


L. T. SWITCHGEAR

L.T. Switchboard 415 volts 3 phase 50 Hz – 4 wire suitable for surface installation as per enclosed Drawing. Incoming 1000A – 1 No, Outgoing – 400 A – 2 Nos., 100 A – 2 Nos. 63 A – 4 Nos.

Fault Level 31 KVA :

- 1) The switchgear shall be indoor type pedestal mounting and fabricated from sheet steel of minimum thickness 2mm. The switchgear shall be so constructed that the failure of one circuit should not affect the operation of other circuits.
- 2) Each feeder shall be provided with enclosure & cable entry box with removable gland plate
- 3) The switchgear shall be extendible in either direction and shall be provided with both from and rear access.
- 4) The enclosure shall confirm the requirements of IP55.
- 5) The main buses and connections shall be of high conductivity copper sized for specified current ratings and maximum temperature of 85° C.
- 6) The bus bar shall be air insulated with adequate clearance between phase to phase and phase to ground.
- 7) The bus insulators shall be flame retardant, track resistant type.
- 8) The horizontal and vertical bus bars shall be provided with heat shrunk insulating sleeves with suitable phase identification marking. Necessary derating factor due to sleeving should be considered during selection of cross section of the bus. All the bare parts of the buses shall be protected to avoid accidental contacts.
- 9)
 - a) The incoming and outgoing CB's shall be MCCB's – 3 pole indoor type.
 - b) Each breaker shall be provided with ON / OFF indication and manual close and Trip push buttons / knobs.
 - c) Shall be provided ELR tripping with shunt trip coil. ELR & Shunt trip coil shall be suitable for 415 V AC.
- 10) Current Transformer :
 - a) C.T. shall be cast resin type. All secondary connections shall be brought out to terminal blocks where star or delta connections are to be made. Accuracy Class of C.T. shall be 5P 10 protection and 1 for metering.
 - b) The circuit breaker shall be provided with protection against phase to phase and Phase to ground faults.
 - c) Earth leakage protection shall be provided on all outgoing feeders with test and Reset facility. CBCT dia shall be 200 mm. (inner).
 - d) All indicating meters shall be switchboard type and 96 / 96mm size


11/10/17

- 11) A tinned copper ground bus shall be provided along the full length of the switchgear.
- 12) The frame of each CB's shall be grounded suitably.

Fault level - 31 MVA at 415V – AC – 50 Hz.


Breaker Type - MCCB.

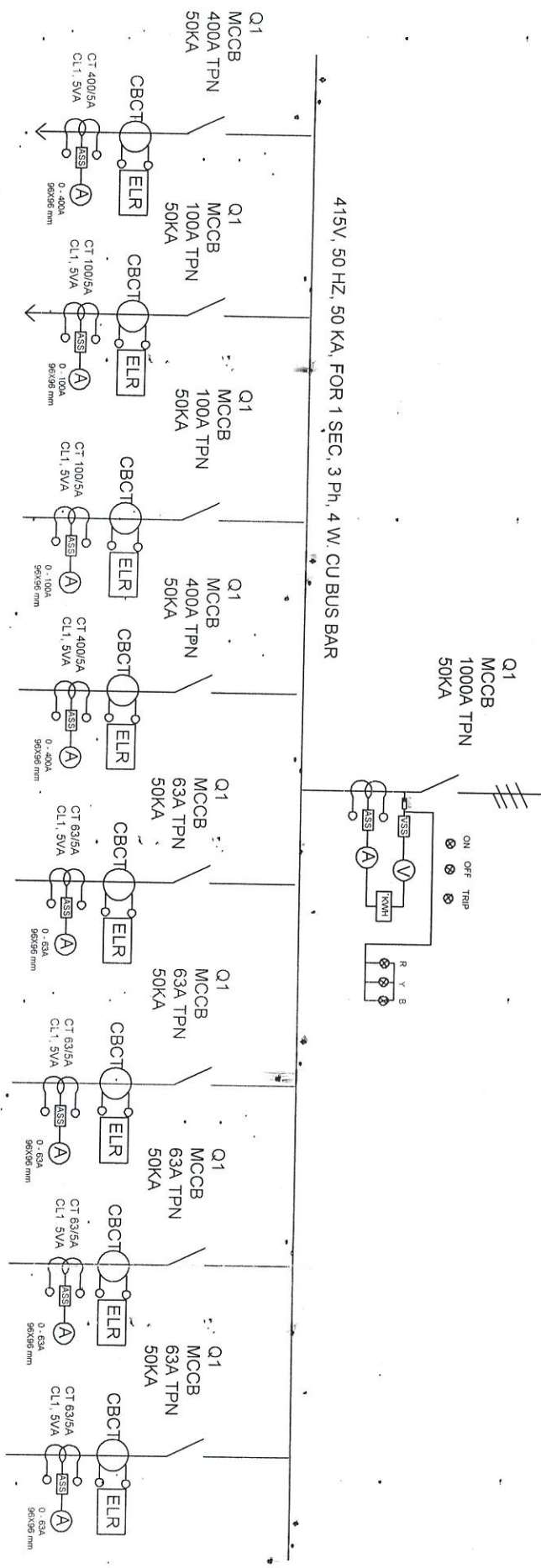
Protection - IP55.



Make : L & T / Siemens / ABB / SCHNEIDER

13) Recommended makes of components :

- 1) EL Relays - Prayog / prokdvS (Solid state, non fail-safe type)
- 2) Meters - AE / IMP.
- 3) Energy Meter - Schneider/G.E.C. / Simco.
- 14) Painting : All steel surfaces shall be thoroughly cleaned by sand blasting or chemical process. After cleaning, the surface should be given a phosphates coating followed by two coats of high quality red oxide of yellow chromate primer. All the surfaces shall be finished with two coats of anticorrosive and abrasion resisting epoxy paints in smoke gray shade.


11/10/17.



URANIUM CORPORATION OF INDIA LTD. TUMMALAPALLE MINES.		
PREPARED BY		SINGLE LINE DIAGRAM LT PANEL 1 VENTILATION FAN NO: 1
APPROVED BY		
DRG NO: ELECT/MINE-VENTFAN-1/LT-03		

