crabtree)/ GM (G-Nine)
50	304005373	6 Module base & cover plate	6 Module Base & Cover Plate : Supply and fixing 6 Modular base and cover plate with frame on existing modular metal boxes etc. as required. Make: Legrand - (Arteor - 5757 40)/ Havells (Crabtree)/ GM (G-Nine)
51	304005374	8 Module base & cover plate	8 Module Base & Cover Plate : Supply and fixing 8 Modular base and cover plate with frame on existing modular metal boxes etc. as required. Make: Legrand - (Arteor - 5757 60)/ Havells (Crabtree)/ GM (G-Nine)

52	304005375	12 Module base & cover plate	12 Module Base & Cover Plate : Supply and fixing 12 Modular base and cover plate with frame on existing modular metal boxes etc. as required. Make: Legrand - (Arteor - 5757 70)/ Havells (Crabtree)/ GM (G-Nine)
53	304005376	Blanking Plate	Blanking Plate: Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required. Make: Legrand - (Arteor - 5734 49)/ Havells (Crabtree)/ GM (G-Nine)
54	304005377	6A Modular Switch	6A Modular Switches: Supply and fixing 6A modular switch on the existing modular plate and switchbox including connections but excluding modular plate etc. as required. Switch - 6A-SP-1way 1module, 250V AC. Make: Legrand - (Arteor - 5734 00)/ Havells (Crabtree)/ GM (G-Nine)
55	304005378	6A Modular Switch- 2 way	6A Modular Switches – 2 way: Supply and fixing 6A modular switch on the existing modular plate and switchbox including connections but excluding modular plate etc. as required. Switch - 6A-SP-2way 1module, 250V AC. Make: Legrand - (Arteor - 5734 02)/ Havells (Crabtree)/ GM (G-Nine)
56	304005379	6A Modular Type 3 pin socket	6A Modular Type - 3 Pin Socket: Supply and fixing 6A modular switch on the existing modular plate and switchbox including connections but excluding modular plate etc. as required. Socket - 6A, ISI- 3pin- 2module, 250V AC. Make: Legrand - (Arteor - 5734 24)/ Havells (Crabtree)/ GM (G-Nine)
57	304005380	6/16A Modular socket	6/16A Modular Socket: Supply and fixing 16A modular switch on the existing modular plate and switchbox including connections but excluding modular plate etc. as required. Socket shuttered - 6/16A- ISI- 3pin- 2module, 250V AC. Make: Legrand - (Arteor - 5734 71)/ Havells (Crabtree)/ GM (G-Nine)

58	304005381	6/16A Modular socket with Switch	6/16A Modular Socket with Switch : Supply and fixing 16A modular switch on the existing modular plate and switch box including connections but excluding modular plate etc. as required. Socket with switch- 16A- 3pin- 2P+E-Indian-3module, 250V AC. Make: Legrand - (Arteor - 5735 10/ Havells (Crabtree)/ GM (G-Nine)
59	304005382	Telephone socket outlet	RJ11 Telephone socket (jack type): Supply and fixing telephone sockets on the existing modular plate and switch box including connections but excluding modular plate etc. as required. Telephone Socket- RJ11 with Shutter- 1 module Make: Legrand - (Arteor - 5734 26/ Havells (Crabtree)/ GM (G-Nine)
60	304005383	LAN Socket outlet	LAN Socket outlet: Supply and fixing LAN socket on the existing modular plate and switch box including connections but excluding modular plate etc. as required. Information Socket- category 5e-UTP- 1 module Make: Legrand - (Arteor - 5734 29/ Havells (Crabtree)/ GM (G-Nine)
61	304005384	Bell Push Modular Type	Bell Push Modular Type: Supply and fixing 6A modular Bell Push on the existing modular plate and switchbox including connections but excluding modular plate etc. as required. Bell Push- 6A-SP-1way 1module, 250V AC. Make: Legrand - (Arteor - 5734 13)/ Havells (Crabtree)/ GM (G-Nine)
62	304005385	Fan step Regulator 100 watts- 1 module	Fan Step Regulator 100 watts- 1 module: Supply and fixing fan regulator on the existing modular plate and switchbox including connections but excluding modular plate etc. as required. Fan Step Regulator 100 watts- 1 module, 230V AC Make: Legrand - (Arteor - 5734 16/ Havells (Crabtree)/ GM (G-Nine)
63	304005386	Fan step Regulator 120 watts- 2 module	Fan Step Regulator 120 watts- 2 module: Supply and fixing fan regulator on the existing modular plate and switchbox including connections but excluding modular plate etc. as required. Fan Step Regulator 120 watts- 2 module, 230V AC Make: Legrand - (Arteor - 5734 69/ Havells (Crabtree)/ GM (G-Nine)

64	304005387	25A Switch For AC Starter	AC starter : Supply,Installation,Testing,Commissioning along with necessary accessories 25A motor starter 2 module, 250V, 50 HZ, AC, 2 modular box with front cover & plate Makes: Legrand(model no: 6730 31)/ schneider) Modular Box - Legrand Arteor 6890 07 / 5757 10
65	304005388	25A modular SP MCB & 25A socket outlet	25A modular SP MCB & 25A socket outlet : Supplying and fixing suitable GI box with modular plate and cover in front on surface or in recess, including providing and fixing 25A modular socket outlet and 25A modular SP MCB, "C"curve including connections, painting etc. as required. Make : Legrand-673205 /Havells/ GM / Modular Box -Arteor 6890 07 / 5757 10
66	125002469	6A Plug Top Modular	6A Plug Top Modular : Supply of 6A Plug top Modular Make: Legrand - (Arteor - 573886/ Havells (Crabtree)/ GM (G-Nine)
67	125002470	16A Plug Top Modular	16A Plug Top Modular : Supply of 16A Plug top Modular Make: Legrand - (Arteor - 573888/ Havells (Crabtree)/ GM (G-Nine)
68	304005389	Ceiling Rose	Ceiling Rose : Supply,Fixing,Testing of 3-pin ceiling rose for tapping power to light, fan points and erection should be as directed by ARCI officials. Makes : Anchor Panosonic / Maru/ Monty
69	304005390	6/16A Switch and Socket modular	6/16A Switch and Socket : Supply, Installation, Testing, Commissioning along with necessary accessories for socket shuttered-6/16A-6 pin-indian-2 module and switch - 20A-SP-1 way-1 module, 230V 50 HZ, AC. Makes: Legrand(Arteor: 5734 71), (Code 5734 10)/ Havells (Crabtree)/ GM (G-Nine)
70	304005391	6 A Switch and Socket modular	6A Switch and Socket : Supply, Installation, Testing, Commissioning along with necessary accessories for socket shuttered-6A-3 pin-indian-2 module and switch - 6A-SP-1 way-1 module, 230V 50 HZ, AC. Makes: Legrand(Arteor: 5734 00), (Code 5734 24)/ Havells (Crabtree)/ GM (G-Nine)
71	304005392	Fixing of Light Fitting	Fixing of Light fitting : Installation Testing and commissioning of pre-wired, fluorescent fitting / LED fitting / compact

			fluorescent fitting of all types complete with all accessories as directed by ARCI staff, directly on ceiling / wall, including connections with 3core 1.5sqmm FRLS flexible copper cable from existing ceiling rose and all required materials.
72	304005393	Fixing of Ceiling Fan	Fixing of Ceiling Fan : Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (up to 30cm) with 3 Core 1.5sqmm FRLS PVC insulated, copper cable etc. as required.
73	304005394	Fixing of Exhaust Fan	Fixing of Exhaust Fan: Installation of exhaust fan in the existing opening, including making good the damage, connection with 3core 1.5sqmm FRLS flexible copper cable from existing ceiling rose, GI angle frame of size 25X3mm angle to required size as per ARCI staff direction. anchor bolts/nuts to mount and all required materials, fixing the louvers / shutters with chicken mesh, complete with frame for exhaust fan of all sizes.
74	304005395	5/6A Modular switch and socket.	5/6A Modular Switch and Socket : Supplying and fixing suitable GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6A modular socket outlet and 5/6A modular switch, connections etc. as required. Makes: Legrand(Arteor)/ Havells (Crabtree)/ GM (G-Nine)
75	304005396	15/16A Modular switch and socket.	15/16A Modular Switch and Socket : Supplying and fixing suitable GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6A & 15/16A modular socket outlet and 15/16A modular switch, connections etc. as required. Makes: Legrand(Arteor)/ Havells (Crabtree)/ GM (G-Nine)
76	304005397	2 Nos of 5/6A Modular switch and socket.	2 Nos of 5/6A Modular switch and socket: Supplying and fixing suitable GI box with modular plate and cover in front on surface or in recess, including providing and fixing 2 Nos of 3 pin 5/6A modular socket outlet and 2 Nos of 5/6A modular switch, connections etc. as required. Makes: Legrand(Arteor)/ Havells (Crabtree)/ GM (G-Nine)
77	304005398	2 Nos of 15/16A Modular switch and socket.	2 Nos of 15/16A Modular switch and socket: Supplying and fixing suitable GI box with modular plate and cover in front on surface or in recess, including providing and fixing of 2 Nos of 6 pin 5/6A & 15/16A modular socket outlet

			and 2 Nos 15/6A modular switch, connections etc. as required. Makes: Legrand(Arteor)/ Havells (Crabtree)/ GM (G-Nine)
78	125002481	Ceiling fan 1200mm sweep	Ceiling Fan 1200mm sweep: Supply of 5 star rated 1200 sweep ceiling fans, capacitor type complete with 300 mm down rod, canopies, shackle, rubber bush, blades suitable for operation on 230V, 50Hz single phase AC supply conforming to IS -374 completely prewired upto terminal block, With a service value of > 4.2, Air delivery of ceiling fans shall be minimum of 210 CMM as per relevant Standards. Makes: Crompton/ Bajaj/Almonard
79	125002482	Ceiling fan 900mm sweep	Ceiling Fan 900mm sweep: Supply of 5 star rated 900 sweep ceiling fans, capacitor type complete with 300 mm down rod, canopies, shackle, rubber bush, blades suitable for operation on 230V, 50Hz single phase AC supply conforming to IS -374 completely prewired upto terminal block. Air delivery of ceiling fans shall be minimum of 210 CMM as per relevant Standards. Makes: Crompton/ Bajaj/Almonard
80	304005401	BLDC Ceiling fan 1200mm sweep	BLDC Ceiling Fan 1200mm sweep: Supply, installation, Testing and Commissioning of 1200 mm BEE 5star rated ceiling fan having BLDC motor complete with 300 mm down rod, canopies, shackle, rubber bush, blades suitable for operation on 230V, 50Hz single phase AC supply conforming to IS -374 completely prewired upto terminal block. Service Value (CMM/W) minimum 6.85, 350 RPM , Air delivery of ceiling fans shall be minimum of 210 CMM as per relevant Standards. earthing etc. complete as required. Makes: Atomberg/ Crompton/ Bajaj
81	125002483	Wall mounting Fan 400mm sweep	Wall mounting Fan : Supply of wall mounting fan 400mm sweep, capacitor type along with thermal over load protection for extra safety, powder coated / chromium plated fan guard, 3 core flexible copper conductor cable, 3 pin plug top built-in speed regulator, tilting and oscillating arrangements, base plate etc., complete with all materials required suitable for operation on 230 V, 50Hz, single phase, AC supply. Makes: Crompton/ Bajaj/Almonard
82	125002484	Exhaust fan 300mm sweep,	Exhaust fan 300mm sweep, Heavy Duty: Supply of heavy duty, totally enclosed motor type exhaust fans suitable for operation on 230

		heavy duty	Volts, 50 Hz single phase AC supply complete with 3 core flexible copper conductor cable, gravity louvers shutters rigid frame with rubber mountings and of following sizes conforming to IS-2312 (with latest amendments) 300 mm sweep 900 /1400 rpm , continuous duty Makes: Crompton/ Bajaj/Almonard
83	125002485	Exhaust fan 380mm sweep, heavy duty	Exhaust fan 380mm sweep, Heavy Duty: Supply of heavy duty, totally enclosed motor type exhaust fans suitable for operation on 230 Volts, 50 Hz single phase AC supply complete with 3 core flexible copper conductor cable, gravity louvers shutters rigid frame with rubber mountings and of following sizes conforming to IS-2312 (with latest amendments) 380 mm sweep 900 /1400 rpm , continuous duty Makes: Crompton/ Bajaj/Almonard
84	125002486	Exhaust fan 450mm sweep, heavy duty	Exhaust fan 450mm sweep, Heavy Duty: Supply of heavy duty, totally enclosed motor type exhaust fans suitable for operation on 230 Volts, 50 Hz single phase AC supply complete with 3 core flexible copper conductor cable, gravity louvers shutters rigid frame with rubber mountings and of following sizes conforming to IS-2312 (with latest amendments) 450 mm sweep 900 rpm , continuous duty Makes: Crompton/ Bajaj/Almonard
85	125002487	Exhaust cum Fresh air fan 225mm sweep, heavy duty	Exhaust cum Fresh air fan 225mm sweep, heavy duty : Supply of heavy duty, totally enclosed motor type Exhaust cum Fresh air fans with a switch to opt for exhaust mode or fresh air mode in trans air reversible suitable for operation on 230 Volts, 50 Hz single phase AC supply complete with 3 core flexible copper conductor cable, gravity louvers shutters rigid frame with rubber mountings and of following sizes conforming to IS-2312 (with latest amendments) 225 mm sweep, Makes: Crompton/ Bajaj/Almonard
86	125002488	Exhaust fan 225mm sweep, light duty	Exhaust fan 225mm sweep, Light Duty: Supply of light duty exhaust fans suitable for operation on 230 V, 50 Hz Single phase supply complete with 3 core flexible copper conductor cable, gravity louver shutter / built in grill and mounting arrangement. 225 mm sweep 1400 rpm , double ball bearing, Continuous duty Makes: Crompton/ Bajaj/Almonard
87	125002489	Exhaust fan 150mm sweep,	Exhaust fan 150mm sweep: Supply of light weight FRP/ Polycarbonate rust proof body & blades totally enclosed motor type

		Plastic body	exhaust fans suitable for operation on 230V,50Hz,1Ph,AC supply complete with 3core flexible copper conductor cable, self opening louvers for protection with mountings and of following sizes conforming to IS(With latest amendments) - 150mm sweep. Makes: Crompton/ Bajaj/Almonard
88	125002490	Exhaust fan 200mm sweep, Plastic body	Exhaust fan 200mm sweep: Supply of light weight FRP/ Polycarbonate rust proof body & blades totally enclosed motor type exhaust fans suitable for operation on 230V,50Hz,1Ph,AC supply complete with 3core flexible copper conductor cable, self opening louvers for protection with mountings and of following sizes conforming to IS(With latest amendments) - 200mm sweep. Makes: Crompton/ Bajaj/Almonard
89	125002491	Exhaust fan 250mm sweep, Plastic body	Exhaust fan 250mm sweep: Supply of light weight FRP/ Polycarbonate rust proof body & blades totally enclosed motor type exhaust fans suitable for operation on 230V,50Hz,1Ph,AC supply complete with 3core flexible copper conductor cable, self opening louvers for protection with mountings and of following sizes conforming to IS(With latest amendments) - 250mm sweep. Makes: Crompton/ Bajaj/Almonard
90	125002492	Air Circulators - Pedastal 400mm sweep	Air Circulator-Pedastal type 400mm sweep: Supply of following fans, 1400 rpm., 3 blades pedestal / wall bracket type with oscillation / tilting arrangement, wire guard, 3 core flexible copper conductor cable, thermal over load protection for extra safety, 16 / 6 Amps 3 pin plug top suitable for operation on 230V 50 Hz, single phase AC supply conforming to IS : 2997 with latest amendments complete as required. Pedestal type with built-in speed regulator 400 mm sweep Makes: Crompton/ Bajaj/Almonard
91	125002493	Air Circulators - Pedastal 450mm sweep	Air Circulator-Pedastal type 450mm sweep: Supply of following fans, 1400 rpm., 3 blades pedestal / wall bracket type with oscillation / tilting arrangement, wire guard, 3 core flexible copper conductor cable, thermal over load protection for extra safety, 16 / 6 Amps 3 pin plug top suitable for operation on 230V 50 Hz, single phase AC supply conforming to IS : 2997 with latest amendments complete as required. Pedestal type with built-in speed regulator 450 mm sweep Makes: Crompton/ Bajaj/Almonard

92	125002494	Air Circulators - Pedastal 600mm sweep	Air Circulator-Pedastal type 600mm sweep: Supply of following fans, 1400 rpm., 3 blades pedestal / wall bracket type with oscillation / tilting arrangement, wire guard, 3 core flexible copper conductor cable, thermal over load protection for extra safety, 16 / 6 Amps 3 pin plug top suitable for operation on 230V 50 Hz, single phase AC supply conforming to IS : 2997 with latest amendments complete as required. Pedestal type with built-in speed regulator 600 mm sweep Makes: Crompton/ Bajaj/Almonard
93	125002495	Air Circulators - Wall mounting- 450mm sweep	Air Circulator-Wall mounting type 450mm sweep: Supply of following fans, 1400 rpm., 3 blades pedestal / wall bracket type with oscillation / tilting arrangement, wire guard, 3 core flexible copper conductor cable, thermal over load protection for extra safety, 16 / 6 Amps 3 pin plug top suitable for operation on 230V 50 Hz, single phase AC supply conforming to IS : 2997 with latest amendments complete as required. Air Circulator (Wall bracket type) with built-in speed regulator 450 mm sweep Makes: Crompton/ Bajaj/Almonard
94	125002496	Air Circulators - Wall mounting- 600mm sweep	Air Circulator-Wall mounting type 600mm sweep: Supply of following fans, 1400 rpm., 3 blades pedestal / wall bracket type with oscillation / tilting arrangement, wire guard, 3 core flexible copper conductor cable, thermal over load protection for extra safety, 16 / 6 Amps 3 pin plug top suitable for operation on 230V 50 Hz, single phase AC supply conforming to IS : 2997 with latest amendments complete as required. Air Circulator (Wall bracket type) with built-in speed regulator 600 mm sweep Makes: Crompton/ Bajaj/Almonard
95	304005403	Sheet Metal Enclosure-1 way	Sheet Metal Enclosure - 1 way: Supply fixing testing & commissioning of sheet metal enclosure (1 way) conforms to IS/IEC 61439-1&3 with latest amendment,with IK 08 and IP 30 protection with fixing of enclosure on surface with required rating of MCB as directed by ARCI officials. (Note: Supply of MCBs not in scope) Make: Siemens / L&T / Scheinder / Legrand
96	304005404	Sheet Metal Enclosure-2 way	Sheet Metal Enclosure - 2 way: Supply fixing testing & commissioning of sheet metal enclosure (2 way) conforms to IS/IEC 61439-1&3 with latest amendment,with IK 08 and IP 30 protection with fixing of enclosure on

			surface with required rating of MCB as directed by ARCI officials. (Note: Supply of MCBs not in scope) Make: Siemens / L&T / Scheinder / Legrand
97	304005405	Sheet Metal Enclosure-3 way	Sheet Metal Enclosure - 3 way: Supply fixing testing & commissioning of sheet metal enclosure (3 way) conforms to IS/IEC 61439-1&3 with latest amendment,with IK 08 and IP 30 protection with fixing of enclosure on surface with required rating of MCB as directed by ARCI officials. (Note: Supply of MCBs not in scope) Make: Siemens / L&T / Scheinder / Legrand
98	304005406	Sheet Metal Enclosure-4 way	Sheet Metal Enclosure - 4 way: Supply fixing testing & commissioning of sheet metal enclosure (4 way) conforms to IS/IEC 61439-1&3 with latest amendment,with IK 08 and IP 30 protection with fixing of enclosure on surface with required rating of MCB as directed by ARCI officials. (Note: Supply of MCBs are not in scope) Make: Siemens / L&T / Scheinder / Legrand
99	304005407	SPN Distribution Board - 6 way	SPN Distribution Board - 6way Double Door: Supply fixing testing & commissioning of horizontal SPN distribution boards double door conforms to IS 8623-1&3,IEC 61439-1&3 with latest amendment,with IK 09 and IP 43 protection and fixing CRCA sheet steel 6 way SPNDB, 230V on surface/recess, complete with tinned copper busbar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required and fixing of required rating of MCBs as directed by ARCI officials. (Note: supply of MCBs are not in scope) . Make: Siemens / L&T / Scheinder / Legrand.
100	304005408	SPN Distribution Board - 8 way	SPN Distribution Board - 8 way Double Door: Supply fixing testing & commissioning of horizontal SPN distribution boards double door conforms to IS 8623-1&3,IEC 61439-1&3 with latest amendment,with IK 09 and IP 43 protection and fixing CRCA sheet steel 8 way SPNDB, 230V on surface/recess, complete with tinned copper busbar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required and fixing of required rating of MCBs as directed by ARCI

			<p>officials. (Note: supply of MCBs are not in scope) . Make: Siemens / L&T / Scheinder / Legrand.</p>
101	304005409	SPN Distribution Board - 12 way	<p>SPN Distribution Board - 12 way double door: Supply fixing testing & commissioning of horizontal SPN distribution boards double door conforms to IS 8623-1&3,IEC 61439-1&3 with latest amendment,with IK 09 and IP 43 protection and fixing CRCA sheet steel 12 way SPNDB, 230V on surface/recess, complete with tinned copper busbar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required and fixing of required rating of MCBs as directed by ARCI officials. (Note: supply of MCBs are not in scope) . Make: Siemens / L&T / Scheinder / Legrand.</p>
102	304005410	SPN Distribution Board - 16 way	<p>SPN Distribution Board - 16 way double door: Supply fixing testing & commissioning of horizontal SPN distribution boards double door conforms to IS 8623-1&3,IEC 61439-1&3 with latest amendment, with IK 09 and IP 43 protection and fixing CRCA sheet steel 16 way SPNDB, 230V on surface/recess, complete with tinned copper busbar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required and fixing of required rating of MCBs as directed by ARCI officials. (Note: supply of MCBs are not in scope) . Make: Siemens / L&T / Scheinder / Legrand.</p>
103	304005411	Horizontal TPN DB - 4 way double door	<p>Horizontal TPN - Distribution Board - 4 way double door: Supply fixing testing & commissioning of horizontal TPN distribution boards double door conforms to IS 8623-1&3,IEC 61439-1&3 with latest amendment, with IK 09 and IP 43 protection and fixing CRCA sheet steel 4 way HTPNDB, 415V on surface/recess, complete with tinned copper busbar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required and fixing of required rating of MCBs as directed by ARCI officials. (Note: supply of MCBs are not in scope) . Make: Siemens / L&T / Scheinder / Legrand.</p>

104	304005412	Horizontal TPN DB - 6 way double door	<p>Horizontal TPN - Distribution Board - 6 way double door:</p> <p>Supply fixing testing & commissioning of horizontal TPN distribution boards double door conforms to IS 8623-1&3,IEC 61439-1&3 with latest amendment,with IK 09 and IP 43 protection and fixing CRCA sheet steel 6 way HTPNDB, 415V on surface/recess, complete with tinned copper busbar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required and fixing of required rating of MCBs as directed by ARCI officials.</p> <p>(Note: supply of MCBs are not in scope)</p> <p>Make: Siemens / L&T / Scheinder / Legrand.</p>
105	304005413	Horizontal TPN DB - 8 way double door	<p>Horizontal TPN - Distribution Board - 8 way double door:</p> <p>Supply fixing testing & commissioning of horizontal TPN distribution boards double door conforms to IS 8623-1&3,IEC 61439-1&3 with latest amendment, with IK 09 and IP 43 protection and fixing CRCA sheet steel 8 way HTPNDB, 415V on surface/recess, complete with tinned copper busbar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required and fixing of required rating of MCBs as directed by ARCI officials. (Note: supply of MCBs are not in scope) .</p> <p>Make: Siemens / L&T / Scheinder / Legrand.</p>
106	304005414	Horizontal TPN DB - 12 way double door	<p>Horizontal TPN - Distribution Board - 12 way double door:</p> <p>Supply fixing testing & commissioning of horizontal TPN distribution boards double door conforms to IS 8623-1&3,IEC 61439-1&3 with latest amendment, with IK 09 and IP 43 protection and fixing CRCA sheet steel 12 way HTPNDB, 415V on surface/recess, complete with tinned copper busbar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required and fixing of required rating of MCBs as directed by ARCI officials.</p> <p>(Note: supply of MCBs are not in scope) .</p> <p>Make: Siemens / L&T / Scheinder / Legrand.</p>
107	304005415	Horizontal TPN DB - 16 way double door	<p>Horizontal TPN - Distribution Board - 16 way double door:</p> <p>Supply fixing testing & commissioning of horizontal TPN distribution boards double door conforms to IS 8623-1&3,IEC 61439-1&3 with latest amendment, with IK 09 and IP 43 protection and fixing CRCA sheet steel 16 way HTPNDB, 415V on surface/recess, complete with</p>

			<p>tinned copper busbar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required and fixing of required rating of MCBs as directed by ARCI officials.</p> <p>(Note: supply of MCBs are not in scope) .</p> <p>Make: Siemens / L&T / Scheinder / Legrand.</p>
108	304005416	Vertical TPN DB - 4 way double door	<p>Vertical TPN - Distribution Board - 4 way double door:</p> <p>Supply fixing testing & commissioning of vertical TPN distribution boards double door conforms to IS 8623-1&3,IEC 61439-1&3 with latest amendment,with IK 09 and IP 43 protection and fixing CRCA sheet steel 4 way VTPNDB, 415V on surface/recess, complete with tinned copper busbar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required and fixing of required rating of MCBs as directed by ARCI officials.</p> <p>(Note: supply of MCBs are not in scope) .</p> <p>Make: Siemens / L&T / Scheinder / Legrand.</p>
109	304005417	Vertical TPN DB - 6 way double door	<p>Vertical TPN - Distribution Board - 6 way double door:</p> <p>Supply fixing testing & commissioning of vertical TPN distribution boards double door conforms to IS 8623-1&3,IEC 61439-1&3 with latest amendment,with IK 09 and IP 43 protection and fixing CRCA sheet steel 6 way VTPNDB, 415V on surface/recess, complete with tinned copper busbar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required and fixing of required rating of MCBs as directed by ARCI officials.</p> <p>(Note: supply of MCBs are not in scope) .</p> <p>Make: Siemens / L&T / Scheinder / Legrand.</p>
110	304005418	Vertical TPN DB - 8 way double door	<p>Vertical TPN - Distribution Board - 8 way double door:</p> <p>Supply fixing testing & commissioning of vertical TPN distribution boards double door conforms to IS 8623-1&3,IEC 61439-1&3 with latest amendment,with IK 09 and IP 43 protection and fixing CRCA sheet steel 8 way VTPNDB, 415V on surface/recess, complete with tinned copper busbar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required and fixing of required rating of MCBs as directed by ARCI officials.</p> <p>(Note: supply of MCBs are not in scope) .</p> <p>Make: Siemens / L&T / Scheinder / Legrand.</p>

111	304005419	Vertical TPN DB - 12 way double door	Vertical TPN - Distribution Board - 12 way double door: Supply fixing testing & commissioning of vertical TPN distribution boards double door conforms to IS 8623-1&3, IEC 61439-1&3 with latest amendment, with IK 09 and IP 43 protection and fixing CRCA sheet steel 12 way VTPNDB, 415V on surface/recess, complete with tinned copper busbar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required and fixing of required rating of MCBs as directed by ARCI officials. (Note: supply of MCBs are not in scope) . Make: Siemens / L&T / Scheinder / Legrand.
112	304005420	Vertical TPN DB - 16 way double door	Vertical TPN - Distribution Board - 16 way Double Door: Supply fixing testing & commissioning of vertical TPN distribution boards double door conforms to IS 8623-1&3, IEC 61439-1&3 with latest amendment, with IK 09 and IP 43 protection and fixing CRCA sheet steel 16 way VTPNDB, 415V on surface/recess, complete with tinned copper busbar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required and fixing of required rating of MCBs as directed by ARCI officials. (Note: supply of MCBs are not in scope) . Make: Siemens / L&T / Scheinder / Legrand.
113	304005422	Vertical TPN DB - 12 way double door with MCCB Incomer upto 125A	Vertical TPN Distribution Board - 12 way double door with MCCB Incomer upto 125A: Supply fixing testing & commissioning of vertical TPN distribution boards double door conforms to IS 8623-1&3, IEC 61439-1&3 with latest amendment, with IK 09 and IP 43 protection and fixing CRCA sheet steel 12 way VTPNDB, 415V on surface with MS angle frame 50 X 6mm grouted in wall complete, with tinned copper busbar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required and fixing of required rating of MCCB & MCBs as directed by ARCI officials. (Note: supply of MCCB & MCBs are not in scope) . Make: Siemens / L&T / Scheinder / Legrand.
114	304005423	Vertical TPN DB - 12 way double door with MCCB Incomer upto 250A	Vertical TPN Distribution Board - 12 way double door with MCCB Incomer upto 250A : Supply fixing testing & commissioning of vertical TPN distribution boards double door conforms to IS 8623-1&3, IEC 61439-1&3 with latest amendment, with IK 09 and IP 43 protection and fixing CRCA sheet steel 12 way VTPNDB, 415V on surface with MS angle frame 50 X 6mm grouted in wall complete, with tinned copper busbar, neutral bus bar, earth bar, din bar,

			interconnections, powder painted including earthing etc. as required and fixing of required rating of MCCB & MCBs as directed by ARCI officials. (Note: supply of MCCB & MCBs are not in scope) . Make: Siemens / L&T / Scheinder / Legrand.
115	304005424	Vertical TPN DB - 16 way double door with MCCB Incomer upto 250A	Vertical TPN Distribution Board - 16 way double door with MCCB Incomer upto 250A : Supply fixing testing & commissioning of vertical TPN distribution boards double door conforms to IS 8623-1&3, IEC 61439-1&3 with latest amendment, with IK 09 and IP 43 protection and fixing CRCA sheet steel 16 way VTPNDB, 415V on surface with MS angle frame 50 X 6mm grouted in wall complete, with tinned copper busbar, neutral bus bar, earth bus bar, din bar, interconnections, powder painted including earthing etc. as required and fixing of required rating of MCCB & MCBs as directed by ARCI officials. (Note: supply of MCCB & MCBs are not in scope) . Make: Siemens / L&T / Scheinder / Legrand.
116	125002497	6A SP MCB - C curve	6A SP MCB - C curve: Supply of Single pole 6A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
117	125002498	10A SP MCB - C curve	10A SP MCB - C curve: Supply of Single pole 10A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
118	125002499	16A SP MCB - C curve	16A SP MCB - C curve: Supply of Single pole 16A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
119	125002500	20A SP MCB - C curve	20A SP MCB - C curve: Supply of Single pole 20A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for Inductive Load. Make: Siemens / L&T / Schneider / Legrand.

120	125002501	25A SP MCB - C curve	25A SP MCB - C curve: Supply of Single pole 25A Miniature Circuit Breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for Inductive Load. Make: Siemens / L&T / Schneider / Legrand.
121	125002502	32A SP MCB - C curve	32A SP MCB - C curve: Supply of Single pole 32A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
122	125002503	40A SP MCB - C curve	40A SP MCB - C curve: Supply of Single pole 40A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
123	125002504	50A SP MCB - C curve	50A SP MCB - C curve: Supply of Single pole 50A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
124	125002505	63A SP MCB - C curve	63A SP MCB - C curve: Supply of Single pole 63A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
125	125002506	6A DP MCB - C curve	6A DP MCB - C curve: Supply of Double pole 6A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
126	125002507	10A DP MCB - C curve	10A DP MCB - C curve: Supply of Double pole 10A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
127	125002508	16A DP MCB - C curve	16A DP MCB - C curve: Supply of Double pole 16A Miniature circuit breaker of 10 kA breaking capacity conforming to

			IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
128	125002509	20A DP MCB - C curve	20A DP MCB - C curve: Supply of Double pole 20A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
129	125002510	25A DP MCB - C curve	25A DP MCB - C curve: Supply of Double pole 25A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
130	125002511	32A DP MCB - C curve	32A DP MCB - C curve: Supply of Double pole 32A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
131	125002512	40A DP MCB - C curve	40A DP MCB - C curve: Supply of Double pole 40A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
132	125002513	50A DP MCB - C curve	50A DP MCB - C curve: Supply of Double pole 50A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, 240/415 V, "C"curve, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
133	125002514	63A DP MCB - C curve	63A DP MCB - C curve: Supply of Double pole 63A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
134	125002515	6A TP MCB - C curve	6A TP MCB - C curve: Supply of Triple Pole 6A Miniature Circuit Breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for Inductive Load. Make: Siemens / L&T / Schneider / Legrand.

