

WINDING DETAILS (Copper Wound)

Design No : 25KVA

Rating : 25 KVA 11 / 0.415 KV

DESCRIPTION		Cooling Type	ONAN	Vector Group	Dyn11
Rating (KVA)	25	HV Voltage	11000	LV Voltage	415
HV Current(A)	1.32	LV Current(A)	34.78	Taps (V)	-7.5 to 2.5

PARAMETERS	UNIT	LV	HV
Type of winding		Layer	CO
Winding direction		L-R	L-R
Minimum turns	No	-	4332
Normal turns	No	102	4683
Maximum turns	No	-	4800
Rated Phase current	Amp	34.78	0.76
Discs / Layers/ Coils	No	4	4
Coils of Disc/ Foil	No	-	-
Turns per Coil	No	-	1200
Layers	No	-	28
Turn per Disc / Turn per Layers	No	25.5	43
Insulation between Discs/ Layers (Axial)	mm	0.12	0.12
Ducts	No	-	-
Size of each duct	mm	-	-
Type of conductor		Rectangular	Round
Type of conductor covering	No	S.E	S.E
Conductor radially	No	1	1
Conductor axially	No	1	1
Total conductors	No	1	1
Bare conductor width/ conductor diameter	mm	4.9	0.635
Bare conductor thickness	mm	2.5	-
Paper covering over conductor (both side)	mm	0.5	0.1
Insulated conductor thickness	mm	3	0.74
Diameter compensation of insulation	mm	-	-
Radial thickness of winding	mm	13	24
Radial clearance between Core-LV/ LV-HV/ HV-Reg	mm	2.5	8
Inside diameter	mm	99	141
Outside diameter	mm	125	189
Height of total Disc (Electrical Height)	mm	143	131
Insulation gap between HV and tap section (Axially)	mm	-	-
Height of insulation	mm	-	12
Insulation for Gap between coils	mm	-	4
Extra packing	mm	-	-
Over all axial length of Winding (Physical Height)	mm	143	143
Top clearance	mm	7	7
Bottom clearance	mm	7	7

Leg Length/WH	mm	155	Core Diameter	mm	94
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Center Length/WW	mm	205	Phase to phase clearance	mm	12
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Tech. Parameter	Guar.	Design	Resistance in Ohms at 75 °C		Ambient	Temp. Rise (°C)	
			LV (Ohms)	0.06684	Temp.(°C)	Winding	Oil
Gradient LV	-	16.0784	HV (Ohms)	164.8512	50	50	40
Gradient HV	-	2.2468	Losses @ 50 & 100 % Load		Copper Weight Detail (Kg)		
I ² R @ 75°C LV	-	242.56	50 % Load	211.4 (W)	LV Copper	12.6	
I ² R @ 75°C HV	-	278.69	100 % Load	636.78 (W)	HV Copper	23.54	
Eddy Loss	-	4.314	Total Load Losses At 100% Load		Conductor Length (Mtrs)		
Stray Loss	-	41.61	@ Lowest Tap	588.6 (W)	LV	36.89	
No Load Loss (W)	98	69.61	@ Highest Tap	559.3 (W)	HV	2488.32	
Load Loss (W)	512	567.17					
Total Loss (W)	-	636.78					
%R	-	2.27					
%X	-	3.35					
%Z	4	4.05					