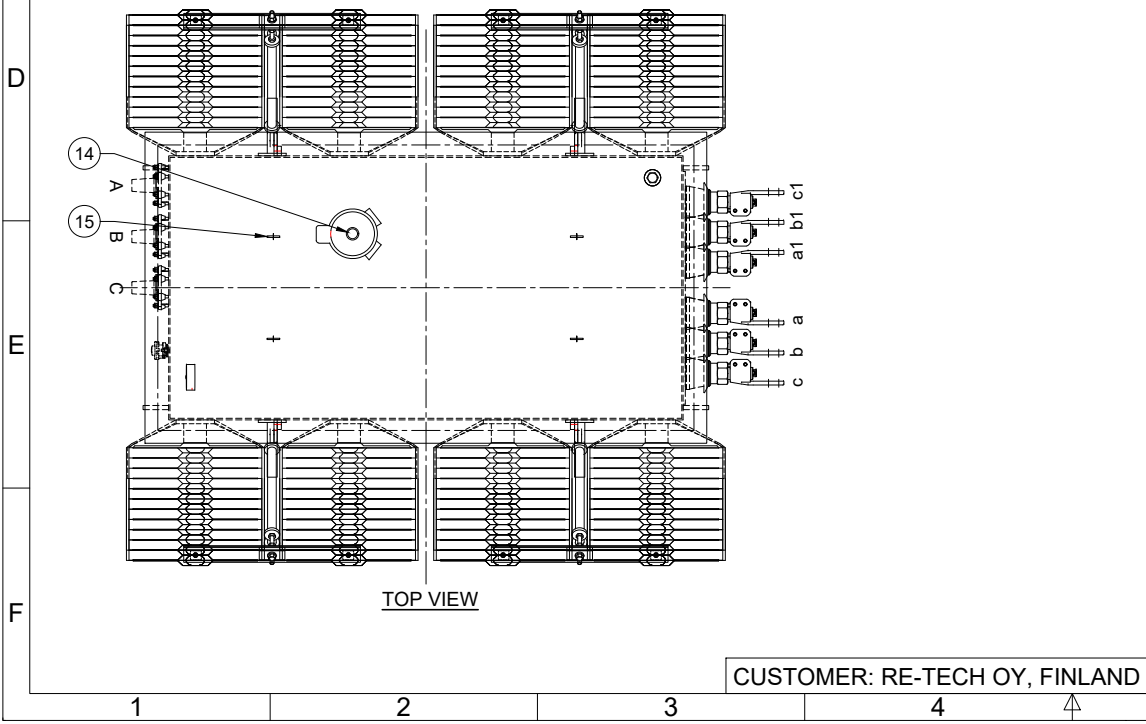
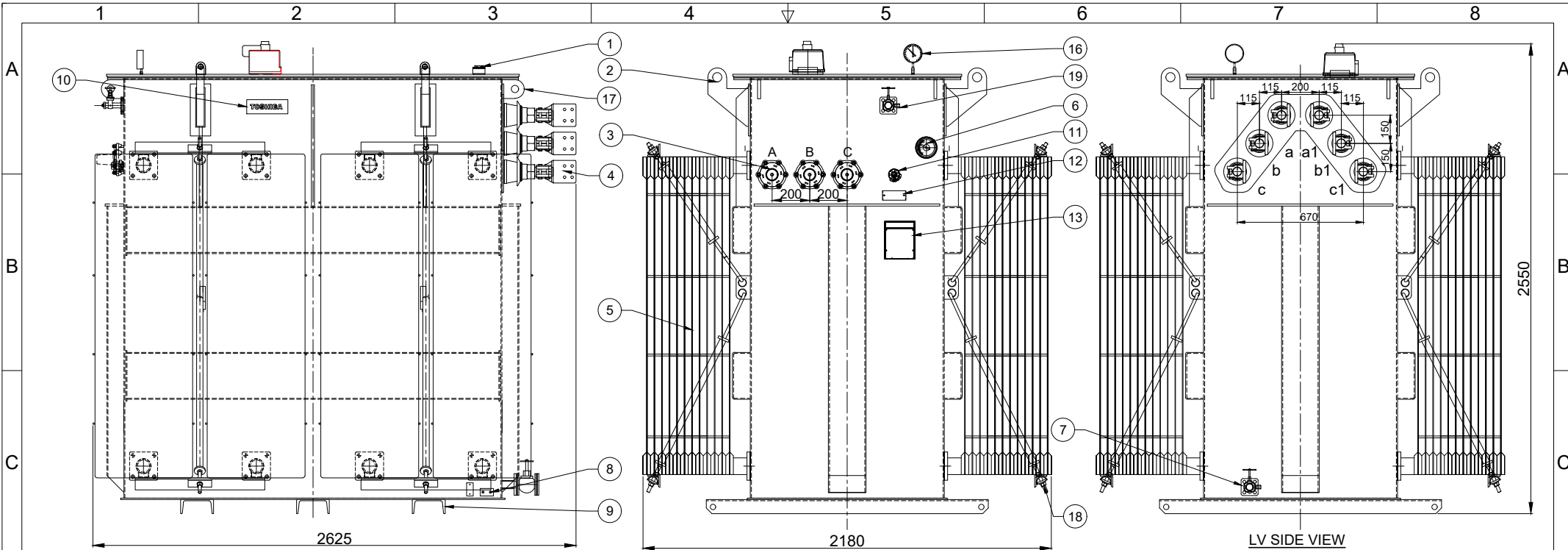


