



### Features :

- Universal AC input / Full range (up to 280VAC)
- High efficiency 90%
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Built-in active PFC function
- IP64 design for indoor or outdoor installations
- UL1310 Class 2 power unit
- Cooling by free air convection
- 100% full load burn-in test
- High reliability
- Suitable for LED lighting and moving sign applications
- Compliance to worldwide safety regulations for lighting
- 2 years warranty

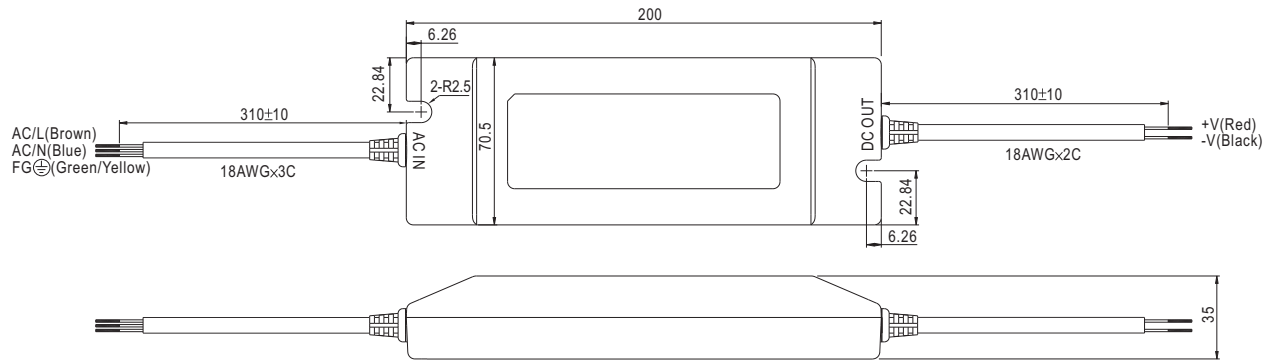


### SPECIFICATION

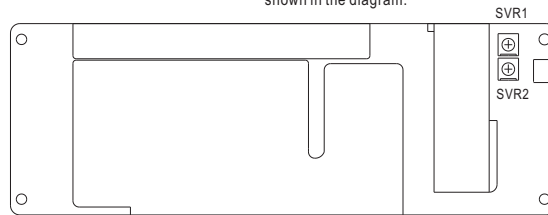
MODEL	PLN-100-12	PLN-100-15	PLN-100-20	PLN-100-24	PLN-100-27	PLN-100-36	PLN-100-48		
OUTPUT	DC VOLTAGE	12V	15V	20V	24V	27V	36V	48V	
	CONSTANT CURRENT REGION Note.7	9 ~ 12V	11.25 ~ 15V	15 ~ 20V	18 ~ 24V	20.25 ~ 27V	27 ~ 36V	36 ~ 48V	
	RATED CURRENT Note.6	5A	5A	4.8A	4A	3.55A	2.65A	2A	
	RATED POWER Note.6	60W	75W	96W	96W	95.85W	95.4W	96W	
	RIPPLE & NOISE (max.) Note.2	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p	
	VOLTAGE ADJ. RANGE (SVR1)	10.2 ~ 12V	12.8 ~ 15V	17 ~ 20V	20.4 ~ 24V	23 ~ 27V	30.6 ~ 36V	40.8 ~ 48V	
	CURRENT ADJ. RANGE(SVR2)	3.75 ~ 5A	3.75 ~ 5A	3.6 ~ 4.8A	3 ~ 4A	2.6 ~ 3.55A	2 ~ 2.65A	1.5 ~ 2A	
	VOLTAGE TOLERANCE Note.3	±3.0%	±3.0%	±3.0%	±3.0%	±3.0%	±2.0%	±2.0%	
	LINE REGULATION	±1.0%							
	LOAD REGULATION	±2.0%							
INPUT	VOLTAGE RANGE Note.5	90 ~ 295VAC	127 ~ 417VDC						
	FREQUENCY RANGE	47 ~ 63Hz							
	POWER FACTOR (Typ.)	PF>0.95/230VAC	PF>0.95/115VAC at full load	PF>0.9 at 75 ~ 100% load					
	EFFICIENCY (Typ.)	84.5%	86.5%	90%	90%	90%	90%	89%	
	AC CURRENT (Typ.)	12V:0.8A/115VAC	0.4A/230VAC	15V:0.9A/115VAC	0.45A/230VAC	20V ~ 48V:1.1A/115VAC	0.55A/230VAC		
	INRUSH CURRENT (Typ.)	COLD START 40A/230VAC							
	LEAKAGE CURRENT	<0.75mA / 240VAC							
PROTECTION	OVER CURRENT Note.4	95 ~ 102%							
	SHORT CIRCUIT Note.4	Protection type : Constant current limiting, recovers automatically after fault condition is removed							
	OVER VOLTAGE	13 ~ 16V	16.5 ~ 20V	22 ~ 27V	27 ~ 34V	29 ~ 36V	39 ~ 48V	52 ~ 64V	
		Protection type : Shut down and latch off o/p voltage, re-power on to recover							
	OVER TEMPERATURE	90°C ±10°C (RTH2)							
ENVIRONMENT	WORKING TEMP.	-30 ~ +50°C (Refer to output load derating curve)							
	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, 2G 12min./1cycle, period for 72min. each along X, Y, Z axes							
SAFETY & EMC	SAFETY STANDARDS Note.8	UL879, UL1310 Class 2, UL60950-1, TUV EN60950-1, EN61347-1, EN61347-2-13 independent							
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC I/P-FG:1.88KVAC O/P-FG:0.5KVAC							
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH							
	EMI CONDUCTION & RADIATION	Compliance to EN55015, EN55022 (CISPR22) Class B							
	HARMONIC CURRENT	Compliance to EN61000-3-2 Class C (>75% load) ; EN61000-3-3							
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN61547, EN55024, light industry level (surge 4KV), criteria A							
OTHERS	MTBF	303.1Khrs min. MIL-HDBK-217F (25°C)							
	DIMENSION	200*70.5*35mm (L*W*H)							
	PACKING	0.52Kg; 20pcs/12.5Kg/0.76CUFT							
NOTE	<ol style="list-style-type: none"> <li>All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</li> <li>Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>Please refer to OLP characteristics.</li> <li>Derating may be needed under low input voltage. Please check the derating curve for more details.</li> <li>This is the maximum possible output current and power. Over load protection may be activated slightly below this level to comply with the requirement of UL1310 class 2.</li> <li>Constant current operation region is within 75% ~ 100% rated output voltage. This is the suitable operation region for LED related applications, but please reconfirm special electrical requirements for some specific system design.</li> <li>Safety and EMC design refer to EN60598-1, subject 8750(UL), CNS15233, GB7000.1, FCC part18.</li> <li>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.</li> </ol>								

