

PSGSG 2014-15 / 007	Product Specifications For MOVABLE ARCING CONTACT FOR GCB		Drg. No.	RDDG 435 1351 1511A
			Date	15.07.2014
			Product	CGSM 145
1.0	Application : Movable arcing Contacts for Gas Insulated Circuit Breaker			
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	Specifications: 1. Dimension Drawings : Refer Drg No. RDDG 435 1351 1511A 2. Material: : Tungsten-Copper, Cu-Cr alloy (a). 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. (b). Cu-Cr Alloy Copper: 99 %, Chromium: 1 %. This alloy shall be made using fine alloying practices so as to minimise 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) Electron Beam Welding (EBW): The component shall be finished to size before electron beam welding at the interface. The interface will be between High conductivity copper- Cr alloy and W-Cu Tip. The interface shall be welded to full depth. The welding joint between Cu-Cr alloy and W-Cu tip shall exhibit minimum contact resistance. The Component shall be free from dirt, grease and loose particles.			
4.0	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.			
5.0	Qualifying Requirements: The supplier shall be of national / International repute with proven record and should have supplied arcing contacts for electrical applications at least for last three years. The supplier must submit along with the quotation a few references to whom the supplier has supplied a similar material.			
6.0	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.			
1/1	PSGSG 2014-15 / 007		Signature	