

Government of Pakistan PAKISTAN ORDNANCE FACTORIES TENDER ENQUIRY

Dear Sir,

Reference: Tender Enquiry 464-LP-Capt-DS-Elect dated 31-07-2018

POF (Services Group) intends to procure "Misc. Electrical Store".

You are requested to submit sealed quotations for the item(s) noted in the Schedule to the Tender. Offer should be sent duly sealed in an envelope. Please note the following instruction for filling the tender.

1. SUBMISSION OF TECHNICAL OFFER

- 1.1 Tender will be opened at <u>1000</u> hours on <u>27-08-2018</u> and must reach this office before <u>0930</u> hours upto due date. The tender received late will not be entertained. You may witness the opening of the tender if you so desire. If representative is deputed, he should bring a letter of authority from you.
- 1.2 Only one tender should be included in one envelope. The outside of the envelope should be inscribed with:

Tender Enquiry No. 464-LP-Capt-DS-Elect

Offer to be opened on **27-08-2018**

Address as follows: **Director Services, POF Wah Cantt**

1.3 If envelope do not indicate reference of T.E or received late the same may be returned un-opened.

2. **GENERAL INSTRUCTIONS REGARDING PREPARATION OF QUOTATIONS**

- 2.1 For materials, the prices should be filled in column 5 and delivery date in column 6 of the schedule to this Tender Enquiry. The undertaking should be signed at the bottom of the schedule, which shall form the Quotation. You may use a separate sheet, if necessary.
- 2.2 For plant and Machinery, You are required to quote in two parts:
 "Technical Offer". It should exclusively give technical details and literatures/brochures of the offered plant, machinery and equipment; validity date; delivery schedule; and signed undertaking given on the schedule to this Tender Enquiry. It must not indicate price, costs etc.

Part II "Commercial Offer". It should indicate the commercial terms e.g. price, terms of payment, mode of payment, mode of supply.

Each part should be placed in a separate sealed cover. The envelopes should be inscribed with: Part I "Technical Quotation without price" and Part II "Commercial Quotation with price".

- 2.3 The quotation must remain valid for, at least **120 days** from the date of opening of tenders.
- 2.4 The quotation should hold good for any reduced or enhanced quantities without notice.
- 2.5 In the event of non acceptance of offer, intimation may be given to the tenderers on their request.
- 2.6 Conditional offers or alternative offers are likely to be ignored.
- 2.7 Quotations should be based on:

F.O.R. station of dispatch basis, i.e. delivered free on rail, inclusive of packing and forwarding charges. The stores will be booked under military credit note, to be provided by the purchaser.

and/or

Free delivery at POF's stores at Wah Cantt. In this case Octori duty will be payable by the supplier.

- 2.7 Taxes and duties etc. where applicable, must be shown separately, quoting references to Registration No. in cases of Sales Tax and relevant authority, in case of others. Offers without these clarifications and inclusive of Taxes and duties, may be ignored.
- 2.8 Taxes and duties levied on or after Tender opening date or on or after the date offer was signed and dispatched will be allowed to include in the offered rates.
- 2.9 "Suppliers will furnish a certificate, issued by Excise & Taxation deptt, that he has cleared all Professional Tax payable by him". Offers received without this certificate will be rejected.
- 2.10 If the requisite information is not furnished on the T.E forms or offer received is not in conformity with the requirement of T.E such offer shall be ignored.
- 2.11 Supplier will render necessary information regarding hazardous effects on environment of the materials/products supplied by them, in their quotations and shipping / dispatch documents.
- 2.12 If the requisite information is not furnished on the T.E forms or offer received is not conformity with the requirement of the T.E such offer shall be ignored.

3. **INSPECTION**

- 3.1 Supplies shall be subject to the inspection and acceptance by the competent inspection authority nominated by the purchaser, who will arrange it at his own cost. Inspection facilities such as tools, test equipments, instruments etc will, however, be provided by the Suppliers in accordance with the relevant specifications.
- Where considered necessary by the Purchaser, stores may be obtained on Warranty/Guarantee, subject to inspection on receipt. Rejected stores will be removed and replaced with the acceptable stores by the Supplier at his own expense, within a specified time.

4. **TENDER FEE**

The tender must be accompanied by a non-refundable fee by means of a crossed postal order / pay order off Rs. 500 in favor of **Director Services, POFs Wah Cantt**.

