



Asia Trafo Co., Ltd

SPECIFICATION OF OIL IMMERSSED TRANSFORMER

แบบควบคุม

ฉบับที่.....1.....

TRANSFORMER SPECIFICATION

250 kVA. 3Ph. 50 Hz.

33000 - 416/240 V. Dyn 11

HERMETICALLY SEAL TYPE

88/99 หมู่ 12 ซ.สุนทรวีภาค ถ.บางพลี - ตำหรุ ต.บางปลา อ.บางพลี จ.สมุทรปราการ 10540 Tel. (02) 346-0980-7 Fax. (02) 346-0978-9

88/99 Moo.12 Soi sunthonwipark Bangplee -tumroo Road Bangpra Bangplee samuthprakarn 10540 Tel. (02) 346-0980-7 Fax. (02) 346-0978-9

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S-TR250-33000-416,Rev.00



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TECHNICAL DATA FOR 250 kVA, 33000-416 V. Dyn11

No.	Description		Unit	Guaranteed Value			
1	Manufacture's name		-	ASIA TRAF0 CO.,LTD.			
2	Country of origin		-	Thailand			
3	Applied standard		-	IEC 60076			
4	Type of Transformer		-	Hermetically seal type (Corrugate fins)			
5	Rated power		kVA	250			
6	Number of phase		-	3			
7	Rated frequency		Hz	50			
8	Rated high voltage		V	33000			
9	Rated low voltage		V	416			
10	Conection symbol		-	Dyn11			
11	Rated high current		A	4.37			
12	Rated low current		A	346.97			
13	Primary tapping :		-	Off-circuit tap changer			
14	Number of steps of high voltage tapping		Step	4 Steps 5 Position			
15	Percent of rated voltage of each tapping		%	±2 x 2.5%			
16	Type of oil preservation system		-	Completely oil fill system			
17	Operation duty		-	Continuous operation			
18	Cooling System		-	ONAN			
19	Ambient		°C	50			
20	Max. temperature rise of winding, at full load		°C	55			
21	Max. temperature rise of top oil, at full load		°C	50			
22	Class of insulation		-	A (105°C)			
23	Noise level		dB(A)	≤ 62			
24	No-load current & Tolerance		% & %	0.965 % & +30%			
25	Short-circuit impedance at 75°C & Tolerance		% & %	4.00 & ±10			
26	No-load loss		W	520			
27	Load loss at 75°C		W	2750			
28	Efficiency at 75°C	: Full load unity power factor	%	98.71			
		: Full load 0.8 power factor	%	98.39			
		: 3/4 load unity power factor	%	98.91			
		: 3/4 load 0.8 power factor	%	98.64			
		: 1/2 load unity power factor	%	99.04			
		: 1/2 load 0.8 power factor	%	98.81			
29	Voltage regulation at	: Unity power factor	%	1.17			
		: 0.8 power factor	%	0.93			
30	Winding			HV.Winding	LV.Winding		
	Material of winding		-	Copper	Copper		
	Insulation material of wire		-	Polyvinyl formal	Kraft paper		
	Full-wave impulse withstand voltage, or BIL		kV, peak	170	30		
	Power-frequency test voltage, 1 min		kV, r.m.s	70	10		
	Construction of winding		-	Layer winding	Layer winding		
31	Core						
	Core silicon steel grade		-	Cold rolled grain oriented electrical steel			
Rev		Date	Prepared by	Checked by		Approved by	Signature
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TECHNICAL DATA FOR 250 kVA, 33000-416 V. Dyn11

No.	Description	Unit	Guaranteed Value	
32	Transformer oil	-	Mineral oil (None PCB) ≥55	
	Type of oil	-		
	Oil dielectric breakdown	kV		
33	Bushings		HV.Bushing	LV.Bushing
	Applied standard	-	DIN 42531	DIN 42530
	Rated current	A	250	630
	Full-wave impulse withstand voltage, or BIL	kV, peak	170	30
	Low-frequency dry 1-minute test voltage	kV, r.m.s.	70	10
	Low-frequency wet 10 second test voltage	kV, r.m.s.	70	10
	Protection class	-	30NF	1N
	Color of glazing	-	Brown	Brown
	Stud thread size (Dia)	mm.	12	20
34	Terminal connectors		HV.Terminal	LV.Terminal
	Diameter range	mm.	Clamp (7.5-12.6)	PAD 20 mm.
	Number of circuit	-	1(35.95 mm ²)	4
35	Pressure relief value			
	Operating pressure	kg / cm ²	0.45	
	Flow rate at 1.03 Kg/cm ²	cc / sec	165200	
36	Color of tank	-	Gray (RAL 7036)	

Accessories

- ☒ HV & LV Bushing with terminal connectors
- ☒ Name plate with connection diagram
- ☒ Arcing horn
- ☒ Bird guard cap
- ☒ Off-circuit tap changer
- ☒ Thermometer pocket
- ☒ Oil drain and sampling valve
- ☒ Earthing terminal
- ☒ Lifting eyes on the cover
- ☒ Lifting lugs
- ☒ Oil level gauge
- ☒ Pressure relief device
- ☐ Buchholz relay with alarm&trip contacts
- ☐ Dehydrating breather with silica gel
- ☒ Other ... Factory standard

Routine test

- ☒ Measurement of voltage ratio and check of phase displacement
- ☒ Insulation resistance test
- ☒ Measurement of winding resistance
- ☒ Separated source voltage withstand test
- ☒ Induce over voltage withstand test
- ☒ Measurement of no-load loss and exciting current
- ☒ Measurement of short circuit impedance and load loss
- ☒ Oil dielectric strength test

