

Data Sheet 8.11/6

Bar Core Reactor, Type DEIM

Application

The bar core reactor as part of a resonant test system generates high single-phase AC voltages - with variable frequency - against earth which in particular serve to perform high-voltage tests. It is mainly used for the on-site testing of GIS, short cables and other components. The reactor and its accessories are designed for durability, frequent transportation and easy handling on site.

Design

The bar core reactor consists of a bar core with an oil-paper-insulated layer-type HV windings being located in an oil-filled glass-fiber reinforced plastic (GRP) tube. The core is made of high-quality grain-oriented transformer sheet and ensures together with the layer-type windings a high quality factor of the resonant circuit. The modular design enables to form cascades of up to four modules as well as the parallel connection of several modules or cascades, and thereby an optimal adaptation to the test voltage and test object capacitance.

Due to the core design ambient steel constructions might be influenced by the magnetic flux of the reactors. Thereby it is advised to use only accessories i.e. electrodes and base frames provided by the manufacturer during operation.

Table 1: General Data and operating conditions

Transformer oil		Mineral oil compliant with IEC 60296:2012
Temperature range operation	°C	5 ... 40
Transport and storage ¹⁾	°C	-10 ... 50
Relative humidity	%	≤ 90 (no condensation)
Height above sea level	m	≤ 1000

¹⁾ storage in a dry, roofed room

Table 2: Main Parameters

Type	Rated power	Rated voltage	Rated current	Inductance	Current: Duty cycle	Frequency Range	Load range ²⁾	Height a (c)	Width b (d)	Weight
	kVA	kV	A	H	A	Hz	nF	mm		kg
DEIM 850/ 230-3.7	850	230	3.7	200	3.7: 3 x 20 min	(40) 50-300	1.4 - 52	1040 (1265)	810 (1265)	916
DEIM 1000/28 0-3,6	1000	280	3,6	250	3,6: 3 x 20 min	(40) 50-300	1,1 - 41	1275 (1524)	810 (1265)	1170

²⁾ incl. basic load (incl. HV divider, coupling capacitor, etc.), see load diagram for load range with reduced voltage

