



TD - 199
REV NO. 0

BHARAT HEAVY ELECTRICALS LIMITED
Ramachandrapuram: Hyderabad – 502 032
Project Engineering and Systems Division

Name of Tender : Design, manufacture, assembly and testing at manufacturer's works; packing and transportation to site; supervision of erection, testing and commissioning of LT Switchgear Package for Tata Steel 1X40MW STG, Jamshedpur Project.

BHEL Tender Ref : T7H1P01239/ NIT_29650 Dated 04.10.2016

Replies to Pre-Bid Queries

Corrigendum-01 DTD. 14.10.2016

With respect to the above mentioned Enq / NIT No., the following corrigendum is released. The Corrigendum contains following amendment in the specifications and shall be a part of the above enquiry.

This corrigendum is to be submitted, duly signed and stamped along with the technical bid (Part-I).

Sl. No.	Bidder's Queries	BHEL Response
1.	<u>Wall mounted DB Type-3AC:</u> a) As per Annexure-10 (Price format), qty of these DBs shall be 1 no. But the same is mentioned in "Main Specification for LT Swgr Package PY55223 R00", clause no.7.2.25, & 14.0 as 2nos. b) DB fault level mentioned as 50kA. But o/g feeder MCB's are available with 10kA fault level only. Please confirm.	a) For quantity of Wall Mounted DBs, please follow Price Format (Annexure-10) of Specification PY55223 R00. b) The O/g MCBs may be of 10 kA/ 1s fault level. However, the Incomer MCCB as well as Bus Bar of the Wall Mounted DB Type - 3AC shall be designed for 50 kA/ 1s fault level.



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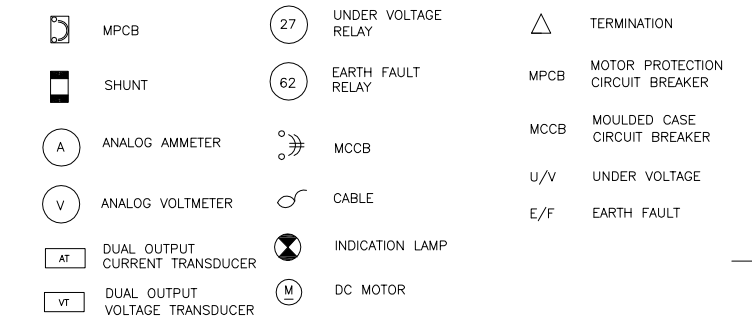
Replies to Pre-Bid Queries

Sl. No.	Bidder's Queries	BHEL Response
2.	<u>Wall mounted DB Type-1AC:</u> a) As per Annexure-10 (Price format), qty of these DBs shall be 1 no. But the same is mentioned in "Main Specification for LT Swgr Package PY55223 R00", clause no.7.2.25, & 14.0 as 2nos. b) DB fault level mentioned as 25kA. But o/g feeder MCB's are available with 10kA fault level only. Please confirm.	a) For quantity of Wall Mounted DBs, please follow Price Format (Annexure-10) of Specification PY55223 R00. b) Fault level for Wall Mounted DB Type - 1AC shall be considered as 10 kA/ 1s.
3.	<u>DCDB:</u> a) Please confirm the system voltage. b) Control schemes & switchboard single line diagram is not available in tender documents. Please provide the same.	a) The DC Voltage Level is 220 V. b) The Single Line Diagram for 220V DCDB was inadvertently missed in the specification. The same is attached herewith. Control Schemes for DCDB shall be designed based on the SLD and other requirements as mentioned in the Specification.
4.	Annexure-05 is not available in tender documents. Please upload the same.	Annexure-05 has been DELETED. This is also mentioned in the "Table of Contents" of the Main Specification PY55223 R00. Hence, it is not required for the purpose of Tender.



1. ** REFER TABLE-1 FOR DETAILS OF OUTGOING FEEDERS FROM DCDB. FINAL LOADS MUST BE REFLECTED IN THE SWITCHBOARD VENDOR DRAWINGS.
2. DCDB SHALL BE SINGLE FRONT DRAWOUT TYPE.
3. CABLE ENTRY SHALL BE FROM BOTTOM.
4. EXTERNAL PAINT SHADE SHALL BE LIGHT GREY SEMI GLOSSY SHADE 631 OF IS-5.
5. DEGREE OF PROTECTION SHALL BE IP-52.
6. INCOMERS & BUS COUPLER SHALL BE PROVIDED WITH MECHANICAL INTERLOCK.
7. SUPPLY FOR PANEL SPACE HEATERS SHALL BE DERIVED FROM SPACE HEATING BUS, WHICH SHALL BE ENERGISED FROM SINGLE PHASE SUPPLY RECEIVED FROM PDB SUB-DISTRIBUTION TRANSFORMER OUTGOINGS..
8. ACCURACY CLASS OF AMMETERS & VOLTMETERS 1.0.
9. MCCBs SHALL BE DP AND SHALL BE THERMAL MAGNETIC TYPE WITH INSTANTANEOUS STATIC SHORT CIRCUIT RELEASE, ADJUSTABLE THERMAL OVERLOAD & EARTH FAULT RELEASE.
10. CONTRACTUAL SPARE FEEDERS SHALL BE PROVIDED AS 20% OF EACH TYPE & RATING WITH MINIMUM 2 NOS..
11. REFER LT POWER CABLE SIZING DOCUMENT FOR CABLE SIZES.
12. ALL TRANSDUCERS SHALL HAVE DUAL OUTPUT. CONTROL SUPPLY OF TRANSDUCERS SHALL BE 220V DC SUPPLY.
13. MCCB, CONTACTOR RATINGS AND O/L RELAY RANGE SHALL BE SELECTED TO MEET TYPE-2 COORDINATION AS PER IS-60947-4-1.

