

Sensor3 240 V Series



Type(s)

Project

Date

Notes

GENERAL INFORMATION

Sensor3 power control systems provide high-density, professional features and exceptional reliability for lighting applications requiring top-of-the-line power control.

APPLICATIONS

- Professional and academic theatres
- Production studios
- Concert and performance halls
- Theme parks
- Themed retail and dining venues
- Hotels
- Multipurpose convention centers
- Arenas and stadiums
- Houses of worship

FEATURES

- Rugged industrial construction
- 100,000 A Short Circuit Current Rating (SCCR)
- Standard system monitoring with optional Advanced Features (AF) per-circuit reporting
- Adaptable modular design
- Up to 96 power control channels per enclosure
- 6-, 12-, 24-, and 48-module enclosures available
- Direct Ethernet control-signal input (Net3, sACN)
- Advanced configuration editing over network
- Two DMX512-A inputs

SPECIFICATIONS

GENERAL

- Enclosures available in four sizes:
 - 6 modules, 12 circuits maximum
 - 12 modules, 24 circuits maximum
 - 24 modules, 48 circuits maximum
 - 48 modules, 96 circuits maximum
- Dual-density modules (two circuits per module)
- Operating temperature: 0°–40°C (32°–104°F)
 - Electrical room HVAC systems must maintain the specified ambient temperature at the enclosure at all times.
- Relative humidity: 10–90% non-condensing

MECHANICAL

- Rugged 16-gauge steel construction
- Fine-textured, scratch-resistant epoxy paint
- Top and bottom conduit access through removable panels (HSR3-48) or knockouts (HSR3-6, HSR3-12, and HSR3-24)
- Keyed module slots prevent insertion of incompatible module types
- Front access to all wiring and terminations
- Full-height locking door
- Electrostatic air filter easily removed from door for periodic cleaning
- High-efficiency cooling system with reporting
- High-visibility LED status beacon

ELECTRICAL

- HSR3 enclosures accept the following feeds:
 - Three-phase 240/415 VAC
- Line feed frequencies from 47–63 Hz
- Line feed voltage range is 200–265 VAC
 - Max main transformer tap recommended is 240 V to allow for line fluctuation
- Short Circuit Current Rating: 100,000 A RMS symmetrical

CONTROL ELECTRONICS

- CEM3 Power Control Processor
- UL 924 Listed panic input for emergency lighting control
- Full number pad for fast access to dimmer override and setup
- Supports Dimmer Doubling
- System, enclosure, and diagnostic reporting standard
- Per-circuit reporting available with AF enclosures and modules

CONTROL POWER BACKUP OPTIONS

- RideThru Option (RTO):
 - Seamless transfer to backup power upon loss of incoming line power
 - Provides backup power for at least 6 seconds during power loss
 - Automatically recharges from power feed
- Battery Pack Option (BPO):
 - Seamless transfer to battery power upon loss of normal power
 - Provides backup power for 30 minutes during normal power loss
 - Automatically recharges from power feed during normal power conditions
 - Two hour recharge time from full discharge

REGULATORY AND COMPLIANCE

- All enclosures are cULus Listed

HSR3 POWER ENCLOSURE CHART

Model Number Key (e.g. HSR3AF-6)

CEM Control Backplane - Identifies which control module the enclosure supports. Example: HSR3 enclosures support the CEM3 module.

NOTE: All HSR and HSR+ series enclosures can be upgraded to support a CEM3 processor, which is required to support ThruPower modules.

AF - Indicates a enclosure with installed Advanced Features (AF) cards for per-circuit feedback. Requires AF power control modules for full advanced functionality.

NUMBER - Indicates the number of available module slots. See module datasheet for details on how many circuits each module provides per slot.

6-Module (12 Channel) Enclosures

MODEL	POWER INPUT	FEED LUGS*	LOAD LUGS	MOUNTING	AF	ND	DUAL CEM
HSR3-6	3P 240 / 415 V 100 A MAX	Dual 120 mm ² - 16 mm ²	25 mm ² - 2.5 mm ²	Wall	N	N	N
HSR3AF-6	3P 240 / 415 V 100 A MAX	Dual 120 mm ² - 16 mm ²	25 mm ² - 2.5 mm ²	Wall	Y	N	N

12-Module (24 Channel) Enclosures

MODEL	POWER INPUT	FEED LUGS*	LOAD LUGS	MOUNTING	AF	ND	DUAL CEM
HSR3-12	3P 240 / 415 V 200 A MAX	Dual 120 mm ² - 16 mm ²	25 mm ² - 2.5 mm ²	Wall	N	N	N
HSR3AF-12	3P 240 / 415 V 200 A MAX	Dual 120 mm ² - 16 mm ²	25 mm ² - 2.5 mm ²	Wall	Y	N	N

