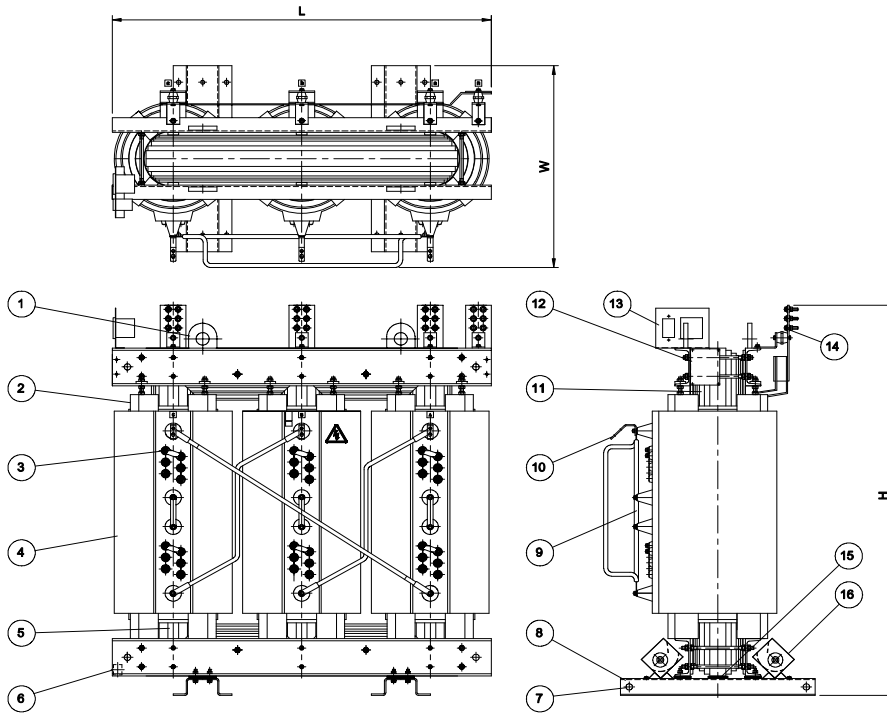


## TECHNICAL DATA OF DRY TYPE CAST RESIN THREE PHASE TRANSFORMER WITHOUT ENCLOSURE (IP00)



Item	Description
1	Lifting lug
2	LV & HV supporter
3	Tapping
4	LV & HV coil winding
5	Tie bars
6	Earthing terminal
7	Pulling eye
8	Base
9	HV connection bar
10	HV connection terminal
11	Core
12	Name plate
13	Temperature relay TR42
14	LV connection bar
15	Anti vibration pad
16	Cooling fan

**Rated primary voltage : 22kV, 12/24kV, 24kV**

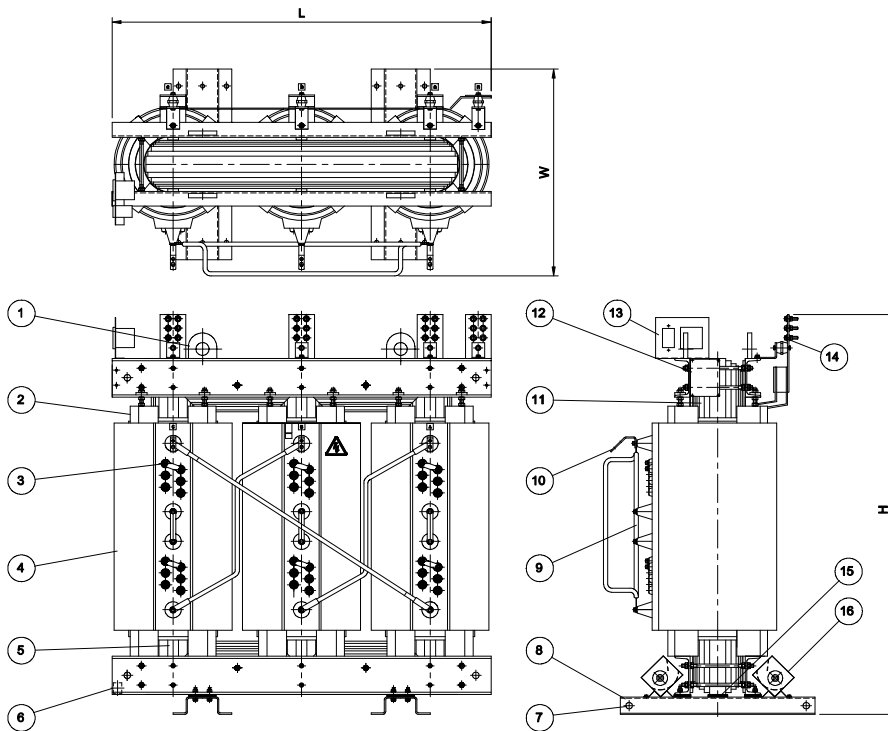
CAPACITY (kVA)	NO-LOAD LOSSES (+15%) (Watt)	LOAD LOSSES AT 75 °C (+15%) (Watt)	TOTAL LOSSES AT 75 °C (+10%) (Watt)	IMPEDANCE AT 75 °C (+/-10%) (%)	EFFICIENCY (P.F.=1)		VOLTAGE REGULATION AT FULL LOAD (P.F.=1) (%)	NOISE LEVEL dB (A) : 1 m	OUTLINE DIMENSION Approx.(mm.)			TOTAL WEIGHT Approx. (kg)
