

DLA Series



- AC Input LED Driver
- Constant Voltage & Constant Current
- High Power Factor
- High Efficiency
- Water Proof to IP67
- High Input Voltage Range
- 3 Year Warranty

Specification

Input

Input Voltage	• DLA50-A & -V: 90-264 VAC, All other models: 90-305 VAC
Input Frequency	• 47-63 Hz
Input Current	• 50 W: 0.70 A at 115 VAC, 0.35 A at 230 VAC, 75 W: 0.9 A at 115 VAC, 0.40 A at 230 VAC, 120 W: 1.38 A at 115 VAC, 0.7 A at 230 VAC, 150 W: 1.8 A at 115 VAC, 0.80 A at 230 VAC
Inrush Current	• 60 A at 230 VAC, cold start +25 °C
Power Factor	• See tables
Earth Leakage Current	• 400 μ A max at 115 VAC, 750 μ A max at 230 VAC

Output

Output Voltage	• See table
Initial Set Accuracy	• $\pm 1\%$ for -V versions, $\pm 5\%$ for -A versions
Minimum Load	• No minimum load required
Start Up Delay	• 3 s max at 100 VAC
Hold Up Time	• 10 ms minimum
Line Regulation	• $\pm 1\%$ maximum
Load Regulation	• $\pm 3\%$ maximum
Transient Response	• 5% max. deviation, recovery to within 1% in 10 ms for a 50% load change
Ripple & Noise	• 1.5% max pk-pk, 20 MHz bandwidth
Overvoltage Protection	• 110-140% Vnom, recycle input to reset
Overtemperature Protection	• Unit shuts down, recycle input to reset (Not on DLA50-A, -V or -VL)
Overload Protection	• 135% typical, auto recovery
Short Circuit Protection	• Trip and restart (Hiccup mode)
Temperature Coefficient	• 0.04%/°C

General

Efficiency	• See tables
Isolation	• DLA50-A & -V: (Class II) 3000 VAC Input to Output 3000 VAC Input to Case 500 VDC Output to Case All other models: (Class I) 3000 VAC Input to Output 1500 VAC Input to Ground 500 VDC Output to Ground
Switching Frequency	• PFC 30-90 kHz variable PWM 100-120 kHz typical
MTBF	• >300 kHrs to MIL-HDBK-217F at 25 °C, GB

Environmental

Operating Temperature	• -35 °C to +60 °C for DLA50-A & -V, -35 °C to +55 °C for DLA50-VL -35 °C to +70 °C for others, DLA150 derate from 100% load at 65 °C to 90% load at 70 °C
Operating Humidity	• 5-100% RH, non-condensing
Storage Temperature	• -40 °C to +80 °C
Operating Altitude	• 3000 m
Shock	• 30 g, 10 ms on 3 axes
Vibration	• 5-100 Hz, 2.31 m/s ² , 20 mins, 3 axes

EMC & Safety

Emissions	• EN55015, Class B conducted and radiated
Harmonic Currents	• EN61000-3-2, Class C for DLA75,120 & 150
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 A
EFT/Burst	• EN61000-4-4, level 2 Perf Criteria A
Surge	• EN61000-4-5, level 3 Perf Criteria B
Conducted Immunity	• EN61000-4-6, level 2 Perf Criteria A
Dips & Interruptions	• EN61000-4-11, 30% 10 ms, 60% 100 ms, 100% 5000 ms, Perf Criteria A, B, B
Safety Approvals	• EN61347, UL8750, CE Mark, some 50 W & 75 W models comply with UL1310 Class 2 requirement, see model table for details

