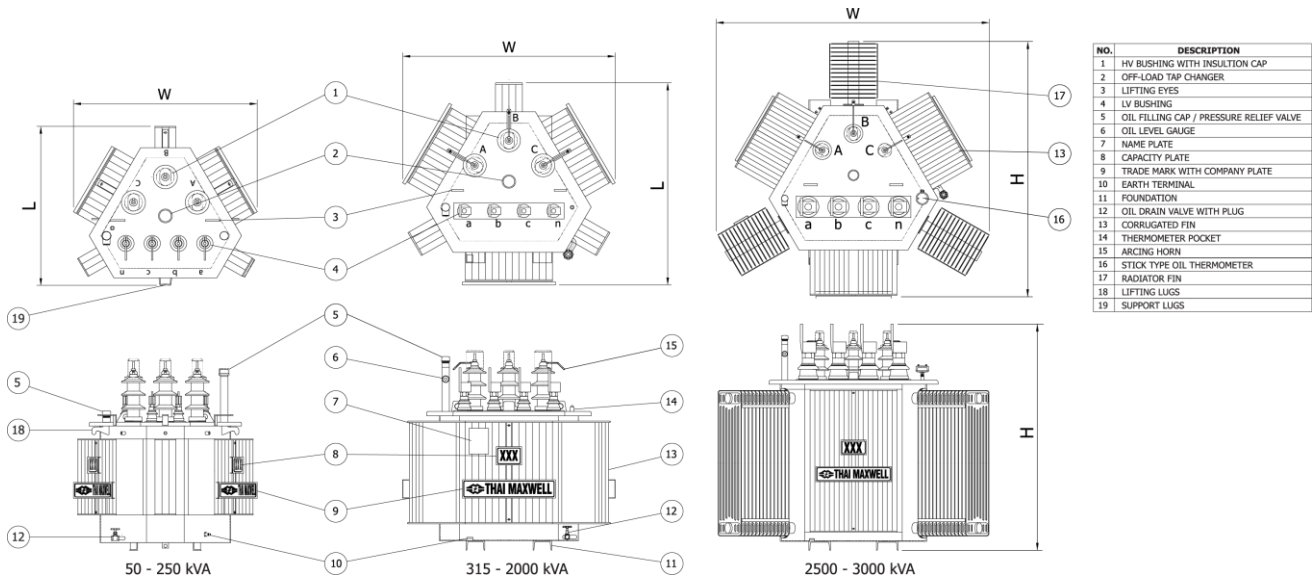


## TECHNICAL DATA OF STANDARD 3D DISTRIBUTION THREE PHASE TRANSFORMER



### Rated primary voltage : 22kV

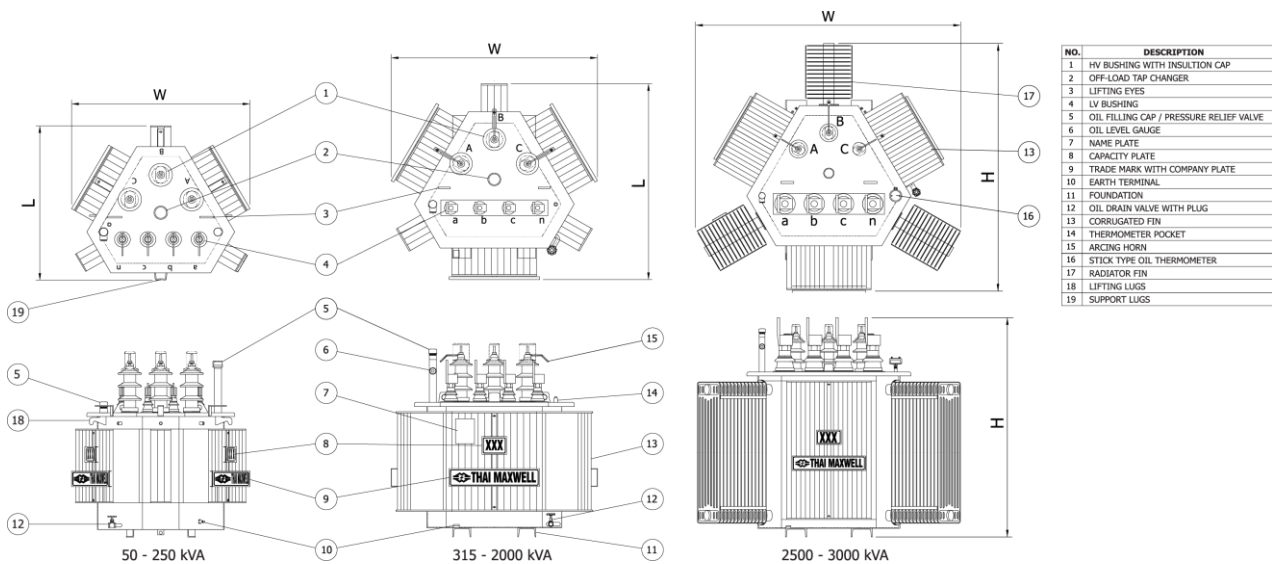
CAPACITY	NO-LOAD LOSSES	LOAD LOSSES AT 75 °C	TOTAL LOSSES AT 75 °C	IMPEDANCE AT 75 °C	EFFICIENCY (P.F.=1)		VOLTAGE REGULATION AT FULL LOAD (P.F.=1)	NOISE LEVEL dB (A) : 0.3 m	OUTLINE DIMENSION Approx.(mm.)			OIL QTY. (lt)	TOTAL WEIGHT Approx. (kg)
					½ Load (%)	Full Load (%)			W	L	H		
50	110	875	985	4.0	98.70	98.07	1.81	48	1055	850	1120	115	480
100	180	1450	1630	4.0	98.93	98.40	1.52	51	1100	910	1190	155	660
160	260	2000	2260	4.0	99.06	98.61	1.32	55	1135	960	1240	195	825
250	360	2750	3110	4.0	99.17	98.77	1.17	55	1170	1260	1300	245	1055
315	800	3900	4700	4.0	98.89	98.53	1.31	56	1270	1180	1220	235	1040
400	960	4600	5560	4.0	98.96	98.63	1.22	56	1325	1255	1250	280	1250
500	1150	5300	6450	4.0	99.02	98.73	1.13	56	1340	1275	1285	305	1325
630	1200	6500	7700	4.0	99.11	98.79	1.11	57	1370	1290	1370	350	1575
800	1250	9500	10750	6.0	99.10	98.67	1.36	58	1575	1540	1440	450	1985
1000	1500	11500	13000	6.0	99.13	98.72	1.32	58	1710	1690	1475	500	2310
1250	1650	13000	14650	6.0	99.22	98.84	1.21	60	1830	1840	1550	615	2820
1500	2050	15000	17050	6.0	99.23	98.88	1.18	60	1810	1830	1535	685	3160
1600	2350	19000	21350	6.0	99.12	98.68	1.36	61	1810	1815	1580	700	3300
