

## 6W Constant Voltage-SS Series

SS-6-XX MB



■ Approve

SELV



### ■ Features

- Class II, SELV, built-in
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP
- Power Factor 0.75C
- Efficiency  $\geq 75\%$
- 5 years warranty

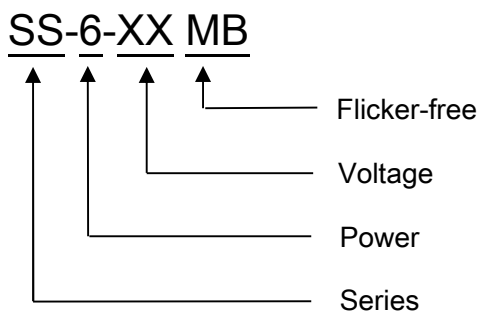
### ■ Applications

- Spot light
- COB light

### ■ Description

SS-6-XX MB is a 6W constant voltage LED driver that operates from 198-264Vac input with 12V or 24V output voltage. With it's compact dimensions from 52 x 43.5 x 22.5 mm it is easy to integrate in spot light and COB light products. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

### ■ Model code



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### ■ Specification

|                                  |                                                                                                                                                                                                                                                                  |                                             |                                           |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------|
| Input                            | Rated input voltage                                                                                                                                                                                                                                              | 220-240VAC                                  |                                           |
|                                  | Range of input voltage                                                                                                                                                                                                                                           | 198-264VAC                                  |                                           |
|                                  | Rated input voltage(DC)                                                                                                                                                                                                                                          | 198-254VDC                                  |                                           |
|                                  | Range of input voltage(DC)                                                                                                                                                                                                                                       | 176-280VDC                                  |                                           |
|                                  | Frequency(Hz)                                                                                                                                                                                                                                                    | 0/50/60 Hz                                  |                                           |
|                                  | Power Factor                                                                                                                                                                                                                                                     | 0.75C@Full Load, 230VAC                     |                                           |
|                                  | Input Current max                                                                                                                                                                                                                                                | 0.08A MAX. @Full Load,198VAC                |                                           |
|                                  | Start-up time                                                                                                                                                                                                                                                    | < 0.5S                                      |                                           |
|                                  | Unload Power Consumption                                                                                                                                                                                                                                         | ≤0.5W                                       |                                           |
|                                  | Inrush Current                                                                                                                                                                                                                                                   | 10A Max.                                    |                                           |
|                                  | Leakage Current                                                                                                                                                                                                                                                  | < 0.7mA(240VAC)                             |                                           |
|                                  | Output                                                                                                                                                                                                                                                           | Constant Voltage                            | 12VDC                                     |
| Current Range                    |                                                                                                                                                                                                                                                                  | 0-0.5A                                      | 0-0.25A                                   |
| Rated power                      |                                                                                                                                                                                                                                                                  | 6W Max.                                     |                                           |
| Voltage Accuracy                 |                                                                                                                                                                                                                                                                  | ±4%@220-240VAC                              |                                           |
| Voltage Regulation               |                                                                                                                                                                                                                                                                  | ±3%@Full Load, 220-240VAC                   |                                           |
| Load Regulation                  |                                                                                                                                                                                                                                                                  | ±2%@220-240VAC                              |                                           |
| Hold-up Time                     |                                                                                                                                                                                                                                                                  | 1s max. @ Full load                         |                                           |
| Ripple& Noise *Note.2            |                                                                                                                                                                                                                                                                  | ≤±5%@Full Load,230VAC                       |                                           |
| Output LF current ripple(<120Hz) |                                                                                                                                                                                                                                                                  | ≤±5%@Full Load,230VAC                       |                                           |
| Efficiency(Typ.)                 |                                                                                                                                                                                                                                                                  | ≥75%                                        |                                           |
| Protection                       | Over Load Protection                                                                                                                                                                                                                                             | 105-150%<br>Protection type: Auto Resume    |                                           |
|                                  | Over Voltage Protection                                                                                                                                                                                                                                          | > 12.6VDC                                   | > 25.2VDC<br>Protection type: Auto Resume |
|                                  | Short circuit Protection                                                                                                                                                                                                                                         | Protection type: Auto Resume                |                                           |
|                                  | Over Temperature protection                                                                                                                                                                                                                                      | NA                                          |                                           |
| Environment                      | Operating Temperature                                                                                                                                                                                                                                            | -20°C...+45°C                               |                                           |
|                                  | tc                                                                                                                                                                                                                                                               | 80°C                                        |                                           |
|                                  | Storage Temperature                                                                                                                                                                                                                                              | -20°C...+60°C                               |                                           |
|                                  | Life time                                                                                                                                                                                                                                                        | > 44,000h@ 45°C                             |                                           |
|                                  | Temperature coefficient                                                                                                                                                                                                                                          | ±0.03%/°C(0-45°C)                           |                                           |
|                                  | Humidity                                                                                                                                                                                                                                                         | 20%-90%RH                                   |                                           |
| Others                           | Dimension                                                                                                                                                                                                                                                        | 52X43.5X22.5 (LXWXH)mm                      |                                           |
| Safety & EMC                     | Safety standards                                                                                                                                                                                                                                                 | EN 61347-1; EN61347-2-13; EN62384           |                                           |
|                                  | Withstand voltage                                                                                                                                                                                                                                                | Input-Output : 3750V/5mA/1min               |                                           |
|                                  | Isolation resistance                                                                                                                                                                                                                                             | Input-Output : ≥4MΩ@500VDC                  |                                           |
|                                  | EMI                                                                                                                                                                                                                                                              | EN55015; EN61000-3-2 Class C; EN61000-3-3   |                                           |
|                                  | EMS                                                                                                                                                                                                                                                              | EN 61547; EN 61000-4-2; EN 61000-4-5 —500V; |                                           |
| Note                             | 1.All parameters NOT specially mentioned are measured at 230VAC input , full load and 25°C of ambient temperature.<br>2.Ripple & Noise are measured at 20MHz of bandwidth by using a 300mm twisted pair-wire terminated with a 0.1uF & 47 uF parallel capacitor. |                                             |                                           |

