

Constant Voltage LED Driver

SS60-12VL

SS60-24VL

SS60-48VL



Product description

SS60-12/24/48VL is an indoor constant voltage LED driver. Its input voltage range is 198-264Vac, with a conversion efficiency of up to 90%. It adopts a fanless design and works at -20+45 degree natural cooling chassis temperature range, and has high power factor, low total harmonic distortion, low standby power consumption, and all-round protection functions, which not only greatly improves the reliability of the product, but also ensures the product life cycle. This series of products designed for LED lighting design and used in indoor lighting, it has a high cost performance.

Standards

EN61347-1:2015
EN 61347-2-13:2014+A1
EN62493:2015
AS/NZS 61347.2.13
EN 61347-2-13:2014 +A1
EN61347-1:2015

Characteristics

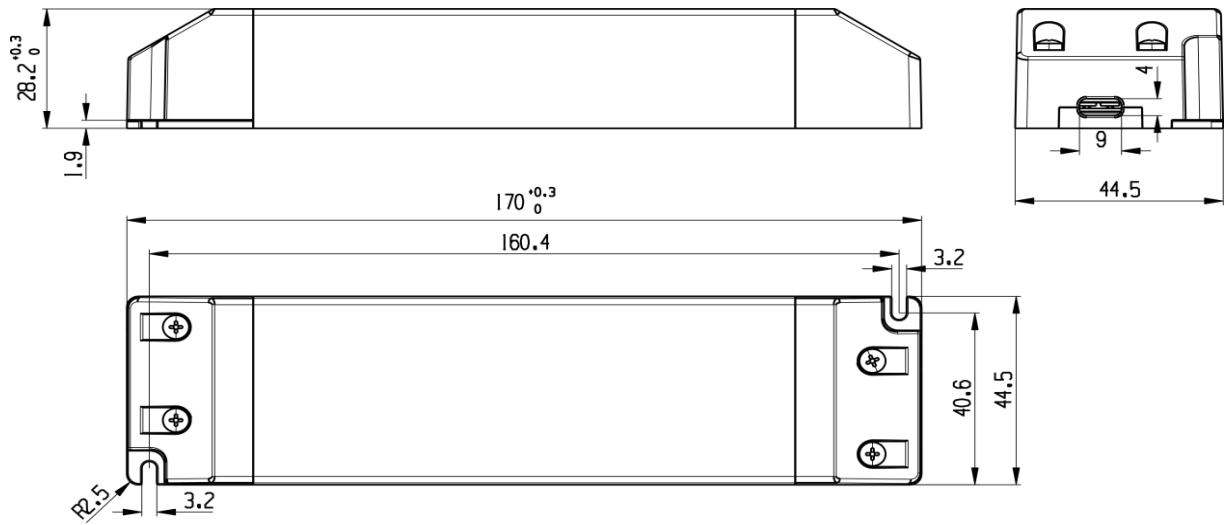
AC input range (220-240VAC)
IP20
Suitable for dry indoor environments
Protection type: short circuit/overload/open circuit protection
Plastic case
Comply with world lighting equipment safety regulations
5 years warranty

Specifications

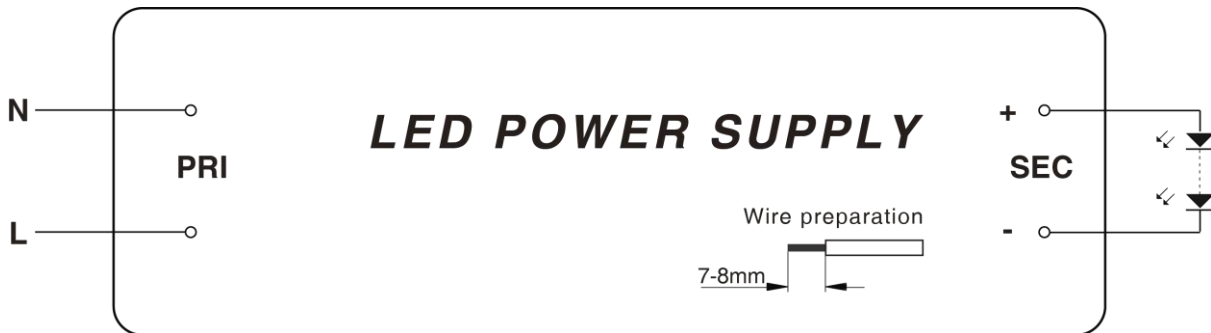
| Model | | SS60-12VL | SS60-24VL | SS60-48VL |
|------------------------------------|---|------------------------------|----------------------|----------------------|
| Output | Turn on time(S) | 0.5S | | |
| | Output power(W) | 60 | | |
| | Output voltage(V) | 12 | 24 | 48 |
| | Output voltage tolerance | 5% | | |
| | Ripple voltage(mV) | 3% | | |
| | Line Regulation | 1% | | |
| | Load Regulation | 2% | | |
| | Working current range(A) | 0-5 | 0-2.5 | 0-1.25 |
| | SVM | 0.4 | | |
| | Pst | 1 | | |
| | Dimming type | NA | | |
| | Dimming range | NA | | |
| | Input | Rated DC supply Voltage(Vdc) | NA | |
| Rated supply voltage(Vac) | | 220-240 | | |
| Voltage range(Vac) | | 198-264 | | |
| Line frequency(Hz) | | 50/60 | | |
| Input current(A) | | <0.39 | | |
| Efficiency (TYPE) | | 87%@full load,230Vac | 88%@full load,230Vac | 89%@full load,230Vac |
| Average efficiency(TYPE) (TYPE) | | 85.5% | 86.5% | 88% |
| No load power Consumption(W) | | 0.5W | | |
| Power factor | | 0.95@full load | | |
| Displacement factor | | 0.95 | | |
| THD(typ.) THD | | 10% | | |
| Inrush current(Ipk) Ipk | | 40A/160uS | | |
| Leakage current (mA) | | 0.7mA@240Vac 60Hz | | |
| Short circuit protection | hiccup mode, restart automatically after fault correction. | | | |
| Over load protection | hiccup mode, restart automatically after fault correction. exceed maximum rated load times 1.1~1.6 | | | |
| Over voltage protection | | | | |
| Over temperature protection | IC detect | | | |

