Data Sheet no. 1.18/3

Tunable Compensation Reactors, Types DERK

Application
The tunable compensation reactors are used to reduce the capacitive load for the regulating transformer and the feeding network. They are connected in parallel to the input of the test transformer. By tuning the reactor unit to the optimum inductance the power demand for a certain capacitive load is minimized.

Description
The parameters depend first of all on the capacitive load or load range (µF or kvar) and the test voltage, but also on the primary voltage of the test transformer.
The tunable compensation reactors are designed for continuous duty. The variation of impedance is done by a moveable part of the magnetic core, driven by a motor and controlled by the test field control.

Operating frequency	50 / 60	Hz
Max. ambient temperature (operation)	40	°C
Supply voltage for motor drive	400	V (AC); 3-phase
Supply power for motor drive	approx. 1000	VA
Type of cooling	ONAN	
Type of enclosure	corrugated steel tank	

Type	Power kvar	Voltage V	Max. current A	Impedance range (50 Hz) mH	Dimensions (L x W x H) mm³	Weight kg
DERK 440/0.4	440	400	1100	1.2 … 23	1550 x 1300 x 1900	2250
DERK 200/0.5 DERK 400/0.5	200 400	500 500	400 800	2.5 … 80 2.0 … 40	1400 x 1300 x 1900 1550 x 1300 x 1900	2000 2250
DERK 1000/1	1000	1000	1000	3.2 … 64	1600 x 1500 x 1900	2650
DERK 1000/6 DERK 2400/6	1000 2000	6000 6500 [1)]	167 369	115 … 2300 56 … 1120	1600 x 1500 x 1900 2000 x 2300 x 2900	2700 6000
DERK 5000/6 [2)]	5000	6000	833	23 … 460	2500 x 2900 x 3000	7300

[1)] for better adaptation to the power demands this type can be equipped with an additional tap with 3250V / 1200kVA
[2)] for short time operation only (1h ON/ 1h OFF 12 times per day)

The reactors are filled with mineral insulating oil according to IEC 60296.
The reactors can be combined with fixed compensation reactors according to Data Sheet 1.17.

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