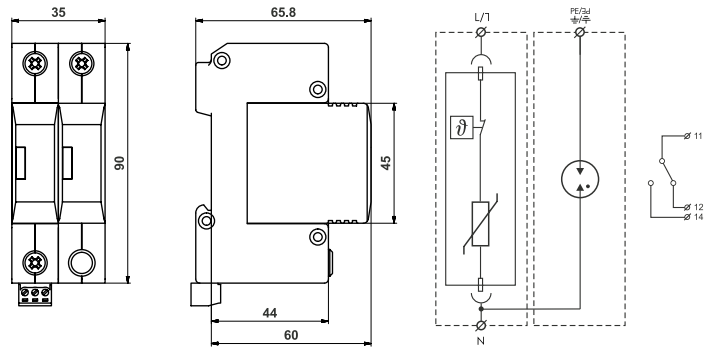


# Lightning and Surge Arrester TYPE 1+2

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


## PZH R1 275/12,5/1+1 M, PZH R1 275/12,5/1+1 MS

PZH R1\*M is a lightning and surge arrester according to EN 61643-11 ed.2 (IEC 61643-11:2011) consisting of high energy varistors in combination with gas discharge tube, which ensures zero leakage current in the PE conductor. Its parameters enable usage in buildings with considerable levels of protection LPL III and LPL IV, such as small administration complexes, residential buildings, family houses or properties and halls without the incidence of persons and indoor equipment. 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 overhead line enters the building i.e. in the main distribution boards. **S** indication specifies a version with remote monitoring. **M** indication specifies a type of construction with removable module.

TYPE	PZH R1 275/12,5/1+1 M, PZH R1 275/12,5/1+1 MS	
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
Maximum discharge current (8/20) L/N	$I_{max}$	50 kA
Impulse discharge current for class I test (10/350) L/N	$I_{imp}$	12,5 kA
Charge L/N	Q	6,25 As
Specific energy	W/R	39 kJ/Q
Impulse discharge current for class I test (10/350) N/PE	$I_{imp}$	25 kA
Charge N/PE	Q	12,5 As
Nominal discharge current for class I test N/PE	W/R	156 kJ/Q
Total discharge current (10/350) L1+N->PE	$I_{TOTAL}$	25 kA
Total discharge current (8/20) L1+N->PE	$I_{TOTAL}$	50 kA
Nominal discharge current for class II test (8/20) L/N	$I_n$	25 kA
Nominal discharge current for class II test (8/20) N/PE	$I_n$	30 kA
Voltage protection level	$U_p$	< 1,3 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		160 A gL/gG
Short-circuit withstand capability 160 A gL/gG	$I_p$	60 kA <sub>rms</sub>
LPZ		0-1
Housing material		Polyamid PA6, UL 94 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)		25 mm <sup>2</sup> (solid) - 16 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		215 g
Article number		<b>77 16 081 (M), 77 16 091 (MS)</b>