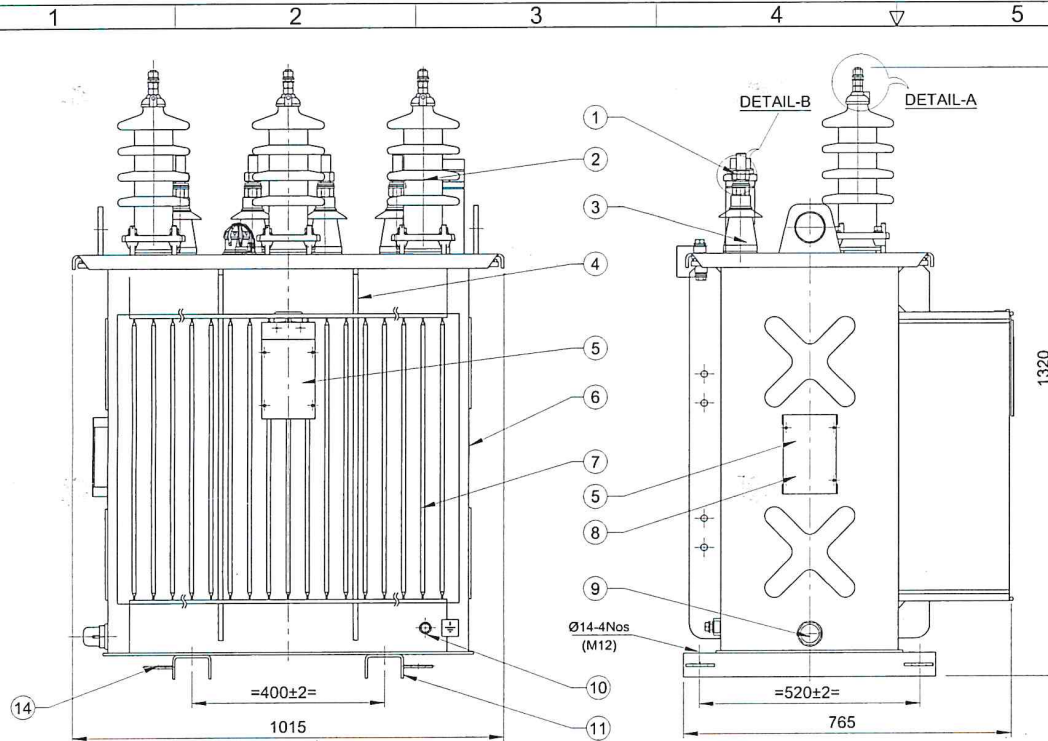


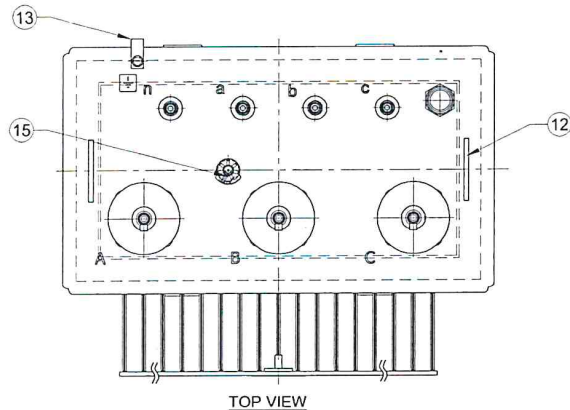
Product design meets OHASAS requirements (Ref: Work instructions DOC No. WI/10/10/ENG001).
ALL DIMENSIONS ARE IN mm & WEIGHTS ARE IN kg UNLESS OTHERWISE SPECIFIED.
FORMAT No.: Mech/003/R0

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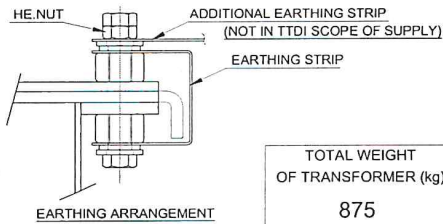


H.V. FRONT VIEW

SIDE VIEW



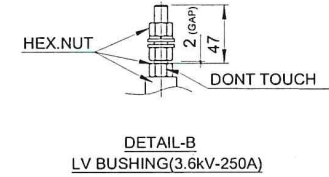
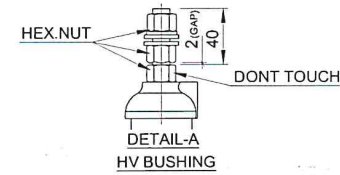
TOP VIEW



EARTHING ARRANGEMENT

NOTE:-

1. FINISH PAINT SHADE: RAL 7035 (LIGHT GREY).
2. OVERALL DIMENSIONS & WEIGHTS ARE SUBJECT TO $\pm 10\%$ TOLERANCE
3. THE POSITION, LOCATION, DESIGN OF FITTINGS & ACCESSORIES MAY SLIGHTLY VARY DURING MANUFACTURING.
4. COMPLETE TRANSFORMER WITHSTANDS LOWER LIMIT OF AMBIENT TEMPERATURE -40°C
5. TIGHTENING TORQUE
.LV & HV BUSHING STEM (OUTSIDE) - 13Nm.
.HV BUSHING FIXING STUD - 15Nm.
6. TERMINAL MARKING AND EARTHING SYMBOL SHALL BE PAINTED WITH BLACK COLOUR.
7. OIL LEVEL MARKING SHALL BE VISIBLE FROM TANK SHORTER SIDE
8. GAP (2mm) SHOULD MAINTAIN BETWEEN TWO ADJACENT NUTS AS PER DETAIL-A & DETAIL-B



