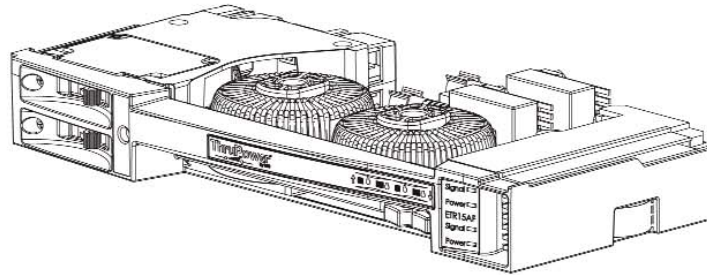


Dimmer/Relay/Bypass Advanced Module

CE 230V

Sensor3 CE ThruPower Series



GENERAL INFORMATION

High reliability dimming now combines with remote activated mechanical relays and ThruPower bypass to create the foundation of a completely flexible power system design for your future lighting needs. Sensor3 three-in-one ThruPower modules allows free mixing of dimming, switching, or manual bypass on a circuit by circuit basis without replacing the hardware in your Sensor power system. A local override completely bypasses the control system to guarantee that the unsuspecting board operator does not dim your intelligent lighting source. In bypass mode, the integral relay will eliminate the choke and SSR power cube thereby providing clean power to critical power supplies and lighting devices.

The ThruPower AF module supports circuit-specific setup and load feedback that can be accessed remotely from any ACN control system.

APPLICATIONS

- Where load type is not likely to be known at time of installation
- Where production environment load types are likely to change frequently
- Where your moving lights, LED, scroller, or power supplies warranty depends on constant power
- Low voltage lighting
- HMI lighting
- Neon lighting
- Cold cathode lighting
- 2-wire fluorescent ballast
- Tungsten

FEATURES

- Mechanically latching relays
- On/off relay activation through the control system.
- Manual ThruPower override provides foolproof full AC voltage through from the breaker to the fixture
- Voltage, current, and temperature sensors in all operation modes
- Hydraulic-magnetic circuit breakers with fuse backup
- ThruPower relay modules are dual density
- Dual back-to-back SCRs for each circuit
- 200 μ S - 225 μ S and 400 μ S risetime toroidal filters
- Die-cast aluminium chassis

ORDERING INFORMATION

Dimmer/Relay/Bypass CE ThruPower AF Modules

PART NO.	DESCRIPTION
7070A1201	ETR6AF* 2 x 1.3kW SP, 400 μ S , Dimmer/Relay, AF
7070A1202	ETR6AFN 2 x 1.3kW ND, 400 μ S , Dimmer/Relay, AF
7070A1203	ETR6AFR 2 x 1.3kW ND/RCD, 400 μ S , Dimmer/Relay, AF
7070A1204**	ETR6SAF* 2 x 1.3kW SP, 225 μ S, Dimmer/Relay, AF
7070A1211	ETR10AF* 2 x 2.3kW SP, 400 μ S, Dimmer/Relay, AF
7070A1212	ETR10AFN 2 x 2.3kW ND, 400 μ S, Dimmer/Relay, AF
7070A1213	ETR10AFR 2x 2.3kW ND/RCD, 400 μ S , Dimmer/Relay, AF
7070A1214**	ETR10SAF 2x 2.3kW SP, 225 μ S, Dimmer/Relay, AF
7070A1221	ETR15AF* 2 x 3kW SP, 400 μ S , Dimmer/Relay, AF
7070A1222	ETR15AFN 2 x 3kW ND, 400 μ S , Dimmer/Relay, AF
7070A1223	ETR15AFR 2 x 3kW ND/RCD, 400 μ S , Dimmer/Relay, AF
7070A1224**	ETR15SAF* 2 x 3kW SP, 225 μ S, Dimmer/Relay, AF
7070A1231	ETR25AF* 2 x 5kW SP, 400 μ S , Dimmer/Relay, AF
7070A1232	ETR25AFN 2 x 5kW ND, 400 μ S , Dimmer/Relay, AF
7070A1233	ETR25AFR 2 x 5kW ND/RCD, 400 μ S, Dimmer/Relay, AF
7070A1234**	ETR25SAF* 2 x 5kW SP, 200 μ S , Dimmer/Relay, AF
ACCESSORIES	
7071A3085	*Single Neutral Jumper (One needed per SP module)

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

** Standard risetime also available upon request for ND and RCD modules

Compatible Rack Enclosures*

PART NO.	DESCRIPTION
7144A1030-4	Sensor3 CE ESR3-48 Advanced (AF) Rack, 48 Modules, Neutral Disconnect (ND)
7144A1034-4	Sensor3 CE ESR3-36 Advanced (AF) Rack, 36 Modules, Neutral Disconnect (ND)
7144A1038-4	Sensor3 CE ESR3-24 Advanced (AF) Rack, 24 Modules, Neutral Disconnect (ND)
7144A1042-4	Sensor3 CE ESR3-12 Advanced (AF) Rack, 12 Modules, Neutral Disconnect (ND)

Dimmer/Relay/Bypass Advanced Module

Sensor3 CE ThruPower Series

SPECIFICATIONS

GENERAL

- Designed for 100% duty cycle operation
- ETR6AF – 1.3kW
- ETR10AF – 2.3kW
- ETR15AF – 3kW
- ETR25AF – 5kW

PHYSICAL

- Modular plug-in assemblies
- Cast aluminium chassis, finished with textured epoxy paint

CIRCUIT BREAKERS

- Hydraulic-magnetic breakers eliminate nuisance tripping
- EN60898 Type C standard trip curve (C6A, C10A, C15A, and C25A breakers are integrated into removable modules)
- Modular assembly Rating: 22,000 or 46,000A Icn (TUV tested as an assembly)
- Rated for 100% switching duty applications
- CE compliant

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
- 4000V isolation between control and power components
- Mechanical held air gap relay
- Local “on” switch-complete bypass of dimming and relay control
- Integral bonded heatsink
- Integral temperature sensor
- Built-in voltage and current sensors

FILTERING

- High quality toroidal filters choice of 225µS or 400µS risetime (5kW module is 200µS for Standard version)
Risetime measured at full load, at worst case firing angle (90 degrees), from 10-90% of output wave form

SPECIFICATIONS

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 pack

PHYSICAL

Module Dimensions

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

Module Weights

MODEL	WEIGHT kg	SHIPPING W. kg
ETR6-10-15AF	2.3	3.1
ETR25AF	2.5	3.3

Maximum BTU Production per Module

MODEL	BTU	WATTS	EFFICIENCY
ETR6AF	87	26	96.5%
ETR10AF	145	43	96.5%
ETR15AF	217	64	96.5%
ETR25AF	360	106	96.5%

* Dimensions, weights and BTU measurements apply to all modules types in the ThruPower range unless separated out by model designation.

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 5°C of the upper or lower temperature limits must strictly follow installation and operation guidelines to operate reliably.

SCR Rating

MODULE	ETR15AF/ETR25AF
Single cycle peak surge current	625A
Half cycle peak surge current	1620A
Transient over voltage	600V