

**ITEM: SUPPLY OF TOP & BOTTOM COVER PLATE [DRG NO. 3 982 10 13223 (G)/02 & 3 982 10 13224 (0)/02]****TECHNICAL PQR, DRAWING, QAP: AS ATTACHED****QUANTITY: As per AS ATTACHED BOQ****BILL OF MATERIAL (BOM):**

Sr. No.	BHEL Item Code	Description of Item/Specification	Quantity	UOM	Technical Specification/Drg.
1	121922	TOP COVER PLATE- 3 982 10 13223 (G)/02	206.000	EA	As attached
2	121932	BOT. COVER PLATE- 3 982 10 13224 (0)/02	87.000	EA	As attached

- Bidder to provide signed & Sealed GEM BID & ANNEXURE No. A/12303282/12.01.2023 with offer.
- To get MSE preference, bidder to choose MSE purchase preference on GEM portal otherwise purchase preference shall not be applicable.
- To get MII preference, bidder to choose MII purchase preference on GEM portal and bidder to submit signed local content declaration otherwise purchase preference shall not be applicable.
- Item shall be manufactured as per attached drawing.
- Delivery Schedule: **Material shall be supplied within 45 days from the date of purchase order to BHEL SBD, Bangalore.**
- Delivery location: BHEL SBD MP Stores Bangalore-560012 as per GeM consignee.
- Price basis: Price shall be firm till completion of the contract. No PVC is applicable.
- Payment terms: Hundred Percent (100%) of basic price of the material supplied as per PO, along with 100% taxes & duties (as applicable) shall be payable on pro-rata as per following manner
  - 45 days for Micro & Small Enterprises (MSEs)
  - 60 days for Medium Enterprises
  - 90 days for Non-MSME
 from the date of receipt of goods at BHEL SBD and receipt of complete documents at BHEL SBD as specified in Clause No. 9 below subject to acceptance of materials. [i.e. date of acceptance of material or date of submission of complete set of documents (whichever is later) shall be considered for reckoning the due date of payment.]
- Documents to be Submitted by Vendor for payment:
  - Original GST compliant invoice. (Original for Buyer copy)
  - Copy of LR/ Delivery Challan for local supplier in place of LR
- Invoice to be made as per the prevailing GST format only. TDS Deductions applicable as per GST Law & TDS certificate shall be issued by BHEL in line with the latest amendment in GST Law.
- Technical PQR- requirement attached for years of Past Experience & supply.
- Minimum Average Annual Turnover of the Bidders shall be 2 lakhs for last three FY.
- Inspection and Quality Clearance: As per attached QAP

BOQ FOR 12303282							
Sl No.	Item Code	Item Description	Quantity	UOM	Unit Price (Inclusive of TAX) [QUOTED/NOT QUOTED]	Applicable GST %	HSN Code
1	121922	TOP COVER PLATE- 3 982 10 13223 (G)/02	206.00	EA			
2	121932	BOT. COVER PLATE- 3 982 10 13224 (0)/02	87.00	EA			

