



185W Multiple Channel Output Switching Power Supply

LDV-185 series



■ Features :

- 180~295VAC input range
- Multiple channel with constant current output
- Meet 4KV surge immunity level(EN61000-4-5)
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Built-in active PFC function
- Cooling by free air convection
- IP67 design for indoor or outdoor installations
- Optional timer dimming function
- High efficiency up to 88%
- -40°C can power on
- Suitable for LED lighting and moving sign applications
- 3 years warranty



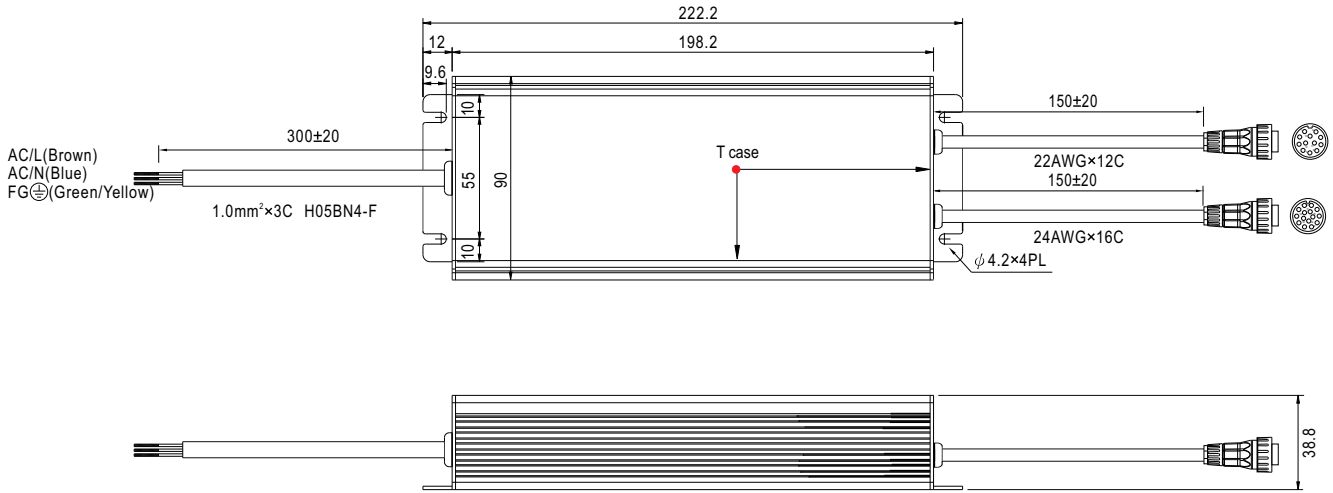
LDV-185-350A Blank : IP67 rated. No timer dimming function.
 D(option): IP67 rated. Built-in timer dimming function, contact MEAN WELL for details.

