



(Wall-Mounted EU type)



(Interchangeable type)



■ Features

- AC 180~264V input
- Class II/2 power unit, no FG
- Built-in active PFC function with EN61347-1 regulation
- Constant voltage design
- Protections: Short circuit / Over load / Over voltage
- Cooling by free air convection
- No load power consumption < 0.5W
- Various DC plug quick adapter accessory available (Plug kit sold separately, please refer to : https://www.meanwell.com/upload/pdf/DC_plug.pdf)
- 3 years warranty

■ Applications

- LED strip lighting
- Indoor LED lighting
- LED decorative lighting
- Commercial lighting
- Mirror lighting
- Table light
- Portable lighting

■ GTIN CODE

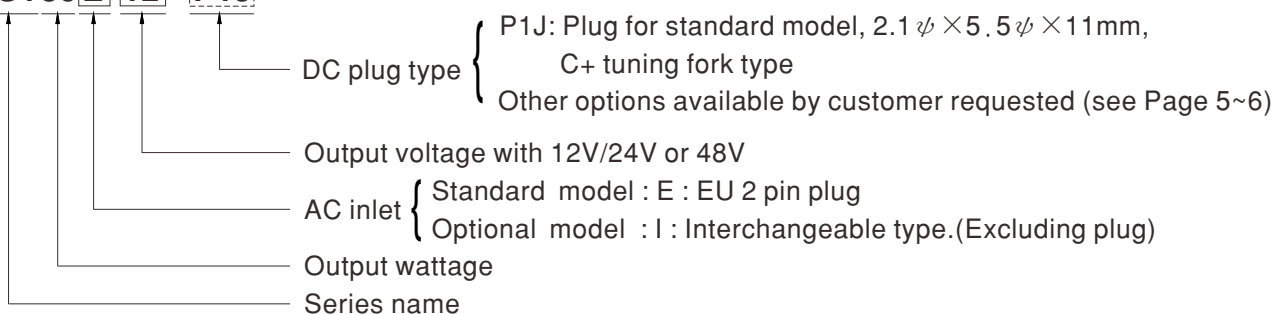
MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

■ Description

GSV30 series is a 30W external wall-mounted LED power supply with PFC function. The design of this product is based on the “plug and play” concept for adaptors. The AC input side exploits the 2-Pole (Class II, no FG) standard plug, and the output side is equipped with the highly accepted DC connector (2.1x5.5x11mm) in the market. This product accepts 180~264VAC input and offers constant voltage output with 12V/24V or 48V. The design complies with the lighting requirements of EMI BS EN/EN55015 and the harmonic current demand according to BS EN/EN61000-3-2 Class C. In addition, the no load power consumption is less than 0.5W, making GSV30 conform to the ErP regulation required by European Union for lighting systems as well.

