

SP Series (Box type)

Product description

The SP series surge protective device is applied to the alternating current 50/60Hz, 220V/380V power system and provides the protection from the surge overvoltage of an electric system. Moreover, the protection module, disconnectable device (fuse), and fastened power and ground wires are organized into the all-in-one steel cabinet with convenient installation and stability. If the protective device is normal, the display becomes green. The display becomes red after operation (abnormal or after an accident).



Product rating

- Single phase 2W+G (SPL)

	SPL-110S	SPL-220S	
SPD according to IEC	Class III	Class II / III	
Number of positions [Pole]	2W+G	2W+G	
Nominal voltage, U_n AC [V]	110/220V	220V	
Max. continuous operating voltage, U_c AC [V]	320V	320V	
Voltage protection level, U_p [kV]	$\leq 1.5kV$	$\leq 1.5kV$	
Nominal discharge current, I_n 8/20 μs [kA, per mode]	10kA	20kA	40kA
Maximum discharge current, I_{max} 8/20 μs [kA, per mode]	20kA	40kA	80kA
Response time, t_a [ns]	< 5ns		
Operating temperature range [°C]	-40 ~ +70 °C		
Operating frequency [Hz]	50 / 60 Hz		
Mounting on	Screw		
Degree of protection	IP20		
Modes of protection	L-N, L-G, N-G		
Operation status indication	Normal operation : Green, Abnormal/After an accident : Red		

Product rating

-Three phase 3W+G (SPT) AC 380V



	SPT-380S			
	Class II / III		Class I	
Number of positions [Pole]	3W+G			
Nominal voltage, U_n AC [V]	380(L-L) / 220(L-G)			
Max. continuous operating voltage, U_c AC [V]	320V			
Voltage protection level, U_p [kV]	$\leq 2.0kV$			
Lightning impulse current, I_{imp} 10/350 μs [kA, per mode]	-	-	20kA	40kA
Nominal discharge current, I_n 8/20 μs [kA, per mode]	20kA	40kA	60kA	80kA
Maximum discharge current, I_{max} 8/20 μs [kA, per mode]	40kA	80kA	120kA	160kA
Response time, t_a [ns]	< 5ns			
Operating temperature range [°C]	-40 ~ +70 °C			
Operating frequency [Hz]	50 / 60 Hz			
Mounting on	Screw			
Degree of protection	IP20			
Modes of protection	L-G			
Operation status indication	Normal operation : Green, Abnormal/After an accident : Red			

Product rating

-Three phase 3W+G (SPT) AC 440V



		SPT-440S			
		Class II/III		Class I	
SPD according to IEC					
Number of positions	[Pole]	3W+G			
Nominal voltage, U_n	AC [V]	440(L-L) / 254(L-G)			
Max. continuous operating voltage, U_c	AC [V]	320V			
Voltage protection level, U_p	[kV]	$\leq 2.0kV$			
Lightning impulse current, I_{imp}	10/350 μs [kA, per mode]	-	-	20kA	40kA
Nominal discharge current, I_n	8/20 μs [kA, per mode]	20kA	40kA	60kA	80kA
Maximum discharge current, I_{max}	8/20 μs [kA, per mode]	40kA	80kA	120kA	160kA
Response time, t_a	[ns]	< 5ns			
Operating temperature range	[°C]	-40 ~ +70 °C			
Operating frequency	[Hz]	50 / 60 Hz			
Mounting on		Screw			
Degree of protection		IP20			
Modes of protection		L-G			
Operation status indication		Normal operation : Green, Abnormal/After an accident : Red			

Product rating

-Three phase 4W+G (SPY)



