HPX12-Dimmer

12 CHANNEL DMX CONTROLLED DIMMER UNIT

DESCRIPTION

The Jands HPX represents a fully featured range of power control products designed for the remote control of mains powered equipment. It is offered in both dimming and switching variants specifically targeted at the professional lighting industry worldwide, but has additional applications outside this market.

The HPX12 Dimmer is available in 100 to 240VAC supply, various risetimes, single Triac or dual SCR switching devices, and 10A or 20A channel current rating, all with a variety of output connector options. Additionally the HPX12 can be powered from two phase power supplies frequently used in the USA and Japan while maintaining equal numbers of channels per phase. The HPX12 will operate from mains power supply frequencies of between 40 and 66Hz with no setting changes.

The HPX12 has been designed with flexibility and ease of use as a priority. The high brightness display used on the standard control panel ensures the product is easy to use in dark environments, while the feature set has been optimised for use driveway hire applications.

The HPX12 Dimmers provide many features found in high end products. Current control algorithms reduce the instance of circuit breaker drop-outs due to cold lamp inrush, while dual speed controlled fans, high performance mains filtering, and a soft over-temperature cut-out are also included to eliminate problems before they appear to the operator.

OVERALL SPECIFICATIONS

Channels:	12
Power rating:	10A or 20A per channel.
Mains type:	1, 2 or 3-phase with neutral
Mains voltage:	100 to 230VAC phase to neutral
Mains Frequency:	40-66Hz
Operating temp:	0 - 40°C max
Output protection:	Thermal/magnetic circuit breakers per channel
Control input:	ANSI E1.11 DMX512A protocol
Input connector:	5-pin AXR with loop-through socket and termination function
Dimmer curve:	Linear power or switched
Snapshot Scenes:	2
Output rise-time :	110, 220 or 470µs, 10-90%
Dissipation:	<1.0% of output load
User Interface:	3 x 7 segment red LED + 4 switches
Indicators:	3 x blue, 2 x bicolour, 1 red, 1 x green
Start Channel:	Any number from 1 to 512
Test facility:	Individual channels
Ingress Protection:	IP20
Dimensions:	478mm(19")(W) x 450mm(D) x 133mm (3RU)(H)
Net/shipping weight:	Approx 28kg (Dependant upon the built configuration)

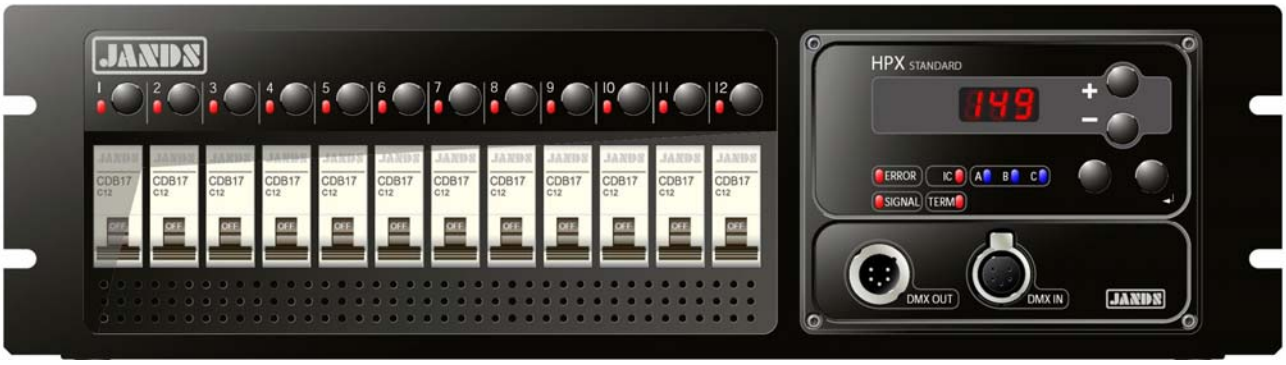
FEATURES

- DMX-512 digital control protocol
- Internal DMX-512 termination
- Three mains phase indicator LEDs
- Multiple status indicators
- Digital DMX-512 start channel display
- Built-in test facilities
- Single, two, or three phase operation
- Soft over-temperature cutout
- Dual temperature controlled DC fans
- Toroidal output chokes
- Easy access to output devices
- Third-order active filter minimises the effects of mains-borne noise

SUPPLIED ACCESSORIES

- 2m 3-phase lead and plug (Specify plug when ordering) Note: lead and plug not supplied with hardwire and export product
- 2 x heavy duty rear mounting support brackets