4.1 **Tender Sample:**

Where required, offer must a company tender sample, strictly according to the description and specification given in tender enquiry. Offer not accompanied by tender sample will not be entertained excepting the established and reputable firms who have either previously satisfactorily supplied the same or similar stores or have submitted an acceptable sample there pf against previous T.E.

5. **BID MONEY**

- 5.1 Bid Money at the rate of 2% (for registered firms) and 5% (for unregistered firms) of the quoted value should accompany the tender in the shape of Deposit At Call Receipt/ pay order/ Banker's Cheque, from a scheduled Bank drawn in favor of **DIRECTOR SERVICES, POF WAH CANTT.**Tenders received without Bid Money will be rejected.
- 5.2 Bid Money of the unsuccessful tenders will be returned as soon as the scrutiny of the tenders is completed. Bid Money of the successful tenders will be retained until the contract is finalized. Bid Money will be forfeited in case the quotation is withdrawn before the expiry of its validity date.
- 5.3 State owned organizations are not required to provide Bid Money.

6. **ACCEPTANCE OF OFFERS**

- 6.1 The procuring agency may reject all bids or proposals at any time prior to the acceptance of a bid or proposal. The procuring agency shall upon request communicate to any supplier or contractor who submitted a bid or proposal, the grounds of all bids or proposal, but is not required justify those grounds.
- 6.2 Procuring agency shall incur no liability, solely by virtue of its invoking subrule (1.1) towards suppliers or contractors who have submitted or proposals.
- 6.3 Notice of the rejection of all bids or proposals shall be given promptly to all suppliers or contractors that submitted bids or proposals.

6.2 **PERFORMANCE BOND**

- a) The successful bidders shall provide performance bond at the rate, prescribed by POF Board according to the value of contract which shall be exceed 10% of contract value, in the form of a deposit at call receipt from a scheduled Bank or an un-conditional Bank Guarantee valid for 12 Months (03 months extendable to 12 month in case of cloth items required by clothing Fy.) after receipt of store in POFs on a prescribed format. The Performance Bond will be in favor of **CMA POF Wah Cantt.** It will be returned on satisfactory completion of the contract.
- b) If the Supplier fails to furnish the Performance Bond within the specified time, such failure will constitute a breach of the contract and the Purchaser shall be entitled to make other arrangements for purchase of the stores at the risk and expense of the supplier.
- 6.3 Performance bond from state owned organizations may be waived off at the discretion of the purchaser.

6.4 **FAILURE TO SUPPLY THE STORES**

All deliveries must be completed by the specified date. If the failure to deliver the stores within the scheduled time should have arisen from 'Force Majeure', which the purchaser may admit as reasonable ground for further time, he will allow such additional time as he may consider to have been required by the circumstances of the case. Otherwise, he will be entitled, at his discretion, to cancel the contract; and/or claim liquidated damages upto 2% but not less than 1% of the contract price of the items and their quantities for each and every month or part of a month, beyond the specified delivery date, during which these may not be delivered, subject to a maximum of 10% of the total contract value of the particular stores which remained unsupplied either in part or in full; or to purchase from elsewhere the unsupplied stores at the risk and cost of the supplier.

6.5 **PAYMENT**

- a Payment will be made by CMA- POF Wah Cantt through crossed Cheque on receipt/acceptance of stores on our prescribed bill form supported by receipt voucher on part/full supply basis.
- b Payment of duties / Taxes including professional tax (where applicable) must be supported by proof of having paid these to concerned Govt. Taxation Deptt.

7. **SECURITY OF INFORMATION**

The tenderer and his employees must not communicate any information relating to the sale/purchase of stores under this enquiry to any person other than the manufacturer or to any press or agent not authorized in writing by POFs to receive it.

Please return the schedule to the Tender duly signed by the specified date, alongwith the specifications, drawings etc. if any, enclosed herewith even if you are unable to quote.

WARNING

In case the firm abstain from making offers or fail to return / acknowledge the tender form by the specified date on three consecutive occasions, no further tender enquiry may be issued to them and their names would liable to be removed from the approved list.

Note:- i) Offer must be according to clause 2.2 (Technical & Commercial separately)

ii) Validity of offer must be counted from the date of commercial opening.

Yours faithfully,

Director Services

PAKISTAN ORDNANCE FACTORIES

Schedule to Tender Enquiry NO. <u>464-LP-Capt-DS-Elect</u>, dated <u>31-07-2018</u>. To be opened on <u>27-08-2018</u>.