Models and Ratings

DLA50/75 Series

Constant Current Models

Output Power	Output Current ⁽¹⁾	Output Voltage	Efficiency	Power Factor		Model Number
				110 VAC	220 VAC	
50 W	350 mA	71.0 V - 142.0 V	88.0 %	0.87	0.85	DLA50PS350-A
50 W	450 mA	56.0 V - 111.0 V	88.0 %	0.87	0.85	DLA50PS450-A
50 W	700 mA	36.0 V - 72.0 V	88.0 %	0.87	0.85	DLA50PS700-A
50 W	1050 mA	24.0 V - 48.0 V	88.0 %	0.87	0.85	DLA50PS1050-A
50 W	1100 mA	23.0 V - 45.5 V	87.0 %	0.87	0.85	DLA50PS1190-A
50 W	1400 mA	18.0 V - 36.0 V	87.0 %	0.87	0.85	DLA50PS1400-A
50 W	2100 mA	13.0 V - 24.0 V	86.0 %	0.87	0.85	DLA50PS2100-A ⁽³⁾
50 W	2770 mA	9.0 V - 18.0 V	85.0 %	0.87	0.85	DLA50PS2770-A ⁽³⁾
36 W	3000 mA	7.0 V - 12.0 V	84.0 %	0.87	0.85	DLA50PS3000-A ⁽³⁾
75 W	350 mA	107.0 V - 214.0 V	92.0 %	0.99	0.96	DLA75PS350-A ⁽²⁾
75 W	450 mA	83.0 V - 166.0 V	92.0 %	0.99	0.96	DLA75PS450-A ⁽²⁾
75 W	700 mA	54.0 V - 108.0 V	91.0 %	0.99	0.96	DLA75PS700-A ⁽²⁾
75 W	1050 mA	36.0 V - 72.0 V	90.0 %	0.99	0.96	DLA75PS1050-A ⁽²⁾
75 W	1400 mA	27.0 V - 54.0 V	90.0 %	0.99	0.96	DLA75PS1400-A ⁽²⁾
75 W	2100 mA	18.0 V - 36.0 V	89.0 %	0.99	0.96	DLA75PS2100-A ^(2,3)
75 W	2800 mA	13.0 V - 27.0 V	89.0 %	0.99	0.96	DLA75PS2800-A ⁽²⁾
75 W	3750 mA	10.0 V - 20.0 V	88.0 %	0.99	0.96	DLA75PS3750-A ^(2,3)
75 W	5000 mA	7.0 V - 15.0 V	88.0 %	0.99	0.96	DLA75PS5000-A ^(2,3)

Constant Voltage Models

Output Power	Output Voltage	Output Current	Efficiency ⁽¹⁾	Power Factor		Model Number
				110 VAC	220 VAC	
36 W	12.0 V	3.00 A	84.0 %	0.87	0.85	DLA50PS12-V ⁽³⁾
50 W	24.0 V	2.10 A	86.0 %	0.87	0.85	DLA50PS24-V ⁽³⁾
50 W ⁽²⁾	12.0 V	4.20 A	82.0 %	0.99	0.92	DLA50PS12-VL ^(2,3)
50 W ⁽²⁾	18.0 V	2.78 A	84.0 %	0.99	0.92	DLA50PS18-VL ^(2,3)
50 W ⁽²⁾	24.0 V	2.10 A	84.0 %	0.99	0.92	DLA50PS24-VL ^(2,3)
50 W ⁽²⁾	36.0 V	1.40 A	86.0 %	0.99	0.92	DLA50PS36-VL ^(2,3)
50 W ⁽²⁾	48.0 V	1.05 A	87.0 %	0.99	0.92	DLA50PS48-VL ^(2,4)
75 W	12.0 V	6.25 A	91.0 %	0.99	0.96	DLA75PS12-V
75 W	24.0 V	3.13 A	92.0 %	0.99	0.96	DLA75PS24-V
75 W	36.0 V	2.08 A	92.0 %	0.99	0.96	DLA75PS36-V
75 W	42.0 V	1.79 A	92.0 %	0.99	0.96	DLA75PS42-V
75 W	48.0 V	1.56 A	92.0 %	0.99	0.96	DLA75PS48-V
75 W	54.0 V	1.39 A	93.0 %	0.99	0.96	DLA75PS54-V
75 W	105.0 V	0.71 A	93.0 %	0.99	0.96	DLA75PS105-V