135	125002516	10A TP MCB - C curve	10A TP MCB - C curve: Supply of Triple pole 10A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
136	125002517	16A TP MCB - C curve	16A TP MCB - C curve: Supply of Triple pole 16A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
137	125002518	20A TP MCB - C curve	20A TP MCB - C curve: Supply of Triple pole 20A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
138	125002519	25A TP MCB - C curve	25A TP MCB - C curve: Supply of Triple pole 25A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
139	125002520	32A TP MCB - C curve	32A TP MCB - C curve: Supply of Triple pole 32A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
140	125002521	40A TP MCB - C curve	40A TP MCB - C curve: Supply of Triple pole 40A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
141	125002522	50A TP MCB - C curve	50A TP MCB - C curve: Supply of Triple pole 50A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
142	125002523	63A TP MCB - C curve	63A TP MCB - C curve: Supply of Triple pole 63A Miniature circuit breaker of 10 kA breaking capacity conforming to

			IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
143	125002524	6A FP MCB - C curve	6A FP MCB - C curve: Supply of Four pole 6A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
144	125002525	10A FP MCB - C curve	10A FP MCB - C curve: Supply of Four pole 10A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
145	125002526	16A FP MCB - C curve	16A FP MCB - C curve: Supply of Four pole 16A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
146	125002527	20A FP MCB - C curve	20A FP MCB - C curve: Supply of Four pole 20A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
147	125002528	25A FP MCB - C curve	25A FP MCB - C curve: Supply of Four pole 25A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
148	125002529	32A FP MCB - C curve	32A FP MCB - C curve: Supply of Four pole 32A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
149	125002530	40A FP MCB - C curve	40A FP MCB - C curve: Supply of Four pole 40A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.

150	125002531	50A FP MCB - C curve	50A FP MCB - C curve: Supply of Four pole 50A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
151	125002532	63A FP MCB - C curve	63A FP MCB - C curve: Supply of Four pole 63A Miniature circuit breaker of 10 kA breaking capacity conforming to IS/IEC 60898, "C"curve, 240V / 415V, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
152	304005425	Blanking Plate	Supplying and fixing of blanking plate in the existing MCB DB complete etc. as required .Make: Siemens / L&T / Schneider / Legrand.
153	304005426	20A,240V,SPN Industrial plug & socket:	20A,240V, SPN Industrial plug & socket: Supplying and fixing 20A, 240V ,50Hz, SPN Industrial type socket outlet, with 2 pole and earth, metal enclosed plug top along with 20A,C curve, SP MCB, in sheet steel enclosure, on surface or in recess with chained metal cover for the socket outlet and complete with connections, testing and commissioning etc. as required Make: Siemens / L&T / Schneider / Legrand.
154	304005427	20A,415V,TPN Industrial plug & socket:	20A,415V, TPN Industrial plug & socket: Supplying and fixing 20A, 415V, 50Hz, TPN Industrial type socket outlet, with 4 pole and earth, metal enclosed plug top along with 20A,C curve, TP MCB, in sheet steel enclosure, on surface or in recess with chained metal cover for the socket outlet and complete with connections, testing and commissioning etc. as required Make: Siemens / L&T / Schneider / Legrand.
155	304005428	32A,415V,TPN Industrial plug & socket:	32A, 415V, TPN Industrial plug & socket: Supplying and fixing 32A, 415V, 50Hz,TPN Industrial type socket outlet, with 4 pole and earth, metal enclosed plug top along with 32A,C curve, TP MCB, in sheet steel enclosure, on surface or in recess with chained metal cover for the socket outlet and complete with connections, testing and commissioning etc. as required Make: Siemens / L&T / Schneider / Legrand.
156	304005429	63A,415V,TPN Industrial plug &	63A,415V, TPN Industrial plug & socket: Supplying and fixing 63A, 415V, 50Hz, TPN Industrial type socket outlet, with 4 pole and earth,

		socket:	metal enclosed plug top along with 63A,C curve, TP MCB, in sheet steel enclosure, on surface or in recess with chained metal cover for the socket outlet and complete with connections, testing and commissioning etc. as required Make: Siemens / L&T / Schneider / Legrand.
157	125002533	40A DP Isolator	40 A DP Isolator : Supply of double pole Isolator 40A rating, 230V, 50Hz, IP 20, conforms to IEC60947-3. Make: Siemens / L&T / Schneider / Legrand
158	125002534	63A DP Isolator	63 A DP Isolator : Supply of double pole Isolator 63A rating, 230V, 50Hz, IP 20, conforms to IEC60947-3. Make: Siemens / L&T / Schneider / Legrand
159	125002535	100A DP Isolator	100 A DP Isolator : Supply of double pole Isolator 100A rating, 230V, 50Hz, IP 20, conforms to IEC60947-3. Make: Siemens / L&T / Schneider / Legrand
160	125002536	40A TP Isolator	40 A TP Isolator Supply of three pole Isolator 40A rating, 415V, 50Hz, IP 20, conforms to IEC60947-3. Make: Siemens / L&T / Schneider / Legrand
161	125002537	63A TP Isolator	63 A TP Isolator : Supply of three pole Isolator 63A rating, 415V, 50Hz, IP 20, conforms to IEC60947-3. Make: Siemens / L&T / Schneider / Legrand
162	125002538	100A TP Isolator	100 A TP Isolator : Supply of three pole Isolator 100A rating, 415V, 50Hz, IP 20, conforms to IEC60947-3. Make: Siemens / L&T / Schneider / Legrand
163	125002539	40A FP Isolator	40 A FP Isolator : Supply of four pole Isolator 40A rating, 415V, 50Hz, IP 20, conforms to IEC60947-3. Make: Siemens / L&T / Schneider / Legrand
164	125002540	63A FP Isolator	63 A FP Isolator : Supply of four pole Isolator 63A rating, 415V, 50Hz, IP 20, conforms to IEC60947-3. Make: Siemens / L&T / Schneider / Legrand
165	125002541	100A FP Isolator	100 A FP Isolator : Supply of four pole Isolator 100A rating, 415V, 50Hz, IP 20, conforms to IEC60947-3.

			Make: Siemens / L&T / Schneider / Legrand
166	125002542	25A DP RCCB 100mA	25A DP RCCB 100mA : Supply of 25A double pole RCCB (Residual Current Circuit Breaker) with sensitivity of 100mA conforms to IS 12640 (Part 1) / IEC 61008-1. Make: Siemens / L&T / Schneider / Legrand
167	125002543	40A DP RCCB 100mA	40A DP RCCB 100mA : Supply of 40A double pole RCCB (Residual Current Circuit Breaker) with sensitivity of 100mA conforms to IS 12640 (Part 1) / IEC 61008-1. Make: Siemens / L&T / Schneider / Legrand
168	125002544	63A DP RCCB 100mA	63A DP RCCB 100mA : Supply of 63A double pole RCCB (Residual Current Circuit Breaker) with sensitivity of 100mA conforms to IS 12640 (Part 1) / IEC 61008-1. Make: Siemens / L&T / Schneider / Legrand
169	125002545	100A DP RCCB 100mA	100A DP RCCB 100mA : Supply of 100A double pole RCCB (Residual Current Circuit Breaker) with sensitivity of 100mA conforms to IS 12640 (Part 1) / IEC 61008-1. Make: Siemens / L&T / Schneider / Legrand
170	125002546	25A FP RCCB 100mA	25A FP RESIDUAL CURRENT CIRCUIT BREAKER 100mA : Supply of 25A Four Pole RCCB (Residual Current Circuit Breaker) with sensitivity of 100mA conforms to IS 12640 (Part 1) / IEC 61008-1. Make: Siemens / L&T / Schneider / Legrand
171	125002547	40A FP RCCB 100mA	40A FP RESIDUAL CURRENT CIRCUIT BREAKER 100mA : Supply of 40A four pole RCCB (Residual Current Circuit Breaker) with sensitivity of 100mA conforms to IS 12640 (Part 1) / IEC 61008-1. Make: Siemens / L&T / Schneider / Legrand
172	125002548	63A FP RCCB 100mA	63A FP RESIDUAL CURRENT CIRCUIT BREAKER 100mA : Supply of 63A four pole RCCB (Residual Current Circuit Breaker) with sensitivity of 100mA conforms to IS 12640 (Part 1) / IEC 61008-1. Make: Siemens / L&T / Schneider / Legrand

173	125002549	100A FP RCCB 100mA	100A FP RESIDUAL CURRENT CIRCUIT BREAKER 100mA : Supply of 100A four pole RCCB (Residual Current Circuit Breaker) with sensitivity of 100mA conforms to IS 12640 (Part 1) / IEC 61008-1. Make: Siemens / L&T / Schneider / Legrand
174	125002550	100A FP MCB - C curve:	100A FP MINIATURE CIRCUIT BREAKER – C CURVE : Supply of Four Pole 100A Miniature Circuit Breaker of 15 kA breaking capacity conforming to IS / IEC 60947-2, 415 V, "C" Curve, 50 Hz, IP 20 for Inductive Load. Make: Siemens / L&T / Schneider / Legrand.
175	125002551	125A FP MCB - C curve:	125A FP MINIATURE CIRCUIT BREAKER - C CURVE : Supply of Four pole 125A Miniature circuit breaker of 15 kA breaking capacity conforming to IS/IEC 60947-2, 415 V, "C"curve, 50 Hz, IP 20 for inductive load. Make: Siemens / L&T / Schneider / Legrand.
176	304005430	Cable End Box for TPN MCB DB	CABLE END BOX FOR TPN MCB DB : Supplying and fixing Cable End Box (Loose Wire Box) suitable for triple pole and neutral, sheet steel, MCB distribution board, 415 Volts, on surface complete with testing and commissioning etc. as required.
177	125002552	100A TP MCCB 25kA	100A TP MOULDED CASE CIRCUIT BREAKERS 25kA : Supply of 3 pole, 415 V, 50 Hz, Moulded Case Circuit Breakers (MCCB) in open execution with in-built protection features against over load and short circuit and with trip free mechanism. The MCCB shall have door inter locking mechanism and terminal facility for terminating Aluminium/Copper cable with lugs with spreader terminals. Including any two of following accessories as specified: a) Shunt trip release b) U/V release c) auxiliary contacts MCCB shall conform to IS-2516 ,IEC 60947-2 with latest amendments and shall have following rated current capacity and complete as required. The breaking capacity specified as $I_{cs} = 100\% I_{cu}$ 100A, 25kA, TP MCCB. Make: Siemens / L&T / Schneider / Legrand.
178	125002553	125A TP MCCB 25kA	125A TP MOULDED CASE CIRCUIT BREAKERS 25kA : Supply of 3 pole, 415 V, 50 Hz, Moulded Case Circuit Breakers (MCCB) in open execution with in-built protection features against over load and short circuit and with trip free mechanism. The

			<p>MCCB shall have door inter locking mechanism and terminal facility for terminating Aluminium/Copper cable with lugs with spreader terminals. Including any two of following accessories as specified:</p> <p>a) Shunt trip release b) U/V release c) auxiliary contacts MCCB shall conform to IS-2516 ,IEC 60947-2 with latest amendments and shall have following rated current capacity and complete as required.</p> <p>The breaking capacity specified as $I_{cs} = 100\% I_{cu}$ 125A, 25kA, TP MCCB.</p> <p>Make: Siemens / L&T / Schneider / Legrand.</p>
179	125005254	160A, TP MCCB 36kA	<p>160A TP MOULDED CASE CIRCUIT BREAKERS 36kA :</p> <p>Supply of 3 pole, 415 V, 50 Hz, Moulded Case Circuit Breakers (MCCB) in open execution with in-built protection features against over load and short circuit and with trip free mechanism. The MCCB shall have door inter locking mechanism and terminal facility for terminating Aluminium/Copper cable with lugs with spreader terminals. Including any two of following accessories as specified:</p> <p>a) Shunt trip release b) U/V release c) auxiliary contacts MCCB shall conform to IS-2516 ,IEC 60947-2 with latest amendments and shall have following rated current capacity and complete as required.</p> <p>The breaking capacity specified as $I_{cs} = 100\% I_{cu}$ 160A, 36kA, TP MCCB.</p> <p>Make: Siemens / L&T / Schneider / Legrand.</p>
180	125002555	200A, TP MCCB 36kA	<p>200A TP MOULDED CASE CIRCUIT BREAKERS 36kA :</p> <p>Supply of 3 pole, 415 V, 50 Hz, Moulded Case Circuit Breakers (MCCB) in open execution with in-built protection features against over load and short circuit and with trip free mechanism. The MCCB shall have door inter locking mechanism and terminal facility for terminating Aluminium/Copper cable with lugs with spreader terminals. Including any two of following accessories as specified:</p> <p>a) Shunt trip release b) U/V release c) auxiliary contacts MCCB shall conform to IS-2516 ,IEC 60947-2 with latest amendments and shall have following rated current capacity and complete as required.</p> <p>The breaking capacity specified as $I_{cs} = 100\% I_{cu}$ 200A, 36kA, TP MCCB.</p> <p>Make: Siemens / L&T / Schneider / Legrand.</p>

181	125002556	250A TP MCCB 36kA	<p>250A TP MOULDED CASE CIRCUIT BREAKERS 36kA :</p> <p>Supply of 3 pole, 415 V, 50 Hz, Moulded Case Circuit Breakers (MCCB) in open execution with in-built protection features against over load and short circuit and with trip free mechanism. The MCCB shall have door inter locking mechanism and terminal facility for terminating Aluminium/Copper cable with lugs with spreader terminals. Including any two of following accessories as specified:</p> <p>a) Shunt trip release b) U/V release c) auxiliary contacts. MCCB shall conform to IS-2516 ,IEC 60947-2 with latest amendments and shall have following rated current capacity and complete as required.</p> <p>The breaking capacity specified as $I_{cs} = 100\% I_{cu}$ 250A, 36kA, TP MCCB.</p> <p>Make: Siemens / L&T / Schneider / Legrand.</p>
182	125002557	315A TP MCCB 36kA	<p>315A TP MOULDED CASE CIRCUIT BREAKERS 36kA :</p> <p>Supply of 3 pole, 415 V, 50 Hz, Moulded Case Circuit Breakers (MCCB) in open execution with in-built protection features against over load and short circuit and with trip free mechanism. The MCCB shall have door inter locking mechanism and terminal facility for terminating Aluminium/Copper cable with lugs with spreader terminals. Including any two of following accessories as specified:</p> <p>a) Shunt trip release b) U/V release c) auxiliary contacts MCCB shall conform to IS-2516 ,IEC 60947-2 with latest amendments and shall have following rated current capacity and complete as required.</p> <p>The breaking capacity specified as $I_{cs} = 100\% I_{cu}$ 315A, 36kA, TP MCCB.</p> <p>Make: Siemens / L&T / Schneider / Legrand.</p>
183	125002558	250A TP MCCB 36kA with Micro Processor Release	<p>250A TP MOULDED CASE CIRCUIT BREAKERS 36kA WITH MICRO PROCESSOR RELEASE :</p> <p>Supply of 3 pole, 415 V, 50 Hz, Moulded Case Circuit Breakers (MCCB) in open execution with in-built Micro Processor Release protection features against over load and short circuit and earth fault and with trip free mechanism. The MCCB shall have door inter locking mechanism and terminal facility for terminating Aluminium/Copper cable with lugs with spreader terminals. Including any two of following accessories as specified:</p> <p>a) Shunt trip release b) U/V release c) auxiliary contacts MCCB shall conform to IS-2516 ,IEC</p>

			<p>60947-2 with latest amendments and shall have following rated current capacity and complete as required.</p> <p>The breaking capacity specified as $I_{cs} = 100\% I_{cu}$ 250A TP MCCB 36kA with Micro Processor Release.</p> <p>Make: Siemens / L&T / Schneider / Legrand.</p>
184	125002559	400A TP MCCB 36kA with Micro Processor Release	<p>400A TP MOULDED CASE CIRCUIT BREAKERS 36kA WITH MICRO PROCESSOR RELEASE :</p> <p>Supply of 3 pole, 415 V, 50 Hz, Moulded Case Circuit Breakers (MCCB) in open execution with in-built Micro Processor Release protection features against over load and short circuit and earth fault and with trip free mechanism. The MCCB shall have door inter locking mechanism and terminal facility for terminating Aluminium/Copper cable with lugs with spreader terminals. Including any two of following accessories as specified:</p> <p>a) Shunt trip release b) U/V release c) auxiliary contacts MCCB shall conform to IS-2516 ,IEC 60947-2 with latest amendments and shall have following rated current capacity and complete as required.</p> <p>The breaking capacity specified as $I_{cs} = 100\% I_{cu}$ 400A TP MCCB 36kA with Micro Processor Release.</p> <p>Make: Siemens / L&T / Schneider / Legrand.</p>
185	125002560	250A TP MCCB 50kA	<p>250A TP MOULDED CASE CIRCUIT BREAKERS 50kA :</p> <p>Supply of 3 pole, 415 V, 50 Hz, Moulded Case Circuit Breakers (MCCB) in open execution with in-built protection features against over load and short circuit and with trip free mechanism. The MCCB shall have door inter locking mechanism and terminal facility for terminating Aluminium/Copper cable with lugs with spreader terminals. Including any two of following accessories as specified:</p> <p>a) Shunt trip release b) U/V release c) auxiliary contacts MCCB shall conform to IS-2516 ,IEC 60947-2 with latest amendments and shall have following rated current capacity and complete as required.</p> <p>The breaking capacity specified as $I_{cs} = 100\% I_{cu}$ 250A TP MCCB 50kA.</p> <p>Make: Siemens / L&T / Schneider / Legrand.</p>

186	125002561	400A TP MCCB 50k	<p>400A TP MOULDED CASE CIRCUIT BREAKERS 50kA :</p> <p>Supply of 3 pole, 415 V, 50 Hz, Moulded Case Circuit Breakers (MCCB) in open execution with in-built protection features against over load and short circuit and with trip free mechanism. The MCCB shall have door inter locking mechanism and terminal facility for terminating Aluminium/Copper cable with lugs with spreader terminals. Including any two of following accessories as specified:</p> <p>a) Shunt trip release b) U/V release c) auxiliary contacts MCCB shall conform to IS-2516 ,IEC 60947-2 with latest amendments and shall have following rated current capacity and complete as required.</p> <p>The breaking capacity specified as $I_{cs} = 100\% I_{cu}$ 400A TP MCCB 50kA.</p> <p>Make: Siemens / L&T / Schneider / Legrand.</p>
187	125002562	100A FP MCCB 25kA	<p>100A FP MOULDED CASE CIRCUIT BREAKERS 25kA :</p> <p>Supply of 4 pole, 415 V, 50 Hz, Moulded Case Circuit Breakers (MCCB) in open execution with in-built protection features against over load and short circuit and with trip free mechanism. The MCCB shall have door inter locking mechanism and terminal facility for terminating Aluminium/Copper cable with lugs with spreader terminals. Including any two of following accessories as specified:</p> <p>a) Shunt trip release b) U/V release c) auxiliary contacts MCCB shall conform to IS-2516 ,IEC 60947-2 with latest amendments and shall have following rated current capacity and complete as required.</p> <p>The breaking capacity specified as $I_{cs} = 100\% I_{cu}$ 100A FP MCCB 25kA.</p> <p>Make: Siemens / L&T / Schneider / Legrand.</p>
188	125002563	125A FP MCCB 25kA	<p>125A FP MOULDED CASE CIRCUIT BREAKERS 25kA :</p> <p>Supply of Four Pole, 415 V, 50 Hz, Moulded Case Circuit Breakers (MCCB) in open execution with in-built protection features against over load and short circuit and with trip free mechanism. The MCCB shall have door inter locking mechanism and terminal facility for terminating Aluminium/Copper cable with lugs with spreader terminals. Including any two of following accessories as specified:</p> <p>a) Shunt trip release b) U/V release c) auxiliary contacts MCCB shall conform to IS-2516 ,IEC 60947-2 with latest amendments and shall have following rated current capacity and complete as</p>

			required. The breaking capacity specified as $I_{cs} = 100\% I_{cu}$ 125A FP MCCB 25kA. Make: Siemens / L&T / Schneider / Legrand.
189	125002564	160A FP MCCB 36kA	160A FP MOULDED CASE CIRCUIT BREAKERS 36kA : Supply of 4 pole, 415 V, 50 Hz, Moulded Case Circuit Breakers (MCCB) in open execution with in-built protection features against over load and short circuit and with trip free mechanism. The MCCB shall have door inter locking mechanism and terminal facility for terminating Aluminium/Copper cable with lugs with spreader terminals. Including any two of following accessories as specified: a) Shunt trip release b) U/V release c) auxiliary contacts MCCB shall conform to IS-2516 ,IEC 60947-2 with latest amendments and shall have following rated current capacity and complete as required. The breaking capacity specified as $I_{cs} = 100\% I_{cu}$ 160A FP MCCB 36kA. Make: Siemens / L&T / Schneider / Legrand.
190	125002565	200A FP MCCB 36kA	200A FP MOULDED CASE CIRCUIT BREAKERS 36kA : Supply of 4 pole, 415 V, 50 Hz, Moulded Case Circuit Breakers (MCCB) in open execution with in-built protection features against over load and short circuit and with trip free mechanism. The MCCB shall have door inter locking mechanism and terminal facility for terminating Aluminium/Copper cable with lugs with spreader terminals. Including any two of following accessories as specified: a) Shunt trip release b) U/V release c) auxiliary contacts MCCB shall conform to IS-2516 ,IEC 60947-2 with latest amendments and shall have following rated current capacity and complete as required. The breaking capacity specified as $I_{cs} = 100\% I_{cu}$ 200A FP MCCB 36kA. Make: Siemens / L&T / Schneider / Legrand.
191	125002566	250A FP MCCB 36kA	250A FP MOULDED CASE CIRCUIT BREAKERS 36kA : Supply of 4 pole, 415 V, 50 Hz, Moulded Case Circuit Breakers (MCCB) in open execution with in-built protection features against over load and short circuit and with trip free mechanism. The MCCB shall have door inter locking mechanism and terminal facility for terminating Aluminium/Copper cable with lugs with spreader terminals. Including any two of following

			<p>accessories as specified: a) Shunt trip release b) U/V release c) auxiliary contacts MCCB shall conform to IS-2516 ,IEC 60947-2 with latest amendments and shall have following rated current capacity and complete as required. The breaking capacity specified as Ics = 100% Icu 250A FP MCCB 36kA. Make: Siemens / L&T / Schneider / Legrand.</p>
192	125002567	315A FP MCCB 36kA	<p>315A FP MOULDED CASE CIRCUIT BREAKERS 36kA : Supply of Four Pole, 415 V, 50 Hz, Moulded Case Circuit Breakers (MCCB) in open execution with in-built protection features against Over Load and Short Circuit and with trip free mechanism. The MCCB shall have door inter locking mechanism and terminal facility for terminating Aluminium / Copper cable with lugs with spreader terminals. Including any two of following accessories as specified: a) Shunt trip release b) U/V release c) auxiliary contacts MCCB shall conform to IS-2516 ,IEC 60947-2 with latest amendments and shall have following rated current capacity and complete as required. The breaking capacity specified as Ics = 100% Icu, 315A FP MCCB 36kA. Make: Siemens / L&T / Schneider / Legrand.</p>
193	125002568	250A FP MCCB 36kA with Micro Processor Release	<p>250A FP MOULDED CASE CIRCUIT BREAKERS 36kA WITH MICRO PROCESSOR RELEASE : Supply of 4 pole, 415 V, 50 Hz, Moulded Case Circuit Breakers (MCCB) in open execution with in-built Micro Processor Release protection features against over load and short circuit and earth fault and with trip free mechanism. The MCCB shall have door inter locking mechanism and terminal facility for terminating Aluminium/Copper cable with lugs with spreader terminals. Including any two of following accessories as specified: a) Shunt trip release b) U/V release c) auxiliary contacts MCCB shall conform to IS-2516 ,IEC 60947-2 with latest amendments and shall have following rated current capacity and complete as required. The breaking capacity specified as Ics = 100% Icu, 250A FP MCCB 36kA with Micro Processor Release. Make: Siemens / L&T / Schneider / Legrand.</p>

194	125002569	400A FP MCCB 36kA with Micro Processor Release	<p>400A FP MOULDED CASE CIRCUIT BREAKERS 36kA WITH MICRO PROCESSOR RELEASE :</p> <p>Supply of 4 pole, 415 V, 50 Hz, Moulded Case Circuit Breakers (MCCB) in open execution with in-built Micro Processor Release protection features against over load and short circuit and earth fault and with trip free mechanism. The MCCB shall have door inter locking mechanism and terminal facility for terminating Aluminium/Copper cable with lugs with spreader terminals. Including any two of following accessories as specified:</p> <p>a) Shunt trip release b) U/V release c) auxiliary contacts MCCB shall conform to IS-2516 ,IEC 60947-2 with latest amendments and shall have following rated current capacity and complete as required.</p> <p>The breaking capacity specified as $I_{cs} = 100\% I_{cu}$, 400A FP MCCB 36kA with Micro Processor Release.</p> <p>Make: Siemens / L&T / Schneider / Legrand.</p>
195	125002570	250A FP MCCB 50kA	<p>250A FP MOULDED CASE CIRCUIT BREAKERS 50kA :</p> <p>Supply of 4 pole, 415 V, 50 Hz, Moulded Case Circuit Breakers (MCCB) in open execution with in-built protection features against over load and short circuit and with trip free mechanism. The MCCB shall have door inter locking mechanism and terminal facility for terminating Aluminium/Copper cable with lugs with spreader terminals. Including any two of following accessories as specified:</p> <p>a) Shunt trip release b) U/V release c) auxiliary contacts MCCB shall conform to IS-2516 ,IEC 60947-2 with latest amendments and shall have following rated current capacity and complete as required.</p> <p>The breaking capacity specified as $I_{cs} = 100\% I_{cu}$, 250A FP MCCB 50kA.</p> <p>Make: Siemens / L&T / Schneider / Legrand.</p>
196	125002571	400A FP MCCB 50kA	<p>400A FP MOULDED CASE CIRCUIT BREAKERS 50kA :</p> <p>Supply of 4 pole, 415 V, 50 Hz, Moulded Case Circuit Breakers (MCCB) in open execution with in-built protection features against over load and short circuit and with trip free mechanism. The MCCB shall have door inter locking mechanism and terminal facility for terminating Aluminium/Copper cable with lugs with spreader terminals. Including any two of following accessories as specified:</p>

			<p>a) Shunt trip release b) U/V release c) auxiliary contacts MCCB shall conform to IS-2516 ,IEC 60947-2 with latest amendments and shall have following rated current capacity and complete as required.</p> <p>The breaking capacity specified as Ics = 100% Icu 400A FP MCCB 50kA.</p> <p>Make: Siemens / L&T / Schneider / Legrand.</p>
197	304005431	32A TPN SFU in open execution	<p>32A TPN Switch-Disconnecter Fuse Unit in Open Execution :</p> <p>Supply, Fixing, Testing and Commissioning of 32A TPN Switch-Disconnecter Fuse Unit of Open Execution type inside the existing cubicle panel board with suitable HRC Fuses and suitable for 32A, 415V, AC 23A, conforming to IS / IEC 60947-3 (with latest amendments) including drilling, holes in cubicle panel, making connections, etc. as required.</p> <p>Make: L&T / Siemens / Schneider.</p>
198	304005432	63A TPN SFU in open execution	<p>63A TPN Switch-Disconnecter Fuse Unit in Open Execution :</p> <p>Supply, Fixing, Testing and Commissioning of 63A TPN Switch-Disconnecter Fuse Unit of Open Execution type inside the existing cubicle panel board with suitable HRC Fuses and suitable for 63A, 415V, AC 23A, conforming to IS / IEC 60947-3 (with latest amendments) including drilling, holes in cubicle panel, making connections, etc. as required.</p> <p>Make: L&T / Siemens / Schneider.</p>
199	304005433	100A TPN SFU in open execution	<p>100A TPN Switch-Disconnecter Fuse Unit in Open Execution :</p> <p>Supply, Fixing, Testing and Commissioning of 100A TPN Switch-Disconnecter Fuse Unit of Open Execution type inside the existing cubicle panel board with suitable HRC Fuses and suitable for 100A, 415V, AC 23A, conforming to IS / IEC 60947-3 (with latest amendments) including drilling, holes in cubicle panel, making connections, etc. as required.</p> <p>Make: L&T / Siemens / Schneider.</p>
200	304005434	125A TPN SFU in open execution	<p>125A TPN Switch-Disconnecter Fuse Unit in Open Execution :</p> <p>Supply, Fixing, Testing and Commissioning of 125A TPN Switch-Disconnecter Fuse Unit of Open Execution type inside the existing cubicle panel board with suitable HRC Fuses and suitable for 125A, 415V, AC 23A, conforming to IS / IEC 60947-3 (with latest amendments) including drilling, holes in cubicle panel, making connections, etc. as required.</p> <p>Make: L&T / Siemens/ Schneider.</p>

201	304005435	160A TPN SFU in open execution	160A TPN Switch-Disconnecter Fuse Unit in Open Execution : Supply, Fixing, Testing and Commissioning of 160A TPN Switch-Disconnecter Fuse Unit of Open Execution type inside the existing cubicle panel board with suitable HRC Fuses and suitable for 160A, 415V, AC 23A, conforming to IS / IEC 60947-3 (with latest amendments) including drilling, holes in cubicle panel, making connections, etc. as required. Make: L&T / Siemens / Schneider.
202	304005436	200A TPN SFU in open execution	200A TPN Switch-Disconnecter Fuse Unit in Open Execution : Supply, Fixing, Testing and Commissioning of 200A TPN Switch-Disconnecter Fuse Unit of Open Execution type inside the existing cubicle panel board with suitable HRC Fuses and suitable for 200A, 415V, AC 23A, conforming to IS / IEC 60947-3 (with latest amendments) including drilling, holes in cubicle panel, making connections, etc. as required. Make: L&T / Siemens / Schneider.
203	304005437	250A TPN SFU in open execution	250A TPN Switch-Disconnecter Fuse Unit in Open Execution : Supply, Fixing, Testing and Commissioning of 250A TPN Switch-Disconnecter Fuse Unit of Open Execution type inside the existing cubicle panel board with suitable HRC Fuses and suitable for 250A, 415V, AC 23A, conforming to IS / IEC 60947-3 (with latest amendments) including drilling, holes in cubicle panel, making connections, etc. as required. Make: L&T / Siemens / Schneider.
204	304005438	315A TPN SFU in open execution	315A TPN Switch-Disconnecter Fuse Unit in Open Execution : Supply, Fixing, Testing and Commissioning of 315A TPN Switch-Disconnecter Fuse Unit of Open Execution type inside the existing cubicle panel board with suitable HRC Fuses and suitable for 315A, 415V, AC 23A, conforming to IS / IEC 60947-3 (with latest amendments) including drilling, holes in cubicle panel, making connections, etc. as required. Make: L&T / Siemens / Schneider.
205	304005439	400A TPN SFU in open execution	400A TPN Switch-Disconnecter Fuse Unit in Open Execution : Supply, Fixing, Testing and Commissioning of 400A TPN Switch-Disconnecter Fuse Unit of Open Execution type inside the existing cubicle panel board with suitable HRC Fuses and suitable for 400A, 415V, AC 23A, conforming to IS / IEC 60947-3 (with latest amendments) including drilling, holes in cubicle panel, making connections, etc. as required. Make: L&T / Siemens / Schneider.

206	304005440	630A TPN SFU in open execution	630A TPN Switch-Disconnecter Fuse Unit in Open Execution : Supply, Fixing, Testing and Commissioning of 630A TPN Switch-Disconnecter Fuse Unit of Open Execution type inside the existing cubicle panel board with suitable HRC Fuses and suitable for 630A, 415V, AC 23A, conforming to IS / IEC 60947-3 (with latest amendments) including drilling, holes in cubicle panel, making connections, etc. as required. Make: L&T / Siemens / Schneider.
207	125002583	63A On Load Changeover Switch in SS Enclosure	63A On Load Changeover Switch - Disconnecter in SS Enclosure : Supply of 63A, 415V, 50 Hz, AC 23A, Four Pole, ON LOAD change over switch - Disconnecter in Sheet Steel Enclosure conforms to IS/IEC 60947-3. The operation Handle shall have 3 distinct positions viz., SOURCE 1 - OFF - SOURCE 2. The switch shall have Padlocking facility in any of the above 3 positions and clear visual indication of position of operating handle. Make : L&T / Siemens / Schneider.
208	125002584	100A On Load Changeover Switch in SS Enclosure	100A On Load Changeover Switch - Disconnecter in SS Enclosure : Supply of 100A, 415V, 50 Hz, AC 23A, Four Pole, ON LOAD change over switch - Disconnecter in Sheet Steel Enclosure conforms to IS/IEC 60947-3. The operation Handle shall have 3 distinct positions viz., SOURCE 1 - OFF - SOURCE 2. The switch shall have Padlocking facility in any of the above 3 positions and clear visual indication of position of operating handle. Make : L&T / Siemens / Schneider.
209	125002585	125A On Load Changeover Switch in SS Enclosure	125A On Load Changeover Switch - Disconnecter in SS Enclosure : Supply of 125A, 415V, 50 Hz, AC 23A, Four Pole, ON LOAD Changeover Switch - Disconnecter in Sheet Steel Enclosure conforms to IS/IEC 60947-3. The operation Handle shall have 3 distinct positions viz., SOURCE 1 - OFF - SOURCE 2. The switch shall have Padlocking facility in any of the above 3 positions and clear visual indication of position of operating handle. Make : L&T/Siemens/Schneider.
210	125002586	160A On Load Changeover Switch in SS Enclosure	160A On Load Changeover Switch - Disconnecter in SS Enclosure : Supply of 160A, 415V, 50 Hz, AC 23A, Four Pole, ON LOAD Changeover Switch - Disconnecter in Sheet Steel Enclosure conforms to IS/IEC 60947-3. The operation Handle shall have 3 distinct positions viz., SOURCE 1 - OFF - SOURCE 2. The switch shall have Padlocking facility in any of the above 3 positions and clear visual indication of position of operating handle. Make : L&T/Siemens/Schneider.

