



MANUFACTURER'S NAME AND ADDRESS			STANDARD QUALITY PLAN					TO BE FILLED BY BHEL		TO BE FILLED BY BHEL		
 BHEL	VENDOR'S NAME		ITEM	DC STARTER CABINET		QP NO.	QA/BE/QP/304					
						REV. NO.	03 Date: 01.10.2022					
	DRG. No. & Rev.		As per P.O.									
	SPEC.		TG60667									
		Rev.		As per P.O.			Page 1 of 1					
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 MATERIALS											
1.1	CRCA sheet, Electricals Fittings, Equipment/ Instruments & Wiring Materials,	Material properties	Major	Physical	100%	Appd. Drg./Spec.	Appd. Drg./Spec.	TC/ COC	P	V	--	
2.0	IN PROCESS INSPECTION											
2.1	Fabrication & assembly of cabinet/panel	Weld Finish, Layout of Mounting of Equipment & it's Make, Type and Ratings	Major	Physical	100%	Appd. Drg./Spec.	Appd. Drg./Spec.	--	P	--	--	
3.0	FINAL INSPECTION											
3.1	Type test for degree of protection		Major	Electrical	-	Appd. Drg./Spec.	Appd. Drg./Spec.	TC	V	V	--	Note 3
3.2	Routine test											
3.2.1	Starter cabinet visual & dimensional checks: Dimensional Conformity with GA Drg., Waviness, Straightness, Perpendicularity, earthing size		Major	Measurement	100%	Appd. Drg./Spec.	Appd. Drg./Spec.	IR	P	W	--	
3.2.2	Starter cabinet operation: Manual Operation for its Moving Parts, Interlocking /Door Interlocking of Items, Location of Labels/Ferrule, Inspection of Wiring with Proper Size/ Type/ Grade of Power & Control Cables, Terminal blocks, Continuity of Panel Wiring, illumination, anti-vibration pad, proper earthing bus, name plate etc.		Major	Physical	100%	Appd. Drg./Spec.	Appd. Drg./Spec.	IR	P	W		
3.2.3	Starter cabinet components BOM (Make, type, rating)		Major	Physical	100%	Appd. Drg./Spec./BOM	Appd. Drg./Spec./BOM	IR	P	W	--	
3.2.4	Paint shade & paint thickness		Major	Physical	100%	Appd. Drg./Spec.	Appd. Drg./Spec.	IR	P	W	--	
3.2.5	I.R. before and after H.V. Test		Major	Electrical	100%	Appd. Drg./Spec.	Appd. Drg./Spec.	IR	P	W	--	
3.2.6	H.V. Test		Major	Electrical	100%	Appd. Drg./Spec.	Appd. Drg./Spec.	IR	P	W	--	
3.2.7	Functional checking of cabinet's various components, equipment, devices, interlock, protection circuits, indication feedback etc.		Major	Electrical	100%	Appd. Drg./Spec.	Appd. Drg./Spec.	IR	P	W	--	
3.3	Compliance of technical requirements		Major	Visual	100%	Appd. Drg./Spec.	Appd. Drg./Spec.	COC	P	W	--	
3.4	Recommended or mandatory spares (if applicable)		Major	Visual	100%	Appd. Drg./Spec.	Appd. Drg./Spec.	IR	P	W	--	
3.5	Identification and Marking		Major	Visual	100%	Appd. Drg./Spec.	Appd. Drg./Spec.	IR	P	W	--	
3.6	Soundness of Packing against Transit Damage		Major	Visual	100%	Appd. Drg./Spec.	Appd. Drg./Spec.	--	P	V	--	