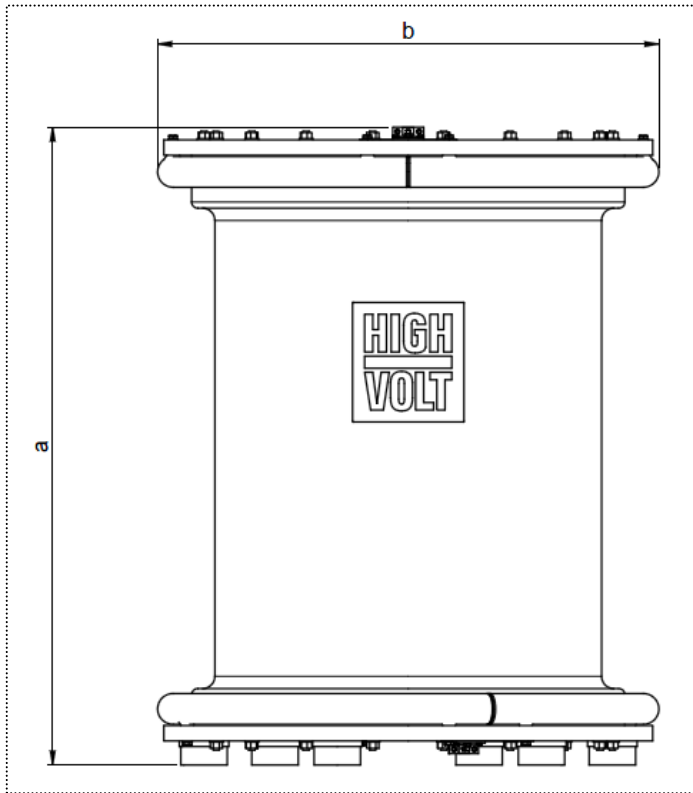


Figure. 1: Modular-type bar core reactor DEIM

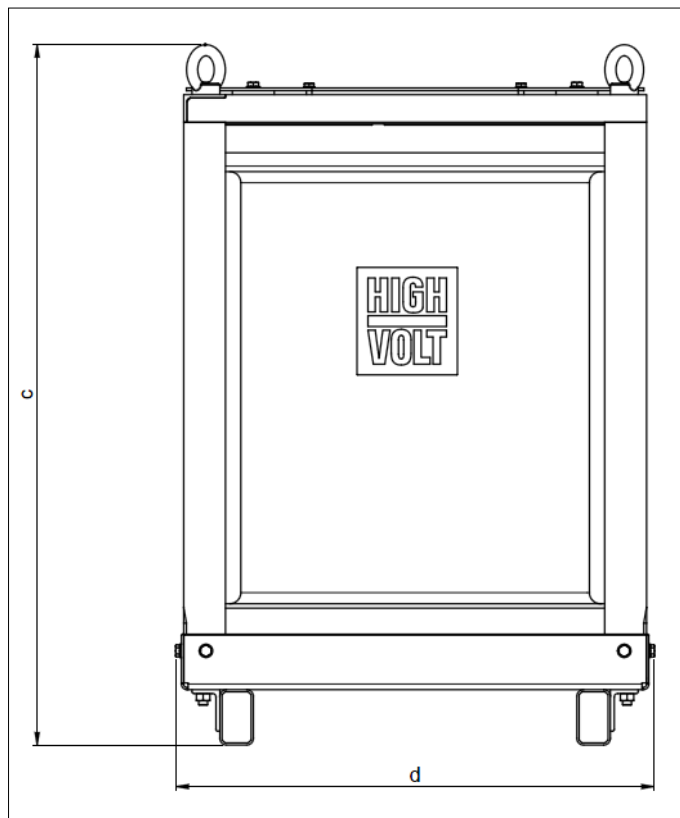


Figure. 2: Modular-type bar core reactor DEIM with transport rack

