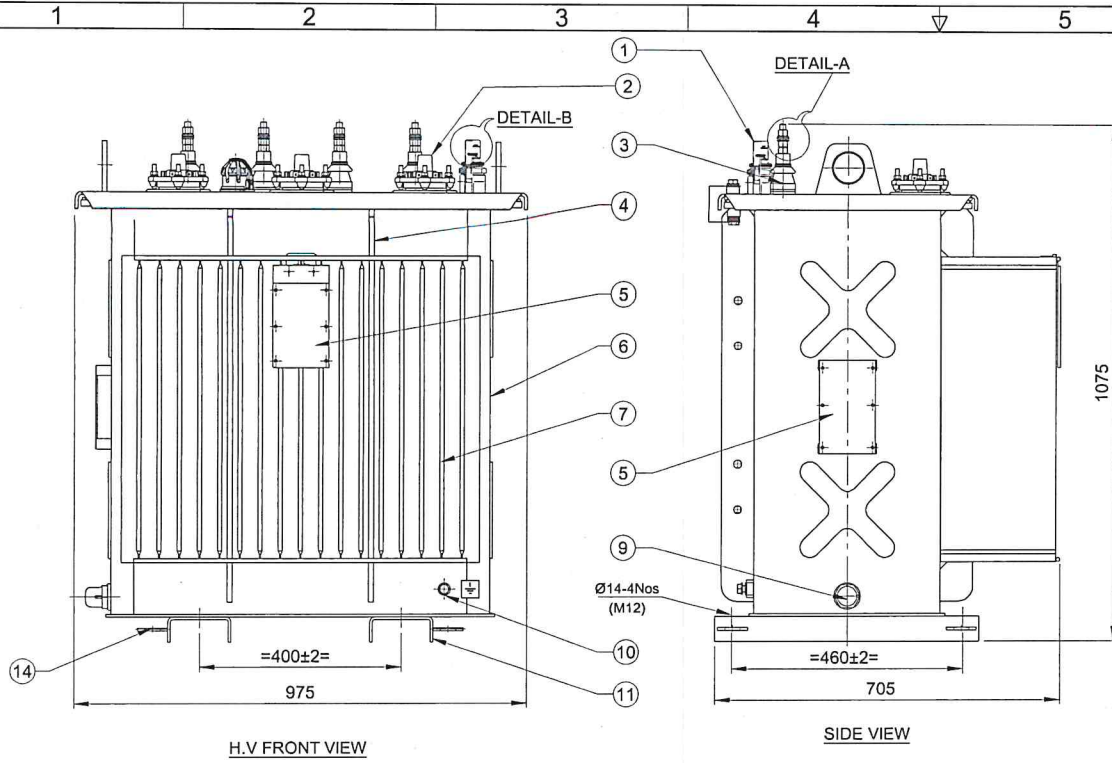
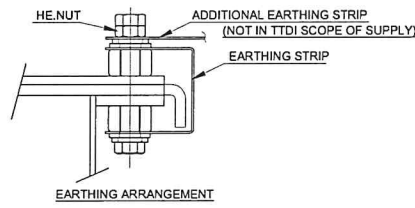
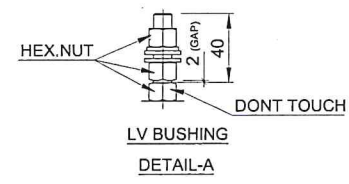
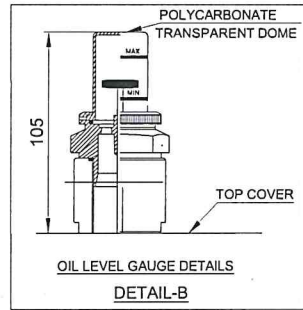


Product design meets OHSAS requirements (Ref. Work Instructions DOC No. WI/10/ENG/01). ALL DIMENSIONS ARE IN mm & WEIGHTS ARE IN kg UNLESS OTHERWISE SPECIFIED. FORMAT No.: Mech/003/R0

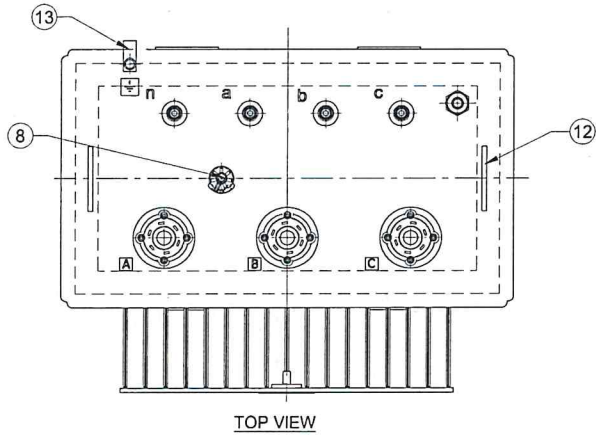
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- NOTE:-**
1. FINISH PAINT SHADE: RAL 7035 (LIGHT GREY).
  2. OVERALL DIMENSIONS & WEIGHTS ARE SUBJECT TO ±10% TOLERANCE
  3. THE POSITION, LOCATION, DESIGN OF FITTINGS & ACCESSORIES MAY SLIGHTLY VARY DURING MANUFACTURING.
  4. COMPLETE TRANSFORMER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