					1/2 Load (%)	Full Load (%)			W	L	H	
250	1160	3390	4550	4.0	98.42	98.21	1.43	58	980	1380	1650	1450
315	1200	4100	5300	4.0	98.61	98.35	1.37	58	980	1410	1700	1670
400	1400	4800	6200	4.0	98.72	98.47	1.27	60	1020	1440	1750	1890
500	1650	5900	7550	4.0	98.77	98.51	1.25	60	1050	1530	1700	2220
630	1960	6900	8860	4.0	98.84	98.61	1.17	62	1080	1710	1750	2850
800	2300	8300	10600	6.0	98.92	98.69	1.21	64	1100	1780	1850	3160
1000	2660	9600	12260	6.0	99.00	98.79	1.14	64	1100	1770	1850	3320
1250	3100	11800	14900	6.0	99.04	98.82	1.12	65	1100	1800	2100	4010
1600	3800	14000	17800	6.0	99.10	98.90	1.05	66	1150	1890	2200	4700
2000	5000	17000	22000	6.0	99.08	98.91	1.03	66	1200	1960	2250	5480
2500	5800	20000	25800	6.0	99.14	98.98	0.98	68	1200	2020	2550	6520
3000	6400	23000	29400	6.0	99.20	99.03	0.94	68	1250	2130	2700	7650