SPECIFICATION

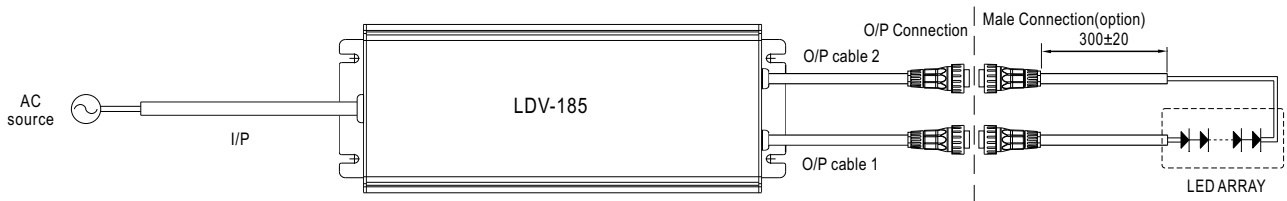
| MODEL | | LDV-185-350A <input type="checkbox"/> | LDV-185-350B <input type="checkbox"/> | LDV-185-350C <input type="checkbox"/> | LDV-185-700A <input type="checkbox"/> | LDV-185-700B <input type="checkbox"/> | LDV-185-700C <input type="checkbox"/> | |
|---------------------------|--|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|--|
| OUTPUT | SINGLE CHANNEL RATED CURRENT | 350mA | 350mA | 350mA | 700mA | 700mA | 700mA | |
| | DC VOLTAGE RANGE | 30 ~ 35V | 35 ~ 40V | 40 ~ 48V | 30~35V | 35~40V | 40~48V | |
| | RATED POWER(max.) <small>Note 3.</small> | 147W | 168W | 185W | 147W | 168W | 185W | |
| | MAX CHANNEL <small>Note 3.</small> | 12CH | 12CH | 12CH | 6CH | 6CH | 6CH | |
| | SETUP, RISE TIME <small>Note 2.</small> | 2500ms, 50ms | | | | | | |
| | HOLD UP TIME | 10ms / 230VAC | | | | | | |
| CONSTANT CURRENT ACCURACY | | ±5% | | | | | | |
| INPUT | VOLTAGE RANGE | 180~ 295VAC | | | | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | | | | |
| | POWER FACTOR | PF>0.95/230VAC PF>0.92/277VAC at full load(please refer to "Power Factor Characteristic" Curve) | | | | | | |
| | EFFICIENCY (Typ.) <small>Note 4.</small> | ≥88% | | | | | | |
| | AC CURRENT | 1.5A/230VAC 1.0A/277VAC | | | | | | |
| | INRUSH CURRENT(max.) | COLD START 60A/230VAC | | | | | | |
| LEAKAGE CURRENT | | <0.75mA / 240VAC | | | | | | |
| PROTECTION | SHORT CIRCUIT | Channel shut down when each channel fault, re-power on to recovery | | | | | | |
| | OVER VOLTAGE | 41 ~ 50V | 47 ~ 50V | 54 ~ 63V | 41~50V | 47~50V | 54~63V | |
| | Protection type : Shut down o/p voltage with auto-recovery or re-power on to recovery | | | | | | | |
| | OVER TEMPERATURE | 100°C±10°C(RTH2) Protection type : Shut down o/p voltage, recovers automatically after temperature goes down | | | | | | |
| OTP DIMMING | | When the NTC (RTH3) temperature is higher than 90°C±10°C, PSU will enter dimming mode with decreasing output current | | | | | | |
| ENVIRONMENT | WORKING TEMP. | -30 ~ +70°C (Refer to "Derating curve"), -40°C can power on | | | | | | |
| | WORKING HUMIDITY | 20 ~ 95% RH non-condensing | | | | | | |
| | STORAGE TEMP., HUMIDITY | -40 ~ +80°C, 10 ~ 95% RH | | | | | | |
| | TEMP. COEFFICIENT | ±0.03%/°C (0 ~ 50°C) | | | | | | |
| VIBRATION | | 10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes | | | | | | |
| SAFETY & EMC | SAFETY STANDARDS | IP67 approved; Design refer to EN61347-1, EN61347-2-13, UL8750 | | | | | | |
| | WITHSTAND VOLTAGE | I/P-O/P:3.75KVAC I/P-FG:1.88KVAC O/P-FG:0.5KVAC 1minute | | | | | | |
| | ISOLATION RESISTANCE | I/P-O/P:100M Ohms / 500VDC / 25°C/ 70% RH | | | | | | |
| | EMC EMISSION | Compliance to EN55015, EN61000-3-2 Class C (≥75% load) ; EN61000-3-3 | | | | | | |
| EMC IMMUNITY | | Compliance to EN61000-4-2,3,4,5,6,8,11; EN61547, EN55024, light industry level (surge 4KV), criteria A | | | | | | |
| OTHERS | MTBF | 198.2Khrs min. MIL-HDBK-217F (25°C) | | | | | | |
| | DIMENSION | 222.2*90*38.8mm (L*W*H) | | | | | | |
| | PACKING | 1.27 Kg; 12pcs/16.2Kg/1.02CUFT | | | | | | |
| NOTE | <ol style="list-style-type: none"> 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time. 3. Please do not exceed the rated power when choosing channel quantity and voltage range(350C/700C model). 4. Efficiency is measured under 230VAC input with Pout>120W and each output channel connecting with the same quantity of LEDs(similar Vf sum). 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. | | | | | | | |

Mechanical Specification

Case No.LDV-185A Unit:mm



WATERPROOF CONNECTION



- NOTE:**
- 1.Cable 1 and 2 for 350mA models, Cable 1 for 700mA models
 - 2.Each channel of LED- must be isolated
 - 3.pin7-10 of Cable 1 must be connected and do not floating, or the PSU can't be start up

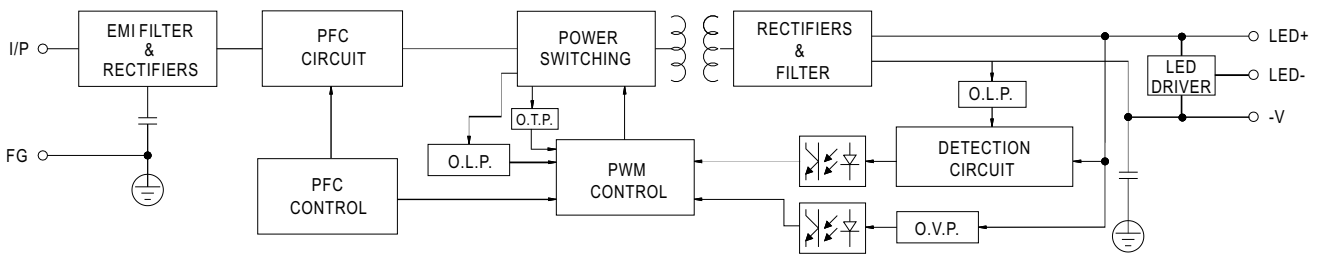
O/P Connection

| Cable | Pin Configuration(female) | Pin | Pin definition |
|---------|---------------------------|-------|----------------------------|
| Cable 1 | | 15Pin | 1~6 LED+ |
| | | | 7~12 LED- for each channel |
| | | | 13~14 NC |
| | | | 15 -V |
| Cable 2 | | 12Pin | 1~6 LED+ |
| | | | 7~12 LED- for each channel |