(1) FOR MATERIALS

| 1 | 2 | 3 | 4 | 5 | , | 6 |
|------------|--|-------|--|------|--------------|----------|
| Item No | Doscription | Unit | Qty Price per unit For free delivery at POF-Wah Price in Price in figure words | • | | Delivery |
| | Description | Offic | | date | | |
| 1) | Power Transformer 1000KVA, 11KV/415V Indoor Type (as per attach Annexure-A) | Nos. | 02 | | | |
| 2) | HT 630A, 25KA Transformer Panel (as per attach Annexure-B) | Nos. | 02 | | | |
| 3) | LT Feeder Panel 1600Amps (as per attach Annexure-C) | Nos. | 03 | | | |
| 4) | LT Transformer Panel 1600Amps (as per attach Annexure-D) | Nos. | 02 | | | |
| 5) | LT 3000A Bus Coupler Panel (as per attach Annexure-E) | Nos. | 01 | | | |
| 6) | HT Cable End termination Kits for 70mm ² /3Core (as per attach Annexure-F) | Nos. | 04 | | | |
| 7) | LT Cable End termination Kits for 300mm ² /4Core (as per attach Annexure-F) | Nos. | 24 | | | |
| 8) | LT Cable End termination Kits for 185mm²/4Core (as per attach Annexure-F) | Nos. | 08 | | | |

2. For Plant & Machinery:

Specifications: - Attached as Annexure-A,B,C,D,E & F

Specifications may also be downloaded from POF Website (<u>www.pof.gov.pk</u>).

All firms are bounded to submit their bids as per Annexure-A.

3. <u>Miscellaneous Requirements</u>:

| i) | Indicate the model, name of the manufacturer, country of origin and also |
|----|---|
| | provide authorization letter from their respective OEM along with |
| | technical brochure of the material / product in English language being offered. |
| | |

ii) Breakdown of rates be given showing price and sales tax separately. Otherwise your quoted rates will be considered inclusive of GST.

| iii) | | otation may be submitted if you are registered with sales tax artment. Sales tax registration number may also be indicated in your er. | | | |
|-------|--|--|--|--|--|
| iv) | on | y registered suppliers (with sales Tax & income Tax Deptt), who are Active Taxpayers List (ATL) of FBR are eligible to supply goods/vices. | | | |
| v) | The payment to the registered firms may be linked with the active taxpayer status of the suppliers as per FBR database. If any registered supplier is not in ATL, their payment will be stopped till they file their mandatory return and appear on ATL of FBR. | | | | |
| vi) | | offered brand with capacity must be cetified for all valid type test n NTDC, HV&SC Lab Rawat. | | | |
| vi) | | Firm will provide their complete company profile along with following information in the technical part of the tender | | | |
| | a) | Detail of firm's capabilities, experience & performance in relevant field as mentioned in this tender. | | | |
| | b) | Complete data of the similar product supplied to any organization/industry or installed anywhere in Pakistan during last five year. | | | |
| | c) | Detail of testing facilities of the product available at firm's premises. | | | |
| Vii) | Documentation & Literature : 02 Sets of Panel internal wiring diagram, Booklet of relay, Energy Meter & ACB are also to be provided. | | | | |
| | Inspection: Preliminary Inspection at firm's premises and final inspection at POF Wah Cantt. | | | | |
| Viii) | <u>Warranty/Guarantee</u> :- The supplier will have to provide a warranty/guarantee for 01 year (Minimum) of free replacement of all parts of Power transformers 1000 KVA, HT 630A, 25KA Transformer Panel L.T Feeder Panels 1600 Amp, L.T Transformer Panels 1600 Amps, and LT 3000A Bus Coupler Panel from the date of final acceptance test (FAT) at POF Wah. | | | | |

(4) <u>Undertaking:-</u>

Should our offer be accepted, we hereby undertake to supply the stores/render the services contracted on the basis of General Conditions of Contract embodied in Form POF 1281 - A, and to deposit the performance bond within the prescribed time, failing which it will constitute a breach of contract, and POF will have the right to purchase the stores/services elsewhere at our risk and cost.

