

Type(s)

Project

Date

Notes



GENERAL INFORMATION

The F-Drive Power Supply supports the F-Drive Series LED driver solution from ETC. The F-Drive Series provides a modular, centralized approach for controlling LED luminaires. By maintaining remote, easy access to driver cards and power supplies, LED based systems can be easily installed and serviced, while ensuring critical components are readily accessible to support staff. In addition, F-Drive Power Supply reduces installation costs and system complexity to get installations online faster, and with fewer headaches. All in a system that has more outputs, higher wattage, and more control than traditional decentralized LED driver systems.

APPLICATIONS

- Cruise ships
- Schools
- Houses of worship
- Conference centers
- Themed environments
- Retail and hospitality spaces
- Entertainment spaces

FEATURES

- Provides 48 VDC to F-Drive Series LED driver
- Up to 1,800 W of output at 48 VDC
- Compact size for EU or US 19-inch rack, 1U height
- Front-panel LED power indicator
- Rear On/Off switch
- 100–240 VAC input
- Multiple power cord options

ORDERING INFORMATION

MODEL	DESCRIPTION
FD-RPS-48-1800	F-Drive Power Supply 1U 48 VDC 1,800 W
FD-RPS-48-1000	F-Drive Power Supply 1U 48 VDC 1,000 W
Power cord connection type chosen below, one cord required for each FD-RPS	
FD-RPS-IC-E15	14/3 NEMA 5-15P to Locking C19 IEC Connector
FD-RPS-IC-E20	12/3 NEMA 5-20P to Locking C19 IEC Connector
FD-RPS-IC-S16	14/3 (2.5 mm ²) Euro Schuko Plug to Locking C19 IEC Connector
FD-RPS-IC-C16	14/3 (2.5 mm ²) Euro Ceeform Plug to Locking C19 IEC Connector
FD-RPS-IC-EUBE16	14/3 (2.5 mm ²) Bare Ends (Euro) to Locking C19 IEC Connector

Note: All power input cords are 1.8 m (6 ft) long



SPECIFICATION

Electrical

Voltage Input	FD-RPS-48-1000: 100–240 VAC FD-RPS-48-1800: 100–240 VAC
Voltage Output	48 VDC
Inrush	50 A Max
Rated Power Output	FD-RPS-48-1000 @ 100–240 VAC: 1000 W FD-RPS-48-1800 @ 100–109 VAC: 1300 W FD-RPS-48-1800 @ 110–199 VAC: 1500 W FD-RPS-48-1800 @ 200–240 VAC: 1800 W
Typical AC current draw	FD-RPS-48-1000 @ 115 VAC: 11 A FD-RPS-48-1000 @ 230 VAC: 5.5 A FD-RPS-48-1800 @ 115 VAC: 16 A FD-RPS-48-1800 @ 230 VAC: 10 A
Power factor	> 0.95
Necessary Cables	<ul style="list-style-type: none"> • C19 IEC AC Power Cable must be ordered separately, see Ordering Information on page 1 for details. • 2.4 m (8 ft) DC power cable included with F-Drive R12, can be cut to length and attached to included DC terminal power connector

Thermal

Ambient operating temp	0°C–40°C (32°F–104°F)
Humidity	20%–95% non-condensing
Fans	Yes
BTUs/hour	BTU/hr can be calculated by multiplying watts times 3.412. 1000 W = 3413 BTU/hr 1300 W = 4436 BTU/hr 1500 W = 5119 BTU/hr 1800 W = 6142 BTU/hr

Physical

Materials	Enclosure: 1.6 mm (0.063 in) aluminum Front plate: 19 in rack-compatible 3.2 mm (0.125 in) aluminum
Color options	Front plate: Space grey, fine-textured, scratch-resistant powder coat paint
Mounting options	Rack-mount - 1U 19 inch standard rack mounting, removable via two aluminum 'U' handles. F-Drive Power Supply requires 1 U of space.
IP rating	IP-20 (dry locations only)
Weight	See F-Drive Power Supply Dimensions on page 4

