

FPX

12 CHANNEL 2.4 kW DIMMER



DESCRIPTION

The Jands FPX is a fully featured 12 channel dimmer rack designed for lighting control applications where cost efficiency and ease of use are a priority.

The FPX's design is based on tried and tested circuitry, ensuring complete reliability of operation.

FEATURES

- 12 x 2.4 kW dimming channels
- E1.11 DMX-512 digital control protocol
- DMX-512 terminating switch
- Soft turn-on characteristic
- Opto-fired Triac output devices
- Recessed circuit breakers
- Three mains phase indicator LEDs
- "DMX-IN" LED for DMX-512 signal indication
- "FAULT" LED for dimmer error condition indication
- Digital DMX start channel display
- Built-in test facilities
- Dimmer curve set for linear relationship between the control input and output power
- Compensates for fluctuations in the mains supply voltage and minimises the effect of superimposed control tones, ensuring a constant light output and increased lamp life
- Microprocessor control
- Single internal temperature-controlled DC fan
- Single or three phase operation
- Over-temperature cutouts
- Pre-heat facility
- Dimmer will hold last DMX value for a set time should control data be interrupted



OVERALL SPECIFICATIONS

Channels: 12
 Power rating: 2.4 kW (10A/240V) per channel.
 Power supply type: 3-phase, 240V phase-to-neutral (415V phase-to-phase) with earth.

Power requirements: 3-phase 240 VAC, 50/60 Hz, 40A per phase max, full size (40A) neutral required plus earth.
 Supply current: 40 Amps per phase (max.)
 Mains Input: 40A
 Connector Rating:
 Dissipation: <1.0% of output load (288W max.)
 Operating temp: 40°C max
 Dimmer curve: Linear power
 Output connectors: 1 x 3-pin Australian 10 amp outlet per channel. (Others available, see ordering information below)
 Output risetime: > 100 µs (10% - 90%)
 Output current risetime 100mA/µs
 Output protection: 12 x 10A thermal/magnetic circuit breakers
 Control input: USITT E1.11 DMX-512 protocol
 Input connector: 5-pin AXR with loop-through socket and termination switch
 Display: 3 x 7 segment, high brightness
 Start Channel: Increment by 12 channel bank
 Test facility: Individual channel on/off
 Phase/All 0,20,40,60,80,100%
 Dimensions: 483mm(19")(W) x 400mm(D) x 132mm (3RU)(H)
 Net/shipping weight: 18 / 22 kg

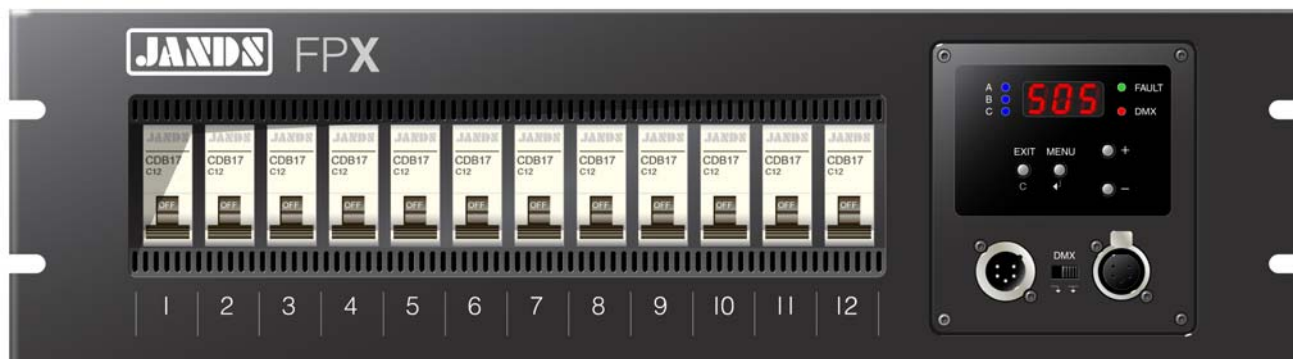
SUPPLIED ACCESSORIES

- Operating manual
- 2m 3-phase lead and plug (Clipsal 56P540 or equivalent)
- 2 x heavy duty rear mounting support brackets

ORDERING INFORMATION

MODEL/PART	PART NUMBER
• FPX with 12 x 3-pin/10A GPO outlets	JND-FPX-A
• FPX with 2 x 6 circuit Socapex outlets	JND-FPX-S
• FPX with hard wired output back panel	JND-FPX-H
• Roobar II (3RU) stackable equipment rollcage	JND-ROOBAR3RU

▼ FPX front panel



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ARCHITECT & ENGINEERS SPECIFICATIONS

Electronics

The dimmer rack shall receive and decode banks of twelve (12) control signals complying with the industry standard USITT E1.11 DMX-512 protocol. If the DMX signal is interrupted, the dimmer outputs shall default to the last received DMX packet. If control is not restored within 11 minutes the outputs shall be driven off.

