MEGALEC®

Surge Protective Device


MEGALEC

LY1-D20 Surge protective device

1P 20KA

2P 20KA

3P 20KA

4P 20KA

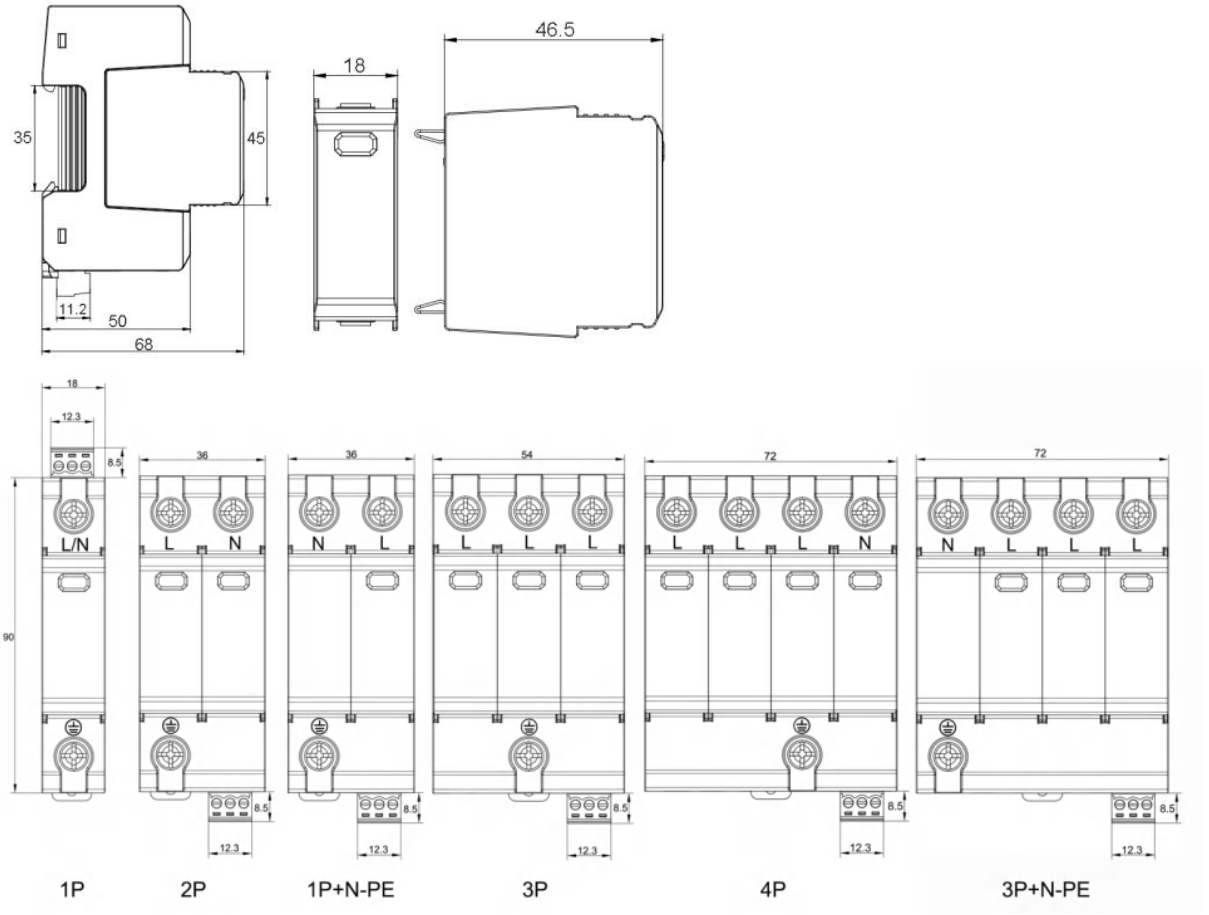
Application
This AC surge protective device is applied low voltage standard IEC/EN 61643-11 to protect against AC power line system and other equipment from over voltage and instantaneous over voltage damage. It has advantages of large discharge current, fast respond time and low residual voltage.

Main features
1. High discharge capacity, quick response, plugged module.
2. Fast response time, din rail installation.
3. Double thermal disconnection devices, provide more reliable protection.
4.Green window means normal, red means defect, need to change module.
5. Remote signaling contact optional.
6. Voltage can be customized.
7. Class II type 2 surge protection.