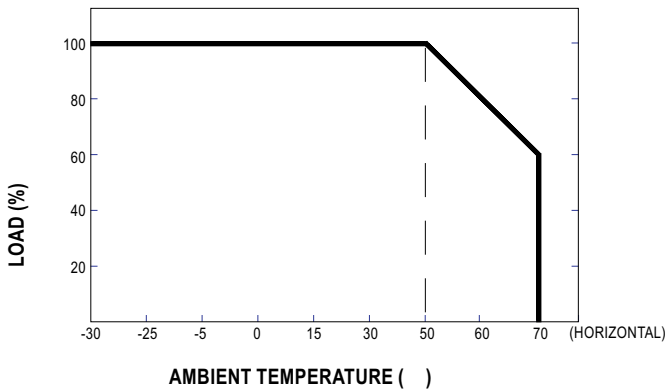
Option for male connection(Contact MEAN WELL for details)

| Pin Configuration(male) | Pin Definition | Wire Color | Wire Stock | |
|-------------------------|----------------|------------|---------------------|-----------|
| | 1 | LED+ | BLUE | 24AWG*16C |
| | 2 | LED+ | PURPLE | |
| | 3 | LED+ | ORANGE | |
| | 4 | LED+ | YELLOW | |
| | 5 | LED+ | RED | |
| | 6 | LED+ | WHITE | |
| | 7 | LED- | WHITE/RED | |
| | 8 | LED- | BROWN | |
| | 9 | LED- | WHITE/ORANGE | |
| | 10 | LED- | GRAY | |
| | 11 | LED- | CLEAR LUCITE/BLUE | |
| | 12 | LED- | CLEAR LUCITE/PURPLE | |
| | 13 | NC | | |
| | 14 | NC | | |
| | 15 | -V | WHITE/YELLOW | |
| | 1 | LED+ | GRAY | 22AWG*12C |
| | 2 | LED+ | BLUE | |
| | 3 | LED+ | YELLOW/GREEN | |
| | 4 | LED+ | ORANGE | |
| | 5 | LED+ | YELLOW | |
| | 6 | LED+ | PURPLE | |
| | 7 | LED- | CLEAR LUCITE | |
| | 8 | LED- | WHITE/BLACK | |
| | 9 | LED- | BLACK | |
| | 10 | LED- | GREEN | |
| | 11 | LED- | RED | |
| | 12 | LED- | WHITE | |

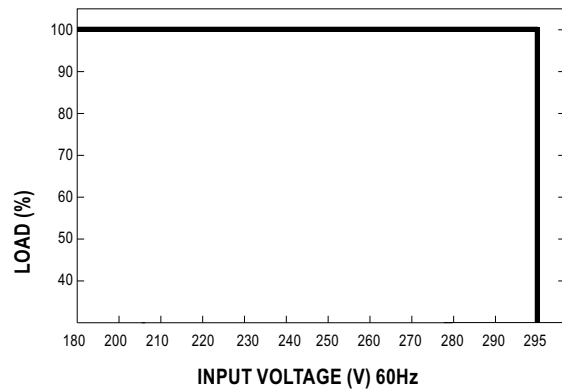
■ **Block Diagram**



■ **Derating Curve**



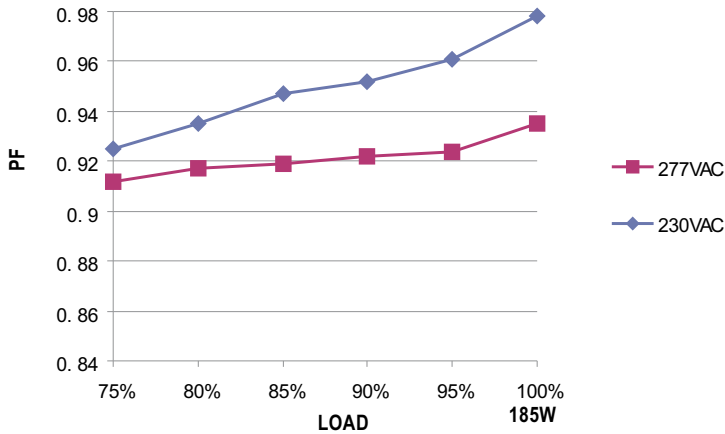
■ **Static Characteristics**



■ **Power Factor Characteristic**

Power factor will be higher than 0.9 when output loading is 75% or higher.

Constant Current Mode



■ **EFFICIENCY vs LOAD (350C Model)**