| | | |
|-------------------------|---|-------------------------------|
| Protection | Surge capacity | L-N: 1KV |
| | Withstand voltage | Input-Output: 3750V/5mA/1 min |
| Ambient and Life | Ta(C) | -20/45(See derating curve) |
| | Tc max.(C) | max.90 |
| | Storage Temperature() | -40...+80 |
| | Ambient humidity range | 5%...85%RH, Not condensing |
| | Nominal life-time(hrs) | 50'000@Ta |
| Other | Dimensions (LWH)(mm) | 170*44.5*28.2 |
| | Weight(g) | 250 |
| | Casing material | Plastics |
| | Housing colour | White |
| | Type of protection | IP20 |
| | Protection class | Class II |
| | Certificate | CE+TUV+RCM |
| Note | <p>1.Tolerance:includes set up tolerance, line regulation and load regulation.</p> <p>2.Tested at full load,230Vac.Refer to"Power Factor" and "EFFICIENT"curve graphs.</p> <p>3.Calculate the models average efficiency for each test voltage by testing at 100%, 75%, 50%, and 25% of rated current and then computing the simple arithmetic average of these four values.</p> <p>4.All parameters NOT specially mentioned are measured at nominal voltage input, rated load and 25 of ambient temperature.</p> <p>5.The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.</p> | |

Dimensions(mm)



Wiring Diagram



| | |
|----|---------------------|
| AC | + H03VVH2-F 20.75mm |
| DC | + H03VVH2-F 20.75mm |

