

PIVM12,5-275/1+1 Vseries

- Lightning impulse current and surge arresters type T1+T2 ensure the equipotential bonding, eliminate the effects of lightning current and reduce switching, induced and residual overvoltage in single-phase and three-phase power supply systems.
- The products consist of varistors with big discharge ability.
- Configurations 1+1 and 3+1 are additionally combined with a gas discharge tube which ensures zero leakage current through the PE conductor.
- Suitable for objects with considerable levels of protection LPL III and LPL IV.
- Installed at the boundaries of LPZ 0 LPZ 1 and higher zones, closest to where overhead line enters the building i.e. in the main distribution boards.
- M specifies a type of construction with removable module.
- **DS** indication specifies a version with remote monitoring.
- Other voltage levels can be produced on request.

Туре		PIVM12,5-275/1+1 Vseries
Test class according to EN 61643-11:2012 (IEC 61643-11:2011)		T1, T2
System		TN-S, TT
Number of poles		2
Rated operating AC voltage	U_N	230 V
Maximum continuous operating voltage AC	U _c	275 V
Maximum discharge current (8/20)	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 for class I test (L/N)	W/R	39 kJ/Ω
Impulse discharge current for class I test (10/350) N/PE	I _{imp}	25 kA
Charge (N/PE)	Q	12.5 As
Specific energy for class I test (N/PE)	W/R	156 kJ/Ω
Total discharge current (10/350) L+N->PE	I _{Total}	25 kA
Total discharge current (8/20) L+N->PE	I _{Total}	50 kA
Nominal discharge current for class II test (8/20) L/N	In	20 kA
Nominal discharge current for class II test (8/20) N/PE	I _n	30 kA
Voltage protection level at I _n (L/N)	U_p	< 1.2 kV
Voltage protection level at I _n (N/PE)	U_p	< 1.3 kV
Temporary overvoltage test (TOV) for $t_T = 5 \text{ s (L/N)}$	U_T	335 V
Temporary overvoltage test (TOV) for $t_T = 0.2 \text{ s}$ (N/PE)	U_{T}	1 200 V
Response time (L/N)	t _A	< 25 ns
Response time (N/PE)	t _A	< 100 ns
Maximal back-up fuse		160 A gL/gG
Short-circuit current rating at maximum back-up fuse	I _{SCCR}	60 kA _{rms}
Lightning protection zone		LPZ 0-1, LPZ 1-2, LPZ 2-3
Housing material		Polyamid PA6, UL94 V-0
Degree of protection		IP20
Operating temperature	9	-40 ÷ 70 °C

Lightning and surge arresters T1+T2



Туре		PIVM12,5-275/1+1 Vseries
Minimum cross-section of connected Cu conductors accord. to HD 60364-5-53:2022 (doesn't apply to "V" connection) for T1	S	6 mm² (L, N) 16 mm² (PE, PEN)
Minimum cross-section of connected Cu conductors accord. to HD 60364-5-53:2022 (doesn't apply to "V" connection) for T2	S	2.5 mm ² (L, N) 6 mm ² (PE, PEN)
Clamp fastening range (solid conductor)		2.5 ÷ 35 mm ²
Clamp fastening range (stranded conductor)		$2.5 \div 25 \text{ mm}^2$
Tightening moment		4 Nm
Installation		On DIN rail 35 mm
Modular width		2 TE
Operating position		Any
Signalling at the device		Optic
Importance of local signaling		OK – green target FAULT – red target
Remote signalling		No
Modular design		Yes
Article number of spare module		16 058, 16 041
Lifetime		> 100 000 h
Designed according to standards		
Requirements and test methods for SPDs connected to low-voltage power systems		IEC 61643-11:2011
Safety of Flammability of Plastic Materials		UL 94
Application standards		
Protection against lightning		IEC 62305:2010
Selection and erection of electrical equipment – Switchgear and controlgear		HD 60364-5-53:2022
Selection and application principles for SPDs connected to low-voltage power systems		CLC/TS 61643-12:2009
Ordering, packaging and additional data		
Mass	m	286 g
Mass (including the packaging)	m	301 g
Packaging dimensions (H x W x D)		43 x 112 x 87 mm
Packaging value	V	0.42 dm ³
ETIM group		EG000021
ETIM class		EC001457
Customs tariff no.		85363010
EAN code		8590681160480
Art. number		16 048

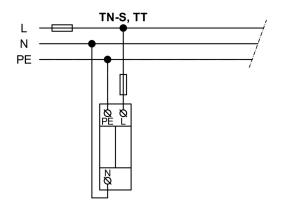


The link in the QR code leads to the online presentation of the **PIVM12,5-275/1+1 Vseries**. There, in addition to the always up-to-date data sheet, you will also find all diagrams and drawings, declarations of conformity, or 2D or 3D models and other necessary materials. For more information, visit **www.hakel.com**





Application wiring diagram (installation)



Internal diagram

