

## DLG Series



- AC Input LED Driver
- Constant Voltage & 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         | • 50 W: 1.0 A at 115 VAC, 0.5 A at 230 VAC,<br>75 W: 1.2 A at 115 VAC, 0.6 A at 230 VAC,<br>100 W: 1.4 A at 115 VAC, 0.7 A at 230 VAC,<br>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 | • DLG50/75: 500 µA max at 230 VAC<br>DLG100/150: 750 µA max at 230 VAC  |
| No Load Input Power   | • DLG100: 0.5 W max at 230 VAC<br>Other models: 0.6 W max at 230 VAC  |
| Input Protection      | • DLG50/75 T2.5A/300V fuse fitted in line,<br>DLG100 T3.15A/300V fuse fitted in line,<br>DLG150 T4A/300V fuse fitted in line  |

## Output

|                            |   |
|----------------------------|---|
| Output Voltage             | • See table   |
| Minimum Load               | • No minimum load required  |
| Start Up Delay             | • 1.5 s max at 115 VAC  |
| Hold Up Time               | • DLG50/75: No hold up<br>DLG100/150: 16 ms minimum   |
| Line Regulation            | • ±0.5%   |
| Load Regulation            | • ±1.0% in constant voltage mode,<br>±5.0% in constant current mode   |
| Turn On Overshoot          | • 5% max  |
| Transient Response         | • 5% maximum deviation, recovery to within<br>1% in 10 ms for a 50% load change   |
| Ripple & Noise             | • DLG50/75 <sup>(1)</sup><br>DLG100/150: 150 mV pk-pk up to 36 V<br>output, 200 mV for 48 V output, 240 mV<br>for ≥54 V output (see note 2) |
| Overshoot Protection       | • 110-142%, recycle mains to reset, only on<br>DLG100 & DLG150 versions   |
| Overtemperature Protection | • Unit shuts down, recycle mains to reset   |
| Overload Protection        | • 105% maximum, auto recovery   |
| Short Circuit Protection   | • Trip and restart (hiccup mode)  |
| Temp. Coefficient          | • 0.04%/°C  |

## Notes

1. DLG50/75 use a topology which results in increased levels of mains frequency related ripple. Contact technical sales for details.

## General

|                     |  |
|---------------------|--|
| Efficiency          | • See table  |
| Isolation           | • 3750 VAC Input to Output<br>1880 VAC Input to Ground<br>500 VAC Output to Ground |
| Switching Frequency | • DLG50/75: 40-80 kHz<br>DLG100/150: PWM 60-80 kHz,<br>PFC 55-133 kHz              |
| MTBF                | • >200 kHrs to MIL-HDBK-217F at 25 °C, GB  |

## Environmental

|                       |   |
|-----------------------|---|
| Operating Temperature | • DLG50/75: -40 °C to +60 °C<br>(see derating curve),<br>DLG100/150: -30 °C to +70 °C<br>(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<br>each of 3 axes  |

## EMC &amp; Safety

|                      |  |
|----------------------|--|
| Emissions            | • EN55015, class B conducted and radiated  |
| Harmonic Currents    | • EN61000-3-2, class A<br>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,<br>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, installation class 3,<br>Perf Criteria A                          |
| Conducted Immunity   | • EN61000-4-6, level 2 Perf Criteria A   |
| Dips & Interruptions | • EN61000-4-11, 30% 10 ms,<br>60% 100 ms, 100% 5000 ms,<br>Perf Criteria A, B, B |
| Safety Approvals     | • EN61347, UL8750, CE Mark   |

