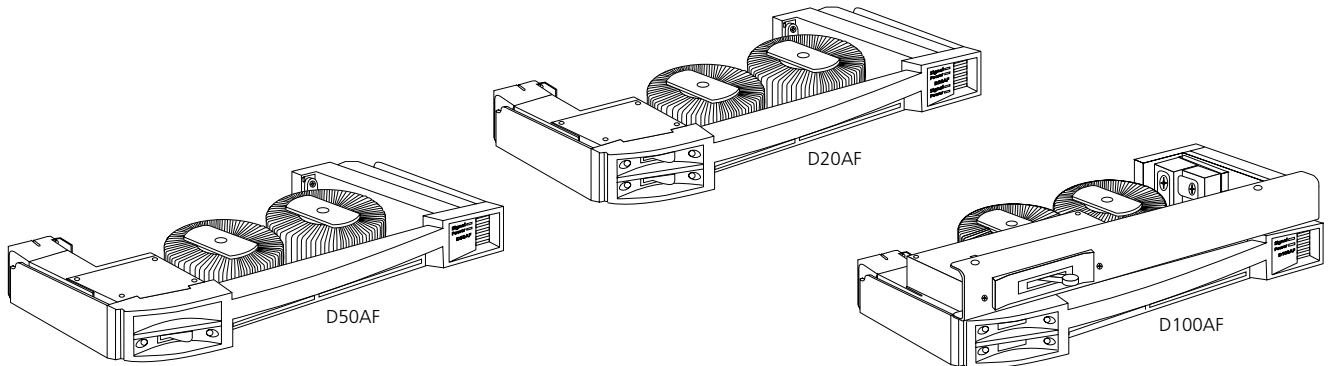




100V 120V

## Advanced Features (AF) Series



### GENERAL INFORMATION

The Advanced Features (AF) Dimmer Module is designed for use in Sensor®+ Dimming Series modular rack enclosures. Advanced Features Dimmer Modules enable dimmer-specific feedback of load circuit data while performing digital phase angle dimming in AF-capable Sensor+ dimmer enclosures. The high-density, dimmer modules feature modular installation and removal, fully magnetic circuit breakers and enhanced risetime toroidal filters.

#### 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
- D15AF and D20AF modules are dual density
- D50AF modules are single density
- D100AF modules are half density
- Dual back-to-back SCRs for each circuit
- 500µS 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

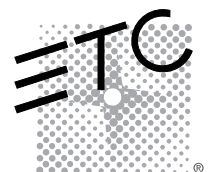
MODEL	DESCRIPTION
D15AF	Dual 15A Dimmer Module, 500µS, Advanced Features
D20AF	Dual 20A Dimmer Module, 500µS, Advanced Features
D50AF	Single 50A Dimmer Module, 500µS, Advanced Features
D100AF*	Half 100A Dimmer Module, 500µS, Advanced Features

\*D100AF is a half-density, double-height module that takes two slots in the dimmer rack

#### Compatible Systems

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

\*\*Touring Racks and Portable Packs can be configured with D50AF and D100AF modules. Contact ETC for custom configurations.



## Advanced Features (AF) Series

## SPECIFICATIONS

## GENERAL

- UL and cUL Listed for continuous duty at 100% of rated load
- D15AF – 1.8kW
- D20AF – 2.4kW
- D50AF – 6.0kW
- D100AF – 12.0kW

## 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 500µS 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 AF 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
D15AF/D20AF	1.50	38.	11.8	300	5	127
D50AF	1.50	38	11.8	300	5	127
D100AF	3.00	76	11.8	300	5	127

## Module Weights

MODEL	WEIGHT		SHIPPING WEIGHT	
	lbs	kgs	lbs	kgs
D15AF/D20AF	5	2.3	6.9	3.1
D50AF	5.5	2.5	6.9	3.1
D100AF	7.6	3.5	10.0	4.5

## Maximum BTU Production per module

MODEL	BTUS	WATTS	EFFICIENCY
D15AF	474	140	96.1%
D20AF	810	238	95.0%
D50AF	808	237	96.1%
D100AF	1521	446	96.3%

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	D15/20AF	D50AF	D100AF
Single cycle peak surge current	625A	1200A	2300A
Half cycle peak surge current	1620A	4150A	22,000A
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. 7050L1027 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.