LEGEND:



REFERENCES:

- | | | |
|----------------------------|---|----------------------|
| 1. KEY SINGLE LINE DIAGRAM | : | PY-DL-1-M085-0000-01 |
| 2. PMCC SLD | : | PY-DL-1-M085-8809-01 |

SL. NO.	FEEDER DESCRIPTION	RATING IN MW	FEEDER DETAILS			TERMINATION	REMARKS
			TYPE	TOTAL	BUS-A		
1	Jacking Oil Pump Drive Motor	2.2	DC STARTER	1	0	0	CABLE
2	Emergency Oil Pump Drive Motor	11	DC STARTER	1	0	1	CABLE
3	Turbine Enclosure - Illumination	0.4	MCCB (32A)	1	0	1	CABLE
4	Lighting (DC) (Customer Load)	2	MCCB (32A)	2	1	1	CABLE
5	DC Load for 33kV GIS & its CRP	2	MCCB (32A)	3	1	2	CABLE
6	AVR (Control)	2.2	MCCB (32A)	1	1	0	CABLE
7	Control & Relay Panel	2	MCCB (32A)	2	1	1	CABLE
8	6.6kV Switchboard DC Aux. Supply	2	MCCB (32A)	2	1	1	CABLE
9	PMCC DC Aux. Supply		MCCB (32A)	2	1	1	CABLE
10	Generator Transformer		MCCB (32A)	1	0	1	CABLE
11	UAT		MCCB (32A)	1	1	0	CABLE
12	RTCC Panel for Gen Transformer		MCCB (32A)	2	1	1	CABLE
13	RTCC Panel for UAT		MCCB (32A)	2	1	1	CABLE
14	TCB MCC DC Aux. Supply		MCCB (32A)	2	1	1	CABLE
15	Station Transformer		MCCB (32A)	2	1	1	CABLE
16	DG SET		MCCB (32A)	2	1	1	CABLE
17	DCS		MCCB (63A)	2	1	1	CABLE
18	ECP		MCCB (63A)	2	1	1	CABLE
19	Contractual Spare		MCCB (63A)	1	1	0	CABLE
20	Contractual Spare	22	DC STARTER	1	1	0	CABLE
21	Contractual Spare	11	DC STARTER	1	0	1	CABLE
22	Contractual Spare		MCCB (32A)	3	3	2	CABLE

REV.	DATE	ALTERED CHD/APPD
ZONE		
REV.	DATE	ALTERED CHD/APPD
ZONE		
REV. 01	DATE 05.08.16	ALTERED C.R.REDDY CHD/APPD K.RANGAMAN/ K. Rangamani
ZONE	REVISED AS PER TCE COMMENTS VIDE TRANSMITTAL TCE. 7742B-EL-BHEL-023	

CONSULTANT:				TATA CONSULTING ENGINEERS LIMITED					
				MUMBAI					
		BHARAT HEAVY ELECTRICALS LTD.				NAME	SIGN.	DATE	NO.OF VAR.
		HYDERABAD		DRN.	K.RANGAMANI	-sd-	30.05.16	N.A.	
				CHD.	K.RANGAMANI	-sd-	30.05.16		
				APPD.	J.K.PATTANAIK	-sd-	30.05.16		
DEPT. PE&SD	UNTOL. DIMS. GR.		SCALE	WEIGHT (KG)	REF. TO ASSY. DRG.		ITEM NO.	NO.OF ITEMS	
CODE 450	Ø/M/ℓ		NTS	-N.A.-	-N.A.-		-N.A.-		
TITLE				CARD CODE	BHEL DRAWING NO.			REV.	
220V DCDB SLD					PY-DL-3-M085-9003-01				01

		TATA STEEL LTD JAMSHEDPUR	
DEPT	40MW CDQ WASTE HEAT RECOVERY CO-GENERATION POWER PLANT	CODE	
AREA	JAMSHEDPUR	CODE	
SUBJECT	220V DCDB SLD	CODE	
TATA DRG. NO.			REV
			01