

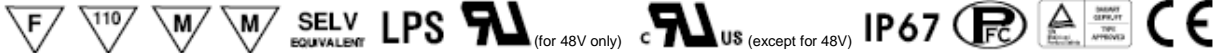
FEATURES

- High Reliability
- 3 Year Warranty
- UL1310 Class 2 Power Unit
- Built-in Active PFC Function
- 100% Full Load Burn-in Test
- Cooling by Free Air Convection
- Universal AC Input / Full Range
- Damp / Wet Locations, Outdoor Applications
- IP67 Design for Indoor or Outdoor Installations
- Suitable for LED Lighting and Moving Sign Applications
- Compliance to Worldwide Safety Regulations for Lighting
- Over Voltage, Over Load, Over Temp, and Short Circuit Protection



DESCRIPTION

The PSCLG-100 series of AC/DC switching power supplies provides up to 96 Watts of continuous output power. All models have a single output and a universal input range. These supplies have over load, over voltage, over temperature, and short circuit protection. All models are 100% full load burn-in tested and are designed for indoor or outdoor installations. This series is suitable for LED lighting and moving sign applications.



SPECIFICATIONS: PSCLG-100 Series

All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted.
We reserve the right to change specifications based on technological advances.

INPUT SPECIFICATIONS	
Input Voltage Range (See Note 4)	90 ~ 264VAC (127~370VDC)
Input Frequency	47 to 63Hz
AC Current	12V output: 0.8A @ 115VAC; 0.4A @ 230VAC 15V output: 0.9A @ 115VAC; 0.45A @ 230VAC 20V~48V outputs: 1.1A @ 115VAC; 0.55A @ 230VAC
Inrush Current (max)	Cold Start 40A @ 230VAC
Leakage Current	< 0.75mA @ 240VAC
Power Factor (typical)	PF > 0.95 @ 115VAC/230VAC and full load; PF ≥ 0.9 @ 75~100% load
OUTPUT SPECIFICATIONS	
Output Voltage	See Table
Output Power	See Table
Voltage Tolerance (See Note 2)	12V~27V outputs: ±3.0% 36V & 48V outputs: ±2.0%
Line Regulation	±1.0%
Load Regulation	±2.0%
Voltage Adjustment Range	Fixed. Can be modified between 0%~15% rated output voltage.
Current Adjustment Range	Fixed. Can be modified between 3%~25% rated output current.
Output Current	See Table
Constant Current Region (See Note 7)	See Table
Ripple & Noise (max) (See Note 1)	See Table
Setup, Rise Time	1200ms, 80ms @ 115VAC and full load; 1200ms, 80ms @ 230VAC and full load
Hold Up Time (typical)	30ms @ 115VAC and full load; 60ms @ 230VAC and full load
PROTECTION	
Over Current Protection (See Note 3)	95 ~ 102% Protection Type: constant current limiting, recovers automatically after fault condition is removed.
Short Circuit Protection (See Note 3)	Hiccup mode, recovers automatically after fault condition is removed.
Over Voltage Protection	See Table Protection Type: Shutdown and latch-off output voltage, re-power on to recover.
Over Temperature Protection	90°C±10°C (RTH2) Protection Type: Shutdown output voltage, re-power on to recover.
GENERAL SPECIFICATIONS	
Efficiency	See Table
Withstand Voltage	3750VAC (input to output); 1880VAC (input to FG); 500VAC (output to FG)
Isolation Resistance	100MΩ / 500VDC / 25°C / 70% RH (input to output)
ENVIRONMENTAL SPECIFICATIONS	
Working Temperature	-30°C to +70°C (refer to output load derating curve)
Storage Temperature	-40°C to +80°C
Working Humidity	20 ~ 95% RH non-condensing
Storage Humidity	10 ~ 95% RH
Cooling	Free air convection
Temperature Coefficient	±0.03%/°C (0 ~ 50°C)
Vibration	10 ~ 500Hz, 5G 12min./1 cycle, period for 72min each along X, Y, Z axes.
MTBF	301,000 hours min. @ 25°C (MIL-HDBK-217F)
PHYSICAL SPECIFICATIONS	
Packing	35.27oz (1000g); 12pcs/13kg/0.49CUFT
Dimensions (L x W x H)	8.75 x 2.68 x 1.53 inches (222.2 x 68 x 38.8 mm)
Warranty (See Note 6)	3 years
SAFETY & EMC	
Safety Standards	UL1310 Class 2, EN61347-1, EN61347-2-13 independent, UL60950-1, TUV EN60950-1, UL879 (listed in UL Sign Components Manual (SAM)), CAN/CSA C22.2 No. 223-M91 (except for 48V), IP67 approved.
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

