

Sensor 240 V UL Series



Type(s)

Project

Date

Notes

GENERAL INFORMATION

Sensor power control modules are designed for use in all HSR3 modular enclosures. Whether you need forward-phase or reverse-phase SCR dimming, relay control, or the flexible control of our ThruPower modules, Sensor has you covered.

Most modules provides two circuits of control for a wide range of applications. Advanced Features (AF) modules enable dimmer-specific feedback of load circuit data in SensorAF enclosures. All modules feature modular installation and removal, fully magnetic circuit breakers, and rock-solid construction.

APPLICATIONS

- Tungsten lighting
- Low voltage lighting
- Non-dim loads
- Moving lights, fog machines, and powered effects
- Electronic transformers
- Electronic LED power supplies
- 2-wire Fluorescent ballast
- 2-wire Fluorescent ballast with integrated battery backup
- 3-wire Fluorescent ballast
- 4-wire Fluorescent ballast (requires ETC Response 0-10V Gateway)
- Quartz lighting
- Neon lighting
- Cold Cathode lighting

FEATURES

- High-density modular assembly
- Die-cast aluminum chassis
- Fully magnetic circuit breakers
- Temperature sensors

ADVANCED FEATURES (AF)*

- Built-in per-circuit voltage and current sensing
- Advanced Features error messages:
 - Load dropped below recorded value
 - Load increased over recorded value
 - Circuit breaker tripped
 - Dimmer module removed
 - Dimmer load absent

*Access to AF features require an AF-equipped Sensor enclosure or pack

REGULATORY AND COMPLIANCE

- cULus Listed for use in Sensor Dimming Enclosure



SPECIFICATIONS

GENERAL

- Rated for continuous duty at 100% of rated load
- 3.6 kW, 6 kW, and 12 kW circuits

PHYSICAL

- Modular plug-in assemblies
- Cast aluminum chassis, finished with textured epoxy paint
- Keyed to prevent insertion in inappropriately rated enclosure positions

CIRCUIT BREAKERS

- Fully magnetic to eliminate nuisance tripping
- 20x inrush current rating
 - (HELV modules rated at 10x inrush)
- 125%, 10–100 seconds, must-trip rating
- Rated for 100% switching duty applications

SHORT CIRCUIT RATINGS

- 100,000 A Short Circuit Current Rating (SCCR)
- Modules withstand hot-patching of cold loads up to full rating

POWER DEVICE

- Sealed, patented assembly
- Field-replaceable with screwdriver
 - Power devices on HELV modules are not field-replaceable
- Two back-to-back SCRs per circuit (HD20 and HTR20 modules)
- Per-circuit LED indicators
- Mechanical held air gap relay
- Integral bonded heatsink
- Integral temperature sensor

FILTERING

- High quality toroidal filters (see module chart for rise times)

LOW VOLTAGE DIMMING

- Dimming of 2 and 4-wire fluorescent ballast is dependent on lamp ballast combination. 4-wire fluorescent control requires Response 0-10V gateway. Contact ETC
- Phase dimming performance for LED lamps varies considerably depending on the manufacturer and model. Visit <http://www.etcconnect.com/compatibility/> for details on a variety of specific lamps and information on how to send samples to ETC for testing.
- PhaseAdept (LED) modules provide forward- or reverse-phase dimming and are compatible with any ETC Unison DR, Unison DRd or Sensor enclosure, including legacy products
- ELV modules provide forward- or reverse-phase dimming and are compatible with Sensor+ and Sensor3 enclosures

HSR3 DIMMER MODULE CHART

Model Number Key

Module Type - Identifies the function of the module: ETR (ThruPower), HD (Dimmer), HR (Relay), HCC (Constant), ELED (PhaseAdept), HELV (Electronic Low Voltage) **NOTE: ETR and ELED modules are CE compliant, HD, HR, HCC, and HELV modules are UL Listed.**

NUMBER - Identifies the rated max current per circuit within the module; for example, a D20 module provides dimming for two 20A circuits

AF - Module provides advanced features (AF) feedback per circuit; requires Sensor rack with AF cards for full functionality

F - Three-wire fluorescent ballast dimming module

AFM - Module body without electronics for rack slots without branch circuits; ensures proper air flow and rack cooling

ThruPower Modules

MODEL	CURRENT/ WATTAGE/RISE TIME	CIRCUITS	RACK SLOTS	EFFICIENCY	MAX BTU/ HR WATTS/ CHANNEL	WT / SHIP WT	DIMENSIONS
ETR15AF	15 A / 3 kW / 500 μ s	2	1	96.5%	217 BTU / 64 W	2.3 kg / 3.1 kg	38 mm x 300 mm x 172 mm
ETR15SAF	15 A / 3 kW / 350 μ s	2	1	96.5%	217 BTU / 64 W	2.3 kg / 3.1 kg	38 mm x 300 mm x 172 mm

