

30W Single Output LED Power Supply

PLN30 series



- Universal 90-295 VAC input
- Fully isolated plastic case with IP64 level for indoor outdoor installations
- Built-in constant current limiting circuit with adjustable Over Current Protection level
- Built-in active Power Factor Correction function
- Cooling by free air convection
- Compliance to Worldwide Safety Regulations for Lighting
- Suitable for LED lighting and moving sign applications

SELV
EQUIVALENT

LPS

UL **CS** (except for 48V)

IP64

FC

SAFETY
CLASSIFIED
TYPE
APPROVED

CE

Model Number	Output Volts	Output Amps	Ripple & Noise	Efficiency	OVP	Min Load
SINGLE OUTPUT						
PLN30-9	9.0 Volts(DC)	3.3 Amps	2.6Vpk-pk	80%	10~14Volts(DC)	0~3.3Amps
PLN30-12	12 Volts(DC)	2.5Amps	2.0Vpk-pk	83%	14~16Volts(DC)	0~2.5Amps
PLN30-15	15 Volts(DC)	2 Amps	2.6Vpk-pk	84%	17~22Volts(DC)	0~2.0Amps
PLN30-20	20 Volts(DC)	1.5 Amps	2.6Vpk-pk	84%	23~26Volts(DC)	0~1.5Amps
PLN30-24	24 Volts(DC)	1.25 Amps	2.6Vpk-pk	85%	27~34Volts(DC)	0~1.25Amps
PLN30-27	27 Volts(DC)	1.12 Amps	2.3Vpk-pk	85%	31~35Volts(DC)	0~1.12Amps
PLN30-36	36 Volts(DC)	0.84 Amps	4.5Vpk-pk	86%	40~50Volts(DC)	0~0.84Amps
PLN30-48	48 Volts(DC)	0.63 Amps	3.7Vpk-pk	86%	53~63Volts(DC)	0~0.63Amps

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INPUT SPECIFICATIONS

Input Voltage Range	90-295VAC
Frequency Range	47-63 Hz
Inrush Current, typ: (cold start)	40 Amps @ 230VAC
Input Current	0.4 Amps max @ 115VAC 0.2 Amps max @ 230VAC
Leakage current	< 0.5mA / 240VAC
Power Factor @ FL	PF≥ 0.9 at 75-100% load

OUTPUT SPECIFICATIONS

Voltage and Current	See Selection Chart
Line Regulation	±3.0%
Load Regulation	±5%
Voltage Tolerance (Note 2)	±10%
Ripple/Noise (Note 1)	See Selection Chart
Setup Time @ FL	1500mS @ 230VAC 3000mS @ 115VAC
Over Temperature Protection	95°C ±10°C (TSW1) Shutdown o/p voltage, re-power
Over Voltage Protection	See Selection Chart Shutdown o/p voltage, re-power
Over Current Protection (Note3)	100~110% rated output power Constant Current limiting, auto recov
Short Circuit	Hiccup mode, auto recover
Current Adjust Range(Note4)	3~-25% by internal pot
DC Voltage Adjust (Note 4)	-5~10% by internal pot

GENERAL SPECIFICATIONS

Safety	TUV EN61347-1, EN61347-2-13, CAN/CSA C22.2 No. 223-M91(except for 48V), IP64 approved
Insulation Resistance	100MΩ / 500 VDC / 25°C / 70%RH
EMI	Compliance to EN55015
Harmonic Current	Compliance to EN61000-3-2,C (pin ≥ 25W), Class D(>70% load); EN61000-3-3
Efficiency	See Selection Chart
Isolation	3750VAC Input - Output
EMS	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, EN61547, light industry level, criteria A

ENVIRONMENTAL SPECIFICATIONS

Oper. Temperature	-30°C to +50°C (See Derate Curve)
Storage Temperature	-40°C to +80°C, 10~95% RH
Relative Humidity	20 to +90% RH non cond
Temperature Coefficient	±0.06% / °C (0-50°C)
MTBF	621.4Khrs min, MIL-HDBK-217F(25°C)
Vibration	10~500Hz, 2G 12min./1cycle, period for 72min. each along X, Y, Z axes

PHYSICAL SPECIFICATIONS

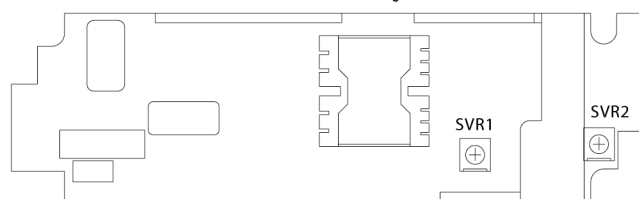
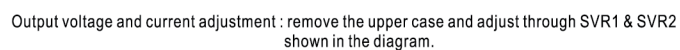
Size	
Millimeters	145 x 47 x 30
Inches	5.71" x 1.85" x 1.18"
Weight	7.76 oz (220g)

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. Tolerance : includes set up tolerance, line regulation and load regulation.
3. Please refer to OLP characteristics.
4. Output voltage can be adjusted through the SVR1 on the PCB; limit of output constant current level can be adjusted through the SVR2 on the PCB.

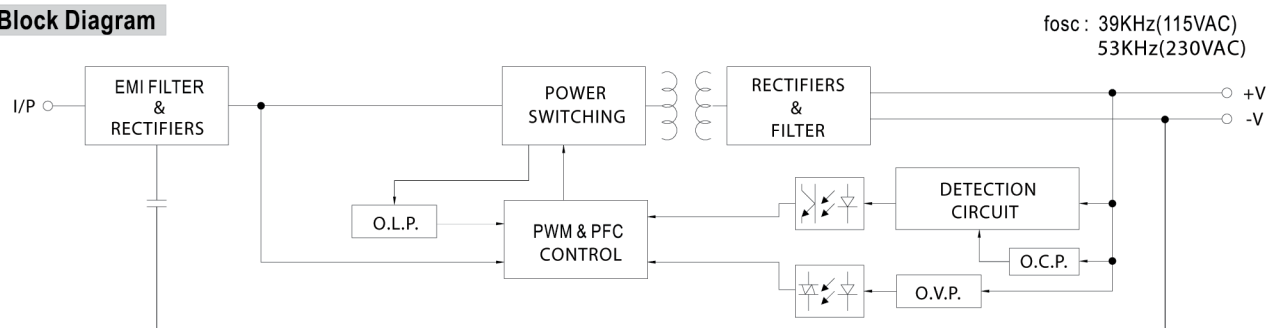
All specifications are typical at nominal input, full load, and 25°C unless otherwise noted

Case No.964A Unit:mm

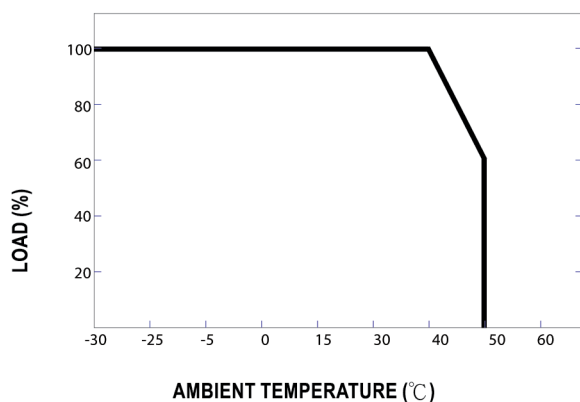


SVR1	Output voltage adjustment
SVR2	Output current adjustment

■ Block Diagram



■ Derating Curve



■ OLP Characteristics