S.NO	DESCRIPTION	QTY.
15	TAP SWITCH	1
14	TOWING EYES	4
13	EARTHING STRIP BETWEEN TANK AND TOP COVER	1
12	LIFTING LUGS FOR LIFTING OF TRANSFORMER	2
11	BASE CHANNEL FORMED	2
10	EARTHING TERMINALS	2
9	OIL DRAINING CUM SAMPLING DEVICE	1
8	RATING PLATE FIXING BRACKETS	1
7	CORRUGATION PANEL	1
6	NAME OF THE MANUFACTURER (MONOGRAM)	1
5	RATING PLATE	2
4	VERTICAL STIFFENER	-
3	L.V. BUSHINGS(3.6kV/250A)	4
2	H.V BUSHINGS(24kV/250A-P2)	3
1	OIL FILLING PIPE WITH VERTICAL FLOAT OLG	1

TOTAL WEIGHT OF TRANSFORMER (kg)	RATING kVA	VOLTAGE(V)		CURRENT(A)	
		PRIMARY	SECONDARY	PRIMARY	SECONDARY
875	100	20500	1000	2.816	57.735

Minimum External Air Clearances	
	HV
Phase to Phase	220
Phase to Earth	220

NO OF PHASES	: 3
COOLING	: ONAN
FREQUENCY	: Hz 50
TEMP. RISE O / W	: 60/65 $^{\circ}$ c
CONNECTION GROUP	: Dyn11
SPECIFICATION	: IEC 60076 & EN 50588/EN 50708-2

REV	ZONE	DATE	MODIFICATION	MODIFIED	CHECKED	APPRD.
				NAME	DATE	

TOSHIBA

TOSHIBA TRANSMISSION & DISTRIBUTION SYSTEMS (INDIA) PVT. LTD.
DISTRIBUTION TRANSFORMERS DIVISION

SCALE: NTS

OUT LINE GENERAL ARRANGEMENT FOR
100 kVA, 20.5/1kV TRANSFORMER

DESIGNED	<i>R. Manjunath</i> 13/11/21
DRAWN	<i>A. K. S.</i> 15/11/21
CHECKED	<i>K. S.</i> 15/11/21
APPROVED	<i>S. S.</i> 15/11/21
PRJ.NO.	08273 N
DRG.NO.	3 OG 86626
SHT.NO.	1 OF 1 R 0

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

GUARANTEED TECHNICAL PARTICULARS THREE PHASE DISTRIBUTION TRANSFORMER						
Enquiry No : 10889		Customer : CARUNA,FINLAND				
kVA : 100		kV :20.5/1	Phase : 3	Freq. : 50Hz	Cooling : ONAN	Doc No:
Sl. No.	Description	UNIT	100 kVA			
1)	Make		Toshiba Transmission & Distribution Systems (India) Pvt. Ltd			
2)	Type		Hermitically Sealed			
3)	Phases	No.	Three			
4)	Rating	kVA	100 kVA			
5)a)	Rated Voltage:					
	HV	V	20500			
	LV	V	1000			
b)	Highest voltage for equipment					
	HV	kV	24			
	LV	kV	3			
6)	HV Tapping Range		+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	10			
11)	Winding material		Aluminum			
12)	Core Material		CRGO			
13)	Temperature Rise:					
	Oil	°C	60			
	Winding	°C	65			
14)	Losses					
	No Load Losses at rated Voltage and Frequency	Watt	130 (MAX)			
	Load Losses at 75 °C	Watt	1250 (MAX)			

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TOSHIBA		Toshiba Transmission & Distribution Systems (India) Pvt.Ltd. Distribution Transformers Division		Engineering
				Unit-10
15)	Impedance Voltage	%	4% (+/- IEC Tolerance Applicable)	
16)	Percentage Resistance	%	1.25	
17)	Regulation at:			
	Full Load UPF	%	1.32	
	Full Load 0.8 PF	%	3.31	
18)	Efficiency at 0.8 PF:			
	Full Load	%	98.3	
	¾ Full Load	%	98.63	
	½ Full Load	%	98.91	
19)	Terminal Arrangement:			
	HV		Bare Bushings – Porcelain-24kV/250A-P2	
	LV		Bare Bushings – Porcelain-3kV/250A	
20)	Actual Overall Dimensions:			
	Length	mm	1100	
	Width	mm	815	
	Height	mm	1330	
21)	Overall Weight			
	Total Weight	Kg.	650	
22)	Noise Level	LwA dB (A)	41	
Applicability of Optional Fittings For this sale order				
23)	Rollers		No	
24)	Feasibility to attach Pole Mounting consoles		Yes	
25)	HV flags/connector/lug		No	
26)	LV flags/connector/lug		No	
27s)	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 HV flags transformer overall height will increase.