▼ *HPX12 dimmer front panel when fitted with Standard Control panel and Channel control option*



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Jands Pty Ltd 40 Kent Road Mascot NSW 2020 Australia
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OPTION INFORMATION

Standard Model Information

Model	Chans	RiseTime (10-90%)	Channel Current	Thyristor	Input Connector	Output Connectors	Chassis	Notes
JND-HPX12-AZ100	**12**	**220us/240V**	**10A**	**Triac**	**Clipsal P540 or equiva-lent**	**Australian 10A**	**3RU**	**HP12TR-A replacement**
JND-HPX12-AZ101	**12**	**220us/240V**	**10A**	**Triac**	**Clipsal P540 or equiva-lent**	**19 pin Socapex or equivalent**	**3RU**	**HP12TR-S replacement**
JND-HPX12-AZ102	**12**	**220us/240V**	**10A**	**Triac**	**Hardwire**	**Hardwire**	**3RU**	**HP12TR-H replacement**
JND-HPX12-AZ110	**12**	**470us/240V**	**10A**	**Triac**	**Clipsal P540 or equiva-lent**	**Australian 10A**	**3RU**	**HP12SC-A replacement**
JND-HPX6-AZ200	6	330us/240V	22A	SCR	Clipsal P550 or equivalent	Australian 20A x 12	3RU	HP6-A replacement
JND-HPX6-AZ201	6	330us/240V	22A	SCR	Clipsal P550 or equivalent	19 pin Socapex or equivalent	3RU	HP6-S replacement
JND-HPX12-US200	**12**	**110us/110V**	**20A**	**SCR**	**No tail**	**Dual U-Ground Edison**	**4RU**	
JND-HPX12-US201	**12**	**110us/110V**	**20A**	**SCR**	**No tail**	**19 pin Socapex or equivalent**	**3RU**	
JND-HPX12-US202	**12**	**110us/110V**	**20A**	**SCR**	**Hardwire**	**Hardwire**	**3RU**	
JND-HPX12-JP201	**12**	**110us/110V**	**20A**	**SCR**	**No tail**	**Japanese "C" type**	**3RU**	
JND-HPX12-EU101	**12**	**220us/240V**	**10A**	**Triac**	**No tail**	**19 pin Socapex or equivalent**	**3RU**	
JND-HPX12-EU102	**12**	**220us/240V**	**10A**	**Triac**	**Hardwire**	**Hardwire**	**3RU**	
JND-HPX12-EU103	**12**	**220us/240V**	**10A**	**Triac**	**No tail**	**Schuko**	**TBA**	
JND-HPX12-EU104	**12**	**220us/240V**	**10A**	**Triac**	**No tail**	**BS15**	**TBA**	
JND-HPX12-EU105	**12**	**220us/240V**	**10A**	**Triac**	**No tail**	**16 A CEE Form**	**TBA**	

Contact Jands for further information

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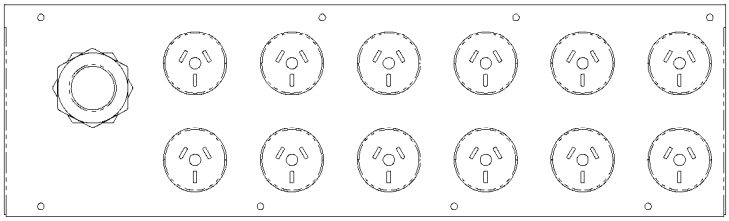
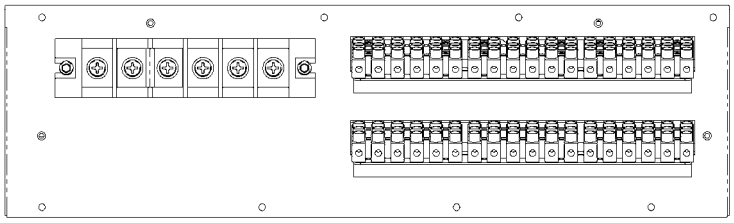
OPTION INFORMATION

