



HSA-275/3+1 M (S)

- Surge arresters type T2+T3 ensure the equipotential bonding and reduce switching, induced and residual overvoltage in LV 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.
- Installed at the boundaries of LPZ 1 – LPZ 3 into subsidiary switchboards and control panels.

- If the product contains two PE (or PEN) terminals, it must not be used as a PE (PEN) bridge.
- **M** indication specifies a type of construction with removable module. **S** indication specifies a version with remote monitoring.
- **Designed according to standards** IEC 61643-11:2011; UL 94
- **Application standards** IEC 62305:2010; HD 60364-5-53:2022; CLC/TS 61643-12:2009

Type	HSA-275/3+1 M, HSA-275/3+1 M S	
Test class according to EN 61643-11:2012 (IEC 61643-11:2011)		T2, T3
System		TN-S, TT
Number of poles		4
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
Nominal discharge current for class II test (8/20)	I_n	20 kA
Open circuit voltage of the combination wave generator	U_{OC}	6 kV
Total discharge current (8/20) L1+L2+L3+N->PE	I_{Total}	50 kA
Voltage protection level at I_n (L/N)	U_p	< 1.25 kV
Voltage protection level at I_n (L/PE)	U_p	< 1.5 kV
Voltage protection level at I_n (N/PE)	U_p	< 1.4 kV
Voltage protection level at U_{OC} (L/N)	U_p	< 0.85 kV
Impulse discharge current for class I test (10/350) N/PE	I_{imp}	20 kA
Temporary overvoltage test (TOV) for $t_T = 5$ s (L/N)	U_T	337 V
Temporary overvoltage test (TOV) for $t_T = 120$ min (L/N)	U_T	440 V
Temporary overvoltage test (TOV) for $t_T = 0.2$ s (N/PE)	U_T	1 200 V
Maximal back-up fuse		160 A gL/gG
Residual current	I_{PE}	$\leq 5 \mu A$
Short-circuit current rating at maximum back-up fuse	I_{SCCR}	60 kA _{rms}
Follow current interrupt rating (N/PE)	I_{fi}	0.1 kA _{rms}
Housing material		Polyamid PA6, UL94 V-0
Degree of protection		IP20
Operating temperature	ϑ	-40 ÷ 70 °C
Humidity range	RH	5 ÷ 95 %
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 (stranded conductor)		1.5 ÷ 16 mm ²
Operating position		Any
Importance of local signaling		OK – clear target, FAULT – red target
Potential free signal contact (S) (recommended cross-section of remote monitoring max. 1 mm ²)		AC: 250 V / 1.5 A, DC: 250 V / 0.1 A
Article number of spare module		27 086
Article number	HSA-275/3+1 M	27 084
	HSA-275/3+1 M S	27 094