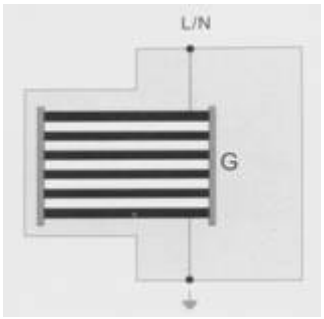
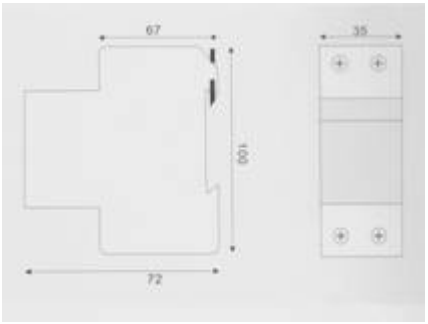
Multi-air-gap SPD Module Series SPECIFICATION





Operation Fundamentals

The Multi-air-gap SPD Module includes 9 air-gaps connected in serial (G1 to G9, Fig.2). Each air-gap consists of one pair of carbon-electrode separated by an insulation ring, and each air-gap but for G1 is paralleled by a capacitor (C1 to C8). Based on such a design, the SPD is non-conductive on the maximum continuous operation voltage Uc, in case of subjected lightning surge over-voltages, the gap G1 breakdowns at first due to nearly all surge voltages applying on it, because G2 to G9 are short-circuited by the capacitors. After G1 has been turned into conduction, G2 exposed to surge voltages and breakdown immediately, and then G3 to G9. It is obvious that the holdover voltage of the HIT-G50 is the sum of the holdover voltage of 9 gaps that is far more than the Uc, and therefore ,the SPD will turn off immediately after the surge voltages ended, hence no follow-current occurs.

Features

- ✓ Suitable for Class I Test SPDs;
- ✓ High surge current rating up to 50 kA, 10/350 wave;
- ✓ No leakage current and no follow-current;

Designation

- ➢ HIT-G && / xxx
- ➢ HIT ---- Brand
- ➢ && ---- Iimp value (10/350)
- ➢ xxx ---- Max. continuous operating voltage Uc

Technical Date

HIT G15 Technical Data				
Type	HIT G15/xxx			
	150	255	350	440
In accordance with	IEC61643-1			
Category IEC/VDE	I/ B			
Max. continuous operating voltage Uc	150	255	350	440
Max. discharge current(8/20) Imax	100KA			
Lightning impulse current (10/350) Iimp	15KA			
Voltage protection level at 1kV/μS	2.5KV	2.5KV	2.5KV	2.5KV
Response time	≤100 ns			
Leakage current	No			
Follow current	No			
Insulation resistance	$\geq 10^3$ MΩ			
Operating temperature range	- 40ºC … + 80ºC			
Cross-section of connection wire	Single-strand 35mm^2; multi-strand 25mm^2			
Mounting	35mm DIN-rail in accordance with EN 50022/DIN46277-3			
Installation width	2 modules, DIN 43880			
Enclosure material	thermoplastic; extinguishing degree UL94 V-0			
Degree of protection	IP20			

HIT G25 Technical Data				
Type	HIT G25/xxx			
	150	255	350	440
In accordance with	IEC61643-1			
Category IEC/VDE	I/ B			
Max. continuous operating voltage Uc	150	255	350	440
Max. discharge current(8/20) Imax	120KA			
Lightning impulse current (10/350) Iimp	25KA			
Voltage protection level at 1kV/μS	2.5KV	2.5KV	2.5KV	2.5KV
Response time	≤100 ns			
Leakage current	No			
Follow current	No			
Insulation resistance	$\geq 10^3$ MΩ			
Operating temperature range	- 40ºC … + 80ºC			
Cross-section of connection wire	Single-strand 35mm^2; multi-strand 25mm^2			
Mounting	35mm DIN-rail in accordance with EN 50022/DIN46277-3			
Installation width	2 modules, DIN43880			
Enclosure material	thermoplastic; extinguishing degree UL94 V-0			
Degree of protection	IP20			

HIT G50 Technical Data				
Type	HIT G50/xxx			
	150	255	350	440
In accordance with	IEC61643-1			
Category IEC/VDE	I/ B			
Max. continuous operating voltage Uc	150	255	350	440
Max. discharge current(8/20) Imax	140KA			
Lightning impulse current (10/350) Iimp	50KA			
Voltage protection level at 1kV/μS	2.5KV	2.5KV	2.5KV	2.5KV
Response time	≤100 ns			
Leakage current	No			
Follow current	No			
Insulation resistance	$\geq 10^3$ MΩ			
Operating temperature range	- 40ºC … + 80ºC			
Cross-section of connection wire	Single-strand 35mm^2; multi-strand 25mm^2			
Mounting	35mm DIN-rail in accordance with EN 50022/DIN46277-3			
Installation width	2 modules, DIN43880			
Enclosure material	thermoplastic; extinguishing degree UL94 V-0			
Degree of protection	IP20			