

www.unitexbd.com

Ref: OD/PB/WO/US/2020/09

Date: JUNE 05, 2020

PIP Reference: NA PIP Date: NA CS Status: NA PIP Status: NA

Reference: Cross World

M/S. Cross-world Power Limited Plot 1/B, Road 90 Gulshan 2, Dhaka 1212

Contact Person: Md. Mosiur, Manager

Phone: +88 01755 514703 Email: moshiur@cross-world.com

Subject: Work Order for Supply, Installation, Testing & Commissioning of Complete Switchgear and PFI panel.

Dear Concern,

With reference to your offer and subsequent negotiation & discussion with you, we are pleased to issue work order in favor of you to carry out the following works under the term & condition listed below.

M/S Cross-world Power Limited to be read as "Contractor" & Unitex Spinning Limited to be read as "Owner".

Terms & Conditions:

- That contractor has agreed to carry out all the works at mutually agreed rate as mentioned in
 Annexure 1.
- Unitex shall monitor the progress of work and depending on it the work quantity mentioned in the work order may increase or decrease.
- That contractor has visited the site and got acquainted with the site constraints and satisfied of the appropriate technology to be adopted in the prevailing situations.
- 4. That all equipment's or materials when brought to site by contractor shall be deemed to be exclusively intended for the work and shall not be removed or taken out of site without written consent of the Owner authority.
- 5. That safety of Contractor worker during execution is entirely contractor's responsibility. Contractor agrees to take adequate measures against damage, injuries and/or deaths of contractor workers at site and appropriate measures for the same and remain bound to compensate for such occurrence.



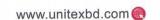
Head Office:

C & F Tower (12th Floor), 1712, Sk. Mujib Road, Agrabad C/A, Chittagong Tel: 031-2519861-3, Fax: 031-2519860 **Dhaka Corporate Office:**

Saiham Tower (10th floor), House-34, Road-136, Block-SE(C-1), Gulshan Model Town, Gulshan-1, Dhaka-1212 Tel: 02-9858386, 02-9858389 Page 1 of 18 Factory:

> Banshbaria, Sitakund, Chittagong, Bangladesh





- 6. Contractor shall bear total responsibility of taking precautionary measures for protection of property of the company. Any Damage done by contractor or contractor's employee to equipment during execution of the job under this assignment must be rectified at contractor expense and disruption of project work caused by such damage shall be adequately compensated by contractor.
- 7. Contractor must maintain strict checks against theft, pilferage, mishandling of materials supplied free of cost by the company. Cost of material consumed in wasteful manner without any justifiable reason shall be recovered from contractor.
- 8. All staffs and laborers of contractor engaged in the work shall have to pass through owner's security check and strictly adhere to the rules, regulations and discipline as demanded by owner's security office.
- Contractor is ready to accept any assignment related to the work under this order or leading to under this work order at a rate which shall be mutually decided as and when such works are identified.
- Log sheet must be maintained for each day by the contractor's supervisor.
- Experienced Project Engineer need to be deployed to complete the whole job.

Scope of Works:

- 01. All the design drawing should be duly approved by Unitex. 3rd party inspection will be on Unitex Scope. Contractor has to comply all the requirements of 3rd party inspector.
- Total works to be completed within 15th August 2020.
- 03. Contractor has to appoint experienced site engineers as many as required who will coordinate the works. Engineer from owner's side shall check the work progress, but this will not relieve the contractor of their responsibility.
- 04. Power/Electricity & Water will supply by Unitex and contractor need to use suitable approved service cable and pipe for the utility use as per direction of Engineer In Charge.
- O5. All materials brought to the site will be unloaded by contractor at their own costs and expenses. The contractor will load and unload all such materials inside the premises and will not raise any carrying bills.
- 06. All the package shall be opened in front of owners personal along with contractor site engineer.
- Owner will have the right to reject any out of specification works.
- O8. The Contractor shall pay liquidated damages to the Employer at the rate of **0.1%** (zero point one percent) of the contract price per day of delay from the Completion Date up to a maximum of **20%** (twenty percent) of the contract price. Force majeure conditions for delay will be recorded and considered in calculating compensation.
- 09. Contractor must clean the project site as a part of De-mobilization, as per site engineer instruction.
- Contractor will have supervisors to cover 24 hours works.
- 11. The contractor has to accept any assignment related to the work order but rate which is not included in price schedule, shall be mutually decided as and when such works are identified.



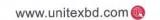
Head Office:

Dhaka Corporate Office:

Gulshan-1, Dhaka-1212 Tel: 02-9858386, 02-9858389 Page 2 of 18

Factory:





One year warranty will be applicable for all the supplied items from the date of commissioning.

Payment Terms:

01. 100% LC at site.

Total estimated value of work order -----

| | estimated value of work order | Amount |
|-----|---|-----------------|
| SI. | Details Supply, Installation, Testing & Commissioning of Complete | |
| 1 | Switchgear and PFI panel. | USD 1,80,000.00 |
| | Total | USD 1,80,000.00 |

In Words: One Hundred Eighty Thousand Only. (Inc. Freight Cost. i.e. CFR Chittagong)

We assure you of our best co- operation in successful completion of works. Please sign a copy of this Work Order and return to us a confirmation of your acceptance of the Work Order and Terms of the contract.

For Unitex Spinning Limited.