Notes

1. Measured at 230 VAC input and full load.

2. Output power derates linearly from 100% at 100 VAC input to 90% at 90 VAC input.

3. Comply with UL1310 Class 2 requirements for US & Canada.

4. Comply with UL1310 Class 2 requirements for US.

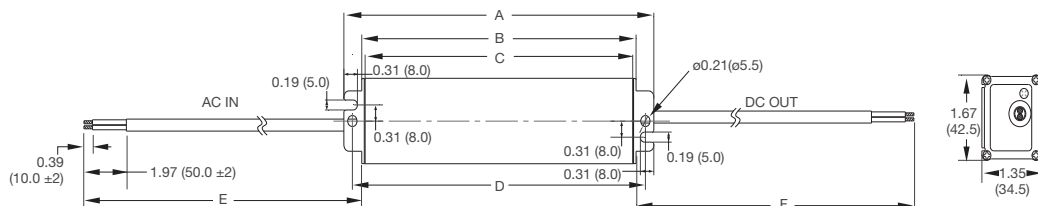
Mechanical Details

DLA50

Weight: 1.01 lbs (460 g)

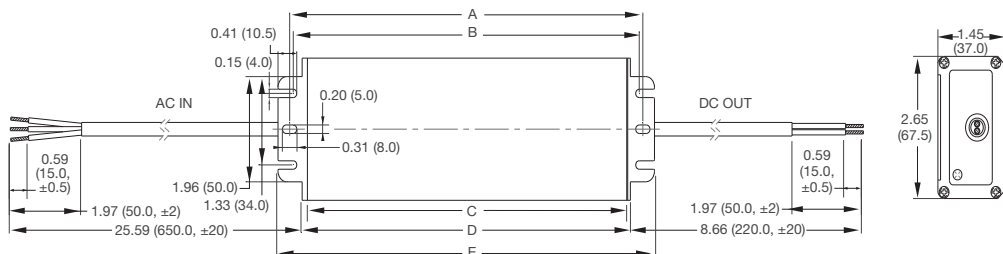
DLA50-A & -V are Class II with 2 input conductors, DLA50-VL are Class I with 3 input conductors. Input cable is UL recognised.

	DLA50-A & -V	DLA50-VL
A	7.20 (183.0)	7.60 (193.0)
B	6.37 (162.0)	6.77 (172.0)
C	6.22 (158.0)	6.61 (168.0)
D	6.81 (173.0)	7.20 (183.0)
E	13.38 (340.0)	12.20 (310.0)
F	13.38 (340.0)	11.81 (300.0)
	±0.02 (±0.5)	±0.02 (±0.5)



DLA75

	DLA75-V	DLA75-A
A	7.79 (198.0)	6.46 (164.0)
B	7.63 (194.0)	6.30 (160.0)
C	7.08 (180.0)	5.75 (146.0)
D	7.24 (184.0)	5.91 (150.0)
E	8.30 (211.0)	6.97 (177.0)
	±0.02 (±0.5)	±0.02 (±0.5)



Weight: DLA75-V: 2.09 lbs (950 g)

DLA75-A: 1.65 lbs (750 g)

Dimensions shown in inches (mm).



Models and Ratings

Constant Current Models

Output Power ⁽¹⁾	Output Current ⁽¹⁾	Output Voltage	Efficiency ⁽²⁾	Power Factor		Model Number
				110 VAC	220 VAC	
120 W	350 mA	206.0 V - 345.0 V	92.0 %	0.99	0.96	DLA120PS350-A
120 W	450 mA	160.0 V - 266.0 V	92.0 %	0.99	0.96	DLA120PS450-A
120 W	700 mA	103.0 V - 171.0 V	92.0 %	0.99	0.96	DLA120PS700-A
120 W	1050 mA	68.0 V - 114.0 V	91.0 %	0.99	0.96	DLA120PS1050-A
120 W	1400 mA	52.0 V - 86.0 V	91.0 %	0.99	0.96	DLA120PS1400-A
120 W	1750 mA	41.0 V - 68.0 V	91.0 %	0.99	0.96	DLA120PS1750-A
120 W	2100 mA	34.0 V - 57.0 V	91.0 %	0.99	0.96	DLA120PS2100-A
120 W	2450 mA	29.0 V - 49.0 V	91.0 %	0.99	0.96	DLA120PS2450-A
120 W	2800 mA	26.0 V - 43.0 V	91.0 %	0.99	0.96	DLA120PS2800-A
120 W	3150 mA	23.0 V - 38.0 V	90.0 %	0.99	0.96	DLA120PS3150-A
120 W	3500 mA	20.0 V - 34.0 V	90.0 %	0.99	0.96	DLA120PS3500-A
120 W	4200 mA	17.0 V - 28.0 V	90.0 %	0.99	0.96	DLA120PS4200-A
120 W	4900 mA	14.0 V - 24.0 V	90.0 %	0.99	0.96	DLA120PS4900-A