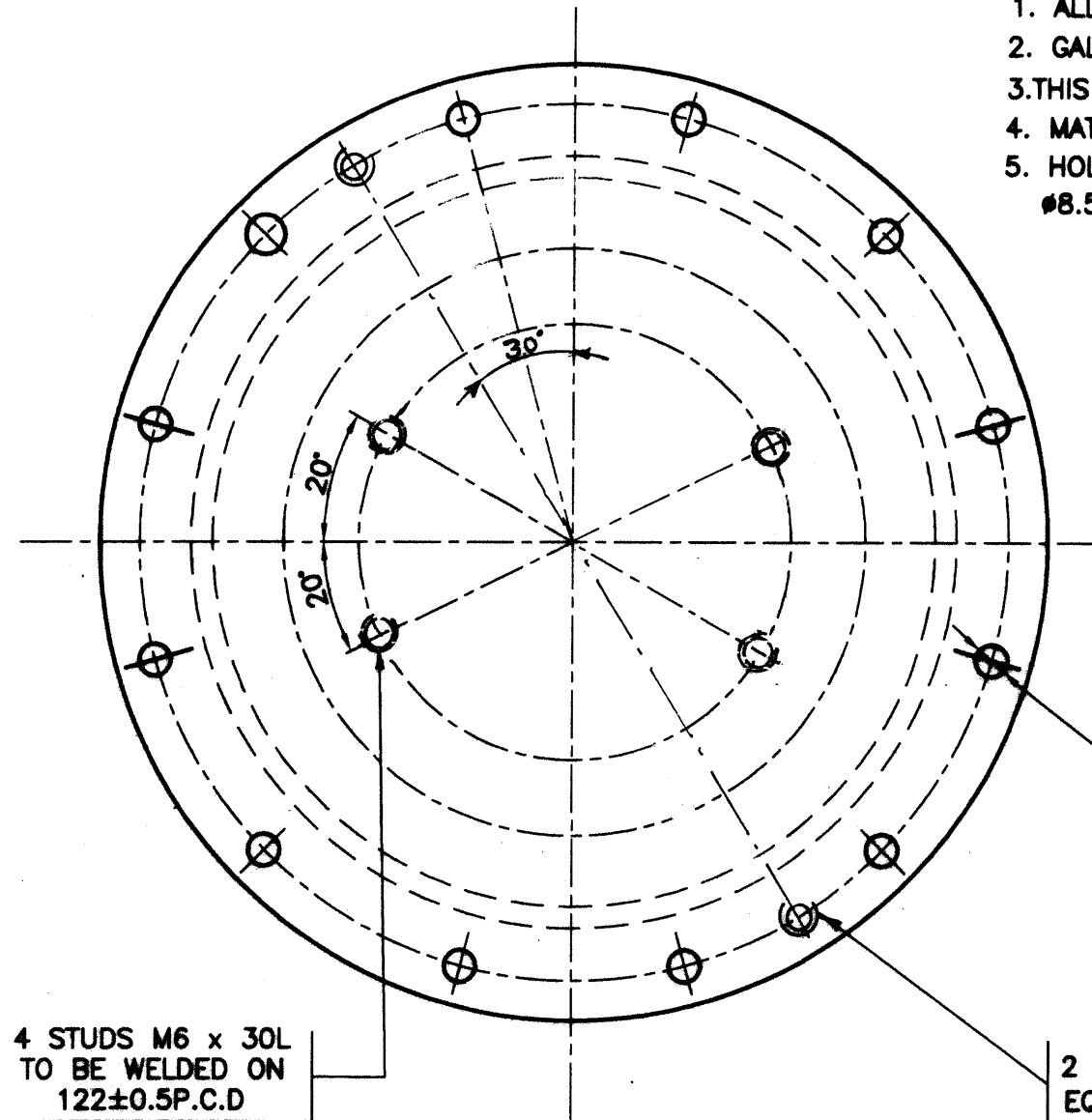
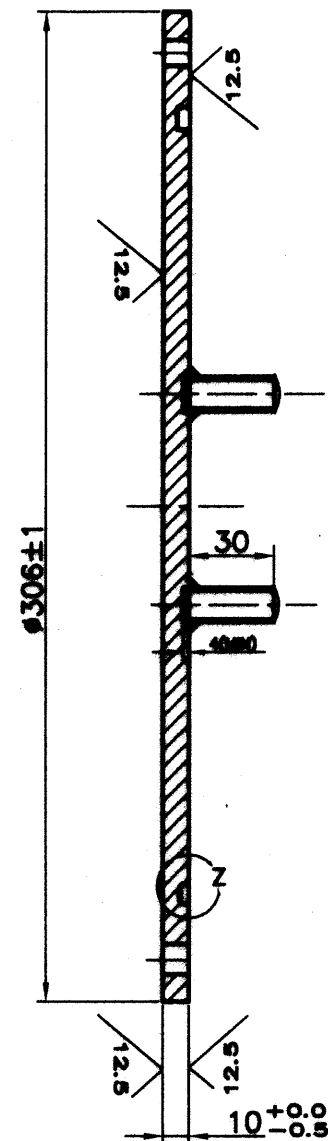
**DRG No.**

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REF. DRO. No.