For Super Star Engineering Ltd

Mr. Zobaidul Islam Chowdhury Operation Director,

Unitex Group

Mr. Mosiur Rahman

Manager,

Cross World Power Ltd

Witness:

Witness:

Mr. Pranoy Barua

Project Manager, Unitex Steel

Cross World Power Ltd

3 of 18 Factory: Banshbaria, Sitak

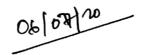
Banshbaria, Sitakund, Chittagong, Bangladesh



www.unitexbd.com

Copy to:

- 1. Managing Director, Unitex Spinning Limited
- 2. Operation Director, Unitex Group
- 3. Director, Unitex Spinning Limited
- 4. CFO, Unitex Spinning Limited
- 5. Engineering Department, Unitex Spinning Limited
- 6. Accounts, Unitex Spinning Limited
- 7. Cross World Power Limited
- 8. Record File



Cross-world

TECHNICAL SPECIFICATION

01)

| | | Unit | Customer Scope Qty | CWPL BOQ Qty |
|---|---|------------|-----------------------|-----------------|
|) | LT COS PANEL | Set | | 1 |
| | Sheet steel clad powder coated (14 & 16SWG), dust and vermin proof, free standing, floor mounting, 415V, 50 Hz, Indoor type LT Panel with Hard Drawn Copper Busbar. | | | |
| | Set of components required for the manufacture of LT Panel comprising :- | | | |
| | INCOMING: | | | |
| | From Transformer: 4000A, 65KA, TP fixed type ACB with closing solenoid and store -energy spring charged operating mechanism and solid state microprocessor controlled adjustable thermal overload and short-circuit releases with following accessories: | | | |
| | 1 X Auxilliary Contact 1 X Closing Coil | Pcs | 1 | 0 |
| | 1 X Gear motor for spring charge | | | |
| | 1 X Under Voltage Release (Customer Scope) | | | |
| | 4000/5A Current Transformer 10/5VA, Class-1. | Pcs | | 3 |
| | Energy Meter PM 2130. | Pcs | | 1 |
| | Phase Indication lamp. | Pcs | | 3 |
| | CB ON OFF TRIP Indication lamp. | Pcs | | 3 |
| | ON & OFF Push Button . 1x6A,TP MCB for the protection of control circuit. | Pcs | | 2 |
| | 1x2A,SP MCB for the protection of control circuit. | Pcs Pcs | | 1 4 |
| | 2000A, 65KA, IP fixed type ACB with closing solenoid and store -energy spring charged operating mechanism and solid state microprocessor controlled adjustable thermal overload and short-circuit releases with following accessories: 1 X Auxilliary Contact 1 X Closing Coil 1 X Gear motor for spring charge 1 X Under Voltage Release. (Customer Scope-Future) | Pcs | 1 | 0 |
| | 2000/5A Current Transformer 10/5VA, Class-1. | Pcs | | 3 |
| | Energy Meter PM 2130. | Pcs | | 1 |
| | Phase Indication lamp. CB ON OFF TRIP Indication lamp. | Pcs | | 3 |
| | ON & OFF Push Button. | Pcs Pcs | | 3 2 |
| | 1x6A,TP MCB for the protection of control circuit | Pcs | | 1 |
| | 1x2A,SP MCB for the protection of control circuit | Pcs | | 4 |
| | Electrical Interlock | Set | | 1 |
| | From Control Panel: 5000A, 100KA, 1P fixed type ACB with closing solenoid and store -energy spring charged operating mechanism and solid state microprocessor controlled adjustable thermal overload and short-circuit releases with following accessories: | | | |
| | 1 X Auxilliary Contact | Pcs | | 1 |
| | 1 X Closing Coil 1 X Gear motor for spring charge 1 X Under Voltage Release | | | |
| | 5000/5A Current Transformer 10/5VA, Class-1 | Pcs | | 3 |
| | Energy Meter PM 2130 | Pcs | | 1 |
| | Phase Indication lamp. | Pcs | | 3 |
| | CB ON OFF TRIP Indication lamp | Pcs Pcs | | 3 |
| | ON & OFF push button Siemens Lx6A,TP MCB for the protection of control circuit | Pcs | | 2 |
| : | LX2A,SP MCB for the protection of control circuit | PCS | | 1 4 |
| | and the state of the processor of the state | . 00 | | 7 |



OUTGOING:

| 1600A, 65KA, TP fixed type ACB with closing solenoid and store -energy spring charged operating mechanism and solid state microprocessor controlled adjustable thermal overload and short-circuit releases with following accessories: 1 X Auxilliary Contact | | | |
|--|------|---|-------|
| 1 X Closing Coil | Pcs | | 4 |
| 1 X Gear motor for spring charge | | | |
| 1 X Under Voltage Release | | | |
| 1 A Officer Voltage Release | | | |
| 1500/51 0 | | | |
| 1600/5A Current Transformer 10/5VA, Class-1 | Pcs | | 61 |
| Energy Meter PM 2130 | Set | | 2 1/_ |
| CB ON OFF TRIP Indication lamp | Pcs | | 12 V |
| 1x6A,TP MCB for the protection of control circuit | Pcs | | 2 |
| Electrical Interlock | Set | | 2 |
| | 500 | | |
| 1250A, 65KA, TP fixed type ACB with closing solenoid and store -energy spring charged operating mechanism and solid state microprocessor controlled adjustable thermal overload and short-circuit releases with following accessories: | | | |
| 1 X Auxilliary Contact | Pcs | | 2 |
| 1 X Closing Coil | 7 C3 | | 2 |
| 1 X Gear motor for spring charge | | | |
| 1 X Under Voltage Release | | | |
| | | | |
| 1250/5A Current Transformer 10/5VA, Class-1 | 0 | | 2 |
| Energy Meter PM 2130 | Pcs | | 31/ |
| CB ON OFF TRIP Indication lamp | Set | | 1,1 |
| 1x6A,TP MCB for the protection of control circuit | Pcs | | 61 |
| Electrical Interlock | Pcs | | 1 |
| - Street Interiork | Set | | 1 |
| 630A,TP,36KA,415V,50Hz, MCCB with having adjustable overcurrent & magnetic short circuit protection. (Customer Scope) | Pcs | 1 | 0 |
| 630A,TP,36KA,415V,50Hz, MCCB with having adjustable overcurrent & magnetic short circuit protection. | Pcs | | 2 |
| Mechanical Interlock | Set | | 1 |
| | | | • |
| 500A,TP,36KA,415V,50Hz, MCCB with having adjustable overcurrent & magnetic short circuit protection. (Customer Scope) | Pcs | 2 | 0 |
| 500A,TP, MC, AC-3 | Pcs | | 2 |
| Electrical Interlock | Set | | ī |
| | | | - |
| 250A,TP,36KA,415V,50Hz, MCCB with having adjustable overcurrent & | Pcs | | 4 |
| magnetic short circuit protection. | 1.03 | | 4 |
| 250A,TP, MC, AC-3 Electrical Interlock | Pcs | | 4 |
| Liectrical Interiock | Set | | 2 |
| 250A,TP,36KA,415V,50Hz, MCCB with having adjustable overcurrent & magnetic short circuit protection. (Spare) | Pcs | | 4 \ |
| BUSBAR Details 4000A TPN + 1/2E Common Busbar, PDB 7000A TPN + 1/2E Common Busbar, GEN 1x5000A TP Terminal Busbar 1x4000A TP Terminal Busbar 1x2000A TP Terminal Busbar 4x1600A TP Terminal Busbar 2x1250A TP Terminal Busbar 3x630A TP Terminal Busbar 2x500A TP Terminal Busbar | | | |
| ENCLOSURE Details : | | | |
| 2x(700X2000X800)mm | Set | | 6 |
| 2x(1000X2000X800)mm | Set | | 1 |
| | | | |