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	TAP SWITCH	1
7	CORRUGATION PANEL	1
6	NAME OF THE MANUFACTURER (MONOGRAM)	1
5	RATING PLATE	2
4	VERTICAL STIFFENER	-
3	L.V. BUSHINGS(1.0kV/250A)	4
2	H.V PLUG IN BUSHINGS(24kV/250A)	3
1	OIL FILLING PIPE WITH VERTICAL FLOAT OLG	1
S.NO	DESCRIPTION	QTY.



TOTAL WEIGHT OF TRANSFORMER (kg)	RATING KVA	VOLTAGE(V)		CURRENT(A)	
		PRIMARY	SECONDARY	PRIMARY	SECONDARY
650	50	20500	410	1.408	70.409

NO OF PHASES	: 3
COOLING	: ONAN
FREQUENCY	: Hz 50
TEMP. RISE O / W	: 60/65°C
CONNECTION GROUP	: Dyn11
SPECIFICATION	: IEC/EN 60076

REV	ZONE	DATE	MODIFICATION	MODIFIED	CHECKED	APPRD.

**TOSHIBA**

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

SCALE: NTS

**OUT LINE GENERAL ARRANGEMENT FOR**  
**50 kVA, 20.5/0.41 kV TRANSFORMER**

DESIGNED	<i>[Signature]</i> 24/11/22
DRAWN	<i>[Signature]</i> 24/11/22
CHECKED	<i>[Signature]</i> 24/11/22
APPROVED	<i>[Signature]</i> 24/11/22
PRJ.NO.	ENQ-12405-1
DRG.NO.	3 OG 97013
SHT.NO.	1 OF 1   R 0

CUSTOMER: M/s. RE-Tech Oy, FINLAND

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

**GUARANTEED TECHNICAL PARTICULARS  
THREE PHASE DISTRIBUTION TRANSFORMER**

Enquiry No : E-12405-1	Customer: M/s. RE-Tech Oy, FINLAND				
kVA : 50	kV :20.5/0.41	Phase : 3	Freq. : 50Hz	Cooling : ONAN	Doc No: EGT 50187

Sl. No.	Description	UNIT	50 kVA
1)	Make		Toshiba Transmission & Distribution Systems (India) Pvt. Ltd
2)	Type		Hermitically Sealed
3)	Phases	No.	Three
4)	Rating	kVA	50 kVA
5)a)	Rated Voltage:		
	HV	V	20500
	LV	V	410
b)	Highest voltage for equipment		
	HV	kV	24
	LV	kV	1
c)	HV Tapping Range		+5% to -5% in steps of 2.5%
6)	Frequency	Hz	50
7)	Vector Group		Dyn11
8)	Insulation Level		
	HV	kV peak	125
	LV	kV peak	Not Applicable
9)	Power Frequency Level		
	HV	kV rms	50
	LV	kV rms	3
10)	Winding material		Aluminium
11)	Core Material		CRGO
12)	Temperature Rise:		
	Oil	° C	60
	Winding	° C	65
13)	Losses		
	No Load Losses at rated Voltage and Frequency	Watt	81 (MAX)-Tier-2
	Load Losses at 75 ° C	Watt	750 (MAX)-Tier-2
14)	Impedance Voltage	%	4% (+/- IEC Tolerance Applicable)
15)	Percentage Resistance	%	1.5
16)	Regulation at:		
	Full Load UPF	%	1.57
	Full Load 0.8 PF	%	3.45
17)	Efficiency at 0.8 PF:		

<b>TOSHIBA</b>	<b>Toshiba Transmission &amp; Distribution Systems (India) Pvt.Ltd. Distribution Transformers Division</b>		<b>Engineering</b>
			<b>Unit-10</b>
	Full Load	%	97.96
	¾ Full Load	%	98.35
	½ Full Load	%	98.68
18)	Terminal Arrangement:		
	HV		Bare Bushings – Plug in–24kV/250A
	LV		Bare Bushings – Porcelain–1kV/250A
19)	Actual Overall Dimensions:		
	Length	mm	970
	Width	mm	705
	Height	mm	1320
20)	Overall Weight		
	Total Weight	Kg.	650
21)	Noise Level	LwA dB (A)	39
<b>Applicability of Optional Fittings For above mentioned Actual Overall Dimensions</b>			
22)	Rollers		No
23)	Pole Mounting consoles		No
24)	HV flags/connector/lug		No
25)	LV flags/connector/lug		No
26)	HV Tapping/Tap Switch		Yes

Note:

1. Actual overall dimensions and weights are subjected to +/-10% Tolerance.
2. All the efficiencies and regulations are calculated at the nominal values of NLL, LL AT 75DegC and % Z at 75 Deg C.
3. If HV/LV flags required transformer overall height will increase.