211	125002587	200A On Load Changeover Switch in SS Enclosure	200A On Load Changeover Switch - Disconnecter in SS Enclosure : Supply of 200A, 415V, 50 Hz, AC 23A, Four Pole, ON LOAD Changeover Switch - Disconnecter in Sheet Steel Enclosure conforms to IS/IEC 60947-3. The operation Handle shall have 3 distinct positions viz., SOURCE 1 - OFF - SOURCE 2. The switch shall have Padlocking facility in any of the above 3 positions and clear visual indication of position of operating handle. Make : L&T / Siemens / Schneider.
212	125002588	250A On Load Changeover Switch in SS Enclosure	250A On Load Changeover Switch - Disconnecter in SS Enclosure : Supply of 250A, 415V, 50 Hz, AC 23A, Four Pole, ON LOAD Changeover Switch - Disconnecter in Sheet Steel Enclosure conforms to IS/IEC 60947-3. The operation Handle shall have 3 distinct positions viz., SOURCE 1 - OFF - SOURCE 2. The switch shall have Padlocking facility in any of the above 3 positions and clear visual indication of position of operating handle. Make : L&T / Siemens / Schneider.
213	125002589	315A On Load Changeover Switch in SS Enclosure	315A On Load Changeover Switch - Disconnecter in SS Enclosure : Supply of 315A, 415V, 50 Hz, AC 23A, Four Pole, ON LOAD Changeover Switch - Disconnecter in Sheet Steel Enclosure, conforms to IS/IEC 60947-3. The operation Handle shall have 3 distinct positions viz., SOURCE 1 - OFF - SOURCE 2. The switch shall have Padlocking facility in any of the above 3 positions and clear visual indication of position of operating handle. Make : L&T / Siemens / Schneider.
214	125002590	400A On Load Changeover Switch in SS Enclosure	400A On Load Changeover Switch - Disconnecter in SS Enclosure : Supply of 400A, 415V, 50 Hz, AC 23A, Four Pole, ON LOAD Changeover Switch - Disconnecter in Sheet Steel Enclosure, conforms to IS/IEC 60947-3. The operation Handle shall have 3 distinct positions viz., SOURCE 1 - OFF - SOURCE 2. The switch shall have Padlocking facility in any of the above 3 positions and clear visual indication of position of operating handle. Make : L&T / Siemens / Schneider.
215	304005441	25 KVAR Capacitor Bank	25 KVAR Capacitor Bank : Supply, Testing and Commissioning of 25 KVAR Capacitor bank: LTXL - ULTRA HEAVY DUTY CAPACITOR BANK VOLTAGE : 440V KVAR RATING : 25 KVAR MAKE : L&T / Siemens / Schneider.

216	125002592	2A Fuse, Type NSD2, Make - Bussmann EATON	2A Fuse, Type LV BS88, NSD2, Make - Bussmann EATON : Supply of Low Voltage BS88 - Clip on Type Fuse, 550 Volts, Breaking Capacity 80kA BS Size: F1, Tag Type: CLIP ON TAG Rating: 2 Amps Cat.No : NSD2 Make : Bussmann EATON
217	125002593	4A Fuse, Type NSD4, Make- Bussmann EATON	4A Fuse, Type LV BS88, NSD4, Make - Bussmann EATON : Supply of Low Voltage BS88 - Clip on Type Fuse, 550 Volts, Breaking Capacity 80kA BS Size: F1 Tag Type: CLIP ON TAG Rating: 4 Amps Cat.No : NS - NSD4 Make : Bussmann EATON
218	125002594	4A Fuse, Type SSD4, Make- Bussmann EATON	4A Fuse, Type LV BS88, SSD4, Make - Bussmann EATON : Supply of Low Voltage BS88 - Clip on Type Fuse, 240 Volts, Breaking Capacity 33kA BS Size: E1 Tag Type: SMALL CLIP ON Rating: 4 Amps Cat.No : SS - SSD4 Make : Bussmann EATON
219	125002595	6A Fuse, Type NSD6, Make- Bussmann EATON	6A Fuse, Type LV BS88, NSD6, Make - Bussmann EATON : Supply of Low Voltage BS88 - Clip on Type Fuse, 550 Volts, Breaking Capacity 80kA BS Size: F1, Tag Type: CLIP ON TAG Rating: 6 Amps Cat.No : NSD6 Make : Bussmann EATON
220	125002596	10A Fuse, Type NSD10, Make-	10A Fuse, Type LV BS88, NSD10, Make - Bussmann EATON : Supply of Low Voltage BS88 - Clip on Type Fuse, 550 Volts, Breaking Capacity 80kA

		Bussmann EATON	BS Size: F1, Tag Type: CLIP ON TAG Rating: 10 Amps Cat.No : NSD10 Make : Bussmann EATON
221	125002597	20A Fuse, Type NSD20, Make- Bussmann EATON	20A Fuse, Type LV BS88, NSD10, Make - Bussmann EATON : Supply of Low Voltage BS88 - Clip on Type Fuse, 550 Volts, Breaking Capacity 80kA BS Size: F1, Tag Type: CLIP ON TAG Rating: 20 Amps Cat.No : NSD20 Make : Bussmann EATON
222	125002598	25A Fuse, Type - TSA AAO25, Make - Bussmann EATON	25A Fuse, Type - TSA AAO25, Make - Bussmann EATON : Supply of Low Voltage BS88 - Bolted Type Fuse, 550 Volts, Breaking Capacity 80kA BS Size- A2 Tag Type- OFF SET TAG, CLOSED SLOT Rating - 25 Amps Cat.No : TSA - AAO25 Make : Bussmann EATON
223	125002600	32A Fuse, Type - TSA AAO32, Make - Bussmann EATON	32A Fuse, Type - TSA AAO32, Make - Bussmann EATON : Supply of Low Voltage BS88 - Bolted Type Fuse, 550 Volts, Breaking Capacity 80kA BS Size- A2 Tag Type- OFF SET TAG, CLOSED SLOT Rating - 32 Amps Cat.No : TSA - AAO32 Make : Bussmann EATON
224	125002601	16A Fuse, Type - TIA 16HO7-660, Make - Bussmann EATON	16A Fuse, Type - TIA 16HO7-660, Make - Bussmann EATON : Supply of Low Voltage BS88 - Bolted Type Fuse, 660/690 Volts, Breaking Capacity 80kA BS Size- A2 Tag Type- OFF SET TAG, CLOSED SLOT

			Rating - 16 Amps Cat.No : TIA - 16HO7-660 Make : Bussmann EATON
225	125002602	32A Fuse, Type - TIA 32HO7-660, Make - Bussmann EATON	32A Fuse, Type - TIA 32HO7-660, Make - Bussmann EATON : Supply of Low Voltage BS88 - Bolted Type Fuse, 660/690 Volts, Breaking Capacity 80kA BS Size: A2 Tag Type: OFF SET TAG, CLOSED SLOT Rating: 32 Amps Cat.No: TIA - 32HO7-660 Make: Bussmann EATON
226	125002603	50A Fuse, Type - TIS 50KO7-660, Make - Bussmann EATON	50A Fuse, Type - TIS - 50KO7-660, Make - Bussmann EATON : Supply of Low Voltage BS88 - Bolted Type Fuse, 660/690 Volts, Breaking Capacity 80kA BS Size: A3 Tag Type: OFF SET TAG, CLOSED SLOT Rating: 50 Amps Cat.No: TIS -50KO7-660 Make: Bussmann EATON
227	125002604	63A Fuse, Type - TIS 63KO7-660, Make - Bussmann EATON	63A Fuse, Type - TIS 63KO7-660, Make - Bussmann EATON : Supply of Low Voltage BS88 - Bolted Type Fuse, 660/690 Volts, Breaking Capacity 80kA BS Size: A3 Tag Type: OFF SET TAG, CLOSED SLOT Rating: 63 Amps Cat.No: TIS -63KO7-660 Make: Bussmann EATON
228	125002605	63A Fuse, Type - TSS BAO63, Make - Bussmann EATON	63A Fuse, Type - TSS BAO63, Make - Bussmann EATON : Supply of Low Voltage BS88 - Bolted Type Fuse, 550 Volts, Breaking Capacity 80kA BS Size: A3 Tag Type: OFF SET TAG, CLOSED SLOT Rating: 63 Amps Cat.No: TSS - BAO63

			Make: Bussmann EATON
229	125002606	100A Fuse, Type - TCP 100L14- 660, Make - Bussmann EATON	100A Fuse, Type - TCP 100L14-660, Make - Bussmann EATON : Supply of Low Voltage BS88 - Bolted Type Fuse, 660/690 Volts, Breaking Capacity 80kA BS Size: A4 Tag Type: OFF SET TAG, CLOSED SLOT Rating: 100 Amps Cat.No: TCP 100L14-660, Make: Bussmann EATON
230	125002607	100A Fuse, Type - TSDC CD100, Make - Bussmann EATON	100A Fuse, Type - TSDC CD100, Make - Bussmann EATON : Supply of Low Voltage BS88 - Bolted Type Fuse, 415 Volts, Breaking Capacity 80kA BS Size: B1 Tag Type: CENTRE TAG, SINGLE SLOT Rating: 100 Amps Cat.No: TSDC CD100, Make: Bussmann EATON
231	125002608	125A Fuse, Type - TSF DD125, Make - Bussmann EATON	125A Fuse, Type - TSF DD125, Make - Bussmann EATON : Supply of Low Voltage BS88 - Bolted Type Fuse, 415 Volts, Breaking Capacity 80kA BS Size: B2 Tag Type: CENTRE TAG, SINGLE SLOT Rating: 125 Amps Cat.No: TSF DD125, Make: Bussmann EATON
232	125002609	200A Fuse, Type - TSF DD200, Make - Bussmann EATON	200A Fuse, Type - TSF DD200, Make - Bussmann EATON : Supply of Low Voltage BS88 - Bolted Type Fuse, 415 Volts, Breaking Capacity 80kA BS Size: B2 Tag Type: CENTRE TAG, SINGLE SLOT Rating: 200 Amps Cat.No: TSF DD200, Make: Bussmann EATON

233	125002610	2A HRC BS Fuse, Type- 3NW NS 2, Make - Siemens	Supply of Low Voltage 2A HRC BS Fuse, Type- 3NW NS 2, 415V AC, Breaking Capacity 80kA, F1, TAG TYPE: BLADE TAG, RATING: 2A, TYPE/CAT.NO.: 3NW NS 2 MAKE: SIEMENS
234	125002611	4A HRC BS Fuse, Type- 3NW NS4, Make - Siemens	Supply of Low Voltage 4A HRC BS Fuse, Type- 3NW NS 4, 415V AC, Breaking Capacity 80kA SIZE : F1 TAG TYPE: BLADE TAG RATING : 4A TYPE : 3NW NS 4 MAKE : SIEMENS
235	125002612	6A HRC BS Fuse, Type - 3NW NS 6, Make - Siemens	Supply of Low Voltage 6A HRC BS Fuse, Type- 3NW NS 6, 415V AC, Breaking Capacity 80kA SIZE : F1 RATING : 6A TYPE : 3NW NS 6 MAKE : SIEMENS
236	125002613	10A HRC BS Fuse, Type - 3NW NS 10, Make - Siemens	Supply of Low Voltage 10A HRC BS Fuse, Type- 3NW NS 10, 415V AC, Breaking Capacity 80kA SIZE : F1 RATING : 10A TYPE : 3NW NS 10 MAKE : SIEMENS
237	125002614	32A HRC DIN Fuse, Type - 3NA7 812-0RC, Make -	Supply of Low Voltage 32A HRC DIN Fuse, Type - 3NA7 812-0RC, 500V AC, Breaking Capacity 120kA SIZE : 000 RATING : 32A

		SIEMENS	TYPE : 3NA7 812-0RC MAKE : SIEMENS
238	125002615	63A HRC DIN Fuse, Type - 3NA7 822-0RC, Make - SIEMENS	Supply of Low Voltage 63A HRC DIN Fuse, Type - 3NA7 822-0RC, 500V AC, Breaking Capacity 120kA SIZE : 000 RATING : 63A TYPE : 3NA7 822-0RC MAKE : SIEMENS
239	125002616	125A HRC DIN Fuse, Type - 3NA7 832-0RC, Make - SIEMENS	Supply of Low Voltage 125A HRC DIN Fuse, Type - 3NA7 832-0RC, 500V AC, Breaking Capacity 120kA SIZE : 00 RATING : 125A TYPE : 3NA7 832-0RC MAKE : SIEMENS
240	125002617	160A HRC DIN Fuse, Type - 3NA7 836-0RC, Make - SIEMENS	Supply of Low Voltage 160A HRC DIN Fuse, Type - 3NA7 836-0RC, 500V AC, Breaking Capacity 120kA SIZE : 1 RATING : 160A TYPE : 3NA7 836-0RC MAKE : SIEMENS
241	125002618	200A HRC DIN Fuse, Type - 3NA7 140-0RC, Make - SIEMENS	Supply of Low Voltage 200A HRC DIN Fuse, Type - 3NA7 140-0RC, 500V AC, Breaking Capacity 120kA SIZE : 1 RATING : 200A TYPE : 3NA7 140-0RC MAKE : SIEMENS
242	125002619	250A HRC DIN Fuse, Type - 3NA7 144-0RC, Make -	Supply of Low Voltage 250A HRC DIN Fuse, Type - 3NA7 144-0RC, 500V AC, Breaking Capacity 120kA SIZE : 1 RATING : 250A

		SIEMENS	TYPE : 3NA7 144-0RC MAKE : SIEMENS
243	125002620	315A HRC DIN Fuse, Type - 3NA7 252-0RC, Make - SIEMENS	Supply of Low Voltage 315A HRC DIN Fuse, Type - 3NA7 252-0RC, 500V AC, Breaking Capacity 120kA SIZE : 2 RATING : 315A TYPE : 3NA7 252-0RC MAKE : SIEMENS
244	125002621	400A HRC DIN Fuse, Type - 3NA7 260-0RC, Make - SIEMENS	Supply of Low Voltage 400A HRC DIN Fuse, Type - 3NA7 260-0RC, 500V AC, Breaking Capacity 120kA SIZE : 2 RATING : 400A TYPE : 3NA7 260-0RC MAKE : SIEMENS
245	125002622	32A HRC Cylindrical Fuse, Type HF, Make L&T	32A HRC Cylindrical Fuse, Type-HF, Make L&T : Supply of Cylindrical Type Fuse Link, Type HF, Breaking Capacity 80kA. Rating: 32A Size: 14x51 Cat. No: SF90142 Make: L&T.
246	125002623	63A HRC Cylindrical Fuse, Type HF, Make L&T	63A HRC Cylindrical Fuse, Type HF, Make L&T : Supply of Cylindrical Type Fuse Link, Type HF, Breaking Capacity 80kA. Rating: 63A Size: 14x51 Cat. No: SF90159 Make: L&T.
247	125002624	63A HRC DIN Fuse, HN, 000, SF94940, Make L&T	63A HRC DIN Fuse, HN, 000, SF94940, Make L&T : Supply of DIN Type Fuse Links, Type HN, Breaking Capacity 100kA. Rating: 63A Size: 000

			Cat. No: SF94940 Make: L&T.
248	125002625	100A HRC DIN Fuse, HN, 000, SF94942, Make L&T	100A HRC DIN Fuse, HN, 000, SF94942, Make L&T : Supply of DIN Type Fuse Links, Type HN, Breaking Capacity 100kA. Rating: 100A Size: 000 Cat. No: SF94942 Make: L&T.
249	125002626	125A HRC DIN Fuse, HN, 000, SF94946, Make L&T	125A HRC DIN Fuse, HN, 000, SF94946, Make L&T : Supply of DIN Type Fuse Links, Type HN, Breaking Capacity 100kA. Rating: 125A Size: 000 Cat. No: SF94946 Make: L&T.
250	125002627	125A HRC DIN Fuse, HN, 00, SF94030, Make L&T	125A HRC DIN Fuse, HN, 00, SF94030, Make L&T : Supply of DIN Type Fuse Links, Type HN, Breaking Capacity 100kA. Rating: 125A Size: 00 Cat. No: SF94030 Make : L&T.
251	125002630	160A HRC DIN Fuse, HN, 0, SF94131, Make L&T	160A HRC DIN Fuse, HN, 0, SF94131, Make L&T : Supply of DIN Type Fuse Links, Type HN, Breaking Capacity 100kA. Rating: 160A Size: 0 Cat. No: SF94131 Make: L&T.
252	125002629	200A HRC DIN Fuse, HN, 1, 94232 Make L&T	200A HRC DIN Fuse, HN, 1, 94232 Make L&T : Supply of DIN Type Fuse Links, Type HN, Breaking Capacity 100kA. Rating: 200A Size: 1

			Cat. No: SF94232 Make: L&T.
253	125002631	250A HRC DIN Fuse, HN, 1, SF94233, Make - L&T	250A HRC DIN Fuse, HN, 1, SF94233 Make L&T : Supply of DIN Type Fuse Links, Type HN, Breaking Capacity 100kA. Rating: 250A Size: 1 Cat. No: SF94233 Make: L&T.
254	125002632	315A HRC DIN Fuse, HN, 2, SF94334, Make L&T	315A HRC DIN Fuse, HN, 2, SF94334, Make L&T : Supply of DIN Type Fuse Links, Type HN, Breaking Capacity 100kA. Rating: 315A Size: 2 Cat. No: SF94334 Make: L&T.
255	125002633	400A HRC DIN Fuse, HN, 2, SF94335, Make L&T	400A HRC DIN Fuse, HN, 2, SF94335, Make L&T : Supply of DIN Type Fuse Links, Type HN, Breaking Capacity 100kA. Rating: 400A Size: 2 Cat. No: SF94335 Make: L&T.
256	125002634	630A HRC DIN Fuse, HN, 3, SF94437, Make L&T	630A HRC DIN Fuse, HN, 3, SF94437, Make L&T : Supply of DIN Type Fuse Links, Type HN, Breaking Capacity 100kA. Rating: 630A Size: 3 Cat. No: SF94437 Make: L&T.
257	125002635	800A HRC DIN Fuse, HN, 3, SF94938, Make L&T	800A HRC DIN Fuse, HN, 3, SF94938, Make L&T : Supply of DIN Type Fuse Links, Type HN, Breaking Capacity 100kA. Rating: 800A Size: 3

			Cat. No: SF94938 Make: L&T.
258	304005442	Fabrication of 100A TPN Aluminium Bus Bars	Fabrication of 100A TPN Aluminium Bus Bars : Supply and Fabrication of 100A TPN Aluminium Bus bars made of suitable rating high conductivity Electrolytic Aluminium, suitable for 500V, 50 Hz, Three Phase & Neutral, AC supply operation, Enclosed in 14 SWG CRCA sheet steel, Dust and Vermin proof Enclosure including supply of sheet, Fabrication, Cutting, Silicon based Fire / Heat Resistant Coating, Painting with Primer and two Coats of approved Synthetic Paint of approved quality & colour Non-Hygroscopic, High Dielectric value SMC / FRP Bus bar supports, to withstand a Symmetric Fault Level of 50 kA and confirming to IEC 61439 (with latest amendment) for the 100A capacities, complete as required.
259	304005443	Fabrication of 200A TPN Aluminium Bus bars	Fabrication of 200A TPN Aluminium bus bars : Supply and Fabrication of 200A TPN Aluminium Bus bars made of suitable rating high conductivity electrolytic Aluminium, suitable for 500V, 50 Hz, Three Phase & Neutral AC supply operation, Enclosed in 14 SWG CRCA sheet steel, Dust and Vermin proof Enclosure including supply of sheet, Fabrication, Cutting, Silicon based Fire / Heat Resistant Coating, Painting with Primer and two Coats of approved Synthetic Paint of approved quality & colour Non-Hygroscopic, High Dielectric value SMC / FRP Bus bar supports, to withstand a Symmetric Fault Level of 50 kA and confirming to IEC 61439 (with latest amendment) for the 200A capacities, complete as required.
260	304005444	Fabrication of 300A TPN Aluminium Bus bars	Fabrication of 300A TPN Aluminium Bus Bars : Supply and Fabrication of 300A TPN Aluminium Bus bars made of suitable rating high conductivity electrolytic Aluminium, suitable for 500V, 50 Hz, Three Phase & Neutral AC supply operation, Enclosed in 14 SWG CRCA sheet steel, Dust and Vermin proof Enclosure including supply of sheet, Fabrication, Cutting, Silicon based Fire / Heat Resistant Coating, Painting with Primer and two Coats of approved Synthetic Paint of approved quality & colour Non-Hygroscopic, High Dielectric value SMC / FRP Bus bar supports, to withstand a Symmetric Fault Level of 50 kA and confirming to IEC 61439 (with latest amendment) for the 300A capacities, complete as required.

261	304005445	Fabrication of 400A / 500A TPN Aluminium Bus bars	Fabrication of 400A / 500A TPN Aluminium Bus Bars : Supply and Fabrication of 400A / 500A TPN Aluminium Bus bars made of suitable Rating, High Conductivity electrolytic Aluminium, suitable for 500V, 50 Hz, Three Phase & Neutral AC supply operation, Enclosed in 14 SWG CRCA sheet steel, Dust and Vermin proof Enclosure including supply of sheet, Fabrication, Cutting, Silicon based Fire / Heat Resistant Coating, Painting with Primer and two Coats of approved Synthetic Paint of approved quality & colour Non-Hygroscopic, High Dielectric value SMC / FRP Bus bar supports, to withstand a Symmetric Fault Level of 50 kA and confirming to IEC 61439 (with latest amendment) for the 400A / 500A capacities, complete as required.
262	304005446	Fabrication of 630A TPN Aluminium Bus bars	Fabrication of 630A TPN Aluminium bus bars : Supply and Fabrication of 630A TPN Aluminium Bus bars made of suitable Rating High Conductivity electrolytic Aluminium, suitable for 500V, 50 Hz, Three Phase & Neutral AC supply operation, Enclosed in 14 SWG CRCA sheet steel, Dust and Vermin proof Enclosure including supply of sheet, Fabrication, Cutting, Silicon based Fire / Heat Resistant Coating, Painting with Primer and two Coats of approved Synthetic Paint of approved quality & colour Non-Hygroscopic, High Dielectric value SMC / FRP Bus bar supports, to withstand a Symmetric Fault Level of 50 kA and confirming to IEC 61439 (with latest amendment) for the 630A capacities, complete as required.
263	304005447	Fabrication of 800A TPN Aluminium Bus bars	Fabrication of 800A TPN Aluminium bus bars : Supply and Fabrication of 800A TPN Aluminium Bus bars made of suitable Rating High Conductivity Electrolytic Aluminium, suitable for 500V, 50 Hz, Three Phase & Neutral AC supply operation, Enclosed in 14 SWG CRCA sheet steel, Dust and Vermin proof Enclosure including supply of sheet, Fabrication, Cutting, Silicon based Fire / Heat Resistant Coating, Painting with Primer and two Coats of approved Synthetic Paint of approved quality & colour Non-Hygroscopic, High Dielectric value SMC / FRP Bus bar supports, to withstand a Symmetric Fault Level of 50 kA and confirming to IEC 61439 (with latest amendment) for the 800A capacities, complete as required.
264	304005448	Fabrication of 800A/900A TPN Aluminium Bus	Fabrication of 800A/900A TPN Aluminium Bus bars : Supply and fabrication of 800A/900A TPN aluminium bus bars made of suitable rating high conductivity electrolytic aluminium, suitable for 500V, 50 Hz 3 phase, and neutral AC supply

		bars	operation, enclosed in 14 SWG CRCA sheet steel dust and vermin proof enclosure including supply of sheet, fabrication, cutting, silicon based Fire / Heat resistant coating, painting with primer and two coats of approved synthetic paint of approved quality & colour Non-hygroscopic, High dielectric value SMC / FRP bus bar supports, to withstand a symmetric fault level of 50 kA and confirming to IEC 61439 (with latest amendment) for the following capacities, complete as required.
265	304005449	Fabrication of 100A TPN Copper Bus bars	Fabrication of 100A TPN Copper Bus bars : Supply and fabrication of 100A TPN copper bus bars made of suitable rating high conductivity electrolytic copper, suitable for 500V, 50 Hz 3 phase, and neutral AC supply operation, enclosed in 14 SWG CRCA sheet steel dust and vermin proof enclosure including supply of sheet, fabrication, cutting, silicon based Fire / Heat resistant coating, painting with primer and two coats of approved synthetic paint of approved quality & colour Non-hygroscopic, High dielectric value SMC / FRP bus bar supports, to withstand a symmetric fault level of 50 kA and confirming to IEC 61439 (with latest amendment) for the following capacities, complete as required.
266	304005450	Fabrication of 200A TPN Copper Bus bars	Fabrication of 200A TPN Copper Bus bars : Supply and fabrication of 200A TPN copper bus bars made of suitable rating high conductivity electrolytic copper, suitable for 500V, 50 Hz 3 phase, and neutral AC supply operation, enclosed in 14 SWG CRCA sheet steel dust and vermin proof enclosure including supply of sheet, fabrication, cutting, silicon based Fire / Heat resistant coating, painting with primer and two coats of approved synthetic paint of approved quality & colour Non-hygroscopic, High dielectric value SMC / FRP bus bar supports, to withstand a symmetric fault level of 50 kA and confirming to IEC 61439 (with latest amendment) for the following capacities, complete as required: 200 Amps.
267	304005451	Fabrication of 300A TPN Copper bus bars	Fabrication of 300A TPN Copper Bus bars : Supply and fabrication of 300A TPN copper bus bars made of suitable rating high conductivity electrolytic copper, suitable for 500V, 50 Hz 3 phase, and neutral AC supply operation, enclosed in 14 SWG CRCA sheet steel dust and vermin proof enclosure including supply of sheet, fabrication, cutting, silicon based Fire / Heat resistant coating, painting with primer and two coats of approved synthetic paint of approved quality & colour Non-hygroscopic, High dielectric value SMC / FRP bus bar supports, to withstand a symmetric fault level of 50 kA and confirming to

			IEC 61439 (with latest amendment) for the following capacities, complete as required: 300 Amps.
268	304005452	Fabrication of 400A/500A TPN Copper bus bars	Fabrication of 400A/500A TPN Copper Bus bars : Supply and fabrication of 400A/500A TPN copper bus bars made of suitable rating high conductivity electrolytic copper, suitable for 500V, 50 Hz 3 phase, and neutral AC supply operation, enclosed in 14 SWG CRCA sheet steel dust and vermin proof enclosure including supply of sheet, fabrication, cutting, silicon based Fire / Heat resistant coating, painting with primer and two coats of approved synthetic paint of approved quality & colour Non-hygroscopic, High dielectric value SMC / FRP bus bar supports, to withstand a symmetric fault level of 50 kA and confirming to IEC 61439 (with latest amendment) for the following capacities, complete as required: 400A/500Amps.
269	304005453	Fabrication of 630A TPN Copper bus bars	Fabrication of 630A TPN Copper Bus bars : Supply and fabrication of 630A TPN copper bus bars made of suitable rating high conductivity electrolytic copper, suitable for 500V, 50 Hz 3 phase, and neutral AC supply operation, enclosed in 14 SWG CRCA sheet steel dust and vermin proof enclosure including supply of sheet, fabrication, cutting, silicon based Fire / Heat resistant coating, painting with primer and two coats of approved synthetic paint of approved quality & colour Non-hygroscopic, High dielectric value SMC / FRP bus bar supports, to withstand a symmetric fault level of 50 kA and confirming to IEC 61439 (with latest amendment) for the following capacities, complete as required: 630 Amps.
270	304005454	Fabrication of 800/900A TPN Copper bus bars	Fabrication of 800A/900A TPN Copper Bus bars : Supply and fabrication of 800A/900A TPN copper bus bars made of suitable rating high conductivity electrolytic copper, suitable for 500V, 50 Hz 3 phase, and neutral AC supply operation, enclosed in 14 SWG CRCA sheet steel dust and vermin proof enclosure including supply of sheet, fabrication, cutting, silicon based Fire / Heat resistant coating, painting with primer and two coats of approved synthetic paint of approved quality & colour Non-hygroscopic, High dielectric value SMC / FRP bus bar supports, to withstand a symmetric fault level of 50 kA and confirming to IEC 61439 (with latest amendment) for the following capacities, complete as required: 800/900 Amps.

271	304005455	Fabrication of 1000A TPN Copper bus bars	<p>Fabrication of 1000A TPN Copper Bus bars :</p> <p>Supply and fabrication of 1000A TPN copper bus bars made of suitable rating high conductivity electrolytic copper, suitable for 500V, 50 Hz 3 phase, and neutral AC supply operation, enclosed in 14 SWG CRCA sheet steel dust and vermin proof enclosure including supply of sheet, fabrication, cutting, silicon based Fire / Heat resistant coating, painting with primer and two coats of approved synthetic paint of approved quality & colour Non-hygroscopic, High dielectric value SMC / FRP bus bar supports, to withstand a symmetric fault level of 50 kA and confirming to IEC 61439 (with latest amendment) for the following capacities, complete as required: 1000Amps.</p>
272	304005456	Cubicle chambers for 15A/32A/63A rating	<p>Cubicle chambers for 15A/32A/63A rating:</p> <p>Supply and Fabrication of dust and vermin proof, front operation cubicle chambers for mounting 500V, 50Hz, AC supply, TPN switch fuse units of cubicle type including supply of 14 SWG CRCA sheet, cutting, welding, fabrication including inter chamber fire barriers, doors with gasket & locking facility, silicon based Fire / Heat resistant coating and painting with powder coating inclusive of installation of SFU with handle / MCB with door cutout / MCCB with rotary handle door interlocking arrangement bus bar interconnection with suitable rating copper / electrolytic aluminium conductors / strips SMC / DMC barriers around bus bar connections but excluding the cost of SFUs / MCBs / MCCB, with following rating: 15A/32A/63A.</p>
273	304005457	Cubicle chambers for 100A/200A/250A rating	<p>Cubicle chambers for 100/200/250A rating:</p> <p>Supply and Fabrication of dust and vermin proof, front operation cubicle chambers for mounting 500V, 50Hz, AC supply, TPN switch fuse units of cubicle type including supply of 14 SWG CRCA sheet, cutting, welding, fabrication including inter chamber fire barriers, doors with gasket & locking facility, silicon based Fire / Heat resistant coating and painting with powder coating inclusive of installation of SFU with handle / MCB with door cutout / MCCB with rotary handle door interlocking arrangement bus bar interconnection with suitable rating copper / electrolytic aluminium conductors / strips SMC / DMC barriers around bus bar connections but excluding the cost of SFUs / MCBs / MCCB, with following rating: 100A/200A/250A.</p>
274	304005458	Cubicle chambers for 300A/400A Rating	<p>Cubicle chambers for 300A/400A rating:</p> <p>Supply and Fabrication of dust and vermin proof, front operation cubicle chambers for mounting 500V, 50Hz, AC supply, TPN switch fuse units of cubicle type including supply of 14 SWG</p>

			CRCA sheet, cutting, welding, fabrication including inter chamber fire barriers, doors with gasket & locking facility, silicon based Fire / Heat resistant coating and painting with powder coating inclusive of installation of SFU with handle / MCB with door cutout / MCCB with rotary handle door interlocking arrangement bus bar interconnection with suitable rating copper / electrolytic aluminium conductors / strips SMC / DMC barriers around bus bar connections but excluding the cost of SFUs / MCBs / MCCB, with following rating: 300A/400A.
275	304005459	Cubicle chambers for 630A rating	Cubicle chambers for 630A rating: Supply and Fabrication of dust and vermin proof, front operation cubicle chambers for mounting 500V, 50Hz, AC supply, TPN switch fuse units of cubicle type including supply of 14 SWG CRCA sheet, Cutting, Welding, Fabrication including inter chamber fire barriers, doors with gasket & locking facility, silicon based Fire / Heat resistant coating and painting with powder coating inclusive of installation of SFU with handle / MCB with door cutout / MCCB with rotary handle door interlocking arrangement bus bar interconnection with suitable rating Copper / Electrolytic Aluminium conductors / strips SMC / DMC barriers around bus bar connections but excluding the cost of SFUs / MCBs / MCCB, with following rating: 630A.
276	304005460	Channel for the Panel	CHANNEL FOR THE PANEL : Supply, Fabrication and providing of ISMC - 100 channel base for the panel including supply of channel, cutting, welding, painting with approved paint and fixing with all required materials.
277	304005461	Installation of Metering instruments for MV Panel.	Installation of Metering instruments for MV Panel : Installation of metering instruments for MV panel including interconnections for CTs, Voltmeter with selector switch, Ammeter with selector switch, indication lamps with fuse and switch control inclusive of all materials like Copper wire, Control wire holding tray / clamps, indication lamps with holders, crimping type Lugs, Control Fuse units, Toggle switches and screws but excluding the cost of CTs, Ammeter, Voltmeter and Selector switches, confirming to IEC 61439 (with latest amendment).
278	304005462	WEATHER PROOF BOXES (M.S) 63A	Weather Proof Boxes (M.S) - 63A : Supply & installation of Weather Proof Boxes made out of 14 SWG CRCA sheet steel including supply of sheet, frame supports, cutting, welding, painting with synthetic enamel paint of approved colour necessary civil works for installation with required materials silicon based fire/heat resistant coating, suitable for wall/plinth mounting. The enclosure shall have the

			provision for locking arrangement and suitable for installing the following switchgears but excluding supply of SFU/Isolators. 63A Rating.
279	304005463	WEATHER PROOF BOXES (M.S) 100A/200A	Weather Proof Boxes (M.S) - 100/200A : Supply & installation of 100A/200A Weather Proof Boxes made out of 14 SWG CRCA sheet steel including supply of sheet, frame supports, cutting, welding, painting with synthetic enamel paint of approved colour necessary civil works for installation with required materials silicon based Fire/Heat Resistant coating, suitable for wall/plinth mounting. The enclosure shall have the provision for locking arrangement and suitable for installing the following switchgears but excluding supply of SFU/Isolators. 100/200A Rating.
280	304005464	WEATHER PROOF BOXES (M.S) 300A/400A	WEATHER PROOF BOXES (M.S) 300A/400A : Supply & installation of weather proof boxes made out of 14 SWG CRCA sheet steel including supply of sheet, frame supports, cutting, welding, painting with synthetic enamel paint of approved colour necessary civil works for installation with required materials silicon based fire/heat resistant coating, suitable for wall/plinth mounting. The enclosure shall have the provision for locking arrangement and suitable for installing the following switchgears but excluding supply of SFU/Isolators. 300/400A Rating.
281	304005465	WEATHER P BOXES (PVC/FRP) 136X253X115 MM	WEATHER P BOXES (PVC/FRP) 136X253X115 MM : Supply & installation of weather proof PVC/FRP boxes of approved colour with necessary civil works for installation with required materials silicon based fire/heat resistant coating, suitable for wall/plinth mounting. The enclosure shall have the provision for locking arrangement and suitable for installing the following switchgears but excluding supply of SFU/Isolators. Box with mounting plate (with transparent lid) of 136x253x115 mm (approximate) size suitable for IP 65 application.
282	304005466	WEATHER P BOXES (PVC/FRP) 168X253X115 MM	WEATHER P BOXES (PVC/FRP) 168X253X115 MM : Supply & installation of weather proof PVC/FRP boxes of approved colour with necessary civil works for installation with required materials silicon based fire/heat resistant coating, suitable for wall/plinth mounting. The enclosure shall have the provision for locking arrangement and suitable for installing the following switchgears but excluding supply of SFU/Isolators. Box with mounting plate (with transparent lid) of 168x253x115 mm (approximate) size suitable for IP 65 application.