Dimmer Modules

MODEL	CURRENT/ WATTAGE/RISE TIME	CIRCUITS	RACK SLOTS	EFFICIENCY	MAX BTU/ HR WATTS/ CHANNEL	WT / SHIP WT	DIMENSIONS
HD15	15 A / 3 kW / 220 μ s	2	1	96.9%	380 BTU / 112 W	2.3 kg / 3.1 kg	38 mm x 300 mm x 127 mm
HD15AF	15 A / 3 kW / 320 μ s	2	1	96.1%	474 BTU / 140 W	2.3 kg / 3.1 kg	38 mm x 300 mm x 127 mm
HD25	25 A / 5 kW / 220 μ s	2	1	96.8%	522 BTU / 154 W	2.5 kg / 3.1 kg	38 mm x 300 mm x 127 mm
HD25AF	25 A / 5 kW / 320 μ s	2	1	95.0%	810 BTU / 238 W	2.5 kg / 3.1 kg	38 mm x 300 mm x 127 mm
HD50AF	50 A / 10 kW / 320 μ s	1	2	91.0%	808 BTU / 237 W	3.5 kg / 4.5 kg	76 mm x 300 mm x 127 mm

Relay Modules

MODEL	CURRENT/ WATTAGE	CIRCUITS	RACK SLOTS	EFFICIENCY	MAX BTU/ HR WATTS/ CHANNEL	WT / SHIP WT	DIMENSIONS
HR15	15 A / 3.6 kW	2	1	>99.0%	<10 BTU / <4 W	1.2 kg / 1.6 kg	38 mm x 300 mm x 127 mm
HR15AF	15 A / 3.6 kW	2	1	>99.0%	<10 BTU / <4 W	1.2 kg / 1.6 kg	38 mm x 300 mm x 127 mm

Constant Modules

MODEL	CURRENT/ WATTAGE	CIRCUITS	RACK SLOTS	EFFICIENCY	MAX BTU/ HR WATTS/ CHANNEL	WT / SHIP WT	DIMENSIONS
HCC15	15 A / 3.6 kW	2	1	>99.0%	<10 BTU / <4W	1.2 kg / 1.6 kg	38 mm x 300 mm x 127 mm

Low Voltage Line Dimming Modules

MODEL	CURRENT/ WATTAGE	CIRCUITS	RACK SLOTS	EFFICIENCY	MAX BTU/ HR WATTS/ CHANNEL	WT / SHIP WT	DIMENSIONS
ELED6	6 A / 1.4 kW	2	1	98.59%	61 BTU / 18 W	1.1 kg / 1.5 kg	38 mm x 300 mm x 172 mm
HELV5	5 A / 1.2 kW	2	1	96.50%	119 BTU / 35 W	1.1 kg / 1.5 kg	38 mm x 300 mm x 127 mm

Note: ELED6 and HELV5 modules do not support use with magnetic transformers.

Fluorescent Dimming Modules

MODEL	CURRENT/ WATTAGE	CIRCUITS	RACK SLOTS	EFFICIENCY	MAX BTU/ HR WATTS/ CHANNEL	WT / SHIP WT	DIMENSIONS
HD15F	15 A / 1.8 kW	1	1	>99.0%	<10 BTU / < 4 W	1.1 kg / 1.5 kg	38 mm x 300 mm x 127 mm
HD25F	20 A / 2.4 kW	1	1	>99.0%	<10 BTU / < 4 W	1.1 kg / 1.5 kg	38 mm x 300 mm x 127 mm

Air Flow Modules

MODEL	CURRENT/ WATTAGE	CIRCUITS	RACK SLOTS	EFFICIENCY	MAX BTU/ HR WATTS/ CHANNEL	WT / SHIP WT	DIMENSIONS
AFM	-	0	1	-	-	0.7 kg / 1.1 kg	38 mm x 300 mm x 127 mm



Corporate Headquarters • Middleton, WI USA

Global Offices • London, UK • Rome, IT • Holzkirchen, DE • Paris, FR • Hong Kong • Dubai, UAE •

Singapore • New York, NY • Orlando, FL • Los Angeles, CA

Copyright©2020 ETC. All Rights Reserved. All product information and specifications subject to change. Rev A 2020-12

Trademark and patent info: etcconnect.com/IP

etcconnect.com