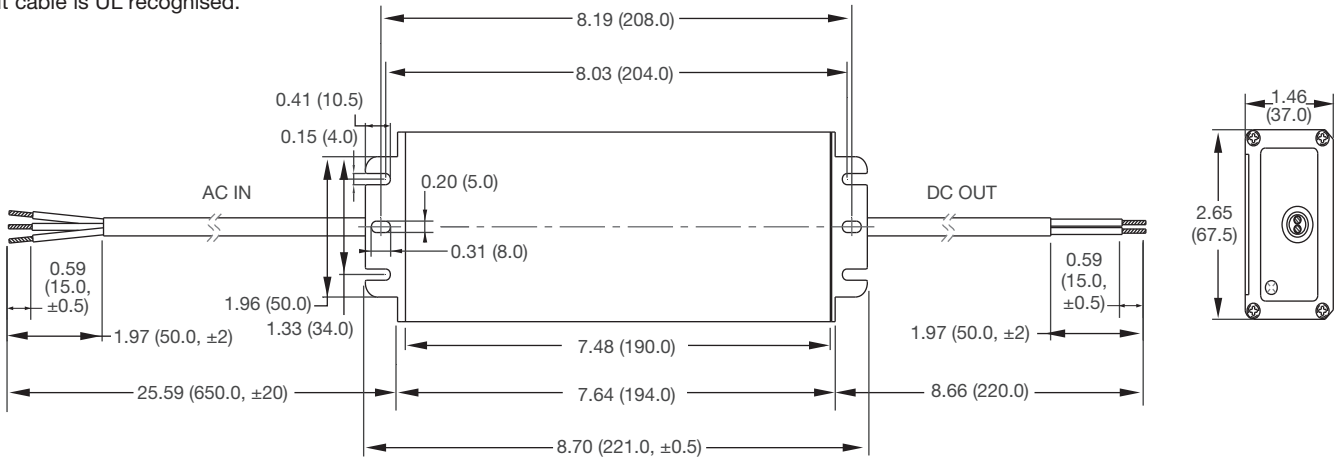
Notes

1. Output power derates linearly from 100% at 100 VAC input to 90% at 90 VAC input.
2. Measured at 230 VAC input and full load.

Mechanical Details

DLA120

Weight: 2.20 lbs (1000 g)
 Input cable is UL recognised.



Dimensions shown in inches (mm).

Models and Ratings

DLA150 Series **XP**

Constant Current Models

Output Power ⁽¹⁾	Output Current ⁽¹⁾	Output Voltage	Efficiency ⁽²⁾	Power Factor		Model Number
				110 VAC	220 VAC	
150 W	700 mA	128.0 V - 214.0 V	92.0 %	0.99	0.96	DLA150PS700-A
150 W	1050 mA	85.0 V - 142.0 V	92.0 %	0.99	0.96	DLA150PS1050-A
150 W	1400 mA	64.0 V - 107.0 V	91.0 %	0.99	0.96	DLA150PS1400-A
150 W	1750 mA	51.0 V - 85.0 V	91.0 %	0.99	0.96	DLA150PS1750-A
150 W	2100 mA	42.0 V - 71.0 V	91.0 %	0.99	0.96	DLA150PS2100-A
150 W	2450 mA	36.0 V - 61.0 V	91.0 %	0.99	0.96	DLA150PS2450-A
150 W	2800 mA	31.0 V - 53.0 V	91.0 %	0.99	0.96	DLA150PS2800-A
150 W	3150 mA	28.0 V - 47.0 V	91.0 %	0.99	0.96	DLA150PS3150-A
150 W	3500 mA	25.0 V - 42.0 V	91.0 %	0.99	0.96	DLA150PS3500-A
150 W	4200 mA	21.0 V - 35.0 V	90.0 %	0.99	0.96	DLA150PS4200-A
150 W	4900 mA	18.0 V - 30.0 V	90.0 %	0.99	0.96	DLA150PS4900-A
150 W	5950 mA	15.0 V - 25.0 V	90.0 %	0.99	0.96	DLA150PS5950-A