Product design meets OHSAS requirements (Per Work instructions DOC No WU101(ENGG001). ALL DIMENSIONS ARE IN mm & WEIGHTS ARE IN kg UNLESS OTHERWISE SPECIFIED. FORMAT No.: Mech/003/RO

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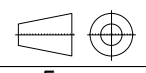


TRANSPORT DIMENSIONS	
LENGTH	2625
WIDTH	2180
HEIGHT	2550

WEIGHTS		NO OF PHASES	
KVA	: 6000	NO OF PHASES	: 3
VOLTAGE : H.V : V	: 33000	COOLING	: ONAN
+5% TO -5% IN STEPS OF 2.5%		TEMP. RISE OIL/WIDG °C.	: 60/65°C
L.V : V	: 2 X 800	VECTOR GROUP	: Dy11y11
CURRENT : H.V : A	: 104.97	TYPE	: OUTDOOR
L.V : A	: 2 X 2165.06	SPECIFICATION/ REF. STANDARD	: EN (IEC : 60076)
FREQUENCY Hz	: 50		
TOTAL WEIGHT : kg	: 13000		

REV	ZONE	DATE	MODIFICATION	MODIFIED	CHECKED	APPRD.
				NAME	DATE	
				DESIGNED	CHOWDAIAH	31.03.23
				DRAWN	R.MURALI	31.03.23
				CHECKED	RAMANA	31.03.23
				APPROVED	KVKR	31.03.23
TOSHIBA TOSHIBA TRANSMISSION & DISTRIBUTION SYSTEMS (INDIA) PVT. LTD. DISTRIBUTION TRANSFORMERS DIVISION				PRJ.NO.	ENQ-12544-1	
				DRG.NO.	3 OG 98658	
				SHT.NO.	1 OF 2	R 0