Note: 1. Witness by inspection agency to be random 10% of each material code (minimum 1 piece per material code) from each lot. However, vendor to carry out 100% tests internally and tests report shall be reviewed 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. Type tests clearance from BHEL Engg. to be verified (by inspection engineer) during inspection at vendor's works. 4. 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: DRG: BHEL APPROVED DRAWING, APPD.: BHEL APPROVED, SPEC: SPECIFICATION, BOM: BILL OF MATERIAL, MTC: MATERIAL TEST CERTIFICATE, T.C.: TEST CERTIFICATE, I.R.: INSPECTION REPORTS, COC: CERTIFICATE OF CONFORMANCE, M: MANUFACTURER / SUBCONTRACTOR, B: BHEL /BHEL NOMINATED INSPECTION AGENCY, N: END CUSTOMER, 'P': PERFORM, 'W': WITNESS, 'V': VERIFICATION, "v" RECORDS IDENTIFIED WITH 'TICK' SHALL BE ESSENTIALLY INCLUDED BY CONTRACTOR IN QA DOCUMENTATION. ALL 'W' INDICATED IN COLUMN 'N' SHALL BE 'CHP' OF CUSTOMER	FOR CUSTOMER USE	APPROVED BY
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MANUFACTURER'S NAME AND ADDRESS			STANDARD QUALITY PLAN					TO BE FILLED BY BHEL		TO BE FILLED BY BHEL			
 BHEL	VENDOR'S NAME		ITEM	GENERATOR INSTRUMENT CABINET		QP NO.	QA/BE/QP/305						
						REV. NO.	00	Date: 01.10.2022					
	DRG. No. & Rev.		As per P.O.										
	SPEC.		TG60668										
		Rev.		As per P.O.			Page 1 of 1						
SL. NO.	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORDS	AGENCY			REMARKS	
									M	B	N		
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1.0	RAW MATERIALS												
1.1	CRCA sheet, Electricals Fittings, Equipment/ Instruments & Wiring Materials,	Material properties	Major	Physical	100%	Appd. Drg./Spec.	Appd. Drg./Spec.	TC/ COC	P	V	--		
2.0	IN PROCESS INSPECTION												
2.1	Fabrication & assembly of cabinet/panel	Weld Finish, Layout of Mounting of Equipment & it's Make, Type and Ratings	Major	Physical	100%	Appd. Drg./Spec.	Appd. Drg./Spec.	--	P	--	--		
3.0	FINAL INSPECTION												
3.1	Type test for degree of protection		Major	Electrical	-	Appd. Drg./Spec.	Appd. Drg./Spec.	TC	V	V	--	Note 3	
3.2	Routine test												
3.2.1	Cabinet visual & dimensional checks: Dimensional Conformity with GA Drg., Waviness, Straightness, Perpendicularity, earthing size etc.		Major	Measurement	100%	Appd. Drg./Spec.	Appd. Drg./Spec.	IR	P	W	--		
3.2.2	Cabinet operation: Manual Operation for its Moving Parts, Interlocking /Door Interlocking of Items, Location of Labels/Ferrule, Inspection of Wiring with Proper Size/ Type/ Grade of Power & Control Cables, Terminal blocks, Continuity of Panel Wiring, illumination, anti-vibration pad, proper earthing bus, name plate etc.		Major	Physical	100%	Appd. Drg./Spec.	Appd. Drg./Spec.	IR	P	W			
3.2.3	Cabinet components BOM (Make, type, rating)		Major	Physical	100%	Appd. Drg./Spec./BOM	Appd. Drg./Spec./BOM	IR	P	W	--		
3.2.4	Paint shade & paint thickness		Major	Physical	100%	Appd. Drg./Spec.	Appd. Drg./Spec.	IR	P	W	--		
3.2.5	I.R. before and after H.V. Test		Major	Electrical	100%	Appd. Drg./Spec.	Appd. Drg./Spec.	IR	P	W	--		
3.2.6	H.V. Test		Major	Electrical	100%	Appd. Drg./Spec.	Appd. Drg./Spec.	IR	P	W	--		
3.2.7	Functional checking of cabinet's various components, equipment, devices, interlock, protection circuits, indication feedback etc.		Major	Electrical	100%	Appd. Drg./Spec.	Appd. Drg./Spec.	IR	P	W	--		
3.2.8	Functional checking of level switch with probe		Major	Electrical	100%	Appd. Drg./Spec.	Appd. Drg./Spec.	IR	P	W	--		
3.3	Compliance of technical requirements		Major	Visual	100%	Appd. Drg./Spec.	Appd. Drg./Spec.	COC	P	W	--		
3.4	Recommended or mandatory spares (if applicable)		Major	Visual	100%	Appd. Drg./Spec.	Appd. Drg./Spec.	IR	P	W	--		
3.5	Identification and Marking		Major	Visual	100%	Appd. Drg./Spec.	Appd. Drg./Spec.	IR	P	W	--		
3.6	Soundness of Packing against Transit Damage		Major	Visual	100%	Appd. Drg./Spec.	Appd. Drg./Spec.	--	P	V	--		

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