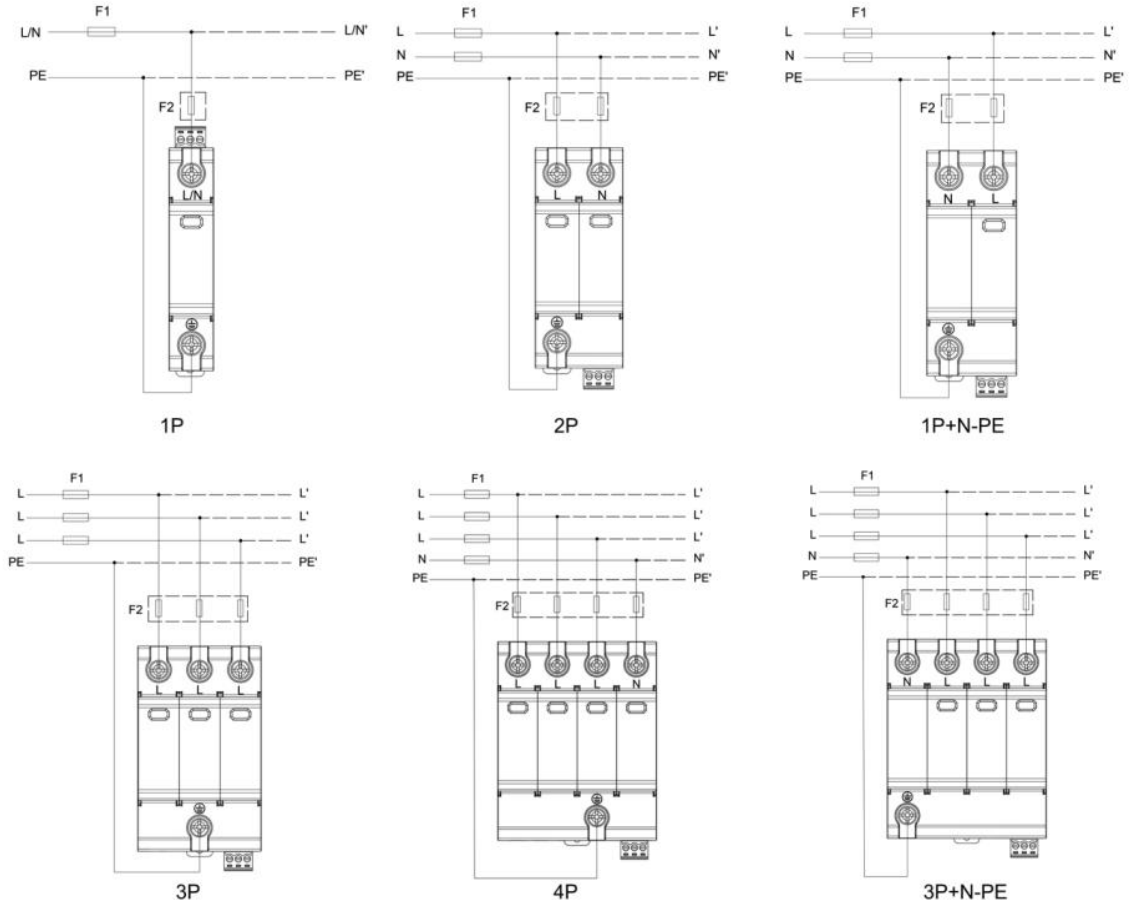
Technical parameter

Model	LY1-D20
Test standard	IEC/EN 61643-11;GB18802.11
SPD type	T2/Class II
Maximum continuous operating voltage Uc	275V AC
Nominal discharge current (8/20μs)	10kA
Maximum discharge current(8/20μs)	20kA
Voltage protection level Up	1.5kV
Response time Ta	25ns
Poles	1P, 2P, 3P ,4P ,1P+N-PE, 3P+N-PE
Matched fuse or circuit breaker	32A
Connection wire specification	4mm2(L/N); 6mm2(PE)
Mounting	35mm Din Rail
Type of remote signaling contact (Optional)	C+NC: Normally closed C+NO: Normally open C: Common contact
Max. Voltage/Current for remote signaling	1A/2A/3A 125V AC
Wiring for remote signaling	1.5mm2 max.
Operating temperature	-40°C to +80°C
Shell material	UL94-V0 fireproof material

Dimension details (unit: mm)



Installation Diagram



LY1-C40 AC Surge protective device

1P 40KA

2P 40KA

3P 40KA

4P 40KA

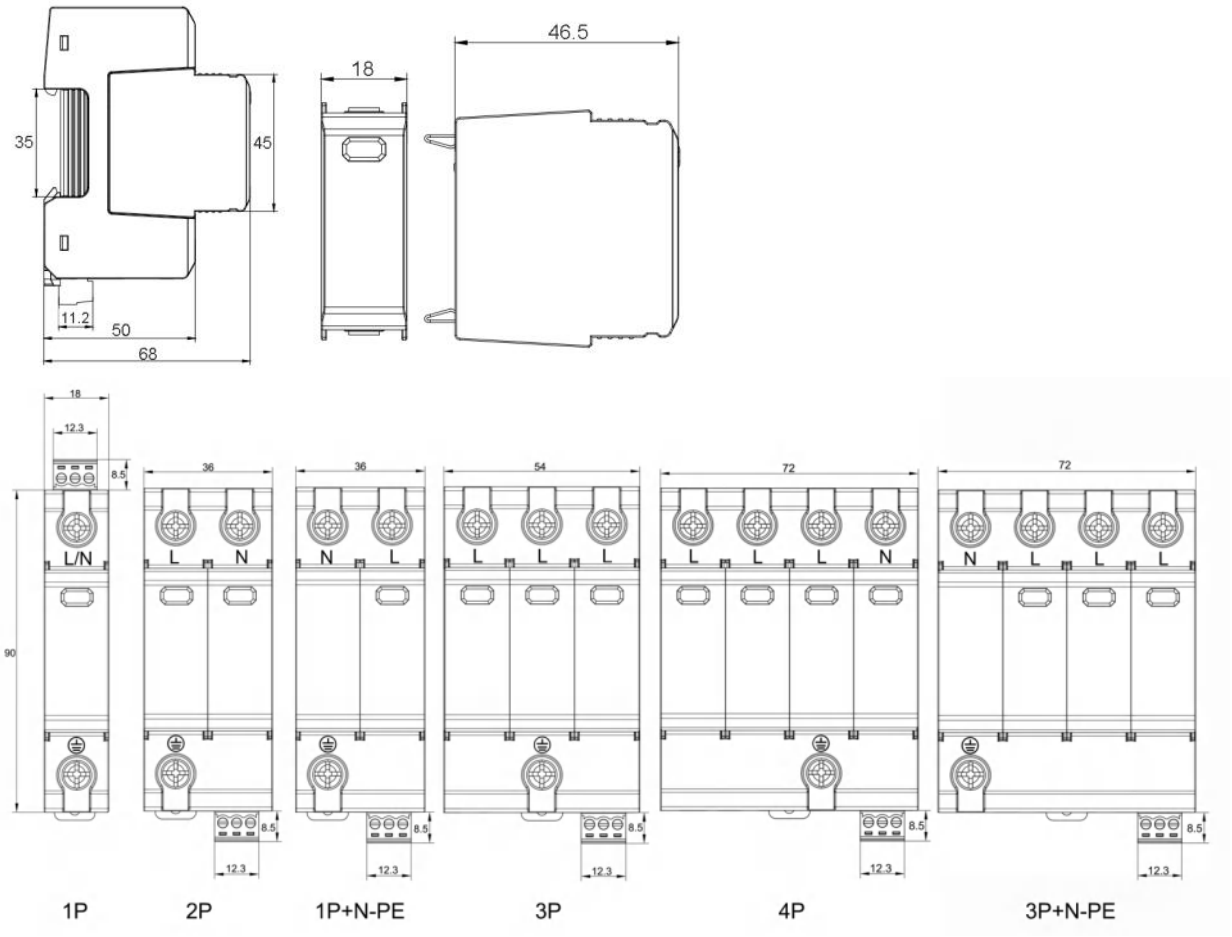
Application
This AC surge protective device is applied low voltage standard IEC/EN 61643-11 to protect against AC power line system and other equipment from over voltage and instantaneous over voltage damage. It has advantages of large discharge current, fast respond time and low residual voltage.