0

Pcs

Pcs

Set CONTROL PANEL

Sheet steel clad powder coated (14 & 16SWG), dust and vermin proof, free standing, floor mounting, 415V, 50 Hz, Indoor type Panel with Hard Drawn Copper Busbar.

Set of components required for the manufacture of Panel comprising :-

INCOMING:

From GAS GENERATOR-1:

1 X Auxilliary Contact

4000A, 65KA, TP fixed type ACB with closing solenoid and store -energy spring charged operating mechanism and solid state microprocessor controlled adjustable thermal overload and short-circuit releases with following accessories:

| 1 A Auxillary Contact | | |
|---|--|----------------------------|
| 1 X Closing Coil | | |
| 1 X Gear motor for spring charge | | |
| 1 X Under Voltage Release (Customer Scope) | | |
| 4000/5A Current Transformer 10/5VA, Class-1 Energy Meter PM 2130 Phase Indication lamp. CB ON OFF TRIP Indication lamp ON & OFF push button 1x6A,TP MCB for the protection of control circuit | Pcs Pcs Pcs Pcs Pcs Pcs | 3 1 3 3 2 1 |
| 1x2A,SP MCB for the protection of control circuit | Pcs | 4 |
| | | |

From GAS GENERATOR-2:

4000A, 66KA, TP fixed type ACB with closing solenoid and store -energy spring charged operating mechanism and solid state microprocessor controlled adjustable thermal overload and short-circuit releases with following accessories:

| 1 X Auxilliary Contact | Pcs | 1 |
|---|-----|---|
| 1 X Closing Coil | | |
| 1 X Gear motor for spring charge | | |
| 1 X Under Voltage Release. | | |
| | 0 | 3 |
| 4000/5A Current Transformer 10/5VA, Class-1 | Pcs | 3 |
| Energy Meter PM 2130 | Pcs | 1 |
| Phase Indication lamp. | Pcs | 3 |
| CB ON OFF TRIP Indication lamp | Pcs | 3 |
| ON & OFF push button | Pcs | 2 |
| 1x6A,TP MCB for the protection of control circuit | Pcs | 1 |
| 1 24 CD MCD for the protection of control circuit | Pcs | 4 |
| 1x2A,SP MCB for the protection of control circuit | rcs | • |

From GAS GENERATOR-3:

1x2A,SP MCB for the protection of control circuit

1 X Auxilliary Contact 1 X Closing Coil

2500A, 65KA, IP fixed type ACB with closing solenoid and store -energy spring charged operating mechanism and solid state microprocessor controlled adjustable thermal overload and short-circuit releases with following accessories:

| Pcs | 3 |
|-----|---------------------------------|
| Pcs | 1 |
| Pcs | 3 |
| Pcs | 3 |
| Pcs | 2 |
| Pcs | 1 |
| Pcs | 4 |
| | Pcs Pcs Pcs Pcs Pcs |



From SYNC Panel:

| 6300A, 100KA, TP fixed type ACB with closing solenoid and store -energy spring charged operating mechanism and solid state microprocessor controlled adjustable thermal overload and short-circuit releases with following accessories: 1 X Auxilliary Contact 1 X Closing Coil 1 X Gear motor for spring charge 1 X Under Voltage Release (Customer Scope) | Pcs | 1 | 0 |
|--|--------------------------|---|---|
| 6300/5A Current Transformer 10/5VA, Class-1 Energy Meter PM 2130 CB ON OFF TRIP Indication lamp 1x6A,TP MCB for the protection of control circuit | Pcs Pcs Pcs Pcs | | 3 1 3 1 |
| BUSCOUPLER: 6:300A, 100KA, 1P fixed type ACB with closing solenoid and store -energy spring charged operating mechanism and solid state microprocessor controlled adjustable thermal overload and short-circuit releases with following accessories: | | | |
| X Auxilliary Contact X Closing Coil X Gear motor for spring charge X Under Voltage Release | Pcs | | 1 |
| CB ON OFF TRIP Indication lamp 1×2A,SP MCB for the protection of control circuit | Pcs Pcs | | 3 2 |
| OUTGOING: | | | |
| 5000A, 100KA, TP fixed type ACB with closing solenoid and store -energy spring charged operating mechanism and solid state microprocessor controlled adjustable thermal overload and short-circuit releases with following accessories: | | | |
| 1 X Auxilliary Contact | Pcs | | 1 |
| 1 X Closing Coil 1 X Gear motor for spring charge 1 X Under Voltage Release | 1 | | |
| 5000/5A Current Transformer 10/5VA, Class-1 | Pcs | | 3 |
| Energy Meter PM 2130 | Set | | 1 2 1 000000000000000000000000000000000 |
| CB ON OFF TRIP Indication lamp \checkmark 1x6A,TP MCB for the protection of control circuit | Pcs Pcs | | 3 V |
| 4000A, 65KA, TP fixed type ACB with closing solenoid and store -energy spring charged operating mechanism and solid state microprocessor controlled adjustable thermal overload and short-circuit releases with following accessories: | | | |
| 1 X Auxilliary Contact 1 X Closing Coil 1 X Gear motor for spring charge 1 X Under Voltage Release | Pcs | 0 | 1 |
| 4000/5A Current Transformer 10/5VA, Class-1 | Pcs | | 3 |
| Energy Meter PM 2130 | Set | | 1 |
| CB ON OFF TRIP Indication lamp 1x6A,TP MCB for the protection of control circuit | Pcs Pcs | | 3 W |