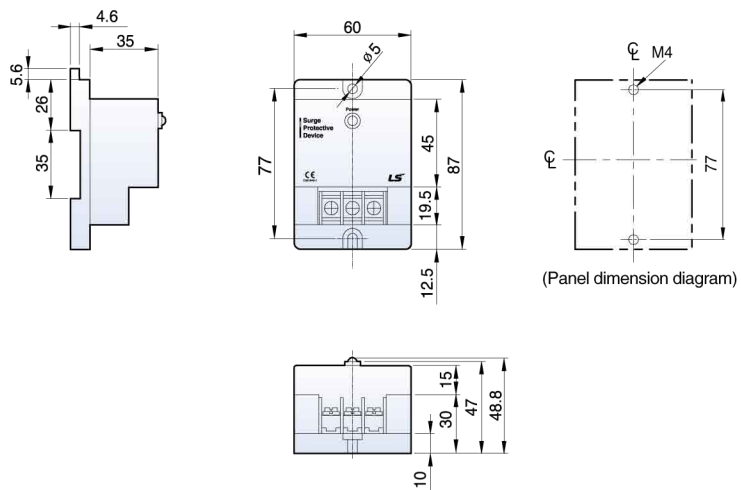
		SPY-220S			
		Class II/III		Class I	
SPD according to IEC					
Number of positions	[Pole]	4W+G			
Nominal voltage, U_n	AC [V]	380(L-L) / 220(L-N)			
Max. continuous operating voltage, U_c	AC [V]	320V			
Voltage protection level, U_p	[kV]	$\leq 2.0kV$			
Lightning impulse current, I_{imp}	10/350 μs [kA, per mode]	-	-	20kA	40, 50, 60kA
Nominal discharge current, I_n	8/20 μs [kA, per mode]	20kA	40kA	60kA	80, 100, 120kA
Maximum discharge current, I_{max}	8/20 μs [kA, per mode]	40kA	80kA	120kA	160, 200, 240kA
Response time, t_a	[ns]	< 5ns			
Operating temperature range	[°C]	-40 ~ +70 °C			
Operating frequency	[Hz]	50 / 60 Hz			
Mounting on		Screw			
Degree of protection		IP20			
Modes of protection		L-G			
Operation status indication		Normal operation : Green, Abnormal/After an accident : Red			

SP Series (Box type)

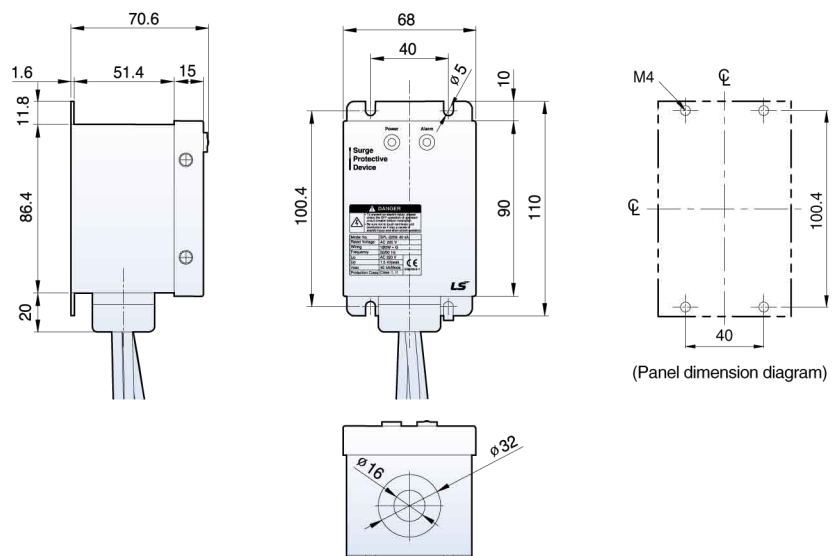
External dimension

SPL-110S Type 20kA

[Unit: mm]