Main features
1. High discharge capacity, quick response, plugged module.
2. Fast response time, din rail installation.
3. Double thermal disconnection devices, provide more reliable protection.
4.Green window means normal, red means defect, need to change module.
5. Remote signaling contact optional.
6. Voltage can be customized.

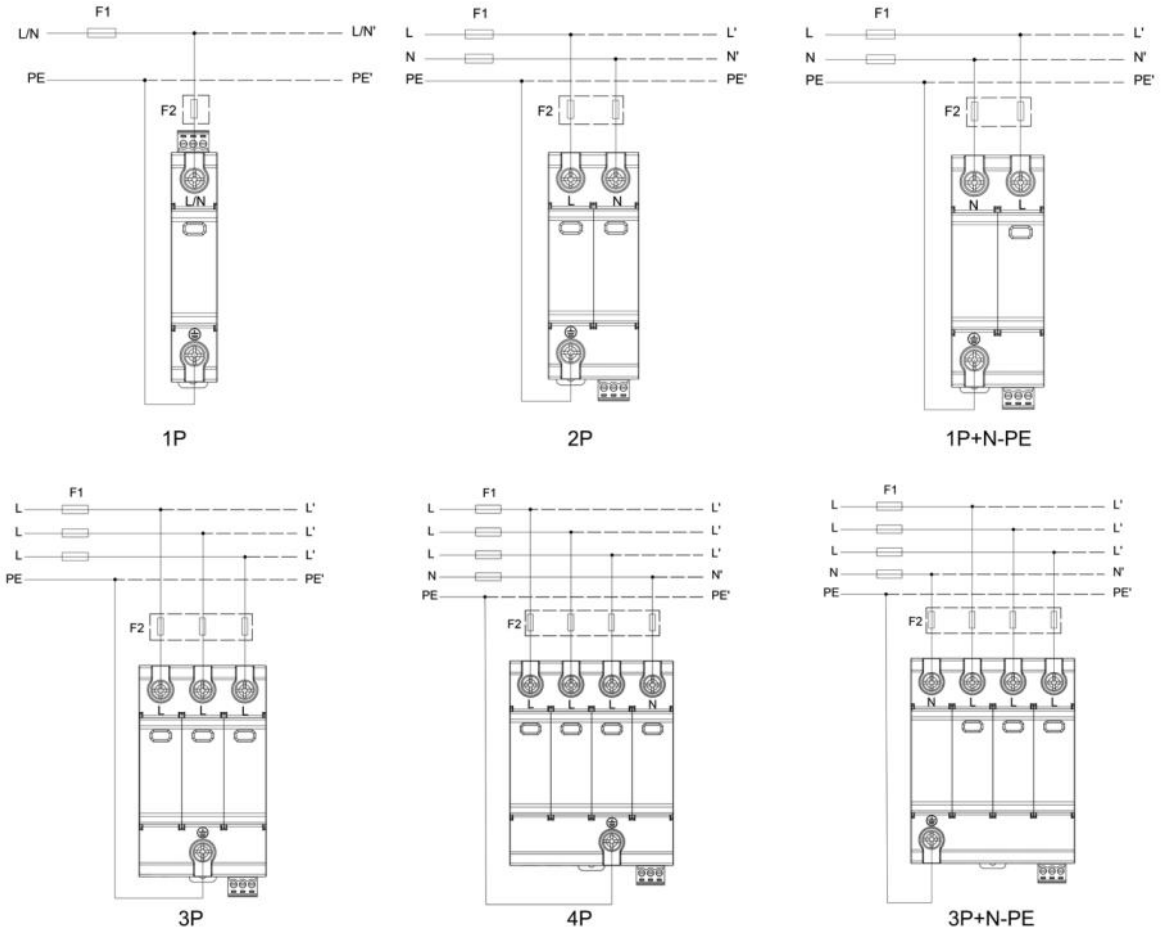
Technical parameter

Model	LY1-C40
Test standard	IEC/EN 61643-11;GB18802.11
SPD type	T1+T2/Class I+ II
Maximum continuous operating voltage Uc	275V AC
Nominal discharge current (8/20μs)	20kA
Max. discharge current(8/20μs)	40kA
Iimp current(10/350μs)	5kA
Voltage protection level Up	1.5kV
Response time Ta	25ns
Poles	1P, 2P, 3P ,4P ,1P+N-PE, 3P+N-PE
Matched fuse or circuit breaker	32A
Connection wire specification	4mm2(L/N); 6mm2(PE)
