

## 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 / 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

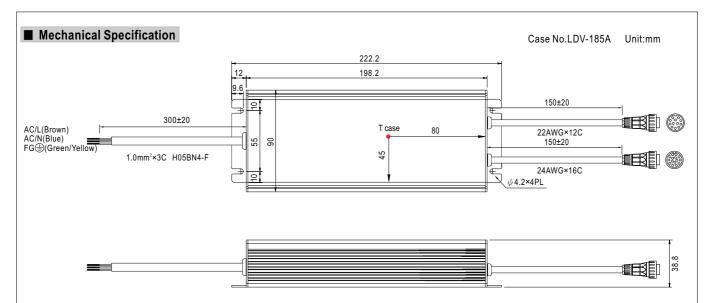
IP67 🕞 🕻 🤅

LDV-185-350A Blank : IP67 rated. No timer dimming function.

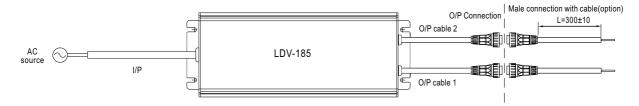
D(option): IP67 rated. Built-in timer dimming function, contact MEAN WELL for details.

### **SPECIFICATION**

MODEL		LDV-185-350A	LDV-185-350B	LDV-185-350C	LDV-185-700A	LDV-185-700B	LDV-185-700C			
ОИТРИТ	SINGELE CHANNEL RATED CURRENT	350mA	350mA	350mA	700mA	700mA	700mA			
	DC VOLTAGE RANGE Note 5.	30 ~ 35V	35 ~ 40V	40 ~ 48V	30~35V	35~40V	40~48V			
	RATED POWER(max.) Note 3.	147W	168W	185W	147W	168W	185W			
	MAX CHANNEL Note 3.	12CH	12CH	12CH	6CH	6CH	6CH			
	SETUP, RISE TIME Note 2.	2500ms, 50ms								
	HOLD UP TIME	10ms / 230VAC								
	CONSTANT CURRENT ACCURACY	±5%								
	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)								
INPUT	EFFICIENCY (Typ.) Note 4.	≥88%								
	AC CURRENT	1.5A/230VAC 1.0A/277VAC								
	INRUSH CURRENT(max.)	COLD START 60A/230VAC								
	LEAKAGE CURRENT	<0.75mA / 240VAC								
	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	OVER VOLIAGE	Protection type: Shut down o/p voltage with auto-recovery or re-power on to recovery								
PROTECTION	OVER TEMPERATURE	100°C±10°C(RTH2)								
	OVER TEMPERATURE	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								
	WORKING TEMP.	-30 ~ +70°C (Refer to "Derating curve" ),-40°C can power on								
	WORKING HUMIDITY	20 ~ 95% RH non-condensing								
ENVIRONMENT	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 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								
SAFETY &	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C/ 70% RH								
EMC	EMC EMISSION	Compliance to EN55015,EN61000-3-2 Class C (≧75% load) ; EN61000-3-3								
	EMC IMMUNITY	Compliance to EN61	000-4-2,3,4,5,6,8,11;	EN61547, EN55024, li	ight industry level (sur	ge 4KV), criteria A				
	MTBF	198.2Khrs min. MIL-HDBK-217F (25°C)								
OTHERS	DIMENSION	222.2*90*38.8mm (L*W*H)								
	PACKING	1.27 Kg; 12pcs/16.2Kg/1.02CUFT								
NOTE	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. DC output voltage is measured between LEDB									



### **■** WATERPROOF CONNECTION



NOTE: 1.Cable 1 and 2 for 350mA models, Cable 1 for 700mA models

2.Each channel of LED- must be isolated

 $3.Pin1\sim4(LED\ Y)\ \&\ pin7\sim10(LED\ t)\ of\ cable\ 1\ must\ be\ used\ when\ connected\ to\ LED\ loads\ ,\ do\ not\ floating,\ or\ the\ PSU\ can't\ start\ up$ 

#### O/P Connection(Female)

Cable	Pin Configuration(female)	Pin	Pin definition	
	100102	15Pin	1~6	LEDY
Cable 1	0 11 0 3 0 1 1 0 1 0 1 0 0 1 0 0 1 0 0 1 0		7~12	LEDቲ for each channel
			13~14	NC
			15	V
Cable 2	10 80 20 10 80 30 12 11 40 50 60	12Pin	1~6	LEDY
			7~12	LEDさ for each channel

#### **Male Waterproof Output Connector With Cable**

Order NO.	Pin Configuration(male)   Pin Definition		Wire Color	Wire Stock		
		1		BLUE		
	1000 9 2011 0 8 3013 014 7 4 05 6	2	3 4 5 6	PURPLE		
				ORANGE	24AWG*16C	
				YELLOW		
				RED		
				WHITE		
		7	LEDさ	WHITE/RED		
DS-LDV185-OPA		8		BROWN		
		9		WHITE/ORANGE		
		10		GRAY		
		11		CLEAR LUCITE/BLUE		
		12		CLEAR LUCITE/PURPLE		
		13	NC			
		_	V	WHITE/YELLOW		
		15	V	GRAY		
	90 10 80 100 20 70 0 33 60 50 40	2	2 3 4 LEDY	BLUE		
		3 1 =		YELLOW/GREEN		
				ORANGE		
				YELLOW	22AWG*12C	
DS-LDV185-OPB		6	6	PURPLE		
		7	7	CLEAR LUCITE		
		8	WHITE/BLACK			
		9	9 10 LEDさ	BLACK GREEN		
		11	RED	i l		
		12		WHITE		

\*MEAN WELL offers male waterproof connectors with cable length of 300mm as our standard mating accessories, Power Supply unit and mating accessory should be ordered separately.

80 <sup>+--</sup>60%

70%

80%

LOAD

90%

100%

#### ■ Block Diagram RECTIFIERS **EMIFILTER** PFC O LED+ POWER & RECTIFIERS CIRCUIT SWITCHING LED FILTER O LED-DRIVER O.L.P. O.T.P. DETECTION FG C O.L.P. PWM CIRCUIT PFC CONTROL CONTROL ■ Derating Curve **■** Static Characteristics 100 100 90 80 80 60 LOAD (%) 60 40 50 20 -30 (HORIZONTAL) 180 200 210 220 230 240 250 260 270 280 290 295 AMBIENT TEMPERATURE ( ) INPUT VOLTAGE (V) 60Hz ■ Power Factor Characteristic Power factor will be higher than 0.9 when output loading is 75% or higher. **Constant Current Mode** 0. 98 0.96 0. 94 0. 92 277VAC 0.9 ◆ 230VAC 0.88 0.86 0.84 85% 100% 75% 80% 90% 95% 185W LOAD ■ EFFICIENCY vs LOAD (350C Model) 100 98 96 **EFFICIENCY (%)** 94 92 277VAC 90 88 -230VAC 86 84 82