24-Module (48 Channel) Enclosures

MODEL	POWER INPUT	FEED LUGS*	LOAD LUGS	MOUNTING	AF	ND	DUAL CEM
HSR3-24	3P 240 / 415V 400 A MAX	Dual 175 mm ² - 25 mm ²	25 mm ² - 2.5 mm ²	Wall, Pedestal	N	N	N
HSR3AF-24	3P 240 / 415V 400 A MAX	Dual 175 mm ² - 25 mm ²	25 mm ² - 2.5 mm ²	Wall, Pedestal	Y	N	N

48-Module (96 Channel) Enclosures

MODEL	POWER INPUT	FEED LUGS*	LOAD LUGS	MOUNTING	AF	ND	DUAL CEM
HSR3-48	3P 240 / 415 V 800 A MAX**	Dual 300 mm ² - 35 mm ²	25 mm ² - 2.5 mm ²	Floor	N	N	N
HSR3AF-48	3P 240 / 415 V 800 A MAX**	Dual 300 mm ² - 35 mm ²	25 mm ² - 2.5 mm ²	Floor	Y	N	N

*Note: Feed lugs are suitable for aluminum or copper wire. Aluminum feeds are limited to 600 A max.

**Note: Power feeds above 800 A up to 2,000 A require the addition of a 30" auxiliary enclosure.

HSR3 POWER ENCLOSURE CHART

Control Module

MODEL	DESCRIPTION
CEM3	Power Controller

Sensor Auxilliary Enclosure Options

MODEL	DESCRIPTION
AUX19-12	19" Auxiliary Enclosure(s) for 12-module enclosure
AUX19-24	19" Auxiliary Enclosure(s) for 24-module enclosure
AUX19-48	19" Auxiliary Enclosure(s) for 48-module enclosure
AUX30-48	30" Auxiliary Enclosure(s) for 48-module enclosure
BK12	Bussing kit for two 12-module enclosures
BK24	Bussing kit for two 24-module enclosures
BK48	Bussing kit for two 48-module enclosures

Note: The following optional main circuit breakers are available for use in auxiliary enclosures: 100 A, 200 A, 225 A, 250 A, 300 A, 400 A, 600 A, 800 A, 1000 A, and 1200 A.

Sensor Installation Enclosure Accessories

MODEL	DESCRIPTION
SR3-RTO	Sensor3 RideThru Option kit - supplies power to CEM3 Control Module for a minimum of 6 seconds during brief power failures
SR3-BP	Sensor3 Wall-mount Battery Pack enclosure with one battery - supplies power to one CEM3 Control Processor for a minimum of 30 minutes during power outages
SR3-BP2	Sensor3 Wall-mount Battery Pack enclosure with one battery - supplies power to two CEM3 Control Processors for a minimum of 30 minutes during power outages
SR3-TAP	Phase bar fuse tap kit (for 24- or 48-module racks only)
FVIP-RED	Floor mount vibration isolation pads
WVIP-BLACK	Wall mount vibration isolation pads
SSSH6-12	Sensor Sound Suppression Hood – small
SSSH24-48	Sensor Sound Suppression Hood – large
Pedestal	Floor pedestal for 24-module enclosure
SR3-DH	Document Holder

ADDITIONAL INFORMATION

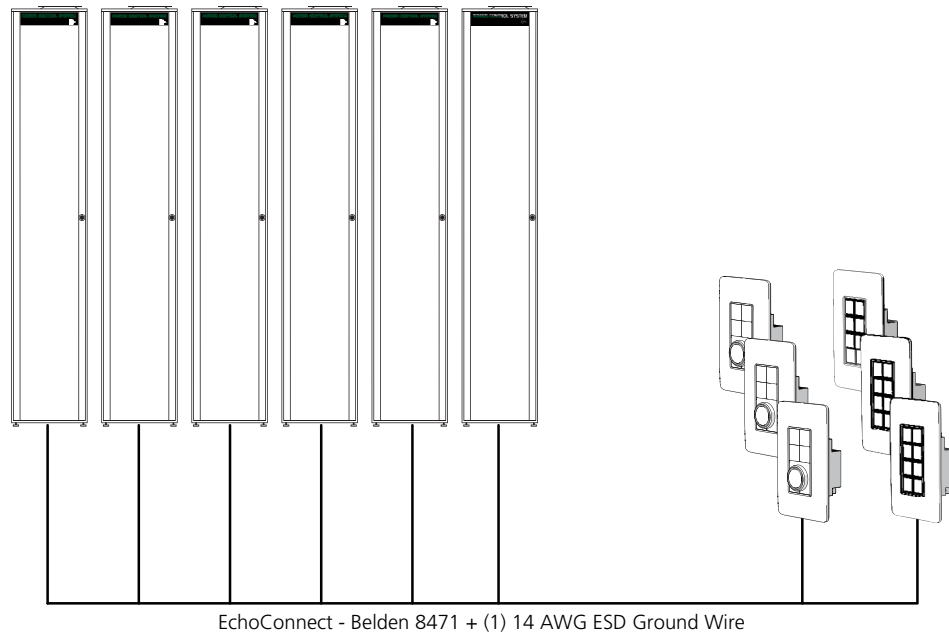
Sound Pressure Level (dBA)

