

Artificial zero choke
DZ-3/1 type

Application:

The artificial zero choke can be used for networks with a rated voltage of 230 V, 500 V, 1000 V and a rated frequency of 50 Hz. It cooperates with the universal control and protection device type UCMI and the central-blocking leakage protection type RRgx-A or other leakage protection devices protecting against the effects of electric current leakage to the ground in non-grounded AC power networks with a rated voltage of up to 1140 V, 50 Hz. , including mine networks supplying mining equipment in flameproof enclosures.

The electrical system of the artificial neutral choke consists of three chokes connected in a star shape, enclosed in one housing. The artificial neutral choke is intended for installation in the chambers of flameproof enclosures, including the DN equipment chambers of transformer stations of explosion-proof or shielded construction. It cooperates with the UCMI or RRgx-A protection blocking element through the contacts of the main protection switch. The artificial zero choke can be used for networks with a rated voltage of 230V, 500V, 1000V and a rated frequency of 50Hz.



Rated data:

Rated voltage U_n	1140 V, 50 Hz
Maximum voltage	$1,1 U_n = 1254 \text{ V}, 50 \text{ Hz}$
Inductance of phase conductors	400H (150H)
Rated current	1 mA $\pm 30\%$
Electric strength against the core	2,5 kV
Electrical strength of the insulation	4 kV
Choke winding resistance	4 k Ω $\pm 10\%$
Ambient temperature	-10°C to +70°C
Level of security	IP65
Dimensions	Length: 198mm Width: 67mm Height: 76mm



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Maximum values of the circuit which is protected against sparks:

Circuit output voltage	$U_{i \max} = 20 \text{ V}$
Circuit output current	$I_{i \max} = 1 \text{ mA}$
Inductance	(L1, L2, L3) - (N) $L_i = 400 \text{ H}$, $L_i/R_i = 112 \text{ mH}/\Omega$
Network capacity	$C_{o \max} = 1 \mu\text{F}$ per phase
The capacity of the circuit which is protected against sparks	$C_i = \text{negligible}$
A feature of the safety from sparks of the circuit	class Ib

Certificate:

Center for Attestation and Certification Research OBAC Sp. z o. o. on **May 29, 2015** issued a supplementary EU-type examination certificate: **OBAC 08ATEX517U / 1**.

The DZ-3/1 type artificial zero choke has the EU-type examination certificate: OBAC 08ATEX517U issued by the Center for Testing, Attestation and Certification OBAC Sp. z o. o. in Gliwice. The basic requirements of safety and health protection were implemented by meeting the requirements of the following standards:

- PN-EN 60079-0:2013
- PN-EN 60079-11:2012

The DZ-3/1 type artificial neutral choke was marked in accordance with the EU-type examination certificate as follows:

