

MANUFACTURER'S NAME & ADDRESS		Annexure-2 MANUFACTURING QUALITY PLAN						PROJECT : For Switchgear Application						
		ITEM : Jaw contact assembly to drawing no. 15212001531-V03			QP NO. : REV. : DATE : Page 1 of 5			PO No. : PO Date :						
Sl. No	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT#	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY			REMARKS / MAKE
1.	2.	3.	4.	5.	M	C/N	7.	8.	9.	D*	M	C	N	11.
Note: 1) Manufacturer shall make a comprehensive vendor list for all raw material and bought out items approval on the vendor list will be given during technical scrutiny of offer.														
A Raw material														
1.	Copper Flat/Copper Strip	1) Dimensions	Major	Meas	1 sample / type / size / lot	-	IS-1897 & IS- 613 AA 12023 AA12003 SG12717	IS-1897 & IS- 613 AA 12023 AA12003 SG12717	QC record		P	P	-	
		2) Surface finish	Major	Visual	-do-	-			QC record		P	P	-	
		3) Conductivity	Major	Elec	As per IS	-			Supplier TC		V	V	V	
B Bought out items :														
1.	O Ring	1) Dimensions, profile & Visual Inspection	Minor	Meas	1 sample / type / size / lot	1 sample / type / size / lot	AA 59803 & BHEL Drawing	AA 59803 & BHEL Drawing	QC Record		P	P	V	M/s Bosco Make
		2) Shore Hardness, tensile & elongation before and after ageing	Critical	Test	-do-	-do-	-do-	-do-	Supplier TC		P	V	V	
		3) Compression	Critical	Test	-do-	-do-	-do-	-do-	Supplier TC		P	V	V	
		4) Functional test	Major	By Test	-do-	-	Mnfr std.	Mnfr std.	Supplier TC		P	V	V	

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1.	2.	3.	4.	5.	6		7.	8.	9.	D*	**	10.	11.	
2.	Spring	1) Dimensions	Major	Meas	2/Lot	-	AA 10301 BHEL Drawing	BHEL Drawing SG12717	Supplier TC		P	V	V	M/s Precision , aditya Industries, , Jagruti enterprises, Gala Precision , L B Enterprises
		2) Functional test	Critical	Test	1 /Lot	-			Supplier TC		P	V	V	
3.	Disc Washer	1) Dimensions	Major	Meas	2/Lot	-	BHEL Drawing	BHEL Drawing	Supplier TC		P	V	V	M/s Precision , aditya Industries, , Jagruti enterprises, Gala Precision , L B Enterprises
		2) Functional test	Critical	Test	1 /Lot	-			Supplier TC		P	V	V	
4.	Hardwares	1) Dimensions	Major	Meas	2/Lot	-	BHEL Drawing	BHEL Drawing	Supplier TC		P	V	V	
		2) Functional test	Critical	Test	1 /Lot	-			Supplier TC		P	V	V	
D In – Process														
1.	Copper components	Cutting, Bending, Pressing	Major	Meas	1 Sample	-	BHEL Standard	BHEL standard	BHEL Drg.		P	V	V	
		Silver Plating Thickness	Major	Meas	1 Sample	-	BHEL Standard	BHEL standard	BHEL Drg.		P	V	V	
		Electrical conductivity (97% minimum IACS)	Major	Test	1 Sample		appendix B of IS613	appendix B of IS613	Supplier TC		P	V	V	
		Adhesion test	Major	Test	1 Sample		BHEL Standard	BHEL standard	BHEL Drg.		P	V	V	
		Anti tarnishing	Major	Test	1 Sample		BHEL Standard	BHEL standard	BHEL Drg.		P	V	V	
2														

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					M	C/N					D*	M	C	N	
1.	2.	3.	4.	5.	6		7.	8.	9.			10.			11.
E. Final Jaw contact Assembly															
		1) Verification of completeness of assembly	Major	Visual	100%	-	BHEL Drg.	BHEL Drg.	QC Records			P	V	V	
		2) Manufacturer's logo and unit Sl. No. on Assembly	Major	Visual	100%	-	BHEL specification	BHEL specification	QC Records			P	V	V	
		3) Spring loaded contact alignment	Major	Visual	100%	-	Mnfr std.	Mnfr std.	QC Records			P	V	V	
		4) Contact pressure setting 30-35 kgf for each pair of finger assembly	Major	Meas	100%		BHEL Drg.	BHEL Drg.							
Note: Test Certificates to be submitted to BHEL for verification.															
F Final Inspection															
		1. Overall aesthetics	Major	Visual	100%	Random	BHEL Drg.	BHEL Drg.	Supplier TC			P	-	W	
		2. Verification of overall dimensions	Major	Meas.	100%	10%	BHEL Drg.	BHEL Drg.	Supplier TC			P	-	W	
		3. Dimension of L connector	Critical	Meas. & Visual	100%	10%	BHEL Drg.	BHEL Drg.	Supplier TC			P	-	W	
		4. Angle verification of L connector	Critical	Meas. & Visual	100%	10%	BHEL Drg.	BHEL Drg.	Supplier TC			P	-	W	
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1.	2.	3.	4.	5.	6		7.	8.	9.	D*	**	10.		11.
		5. Grooves depth of connector	Critical	Meas. & Visual	100%	10%	BHEL Drg.	BHEL Drg.	Supplier TC		P	-	W	
		6. Measurement of tightness of hardware's by torque wrench	Critical	Meas.	100%	5 samples / lot	SG14608	40 Nm	Supplier TC		P	-	W	
		7. Hardware fixing as per drawing	Major	Visual	100%	1 sample / lot	BHEL Drawing	BHEL Drg.	Supplier TC		P	-	W	
		8. Make, of bought out Components.	Major	Visual	100%	10%	BHEL Approved vendor list	BHEL Approved vendor list	Supplier TC		P	-	W	
		9. Visual observation for burrs, cuts, cracks	Major	Visual	100%	10%	BHEL specification	Supplier TC	Supplier TC		P	-	W	
		10. Silver plating thickness, anti tarnishing, conductivity test report	Major	Meas.	100%	10%	BHEL specification	BHEL Specification	Supplier TC		P	-	W	
		11. Assembly completeness with all hardware's	Major	Visual	100%	10%	BHEL specification	BHEL Specification	Supplier TC		P	-	W	
		12. Contact pressure measurement	Major	Meas.	100%	10%	BHEL specification	BHEL Specification	Supplier TC		P	-	W	

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1.	2.	3.	4.	5.	6		7.	8.	9.			**	10.	11.
G Packing														
		Sturdiness and Protection (To be packed in bubbled polythene)	Major	Visual	100%	-	Mnfr std	Mnfr std	QC record		P	-	-	

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