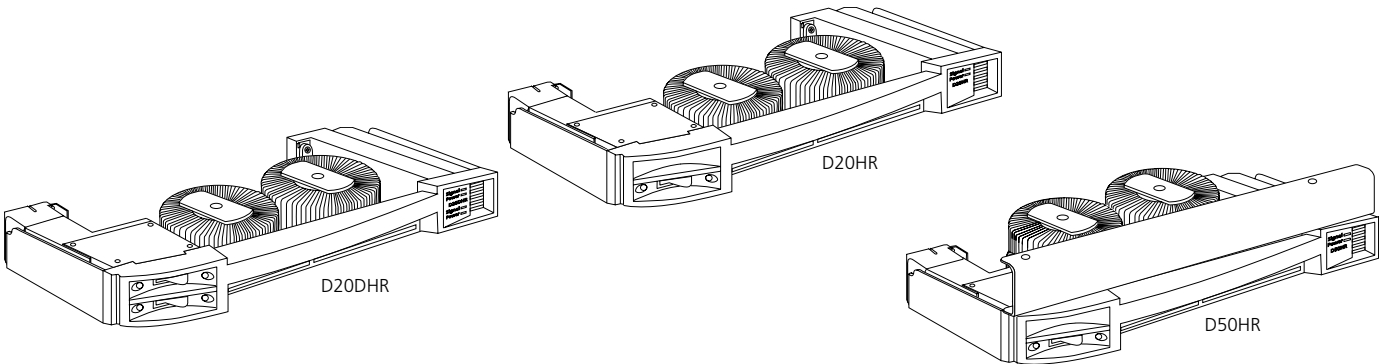




100V 120V

Advanced Features (AF) Series



GENERAL INFORMATION

The High Risetime Dimmer Module is designed for use in Sensor®+ Dimming Series modular rack enclosures. Sensor High Risetime modules provide the highest risetime to reduce fixture hum and also support Advanced Features dimmer circuit feedback in AF-capable Sensor+ Racks and Portable Packs. The high-density, dimmer modules feature modular installation and removal, fully magnetic circuit breakers and high risetime toroidal filters. D20DHR modules dim accoustically sensitive loads without sacrificing dimmer density or efficiency.

APPLICATIONS

- Incandescent lighting
- Low voltage lighting
- Quartz lighting
- Neon lighting
- Cold Cathode lighting
- 2-wire Fluorescent ballast
- 4-wire Fluorescent ballast

FEATURES

- Voltage, current, and temperature sensors in each dimmer
- D20HR modules are single density
- D20DHR modules are dual density
- D50HR modules are half density
- Dual back-to-back SCRs for each circuit
- 800µS or 1000µS risetime toroidal filters
- High-density modular assembly
- Die-cast aluminum chassis
- Fully magnetic circuit breakers

GENERAL

- 100,000A Short Circuit Current Rating (SCCR)
- UL and cUL LISTED

ORDERING INFORMATION

100-120 Volt Advanced Features Dimmer Modules

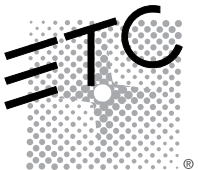
MODEL	DESCRIPTION
D20HR	Single 20A Dimmer Module, 1000µS, Advanced Features
D20DHR	Dual 20A Dimmer Module, 800µS, Advanced Features
D50HR*	Half 50A Dimmer Module, 800µS, Advanced Features

*D50HR is a half-density, double-height module that takes two slots in the dimmer rack

Compatible Systems

MODEL	DESCRIPTION
INSTALLATION RACKS	
SR3	Sensor3 Installation racks
SR+	Sensor+ Installation racks
SR	Sensor Installation racks
TOURING RACKS**	
SP3	Sensor+ 24 module Touring Rack (48-20A dimmers)
SP+	Sensor+ 48 module Touring Rack (96-20A dimmers)
PORTABLE PACKS**	
SP3	Sensor3 Portable Packs
SP+	Sensor+ Portable Packs

**Touring Racks and Portable Packs can be configured with High Risetime modules.
Contact ETC for custom configurations.



Advanced Features (AF) Series

SPECIFICATIONS

GENERAL

- UL and cUL Listed for continuous duty at 100% of rated load
- D20HR – 2.4kW
- D20DHR – 2.4kW
- D50HR – 6.0kW