| Place | Signature of the Tenderer |
|-------|---------------------------|
| Date | Name |
| | Position |
| | Address |
| | Income Tax G.I.R No |
| | Official stamp. |

| DESCRIPTION OF ITEM | | | QTY |
|--|----------|---|-------|
| POWER TRANSFORMER 1000 KVA (IN D | OOR TYPI | <u>:)</u> | 02Nos |
| Indoor type 1000 KVA 3-Phase 50HZ. Oil immersed natural cooled for use in an ambient temperature of 50 $^{\circ}$ C. Delta star winding with neutral brought on LV side. Vector Group – Dyn 11, A dial indicating thermometer on the tank, silica gel breather, an oil gauge with the conservator and Buchholz relay to be incorporated. | | | |
| Rated Power | = | 1000KVA | |
| Rated Voltage | | 11000/415-230 Volts | |
| Rated Frequency | | 50Hz | |
| Full load current | | 52.4/1391 Amps | |
| No. of Phases | = | 03 | |
| Neutral | = | On LV Side | 1 |
| Impedance = 5% <u>+</u> 10% | | 5% <u>+</u> 10% | |
| Type of cooling = | | Natural | |
| Ambient Temperature = 50 °C | | 50 °C | |
| Temperature rise = | | 50 °C | |
| Tapping of HV side = | | <u>+</u> 2.5% <u>+</u> 5% <u>+</u> 7.5% | |
| Efficiency | = | 98.45% | |
| Winding connection. | = | Dyn-11 | |

FOLLOWING STANDARD FITTING TO BE PROVIDED

- 1. Oil conservator with oil level gauge.
- 2. Silica gel breather
- 3. Rollers Bi-Directional
- 4. Off Load tape changer
- 5. Rating and diagram name plates.
- 6. Oil drain valve.
- 7. Earthling terminal.
- 8. Dial type thermometer.
- 9. Buchholz relay.
- 10. Pressure relief device.
- 11. Lifting lug.
- Note: i) T/f must have HV/LV bushings on sides covered with boxes.
 - ii) Only WAPDA approved firms/manufacturers can participate in bid of transformer & LT Panels
 - iii) Firms / manufacturer must have valid type test certificate of any 1000KVA or above capacity transformer from HV &SC Lab Rawat (Wapda).
 - iv) The product shall be confirmed to latest IEC/BSS.

11 KV, 630 A, 25KA TRANSFORMER PANEL (MOTORIZED) WITH VACUUM CIRCUIT BREAKER (QTY= 02 Nos)

Rated voltage 12KV, 630A, 25KA transformer Panel (Motorized) with vacuum circuit breaker, Sheet Steel, floor mounting, totally enclosed, indoor type, fully interlocked, air insulated, suitable for operation on 11KV, 3-phase, 50Hz supply tested in accordance with latest IEC standard For repturing capacity of 25KA, Bil 95KV, each panel comprising of:-

| S/No | Description | Qty | |
|------|--|--------|--|
| | Mild Steel sheet (14SWG) , floor-mounting cubical structure provided with | | |
| 1. | anti corrosive base coat of painting uniform layer (70-80 microns) on | 01 No | |
| | internal and external surfaces spray finished powder coated with standard | OI NO | |
| | color RAL-7032 | | |
| | 3-phase set of H.D.H.C Main copper bus bar 800A rating (Size: 1x60x10mm | | |
| 2. | or 2x60x5mm) & dropper bus bar 630A rating (Size: 1x50x10mm or | 01 Set | |
| | 2x50x5mm) | | |
| | Single pole, fixed and moving cluster type isolating contact giving double | | |
| 3. | isolating facilities per phase. | 06 Nos | |
| 4. | Sets of automatic safety shutters marked "BUSBARS & CABLES" respectively | 02 Set | |
| | 17.5KV, 630A, 25KA Vacuum Circuit Breaker, triple pole, draw out cassette | | |
| | type, duly certified and mounted on with draw able truck to facilitate | | |
| | horizontal isolation and withdrawal fitted with the following:- | | |
| | (Insulation level 12/36/95 KV). | | |
| | 1- Circuit breaker isolating mechanism. | | |
| | 1- Motor Charging mechanism 230V A.C along with manual charging | | |
| | facility. | | |
| 5. | 1- Shunt trip coil 24-30V DC. | 01 No | |
| | 1- Closing coil 24-30V DC. | | |
| | 1- Push button to trip. | | |
| | 1- Push button to close. | | |
| | 1- Auxiliary switch. | | |
| | 1- Counter Meter. | | |
| | (Make: Schneider France/Eqv) | | |
| | Dry Type Current Transformer ratio 400/5/5A, 15VA,5P 20 class for | | |
| 6. | protection and 10 VA, class 1 for metering, BIL 12/36/ 95 KV, | 03 Nos | |
| | (Make FICO, PEL Pakistan/ Eqv) | | |
| 7. | Dry Type SP Potential Transformer ratio 11000/1.732/110V/1.732, burden | 03 Nos | |