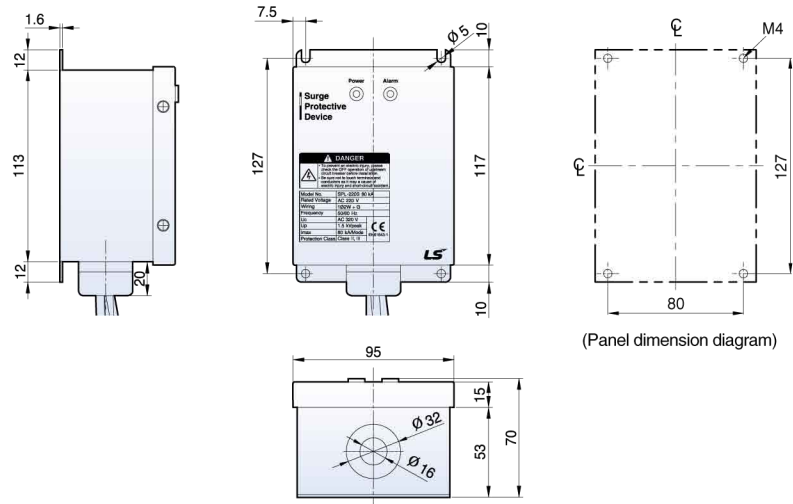


SPL-220S Type 40kA

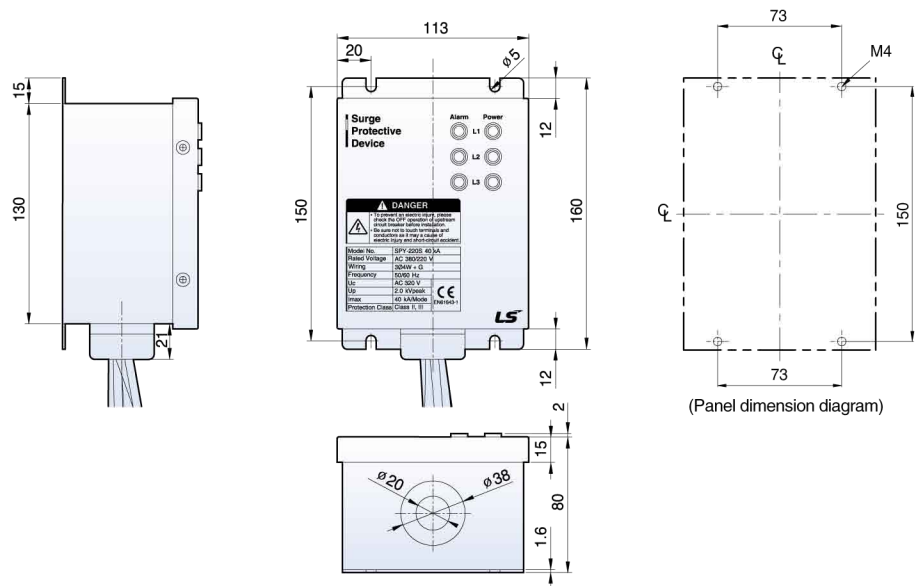


SPL-220S 80kA

[Unit: mm]



SPY-220S/SPT-380S, 440S 40kA

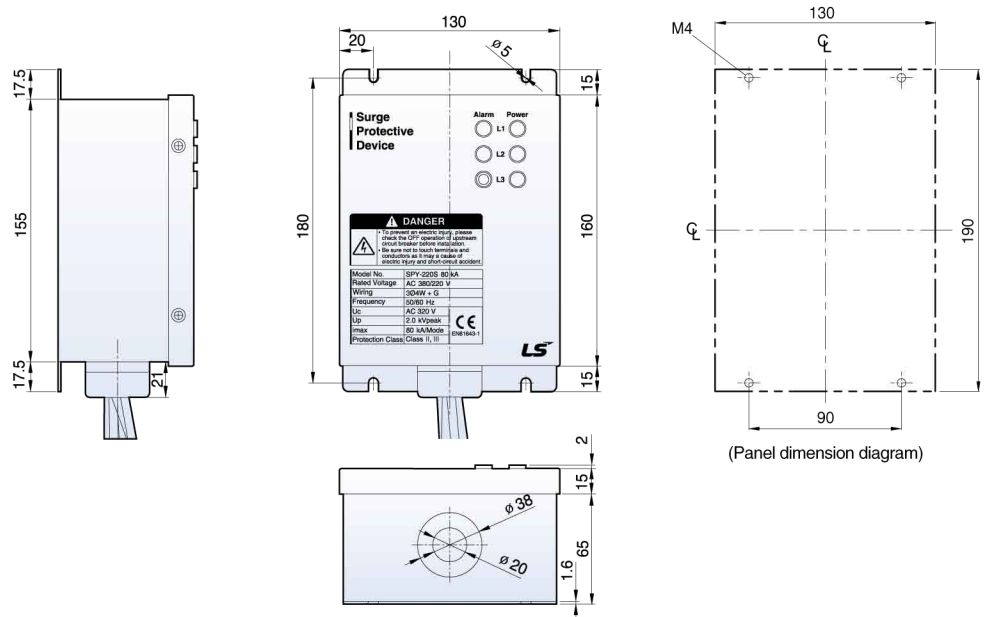


SP Series (Box type)

