

Foundry Power Control Series



GENERAL INFORMATION

The F-Drive R12 LED driver solution from ETC 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.

APPLICATIONS

- Cruise Ships
- Schools
- Houses of worship
- Conference centers
- Themed Environments
- Retail and hospitality spaces
- Entertainment spaces

FEATURES

- 48 VDC Input (via separate power supply)
- Hot-swappable output cards
- RJ45 output connectors (CC Cards only)
- Modular output connectors for higher gauge/existing wire (Max 14 AWG / 2.0 mm²)
- DMX512/RDM control input
- Dry contact panic input for remote triggering of output channels
- 48 VDC pass-through for connection to downstream sense equipment.

REGULATORY AND COMPLIANCE

- UL 8750, Light Emitting Diode (LED) Equipment for Use in Lighting Products
- UL C22.2 No. 250.13, Light Emitting Diode (LED) Equipment for Lighting Applications
- UL 1598 and CSA C22.2 No. 250.0, Luminaires
- UL 2108, Low Voltage Lighting Systems
- CE Compliant

ORDERING INFORMATION

F-Drive Frame

MODEL	DESCRIPTION
FDR12FD	F-Drive Rack-Mount DMX/RDM 12-Slot Frame and Control Card Only

Note: F-Drive frame supplied with control card and blank panels only. Select output card options below.

Output Card Options

MODEL	DESCRIPTION
FDROCCC150	CC Card - 150W 200–700 mA Constant Current Driver Card
FDROCCV150	CV Card - 24 VDC 150 W Constant Voltage Driver Card
FDROCFW150	FTW Card - 150 W 450 mA Constant Current Driver Card for use with ArcSystem Navis 100 Fade to Warm luminaires
FDROCCHC100	Chroma Card - 100 W Power/Data Card for use with Navis 100 RGBW Luminaires
FDROCAC150	ArcLamp Card - 150 W Driver Card for up to four channels of 8 x 4.4 W ETC ArcLamps

Note: F-Drive requires an external power supply. Select frame and modules from the list below.

External Power Supply Options

MODEL	DESCRIPTION
FDRPS1F	F-Drive Rack-Mount Power Supply Three-Bay Frame Only (Meanwell RKP-1U System)
FDRPS1M	F-Drive Rack-Mount Power Supply Module for Frame (Meanwell RKP-1U System)

Note: External power supply does not include power input cord. Select option from list below. One cord is required for each power supply module.

External Power Supply Power Input Cord Options

MODEL	DESCRIPTION
FDRPSICE15	F-Drive Rack-Mount Power Supply Power Cord 14/3 NEMA 5-15P to Locking C19 IEC Connector
FDRPSICE20	F-Drive Rack-Mount Power Supply Power Cord 12/3 NEMA 5-20P to Locking C19 IEC Connector
FDRPSICS16	F-Drive Rack-Mount Power Supply Power Cord 14/3 (2.5 mm ²) Euro Schuko Plug to Locking C19 IEC Connector
FDRPSICS16	F-Drive Rack-Mount Power Supply Power Cord 14/3 (2.5 mm ²) Bare Ends (Euro) to Locking C19 IEC Connector

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

Note: A bussing/wiring kit is required to allow connection of the external power supply to F-Drive R12. Select bussing kit option from list on page 3



SPECIFICATIONS

MECHANICAL

- Enclosure constructed of 1.6 mm (0.063 in) aluminum. Front plate constructed of 19 in rack-compatible 3.2 mm (0.125 in) aluminum finished in black, fine-textured, scratch-resistant powder coat paint.
- Thermally controlled, force air-cooled enclosure with fans. Left-to-right airflow to a 48 mm (1.87 in) high 280 mm (11 in) long exhaust vent.
- F-Drive enclosure removable via two aluminum 'U' handles.
- Output cards inserted into front panel using two nylon guide rails and secured via M3.5 threaded Aluminum thumb screw.