SCALE: NTS

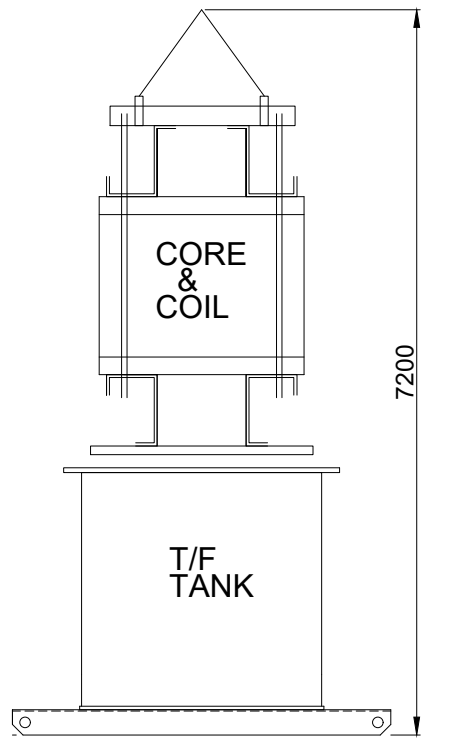


OUTLINE GENERAL ARRANGEMENT FOR 6000 KVA, 33/2X0.8 kV
HERMETICALLY SEALED WITH GAS CUSHION TRANSFORMER

Product design meets OH&SAS requirements (Ref: Work Instructions DOC No. WU/10/ENGG001). ALL DIMENSIONS ARE IN mm & WEIGHTS ARE IN kg UNLESS OTHERWISE SPECIFIED. FORMAT No.: Mech/003/RO
 ALL INFORMATION CONTAINED IN THIS DOCUMENT IS CONFIDENTIAL AND THE PROPERTY OF TOSHIBA TRANSMISSION & DISTRIBUTION SYSTEMS (INDIA) PVT. LTD. REPRODUCTION OF THIS IN ANY FORM IS TO BE DONE WITH THE SPECIFIC PERMISSION OF THE ORGANISATION.

NOTES:-

1. ALL WEIGHTS AND DIMENSIONS ARE SUBJECTED TO ±10% TOLERANCE, EXCEPT WHEREVER SPECIFIED AS MAX. & MIN. IN GTP AND TECHNICAL SPECIFICATION.
2. THE POSITION, LOCATION AND DESIGN OF FITTINGS & ACCESSORIES MAY SLIGHTLY VARY DURING MANUFACTURING.
3. PAINT: LIGHT GREY, SHADE No. RAL 7035.
4. COMPLETE TRANSFORMER WITHSTANDS LOWER LIMIT OF AMBIENT TEMPERATURE -40°C.
5. ELBOW CONNECTORS FOR HV BUSHINGS ARE NOT IN TOSHIBA'S SCOPE OF SUPPLY.
6. AS ELBOW CONNECTORS ARE USED FOR HV PLUG-IN BUSHINGS TERMINATIONS PHASE-PHASE AND PHASE-EARTH CLEARANCES ARE NOT APPLICABLE.
7. CORE IS INTERNALLY EARTHED TO TANK.
8. THIS IS A TENDER DRAWING ONLY.



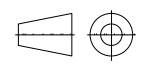
MIN. HEIGHT REQUIRED TO REMOVE

THE CCA FROM TANK

CUSTOMER: RE-TECH OY, FINLAND

19	GAS FILLING VALVE	1
18	RADIATOR BRAZING ROD ASSEMBLY	8
17	LASHING EYES	4
16	PRESSURE VACUUM GAUGE WITH VALVE	1
15	TOP COVER LIFTING LUGS	4
14	PRESSURE RELIEF DEVICE	1
13	RATING & CONNECTION DIAGRAM PLATE	1
12	CAUTION PLATE FOR TAP CHANGER	1
11	TAP CHANGER HANDLE	1
10	NAME OF THE MANUFACTURER (MONOGRAM)	1
9	TRANSFORMER BASE CHANNELS	-
8	EARTHING TERMINAL	2
7	OIL DRAIN VALVE	1
6	OIL LEVEL GAUGE	1
5	COOLING RADIATORS	8
4	LV BUSHING WITH CONNECTING LUG (3 kV/3150 A - PORCELAIN)	6
3	HV BUSHING (33 kV/630 A - PLUG-IN)	3
2	LIFTING LUGS FOR COMPLETE TRANSFORMER	4
1	OIL FILLING PIPE(2" BSP)	1
S.No.	DESCRIPTION	QTY.

REV	ZONE	DATE	MODIFICATION	MODIFIED	CHECKED	APPRD.
					NAME	DATE
TOSHIBA				DESIGNED	CHOWDAIAH	31.03.23
TOSHIBA TRANSMISSION & DISTRIBUTION SYSTEMS (INDIA) PVT. LTD.				DRAWN	R.MURALI	31.03.23
DISTRIBUTION TRANSFORMERS DIVISION				CHECKED	RAMANA	31.03.23
				APPROVED	KVKR	31.03.23
SCALE: NTS		OUTLINE GENERAL ARRANGEMENT FOR 6000 KVA, 33/2X0.8 KV		PRJ.NO. ENQ-12544-1		
		HERMETICALLY SEALED WITH GAS CUSHION TRANSFORMER		DRG.NO. 3 OG 98658		
				SHT.NO.2 OF 2 R 0		