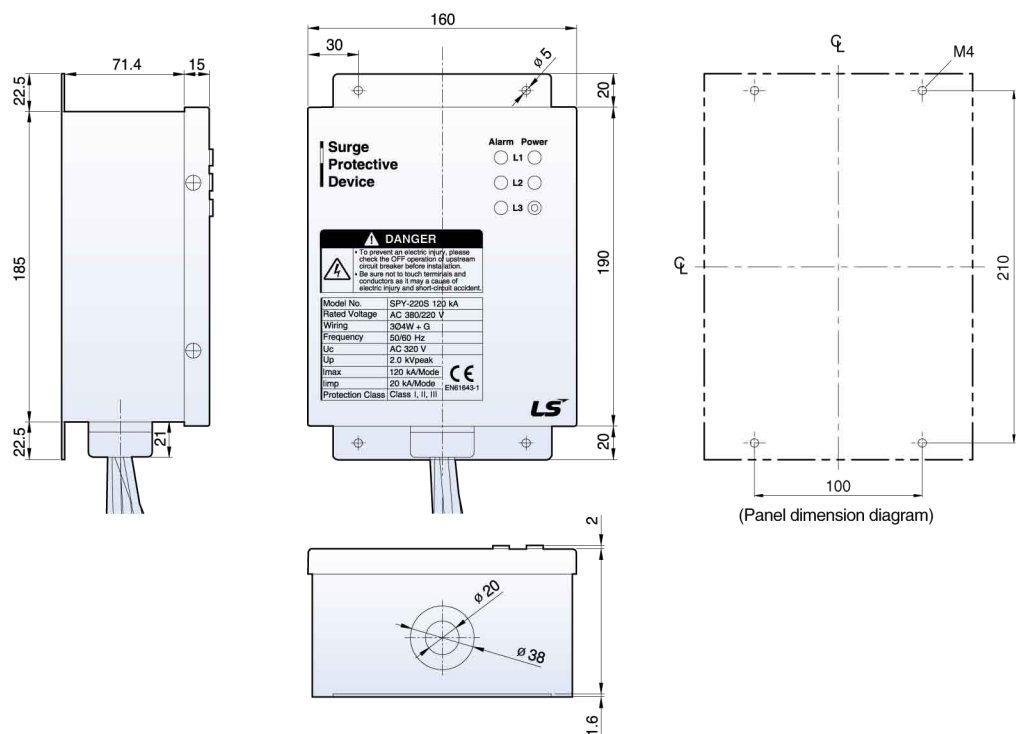
External dimension

SPY-220S/SPT-380S, 440S 80kA

[Unit: mm]