2000	2600	20000	22600	6.0	99.25	98.88	1.18	61	1940	1975	1690	940	3990
2500	3000	25500	28500	7.0	99.26	98.87	1.26	62	2260	2160	1795	1030	4750
3000	3800	33000	36800	7.0	99.20	98.79	1.34	63	2620	2370	1900	1185	5620

#### Note :

1. The transformer is designed to operate under the following conditions
  - Altitude : Up to 1000 m above sea level
  - Ambient air temperature : 50 °C maximum for 50 to 250 kVA and 40°C maximum for 315 to 3000 kVA
2. Limits of temperature rise (top oil) : not exceeding 50 K for 50 to 250 kVA and 60 K for 315 to 3000 kVA
  - (winding) : not exceeding 55 K for 50 to 250 kVA and 60 K for 315 to 3000 kVA
3. Insulation class : A(105 °C)
4. Connection symbol : Dyn 11
5. Reference standard : IEC 60076
6. Special vector group and other primary voltage available upon request

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**TECHNICAL DATA OF STANDARD 3D DISTRIBUTION THREE PHASE TRANSFORMER**



NO.	DESCRIPTION
1	HV BUSHING WITH INSULATION CAP
2	OFF-LOAD TAP CHANGER
3	LIFTING EYES
4	LV BUSHING
5	OIL FILLING CAP / PRESSURE RELIEF VALVE
6	OIL LEVEL GAUGE
7	NAME PLATE
8	CAPACITY PLATE
9	TRADE MARK WITH COMPANY PLATE
10	EARTH TERMINAL
11	FOUNDATION
12	OIL DRAIN VALVE WITH PLUG
13	CORRUGATED FIN
14	THERMOMETER POCKET
15	ARCING HORN
16	STICK TYPE OIL THERMOMETER
17	RADIATOR FIN
18	LIFTING LUGS
19	SUPPORT LUGS

