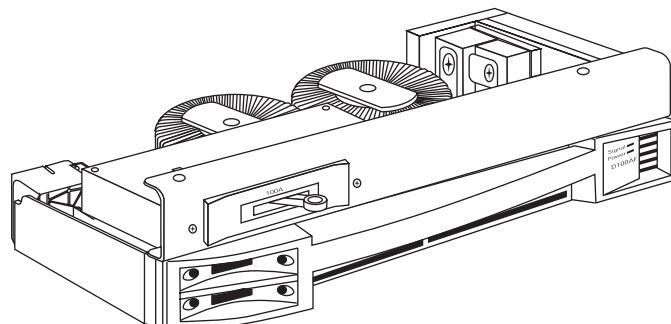
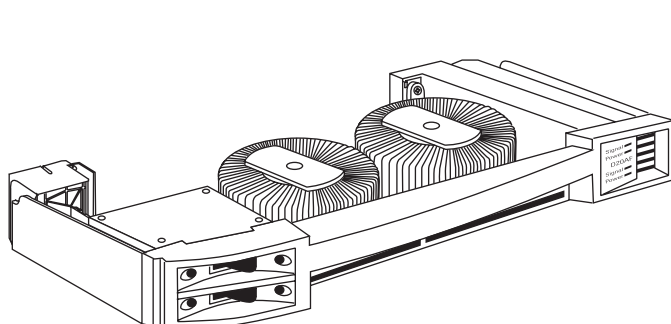


# ELECTRONIC THEATRE CONTROLS 15-100 Amp AF Dimmer Modules

## Advanced Features (AF) Series



### GENERAL INFORMATION

Sensor® Advanced Features (AF) modules enable dimmer-specific feedback of load circuit data while performing digital phase angle dimming in AF-capable Sensor Racks and Portable Packs.

**APPLICATIONS** Professional and educational theatres  
Television production studios  
High density architectural and retail dimming

**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  
100k AIC rating  
500µS risetime toroidal filters  
Die-cast aluminum chassis  
Tool-free installation and removal  
Dual back-to-back SCRs for each circuit  
Fully magnetic circuit breakers  
100% duty cycle at full rating  
Breakers will not derate over product life cycle  
UL and cUL listed

### ORDERING INFORMATION

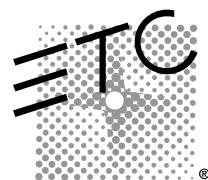
#### Sensor AF Dimmer Modules

Model#	Description
D15AF	Dual 15A Dimmer Module - 500uS - Advanced Features
D20AF	Dual 20A Dimmer Module - 500uS - Advanced Features
D50AF	Single 50A Dimmer Module - 500uS - Advanced Features
D100AF*	Half 100A Dimmer Module - 500uS - Advanced Features

\*D100AF is a half-density, double-height module

#### Compatible Systems

Model#	Description
<b>Sensor Dimming Racks</b>	
SR6AF	6 slot Advanced Features Installation Rack
SR12AF	12 slot Advanced Features Installation Rack
SR24AF	24 slot Advanced Features Installation Rack
SR48AF	48 slot Advanced Features Installation Rack
<b>Sensor Portable Packs</b>	
SP6AF	6 slot Advanced Features Portable Pack with CEM module
SP12AF	12 slot Advanced Features Portable Pack with CEM module
<b>Sensor Touring Racks</b>	
SP24AF	24 slot Advanced Features Touring Rack
SP36AF	36 slot Advanced Features Touring Rack
SP48AF	48 slot Advanced Features Touring Rack



# 15-100 Amp AF Dimmer Modules

## Advanced Features (AF) Series

### SPECIFICATIONS

- DIMMER MODULES** Dimmers are UL and cUL listed for continuous duty at 100% of rated load  
 D15AF – 1.8kW  
 D20AF – 2.4kW  
 D50AF – 6.0kW  
 D100AF– 12.0kW
- Dimmer modules are plug-in, and may be replaced without tools  
 Cast aluminum chassis, finished with textured epoxy paint  
 Includes circuit breaker(s), toroidal filter(s), SCR modules, power and control connectors  
 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 at full load
- SCR ASSEMBLY** Sealed, patented assembly  
 Field replaceable with screwdriver  
 Two back-to-back SCRs per circuit  
 One Control and Output LED per circuit  
 4000V isolation between control and power components  
 Integral bonded heatsink  
 Integral temperature sensor  
 Built-in voltage and current sensors
- CHOKES** High quality 500µS, risetime\* toroidal filters
- ELECTRICAL RATINGS** 100k AIC rating  
 Hot-patching: dimmers shall withstand hot-patching of cold incandescent loads up to the dimmer's full rating, without tripping
- 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

\*Risetime measured at full load, at worst case firing angle (about 50%), from 10-90% of output wave form

### PHYSICAL

#### Module Weights

Model#	Weight		Shipping Weight	
	lbs	kg	lbs	kg
D15AF/D20AF	5.0	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

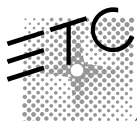
Model#	BTUs	Watts	Efficiency
D15AF	474	140	96.1%
D20AF	810	238	95.0%
D50AF	808	237	96.1%
D100AF	1521	446	96.3%

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	15/20AF	50AF	100AF
Single cycle peak surge current	625A	1200A	2300A
Half cycle peak surge current	1620A	4150A	22,000A
Transient over voltage	600V	600V	600V



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