■ Model Encoding

GSV30E12-P1J





30W With PFC LED Power Supply

GSV30 series

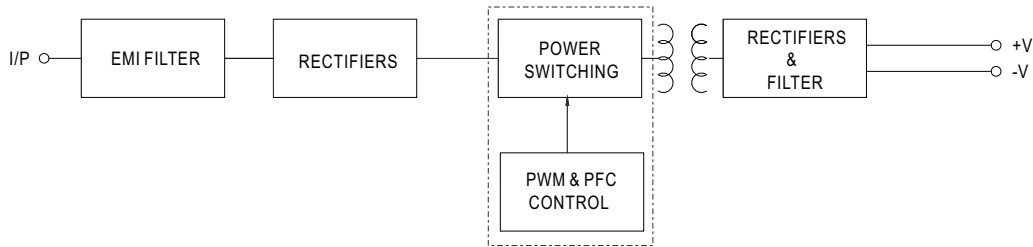
SPECIFICATION

| MODEL | GSV30[E] 12-P1J | GSV30[E] 24-P1J | GSV30[E] 48-P1J | |
|-----------------|--|---|-------------------|-------------------|
| OUTPUT | DC VOLTAGE | 12V | 24V | 48V |
| | OPEN CIRCUIT VOLTAGE | <15V | <28V | <57V |
| | RATED CURRENT | 2.5A | 1.25A | 0.625A |
| | RATED POWER | 30W | 30W | 30W |
| | RIPPLE & NOISE (max.) Note.2 | 2.5Vp-p max. | 3.5Vp-p max. | 5.5Vp-p max. |
| | VOLTAGE TOLERANCE Note.3 | ±1.5V | ±2V | ±4V |
| | LINE REGULATION | ±2.0% | ±2.0% | ±2.0% |
| | NO LOAD CONSUMPTION | 0.5W max. | | |
| SETUP UP TIME | 500ms/230VAC at full load | | | |
| INPUT | VOLTAGE RANGE | 180 ~ 264VAC 255 ~ 373VDC | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | |
| | POWER FACTOR (Typ.) | PF>0.92/230VAC at full load (Please refer to "Power Factor Characteristic" curve) | | |
| | TOTAL HARMONIC DISTORTION | <20%/230VAC @ full load | | |
| | EFFICIENCY (Typ.) | 83% min. @ 230VAC | 86% min. @ 230VAC | 89% min. @ 230VAC |
| | AC CURRENT (Typ.) | 0.3A/230VAC | | 0.5A/230VAC |
| | INRUSH CURRENT(max.) | COLD START 20A(twidth=200µs measured at 50% I _{peak}) at 230VAC | | |
| LEAKAGE CURRENT | <0.25mA max. @ 230VAC | | | |
| PROTECTION | OVER LOAD | 105 ~ 200% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed | | |
| | OVER VOLTAGE | 15.6V ~ 18V | 28V ~ 32.4V | 57.6V ~ 72V |
| | SHORT CIRCUIT | Hiccup mode, recovers automatically after fault condition is removed | | |
| ENVIRONMENT | WORKING TEMP. | -20 ~ +50°C (Refer to "Derating Curve") | | |
| | WORKING HUMIDITY | 20 ~ 95% RH non-condensing | | |
| | STORAGE TEMP., HUMIDITY | -30 ~ +80°C, 10 ~ 95% RH | | |
| | TEMP. COEFFICIENT | ±0.03%/°C (-20 ~ 50°C) | | |
| VIBRATION | 10 ~ 500Hz, 2G 12min./1cycle, period for 72min. each along X, Y, Z axes | | | |
| SAFETY & EMC | SAFETY STANDARDS | LVD BS EN/EN61347-1, BS EN/EN61347-2-13 approved | | |
| | WITHSTAND VOLTAGE | I/P-O/P:3.75KVAC | | |
| | ISOLATION RESISTANCE | I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH | | |
| | EMC EMISSION | Compliance to BS EN/EN55015, BS EN/EN61000-3-2 Class C (100% load) ; BS EN/EN61000-3-3 | | |
| EMC IMMUNITY | Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN61547, light industry level, criteria A | | | |
| OTHERS | MTBF | 450K hrs min. MIL-HDBK-217F (25°C) | | |
| | DIMENSION | E : 75.5*32*47.5 mm(L*W*H) ; I: 75.5*39.1*56.2 mm(L*W*H) | | |
| | PACKING | E: 200g ; 60pcs / 13kg / CARTON ; I: 166g ; 60pcs / 11kg / CARTON | | |
| CONNECTOR | PLUG | See page 5~6 ; Other type available by customer requested | | |
| | CABLE | See page 5~6 ; Other type available by customer requested | | |
| NOTE | <p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 104PF/50V ceramic capacitor and 47µf/50V electric capacitor between output terminals.</p> <p>3. Tolerance:includes set up tolerance,line regulation and load regulation with minimum load 1% to maximum load 100% at 230VAC input condition.</p> <p>4. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft)</p> <p>※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx</p> | | | |

