

Data Sheet no. 1.28-1

Exciting Transformer Type PEOM

Application

These exciting 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 transformer is provided with output voltage taps adapted to the test conditions and the type of load (mainly depending on the expected quality factor Q of the system). The number and the ratings of the voltage taps is fixed after all test conditions are clarified.

Brief description

The exciting transformer is installed in the separate steel tank with corrugated walls. The tank is hermetically sealed. The walls are executing the heat dissipation and the oil expansion due to changing of ambient temperature and heating. Insulating oil is a mineral transformer oil according IEC 60296.

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

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

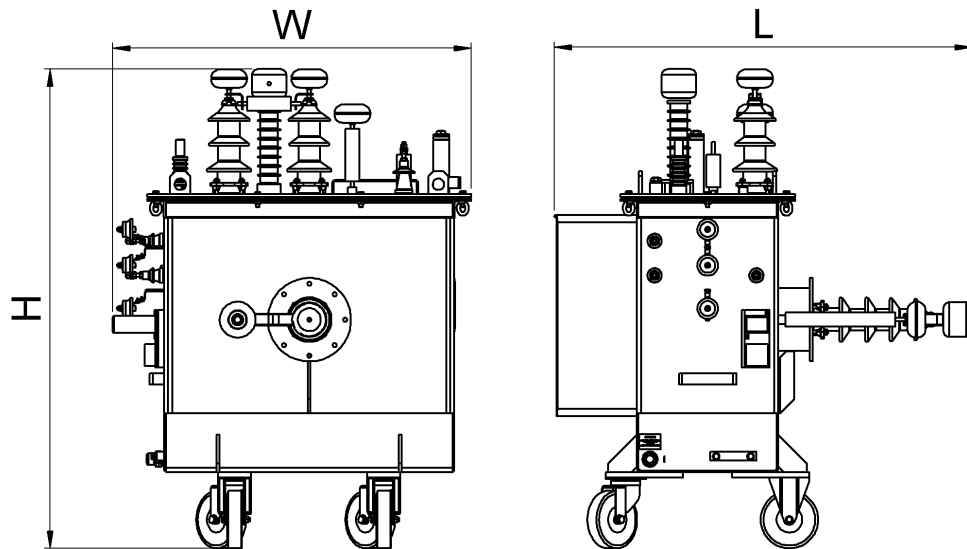
The exciting transformer is built as an isolation transformer with two electrostatic shields inside, in order to prevent coupling of electrical noise to the HV side.

The taps of the exciting transformer have to be connected under switched-off circuit state by hand with the tuneable modular reactor and dependent on the load (capacitance).

The types described in the table are basic types, taps are adapted to the test system specification.

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

PEOM a/b: a: power in kVA
b: max. output voltage in kV



Schematic sketch of exciting transformer

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