

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

GUARANTEED TECHNICAL PARTICULARS THREE PHASE DISTRIBUTION TRANSFORMER					
Tender No : 09573-5		Customer :- KKM POWER OY, FINLAND Tender No :- 233449			
kVA : 500	kV :20.5/0.41	Phase : 3	Freq. : 50Hz	Cooling : ONAN	Doc No: EGT 38072
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)	Voltage:				
	HV	V		20500	
	LV	V		410	
6)	Tapping			Not Applicable	
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	
	Load Losses at 75 °C	Watt		5500 (MAX)-Ck	
15)	Impedance Voltage	%		4% (+/- IEC Tolerance Applicable)	
16)	Percentage Resistance	%		1.10	

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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)	Actual Overall Dimensions:			
	Length	mm	1325	
	Width	mm	935	
	Height	mm	1530	
21)	Overall Weight			
	Total Weight	Kg.	1915	
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.