Mounting	35mm Din Rail
Type of remote signaling contact (Optional)	C+NC: Normally closed C+NO: Normally open C: Common contact
Max. Voltage/Current for remote signaling	1A/2A/3A 125V AC
Wiring for remote signaling	1.5mm2 max.
Operating temperature	-40°C to +80°C
Shell material	UL94-V0 fireproof material

Dimension details (unit: mm)



Installation Diagram



LY1-B60 Surge protective device

1P 60KA

2P 60KA

3P 60KA

4P 60KA

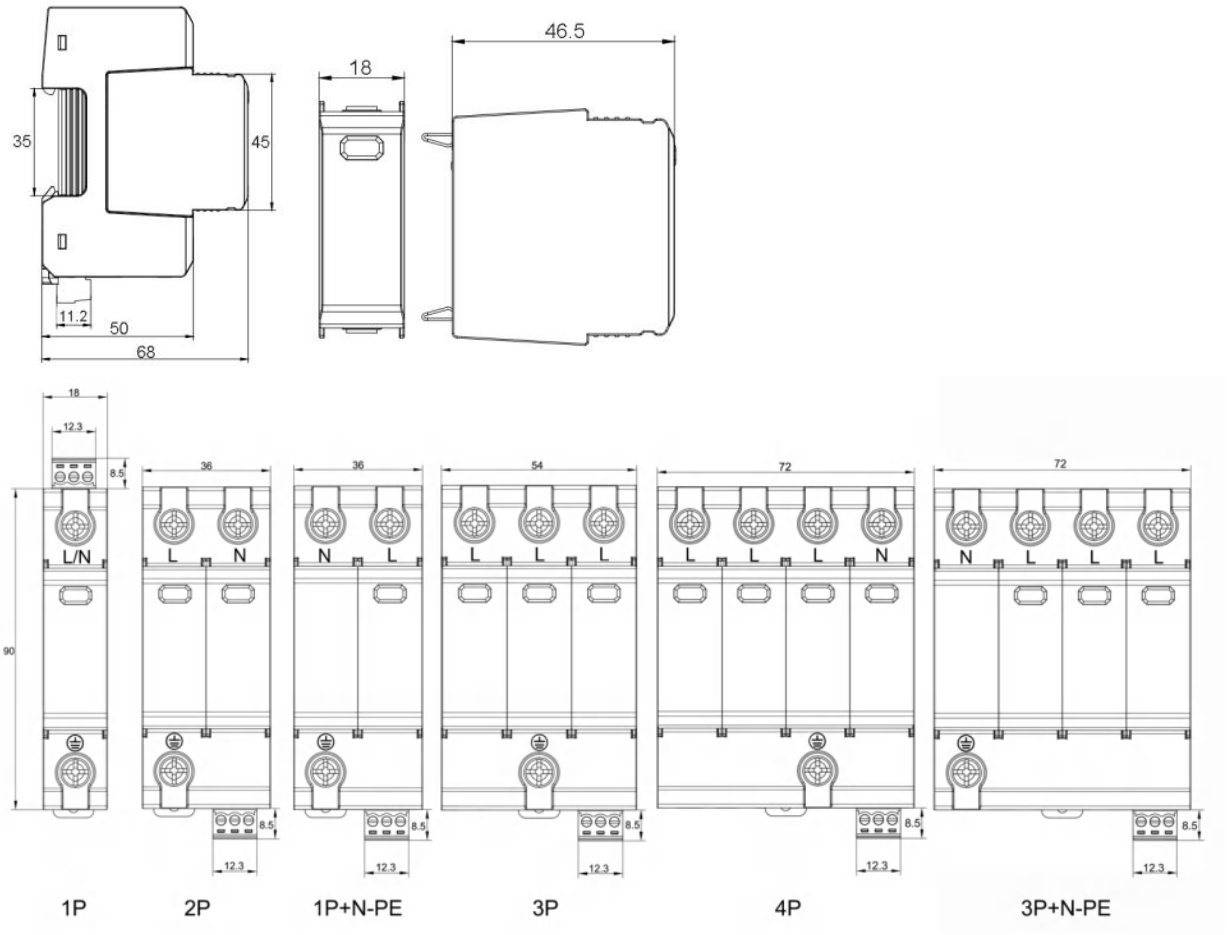
Application
This AC surge protective device is applied low voltage standard IEC/EN 61643-11 to protect against AC power line system and other equipment from over voltage and instantaneous over voltage damage. It has advantages of large discharge current, fast respond time and low residual voltage.