TOSHIBA	Toshiba Transmission & Distribution Systems (India) Pvt. Ltd. Distribution Transformers Division	<i>Engineering</i>
		<i>Unit-10</i>
		Page : 1 of 2

GUARANTEED TECHNICAL PARTICULARS FOR 6000 kVA,33/2*0.8 KV SOLAR TRANSFORMER				
Customer: M/S RE-TECH Oy, Finland				Qty : 10 NO'S
kVA : 6000	kV: 33/2*0.8	Ph: 3 - ϕ	Freq: 50 Hz	Cooling: ONAN

Sl. No.	Description	UNIT	6000kVA, 33/2*0.8 kV, OCTC
1)	Make		M/s. Toshiba Transmission & Distribution Systems (India) Pvt. Ltd
2)	Type		Hermetically sealed with gas cushion Radiator tank transformer
3)	Phases	No.	Three
4)	Rating	kVA	6000
5)	Voltage:		
	HV	V	33000
	LV	V	800*2
6)	Frequency	Hz	50
7)	Vector Group		Dy11y11
8)	Insulation Level		
	LI(HV/LV)	kV _{Peak}	170/-
	AC(HV/LV)	kV _{RMS}	70/3
9A)	Material of Windings MV		Aluminium
9B)	Material of Windings LV		Aluminium
	Winding Current Density	A/Sqmm	2.0 @ rated tap
	Insulating Material		Class A
10)	Core Material		CRGO
	Flux Density	Tesla	1.72
	Combined over voltage & frequency variation	%	10
11)	Temperature Rises		
	Oil	°C	60
	Winding	°C	65
12)	Tapping's		Off Circuit Tap Changer (-5%, 0, +5%)
13)	Losses		
	No load losses	W	3850 (Max)
	Load losses	W	44200 (Max)
	PEI	%	99.56%
14)	Impedance Voltage	%	7 ($\pm 10\%$ Tol.) @ 3.0MVA base
15)	Percentage Resistance	%	
16)	Regulation at:		
	Full Load UPF	%	0.98
	Full Load 0.8 PF	%	4.90
17)	Efficiency at UPF at		
	Full Load	%	99.21

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TOSHIBA	Toshiba Transmission & Distribution Systems (India) Pvt. Ltd. Distribution Transformers Division	<i>Engineering</i>
		<i>Unit-10</i>
		Page : 2 of 2

GUARANTEED TECHNICAL PARTICULARS FOR 6000 kVA,33/2*0.8 KV SOLAR TRANSFORMER				
Customer: M/S RE-TECH Oy, Finland				Qty : 10 NO'S
kVA : 6000	kV: 33/2*0.8	Ph: 3 - ϕ	Freq: 50 Hz	Cooling: ONAN

	¾ Full Load	%	99.37
	½ Full Load	%	99.51
18)	Efficiency at 0.8 PF:		
	Full Load	%	99.01
	¾ Full Load	%	99.21
	½ Full Load	%	99.38
	Peak Efficiency Index	%	99.57 @ 29% load
19)	Terminal Arrangement:		
	HV		Bare Bushing
	LV		Bare Bushing
20)	Overall Dimensions:		
	Length	mm	As per OGA
	Width	mm	
	Height	mm	
21)	Total Weight	Kg.	13000(Approx.)
	Oil		ELECTROL – I (as per IEC 60296)

Note: -

1. All weights and dimensions are subjected to $\pm 10\%$ tolerance, except wherever specified as maximum and minimum in GTP and Technical specification.
2. Efficiencies and Regulations are calculated based on the nominal values of No Load Loss, Load Losses and Impedance at 75°C.
3. Min temperature of -40°C is considered.
4. Unless and Otherwise specified or mentioned, we offer Indian make components only.
5. Since no. of runs required at LV side are not specified, we are offering busduct arrangement.
6. Partial discharge test is not applicable.
7. As per IEC-60076, in case of transformer with two or more separate winding section one above the other, if they are of equal size and rating, temperature limit/hotspot is applicable for average of measurement of the stacked sections. Hence winding temperature rise is taken as an average of LV1 and LV2 i.e. while calculating hot spot temperature, gradient calculated based on the average temperature recorded between top and bottom LV windings.