



Asia Trafo Co., Ltd

SPECIFICATION OF OIL IMMERSSED TRANSFORMER

แบบควบคุม

ฉบับที่.....1

TRANSFORMER SPECIFICATION

500 kVA. 3Ph. 50 Hz.

33000 - 400/230 V. Dyn 11

HERMETICALLY SEAL TYPE

88/99 หมู่ 12 ซ. สุนทรวีภาค ถ.บางพลี - คำหล่ ค.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

SPEC No.

S-TR500-33000-400/230

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S-TR500-33,Rev.02



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ฉบับที่.....1.....

TECHNICAL DATA FOR 500 kVA, 33000-400 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	500	
6	Number of phase		-	3	
7	Rated frequency		Hz	50	
8	Rated high voltage		V	33000	
9	Rated low voltage		V	400	
10	Conection symbol		-	Dyn11	
11	Rated high current		A	8.75	
12	Rated low current		A	721.69	
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	40	
20	Max. temperature rise of winding, at full load		°C	65	
21	Max. temperature rise of top oil, at full load		°C	60	
22	Class of insulation		-	A (105°C)	
23	Noise level		dB(A)	≤ 66	
24	No-load current & Tolerance		% & %	2.7 % & +30%	
25	Short-circuit impedance at 75°C & Tolerance		% & %	4.00 & ±10	
26	No-load loss		W	1100	
27	Load loss at 75°C		W	5500	
28	Efficiency at 75°C	: Full load unity power factor	%	98.70	
		: Full load 0.8 power factor	%	98.38	
		: 3/4 load unity power factor	%	98.89	
		: 3/4 load 0.8 power factor	%	98.62	
		: 1/2 load unity power factor	%	99.02	
		: 1/2 load 0.8 power factor	%	98.78	
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
31	Core			Layer winding	Layer winding
	Core silicon steel grade		-	Cold rolled grain oriented electrical steel	
Rev		Date	Prepared by	Checked by	Approved by
02		7/8/2563	วิรัตน์	กิตติ	กิตติ
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Asia Trafo Co., Ltd. แบบควบคุม

SPECIFICATION OF OIL IMMERSSED TRANSFORMER

ฉบับที่ 1

TECHNICAL DATA FOR 500 kVA, 33000-400 V. Dyn11

No.	Description	Unit	Guaranteed Value	
32	Transformer oil Type of oil Oil dielectric breakdown	- - kV	Mineral oil (None PCB) ≥55	
33	Bushings		HV.Bushing	LV.Bushing
	Applied standard	-	DIN 42531	DIN 42530
	Rated current	A	250	1000
	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
34	Terminal connectors		HV.Terminal	LV.Terminal
	Diameter range	mm.	Clamp (7.5-12.6)	PAD 30 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