A digital display and miniature switches shall be used to select the DMX start channel and set other operating modes of the dimmer. The start channel shall be able to be selected in steps of 12 channels. The DMX circuitry shall incorporate a DMX Terminate switch to minimise signal reflections on long control lines.

The dimmer rack shall match a control input to power output in a linear relationship. Each of the twelve (12) dimmer channels shall smoothly control loads from 25 watts to 2400 watts. The dimmer rack shall have a control response time of not more than fifty (50) milliseconds, input to output. The dimmer shall incorporate current control algorithms that reduce the instance of circuit breaker nuisance tripping.

The dimmer rack shall utilise toroidal chokes which are acoustically quiet and provide a risetime in excess of 100 microseconds.

For heatsink temperatures above 60°C the temperature controlled fan shall run at full speed. The dimmer shall feature temperature monitoring electronics that will trigger a thermal shut-down mode when the heatsink temperature exceeds 85°C. A hard-wired thermal switch shall disable the dimmer should the heatsink temperature exceed 110°C.

The dimmer rack shall be factory tested and cyclically burned-in for a minimum of 24 hours.

Electrical

The dimmer rack shall operate from a three-phase plus neutral and earth supply of 415 VAC phase-to-phase, and with a nominal supply frequency of 50 Hz.

The dimmer rack shall feature twelve (12) identical channels capable of driving 2.4 kW loads. All channel outputs shall be protected by 10 Amp thermal/magnetic circuit breakers. The standard output connector shall be the Australian 10A, however Socapex and hard-wired output versions shall be available as an option.

The dimmer rack shall draw a maximum of 40 Amps per phase when all output channels are fully loaded and driven to full. The dimmer rack shall be supplied with a two (2) metre power cable fitted with a 40 Amp three-phase connector.

Mechanical

The dimmer shall be designed to mount in a standard 19-inch equipment rack, and be 483mm wide x 400mm deep x 132mm (3RU) high.

The dimmer shall be constructed of 1.2 mm steel, and shall be provided with a removable lid for access to internal electronics. All metal surfaces shall be properly treated and finished in powdercoat or zinc plating.

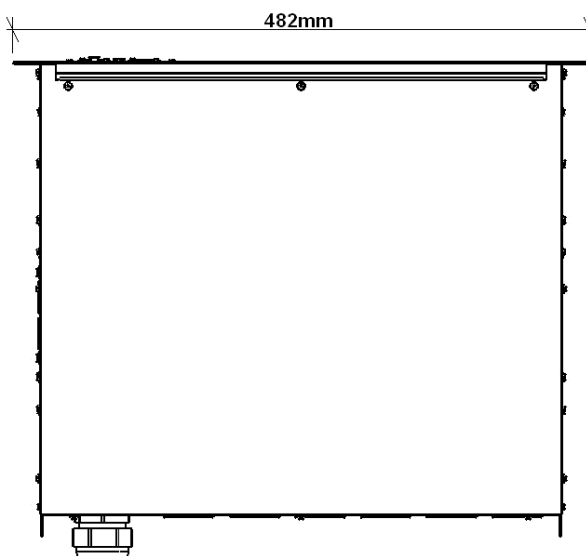
The control surface shall be scratch-resistant 0.25 mm polyester with legends reverse silk-screen printed from behind.

Standard accessories shall include rear support brackets.

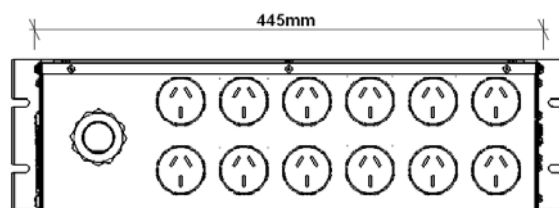
The dimmer rack chassis shall be designed to allow for fan cooling, provided the ambient temperature does not exceed 40°C. Adequate ventilation must be provided.

The dimmer shall be the JANDS FPX.

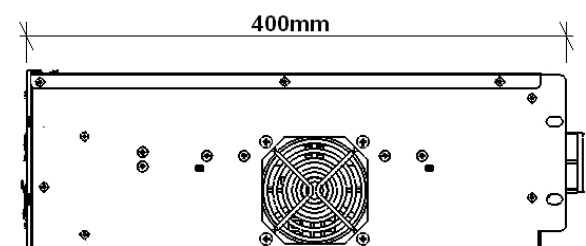
▼ FPX dimmer — top view



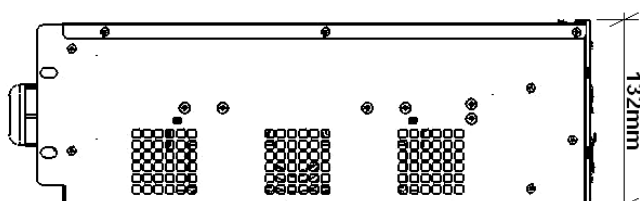
▼ FPX dimmer — rear view



▼ FPX dimmer — right side panel



▼ FPX dimmer — left side panel



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