283	304005467	WEATHER P BOXES (PVC/FRP) 217X253X115 MM	WEATHER P BOXES (PVC/FRP) 217X253X115 MM : Supply & Installation of Weather Proof PVC/FRP boxes of approved colour with necessary Civil works for installation with required materials silicon based Fire/Heat Resistant Coating, suitable for wall/plinth mounting. The enclosure shall have the provision for locking arrangement and suitable for installing the following switchgears but excluding supply of SFU/Isolators. Box with mounting plate (with transparent lid) of 217x253x115 mm (approximate) size suitable for IP 65 application.
284	304005468	PANEL FABRICATION 1(L)X1(W)X0.30 (D) MTR	Panel Fabrication 1 Meter(L) x 1 Meter(W) x 0.30 Meter(D) : Supply and Fabrication of 1 Meter(L) x 1 Meter(W) x 0.30 Meter(D) size Electrical Panel / PCC / MCC chambers with 14 SWG CRCA sheet with 2mm thick folded sheet or with angle iron frame work (according to the size and rating of panel) including Seven Tank Metal Treatment and Powder Coating. The panel shall confirm IEC 61439 (with latest amendment).
285	304005469	PANEL FABRICATION 1(L)X1(W)X0.50 (D) MTR	Panel Fabrication 1 Meter(L) x 1 Meter(W) x 0.50 Meter(D) : Supply and Fabrication of 1 Meter(L) x 1 Meter(W) x 0.50 Meter(D) size Electrical panel / PCC / MCC chambers with 14 SWG CRCA sheet with 2mm thick folded sheet or with angle iron frame work (according to the size and rating of panel) including seven tank metal treatment and powder coating. The panel shall confirm IEC 61439 (with latest amendment).
286	304005470	PANEL FABRICATION 1(L)X1(W)X0.60 (D) MTR	Panel Fabrication 1 Meter (L) x 1 Meter(W) x 0.60 Meter(D) : Supply and Fabrication of 1 Meter(L) x 1 Meter(W) x 0.60 Meter(D) size Electrical Panel / PCC / MCC chambers with 14 SWG CRCA sheet with 2mm thick folded sheet or with angle iron frame work (according to the size and rating of panel) including Seven Tank Metal Treatment and Powder Coating. The panel shall confirm IEC 61439 (with latest amendment).
287	304005471	PANEL FABRICATION 1(L)X1(W)X0.80 (D) MTR	Panel Fabrication 1 Meter(L) x 1 Meter(W) x 0.80 Meter(D) : Supply and Fabrication of 1 Meter(L) x 1 Meter(W) x 0.80 Meter(D) size Electrical Panel / PCC / MCC chambers with 14 SWG CRCA sheet with 2mm thick folded sheet or with angle iron frame work (according to the size and rating of panel) including Seven Tank Metal Treatment and Powder Coating. The panel shall confirm IEC 61439 (with latest amendment).
288	304005472	PANEL FABRICATION	Panel Fabrication 1 Meter(L) x 1 Meter(W) x 1 Meter(D) : Supply and Fabrication of 1 Meter(L) x 1 Meter(W) x 1 Meter(D) size Electrical Panel / PCC /

		1(L)X1(W)X1(D) MTR	MCC chambers with 14 SWG CRCA sheet with 2mm thick folded sheet or with angle iron frame work (according to the size and rating of panel) including seven tank metal treatment and powder coating. The panel shall confirm IEC 61439 (with latest amendment).
289	304005473	Power Distribution Board	<p>POWER DISTRIBUTION BOARD : Design, Fabrication, Supply, Installation, Testing and Commissioning of 3 Phase 415V, 4 wire, 50 Hz, Cubical Panel Board made out of 14 gauge CRCA sheet steel with Powder Coated as per IP 43-degree Protection. The panel shall be consisting of fully PVC insulated Aluminium 100 X 10 mm Bus Bars of Length 2000mm size in all Phases and Neutral supported with DMC/SMC supports barriers and for insulation level withstand of 1.1kV Rated with Heat Shrinkable Colour Code Sleeves. With DIN-Channel mounted Multifunction meter with Functions like V, A, KW, KVA, KWH, PF, KVAH, Selector Switch, LED indicating lights, 800/5A- 3nos, 400A -3nos, CTs should be fixed in a panel as per shown in drawing, all meters should have RS-485 Communication Port with Modbus/industrial Ethernet Protocol. 3-Phase Digital Voltmeter & Ammeter with selector switch Wire sets, Blanking plates, Cable ties, identification labels. The panels shall have Short Circuit Capacity of minimum 25KA. and equipped with Bus Bar and Cable chambers. The panel maximum Height must not exceed 1.6Mtrs. The job includes Earthing with 2 Runs of 50 X 6mm GI Strip and supply and Fixing of MS Channel duly painted of size 100mm x 50mm x 5mm thick to be placed as support to the panels on Trench/Floor of required Length for placing the panel. The panel shall confirm IEC 61439 (with latest amendment). The panel should be designed for accommodation of following: Main Incomer: 800A 4P EDO type ACB /MCCB Outgoing: 8 Nos (Ranging from 32A to 400A)</p> <p>Note: All Switchgear items (ACB, MCCB, SFUs) will be supplied by ARCI and erection should be as directed by ARCI officials.</p>
290	304005474	APFC Panel	<p>APFC Panel : Supply, Testing and Commissioning of APFC panel as per IS 61439 with APP Capacitors, Micro Processor based Relay, Contactors, Switchgears, Protective Devices, Meters and Panel Housing complete as required. (Per KVAR)</p>

291	304005475	G.I.Pipe Earthing with 3 Metre Long,100mm Dia	<p>GI Pipe Earthing with 3 Metre Long,100mm Dia : Supply, Installation, Testing and Commissioning and providing independent Earthing with 100mm. Dia 'B' Class 3.0 Metre Long GI Pipe and covered with mesh of suitable size Funnel enclosed in Cement chamber of RR masonry internal size of 600x600x600mm. With suitable RCC precast cover with lifting arrangements. The GI Pipe required to be provided with staggered holes of 16nos of 12mm Dia to the Earth Electrode, Filling with 200mm Layers Height of Salt and Charcoal around Dia. 400mm (keeping GI pipe in center) and from the bottom of the pipe to the bottom of the CC chamber. The connection from the Electrode will be through 50x10mm. GI Strip provided at the top with 12mm holes (4nos) of the GI Pipe along with GI (10mm) Nut Bolts and Washers complete as directed by ARCI officials and technical specifications (as per IS 3043).</p>
292	304005476	G.I.Pipe earthing with 4.5Metre Long,40mm Dia	<p>G.I. Pipe earthing with 4.5Metre Long,40mm Dia : Earthing with G.I. earth pipe, conforming to IS:3043 with latest amendments of 4.5 metre long, 40mm dia 'B" class including supply of all materials and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/coke and salt as required.</p>
293	304005477	Copper Plate Earthing 600 x 600 x 6 mm	<p>Copper Plate Earthing 600 x 600 x 6 mm : Design, Fabrication, Supply, Installation, Testing and Commissioning of 3 Phase 415V, 4 wire, 50 Hz, Cubical Panel Board made out of 14 gauge CRCA sheet steel with Powder Coated as per IP 43-degree Protection. The panel shall be consisting of fully PVC insulated Aluminium 100 X 10 mm Bus Bars of Length 2000mm size in all Phases and Neutral supported with DMC/SMC supports barriers and for insulation level withstand of 1.1kV Rated with Heat Shrinkable Colour Code Sleeves. With DIN-Channel mounted Multifunction meter with Functions like V, A, KW, KVA, KWH, PF, KVAH, Selector Switch, LED indicating lights, 800/5A- 3nos, 400A -3nos, CTs should be fixed in a panel as per shown in drawing, all meters should have RS-485 Communication Port with Modbus/industrial Ethernet Protocol. 3-Phase Digital Voltmeter & Ammeter with selector switch Wire sets, Blanking plates, Cable ties, identification labels. The panels shall have Short Circuit Capacity of minimum 25KA. and equipped with Bus Bar and Cable chambers. The panel maximum Height must not exceed 1.6Mtrs. The job includes Earthing with 2 Runs of 50 X 6mm GI Strip and supply and Fixing of MS Channel duly painted of size 100mm x 50mm x 5mm thick to be placed as support to the panels on Trench/Floor of required</p>

			Length for placing the panel. The panel shall confirm IEC 61439 (with latest amendment).
294	304005478	Copper Plate Earthing 600 x 600 x 3.15mm	Copper Plate Earthing 600 x 600 x 3.15mm : Providing standard plate earth for earth station with 600 x 600 x 3.15mm electrolytic copper plate, connected with 40 x 6 mm electrolytic copper strip upto the earthing chamber conforming to IS:3043 with latest amendments and as per drawing No. CED/ELE/S/4 including supply of all materials and providing chamber complete as required. At 3.5m depth with copper plate Note: 1) Copper plate shall be tinned. 2) Rates of earth station includes the cost of suitable medium class GI pipe for watering.
295	304005479	25 X 3 MM G.I.STRIP	25x3mm GI strip: Earthing: Supply, fixing, laying, commissioning and testing of 25x3mm GI strip as earthing conductor from equipment / LDBs / PDBs, earth bus to earth pit run in earth / Trench for outside building and on walls inside the building complete with required materials such as GI nutbolts, anchor bolts, spring ,washer etc (jointing shall be done by overlapping and with 2 sets of G.I.nut bolt & spring washer spaced at 50mm) as required for fixing and terminations in an approved manner as per IS 3043 and erection should be as directed by ARCI staff.
296	304005480	50 X 6 MM G.I.STRIP	50x6mm GI strip: Earthing: Supply, fixing, laying, commissioning and testing of 50x6mm GI strip as earthing conductor from equipment / LDBs / PDBs, earth bus to earth pit run in earth / Trench for outside building and on walls inside the building complete with required materials such as GI nutbolts, anchor bolts, spring ,washer etc (jointing shall be done by overlapping and with 2 sets of G.I.nut bolt & spring washer spaced at 50mm) as required for fixing and terminations in an approved manner as per IS 3043 and erection should be as directed by ARCI staff.
297	304005483	8 SWG COPPER WIRE	8 SWG COPPER WIRE : Supply and laying of electrolytic copper wire of 8 SWG including supply of fixing clamps and accessories when laid inside the building and inclusive of excavation & refilling of earth when laid outside the building and tinning of copper wires, interconnections with earth pit and equipment, terminations / interconnections in an approved manner as per IS 3043 (with latest amendments) inclusive of supply of all hard wares complete as required.

298	304005484	8 SWG GI WIRE	8 SWG GI WIRE : Supply and Laying of Electrolytic GI wire of 8 SWG including Supply of fixing clamps and accessories when laid inside the building and inclusive of Excavation & Refilling of Earth when laid outside the building and Tinning of Copper wires, interconnections with earth pit and equipment, terminations / interconnections in an approved manner as per IS 3043 (with latest amendments) inclusive of supply of all hard wares complete as required.
299	304005485	25 X 3 MM COPPER STRIP	25 X 3 MM COPPER STRIP : Supply, Fixing, Laying, Commissioning and Testing of 25x3mm Copper Strip as Earthing conductor from Equipment / LDBs / PDBs, Earth bus to earth pit run in Earth / Trench for outside building and on walls inside the building complete with required materials such as Brass Nutbolts, Anchor Bolts, spring washer etc (jointing shall be done by overlapping and with 2 sets of Brass nut bolt & spring washer spaced at 50mm) as required for fixing and Terminations in an approved manner as per IS 3043 and erection should be as directed by ARCI staff.
300	304005486	50 X 6 MM COPPER STRIP	50 X 6 MM COPPER STRIP : Supply, Fixing, Laying, Commissioning and Testing of 50x6mm Copper Strip as Earthing conductor from equipment / LDBs / PDBs, Earth bus to earth pit run in earth / Trench for outside building and on walls inside the building complete with required materials such as Brass Nutbolts, Anchor Bolts, spring washer etc (jointing shall be done by overlapping and with 2 sets of Brass nut bolt & spring washer spaced at 50mm) as required for fixing and terminations in an approved manner as per IS 3043 and erection should be as directed by ARCI staff.
301	304005487	LIGHTNING ARRESTOR	LIGHTNING ARRESTOR : Supply, Installation, Testing and Commissioning and Handing over to ARCI Lighting Arrestor of copper as per IS2309-1967, to be installed on the First floor of the building with concrete basement with complete machinery and manpower (FRANKLIN ROD)
302	304005488	GI PIPE 50 MM DIA	GI PIPE 50 MM DIA : Supply, Fitting and Laying GI pipes of Medium Quality ('B class) of Zenith / Tata / Jindal with all necessary Fittings such as Bends, Tees, Elbows, Reducers, Unions, Nipples, Plugs, Clamps, Fixtures, etc. including necessary Earthwork, backfilling, complete as per specification as directed by ARCI officials.

303	304005489	GI PIPE 100 MM DIA	GI PIPE 100 MM DIA : Supply, Fitting and Laying GI Pipes of Medium Quality ('B class) of Zenith / Tata / Jindal with all necessary Fittings such as Bends, Tees, Elbows, Reducers, Unions, Nipples, Plugs, Clamps, Fixtures, etc. including necessary Earthwork, backfilling, complete as per specification as directed by ARCI officials.
304	304005490	HUME PIPE 200 MM DIA	HUME PIPE 200 MM DIA : Supply and Laying of 200mm Dia Hume Pipe with collars confirming to IS:458 (with latest amendments) for Road Crossing including Excavation and Refilling of Earth, Drawing Cables through the pipe as required. Make: Hindusthan.
305	304005491	HUME PIPE 300 MM DIA	HUME PIPE 300 MM DIA : Supply and Laying of 300mm Dia Hume Pipe with collars confirming to IS:458 (with latest amendments) for Road Crossing including Excavation and Refilling of Earth, Drawing Cables through the pipe as required. Make: Hindusthan.
306	304005492	DWC HDPE PIPE 63 MM DIA	DWC HDPE PIPE 63 MM DIA (OD-63mm & ID-51mm Nominal) : Supplying and Laying of 63mm Dia (OD-63mm & ID-51mm Nominal) DWC HDPE Pipe ISI marked along with all Accessories like Socket, Bend, Couplers etc. conforming to IS 14930, Part II complete with Fitting and Cutting, Jointing etc. direct in Ground (75 cm below ground level) including Excavation and Refilling the Trench, Sand cushioning and protective covering etc., complete as required.
307	304005493	DWC HDPE PIPE 90 MM DIA	DWC HDPE PIPE 90 MM DIA (OD-90mm & ID-76mm Nominal) : Supplying and Laying of 90mm Dia (OD-90mm & ID-76mm Nominal) DWC HDPE Pipe ISI marked along with all Accessories like Socket, Bend, Couplers etc. conforming to IS 14930, Part II complete with fitting and Cutting, Jointing etc. direct in Ground (75 cm below Ground Level) including Excavation and Refilling the Trench, Sand cushioning and protective covering etc., complete as required.
308	304005494	DWC HDPE PIPE 120 MM DIA	DWC HDPE PIPE 120 MM DIA (OD-120mm & ID-103mm Nominal) : Supplying and Laying of 120mm Dia (OD-120mm & ID-103mm Nominal) DWC HDPE Pipe ISI marked along with all Accessories like Socket, Bend, Couplers etc. conforming to IS 14930, Part

			II complete with Fitting and Cutting, Jointing etc. direct in Ground (75 cm below Ground Level) including Excavation and Refilling the Trench, Sand cushioning and protective covering etc., complete as required.
309	304005495	LT Cable Markers	LT Cable Markers: Supply, Installation, Testing and Commissioning of Cast Iron LT Cable Markers duly Showing the Direction of Cable Route. The markers are required to be Fixed on GI Angle of size 35x35x6mm of Length 700mm and Grouted in PCC of size 200x200x200mm at every interval of 15 to 20 Metres Length as Directed by ARCI officials.
310	304005496	Excavation of Cable Trench 300 X 750mm	Excavation of Cable Trench 300x750mm: Excavation of Cable Trench of size 300mm x 750mm Depth in Wet, Dry & Rocky conditions of the soil for Cable Laying on a fine sand (with out sharp edges) Bed of 150mm in the Excavated Trench after Cable Laying again cover the cable by 150mm sand cover all sides with Red Bricks and back filling. Stacking of removed earth from all along the trench on either side after back filling and reinstatement. the excavate / removed excess sand should be transported to designated place as per ARCI official.
311	304005497	Excavation of Cable Trench 600 X 750mm	Excavation of Cable Trench 600x750mm: Excavation of Cable Trench of size 600mm x 750mm Depth in Wet, Dry & Rocky conditions of the soil for Cable Laying on a fine sand (with out sharp edges) Bed of 150mm in the Excavated Trench after Cable Laying again cover the Cable by 150mm sand cover all sides with Red Bricks and back filling. Stacking of removed earth from all along the Trench on either side after back filling and reinstatement. the excavate / removed excess sand should be transported to designated place as per ARCI official.
312	304005498	Excavation of Cable Trench 300 X 1000mm	Excavation of Cable Trench 300 x 1000mm: Excavation of Cable Trench of size 300mm x 1000mm Depth in Wet, Dry & Rocky conditions of the soil for Cable Laying on a fine sand (with out sharp edges) Bed of 150mm in the Excavated Trench after Cable Laying again cover the Cable by 150mm sand cover all sides with Red Bricks and back filling. Stacking of removed earth from all along the Trench on either side after back filling and reinstatement. the excavate / removed excess sand should be transported to designated place as per ARCI official.

313	304005499	Road Cutting 300 x 750mm	Road Cutting 300 x 750mm: Cutting the Tar Road or Cement Road/Couple Stone Road along with Culverts either side of the Road to make Cable Trench of size 300mm wide x 750mm depth, Laying of 100mm Dia, 50mm Dia GI Pipes and Remaking to original shape both Road with Tar, PCC & Culverts with Bricks, Plastering as directed by ARCI Officials for the run of Power/Telephone/LAN Cables at the Road Crossings, Building Entry, Underground Floor and over the walls. (Note: GI pipe / Hume pipe not in scope.)
314	304005500	Faulty Cable Trench Excavation	Faulty Cable Trench Excavation: Fault Cable Trench Excavation & Removing the Damaged Cable to surface (From GI Pipes/Hume pipes) for Repair / Rectification and Putting Back the Repaired / Rectified Cable in the Trench (Including in GI pipes / Hume pipes) should use new minimum 150mm thick sand layer should be laid before Laying the Repaired Cable and cover the cable by 150mm sand (New) and place old Brick on the cable and fill with removed earth to original condition as directed by ARCI officials.
315	304005501	Cable laying upto 35sqmm in ground including excavation	Cable laying upto 35sqmm in ground including excavation: Laying of one number of PVC insulated and PVC sheathed / XLPE Power Cable of 3/3.5/4 Core, 1.1KV Grade of size not exceeding 35sqmm in Ground , 750 mm below Ground Level including Transportation of Cable to site, Excavation, Refilling with Sand, Excavation, Sand Cushioning, Protective covering with baked Bricks on top and sides and refilling the Trench and providing Cable Route/Joint Markers complete as required, And as directed by ARCI officials and also required materials such as Ladders/Supports/Scaffolding/Cable Drum handling/Cable Pulley & Removing Materials etc.
316	304005502	Cable laying above 35sqmm and upto 95sqmm in ground including excavation:	Cable laying above 35sqmm and upto 95sqmm in ground including excavation: Laying of One Number of PVC insulated and PVC sheathed / XLPE Power Cable of 3/3.5/4 Core, 1.1KV Grade of size above 35sqmm and upto 95 sqmm in Ground , 750 mm below Ground Level including Transportation of Cable to site, Excavation, Refilling with Sand, Protective Covering with baked Bricks on top and sides and Refilling the Trench and Providing Cable Route/Joint Markers complete as required, And as directed by ARCI officials and also required materials such as Ladders/Supports/Scaffolding/Cable Drum handling/Cable Pulley & Removing Materials etc.

317	304005503	Cable laying above 95sqmm and upto 185sqmm in ground including excavation:	Cable laying above 95sqmm and upto 185sqmm in ground including excavation: Laying of One Number of PVC insulated and PVC sheathed / XLPE Power Cable of 3/3.5/4 Core, 1.1KV Grade of size above 95 sqmm and upto 185 sqmm in Ground , 750 mm below Ground Level including Transportation of Cable to site, Excavation, Refilling with Sand, Excavation, Sand Cushioning, Protective Covering with baked Bricks on Top and sides and refilling the Trench and providing Cable Route/Joint Markers complete as required, And as directed by ARCI officials and also required materials such as Ladders/Supports/Scaffolding/Cable Drum Handling/Cable Pulley & Removing Materials etc.
318	304005504	Cable laying above 185sqmm and upto 400sqmm in ground including excavation	Cable laying above 185sqmm and upto 400sqmm in ground including excavation: Laying of One Number of PVC insulated and PVC sheathed / XLPE Power Cable of 3/3.5/4 Core, 1.1KV Grade of size above 185 sqmm and upto 400 sqmm in Ground , 750 mm below Ground Level including Transportation of Cable to Site, Excavation, Refilling with Sand, Excavation, Sand Cushioning, Protective covering with baked Bricks on Top and sides and Refilling the Trench and providing Cable Route/Joint Markers complete as required, And as directed by ARCI officials and also required materials such as Ladders/Supports/Scaffolding/Cable Drum Handling/Cable Pulley & Removing Materials etc.
319	304005505	Cable laying upto 35sqmm on wall/existing trench/cable tray	Cable laying upto 35sqmm on wall/existing trench/cable tray: Laying of One Number PVC Insulated and PVC sheathed / XLPE Power Cable of 1.1KV Grade of size Not Exceeding 35 sqmm in Existing Trench / on Cable Tray / on Wall / Floor / Ceiling / Above False Ceiling including Transportation of Cable to Site, Removing of Trench/False Ceiling/False Flooring Covers and Reclosing the Covers after Laying the Cables in Good Condition with Supply of Necessary Materials, such as Bracketes, Clamps, MS Spacers, GI Thick Saddles at every 500mm in building premisis as Directed by ARCI officials and also required materials such as Ladders/Supports/Scaffolding/Cable Drum Handling/Cable Pulley & Removing Materials etc.
320	304005506	Cable laying above 35 sqmm & upto 95 sqmm on wall/trench/ cable tray	Cable laying above 35 sqmm & upto 95 sqmm on wall/existing trench/ cable tray : Laying of one no PVC insulated and PVC sheathed / XLPE Power Cable of 1.1KV Grade of size above 35 sqmm and upto 95sqmm in Existing Trench / on Cable Tray / on Wall / Floor / Ceiling / Above False Ceiling including Transportation of Cable to Site, Removing of Trench/False Ceiling/False Flooring Covers and Reclosing the Covers after Laying the Cables in Good

			Condition with Supply of Necessary Materials, such as Bracketes, Clamps, MS Spacers, GI Thick Saddles at every 500mm in building premisis as direted by ARCI Staff/ officials and also required materials such as Ladders/Supports/Scaffolding/Cable Drum Handling/Cable Pulley & Removing Materials etc.
321	304005507	CABLE LAYING ABOVE 95 SQMM & UPTO 185 SQMM ON WALL/TRENCH / CABLE TRAY	CABLE LAYING ABOVE 95 SQMM & UPTO 185 SQMM ON WALL/EXISTING TRENCH/ CABLE TRAY : Laying of One Number PVC Insulated and PVC sheathed / XLPE Power Cable of 1.1KV Grade of size above 95 sqmm and upto 185sqmm in Existing Trench / on Cable Tray / on Wall / Floor / Ceiling / Above False Ceiling including Transportation of Cable to Site, Removing of Trench/False Ceiling/False Flooring Covers and Reclosing the Covers after Laying the Cables in Good Condition with Supply of Necessary Materials, such as Bracketes, Clamps, MS Spacers, GI Thick Saddles at every 500mm in building premisis as direted by ARCI Staff/ officials and also required materials such as Ladders/Supports/Scaffolding/Cable Drum Handling/Cable Pulley & Removing Materials etc.
322	304005508	CABLE LAYING ABOVE 185 SQMM & UPTO 400 SQMM ON WALL/TRENCH / CABLE TRAY	CABLE LAYING ABOVE 185 SQMM & UPTO 400 SQMM ON WALL/EXISTING TRENCH/ CABLE TRAY : Laying of One Number PVC Insulated and PVC Sheathed / XLPE Power Cable of 1.1KV Grade of size above 185 sqmm and upto 400 sqmm in Existing Trench / on Cable Tray / on Wall / Floor / Ceiling / Above False Ceiling including Transportation of Cable to Site, Removing of Trench/False Ceiling/False Flooring Covers and Reclosing the Covers after Laying the Cables in Good Condition with Supply of Necessary Materials, such as Bracketes, Clamps, MS Spacers, GI Thick Saddles at every 500mm in building premisis as direted by ARCI Staff/ officials and also required materials such as Ladders/Supports/Scaffolding/Cable Drum Handling/Cable Pulley & Removing Materials etc.
323	304005509	CABLE LAYING 1 C X 1000 SQMM ON WALL/TRENCH / CABLE TRAY	CABLE LAYING 1 CORE X 1000 SQMM ON WALL/EXISTING TRENCH/ CABLE TRAY : Laying of One Number PVC Insulated and PVC Sheathed / XLPE Power Cable of 1.1KV Grade of size above 1 Core X 1000 sqmm in Existing Trench / on Cable Tray / on Wall / Floor / Ceiling / Above False Ceiling including Transportation of Cable to Site, Removing of Trench/False Ceiling/False Flooring Covers and Reclosing the Covers after Laying the Cables in Good

			Condition with Supply of Necessary Materials, such as Bracketes, Clamps, MS Spacers, GI Thick Saddles at every 500mm in building premisis as direted by ARCI Staff/ officials and also required materials such as Ladders/Supports/Scaffolding/Cable Drum Handling/Cable Pulley & Removing Materials etc.
324	304005510	LAYING OF CABLE UPTO 35 SQMM IN GROUND	LAYING OF CABLE UPTO 35 SQMM IN GROUND : Labour Charges for Laying and Fixing of One no PVC Insulated and PVC sheathed / XLPE Power Cable of 1.1KV Grade of size not Exceeding 35 sqmm in Ground upto Building premises as directed by ARCI Staff/ officials and also required materials such as Ladders/ Supports/Scaffolding /Cable Drum Handling/Cable Pulley & Removing Materials etc. Note: Cable Trench Excavation, Bricks, Sand are not in Scope
325	304005511	LAYING OF 1 ADDITIONAL CABLE UPTO 35 SQMM IN GROUND	LAYING OF ONE ADDITIONAL CABLE UPTO 35 SQMM IN GROUND : Laying of One Number Additional PVC Insulated and PVC sheathed / XLPE Power Cable of 1.1KV Grade of size up to 35 sqmm in Ground in the Same Trench in One Tier Horizontal Formation. upto building premisis as directed by ARCI officials and also required materials such as Supports/Scaffolding/Cable Drum Handling/Cable Pulley & Removing materials etc. Note: Cable Trench Excavation, Bricks, Sand are not in Scope
326	304005512	CABLE LAYING ABOVE 35 SQMM & UPTO 95 SQMM IN GROUND	LAYING OF CABLE ABOVE 35 SQMM AND UPTO 95 SQMM IN GROUND : Labour Charges for Laying and Fixing of one no PVC insulated and PVC sheathed / XLPE Power Cable of 1.1KV Grade of size above 35 and upto 95 sqmm in Ground up to Building premises as directed by ARCI Staff/ officials and also required materials such as Ladders/ Supports/Scaffolding/Cable Drum Handling/Cable Pulley & Removing materials etc. Note: Cable Trench Excavation, Bricks, Sand are not in Scope
327	304005513	LAYING OF 1 ADDITIONAL CABLE AVOVE 35 SQMM & UPTO 95 SQMM IN GROUND	LAYING OF ONE ADDITIONAL CABLE ABOVE 35 SQMM AND UPTO 95 SQMM IN GROUND: Laying of One Number Additional PVC Insulated and PVC Sheathed / XLPE Power Cable of 1.1KV grade of size above 35 sqmm and upto 95 sqmm in Ground in the same Trench in one Tier Horizontal formation. upto Building premisis as directed by ARCI officials and also required materials such as Supports/Scaffolding/Cable Drum Handling/Cable Pulley & Removing materials etc. Note: Cable Trench Excavation, Bricks, Sand are not in Scope

328	304005514	CABLE LAYING ABOVE 95 SQMM & UPTO 185 SQMM IN GROUND	LAYING OF CABLE ABOVE 95 SQMM AND UPTO 185 SQMM IN GROUND : Labour Charges for Laying and Fixing of One Number PVC insulated and PVC sheathed / XLPE Power Cable of 1.1KV grade of size above 95 sqmm and upto 185 sqmm in Ground upto Building premises as directed by ARCI Staff/ officials and also required materials such as Ladders/ Supports/Scaffolding/Cable Drum Handling/Cable Pulley & Removing materials etc. Note: Cable Trench Excavation, Bricks, Sand are not in Scope
329	304005515	LAYING OF 1 ADDITIONAL CABLE ABOVE 95 SQMM & UPTO 185 SQMM IN GROUND	LAYING OF ONE ADDITIONAL CABLE ABOVE 95 SQMM AND UPTO 185 SQMM IN GROUND : Laying of One Number Additional PVC Insulated and PVC Sheathed / XLPE Power Cable of 1.1KV grade of size above 95 sqmm and upto 185 sqmm in Ground in the same Trench in one Tier Horizontal formation. upto Building premisis as directed by ARCI officials and also required materials such as Supports/Scaffolding/Cable Drum Handling/Cable Pulley & Removing materials etc. Note: Cable Trench Excavation, Bricks, Sand are not in Scope
330	304005516	CABLE LAYING ABOVE 185 SQMM & UPTO 400 SQMM IN GROUND	LAYING OF CABLE ABOVE 185 SQMM AND UPTO 400 SQMM IN GROUND: Labour Charges for Laying and Fixing of one no PVC insulated and PVC sheathed / XLPE Power Cable of 1.1KV grade of size above 185 sqmm and upto 400 sqmm in Ground upto Building premises as directed by ARCI Staff/ officials and also required materials such as Ladders/ Supports/Scaffolding/Cable Drum Handling/Cable Pulley & Removing materials etc. Note: Cable Trench Excavation, Bricks, Sand are not in Scope
331	304005517	LAYING OF 1 ADDITIONAL CABLE ABOVE 185 SQMM & UPTO 400 SQMM IN GROUND	LAYING OF ONE ADDITIONAL CABLE ABOVE 185 SQMM AND UPTO 400 SQMM IN GROUND : Laying of One Number Additional PVC Insulated and PVC Sheathed / XLPE Power Cable of 1.1KV grade of size above 185 sqmm and upto 400 sqmm in Ground in the same Trench in one Tier Horizontal formation upto Building premisis. as directed by ARCI officials and also required materials such as Supports/Scaffolding/Cable Drum Handling/Cable Pulley & Removing materials etc. Note: Cable Trench Excavation, Bricks, Sand are not in Scope
332	304005518	CABLE LAYING 1C X	CABLE LAYING 1 CORE X 1000 SQMM IN GROUND : Labour Charges for Laying and Fixing of One Number PVC Insulated and PVC Sheathed /

