

EARTHING & AUXILIARY TRANSFORMERS

MODEL :
ETR 11 & ETR 33



Realizing Your Dreams



EWT Transformer Sdn Bhd
(25685-D)

TECHNICAL DATA - ZIG-ZAG EARTHING TRANSFORMER

ITEM	DESCRIPTION		33/0.415kV	11/0.415kV
1	Continuous maximum rating	kVA	300	300
2	Model		ETR 33	ETR 11
3	Vector Group		ZNyn11	ZNyn1
4	Number of Phase		3	3
5	Number of Winding		2	2
6	Normal Ratio of transformation on No-Load (HV/LV)	kV	33/0.415	11/0.415
7	Zero Sequence Impedance 75° C	Ohm/Phase	35.72	11.30
8	Frequency / Type of Cooling	Hz	50 / ONAN	50 / ONAN
9	Maximum Top Oil Temperature at: - a) CMR of the secondary winding and 30°C ambient b) Maximum specified earth fault current of the primary winding 30°C	° C ° C	85 85	85 85
10	Winding hot spot temperature at CMR of the secondary winding 30°C	° C	108	108
11	Maximum average winding temperature at CMR and 30°C ambient	° C	90	90
12	Peak asymmetrical mechanical withstand on the interconnected star winding	kA	1.36	1.36
13	Maximum flux density in iron at normal voltage, frequency and ratio (no-load) Cores / Yokes	Tesla	1.68	1.6
14	Earth Fault current rating of interconnected Star windings @10 seconds	Amps	1600	1600
15	No Load Loss	kW	1.7	0.7
16	Load Loss	kW	1.95	3.00
17	Impedance voltage at 75°C and CMR of secondary windings between HV and LV windings	%	4.2	9.6
18	Resistance of HV windings at 75°C	Ohm/Phase	3.5	1.8
19	Insulation Level Primary (Interconnected Star) winding; - a) Full Wave Impulse Withstand / (BIL) b) Induced Over Voltage c) Separate Source Power Frequency Withstand of Neutral Secondary Winding:- a) Induced Over Voltage b) Separate Source Power Frequency Withstand of Neutral	kV kV kV kV kV	200 66 70 0.830 3	95 22 28 0.830 3
20	Type of Winding Material and Construction a) HV b) LV		Copper / Wire Copper / Sheet	Copper / Wire Copper / Sheet
21	Type of Transformer Oil / Weight of Oil (Ltr.)		Mineral Oil / 1270	Mineral Oil / 764
22	Type and Rated Current of LV Bushing		DIN / 630A	DIN / 630A
23	Type and Rated Current of HV Bushing		DIN / 250A	DIN / 250A
24	Transformer Weight :- a) Untanking Mass b) Total Weight of Completed Transformer (including oil)	kg kg	3425 5580	1760 3560
25	Transformer Dimension : L x W x H (mm)		2535 x 2265 x 2095	2310 x 1970 x 2095

Accessories / Fittings: -

Conservator, Silica Gel Breather, Bucholz Relay, Oil Temperature Indicator, Uninhibited Oil, LV (415kV) Switchfuse, Pressure Relief Device, Drain Valve and Gate Valve

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