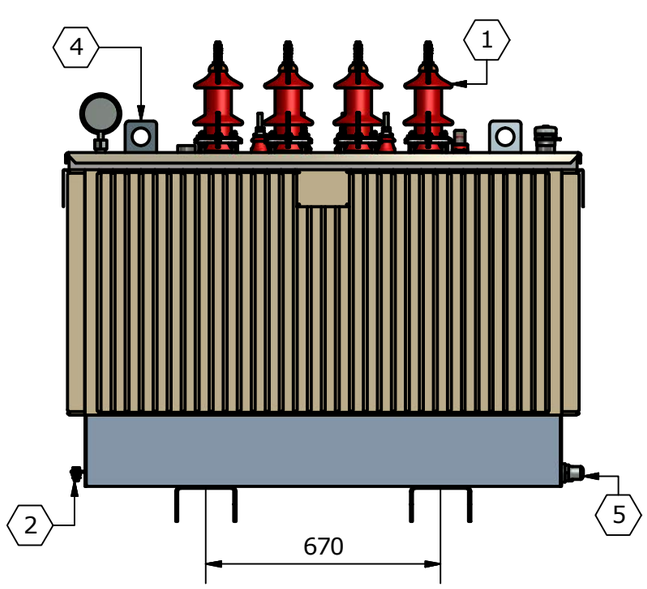
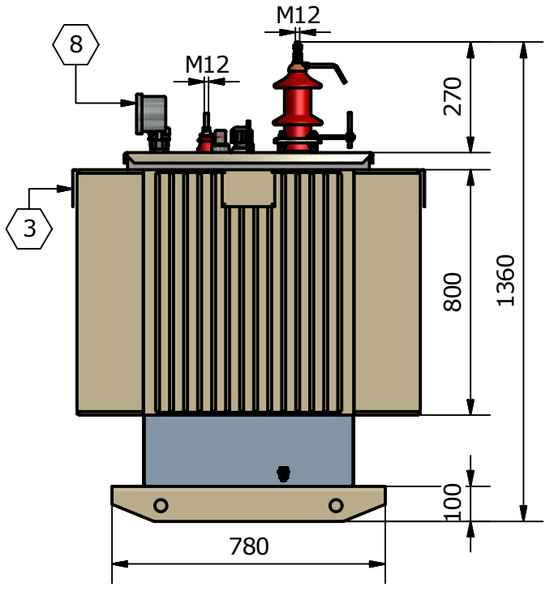
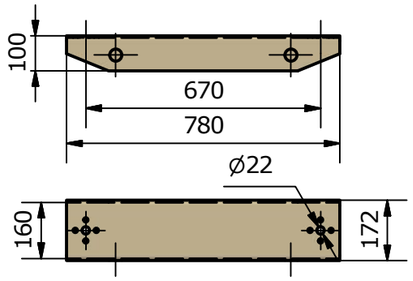
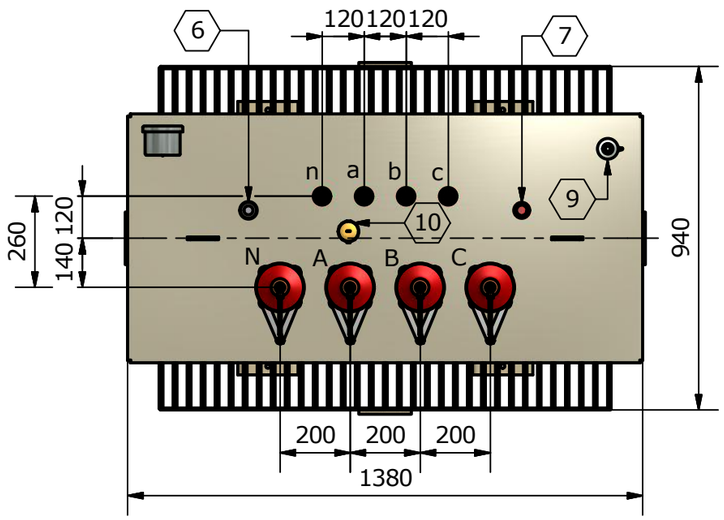
MAKITEL DOOEL









Position	Description
1	HV Insulator 12 kV-250A P1 EN50180
2	Earthing plug
3	Rating plate
4	Lifting lugs
5	Drain valve G1"
6	Filler cup
7	Oil level indicator Type D ARES 1"
8	Thermometer model 1071
9	Sequrity valve T-10
10	Tap Changer 090 Type 04/24 kV 65A pos.04.-.265
11	LV Insulator 1 kV-250 A - A EN50386

Tolerances	
No load losses	± 15%
Load losses at 75 C	± 15%
Total losses	+10%
Dimensions	± 10%
Weights	± 10%

Manufacturer	Makitel DOOEL
Type	IEC 60076 Zero point transformer ONAN
Designation	ZNT 100 kVA-150A-10/0,4 kV
Rated voltage [kV]	10/0.4
Application	Outdoor instalation
HV Insulation level	12 kV/28 kV rms/75 BILL
LV Insulation level	1,1 kV/5 kV rms
Power	SelfPower + Fault Power 100 kVA+866 kVA
Fault Current [A]	150 A Neutral; 150/3 per phase
Rated frequency [Hz]	50
Ambient temperature	min 35 max 40 C
TOR/WR [K]	60/65
Oil	EN 60296
Drain Valve	Included
Voltage regulation	±2x2.5%
Zero sequence impedance [Ω/phase]	2.4
Sound Level	<=68 dB (A)
Isolators electric resistence to pollution	>= 20 mm/kV
Operation time at residual current	>= 24 hrs
Vector group	ZNyn11
Surface protection	Painted, RAL 7033, EN ISO 12944 (C3)
Main container	Hermetically sealed
Execution of cover	Bolted
Oil weight [kg]	520
Total weight [kg]	1920
Transport arrangement	U sections
Iron losses [W]	760
Copper losses at 75C [W]	600 (Without Fault current)
Uk [%]	>1,0
HV Bushings	12 kV - 250A P1 EN50180
Standard	EN 60076-1
Length	1380
Width	940
Height	1360
D	670
E	200
F	120

Designed by	Checked by	Approved by	Date		Date	
		Production	10-Feb-22		10-Feb-22	

MAKITEL DOOEL TRANSFORMERS FACTORY	Outlook		
	ZNT 100 kVA-150A-10/0.4 kV	Edition Al/Al	Sheet 1 / 1