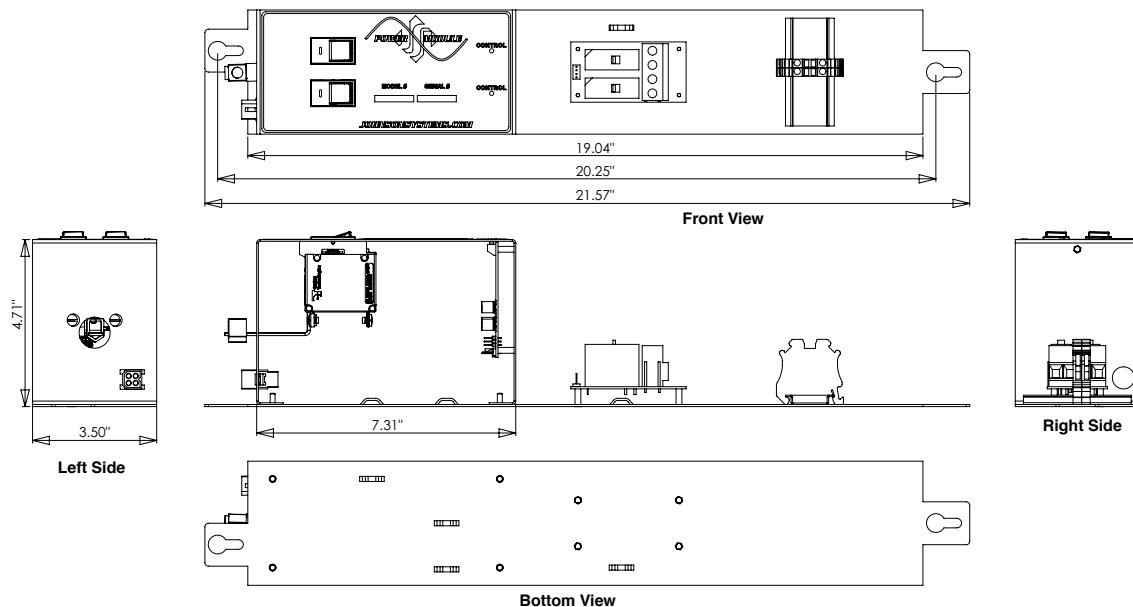


Environ Power Modules



Environ Power Modules allow existing Strand Digital Environ (DE90) and Environ 2 rack owners to convert existing dimmer circuits to switched power circuits. These modules are a fast direct conversion for users requiring non-dim control of devices/loads requiring pure sinusoidal AC power. Designed for use with Johnson Systems Inc. DE90-3000 and JS-ENVY retrofit control systems, these retrofit power modules prolong your existing electrical installation and distribution.

- DMX non-dim control of devices/loads requiring pure sinusoidal AC power.
- Blue control LED indication of relay status activation/closure.
- Designed for use with Johnson Systems DE90-3000 and JS-ENVY Control Systems.
- Dual 20 Amp constant power modules also available.
- All models feature dual 20 Amp magnetic circuit breakers with a UL 489 rating.
- Up to 10 year warranty available!
- 277VAC rated 50 Amp tungsten “air-gap” relays.
- ETL compliant.



JOHNSON SYSTEMS INC.

"PROFESSIONAL LIGHT CONTROL PRODUCTS"

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ENVIRON POWER MODULE CHARACTERISTICS

Environment

Temperature Range: 23°F (-5°C) to 104°F (40°C) ambient.
Humidity Range: 0% to 90% non-condensing.

Load Type

Dual 120V single phase 50/60 Hz circuits for AC Loads Only.
Rated for 20A General Purpose and 20A Tungsten.

Switch Type

"Air-gap" power relay
rated 1 million operations minimum at 50 Amps 240VAC.

Isolation

4,000 Volts minimum per circuit.

Physical

21.57" x 3.50" x 4.71"
(55 cm x 9 cm x 12 cm)

Weight

Power Modules = 3.0 lbs. (1.36 Kg)
Constant Modules = 2.8 lbs. (1.27 Kg)

Material

18-gauge steel CRS.

