



BHARAT HEAVY ELECTRICALS LIMITED
SOLAR BUSINESS DIVISION
PROF.C.N.R RAO CIRCLE, IISc POST MALLESHWARAM,
BENGALURU-560012

STANDARD QUALITY ASSURANCE PLAN

ITEM: GRADING RING/ CORONA RING
(CASTED/ TUBULAR)

QP NO.: EPD_QP_CI_2021-22_0004

REV. NO.: 00

DATE: 01.07.2021

PAGE 1 OF 2

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.
A	INSPECTION BY SUPPLIER AT THEIR WORKS									
A.1	Corona Ring	Chemical Composition of Al Raw Material	Major	Chemical	1 / Ingot batch	BHEL Drg	BHEL Drg	Supplier TC	√	P V
A.2		Visual Inspection	Major	Physical	100%	BHEL Drg	BHEL Drg	Supplier TC	√	P V
A.3		Dimensions & Markings of Corona Ring including holder, clamp, support	Major	Physical	1% of Batch / Min 10 nos.	BHEL Drg	BHEL Drg	Supplier TC	√	P V
A.4		Dye Penetration Test on weld joints	Major	Physical	100%	BHEL Drg/ IS 3658	Free from crack , surface discontinuities	Inspection Report	√	P V
A.5	Fasteners	Dimension	Major	Physical	4 per lot	BHEL Drg	BHEL Drg	Supplier TC	√	P V
A.6		Chemical Composition	Major	Chemical	1 per lot/type of Fasteners	BHEL Drg	BHEL Drg	Supplier TC	√	P/ V
A.7		Mass/Thickness of Zinc Coating on galvanized components	Major	Physical	4 per lot	IS 2633	No permanent deposit of copper for 1 min each after 4 dips	Supplier TC	√	P V
B	PRE DISPATCH INSPECTION /INSPECTION AT BHEL WORKS									
B.1	Corona Ring	Visual	Major	Physical	5% of Lot	BHEL Drg	BHEL Drg	Inspection Report	-	- P
B.2		Dimensions & Markings of Corona Ring including holder, clamp, support	Major	Physical	2 nos/1000 nos or part thereof	BHEL Drg	BHEL Drg	Inspection Report	-	- P
B.3		Dye Penetration Test on weld joints	Major	Physical	IS:2500 PtII AQL 0.25%	BHEL Drg/ IS 3658	Free from crack ,surface discontinuities	Inspection Report	-	- P


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 KUMAR MOURYA	
		QUALITY ASSURANCE	

 BHBL-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_CI_2021-22_0004 REV. NO.: 00 DATE: 01.07.2021 PAGE 2 OF 2			
						ITEM: GRADING RING/ CORONA RING (CASTED/ TUBULAR)						
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.4		Chemical Composition of Aluminium Corona Ring	Major	Chemical	1 per lot	BHEL Drg	As per Grade in BHEL Drg	Inspection Report	-	-	P	NABL accredited third party lab
B.5	Fasteners	Dimension	Major	Physical	4 per lot	BHEL Drg	BHEL Drg	Inspection Report	-	-	P	
B.6		Mass/Thickness of Zinc Coating on galvanized components	Major	Physical	4 per lot	IS 2633	No permanent deposit of copper for 1 min each after 4 dips	Inspection Report	-	-	P	

Notes:



- For first time supply of any new item by the vendor, vendor should take sample approval before bulk manufacturing from Quality/Engineering.
- 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.
- Material supplied shall be in line with BHEL Purchase Order, Technical Specification, Approved Drawings, applicable Standard References, or any other document/references.
- In case of any contradiction between this SQAP, BHEL Specifications the following precedence shall be followed:
 - 1st: BHEL Purchase Order Specification;
 - 2nd: This STANDARD QUALITY ASSURANCE PLAN & Applicable standard;
 - 3rd: Manufacturers plant standards
- Packing shall be as per BHEL purchase order.
- BHEL reserves the right for pre-dispatch inspection at vendor works by BHEL or BHEL nominated agency.
- In case of pre-dispatch inspection, Supplier shall raise the inspection call in the CQIR with inspection agency as BHEL SBD URL: www.cqir.bhel.in and shall upload Test Certificates, Internal Tests Report as per this SQAP in CQIR Portal. TC to be verified w.r.t to inspected item during inspection and to be signed by the inspector.
- Original Test Certificates, Internal Tests Report (Duly Sealed & signed), test bar per heat per lot as per this SQAP shall be sent along with lot for review.

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: KUMAR MOURYA	ADITYA	QUALITY ASSURANCE