

Data Sheet 1.28/2

Exciter transformer, Type PEOM

Application

The exciter transformers type PEOM are designed to feed the tuneable modular reactors and reactor cascades of type DERI in resonant circuits with a well-adapted power and voltage.

The exciter transformer is equipped with output voltage taps adapted to the test conditions and the type of load (mainly depending on the expected quality factor Q of the test system). The number and voltage level of the voltage taps is decided upon after all test conditions are clarified.

Brief description

The exciter transformer is installed in a separate steel tank with corrugated walls. The tank is hermetically sealed. This type of steel tank is necessary for heat dissipation and oil expansion due to changing of ambient temperature and heating during operation. The insulating oil is a non-inhibited mineral transformer oil according to IEC 60296. The exciter transformer is built as an isolation transformer with two electrostatic shields inside, in order to prevent coupling of electrical noise to the HV side.

The exciter transformer is designed for the same duty cycle and ambient conditions as the tuneable modular reactor of the type DERI. It is available for both power frequencies, 50 and 60 Hz.

The taps of the exciter transformer have to be connected by hand, while the test system is switched off. The taps have to be chosen depending on the tuneable modular reactor and in accordance to the load (capacitance).

The exciter transformer is equipped with a current transformer for measuring the secondary current and with surge arresters to prevent damages resulting from transients due to disruptive discharges of the test object.

The types described in the table (see Table 1) are basic types, taps are adapted to the test system specification.

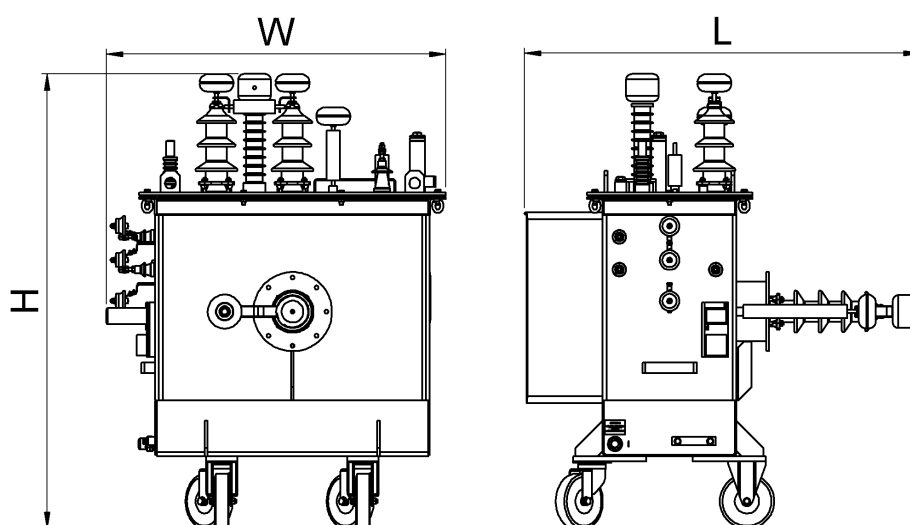


Figure 1: Schematic sketch of exciter transformer

Table 1: Technical Data

Type designation	Rated power (kVA)	Max. output voltage (kV)	Approx. dimensions (LxWxH) (mm ³)	Total weight (kg)	Weight of oil (kg)
PEOM 20/20	20	20	1350x890x1400	750	190
PEOM 30/20	30	20	1380x890x1450	820	190
PEOM 50/30	50	30	1480x1250x1680	1200	370
PEOM 75/30	75	30	1480x1250x1680	1250	370
PEOM 100/50	100	50	1480x1250x1680	1400	370
PEOM 120/90	120	90	1900x1370x1750	1660	550
PEOM 150/50	150	50	1600x1370x1750	1660	550
PEOM 150/90	150	90	1900x1370x1750	1660	550
PEOM 200/90	200	90	1900x1370x1850	1750	600
PEOM 250/50	250	50	1900x1370x1850	1750	600
PEOM 300/90	300	90	1950x1500x1910	1950	650
PEOM 400/65	400	65	1850x1600x1910	2350	680
PEOM 500/80	500	80	2000x1600x2100	2470	700

Type designation

PEOM a/b

a = power in kVA

b = max. max. output voltage in kV