| | 100VA, class 0.5, BIL 12/36/95KV (Make FICO Pakistan/ or Eqv) | |
|-----|--|----------------------|
| | 3-phase, 4-wire, 50 Hz Digital KWH meter, CT input 5A, PT 110V/AC | |
| 8. | (PEL, Elster/Eqv) | 01 No |
| 9. | Digital type Ammeter with selector switch (Make: Ziegler/Eqv) | 01 No |
| 10. | Digital VOLT meter with selector switch (Make: Ziegler/Eqv) | 01 No |
| | MICOM P-122, Earth Fault, Over current protection Relay, Communication | |
| 11. | Mod Bus, Aux voltage 24-250VDC/48-240VAC | 01 No |
| | Make: Schneider Electric France | |
| | Anti condensation Heater with thermostat 230V AC-50Watt in bus bar and | |
| 12. | cable compartment | 02 No |
| | (Make: China/ local) | |
| 13. | TP MCB 06A-10A for control (Make: Schneider/Eqv) | As per requirement |
| 14. | DP, MCB 06A-10A for control (Make: Schneider/Eqv) | As per |
| 15. | Designation label | requirement 01 No |
| 16. | LED type indication light (Red, Yellow, Green) (Make: Schneider/Eqv) | 03 Nos |
| 17. | Push button for ON (Make: Lovato/Eqv) | 01 No |
| 18. | Push Button for OFF (Make: Lovato/Eqv) | 01 No |
| 19. | Set of vermin screen | 01 No |
| 20. | Door limit switch, Door operated 230VAC, 50Hz | 01 No |
| 21. | Panel Light/Lamp, 60 Watt, 230VAC | 01 No |
| 22. | Cable clamp for suitable cable on bottom | 01 No |
| A. | Panel internal wiring diagram, booklet of relay & VCB are also to be provided | |
| B. | The product shall confirm latest IEC/BSS | |
| C. | All panels should be stand alone type, totally enclosed except window for cou | pling of one |
| | panel to another panel (Main Bus bar) i.e extendibility on both sides of panel | along with |
| | coupling copper bus bar pieces. | |
| D. | Offered type of Breaker of 11KV panel must have type tested report from any | STL lab. |
| | | |

| DESCRIPTION OF ITEM | | QTY |
|--|----------|--------|
| L.T FEEDER PANEL 1600 AMP Low tension, industrial cubical pattern indoor type, 14SWG Sheet steel Faltotally enclosed, Finished with powder coated paint RAL-7032, floor mounting Panel, suitable for operation on 3-phase, 4 wire, 50 HZ, 400-600 volts system Panel comprising of following: - | , Feeder | 03 Nos |
| Sheet steel, floor mounting, cubical structure Size: 2200 mm x 600 mm x 800 mm (H x W x D). | 01 | |
| 3 phase, set of HDHC copper bus bars. Main Bus bar 3000A Rating: Size 2x100x10 mm for phase, Dropper Bus Bar 1600A Rating: Size 2x60x10 mm for phase, Neutral Bus Bar: Size 1x100x10 mm Earth Bus bar: Size 1x50x10 mm | 01 | |
| TP Air Circuit Breaker 1600 Amp, 100KA Draw out type Model NW 16H2 Adj/Eqv Make: Schneider France/Eqv European brand | 01 | |
| Shunt trip Coil 30V DC Make: Schneider France/Eqv | 01 | |
| Digital Ammeter | 01 | |
| Make: Frer Italy/Eqv | 01 | |
| Ammeter selector Switch 4-Position Make: COMSCO, Taiwan/Eqv | 01 | |
| Digital Volt meter | 01 | |
| Make: Frer Italy/Eqv Voltmeter selector Switch 7-Position | - 02 | |
| Make: COMSCO, Taiwan/Egy | 01 | |
| CTs 1600/5A, Burden 15VA class 1 for protection. Make: FICO/Eqv | 03 | |
| CTs 1600/5A, Burden 10VA class 0.5 for metering Make: FICO/Eqv | 03 | |
| 3-Phase, 4-wire Static meter (Energy meter) Kwh, Kvarh & maximum Demand KW Make: Creative Pakistan/Eqv | 01 | |
| Numerical Over current & Earth fault Relay Micom P-122 | 01 | |
| Make: Schneider France/Eqv LED Type indication lights(imported) (R-Y-B) | 03 | |
| Panel light 230V AC, 50Hz with Panel door limit switch (imported) | 03 | |
| SP MCB 6A, 6-10KA | | |
| Make: Schneider France/Eqv | 10 | P |