| 2500A, 65KA, TP fixed type ACB with closing solenoid and store -energy spring charged operating mechanism and solid state microprocessor controlled adjustable thermal overload and short-circuit releases with following accessories: | | | | |
|--|-----|---|-----|--|
| 1 X Auxilliary Contact | Pcs | 2 | 0 | |
| 1 X Closing Coil | PCS | 2 | U | |
| 1 X Gear motor for spring charge | | | | |
| 1 X Under Voltage Release (Customer Scope) | | | | |
| 1 x onder voltage Release (customer scope) | | | | |
| 2500/5A Current Transformer 10/5VA, Class-1 | Pcs | | 6 | |
| Energy Meter PM 2130 | Set | | 2 / | |
| CB ON OFF TRIP Indication lamp | Pcs | | 6 1 | |
| 1x6A,TP MCB for the protection of control circuit | Pcs | | 2 | |
| | | | | |
| 3200A, 65KA, TP fixed type ACB with closing solenoid and store -energy spring charged operating mechanism and solid state microprocessor controlled adjustable thermal overload and short-circuit releases with following accessories: | | | | |
| 1 X Auxilliary Contact | Pcs | | 1 | |
| 1 X Closing Coil | | | | |
| 1 X Gear motor for spring charge | | | | |
| 1 X Under Voltage Release | | | | |
| The state of the s | | | | |
| 3200/5A Current Transformer 10/5VA, Class-1 | Pcs | | 3 | |
| Energy Meter PM 2130 | Set | | 1 | |
| CB ON OFF TRIP Indication lamp | Pcs | | 3 V | |
| 1x6A,TP MCB for the protection of control circuit | Pcs | | 1 | |
| | | | | |
| 500A,TP,36KA,415V,50Hz, MCCB with having adjustable overcurrent & magnetic short circuit protection. (Customer Scope) | Pcs | 1 | 0 | |
| 250A,TP,36KA,415V,50Hz, MCCB with having adjustable overcurrent & magnetic short circuit protection. (Customer Scope) | Pcs | 4 | 0 | |
| | | | | |



| | BUSBAR Details 6300A TPN + 1/2E Common Busbar 1x5000A TP Terminal Busbar 3x4000A TP Terminal Busbar 1x3200A TP Terminal Busbar 3x2500A TP Terminal Busbar 1x6300A TP Terminal Busbar 1x500A TP Terminal Busbar 2x250A TP Terminal Busbar | | | |
|-----|--|---------------------------------|---|-----------------------|
| | ENCLOSURE Details: (700X2000X1000)mm (1000X2000X1000)mm | Set Set | | 4 2 |
| 03) | GROUND FLOOR BBT-01 B PANEL | Set | | 1 |
| | Sheet steel clad powder coated (14 & 16SWG), dust and vermin proof, free standing, floor mounting, 415V, 50 Hz, Indoor type Panel with Hard Drawn Copper Busbar. | | | |
| | Set of components required for the manufacture of Panel comprising :- | | | |
| | INCOMING: 2500A, 65KA, TP fixed type ACB with closing solenoid and store -energy spring charged operating mechanism and solid state microprocessor controlled adjustable thermal overload and short-circuit releases with following accessories: | | | |
| | | Pcs | 1 | 0 |
| | 2500/5A Current Transformer 10/5VA, Class-1 Energy Meter PM 2130 CB ON OFF TRIP Indication lamp 1x6A,TP MCB for the protection of control circuit 1x2A,SP MCB for the protection of control circuit | Pcs Set Pcs Pcs Pcs | | 3 1 3 1 4 |
| | OUTGOING: | | | |
| | 250A,TP,36KA,415V,50Hz, MCCB with having adjustable overcurrent & magnetic short circuit protection. | Pcs | | 1 |
| | BUSBAR Details 2500A TPN + 1/2E Common Busbar 1x2500A TP Terminal Busbar | | | |
| | ENCLOSURE Details: (700X2000X800)mm | Set | | 2 |



