



Asia Trafo Co., Ltd

SPECIFICATION OF OIL IMMERSED TRANSFORMER

แบบควบคุม

ฉบับที่.....

TRANSFORMER SPECIFICATION

30 kVA. 1Ph. 50 Hz.

19000 - 480/240 V. Subtractive

HERMETICALLY SEAL TYPE

88/99 หมู่ 12 ซ. สุนทรวีภาค ถ.บางพลี - ลำห้วย 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

SPEC NO.

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S-TR30-19000-480,Rev.00



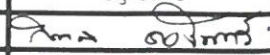
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ฉบับที่.....1

TECHNICAL DATA FOR 30 kVA, 19000-480 V. Subtractive

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		
5	Rated power		kVA	30		
6	Number of phase		-	1		
7	Rated frequency		Hz	50		
8	Rated high voltage		V	19000		
9	Rated low voltage		V	480/240		
10	Conection symbol		-	Subtractive		
11	Rated high current		A	1.58		
12	Rated low current		A	62.5/125		
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)	≤ 42		
24	No-load current & Tolerance		% & %	0.815 % & +30%		
25	Short-circuit impedance at 75°C & Tolerance		% & %	2.00 & ±10		
26	No-load loss		W	120		
27	Load loss at 75°C		W	430		
28	Efficiency at 75°C	: Full load unity power factor	%	98.20		
		: Full load 0.8 power factor	%	97.76		
		: 3/4 load unity power factor	%	98.42		
		: 3/4 load 0.8 power factor	%	98.03		
		: 1/2 load unity power factor	%	98.51		
		: 1/2 load 0.8 power factor	%	98.14		
29	Voltage regulation at	: Unity power factor	%	1.44		
		: 0.8 power factor	%	1.15		
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
00		8/8/2563	วรกานต์	กิตติ	กิตติ	
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แบบควบคุม
ฉบับที่...1....

TECHNICAL DATA FOR 30 kVA, 19000-480 V. Subtractive

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	250
	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 12 mm.
	Number of circuit	-	1(35.95mm ²)	2
35	Pressure relief value			
	Operating pressure	kg / cm ²	-	-
	Flow rate at 1.03 Kg/cm ²	cc / sec	-	-
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	8/8/2563	วรณานต์	กิตติ	กิตติ	สมิทธิ์ ๑๐/๖/๖๓

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Technical drawing of a 10kV outdoor air-insulated switchgear (AIS) showing front and side views with numbered components and dimensions.

Front View (Left):

- 1: Main circuit breaker
- 2: Main circuit breaker
- 3: Main circuit breaker
- 4: Main circuit breaker
- 5: Main circuit breaker
- 6: Main circuit breaker
- 7: Main circuit breaker
- 8: Main circuit breaker
- 9: Main circuit breaker
- 10: Main circuit breaker
- 11: Main circuit breaker
- 12: Main circuit breaker
- 13: Main circuit breaker

Side View (Right):

- 1: Main circuit breaker
- 2: Main circuit breaker
- 3: Main circuit breaker
- 4: Main circuit breaker
- 5: Main circuit breaker
- 6: Main circuit breaker
- 7: Main circuit breaker
- 8: Main circuit breaker
- 9: Main circuit breaker
- 10: Main circuit breaker
- 11: Main circuit breaker
- 12: Main circuit breaker
- 13: Main circuit breaker

Dimensions:

- 500
- 835
- H=1335
- 500

Approved	By	<i>[Signature]</i>	8/8/67
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