**Mechanical Specification**

Case No.955A Unit:mm



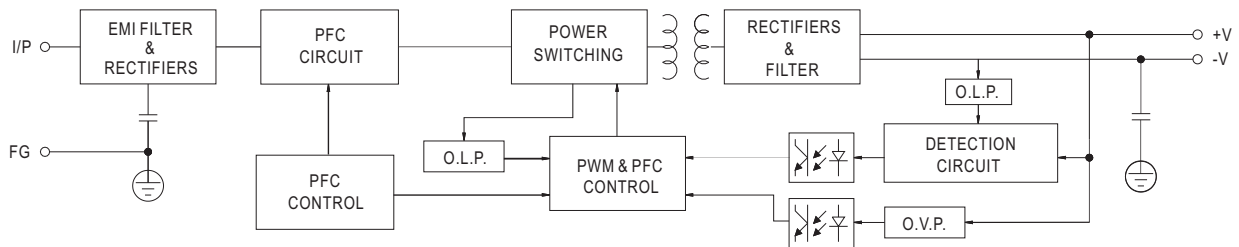
Output voltage and current adjustment : remove the upper case and adjust through SVR1 & SVR2 shown in the diagram.



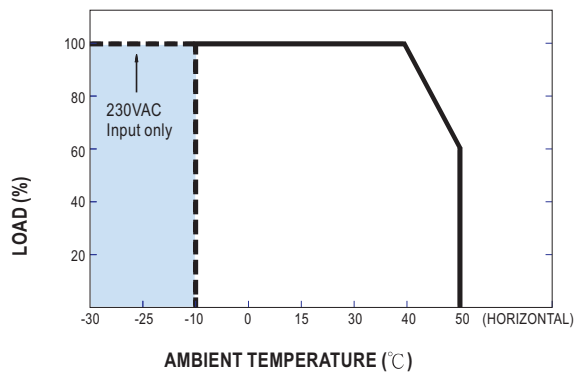
SVR1	Output voltage adjustment
SVR2	Output current adjustment

**Block Diagram**

Fosc : 100KHz



**Derating Curve**



※-30°C start up possible for 230VAC input

**Static Characteristics**

