

600 Watt Power Supply for LED Fixtures

model: LED600

technical data sheet



The *LED600* power supply distributes DMX512 data and 24 Volt power to popular LED lighting fixtures. Primarily designed to power and control Color Kinetics ColorBlast 12 fixtures, the *LED600* can also drive Color Kinetics iColor Cove, and similar products.

Power and data are provided on twelve 4-Pin female XLR connectors. Power appears on pins 1 and 4, Data is provided on pins 2 and 3.

The *LED600* features our DownShifter technology that shifts incoming DMX512 data and outputs the desired channels as channels 1, 2 and 3 [plus 4 and 5 in 5-channel mode]. This allows all fixtures to be set to address "001" with the power supply routing the DMX signals to the proper outputs. To enable DownShifter mode, set the address switch to a valid DMX512 address (1 through 512). The system then operates similar to a dimmer pack with the first fixture being controlled by the selected

channel (and two [or four] successive channels), the second fixture being controlled by the selected channel plus three [or five], the third fixture being controlled by the selected channel plus six [or ten], and so forth.

DownShifter mode is disabled (so DMX512 data passes through to every output unmodified) by setting the address switch to 000.

The *LED600* operates in either 3-channel mode or 5-channel mode, push button selectable. In three channel mode, each output consumes three DMX channels (36 channels for a fully populated power supply). In five channel mode, each output consumes five DMX channels (60 channels if all 12 outputs are used). To mix three and five channel fixtures, the user must set the power supply to five channel mode. In this instance the three channel fixtures simply 'waste' two DMX control channels.

The *LED600* is fan cooled with a low speed fan. The supply features a universal, power factor corrected, switch mode power supply (90 - 260VAC, 50/60 Hz). It is fitted with a locking IEC-320 connector and supplied with a NEMA 5-15P (parallel blade with ground) power cord.

Doug Fleenor Design, Inc. is not affiliated with Color Kinetics, Inc.

ColorBlast 6, ColorBlast 12, and iColor Cove are trademarked products of Color Kinetics, Inc.

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SPECIFICATIONS: Model LED600 - 600 Watt Power Supply for LED Fixtures

Input power: 90V - 260VAC, 50/60 Hz. 700W (at full load).

Required UL statement: The LED600 must be located near the power outlet powering it and the outlet must be easily accessible.

Inrush current: 20A @ 115V, 40 @ 230V.

Power factor: 0.99 typical, 0.95 minimum.

Efficiency: 85% typical

Input signal: DMX512, DMX512/1990, DMX512-A (250 Kb/s, 0.2 Volts min. 12 Volts max)

Input circuit: Transient protected EIA-485 transceiver (LT1785)

Input protection: 15,000 Volt transient, \pm 60 Volt continuous

Input connector: Gold plated 5 pin male (Neutrik D-1 series).

Input pass through: Gold plated 5 pin female (Neutrik D-1 series). All five pins pass through.

Input isolation: 600 Volts

Output signal: DMX512-A timings and protocol with 22V single ended levels.

Output circuit: MC34074 high speed op-amp tuned for 4uS bit period (250 Kb/s) yields approximately 22V at load.

Output connector: Gold plated 4 pin female XLR (Neutrik D-1 series) rated at 10 amps.

Output current (power): 25 amps (600 watts) continuous, limited to 5 amps (120 watts) per output.

Connector pin out:

Pin 1	24VDC power
Pin 2	22V Data
Pin 3	22V Data
Pin 4	Common

Indicators: Green signal indicator, three digit DMX Start Address.

User controls: Three pushbuttons to increment DMX Start Address (hundreds, tens, and ones).
Footprint select pushbutton (three or five channel mode).

Operating modes: Below is a list of DMX start addresses and their corresponding modes of operation.

000 Pass thru mode. Fixtures are typically set to different addresses.

001-512 DownShifter mode. Fixture addresses must be set to 001.

6nn Fixed colors where nn selects approximate Roscolux™ gel color.

7nn Fading effects. The tens place selects an effect and the ones place sets the fade time.

8nn Strobe effects. The tens place selects an effect and the ones place sets the flash rate.

900 Random selection of fading and strobing effects.

Color: Black with laser engraved nomenclature

Size and weight: 9.25" h X 5.25" d X 9.75" w, 9.0 pounds

Mounting options: Two 1/2" holes for half couplers or "C" clamps, one 5" x 3/4" handle slot (may be used for safety cable).