

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

**GUARANTEED TECHNICAL PARTICULARS
THREE PHASE DISTRIBUTION TRANSFORMER**

Enquiry No : 10223-7	Customer : KKM POWER , FINLAND				
kVA : 1000	kV :11/0.42	Phase : 3	Freq. : 50Hz	Cooling : ONAN	Doc No: EGT 40751R1

Sl. No.	Description	UNIT	1000 kVA
1)	Make		Toshiba Transmission & Distribution Systems (India) Pvt. Ltd
2)	Type		Hermitically Sealed
3)	Phases	No.	Three
4)	Rating	kVA	1000 kVA
5)a)	Rated Voltage:		
	HV	V	11000
	LV	V	420
b)	Highest voltage for equipment		
	HV	kV	12
	LV	kV	1
6)	Tappings		+5.0% to -5.0 % in steps of 2.5%
7)	Frequency	Hz	50
8)	Vector Group		Dyn 11
9)	Insulation Level		
	HV	kV peak	75
	LV	kV peak	Not Applicable
10)	Power Frequency Level		
	HV	kV rms	28
	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	770 (MAX)-A0
	Load Losses at 75 °C	Watt	10500 (MAX)-Ck
15)	Impedance Voltage	%	6% (+/- IEC Tolerance Applicable)

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16)	Percentage Resistance	%	1.05	
17)	Regulation at:			
	Full Load UPF	%	1.22	
	Full Load 0.8 PF	%	4.47	
18)	Efficiency at 0.8 PF:			
	Full Load	%	98.61	
	¾ Full Load	%	98.90	
	½ Full Load	%	99.16	
19)	Terminal Arrangement:			
	HV		Bare Bushings – Porcelain-12kV/250A	
	LV		Bare Bushings – Porcelain-1kV/2000A	
20)	Actual Overall Dimensions:			
	Length	mm	As per OGA drawing.	
	Width	mm	As per OGA drawing	
	Height	mm	As per OGA drawing (without rollers)*	
21)	Overall Weight			
	Total Weight	Kg.	2810	
22)	Noise Level	LwA dB(A)	55	
Applicability of Optional Fittings For above mentioned Actual Overall Dimensions				
23)	Rollers		Yes	
24)	Pole Mounting consoles		No	
25)	HV bushing flags/connector/lug		No	
26)	LV bushing flags/ connector/lug		No	
27)	HV Tapping/Tap Switch		Yes	

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 AT 75DegC and %Z at 75 Deg C.
3. * With Rollers transformer height will increase by 100mm.
4. With HV flags transformer overall height will increase.