

# JS-ICON™ Series

## Wall-Mount Dimmer Racks



JS-ICON™ Series wall-mount dimmer racks represent the ultimate value in hi-performance dimming! Next generation “system-on-a-chip” technology coupled with state-of-the-art inductor technology provides unsurpassed quality in professional grade SCR dimming.

Advanced next generation hardware and software designs reduce stand-by power consumption to less than 1 Watt, allowing for compliance with the International Energy Agency’s “One Watt Initiative” for standby power consumption. This makes JS-ICON™ Series the “greenest” dimmer racks available!



Available in a number of different sizes and configurations, JS-ICON™ Series dimmer racks are designed for side-by-side installation and high density requirements. Intuitive LCD user interface combined with dual DMX inputs, analog inputs and contact closure inputs allow for industry wide application.

Removable cover allows for ease of installation and serviceability. On demand “MagLev®” thermal management technology produces superior cooling that is virtually silent making JS-ICON™ the natural choice for “quiet space” dimming installations. Exclusive “lamp warming” techniques extends lamp life considerably while maintaining industry leading performance!

- ♪ Available in multiple sizes and configurations.
- ♪ Unique power saving “stand-by” mode reduces power consumption to less than 1 Watt. Compliance with the “One Watt Initiative”.
- ♪ Dims standard or low-voltage incandescent quartz lamps.
- ♪ Individual dimmer profile selection permits safe and silent non-dim control of fluorescent loads, HID lighting, motors, etc.
- ♪ Dual DMX512-A inputs with on-board protocol manager. Optional wireless DMX receiver.
- ♪ Unique “lamp warming” feature extends lamp life.
- ♪ Analog and dedicated dry contact BMS inputs for interface with HVAC, security and audio.
- ♪ “Load Shed” inputs for power management and photocell interface.
- ♪ LCD user interface for easy setup and monitoring.
- ♪ Over-heat and over-current protected.
- ♪ Non proprietary dimmer SCR’s are 200% rated.
- ♪ On-demand ‘MagLev®’ thermal management technology produces superior cooling that is virtually silent.
- ♪ Up to 10 year product warranty available!



**JOHNSON SYSTEMS INC.**

“PROFESSIONAL LIGHT CONTROL PRODUCTS”

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## JS-ICON™ SERIES CHARACTERISTICS

### Maximum Feeder Capacity

100 Amp 120/208 VAC 3Ø 5 wire. Max. Rating 28.8kW.  
100 Amp 120/240 VAC 1Ø 4 wire. Max. Rating 24.0kW.

### Power Termination

Power lug input.  
Terminal block output.

### Environment

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

### Dimmer Load Type

Incandescent quartz lamps and electronic (SCR dimmable) low voltage fixtures.

### Switch Type

200% rated, non-proprietary SCR solid state relay.

### Rise Time

2400W = 400µs.  
1560W = 300µs.  
1200W = 300µs.

### Physical

30" x 17" x 6.8" (75 cm x 43 cm x 17 cm).

### Weight

All Models approximately 66 lbs. (30 Kg).

### Material

18-gauge steel CRS.

### Finish

Textured fine black powder coat.