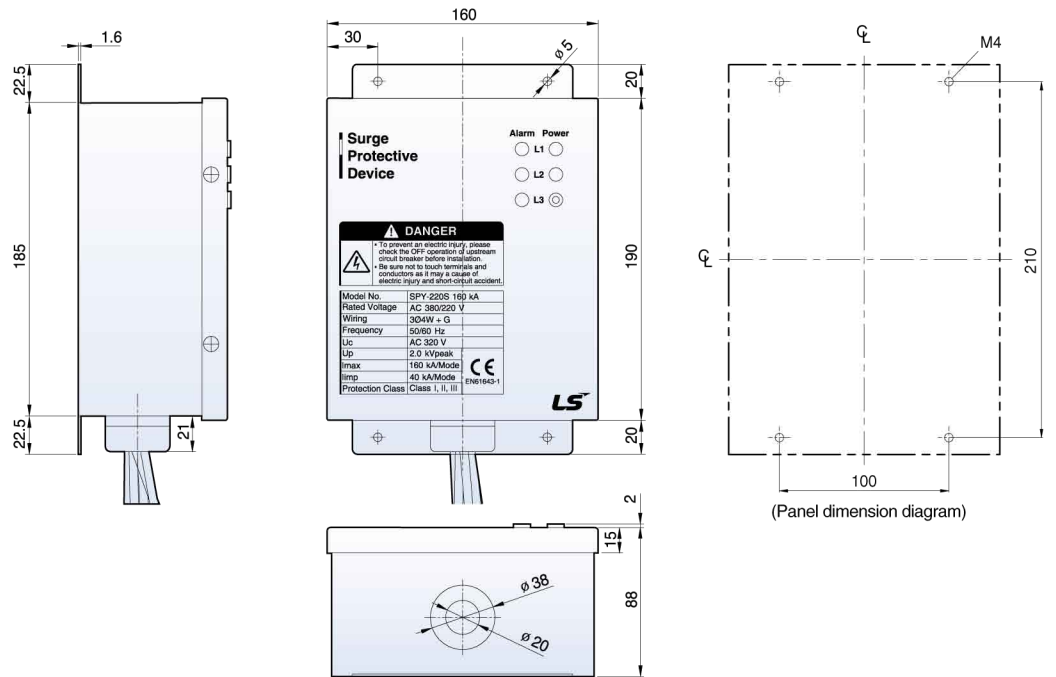


SPY-220S/SPT-380S, 440S 120kA

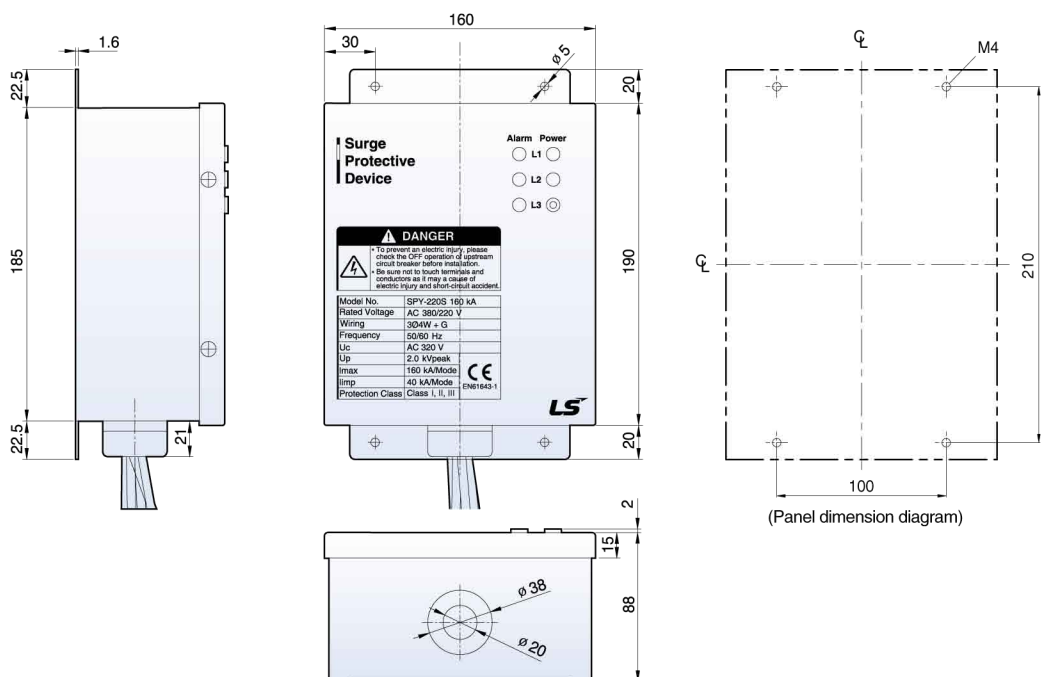


SPY-220S/SPT-380S, 440S 160kA

[Unit: mm]



