



Asia Trafo Co., Ltd

SPECIFICATION OF OIL IMMERSED TRANSFORMER

TRANSFORMER SPECIFICATION

3500 kVA. 3Ph. 50 Hz.

22000 - 400/230 V. Dyn11

Open Type with Conservator Tank

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

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SPEC No.

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SPECIFICATION OF OIL IMMERSED TRANSFORMER

TECHNICAL DATA FOR 3500 kVA, 22000-400/230 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	-	Open Type with Conservator Tank		
5	Rated power	kVA	3500		
6	Number of phase	-	3		
7	Rated frequency	Hz	50		
8	Rated high voltage	V	22000		
9	Rated low voltage	V	400		
10	Conection symbol	-	Dyn 11		
11	Rated high current	A	91.85		
12	Rated low current	A	5051.81		
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)	≤ 64		
24	No-load current & Tolerance	% & %	6.20 % & +30%		
25	Short-circuit impedance at 75°C & Tolerance	% & %	7.00 & ±10		
26	No-load loss	W	4000		
27	Load loss at 75°C	W	35500		
28	Efficiency at 75°C	: Full load unity power factor	%	98.88	
		: Full load 0.8 power factor	%	98.61	
		: 3/4 load unity power factor	%	99.10	
		: 3/4 load 0.8 power factor	%	98.87	
		: 1/2 load unity power factor	%	99.27	
		: 1/2 load 0.8 power factor	%	99.09	
29	Voltage regulation at	: Unity power factor	%	1.25	
		: 0.8 power factor	%	0.96	
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	125	30
	Power-frequency test voltage, 1 min		kV, r.m.s	50	3
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 3500 kVA, 22000-400/230 V. Dyn11

No.	Description	Unit	Guaranteed Value	
32	Transformer oil	-		
	Type of oil	-	Mineral oil (None PCB)	
	Oil dielectric breakdown	kV	≥55	
33	Bushings		HV.Bushing	LV.Bushing
	Applied standard	-	DIN 42531	DIN 42530
	Rated current	A	250	6300
	Full-wave impulse withstand voltage, or BIL	kV, peak	125	30
	Low-frequency dry 1-minute test voltage	kV, r.m.s.	50	10
	Low-frequency wet 10 second test voltage	kV, r.m.s.	50	10
	Protection class	-	20NF	1N
	Color of glazing	-	Brown	Brown
	Stud thread size (Dia)	mm.	12	76
34	Terminal connectors		HV.Terminal	LV.Terminal
	Diameter range	mm.	Clamp (7.5-12.6)	PAD 76 mm.
	Number of circuit	-	1(35.95 mm ²)	6
35	Pressure relief value			
	Operating pressure	kg / cm ²	0.7031	
	Flow rate at 1.03 Kg/cm ²	cc / sec	35000	
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

