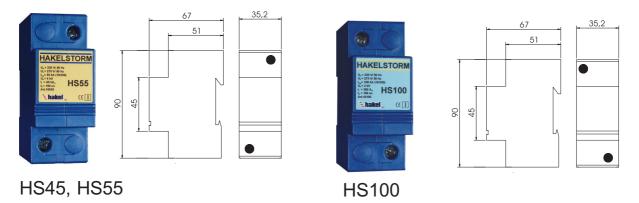


## HAKELSTORM



## HAKELSTORM

This range of lightning arresters is mainly intended for applications in unmeasured parts of electrical installation within the Lightning Protection Zones Concept at the boundaries LPZ  $0_{A(B)} - 1$  (according to IEC 1312-1). The lightning arrester is constructed as an encapsulated denary chamber carbon spark gap with high values of self-extinguished follow currents.

Types HS45 and HS55 are designed for the protection of phase bus bars of L.V. supply system (L/N), type HS100 is mainly designed for the protection of neutral bus bar of L.V. supply system (e.g. N/PE).

Туре		HS45	HS55	HS100
Arrester class acc. to IEC 61643-1:1998 and EN 61643-11:2002		Ι		
Use		L/N, L/PE, L/PEN N/PE		
Nominal voltage	U <sub>N</sub>	230V/50Hz		
Max. continuous operating voltage	Uc	275V/50Hz		
Insulation resistance	R <sub>i</sub>	>100MΩ		
Max. lightning impulse current I <sub>imp</sub> (10/350)	<b>I</b> imp	45kA	55kA	120kA
Charge Specific energy	Q W/R	22As 500kJ/Ω	27As 800kJ/Ω	50As 2500kJ/Ω
Voltage protection level at I <sub>imp</sub>	U <sub>P</sub>	<2,5kV	<4kV	<2kV
Follow current extinguishing capability at $\mathrm{U}_\mathrm{c}$	I <sub>f</sub>	40kA <sub>rms</sub>	40kA <sub>rms</sub>	<300A <sub>rms</sub>
Response time	t <sub>A</sub>	<100ns		
Recommended back-up fuse		315AgL/gG -		
Operating temperature range	θ	-40 to +80°C		
Cross-section of the connected conductors		6÷35mm <sup>2</sup> (solid)		
(at tightening moment of clamps 4Nm)		6÷25mm <sup>2</sup> (flexible)		
Protection type		IP 20		
Mounting on		DIN rail 35mm		
Housing material		SLOVAMID 6FRC2		
Colour		blue		
Weight	m	224g	224g	231g
Article number		10 050	10 055	10 100



## System TN-C

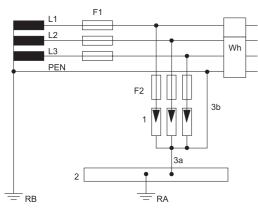
System TT

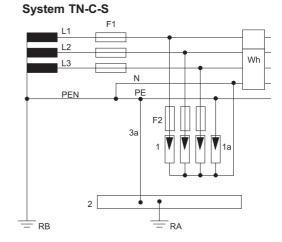
L1

L2

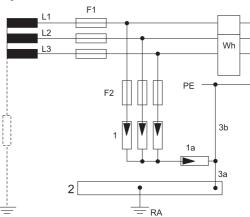
L3

Ν





System IT



1 Chamber carbon spark gap HS45 or HS55

- RA

- 1a Single carbon spark gap HS100
- 2 Main equipotential bus bar

F1

F2

3a, 3b Grounding wires for arresters

2

- F1 Main back-up fuse of service main
- F2 Recommended back-up fuse 315AgL/gG (only if the main back up fuse F1 is fitted with back up fuses  $\geq 500AgL/gG$ )
- RA Grounding of the equipment

Wh

3b

3a

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ΡE

1a

RB Grounding system

## Mounting on DIN rail 35mm