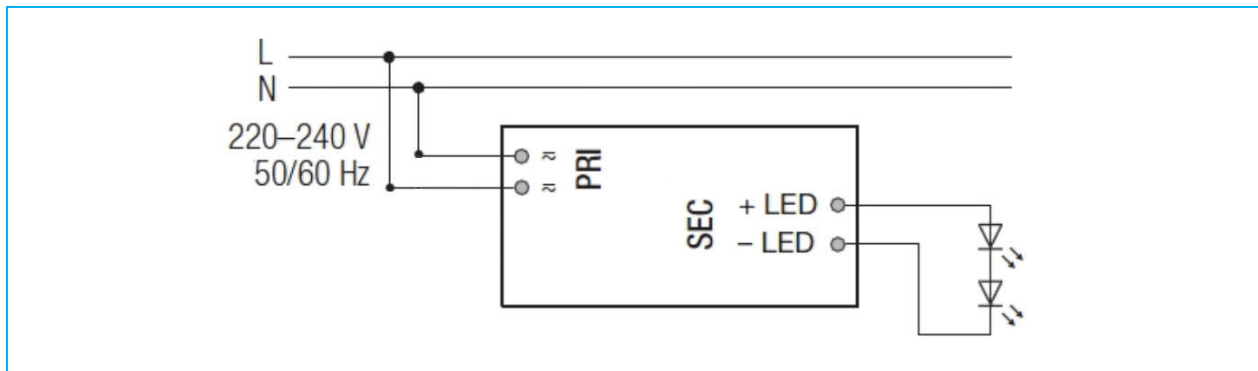
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SS-6-XX MB

