

Surge-Trap® K - K1 1P

Power Line SPDs

DIN RAIL - IEC TYPE 1+2



General Data

Internal configuration	1+0
No. Poles	1-Pole
No. DIN rail modules	1
Network configuration	TNS, TNC, TT (only L-N)
IEC SPD Type	Class I+II
EN SPD Type	Type 1+2
UL SPD Type	Type 1 Component Assembly
Format	Pluggable
Product standards	*IEC 61643-11 *EN 61643-11 *UL 1449 5th Edition



PART NUMBERS

XXX	275	320
K1-1PXXX	44120102	44120106
K1-1PXXX-M (with Microswitch)	44120103	44120107

SURGE PROTECTION DEVICE (SPD) - IEC TECHNICAL FEATURES

K1-1PXXX, K1-1PXXX-M (with Microswitch)	275	320
Maximum continuous operating voltage (AC) - Uc [V]	275	320
Nominal voltage AC 50-60 Hz - Un [V]	230	277
Nominal discharge current (8/20)- In [kA]	20	
Max Discharge Current (8/20) - I _{max} [kA]	50	
Lightning impulse current (10/350) - I _{imp} [kA]	12.5	
Voltage protection level at In - Up [kV]	≤1,5	
Maximum back-up fuse [A [gG]]	315	
Short circuit withstand- I _{sc} [kA]	25	
Residual current- I _{pe} [mA]	<1	
Response time - t _A [ns]	≤25	
Specific energy by pole (10/350 μs) - W/R (L-N) [kJ/ohm]	39	
Specific energy by pole (10/350 μs) - W/R (N-PE) [kJ/ohm]	39	
TOV 5s (LV systems, withstand) - Ut [V]	337	403
TOV 120min (LV systems, fail safe)- Ut [V]	442.5	528
Dynamic thermal disconnection	Yes	
Thermal protection behaviour	OCM (Open Circuit Mode)	
No. of ports	1	

SURGE PROTECTION DEVICE (SPD) - UL TECHNICAL FEATURES

K1-1PXXX, K1-1PXXX-M (with Microswitch)	275	320
Nominal discharge current (8/20) - In [kA]	20	
Maximum continuous operating voltage - MCOV (L-N) [V]	275	320
Maximum continuous operating voltage - MCOV (L-G) [V]	275	320
Voltage protection rating - VPR (L-N) [V]	1200	

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Surge-Trap[®] K - K1 1P

Power Line SPDs
DIN RAIL - IEC TYPE 1+2

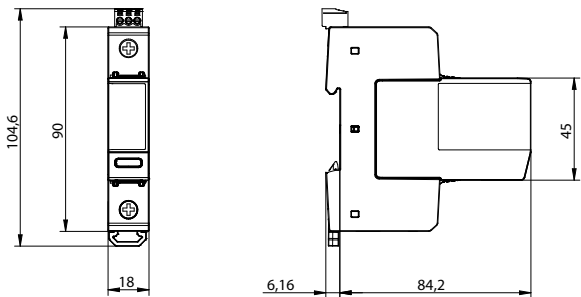
Continue K1-1PXXX, K1-1PXXX-M (with Microswitch)

K1-1PXXX, K1-1PXXX-M (with Microswitch)	275	320
Voltage protection rating - VPR (L-G) [V]	1200	
Short-Circuit Current Rating-SCCR [kA]	100	

MECHANICAL AND ENVIRONMENTAL FEATURES

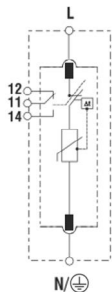
K1-1PXXX, K1-1PXXX-M (with Microswitch)	275	320
Temperature range [°C]	-40 ... 85	
Humidity range [%]	5 ... 95	
Max. Altitude [m]	4000	
Indication System Type	Green (OK) / Not green (replace)	
Insulating material	PA6 CT1 & PA66 CT1	
Housing color	Grey RAL 7035	
Enclosure - IP	IP20	
Flammability class	UL94 V-0	
Solid conductor cross section	1,5...35mm²	
Stranded conductor cross section	1,5...25mm²	
Torque rating [N m]	3	
Remote indication conductor cross section [mm²]	0.5 ... 1.5	
Remote indication switching capacity [V/A]	AC: 250/0.5 DC: 30/1	