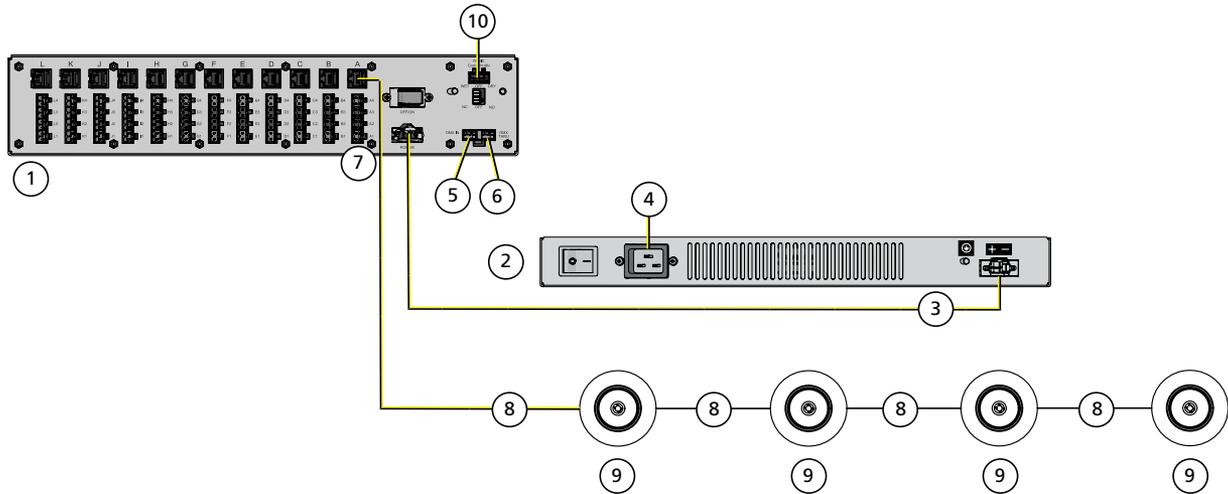
Warranty

Warranty Term	5 years
Website	etcconnect.com/Support/Warranty.aspx

Regulatory and Compliance

Approved regulatory standards	UL 62368-1 CE Compliant
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F-DRIVE R12 DRIVER WIRING DIAGRAM



	DESCRIPTION	NOTES
1	F-Drive FDR12FD	Back view, rack ears are attached to the front side but not shown
2	F-Drive Power Supply	Back view, rack ears are attached to the front side but not shown
3	48 VDC from power supply to F-Drive R12	Use the DC wiring harness supplied with the F-Drive R12 and the two-pin plug supplied with the F-Drive Power Supply.
4	Input power to F-Drive Power Supply	See page 1 for available power cord options.
5	DMX input to F-Drive R12 from external DMX source	Belden 9729 or Cat 5e (or equivalent) with 0.2 mm ² (24 AWG) or larger conductors terminated to T568B standard
6	DMX thru from F-Drive R12 to another F-Drive R12 or other device	Belden 9729 or Cat 5e (or equivalent) with 0.2 mm ² (24 AWG) or larger conductors terminated to T568B standard
7	F-Drive R12 output card terminations	Use CC-150 Card, FTW-150 Card, or Chroma Card for Navis 100 luminaires. There are 12 output card slots available on an F-Drive R12.
8	Category-type cable with 0.25 mm ² (23 AWG) or larger conductors (Belden 2412 or 2148 Cat6e)	<48 VDC for Navis 100 White or Navis 100 Fade to Warm, 48 VDC for Navis 100 RGBW.
9	Navis luminaire*	Navis 100 White, Navis 100 Fade to Warm, or Navis 100 RGBW. Connect up to four of the same luminaire per output card, compatible with the output card type.
10	F-Drive R12 optional panic output	48 VDC wet or dry contact suitable for connection to external emergency systems For example: the F-Drive R12 panic output can be used as the Sense input to an F-Drive W1 Emergency Driver.

* Multiple Navis 100 luminaires directly connected to one F-Drive output card must be run in a daisy-chain configuration with a maximum of four Navis 100 luminaires per cable run.