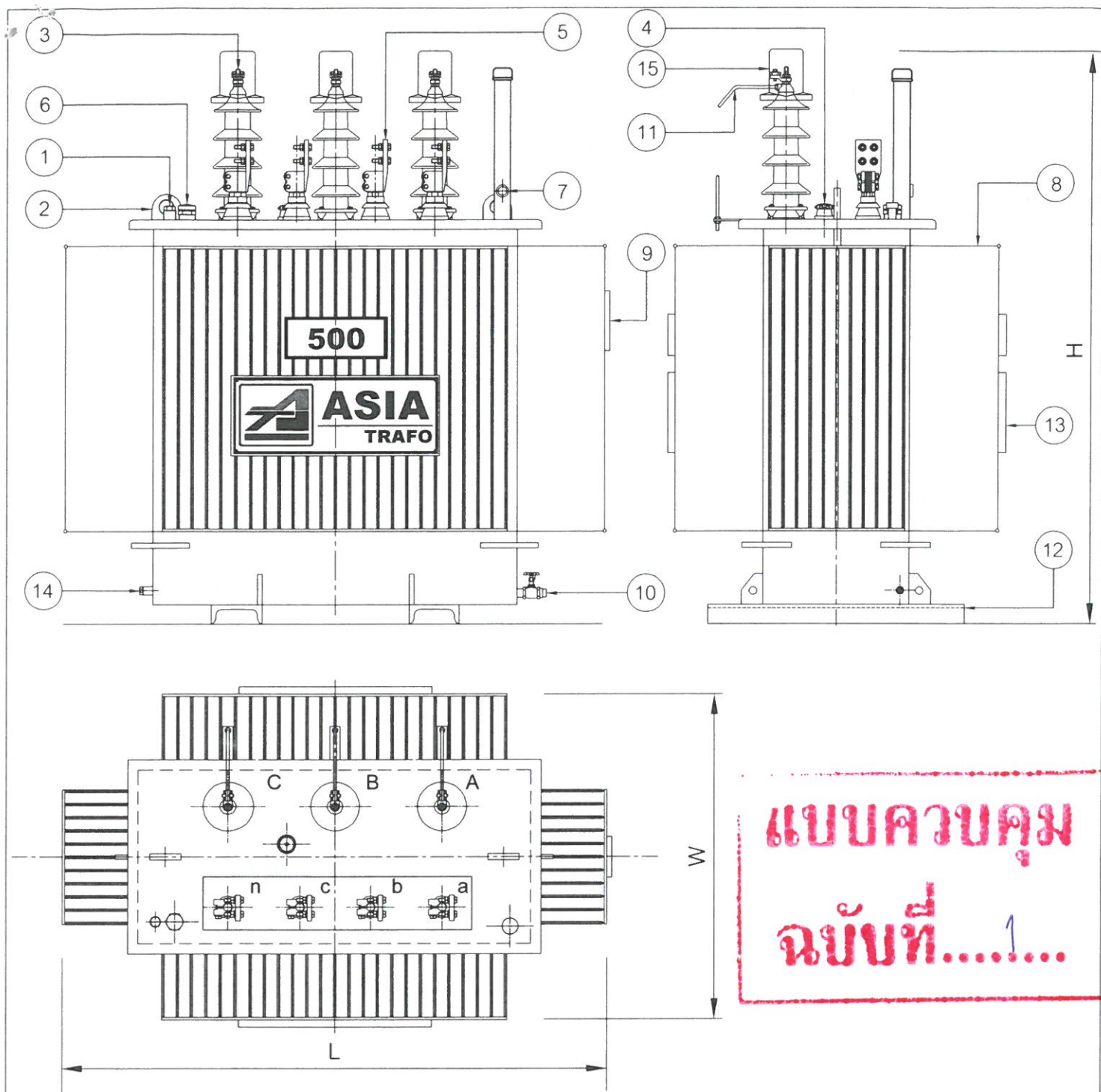
- Measurement of voltage ratio and check of phase displacement
- Insulation resistance test
- Measurement of winding resistance
- Separated source voltage withstand test
- Induce over voltage withstand test
- Measurement of no-load loss and exciting current
- Measurement of short circuit impedance and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

■ with

☐ without

Rev	Date	Prepared by	Checked by	Approved by	Signature
02	7/8/2563	วชิรณัฐ	กิตติ	กิตติ	กิตติ วชิรณัฐ
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PRELIMINARY DRAWING : This drawing is for estimate only, showing approximate dimensions. It should not be referred to as the final drawing.

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	1
5.	LV.Bushing with terminal connectors	4
6.	Pressure relief device	1
7.	Oil level	1
8.	Corrugated fins	4
9.	Nameplate with connection diagram	1
10.	Oil drain valve	1
11.	Arcing Horn	3
12.	Sub base	2
13.	Manufactory plate	2
14.	Earth terminal	1
15.	Bird Guard Cap	3



ASIA TRAF0 CO.,LTD.

แบบต้นฉบับ

Project :

Title :

OUTLINE DRAWING

OIL IMMersed TRANSFORMER

500 kVA 3Ph 50Hz 33000 - 400/230 V.

Dimension in millimeters			Weight	Oil
H	L	W	kgs	Litres
1760	1720	910	1980	530
SOEC NO. S-TR500-33000-400/230				
Signature			Date	
Drawn	By	7/8/63		
Checked	By	7/8/63		
Approved	By	7/8/63		