		1000 SQMM IN GROUND	XLPE Power Cable of 1.1KV Grade of size 1 Core X 1000 sqmm in Ground upto Building premises as directed by ARCI Staff/ officials and also required materials such as Ladders/ Supports/Scaffolding /Cable Drum Handling/Cable Pulley & Removing Materials etc. Note: Cable trench excavation, Bricks, Sand are not in Scope
333	304005519	REMOVING OF CABLES UPTO 35 SQMM	REMOVING OF CABLES UPTO 3.5C/4C X 35 SQMM : Removing of all types of Cables upto 3.5/4C X 35 sqmm In Under Ground Trench / Walls / OH and UG Trays, by Excavating the Existing Trench to Remove the Existing Cables and fill the Trench with removed Earth to original condition as Directed by ARCI officials.
334	30405520	REMOVING OF CABLES ABOVE 35 SQMM & UPTO 95 SQMM	REMOVING OF CABLES ABOVE 35 SQMM AND UPTO 95 SQMM : Removing of all types of Cables above 35 sqmm and upto 95 sqmm In Under Ground Trench / Walls / OH and UG Trays, by Excavating the existing Trench to Remove the Existing Cables and fill the Trench with removed Earth to original condition as Directed by ARCI officials.
335	304005521	REMOVING OF CABLES ABOVE 95 SQMM & UPTO 185 SQMM	REMOVING OF CABLES ABOVE 95 SQMM AND UPTO 185 SQMM : Removing of all types of Cables above 95 sqmm and upto 185 sqmm In Under Ground Trench / Walls / OH and UG Trays, by Excavating the Existing Trench to Remove the Existing Cables and fill the Trench with removed Earth to original condition as Directed by ARCI officials.
336	304005522	REMOVING OF CABLES ABOVE 185 SQMM & UPTO 400 SQMM	REMOVING OF CABLES ABOVE 185 SQMM AND UPTO 400 SQMM : Removing of all types of Cables above 185 sqmm and upto 400 sqmm In Under Ground Trench / Walls / OH and UG Trays, by Excavating the Existing Trench to Remove the Existing Cables and fill the Trench with removed Earth to original condition as Directed by ARCI officials.
337	304005523	REMOVING OF CABLES 1C x 1000 SQMM	REMOVING OF CABLES 1 CORE X 1000 SQMM : Removing of all types of Cables of size 1C X 1000 sqmm In Under Ground Trench / Walls / OH and UG Trays, by Excavating the Existing Trench to Remove the Existing Cables and fill the Trench with removed Earth to original condition as Directed by ARCI officials.
338	304005524	LAYING OF 11 KV GRADE CABLE UPTO	LAYING OF 11 KV GRADE CABLE UPTO 120 SQMM IN GROUND INCLUDING EXCAVATION : Labour Charges for Laying and Fixing of One Number PVC insulated and PVC sheathed / XLPE

		120 SQMM IN GROUND	Power Cable of 11KV Grade of size upto 120 sqmm in Ground including Excavation of Cable Trench of size 300mm x 1000mm Depth in Wet, Dry & Rocky Conditions of the Soil for Cable Laying on a Fine Sand (without sharp edges) Bed of 150mm in the Excavated Trench after Cable Laying again cover the Cable by 150mm Sand Cover all sides with Red Bricks and Back Filling. Stacking of removed earth from all along the trench on either side after back filling and reinstatement. the excavate / removed excess sand should be Transported to Designated Place. As directed by ARCI Staff/ officials and also required materials such as Ladders/Supports/Scaffolding/Cable Drum Handling/Cable Pulley & Removing materials etc.
339	304005525	LAYING OF 11 KV GRADE CABLE ABOVE 120 SQMM & UPTO 400 SQMM IN GROUND	LAYING OF 11 KV GRADE CABLE ABOVE 120 SQMM AND UPTO 400 SQMM IN GROUND INCLUDING EXCAVATION : Labour Charges for Laying and Fixing of One Number PVC Insulated and PVC sheathed / XLPE Power Cable of 11KV Grade of size above 120 sqmm and upto 400 sqmm in Ground Including Excavation of Cable Trench of size 300mm x 1000mm Depth in Wet, Dry & Rocky Conditions of the Soil for Cable Laying on a Fine Sand (without sharp edges) Bed of 150mm in the Excavated Trench after Cable Laying again cover the Cable by 150mm Sand Cover all sides with Red Bricks and Back Filling. Stacking of removed earth from all along the Trench on either side after back filling and reinstatement. the excavate / removed excess sand should be Transported to Designated Place. As directed by ARCI Staff/ officials and also required materials such as Ladders/Supports/Scaffolding/Cable Drum Handling/Cable Pulley & Removing materials etc.
340	304005526	LAYING OF ADDITIONAL 11 KV GRADE CABLE UPTO 120 SQMM IN GROUND	LAYING OF ONE ADDITIONAL 11 KV GRADE CABLE UPTO 120 SQMM IN GROUND INCLUDING EXCAVATION : Labour Charges for Laying and Fixing of One No of additional PVC Insulated and PVC Sheathed / XLPE Power Cable of 11KV Grade of size upto 120 sqmm Direct in Ground in the same Trench in One Tier Horizontal formation Including Excavation , Sand Cushioning, Protective Covering and Refilling the Trench etc as required. As directed by ARCI Staff/ officials and also required materials such as Ladders/Supports/Scaffolding/Cable Drum Handling/Cable Pulley & Removing materials etc.
341	304005527	LAYING OF ADDITIONAL	LAYING OF ONE ADDITIONAL 11 KV GRADE CABLE ABOVE 120 SQMM AND UPTO 400 SQMM IN GROUND :

		11 KV GRADE CABLE ABOVE 120 SQMM & UPTO 400 SQMM IN GROUND	Labour Charges for Laying and Fixing of One Number of additional PVC insulated and PVC sheathed / XLPE Power Cable of 11 KV Grade of size above 120 sqmm and upto 400 sqmm Direct in Ground in the Same Trench in One Tier Horizontal formation Including Excavation , Sand Cushioning, Protective Covering and Refilling the Trench etc as required. as Directed by ARCI Staff/ officials and also required materials such as Ladders/Supports/Scaffolding/Cable Drum Handling/Cable Pulley & Removing materials etc.
342	304005528	LAYING OF 11 KV CABLE UPTO 120 SQMM IN TRENCH/CABLE TRAY/RCC/HUME PIPE/METAL PIPE	LAYING OF 11 KV GRADE CABLE UPTO 120 SQMM IN TRENCH/CABLE TRAY/RCC/HUME PIPE/METAL PIPE : Labour Charges for Laying and Fixing of One Number PVC insulated and PVC sheathed / XLPE Power Cable of 11 KV Grade of size upto 120 sqmm in the Existing Trench / Cable Tray / on Wall / Hume Pipe / Metal Pipe / RCC with supply of all necessary materials such as Brackets, Clamps, MS Spacers complete as required and as Directed ARCI Staff/ officials and also required materials such as Ladders/Supports/Scaffolding/Cable Drum Handling/Cable Pulley & Removing materials etc.
343	304005529	LAYING OF 11 KV CABLE ABOVE 120 SQMM & UPTO 400 SQMM IN TRENCH/CABLE TRAY/RCC/HUME PIPE/METAL PIPE	LAYING OF 11 KV GRADE CABLE ABOVE 120 SQMM AND UPTO 400 SQMM IN EXISTING TRENCH/CABLE TRAY/RCC/HUME PIPE/METAL PIPE: Labour Charges for Laying and Fixing of One Number PVC Insulated and PVC Sheathed / XLPE Power Cable of 11KV Grade of size above 120 sqmm and upto 400 sqmm in the Existing Trench / Cable Tray / on Wall / Hume Pipe / Metal Pipe / RCC with supply of all necessary materials such as Brackets, Clamps, MS Spacers complete as required and as Directed ARCI Staff/ officials and also required materials such as Ladders/Supports/Scaffolding/Cable Drum Handling/Cable Pulley & removing materials etc.
344	304005530	LAYING OF 33 KV CABLE UPTO 120 SQMM IN GROUND	LAYING OF 33 KV GRADE CABLE UPTO 120 SQMM IN GROUND INCLUDING EXCAVATION : Labour Charges for Laying and Fixing of One Number PVC Insulated and PVC Sheathed / XLPE Power Cable of 33 KV Grade of size up to 120 sqmm Direct in Ground Including Excavation of Cable Trench of size 300mm x 1000mm Depth in Wet, Dry & Rocky conditions

			of the Soil for Cable Laying on a Fine Sand (without sharp edges) Bed of 150mm in the Excavated Trench after Cable Laying again cover the Cable by 150mm Sand cover all sides with Red Bricks and Back Filling. Stacking of removed earth from all along the Trench on either side after back filling and Reinstatement. the excavate / removed excess sand should be transported to Designated place. As Directed by ARCI Staff/ officials and also required materials such as Ladders/Supports/Scaffolding/Cable Drum Handling/Cable Pulley & Removing materials etc.
345	304005531	LAYING OF 33 KV GRADE CABLE ABOVE 120 SQMM AND UPTO 400 SQMM IN GROUND	LAYING OF 33 KV GRADE CABLE ABOVE 120 SQMM AND UPTO 400 SQMM IN GROUND INCLUDING EXCAVATION : Labour Charges for Laying and Fixing of One Number PVC insulated and PVC Sheathed / XLPE Power Cable of 33KV Grade of size above 120 sqmm and upto 400 sqmm in Ground Including Excavation of Cable Trench of size 300mm x 1000mm Depth in Wet, Dry & Rocky conditions of the Soil for Cable Laying on a Fine Sand (without sharp edges) Bed of 150mm in the Excavated Trench after Cable Laying again cover the Cable by 150mm sand cover all sides with Red Bricks and Back Filling. Stacking of removed earth from all along the Trench on either side after back filling and reinstatement. the excavate / removed excess sand should be transported to Designated Place. As Directed by ARCI Staff/ officials and also required materials such as Ladders/Supports/Scaffolding/Cable Drum Handling/Cable Pulley & Removing materials etc.
346	304005532	LAYING OF ADDITIONAL 33KV CABLE UPTO 120 SQMM IN GROUND	LAYING OF ONE ADDITIONAL 33 KV GRADE CABLE UPTO 120 SQMM IN GROUND : Labour Charges for Laying and Fixing of One Number Additional PVC Insulated and PVC Sheathed / XLPE Power Cable of 33KV Grade of size up to 120 sqmm Direct in Ground in the same Trench in one Tier Horizontal formation Including Excavation , Sand Cushioning, Protective Covering and Refilling the Trench etc as required. As Directed by ARCI Staff/ officials and also required materials such as Ladders/Supports/Scaffolding/Cable Drum Handling/Cable Pulley & removing materials etc.
347	304005533	LAYING OF ADDITIONAL 33 KV CABLE ABOVE 120 SQMM AND	LAYING OF ONE ADDITIONAL 33 KV GRADE CABLE ABOVE 120 SQMM AND UPTO 400 SQMM IN GROUND : Labour Charges for Laying and Fixing of One Number Additional PVC insulated and PVC Sheathed / XLPE Power Cable of 33KV Grade of size above 120 sqmm and upto 400 sqmm Direct in Ground in the same Trench in One Tier Horizontal formation Including Excavation ,

		UPTO 400 SQMM IN GROUND	Sand Cushioning, Protective covering and refilling the Trench etc. as required. as Directed by ARCI Staff/ officials and also required materials such as Ladders/Supports/Scaffolding/Cable Drum Handling/Cable Pulley & removing materials etc.
348	304005534	LAYING OF 33 KV CABLE UPTO 120 SQMM IN TRENCH/CABLE TRAY/RCC/HUME PIPE/METAL PIPE	<p>LAYING OF 33 KV GRADE CABLE UPTO 120 SQMM IN TRENCH /CABLE TRAY/RCC/HUME PIPE/METAL PIPE :</p> <p>Labour Charges for Laying and Fixing of One Number PVC Insulated and PVC Sheathed / XLPE Power Cable of 33KV Grade of size upto 120 sqmm in the Existing Trench / Cable Tray / on Wall / Hume Pipe / Metal Pipe / RCC with Supply of all necessary materials such as Brackets, Clamps, MS Spacers complete as required and as Directed by ARCI Staff/ officials and also required materials such as Ladders/Supports/Scaffolding/Cable Drum Handling/Cable Pulley & removing materials etc.</p>
349	304005535	LAYING OF 33 KV CABLE ABOVE 120 SQMM AND UPTO 400 SQMM IN TRENCH/CABLE TRAY/RCC/HUME PIPE/METAL PIPE	<p>LAYING OF 33 KV GRADE CABLE ABOVE 120 SQMM AND UPTO 400 SQMM IN TRENCH/CABLE TRAY/RCC/HUME PIPE/METAL PIPE :</p> <p>Labour Charges for Laying and Fixing of One Number PVC Insulated and PVC Sheathed / XLPE Power Cable of 33KV Grade of size above 120 sqmm and upto 400 sqmm in the Existing Trench / Cable Tray / on Wall / Hume Pipe / Metal Pipe / RCC with supply of all necessary materials such as Brackets, Clamps, MS spacers complete as required and as Directed by ARCI Staff/ officials and also required materials such as Ladders/Supports/Scaffolding/Cable Drum Handling/Cable Pulley & removing materials etc.</p>
350	125002637	SUPPLY OF 1.5 SQMM COPPER WIRE (FR-LSH) SINGLE CORE OF 90 MTRS	<p>SUPPLY OF 1.5 SQMM COPPER WIRE (FR-LSH) SINGLE CORE OF 90 MTRS COIL:</p> <p>Supply of FR-LSH PVC Insulated Single Core Unsheathed Industrial Cable with Flame Retardant Properties and Multistrand Bare Copper Conductor for Voltage Grade upto 1100V as per IS694-2010.</p> <p>Size: 1.5 sqmm, FR-LSH Copper Wire of 90 Metre Coil (Bundle).</p>

		COIL	Make: Finolex /Universal/RR Kabels
351	125002638	SUPPLY OF 2.5 SQMM COPPER WIRE (FR-LSH) SINGLE CORE OF 90 MTRS COIL	SUPPLY OF 2.5 SQMM COPPER WIRE (FR-LSH) SINGLE CORE OF 90 MTRS COIL : Supply of FR-LSH PVC Insulated Single Core Unsheathed Industrial Cable with Flame Retardant Properties and Multistrand Bare Copper Conductor for Voltage Grade upto 1100V as per IS694-2010. Size: 2.5 sqmm, FR-LSH Copper Wire of 90 Metre Coil (Bundle). Make: Finolex /Universal/RR Kabels
352	125002639	SUPPLY OF 4.0 SQMM COPPER WIRE (FR-LSH) SINGLE CORE OF 90 MTRS COIL	SUPPLY OF 4.0 SQMM COPPER WIRE (FR-LSH) SINGLE CORE OF 90 MTRS COIL : Supply of FR-LSH PVC Insulated Single Core Unsheathed Industrial Cable with Flame Retardant Properties and Multistrand Bare Copper Conductor for Voltage Grade upto 1100V as per IS694-2010. Size: 4.0 sqmm, FR-LSH Copper Wire of 90 Metre Coil (Bundle). Make: Finolex /Universal/RR Kabels
353	125002640	SUPPLY OF 6.0 SQMM COPPER WIRE (FR-LSH) SINGLE CORE OF 90 MTRS COIL	SUPPLY OF 6.0 SQMM COPPER WIRE (FR-LSH) SINGLE CORE OF 90 MTRS COIL : Supply of FR-LSH PVC Insulated Single Core Unsheathed Industrial Cable with Flame Retardant Properties and Multistrand Bare Copper Conductor for Voltage Grade upto 1100V as per IS694-2010. Size: 6.0 sqmm, FR-LSH Copper Wire of 90 Metre Coil (Bundle). Make: Finolex /Universal/RR Kabels
354	125002641	3C X 1.5 SQMM COPPER FLEXIBLE CABLE	SUPPLY OF 3C X 1.5 SQMM COPPER FLEXIBLE CABLE : Supply of FRLS PVC Insulated & PVC Round Sheathed Multicore Bright Annealed Bare Conductor Flexibles for Voltage Grade upto 1100V as per IS:604/2010 Size: 1.5 sqmm, 3 Core Copper Flexible Cable. Make: Finolex /Universal/RR Kabels
355	125002642	3C X 2.5 SQMM COPPER FLEXIBLE CABLE	SUPPLY OF 3C X 2.5 SQMM COPPER FLEXIBLE CABLE : Supply of FRLS PVC Insulated & PVC Round Sheathed Multicore Bright Annealed Bare Conductor Flexibles for Voltage Grade upto 1100V as per IS:604/2010 Size: 1.5 sqmm, 3 Core Copper Flexible Cable. Make: Finolex /Universal/RR Kabels

356	125002643	3C X 4.0 SQMM COPPER FLEXIBLE CABLE	SUPPLY OF 3C X 4.0 SQMM COPPER FLEXIBLE CABLE : Supply of FRLS PVC Insulated & PVC Round sheathed Multicore Bright Annealed Bare Conductor Flexibles for Voltage Grade upto 1100V as per IS:604/2010 Size: 4.0 sqmm, 3 Core Copper Flexible Cable. Make: Finolex /Universal/RR Kabels
357	125002644	4C X 1.5 SQMM COPPER FLEXIBLE CABLE	SUPPLY OF 4C X 1.5 SQMM COPPER FLEXIBLE CABLE : Supply of FRLS PVC Insulated & PVC Round sheathed Multicore Bright Annealed Bare Conductor Flexibles for Voltage Grade upto 1100V as per IS:604/2010 Size: 1.5 sqmm, 4 Core Copper Flexible Cable. Make: Finolex /Universal/RR Kabels
358	125002645	4C X 2.5 SQMM COPPER FLEXIBLE CABLE	SUPPLY OF 4C X 2.5 SQMM COPPER FLEXIBLE CABLE : Supply of FRLS PVC Insulated & PVC Round sheathed Multicore Bright Annealed Bare Conductor Flexibles for Voltage Grade upto 1100V as per IS:604/2010 Size: 2.5 sqmm, 4 Core Copper Flexible Cable. Make: Finolex / Universal/RR Kabels
359	125002646	4C X 4.0 SQMM COPPER FLEXIBLE CABLE	SUPPLY OF 4C X 4.0 SQMM COPPER FLEXIBLE CABLE : Supply of FRLS PVC Insulated & PVC Round sheathed Multicore Bright Annealed Bare Conductor Flexibles for Voltage Grade upto 1100V as per IS:604/2010 Size: 4.0 sqmm, 4 Core Copper Flexible Cable. Make: Finolex /Universal/RR Kabels
360	125002647	1C X 6.0 SQMM COPPER FLEXIBLE CABLE	SUPPLY OF 1C X 6.0 SQMM COPPER FLEXIBLE CABLE : Supply of FRLS PVC Insulated Unsheathed Single Core Heavy Duty Bright Annealed Bare Conductor Flexibles for Voltage Grade upto 1100V as per IS:604/1990 Size: 6 sqmm, Single Core Copper Flexible Cable Heavy Duty. Make: Finolex /Universal/RR Kabels
361	125002648	1C X 10 SQMM COPPER FLEXIBLE CABLE	SUPPLY OF 1C X 10 SQMM COPPER FLEXIBLE CABLE : Supply of FRLS PVC Insulated Unsheathed Single Core Heavy Duty Bright Annealed Bare Conductor Flexibles for Voltage Grade upto 1100V as per IS:604/1990 Size: 10 sqmm, Single Core Copper Flexible Cable Heavy Duty. Make: Finolex /Universal/RR Kabels

362	125002649	1C X 16 SQMM COPPER FLEXIBLE CABLE	SUPPLY OF 1C X 16 SQMM COPPER FLEXIBLE CABLE : Supply of FRLS PVC Insulated Unsheathed Single Core Heavy Duty Bright Annealed Bare Conductor Flexibles for Voltage Grade upto 1100V as per IS:604/1990 Size: 16 sqmm, Single Core Copper Flexible Cable Heavy Duty. Make: Finolex /Universal/RR Kabels
363	125002650	1C X 25 SQMM COPPER FLEXIBLE CABLE	SUPPLY OF 1C X 25 SQMM COPPER FLEXIBLE CABLE : Supply of FRLS PVC Insulated Unsheathed Single Core Heavy Duty Bright Annealed Bare Conductor Flexibles for Voltage Grade upto 1100V as per IS:604/1990 Size: 25 sqmm, Single Core Copper Flexible Cable Heavy Duty. Make: Finolex /Universal/RR Kabels
364	125002651	1C X 50 SQMM COPPER FLEXIBLE CABLE	SUPPLY OF 1C X 50 SQMM COPPER FLEXIBLE CABLE : Supply of FRLS PVC Insulated Unsheathed Single Core Heavy Duty Bright Annealed Bare Conductor Flexibles for Voltage Grade upto 1100V as per IS:604/1990 Size: 50 sqmm, Single Core Copper Flexible Cable Heavy Duty. Make: Finolex /Universal/RR Kabels
365	125002652	3C X 4 SQMM COPPER ARMoured CABLE	SUPPLY OF 3C X 4 SQMM COPPER ARMoured CABLE : Supply of 1.1 KV Grade 4 sqmm, 3 Core, XLPE Insulated, PVC Extruded inner sheathed , Flat steel strip/wire Armoured, standard Copper Conductor, overall PVC Extruded sheathed Cable conforming to IS7098/Part-I with latest amendments. Cable size: 4 sqmm, 3 Core Copper Armoured Cable. Make : Finolex /Universal/RR Kabels.
366	125002653	4C X 4 SQMM COPPER ARMoured CABLE	SUPPLY OF 4C X 4 SQMM COPPER ARMoured CABLE : Supply of 1.1 KV Grade 4 sqmm, 4 Core, XLPE Insulated, PVC Extruded inner sheathed , Flat steel strip/wire Armoured, standard Copper Conductor, overall PVC Extruded sheathed Cable conforming to IS7098/Part-I with latest amendments. Cable size: 4 sqmm, 4 Core Copper Armoured Cable. Make : Finolex /Universal/RR Kabels.
367	125002654	3C X 6 SQMM COPPER ARMoured	SUPPLY OF 3C X 6 SQMM COPPER ARMoured CABLE : Supply of 1.1 KV Grade 6 sqmm, 3 Core, XLPE Insulated, PVC Extruded inner sheathed , Flat steel strip/wire Armoured, standard Copper Conductor, overall PVC Extruded sheathed cable

		CABLE	conforming to IS7098/Part-I with latest amendments. Cable size: 6 sqmm, 3 Core Copper Armoured Cable. Make : Finolex /Universal/RR Kabels.
368	125002655	4C X 6 SQMM COPPER ARMOURED CABLE	SUPPLY OF 4C X 6 SQMM COPPER ARMOURED CABLE : Supply of 1.1 KV Grade 6 sqmm, 4 Core, XLPE Insulated, PVC Extruded inner sheated , Flat steel strip/wire Armoured, standard Copper Conductor, overall PVC Extruded sheated Cable conforming to IS7098/Part-I with latest amendments. Cable size: 6 sqmm, 4 Core Copper Armoured Cable. Make : Finolex /Universal/RR Kabels.
369	125002656	3C X 10 SQMM COPPER ARMOURED CABLE	SUPPLY OF 3C X 10 SQMM COPPER ARMOURED CABLE : Supply of 1.1 KV Grade 10 sqmm, 3 Core, XLPE Insulated, PVC Extruded Inner Sheated , Flat Steel Strip/Wire Armoured, standard Copper Conductor, Overall PVC Extruded Sheated cable conforming to IS7098/Part-I with latest amendments. Cable size: 10 sqmm, 3 Core Copper Armoured Cable. Make : Finolex /Universal/RR Kabels.
370	125002657	4C X 10 SQMM COPPER ARMOURED CABLE	SUPPLY OF 4C X 10 SQMM COPPER ARMOURED CABLE: Supply of 1.1 KV Grade 10 sqmm, 4 Core, XLPE Insulated, PVC Extruded Inner Sheated , Flat Steel Strip/Wire Armoured, Standard Copper Conductor, Overall PVC Extruded Sheated Cable conforming to IS7098/Part-I with latest amendments. Cable size: 10 sqmm, 4 Core Copper Armoured Cable. Make : Finolex /Universal/RR Kabels.
371	125002658	3C X 16 SQMM COPPER ARMOURED CABLE	SUPPLY OF 3C X 16 SQMM COPPER ARMOURED CABLE : Supply of 1.1 KV Grade 16 sqmm, 3 Core, XLPE Insulated, PVC Extruded Inner Sheated , Flat Steel Strip/Wire Armoured, Standard Copper Conductor, Overall PVC Extruded Sheated cable conforming to IS7098/Part-I with latest amendments. Cable size: 16 sqmm, 3 Core Copper Armoured Cable. Make : Finolex /Universal/RR Kabels.
372	125002659	4C X 16 SQMM COPPER ARMOURED	SUPPLY OF 4C X 16 SQMM COPPER ARMOURED CABLE : Supply of 1.1 KV Grade 16 sqmm, 4 Core, XLPE Insulated, PVC Extruded Inner Sheated , Flat Steel Strip/Wire Armoured, Standard Copper Conductor, Overall PVC Extruded Sheated Cable

		CABLE	conforming to IS7098/Part-I with latest amendments. Cable size: 16 sqmm, 4 Core Copper Armoured Cable. Make : Finolex /Universal/RR Kabels.
373	125002660	4C X 25 SQMM COPPER ARMoured CABLE	SUPPLY OF 4C X 25 SQMM COPPER ARMoured CABLE : Supply of 1.1 KV Grade 25 sqmm, 4 Core, XLPE Insulated, PVC Extruded Inner Sheated , Flat Steel Strip/Wre Armoured, Standard Copper Conductor, Overall PVC Extruded Sheated Cable conforming to IS7098/Part-I with latest amendments. Cable size: 25 sqmm, 4 Core Copper Armoured Cable. Make : Finolex /Universal/RR Kabels.
374	125002661	4C X 35 SQMM COPPER ARMoured CABLE	SUPPLY OF 4C X 35 SQMM COPPER ARMoured CABLE : Supply of 1.1 KV Grade 35 sqmm, 4 Core, XLPE Insulated, PVC Extruded inner sheated , Flat steel strip/wire Armoured, standard Copper Conductor, overall PVC Extruded sheated Cable conforming to IS7098/Part-I with latest amendments. Cable size: 35 sqmm, 4 Core Copper Armoured Cable. Make : Finolex /Universal/RR Kabels.
375	125002662	4C X 50 SQMM COPPER ARMoured CABLE	SUPPLY OF 4C X 50 SQMM COPPER ARMoured CABLE : Supply of 1.1 KV Grade 50 sqmm, 4 Core, XLPE Insulated, PVC Extruded Inner Sheated , Flat Steel Strip/Wire Armoured, Standard Copper Conductor, Overall PVC Extruded Sheated Cable conforming to IS7098/Part-I with latest amendments. Cable size: 50 sqmm, 4 Core Copper Armoured Cable. Make : Finolex /Universal/RR Kabels.
376	125002663	4C X 70 SQMM COPPER ARMoured CABLE	SUPPLY OF 4C X 70 SQMM COPPER ARMoured CABLE : Supply of 1.1 KV Grade 70 sqmm, 4 Core, XLPE Insulated, PVC Extruded inner sheated , Flat steel strip/wire Armoured, standard Copper Conductor, overall PVC Extruded sheated Cable conforming to IS7098/Part-I with latest amendments. Cable size: 70 sqmm, 4 Core Copper Armoured Cable. Make : Finolex /Universal/RR Kabels.
377	125002664	3C X 4 SQMM COPPER UNARMoured	SUPPLY OF 3C X 4 SQMM COPPER UNARMoured CABLE : Supply of Multi Core, Stranded Copper Conductor, XLPE Insulated, PVC Extruded Inner Sheathed, Unarmoured Cable, Extruded PVC Overall Sheathed, 1.1 KV Grade, Cable

		CABLE	conforming to IS7098/Part-I with latest amendments. Cable size: 4 sqmm, 3 Core Copper Unarmoured Cable. Make : Finolex/Universal/RR Kabels.
378	125002665	4C X 4 SQMM COPPER UNARMoured CABLE	SUPPLY OF 4C X 4 SQMM COPPER UNARMoured CABLE : Supply of Multi Core, Stranded Copper Conductor, XLPE Insulated, PVC Extruded Inner Sheathed, Unarmoured Cable, Extruded PVC Overall Sheathed, 1.1 KV Grade, Cable conforming to IS7098/Part-I with latest amendments. Cable size: 4 sqmm, 4 Core Copper Unarmoured Cable. Make : Finolex/Universal/RR Kabels.
379	125002666	3C X 6 SQMM COPPER UNARMoured CABLE	SUPPLY OF 3C X 6 SQMM COPPER UNARMoured CABLE : Supply of Multi Core, Stranded Copper Conductor, XLPE Insulated, PVC Extruded Inner Sheathed, Unarmoured Cable, Extruded PVC Overall Sheathed, 1.1 KV Grade, Cable conforming to IS7098/Part-I with latest amendments. Cable size: 6 sqmm, 3 Core Copper Unarmoured Cable. Make : Finolex/Universal/RR Kabels.
380	125002667	4C X 6 SQMM COPPER UNARMoured CABLE	SUPPLY OF 4C X 6 SQMM COPPER UNARMoured CABLE : Supply of Multi Core, Stranded Copper Conductor, XLPE Insulated, PVC Extruded Inner Sheathed, Unarmoured Cable, Extruded PVC Overall Sheathed, 1.1 KV Grade, Cable conforming to IS7098/Part-I with latest amendments. Cable size: 6 sqmm, 4 Core Copper Unarmoured Cable. Make : Finolex/Universal/RR Kabels.
381	125002668	3C X 10 SQMM COPPER UNARMoured CABLE	SUPPLY OF 3C X 10 SQMM COPPER UNARMoured CABLE : Supply of Multi Core, Stranded Copper Conductor, XLPE Insulated, PVC Extruded Inner Sheathed, Unarmoured Cable, Extruded PVC Overall Sheathed, 1.1 KV Grade, Cable conforming to IS7098/Part-I with latest amendments. Cable size: 10 sqmm, 3 Core Copper Unarmoured Cable. Make : Finolex/Universal/RR Kabels.
382	125002669	4C X 10 SQMM COPPER UNARMoured	SUPPLY OF 4C X 10 SQMM COPPER UNARMoured CABLE : Supply of Multi Core, Stranded Copper Conductor, XLPE Insulated, PVC Extruded Inner Sheathed, Unarmoured Cable, Extruded PVC Overall Sheathed, 1.1 KV Grade, Cable

		CABLE	conforming to IS7098/Part-I with latest amendments. Cable size: 10 sqmm, 4 Core Copper Unarmoured Cable. Make : Finolex/Universal/RR Kabels.
383	125002670	3C X 16 SQMM COPPER UNARMoured CABLE	SUPPLY OF 3C X 16 SQMM COPPER UNARMoured CABLE : Supply of Multi Core, Stranded Copper Conductor, XLPE Insulated, PVC Extruded Inner Sheathed, Unarmoured Cable, Extruded PVC Overall Sheathed, 1.1 KV Grade, Cable conforming to IS7098/Part-I with latest amendments. Cable size: 16 sqmm, 3 Core Copper Unarmoured Cable. Make : Finolex/Universal/RR Kabels.
384	125002671	4C X 16 SQMM COPPER UNARMoured CABLE	SUPPLY OF 4C X 16 SQMM COPPER UNARMoured CABLE : Supply of Multi Core, Stranded Copper Conductor, XLPE Insulated, PVC Extruded Inner Sheathed, Unarmoured Cable, Extruded PVC Overall Sheathed, 1.1 KV Grade, Cable conforming to IS7098/Part-I with latest amendments. Cable size: 16 sqmm, 4 Core Copper Unarmoured Cable. Make : Finolex/Universal/RR Kabels.
385	125002672	3C X 2.5 SQMM, FLAT CABLE FOR SUBMERSIBLE PUMPS	SUPPLY OF 3C X 2.5 SQMM, FLAT CABLE FOR SUBMERSIBLE PUMPS : Supply of Multi Core, Stranded Copper Conductor, XLPE Insulated, PVC Extruded Inner Sheathed, Unarmoured Cable, Extruded PVC Overall Sheathed, , 1.1 KV Grade, Cable conforming to IS7098/Part-I with latest amendments. Cable size: 2.5 sqmm, 3 Core Copper Flat Cable for Submersible Pumps Make : Finolex/Universal/RR Kabels.
386	125002673	3C X 4 SQMM, FLAT CABLE FOR SUBMERSIBLE PUMPS	SUPPLY OF 3C X 4 SQMM, FLAT CABLE FOR SUBMERSIBLE PUMPS : Supply of Multi Core, Stranded Copper Conductor, XLPE Insulated, PVC Extruded Inner Sheathed, Unarmoured Cable, Extruded PVC Overall Sheathed, 1.1 KV Grade, Cable conforming to IS7098/Part-I with latest amendments. Cable size: 4 sqmm, 3 Core Copper Flat Cable for Submersible Pumps Make : Finolex/Universal/RR Kabels.
387	125002674	3C X 6 SQMM, FLAT CABLE FOR	SUPPLY OF 3C X 6 SQMM, FLAT CABLE FOR SUBMERSIBLE PUMPS : Supply of Multi Core, Stranded Copper Conductor, XLPE Insulated, PVC Extruded Inner Sheathed, Unarmoured Cable, Extruded PVC Overall Sheathed, 1.1 KV Grade, Cable