**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 (winding) : 100 °C maximum
3. Insulation class : F
4. Connection symbol : Dyn 11
5. Reference standard : IEC 60076-11
6. Special vector group, other primary voltage and overload capability available upon request

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## TECHNICAL DATA OF DRY TYPE CAST RESIN THREE PHASE TRANSFORMER WITHOUT ENCLOSURE (IP00)



Item	Description
1	Lifting lug
2	LV & HV supporter
3	Tapping
4	LV & HV coil winding
5	Tie bars
6	Earthing terminal
7	Pulling eye
8	Base
9	HV connection bar
10	HV connection terminal
11	Core
12	Name plate
13	Temperature relay TR42
14	LV connection bar
15	Anti vibration pad
16	Cooling fan

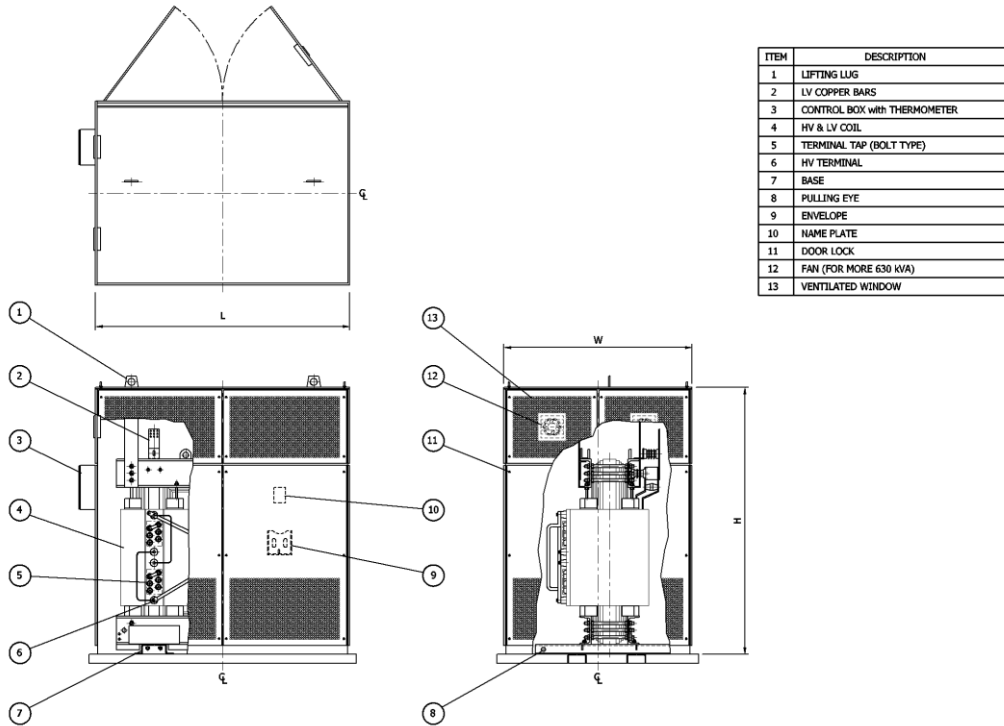
### Rated primary voltage : 33kV

CAPACITY (kVA)	NO-LOAD LOSSES (+15%) (Watt)	LOAD LOSSES AT 75 °C (+15%) (Watt)	TOTAL LOSSES AT 75 °C (+10%) (Watt)	IMPEDANCE AT 75 °C (+/-10%) (%)	EFFICIENCY (P.F.=1)		VOLTAGE REGULATION AT FULL LOAD (P.F.=1) (%)	NOISE LEVEL dB (A) : 1 m	OUTLINE DIMENSION Approx.(mm.)			TOTAL WEIGHT Approx. (kg)
					1/2 Load (%)	Full Load (%)			W	L	H	
250	1700	3600	5300	4.0	97.96	97.92	1.51	58	1100	1610	1620	1820
315	1900	4350	6250	4.0	98.14	98.05	1.45	58	1100	1660	1670	2110
400	2150	5050	7200	4.0	98.32	98.23	1.33	60	1100	1690	1700	2350
500	2300	6000	8300	4.0	98.50	98.37	1.27	60	1150	1760	1820	2770
630	2650	7000	9650	4.0	98.62	98.49	1.18	62	1150	1770	1930	3160
800	3100	8200	11300	6.0	98.73	98.61	1.20	64	1170	1900	1970	3460
1000	3600	9500	13100	6.0	98.82	98.71	1.13	64	1200	1940	2000	3870
1250	4100	11000	15100	6.0	98.92	98.81	1.06	65	1200	1980	2270	4150
1600	5200	12700	17900	6.0	98.96	98.89	0.97	66	1250	2100	2380	5580
2000	6250	15400	21650	6.0	99.00	98.93	0.95	66	1250	2180	2450	6550
2500	6750	18700	25450	6.0	99.09	98.99	0.93	68	1300	2280	2600	7750
3000	7200	22000	29200	6.0	99.16	99.04	0.91	68	1310	2310	2850	8690

### Note :

- The transformer is designed to operate under the following conditions
  - Altitude : Up to 1000 m above sea level
  - Ambient air temperature : 40 °C maximum
- Limits of temperature rise (winding) : 100 °C maximum
- Insulation class : F
- Connection symbol : Dyn 11
- Reference standard : IEC 60076-11
- Special vector group, other primary voltage and overload capability available upon request

