

JK201SPD & JKD201SPD Surge Protection Kit

Type 1 + 2 Surge Protection Kit for Hager 250A TP&N Distribution Boards to aid compliance with 18th Edition BS 7671.

- Plug-in lightning and surge arrester combination, in accordance with Type 1+2/Class 1+2, for 3-phase power supply networks, with separate N and PE (L 1, L2, L3, PE, N).

Green = Healthy, Red = Replace

- Directly coordinated combination of type 1 spark gap without line follow current and type 2 varistor arrester
- Particularly suitable for maximum protection of sensitive devices in harsh environments
- High continuous voltage of 350 V AC for 230/400 V AC networks with high voltage fluctuations
- Pluggable
- Low voltage protection level of 1.5 kV
- Optical, mechanical status indicator
- Floating remote indication contact

Product Description

A Surge protection device (SPD) kit specifically developed for Hager standard 250A TPN (Type B) Distribution boards. Developed to ensure optimal performance of SPD technology within Hager distribution boards. SPD is CT2 type to ensure compatibility with all common UK Earthing arrangements e.g. TN-C-S (PME), TN-S and TT earthing arrangements. This is an IEC Type 1 + 2 SPD for 3 – phase power supply networks. A type 1 SPD is generally used in the primary distribution board.

This SPD kit fits within the standard distribution board. Line, Neutral and Earth connections are via copper links, minimising SPD conductor losses, maximising the effective performance of the SPD (U_p effective).

Key Specifications

- Power Supply System -TN / TT
- Requirement class -SPD class II acc. to IEC 61643-11 2011; SPD Type 1 acc. to EN 61643-11 2012
- Max. continuous operating voltage U_c -L-N: 275 V a.c. / N-PE: 260 V a.c.
- Nominal voltage U_n -240/415 V AC 50/60 Hz
- Impulse discharge current (10/350) μ s (L-N/L-PE), peak current value I_{imp} 25 kA
- Impulse discharge current (10/350) μ s (N-PE), peak current value I_{imp} 100 kA
- Nominal discharge current I_n (8/20) microseconds 20 kA
- Max. discharge current I_{max} (8/20) microseconds 40 kA

SPD Protection level U_p -L-N: < 1.35 kV/ N-PE: <1.5 kV

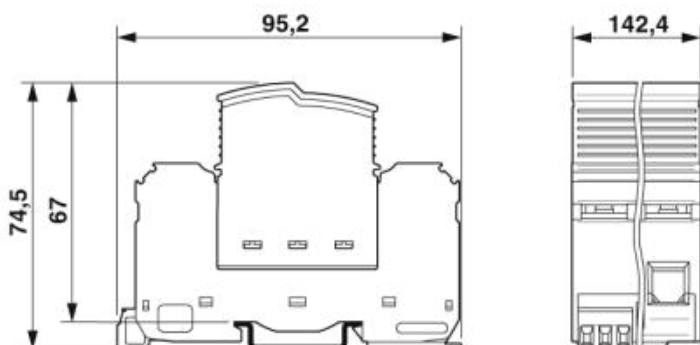
Solution Protection level U_p effective (measured at the main busbars on the TPN board) -L-N: <1.5kV/ N-PE: < 1.5kV

Short-circuit current rating I_{SCCR} -25kA

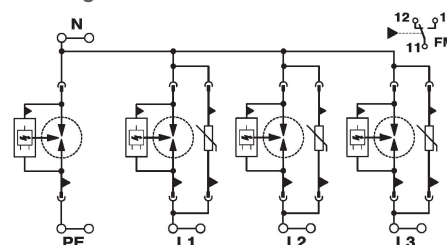
Degree of protection - IP20

Tightening torque - see installation instructions.

Dimensional Drawing



Circuit Diagram



General Data

Standards/regulations	IEC 61643-11 2011 EN 61643-11 2012
IEC test classification	I + II
EN type	T1 + T2
Mode of protection	L-N L-PE N-PE
Mounting type	DIN rail: 35 mm
Degree of pollution	2
Overvoltage category	III
Degree of protection	IP20
Shock (operation)	30g (Half-sine / 11 ms / 3x ±X, ±Y, ±Z)
Vibration (operation)	5g (5 - 500 Hz/ 2.5 h / X, Y, Z)
Ambient temperature (operation)	-40 °C ... 80 °C
Ambient temperature (storage/transport) Permissible humidity (operation)	-40 °C ... 80 °C

Electrical Data

Nominal voltage U_n	240 / 415 V AC (TN / TT)
Nominal frequency f_n	50 Hz (60 Hz)
Maximum continuous operating voltage U_c (L-N)	350 V AC
Maximum continuous operating voltage U_c (L-PE)	350 V AC
Maximum continuous operating voltage U_c (N-PE)	260V AC
Residual current I_{pE}	$\leq 1 \mu A$
Standby power consumption P_c	$\leq 360 \text{ mVA}$
Impulse discharge current (10/350) μs (L-N/L-PE), peak current value I_{imp}	25kA
Impulse discharge current (10/350) μs (N-PE), peak current value I_{imp}	100kA
Nominal discharge current I_n (8/20) μs	25kA
Maximum discharge current I_{max} (8/20) μs	40kA
Follow current interrupt rating I_{fl} (N-PE)	100A
Short-circuit current rating I_{scCR}	25kA
Voltage protection level U_p (L-N)	$\leq 1.5 \text{ kV}$
Voltage protection level U_p (L-PE)	$\leq 2.2 \text{ kV}$
Voltage protection level U_p (N-PE)	$\leq 1.5 \text{ kV}$
Max. backup fuse	315 A (gG)
Max. backup fuse with V-type through wiring	125 A (gG)