		SUBMERSIBLE PUMPS	conforming to IS7098/Part-I with latest amendments. Cable size: 6 sqmm, 3 Core Copper Flat Cable for Submersible Pumps Make : Finolex/Universal/RR Kabels.
388	125002675	4C X 4 SQMM ALUMINIUM ARMoured CABLE	SUPPLY OF 4C X 4 SQMM ALUMINIUM ARMoured CABLE : Supply of 1.1 KV Grade, 4 sqmm, 4 core, XLPE Insulated, PVC Extruded Inner Sheated , Flat Steel Strip/Wire Armoured, Standard Aluminium Conductor, Overall PVC Extruded Sheated Cable conforming to IS7098/Part-I with latest amendments. Cable size: 4 sqmm, 4 Core Aluminium Armoured Cable. Make : Finolex/Universal/RR Kabels.
389	125002676	4C X 6 SQMM ALUMINIUM ARMoured CABLE	SUPPLY OF 4C X 6 SQMM ALUMINIUM ARMoured CABLE : Supply of 1.1 KV Grade, 6 sqmm, 4 Core, XLPE Insulated, PVC Extruded Inner Sheated , Flat Steel Strip/Wire Armoured, Standard Aluminium Conductor, Overall PVC Extruded Sheated Cable conforming to IS7098/Part-I with latest amendments. Cable size: 6 sqmm, 4 Core Aluminium Armoured Cable. Make : Finolex/Universal/RR Kabels.
390	125002677	4C X 10 SQMM ALUMINIUM ARMoured CABLE	SUPPLY OF 4C X 10 SQMM ALUMINIUM ARMoured CABLE : Supply of 1.1 KV Grade, 10sqmm, 4 Core, XLPE Insulated, PVC Extruded Inner Sheated , Flat Steel Strip/Wire Armoured, Standard Aluminium Conductor, Overall PVC Extruded Sheated Cable conforming to IS7098/Part-I with latest amendments. Cable size: 10 sqmm, 4 Core Aluminium Armoured Cable. Make : Finolex/Universal/RR Kabels.
391	125002678	4C X 16 SQMM ALUMINIUM ARMoured CABLE	SUPPLY OF 4C X 16 SQMM ALUMINIUM ARMoured CABLE : Supply of 1.1 KV Grade, 16 sqmm, 4 Core, XLPE Insulated, PVC Extruded Inner Sheated , Flat Steel Strip/Wire Armoured, Standard Aluminium Conductor, Overall PVC Extruded Sheated Cable conforming to IS7098/Part-I with latest amendments. Cable size: 16 sqmm, 4 Core Aluminium Armoured Cable. Make : Finolex/Universal/RR Kabels.
392	125002679	4C X 25 SQMM ALUMINIUM ARMoured CABLE	SUPPLY OF 4C X 25 SQMM ALUMINIUM ARMoured CABLE : Supply of 1.1 KV Grade, 25 sqmm, 4 Core, XLPE Insulated, PVC Extruded Inner Sheated , Flat Steel Strip/Wire Armoured, Standard Aluminium Conductor, Overall PVC Extruded Sheated

		CABLE	Cable conforming to IS7098/Part-I with latest amendments. Cable size: 25 sqmm, 4 Core Aluminium Armoured Cable. Make : Finolex/Universal/RR Kabels.
393	125002680	3.5C X 35 SQMM ALUMINIUM ARMoured CABLE	SUPPLY OF 3.5C X 35 SQMM ALUMINIUM ARMoured CABLE : Supply of 1.1 KV Grade, 35 sqmm, 3.5 Core, XLPE Insulated, PVC Extruded Inner Sheated , Flat Steel Strip/Wire Armoured, Standard Aluminium Conductor, Overall PVC Extruded Sheated Cable conforming to IS7098/Part-I with latest amendments. Cable size: 35 sqmm, 3.5 Core Aluminium Armoured Cable. Make : Finolex/Universal/RR Kabels.
394	125002681	4C X 35 SQMM ALUMINIUM ARMoured CABLE	SUPPLY OF 4C X 35 SQMM ALUMINIUM ARMoured CABLE : Supply of 1.1 KV Grade, 35 sqmm, 4 Core, XLPE Insulated, PVC Extruded Inner Sheated , Flat Steel Strip/Wire Armoured, Standard Aluminium Conductor, Overall PVC Extruded Sheated Cable conforming to IS7098/Part-I with latest amendments. Cable size: 35 sqmm, 4 Core Aluminium Armoured Cable. Make : Finolex/Universal/RR Kabels.
395	125002682	3.5C X 50 SQMM ALUMINIUM ARMoured CABLE	SUPPLY OF 3.5C X 50 SQMM ALUMINIUM ARMoured CABLE : Supply of 1.1 KV Grade, 50 sqmm, 3.5 Core, XLPE Insulated, PVC Extruded Inner Sheated , Flat Steel Strip/Wire Armoured, Standard Aluminium Conductor, Overall PVC Extruded Sheated Cable conforming to IS7098/Part-I with latest amendments. Cable size: 50 sqmm, 3.5 Core Aluminium Armoured Cable. Make : Finolex/Universal/RR Kabels.
396	125002683	4C X 50 SQMM ALUMINIUM ARMoured CABLE	SUPPLY OF 4C X 50 SQMM ALUMINIUM ARMoured CABLE : Supply of 1.1 KV Grade, 50 sqmm, 4 Core, XLPE Insulated, PVC Extruded Inner Sheated , Flat Steel Strip/Wire Armoured, Standard Aluminium Conductor, Overall PVC Extruded Sheated Cable conforming to IS7098/Part-I with latest amendments. Cable size: 50 sqmm, 4 Core Aluminium Armoured Cable. Make : Finolex/Universal/RR Kabels.
397	125002684	3.5C X 70 SQMM ALUMINIUM	SUPPLY OF 3.5C X 70 SQMM ALUMINIUM ARMoured CABLE : Supply of 1.1 KV Grade, 70 sqmm, 3.5 Core, XLPE Insulated, PVC Extruded Inner Sheated , Flat Steel Strip/Wire Armoured, Standard Aluminium Conductor, Overall PVC Extruded

		ARMOURED CABLE	Sheated Cable conforming to IS7098/Part-I with latest amendments. Cable size: 70 sqmm, 3.5 Core Aluminium Armoured Cable. Make : Finolex/Universal/RR Kabels.
398	125002685	4C X 70 SQMM ALUMINIUM ARMOURED CABLE	SUPPLY OF 4C X 70 SQMM ALUMINIUM ARMOURED CABLE : Supply of 1.1 KV Grade, 70 sqmm, 4 Core, XLPE Insulated, PVC Extruded Inner Sheated , Flat Steel Strip/Wire Armoured, Standard Aluminium Conductor, Overall PVC Extruded Sheated Cable conforming to IS7098/Part-I with latest amendments. Cable size: 70 sqmm, 4 Core Aluminium Armoured Cable. Make : Finolex/Universal/RR Kabels.
399	125002686	3.5C X 95 SQMM ALUMINIUM ARMOURED CABLE	SUPPLY OF 3.5C X 95 SQMM ALUMINIUM ARMOURED CABLE : Supply of 1.1 KV Grade, 95 sqmm, 3.5 Core, XLPE Insulated, PVC Extruded Inner Sheated , Flat Steel Strip/Wire Armoured, Standard Aluminium Conductor, Overall PVC Extruded Sheated Cable conforming to IS7098/Part-I with latest amendments. Cable size: 95 sqmm, 3.5 Core Aluminium Armoured Cable. Make : Finolex/Universal/RR Kabels.
400	125002687	4C X 95 SQMM ALUMINIUM ARMOURED CABLE	SUPPLY OF 4C X 95 SQMM ALUMINIUM ARMOURED CABLE : Supply of 1.1 KV Grade, 95 sqmm, 4 Core, XLPE Insulated, PVC Extruded Inner Sheated , Flat Steel Strip/Wire Armoured, Standard Aluminium Conductor, Overall PVC Extruded Sheated Cable conforming to IS7098/Part-I with latest amendments. Cable size: 95 sqmm, 4 Core Aluminium Armoured Cable. Make : Finolex/Universal/RR Kabels.
401	125002688	3.5C X 120 SQMM ALUMINIUM ARMOURED CABLE	SUPPLY OF 3.5C X 120 SQMM ALUMINIUM ARMOURED CABLE : Supply of 1.1 KV Grade, 120 sqmm, 3.5 Core, XLPE Insulated, PVC Extruded Inner Sheated , Flat Steel Strip/Wire Armoured, Standard Aluminium Conductor, Overall PVC Extruded Sheated Cable conforming to IS7098/Part-I with latest amendments. Cable size: 120 sqmm, 3.5 Core Aluminium Armoured Cable. Make : Finolex/Universal/RR Kabels.
402	125002689	4C X 120 SQMM ALUMINIUM ARMOURED	SUPPLY OF 4C X 120 SQMM ALUMINIUM ARMOURED CABLE : Supply of 1.1 KV Grade, 120 sqmm, 4 Core, XLPE Insulated, PVC Extruded Inner Sheated , Flat Steel Strip/Wire Armoured, Standard Aluminium Conductor, Overall PVC Extruded Sheated

		CABLE	Cable conforming to IS7098/Part-I with latest amendments. Cable size: 120 sqmm, 4 Core Aluminium Armoured Cable. Make : Finolex/Universal/RR Kabels.
403	125002690	3.5C X 150 SQMM ALUMINIUM ARMOURED CABLE	SUPPLY OF 3.5C X 150 SQMM ALUMINIUM ARMOURED CABLE : Supply of 1.1 KV Grade, 150 sqmm, 3.5 Core, XLPE Insulated, PVC Extruded Inner Sheated , Flat Steel Strip/Wire Armoured, Standard Aluminium Conductor, Overall PVC Extruded Sheated Cable conforming to IS7098/Part-I with latest amendments. Cable size: 150 sqmm, 3.5 Core Aluminium Armoured Cable. Make : Finolex/Universal/RR Kabels.
404	125002691	4C X 150 SQMM ALUMINIUM ARMOURED CABLE	SUPPLY OF 4C X 150 SQMM ALUMINIUM ARMOURED CABLE : Supply of 1.1 KV Grade, 150 sqmm, 4 Core, XLPE Insulated, PVC Extruded Inner Sheated , Flat Steel Strip/Wire Armoured, Standard Aluminium Conductor, Overall PVC Extruded Sheated Cable conforming to IS7098/Part-I with latest amendments. Cable size: 150 sqmm, 4 Core Aluminium Armoured Cable. Make : Finolex/Universal/RR Kabels.
405	125002692	3.5C X 185 SQMM ALUMINIUM ARMOURED CABLE	SUPPLY OF 3.5C X 185 SQMM ALUMINIUM ARMOURED CABLE : Supply of 1.1 KV Grade, 185 sqmm, 3.5 Core, XLPE Insulated, PVC Extruded Inner Sheated , Flat Steel Strip/Wire Armoured, Standard Aluminium Conductor, Overall PVC Extruded Sheated Cable conforming to IS7098/Part-I with latest amendments. Cable size: 185 sqmm, 3.5 Core Aluminium Armoured Cable. Make : Finolex/Universal/RR Kabels.
406	125002693	4C X 185 SQMM ALUMINIUM ARMOURED CABLE	SUPPLY OF 4C X 185 SQMM ALUMINIUM ARMOURED CABLE : Supply of 1.1 KV Grade, 185 sqmm, 4 Core, XLPE Insulated, PVC Extruded Inner Sheated , Flat Steel Strip/Wire Armoured, Standard Aluminium Conductor, Overall PVC Extruded Sheated Cable conforming to IS7098/Part-I with latest amendments. Cable size: 185 sqmm, 4 Core Aluminium Armoured Cable. Make : Finolex/Universal/RR Kabels.
407	125002694	3.5C X 240 SQMM ALUMINIUM	SUPPLY OF 3.5C X 240 SQMM ALUMINIUM ARMOURED CABLE : Supply of 1.1 KV Grade, 240 sqmm, 3.5 Core, XLPE Insulated, PVC Extruded Inner Sheated , Flat Steel Strip/Wire Armoured, Standard Aluminium Conductor, Overall PVC Extruded

		ARMOURED CABLE	Sheated Cable conforming to IS7098/Part-I with latest amendments. Cable size: 240 sqmm, 3.5 Core Aluminium Armoured Cable. Make : Finolex/Universal/RR Kabels.
408	125002695	4C X 240 SQMM ALUMINIUM ARMOURED CABLE	SUPPLY OF 4C X 240 SQMM ALUMINIUM ARMOURED CABLE : Supply of 1.1 KV Grade, 240 sqmm, 4 Core, XLPE Insulated, PVC Extruded Inner Sheated , Flat Steel Strip/Wire Armoured, Standard Aluminium Conductor, Overall PVC Extruded Sheated Cable conforming to IS7098/Part-I with latest amendments. Cable size: 240 sqmm, 4 Core Aluminium Armoured Cable. Make : Finolex/Universal/RR Kabels.
409	125002696	3.5C X 300 SQMM ALUMINIUM ARMOURED CABLE	SUPPLY OF 3.5C X 300 SQMM ALUMINIUM ARMOURED CABLE : Supply of 1.1 KV Grade, 300 sqmm, 3.5 Core, XLPE Insulated, PVC Extruded Inner Sheated , Flat Steel Strip/Wire Armoured, Standard Aluminium Conductor, Overall PVC Extruded Sheated Cable conforming to IS7098/Part-I with latest amendments. Cable size: 300 sqmm, 3.5 Core Aluminium Armoured Cable. Make : Finolex/Universal/RR Kabels.
410	125002697	4C X 300 SQMM ALUMINIUM ARMOURED CABLE	SUPPLY OF 4C X 300 SQMM ALUMINIUM ARMOURED CABLE : Supply of 1.1 KV Grade, 300 sqmm, 4 Core, XLPE Insulated, PVC Extruded Inner Sheated , Flat Steel Strip/Wire Armoured, Standard Aluminium Conductor, Overall PVC Extruded Sheated Cable conforming to IS7098/Part-I with latest amendments. Cable size: 300 sqmm, 4 Core Aluminium Armoured Cable. Make : Finolex/Universal/RR Kabels.
411	125002698	3.5C X 400 SQMM ALUMINIUM ARMOURED CABLE	SUPPLY OF 3.5C X 400 SQMM ALUMINIUM ARMOURED CABLE : Supply of 1.1 KV Grade, 400 sqmm, 3.5 Core, XLPE Insulated, PVC Extruded Inner Sheated , Flat Steel Strip/Wire Armoured, Standard Aluminium Conductor, Overall PVC Extruded Sheated Cable conforming to IS7098/Part-I with latest amendments. Cable size: 400 sqmm, 3.5 Core Aluminium Armoured Cable. Make : Finolex/Universal/RR Kabels.
412	125002699	1C X 1000 SQMM ALUMINIUM	SUPPLY OF 1C X 1000 SQMM ALUMINIUM ARMOURED CABLE : Supply of 1.1 KV Grade 1000 sqmm 1 Core ,XLPE Insulated, PVC Extruded Inner Sheated, Flat Steel Strip/Wire Armoured, Standard Aluminium Conductor, Overall PVC Extruded Sheated

		ARMOURED CABLE	Cable conforming to IS7098/Part-I with latest amendments. Cable size: 1000 sqmm, 1 Core Aluminium Armoured Cable. Make : Finolex/Universal/RR Kabels.
413	125002700	11KV, 3C X 70 SQMM, XLPE CABLE	SUPPLY OF 11 KV, 3C X 70 SQMM XLPE CABLE : Supply of 11 KV Grade, 70 sqmm, 3 Core, Stranded Compact Circular Aluminium Conductor, Conductor Screened with Extruded Semiconducting Compound, XLPE Insulated, Insulation Screened with Extruded Semiconducting Compound (by Dry Cure Triple Extrusion) in Combination with Copper Tape (0.69 KA for 1 sec), Cores Laid up, Inner Sheath of Plastic Tape, Galvanised Steel Flat Strip Armoured and Overall PVC(ST2) Sheathed Cables conforming to IS 7098/Part 2/2011 with latest amendments. Size: 11 KV Grade, 70 sqmm, 3 Core XLPE cable. Make: Finolex/Universal/ RR Kabels.
414	125002701	11KV, 3C X 95 SQMM XLPE CABLE	SUPPLY OF 11 KV, 3C X 95 SQMM XLPE CABLE : Supply of 11 KV Grade, 95 sqmm, 3 Core, Stranded Compact Circular Aluminium Conductor, Conductor Screened with Extruded Semiconducting Compound, XLPE Insulated, Insulation Screened with Extruded Semiconducting Compound (by Dry Cure Triple Extrusion) in Combination with Copper Tape (0.69 KA for 1 sec), Cores Laid up, Inner Sheath of Plastic Tape, Galvanised Steel Flat Strip Armoured and Overall PVC(ST2) Sheathed Cables conforming to IS 7098/Part 2/2011 with latest amendments. Size: 11 KV Grade, 95 sqmm, 3 Core XLPE cable. Make: Finolex/Universal/ RR Kabels.
415	125002702	11KV, 3C X 120 SQMM XLPE CABLE	SUPPLY OF 11 KV, 3C X 120 SQMM XLPE CABLE : Supply of 11 KV Grade, 120 sqmm, 3 Core, Stranded Compact Circular Aluminium Conductor, Conductor Screened with Extruded Semiconducting Compound, XLPE Insulated, Insulation Screened with Extruded Semiconducting Compound (by Dry Cure Triple Extrusion) in Combination with Copper Tape (0.69 KA for 1 sec), Cores Laid up, Inner Sheath of Plastic Tape, Galvanised Steel Flat Strip Armoured and Overall PVC(ST2) Sheathed Cables conforming to IS 7098/Part 2/2011 with latest amendments. Size: 11 KV Grade, 120 sqmm, 3 Core XLPE cable. Make: Finolex/Universal/ RR Kabels.

416	125002703	11KV, 3C X 185 SQMM XLPE CABLE	<p>SUPPLY OF 11 KV, 3C X 185 SQMM XLPE CABLE :</p> <p>Supply of 11 KV Grade, 185 sqmm, 3 Core, Stranded Compact Circular Aluminium Conductor, Conductor Screened with Extruded Semiconducting Compound, XLPE Insulated, Insulation Screened with Extruded Semiconducting Compound (by Dry Cure Triple Extrusion) in Combination with Copper Tape (0.69 KA for 1 sec), Cores Laid up, Inner Sheath of Plastic Tape, Galvanised Steel Flat Strip Armoured and Overall PVC(ST2) Sheathed Cables conforming to IS 7098/Part 2/2011 with latest amendments.</p> <p>Size: 11 KV Grade, 185 sqmm, 3 Core XLPE cable.</p> <p>Make: Finolex/Universal/ RR Kabels.</p>
417	125002704	33KV, 3C X 95 SQMM XLPE CABLE	<p>SUPPLY OF 33 KV, 3C X 95 SQMM XLPE CABLE :</p> <p>Supply of 33 KV Grade, 95 sqmm, 3 Core, Stranded Compact Circular Aluminium Conductor, Conductor Screened with Extruded Semiconducting Compound, XLPE Insulated, Insulation Screened with Extruded Semiconducting Compound (by Dry Cure Triple Extrusion) in Combination with Copper Tape (0.69 KA for 1 sec), Cores Laid up, Inner Sheath of Plastic Ttape, Galvanised Steel Flat Strip Armoured and Overall PVC(ST2) Sheathed Cables conforming to IS 7098/Part 2/2011 with latest amendments.</p> <p>Size: 33 KV Grade, 95 sqmm, 3 Core XLPE cable</p> <p>Make: Finolex/Universal/ RR Kabels</p>
418	125002705	33KV, 3C X 120 SQMM XLPE CABLE	<p>SUPPLY OF 33 KV, 3C X 120 SQMM XLPE CABLE :</p> <p>Supply of 33 KV Grade, 120 sqmm, 3 Core, Stranded Compact Circular Aluminium Conductor, Conductor Screened with Extruded Semiconducting Compound, XLPE Insulated, Insulation Screened with Extruded Semiconducting Compound (by Dry Cure Triple Extrusion) in Combination with Copper Tape (0.69 KA for 1 sec), Cores Laid up, Inner Sheath of Plastic Ttape, Galvanised Steel Flat Strip Armoured and Overall PVC(ST2) Sheathed Cables conforming to IS 7098/Part 2/2011 with latest amendments.</p> <p>Size: 33 KV Grade, 120 sqmm, 3 Core XLPE cable</p> <p>Make: Finolex/Universal/ RR Kabels</p>
419	125002706	33KV, 3C X 185 SQMM XLPE CABLE	<p>SUPPLY OF 33 KV, 3C X 185 SQMM XLPE CABLE :</p> <p>Supply of 33 KV Grade, 185 sqmm, 3 Core, Stranded Compact Circular Aluminium Conductor, Conductor Screened with Extruded Semiconducting Compound, XLPE Insulated, Insulation</p>

			<p>Screened with Extruded Semiconducting Compound (by Dry Cure Triple Extrusion) in Combination with Copper Tape (0.69 KA for 1 sec), Cores Laid up, Inner Sheath of Plastic Ttape, Galvanised Steel Flat Strip Armoured and Overall PVC(ST2) Sheathed Cables conforming to IS 7098/Part 2/2011 with latest amendments.</p> <p>Size: 33 KV Grade, 185 sqmm, 3 Core XLPE cable</p> <p>Make: Finolex/Universal/ RR Kabels</p>
420	125002707	33KV, 3C X 300 SQMM XLPE CABLE	<p>SUPPLY OF 33 KV, 3C X 300 SQMM XLPE CABLE :</p> <p>Supply of 33 KV Grade, 300 sqmm, 3 Core, Stranded Compact Circular Aluminium Conductor, Conductor Screened with Extruded Semiconducting Compound, XLPE Insulated, Insulation Screened with Extruded Semiconducting Compound (by Dry Cure Triple Extrusion) in Combination with Copper Tape (0.69 KA for 1 sec), Cores Laid up, Inner Sheath of Plastic Ttape, Galvanised Steel Flat Strip Armoured and Overall PVC(ST2) Sheathed Cables conforming to IS 7098/Part 2/2011 with latest amendments.</p> <p>Size: 33 KV Grade, 300 sqmm, 3 Core XLPE cable</p> <p>Make: Finolex/Universal/ RR Kabels</p>
421	304005536	4C x 10 SQMM (25MM) CABLE TERMINATION	<p>4C x 10 SQMM (25MM) CABLE END TERMINATIONS :</p> <p>Supplying and Making End Termination for 4 Core, 10 SQMM (25MM), 1.1 KV Grade PVC/XLPE insulated Armoured / Unarmoured, Copper / Aluminium Conductor Cables, Including Supply of Double Compression Cable Gland, Lugs, Neoprene Bushes and other materials and Tools required complete with Terminal Connections, Earthing of Glands and as required and as Directed by ARCI officials.</p> <p>Make: HMI / Hex / Jainson / Dowells.</p>
422	304005537	4C X 16 SQMM (28MM) CABLE TERMINATION	<p>4C x 16 SQMM (28MM) CABLE END TERMINATIONS :</p> <p>Supplying and Making End Termination for 4 Core, 16 SQMM (28MM), 1.1 KV Grade PVC/XLPE Insulated Armoured / Unarmoured, Copper / Aluminium Conductor Cables, Including Supply of Double Compression Cable Gland, Lugs, Neoprene Bushes and other materials and Tools required complete with Terminal Connections, Earthing of Glands and as required and as Directed by ARCI officials.</p> <p>Make: HMI / Hex / Jainson / Dowells.</p>

423	304005538	4C X 25 SQMM (28MM) CABLE TERMINATION	4C x 25 SQMM (28MM) CABLE END TERMINATIONS : Supplying and Making End Termination for 4 Core, 25 SQMM (28MM), 1.1 KV Grade PVC/XLPE Insulated Armoured / Unarmoured, Copper / Aluminium Conductor Cables, Including Supply of Double Compression Cable Gland, Lugs, Neoprene Bushes and other materials and Tools required complete with Terminal Connections, Earthing of Glands and as required and as Directed by ARCI officials. Make: HMI / Hex / Jainson / Dowells.
424	304005539	4C X 35 SQMM (32MM) CABLE TERMINATION	4C x 35 SQMM (32MM) CABLE END TERMINATIONS : Supplying and Making End Termination for 4 Core, 35 SQMM (32MM), 1.1 KV Grade PVC/XLPE Insulated Armoured / Unarmoured, Copper / Aluminium Conductor Cables, Including Supply of Double Compression Cable Gland, Lugs, Neoprene Bushes and other materials and Tools required complete with Terminal Connections, Earthing of Glands and as required and as Directed by ARCI officials. Make: HMI / Hex / Jainson / Dowells.
425	304005540	4C X 50 SQMM (35MM) CABLE TERMINATION	4C x 50 SQMM (35MM) CABLE END TERMINATIONS : Supplying and Making End Termination for 4 Core, 50 SQMM (35MM), 1.1 KV Grade PVC/XLPE Insulated Armoured / Unarmoured, Copper / Aluminium Conductor Cables, Including Supply of Double Compression Cable Gland, Lugs, Neoprene Bushes and other materials and Tools required complete with Terminal Connections, Earthing of Glands and as required and as Directed by ARCI officials. Make: HMI / Hex / Jainson / Dowells.
426	304005541	3.5C X 25 SQMM (28MM) CABLE TERMINATION	3.5C x 25 SQMM (28MM) CABLE END TERMINATIONS : Supplying and Making End Termination for 3.5 Core, 25 SQMM (28MM), 1.1 KV Grade PVC/XLPE Insulated Armoured / Unarmoured, Copper / Aluminium Conductor Cables, Including Supply of Double Compression Cable Gland, Lugs, Neoprene Bushes and other materials and Tools required complete with Terminal Connections, Earthing of Glands and as required and as Directed by ARCI officials. Make: HMI / Hex / Jainson / Dowells.
427	304005542	3.5C X 35 SQMM (32MM)	3.5C x 35 SQMM (32MM) CABLE END TERMINATIONS : Supplying and Making End Termination for 3.5 Core, 35 SQMM (32MM), 1.1 KV Grade

		CABLE TERMINATION	PVC/XLPE Insulated Armoured / Unarmoured, Copper / Aluminium Conductor Cables, Including Supply of Double Compression Cable Gland, Lugs, Neoprene Bushes and other materials and Tools required complete with Terminal Connections, Earthing of Glands and as required and as Directed by ARCI officials. Make: HMI / Hex / Jainson / Dowells.
428	304005543	3.5C X 50 SQMM (35MM) CABLE TERMINATION	3.5C x 50 SQMM (35MM) CABLE END TERMINATIONS : Supplying and Making End Termination for 3.5 Core, 50 SQMM (35MM), 1.1 KV Grade PVC/XLPE Insulated Armoured / Unarmoured, Copper / Aluminium Conductor Cables, Including Supply of Double Compression Cable Gland, Lugs, Neoprene Bushes and other materials and Tools required complete with Terminal Connections, Earthing of Glands and as required and as Directed by ARCI officials. Make: HMI / Hex / Jainson / Dowells.
429	304005544	3.5C x 70 SQMM (38MM) CABLE TERMINATION	3.5C x 70 SQMM (38MM) CABLE END TERMINATIONS : Supplying and Making End Termination for 3.5 Core, 70 SQMM (38MM), 1.1 KV Grade PVC/XLPE Insulated Armoured / Unarmoured, Copper / Aluminium Conductor Cables, Including Supply of Double Compression Cable Gland, Lugs, Neoprene Bushes and other materials and Tools required complete with Terminal Connections, Earthing of Glands and as required and as Directed by ARCI officials. Make: HMI / Hex / Jainson / Dowells.
430	304005545	3.5C X 95 SQMM (45MM) CABLE TERMINATION	3.5C x 95 SQMM (45MM) CABLE END TERMINATIONS : Supplying and Making End Termination for 3.5 Core, 95 SQMM (45MM), 1.1 KV Grade PVC/XLPE Insulated Armoured / Unarmoured, Copper / Aluminium Conductor Cables, Including Supply of Double Compression Cable Gland, Lugs, Neoprene Bushes and other materials and Tools required complete with Terminal Connections, Earthing of Glands and as required and as Directed by ARCI officials. Make: HMI / Hex / Jainson / Dowells.
431	304005546	3.5C X 120 SQMM (45MM) CABLE TERMINATION	3.5C x 120 SQMM (45MM) CABLE END TERMINATIONS : Supplying and Making End Termination for 3.5 Core, 120 SQMM (45MM), 1.1 KV Grade PVC/XLPE Insulated Armoured / Unarmoured, Copper / Aluminium Conductor Cables, Including Supply of Double Compression Cable Gland, Lugs, Neoprene Bushes and other

			materials and Tools required complete with Terminal Connections, Earthing of Glands and as required and as Directed by ARCI officials. Make: HMI / Hex / Jainson / Dowells.
432	304005547	3.5C X185 SQMM (57MM) CABLE TERMINATION	3.5C x 185 SQMM (57MM) CABLE END TERMINATIONS : Supplying and Making End Termination for 3.5 Core, 185 SQMM (57MM), 1.1 KV Grade PVC/XLPE Insulated Armoured / Unarmoured, Copper / Aluminium Conductor Cables, Including Supply of Double Compression Cable Gland, Lugs, Neoprene Bushes and other materials and Tools required complete with Terminal Connections, Earthing of Glands and as required and as Directed by ARCI officials. Make: HMI / Hex / Jainson / Dowells.
433	304005548	3.5C X 240 SQMM (62MM) CABLE TERMINATION	3.5C x 240 SQMM (62MM) CABLE END TERMINATIONS : Supplying and Making End Termination for 3.5 Core, 240 SQMM (62MM), 1.1 KV Grade PVC/XLPE Insulated Armoured / Unarmoured, Copper / Aluminium Conductor Cables, Including Supply of Double Compression Cable Gland, Lugs, Neoprene Bushes and other materials and Tools required complete with Terminal Connections, Earthing of Glands and as required and as Directed by ARCI officials. Make: HMI / Hex / Jainson / Dowells.
434	304005549	3.5C X 300 SQMM (70MM) CABLE TERMINATION	3.5C x 300 SQMM (70MM) CABLE END TERMINATIONS : Supplying and Making End Termination for 3.5 Core, 300 SQMM (70MM), 1.1 KV Grade PVC/XLPE Insulated Armoured / Unarmoured, Copper / Aluminium Conductor Cables, Including Supply of Double Compression Cable Gland, Lugs, Neoprene Bushes and other materials and Tools required complete with Terminal Connections, Earthing of Glands and as required and as Directed by ARCI officials. Make: HMI / Hex / Jainson / Dowells.
435	304005550	3.5C X 400 SQMM (82MM) CABLE TERMINATION	3.5C x 400 SQMM (82MM) CABLE END TERMINATIONS : Supplying and Making End Termination for 3.5 Core, 400 SQMM (82MM), 1.1 KV Grade PVC/XLPE Insulated Armoured / Unarmoured, Copper / Aluminium Conductor Cables, Including Supply of Double Compression Cable Gland, Lugs, Neoprene Bushes and other materials and Tools required complete with Terminal Connections, Earthing of Glands and as required and as Directed by ARCI officials.

