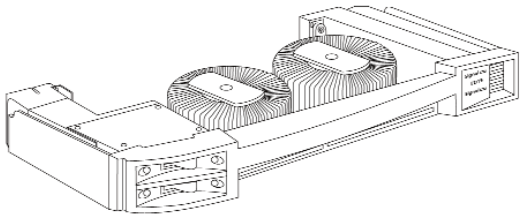
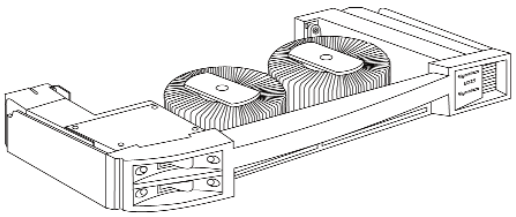
Standard Dimmer Modules

Sensor+ CE Standard Series





GENERAL INFORMATION

Standard Dimmer Modules are designed for use in Sensor®+ ESR Standard Series modular rack enclosures. They provide cost-effective digital forward phase angle dimming for standard loads such as incandescent, low voltage, quartz, neon, cold cathode and 2 wire fluorescent ballasts. The patented, high-density, dual module design features easy installation and removal, fully magnetic circuit breakers and standard risetime toroidal filters.

APPLICATIONS

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

FEATURES

- Two 1.3kW, 2.3kW, 3kW or 5kW dimmers per module
- Standard/Extended risetime toroidal filters
- High density modular assembly
- Die cast aluminium chassis
- Fully magnetic circuit breakers
- Breaker selection:
  - Single Pole (SP)
  - Neutral Disconnect (ND)
  - RCD 30mA (ND/RCD)

AVAILABLE FROM

ORDERING INFORMATION

Sensor+ CE 230V Standard Dimmer Modules

PART#	DESCRIPTION
7070A1073	2 x 1.3kW SP 400µS Module ED6*
7070A1081	2 x 1.3kW ND 400µS Module ED6N
7070A1074	2 x 2.3kW SP 400µS Module ED10*
7070A1082	2 x 2.3kW ND 400µS Module ED10N
7070A1002	2 x 3kW SP 225µS Module ED15*
7070A1028	2 x 3kW ND 225µS Module ED15N
7083A1045	2 x 3kW ND/RCD 225µS Module 30mA ED15RS
7070A1007	2 x 5kW SP 225µS Module ED25*
7070A1031	2 x 5kW ND 225µS Module ED25N

Accessories

7071A3085	*Single Neutral Jumper (one needed per SP module)

SP = Single pole breaker. ND = Two pole breaker with neutral disconnect

Sensor CE Advanced Modules can be used in Sensor+ CE Standard Racks too with just standard feature set available. See Sensor+ CE Advanced Dimmer Modules Datasheet.

Compatible Rack Enclosures

PART#	DESCRIPTION
7171A1029	Sensor+ CE ESR48 Standard Rack, 48 Modules, Neutral Disconnect (ND)
7171A1033	Sensor+ CE ESR36 Standard Rack, 36 Modules, Neutral Disconnect (ND)
7171A1037	Sensor+ CE ESR24 Standard Rack, 24 Modules, Neutral Disconnect
7171A1041	Sensor+ CE ESR12 Standard Rack, 12 Modules, Neutral Disconnect

Standard Dimmer Modules

Sensor+ CE Standard Series

SPECIFICATIONS

GENERAL

- Designed for 100% duty cycle operation
  - ED6 – 1.3kW
  - ED10 – 2.3kW
  - ED15 – 3kW
  - ED25 – 5kW

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
- C curve conforming to EN60898
- 14x inrush current rating
- 125%, 10 -120 seconds, must-trip rating
- Rated for 100% switching duty applications

RATINGS

- Modules withstand hot-patching of cold loads up to full rating
- Interrupt current (Icu) from 20,000A to 22,300A depending on module type
- CE compliant

POWER DEVICE

- Sealed, patented assembly
- Field replaceable with screwdriver
- Two back-to-back SCRs per circuit
- One control LED per circuit
- Integral bonded heatsink
- Integral temperature sensor

FILTERING

- High quality toroidal filters
  - 225µS/400µS risetime* modules

*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 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

REPORTING FEATURES (SENSING) IN NON-AF RACKS

- Module overtemperature
- Rack temperature status
- Rack Mains Voltage status

PHYSICAL

Module Dimensions

MODEL	HEIGHT	WIDTH	DEPTH
	mm	mm	mm
All modules	38	300	127

Module Weights

MODEL	WEIGHT	SHIPPING WEIGHT
	kgs	kgs
All modules	2.3	3.1

Maximum Thermal Dissipation per Channel

MODEL	WATTS PER CHANNEL	EFFICIENCY	BTU/HOUR
ED6	29	97.9%	99
ED10	64	97.2%	219
ED15	117	96.1%	400
ED25	250	95.0%	854
ED50	390	96.1%	1332

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°C of the upper or lower temperature limits must strictly follow installation and operation guidelines to operate reliably. Dimmer room must at all time have an ambient temperature between 0°C and 40°C.

SCR Rating

ALL MODULES	
Single cycle peak surge current	625A
Half cycle peak surge current	1620A
Transient over voltage	600V