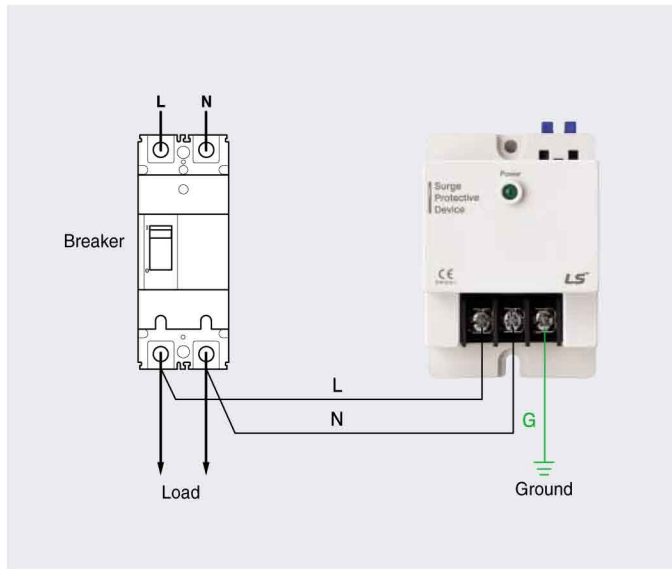
SPY-220S 200kA, 240kA



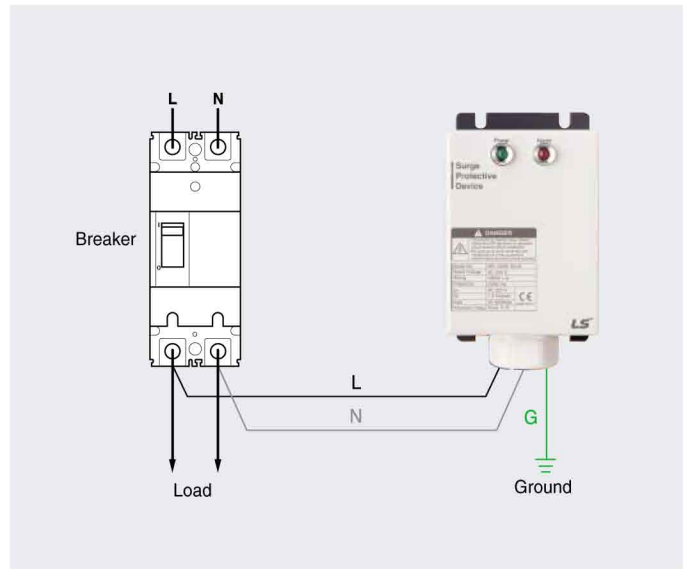
SP Series (Box type)

Installation wiring method

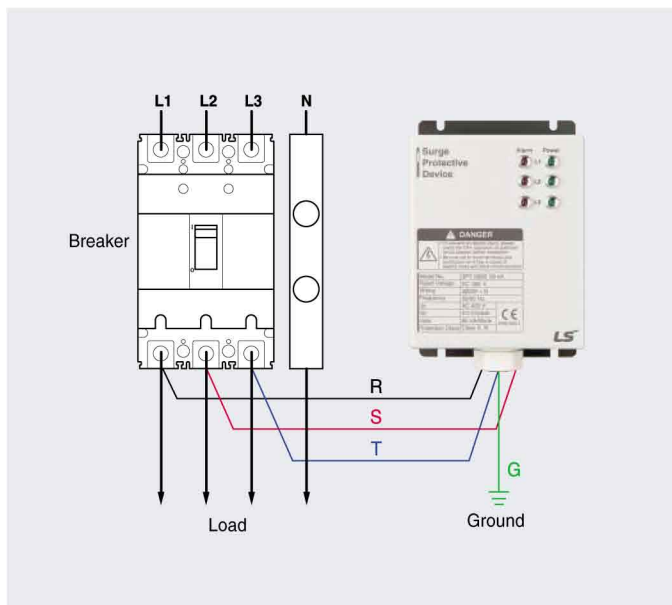
Single phase 2W+G(SPL-110S 20kA)



Single phase 2W+G(SPL-220S 40kA/80kA)



Three phase 3W+G(SPT Type)



Three phase 4W+G(SPY Type)