- All panels will be coupled with one another on site by user. Therefore, coupling facility/arrangement and extendibility on both sides of panel is necessary. Panel to panel coupling copper bus bar pieces/fish plates are also to be provided.
- Panel internal wiring diagram, Booklet of relay, Energy Meter & ACB are also to be provided.
- Provision of 24-30V DC for LT Panels/relays will be user scope.

| DESCRIPTION OF ITEM | | QTY |
|---|-----------|---------|
| L.T TRANSFORMER PANEL 1600 AMP Low tension, industrial cubical pattern indoor type, 14SWG She Fabricated, totally enclosed, Finished with powder coated paint RAL-703 mounting, Transformer Panel, suitable for operation on 3-phase, 4 wire 400-600 volts system comprising of: - | 32, floor | 02 No |
| Sheet steel, floor mounting, cubical structure Size: 2200 mm x 600 mm x 800 mm (H x W x D). | 01 | |
| 3 phase, set of HDHC copper bus bars. Main Bus bar 3000A Rating: Size 2x100x10 mm for phase, Dropper Bus Bar 1600A Rating: Size 2x60x10 mm for phase, Neutral Bus Bar: Size 1x100x10 mm Earth Bus bar: Size 1x50x10 mm | 01 | |
| TP Air Circuit Breaker 1600 Amp, 100KA Draw out type Model NW 16H2 Adj/Eqv Make: Schneider France/Eqv European brand | 01 | |
| Shunt trip Coil 30V DC Make: Schneider France/Eqv | 01 | |
| Digital Ammeter Make: Frer Italy/Eqv | 01 | |
| Ammeter selector Switch 4-Position Make: COMSCO, Taiwan/Eqv | 01 | |
| Digital Volt meter Make: Frer Italy/Eqv | 01 | |
| Voltmeter selector Switch 7-Position Make: COMSCO, Taiwan/Eqv | 01 | |
| CTs 1600/5A, Burden 15VA class 1 for protection. Make: FICO/Eqv | 03 | |
| CTs 1600/5A, Burden 10VA class 0.5 for metering Make: FICO/Eqv | 03 | |
| 3-Phase, 4-wire Static meter (Energy meter) Kwh, Kvarh & maximum Demand KW Make: Creative Pakistan/Eqv | 01 | |
| Numerical Over current & Earth fault Relay Micom P-122 Make: Schneider France/Eqv | 01 | |
| LED Type indication lights(imported) (R-Y-B) | 03 | |
| Panel light 230V AC, 50Hz with Panel door limit switch (imported) | 01 | |
| SP MCB 6A, 6-10KA Make: Schneider France/Eqv | 10 | |
| • All papels will be coupled with one another on site by user | Thoustons | ممالسيم |

- All panels will be coupled with one another on site by user. Therefore, coupling facility/arrangement and extendibility on both sides of panel is necessary. Panel to panel coupling copper bus bar pieces/fish plates are also to be provided.
- Panel internal wiring diagram, Booklet of relay, Energy Meter & ACB are also to be provided.
- Provision of 24-30V DC for LT Panels/relays will be user scope.

| DESCRIPTION OF ITEM | | QTY |
|--|--------|--------|
| L.T BUS COUPLER PANEL 3000 AMP WITH ADOPTER Low tension, industrial cubical pattern indoor type, 14SWG Sheet steel Fab totally enclosed, Finished with powder coated paint RAL-7032, floor mounting, Panel, suitable for operation on 3-phase, 4 wire, 50 HZ, 400-600 volts system Panel comprising of following: - | Feeder | 01 Nos |
| Sheet steel, floor mounting, cubical structure Size: 2200 mm x 600 mm x 800 mm (H x W x D). | 01 | |
| 3 phase, set of HDHC copper bus bars with facility of coupling on both side bus bars of existing and new panels. Main Bus bar 3000A Rating: Size 2x100x10 mm for phase, Neutral Bus Bar: Size 1x100x10 mm Earth Bus bar: Size 1x50x10 mm | 01 | |
| TP Air Circuit Breaker 1280-3200 Amp, 100KA Draw out type Model NW 16H2 Adj/Eqv Make: Schneider France/Eqv European brand | 01 | |

- All panels will be coupled with one another on site by user. Therefore, coupling facility/arrangement and extendibility on both sides of panel is necessary. Panel to panel coupling copper bus bar pieces/fish plates are also to be provided.
- Panel internal wiring diagram, Booklet of ACB are also to be provided.