**Rated primary voltage : 33kV**

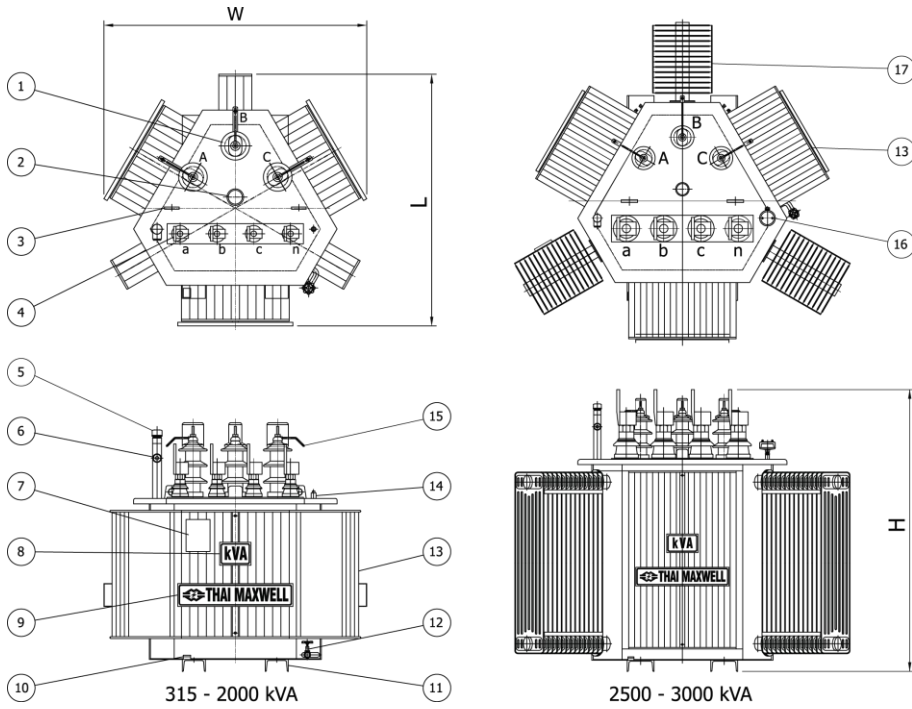
CAPACITY (kVA)	NO-LOAD LOSSES (Watt)	LOAD LOSSES AT 75 °C (Watt)	TOTAL LOSSES AT 75 °C (Watt)	IMPEDANCE AT 75 °C (%)	EFFICIENCY (P.F.=1)		VOLTAGE REGULATION AT FULL LOAD (P.F.=1) (%)	NOISE LEVEL dB (A) : 0.3 m	OUTLINE DIMENSION Approx.(mm.)			OIL QTY. (lt)	TOTAL WEIGHT Approx. (kg)
					½ Load (%)	Full Load (%)			W	L	H		
50	170	875	1045	4.0	98.47	97.95	1.81	48	1075	870	1200	125	470
100	260	1450	1710	4.0	98.77	98.32	1.52	51	1130	935	1275	175	650
160	370	2000	2370	4.0	98.92	98.54	1.32	55	1160	970	1400	230	900
250	520	2750	3270	4.0	99.04	98.71	1.17	55	1180	1035	1410	275	1100
315	850	3900	4750	4.0	98.85	98.51	1.31	56	1330	1245	1390	290	1160
400	1000	4600	5600	4.0	98.94	98.62	1.22	56	1375	1300	1410	340	1350
500	1200	5500	6700	4.0	98.98	98.68	1.17	56	1380	1320	1485	380	1560
630	1400	6500	7900	4.0	99.05	98.76	1.11	57	1515	1470	1530	450	1870
800	1450	10500	11950	6.0	98.99	98.53	1.48	58	1675	1660	1575	520	2120
1000	1650	12500	14150	6.0	99.05	98.60	1.42	58	1755	1755	1600	570	2460
1250	1900	14500	16400	6.0	99.12	98.70	1.33	60	1775	1780	1700	750	3090
1500	2100	18000	20100	6.0	99.13	98.68	1.37	60	1840	1870	1695	780	3230
1600	2400	19000	21400	6.0	99.11	98.68	1.36	61	1910	1950	1730	785	4255
2000	2700	22500	25200	6.0	99.17	98.76	1.30	61	1935	1985	1830	1000	4255
2500	3150	25500	28650	7.0	99.24	98.87	1.26	62	2250	2160	1940	1180	5415
3000	3900	33000	36900	7.0	99.20	98.78	1.34	63	2355	2260	2045	1545	6780