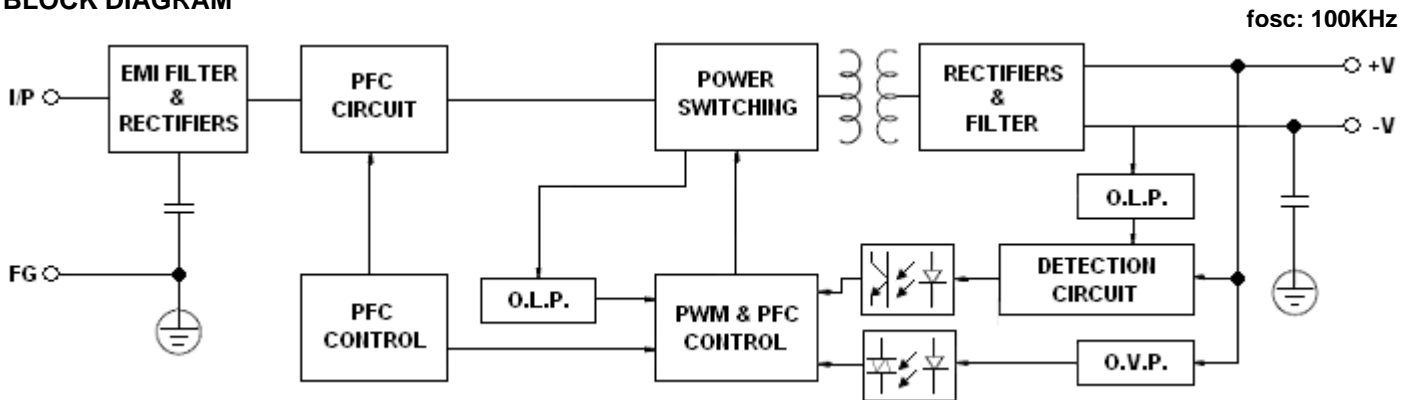
MODEL SELECTION TABLE

Model Number	Input Voltage ⁽⁴⁾	Output Voltage	Rated Current	Constant Current Region ⁽⁷⁾	Over Voltage Protection	Ripple & Noise ⁽¹⁾	Output Power	Efficiency
PSCLG-100-12	90~264VAC or 127~370VDC	12 VDC	5A	9 ~ 12V	13.6 ~ 16V	150mVp-p	60W	83%
PSCLG-100-15		15 VDC	5A	11.25 ~ 15V	16.5 ~ 20V	150mVp-p	75W	85%
PSCLG-100-20		20 VDC	4.8A	15 ~ 20V	22 ~ 27V	150mVp-p	96W	87%
PSCLG-100-24		24 VDC	4A	18 ~ 24V	27 ~ 34V	150mVp-p	96W	87%
PSCLG-100-27		27 VDC	3.55A	22.5 ~ 27V	29 ~ 36V	150mVp-p	95.85W	87%
PSCLG-100-36		36 VDC	2.65A	27 ~ 36V	39 ~ 48V	150mVp-p	95.4W	87%
PSCLG-100-48		48 VDC	2A	36 ~ 48V	52 ~ 64V	200mVp-p	96W	87%

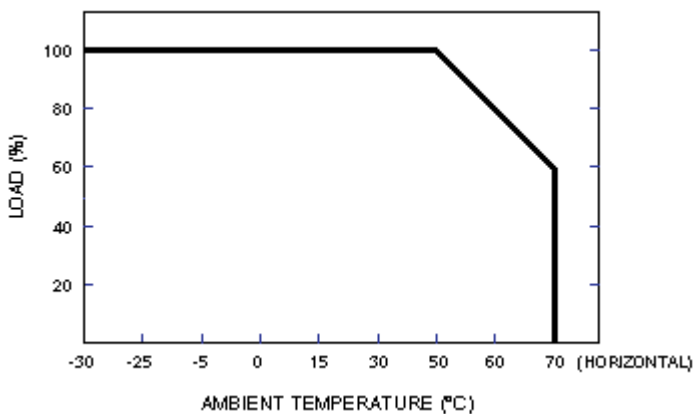
NOTES

- Ripple & noise is measured at 20MHz bandwidth by using a 12" twisted pair-wire terminated with 0.1μF and 47μF capacitors in parallel.
- Tolerance includes set up tolerance, line regulation, and load regulation.
- Please refer to OLP characteristics.
- Derating may be needed under low input voltages; please check the derating curve for more details.
- This is the maximum possible current and power. Over load protection may be activated slightly below this level to comply with the requirements of UL1310 class 2.
- 3 year warranty is guaranteed for operating ambient temperature no higher than 68°C.
- Constant current operation region is within 75%~100% rated output voltage. This is the suitable operation region for LED applications but make sure to reconfirm special electrical requirements for some specific system designs.
- Safety and EMC design refers to EN60598-1, subject 8750(UL), CNS15233, GB7000.1, FCC part18.

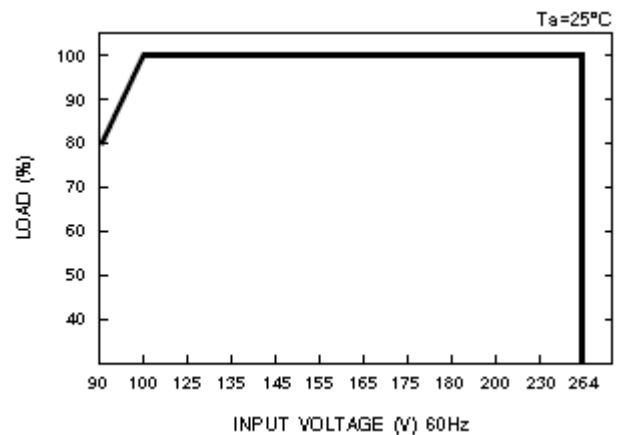
BLOCK DIAGRAM



DERATING CURVE



STATIC CHARACTERISTICS



MECHANICAL DRAWING

Unit: inches (mm)