Main features
1. High discharge capacity, quick response, plugged module.
2. Fast response time, din rail installation.
3. Double thermal disconnection devices, provide more reliable protection.
4.Green window means normal, red means defect, need to change module.
5. Remote signaling contact optional.
6. Voltage can be customized.
7. Class II type 2 surge protection.

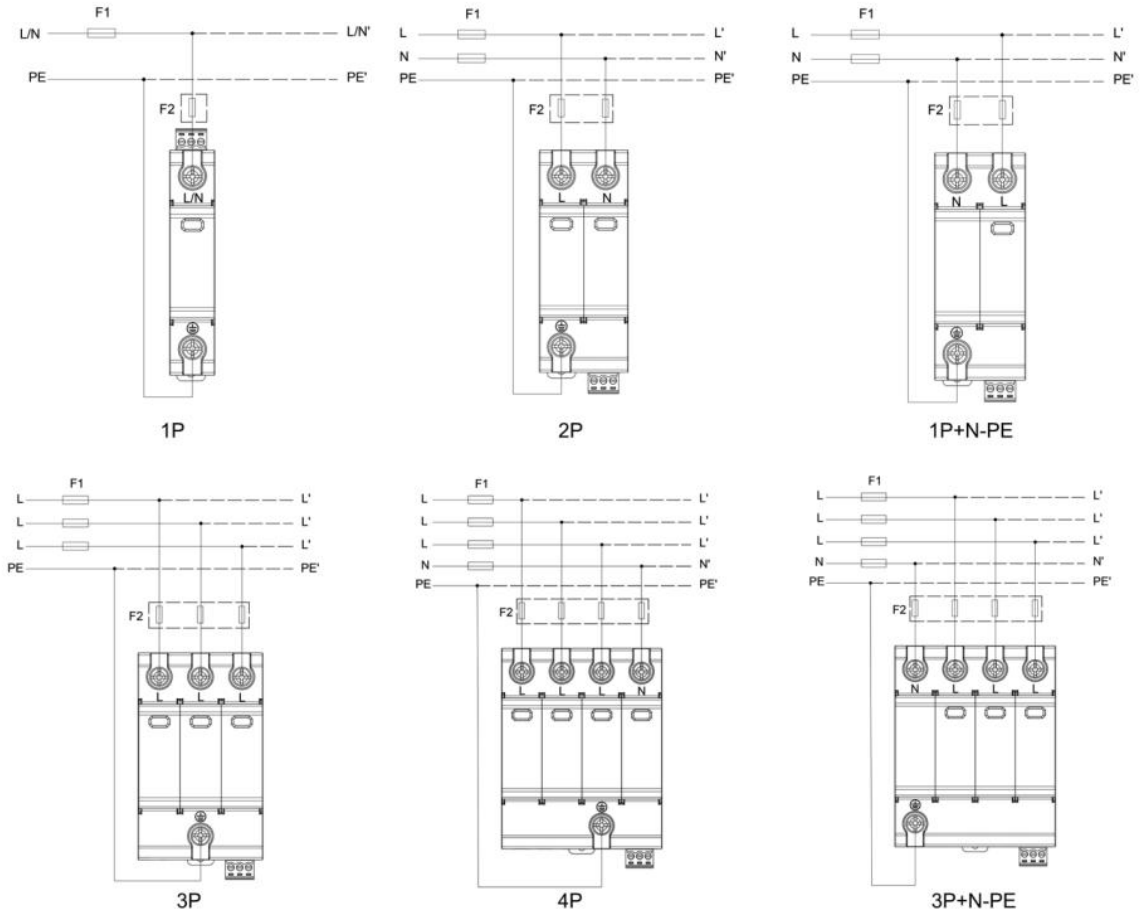
Technical parameter

Model	LY1-B60
Test standard	IEC/EN 61643-11;GB18802.11
SPD type	T2/Class II
Maximum continuous operating voltage Uc	275V AC
Nominal discharge current (8/20μs)	30kA
Maximum discharge current(8/20μs)	60kA
Voltage protection level Up	2.1kV
Response time Ta	25ns
Poles	1P, 2P, 3P ,4P ,1P+N-PE, 3P+N-PE
Matched fuse or circuit breaker	32A
Connection wire specification	4mm2(L/N); 6mm2(PE)
Mounting	35mm Din Rail
Type of remote signaling contact (Optional)	C+NC: Normally closed C+NO: Normally open C: Common contact
Max. Voltage/Current for remote signaling	1A/2A/3A 125V AC
Wiring for remote signaling	1.5mm2 max.
Operating temperature	-40°C to +80°C
Shell material	UL94-V0 fireproof material

Dimension details (unit: mm)