FUNCTIONAL

- DMX512 input
 - Per-output patching
 - Full RDM compliance

ENVIRONMENTAL

- Thermal: 0°–40° C (32°–104° F) operating temperature
- Humidity: 5–95% non-condensing

ELECTRICAL (FRAME ONLY)

- 48 VDC input.
- 1,500 W maximum power.
- RJ45 and terminal connection headers provided at rear of unit
- Max wire size for terminal headers 14 AWG / 2.0 mm²
- Connection to external power supply via bussing kit.
- F-Drive R12 is a class 2 LED power solution LED Outputs may not be bridged/combined.



OUTPUT CARD OPTIONS

150 W FTW (Fade to Warm) Card

- Four individually addressable outputs
- Constant current output
- Max 50 W per circuit (up to card limit)
- 150 W max card limit
- Output provided to both RJ45 and terminal connectors
- Fixed 450 mA drive current for use with ArcSystem Navis 100 FTW luminaire only

150 W Constant Current Card

- Four individually addressable outputs
- Constant current output
- Max 50 W per circuit (up to card limit)
- 150 W max card limit
- Output provided to both RJ45 and terminal connectors
- 200-700 mA drive current adjustable via RDM

150 W Constant Voltage Card

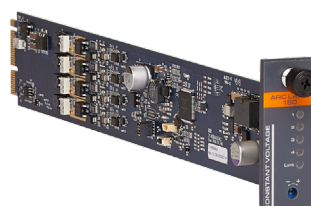
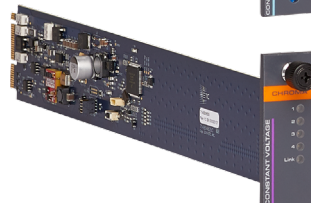
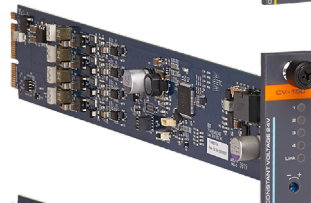
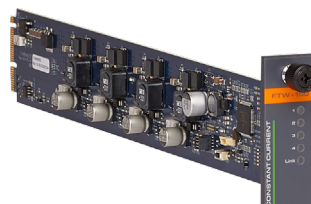
- Four individually addressable outputs
- Max 50 W per circuit (up to card limit)
- 150 W max card limit
- Output provided to rear terminal connectors only
- 24 V VDC

100 W Chroma Card

- Four individually addressable outputs
- For use only with ETC Navis RGBW luminaires
- Provides 48 VDC power and data communication to luminaire
- 100 W max card limit
- Output provided to RJ45 connector only
- For use with ArcSystem Navis 100 RGBW luminaire only

150 W ArcLamp Card

- Four individually addressable outputs
- For use only with ETC ArcLamp luminaires
- Provides 24 VDC power and PPW data communication to ArcLamp luminaire
- Supports up to 8 ArcLamps per channel
- Output provided to rear terminal connectors only



F-DRIVE POWER SUPPLY INFORMATION

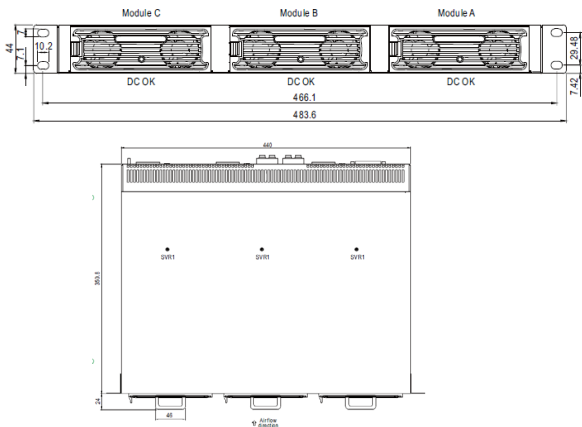
GENERAL INFORMATION

The F-Drive R12 rack-mount LED driver solution from ETC is a 48 VDC input product. An external rack-mounting power supply is required for operation. Each power supply consists of a frame that accepts up to three power supply modules. One module will power one F-Drive R12 rack.

