

Dimmer/Switch Bypass Advanced Module

CE 230/240V

Sensor3 CE ThruPower Series



GENERAL INFORMATION

High reliability dimming with switch bypass offer the foundation of a flexible power distribution system of the future to accommodate mixed dimmed and constant power loads needed for new types of fixtures. Sensor3 dimmable ThruPower modules allows free choice between “Dim” and “Manual bypass” on a circuit by circuit basis without replacing the hardware in your Sensor power system. A local bypass switch completely bypasses the control system to guarantee that the unsuspecting board operator does not dim your intelligent lighting source.

APPLICATIONS

- Studio
- Theatre
- Where load type is not likely to be known at time of rigging
- Where different fixture types are likely to be powered at a given outlet location
- Where moving light or LED fixture warranty depends on constant power supply
- Low voltage lighting
- Quartz lighting
- Neon lighting
- Cold Cathode lighting
- Fluorescent lighting (2-wire Fluorescent ballast)

FEATURES

- Manual ThruPower switch override provides fool proof full AC voltage through from the breaker to the fixture
- Voltage, current, and temperature sensors in all operation modes
- High Specification Dimming with 400µS (350µS @5kW)
- High-density modular assembly
- Die-cast aluminium chassis
- Hydraulic-magnetic circuit breakers with backup fuses

Note: ETD6AF, ETD10AF, and ETD15AF modules are dual density (ETD25AF modules are single density only)

ORDERING INFORMATION

Dimmer/Switch Bypass CE AF ThruPower Modules

PART#	DESCRIPTION
7070A1101	ETD6AF* 2 x 1.3kW SP 400µS Dimmer/Switch, AF
7070A1102	ETD6AFN 2 x 1.3kW ND 400µS Dimmer/Switch, AF
7070A1103	ETD6AFR 2 x 1.3kW ND/RCD 400µS Dimmer/Switch, AF
7070A1111	ETD10AF* 2 x 2.3kW SP 400µS Dimmer/Switch, AF
7070A1112	ETD10AFN 2 x 2.3kW ND 400µS Dimmer/Switch, AF
7070A1113	ETD10AFN 2x 2.3kW ND/RCD 400µS Dimmer/Switch, AF
7070A1121	ETD15AF* 2 x 3kW SP 400µS Dimmer/Switch, AF
7070A1122	ETD15AFN 2 x 3kW ND 400µS Dimmer/Switch, AF
7070A1123	ETD15AFR 2 x 3kW ND/RCD 400µS Dimmer/Switch, AF
7070A1131	ETD25AF* 1 x 5kW SP 350µS Dimmer/Switch, AF
7070A1132	ETD25AFN 1 x 5kW ND 350µS Dimmer/Switch, AF
7070A1133	ETD25AFR 1 x 5kW ND/RCD 350µS Dimmer/Switch, AF

ACCESSORIES

7071A3085	*Single Neutral Jumper (One needed per SP module)
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* SP = Single pole breaker. ND = Two pole breaker with neutral disconnect.

Compatible Rack Enclosures*

PART#	DESCRIPTION
7144A1030	Sensor3 CE ESR3-48 Advanced (AF) Rack, 48 Modules, Neutral Disconnect (ND)
7144A1034	Sensor3 CE ESR3-36 Advanced (AF) Rack, 36 Modules, Neutral Disconnect (ND)
7144A1038	Sensor3 CE ESR3-24 Advanced (AF) Rack, 24 Modules, Neutral Disconnect (ND)
7144A1042	Sensor3 CE ESR3-12 Advanced (AF) Rack, 12 Modules, Neutral Disconnect (ND)

* Advanced (AF) ThruPower Switch modules also maintain backward compatibility to Sensor Classic and Sensor+ Advanced (AF) Systems.

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Sensor3 CE ThruPower Series

SPECIFICATIONS

GENERAL

- Designed for 100% duty cycle operation
- ETD6AF – 1.3kW
- ETD10AF – 2.3kW
- ETD15AF – 3kW
- ETD25AF – 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 dimmer 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
- Two back-to-back SCRs per circuit
- One control LED and one output LED per circuit
- 4000V isolation between control and power components
- Integral bonded heatsink
- 240VAC fuse protected switch for dimmer bypass
- Fuse preserves native dimmer short circuit safety rating
- Integral temperature sensor
- Built-in voltage and current sensors

FILTERING

- High quality 400µS and 350µS risetime* toroidal filter
*Risetime measured at full load, at worst case firing angle (90 degrees), from 10-90% of output wave form

ADVANCED FEATURES ERROR MESSAGES**

- Overtemperature
- 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.

PHYSICAL

Module Dimensions

MODEL	HEIGHT	WIDTH	DEPTH
	mm	mm	mm
All modules	38	300	140

Module Weights

MODEL	WEIGHT	SHIPPING WEIGHT
	kg	kg
ETD6AF/10AF/15AF	2.8	3.3
ETD25AF	3.0	3.3

Neutral Disconnect and RCD add .1 kgs

Maximum BTU Production per module

MODEL	BTU	WATTS	EFFICIENCY
ETD6AF	99	29	97.8%
ETD10AF	223	65	97.1%
ETD15AF	474	140	96.1%

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

MODULE	ETD6AF-ETD10AF-ED15AF-ED25AF
Single cycle peak surge current	625A
Half cycle peak surge current	1620A
Transient over voltage	600V

AVAILABLE FROM