			Make: HMI / Hex / Jainson / Dowells.
436	304005551	3C X 10 SQMM (22MM) CABLE TERMINATION	3C x 10 SQMM (22MM) CABLE END TERMINATIONS : Supplying and Making End Termination for 3 Core, 10 SQMM (22MM), 1.1 KV Grade PVC/XLPE Insulated Armoured / Unarmoured, Copper / Aluminium Conductor Cables, Including Supply of Double Compression Cable Gland, Lugs, Neoprene Bushes and other materials and Tools required complete with Terminal Connections, Earthing of Glands and as required and as Directed by ARCI officials. Make: HMI / Hex / Jainson / Dowells.
437	304005552	3C X 16 SQMM (25MM) CABLE TERMINATION	3C x 16 SQMM (25MM) CABLE END TERMINATIONS : Supplying and Making End Termination for 3 Core, 16 SQMM (25MM), 1.1 KV Grade PVC/XLPE Insulated Armoured / Unarmoured, Copper / Aluminium Conductor Cables, Including Supply of Double Compression Cable Gland, Lugs, Neoprene Bushes and other materials and Tools required complete with Terminal Connections, Earthing of Glands and as required and as Directed by ARCI officials. Make: HMI / Hex / Jainson / Dowells.
438	304005553	3C X 25 SQMM (25MM) CABLE TERMINATION	3C x 25 SQMM (25MM) CABLE END TERMINATIONS : Supplying and Making End Termination for 3 Core, 25 SQMM (25MM), 1.1 KV Grade PVC/XLPE Insulated Armoured / Unarmoured, Copper / Aluminium Conductor Cables, Including Supply of Double Compression Cable Gland, Lugs, Neoprene Bushes and other materials and Tools required complete with Terminal Connections, Earthing of Glands and as required and as Directed by ARCI officials. Make: HMI / Hex / Jainson / Dowells.
439	304005554	3C X 35 SQMM (28MM) CABLE TERMINATION	3C x 35 SQMM (28MM) CABLE END TERMINATIONS : Supplying and Making End Termination for 3 Core, 35 SQMM (28MM), 1.1 KV Grade PVC/XLPE Insulated Armoured / Unarmoured, Copper / Aluminium Conductor Cables, Including Supply of Double Compression Cable Gland, Lugs, Neoprene Bushes and other materials and Tools required complete with Terminal Connections, Earthing of Glands and as required and as Directed by ARCI officials. Make: HMI / Hex / Jainson / Dowells.

440	304005555	3C X 50 SQMM (32MM) CABLE TERMINATION	3C x 50 SQMM (32MM) CABLE END TERMINATIONS : Supplying and Making End Termination for 3 Core, 50 SQMM (32MM), 1.1 KV Grade PVC/XLPE Insulated Armoured / Unarmoured, Copper / Aluminium Conductor Cables, Including Supply of Double Compression Cable Gland, Lugs, Neoprene Bushes and other materials and Tools required complete with Terminal Connections, Earthing of Glands and as required and as Directed by ARCI officials. Make: HMI / Hex / Jainson / Dowells.
441	304005556	3C X 70 SQMM (35MM) CABLE TERMINATION	3C x 70 SQMM (35MM) CABLE END TERMINATIONS : Supplying and Making End Termination for 3 Core, 70 SQMM (35MM), 1.1 KV Grade PVC/XLPE Insulated Armoured / Unarmoured, Copper / Aluminium Conductor Cables, Including Supply of Double Compression Cable Gland, Lugs, Neoprene Bushes and other materials and Tools required complete with Terminal Connections, Earthing of Glands and as required and as Directed by ARCI officials. Make: HMI / Hex / Jainson / Dowells.
442	304005557	3C x 95SQMM (38MM) CABLE TERMINATION	3C x 95 SQMM (38MM) CABLE END TERMINATIONS : Supplying and Making End Termination for 3 Core, 95 SQMM (38MM), 1.1 KV Grade PVC/XLPE Insulated Armoured / Unarmoured, Copper / Aluminium Conductor Cables, Including Supply of Double Compression Cable Gland, Lugs, Neoprene Bushes and other materials and Tools required complete with Terminal Connections, Earthing of Glands and as required and as Directed by ARCI officials. Make: HMI / Hex / Jainson / Dowells.
443	304005558	3C X 120 SQMM (45MM) CABLE TERMINATION	3C x 120 SQMM (45MM) CABLE END TERMINATIONS : Supplying and Making End Termination for 3 Core, 120 SQMM (45MM), 1.1 KV Grade PVC/XLPE Insulated Armoured / Unarmoured, Copper / Aluminium Conductor Cables, Including Supply of Double Compression Cable Gland, Lugs, Neoprene Bushes and other materials and Tools required complete with Terminal Connections, Earthing of Glands and as required and as Directed by ARCI officials. Make: HMI / Hex / Jainson / Dowells.
444	304005559	1C X 25 SQMM CABLE	1C x 25 SQMM CABLE END TERMINATIONS : Supplying and Making End Termination for 1 Core, 185 SQMM, 1.1 KV Grade PVC/XLPE

		TERMINATION	Insulated Armoured / Unarmoured, Copper / Aluminium Conductor Cables, Including Supply of Double Compression Cable Gland, Lugs, Neoprene Bushes and other materials and Tools required complete with Terminal Connections, Earthing of Glands and as required and as Directed by ARCI officials. Make: HMI / Hex / Jainson / Dowells.
445	304005560	1C X 50 SQMM CABLE TERMINATION	1C x 50 SQMM CABLE END TERMINATIONS : Supplying and Making End Termination for 1 Core, 50 SQMM, 1.1 KV Grade PVC/XLPE Insulated Armoured / Unarmoured, Copper / Aluminium Conductor Cables, Including Supply of Double Compression Cable Gland, Lugs, Neoprene Bushes and other materials and Tools required complete with Terminal Connections, Earthing of Glands and as required and as Directed by ARCI officials. Make: HMI / Hex / Jainson / Dowells.
446	304005561	1C X 95 SQMM CABLE TERMINATION S	1C x 95 SQMM CABLE END TERMINATIONS : Supplying and Making End Termination for 1 Core, 95 SQMM, 1.1 KV Grade PVC/XLPE Insulated Armoured / Unarmoured, Copper / Aluminium Conductor Cables, Including Supply of Double Compression Cable Gland, Lugs, Neoprene Bushes and other materials and Tools required complete with Terminal Connections, Earthing of Glands and as required and as Directed by ARCI officials. Make: HMI / Hex / Jainson / Dowells.
447	304005562	1C X 120 SQMM CABLE TERMINATION S	1C x 120 SQMM CABLE END TERMINATIONS : Supplying and Making End Termination for 1 Core, 120 SQMM, 1.1 KV Grade PVC/XLPE Insulated Armoured / Unarmoured, Copper / Aluminium Conductor Cables, Including Supply of Double Compression Cable Gland, Lugs, Neoprene Bushes and other materials and Tools required complete with Terminal Connections, Earthing of Glands and as required and as Directed by ARCI officials. Make: HMI / Hex / Jainson / Dowells.
448	304005563	1C X 1000 SQMM CABLE TERMINATION S	1C x 1000 SQMM CABLE END TERMINATIONS : Supplying and Making End Termination for 1 Core, 1000 SQMM, 1.1 KV Grade PVC/XLPE Insulated Armoured / Unarmoured, Copper / Aluminium Conductor Cables, Including Supply of Double Compression Cable Gland, Lugs, Neoprene Bushes and other materials and Tools

			required complete with Terminal Connections, Earthing of Glands and as required and as Directed by ARCI officials. Make: HMI / Hex / Jainson / Dowells.
449	304005564	LT Cable Jointing Kit - 16 sqmm	LT cable Jointing Kit -16sqmm : Supplying and making straight through joint with heat shrink compound including ferrules and other jointing materials of PVC insulated and PVC sheathed / XLPE power cable 1.1KV grade, testing commissioning of LT straight through cable jointing kit both alluminium / copper both in door / out door heat sink type of cables size 4C x 16 sqmm as per direction of ARCI official. Make: Raychem / Denson
450	304005565	LT Cable Jointing Kit - 25 sqmm	LT cable Jointing Kit - 25sqmm : Supplying and making straight through joint with heat shrink compound including ferrules and other jointing materials of PVC insulated and PVC sheathed / XLPE power cable 1.1KV grade, testing commissioning of LT straight through cable jointing kit both alluminium / copper both in door / out door heat sink type of cables size 4C x 25 sqmm as per direction of ARCI official. Make: Raychem / Denson
451	304005566	LT Cable Jointing Kit - 35 sqmm	LT cable Jointing Kit - 35sqmm : Supplying and making straight through joint with heat shrink compound including ferrules and other jointing materials of PVC insulated and PVC sheathed / XLPE power cable 1.1KV grade, testing commissioning of LT straight through cable jointing kit both aluminium / copper both in door / out door heat sink type of cables size 3.5C x 35 sqmm as per direction of ARCI official. Make: Raychem / Denson
452	304005567	LT Cable Jointing Kit - 50 sqmm	LT cable Jointing Kit - 50sqmm : Supplying and making straight through joint with heat shrink compound including ferrules and other jointing materials of PVC insulated and PVC sheathed / XLPE power cable 1.1KV grade, testing commissioning of LT straight through cable jointing kit both Aluminium / copper both in door / outdoor heat sink type of cables size 3.5C x 50 sqmm as per direction of ARCI official. Make: Raychem / Denson
453	304005568	LT Cable Jointing Kit - 70 sqmm	LT cable Jointing Kit - 70sqmm : Supplying and making straight through joint with heat shrink compound including ferrules and other jointing materials of PVC insulated and PVC sheathed / XLPE power cable 1.1KV grade,

			testing commissioning of LT straight through cable jointing kit both Aluminium / copper both in door / out door heat sink type of cables size 3.5C x 70 sqmm as per direction of ARCI official. Make: Raychem / Denson
454	304005569	LT CABLE JOINTING KIT UPTO 95 SQMM	LT CABLE JOINTING KIT UPTO 95 SQMM : Supplying and making straight through joint with heat shrinkable kit including ferrules and other jointing materials for 3.5 core X 95 sqmm, 1.1 KV , PVC / XLPE insulated Aluminium conductor armoured cable of 1.1KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
455	304005570	LT CABLE JOINTING KIT UPTO 120 SQMM	LT CABLE JOINTING KIT UPTO 120 SQMM : Supplying and making straight through joint with heat shrinkable kit including ferrules and other jointing materials for 3.5 core X 120 sqmm, 1.1 KV , PVC / XLPE insulated Aluminium conductor armoured cable of 1.1KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
456	304005571	LT CABLE JOINTING KIT UPTO 185 SQMM	LT CABLE JOINTING KIT UPTO 185 SQMM : Supplying and making straight through joint with heat shrinkable kit including ferrules and other jointing materials for 3.5 core X 185 sqmm, 1.1 KV , PVC / XLPE insulated Aluminium conductor armoured cable of 1.1KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
457	304005572	LT CABLE JOINTING KIT UPTO 240 SQMM	LT CABLE JOINTING KIT UPTO 240 SQMM : Supplying and making straight through joint with heat shrinkable kit including ferrules and other jointing materials for 3.5 core X 240 sqmm, 1.1 KV , PVC / XLPE insulated Aluminium conductor armoured cable of 1.1KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
458	304005573	LT CABLE JOINTING KIT UPTO 300 SQMM	LT CABLE JOINTING KIT UPTO 300 SQMM : Supplying and making straight through joint with heat shrinkable kit including ferrules and other jointing materials for 3.5 core X 300 sqmm, 1.1 KV , PVC / XLPE insulated aluminium conductor armoured cable of 1.1KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
459	304005574	LT CABLE JOINTING KIT	LT CABLE JOINTING KIT UPTO 400 SQMM : Supplying and making straight through joint with heat shrinkable kit including ferrules and other

		UPTO 400 SQMM	jointing materials for 3.5 core X 400 sqmm, 1.1 KV , PVC / XLPE insulated aluminium conductor armoured cable of 1.1KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
460	304005575	11KV INDOOR CABLE END TERMINATION 70 SQMM	11KV INDOOR CABLE END TERMINATION 70 SQMM : Supplying and making indoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for 3 core X 70 sqmm, XLPE insulated aluminium conductor armoured cable of 11KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
461	304005576	11KV INDOOR CABLE END TERMINATION 95 SQMM	11KV INDOOR CABLE END TERMINATION 95 SQMM : Supplying and making indoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for 3 core X 95 sqmm, XLPE insulated aluminium conductor armoured cable of 11KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
462	304005577	11KV INDOOR CABLE END TERMINATION 120 SQMM	11KV INDOOR CABLE END TERMINATION 120 SQMM : Supplying and making indoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for 3 core X 120 sqmm, XLPE insulated aluminium conductor armoured cable of 11KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
463	304005578	11KV INDOOR CABLE END TERMINATION 185SQMM	11KV INDOOR CABLE END TERMINATION 185 SQMM : Supplying and making indoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for 3 core X 185 sqmm, XLPE insulated aluminium conductor armoured cable of 11KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
464	304005579	11KV OUTDOOR CABLE END TERMINATION 70 SQMM	11KV OUTDOOR CABLE END TERMINATION 70 SQMM : Supplying and making outdoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for 3 core X 70 sqmm, XLPE insulated aluminium conductor armoured cable of 11KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
465	304005580	11KV OUTDOOR	11KV OUTDOOR CABLE END TERMINATION 95 SQMM : Supplying and making outdoor cable end termination with heat shrinkable jointing kit complete

		CABLE END TERMINATION 95 SQMM	with all accessories including lugs suitable for 3 core X 95 sqmm, XLPE insulated aluminium conductor armoured cable of 11KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
466	304005581	11KV OUTDOOR CABLE END TERMINATION 120 SQMM	11KV OUTDOOR CABLE END TERMINATION 120 SQMM : Supplying and making outdoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for 3 core X 120 sqmm, XLPE insulated aluminium conductor armoured cable of 11KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
467	304005582	11KV OUTDOOR CABLE END TERMINATION 185 SQMM	11KV OUTDOOR CABLE END TERMINATION 185 SQMM : Supplying and making outdoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for 3 core X 185 sqmm, XLPE insulated aluminium conductor armoured cable of 11KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
468	304005583	11KV STRAIGHT THROUGH CABLE JOINTING KIT 70 SQMM	11KV STRAIGHT THROUGH CABLE JOINTING KIT 70 SQMM : Supplying and making straight through joint with heat shrinkable kit complete with all accessories including ferrules suitable for 3 core X 70 sqmm, XLPE insulated aluminium conductor armoured cable of 11KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
469	304005584	11KV STRAIGHT THROUGH CABLE JOINTING KIT 95 SQMM	11KV STRAIGHT THROUGH CABLE JOINTING KIT 95 SQMM : Supplying and making straight through joint with heat shrinkable kit complete with all accessories including ferrules suitable for 3 core X 95 sqmm, XLPE insulated aluminium conductor armoured cable of 11KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
470	304005585	11KV STRAIGHT THROUGH CABLE JOINTING KIT	11KV STRAIGHT THROUGH CABLE JOINTING KIT 120 SQMM : Supplying and making straight through joint with heat shrinkable kit complete with all accessories including ferrules suitable for 3 core X 120 sqmm, XLPE insulated aluminium conductor armoured cable of 11KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson

		120 SQMM	
471	304005586	11KV STRAIGHT THROUGH CABLE JOINTING KIT 185 SQMM	11KV STRAIGHT THROUGH CABLE JOINTING KIT 185 SQMM : Supplying and making straight through joint with heat shrinkable kit complete with all accessories including ferrules suitable for 3 core X 185 sqmm, XLPE insulated aluminium conductor armoured cable of 11KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
472	304005587	33KV INDOOR CABLE END TERMINATION 70 SQMM	33KV INDOOR CABLE END TERMINATION 70 SQMM : Supplying and making indoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for 3 core X 70 sqmm, XLPE insulated aluminium conductor armoured cable of 33KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
473	304005588	33KV INDOOR CABLE END TERMINATION 95 SQMM	33KV INDOOR CABLE END TERMINATION 95 SQMM : Supplying and making indoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for 3 core X 95 sqmm, XLPE insulated aluminium conductor armoured cable of 33KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
474	304005589	33KV INDOOR CABLE END TERMINATION 120 SQMM	33KV INDOOR CABLE END TERMINATION 120 SQMM : Supplying and making indoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for 3 core X 120 sqmm, XLPE insulated Aluminium conductor armoured cable of 33KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
475	304005590	33KV INDOOR CABLE END TERMINATION 185 SQMM	33KV INDOOR CABLE END TERMINATION 185 SQMM : Supplying and making indoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for 3 core X 185 sqmm, XLPE insulated Aluminium conductor armoured cable of 33KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
476	304005591	33KV INDOOR CABLE END	33KV INDOOR CABLE END TERMINATION 300 SQMM : Supplying and making indoor cable end termination with heat shrinkable jointing kit complete

		TERMINATION 300 SQMM	with all accessories including lugs suitable for 3 core X 300 sqmm, XLPE insulated Aluminium conductor armoured cable of 33KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
477	304005592	33KV OUTDOOR CABLE END TERMINATION 70 SQMM	33KV OUTDOOR CABLE END TERMINATION 70 SQMM : Supplying and making outdoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for 3 core X 70 sqmm, XLPE insulated aluminium conductor armoured cable of 33KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
478	304005593	33KV OUTDOOR CABLE END TERMINATION 95 SQMM	33KV OUTDOOR CABLE END TERMINATION 95 SQMM: Supplying and making outdoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for 3 core X 95 sqmm, XLPE insulated aluminium conductor armoured cable of 33KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
479	304005594	33KV OUTDOOR CABLE END TERMINATION 120 SQMM	33KV OUTDOOR CABLE END TERMINATION 120 SQMM : Supplying and making outdoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for 3 core X 120 sqmm, XLPE insulated aluminium conductor armoured cable of 33KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
480	304005595	33KV OUTDOOR CABLE END TERMINATION 185 SQMM	33KV OUTDOOR CABLE END TERMINATION 185 SQMM : Supplying and making outdoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for 3 core X 185 sqmm, XLPE insulated aluminium conductor armoured cable of 33KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
481	304005596	33KV OUTDOOR CABLE END TERMINATION 300 SQMM	33KV OUTDOOR CABLE END TERMINATION 300 SQMM : Supplying and making outdoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for 3 core X 300 sqmm, XLPE insulated aluminium conductor armoured cable of 33KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
482	304005597	33KV STRAIGHT	33KV STRAIGHT THROUGH CABLE JOINTING KIT 70 SQMM : Supplying and making straight through joint with heat shrinkable kit complete with all

		THROUGH CABLE JOINTING KIT 70 SQMM	accessories including ferrules suitable for 3 core X 70 sqmm, XLPE insulated aluminium conductor armoured cable of 33KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
483	304005598	33KV STRAIGHT THROUGH CABLE JOINTING KIT 95 SQMM	33KV STRAIGHT THROUGH CABLE JOINTING KIT 95 SQMM : Supplying and making straight through joint with heat shrinkable kit complete with all accessories including ferrules suitable for 3 core X 95 sqmm, XLPE insulated aluminium conductor armoured cable of 33KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
484	304005599	33KV STRAIGHT THROUGH CABLE JOINTING KIT 120 SQMM	33KV STRAIGHT THROUGH CABLE JOINTING KIT 120 SQMM : Supplying and making straight through joint with heat shrinkable kit complete with all accessories including ferrules suitable for 3 core X 120 sqmm, XLPE insulated aluminium conductor armoured cable of 33KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
485	304005600	33KV STRAIGHT THROUGH CABLE JOINTING KIT 185 SQMM	33KV STRAIGHT THROUGH CABLE JOINTING KIT 185 SQMM : Supplying and making straight through joint with heat shrinkable kit complete with all accessories including ferrules suitable for 3 core X 185 sqmm, XLPE insulated aluminium conductor armoured cable of 33KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
486	304005601	33KV STRAIGHT THROUGH CABLE JOINTING KIT 300 SQMM	33KV STRAIGHT THROUGH CABLE JOINTING KIT 300 SQMM : Supplying and making straight through joint with heat shrinkable kit complete with all accessories including ferrules suitable for 3 core X 300 sqmm, XLPE insulated aluminium conductor armoured cable of 33KV grade as required and as directed by ARCI officials. Make: 3M/ Raychem / Denson
487	304005602	SUPPLY & ERECTION OF	SUPPLY & ERECTION (INSTALLATION) OF STREET LIGHT POLE : 1) Supply and installation of straight tubular street light poles as per IS 2713 (Part-I, III) of

		STREET LIGHT POLE	<p>overall 11 metres. length with single arm/bracket of length 2.5 metres. Planting depth 1.5m. Length of bottom section is 6500 mm with OD 125mm and thickness 5.4mm. Length of middle section is 2250 mm with OD 100mm and thickness 5.0mm. Length of top section is 2250mm with 80mm and thickness 4.8mm. The pole shall be with single arm/bracket of length 2.5m with OD 40mm and thickness 4.0mm. Base plate of 6mm thick X 450mm X 450mm MS plate painted and welded at bottom.</p> <p>2) Erection of the lighting poles as per specified location including excavation, soiling, concreting for foundation and supply of all required material for civil works.</p> <p>3) Excavation size: 1m X 1m X 1.85m and concreting 1:2:4 cement concrete square foundation block and 1:2:4 cement concrete footing including soiling (230 mm thick) with rubble soiling and back filling with soil.</p> <p>4) Concrete block should cover with 20mm water proof plaster (1:4) 2 Nos of GI Class B bend pipe of length 2.0m, 50mm OD should be supplied with pole for loop-in loop-out cables. With required nut, bolts, washers for double earthing of 8 SWG wire.</p> <p>5) The pole should be provided with FRP weatherproof cable termination box should be installed at 1.5m above ground level with 2 nos of GI clamps. with 2 nos of stainless steel hinges and door locks incorporating 4A SP MCB, resin cast R, Y, B, N insulator with necessary brass bolts spring washes, 3C X1.5sqmm Cu. PVC insulated FRLS of 1.1 KV flexible cable to be provided between fixture and terminal box, GI clamps etc.</p> <p>6) Painting of the pole with one coat of red oxide and two coats of weatherproof silver enamel paint and bottom 1m with anti-corrosive black paint.</p>
488	304005603	SUPPLY & ERECTION OF POST TOP LANTERN	<p>SUPPLY & ERECTION (INSTALLATION) OF POST TOP LANTERN :</p> <p>1) Supply and installation of straight tubular garden light poles of overall length 4.5m of OD 75mm and thickness 4.8mm for mounting of post top LED lighting fixture. Planting depth 0.8m.</p> <p>2) Erection of the lighting poles as per specified location including excavation, soiling, concreting for foundation and supply of all required material for civil works.</p> <p>3) Excavation size: 1m X 1m X 1.10m and concreting 1:2:4 cement concrete square foundation block and 1:2:4 cement concrete footing including soiling (230 mm thick) with rubble soiling and back filling with soil.</p>

			<p>4) Concrete block should cover with 20mm water proof plaster (1:4) 2 Nos of GI Class B bend pipe of length 1.5m, 40mm OD should be supplied with pole for loop-in loop-out cables. With required nut, bolts, washers for double earthing of 8 SWG wire.</p> <p>1) The pole should be provided with FRP weather-proof cable termination box with 2 nos of stainless steel hinges and door locks incorporating 4A SP MCB, resin cast R,Y,B,N insulator with necessary brass bolts spring washes, 3C X1.5sqmm Cu. PVC insulated FRLS of 1.1 Kv flexible cable to be provided between fixture and terminal box, GI clamps etc. Base plate of 6mm thick X 450mm X 450mm MS plate painted and welded at bottom.</p> <p>5) Painting of the pole with one coat of red oxide and two coats of weatherproof silver enamel paint and bottom 1m with anti-corrosive black paint.</p>
489	304005604	GI PERFORATED CABLE TRAY 100MM X 50MM X 1.6MM	<p>HOT DIPPED GALVANIZED IRON CABLE TRAY 100MM X 50MM X 1.6MM :</p> <p>Supplying and installing following size of perforated Hot Dipped Galvanized iron cable tray as per the relevant IS standard/ ISI marked, (Galvanization thickness not less than 50 microns) with perforation not more than 17.5% in convenient sections, joined with connectors including supply and fixing of all required accessories like bends, Tees, coupling plates etc required as per site condition including supply of all fixing materials as required as directed by ARCI officials. Cable tray size: 100mm width X 50mm depth X 1.6mm thickness.</p>
490	304005605	GI PERFORATED CABLE TRAY 150MM X 50MM X 1.6MM	<p>HOT DIPPED GALVANIZED IRON CABLE TRAY 150MM X 50MM X 1.6MM :</p> <p>Supplying and installing following size of perforated Hot Dipped Galvanized iron cable tray as per the relevant IS standard/ ISI marked, (Galvanization thickness not less than 50 microns) with perforation not more than 17.5% in convenient sections, joined with connectors including supply and fixing of all required accessories like bends, Tees, coupling plates etc required as per site condition including supply of all fixing materials as required as directed by ARCI officials. Cable tray size: 150mm width X 50mm depth X 1.6mm thickness.</p>
491	304005608	GI PERFORATED CABLE TRAY 300MM X 50MM	<p>HOT DIPPED GALVANIZED IRON CABLE TRAY 300MM X 50MM X 1.6MM :</p> <p>Supplying and installing following size of perforated Hot Dipped Galvanized iron cable tray as per the relevant IS standard/ ISI marked, (Galvanisation thickness not less than 50 microns) with perforation not more than 17.5% in convenient sections, joined with connectors including supply</p>

		X 1.6MM	and fixing of all required accessories like bends, Tees,coupling plates etc required as per site condition including supply of all fixing materials as required as directed by ARCI officials. Cable tray size: 300mm width X 50mm depth X 1.6mm thickness.
492	304005607	GI PERFORATED CABLE TRAY 450MM X 50MM X 2MM	HOT DIPPED GALVANIZED IRON CABLE TRAY 450MM X 50MM X 2MM : Supplying and installing following size of perforated Hot Dipped Galvanized iron cable tray as per the relevant IS standard/ ISI marked,(Galvanisation thickness not less than 50 microns) with perforation not more than 17.5% in convenient sections, joined with connectors including supply and fixing of all required accessories like bends, Tees,coupling plates etc required as per site condition including supply of all fixing materials as required as directed by ARCI officials. Cable Tray size: 450mm width X 50mm depth X 2.0mm thickness.
493	304005609	GI PERFORATED CABLE TRAY 600MM X 50MM X 2MM	HOT DIPPED GALVANIZED IRON CABLE TRAY 600MM X 50MM X 2MM : Supplying and installing following size of perforated Hot Dipped Galvanized iron cable tray as per the relevant IS standard/ ISI marked,(Galvanisation thickness not less than 50 microns) with perforation not more than 17.5% in convenient sections, joined with connectors including supply and fixing of all required accessories like bends, Tees,coupling plates etc required as per site condition including supply of all fixing materials as required as directed by ARCI officials. Cable Tray size: 600mm width X 50mm depth X 2.0mm thickness.
494	304005610	FABRICATION OF MS ANGLE FRAME/TRAY	FABRICATION OF MS ANGLE FRAME/TRAY : Fabrication, supply, erection / mounting, painting (Two coats of enamel asian make one code of redoxide) As per ARCI official design, grouting in wall / RCC beam / MS structure with welding at ARCI. All required civil materials for concrete grouting, finishing to original condition including painting the chipped areas. MS Angle frame of required size with support / legs to be made as per site requirement including supply of required size cadmium coated nuts, bolts & washers The size of angles to be used will be decided by ARCI officials and payment will be made on per KG basis.

495	304005611	TRANSFORMER OIL FILTRATION	TRANSFORMER OIL FILTRATION : Transformer oil filtration must be carried out at ARCI, with inclusive of equipment transporting to site, the filtration should be carried out till achievement of minimum BDV level as per IS standards and submission test reports.
496	304005612	HIRING OF 5 TON CRANE	HIRING OF 5 TON CRANE : Hiring of 5Ton crane for shifting electrical cables, equipments, on 8 hrs basis
497	304005613	Electrician	Electrician : The electrician must be ITI holder with minimum five years of Industrial experience.
498	304005614	LABOUR / KHALLASI	LABOUR / KHALLASI : Hiring of labour per day for excavation of soil/shifting of electrical cables and switchgear materials.
499	304005615	LT CABLE FAULT LOCATER	LT CABLE FAULT LOCATER : Cable fault finding LT power cables of 1.1 KV grade with expert service engineer along with tools and tackles per fault per cable
500	304005616	HT CABLE FAULT LOCATER	HT CABLE FAULT LOCATER : Cable fault finding LT power cables of 11 & 33 KV grade with expert service engineer along with tools and tackles per fault per cable
501	304005617	Welder	Welder : Hiring of welder per days 8 hrs basis with welding machine and complete tools etc.
502	304005618	Service Engineer	Service Engineer: Complete overhauling and testing of VCBs / ACBs / DG sets / Transformers / Relay Calibration, etc on 8 hrs basis spare parts will be supplied by ARCI.
503	304005619	Painter	Painter: Hiring of painter per day on 8hrs basis, Material will be supplied by ARCI.
504	304005620	20MM WIDE (INNER) PVC CASING & CAPPING	20MM WIDE (INNER) PVC CASING & CAPPING : Supply and installation of PVC casing and capping of 20mm wide (inner) PVC casing and capping. Make: Modi, Avon Plast, Sudhakar

505	304005621	25MM WIDE (INNER) PVC CASING & CAPPING	25MM WIDE (INNER) PVC CASING & CAPPING : Supply and installation of PVC casing and capping of 25mm wide (inner) PVC casing and capping. Make: Modi, Avon Plast, Sudhakar
506	304005622	38MM WIDE (INNER) PVC CASING & CAPPING	38MM WIDE (INNER) PVC CASING & CAPPING : Supply and installation of PVC casing and capping of 38mm wide (inner) PVC casing and capping. Make: Modi, Avon Plast, Sudhakar
507	304005623	50MM WIDE (INNER) PVC CASING & CAPPING	50MM WIDE (INNER) PVC CASING & CAPPING : Supply and installation of PVC casing and capping of 50mm wide (inner) PVC casing and capping. Make: Modi, Avon Plast, Sudhakar
508	304005624	20W LED BATTEN	20W LED BATTEN : Supply, Fixing, Testing and Commissioning of LED Type 1x 20-22W LED Batten type, 1200mm Length, surface mounted fitting, day light efficiency @>100Lumem/W Rating, High Quality Extruded aluminium housing & ploy carbonate diffuser, suitable for 230 V, AC supply, THD<10%,cri>80, PF>0.95, suitable for LED Tube Light on wall / Ceiling with 4 feet LED Tube (operating voltage 230V AC supply, 50Hz), with 3Core, 1sqmm Flexible cable to tap power from ceiling rose. etc complete, along with the required mounting accessories such as anchor bolts 10mm 2 nos, SS chain and erection should be as directed by ARCI staff. Make: Philips / Wipro / Crompton / Bajaj
509	304005625	40W LED BATTEN	40W LED BATTEN : Supply, Fixing, Testing and Commissioning of LED Type 1x 40-42W LED Batten type, 1200mm Length, (Approximate dimensions- 1195 x 145 x 62mm) surface mounted / false ceiling mounted fitting, day light, illumination @>85Lumem/W rating, High Quality extruded aluminium housing & ploy carbonate diffuser, suitable for 230 V, AC supply, THD<10%,cri>80, PF>0.95, suitable for LED tube light on wall / Ceiling with 4 feet LED Tubes (operating voltage 230V AC supply, 50Hz), with 3Core, 1sqmm Flexible cable to tap power from ceiling rose. etc complete, along with the required mounting accessories such as anchor bolts 10mm 2 nos, SS

			chain and erection should be as directed by ARCI staff Make: Philips / Wipro / Crompton / Bajaj
510	304005626	36W LED RECESSED MOUNTED 2"X2" LUMINAIRE - FULL GLOW	36W LED RECESSED MOUNTED 2"X2" LUMINAIRE - FULL GLOW : Supply, Fixing, Testing and Commissioning of recessed mounted LED luminaire, with 3Core, 1sqmm Flexible cable to tap power from ceiling rose. etc complete, along with the required mounting accessories such as bolts 10mm 2 nos, SS chain and erection should be as directed by ARCI staff. Make: Philips (RC380B LED36S 6500 G6 L60 W60 PSU OD) FULL GLOW G6 / Wipro/ Crompton / equivalent.
511	304005627	36W LED RECESSED MOUNTED 2"X2" LUMINAIRE - GREEN SQUARE	36W LED RECESSED MOUNTED 2"X2" LUMINAIRE - GREEN SQUARE : Supply, Fixing, Testing and Commissioning 2x2 recessed mounted LED luminaire, with 3Core, 1sqmm Flexible cable to tap power from ceiling rose. etc complete, along with the required mounting accessories such as anchor bolts 10mm 2 nos, SS chain and erection should be as directed by ARCI staff. Make: Philips (RC140B LED30S-6500 PSU WH OD) Green Square / Wipro/ Crompton / equivalent.
512	304005628	36W LED RECESSED MOUNTED 2"X2" LUMINAIRE - SMART GLOW	36W LED RECESSED MOUNTED 2"X2" LUMINAIRE - SMART GLOW : Supply, Fixing, Testing and Commissioning 2x2 surface mounted LED luminaire, with 3Core, 1sqmm Flexible cable to tap power from ceiling rose. etc complete, along with the required mounting accessories such as anchor fasteners, SS chain and erection should be as directed by ARCI staff. Model: RC 383 B LED 36S - 6500 PSU OD WH PIR MAKE- Philips or Wipro / equivalent
513	304005629	11W LOW DEPTH RECESSED MOUNTED LED LUMINAIRE	11W LOW DEPTH RECESSED MOUNTED LED LUMINAIRE: Supply, Fixing, Testing and commissioning of 1x 11W Low-depth recess mounted low glare down lighter (115mmx115mm size), with 3Core 1.0sqmm flexible cable to tap power from ceiling rose. etc complete, along with the required mounting accessories such as anchor fasteners, SS chain and erection should be as directed by ARCI officials. Make: Wipro CRDL15R010HP60 or Philips make equivalent.