Constant Voltage Models

Output Power ⁽³⁾	Output Voltage	Output Current	Efficiency ⁽²⁾	Power Factor		Model Number
				110 VAC	220 VAC	
150 W	12.0 V	12.50 A	92.0 %	0.99	0.96	DLA150PS12-V
150 W	24.0 V	6.25 A	93.0 %	0.99	0.96	DLA150PS24-V
150 W	36.0 V	4.17 A	93.0 %	0.99	0.96	DLA150PS36-V
150 W	42.0 V	3.57 A	94.0 %	0.99	0.96	DLA150PS42-V
150 W	48.0 V	3.13 A	93.0 %	0.99	0.96	DLA150PS48-V
150 W	54.0 V	2.78 A	93.0 %	0.99	0.96	DLA150PS54-V
150 W	81.0 V	1.85 A	94.0 %	0.99	0.96	DLA150PS81-V
150 W	105.0 V	1.42 A	94.0 %	0.99	0.96	DLA150PS105-V

Notes

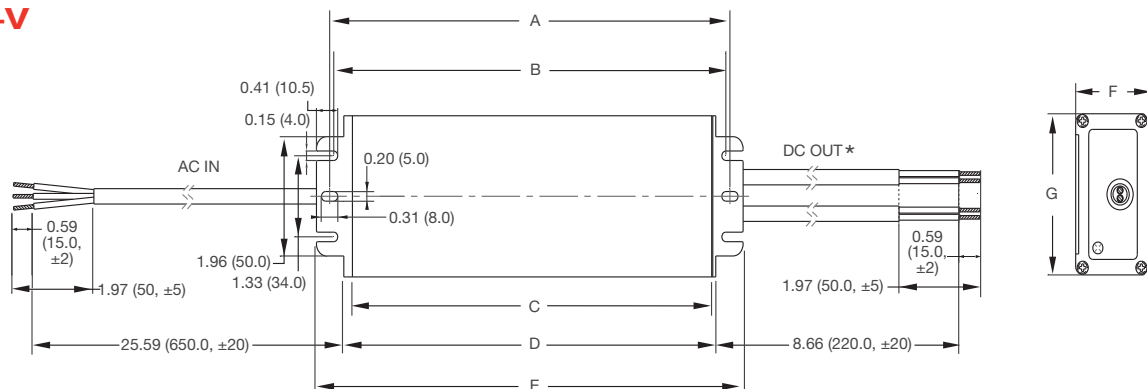
1. Output power derates linearly from 100% at 100 VAC input to 90% at 90 VAC input.

2. Measured at 230 VAC input and full load.

3. Output power derates linearly from 100% at 100 VAC input to 80% at 90 VAC input.

Mechanical Details

DLA150-V



	DLA150-V	DLA150-A
A	8.38, (213.0)	9.92, (252.0)
B	8.22 (209.0)	9.80 (249.0)
C	7.67 (195.0)	9.25 (235.0)
D	7.83 (199.0)	9.39 (238.0)
E	8.89 (226.0)	10.43 (265.0)
F	1.57 (40.0)	1.81 (46.0)
G	2.66 (67.5)	3.13 (79.5)
	±0.02 (±0.5)	±0.02 (±0.5)

* Shown for DLA150PS12-V,
all others have single DC output leads

Dimensions shown in inches (mm).

Weight: 2.2 lbs (1000 g) for DLA150-V
3.3 lbs (1500 g) for DLA150-A

Black = Live White = Neutral Green = Earth

Input cable is UL recognised.

DLA150-A

