

60W Single Output LED Power Supply

CLG60 series



- Universal AC input / Full range
- Built-in active PFC function
- Protections: Short Circuit / Over voltage / Overload / Over temperature
- IP67 design for indoor or outdoor installations
- UL1310 Class 2 power unit
- Cooling by free air convection
- High reliability
- Suitable for LED lighting and moving sign applications (Note 1)
- Compliance to worldwide safety regulations for lighting
- Damp / wet location outdoor application

SELV EQUIVALENT LPS  (for 48V only) c  US (except for 48V) IP67   

Model Number	Output Volts	Output Amps	OVP	DC Voltage Adjust	Ripple & Noise	Efficiency
SINGLE OUTPUT						
CLG60-12	12 Volts(DC)	5 Amps	13.8~16 Volts(DC)	11.5~13Volts(DC)	2 Vpk-pk	85%
CLG60-15	15 Volts(DC)	4 Amps	17.5~21 Volts(DC)	14.5~16.2Volts(DC)	2.4 Vpk-pk	86%
CLG60-20	20 Volts(DC)	3 Amps	23~26 Volts(DC)	19.5~22Volts(DC)	1.8 Vpk-pk	87.5%
CLG60-24	24 Volts(DC)	2.5 Amps	28~32 Volts(DC)	24~26Volts(DC)	2.7 Vpk-pk	87%
CLG60-27	27 Volts(DC)	2.3 Amps	31~35 Volts(DC)	25~30Volts(DC)	2.7 Vpk-pk	88%
CLG60-36	36 Volts(DC)	1.7 Amps	41~46 Volts(DC)	32.5~39Volts(DC)	3.6 Vpk-pk	89%
CLG60-48	48 Volts(DC)	1.3 Amps	54~60 Volts(DC)	43.6~51.8Volts(DC)	4.6 Vpk-pk	89%

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INPUT SPECIFICATIONS

Input Voltage Range (Note 4)	90-264VAC ; 127~370Volts(DC)
Frequency Range	47-63 Hz
Input Current (115/230VAC)	0.8 Amps / 0.4 Amps
Inrush Current (Cold Start)	40 Amps @ 230VAC
Leakage Current	< 0.75 mAmps @ 240VAC
Power Factor (115/230VAC)	PF≥ 0.9 at 75~100% load

OUTPUT SPECIFICATIONS

Voltage and Current	See Selection Chart
Load Regulation	±5.0%
Line Regulation	±3.0%
Setup Time @ FL (115/230VAC)	3S / 5S
Ripple/Noise max. (Note 1)	See Selection Chart
Over Current Protection (OCP)	95~110%: 12Volts(DC) only 110% max: 15~48Volts(DC) Constant current limiting, auto recov
Over Voltage Protection	See Selection Chart Shut down o/p voltage, re-power
Over Temperature	12Volts(DC): 90°C±10°C (TSW1), 15~48Volts(DC): 85°C±10°C detected on power transistor shut down o/p voltage auto recover
Short Circuit (Note 3)	Hiccup mode, auto recover
Voltage Tolerance (Note 2)	±10%
DC Voltage Adjust	See Selection Chart Fixed. Can be modified between range on Selection Chart

GENERAL SPECIFICATIONS

Safety	UL1310 Class 2; IP67 approved TUV EN61347-1, EN61347-2-13, CAN/CSA C22.2 No. 223-M91 (except for 48V)
Efficiency typ.	See Selection Chart

Isolation	3750VAC Input - Output 1880VAC Input - Ground 500VAC Output - Ground
Insulation Resistance	I/P-O/P 100MΩ / 500VDC /25°C/70% RH
EMS	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN61547; light industry level, (surge 4KV) criteria A
EMI	Compliance to EN55015; EN55022B (CISPR22B)
Harmonic Current	Compliance to EN61000-3-2 Class C (≥75% load); EN61000-3-3

ENVIRONMENTAL SPECIFICATIONS

Oper. Temperature	-30°C to +70°C (See Derate Curve)
Relative Humidity	20~95% RH non cond
Storage Temperature	-40°C to +80°C, 10~95% RH
MTBF	495.7KHrs min, MIL-HDBK-217F(25°C)
Temp. Coefficient	±0.03%/°C (0~50°C)
Vibration	10~500Hz, 5G 12min./1cycle,. period for 72min, each along X, Y, Z axes

PHYSICAL SPECIFICATIONS

Size	195.6 x 61.5 x 38.8 mm 7.70" x 2.42" x 1.53"
Weight	30.34 oz (860g)

NOTES

1. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. Direct connecting to LEDs is not suggested for models with "RIPPLE & NOISE" > 10% and using additional drivers is highly recommended.
2. Tolerance : includes set up tolerance, line regulation and load regulation.
3. Please refer to OCP characteristics.
4. Derating may be needed under low input voltage. Please check the derating curve for more details.