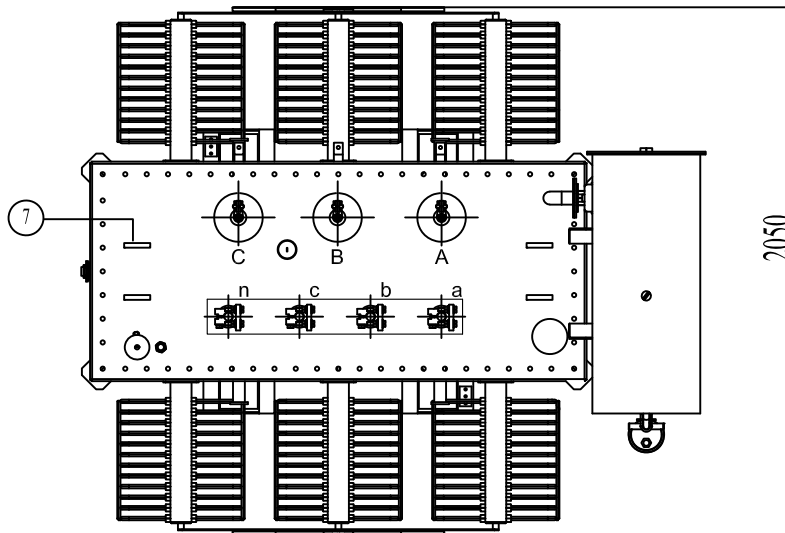
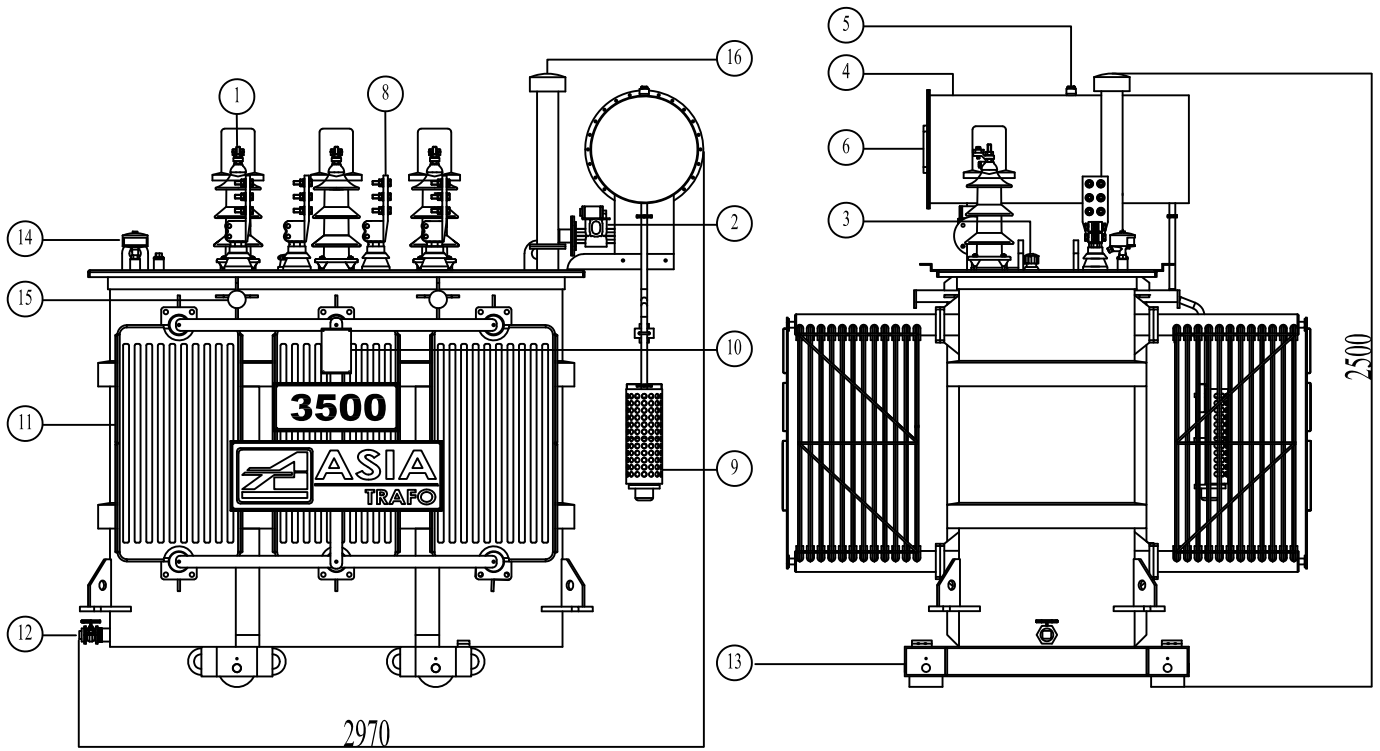
Routine test

- 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
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ASIA TRAF0 CO.,LTD.

Tilte :

OUTLINE DRAWING
 OIL IMMERSSED TRANSFORMER
 3500 kVA 3Ph 50Hz Dyn 11
 Pri.22000 V Sec. 400/230 V

Dimension in millimeters			Weight	Oil
H	L	W	kgs	Litres
2500	2970	2050	8305	2090

SPEC No. S-TR3500-22000-400/230

Signature		Date
Drawn By		
Checked By		
Approved By		

NO.	DESCRIPTION	Q'TY
16	PRESSURE RELIEF DEVICE	1
15	LIFTING LUGS FOR LIFTING TRANSFORMER	4
14	OILTEMPERATURE INDICATOR	1
13	SKID BASE	4
12	OIL SAMPLING AND DRAIN VALVE	1
11	RADIATOR FIN SET	6
10	NAMEPLATE W/CONNECTION DIAGRAM	1
9	DEHYDRATING BREATHER SILICAGEL	1
8	LV. BUSHING	3
7	LIFYING EYES ON THE COVER	4
6	OIL LEVEL GAUGE	1
5	OIL FILLING CAP	1
4	CONSERVATOR FOR MAIN TANK	1
3	OFF LOAD TAP CHANGER	1
2	BUCHHOLZ RELAY W/CONTACT	1
1	HV. BUSHING	3