**SIGN AND DATE**

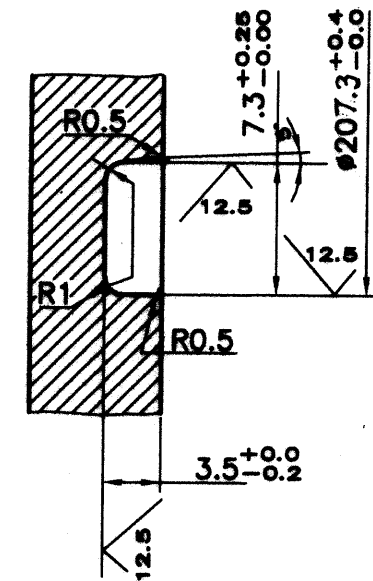
**INVENTORY No.**



4 STUDS M6 x 30L  
TO BE WELDED ON  
122±0.5P.C.D

12 HOLES, Ø14  
EQUI SPACED ON  
280±0.3 PCD






2 TAPPED HOLES,M10x1.5x 8.DEEP  
EQUALLY SPACED ON  $280 \pm 0.3$  PCD.



**DETAILS AT 'Z'**  
**FOR 'O'RING SEATING**

1. ALL DIMENSIONS ARE AFTER HOT-DIP GALVANIZING.
2. GALVANIZE AFTER ALL MACHINING AND DRILLING & WELDING.
3. THIS ITEM IS TO BE MADE BY GAS CUTTING AND TURNING FROM A STEEL PLATE.
4. MATERIAL SHOULD CONFORM TO Gr.A OF IS:2062-1992.
5. HOLE SIZE BEFORE GALVANISING SHOULD BE  $\phi 14.3^{+0.3}_{-0.0}$  FOR  $\phi 12.5$  HOLES &  $\phi 8.5$  mm FOR M10 TAPPED HOLES.

CONTROLLED COPY

		BHARAT HEAVY ELECTRICALS LTD., ELECTROPORCELAINS DIVISION BANGALORE - 560 012		NAME		SIGN	DATE	
				DRN		A V M		14.03.09
				CHD		S S P		14-03-09
				APPD		S.S.P		14-03-09
DEPT	GRADE OF		SCALE	WEIGHT (kg)	REF TO ASSY.DRG		ITEM No.	No.OF ITEMS
CODE	TOL DIM		NTS	5.7				
		C/M/F	(Approx)					
TITLE BOTTOM COVER PLATE FOR CAPACITOR HOUSING				CARD CODE	DRAWING No.		REV.	
					3 982 10 13224		02	
					No.OF SHEETS			