Installation Diagram



LY1-C40PV DC Surge protective device

3P 1000V DC

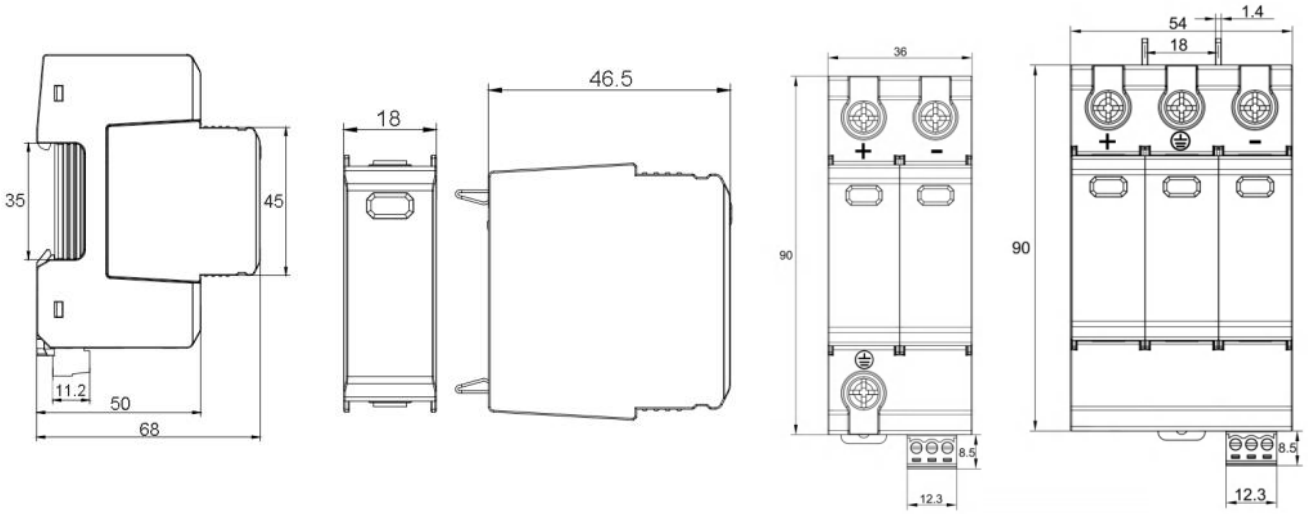
Application
This DC surge protective device is applied low voltage standard IEC/EN 61643-11 to protect against DC power line system and other equipment from over voltage and instantaneous over voltage damage. Widely used in photovoltaic comber box, power inverter, DC distribution cabinet etc. It has advantages of large discharge current, fast respond time, low residual voltage. Max. PV voltage up to UCPV ≤1000V dc.

Main features
1. High discharge capacity, quick response, plugged module.
2. Fast response time, din rail installation.
3. Double thermal disconnection devices, provide more reliable protection.
4. Green window means normal, red means defect, need to change module.
5. Remote signaling contact optional.
6. T1+T2 surge protection.

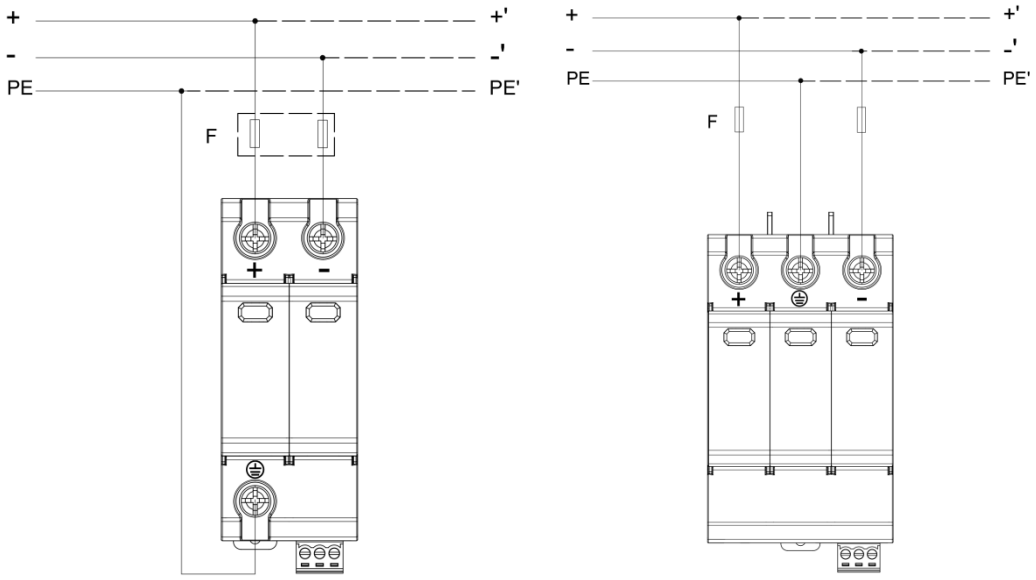
Technical parameter

Model	LY1-C40PV	
Test standard	IEC/EN 61643-11;GB18802.11	
SPD type	T1+T2/Class I+ II	
Max. PV voltage [Uc pv]	600V DC	1000V DC
Nominal discharge current (8/20μs)	20kA	
Maximum discharge current(8/20μs)	40kA	
Iimp current (10/350μs)	6.25kA	
Poles	2P	2P/3P
Voltage protection level Up pv	2.6kV	3.6kV
Response time Ta	25ns	
Connection wire specification	4mm2(L/N); 6mm2(PE)	
Mounting	35mm Din Rail	
Matched fuse or circuit breaker	32A	
Type of remote signaling contact (Optional)	C+NC: Normally closed C+NO: Normally open C: Common contact	
Max. Voltage/Current for remote signaling	1A/2A/3A 125V AC	
Wiring for remote signaling	1.5mm2 max.	
Operating temperature	-40°C to +80°C	
Shell material	UL94-V0 fireproof material	

Dimension details (unit: mm)



Installation Diagram(2P 3P)



