Permanent Magnets Ltd., India **Spec No: 23/Rev 00/10.12.2016**

Specification for 200A (rated) DC immune Core Size 50x60x10

1. Core Description:-

Combination of Toroidal core, one amorphous core and one nano core, both placed in one housing for 200A (rated) DC immune CT.

2. Details of Toroidal core 1 :

Size Description:-

Core In mm with tolerance
OD 60±0.2
ID 55±0.2
Height 10.0±0.1
Material Grade: Amorphous core (Iron Based)
Magnetic Properties: - Initial permeability: 1250±150 at 1 KHz Frequency and U=1V

3. Details of Toroidal core 2 :

Size Description:-

Core In mm with tolerance
OD 53.5±0.2
ID 50.0±0.2
Height 10.0±0.1
Material Grade: Nano crystalline (Iron Based)
Magnetic Properties: - Initial permeability: 84000 at 50 Hz frequency (Minimum)
Coercivity: 0.8 mA/cm(Maximum)

4. Outer housing dimension in mm with tolerance:

OD 65.0 +0.5/-0
ID 47.5 -0.5/+0
Height 14+0.5/-0
Casing material: PBT or equivalent
(Note: Both the cores will be positioned in above housing.)

	Properties	Nano Crystalline	Amorphous
Magnetic Properties	Bs (Tesla)	1.25	1.56
	Br (Tesla)	0.6 ~ 0.7	0.8
	μ i(min) at 50Hz and Hmax=0.8mA/cm	>80,000	>1100(at 1000Hz)
	μ max(min) at 50 Hz	>2,00,000	-
	H_c(max) (A/m)	0.8	4
	Core loss(max)(W/kg) at 50Hz	0.05	0.5
Chemical Composition (Atomic %)	%Fe	Balance %	Balance %
	%Cu	1%	0%
	%Nb	3%	0%
	%Si	13.5% to 15.5%	13.5% to 15.5%
	%B	6% to 8%	6% to 8%
Physical Properties	Curie Temp(°C)	560	410
	Density (gmslcc)	7.2	7.2
	Resistivity(μ.Ω.cm)	130	130
	Working (max allowed temperature in degree C)	130	130