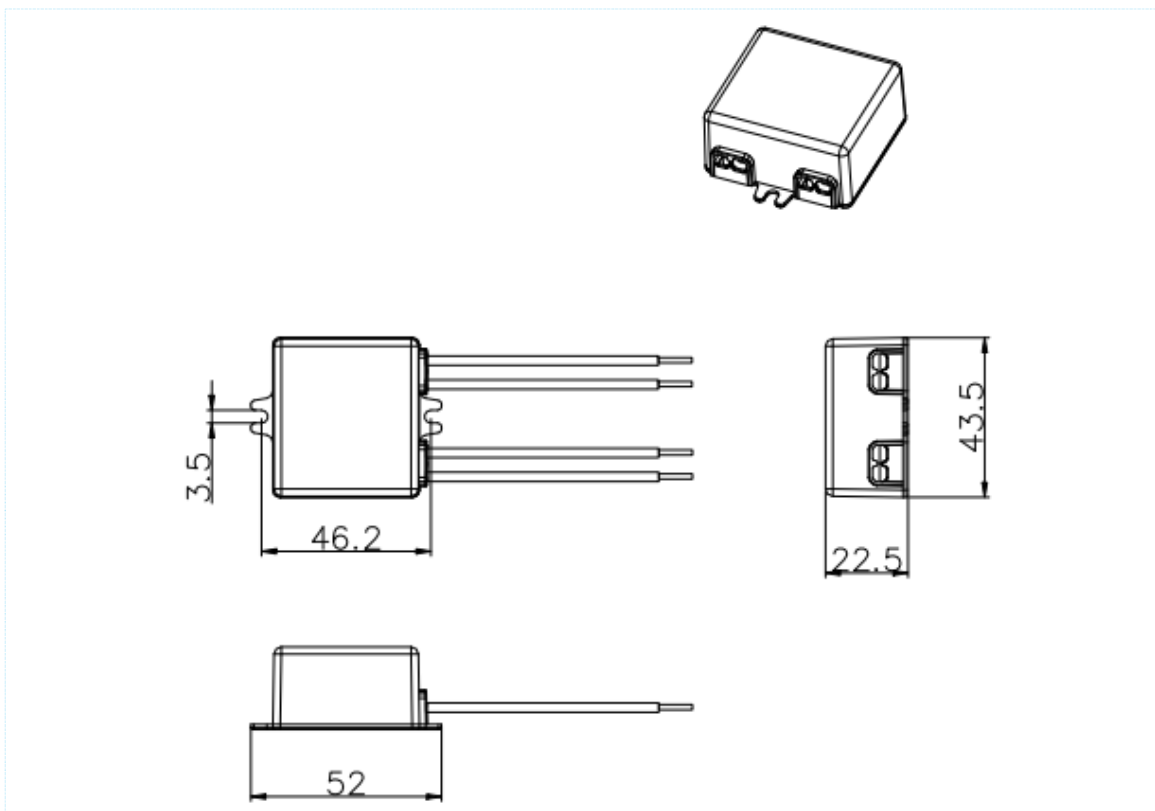
### Model list

| No. | Model number | Input         |             |                | Output                 |                            |                        |
|-----|--------------|---------------|-------------|----------------|------------------------|----------------------------|------------------------|
|     |              | Voltage (VAC) | Current (A) | Frequency (Hz) | Constant voltage (VDC) | Normal working current (A) | P <sub>rated</sub> (W) |
| 1   | SS-6-12 MB   | 220-240       | 0.08        | 50/60          | 12                     | 0-0.5                      | 6                      |
| 2   | SS-6-24 MB   | 220-240       | 0.08        | 50/60          | 24                     | 0-0.25                     | 6                      |