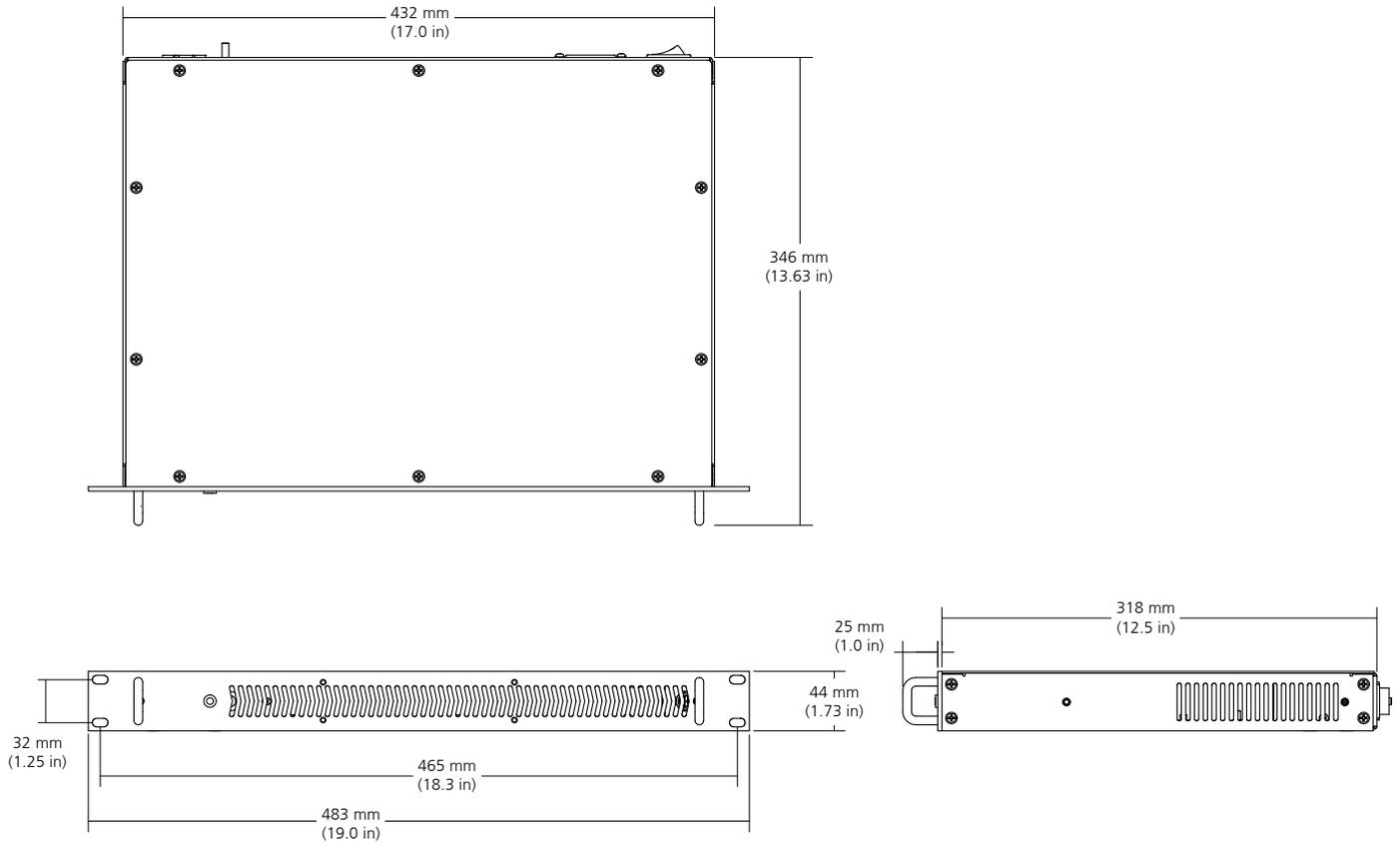
Note: The illustration is not drawn to scale.

PHYSICAL

F-Drive Power Supply Dimensions

MODEL	HEIGHT		WIDTH		DEPTH		WEIGHT		SHIPPING WEIGHT	
	in	mm	in	mm	in	mm	lb	kg	lb	kg
FD-RPS-48-1000	1.73	44	19.00	483	13.63	346	9.01	4.08	11.02	5.00
FD-RPS-48-1800	1.73	44	19.00	483	13.63	346	9.01	4.08	11.02	5.00

F-DRIVE POWER SUPPLY



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