

**Colour  
is our nature**

## Intelligent 45/90/180 Watt LED Driver/Controller

### POWERdrive DC Series

POWERdrive DC is a highly integrated, enclosed and easy-to-configure constant current driver/controllers with multiple current sources for high-power, indoor LED lighting applications requiring up to 180 watts.

POWERdrive DC can be integrated in a network or used as a standalone device. ShowMaster, supported on all eldoLED driver/controllers, allows you to upload show sequences for use in standalone mode. You can create and manage your own show sequences with the TOOLbox and freely available PC software.

POWERdrive DC is DMX, DALI and LedSync compatible, and allows 15-bit dimming and colour control and bidirectional communication for driver configuration and temperature read-out.

### POWERdrive 45/90/180

With their wide supply voltage range (12V-32V DC), POWERdrive 45, 90 and 180 are the ideal choice for powering 45W 200mA - 500mA HB LEDs, 90W 200mA - 1050mA HB LEDs, and 180W 200mA - 1.4A HB LEDs respectively.

### High power output and flexibility

POWERdrive DC not only allows a power output of up to 180 watts, it also lets you control the LED current sources for each group individually, providing you with all the flexibility you need to drive your LED application.

### Suitable for practically all LED types

POWERdrive DC lets you set the LED current to any value between 200mA and 1.4A in 50mA steps, making it the perfect match for practically every LED type and configuration.

### Setup is a breeze!

Configure POWERdrive DC over its intuitive, 3-button user interface with display. The easy-to-navigate menu allows you to set parameters such as the number of channels, DMX or DALI settings for networked mode and show/colour/dim values for standalone operation. You can also lock the driver's configuration and perform a test run of the connected LED groups.



### LEDcode compatible

Set up POWERdrive DC even faster by simply entering the 12-digit code generated on the LEDcode website. This code fine-tunes LED output current settings for your LED application.

### Robust thermal management

POWERdrive DC has built-in over temperature protection and an interface for connecting an NTC thermistor. An NTC thermistor provides feedback on LED engine temperature and allows LED throttling, a graceful decrease of light output until normal operating temperatures are reached.

### Low EMI

POWERdrive DC's EMI is very low due to the implementation of slew-rate controlled dimming and shielded conductors.

### Easy to connect

Take off POWERdrive DC's top cover to discover that connecting is self-explanatory: the spring-cage connectors for LEDs, power and network leads are all clearly marked. Strain reliefs prevent leads from being pulled out by accident.

### Advantages

- Available in 45-, 90- and 180-watt version
- DALI, DMX and 0-10V compatible
- Suited for most LED types currently in the market
- Unprecedented ease-of-configuration
- LEDcode-compatible
- Extremely smooth dimming and fine colour mixing: 15-bit control resolution for each LED group
- ShowMaster: user-definable show sequences
- Very low EMI
- Compact form factor: 193x50x23mm / 7.60"x1.97"x0.91"

**Electrical data**

- LED current settings in 50mA steps:  
POWERdrive 45: 200mA - 500mA  
POWERdrive 90: 200mA - 1050mA  
POWERdrive 180: 200mA - 1.4A
- Power output range:  
POWERdrive 45: 0 - 45W  
POWERdrive 90: 0 - 90W  
POWERdrive 180: 0 - 180W
- Operating supply voltage range:  
12V-32V DC
- Processor: eldoLED FluxLogic 2450 Series
- Independent LED groups: up to 4
- Reverse polarity protection

**Dynamic effects**

- HydraDrive Algorithm Based Modulation
- Control of channel 1 (R), 2 (G), 3 (B) and 4 (W/A): 0 - 100% in 15-bit set point resolution
- Contrast ratio: up to 8,000:1

**Thermal data**

- Cooling: passive (integrated heat spreader). Second heat spreader ensures ease of mounting onto required heat sink.
- Built-in protection against overheating of driver/controller
- NTC thermistor interface: for reliable over temperature protection of connected LEDs

**Mounting data**

- Mounting orientation: any
- Mounting holes: for M4 screws (4)

**Network control**

- Network input: USITT DMX512A, DALI or LedSync
- Network output: LedSync
- Network input/output: based on RS485 specification
- DMX/LedSync-in update rate: 8ms
- Network resolution: 8 or 16 bit
- Network channels used by driver in 8-bit resolution: 4
- Network channels used by driver in 16-bit resolution: 8
- Communication: bidirectional for driver configuration and temperature read-out
- Configuration: via 3-button user interface or via TOOLbox and freely available PC software

**Certifications**

- CE: IEC 61347, EN 55015, IEC 61003, EN 61547
- UL

**ShowMaster**

- Nine standard shows or up to 20 customer-defined shows set at factory
- User-defined shows (ShowMaster): up to 20 shows, via TOOLbox and PC software
- Show selection: via menu buttons

**Environmental ratings**

- T<sub>a</sub> range: -20°C - 50°C (-4°F - 122°F)
- T<sub>c</sub> max: 65°C (149°F)
- T<sub>heatsink</sub> max: 60°C (140°F)
- Relative humidity: non-condensing

**User interface**

- Menu buttons: M, - and + (3)
- Display: segmented (4 x 16)
- Modes: colour/show/DMX/DALI
- Features: setup, lock, LEDcode, reset

**LEDcode-compatibility**

- Visit [www.ledcode.com](http://www.ledcode.com) for wiring diagrams and code for automatic configuration, specifically generated for your LED application

**Spring cage connectors**

- VDC: + and - (2)
- DMX in: +, - and shield (3)
- LedSync out: +, - and shield (3)
- DALI: DA+ (2) and DA - (2)
- EXT in: + and - (2) for 10kΩ potentiometer, 0-10V or show switch
- LED groups: + and - for group 1 through 4 (8)
- NTC thermistor: + and - (2)

**Dimensions**

- LxWxH: 193 mm x 50 mm x 23 mm  
7.60" x 1.97" x 0.91"

**Ordering information**

Description	Product	Order nr
POWERdrive 45W Display	Power 45/D	POWER045D1
POWERdrive 90W Display	Power 90/D	POWER090D1
POWERdrive 180W Display	Power 180/D	POWER180D1



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