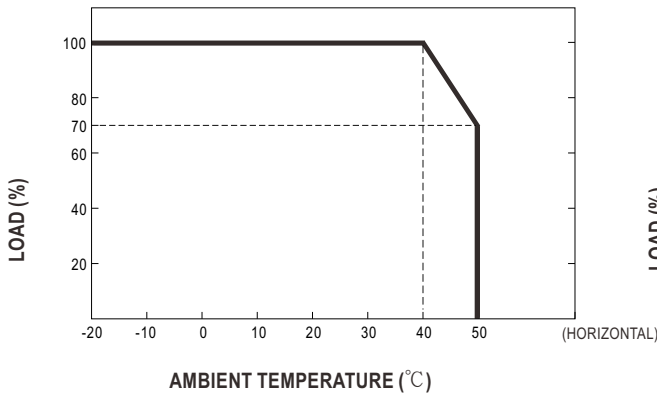


■ Block Diagram

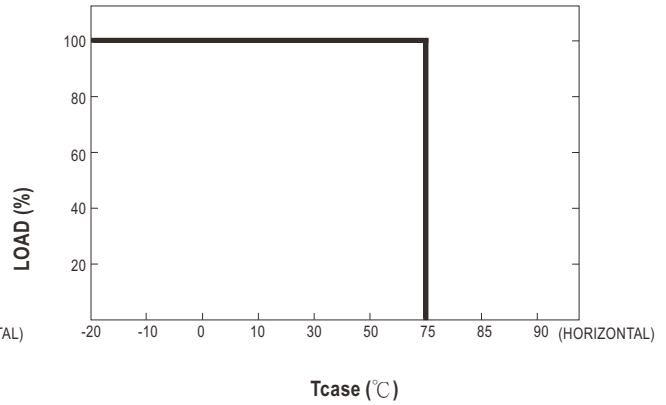
fosc : 100KHz



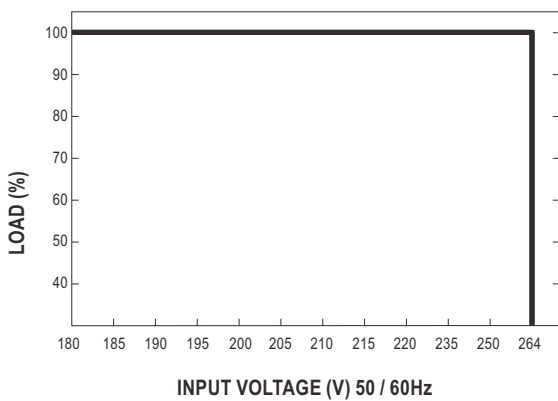
■ Derating Curve



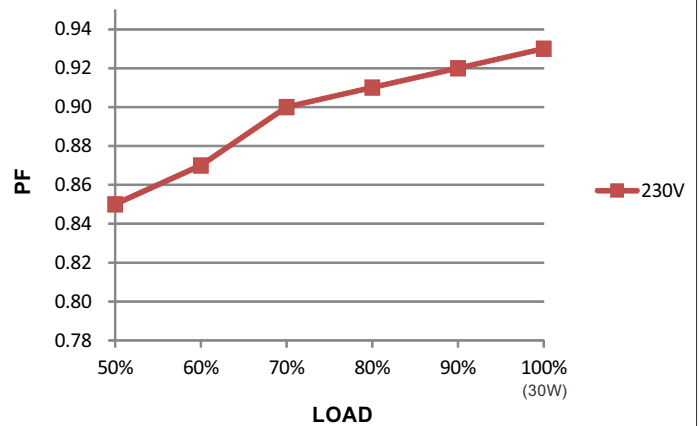
■ OUTPUT LOAD vs TEMPERATURE



■ Static Characteristics

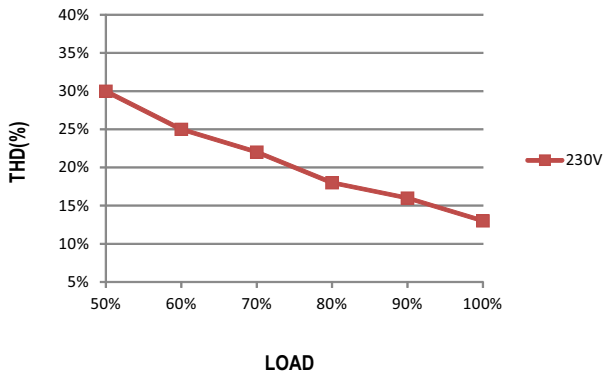


■ Power Factor Characteristic(24V)