DIMENSIONS AND WEIGHT



K1-1PXXX K1-1PXXX-M (with Microswitch)	275	320
Net Weight [kg]	0.178	
Gross weight [kg]	0.192	
Packaging dimensions (H x W x L) [mm]	97 × 22 × 118	

INTERNAL CONFIGURATION



REPLACEMENT CARTRIDGES

K1-1PXXX K1-1PXXX-M (with Microswitch)	275	320
K1-XXX (Line)	44120001	44120003

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Surge-Trap® K - K1 1PG

Power Line SPDs
DIN RAIL - IEC TYPE 1+2



General Data

Internal configuration	0+1
No. Poles	1-Pole
No. DIN rail modules	1
Network configuration	TT, TNS
IEC SPD Type	Class I+II
EN SPD Type	Type 1+2
UL SPD Type	Type 1 Component Assembly
Format	Pluggable
Protection Modes	N-PE
Product standards	*IEC 61643-11 *EN 61643-11 *UL 1449 5th Edition



PART NUMBERS

K1-1PG	44120100
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SURGE PROTECTION DEVICE (SPD) - IEC TECHNICAL FEATURES

Maximum continuous operating voltage (AC) - Uc [V]	255
Nominal voltage AC 50-60 Hz - Un [V]	Neutral
Nominal discharge current (8/20)- In [kA]	50
Max Discharge Current (8/20) - I _{max} [kA]	100
Lightning impulse current (10/350) - I _{imp} [kA]	50
Voltage protection level at In - Up [kV]	≤1,5
Maximum back-up fuse [A [gG]]	315
Short circuit withstand- I _{scrr} [kA]	25
Following current - I _{fi} [A]	100
Residual current- I _{pe} [μA]	<10
Response time - t _A [ns]	≤100
Specific energy by pole (10/350 μs) - W/R (L-N) [kJ/ohm]	39
Specific energy by pole (10/350 μs) - W/R (N-PE) [kJ/ohm]	625
TOV 200ms (HV systems, withstand)- Ut [V]	1200
Thermal protection behaviour	OCM (Open Circuit Mode)
No. of ports	1

SURGE PROTECTION DEVICE (SPD) - UL TECHNICAL FEATURES

Nominal discharge current (8/20) - In [kA]	20
Maximum continuous operating voltage - MCOV (L-N) [V]	305
Maximum continuous operating voltage - MCOV (L-G) [V]	305
Voltage protection rating - VPR (L-N) [V]	1000
Voltage protection rating - VPR (L-G) [V]	1000

MECHANICAL AND ENVIRONMENTAL FEATURES

Temperature range [°C]	-40 ... 85
Humidity range [%]	5 ... 95

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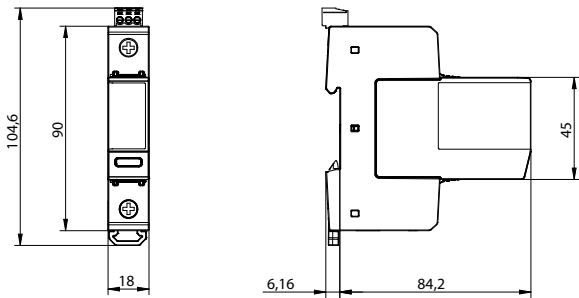
Surge-Trap[®] K - K1 1PG

Power Line SPDs
DIN RAIL - IEC TYPE 1+2

Continue MECHANICAL AND ENVIRONMENTAL FEATURES

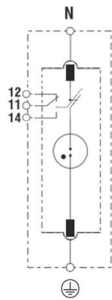
Max. Altitude [m]	4000
Indication System Type	Green (OK) / Not green (replace)
Insulating material	PA6 CT1 & PA66 CT1
Housing color	Grey RAL 7035
Enclosure - IP	IP20
Flammability class	UL94 V-0
Solid conductor cross section	1,5...35mm ²
Stranded conductor cross section	1,5...25mm ²
Torque rating [N m]	3
Remote indication conductor cross section [mm ²]	0.5 ... 1.5
Remote indication switching capacity [V/A]	AC: 250/0.5 DC: 30/1

DIMENSIONS AND WEIGHT



Net Weight [kg]	0.14
Gross weight [kg]	0.162
Packaging dimensions (H x W x L) [mm]	97 × 22 × 118

INTERNAL CONFIGURATION



REPLACEMENT CARTRIDGES

K1-N (Neutral)	44120000
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Surge-Trap® K - K1 2P

