

# 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 $\mu$ A 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	• $\pm$ 0.5%
Load Regulation	• $\pm$ 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 XP**

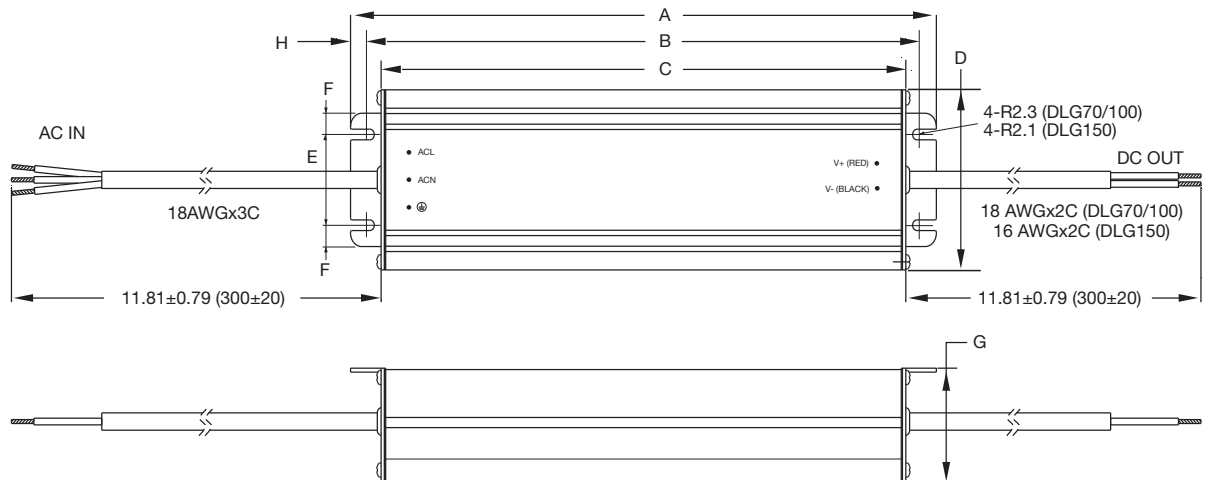
Output Power	Output Voltage	Output Current	Efficiency <sup>(1)</sup>	Model Number
70 W	50 - 100 V	700 mA	90.0%	DLG70PS700-A
100 W	100 - 142 V	700 mA	91.0%	DLG100PS700-A
100 W	100 - 142 V	800 mA	91.0%	DLG100PS800-A
100 W	50 - 71 V	1400 mA	91.0%	DLG100PS1400-A
150 W	120 - 428 V	350 mA	92.0%	DLG150PS350-A
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  $\mu$ F and 47  $\mu$ F 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:  $\pm 0.02$  (0.5)

## Application Notes

### Derating Curve