| 04) | 1st Floor BBT -02 B | Set | 1 |
|-----|--|------------|--------|
| | Sheet steel clad powder coated (14 & 16SWG), dust and vermin proof, free standing, floor mounting, 415V, 50 Hz, Indoor type Panel with Hard Drawn Copper Busbar. | | |
| | Set of components required for the manufacture of Panel comprising :- | | |
| | INCOMING: 3200A, 65KA, IP fixed type ACB with closing solenoid and store -energy spring charged operating mechanism and solid state microprocessor controlled adjustable thermal overload and short-circuit releases with following accessories: | | |
| | 1 X Auxilliary Contact 1 X Closing Coil 1 X Gear motor for spring charge 1 X Under Voltage Release | Pcs | 1 |
| | 3200/5A Current Transformer 10/5VA, Class-1 | Pcs | 3 |
| | Energy Meter PM 2130 | Pcs | 1 |
| | CB ON OFF TRIP Indication lamp | . Pcs | 3 1 |
| | 1x6A,TP MCB for the protection of control circuit | Pcs | 4 |
| | 1x2A,SP MCB for the protection of control circuit | Pcs | 4 |
| | OUTGOING: 1600A, 65KA, IP fixed type ACB with closing solenoid and store -energy spring charged operating mechanism and solid state microprocessor controlled adjustable thermal overload and short-circuit releases with following accessories: | | |
| | 1 X Auxilliary Contact | Pcs | 1 |
| | 1 X Closing Coil | | |
| | 1 X Gear motor for spring charge 1 X Under Voltage Release. | | |
| | 1600/5A Current Transformer 10/5VA, Class-1 | Pcs | 3 |
| | Energy Meter PM 2130 | Pcs | 1 |
| | CB ON OFF TRIP Indication lamp | Pcs | 3 |
| | 1x6A,TP MCB for the protection of control circuit | Pcs | 1 |
| | 2000A, 65KA, IP fixed type ACB with closing solenoid and store -energy spring charged operating mechanism and solid state microprocessor controlled adjustable thermal overload and short-circuit releases with following accessories: | | |
| | 1 X Auxilliary Contact | Pcs | 1 |
| | 1 X Closing Coil | | |
| | 1 X Gear motor for spring charge 1 X Under Voltage Release. | | _ |
| | 2000/5A Current Transformer 10/5VA, Class-1 | Pcs | 3 1 |
| | Fneray Meter PM 2130 | Pcs | 3 |
| | CB ON OFF TRIP Indication lamp | Pcs Pcs | 1 |
| | 1x6A,TP MCB for the protection of control circuit | rcs | • |
| | 250A,TP,36KA,415V,50Hz, MCCB with having adjustable overcurrent & magnetic short circuit protection. | Pcs | 1 |
| | BUSBAR Details 3200A TPN + 1/2E Common Busbar 1x3200A TP Terminal Busbar 1x1600A TP Terminal Busbar 1x2000A TP Terminal Busbar | | |
| | ENCLOSURE Details : | 6-1 | • |
| | (700X2000X800)mm | Set | 3 |
| | · · · · · · · · · · · · · · · · · · · | | |



1

Set

05) 1st Floor BBT -03 B Sheet steel clad powder coated (14 & 16SWG), dust and vermin proof, free standing, floor mounting, 415V, 50 Hz, Indoor type Panel with Hard Drawn Copper Busbar. Set of components required for the manufacture of Panel comprising :-INCOMING: 4000A, 65KA, TP fixed type ACB with closing solenoid and store -energy spring charged operating mechanism and solid state microprocessor controlled adjustable thermal overload and short-circuit releases with following accessories: 0 1 Pcs 1 X Auxilliary Contact 1 X Closing Coil 1 X Gear motor for spring charge 1 X Under Voltage Release 3 Pcs 4000/5A Current Transformer 10/5VA, Class-1 1 Set Energy Meter PM 2130 3 Pcs CB ON OFF TRIP Indication lamp Pcs 1x6A,TP MCB for the protection of control circuit 1x2A,SP MCB for the protection of control circuit OUTGOING: 250A,TP,36KA,415V,50Hz, MCCB with having adjustable overcurrent & Pcs magnetic short circuit protection. **BUSBAR Details** 4000A TPN + 1/2E Common Busbar 1x4000A TP Terminal Busbar **ENCLOSURE Details:** 2 Set (700X2000X800)mm



| 06) | PFI-5_550kVAR auto/manual Sheet steel clad powder coated (14 & 16SWG), dust and vermin proof, free standing, floor mounting, 415V, 50 Hz, Indoor type PFI Panel with 1000A hard drawn copper busbar. Set of components required for the manufacture of PFI Panel comprising: | Set | | 1 |
|-----|---|------|---|----|
| | INCOMING: 1000A,TP,50KA,415V,50Hz, MCCB with having adjustable overcurrent & magnetic short circuit protection. (Customer Scope) | Nos | 1 | 0 |
| | 4X100(25X4) kVAR,415V,50 Hz, 3 Phase, normal duty type, self healing compact PF capacitors bank with discharge resistor. | Nos. | | 16 |
| | $1\times50(25X2)kVAR,415V,50$ Hz, 3 Phase, normal duty type, self healing . compact PF capacitors bank with discharge resistor. | Nos. | | 2 |
| | $2 X\ 25 (25 X1) kVAR, 415 V, 50$ Hz, 3 Phase, normal duty type, self healing . compact PF capacitors bank with discharge resistor. | Nos. | | 2 |
| | $1\times$ $12.5\mbox{kVAR}, 415\mbox{V}, 50$ Hz, 3 Phase, normal duty type, self healing compact PF capacitors bank with discharge resistor. | Nos. | | 1 |
| | $3 X\ 10 kVAR, 415 V, 50\ Hz,\ 3\ Phase,\ normal duty type,\ self\ healing\ .$ compact PF capacitors bank with discharge resistor. | Nos. | | 3 |
| | 1X 5kVAR,415V,50 Hz, 3 Phase, normal duty type, self healing . compact PF capacitors bank with discharge resistor. | Nos. | | 1 |
| | 1X 2.5kVAR,415V,50 Hz, 3 Phase, normal duty type, self healing . compact PF capacitors bank with discharge resistor.(Fixed) | Nos. | | 1 |