Power Line SPDs

DIN RAIL - IEC TYPE 1+2



General Data

Internal configuration	2+0
No. Poles	2-Pole
No. DIN rail modules	2
Network configuration	TNS
IEC SPD Type	Class I+II
EN SPD Type	Type 1+2
UL SPD Type	Type 1 Component Assembly
Format	Pluggable
Protection Modes	L-PE / N-PE
Product standards	*IEC 61643-11 *EN 61643-11 *UL 1449 5th Edition



PART NUMBERS

XXX	275	320
K1-2PXXX	44120204	44120212
K1-2PXXX-M (with Microswitch)	44120205	44120213

SURGE PROTECTION DEVICE (SPD) - IEC TECHNICAL FEATURES

K1-2PXXX, K1-2PXXX-M (with Microswitch)	275	320
Maximum continuous operating voltage (AC) - Uc [V]	275	320
Nominal voltage AC 50-60 Hz - Un [V]	230	277
Nominal discharge current (8/20)- In [kA]	20	
Max Discharge Current (8/20) - I _{max} [kA]	50	
Lightning impulse current (10/350) - I _{imp} [kA]	12.5	
Voltage protection level at In - Up [kV]	≤1,5	
Maximum back-up fuse [A [gG]]	315	
Short circuit withstand- I _{sc} [kA]	25	
Residual current- I _{pe} [mA]	<1	
Response time - t _A [ns]	≤25	
Specific energy by pole (10/350 μs) - W/R (L-N) [kJ/ohm]	39	
Specific energy by pole (10/350 μs) - W/R (N-PE) [kJ/ohm]	39	
TOV 5s (LV systems, withstand) - Ut [V]	337	403
TOV 120min (LV systems, fail safe)- Ut [V]	442.5	528
Dynamic thermal disconnection	Yes	
Thermal protection behaviour	OCM (Open Circuit Mode)	
No. of ports	1	

SURGE PROTECTION DEVICE (SPD) - UL TECHNICAL FEATURES

K1-2PXXX, K1-2PXXX-M (with Microswitch)	275	320
Nominal discharge current (8/20) - In [kA]	20	
Maximum continuous operating voltage - MCOV (L-N) [V]	550	640
Maximum continuous operating voltage - MCOV (L-G) [V]	275	320
Maximum continuous operating voltage - MCOV (N-G) [V]	275	320

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Surge-Trap[®] K - K1 2P

Power Line SPDs
DIN RAIL - IEC TYPE 1+2

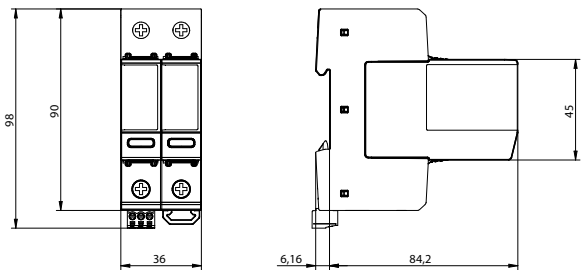
Continue K1-2PXXX, K1-2PXXX-M (with Microswitch)

K1-2PXXX, K1-2PXXX-M (with Microswitch)	275	320
Voltage protection rating - VPR (L-N) [V]	2000	
Voltage protection rating - VPR (L-G) [V]	1200	
Voltage protection rating - VPR (N-G) [V]	1200	
Short-Circuit Current Rating-SCCR [kA]	100	

MECHANICAL AND ENVIRONMENTAL FEATURES

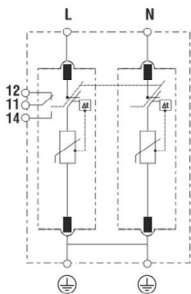
K1-2PXXX, K1-2PXXX-M (with Microswitch)	275	320
Temperature range [°C]	-40 ... 85	
Humidity range [%]	5 ... 95	
Max. Altitude [m]	4000	
Indication System Type	Green (OK) / Not green (replace)	
Insulating material	PA6 CT1 & PA66 CT1	
Housing color	Grey RAL 7035	
Enclosure - IP	IP20	
Flammability class	UL94 V-0	
Solid conductor cross section	1,5...35mm ²	
Stranded conductor cross section	1,5...25mm ²	
Torque rating [N m]	3	
Remote indication conductor cross section [mm ²]	0.5 ... 1.5	
Remote indication switching capacity [V/A]	AC: 250/0.5 DC: 30/1	