Type tests

- ☒ Temperature - rise test (IEC 60076-2)
- ☒ Full wave lightning impulse test (IEC 60076-1 and IEC 60076-3)
- ☒ Measurement of no-load loss and current at 90% and 110 %
Of rated voltage (IEC 60076-1)

Special tests

- ☒ Short-circuit withstand test (IEC 60076-5)

☒ with

☐ without

Rev	Date	Prepared by	Checked by	Approved by	Signature
00	7/8/2563	วรกานต์	กิตติ	กิตติ	กิตติ

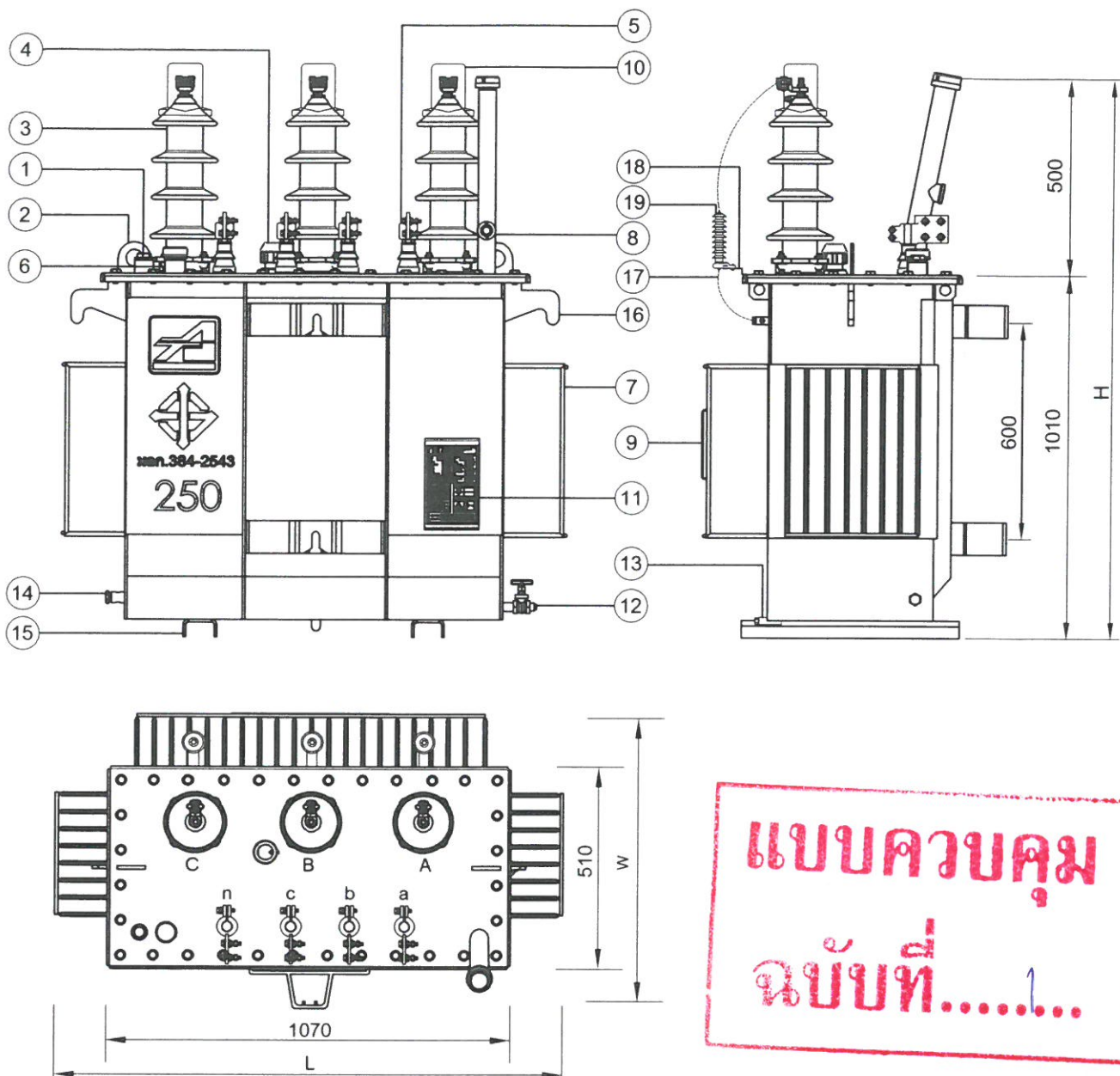
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LIST OF PART		
No.	PART NAME	Qty
1.	Thermometer pocket	1
2.	Lifting eye for cover	2
3.	HV.Bushing with terminal connectors	3
4.	Off load tap changer (ALUMINIUM)	1
5.	LV.Bushing with terminal connectors	4
6.	Pressure relief device	1
7.	Corrugated fins	3
8.	Oil level	1
9.	Manufactory plate	1
10.	Bird guard cap	3
11.	Nameplate with connection diagram	1
12.	Oil drain valve	1
13.	Sludge Drain Plug	1
14.	Earth terminal	1
15.	Sub base	2
16.	Lifting Lugs For Tank	2
17.	Flexible copper insulated ground lead	3
18.	Bracket for surge arrester	3
19.	Surge arrester (Polymer housing type)	3

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ASIA TRAF0 CO.,LTD.

Project :

Title : OUTLINE DRAWING

OIL IMMERSSED TRANSFORMER

250 kVA 3Ph 50Hz 33000 - 416/240 V.

TYPE : HERMETICALLY SEALED TANK

Dimension in millimeters			Weight	Oil
H	L	W	kgs	Litres
1510	1370	750	1166	310
SPEC NO. S-TR250-SC-33000-416/240				
Signature			Date	
Drawn By	<i>[Signature]</i>		7/8/63	
Checked By	<i>[Signature]</i>		7/8/63	
Approved By	<i>[Signature]</i>		7/8/63.	