| Output Power | Output Voltage | Output Current | Output Voltage Range in Constant Current Mode | Efficiency <sup>(1)</sup> | Model Number              |
|--------------|----------------|----------------|---|---------------------------|---------------------------|
| 50 W         | 12.0 V         | 4.20 A         | 8.5-12.0 V                                    | 84.0%                     | DLG50PS12                 |
| 50 W         | 24.0 V         | 2.10 A         | 19.0-24.0 V                                   | 86.0%                     | DLG50PS24                 |
| 50 W         | 36.0 V         | 1.40 A         | 26.0-36.0 V                                   | 88.0%                     | DLG50PS36                 |
| 50 W         | 48.0 V         | 1.05 A         | 35.0-48.0 V                                   | 88.0%                     | DLG50PS48                 |
| 59 W         | 12.0 V         | 4.90 A         | 8.5-12.0 V                                    | 84.0%                     | DLG75PS12                 |
| 75 W         | 24.0 V         | 3.15 A         | 19.0-24.0 V                                   | 86.0%                     | DLG75PS24                 |
| 74 W         | 30.0 V         | 2.45 A         | 22.0-30.0 V                                   | 87.0%                     | DLG75PS30                 |
| 75 W         | 36.0 V         | 2.10 A         | 26.0-36.0 V                                   | 88.0%                     | DLG75PS36                 |
| 67 W         | 48.0 V         | 1.40 A         | 35.0-48.0 V                                   | 88.0%                     | DLG75PS48                 |
| 75 W         | 54.0 V         | 1.40 A         | 37.0-54.0 V                                   | 88.0%                     | DLG75PS54                 |
| 100 W        | 12.0 V         | 8.30 A         | 9.0-12.0 V                                    | 88.0%                     | DLG100PS12                |
| 100 W        | 15.0 V         | 6.60 A         | 10.0-15.0 V                                   | 88.0%                     | DLG100PS15 <sup>(3)</sup> |
| 100 W        | 24.0 V         | 4.20 A         | 14.0-24.0 V                                   | 90.0%                     | DLG100PS24                |
| 100 W        | 30.0 V         | 3.30 A         | 22.0-30.0 V                                   | 90.0%                     | DLG100PS30                |
| 100 W        | 36.0 V         | 2.80 A         | 26.0-36.0 V                                   | 90.0%                     | DLG100PS36                |
| 100 W        | 48.0 V         | 2.10 A         | 34.0-48.0 V                                   | 90.5%                     | DLG100PS48                |
| 100 W        | 57.0 V         | 1.75 A         | 43.0-57.0 V                                   | 90.5%                     | DLG100PS57 <sup>(3)</sup> |
| 132 W        | 12.0 V         | 11.00 A        | 9.0-12.0 V                                    | 88.0%                     | DLG150PS12                |
| 150 W        | 15.0 V         | 10.00 A        | 11.0-15.0 V                                   | 88.0%                     | DLG150PS15 <sup>(3)</sup> |
| 150 W        | 24.0 V         | 6.30 A         | 14.0-24.0 V                                   | 90.0%                     | DLG150PS24                |
| 150 W        | 30.0 V         | 5.00 A         | 22.0-30.0 V                                   | 90.0%                     | DLG150PS30                |
| 150 W        | 36.0 V         | 4.20 A         | 26.0-36.0 V                                   | 90.0%                     | DLG150PS36                |
| 150 W        | 48.0 V         | 3.20 A         | 33.0-48.0 V                                   | 90.0%                     | DLG150PS48                |
| 150 W        | 54.0 V         | 2.80 A         | 38.0-54.0 V                                   | 90.0%                     | DLG150PS54 <sup>(3)</sup> |

Notes

1. Typical efficiency at full load and 230 VAC input.
2. Measured using 12" twisted pair with 0.1 μF and 47 μF capacitors in parallel at 20 MHz bandwidth.
3. Not UL8750 approved.

Mechanical Details



|   | DLG50/75     | DLG100/150   |
|---|--------------|--------------|
| A | 6.93 (176.0) | 8.74 (222.0) |
| B | 6.38 (162.0) | 8.19 (208.0) |
| C | 6.03 (153.2) | 7.83 (199.0) |

Notes

1. All dimensions shown in inches (mm).
2. Weight: DLG50/75: 1.98 lbs (900 g)  
DLG100/150 2.29 lbs (1040 g)
3. Tolerance: ±0.02 (0.5)
4. DLG100PS12 and DLG100PS15 output cable is 14 AWG.

Application Notes

Constant Voltage / Constant Current Curve



Derating Curve



## Данный компонент на территории Российской Федерации

### Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

moschip.ru\_4

moschip.ru\_6

moschip.ru\_9