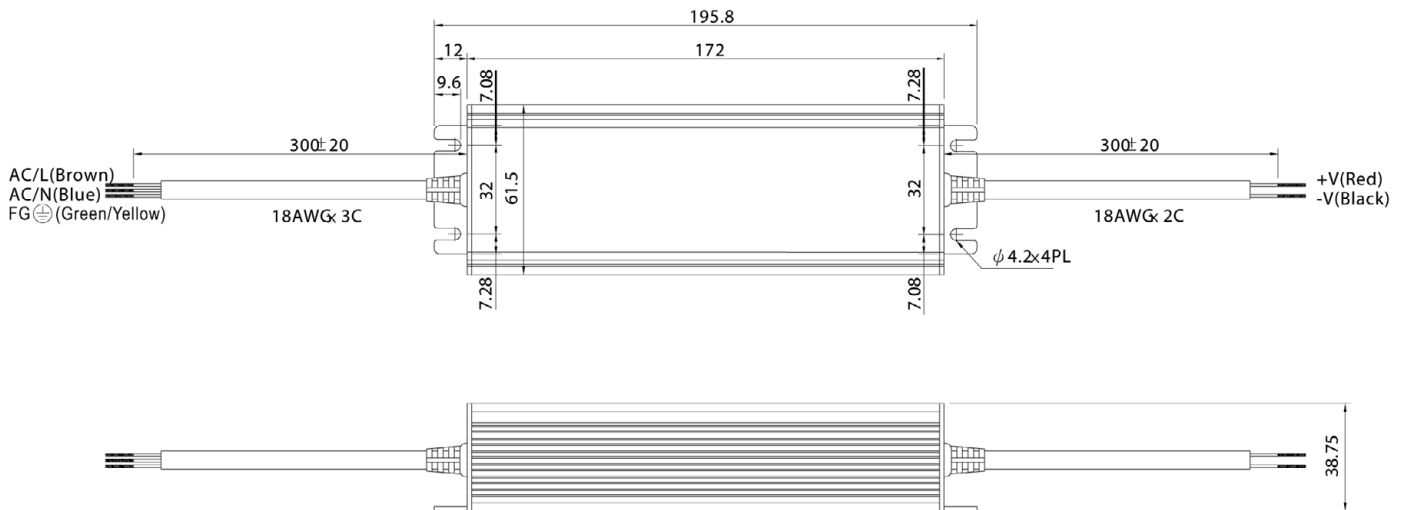
All specifications are typical at nominal input, full load, and 25°C unless otherwise noted

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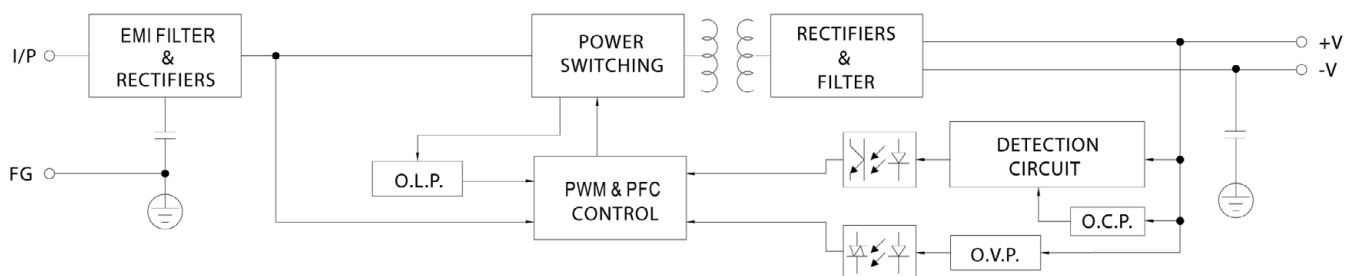
Mechanical Specification

Case No. 957A Unit:mm

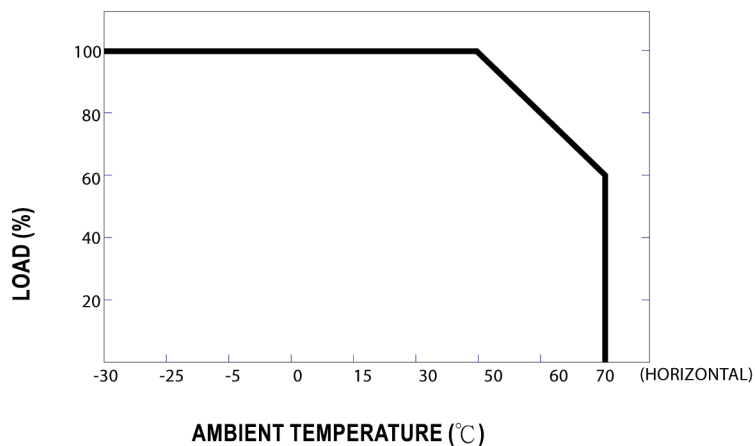


Block Diagram

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



■ Derating Curve



■ Static Characteristics

