

Dimmer/Switch Bypass Standard 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 225µS toroidal filters
- High-density modular assembly
- Die-cast aluminium chassis
- Hydraulic-magnetic circuit breakers with backup fuses

Note: ETD6, ETD10, and ETD15 modules are dual density (ETD25 modules are single density only)

ORDERING INFORMATION

Dimmer/Switch Bypass CE Std. ThruPower Modules

PART NO.	DESCRIPTION
7070A1104	ETD6* 2 x 1.3kW SP 225µS Dimmer/Switch, Std.
7070A1105	ETD6N 2 x 1.3kW ND 225µS Dimmer/Switch, Std.
7070A1114	ETD10* 2 x 2.3kW SP 225µS Dimmer/Switch, Std.
7070A1115	ETD10N 2 x 2.3kW ND 225µS Dimmer/Switch, Std.
7070A1124	ETD15* 2 x 3kW SP 225µS Dimmer/Switch, Std.
7070A1125	ETD15N 2 x 3kW ND 225µS Dimmer/Switch, Std.
7070A1134	ETD25* 1 x 5kW SP 225µS Dimmer/Switch, Std.
7070A1135	ETD25N 1 x 5kW ND 225µS Dimmer/Switch, Std.
ACCESSORIES	
7071A3085	*Single Neutral Jumper (One needed per SP module)

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

Compatible Rack Enclosures*

PART NO.	DESCRIPTION
7144A1029-4	Sensor3 CE ESR3N-48 Standard Rack, 48 Modules, Neutral Disconnect (ND)
7144A1033-4	Sensor3 CE ESR3N-36 Standard Rack, 36 Modules, Neutral Disconnect (ND)
7144A1037-4	Sensor3 CE ESR3N-24 Standard Rack, 24 Modules, Neutral Disconnect (ND)
7144A1041-4	Sensor3 CE ESR3N-12 Standard Rack, 12 Modules, Neutral Disconnect (ND)

* ThruPower Switch modules also maintain backward compatibility to Sensor Classic and Sensor+ Systems.

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SPECIFICATIONS

GENERAL

- Designed for 100% duty cycle operation
- ETD6 – 1.3kW
- ETD10 – 2.3kW
- ETD15 – 3kW
- ETD25 – 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 225µS risetime* toroidal filter
- *Risetime measured at full load, at worst case firing angle (90 degrees), from 10-90% of output wave form

REPORTING FEATURES (SENSING) IN NON-AF MODULES/RACKS

- Module Overtemperature status
- Rack Overtemperature status
- Rack Mains Voltage status

PHYSICAL

Module Dimensions

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

Module Weights

MODEL	WEIGHT	SHIPPING WEIGHT
	kg	kg
ETD6/10/15	2.8	3.3
ETD25	3.0	3.3

Neutral Disconnect and RCD add .1 kgs

Maximum BTU Production per module

MODEL	BTU	WATTS	EFFICIENCY
ETD6	99	29	97.8%
ETD10	223	65	97.1%
ETD15	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