### Wiring diagram



### 2D diagram

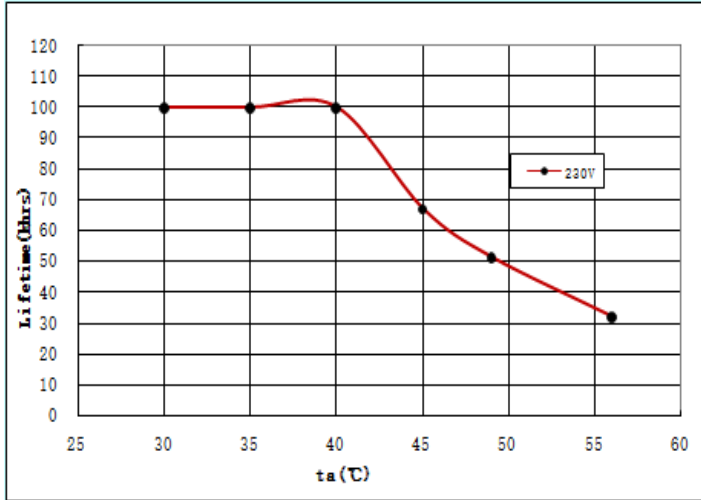


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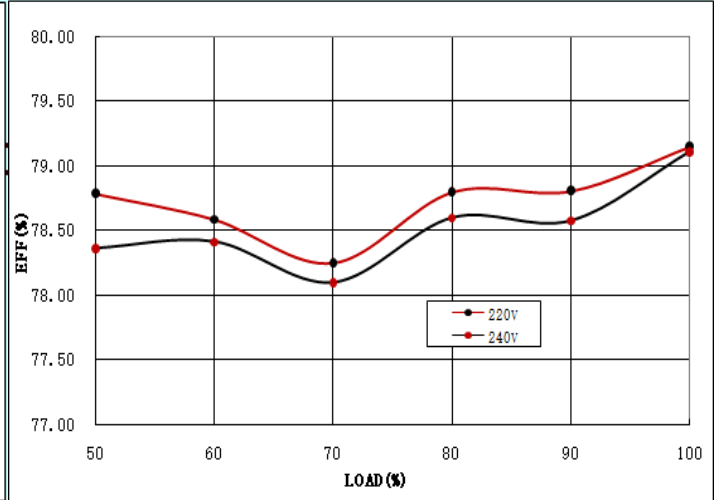
SS-6-XX MB

### ■ Curve for SS-6-12 MB

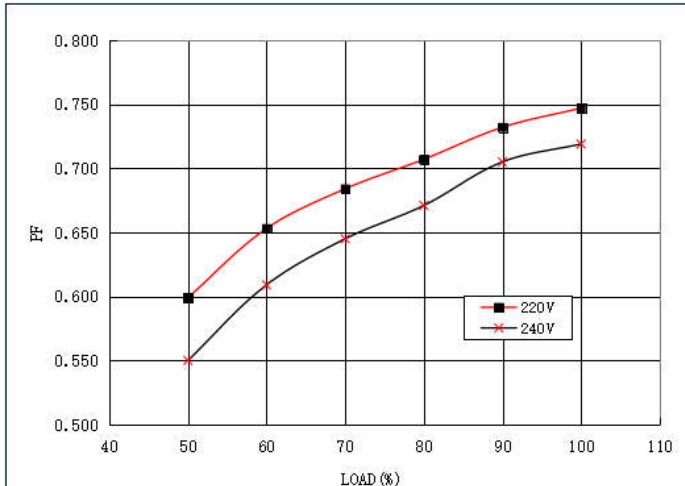
Lifetime vs. Ambient Temperature Curve



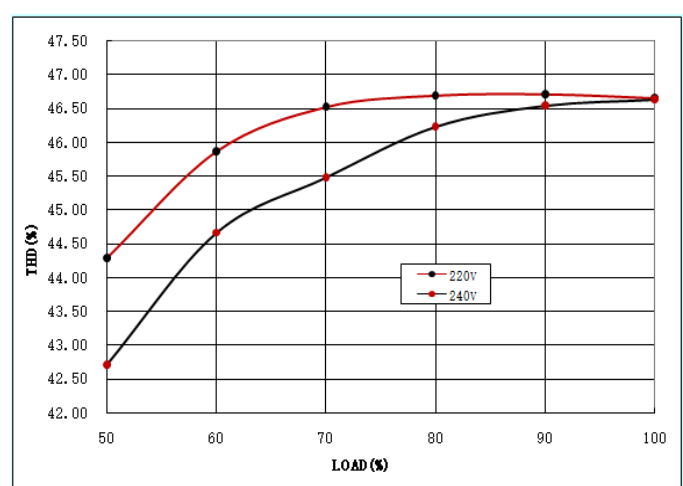
Efficiency vs. Load



Power Factor Characteristics



THD vs. Load



### ■ Operating window