LY1-C40PV 1500V DC Surge protective device

3P 1500V T1+T2 DC

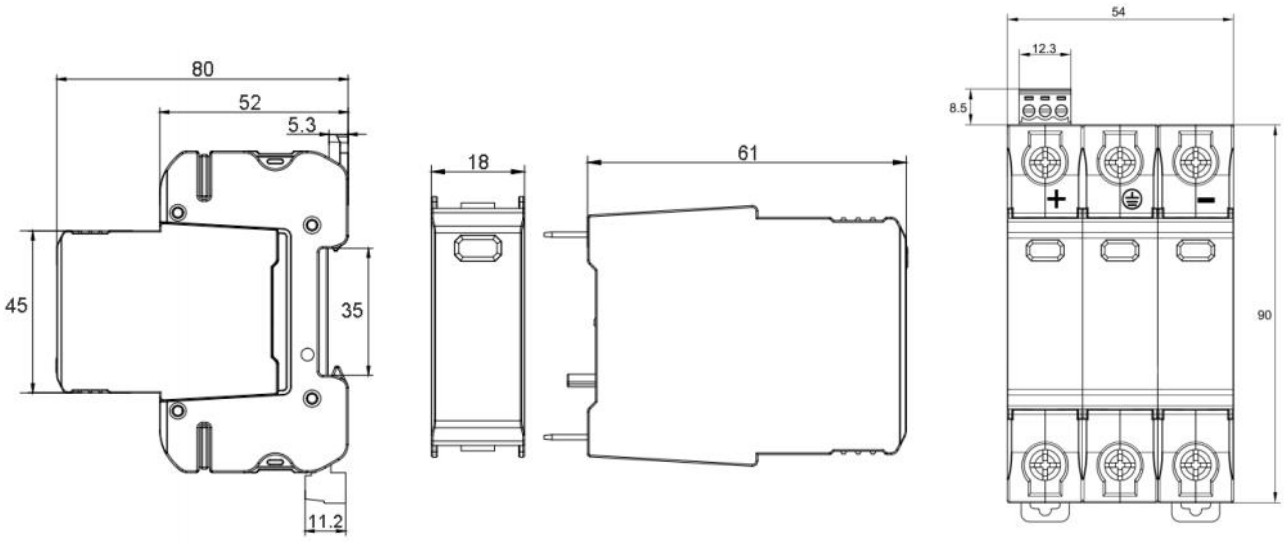
Application
This DC surge protective device is applied low voltage standard IEC/EN 61643-11 to protect against DC power line system and other equipment from over voltage and instantaneous over voltage damage. Widely used in photovoltaic comber box, power inverter, DC distribution cabinet etc. It has advantages of large discharge current, fast respond time, low residual voltage. Max. PV voltage up to UCPV ≤1000V dc.

Main features
1. High discharge capacity, quick response, plugged module.
2. Fast response time, din rail installation.
3. Double thermal disconnection devices, provide more reliable protection.
4. Green window means normal, red means defect, need to change module.
5. Remote signaling contact optional.
6. T1+T2 surge protection.

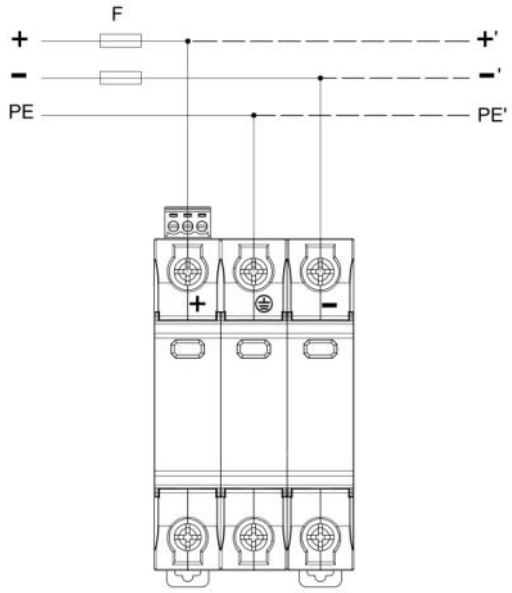
Technical parameter

Model	LY1-C40PV
Test standard	IEC/EN 61643-11;GB18802.11
SPD type	T1+T2/Class I+Class II
Max. PV voltage [Uc pv]	1500V DC
Nominal discharge current (8/20μs)	20kA
Maximum discharge current(8/20μs)	40kA
Iimp current (10/350μs)	6.25kA
Poles	3P
Voltage protection level Up pv	5.6kV
Response time Ta	25ns
Connection wire specification	6mm2(L/N); 10mm2(PE)
Mounting	35mm Din Rail
Matched fuse or circuit breaker	32A
Type of remote signaling contact (Optional)	C+NC: Normally closed C+NO: Normally open C: Common contact
Max. Voltage/Current for remote signaling	1A/2A/3A 125V AC
Wiring for remote signaling	1.5mm2 max.
Operating temperature	-40°C to +80°C
Shell material	UL94-V0 fireproof material

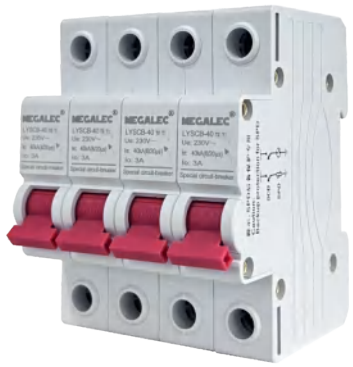
Dimension details (unit: mm)



Installation Diagram



SPD back-up protector



4P 40KA

Application

This DC surge protective device is applied low voltage standard IEC/EN 61643-11 to protect against DC power line system and other equipment from over voltage and instantaneous over voltage damage. Widely used in photovoltaic comber box, power inverter, DC distribution cabinet etc. It has advantages of large discharge current, fast respond time, low residual voltage. Max. PV voltage up to UCPV ≤1000V dc.