**Note :**

1. The transformer is designed to operate under the following conditions
  - Altitude : Up to 1000 m above sea level
  - Ambient air temperature : 50 °C maximum for 50 to 250 kVA and 40°C maximum for 315 to 3000 kVA
2. Limits of temperature rise
  - (top oil) : not exceeding 50 K for 50 to 250 kVA and 60 K for 315 to 3000 kVA
  - (winding) : not exceeding 55 K for 50 to 250 kVA and 60 K for 315 to 3000 kVA
3. Insulation class : A(105 °C)
4. Connection symbol : Dyn 11
5. Reference standard : IEC 60076
6. Special vector group and other primary voltage available upon request

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**TECHNICAL DATA OF STANDARD 3D DISTRIBUTION THREE PHASE TRANSFORMER**



NO.	DESCRIPTION
1	HV BUSHING WITH INSULATION CAP
2	OFF-LOAD TAP CHANGER
3	LIFTING EYES FOR UNTANKING/TANKING ASSEMBLY
4	LV BUSHING
5	PRESSURE RELIEF VALVE
6	OIL LEVEL GAUGE
7	NAME PLATE
8	CAPACITY PLATE
9	TRADE MARK WITH COMPANY PLATE
10	EARTH TERMINAL
11	FOUNDATION
12	OIL DRAIN VALVE WITH PLUG
13	CORRUGATED FIN
14	THERMOMETER POCKET
15	ARCING HORN
16	STICK TYPE OIL THERMOMETER WITH CONTACT
17	RADIATOR FIN

**Rated primary voltage : 24kV**

CAPACITY	NO-LOAD LOSSES	LOAD LOSSES AT 75 °C	TOTAL LOSSES AT 75 °C	IMPEDANCE AT 75 °C	EFFICIENCY (P.F.=1)		VOLTAGE REGULATION AT FULL LOAD (P.F.=1)	NOISE LEVEL dB (A) : 0.3 m	OUTLINE DIMENSION Approx.(mm.)			OIL QTY. (lt)	TOTAL WEIGHT Approx. (kg)
					½ Load (%)	Full Load (%)			W	L	H		
315	800	3900	4700	4.0	98.89	98.53	1.31	56	1270	1180	1220	235	1060
400	960	4600	5560	4.0	98.96	98.63	1.22	56	1325	1255	1250	280	1240
500	1050	5300	6350	4.0	99.06	98.75	1.13	56	1340	1275	1285	305	1320
630	1200	6300	7500	4.0	99.13	98.82	1.08	57	1370	1290	1370	345	1590
800	1250	9500	10750	6.0	99.10	98.67	1.36	58	1575	1540	1440	450	1980
1000	1500	11500	13000	6.0	99.13	98.72	1.32	58	1745	1730	1475	500	2310
1250	1650	13000	14650	6.0	99.22	98.84	1.21	60	1830	1840	1545	615	2815
1500	2050	15000	17050	6.0	99.23	98.88	1.18	60	1825	1840	1545	720	3220
1600	2350	19000	21350	6.0	99.12	98.68	1.36	61	1910	1945	1545	740	3380
2000	2600	20000	22600	6.0	99.25	98.88	1.18	61	1940	1980	1700	935	4145
2500	3000	25500	28500	7.0	99.26	98.87	1.26	62	2260	2160	1795	1030	5000
3000	3800	33000	36800	7.0	99.20	98.79	1.34	63	2620	2370	1900	1185	5620

**Note :**

1. The transformer is designed to operate under the following conditions
  - Altitude : Up to 1000 m above sea level
  - Ambient air temperature : 40 °C maximum
2. Limits of temperature rise
  - (top oil) : not exceeding 60 °C
  - (winding) : not exceeding 65 °C
3. Insulation class : A(105 °C)
4. Connection symbol : Dyn 11
5. Reference standard : IEC 60076
6. Special vector group and other primary voltage available upon request

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