JS-ICON[™] Series Wall Mount Dimmers Specifications

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.

SPECIFICATIONS

1. **JS-ICON™** Series dimmer racks shall be capable of dimming standard incandescent, quartz and SCR (silicon controlled rectifier) dimmable electronic low voltage fixtures.

- 2. All **JS-ICON™** Series dimmer racks shall be powered by a 120/208 VAC 3Ø or 120/240 VAC 1Ø supply of up 100 Amps per phase. Individual 10 Amp or 20 Amp magnetic load breakers shall permit full rated operation in performance environments.
- 3. 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.
- 4. Individual dimmer outputs shall employ a unique "lamp warming" feature that extends lamp life by limiting the current in-rush to cold lamp filaments.
- 5. 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 devise to configure or set-up any function of the **JS-ICON™** rack.
- 6. 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

Analog Filter On/Off

DMX Data RxA and RxB Termination LED

Analog Input Test

Time Clock Date/Time

PWM Polarity +/-

Status (DMX) Hold Time 24 Scene/Bump Button Setup

Internal Heat Sink Temperature in degrees C or F Standby Mode Set-up
Keypad Lockout System Defaults

Dry Contact Input and Alarm Status Infrared Printout Selection

DMX Address StartLine Voltage Display of each incoming phaseDimmer TestMADD-24 Temperature in degrees C or FDimmer Phase PatchSystem Serial Number and Hardkey

Dimmer Curve - Square, Linear, Direct or Non-Dim

Voltage Regulation On/Off

Voltage Limit - Dimmer Specific

LCD View Angle Adjust

- 7. 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.
- 8. 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.
- 9. **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.

- 10. **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).
- 11. 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.
- 12. An optional control station shall permit record and playback of up to 24 back up scenes/presets.
- 13. **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.
- 14. **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.
- 15. **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.
- 16. **JS-ICON™** Series dimmer racks shall employ thermal shutdown circuitry that is redundant from electronic operation.
- 17. 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).
- 18. All printed circuit boards (PCB's) shall be FR4/G10 with U.L. 94V-0 Flame Class Rating.
- 19. The entire assembly shall be ETL Listed and comply fully with UL508 and CSA 22.2 safety approval standards.

Ordering Information

 JS-ICON™ 1220
 12 x 20A (2400 W) dimmers

 JS-ICON™ 2410
 24 x 10A (1200 W) dimmers

 JS-ICON™ 2413
 24 x 13A (1560 W) dimmers

JS-ICON™ 1210/620 12 x 10A (1200 W) + 6 x 20A (2400W) dimmers

Specifications subject to change without notice.

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