

Data Sheet no. 1.29/1

Exciting Transformer Type PEOE

Application

These exciting transformers type PEOE are designed to feed the tuneable metal tank reactors types DER and DERU in series resonant circuits with well adapted power and voltage.

The transformer is provided with up to four output voltage taps adapted to the test conditions and the type of load (mainly depending on the expected quality factor Q of the system and the load, e.g. lengths of cable to be tested and type of cable end termination). The number and the ratings of the voltage taps is fixed after all test conditions are clarified.

Brief description

The exciting transformer is installed inside the metal tank of the tuneable reactor in order to supply a compact system and to minimize the electrical noise in to the test circuit. The exciting transformer is built as an isolation transformer with two electrostatic shields inside, in order to prevent coupling to the HV-side.

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

The taps of the exciting transformer have to be connected under switched-off circuit state by a

separate off load tap changer in accordance with those of the tuneable reactor and dependent on the load (e.g. cable capacitance). The tap changer may be provided optionally with a motor drive for automatic switchover between the taps selected from the control desk.

The exciting transformer is also fitted with surge arresters to prevent damages resulting from transients due to disruptive discharges of the test object.

The weight and dimensions of the exciting transformer are already considered and included in weight and dimensions of the tuneable reactor.

Type designation	Rated Power (kVA)	Max. Output voltage (kV)
PEOE 10/6	10	6
PEOE 40/10	40	10
PEOE 50/15	50	15
PEOE 60/20	60	20
PEOE 70/20	70	20
PEOE 100/50	100	50
PEOE 125/50	125	50
PEOE 150/50	150	50

PEOE a/b:

a: power in kVA

b: max. output voltage in kV

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