| 100A ,triple phase magnetic contactor for 50Kvar capacitor. | Nos | 9 | |
|---|-----------|------------|-----|
| 60A , triple phase magnetic contactor for 25Kvar capacitor. | Nos | | |
| 32A ,triple phase magnetic contactor for 12.5Kvar capacitor. | | 2 | |
| | Nos | 1 | |
| 25A ,triple phase magnetic contactor for 10Kvar capacitor. | Nos | 3 | |
| 12A ,triple phase magnetic contactor for 5Kvar capacitor. | Nos | 1 | |
| 160A, TP, MCCB | Nos | _ | |
| 63A TP, MCCB | Nos | 9 | |
| 32A TP, MCB | Nos | 2 | |
| 25A TP, MCB | Nos | 3 | |
| 16A TP, MCB | Nos | 2 | |
| Indiaction Lamp, ON, OFF PUSH Button. | | | |
| Auto/ manual selector switch with adder block. | No | 12 | |
| 2A SP MCB | No No | 1 | |
| 10A TP MCB | No | 6 1 | |
| 1x12 Steps reactive power regulator which performs the switching of | | | |
| capacitor bank in automatic power factor correction equipments depend | | | |
| on charges of reactive power complete with p.f.lumini-escent indicators | ing No | 1 | |
| digital power factor meter. | ۰ . | | |
| 1000/FA Current Transferred | | | |
| 1000/5A Current Transformer 10/5VA, Class-1 1×1000A TP Common Busbar | No | 1 | |
| ENCLOSURE Details : | | | |
| (700X2000X800)mm | Set | 2 | |
| · Caluda ON/OFC | | | 0 |
| manual operation. | Rutten 1 | she switch | for |
| | | , , , , , | 5 |
| manual enough | | | |
| marma Grandien, | | | |
| 1 | | | |



| 07) | PFI-6_900kVAR auto/manual Sheet steel clad powder coated (14 & 16SWG), dust and vermin proof, free standing, floor mounting, 415V, 50 Hz, Indoor type PFI Panel with 1600A hard drawn copper busbar. Set of components required for the manufacture of PFI Panel comprising:-INCOMING: | Set | | 1 |
|-----|--|------|---|----|
| | 1600A,TP,50KA,415V,50Hz, MCCB with having adjustable overcurrent & magnetic short circuit protection. (Customer Scope) | Nos | 1 | 0 |
| | 3X200(25X8) kVAR,415V,50 Hz, 3 Phase, normal duty type, self healing compact PF capacitors bank with discharge resistor. | Nos. | | 24 |
| | 2X100(25X4) kVAR,415V,50 Hz, 3 Phase, normal duty type, self healing compact PF capacitors bank with discharge resistor. | Nos. | | 8 |
| | 2X 25(25X1)kVAR,415V,50 Hz, 3 Phase, normal duty type, self healing . compact PF capacitors bank with discharge resistor. | Nos. | | 2 |
| | 1X 12.5kVAR,415V,50 Hz, 3 Phase, normal duty type, self healing . compact PF capacitors bank with discharge resistor. | Nos. | | 1 |
| | 3X 10kVAR,415V,50 Hz, 3 Phase, normal duty type, self healing compact PF capacitors bank with discharge resistor. | Nos. | | 3 |
| | 1X 5kVAR,415V,50 Hz, 3 Phase, normal duty type, self healing . compact PF capacitors bank with discharge resistor. | Nos. | | 1 |
| | 1X 2.5kVAR,415V,50 Hz, 3 Phase, normal duty type, self healing . compact PF capacitors bank with discharge resistor.(Fixed) | Nos. | | 1 |
| | | | | |



| 100A ,triple phase magnetic contactor for 50Kvar capacitor. | Nos | |
|---|---------|----|
| 60A ,triple phase magnetic contactor for 25Kvar capacitor. | | 16 |
| | Nos | 2 |
| 32A ,triple phase magnetic contactor for 12.5Kvar capacitor. | Nos | 1 |
| 25A ,triple phase magnetic contactor for 10Kvar capacitor. | Nos | 3 |
| 12A ,triple phase magnetic contactor for 5Kvar capacitor. | Nos | 2 |
| 160A, TP, MCCB | Nos | |
| 63A TP, MCCB | | 16 |
| 32A TP, MCB | Nos | 2 |
| 25A TP, MCB | Nos | 1 |
| 16A TP, MCB | Nos | 3 |
| | Nos | 2 |
| Indiaction Lamp, ON, OFF PUSH Button. | No | 12 |
| Auto/ manual selector switch with adder block. | No | 1 |
| 2A SP MCB | No | 6 |
| 10A TP MCB | No | 1 |
| | NO | 1 |
| 1x12 Steps reactive power regulator which performs the switching of capacitor bank in automatic power factor correction equipments depending on charges of reactive power complete with p.f.lumini-escent indicators & digital power factor meter. | No | 1 |
| | 140 | , |
| 1600/5A Current Transformer 10/5VA, Class-1 1x1600A TP Common Busbar | No | 1 |
| ENCLOSURE Details: (700X2000X800)mm | | |
| (, ooneoonoo)iiiii | Set | 3 |
| 5 1.1. AN COCC and last | - asile | |