Finish

Hammer texture black powder coat + galvanized grounding base plate.

SPECIFICATIONS

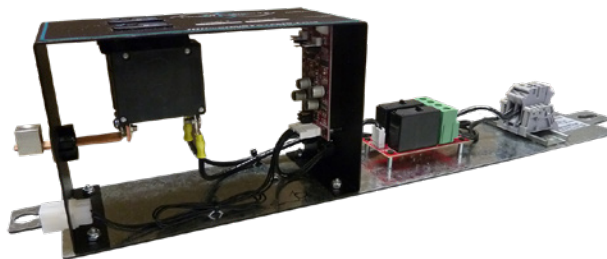
1.0 POWER MODULES – GENERAL

- 1.1 Power Modules are designed for operation with Johnson Systems DE90-3000 and JS-ENVY control systems. No warranty or product return is available if these products are used, even temporarily, with any OEM controls as they are incompatible. The inferior drive signals in certain controls may damage this equipment. Environ Power Modules controlled by Johnson Systems control systems are warranted for two (2) years from ship date and shall be eligible for optional extended warranty up to ten (10) years.
- 1.2 Power Modules shall be capable of switching two independent general purpose lighting loads including LED and tungsten up to 20 Amps. Each relay shall be protected by a premium 20 Amp magnetic circuit breaker with a UL 489 rating. Full rated operation shall be permitted without compromising product life expectancy.
- 1.3 Power Modules shall use only premium quality PCB mounted "air-gap" relays rated for operation at 277VAC with 50 Amp tungsten loads. Relay or contactors of lessor rating shall not be considered acceptable. Relay PCB shall have a minimum track thickness of three (3) ounce copper and capable of continuous operation at 200% breaker rating. Relay PCB terminal blocks shall be capable of accepting up to 6 AWG stranded copper wire and be rated at a minimum 52 Amps.
- 1.4 Power Modules shall be capable of switching on/off with DMX512 control data when used with Johnson Systems control systems. Turn-on threshold shall be fixed at 50% PWM duty cycle control with a 10% hysteresis to minimize the potential for false trigger.
- 1.5 Power Module relays shall be manually switchable permitting power "pass through" and operation as constant power modules where desired.
- 1.6 Power Module face panels shall contain two blue LED indicators (one per circuit). These independent LED's shall illuminate when their corresponding relay contact is "closed" permitting "live circuit" indication.
- 1.7 Power and Constant Modules feature flush faced, premium dual 20 Amp magnetic breakers with a UL 489 rating. Breakers shall display a highly visible blue trip indication when open and flush finish when closed. Breakers shall be of the "anti-trip" design to protect against unauthorized disconnect. Breakers containing "finger-tip" trip handles shall not be considered acceptable.

2.0 CONTROL PCB

- 2.1 The Control PCB shall accept pulse width modulation (PWM) control from the output of a Johnson Systems control system and provide relay activation/closure at a 50% PWM duty cycle with a 10% hysteresis. Each circuit shall contain a blue LED indicator for active control trigger. Each LED shall illuminate when relay close is active and extinguish when relay is open.
- 2.2 The Control PCB shall draw power parasitically via the PWM control source without affecting the PWM control signal amplitude or duty-cycle thus permitting reliable operation in racks not containing AC neutral to each individual module location. Power requirements shall be minute and in compliance with the International Energy Agency's "One Watt Initiative" standby power requirement. Please refer to U.S. Executive Order #13221. Processor standby power shall not exceed 1 Watt.
- 2.3 All printed circuit boards (PBC's) shall be FR4/G10 with a UL 94V-0 Flame Class Rating.
- 2.4 Environ Power Modules are ETL compliant and adhere to UL and CSA electrical safety standards.

Specifications subject to change without notice.



Model	Description
DE90-PM	Dual 20 Amp Non-Dim Power Module for Digital Environ and Environ 2.
DE90-CM	Dual 20 Amp Constant Power Module for Digital Environ and Environ 2.



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