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℃ can power on
- Suitable for LED lighting and moving sign applications

IP67

LDV-185-350A(Standard): IP67 rated. No timer dimming function.
LDV-185-350AD(Option): IP67 rated. Built-in timer dimming function,contact MEAN WELL for details.
LDV-185-350A-CA(Option): Including PSU mating accessory (male waterproof connector with cable),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□
OUTPUT	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%					
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.) Note 4.	≧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℃±10℃(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℃±10℃, PSU will enter dimming mode with decreasing output current					
ENVIRONMENT	WORKING TEMP.	-30 ~ +70℃ (Refer to "Derating curve"),-40℃ can power on					
	WORKING HUMIDITY	20 ~ 95% RH non-condensing					
	STORAGE TEMP., HUMIDITY	-40 ~ +80℃, 10 ~ 95% RH					
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃)					
	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℃/ 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℃)					
	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℃ 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 LED＋~ LED－. 6. 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.						

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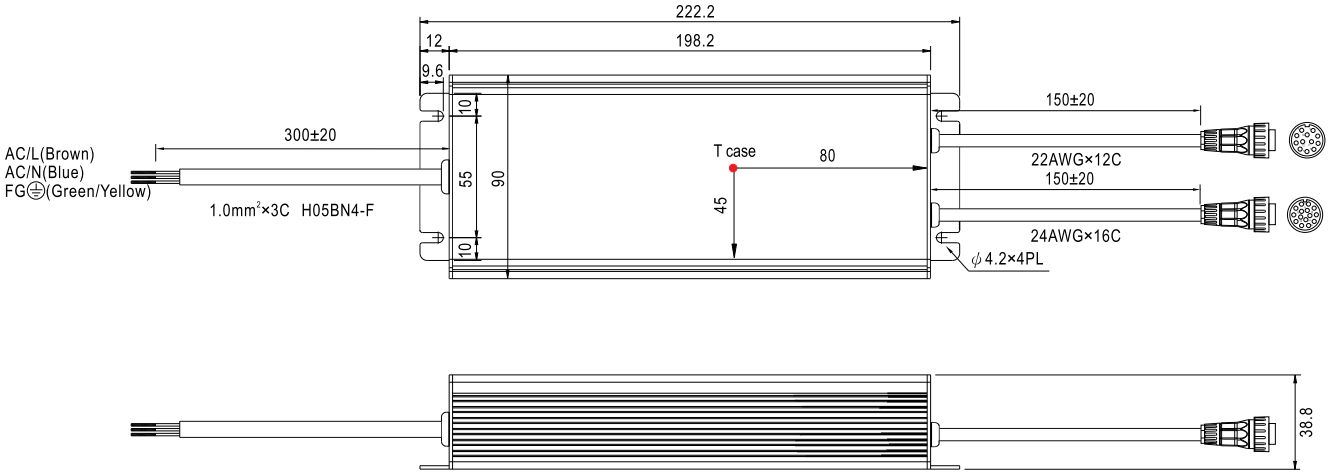
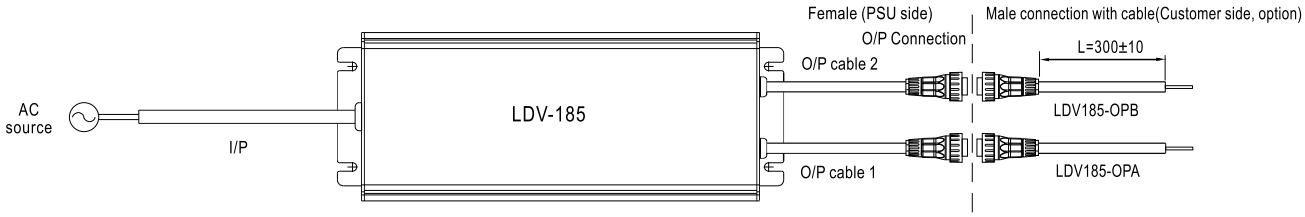
■ Mechanical Specification

Case No.209A Unit:mm

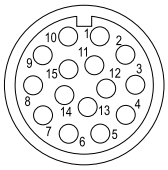
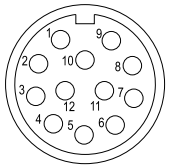


■ WATERPROOF CONNECTION

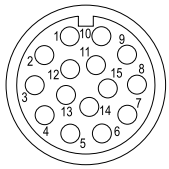
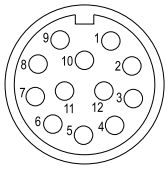


NOTE: 1.Cable 1 and 2 for 350mA models, Cable 1 for 700mA models
2.Each channel of LED- must be isolated
3.Pin1~4(LED +) & pin7~10(LED –) of cable 1 must be used when connected to LED loads , do not floating, or the PSU can't start up

O/P Connection(Female)

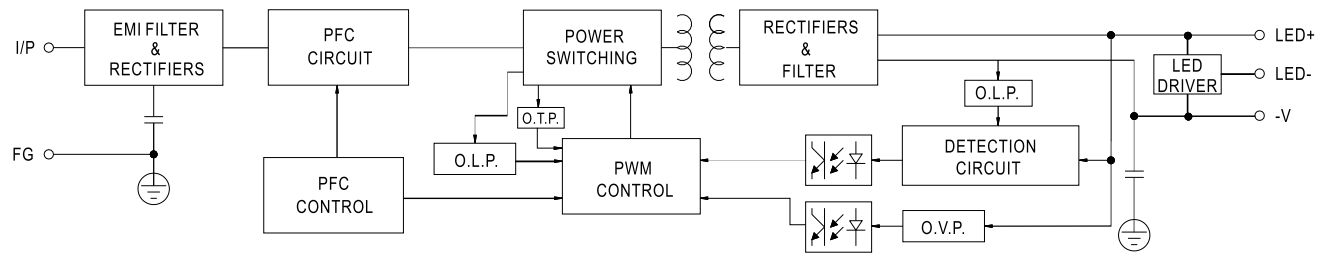
Cable	Pin Configuration(female)	Pin	Pin definition	
Cable 1		15Pin	1~6	LED＋
			7~12	LED－ for each channel
			13~14	NC
			15	－V
Cable 2		12Pin	1~6	LED＋
			7~12	LED－ for each channel