**SUPERSEDES DRG. No.**

**SHT.24 SIZE A3 420 x 297**

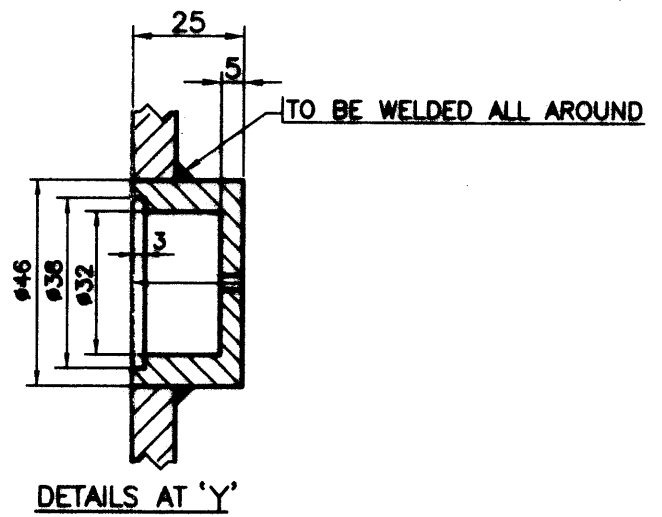
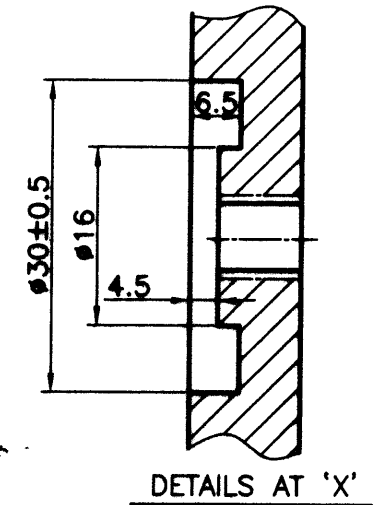
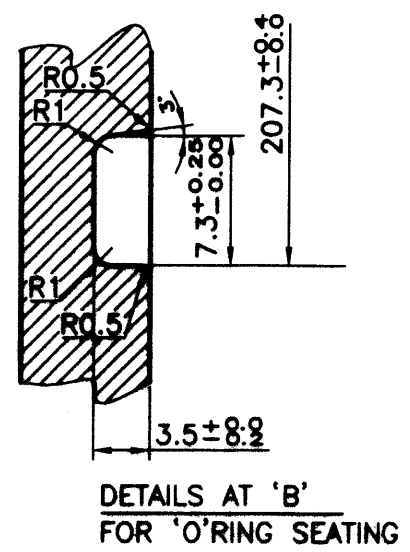
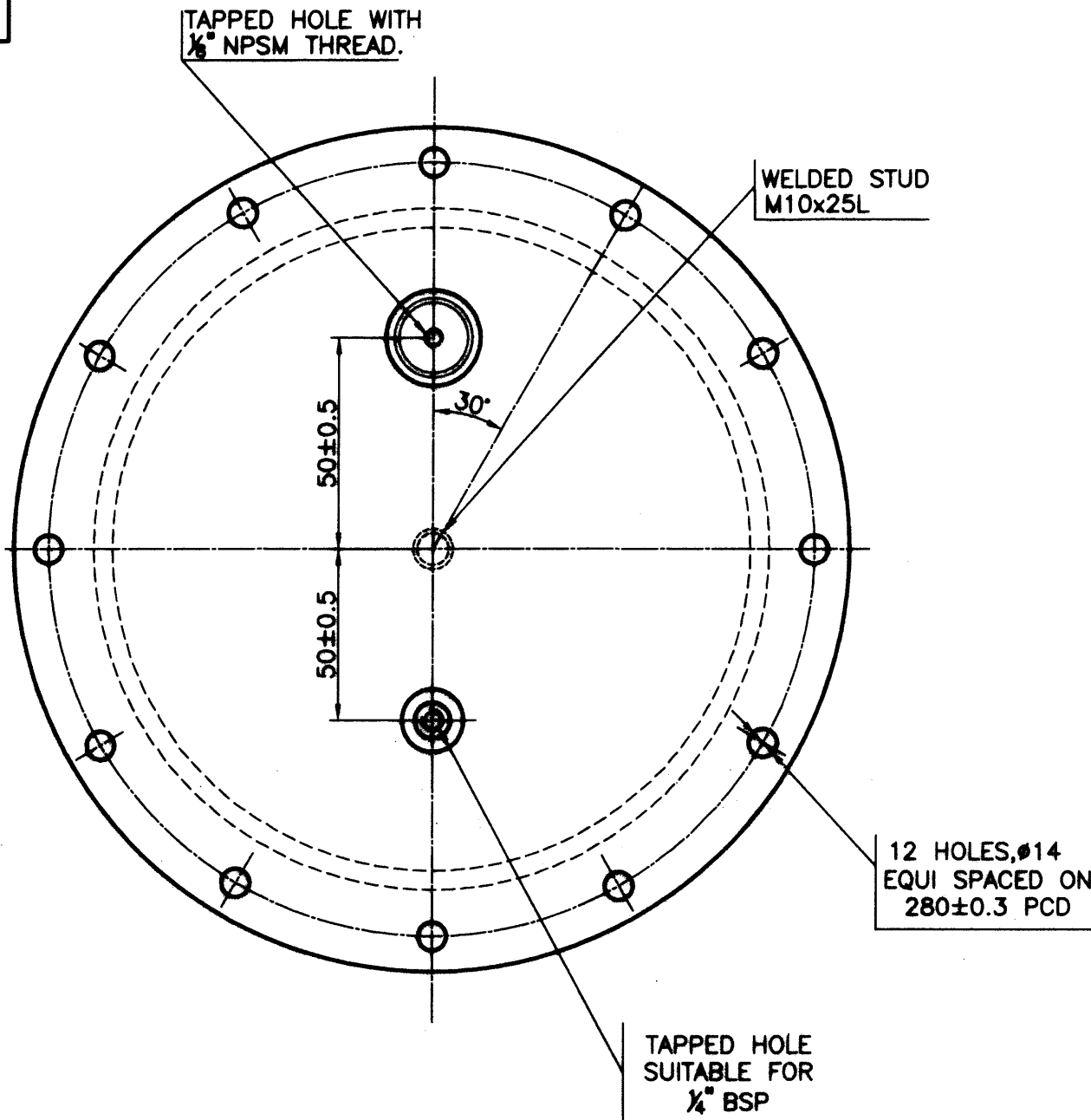
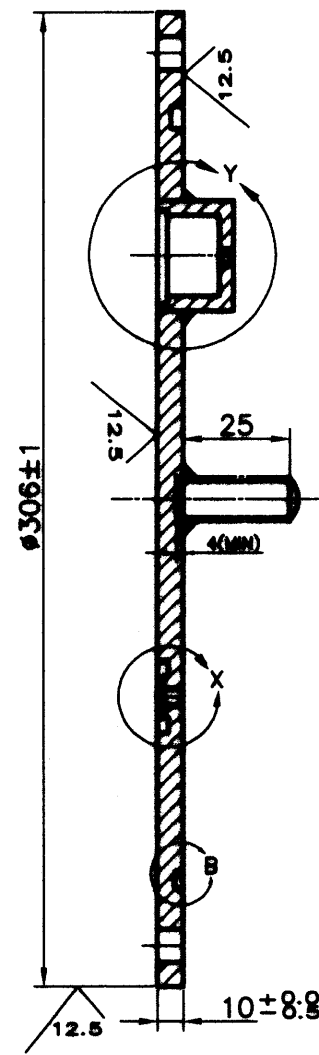
ALL DIMENSIONS ARE IN mm.