DIMENSIONS AND WEIGHT



K1-2PXXX K1-2PXXX-M (with Microswitch)	275	320
Net Weight [kg]	0.345	
Gross weight [kg]	0.374	0.375
Packaging dimensions (H x W x L) [mm]	97 × 38 × 118	

INTERNAL CONFIGURATION



REPLACEMENT CARTRIDGES

K1-2PXXX K1-2PXXX-M (with Microswitch)	275	320
K1-XXX (Line)	44120001	44120003

DATASHEET

Surge-Trap® K - K1 2PG

Power Line SPDs
DIN RAIL - IEC TYPE 1+2



General Data

Internal configuration	1+1
No. Poles	2-Pole
No. DIN rail modules	2
Network configuration	TT, TNS
IEC SPD Type	Class I+II
EN SPD Type	Type 1+2
UL SPD Type	Type 1 Component Assembly
Format	Pluggable
Protection Modes	L-N / N-PE
Product standards	*IEC 61643-11 *EN 61643-11 *UL 1449 5th Edition



PART NUMBERS

XXX	275	320
K1-2PGXXX	44120200	44120208
K1-2PGXXX-M (with Microswitch)	44120201	44120209

SURGE PROTECTION DEVICE (SPD) - IEC TECHNICAL FEATURES

K1-2PGXXX, K1-2PGXXX-M (with Microswitch)	275	320
Maximum continuous operating voltage (AC) - Uc (L-N) [V]	275	320
Maximum continuous operating voltage (AC) - Uc (N-PE) [V]		255
Nominal voltage AC 50-60 Hz - Un [V]	230	277
Nominal discharge current (8/20) - In (L-N) [kA]		20
Nominal discharge current (8/20) - In (N-PE) [kA]		50
Max Discharge Current (8/20) - I _{max} (L-N) [kA]		50
Max Discharge Current (8/20) - I _{max} (N-PE) [kA]		100
Lightning impulse current (10/350) - I _{imp} (L-N) [kA]		12.5
Lightning impulse current (10/350) - I _{imp} (N-PE) [kA]		50
Voltage protection level at In - Up (L-N) [kV]		≤1,5
Voltage protection level at In - Up (L-PE) [kV]		≤1,8
Voltage protection level at In - Up (N-PE) [kV]		≤1,5
Maximum back-up fuse [A [gG]]		315
Short circuit withstand- I _{sc} [kA]		25
Following current - I _{fi} [A]		100
Residual current- I _{pe} [μA]		<10
Response time - t _A (L-N) [ns]		≤25
Response time - t _A (N-PE) [ns]		≤100
Specific energy by pole (10/350 μs) - W/R (L-N) [kJ/ohm]		39
Specific energy by pole (10/350 μs) - W/R (N-PE) [kJ/ohm]		625
TOV 5s (LV systems, withstand)- Ut(L-N) [V]	337	403
TOV 120min (LV systems, fail safe)- Ut(L-N) [V]	442.5	528
TOV 200 ms (HV Systems, withstand) - Ut (N-PE) [V]		1200
Dynamic thermal disconnection		Yes
Thermal protection behaviour		OCM (Open Circuit Mode)
No. of ports		1

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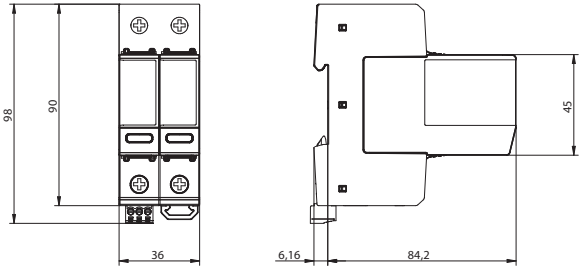


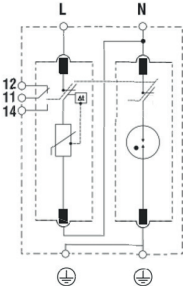
Surge-Trap[®] K - K1 2PG

Power Line SPDs
DIN RAIL - IEC TYPE 1+2

SURGE PROTECTION DEVICE (SPD) - UL TECHNICAL FEATURES		
K1-2PGXXX, K1-2PGXXX-M (with Microswitch)	275	320
Nominal discharge current (8/20) - In [kA]	20	
Maximum continuous operating voltage - MCOV (L-N) [V]	275	320
Maximum continuous operating voltage - MCOV (L-G) [V]	275	320
Maximum continuous operating voltage - MCOV (N-G) [V]	305	
Voltage protection rating - VPR (L-N) [V]	1200	
Voltage protection rating - VPR (L-G) [V]	1500	
Voltage protection rating - VPR (N-G) [V]	1000	
Short-Circuit Current Rating-SCCR [kA]	100	

