

TOSHIBA	Toshiba Transmission & Distribution Systems (India) Pvt.Ltd. Distribution Transformers Division	Engineering
		Unit-10

GUARANTEED TECHNICAL PARTICULARS THREE PHASE DISTRIBUTION TRANSFORMER					
Tender No : 09921-13		Customer :- KKM Power OY Tender No :- DTR; SUPPLY TO SWEDEN THROUGH KKM, FINLAND			
kVA : 500	kV :22/0.42	Phase : 3	Freq. : 50Hz	Cooling : ONAN	Doc No: EGT 39626
Sl. No.	Description	UNIT	500 kVA		
1)	Make		Toshiba Transmission & Distribution Systems (India) Pvt. Ltd		
2)	Type		Hermitically Sealed		
3)	Phases	No.	Three		
4)	Rating	kVA	500 kVA		
5)a)	Rated Voltage:				
	HV	V	22000		
	LV	V	420		
b)	Highest voltage for equipment				
	HV	kV	24		
	LV	kV	1		
6)	Tapping		Yes, +5% to -5% insteps of 2.5%		
7)	Frequency	Hz	50		
8)	Vector Group		Dyn11		
9)	Insulation Level				
	HV	kV peak	125		
	LV	kV peak	Not Applicable		
10)	Power Frequency Level				
	HV	kV rms	50		
	LV	kV rms	3		
11)	Winding material		Aluminium		
12)	Core Material		CRGO		
13)	Temperature Rise:				
	Oil	°C	60		
	Winding	°C	65		
14)	Losses				
	No Load Losses at rated Voltage and Frequency	Watt	510 (MAX)-A0		

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	Load Losses at 75 °C	Watt	5500 (MAX)-Ck	
15)	Impedance Voltage	%	4% (+/- IEC Tolerance Applicable)	
16)	Percentage Resistance	%	1.10	
17)	Regulation at:			
	Full Load UPF	%	1.17	
	Full Load 0.8 PF	%	3.22	
18)	Efficiency at 0.8 PF:			
	Full Load	%	98.52	
	¾ Full Load	%	98.81	
	½ Full Load	%	99.07	
19)	Terminal Arrangement:			
	HV		Bare Porcelain Bushings	
	LV		Bare Porcelain Bushings	
20)	Maximum Overall Dimensions:			
	Length	mm	1635	
	Width	mm	1000	
	Height	mm	1905	
21)	Overall Weight			
	Total Weight	Kg.	1950	
22)	Noise Level	LwA dB (A)	51	

Note:

1. Actual overall dimensions and weights are subjected to +/-10% Tolerance, provided that the tolerance is not exceeded the maximum value defined.
2. All the efficiencies and regulations are calculated at the nominal values of NLL, LL @ 75DegC and %Z @75 DegC.
3. Lowest cold start temperature shall be considered as -30°C.