DRG No. 3 982 10 13223

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SIGN AND DATE	REF. DRG. No.

INVENTORY NO.



**NOTES:**



1. ALL DIMENSIONS ARE AFTER HOT-DIP GALVANISING.
2. GALVANISE AFTER ALL MACHINING, DRILLING AND WELDING EXCEPT FEMALE THREADS.
3. THIS ITEM IS TO BE MADE BY GAS CUTTING AND TURNING FROM A STEEL PLATE.
4. MATERIAL SHOULD CONFORM TO Gr.A OF IS:2062-1992.
5. HOLE SIZE BEFORE GALVANISING SHOULD BE  $\phi 14.3^{+0.3}_{-0.0}$
6. WELDING INDICATED SHOULD WITHSTAND A PRESSURE SEALING TEST OF 6.3 Kg/cm<sup>2</sup> FOR HALF-AN-HOUR AND THE SAME SHALL BE ENSURED FOR ALL COVER PLATES.

CONTROLLED COPY

2	HUB	STEEL	0.2	1
1	COVER PLATE	STEEL	5.7	1
ITEM No.	DESCRIPTION	MATERIAL	UNIT WT. (Lbs)	QTY.

LTD., 2012		NAME	SIGN	DATE
	DRN	PRASAD	<i>Prasad</i>	28.11.2013
	CHD	A.V.M	<i>Av. H. H. H.</i>	22.11.2013
	APPO	S.S.P	<i>[Signature]</i>	23.11.13