PHYSICAL

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

CIRCUIT BREAKERS

- Fully magnetic to eliminate nuisance tripping
- 20x inrush current rating
- 125%, 10-120 seconds, must-trip rating
- Rated for 100% switching duty applications

RATINGS

- 100,000A 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
- Two back-to-back SCRs per circuit
- One control LED and one output LED per circuit
- Integral bonded heatsink
- Integral temperature sensor
- Built-in voltage and current sensors

FILTERING

- High quality 800µS or 1000µS risetime toroidal filters*

*Risetime measured at full load, at worst case firing angle (90 degrees), from 10-90% of output wave form

DIMMER RANGE

- Incandescent, low voltage dimming range 100-0%
- Dimming range of 2 and 4-wire fluorescent ballast is dependent on lamp ballast combination. Contact ETC for range verification
- Sizing of Neon transformer used in dimming applications should be 1.5x greater than size used in non-dimming application

ADVANCED FEATURES**

- Advanced Features error messages:
 - Load dropped below recorded value
 - Load increased over recorded value
 - DC on dimmer output
 - SCR failed on/off
 - Circuit breaker tripped
 - Dimmer module removed
 - Dimmer load absent

**All HR modules support ETC's Advanced Features (AF) dimmer specific load reporting features when used in AF-equipped racks or packs

PHYSICAL

Module Dimensions

MODEL	HEIGHT		WIDTH		DEPTH	
	inches	mm	inches	mm	inches	mm
D20HR	1.50	38.	11.8	300	5	127
D20DHR	1.50	38	11.8	300	5	127
D50HR	3.00	76	11.8	300	5	127

Module Weights

MODEL	WEIGHT		SHIPPING WEIGHT	
	lbs	kgs	lbs	kgs
D20HR	5.7	2.6	7.6	3.4
D20DHR	5.5	2.5	6.9	3.1
D50HR	7.7	3.5	9.6	4.5

Maximum BTU Production per module

MODEL	BTUS	WATTS	EFFICIENCY
D20HR	883	259	89.2%
D20DHR	688	200	95.8%
D50HR	1853	543	91.0%

These values should be provided to a qualified HVAC design engineer, along with dimmer quantities, types and dimmer room dimensions, to calculate dimmer room air handling requirements.

Dimmer room HVAC systems must at all times maintain the specified ambient temperature **at the dimmer rack**. Dimming systems operating within 10°F of the upper or lower temperature limits must strictly follow installation and operation guidelines to operate reliably.

SCR Rating

MODULE	D20HR	D20DHR	D50HR
Single cycle peak surge current	625A	1200A	1200A
Half cycle peak surge current	1620A	4150A	4150A
Transient over voltage	600V	600V	600V



Corporate Headquarters • 3031 Pleasant View Rd, PO Box 620979, Middleton WI 53562 0979 USA • Tel +1 608 831 4116 • Fax +1 608 836 1736

London, UK • Unit 26-28, Victoria Industrial Estate, Victoria Road, London W3 6UU, UK • Tel +44 (0)20 8896 1000 • Fax +44 (0)20 8896 2000

Rome, IT • Via Pieve Torina, 48, 00156 Rome, Italy • Tel +39 (06) 32 111 683 • Fax +44 (0) 20 8752 8486

Holzkirchen, DE • Ohmstrasse 3, 83607 Holzkirchen, Germany • Tel +49 (80 24) 47 00-0 • Fax +49 (80 24) 47 00-3 00

Hong Kong • Room 1801, 18/F, Tower 1 Phase 1, Enterprise Square, 9 Sheung Yuet Road, Kowloon Bay, Kowloon, Hong Kong • Tel +852 2799 1220 • Fax +852 2799 9325

Web • www.etcconnect.com • Copyright©2012 ETC. All Rights Reserved. All product information and specifications subject to change. 7050L1023 Rev. F USA 08/12

Sensor® products protected by one or more of the following U.S. Patent Numbers 5,323,088, 5,352,088, 7,233,112, 7,019,469, 6,849,943, and 6,002,563; European Number 0603333; German 69203609.