**TECHNICAL DATA OF DRY TYPE CAST RESIN THREE PHASE TRANSFORMER WITH ENCLOSURE (IP21)**



**Rated primary voltage : 22kV, 12/24kV, 24kV**

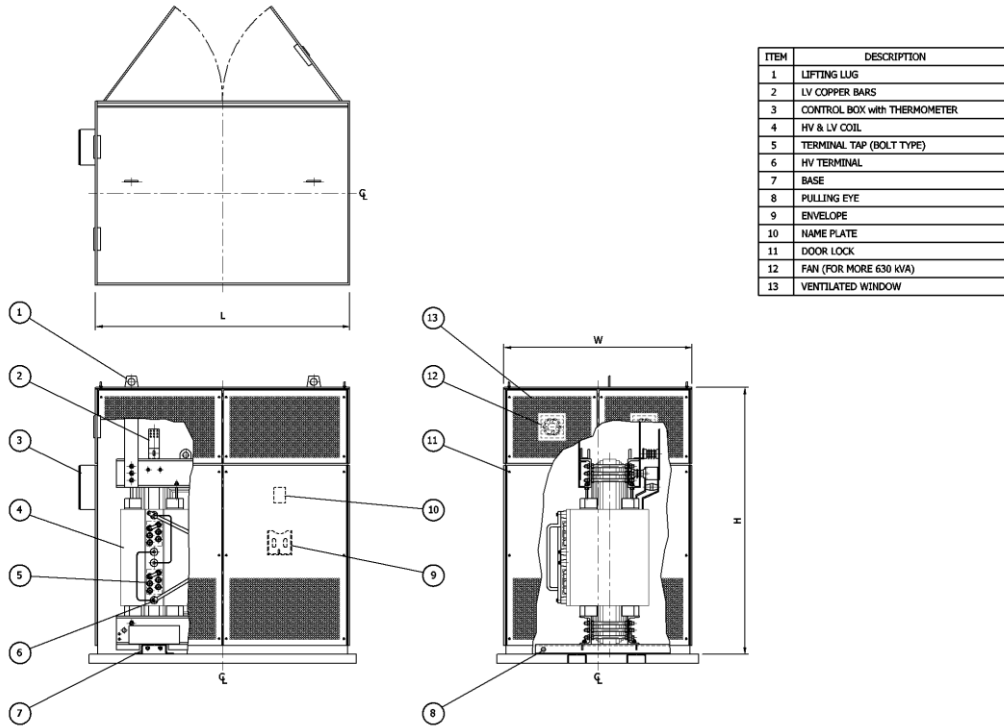
CAPACITY (kVA)	NO-LOAD LOSSES (+15%) (Watt)	LOAD LOSSES AT 75 °C (+15%) (Watt)	TOTAL LOSSES AT 75 °C (+10%) (Watt)	IMPEDANCE AT 75 °C (+/-10%) (%)	EFFICIENCY (P.F.=1)		VOLTAGE REGULATION AT FULL LOAD (P.F.=1) (%)	OUTLINE DIMENSION Approx.(mm.)			TOTAL WEIGHT Approx. (kg)
					1/2 Load (%)	Full Load (%)		W	L	H	
250	1160	3390	4550	4.0	98.42	98.21	1.43	1600	2280	2150	1950
315	1200	4100	5300	4.0	98.61	98.35	1.37	1600	2310	2200	2200
400	1400	4800	6200	4.0	98.72	98.47	1.27	1600	2340	2250	2430
500	1650	5900	7550	4.0	98.77	98.51	1.25	1650	2430	2200	2800
630	1960	6900	8860	4.0	98.84	98.61	1.17	1700	2610	2250	3450
800	2300	8300	10600	6.0	98.92	98.69	1.21	1750	2680	2350	3850
1000	2660	9600	12260	6.0	99.00	98.79	1.14	1700	2670	2350	4000
1250	3100	11800	14900	6.0	99.04	98.82	1.12	1750	2700	2600	4750
1600	3800	14000	17800	6.0	99.10	98.90	1.05	1750	2800	2700	5450
2000	5000	17000	22000	6.0	99.08	98.91	1.03	1800	2860	2750	6250
2500	5800	20000	25800	6.0	99.14	98.98	0.98	1850	2920	3050	7350
3000	6400	23000	29400	6.0	99.20	99.03	0.94	1850	3030	3150	8450

**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 (winding) : 100 °C maximum
3. Insulation class : F
4. Connection symbol : Dyn 11
5. Reference standard : IEC 60076-11
6. Special vector group, other primary voltage and overload capability available upon request

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**TECHNICAL DATA OF DRY TYPE CAST RESIN THREE PHASE TRANSFORMER WITH ENCLOSURE (IP21)**



**Rated primary voltage : 33kV**

CAPACITY (kVA)	NO-LOAD LOSSES (+15%) (Watt)	LOAD LOSSES AT 75 °C (+15%) (Watt)	TOTAL LOSSES AT 75 °C (+10%) (Watt)	IMPEDANCE AT 75 °C (+/-10%) (%)	EFFICIENCY (P.F.=1)		VOLTAGE REGULATION AT FULL LOAD (P.F.=1) (%)	OUTLINE DIMENSION Approx.(mm.)			TOTAL WEIGHT Approx. (kg)
					1/2 Load (%)	Full Load (%)		W	L	H	
250	1700	3600	5300	4.0	97.96	97.92	1.51	1850	2680	2120	2400
315	1900	4350	6250	4.0	98.14	98.05	1.45	1850	2730	2170	2750
400	2150	5050	7200	4.0	98.32	98.23	1.33	1850	2760	2200	3050
500	2300	6000	8300	4.0	98.50	98.37	1.27	1900	2830	2320	3500
630	2650	7000	9650	4.0	98.62	98.49	1.18	1900	2840	2430	3900
800	3100	8200	11300	6.0	98.73	98.61	1.20	1950	2970	2470	4200
1000	3600	9500	13100	6.0	98.82	98.71	1.13	1950	3000	2500	4600
1250	4100	11000	15100	6.0	98.92	98.81	1.06	1950	3050	2770	4900
1600	5200	12700	17900	6.0	98.96	98.89	0.97	2000	3170	2880	6400
2000	6250	15400	21650	6.0	99.00	98.93	0.95	2050	3250	2950	7400
2500	6750	18700	25450	6.0	99.09	98.99	0.93	2050	3350	3100	8650
3000	7200	22000	29200	6.0	99.16	99.04	0.91	2100	3380	3350	9600

**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 (winding) : 100 °C maximum
3. Insulation class : F
4. Connection symbol : Dyn 11
5. Reference standard : IEC 60076-11
6. Special vector group, other primary voltage and overload capability available upon request

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