

Mandatory Pre-Qualification requirements for Terminal Block
Material Code-HW7433499113 as per Specification TG60576

Description:

The Terminal Block (Screw-less type) is used in generators for terminating the connecting cables for control and power application. The Terminal Block should be of very reliable and proven design to maintain the required electrical connection.

- 1.0 The vendor should be a regular manufacturer/Distributor of such Terminal Block (Screw-less type) with minimum following requirements –

Si No.	Parameter	Value
(i)	Number of Ways	Minimum 16
(ii)	Temperature and RH	0°C to 55°C and 0-95%
(iii)	Terminal	Suitable for 2 conductors each of 4 mm ²
(iv)	Termination	Screw-less (preferably clamp type)
(v)	Insulation material	Nylon or Equivalent (Self-extinguishing)
(vi)	Current carrying parts	Made of electrolytic copper with tin coating
(vii)	Clamp spring Material	High quality austenitic chrome nickel spring steel
(viii)	Mounting rail/Channel Material	Corrosion resistant steel
(ix)	Testing of Terminal unit	3000VAC for 1 min
(x)	Insulation Resistance	Minimum 50 mega Ohm with 500V magger
(xi)	Temperature rise for current carrying parts	Not exceed 45°C when tested at rated current (ref. ambient 40°C)

- 2.0 In support of above serial number-1, vendor shall furnish technical details of Terminal Block (Screw-less type) in below mentioned format for at least one nos. (1) of the P.O. executed in past 10 years (from date of enquiry) along with P.O. copies.

S. No.	Brief technical details	Application	Name & address of customer	Date of supply
1	-Number of ways -Termination			
2	-Insulation, current carrying, clamp spring and mounting rail material			
3	-Electric test -Temperature raise			

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- 3.0 Vendor to furnish correlated test certificates against one of the P.O. submitted as per clause 2.
- 4.0 Vendor to furnish acceptance certificate from the end user of Terminal Block (Screw-less type) against the P.O. submitted as per clause 2. (Original Certificate or through e-mail directly from the customer). Acceptance certificate should contain information like item details and its application or correlation with P.O.
- 5.0 Vendor must provide confirmation to meet all the requirements of drawing & specification for quoted item.

Note: BHEL reserves the right to verify information submitted by vendor. In case the information is found to be false / incorrect, the offer shall be rejected.

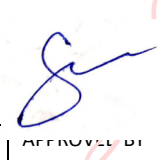
MANUFACTURER'S NAME AND ADDRESS			STANDARD QUALITY PLAN					TO BE FILLED BY BHEL				
BHEL		ITEM	JUNCTION BOX / TERMINAL BOX		QP. NO.:	QA/BE/QP/008						
				REV. NO.:	02	Date: 30.08.2025						
		DRG. & REV. NO.:		As per PO								
		SPEC. & REV.NO.:		As per PO (ST44012 or any other)								
SL. NO.	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORDS	AGENCY			REMARKS
									M	B	N	
1	2	3	4	5	6	7	8	9	D	10		11

1.0	RAW MATERIAL (CRCA SHEET ETC.)	CHEMICAL & MECHANICAL PROPERTIES AS PER GRADE	MAJOR	REVIEW	100%	BHEL APPD. DRG. / SPEC.	BHEL APPD. DRG. / SPEC.	MTC	✓	P	V	-	
2.0	TYPE TEST VERIFICATION	-	-	-	-	BHEL APPD. DRG. / SPEC.	BHEL APPD. DRG. / SPEC.	T.C.	✓	P	V		NOTE 1
3.0	ROUTINE TEST												
3.1	DIMENSIONAL CHECK	BOX SIZE, CABLE GLAND SIZE AND NOS. OF HOLES, NOS. OF T.B.,	MAJOR	MEASUREM ENT	100%	BHEL APPD. DRG. / SPEC.	BHEL APPD. DRG. / SPEC.	I.R.	✓	P	W	-	
3.2	VISUAL CHECK OF JUNCTION /TERMINAL BOX	FREE FROM BURS, FINS, BLOW HOLES, DEFECTS, T.B. COLOR, EARTHING BUS BARS	MAJOR	VISUAL	100%	BHEL APPD. DRG. / SPEC.	BHEL APPD. DRG. / SPEC.	I.R.	✓	P	W	-	
3.3	INSULATION RESISTANCE	BEFORE & AFTER H.V. TEST	MAJOR	ELECTRICAL	10% terminals of each box	BHEL APPD. DRG. / SPEC.	BHEL APPD. DRG. / SPEC.	I.R.	✓	P	W	-	
3.4	HIGH VOLTAGE TEST	FOR POWER TERMINALS ONLY	MAJOR	ELECTRICAL	10% terminals of each box	BHEL APPD. DRG. / SPEC.	BHEL APPD. DRG. / SPEC.	I.R.	✓	P	W	-	
3.5	BILL OF MATERIAL CHECK	COMPONENTS MAKE, TYPE, RATING, QUANTITY	MAJOR	PHYSICAL	100%	BHEL APPD. DRG. / SPEC.	BHEL APPD. DRG. / SPEC.	I.R.	✓	P	W	-	
3.6	PAINT	COLOR, THICKNESS	MAJOR	PHYSICAL	100%	BHEL APPD. DRG. / SPEC.	BHEL APPD. DRG. / SPEC.	I.R.	✓	P	V	-	
3.7	IDENTIFICATION AND MARKING	--	MINOR	REVIEW	100%	BHEL APPD. DRG. / SPEC.	BHEL APPD. DRG. / SPEC.	-		P	V	-	
3.8	PACKING	--	MINOR	REVIEW	100%	BHEL APPD. DRG. / SPEC.	BHEL APPD. DRG. / SPEC.	-		P	-	-	

NOTE: 1. Type test clearance from BHEL Engineering to be verified by inspection engineer during inspection at vendor's works.

2. Manufacturer to maintain calibrated instruments having better accuracy than the item under the test. Inspection engineer shall check the same.

3. Vendor has to provide TC/IR mentioning above Q.P. clauses and also index/summary sheet for co-relation of TC/IR with QP clauses. TPIA to check the same.

MANUFACTURER/SUBCONTRACTOR	LEGEND: ! RECORDS IDENTIFIED WITH 'TICK' SHALL BE ESSENTIALLY INCLUDED BY CONTRACTOR IN QA DOCUMENTATION. M: MANUFACTURER / SUBCONTRACTOR B: BHEL / NOM. INSPECTION AGENCY N: CUSTOMER INDICATE 'P' PERFORM 'W' WITNESS AND 'V' VERIFICATION ALL 'W' INDICATED IN COLUMN 'N' SHALL BE 'CHP' OF CUSTOMER	FOR CUSTOMER USE	 Digitally signed by Sachin Jain Date: 2025.08.30 17:24:52 +05'30' BHEL HARIDWAR – Q.A.
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