REV	DATE	ALTERED	REV	DATE	ALTERED	REV	DATE	ALTERED
		CHECKED			CHECKED	02	25.11.2013	CHECKED
						12 HOLES, #14 SHIFTED BY 15° DRG PREPARED.		
						REF PH.No : 5600		

		<b>BHARAT HEAVY ELECTRICALS LTD.,</b> ELECTROPORCELAINS DIVISION BANGALORE - 560 012		NAME		SIGN		DATE			
				DRN		PRASAD		Prasad		22.11.2013	
				CHD		A.V.M		A.V.M		22.11.2013	
				APFD		S.S.P		S.S.P		22.11.13	
DEPT	GRADE OF		SCALE	WEIGHT (kg)	REF TO ASSY.DRG			ITEM No.	No. OF ITEMS		
CODE	TOL DIM		NTS	-							
	C/M/F			(Approx)							
TITLE  TOP COVER PLATE FOR CAPACITOR HOUSING					CARD CODE	DRAWING No.			REV.		
						3 982 10 13223			02		
						No. OF SHEETS					

**SUPERSEDES DRG. No.**

**SHT.24 SIZE A3 420 x 297**



## PRE-QUALIFICATION REQUIREMENTS

Ref. No. : SBD/Ins. Prodn /PQR-MP

Dt : 11/01/23

ITEM : METAL PARTS (MS Components) for Porcelain Insulators

P.R.No. 12303282


S. No.	BHEL qualification requirement	Documents Required
	<b>I. PRE-QUALIFICATION CRITERIA</b>	
1	Vendor should have fabrication facilities consisting mainly cutting, grinding milling, drilling, turning & welding.	Submitted / Not submitted (Vendor should provide documentary evidence by way of manufacturing facilities & capacity etc)
2	Vendor must have supplied <b>150 nos. of Fabricated Components</b> preferably to insulators Manufacturers.	Submitted / Not submitted (vendor should provide documentary evidence by way of list of PO/Invoice)
3	Material supplied should be durable and vendor should guarantee for its durability for minimum three years in use.	Acceptable / Not acceptable
4	Vendor should accept for pre-despatch inspection of material as per BHEL drawings.	Vendor to confirm Acceptable / Not acceptable

**Note:** I) Vendors to indicate clearly for acceptance or non-acceptance against each point. Technical bid can be processed further only when points mentioned above are responded and required documents are submitted.

II) PQR Requirement listed in Sl. No. 01 & 02 is not applicable to PMD vendors under machined components for insulators category of BHEL-SBD.

**MANOJ KUMAR**  
DGM/Ins. Production



ಕುಮಾರ್ ಮನೋಜ್, ಉಪ ಪ್ರಧಾನ ವ್ಯವಸ್ಥಾಪಕರು / ಬಂಗಾಳಿ ಉತ್ಪಾದನೆ  
ಮುಖ್ಯ ಕಾರ್ಖಾನೆ, ಉಪ ಮಾಹಿತಿ / ಇನ್ಸುಲೇಟರ್ ಉತ್ಪಾದನೆ  
MANOJ KUMAR, DGM / Insulator Production  
BENGALURU-560012


