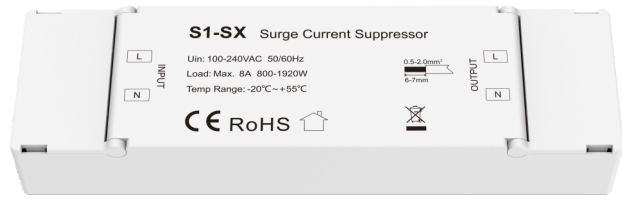


S1-SX



Surge Current Suppressor

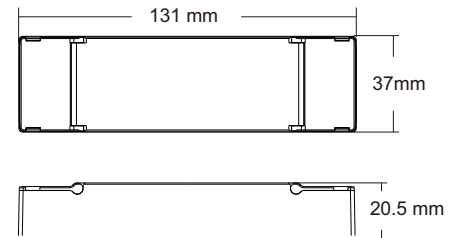
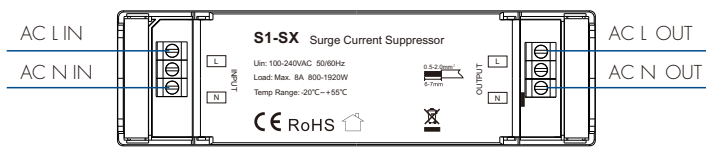
- Maximum working current is 8A, and inrush current can be suppressed to a maximum of 20A.
- Built-in bypass relay.
- Built-in thermal fuse for thermal protection.
- Used to reduce the high start-up current generated by loads such as LED dimming drivers and LED dimmable lamps.



Technical Parameters

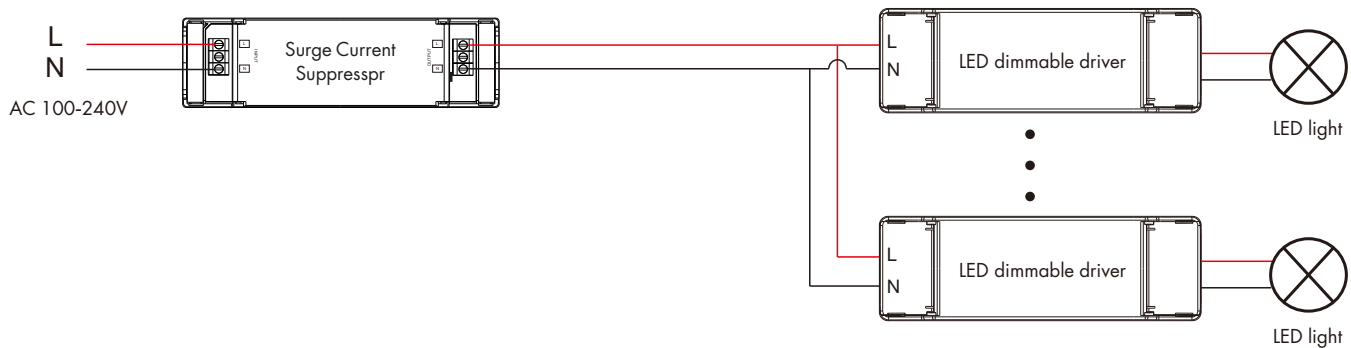
Input and Output		Environment		Safety and EMC	
Input voltage	AC100-240V	Operation temperature	Ta: -20°C ~ +55°C	EMC standard (EMC)	ETSI EN 301 489-1 V2.2.3 ETSI EN 301 489-17 V3.2.4
Input supply frequency	50/60Hz	Case temperature (Max.)	Tc: +85°C	Safety standard	EN 62368-1:2020+A11:2020
Work current	Max. 8A	IP rating	IP20	Radio Equipment(REDE)	ETSI EN 300 328 V2.2.2
Load power	800-1920W	Package		Certification	CE, EMC
Warranty		Size	L135xW40xH23mm		
Warranty	5 years	Gross weight	0.095kg		

