

PSGSG/ 20-21/001 REV. 00	Product Specifications For CT CORES for GSM		Drg. No.																			
			Date	22.06.2020																		
			Product	GSM 245																		
1.0 2.0 3.0 4.0 4.1 4.2	Application : Current Transformer Cores for 245kV Gas Insulated Switchgear Equipment Configuration : The cores shall be ring type and designed within specified IDXODXH dimensions. Quantity : Type – I : 4 No.s of Metering Core Type – II : 4 No.s of Protection Core Type – III : 4 No.s of Protection Core Type – IV : 4 No.s of Protection Core Specifications: Material: For metering core (Type I) : Nickel Material shall be used preferably. For protection core (Type II, III & IV): GOSS (Grain Oriented silicon steel) or equivalent shall be used. Core winding insulation: Polyester film Secondary Terminal: 4.0 Sq. mm silver plated, Teflon insulated high conductivity stranded copper wire/cable or equivalent of min 1000 mm length. Metering core shall be developed with the following specifications: <table border="1" style="width: 100%;"> <tr> <td>Technical specification</td> <td>Type I (Metering)</td> </tr> <tr> <td>Standard</td> <td>IEC 61869-2</td> </tr> <tr> <td>Frequency</td> <td>50 Hz</td> </tr> <tr> <td>Ratio</td> <td>1600-800-400 / 1</td> </tr> <tr> <td>Burden (VA)</td> <td>20</td> </tr> <tr> <td>Class</td> <td>0.2, ISF ≤ 10</td> </tr> <tr> <td>Thermal Current</td> <td>50 kA minimum, 3 sec. Vendor shall specify the maximum possible current rating for the design.</td> </tr> <tr> <td>CT dimensions IDxODxH (mm)</td> <td>ID 325 (-0/+3), OD≤475, H 75 (+5/-10) With insulation</td> </tr> <tr> <td>Quantity</td> <td>4 Nos.</td> </tr> </table>			Technical specification	Type I (Metering)	Standard	IEC 61869-2	Frequency	50 Hz	Ratio	1600-800-400 / 1	Burden (VA)	20	Class	0.2, ISF ≤ 10	Thermal Current	50 kA minimum, 3 sec. Vendor shall specify the maximum possible current rating for the design.	CT dimensions IDxODxH (mm)	ID 325 (-0/+3), OD≤475, H 75 (+5/-10) With insulation	Quantity	4 Nos.	Vendor Compliance
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2/4	PSGSG 20-21/001 REV. 00.doc			Signature																					

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5.0	Winding Process: Polyester film shall be built over the core for considerable thickness (at least few layers). Enameled copper wire shall be wound on this. The diameter of copper wire shall be minimum of 1.25 to 1.6 mm. Vendor shall specify the diameter of wire along with offer. Polyester film shall be wrapped between the winding layers. The soldered area shall be insulated with sleeve. Minimum two layers of Polyester film shall be wrapped after winding. Polyester band shall be developed after final insulation. The terminal connection shall be made with 4.0 Sq. mm silver plated, Teflon insulated high conductivity stranded copper wire/cable or equivalent of minimum 1000mm length. The terminal connections shall be held firmly so as not to transfer pull load on to soldered joint. The end of the terminal wire shall be tinned, ready for crimping/ soldering in to lugs. The final dimensions (IDxODxH) of the core shall be specified along with the offer.																							
3/4	PSGSG 20-21/001 REV. 00.doc		Signature																					

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6.0	Tests and Reports: (a). Dimensional: All dimensions shall comply to design specifications. (b). The cores shall be subjected to all tests specified in IEC and corresponding test reports shall be submitted along with supply of Material. Following reports shall be submitted along with the delivery: 1. Magnetic characteristics of materials used. 2. Accuracy measurements at different currents / Current vs accuracy plots. 3. Knee voltage / performance parameters measurement characteristics. 4. Phase angle error plots at different currents. 5. All other measurements carried out to qualify Core as per IEC 61869-2		Vendor Compliance
7.0	Packing : The cores shall be packed in high density cardboard boxes or equivalent, with a primary wrapped in polyethylene or equivalent and packed individually in dust free and moisture free boxes. The components shall be guaranteed against all manufacturing defects.		
4/4	PSGSG 20-21/001 REV. 00.doc		Signature