MODEL	dBA*	
	WITHOUT SSSH**	WITH SSSH
HSR3(AF)-48	49.0	47.7
HSR3(AF)-24	52.0	51.5
HSR3(AF)-12	53.3	53.2

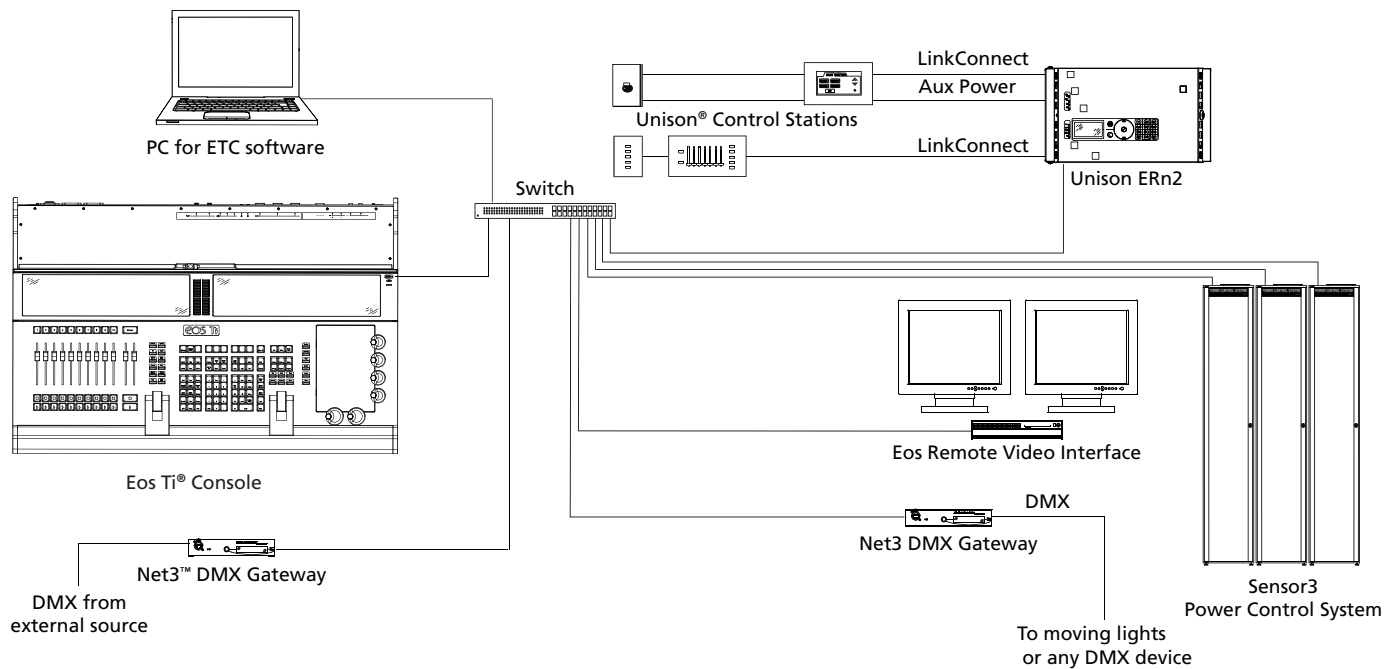
*dBA values for each Sensor enclosure measured at one meter. Visit www.etcconnect.com for full spectrum dBA ratings.

**Sensor Sound Suppression hood (SSSh)

SENSOR ENCLOSURES CONNECTED TO ECHO CONTROL STATIONS



TYPICAL SYSTEM RISER



PHYSICAL

Empty Power Enclosure Weights

MODEL	WEIGHT	SHIPPING WEIGHT
HSR3-48 w/ door*	100 kg	106 kg
HSR3-24 w/ door	57 kg	62 kg
HSR3-12 w/ door	26 kg	30 kg
HSR3-6 w/ door	16 kg	21 kg

*Enclosure doors ship separately.

