



GUARANTEED TECHNICAL PARTICULARS

Sl. No.	Description	UNIT	150 kVA
1)	Make		M/s. Shirdi Sai Electricals Ltd.
2)	Type		Distribution Transformer
3)	Phases	No.	Three
4)	Rating	kVA	150
5)	Applicable Standard		IEC 60076
6)	Voltage:		
	HV	V	20500
	LV	V	1000 - 410
7)	Current:		
	HV	Amps	4.22
	LV	Amps	43.3-105.61
8)	Tapping		Off Circuit Tap Changer
9)	Tap Range		+5% to -5% in steps of 2.5%
10)	Frequency	Hz	50
11)	Vector Group		Dyn11yn11
12)	Insualtion Level		
	HV	BIL/PF	LI 125 kV peak / AC 50kV rms
	LV	BIL/PF	LI 20 kV peak / AC 10kV rms for LV 1000V --- / AC 3kV rms for LV 410V
13)	Winding material		Aluminium
14)	Core Material		CRGO
15)	No load Current @ 100% Load	%	≤ 2.0% of Full load current
16)	Oil		Inhibited mineral oil as per IEC 60296
17)	Temperature Rise:		
	Oil	°C	60
	Winding	°C	65
18)	Losses		
	Guaranteed No Load Losses	Watts	179
	Guaranteed Load Losses	Watts	1666
	Losses		As per EU Tier 2 Losses
19)	Impedance Voltage HV-LV1(1000V) HV-LV2(410V)	%	4% (+/- IEC Tol.) 4% (+/- IEC Tol.)
20)	Regulation at:		
	Full Load UPF	%	1.18
	Full Load 0.8 PF	%	3.22
21)	Efficiency at UPF at		
	Full Load	%	98.78
	¾ Full Load	%	99.02
	½ Full Load	%	99.21
22)	Efficiency at 0.8 PF:		
	Full Load	%	98.49
	¾ Full Load	%	98.78
	½ Full Load	%	99.02
23)	Terminal Arrangement:		
	HV		Porcelain Bushings
	LV		Porcelain Bushings
24)	Oil	Kg	448
25)	Total Weight	Kg	1650
26)	Overall Dimensions	mm	Length: 1160 ; Width: 910 ; Height: 1750
Fittings & Accessories			
1	HV Porcelain bushings		
2	LV Porcelain bushings		
3	Oil level indicator		
4	Pressure relief valve		
5	Off circuit tap changer		
6	Oil draining device		
7	Corrugation panel		
8	Base channels		
9	Surge arrester mounting bracket		
10	Lifting lugs		
11	Earthing terminals		
12	Rating plate		
NOTE:	1. All weights and dimensions are subject to ±10% tolerance. However, overall weight & dimensions shall not exceed the maximum values as per the Technical Specification.		
	2. Efficiency and regulation are calculated based on the guaranteed values of losses and impedance @ 75°C.		
	3. No load loss & Load loss at 75°C are guaranteed as per EU Tier-2 requirements. In calculation of EU Tier-2 losses for transformer, correction factors are considered as per Table 1.3b of EU 548/2014 Regulations and its amendment 1783/2019 i.e. 15% for no load loss and 10% load loss over the losses specified in Table 1.1.		
	4. Turns Ratio for Dual LV Tranformer:- The tolerances will be in accordance with IEC 60076 standard, however the ratio error at voltage of 410V may be higher upto 0.8% for the tranformer ratio		