TECHNICAL SPECIFICATION OF LT CABLE AND TERMINATION KITS

| S/No | DESCRIPTION OF ITEM | | | |
|------|--|-------------------------|--------|--|
| 1. | INDOOR END JOINTING TERMINATION KIT 70 mm ² /3Core | | | |
| | Heat Shrinkable indoor end termination kit complete with following accessories | | 04 Nos | |
| | for 70 mm ² , 3Cores, 11 KV XLPE Cable BSS No. 6622 | | | |
| | (Jointing Kit will be tested at 33KV) | | | |
| | Make: Raychem/Germany ACCESSORIES:- | | | |
| | Heat shrink, insulating, Non-tracking tube | = 03 Nos | | |
| | Heat shrink, stress control tube | = 03 Nos | | |
| | Heat shrink, Cable breakout | = 01 No | | |
| | Stress relief void filling mastic part # S 1189, 1-100 | = 03 Nos | | |
| | Track and weather resistant sealant part # S-1085-1-300 | | | |
| | Cleaning Tissue | = 03 Nos | | |
| | Silicon grease | = 01 No | | |
| | Binding wire | = 02 Mtrs | | |
| | Soldering wire with flux | = 02 Mtrs | | |
| | Abrasive strip | = 01 No | | |
| | Copper Braid | = 01 Mtr | | |
| | Copper Lugs According to cable size | = 03 Nos | | |
| | PVC Tape (Red, Yellow, blue) | = 03 Nos | | |
| | Under armour supporting ring | = 01 No | | |
| | Jublee clamp according to cable size | = 01 No | | |
| | Earth Lug copper | = 01 No | | |
| | (Installation instruction in English) | = 01 No | | |
| | INDOOR END JOINTING TERMINATION KIT 300 mm ² /4Core | 01110 | | |
| 2. | LT Heat Shrinkable indoor end termination Kit complete w | ith accessories | 24 Nos | |
| | for 4-core, 1000V, PVC/PVC Armoured Cable | | | |
| | Make: Raychem/Germany | | | |
| | (Supplied jointing kits will be tested at 3300V) | | | |
| | Heat shrink cable breakout tube according to cable size | = 01 No | | |
| | Heat shrink lug sealing sleeve according to cable size | = 04 Nos | | |
| | Abrasive strip | = 01 No | | |
| | Copper Compression lugs according to cable size | = 04 Nos | | |
| | Jubly clamp according to cable size | = 01 No | | |
| | Copper Braid (Earthing Lead) | = 01 Meter | | |
| | PVC Tape (Red, Yellow, Blue, Black) | = 04 Roll | | |
| | Earth lugs | = 01 No | | |
| | Insulation instruction in English | = 01 No | | |
| 1 | INDOOR END JOINTING TERMINATION VIT 195 mm ² /4Coro | | OS Nos | |
| 3. | LT Heat Shrinkable indoor end termination Kit complete w | ith accordance | 08 Nos | |
| | for 4-core, 1000V, PVC/PVC Armoured Cable | itii accessories | | |
| | Make: Raychem/Germany | | | |
| | (Supplied jointing kits will be tested at 3300V) | | | |
| | Heat shrink cable breakout tube according to cable size | = 01 No | | |
| | Heat shrink lug sealing sleeve according to cable size | = 01 Nos | | |
| | Abrasive strip | = 04 Nos = 01 No | | |
| | Copper Compression lugs according to cable size | = 01 Nos | | |
| | Jubly clamp according to cable size | = 04 Nos = 01 No | | |
| | Copper Braid (Earthing Lead) | = 01 No = 01 Meter | | |
| | PVC Tape (Red, Yellow, Blue, Black) | = 01 Meter = 04 Roll | | |
| | Earth lugs | = 04 Roll = 01 No | | |
| | | = 01 No = 01 No | | |
| | Insulation instruction in English | - OT INO | | |