VFP-52

VOLTAGE TRANSFORMER

Outdoor service

DESCRIPTION

High voltage metering/protection transformers for measuring instruments, meters, relays, and similar devices up to 52 kV. For outdoor purpose.

The transformer VFP-52 is a phase-to-earth transformer; that is, a single-phase transformer, used to keep one of the ends of the primary winding directly connected to earth.

The primary winding consists of multiple layers of double enamel copper wire separated by kraft paper and connected to the primary terminal. The secondary windings are designed with double enamel copper wire and isolated from the core and the primary winding by pressed cardboard and paper.

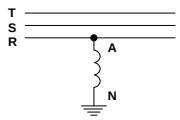
The transformer has been designed to withstand high G levels due to earthquakes. It disposes of an expansion tank to compensate oil volume variations. There is also, in the upper end, a level indicator to show if the transformer and the insulating oil are in their usual working conditions.

The external insulator is made of porcelain, with a creepage distance in compliance up to 35mm/kV regarding the pollution level.

CONNECTIONS

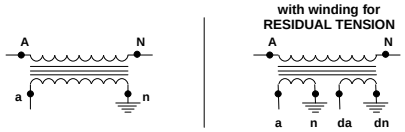
PRIMARY CONNECTIONS

PRIMARY

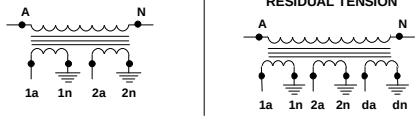


SECONDARY CONNECTIONS

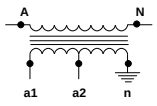
1 SECONDARY



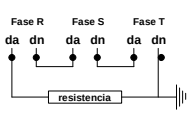
2 SECONDARIES



A SECONDARY WITH SOCKET



Secondary connection of residual tension



MECHANICAL CHARACTERISTICS

- Tightening torque:

M8 Terminals:	6 N.m	Base fixings M16:	164 N.m
Earth terminal M12:	20 N.m		

- Borne Brass primary terminals and steel earth terminal.
- Secondary terminals protected by metallic cover with connection through PG cable glands.
- Galvanized iron tank to prevent corrosion.
- Approximate weight: 98 kg
- Standard creepage distance: 1820 mm
- Arch distance: 533 mm

CLASS AND BURDEN TABLE

CLASS	VOLTAGE FACTOR (VA) [1]		HEATING POWER (VA) a 20-30 °C room temperature
	F_t 1'2 U_{pn} continuous		
	F_t 1'5 U_{pn} for 30 s	F_t 1'9 U_{pn} for 8 h	
0'2	100	75	1500
0'5	150	125	
1	300	275	
3P	600	550	
6P	1000	900	

1) Maximum power valid for one secondary (orientative values).
For classes 0'2, 0'5 y 1 maximum precision voltage 1'2 U_{pn}

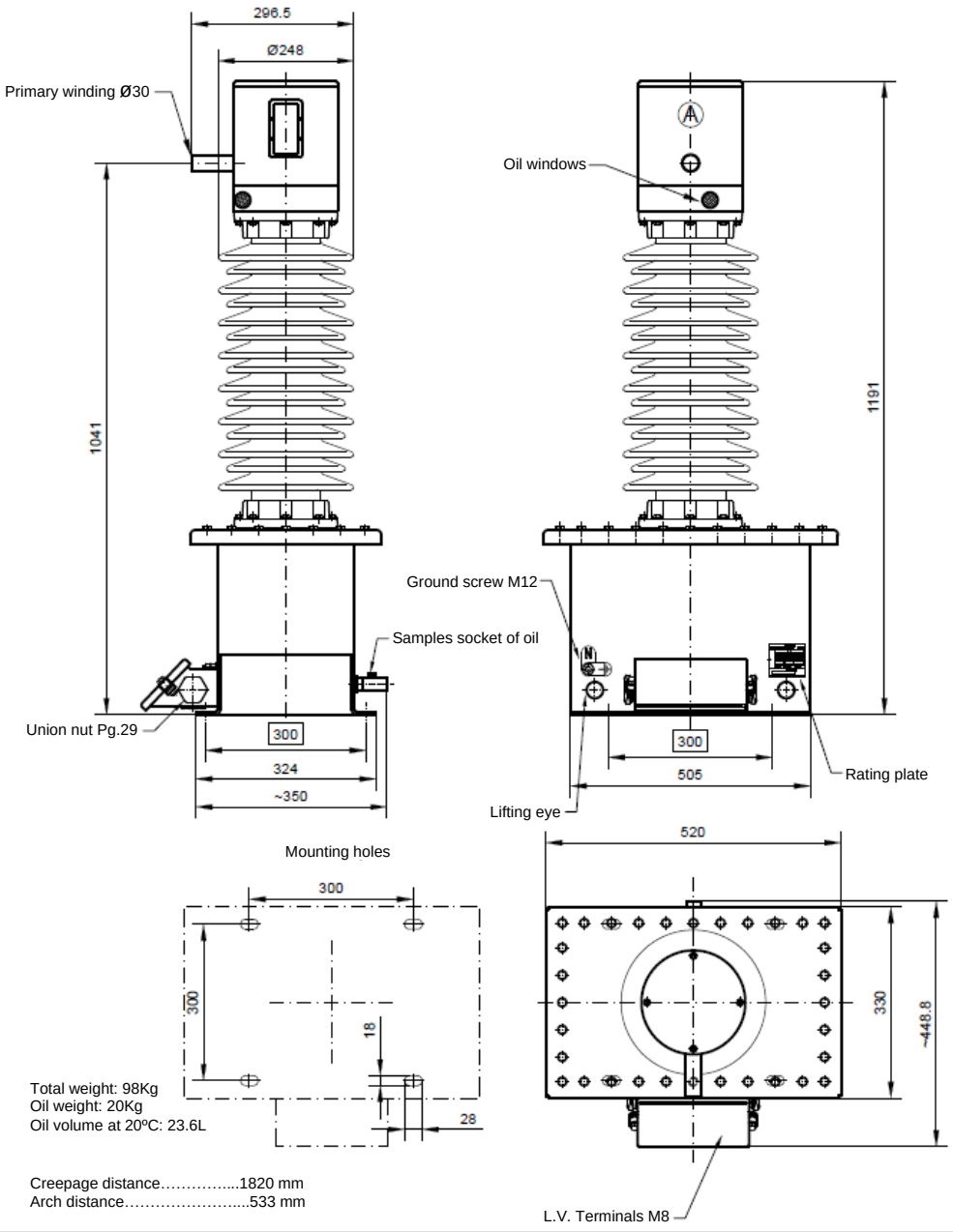
Laboratorio Electrotécnico

ELECTRICAL CHARACTERISTICS

		IEC 61869-1 and -3
Highest voltage for equipment (U_m) (kV)		52
Highest system voltage (kV)		52
Power frequency withstand voltage (kV)	Primary	95
	Secondary	3
Induced voltage, 200 Hz 30 sec (kV)		95
Rated lightning impulse withstand voltage (peak) (kV)		250
Secondary assigned voltage (U_{sn}) (kV)		100:√3 ó 110:√3 ó 110:3
Assigned frequency (f) (Hz)		50/60
Admissible surge continuously (U_n) (kV)		1'2 Upn

DIMENSIONS (mm)

VFP-52



Total weight: 98Kg
Oil weight: 20Kg
Oil volume at 20ºC: 23.6L

Creepage distance……...1820 mm
Arch distance……...533 mm