TOTAL HARMONIC DISTORTION (THD)

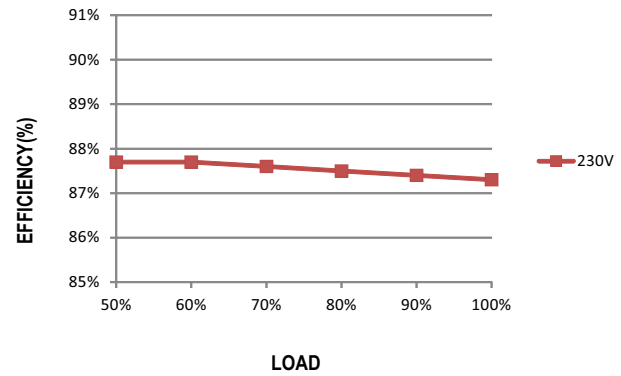
※ 24V Model, Tcase at 75°C



EFFICIENCY vs LOAD

GSV30 series possess superior working efficiency that up to 89% can be reached in field applications.

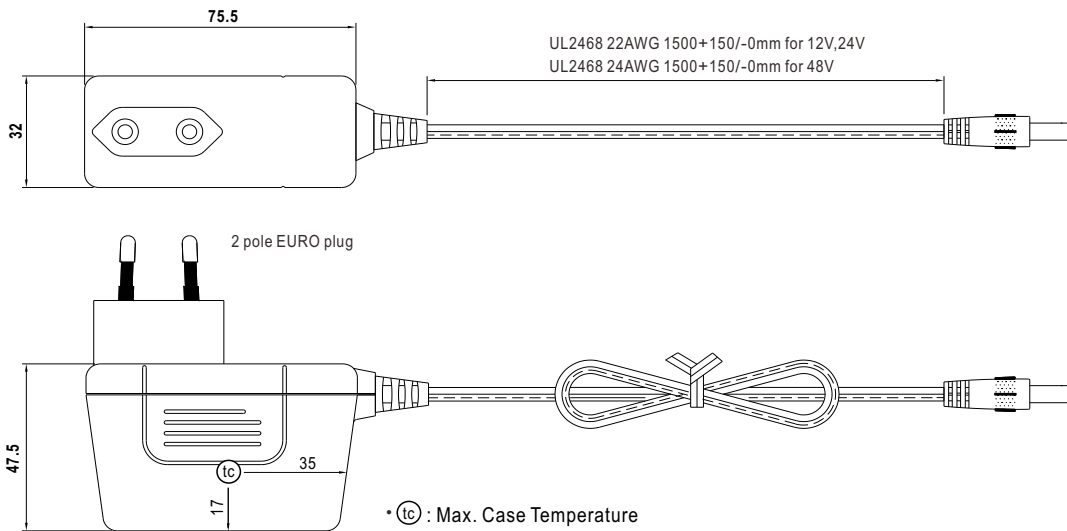
※ 24V Model, Tcase at 75°C



Mechanical Specification

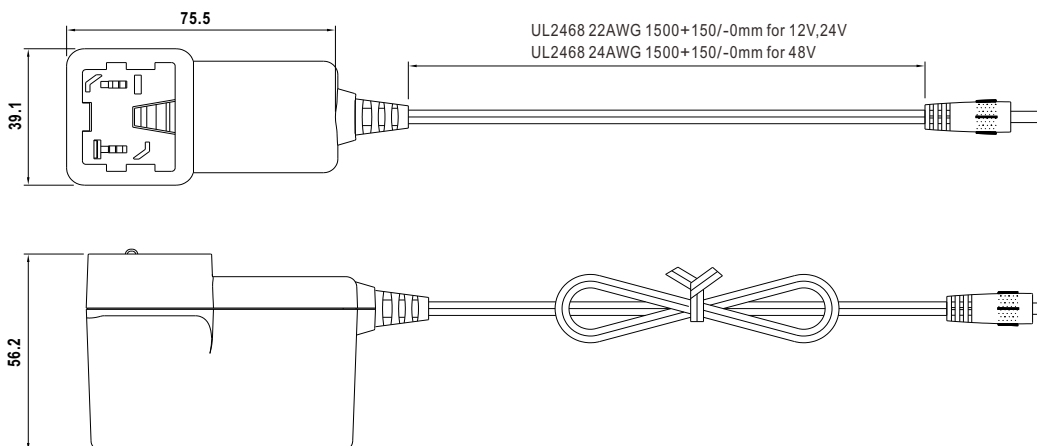
※ Standard

Unit:mm



※ Interchangeable AC plug Specifically for GSV30I/60I (order separately)

