

**SPECIFICATION**  
**OIL IMMERSED TRANSFORMER**  
**160 KVA. 3 Ph. 50 Hz**  
**22000 - 416 / 240 V.**

# TCT THAI CENTER TRANSFORMER CO.,LTD

Address : 67 / 1 Moo. 7 T. Bangkam A. Maung Nakhonpathom 73000

Tel . 081 - 8054856 , 034 - 219036 Fax 034 - 984092 <http://www.thaicentertransformer.com> e - mail : thaicenter671@gmail.com

## Transformer Specification

**Quote. Ref :**

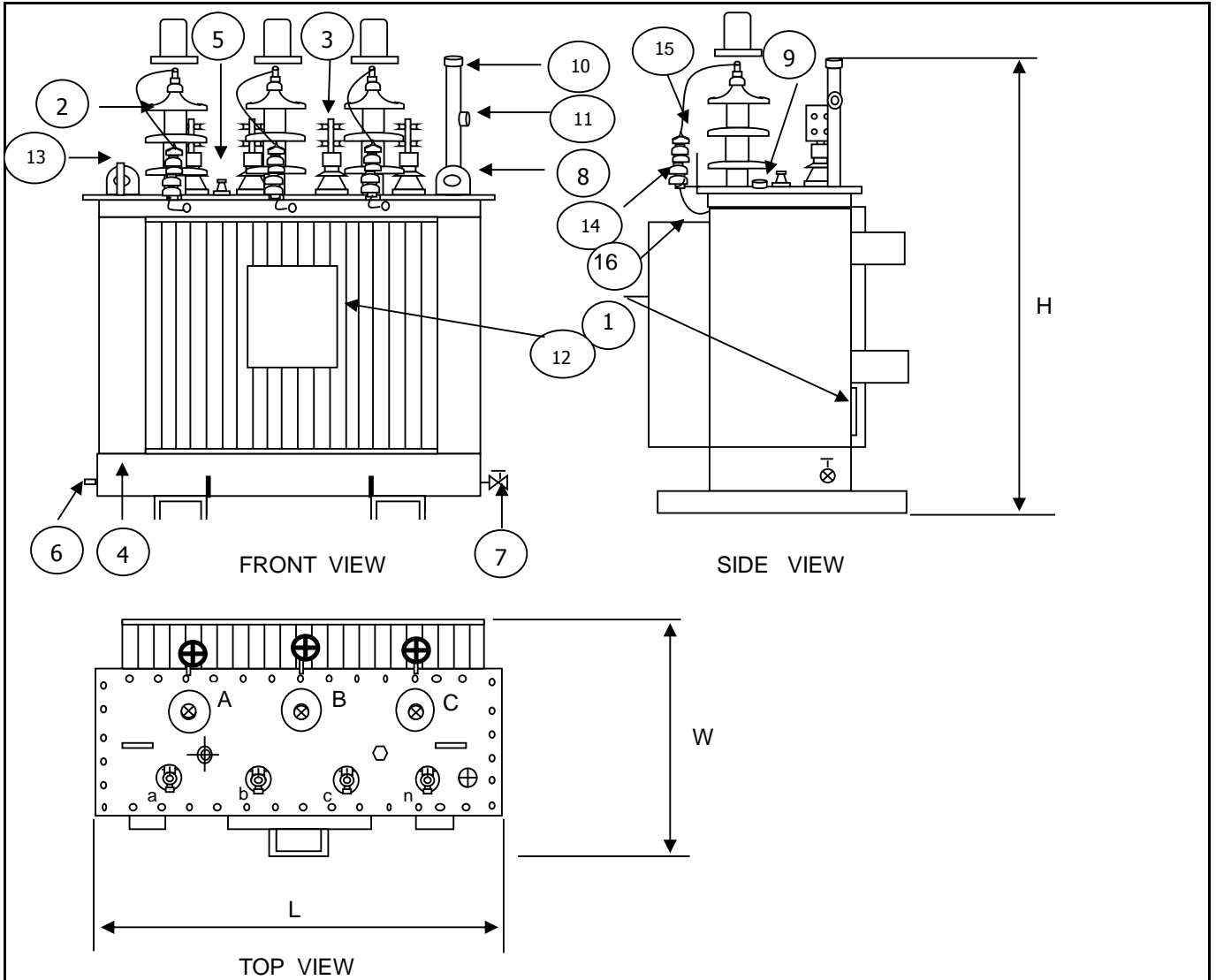
**Customer :**

**Project :**

Rated power	.....KVA	<b>160</b>
Type of transformer	-	Oil immersed ( Hermetically sealed )
Standard	-	IEC 60076
Cooling System	-	ONAN
No. Of phase	-	3
Frequency	.....Hz	50
Rate of voltage : Primary	.....V.	<b>22000</b>
: Secondary	.....V.	<b>416/240</b>
Vector group	-	Dyn 11
Tapping Type	-	<b>Off Circuit Tap Changer</b>
No. of steps	-	5
Percentage of tapping	-	± 2 x 2.5 %
Impedance voltage at 75 C	.....%	4
NO - Load current & Tolerance	<b>A &amp; .%</b>	0.939 A & + 30 %
Ambient temperature	.....C	50
Average Temperature rise of winding	.....k	55
Average Temperature rise of top oil	.....k	50
Noise level not more than	.....dB	56
No - Load loss	.....Watt	<b>260</b>
Load loss at 75 C	.....Watt	<b>2000</b>
Efficiency at P.F. = 1	: 25 % of rate power .....%	98.94
	: 50 % of rate power .....%	98.08
	: 75 % of rate power .....%	98.79
	: 100 % of rate power .....%	98.56
Voltage regulation	: at P.F. = 0.8 .....%	3.22
	: at P.F. = 0.9 .....%	2.71
	: at P.F. = 1. .....%	1.32
Impulse Withstand Voltage	: Primary winding .....KV.	125
	: Secondary winding .....KV.	30
Power Frequency	: Primary winding .....KV.	50
	: Secondary winding .....KV.	10
Terminal arrangement H.V. Side	mm <sup>2</sup>	35-95
	L.V. Side mm <sup>2</sup>	95-120
Installation on		Pole mounted / Platform

**Transformer Specification****Quote. Ref :****Customer :****Project :**

Rated power	<b>160</b>
Type of transformer	Oil immersed ( Hermetically sealed )
<b>Accessories</b>	
H.V. Bushing with terminal connector	Included
L.V. Bushing with terminal connector	Included
Grounding pad or earth terminal	Included