 BHEL-SBD		BHARAT HEAVY ELECTRICALS LIMITED SOLAR BUSINESS DIVISION PROF.C.N.R RAO CIRCLE, IISc POST MALLESHWARAM, BENGALURU-560012				<b>STANDARD QUALITY ASSURANCE PLAN</b>			QP NO.: EPD_QP_IP_2020-21_0011 REV. NO.: 00 DATE: 27.03.2021 PAGE 1 OF 3			
						ITEM: 1.TOP COVER PLATE-3-982-10-13223 REV02 2.BOTTOM COVER PLATE- 3-982-10-13224 REV02						
SL. NO	ITEM/ COMPONENT	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY		REMARKS
1.	2.	3.	4.	5.	6.	7.	8.	9.	D *	M	B	10.
<b>A INSPECTION BY SUPPLIER AT THEIR WORKS</b>												
A.1	Top & Bottom Cover plate	Raw Material TC (Heat No, Chemical Composition, Mechanical Etc.)	Major	Documentation	100%	IS 4759:1996, BHEL Drg./BHEL Spec	IS 4759:1996, BHEL Drg./BHEL Spec	Supplier TC	✓	V	V	
A.2		Visual	Major	Physical	100%			Inspection Report	✓	P	V	
A.3		Gauge Inspection (as applicable)	Major	Physical	100%			Inspection Report	✓	P	V	
A.4		Dimensions	Major	Physical	10 per 1000 & part thereof			Inspection Report	✓	P	V	
A.5		Mass/ Thickness of Zinc coating by Elcometer	Major	Physical	Min 3 per 1000 & part thereof	IS 4759:1996, BHEL Spec./ BHEL Drg.	IS 4759:1996, BHEL Spec./ BHEL Drg.	Inspection Report	✓	P	V	610 g/m <sup>2</sup> Unless mentioned in BHEL Drg./ BHEL Spec
A.6		Uniformity of Zinc coating	Major	Chemical	Min 3 per 1000 & part thereof	IS 2633/ BHEL Spec	IS 2633/ BHEL Spec	Test Report	✓	P	V	No permanent deposit of copper for 1 min each after 4 dips Unless mentioned in BHEL Drg./ BHEL Spec
A.7		Purity of Zinc Ingot used for Galvanizing	Major	Chemical	One sample per Ingot Lot	IS 209:1992	% Zinc ≥ 99.5	Manufacturer Test Certificate & Third party Lab Test report	✓	V	V	Vendor to give COC for Manufacturer TC for usage in BHEL PO
A.8		Adhesion Test	Major	Mechanical	Min 5 per 5000 & part thereof	IS 2629 : 1985/BHEL Spec./ BHEL Drg.	No peel off	Inspection Report	✓	P	V	

**LEGEND:** \*D: RECORDS, IDENTIFIED WITH "TICK" ( ✓ ) SHALL BE ESSENTIALLY INCLUDED BY VENDOR IN QA DOCUMENTATION.

\*\* M: MANUFACTURER/SUB-VENDOR, B: BHEL/BHEL NOMINATED INSPECTION AGENCY  
 P: PERFORM W: WITNESS AND V: VERIFICATION.


FOR BHEL USE


 PREPARED BY: D K MUKHERJEE		 APPROVED BY: ADITYA		QUALITY ASSURANCE
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 BHEL-SBD		BHARAT HEAVY ELECTRICALS LIMITED SOLAR BUSINESS DIVISION PROF.C.N.R RAO CIRCLE, IISc POST MALLESHWARAM, BENGALURU-560012			STANDARD QUALITY ASSURANCE PLAN			QP NO.: EPD_QP_IP_2020-21_0011 REV. NO.: 00 DATE: 27.03.2021 PAGE 2 OF 3				
					ITEM: 1.TOP COVER PLATE-3-982-10-13223 REV02 2.BOTTOM COVER PLATE- 3-982-10-13224 REV02							
SL. NO	ITEM/ COMPONENT	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY		REMARKS
										M	B	
1.	2.	3.	4.	5.	6.	7.	8.	9.	D *	**	10.	11.
B	PRE DISPATCH INSPECTION AT VENDORS WORKS/ INSPECTION AT BHEL WORKS											
B.1	Top & Bottom Cover plate	Visual	Major	Physical	IS:2500 Ptl AQL 0.65%	IS 4759:1996, BHEL Drg./BHEL Spec	IS 4759:1996, BHEL Drg./BHEL Spec	Inspection Report	-	P / -	W/P	
B.2		Gauge Inspection (as applicable)	Major	Physical	IS:2500 Ptl AQL 0.65%	IS 4759:1996, BHEL Drg./BHEL Spec	IS 4759:1996, BHEL Drg./BHEL Spec	Inspection Report	-	P / -	W/P	
B.3		Dimensions	Major	Physical	2 per 1000 & part thereof	IS 4759:1996, BHEL Drg./BHEL Spec	IS 4759:1996, BHEL Drg./BHEL Spec	Inspection Report	-	P / -	W/P	
B.4		Mass/ Thickness of Zinc coating by Elcometer	Major	Physical	Min 3 per 1000 & part thereof	IS 4759:1996, BHEL Spec./ BHEL Drg.	IS 4759:1996, BHEL Spec./ BHEL Drg.	Inspection Report	-	P / -	W/P	610 g/m <sup>2</sup> Unless mentioned in BHEL Drg./ BHEL Spec
B.5		Uniformity of Zinc coating	Major	Chemical	Min 3 per 1000 & part thereof	IS 2633/ BHEL Spec	IS 2633/ BHEL Spec	Test Report	-	P / -	W/V	No permanent deposit of copper for 1 min each after 4 dips Unless mentioned in BHEL Drg./ BHEL Spec
B.6		Adhesion Test	Major	Mechanical	Min 5 per 5000 & part thereof	IS 2629 : 1985/BHEL Spec./ BHEL Drg.	No peel off	Inspection Report	-	P / -	W/P	