Male Waterproof Output Connector With Cable(Customer side,optional)

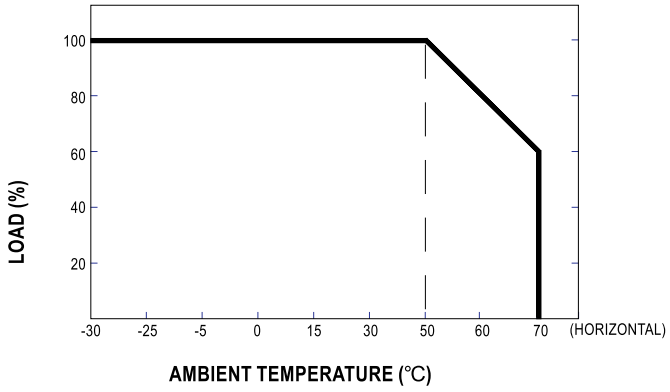
Pin Configuration(male)	Pin Definition		Wire Color	Wire Stock
LDV185-OPA 	1	LED＋	BLUE	24AWG*16C
	2		PURPLE	
	3		ORANGE	
	4		YELLOW	
	5		RED	
	6		WHITE	
	7	LED－	WHITE/RED	
	8		BROWN	
	9		WHITE/ORANGE	
	10		GRAY	
	11		CLEAR LUCITE/BLUE	
	12		CLEAR LUCITE/PURPLE	
	13	NC		
	14			
	15	－V	WHITE/YELLOW	
LDV185-OPB 	1	LED＋	GRAY	22AWG*12C
	2		BLUE	
	3		YELLOW/GREEN	
	4		ORANGE	
	5		YELLOW	
	6		PURPLE	
	7	LED－	CLEAR LUCITE	
	8		WHITE/BLACK	
	9		BLACK	
	10		GREEN	
	11		RED	
	12		WHITE	

※MEAN WELL offers male waterproof connectors with cable length of 300mm as our standard mating accessories,This mating accessory needs to be ordered together with LDV-185,please consult MEAN WELL for details.

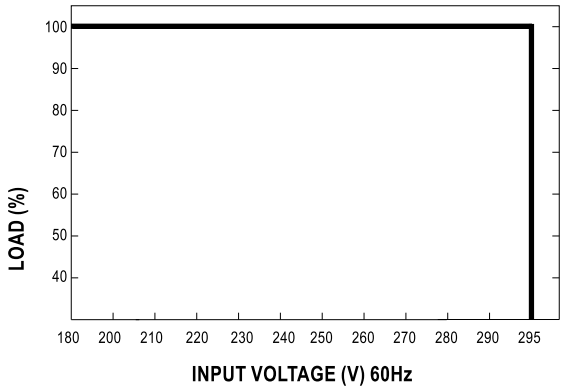
Block Diagram



Derating Curve

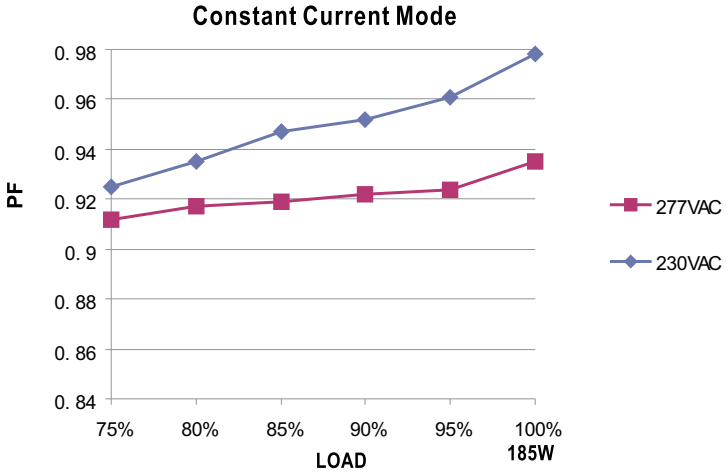


Static Characteristics

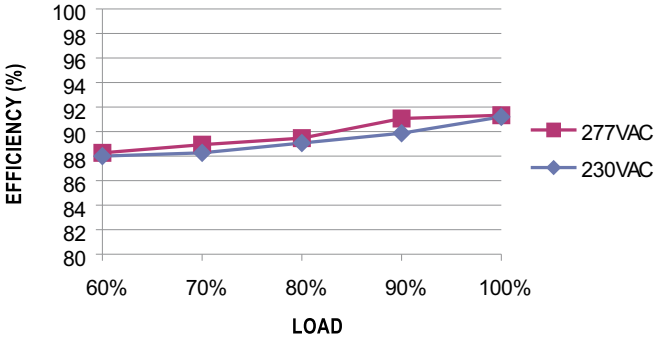


Power Factor Characteristic

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



EFFICIENCY vs LOAD (350C Model)



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