MECHANICAL AND ENVIRONMENTAL FEATURES		
K1-2PGXXX, K1-2PGXXX-M (with Microswitch)	275	320
Temperature range [°C]	-40 ... 85	
Humidity range [%]	5 ... 95	
Max. Altitude [m]	4000	
Indication System Type	Green (OK) / Not green (replace)	
Insulating material	PA6 CT1 & PA66 CT1	
Housing color	Grey RAL 7035	
Enclosure - IP	IP20	
Flammability class	UL94 V-0	
Solid conductor cross section	1,5...35mm ²	
Stranded conductor cross section	1,5...25mm ²	
Torque rating [N m]	3	
Remote indication conductor cross section [mm ²]	0.5 ... 1.5	
Remote indication switching capacity [V/A]	AC: 250/0.5 DC: 30/1	

DIMENSIONS AND WEIGHT		
	K1-2PGXXX K1-2PGXXX-M (with Microswitch)	275 320
	Net Weight [kg]	0.27
	Gross weight [kg]	0.29
	Packaging dimensions (H x W x L) [mm]	97 x 38 x 118

INTERNAL CONFIGURATION		REPLACEMENT CARTRIDGES	
	K1-2PGXXX K1-2PGXXX-M (with Microswitch)	275	320
	K1-XXX (Line)	44120001	44120003
	K1-N (Neutral)	44120000	

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Surge-Trap® K - K1 3P

Power Line SPDs
DIN RAIL - IEC TYPE 1+2



General Data

Internal configuration	3+0
No. Poles	3-Pole
No. DIN rail modules	3
Network configuration	TNC
IEC SPD Type	Class I+II
EN SPD Type	Type 1+2
UL SPD Type	Type 1 Component Assembly
Format	Pluggable
Protection Modes	L-PE(N)
Product standards	*IEC 61643-11 *EN 61643-11 *UL 1449 5th Edition



PART NUMBERS		
XXX	275	320
K1-3PXXX	44120300	44120304
K1-3PXXX-M (with Microswitch)	44120301	44120305

SURGE PROTECTION DEVICE (SPD) - IEC TECHNICAL FEATURES		
K1-3PXXX, K1-3PXXX-M (with Microswitch)	275	320
Maximum continuous operating voltage (AC) - Uc [V]	275	320
Nominal voltage AC 50-60 Hz - Un [V]	230/400	277/480
Nominal discharge current (8/20)- In [kA]	20	
Max Discharge Current (8/20) - I _{max} [kA]	50	
Lightning impulse current (10/350) - I _{imp} [kA]	12.5	
Voltage protection level at In - Up [kV]	≤1,5	
Maximum back-up fuse [A [gG]]	315	
Short circuit withstand- I _{sc} [kA]	25	
Residual current- I _{pe} [mA]	<1	
Response time - t _A [ns]	≤25	
Specific energy by pole (10/350 μs) - W/R (L-N) [kJ/ohm]	39	
Specific energy by pole (10/350 μs) - W/R (N-PE) [kJ/ohm]	39	
TOV 5s (LV systems, withstand) - Ut [V]	337	403
TOV 120min (LV systems, fail safe)- Ut [V]	442.5	528
Dynamic thermal disconnection	Yes	
Thermal protection behaviour	OCM (Open Circuit Mode)	
No. of ports	1	

SURGE PROTECTION DEVICE (SPD) - UL TECHNICAL FEATURES		
K1-3PXXX, K1-3PXXX-M (with Microswitch)	275	320
Nominal discharge current (8/20) - In [kA]	20	
Maximum continuous operating voltage - MCOV (L-L) [V]	550	640
Maximum continuous operating voltage - MCOV (L-G) [V]	275	320
Voltage protection rating - VPR (L-L) [V]	2000	