Full Dimmer Enclosure Weights

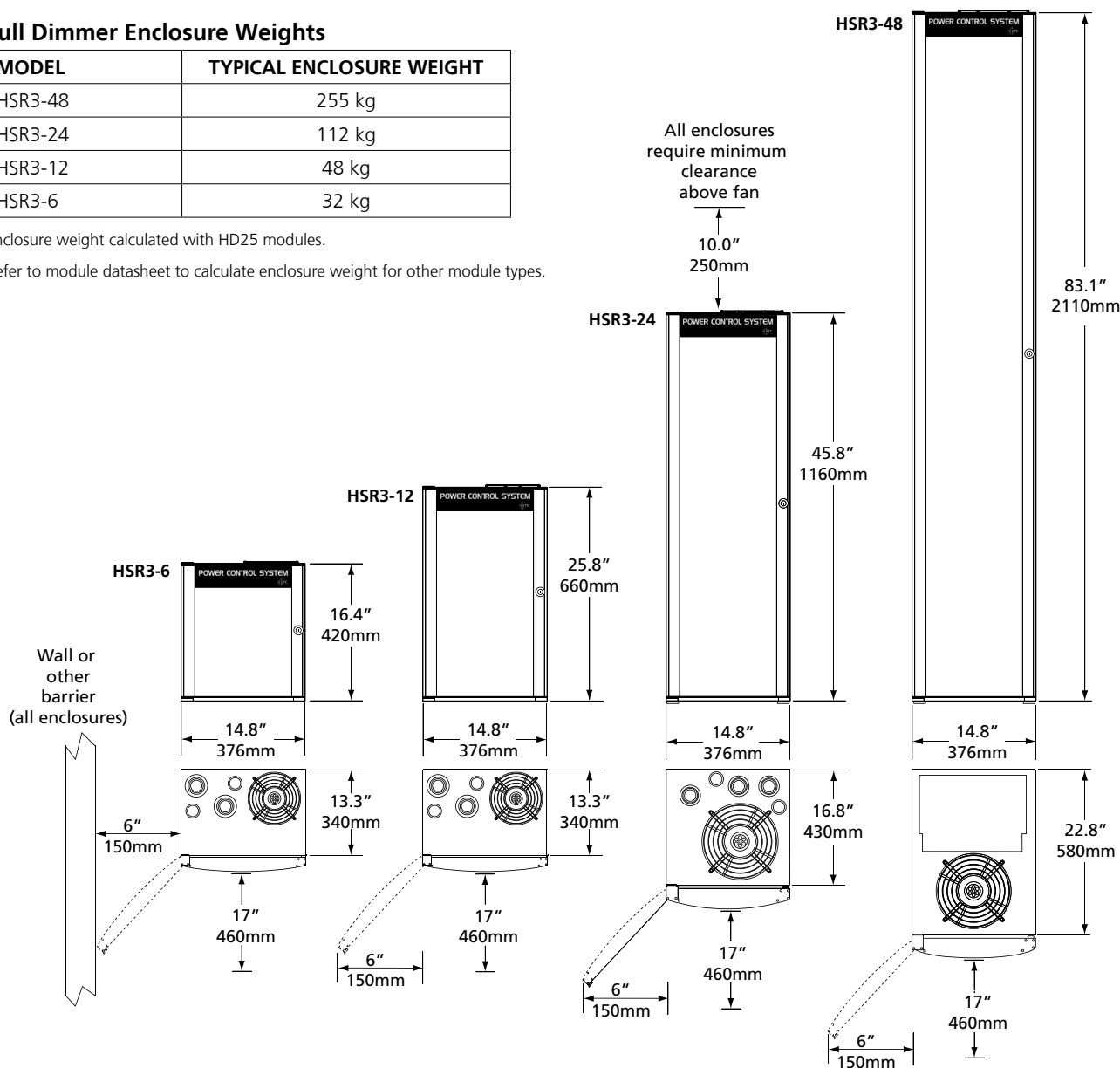
MODEL	TYPICAL ENCLOSURE WEIGHT
HSR3-48	255 kg
HSR3-24	112 kg
HSR3-12	48 kg
HSR3-6	32 kg

Enclosure weight calculated with HD25 modules.

Refer to module datasheet to calculate enclosure weight for other module types.

Power Enclosure Dimensions

MODEL	HEIGHT	WIDTH	DEPTH
HSR3-48	2110 mm	370 mm	580 mm
HSR3-24	1160 mm	370 mm	430 mm
HSR3-12	660 mm	370 mm	340 mm
HSR3-6	420 mm	370 mm	340 mm



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*Trademark and patent info: etconnect.com/JP

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