










Minimum voltage requirement of Analog signals, <i>Potential Free Contacts</i> & Command signals which should be available respective equipment for remote indication, control from Auxiliary MCC located in 5% control room			
EQUIPMENT	ANALOG SIGNAL FOR REMARKS	POTENTIAL FREE CONTACT FOR REMARKS	COMMAND SIGNALS FROM REMARKS
DC SET		INDICATION	
	DC Voltage -A	MAINS 1 ON	
	DC Voltage -B	MAINS 2 ON	
	DC Voltage -A-B	Alternation ON	
	DC Current -B	Charger 1 ON	
	DC Current -V	Charger 1 OFF	
	DC Current -B	Charger 2 ON	
	DC Current -B	Charger 2 OFF	
		MAINS 1/2 Supply ON/OFF	
		MAINS 2/2 Supply ON/OFF	
		Engine Over Heating	
		Load Trip	
		Low Oil Pressure	
		Set Fan On or Stop 35 sec After Receiving the First Start Times	
		High Cooling Water Temperature	
		Low Level in Daily Service Tank	
		Over speed Trip	
		Alternator Bank	
		Busbar On	
		Busbar Off	

- NO TWO AC SOURCE SHALL BE PARALLELED AT ANY STAGE.
2. DC SET SHALL BE AUTO START TYPE.
3. MECHANICAL INTERLOCK SHALL BE PROVIDED TO ENSURE BREAKER OF DC SET WILL CLOSE ONLY WHEN SWITCHES 1 & 5 ARE OPEN.
4. FOR COMPLETE DESCRIPTION OF EACH TYPE OF MODULE, PLEASE REFER TECHNICAL SPECIFICATION.
5. CABLE SIZES SHOWN ABOVE ARE FOR THE MINIMUM TECHNICAL SPECIFICATION.
6. ALL THE FEEDERS SHOWN IN THE SLD INCLUDING FEEDER / SPARE (SHOWN DOTTED) ARE INCLUDED IN SCOPE OF SUPPLY.
7. TRANSFORMERS/AUX. CONTACTS REQUIRED FOR ANALOG AND DIGITAL INPUT SHALL BE AN INTEGRAL PART OF THE MODULE.
8. ONE DC "X" TYPE MODULE IN EACH 220V DCCB SHALL BE PROVIDED FOR EACH LINE, TRANSFORMER, BUS REACTOR, OR BUS-SECTION BAY FOR PRESENT & FUTURE BAYS.
9. ONE DC "Y" TYPE MODULE IN EACH 48V DCCB SHALL BE PROVIDED FOR EACH LINE BAY & TRANSFORMER BAY.
10. MODULE "X" REFERRED ABOVE, IS APPLICABLE WITH DP MCCB, MAXIMUM 2nos. OF DP MCCB SHALL BE CONNECTED IN ONE MODULE OF OFFERED PANEL.
11. ALL THE FEEDERS SHOWN IN THE SLD ARE TO BE PROVIDED WITH SEPARATE PROTECTIVE RELAYS, BUT SHOULD HAVE IN-BUILT THERMAL-MAGNETIC RELEASE, HOWEVER, AUX. CONTACTS/RELAYS REQUIRED FOR FEEDER PROTECTION SHALL BE PROVIDED.
12. ALL DIGITAL / ANALOG INPUTS/OUTPUTS REQUIRED FOR GAS SHALL BE CONSIDERED.
13. GROUND PLATE SHALL BE OF NON MAGNETIC WHEREVER SINGLE CORE POWER CABLE ARE USED.
14. UNLESS SPECIFIED, SOURCE 1 WILL BE FED FROM BUS 1 AND SOURCE 2 FROM BUS 2.
15. RATING OF BUSBAR/FEEDER INDICATED IN THIS DRAWING ARE MIN. REQUIREMENT AND MAY BE INCREASED DURING DETAILED ENGINEERING IF FUND INADEQUATE WITH RESPECT TO

- 50N : LINE POLE INSTANTANEOUS FAULT RELAY (Tripole pole)  
50 : TRIPPLE POLE INSTANTANEOUS OVER CURRENT RELAY  
51 : SINGLE POLE INVERSE DEFINITE MINIMUM TIME RELAY  
50/2 : SINGLE POLE ADJUSTABLE DEFINITE TIME DELAY  
RELAY FOR MOTOR OVERLOAD ALARM  
2 : TIME DELAY PICKUP RELAY  
27K : DC DOUBLE POLE INSTANTANEOUS UNDER VOLTAGE RELAY  
27 : DC INSTANTANEOUS UNDER VOLTAGE RELAY  
59 : DC INSTANTANEOUS OVER VOLTAGE RELAY  
96 : EARTH LEAKAGE RELAY  
51V : THREE POLE VOLTAGE CONTROLLED DEFINITE TIME  
DELAY OVER CURRENT RELAY  
87 : THREE POLE DIFFERENTIAL PROTECTION RELAY  
95 : SINGLE POLE DEFINITE TIME OVER CURRENT  
RELAY DC OVER LOAD RELAY  
64 : RESTRICTED EARTH FAULT PROTECTION

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|---|--------------------------------------|---|----------------------------------|
|  | DRAW OUT TYPE<br>AIR CIRCUIT BREAKER |  | NON DRAW OUT TYPE<br>2-POLE MCCB |
|  | NON DRAW OUT TYPE<br>4-Pole MCCB     |  | NON DRAW OUT AIR BREAK SWITCH    |
|  | NON DRAW-OUT<br>2-Pole MCB           |  | CONTROL FUSE                     |
|   |                                      |  | BATTERY LINKS/FUSES              |

[illegible]