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Surge-Trap[®] K - K1 3P

Power Line SPDs
DIN RAIL - IEC TYPE 1+2

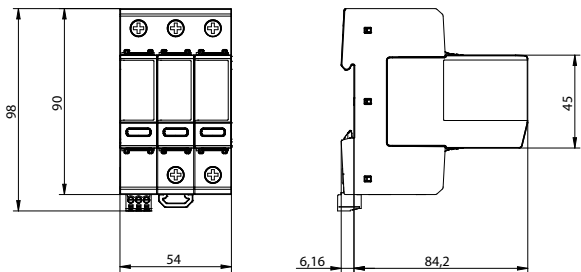
Continue K1-3PXXX, K1-3PXXX-M (with Microswitch)

K1-3PXXX, K1-3PXXX-M (with Microswitch)	275	320
Voltage protection rating - VPR (L-G) [V]	1200	
Short-Circuit Current Rating-SCCR [kA]	100	

MECHANICAL AND ENVIRONMENTAL FEATURES

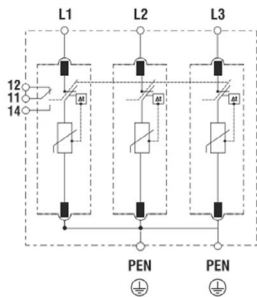
K1-3PXXX, K1-3PXXX-M (with Microswitch)	275	320
Temperature range [°C]	-40 ... 85	
Humidity range [%]	5 ... 95	
Max. Altitude [m]	4000	
Indication System Type	Green (OK) / Not green (replace)	
Insulating material	PA6 CT1 & PA66 CT1	
Housing color	Grey RAL 7035	
Enclosure - IP	IP20	
Flammability class	UL94 V-0	
Solid conductor cross section	1,5...35mm²	
Stranded conductor cross section	1,5...25mm²	
Torque rating [N m]	3	
Remote indication conductor cross section [mm²]	0.5 ... 1.5	
Remote indication switching capacity [V/A]	AC: 250/0.5 DC: 30/1	

DIMENSIONS AND WEIGHT



K1-3PXXX K1-3PXXX-M (with Microswitch)	275	320
Net Weight [kg]	0.497	0.52
Gross weight [kg]	0.543	0.55
Packaging dimensions (H x W x L) [mm]	97 × 59 × 118	

INTERNAL CONFIGURATION



REPLACEMENT CARTRIDGES

K1-3PXXX K1-3PXXX-M (with Microswitch)	275	320
K1-XXX (Line)	44120001	44120003

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Surge-Trap® K - K1 4P

Power Line SPDs
DIN RAIL - IEC TYPE 1+2



General Data

Internal configuration	4+0
No. Poles	4-Pole
No. DIN rail modules	4
Network configuration	TNS
IEC SPD Type	Class I+II
EN SPD Type	Type 1+2
UL SPD Type	Type 1 Component Assembly
Format	Pluggable
Protection Modes	L-PE / N-PE
Product standards	*IEC 61643-11 *EN 61643-11 *UL 1449 5th Edition



PART NUMBERS		
XXX	275	320
K1-4PXXX	44120404	44120412
K1-4PXXX-M (with Microswitch)	44120405	44120413

SURGE PROTECTION DEVICE (SPD) - IEC TECHNICAL FEATURES		
K1-4PXXX, K1-4PXXX-M (with Microswitch)	275	320
Maximum continuous operating voltage (AC) - Uc [V]	275	320
Nominal voltage AC 50-60 Hz - Un [V]	230/400	277/480
Nominal discharge current (8/20)- In [kA]	20	
Max Discharge Current (8/20) - Imax [kA]	50	
Lightning impulse current (10/350) - Iimp [kA]	12.5	
Voltage protection level at In - Up [kV]	≤1,5	
Maximum back-up fuse [A [gG]]	315	
Short circuit withstand- Isccr [kA]	25	
Residual current- Ipe [mA]	<1	
Response time - tA [ns]	≤25	
Specific energy by pole (10/350 μs) - W/R (L-N) [kJ/ohm]	39	
Specific energy by pole (10/350 μs) - W/R (N-PE) [kJ/ohm]	39	
TOV 5s (LV systems, withstand) - Ut [V]	337	403
TOV 120min (LV systems, fail safe)- Ut [V]	442.5	528
Dynamic thermal disconnection	Yes	
Thermal protection behaviour	OCM (Open Circuit Mode)	
No. of ports	1	