Mechanical Structures and Installations

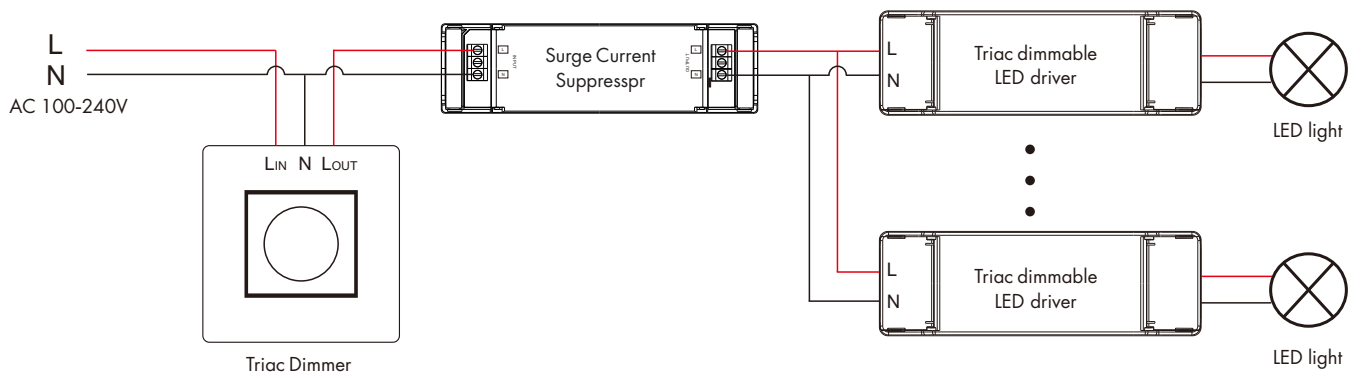


Wiring diagram

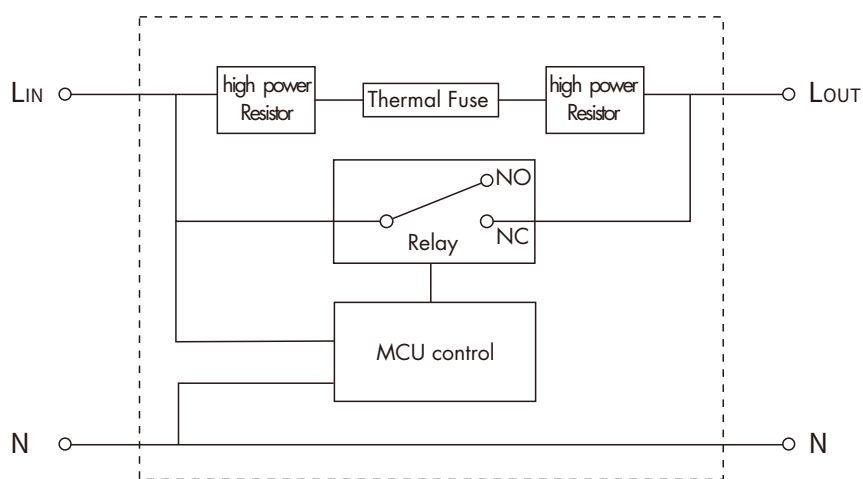
1. Surge current suppressor connect with one or more LED dimmable drivers



2. Surge current suppressors for use in series with triac dimmers to connect one or more triac dimmable LED drivers



Note: It is recommended that the total power of the connected LED dimmable drivers or LED dimmable luminaires load does not exceed 2000W and the total working current does not exceed 8A.



The moment the product is powered up, two 7.5Ω high power resistors are connected in series between LIN and LOUT to reduce the load power-on surge current. After about 40ms, the relay switch will be engaged and the LIN and LOUT will go through.

Surge current formula: $I_{\text{surge}} = U / (U / I_{\text{original surge}} + R)$

When the AC voltage is 220V, the peak voltage U is $220 * 1.414 = 311\text{V}$, if the original surge current is 100A.

$I_{\text{surge}} = 311 / (311 / 100 + 15) = 17.2\text{A}$

That is, after using the surge current suppressor, the surge current drops to 17.2A.

The internal thermal fuse provides thermal protection in case of MCU control or relay switching failure.