25W Single Output AC Dimmable LED Power Supply

PCD-25 series

■ Features :

- Work with leading edge and trailing edge dimmers
- 115VAC and 230VAC inputs available
- Fully isolated plastic case
- Built-in constant current limiting circuit
- Protections: Short circuit / Overload / Over temperature
- Built-in active PFC function
- Cooling by free air convection
- 100% full load burn-in test
- High reliability
- 3 years warranty

F 110 M M SELV PFC

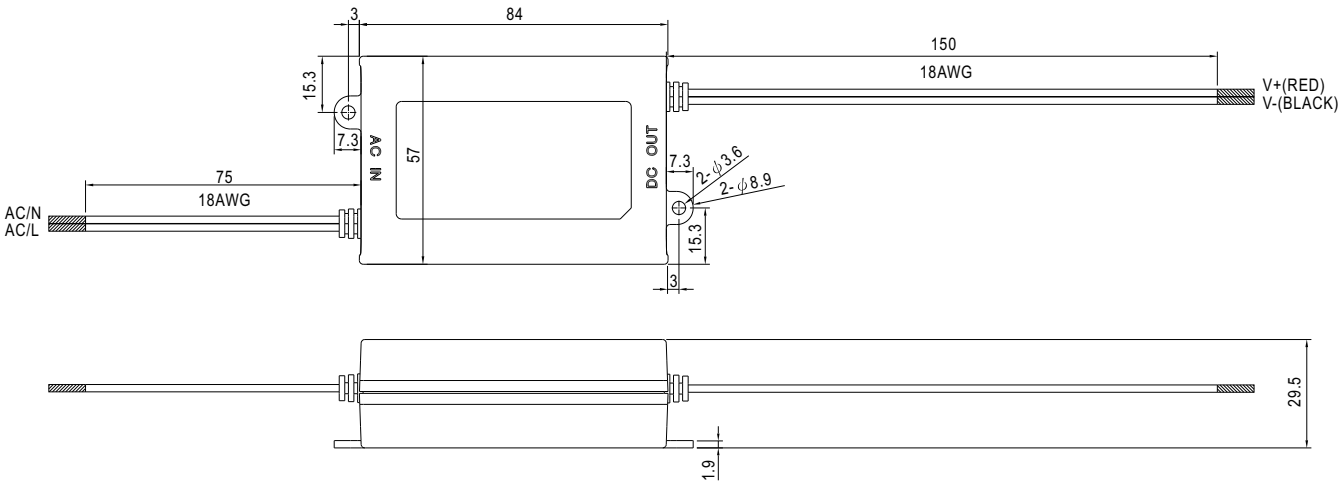
PCD-25-350 A A : With AC input 90~ 135VAC.
B : With AC input 180~ 295VAC.

SPECIFICATION

MODEL		PCD-25-350 □	PCD-25-700 □	PCD-25-1050 □	PCD-25-1400 □
OUTPUT	RATED CURRENT	350mA	700mA	1050mA	1400mA
	OPERATING VOLTAGE RANGE	40 ~ 58V	24 ~ 36V	16 ~ 24V	12 ~ 18V
	CURRENT RANGE	0 ~ 350mA	0 ~ 700mA	0 ~ 1050mA	0 ~ 1400mA
	RATED POWER	20.3W	25.2W	25.2W	25.2W
	RIPPLE & NOISE (max.) Note.1	4.6Vp-p	2.7Vp-p	2.2Vp-p	2Vp-p
	OUTPUT VOLTAGE (max.)	63V	50V	35V	25V
	SETUP TIME	1000ms / 230VAC 2000ms / 115VAC at full load			
INPUT	FREQUENCY RANGE	47 ~ 63Hz			
	POWER FACTOR	PF≧0.9 at full load and rated output voltage			
	EFFICIENCY(Typ.)	82%	81%	80.5%	80%
	AC CURRENT	0.6A/115VAC 0.3A/230VAC			
	INRUSH CURRENT(max.)	40A/230VAC			
	LEAKAGE CURRENT	<0.5mA / 240VAC			
PROTECTION	OVER CURRENT	95 ~ 110%			
		Protection type : Constant current limiting, recovers automatically after fault condition is removed			
	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed.			
	OVER TEMPERATURE	95℃ ±10℃ (TSW1) detect on heatsink of power transistor			
		Protection type : Shut down o/p voltage, re-power on to recover			
ENVIRONMENT	WORKING TEMP.	-30 ~ +60℃ (Refer to output load derating curve)			
	WORKING HUMIDITY	20 ~ 95% RH non-condensing			
	STORAGE TEMP., HUMIDITY	-40 ~ +80℃, 10 ~ 95% RH			
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃)			
	VIBRATION	10 ~ 500Hz, 2G 12min./1cycle, period for 72min. each along X, Y, Z axes			
SAFETY & EMC	SAFETY STANDARDS	TUV EN61347-1, EN61347-2-13 approved ; Design refer to UL1310 Class 2			
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC			
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25℃/ 70% RH			
	EMI CONDUCTION & RADIATION	Compliance to EN55015 Class B			
	HARMONIC CURRENT	Compliance to EN61000-3-2 Class C ; EN61000-3-3			
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024,EN61547, light industry level, criteria A			
OTHERS	MTBF	906.5Khrs min. MIL-HDBK-217F (25℃)			
	DIMENSION	84*57*29.5mm (L*W*H)			
	PACKING	0.19Kg; 72pcs/14.7Kg/0.75CUFT			
NOTE	1. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 2. Direct connecting to LEDs is not using additional drivers is highly recommended.				