SURGE PROTECTION DEVICE (SPD) - UL TECHNICAL FEATURES		
K1-4PXXX, K1-4PXXX-M (with Microswitch)	275	320
Nominal discharge current (8/20) - In [kA]	20	
Maximum continuous operating voltage - MCOV (L-L) [V]	550	640
Maximum continuous operating voltage - MCOV (L-N) [V]	550	320
Maximum continuous operating voltage - MCOV (L-G) [V]	275	320

DATASHEET



Surge-Trap[®] K - K1 4P

Power Line SPDs
DIN RAIL - IEC TYPE 1+2

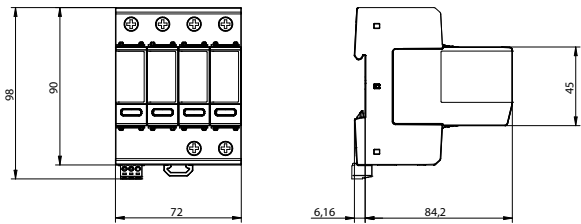
Continue K1-4PXXX, K1-4PXXX-M (with Microswitch)

K1-4PXXX, K1-4PXXX-M (with Microswitch)	275	320
Maximum continuous operating voltage - MCOV (N-G) [V]	275	320
Voltage protection rating - VPR (L-L) [V]	2000	
Voltage protection rating - VPR (L-N) [V]	2000	
Voltage protection rating - VPR (L-G) [V]	1200	
Voltage protection rating - VPR (N-G) [V]	1200	
Short-Circuit Current Rating-SCCR [kA]	100	

MECHANICAL AND ENVIRONMENTAL FEATURES

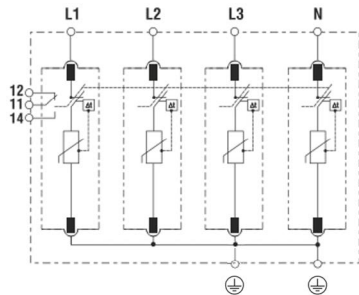
K1-4PXXX, K1-4PXXX-M (with Microswitch)	275	320
Temperature range [°C]	-40 ... 85	
Humidity range [%]	5 ... 95	
Max. Altitude [m]	4000	
Indication System Type	Green (OK) / Not green (replace)	
Insulating material	PA6 CT1 & PA66 CT1	
Housing color	Grey RAL 7035	
Enclosure - IP	IP20	
Flammability class	UL94 V-0	
Solid conductor cross section	1,5...35mm²	
Stranded conductor cross section	1,5...25mm²	
Torque rating [N m]	3	
Remote indication conductor cross section [mm²]	0.5 ... 1.5	
Remote indication switching capacity [V/A]	AC: 250/0.5 DC: 30/1	

DIMENSIONS AND WEIGHT



K1-4PXXX K1-4PXXX-M (with Microswitch)	275	320
Net Weight [kg]	0.65	0.66
Gross weight [kg]	0.66	0.691
Packaging dimensions (H x W x L) [mm]	97 × 78 × 118	

INTERNAL CONFIGURATION



REPLACEMENT CARTRIDGES

K1-4PXXX K1-4PXXX-M (with Microswitch)	275	320
K1-XXX (Line)	44120001	44120003

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Surge-Trap® K - K1 4PG

Power Line SPDs

DIN RAIL - IEC TYPE 1+2



General Data

Internal configuration	3+1
No. Poles	4-Pole
No. DIN rail modules	4
Network configuration	TT, TNS
IEC SPD Type	Class I+II
EN SPD Type	Type 1+2
UL SPD Type	Type 1 Component Assembly
Format	Pluggable
Protection Modes	L-N / N-PE
Product standards	*IEC 61643-11 *EN 61643-11 *UL 1449 5th Edition



PART NUMBERS

XXX	275	320
K1-4PGXXX	44120400	44120408
K1-4PGXXX-M (with Microswitch)	44120401	44120409