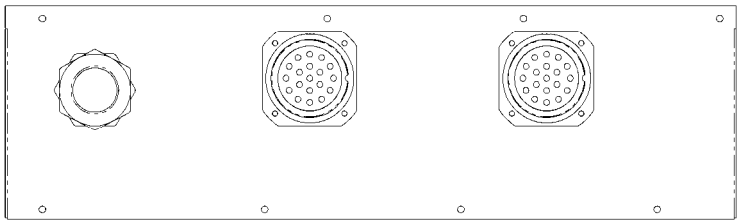
Back Panel Options



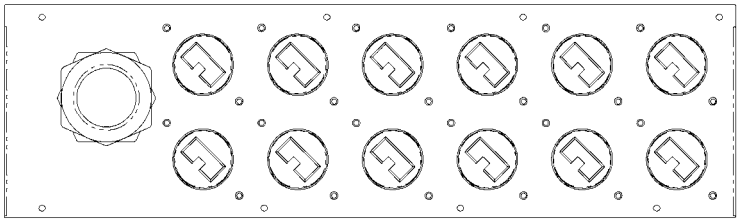
Australian output sockets



Hardwire input and output connections, shown with cover removed



19 pin Socapex Equivalent Output Sockets



Japanese “C” Type output sockets

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ARCHITECT & ENGINEERS SPECIFICATIONS

Electronics

The dimmers shall receive and decode twelve (12) control channels complying with the industry standard ANSI E1.11 DMX512-A protocol.

A digital display and miniature switches shall be used to select the DMX start channel, control the test functions, and set other operating modes. The start channel shall be able to be set to any valid DMX number from 1 to 512. The DMX circuitry shall incorporate an internal terminate facility that when activated minimises signal reflections on long data control lines.

If the DMX signal is interrupted, the dimmer outputs shall default to hold the last received DMX packet. The operator may configure the dimmer so that if control is not restored the dimmer fades to a programmable snapshot. In either case if control is not restored within 10 minutes the DMX controlled outputs shall be driven off.

The dimmer shall match a control input to power output in a linear relationship. When fitted with a Channel control option, channels may also be set to switch via DMX control. Each of the identical channels shall control loads from 25 watts to the rated maximum. Dimmers shall utilise acoustically quiet toroidal chokes.

For heatsink temperatures above 50°C the temperature controlled fans shall run at full speed. A full thermal shut-down shall occur when the heatsink temperature exceeds 100°C. In addition the output levels shall be reduced as the temperature approaches the upper limit.

The dimmer shall have a control response time of not more than fifty (50) milliseconds, input to output.

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

Electrical

The dimmers shall operate from a single, dual, or three-phase plus neutral and earth AC supply of between 100 and 240 VAC phase-to-neutral with a frequency of between 40 and 65 Hz.

All channel outputs shall be protected by suitably rated thermal/magnetic circuit breakers. The output connector shall be selected at time of order from a range of internationally preferred items.

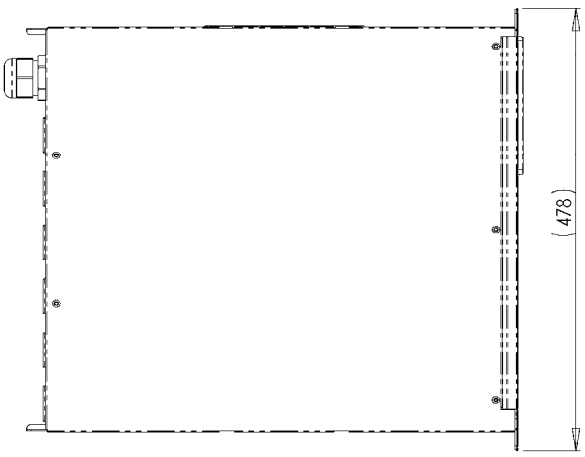
Mechanical

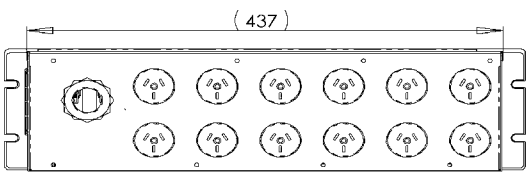
The power control products shall be designed to mount in a standard 19-inch equipment rack, and be 478mm wide x 450mm deep x 133mm (3RU) high.

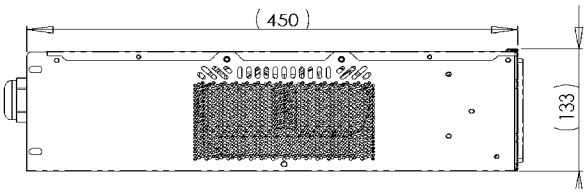
The chassis shall be constructed primarily from 1.2 mm steel, and shall be provided with a removable lid for access to internal electronics. The internal structure shall allow for easy access to the switching devices, should they require replacement in service. All metal surfaces shall be properly treated and finished in powdercoat or zinc plating. Rear support brackets shall be provided as standard.

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

The power control products shall be designed to operate in ambient temperatures not greater than 40°C. Adequate ventilation must be provided.







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TSS JND-HPX12 Dimmer-0811-11

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