514	304005630	INDUSTRIAL HIGH BAY LED FITTING	INDUSTRIAL HIGH BAY LED FITTING : Supply, Fixing, Testing and commissioning of IP66 & IK08 protected industrial high bay LED luminaire, with 3Core 1sqmm flexible cable to tap power from ceiling rose. etc. complete, along with the required mounting accessories such as anchor bolts 10mm 2 nos, SS chain and erection should be as directed by ARCI officials. Make: Philips (BY515P LED100S 5700 NB PSU GR)/ Wipro /Crompton make equivalent.
515	304005631	INDUSTRIAL MID BAY LED FITTING	INDUSTRIAL MID BAY LED FITTING : Supply, Fixing, Testing and commissioning of IP66 & IK08 protected industrial Mid bay LED luminaire, with 3Core 1sqmm flexible cable to tap power from ceiling rose. etc complete, along with the required mounting accessories such as anchor bolts 10mm 2 nos, SS chain and erection should be as directed by ARCI officials. Make: Philips (BY150P LED76S CW PSU HE SY120 FG GR LILO) or Wipro make equivalent.
516	304005632	INDUSTRIAL LED WELL GLASS HIGH LUMEN	INDUSTRIAL LED WELL GLASS HIGH LUMEN : Supply, Fixing, Testing and commissioning of IP66 & IK08 protected industrial LED well glass high lumen, with 3Core 1sqmm flexible cable to tap power from ceiling rose. etc complete, along with the required mounting accessories such as anchor bolts 10mm 2 nos, SS chain and erection should be as directed by ARCI officials. Make: Philips (BY201P LED78S CW PSU HE PC) /Wipro/Crompton make equivalent.
517	304005633	INDUSTRIAL MID BAY INDUCTION FITTING	INDUSTRIAL MID BAY INDUCTION FITTING : Supply, Fixing, Testing and commissioning of 80W Integral Medium bay Luminaire, with 3Core 1sqmm flexible cable to tap power from ceiling rose. etc complete, along with the required mounting accessories such as anchor bolts 10mm 2 nos, SS chain and erection should be as directed by ARCI officials. Model: 80W Integral Medium bay Luminaire Make : Bajaj (BJRMB 80IL)/Crompton/ Philips make equivalent.
518	125002708	FLAMEPROOF INTEGRAL WELL GLASS LUMINAIRE	FLAMEPROOF INTEGRAL WELL GLASS LUMINAIRE: Supply of Flameproof integral well glass luminaire with Epoxy finish LMS aluminium alloy with a heat resistant & toughened glass cover, built in control gear, painted MS wire guard & eye bolt. Code: 162251 Luminaire Type: BJFW 70 MH (i)

			Lamp Type: 70W MH Make: Bajaj / Crompton/ Philips make equivalent.
519	304005634	LED BUILDING LIGHT LUMINAIRE	LED BUILDING LIGHT LUMINAIRE : Supply, Fixing, Testing and Installation of IP66 Integral Building Light Luminaire of 25W Lamp fitting comprises of pressure die cast Aluminium body with powder coated, on 25mmdia GI pipe bracket and anti-tilting 25x3mm GI flat to be grouted on wall with 4no's of S.S anchor bolts etc., complete, and erection should be as directed by ARCI officials. Make: Wipro LR01-018-XXX-WH-XX / Philips/Crompton equivalent.
520	304005635	BUILDING OUTDOOR LED LUMINAIRE	BUILDING OUTDOOR LED LUMINAIRE : Supply, Fixing, Testing and installation of IP66 Integral Building Light Luminaire of 25W Lamp fitting comprises of pressure die cast Aluminium body with powder coated, on 25mm dia GI pipe bracket and anti-tilting 25x3 mm GI flat to be grouted on wall with 4nos of S.S anchor bolts etc., complete, and erection should be as directed by ARCI officials. Model: Smart Bright Street Make: Philips (BRP042 P LED25 CW SLE S1 PSU GR P4210) / Wipro/ Crompton equivalent.
521	304005636	SLEEK SURFACE MOUNTING DOWN LIGHTER	SLEEK SURFACE MOUNTING DOWN LIGHTER : Supply, Fixing, Testing and Commissioning surface mounted LED Luminaire, with 3Core, 1sqmm Flexible cable to tap power from ceiling rose. etc. complete, along with the required mounting accessories such as anchor fasteners, SS chain and erection should be as directed by ARCI officials. MODEL: SM250C LED12S PSU WH(SQUARE), 6500K MAKE : Philips / Wipro / Crompton make equivalent
522	304005637	SURFACE MOUNTING DOWN LIGHTER GREEN LED	SURFACE MOUNTING DOWN LIGHTER GREEN LED : Supply, Fixing, Testing and Commissioning Surface mounted LED Luminaire, with 3Core, 1sqmm Flexible cable to tap power from ceiling rose. etc complete, along with the required mounting accessories such as anchor fasteners, SS chain and erection should be as directed by ARCI officials. MODEL: DN192B LED10S-6500 PSU WH S2. MAKE : Philips / Wipro / Crompton make equivalent

523	125002709	18W LED TUBE	18W LED TUBE : Supply T8 LED Lamps of rating 18W, approx. Illumination output of 2100 Lumens, 1200mm Length, suitable for replacement of existing T8 Fluorescent Lamps, day Light Lamp. MAKE : Philips / Wipro / Crompton
524	125002710	PLL 18W LED LAMPS	PLL 18W LED LAMPS : Supply of PLL type LED lamps of rating 18W, suitable for replacement of existing PLL type CFL Lamps, day Light, Illumination @>100 Lumens/Watt Rating MAKE : Philips / Wipro / Crompton
525	125002711	LED BULB - 9W	LED BULB - 9W : Supply of 9W LED Bulb with B22 base cap with illumination @> 100 Lumens/Watt. MAKE : Philips / Wipro / Crompton
526	125002712	LED BULB - 12W	LED BULB - 12W : Supply of 12W LED Bulb with B22 base cap with illumination @> 100 Lumens/Watt. MAKE : Philips / Wipro / Crompton
527	125002713	LED BULB - 14W	LED BULB - 14W : Supply of 14W LED Bulb with B22 base cap with illumination @> 100 Lumens/Watt. MAKE : Philips / Wipro / Crompton
528	125002714	LED BULB - 18W	LED BULB - 18W : Supply of 18W LED Bulb with B22 base cap with illumination @> 100 Lumens/Watt. MAKE : Philips / Wipro / Crompton
529	125002715	STREET LIGHT 70W LED LUMINAIRE	SMARTBRIGHT ESSENTIAL - STREET LIGHT 70W LED LUMINAIRE : Supply of SmartBright Essential is a street lighting luminaire with PDC housing and street light optics to ensure uniform distribution. Type: Philips (BRP032 LED70W CW / WW PSU GR DX) HSN Code: 9405 MAKE : Philips / Wipro / Crompton make equivalent
530	125002716	FLOODLIGHT LED 70W LUMINAIRE	SMARTBRIGHT ESSENTIAL - FLOODLIGHT LED 70W LUMINAIRE : Supply of SmartBright Essential Flood Light is aesthetically designed flood Lighting Luminaire for Superior Performance. Philips (BVP141 LED70 CW/NW/WW FG GR PSU) Model No:

			<p>Lumens: 7000</p> <p>HSN Code: 9405</p> <p>MAKE : Philips / Wipro / Crompton equivalent</p>
531	304005638	2X2FT LED LIGHT FITTINGS 30 W FULL GLOW	<p>2X2FT LED LIGHT FITTINGS 30 W FULL GLOW :</p> <p>Supply and installation of 30/31W full glow LED recessed mounted, 2x2ft, luminaire suitable for false ceiling, day light, illumination @>120 lumen/W rating, wiring with 3core 1sqmm flexible cable to tap power from ceiling rose. etc. complete, along with the required mounting accessories such as anchor fasteners, SS chain and erection should be as directed by ARCI officials.</p> <p>MAKE : Philips / Wipro / Crompton</p>
532	304005639	2X2FT LED LIGHT FITTINGS 36W FULL GLOW	<p>2X2FT LED LIGHT FITTINGS 36 W FULL GLOW:</p> <p>Supply and installation of 35/36W full glow LED recessed mounted, 2x2ft, luminaire suitable for false ceiling, day light, illumination @>120 lumen/W rating , wiring with 3core 1sqmm flexible cable to tap power from ceiling rose. etc. complete, along with the required mounting accessories such as anchor fasteners, SS chain and erection should be as directed by ARCI officials.</p> <p>MAKE : Philips / Wipro / Crompton</p>
533	304005640	2X2FT LED LIGHT FITTINGS 30 W DIRECT-INDIRECT/DESIGNER DIFFUSER	<p>2X2FT LED LIGHT FITTINGS 30W DIRECT-INDIRECT/DESIGNER DIFFUSER :</p> <p>Supply and Installation of 30/31W Direct-Indirect/Designer Diffuser LED Recessed Mounted, 2x2ft, Luminaire suitable for false ceiling, day light, illumination @>120 lumen/W rating, wiring with 3core, 1sqmm Flexible cable to tap power from ceiling rose. etc. complete, along with the required mounting accessories such as anchor fasteners, SS chain and erection should be as directed by ARCI officials.</p> <p>MAKE : Philips / Wipro / Crompton</p>
534	304005641	2X2FT LED LIGHT FITTINGS 36W DIRECT-INDIRECT/DESIGNER DIFFUSER	<p>2X2FT LED LIGHT FITTINGS 35W DIRECT-INDIRECT/DESIGNER DIFFUSER :</p> <p>Supply and installation of 35/36W Direct-Indirect/Designer Diffuser LED Recessed Mounted, 2x2ft, Luminaire suitable for false ceiling, day light, illumination @>120 Lumen/W rating, wiring with 3core, 1sqmm Flexible cable to tap power from ceiling rose. etc. complete, along with the required mounting accessories such as anchor fasteners, SS chain and erection should be as directed by ARCI officials.</p> <p>MAKE : Philips /Wipro/Crompton</p>

535	304005642	2X2FT RECESSED MOUNTED 36W LED LUMINAIRE	<p>2X2FT RECESSED MOUNTED 36W LED LUMINAIRE :</p> <p>Supply, Installation, Testing and Commissioning of Recessed Mounted 600mm X 600mm (2x2FT) size High Efficiency performance decorative LED Luminaire made of CRCA powder coted body with high transttance diffuser, colour temperature 5700K-600K, complete with LED modules, driver unit, built in 2KV surge protector duly wired, duly suspended from ceiling with Anchor / Dash fasteners and chain link arrangement, including connections with 1.5 sqmm FRLS PVC insulated copper conductor single core cable in PVC conduit and earthing etc, as required. System Lumens not less than 3600Lm and full system power rating not more than 36W and erection should be as directed by ARCI officials.</p> <p>Make : Philips / Crompton / Wipro / Bajaj</p>
536	304005643	12W MIRROR LED SURFACE MOUNTED LUMINAIRE	<p>12W MIRROR LED SURFACE MOUNTED LUMINAIRE :</p> <p>Supply, installation, Testing and Commissioning of Surface Mounted Batten fitting with CRCA / extrude Aluminium, Mirror LED Luminaire including LED Lamp with Lumens not less than 1000 Lumens and wattege not more than 12 Watts, colour temperature not less than 5700K, Non-yellowing diffuser, complete with LED module , driver unit, built in not less than 2.5 KV surge protector duly wired, directily on ceiling / wall including connection with 1.5 sqmm FRLS PVC insulated, copper conductor, single core cable and earthing etc., as required and erection should be as directed by ARCI officials.</p> <p>Make : Philips / Crompton / Wipro / Bajaj</p>
537	304005644	SURFACE MOUNTED 40W LED BATTEN	<p>SURFACE MOUNTED 40W LED BATTEN :</p> <p>Supply, installation, Testing and Commissioning of Surface Mounted LED Batten fitting with CRCA / extrude Aluminium, having system output not less than 3600 Lumens and wattege not more than 40 Watts and latest LED Technology of consistent light output, stable colour temperature not less than 5700K and energy saving, suitable for use on 230V, 50Hz, AC supply including connections with 1.5 sqmm FRLS PVC insulated, copper conductor, single core cable and earthing etc., as required and erection should be as directed by ARCI officials.</p> <p>Make : Philips / Crompton / Wipro / Bajaj</p>
538	304005645	2X2FT SURFACE	<p>2X2FT SURFACE MOUNTED 36W LED LUMINAIRE :</p> <p>Supply, Installation, Testing and Commissioning of Surface Mounted 600mm X 600mm (2X2ft)</p>

		MOUNTED 36W LED LUMINAIRE	size high efficiency performance decorative LED Luminaire made of CRCA powder coated body with high transmittance diffuser, colour temperature 5700K-6500K, complete with LED modules, driver unit, built in 2KV surge protector duly wired, duly suspended from the ceiling with Anchor / Dash fastneres and chain link arrangement, including connections with 1.5 sqmm FRLS PVC insulated copper conductor single core cable in flexible PVC conduit and earthing etc, as required. System Lumens not less than 3600 Lm and full system power rating not more than 36 Watts and erection should be as directed by ARCI officials. Make : Philips / Crompton / Wipro / Bajaj
539	304005646	12W LED RECESSED MOUNTED DOWN LIGHTER	12W LED RECESSED MOUNTED DOWN LIGHTER : Supply and Installation of LED Light Down Lighter fittings with integral driver, Optics,High quality diffuser, suitable metal casing, Heat sink including LEDs and other accessories as required for the following specifications: 12/12.5W recess mounted fitting in circular/square shape suitable for false ceiling, day light, illumination @>100 lumen/W rating, wiring with 3core, 1sqmm Flexible cable to tap power from ceiling rose. etc. complete, along with the required mounting accessories such as anchor fasteners, SS chain and erection should be as directed by ARCI officials. MAKE : Philips /Wipro/Crompton
540	304005647	16W LED RECESSED MOUNTED DOWN LIGHTER	16W LED RECESSED MOUNTED DOWN LIGHTER : Supply and Installation of LED Light Down Lighter fittings with integral driver, Optics,High quality diffuser, suitable metal casing, Heat sink including LEDs and other accessories as required for the following specifications: 15/16W recess mounted fitting in circular/square shape suitable for false ceiling, day light, illumination @>100 Lumen/W rating, wiring with 3core, 1sqmm Flexible cable to tap power from ceiling rose. etc. complete, along with the required mounting accessories such as anchor fasteners, SS chain and erection should be as directed by ARCI officials. MAKE : Philips / Wipro / Crompton
541	304005648	12W LED SURFACE MOUNTED FITTING	12W LED SURFACE MOUNTED FITTING : Supply and Installation of LED Light Down lighter fittings with integral driver, Optics,High quality diffuser, suitable metal casing, Heat sink including LEDs and other accessories as required for the following specifications: 12/12.5W Surface mounted fitting in circular/square

			<p>shape suitable for false ceiling, day light, illumination @>100 Lumen/W rating, wiring with 3core, 1sqmm flexible cable to tap power from ceiling rose. etc. complete, along with the required mounting accessories such as anchor fasteners, SS chain and erection should be as directed by ARCI officials.</p> <p>MAKE : Philips / Wipro / Crompton</p>
542	304005649	16W LED SURFACE MOUNTED FITTING	<p>16W LED SURFACE MOUNTED FITTING:</p> <p>Supply and Installation of LED Light down lighter fittings with integral driver, Optics, High quality diffuser, suitable metal casing, Heat sink including LEDs and other accessories as required for the following specifications: 15/16W Surface mounted fitting in circular/square shape suitable for false ceiling, day light, illumination @>100 Lumen/W rating, wiring with 3core, 1sqmm Flexible cable to tap power from ceiling rose. etc. complete, along with the required mounting accessories such as anchor fasteners, SS chain and erection should be as directed by ARCI officials.</p> <p>MAKE : Philips /Wipro/Crompton</p>
543	304005650	INDUSTRIAL 1 X 4FT T8 LED LAMP FITTING	<p>INDUSTRIAL 1 X 4FT T8 LED LAMP FITTING :</p> <p>Supply and installation of LED Industrial, Box type Luminaire with mounting rail for T8 LED lamps, CRCA body, pre coated in white and pre wired for T8 LED Lamps of rating 18 W, 1200mm length, surface mounted fitting, including supply of T8 LED Lamp, day light, illumination @> 100 Lumen/W rating, wiring with 3core 1sqmm flexible cable to tap power from ceiling rose. etc. complete, along with the required mounting accessories such as anchor fasteners, SS chain and erection should be as directed by ARCI officials.</p>
544	304005651	INDUSTRIAL 2 X 4FT T8 LED LAMP FITTING	<p>Industrial 2 X 4FT T8 LED Lamp Fitting:</p> <p>Supply and installation of LED Industrial, Box type Luminaire with mounting rail for T8 LED lamps, CRCA body, pre coated in white and pre wired for T8 LED Lamps of Rating 18 W, 1200mm length, Surface Mounted fitting, including supply of T8 LED Lamp, day light, illumination @> 100 Lumen/W rating, wiring with 3core, 1sqmm Flexible cable to tap power from ceiling rose. etc. complete, along with the required mounting accessories such as anchor fasteners, SS chain and erection should be as directed by ARCI officials.</p>
545	125002717	ELECTRICAL SAFETY	<p>ELECTRICAL SAFETY INSULATING RUBBER MAT - 3.3KV :</p> <p>Supply of Electrical Safety Insulating Rubber Mat Class-A of 3.3KV, conforming to IS 15652,</p>

		INSULATING RUBBER MAT 3.3KV	2006 Size: 1 Metre width X 2Metre Length x 2.0 MM Thickness. Colour: Black Make: Dunlop / Vardhaman/ Jyothi Rubber
546	125002718	ELECTRICAL SAFETY INSULATING RUBBER MAT 11KV	ELECTRICAL SAFETY INSULATING RUBBER MAT 11KV : Supply of Electrical Safety Insulating Rubber Mat Class-B of 11KV, conforming to IS 15652, 2006 Size: 1 Metre width X 2Metre Length x 2.5 MM Thickness. Colour: Blue Make: Dunlop / Vardhaman / Jyothi Rubber
547	125002719	ELECTRICAL SAFETY INSULATING RUBBER MAT 33KV	ELECTRICAL SAFETY INSULATING RUBBER MAT 33KV : Supply of Electrical Safety Insulating Rubber Mat Class-C of 33KV, conforming to IS 15652, 2006 Size: 1 Metre width X 2Metre Length x 2.5 MM Thickness. Colour: Blue Make: Dunlop / Vardhaman / Jyothi Rubber
548	125002720	LED INDICATING LAMP RED (42V - 240V AC&DC)	LED INDICATING LAMP RED (42V - 240V AC&DC) : Supply of Wide band compact LED indicating Lamps. Voltage : 42 to 240V AC & 42 to 220V DC Colour : Red Type : 3SB5235-6HC14 Make : Siemens / L&T or equivalent
549	125002721	LED INDICATING LAMP GREEN (42V - 240V AC&DC)	LED INDICATING LAMP GREEN (42V - 240V AC&DC) : Supply of Wide band compact LED indicating Lamps. Voltage : 42 to 240V AC & 42 to 220V DC Colour : Green Type : 3SB5235-6HE14 Make : Siemens / L&T or equivalent
550	125002722	LED INDICATING	LED INDICATING LAMP AMBER (42V - 240V AC&DC) : Supply of Wide band compact LED indicating Lamps.

		LAMP AMBER (42V - 240V AC&DC)	Voltage : 42 to 240V AC & 42 to 220V DC Colour : Amber Type : 3SB5235-6HL14 Make : Siemens / L&T or equivalent
551	125002723	LED INDICATING LAMP BLUE (42V - 240V AC&DC)	LED INDICATING LAMP BLUE (42V - 240V AC&DC) : Supply of Wide band compact LED indicating Lamps. Voltage : 42 to 240V AC & 42 to 220V DC Colour : Blue Type : 3SB5235-6HF14 Make : Siemens / L&T or equivalent
552	125002724	LED INDICATING LAMP WHITE (42V - 240V AC&DC)	LED INDICATING LAMP WHITE (42V - 240V AC&DC) : Supply of Wide band compact LED indicating Lamps. Voltage : 42 to 240V AC & 42 to 220V DC Colour : White Type : 3SB5235-6HG14 Make : Siemens / L&T or equivalent
553	125002725	LED INDICATING LAMP YELLOW (42V - 240V AC&DC)	LED INDICATING LAMP YELLOW (42V - 240V AC&DC) : Supply of Wide band compact LED indicating Lamps. Voltage : 42 to 240V AC & 42 to 220V DC Colour : Yellow Type : 3SB5235-6HD14 Make : Siemens / L&T or equivalent
554	125002726	LED INDICATING LAMP CLEAR (42V - 240V AC&DC)	LED INDICATING LAMP CLEAR (42V - 240V AC&DC) : Supply of Wide band compact LED indicating Lamps. Voltage : 42 to 240V AC & 42 to 220V DC Colour : Clear Type : 3SB5235-6HH14 Make : Siemens / L&T or equivalent
555	125002727	LED INDICATING	LED INDICATING LAMP RED (24V AC&DC) : Supply of Compact LED indicating Lamps.

		LAMP RED (24V AC&DC)	Voltage : 24V AC/DC, 50/60Hz Colour : Red Type : 3SB5285-6HC01 Make : Siemens / L&T or equivalent
556	125002728	LED INDICATING LAMP GREEN (24V AC&DC)	LED INDICATING LAMP GREEN (24V AC&DC) : Supply of Compact LED indicating Lamps. Voltage : 24V AC/DC, 50/60Hz Colour : Green Type : 3SB5285-6HE01 Make : Siemens / L&T or equivalent
557	125002729	LED INDICATING LAMP AMBER (24V AC&DC)	LED INDICATING LAMP AMBER (24V AC&DC) : Supply of Compact LED indicating Lamps. Voltage : 24V AC/DC, 50/60Hz Colour : Amber Type : 3SB5285-6HL01 Make : Siemens / L&T or equivalent
558	125002730	LED INDICATING LAMP BLUE (24V AC&DC)	LED INDICATING LAMP BLUE (24V AC&DC) : Supply of Compact LED indicating Lamps. Voltage : 24V AC/DC, 50/60Hz Colour : Blue Type : 3SB5285-6HF01 Make : Siemens / L&T or equivalent
559	125002731	LED INDICATING LAMP WHITE (24V AC&DC)	LED INDICATING LAMP WHITE (24V AC&DC) : Supply of Compact LED indicating Lamps. Voltage : 24V AC/DC, 50/60Hz Colour : White Type : 3SB5285-6HG01 Make : Siemens
560	125002732	LED INDICATING	LED INDICATING LAMP YELLOW (24V AC&DC) : Supply of Compact LED indicating Lamps.

		LAMP YELLOW (24V AC&DC)	Voltage : 24V AC/DC, 50/60Hz Colour : Yellow Type : 3SB5285-6HD01 Make : Siemens
561	125002733	LED INDICATING LAMP CLEAR (24V AC&DC)	LED INDICATING LAMP CLEAR (24V AC&DC) : Supply of Compact LED indicating Lamps. Voltage : 24V AC/DC, 50/60Hz Colour : Clear Type : 3SB5285-6HH01 Make : Siemens
562	125002734	LED INDICATING LAMP RED (240V AC)	LED INDICATING LAMP RED (240V AC) : Supply of Compact LED indicating Lamps 3SB5 Voltage : 220/240V AC, 50/60Hz Colour : Red Type : 3SB5285-6HC03 Make : Siemens
563	125002735	LED INDICATING LAMP GREEN (240V AC)	LED INDICATING LAMP GREEN (240V AC) : Supply of Compact LED indicating Lamps. Voltage : 220/240V AC, 50/60Hz Colour : GREEN Type : 3SB5285-6HE03 Make : Siemens
564	125002736	LED INDICATING LAMP AMBER (240V AC)	LED INDICATING LAMP AMBER (240V AC) : Supply of Compact LED indicating Lamps. Voltage : 220/240V AC, 50/60Hz Colour : Amber Type : 3SB5285-6HL03 Make : Siemens
565	125002737	LED INDICATING	LED INDICATING LAMP BLUE (240V AC) : Supply of Compact LED indicating Lamps 3SB5

		LAMP BLUE (240V AC)	Voltage : 220/240V AC, 50/60Hz Colour : Blue Type : 3SB5285-6HF03 Make : Siemens
566	125002738	LED INDICATING LAMP WHITE (240V AC)	LED INDICATING LAMP WHITE (240V AC) : Supply of Compact LED indicating Lamps. Voltage : 220/240V AC, 50/60Hz Colour : White Type : 3SB52 85-6HG03 Make : Siemens
567	125002739	LED INDICATING LAMP YELLOW (240V AC)	LED INDICATING LAMP YELLOW (240V AC) : Supply of Compact LED indicating Lamps 3SB5 Voltage : 220/240V AC, 50/60Hz Colour : Yellow Type : 3SB5285-6HD03 Make : Siemens
568	125002740	LED INDICATING LAMP CLEAR (240V AC)	LED INDICATING LAMP CLEAR (240V AC) : Supply of Compact LED indicating Lamps. Voltage : 220/240V AC, 50/60Hz Colour : Clear Type : 3SB5285-6HH03 Make : Siemens
569	125002741	LED INDICATING LAMP RED (110V DC)	LED INDICATING LAMP RED (110V DC) : Supply of Compact LED indicating Lamps. Voltage : 110V DC Colour : Red Type : 3SB5285-6HC04 Make : Siemens
570	125002742	LED INDICATING	LED INDICATING LAMP GREEN (110V DC) : Supply of Compact LED indicating Lamps.

		LAMP GREEN (110V DC)	Voltage : 110V DC Colour : Green Type : 3SB5285-6HE04 Make : Siemens.
571	125002743	LED INDICATING LAMP AMBER (110V DC)	LED INDICATING LAMP AMBER (110V DC) : Supply of Compact LED indicating Lamps. Voltage : 110V DC Colour : Amber Type : 3SB5285-6HL04 Make : Siemens.
572	125002744	LED INDICATING LAMP BLUE (110V DC)	LED INDICATING LAMP BLUE (110V DC) : Supply of Compact LED indicating Lamps. Voltage : 110V DC Colour : Blue Type : 3SB5285-6HF04 Make : Siemens.
573	125002745	LED INDICATING LAMP WHITE (110V DC)	LED INDICATING LAMP WHITE (110V DC) : Supply of Compact LED indicating Lamps. Voltage : 110V DC Colour : White Type : 3SB5285-6HG04 Make : Siemens.
574	125002746	LED INDICATING LAMP YELLOW (110V DC)	LED INDICATING LAMP YELLOW (110V DC) : Supply of Compact LED indicating Lamps. Voltage : 110V DC Colour : Yellow Type : 3SB5285-6HD04 Make : Siemens.
575	125002747	LED INDICATING	LED INDICATING LAMP CLEAR (110V DC) : Supply of Compact LED indicating Lamps.

		LAMP CLEAR (110V DC)	Voltage : 110V DC Colour : Clear Type : 3SB5285-6HH04 Make : Siemens.
576	125002748	CAPACITORS 2.5 MFD	CAPACITORS 2.5 MFD : Supply of 2.5 MFD Capacitors Make: Capco / Tibcon / Elemeck
577	125002549	CAPACITORS 4.0 MFD	CAPACITORS 4.0 MFD : Supply of 4.0 MFD Capacitors Make: Capco / Tibcon / Elemeck
578	125002750	INSULATION TAPE	INSULATION TAPE : Supply of Electrical insulation PVC Tape Make: Miracle / Steel Grip.
579	125002751	CRC SPRAY	CRC SPRAY : Supply of CRC Spray 2-26 (500ml) for using during Electrical Maintenance works. Make : CRC / Equivalent
580	125002752	WD 40 SPRAY	WD 40 SPRAY : Supply of WD-40 Spray (420ml) for using during Electrical Maintenance works. Make : WD-40 / Equivalent
581	125002753	GREASE	GREASE : Supply of Grease (1 kg) for using during Electrical Maintenance works. Make : Castrol / Equivalent
582	125002754	PETROLEUM JELLY	PETROLEUM JELLY : Supply of Petroleum Jelly (250 g) for using during Electrical Maintenance works.
583	125002755	NON ADHESIVE TAPE	NON ADHESIVE TAPE : Supply of Electrical insulation PVC Non Adhesive Tape. Make: Miracle / Steel Grip.
584	125002756	BANIAN CLOTH	BANIAN CLOTH : Supply of Banian Cloth (1Kg) for cleaning of SwitchGear items during Electrical Maintenance

			works.
585	125002757	1" SADDLES	1" SADDLES : Supply of 1" saddles for running of PVC Conduit. Make : Bharat
586	125002758	1" WOODEN SCREW	1" WOODEN SCREW : Supply of 1" Wooden Screws for Fixing of PVC Conduit.
587	125002759	WOODEN GATTI	WOODEN GATTI : Supply of Wooden Gatti for Fixing of Saddles to Run the PVC Conduit
588	304005653	BUSBAR PANEL BOARD	BUSBAR PANEL BOARD : Design, fabrication, supply, installation, testing and commissioning of 3 phase 415V panel board of 14 guage CRCA sheet steel powder coated as per IP 43 degree protection with copper busbar of 50X6 mm, wire sets, blanking plates, cable ties, identification labels, earth bar & insulated neutral bus bar and designed for giving extra space for incoming termination of 400 A SFU and 4 nos of outgoings provision of 125A SFU, with din-channel mounted Multifunction meter, selector switch, L.E.D indicating lights, C.T's should be fixed in a panel as per shown in drawing. Panel should be fixed with 50x6mm GI angle frame and frame to be grouted in wall and panel should be fixed on angle frame. Note : All switch gear items will be supplied by ARCI and erection should be as directed by ARC I officials.

Declaration by the Vendor

(to be provided in the following format in their letter head)

It is hereby declared that I/We the undersigned, have read and examined all the terms and conditions of GCC, SCC, Scope of work, BOQ technical specifications, Time frame, manpower deployment along with minimum qualification & minimum wages and their EPF &ESI, Bonus calculation, Insurances, LD Clause, etc. of the tender document for which I/We have signed and submitted the tender under proper authorization. It is also certified that all the terms and conditions of the tender document are fully acceptable to me/us and I/We will abide by the conditions of the tender. We have not given any printed conditions beyond the scope of this tender. It is also certified that I/We/our firm has no objection in signing the contract if the opportunity for the work against this tender is given to me/us.

Date:

Signature:

Name:

Address:

Designation:

On behalf of:

CHECK LIST**BIDDER HAS TO FILL IN THE CHECK LIST GIVEN BELOW**

**(Following documents are to be submitted online and manual as part of Technical Bid.
Bidders are requested to state Yes / No against each column)**

Sl. No	Document to be Submitted	Online Submission	Manual Submission
1.	The contractor should be registered with any of the prominent Govt./Semi Govt./ Autonomous Bodies/ Corporate Bodies or Public Sector Undertaking registration certificate		
2.	Firm registration certificate (In case of Firm)		
3.	Copy of Permanent Account Number (PAN) card and GST Registration copy of latest		
4	List of last 05 (Five) years executed similar works for any Government /Autonomous body corporate companies along with Xerox copies of work orders / purchase orders along with completion certificates		
5	The Contractor should have achieved minimum annual turnover value of general construction works (as certified by Chartered Accountant and at least 50% of which is from Engineering (Electrical) construction works i.e Rs. 20 lakhs, carried out in any of the year over a period of 05 (five) years ending 31.03.2025. (i.e. providing audited balance sheet along with income tax returns)		
6	Proof of similar executed nature of AMC works for last 05 (Five) years ending 31 st March 2025. Should have either of the following (i.e. attach documentary proof). <ul style="list-style-type: none"> - One similar nature of works costing not less than Rs.32.00 Lakhs or above <li style="text-align: center;">or - Two similar nature of works costing not less than Rs. 24.00 Lakhs or above <li style="text-align: center;">or - Three similar nature of work costing not less than Rs. 16.00 Lakhs or above 		

7	Current original Solvency Certificate, minimum 40% of the estimated cost of the work which is Rs. 16 lakhs, issued from any nationalized bank		
8	Tender Fee and E.M.D fee as per detail (scanned copy by online and original by manual)		
9	Availability of key personnel, qualification and experience		
10	Availability of tools and tackles		
11	Whether declaration form signed and submitted (scanned copy by online and original by manual)		
12.	This checklist (scanned copy by online and original by manual)		
13.	Whether all pages of tender document signed and uploaded		
14	Eligibility criteria documents issued by officer not below the rank of superintending engineer.		
15.	Tender Fee and EMD		

NOTE: Please ensure all the relevant boxes are marked YES/NO against each column.

IMPORTANT NOTE:

- 1. The supplier should provide HSN Code and SAC Code for all the BOQ items in Technical Bid.**
- 2. Tenderers must ensure that all the required documents indicated in the Tender documents are submitted without fail. Tenders received without supporting documents for the various requirements mentioned in the tender document are liable to be rejected at the initial stage itself.**