SURGE PROTECTION DEVICE (SPD) - IEC TECHNICAL FEATURES

K1-4PGXXX, K1-4PGXXX-M (with Microswitch)	275	320
Maximum continuous operating voltage (AC) - Uc (L-N) [V]	275	320
Maximum continuous operating voltage (AC) - Uc (N-PE) [V]		255
Nominal voltage AC 50-60 Hz - Un [V]	230/400	277/480
Nominal discharge current (8/20) - In (L-N) [kA]		20
Nominal discharge current (8/20) - In (N-PE) [kA]		50
Max Discharge Current (8/20) - I _{max} (L-N) [kA]		50
Max Discharge Current (8/20) - I _{max} (N-PE) [kA]		100
Lightning impulse current (10/350) - I _{imp} (L-N) [kA]		12.5
Lightning impulse current (10/350) - I _{imp} (N-PE) [kA]		50
Voltage protection level at In - Up (L-N) [kV]		≤1,5
Voltage protection level at In - Up (L-PE) [kV]		≤1,8
Voltage protection level at In - Up (N-PE) [kV]		≤1,5
Maximum back-up fuse [A [gG]]		315
Short circuit withstand- I _{sc} [kA]		25
Following current - I _{fi} [A]		100
Residual current- I _{pe} [μA]		<10
Response time - t _A (L-N) [ns]		≤25
Response time - t _A (N-PE) [ns]		≤100
Specific energy by pole (10/350 μs) - W/R (L-N) [kJ/ohm]		39
Specific energy by pole (10/350 μs) - W/R (N-PE) [kJ/ohm]		625
TOV 5s (LV systems, withstand)- Ut(L-N) [V]	337	403
TOV 120min (LV systems, fail safe)- Ut(L-N) [V]	442.5	528
TOV 200 ms (HV Systems, withstand) - Ut (N-PE) [V]		1200
Dynamic thermal disconnection		Yes
Thermal protection behaviour		OCM (Open Circuit Mode)
No. of ports		1

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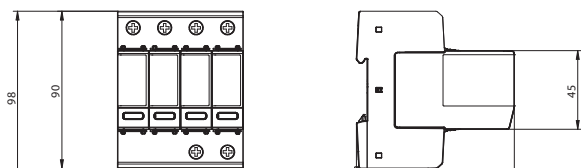
Surge-Trap® K - K1 4PG

Power Line SPDs
DIN RAIL - IEC TYPE 1+2

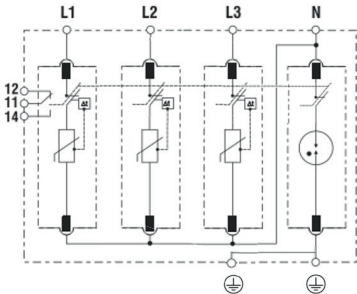
SURGE PROTECTION DEVICE (SPD) - UL TECHNICAL FEATURES		
K1-4PGXXX, K1-4PGXXX-M (with Microswitch)	275	320
Nominal discharge current (8/20) - In [kA]	20	
Maximum continuous operating voltage - MCOV (L-L) [V]	550	640
Maximum continuous operating voltage - MCOV (L-N) [V]	275	320
Maximum continuous operating voltage - MCOV (L-G) [V]	275	320
Maximum continuous operating voltage - MCOV (N-G) [V]	305	
Voltage protection rating - VPR (L-L) [V]	2000	
Voltage protection rating - VPR (L-N) [V]	1200	
Voltage protection rating - VPR (L-G) [V]	1500	
Voltage protection rating - VPR (N-G) [V]	1000	
Short-Circuit Current Rating-SCCR [kA]	100	

MECHANICAL AND ENVIRONMENTAL FEATURES		
K1-4PGXXX, K1-4PGXXX-M (with Microswitch)	275	320
Temperature range [°C]	-40 ... 85	
Humidity range [%]	5 ... 95	
Max. Altitude [m]	4000	
Indication System Type	Green (OK) / Not green (replace)	
Insulating material	PA6 CT1 & PA66 CT1	
Housing color	Grey RAL 7035	
Enclosure - IP	IP20	
Flammability class	UL94 V-0	
Solid conductor cross section	1,5...35mm²	
Stranded conductor cross section	1,5...25mm²	
Torque rating [N m]	3	
Remote indication conductor cross section [mm²]	0.5 ... 1.5	
Remote indication switching capacity [V/A]	AC: 250/0.5 DC: 30/1	

DIMENSIONS AND WEIGHT



K1-4PGXXX K1-4PGXXX-M (with Microswitch)	275	320
Net Weight [kg]	0.614	0.616
Gross weight [kg]	0.658	0.661
Packaging dimensions (H x W x L) [mm]	97 × 78 × 118	

INTERNAL CONFIGURATION		
		
REPLACEMENT CARTRIDGES		
K1-4PGXXX K1-4PGXXX-M (with Microswitch)	275	320
K1-XXX (Line)	44120001	44120003
K1-N (Neutral)	44120000	

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