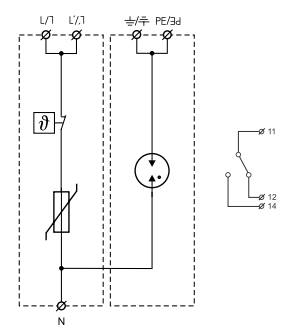
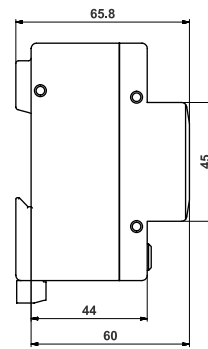
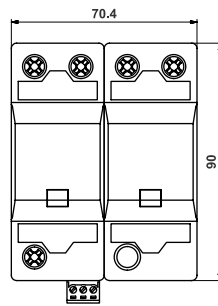


# Lightning and Surge Arrester TYPE 1+2

**VARISTOR + GAS DISCHARGE TUBE**
**TYPE 1+2 / CLASS I+II / TN-S / TT / CE**


## PZH R1 275/25/1+1, PZH R1 275/25/1+1 S

PZH R1\* is a lightning and surge arrester combined with gas discharge tube according to EN 61643-11 ed.2 (IEC 61643-11:2011). It consists of high energy double varistors for better discharge ability and gas discharge tube that ensures zero leakage current in the PE conductor. Its parameters enable usage in buildings with considerable levels of protection LPL I and LPL II, such as hospitals, banks, industrial and administration complexes, schools, shopping and sports centres or supermarkets. The device is to be installed on the interface of LPZ 0 – LPZ 1 and higher zones according to standard EN 62305 ed.2 (IEC 62305:2010), closest to where the overhead line enters the building i.e. in the main distribution boards. The product has two PE terminals, which can not be used as a PE bridge. **S** indication specifies a version with remote monitoring.

TYPE		PZH R1 275/25/1+1, PZH R1 275/25/1+1 S
Test class according to EN 61643-11 ed.2 (IEC 61643-11:2011)		TYPE 1+2, CLASS I+II
System		TN-S, TT
Max. continuous operating voltage	$U_C$	275 V AC / 350 V DC
Impulse discharge current for class I test (10/350) L/N	$I_{imp}$	25 kA
Charge L/N	$Q$	12,5 As
Specific energy	W/R	156 kJ/Q - 625 kJ/Q
Impulse discharge current for class I test (10/350) N/PE	$I_{imp}$	50 kA
Charge N/PE	$Q$	25 kA
Total discharge current (10/350) L1+N->PE	$I_{TOTAL}$	50 kA
Nominal discharge current for class II test (8/20)	$I_n$	25 kA
Maximum discharge current (8/20)	$I_{max}$	50 kA
Total discharge current (8/20) L1+N->PE	$I_{TOTAL}$	100 kA
Voltage protection level	$U_p$	< 1,2 kV
Temporary overvoltage (TOV) L/N	$U_T$	337 V/5 s
Temporary overvoltage (TOV) N/PE	$U_T$	1200 V/0,2 s
Response time L/N	$t_A$	< 25 ns
Response time N/PE	$t_A$	< 100 ns
Max. back-up fuse		250 A gL/gG
Max. back-up fuse („V“ connection)		125 A gL/gG
Short-circuit withstand capability 160 A gL/gG	$I_p$	80 kA <sub>rms</sub>
LPZ		0-1
Housing material		Polyamid PA6, UL94 V-0
Degree of protection of enclosure		IP20
Operating temperature range	$\theta$	-40°C ... +70 °C
Cross-section of the connected conductors (at tightening moment of clamps 3 Nm)		35 mm <sup>2</sup> (solid) - 25 mm <sup>2</sup> (wire)
The mounting method / operating position		DIN rail 35 mm / any
Failure signalisation		optical function signalization target clear – ok optical function signalization target red - fault
Potential free signal contact (S) (recommended cross-section of remote monitoring max. 1 mm <sup>2</sup> )		AC: 250 V / 0,5 A, DC: 250 V / 0,1 A
Lifetime		min. 100 000 h
Weight		460 g
Article number		<b>77 10 451, 77 10 457 (S)</b>