**Notes:**

- Material supplied shall be in line with BHEL Purchase Order, Technical Specification, Approved Drawings, applicable Standard References, or any other document/references.
- For first time supply by the vendor, sample approval to be obtained before bulk manufacturing from BHEL Quality/Engg.
- The SQAP shall be read in conjunction with BHEL Specification mentioned in Purchase Order and shall deem to include any additional tests as per the specification/Standard.

<b>LEGEND:</b> *D: RECORDS, IDENTIFIED WITH "TICK" (✓) SHALL BE ESSENTIALLY INCLUDED BY VENDOR IN QA DOCUMENTATION. ** M: MANUFACTURER/SUB-VENDOR, B: BHEL/BHEL NOMINATED INSPECTION AGENCY P: PERFORM W: WITNESS AND V: VERIFICATION.	FOR BHEL USE		
			
	PREPARED BY: D K MUKHERJEE	APPROVED BY: ADITYA KUMAR MOURYA	QUALITY ASSURANCE

 BHEL-SBD		BHARAT HEAVY ELECTRICALS LIMITED SOLAR BUSINESS DIVISION PROF.C.N.R RAO CIRCLE, IISc POST MALLESHWARAM, BENGALURU-560012		<b>STANDARD QUALITY ASSURANCE PLAN</b>				QP NO.: EPD_QP_IP_2020-21_0011 REV. NO.: 00 DATE: 27.03.2021 PAGE 3 OF 3				
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1.	2.	3.	4.	5.	6.	7.	8.	9.	D *	M	B	11.

4. In case of any contradiction between this SQAP, BHEL Specifications the following precedence shall be followed:
- 1<sup>st</sup>: BHEL Purchase Order Specification;
  - 2<sup>nd</sup>: This STANDARD QUALITY ASSURANCE PLAN & Applicable standard;
  - 3<sup>rd</sup>: Manufacturers plant standards
5. Packing shall be as per BHEL purchase order.
6. **BHEL reserves the right for pre-dispatch inspection at vendor works by BHEL or BHEL nominated agency.**
7. In case of pre-dispatch inspection, vendor shall raise the inspection call in the online portal URL: [www.cqir.bhel.in](http://www.cqir.bhel.in) with inspection agency as BHEL SBD and shall upload Test Certificates, Internal inspection Report as per this SQAP in CQIR Portal. Final Pre dispatch inspection report must contain joint inspection report, internal inspection report & Test certificates duly signed by inspector.
8. Original Test Certificates, Internal Tests Report (Duly Sealed & signed) as per this SQAP shall be sent along with lot for review.

<b>LEGEND:</b> *D: RECORDS, IDENTIFIED WITH "TICK" ( ✓ ) SHALL BE ESSENTIALLY INCLUDED BY VENDOR IN QA DOCUMENTATION. ** M: MANUFACTURER/SUB-VENDOR, B: BHEL/BHEL NOMINATED INSPECTION AGENCY P: PERFORM W: WITNESS AND V: VERIFICATION.	FOR BHEL USE		
			
	PREPARED BY: D K MUKHERJEE	APPROVED BY: ADITYA KUMAR MOURYA	