■ Mechanical Specification

Case No.PCD16A Unit:mm



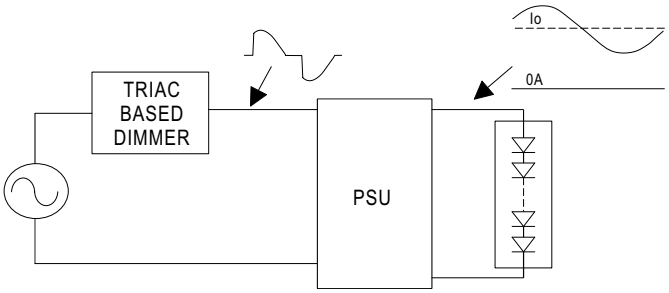
Type A: With AC input 90-135VAC

AC/N	WHITE
AC/L	BLACK

Type B: With AC input 180-295VAC

AC/N	BLUE
AC/L	BROWN

■ Dimming Operation



Under direct driving, the power supply will work in "constant current mode (CC)" and output voltage of the power supply will be clamped by sum of forward voltage (V_F) of the LED strip.

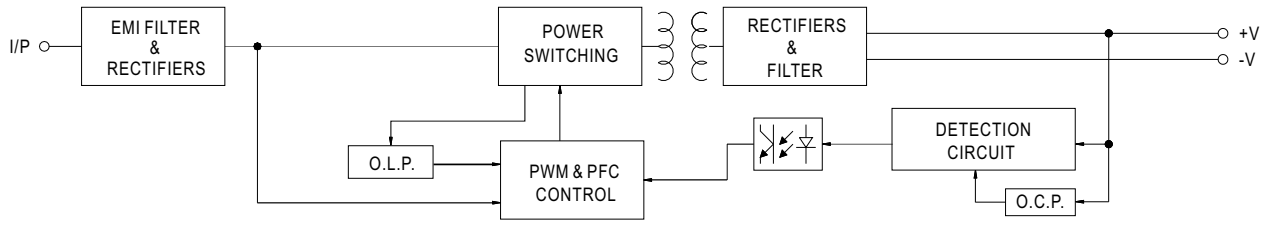
◎ Dimmer Compatibility Chart

Manufacturer	Dimmer Model
LUTRON	SKYLARK SF-12P-277
LUTRON	DVF-103P-277
LUTRON	SKYLARK SF-10P
LUTRON	SKYLARK S-600P
LUTRON	SKYLARK DVF-103P
LEVITON	ILLUMATECH TM Cat.No.IP106
LEVITON	SURESLIDE TM Cat.No.6633-P
LEVITON	SURESLIDE TM Cat. NO.6615-P
JUNG	Licht-Management 225 TMD
JUNG	Licht-Management 225 NV DE
BERKER	Tronic-Drehdimmer 286710
BE LICHTREGLER	T39.01
BE LICHTREGLER	T46
CLIPSAL	32E450UDM
CLIPSAL	NO 32E450TM

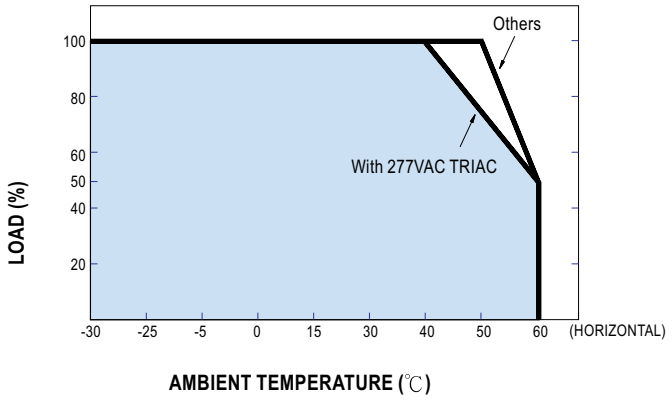
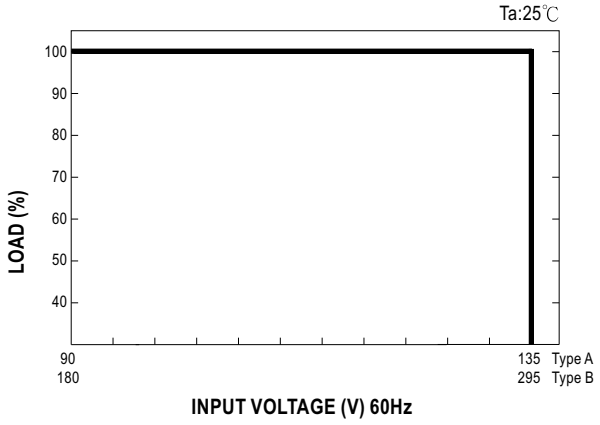
Conduction angle: 30 degrees(min.) / 180 degrees(max.)

■ Block Diagram

fosc : 90KHz(115VAC)
120KHz(230VAC)



■ Derating Curve



■ Static Characteristics