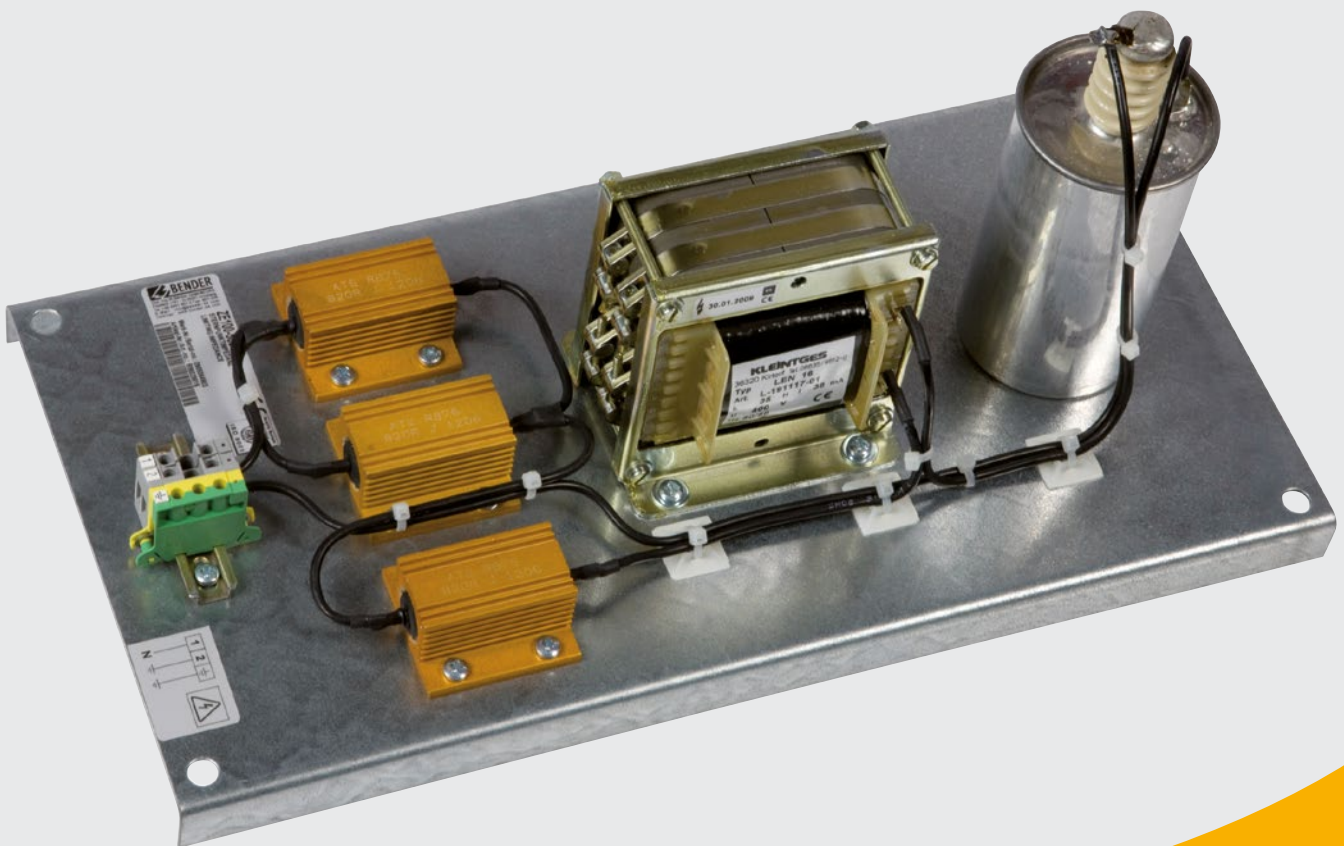


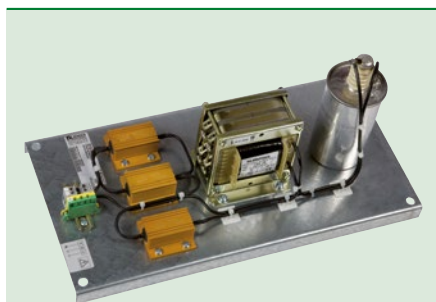
Neutral earthing impedance ZE100

Neutral earthing impedance for unearthed 3AC power supplies
(IT systems)



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Neutral earthing impedance ZE100

Product description

The neutral earthing impedance ZE100 is designed for 3AC IT systems to dampen overvoltages against PE.

Application

3AC main circuits with directly connected DC components such as converters or thyristor-controlled DC drives

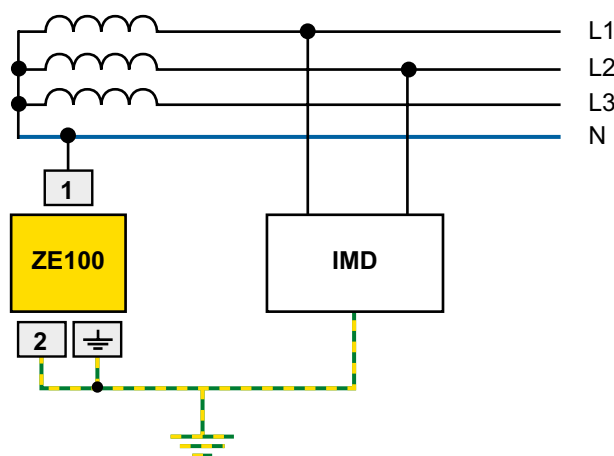
Function

The neutral point of the IT system can either be unearthed or earthed via an impedance. In the second case, it is recommended to insert an impedance between the transformer's neutral and earth. The neutral earthing impedance ZE100 meets these requirements and offers a possibility to combine the requirements of an IT system and a high-impedance system.