upper filter press sampling valve	Included
Oil drain, filter press sampling valve	Included
Name plate	Included
Arcing Horn	Included
Skid Base	Included
Mechanical pressure relief device	Included
Oil level indicator	Included
<b>Testing</b>	
<b>- Routine test</b>	
Ratio test at each position of tap ( IEC 60076-1)	Included
Polarity and phase relation test	Included
Resistance measurement ( IEC 60076-1)	Included
No - Load loss and exciting current test	Included
Impedance and load loss test	Included
Applied potential test	Included
Induced potential test	Included
Insulation resistance test	Included
Oil test	Included
<b>Type Tests</b>	
Temperature rise test ( IEC 60076-2)	Included
Full wave lightning impulse test ( IEC 60076-2 and IEC 60076-3)	Included ( with contact )
Measurement of no-load loss and current at 90% and 110% of reted voltage	Included ( with contact )
<b>- Specia test</b>	
Short - cicuit withstand test ( IEC 60076-5)	Included ( with contact )



NO	DESCRIPTION	QTY.
1	NAMEPLATE WITH CONNECTION DIAGRAM	1
2	HV. BUSHING W / TERMINAL CONNECTOR	3
3	LV. BUSHING W / TERMINAL CONNECTOR	4
4	TANK	1
5	TAP CHANGE	1
6	EARTH TERMINAL	1
7	OIL DRAIN VALAE	1
8	LIFTING EYES ON THE COVER	2
9	OIL LEVEL INDICATOR	1
10	OIL FILLING PIPE	1
11	OIL LEVEL GAUGE	1
12	LOGO	1
13	THERMOMETER POCKET	1
14	SURGE ORRESTER(POLYMER HOUSING TYPE )(SUPPLIED BY PEA)	3
15	BROCKET FOR SURGE ORRESTER(SUPPLIED BY PEA)	3
16	FLEXIBLE COPPER INSULOTED GROUND LEOD(SUPPLIED BY PEA )	3

THAI CENTER TRANSFORMER CO.,LTD					
Dimension in millimetres				Total wt.	Oil
H	L	W	( Kgs.)	( Litres )	
1050 mm	850 mm	630 mm	358	95	
DESIGN No. 0100PLE0010052			S/O No. B0010052		
NAME			TITLE : OUTLINE DRAWING		
DRN.BY			160 kVA. 3 Ph. Dyn11		
CHK.BY			22000 - 416 / 240		
APP. BY			TYPE : Hermetically sealed tank		

**PRELIMINARY DRAWING**  
 This drawing is for estimation only showing approximate dimensions and should not be used for actual purposes  
 In case of order a definite drawing will be produced for formal approval