

PSGSG 2015-16 / 009	Product Specifications for Terminal 32	Drg. No.	
		Date	30.09.2015
		Product	GSM 420
S. No.	BHEL Specification	Vendor Compliance (Yes/No)	Vendor remarks/ description
1.0	APPLICATION: Current carrying contacts for Gas Insulated Switchgear Equipment		
2.0	Configuration: 1) Sintered W-Cu (70-30 %), welded (by electron Beam welding process) to the high conductivity copper–Cr alloy. 2) Machined to drawing dimensions.		
3.0	Quantity: 20 nos. of terminal 32		
4.0	Specifications: 1. Dimension Drawings: Refer Drg No. RDDG 4 35 0617 0222A 2. Material: a) Tungsten-copper b) copper- chromium alloy		
4.1	W-Cu A sintered matrix of W-Cu (70-30 %) shall be produced by PM technique. The sintering shall be carried out in neutral or reducing atmosphere. The ingredient (powders) shall have high purity.		
4.2	Cu-Cr Alloy: Copper: 99 %, Chromium: 1 %. This alloy shall be made using fine alloying practices so as to minimize occlusion of gases. The oxygen content shall not exceed 100 ppm. Vacuum metallurgy for alloying is preferred. The copper used for alloying shall be 99.97 % pure. Electrolytic grade is preferred. Electrical conductivity of Cu-Cr Stem shall be greater than 82 %. (IACS)		
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4.3	Silver Plating: The component shall be finished to final dimensions prior to silver plating. Silver plating to a thickness of 10-12 microns shall be done on the marking area. An initial flash of 2 micron nickel is advised.		
5.0	Qualifying Requirements: The supplier shall be of national / International repute with proven record and should have supplied arcing / current carrying contacts for electrical applications. The supplier must submit along with the quotation a few references to whom the supplier has supplied a similar material.		
6.0	Tests: (a). Dimensional: All dimensions shall comply to drawing measures. (b). The component shall be subjected to micro-ohm measurement test, using 100 A DC source and shall measure less than one micro-ohm at the welding interface.		
7.0	Packing : The contacts shall be packed in high density cardboard boxes, with a primary wrapped in polyethylene and packed individually in dust free boxes after degreasing. The component shall be guaranteed against all manufacturing defects.		
8.0	General : 1) Surface finish of the components shall be at least RA 1.6. 2. The component shall be free from dirt, grease and loose particles.		
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