| TYPE | | |
|---|-------------|---------------|
| | U.K type | European type |
| ORDER NO. | AC plug-UK2 | AC plug-EU2 |
| By optional (For AC interchangeable plug same as GEM06~60I accessory) | | |





30W With PFC LED Power Supply

GSV30 series

■ DC output plug

◎ Standard plug: P1J

Unit:mm

| P1J | Pin Assignment |
|-----|-----------------|
| | |
| | Outside Inside |

◎ DC plug changeable through:

- (1) Customization of the standard part with an optional DC plug according to the table (MOQ applicable)
- (2) Quick adapter accessory (sold separately without MOQ)

Please refer to below table and online selection guide : https://www.meanwell.com/upload/pdf/DC_plug.pdf

Example quick adapter accessory:



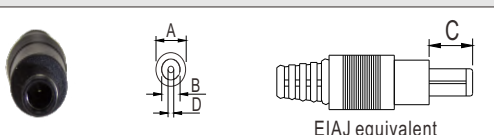
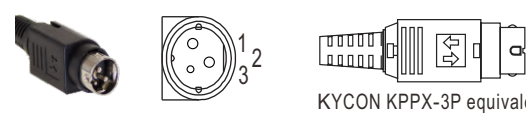
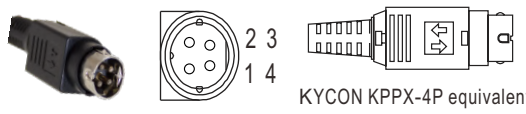

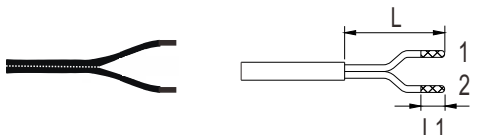
◎ Optional DC plug: (Available in customized cable or quick adapter)

| Tuning Fork Style | | Type No. | A | B | C | Quick Adapter Accessory |
|-------------------|---|------------|------|------|-------|--|
| | | | OD | ID | L | |
| | | P1I | 5.5 | 2.1 | 9.5 | Available (Current rating: 7.5A max.) |
| | | P1L | 5.5 | 2.5 | 9.5 | |
| | | P1M | 5.5 | 2.5 | 11.0 | |
| | | P1IR | 5.5 | 2.1 | 9.5 | |
| | | P1JR | 5.5 | 2.1 | 11.0 | |
| | | P1LR | 5.5 | 2.5 | 9.5 | |
| | | P1MR | 5.5 | 2.5 | 11.0 | |
| Barrel Style | | Type No. | A | B | C | |
| | | | OD | ID | L | |
| | | P2I | 5.5 | 2.1 | 9.5 | None |
| | | P2J | 5.5 | 2.1 | 11.0 | |
| | | P2L | 5.5 | 2.5 | 9.5 | |
| | | P2M | 5.5 | 2.5 | 11.0 | |
| | | P2IR | 5.5 | 2.1 | 9.5 | |
| | | P2JR | 5.5 | 2.1 | 11.0 | |
| | | P2LR | 5.5 | 2.5 | 9.5 | |
| | | P2MR | 5.5 | 2.5 | 11.0 | |
| Lock Style | | Type No. | A | B | C | |
| | | | OD | ID | L | |
| | <p>SWITCHCRAFT original or equivalent</p> | P2S(S761K) | 5.53 | 2.03 | 12.06 | None |
| | | P2K(761K) | 5.53 | 2.54 | 12.06 | |
| | | P2C(S760K) | 5.53 | 2.03 | 9.52 | |
| | | P2D(760K) | 5.53 | 2.54 | 9.52 | |