* Include ON OFF push butter swith:



| 08) | PFI-7 1080kVAR auto/manual Sheet steel clad powder coated (14 & 16SWG), dust and vermin proof, free standing, floor mounting, 415V, 50 Hz, Indoor type PFI Panel with 2000A hard drawn copper busbar. Set of components required for the manufacture of PFI Panel comprising: | Set | | 1 |
|-----|---|------|---|----|
| | INCOMING: 2000A, 65KA, TP fixed type ACB with closing solenoid and store -energy spring charged operating mechanism and solid state microprocessor controlled adjustable thermal overload and short-circuit releases with | | | |
| | following accessories: 1 X Auxilliary Contact 1 X Closing Coil 1 X Gear motor for spring charge 1 X Under Voltage Release (Customer Scope) | Nos | 1 | 0 |
| | 3X200(25X8) kVAR,415V,50 Hz, 3 Phase, normal duty type, self healing compact PF capacitors bank with discharge resistor. | Nos. | | 24 |
| | 3X100(25X4) kVAR,415V,50 Hz, 3 Phase, normal duty type, self healing compact PF capacitors bank with discharge resistor. | Nos. | | 12 |
| | 2X 50(25X2)kVAR,415V,50 Hz, 3 Phase, normal duty type, self healing . compact PF capacitors bank with discharge resistor. | Nos. | | 4 |
| | 2X 25(25X1)kVAR,415V,50 Hz, 3 Phase, normal duty type, self healing . compact PF capacitors bank with discharge resistor. | Nos. | | 2 |
| | 2X 12.5kVAR,415V,50 Hz, 3 Phase, normal duty type, self healing . compact PF capacitors bank with discharge resistor. | Nos. | | 2 |
| | 1X 5kVAR,415V,50 Hz, 3 Phase, normal duty type, self healing . compact PF capacitors bank with discharge resistor.(Fixed) | Nos. | | 1 |



| 100A ,triple phase magnetic contactor for 50Kvar capacitor. | Nos | 20 |
|---|----------------------|-------------------|
| 60A ,triple phase magnetic contactor for 25Kvar capacitor. | Nos | 2 |
| 32A ,triple phase magnetic contactor for 12.5Kvar capacitor. | Nos | 2 |
| 160A, TP, MCCB 63A TP, MCCB 32A TP, MCB | Nos Nos Nos | 20 2 3 |
| Indiaction Lamp, ON, OFF PUSH Button. Auto/ manual selector switch with adder block. 2A SP MCB 10A TP MCB | No No No No | 12 1 6 1 |
| 1×12 Steps reactive power regulator which performs the switching of capacitor bank in automatic power factor correction equipments depending on charges of reactive power complete with p.f.lumini-escent indicators & digital power factor meter. | No | 1 |
| 2000/5A Current Transformer 10/5VA, Class-1 1x2000A TP Common Busbar | No | 1 |
| ENCLOSURE Details: (700X2000X800)mm | Set | 3 |

* Include ON/OFF avitch.



| 00) | PFI-3_300kVAR auto/manual | Set | 1 | |
|-----|--|------|------|------------------------------|
| 09) | the source coated (14 & 16SWG), dust and vermin proof, free | | | |
| | Sheet steel clad powder coaled (14 & 1654/67) does like the clad powder coaled (14 & 1654/67) does like the clad powder coaled (14 & 1654/67) does like the clad powder coaled (14 & 1654/67) does like the clad powder coaled (14 & 1654/67) does like the clad powder coaled (14 & 1654/67) does like the clad powder coaled (14 & 1654/67) does like the clad powder coaled (14 & 1654/67) does like the clad powder coaled (14 & 1654/67) does like the clad powder coaled (14 & 1654/67) does like the clad powder coaled (14 & 1654/67) does like the clad powder coaled (14 & 1654/67) does like the clad powder coaled (14 & 1654/67) does like the clad powder coaled (15 & 1654/67) does like the clad powder coaled | | | |
| | standing, floor flouriting, 4134, 30 flz, 2000 s, p | | | |
| | drawn copper busbar. | | | |
| | Set of components required for the manufacture of PFI Panel comprising :- | | | |
| | | Nos | 4 | |
| | 160A, TP, MCCB | Nos | 2 | |
| | 63A TP, MCCB | Nos | 1 | r 1 1. |
| | 32A TP, MCB | Nos | 2 | Insulale |
| | 25A TP, MCB | Nos | 4 79 | |
| | 16A TP, MCB | 1105 | | |
| | | No | 12 | Include ON/OFF switch. |
| | Indiaction Lamp, ON, OFF PUSH Button. | No | 1 | 0,000 |
| | Auto/manual selector switch with adder block. | No | 12 | antch. |
| | 2A SP MCB | No | 1 | 20011 |
| | 10A TP MCB | 140 | · | |
| | and the state of | | | |
| | 1x12 Steps reactive power regulator which performs the switching of | | | |
| | capacitor bank in automatic power factor correction equipments depending | No | 1 | |
| | on charges of reactive power complete with p.f.lumini-escent indicators & | | | |
| | digital power factor meter. | | | |
| | angital personal and an analysis and an analys | | 4 | |
| | 630/5A Current Transformer 10/5VA, Class-1 | No | 1 | |
| | 1x630A TP Common Busbar | | | |
| | | | | |
| | ENCLOSURE Details : | | | |
| | (700X2000X800)mm | Set | 2 | |
| | | | | |
| | Main PFI breaker, Capacitor, MC, Breaker - Customer Scope. 🗸 | | | |
| | | Set | 1 | |
| 10) | PFI-1 490kVAR auto/manual | 360 | - | |
| | Sheet steel clad powder coated (14 & 16SWG), dust and vermin proof, free | | | |
| | standing, floor mounting, 415V, 50 Hz, Indoor type PFI Panel with 800A hard | | | |
| | drawn copper busbar. | | | |
| | Set of components required for the manufacture of PFI Panel comprising :- | | | |
| | Set of components required for the mandracture of TTT and comprising | | | |
| | 160A, TP, MCCB | Nos | 8 | |
| | 63A TP, MCCB | Nos | 1 | Γ . $I \cup I$ |
| | 32A TP, MCB | Nos | 1 🔀 | 1 nouse |
| | 25A TP, MCB | Nos | 5 | 4C 1 - |
| | 16A TP, MCB | Nos | 1 | MI/ THU |
| | TOATT, MCB | | | 116 |
| | Indiaction Lamp, ON, OFF PUSH Button. | No | 12 | احدده |
| | Auto/manual selector switch with adder block. | No | 1 | Include on/off switch. |
| | 2A SP MCB | No | 12 | |
| | 10A TP MCB | No | 1 | |
| | | | | |
| | 1x12 Steps reactive power regulator which performs the switching of | | | |
| | capacitor bank in automatic power factor correction equipments depending | No | 1 | |
| | on charges of reactive power complete with p.f.lumini-escent indicators & | 140 | • | |
| | digital power factor meter. | | | |
| | aigital portal total meson | | | |
| | 800/5A Current Transformer 10/5VA, Class-1 | No | 1 | |
| | | | | |
| | 1x800A TP Common Busbar | | | |
| | FNCLOCURE Retails | | | |
| | ENCLOSURE Details: | Set | 2 | |
| | (700X2000X800)mm | | - | |
| | Main PFI breaker, Capacitor, MC, Breaker - Customer Scope. 🗸 | | | |
| | Y | | | |



