

VENDOR'S NAME & ADDRESS:		TYPICAL MANUFACTURING QUALITY PLAN							MQP. NO.:				
		CUSTOMER: BHEL, HYDERABAD			BHEL PO No:				REV NO:		DATE:		
		PROJECT:			PO DATE:				PAGE 1 OF 4				
		PRODUCT: SWITCHYARD EQUIPMENTS			BHEL SPEC:				REV:				
SL NO	COMPONENTS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	* D	AGENCY			REMARKS
										P	W	V	

1	Current Transformer	Make, Model, Type, & Rating, BOM check, Test Certificate	Major	Physical	100%	BHEL Spec/ Appd drg /data sheet	BHEL Spec/ Appd drg /data sheet	IR	√	2	1, 3		1 sample /lot or 10% offered quantity whichever is more shall be witnessed by BHEL /BHEL TPIA or customer /customer TPIA
		Routine & Acceptance Test as per IS / IEC	Major	Physical	100%	As per IS /IEC standards BHEL Spec	As per IS /IEC standards BHEL Spec	IR	√	2	1, 3		-do-
		Functional requirements as per BHEL Specification	Major	Physical	Sample	BHEL Spec/ Appd drg /data sheet	BHEL Spec/ Appd drg /data sheet	IR	√	2	1, 3		-do-
2	Voltage Transformer	Make, Model, Type, & Rating, BOM check, Test Certificate	Major	Physical	100%	BHEL Spec/ Appd drg /data sheet	BHEL Spec/ Appd drg /data sheet	IR	√	2	1, 3		-do-
		Routine & Acceptance Test as per IS / IEC	Major	Physical	100%	As per IS /IEC standards BHEL Spec	As per IS /IEC standards BHEL Spec	IR	√	2	1, 3		-do-
		Functional requirements as per BHEL Specification	Major	Physical	Sample	BHEL Spec/ Appd drg /data sheet	BHEL Spec/ Appd drg /data sheet	IR	√	2	1, 3		-do-

LEGEND: P: PERFORM, W: WITNESS, V: VERIFICATION. INDICATE 1 FOR BHEL CQS (OR BHEL NOMINATED INSPECTION AGENCY) & 2 FOR VENDOR/SUB VENDOR 3. CUSTOMER /CUSTOMER'S CONSULTANT AS APPROPRIATE AGAINST EACH COMPONENT /CHARACTERISTIC UNDER P, W & V COLUMNS. * FOR ITEMS MARKED √ (TICK) IN COLUMN 'D', TEST CERTIFICATES SHALL BE SUBMITTED TO BHEL FOR RECORDS.

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3	ACSR conductor	Make, Model, Type, & Rating, BOM check, Test Certificate for mechanical properties, chemical composition	Major	Physical	100%	BHEL Spec/ Appd drg /data sheet	BHEL Spec/ Appd drg /data sheet	IR	√	2	1, 3		-do-
		Routine & Acceptance Test as per IS / IEC	Major	Physical	1 sample /each size	As per IS /IEC standards BHEL Spec	As per IS /IEC standards BHEL Spec	IR	√	2	1, 3		-do-
4	Clamps & Connectors & bolts & nuts	BOM check, Test Certificate for mechanical properties, chemical composition	M	Physical	100%	BHEL Spec/ Appd drg /data sheet	BHEL Spec/ Appd drg /data sheet	IR	√	2		1, 3	
5	Surge Arrestor for metering yard	Make, Model, Type, & Rating, BOM check, Test Certificate	Major	Physical	100%	BHEL Spec/ Appd drg /data sheet	BHEL Spec/ Appd drg /data sheet	IR	√	2	1, 3		1 sample /lot or 10% offered quantity whichever is more shall be witnessed by BHEL /BHEL TPIA or customer /customer TPIA
		Routine & Acceptance Test as per IS / IEC	Major	Physical	100%	As per IS /IEC standards BHEL Spec	As per IS /IEC standards BHEL Spec	IR	√	2	1, 3		-do-

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		Functional requirements as per BHEL Specification	Major	Physical	Sample	BHEL Spec/ Appd drg /data sheet	BHEL Spec/ Appd drg /data sheet	IR	√	2	1, 3		-do-
6	GOS Isolator with Earth Switch	Make, Model, Type, & Rating, BOM check, Test Certificate	Major	Physical	100%	BHEL Spec/ Appd drg /data sheet	BHEL Spec/ Appd drg /data sheet	IR	√	2	1, 3		-do-
		Routine & Acceptance Test as per IS / IEC	Major	Physical	100%	As per IS /IEC standards BHEL Spec	As per IS /IEC standards BHEL Spec	IR	√	2	1, 3		-do-
		Functional requirements as per BHEL Specification	Major	Physical	Sample	BHEL Spec/ Appd drg /data sheet	BHEL Spec/ Appd drg /data sheet	IR	√	2	1, 3		-do-
7	GI Structural Steel for 33 KV metering yard for mounting of CTs, PTs, GOS isolator, LAs, supporting ACSR conductor, 33kV cable support etc.	BOM check, Test Certificate for mechanical properties, chemical composition	M	Physical	100%	BHEL Spec/ Appd drg /data sheet	BHEL Spec/ Appd drg /data sheet	IR	√	2		1, 3	
8	PACKING*	Proper packing	Major	Visual	100%	BHEL Spec	BHEL Spec	Report/ Packing list	√	2		1	*In case of exporting/ importing, packing shall be as per BHEL export packing spec

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Notes:-

1. This MQP should be read along with specification (latest revision as per PO), approved drawings & approved datasheet.
2. Drawing/datasheet shall prevail over quality plan for contradiction if any.
3. Any project/customer specific requirements which shall be notified have to be fulfilled by the vendor at the time of execution of order.
4. **This is an indicative list of tests /checks. The manufacturer is to furnish each equipment wise detailed QAP in BHEL format which is attached separately indicating practice and procedure (meeting IS /IEC /relevant standards) along with relevant supporting documents.**

Abbreviations:-

MTC – Material Test certificate	AS – Alloy Steel
IBR – Indian Boiler Regulations	SS – Stainless Steel
DFT – Dry Film Thickness	TC – Test Certificate
PMI – Positive Material Identification	IS – Indian Standards
IR – Inspection Record	

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