

### GENERAL INFORMATION

**Sensor® High Rise Time modules provide the highest rise time to reduce fixture hum and also support Advanced Features dimmer circuit feedback in AF-capable Sensor Racks and Portable Packs.**

**APPLICATIONS** Digital dimming applications requiring the highest available rise-time  
 TV studios  
 Sound stages  
 Video production

**FEATURES** 800µS toroidal filters  
 Die-cast aluminum chassis  
 Voltage, current and temperature sensors in each dimmer  
 10k AIC tolerance  
 One 2.4 or 6.0kW dimmer per module  
 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

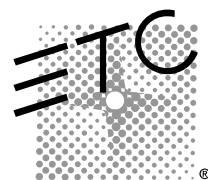
### ORDERING INFORMATION

#### High Rise Dimmer Module

| Model# | Description   |
|--------|---|
| D20HR  | Single 20A dimmer module with 800µS chokes and Advanced Features        |
| D50HR  | Double height 50A dimmer module with 800µS chokes and Advanced Features |

#### Compatible Systems

| Model#                       | Description   |
|------------------------------|---|
| <b>Sensor Dimming Racks</b>  |   |
| SR6                          | 6 slot Installation Rack                                |
| SR12                         | 12 slot Installation Rack                               |
| SR24                         | 24 slot Installation Rack                               |
| SR48                         | 48 slot Installation Rack                               |
| 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> |   |
| SP6                          | 6 slot Portable Pack with MPE module                    |
| SP12                         | 12 slot Portable Pack with MPE module                   |
| 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>  |   |
| SP24                         | 24 slot Advanced Features Touring Rack                  |
| SP36                         | 36 slot Advanced Features Touring Rack                  |
| SP48                         | 48 slot Advanced Features Touring Rack                  |



# High Rise Time Dimmer Modules

## Advanced Features (AF) Series

### SPECIFICATIONS

**DIMMER MODULES** Dimmers are UL and cUL listed for continuous duty at 100% of rated load

D20HR – 2.4kW  
D50HR – 6.0kW

**PHYSICAL** 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  
20 x inrush current rating  
125%, 10-120 seconds, must- trip rating  
Rated for 100% switching duty applications

**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

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

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

**CHOKES** High quality 800µS, risetime\* toroidal filters

**ELECTRICAL RATINGS** 10k AIC rating  
Hot-patching: dimmers shall withstand hot-patching of cold incandescent loads up to the dimmer's full rating, without tripping  
Rated for continuous operation at full load

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

### PHYSICAL

#### Dimmer Module Weights

| Model | Weight |     | Shipping Weight |     |
|-------|--------|-----|-----------------|-----|
|       | lbs    | kgs | lbs             | kgs |
| D20HR | 5.7    | 2.6 | 7.6             | 3.4 |
| D50HR | 7.7    | 3.5 | 9.6             | 4.4 |

#### Maximum BTU Production per module

| Model | BTUs | Watts | Efficiency |
|-------|------|-------|------------|
| D20HR | 883  | 259   | 89.2%      |
| 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 at full load

| Module                          | 20AF  | 50AF  |
|---------------------------------|-------|-------|
| Single cycle peak surge current | 625A  | 1200A |
| Half cycle peak surge current   | 1620A | 4150A |
| Transient over voltage          | 600V  | 600V  |



### Electronic Theatre Controls

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