| 1) | PFI-2_430kVAR auto/manual | Set | 1 |
|----|--|-----|----|
| | Sheet steel clad powder coated (14 & 16SWG), dust and vermin proof, free standing, floor mounting, 415V, 50 Hz, Indoor type PFI Panel with 800A hard drawn copper busbar. | | |
| | Set of components required for the manufacture of PFI Panel comprising :- | | |
| | 160A, TP, MCCB | Nos | 7 |
| | 63A TP, MCCB | Nos | 1 |
| | 32A TP, MCB | Nos | 1 |
| | 25A TP, MCB | Nos | 2 |
| | 16A TP, MCB | Nos | 5 |
| | Indiaction Lamp, ON, OFF PUSH Button. | No | 12 |
| | Auto/manual selector switch with adder block. | No | 1 |
| | 2A SP MCB | No | 12 |
| | 10A TP MCB | No | 1 |
| | 1x12 Steps reactive power regulator which performs the switching of capacitor bank in automatic power factor correction equipments depending on charges of reactive power complete with p.f.lumini-escent indicators & digital power factor meter. | No | 1 |
| | 800/5A Current Transformer 10/5VA, Class-1 1x800A TP Common Busbar | No | 1 |
| | ENCLOSURE Details: (700X2000X800)mm | Set | 2 |
| | | | |

Main PFI breaker, Capacitor, MC, Breaker - Customer Scope.

* Include on/OFF switch.



Include on/off Switch.

| 12) | PFI-4_500kVAR auto/manual | Set | 1 |
|-----|--|--------------------------|-----------------------|
| | Sheet steel clad powder coated (14 & 16SWG), dust and vermin proof, free standing, floor mounting, 415V, 50 Hz, Indoor type PFI Panel with 1000A hard drawn copper busbar. | | |
| | Set of components required for the manufacture of PFI Panel comprising :- | | |
| | 160A, TP, MCCB 63A TP, MCCB 32A TP, MCB 25A TP, MCB 16A TP, MCB | Nos Nos Nos Nos | 8 2 1 3 2 |
| | Indiaction Lamp, ON, OFF PUSH Button. Auto/manual selector switch with adder block. 2A SP MCB 10A TP MCB | No No No No | 12 1 12 1 |
| 7 | 1x12 Steps reactive power regulator which performs the switching of capacitor bank in automatic power factor correction equipments depending on charges of reactive power complete with p.f.lumini-escent indicators & digital power factor meter. | No | 1 |
| , | 1000/5A Current Transformer 10/5VA, Class-1 1x1000A TP Common Busbar | Мо | 1 |
| | ENCLOSURE Details: (700X2000X800)mm | Set | 2 |
| | Main PFI breaker, Capacitor, MC- Customer Scope. | | |
| 13) | 3200A, 65KA, TP fixed type ACB with closing solenoid and store -energy 'spring charged operating mechanism and solid state microprocessor controlled adjustable thermal overload and short-circuit releases with following accessories: 1 X Auxiliary Contact 1 X Closing Coil 1 X Gear motor for spring charge | Pcs | 1 |
| | 1 X Under Voltage Release (Chiller DB) | | |
| 14) | 1250A ACB-Panel | 6.00 | |
| | Set of components required for the manufacture of Panel comprising :- | | |
| | INCOMING: 1250A,TP,50KA,415V,50Hz, MCCB with having adjustable overcurrent & magnetic short circuit protection. (Customer Scope) | Nos | 0 |
| | 1250/5A Current Transformer 10/5VA, Class-1 Energy Meter PM 2130 CB ON OFF TRIP Indication lamp 1x6A,TP MCB for the protection of control circuit | Pcs Set Pcs Pcs | 3 1 3 1 |
| | ENCLOSURE Details: (800X2000X800)mm | Set | 2 |
| 15 |) 1600A ACB - Panel | | |
| | Set of components required for the manufacture of Panel comprising :- | | |
| | INCOMING: 1600A,TP,50KA,415V,50Hz, MCCB with having adjustable overcurrent & magnetic short circuit protection. (Customer Scope) | Nos | 0 |
| | 1600/5A Current Transformer 10/5VA, Class-1 Energy Meter PM 2130 CB ON OFF TRIP Indication lamp 1x6A,TP MCB for the protection of control circuit | Pcs Set Pcs Pcs | 3 1 3 1 |
| | ENCLOSURE Details: (700X1600X800)mm | Set | 2 |
| | BRAND DETAILS: | | |
| | ACB, MCCB, MCB, MC, Energy Meter. Brand: Schneider Electric. Country of ony | ٠7 | |
| | PFI Capacitor: Brand: EPCOS. | ا | |
| | PFI PFC RELAY: Brand: MIKRO. | | |

Note

- 1. Supply of we link for BBT termination will be supplied by CWL.
- 2. The paraels should comply with BNBC 2006, NFPA-70 and Accord/Alliance work practice.
- 3. The panel har layout should be matched with the BBF existing layout of power BBT.

06/03/20