Meanwell RKP-1U Power Supply

The Meanwell RKP-1U power supply is a 1U, low-profile power distribution solution perfectly suited for providing 48 VDC power to the ETC F-Drive unit.

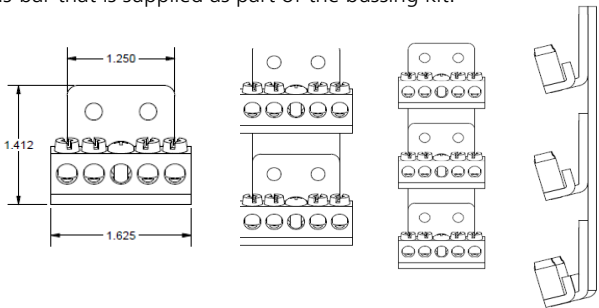
For current technical information, visit the following web URL:
<https://www.meanwell.com/productPdf.aspx?i=373>



Power Supply Bussing Kits

The Meanwell RKP-1U output terminals may be bussed together to allow multiple power supplies to operate in unison. This provides the possibility of redundancy in the event of a single power supply module failure.

ETC has created a series of bussing kits containing a 2.4 m (8 ft) set of 10 mm² (8 AWG) cables (1 red/1 black) pre-terminated to an F-Drive input plug on one end and bare ends on the other. DC cables may be cut to size for easy insertion to the copper screw terminal bus-bar that is supplied as part of the bussing kit.



Meanwell RKP-1U Power Supply

MODEL	HEIGHT		WIDTH		DEPTH	
	in	mm	in	mm	in	mm
RKP-1U	1.73	44	19.04	483.6	14.76	374.8

- Bussing kits are supplied complete with:
- Two output terminal connector strips
 - One plastic cover
 - DC wiring harness to connect bussing kit to F-Drive R12 (number of harnesses varies based on bussing kit)

BUSSING KIT ORDERING OPTIONS

MODEL	DESCRIPTION
FDRPS1BK1-1	F-Drive Rack Mount Power Supply Bussing Kit - 1 Power Supply / 1 F-Drive (Meanwell RKP-1U System)
FDRPS1BK1-2	F-Drive Rack Mount Power Supply Bussing Kit - 1 Power Supply / 2 F-Drive (Meanwell RKP-1U System)
FDRPS1BK1-3	F-Drive Rack Mount Power Supply Bussing Kit - 1 Power Supply / 3 F-Drive (Meanwell RKP-1U System)
FDRPS1BK2-4	F-Drive Rack Mount Power Supply Bussing Kit - 2 Power Supply / 4 F-Drive (Meanwell RKP-1U System)
FDRPS1BK2-5	F-Drive Rack Mount Power Supply Bussing Kit - 2 Power Supply / 5 F-Drive (Meanwell RKP-1U System)
FDRPS1BK2-6	F-Drive Rack Mount Power Supply Bussing Kit - 2 Power Supply / 6 F-Drive (Meanwell RKP-1U System)
FDRPS1BK3-7	F-Drive Rack Mount Power Supply Bussing Kit - 3 Power Supply / 7 F-Drive (Meanwell RKP-1U System)
FDRPS1BK3-8	F-Drive Rack Mount Power Supply Bussing Kit - 3 Power Supply / 8 F-Drive (Meanwell RKP-1U System)
FDRPS1BK3-9	F-Drive Rack Mount Power Supply Bussing Kit - 3 Power Supply / 9 F-Drive (Meanwell RKP-1U System)

OUTPUT CABLE BUNDLING

Cable bundling limitations apply to F-Drive Class 2 output cables. For reference on maximum number of four-pair cables in a bundle, ETC follows the recommendation of the NFPA 2020 National Electric Code, Table 725.144.

PHYSICAL

F-Drive R12 Dimensions

MODEL	HEIGHT		WIDTH		DEPTH	
	in	mm	in	mm	in	mm
FDR12	3.46	88	19.00	483	12.63	321

F-Drive R12 Weights

MODEL	WEIGHT		SHIPPING WEIGHT	
	lb	kg	lb	kg
FDR12	9.22	4.18	9.72	4.41

F-DRIVE R12

