70–150 Watts

DLG–HV Series



- AC Input LED Driver
- Constant Current Operation
- High Power Factor
- High Efficiency
- Water Proof to IP67
- 90–305 VAC Input Voltage Range
- 3 Year Warranty

Specification

Input

Input Voltage	• 90-305 VAC, see derating curve
Input Frequency	• 47-63 Hz
Input Current	• 70 W: 1.2 A at 115 VAC, 0.6 A at 230 VAC, 100 W: 1.4 A at 115 VAC, 0.7 A at 230 VAC, 150 W: 2.0 A at 115 VAC, 1.0 A at 230 VAC
Inrush Current	• 65 A at 230 VAC, cold start +25 °C
Power Factor	• >0.94 at 230 VAC, full load
Earth Leakage Current	• 750 µA max at 230 VAC
Input Protection	• DLG70/100 T2.0A/300V fuse fitted in line, DLG150 T3.5A/300V fuse fitted in line

Output

Output Voltage	• See table
Minimum Load	• No minimum load required
Start Up Delay	• 2 s max at 240 VAC
Line Regulation	• ±0.5%
Load Regulation	• ±5.0% of nominal output current
Turn On Overshoot	• 5% max
Transient Response	• 5% maximum deviation, recovery to within 1% in 10 ms for a 50% load change
Ripple & Noise	• DLG70: 700 mV DLG100: 1000 mV DLG150: 2000 mV (see note 2)
Overvoltage Protection	• 110-142%, recycle mains to reset
Overtemperature Protection	• Unit shuts down, recycle mains to reset
Overload Protection	• 105% maximum, auto recovery
Short Circuit Protection	• Trip and restart (hiccup mode)
Temperature Coefficient	• 0.04%/°C

General

Efficiency	• See table
Isolation	• 3750 VAC Input to Output 1880 VAC Input to Ground 500 VAC Output to Ground
Switching Frequency	• DLG50/70: 40-80 kHz DLG100/150: PWM 60-80 kHz, PFC 55-133 kHz
MTBF	• >200 kHrs to MIL-HDBK-217F at 25 °C, GB

Environmental

Operating Temperature	• -30 °C to +70 °C (see derating curve)
Operating Humidity	• 5-100% RH, non-condensing
Storage Temperature	• -40 °C to +80 °C
Operating Altitude	• 3000 m
Vibration	• 10-500 Hz, 2 g, 10 mins/cycle, 6 cycles in each of 3 axes

EMC & Safety

Emissions	• EN55015, class B conducted and radiated
Harmonic Currents	• EN61000-3-2, class A EN61000-3-2, class C for loads >80%
Voltage Flicker	• EN61000-3-3
ESD Immunity	• EN61000-4-2, 8 kV air and 4 kV contact, Perf Criteria A
Radiated Immunity	• EN61000-4-3, level 2 Perf Criteria B
EFT/Burst	• EN61000-4-4, level 2 Perf Criteria B
Surge	• EN61000-4-5, installation class 3, Perf Criteria B
Conducted Immunity	• EN61000-4-6, level 2 Perf Criteria A
Dips & Interruptions	• EN61547, >95% 10 ms, 30% 200 ms, Perf Criteria B, B for 70/100 W, A, A for 150 W
Safety Approvals	• EN61347, UL8750, CE Mark

Models and Ratings

DLG70-150-HV

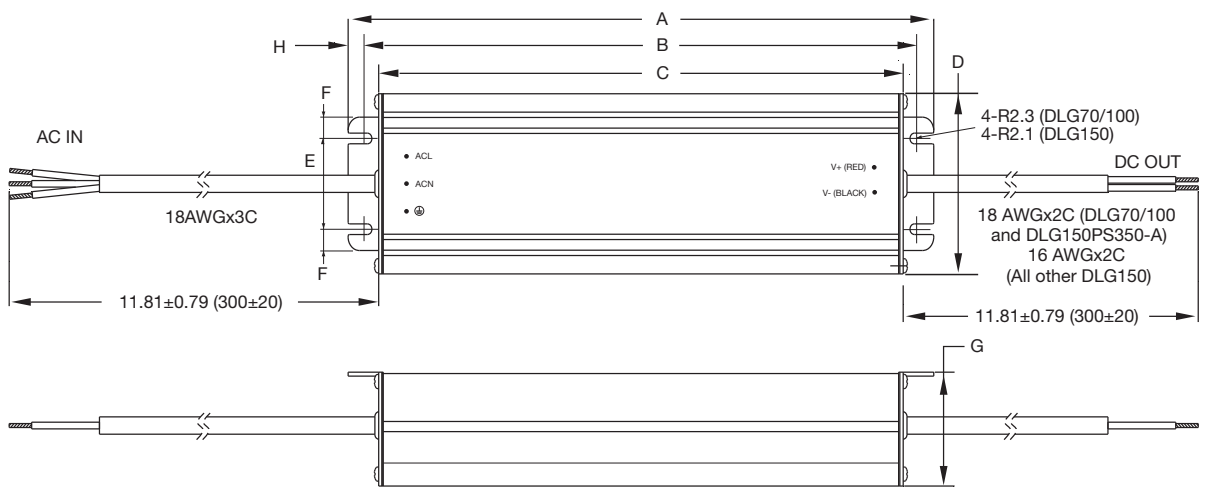
Output Power	Output Voltage	Output Current	Efficiency[1]	Model Number
70 W	50 - 100 V	700 mA	90.0%	DLG70PS700-A
100 W	100 - 142 V	700 mA	91.0%	DLG100PS700-A
100 W	100 - 142 V	800 mA	91.0%	DLG100PS800-A
100 W	50 - 71 V	1400 mA	91.0%	DLG100PS1400-A
150 W	120 - 428 V	350 mA	92.0%	DLG150PS350-A
150 W	115 - 284 V	530 mA	92.0%	DLG150PS530-A
150 W	60 - 210 V	700 mA	92.0%	DLG150PS700-A
150 W	60 - 143 V	1050 mA	92.0%	DLG150PS1050-A
150 W	30 - 107 V	1400 mA	91.0%	DLG150PS1400-A

Notes

1. Typical efficiency at full load and 240 VAC input.

2. Measured using 12" twisted pair with 0.1 µF and 47 µF capacitors in parallel at 20 MHz bandwidth.

Mechanical Details



ACL = Brown wire
ACN = Blue wire
⏚ = Green/Yellow wire

	DLG70/100	DLG150
A	7.80 (198.0)	8.90 (226.0)
B	7.38 (187.4)	8.35 (212.0)
C	6.07 (177.0)	8.00 (203.2)
D	2.24 (57.0)	2.68 (68.0)
E	1.20 (30.6)	1.35 (34.2)
F	0.26 (6.7)	0.35 (8.9)
G	1.46 (37.0)	1.54 (39.0)
H	0.21 (5.3)	0.28 (7.0)

Notes

1. All dimensions shown in inches (mm).

2. Weight: DLG70/100: 1.65 lbs (750 g), DLG150: 2.29 lbs (1040 g)

3. Tolerance: ±0.02 (0.5)

Application Notes

Derating Curve