Connected between the neutral of the IT system and PE, the devices of the ZE100 series form a series resonant circuit which is optimised for the respective system frequency 50 Hz or 60 Hz. The overvoltage between the IT system and PE will be significantly damped by the impedance of the ZE100.

During the use of an insulation fault location system (EDS system), the neutral earthing impedance remains continuously connected and does not affect the insulation fault location process.

Wiring diagram

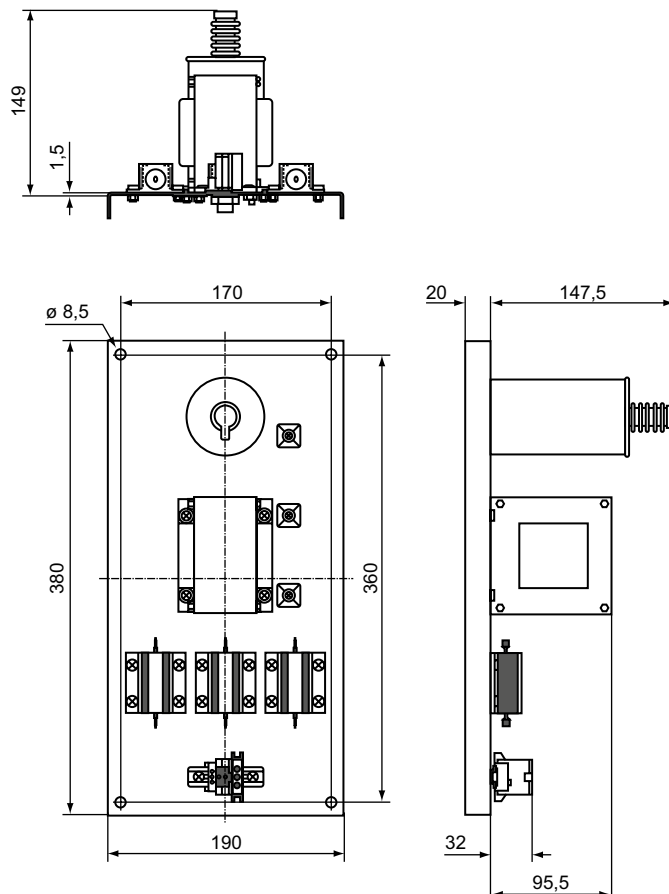


Ordering information

Nominal system voltage U_n	Type	Art. No.
3AC 500 V, 50 Hz	ZE100-500V	B98039016
3AC 690 V, 50 Hz	ZE100-690V	B98039019
3AC 500 V, 60 Hz	ZE100-500V-60	B98039021

Dimension diagram

Dimensions are given in mm



Technical data

Insulation coordination acc. to IEC 60664-1

Rated insulation voltage	AC 630 V
Rated impulse voltage/pollution degree	6 kV/3
Overvoltage category	III

ZE100-500V

Voltage ranges

Nominal system voltage U_n	3AC 500 V
Rated frequency f_n	50 Hz
Nominal voltage range	$0.7 \dots 1.2 \times U_n$

Impedance

Impedance Z at 50 Hz	$2 \text{ k}\Omega / \pm 40 \%$
Impedance Z at 1 Hz	$480 \text{ k}\Omega / \pm 40 \%$
Impedance Z at 1 kHz	$200 \text{ k}\Omega / \pm 40 \%$
Area of application	$\leq 5000 \text{ m}$

ZE100-690V

Voltage ranges

Nominal system voltage U_n	3AC 690 V
Nominal frequency f_n	50 Hz
Nominal voltage range	$0.7 \dots 1.2 \times U_n$

Impedance

Impedance Z at 50 Hz	$3.4 \text{ k}\Omega / \pm 40 \%$
Impedance Z at 1 Hz	$480 \text{ k}\Omega / \pm 40 \%$
Impedance Z at 1 kHz	$200 \text{ k}\Omega / \pm 40 \%$
Area of application	$\leq 3800 \text{ m}$ (ÜKIII)
	$\leq 5000 \text{ m}$ (ÜKII)

ZE100-500V-60

Voltage ranges

Nominal system voltage U_n	3AC 500 V
Nominal frequency f_n	60 Hz
Nominal voltage range	$0.7 \dots 1.2 \times U_n$

Impedance

Impedance Z at 60 Hz	$2 \text{ k}\Omega / \pm 40 \%$
Impedance Z at 1 Hz	$480 \text{ k}\Omega / \pm 40 \%$
Impedance Z at 1 kHz	$200 \text{ k}\Omega / \pm 40 \%$
Area of application	$\leq 5000 \text{ m}$

Other

Degree of protection, internal components	IP 00
Degree of protection, terminals	IP 20
Operating temperature	$0 \dots 55 \text{ }^\circ\text{C}$
Weight	4,2 kg



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