Electrical curves

Fig. 1 Output load-Temperature curve

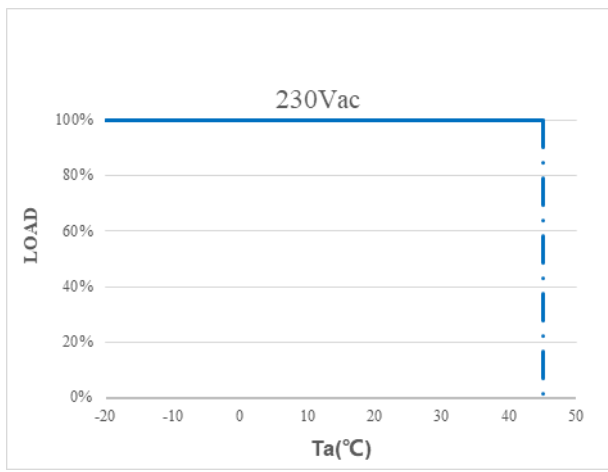


Fig. 2 Static characteristic curve

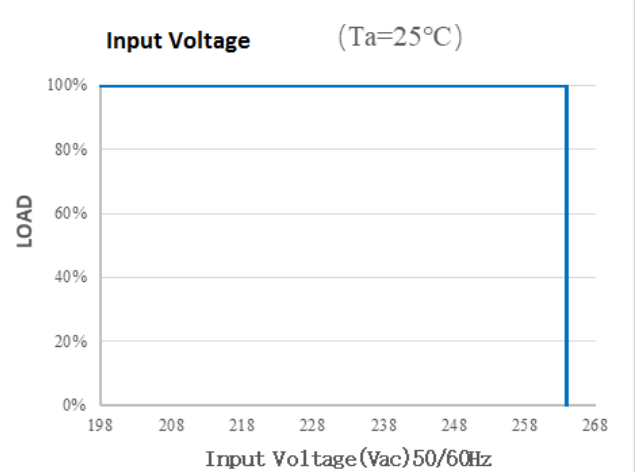


Fig. 3 I-V curve

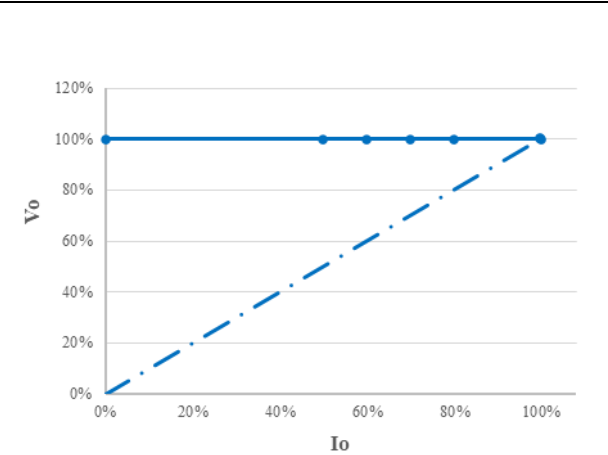


Fig. 4 Power factor characteristic curve

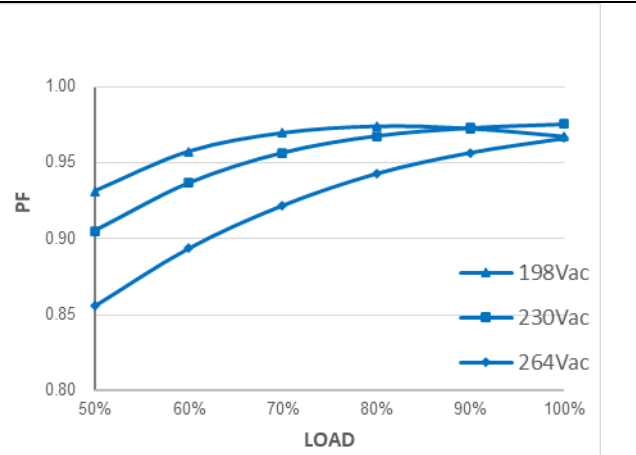


Fig.5 Total harmonic distortion curve THD

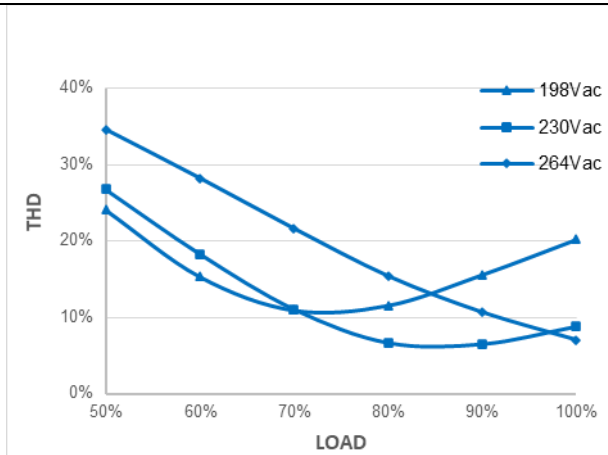
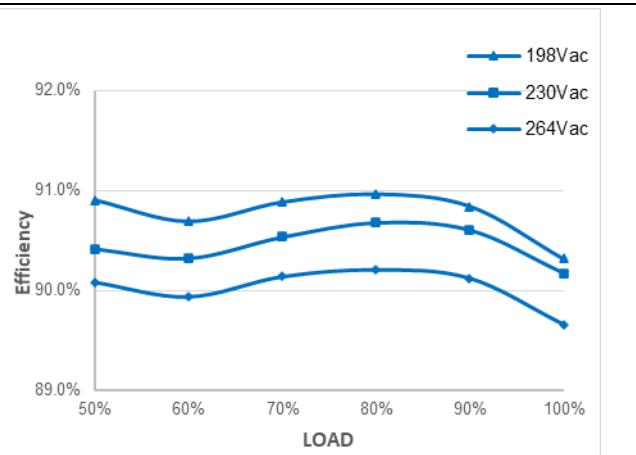


Fig.6 Efficiency-Load curve



MCBS

| Model \ MCBS | B10 | B13 | B16 | B20 | C10 | C13 | C16 | C20 |
|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| SS60-12/24/48VL | 14 | 18 | 22 | 28 | 23 | 31 | 38 | 48 |

S

Package

| Model | Carton quantity(pcs) | Carton dimension(mm) | G.W./CTN(kg) |
|------------------------|----------------------|----------------------|--------------|
| SS60-12/24/48VL | 25 | 235x275x165 | 5.2 |

Revision history

| Date | Rev. | Remark |
|------------|------|------------------|
| 2022.3.3 | A1 | Initial release. |
| 2023.2.6 | A2 | Add 48V |
| 2023.11.22 | A3 | Format update |