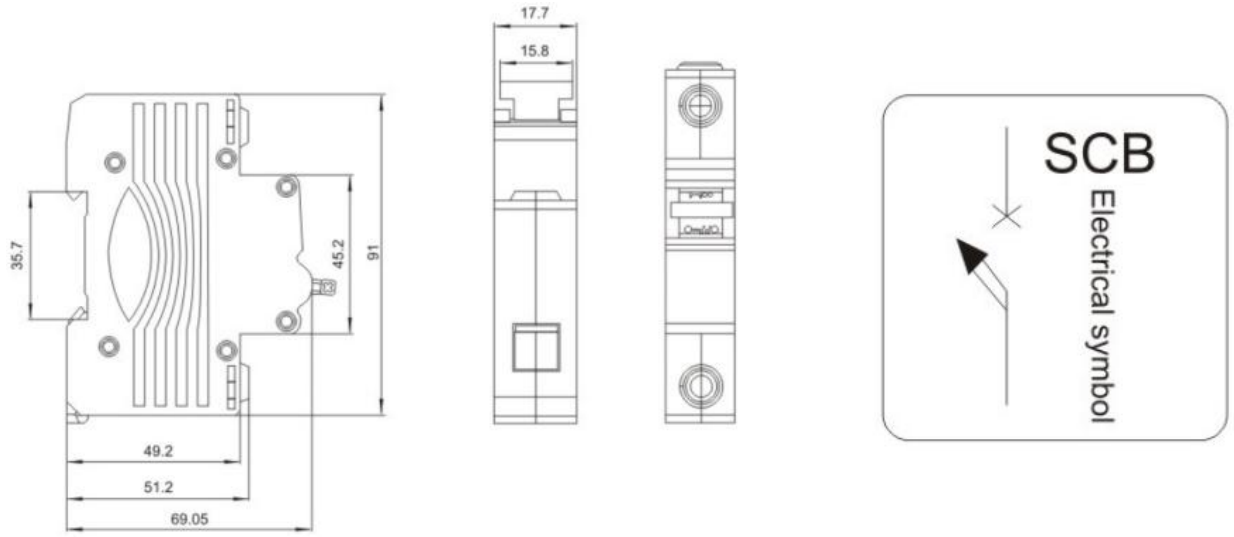
Main features

1. High discharge capacity, quick response, plugged module.
2. Fast response time, din rail installation.
3. Double thermal disconnection devices, provide more reliable protection.
4. Green window means normal, red means defect, need to change module.
5. Remote signaling contact optional.
6. T1+T2 surge protection.

Technical parameter

Model	LYSCB-20	LYSCB-40	LYSCB-60	LYSCB-80	LYSCB-100	LYSCB-15G
Non tripping impulse current Ie	≤20kA(8/20μs)	≤40kA(8/20μs)	≤60kA(8/20μs)	≤80kA(8/20μs)	≤100kA(8/20μs)	≤15kA(10/350μs)
Surge current withstand capacity without tripping	10kA(8/20)16 times	20kA(8/20)16 times	30kA(8/20)16 times	40kA(8/20)16 times	60kA(8/20)16 times	100kA(8/20)16 times
	20kA(8/20)2 times	40kA(8/20) 2 times	60kA(8/20) 2 times	80kA(8/20) 2 times	100kA(8/20) 2 times	15kA(10/350)2 times
Rated working voltage Ue	230V AC					
Rated insulation voltage Ui	400V AC					
Current tripping value Io	3±1A					
Operating short-circuit capability Ics	6kA/20kA	6kA/20kA	6kA/20kA	6kA/35kA	50kA/100kA	50kA/100kA
Short circuit current breaking time Tcs	≤40ms					
Breaking time of load current To	≤50ms					
Mechanical life	≤4000 times					
Electrical life	≤4000 times					
Enclosure protection level	IP20					
Line screw	M5					
Minimum area of connecting cable	2.5mm/flexible					
Maximum area of connecting cable	25mm/flexible					
Maximum allowable working current of remote contact	2A/250V AC Normally closed or normally open (The default is normally closed)					
Sheathing material	PBT UL94V0					
Outline size	91x73x17.8mm					
Relationship between protective action and environmental temperature	-25℃~60℃ Internal irrelevant					
Storage environment	Temperature: -40℃~75℃ Relative humidity: <95%(<25℃)					
Working environment	Temperature: -40℃~75℃ Relative humidity: <95%(<25℃)					
Shell color	Shell: blue Hand shank: orange					
Install rail clamp	EN60715(35mm)					

Dimension details (unit: mm)



ROCKGRAND GROUP:

WENZHOU ROCKGRAND TRADE CO.,LTD
WENZHOU DAGUAN ELECTRICS CO.,LTD (Factory)
ADD:NO.A1501 XINYI BUILDING SHIFU ROAD WENZHOU CHINA
ADD:ZHEJIANG YONGJIA WUNIU DONGMENG INDUSTRY AREA
Tel:86-577-88670088,88393757,88397206
Fax:86-577-88398508
E-mail:rockgrand@rockgrand.com