

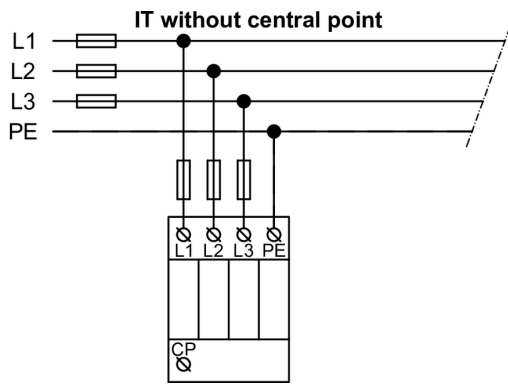
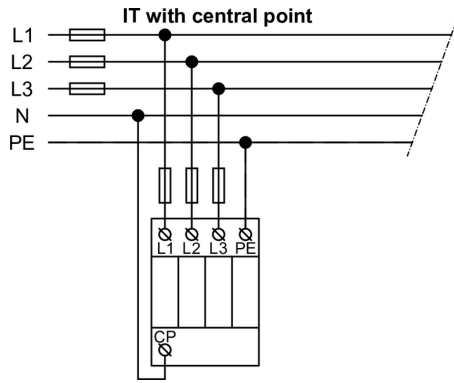
## HLSA21-600/3+1 M S IT

- 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 IT power supply systems.
- The products consist of varistors with big discharge ability in the combination with gas discharge tube they ensure zero leakage current in the PE conductor.
- Installed at the boundaries of zones LPZ 0 – LPZ 1 and higher, closest to where the overhead line enters the building i.e. in the main distribution boards.
- Suitable for objects with considerable levels of protection LPL III and LPL IV.
- **S** indication specifies a version with remote monitoring.

Type	HLSA21-600/3+1 M S IT	
Test class according to EN 61643-11:2012 (IEC 61643-11:2011)		T1, T2
System		IT
Number of poles		4
Nominal line voltage	$U_N$	500 V
Maximum continuous operating voltage AC	$U_C$	600 V
Maximum discharge current (8/20) L/PE	$I_{max}$	50 kA
Impulse discharge current for class I test (10/350) L/CP	$I_{imp}$	21 kA
Charge (L/CP)	$Q$	10.5 As
Specific energy for class I test (L/CP)	$W/R$	110 kJ/Ω
Impulse discharge current for class I test (10/350) CP/PE	$I_{imp}$	65 kA
Charge (CP/PE)	$Q$	32.5 As
Specific energy for class I test (CP/PE)	$W/R$	1 056 kJ/Ω
Total discharge current (10/350) L1+L2+L3+CP->PE	$I_{Total}$	63 kA
Total discharge current (8/20) L1+L2+L3+CP->PE	$I_{Total}$	100 kA
Nominal discharge current for class II test (8/20) L/PE	$I_n$	20 kA
Nominal discharge current for class II test (8/20) CP/PE	$I_n$	50 kA
Voltage protection level at $I_n$	$U_p$	< 2.2 kV
Temporary overvoltage test (TOV) for $t_T = 5$ s (L/CP)	$U_T$	726 V
Temporary overvoltage test (TOV) for $t_T = 0.2$ s (L/PE)	$U_T$	1 750 V
Response time (L/CP)	$t_A$	< 25 ns
Response time (CP/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 <sub>rms</sub>
Lightning protection zone		LPZ0, LPZ1, LPZ2
Housing material		Polyamid PA6, UL94 V-0
Degree of protection		IP20
Operating temperature	θ	-40 ÷ 70 °C
Minimum cross-section of connected Cu conductors accord. to HD 60364-5-534:2016 (doesn't apply to „V“ connection) for T1	S	6 mm <sup>2</sup> (L, N) 16 mm <sup>2</sup> (PE, PEN)

Type		HLSA21-600/3+1 M S IT
Minimum cross-section of connected Cu conductors accord. to HD 60364-5-534:2016 (doesn't apply to „V“ connection) for T2	S	2.5 mm <sup>2</sup> (L, N) 6 mm <sup>2</sup> (PE, PEN)
Clamp fastening range (solid conductor)		1.5 ÷ 25 mm <sup>2</sup>
Clamp fastening range (stranded conductor)		1.5 ÷ 16 mm <sup>2</sup>
Tightening moment		3 Nm
Installation		On DIN rail 35 mm
Modular width		10 TE
Operating position		Any
Signalling at the device		Optic
Importance of local signalling		OK – clear target FAULT – red target
Remote signalling		Yes
Potential free signal contact (S) (recommended cross-section of remote monitoring max. 1 mm <sup>2</sup> )		AC: 250 V / 1.5 A, DC: 250 V / 0.1 A
Modular design		Yes
Article number of spare module		16 186
Lifetime		> 100 000 h
<b>Designed according to standards</b>		
Requirements and test methods for SPDs connected to low-voltage power systems		IEC 61643-11:2011
Safety of Flammability of Plastic Materials		UL 94
<b>Application standards</b>		
Protection against lightning		IEC 62305:2010
Selection and erection of electrical equipment – Devices for protection against transient overvoltages		HD 60364-5-534:2016
Selection and application principles for SPDs connected to low-voltage power systems		CLC/TS 61643-12:2009
<b>Ordering, packaging and additional data</b>		
Mass	m	600 g
Mass (including the packaging)	m	649 g
Packaging dimensions (H x W x D)		70 x 228 x 95 mm
Packaging value	V	1.52 dm <sup>3</sup>
ETIM group		EG000021
ETIM class		EC001457
Customs tariff no.		85363010
EAN code		8590681122822
<b>Art. number</b>		<b>16 190</b>

**Application wiring diagram (installation)**



**Internal diagram**