30W With PFC LED Power Supply

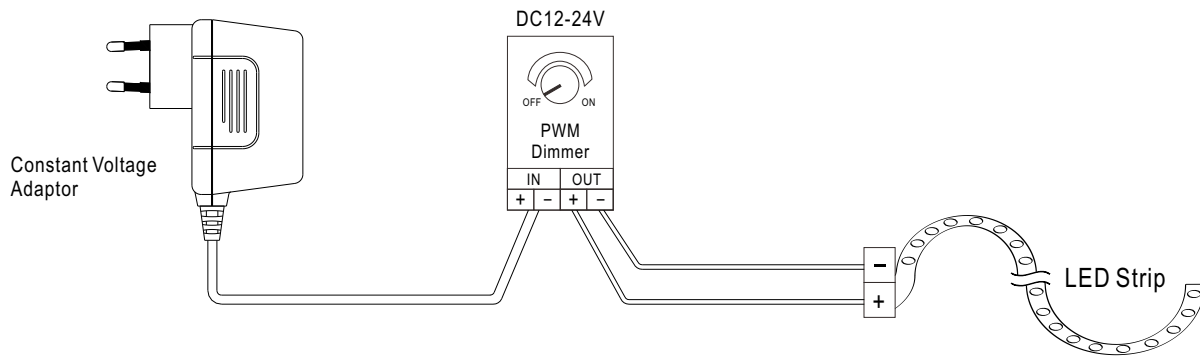
GSV30 series

| Center Pin Style | Type No. | A | B | C | D | Quick Adapter Accessory |
|---|-------------|----------------|--------|------|------------|--|
| | | OD | ID | L | Center Pin | |
|  <p>EIAJ equivalent</p> | P4A | 5.5 | 3.4 | 11.0 | 1.0 | Available (Current rating: 7.5A max.) |
| | P4B | 6.5 | 4.4 | 11.0 | 1.4 | |
| | P4C | 7.4 | 5.1 | 11.0 | 0.6 | |
| Min. DIN 3 Pin with Lock (male) | Type No. | Pin Assignment | | | | |
|  <p>KYCON KPPX-3P equivalent</p> | R6B | PIN No. | Output | | | |
| | | 1 | +Vo | | | |
| | | 2 | -Vo | | | |
| | | 3 | +Vo | | | |
| | | | | | | |
| Min. DIN 4 Pin with Lock (male) | Type No. | Pin Assignment | | | | |
|  <p>KYCON KPPX-4P equivalent</p> | R7B | PIN No. | Output | | | |
| | | 1 | +Vo | | | |
| | | 2 | -Vo | | | |
| | | 3 | -Vo | | | |
| | | 4 | +Vo | | | |
| Min. DIN 4 Pin with Lock (female) | Type No. | Pin Assignment | | | | |
|  <p>KYCON KPJX-CM-4S equivalent</p> | R7BF | PIN No. | Output | | | |
| | | 1 | +Vo | | | |
| | | 2 | -Vo | | | |
| | | 3 | -Vo | | | |
| | | 4 | +Vo | | | |
| Stripped and tinned leads | Type No. | Pin Assignment | | | | |
|  <p>Length of Land L1 by request (MW's standard length, L: 25 mm, L1: 10 mm)</p> | by customer | PIN No. | Output | | | |
| | | 1 (Ribbed) | +Vo | | | |
| | | 2 (Letter) | -Vo | | | |



■ Installation Manual

◎ Connection



◎ Cautions

- Before commencing any installation or maintenance work, please disconnect the power supply from the utility. Ensure that it cannot be re-connected inadvertently!
- Mounting orientations other than standard orientation or operate under high ambient temperature may increase the internal component temperature and will require a de-rating in output current.
- Current rating of an approved primary /secondary cable should be greater than or equal to that of the unit. Please refer to its specification.
- For dimmable LED power supplies, make sure that your dimming controller is capable of driving these units.
- Tc max. is identified on the product label. Please make sure that temperature of Tc point will not exceed limit.
- 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.
- For more information about installation, please refer to https://www.meanwell.com/Upload/PDF/LED_EN.pdf for details.
- Please refer to : <http://www.meanwell.com/manual.html>