## JS-ICON™ SERIES SPECIFICATIONS

- JS-ICON™** Series dimmer racks shall be capable of dimming standard incandescent, quartz and SCR (silicon controlled rectifier) dimmable electronic low voltage fixtures.
- All **JS-ICON™** Series dimmer racks shall be powered by a 120/208 VAC 3Ø or 120/240 VAC 1Ø supply of up to 100 Amps per phase. Individual 10 Amp or 20 Amp magnetic load breakers shall permit full rated operation in performance environments.
- Compliance with the International Energy Agency's "One Watt Initiative" stand-by power requirement. Please refer to U.S. Executive Order #13221. Standby power on **JS-ICON™** Series dimmer racks shall not exceed 1 Watt.
- Individual dimmer outputs shall employ a unique "lamp warming" feature that extends lamp life by limiting the current in-rush to cold lamp filaments.
- All **JS-ICON™** Series dimmer racks will employ a sealed LCD/programming interface keypad. Control interface shall be impervious to dust and moisture. It shall not be necessary to use a PC or any external programming device to configure or set-up any function of the **JS-ICON™** rack.
  - Run Time Accumulator
  - DMX Data RxA and RxB number of channels received
  - DMX Data RxA and RxB Termination LED
  - Time Clock Date/Time
  - Status (DMX) Hold Time
  - Internal Heat Sink Temperature in degrees C or F
  - Keypad Lockout
  - Dry Contact Input and Alarm Status
  - DMX Address Start
  - Dimmer Test
  - Dimmer Phase Patch
  - Dimmer Curve - Square, Linear, Direct or Non-Dim
  - Voltage Regulation On/Off
  - ND Level
  - Voltage Limit – Dimmer Specific
  - Analog Input Patch
  - Analog Filter On/Off
  - Analog Input Test
  - PWM Polarity +/-
  - 24 Scene/Bump Button Setup
  - Standby Mode Set-up
  - System Defaults
  - Infrared Printout Selection
  - Line Voltage Display of each incoming phase
  - MADD-24 Temperature in degrees C° or F°
  - System Serial Number and Hardkey
  - Software Version
  - DMX Snapshot
  - LCD View Angle Adjust
- The **JS-ICON™** Series dimmer racks shall employ the "system-on-a-chip" MADD-24 advanced digital electronic dimmer control system. Such electronic circuitry shall permit real time signal monitoring and status LED indication to allow easy setup and remote troubleshooting. The MADD-24 shall permit configuration/monitoring of the following:
  - Run Time Accumulator
  - DMX Data RxA and RxB number of channels received
  - DMX Data RxA and RxB Termination LED
  - Time Clock Date/Time
  - Status (DMX) Hold Time
  - Internal Heat Sink Temperature in degrees C or F
  - Keypad Lockout
  - Dry Contact Input and Alarm Status
  - DMX Address Start
  - Dimmer Test
  - Dimmer Phase Patch
  - Dimmer Curve - Square, Linear, Direct or Non-Dim
  - Voltage Regulation On/Off
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  - System Defaults
  - Infrared Printout Selection
  - Line Voltage Display of each incoming phase
  - MADD-24 Temperature in degrees C° or F°
  - System Serial Number and Hardkey
  - Software Version
  - DMX Snapshot
  - LCD View Angle Adjust
- The MADD-24 control technology, operating at 96Mhz, will permit real time monitoring of all dimmer outputs. Over-current sensing hardware and software shall electronically disconnect SCR drive signal before SCR damage can occur.
- All **JS-ICON™** Series dimmer racks shall individually permit end-user access to system configuration and monitoring without needing external equipment of any type or intervention from the equipment manufacturer.
- JS-ICON™** Series dimmer racks will use only general application, non-proprietary components that are generic and easily available to the client for service and repair.
- JS-ICON™** Series dimmer racks shall have dual DMX input ports on internal "breakaway" terminal connectors. The DMX inputs shall comply with USITT DMX512-A (ANSI E1.11 - 2008), standard protocol for digital data control. DMX control cable to each ICON rack shall be Belden 9829 or equivalent or CAT-5E. A "Wireless" DMX option shall permit wireless control up to a distance of 400 ft. (122m).
- Each **JS-ICON™** Series dimmer rack shall have 4 (four) analog inputs that can be programmed to any dimmer channel. Each analog input shall be selectable as either "Normal" mode (0-10VDC input) for dimmed applications or "Load Shed" mode (5VDC trigger) for power management interface to building management systems (BMS). In addition, discrete programmable dry contact inputs shall be provided for BMS, HVAC, security and fire alarm.
- An optional control station shall permit record and playback of up to 24 back up scenes/presets.
- JS-ICON™ 1220** SCR's shall be dual encapsulated units with a minimum of a 200% rating. **JS-ICON™ 2410** and **2413** SCR's shall be quad encapsulated units with a minimum of a 200% rating. The system SCR's will provide symmetrical AC output to the load throughout the entire control range of off to full intensity. The system SCR's will have a minimum of 2500 volt isolation between the low and high voltage side of the component thereby ensuring data and DC isolation.
- JS-ICON™** dimmer circuit shall contain a high performance, copper wound, hybrid core toroidal magnetic filter (choke). 20 Amp chokes shall have rated rise-time of 400µs and 10 Amp and 13 Amp models shall have rated rise-time of 300µs. Both chokes will have a maximum temperature rise of 156°F (69°C) at full load.
- JS-ICON™** Series dimmer racks shall utilize "MagLev®" thermal management technology to produce superior cooling that is virtually silent. Fan noise shall not exceed 26dBA under normal operating conditions.
- JS-ICON™** Series dimmer racks shall employ thermal shutdown circuitry that is redundant from electronic operation.
- Heat loss for each dimmer shall not exceed 48 Watts or 100 BTU's per hour per connected kW of load. Dimmers shall be capable of sustained operation at full loading with an ambient temperature of 104°F (40°C).
- All printed circuit boards (PCB's) shall be FR4/G10 with U.L. 94V-0 Flame Class Rating.
- The entire assembly shall be ETL Listed and comply fully with UL508 and CSA 22.2 safety approval standards.

*Specifications subject to change without notice.*

## ORDERING INFORMATION

<b>JS-ICON™ 1220</b>	12 x 20A (2400 W) dimmers
<b>JS-ICON™ 2410</b>	24 x 10A (1200 W) dimmers
<b>JS-ICON™ 2413</b>	24 x 13A (1560 W) dimmers
<b>JS-ICON™ 1210/620</b>	12 x 10A (1200 W) + 6 x 20A (2400 W) dimmers



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