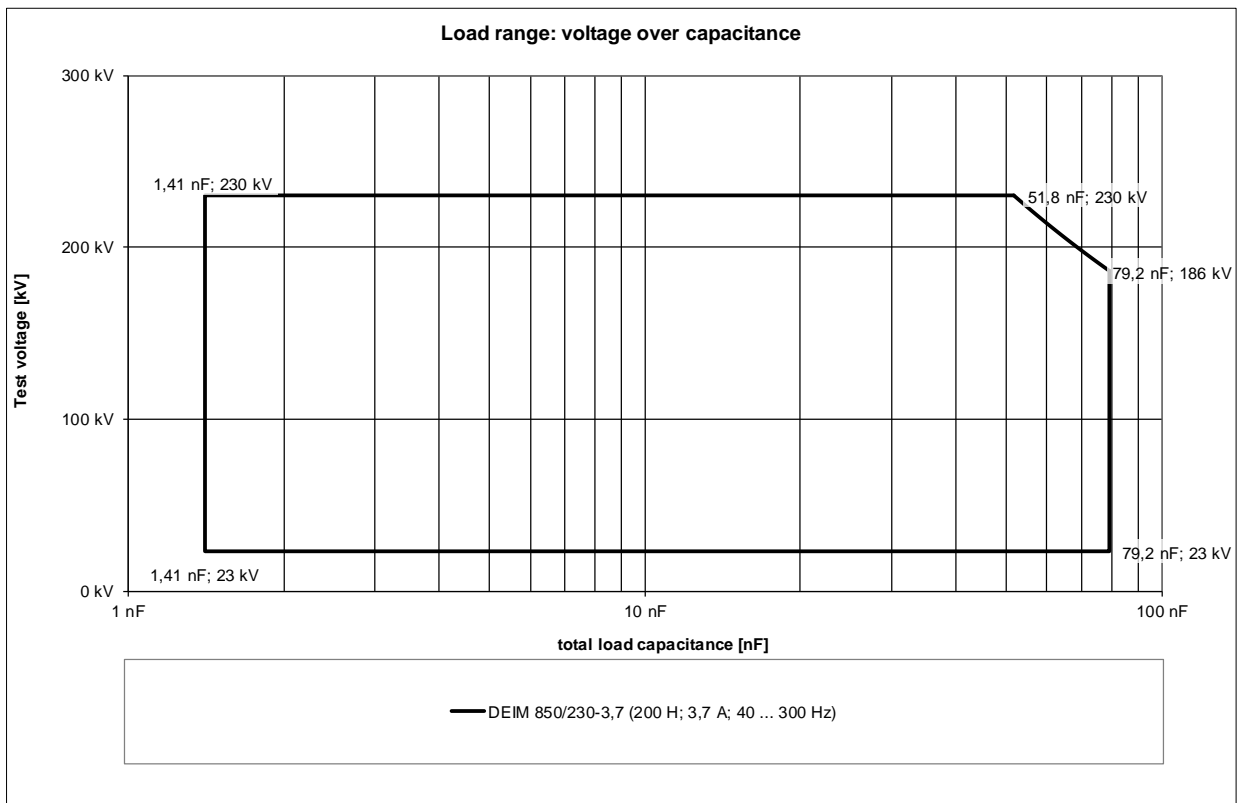


Figure. 3: Load diagram DEIM 850/230-3.7

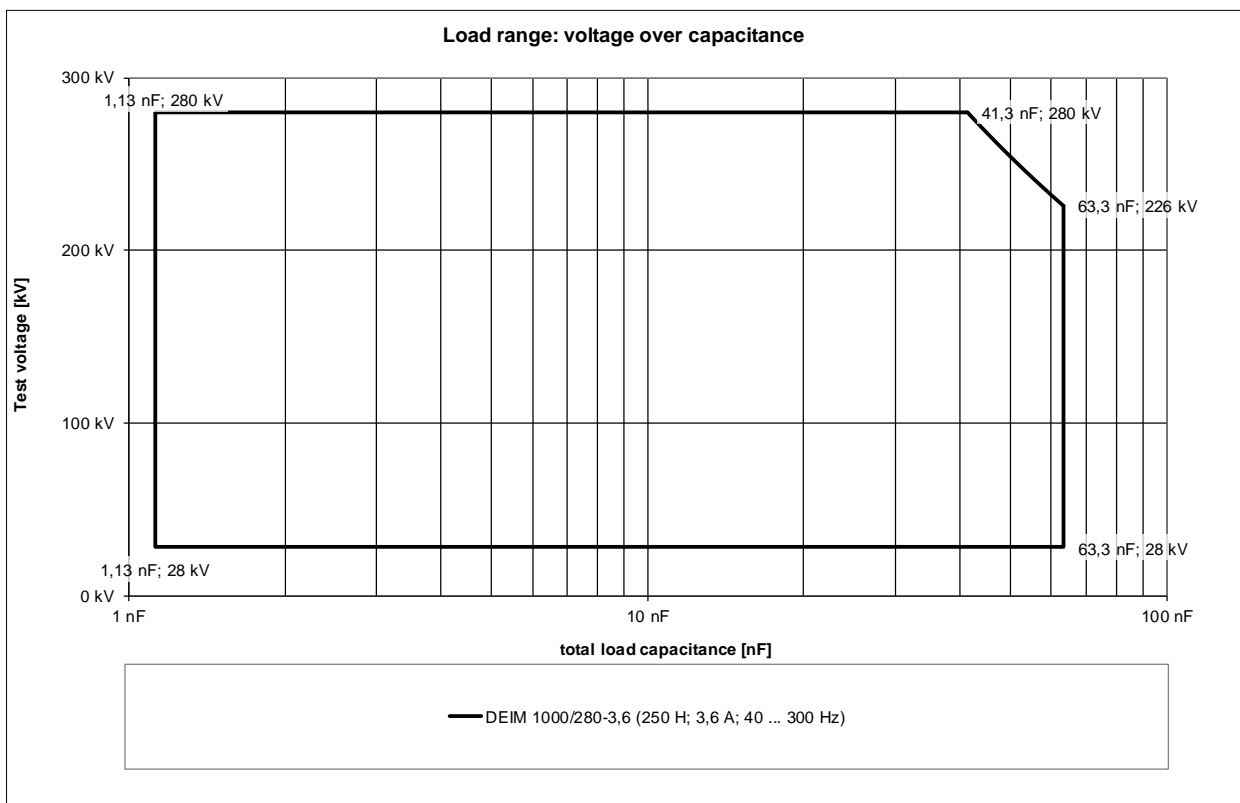


Figure. 4: Load diagram DEIM 1000/280-3.6