

## GENERAL INFORMATION

The Sensor®3 Control Electronics Module (CEM3) is ETC's new platform for power control. CEM3 manages priority based Ethernet, DMX and Preset control for ultra smooth 16 bit dimming, fast activation of relays, and instant on support for emergency lighting systems. Energy usage, system status, and quick changes to circuit setup can be accessed at its intuitive face panel or remotely at the lighting console.

### APPLICATIONS

- Professional and educational theatre
- Production studios
- Performance halls
- Retail and dining
- Houses of worship
- High density architectural dimming
- Touring and Portable dimming

### FEATURES

- **Net3 Uplink** - Connect the Net3 Lighting network using the ethernet jack on the front of the control module
- **USB QuickLoad** - Backup system settings and upgrade software
- **Point of Control Interface** - Easy to read systems display shows the user pertinent system information
- **Live Control Override** - For presets, set level, and dimmer check
- **Local Menu** - Access to set up features and control directly at the control processor
- **Backup Looks** - 64 Presets with programmable fade times and priority allows for take control, pile on, or live control failover sources to insure that your show will never go black!
- **Connect to Console** - System and rack feedback to live control desks is standard (available Summer 2011)
- **Quick Setup Wizard** - Builds a simple system in a single step
- **Advanced Features (AF)** - Adds dimmer-specific reporting
- **ETC Dimmer Doubling™** - Increase your individually controllable fixtures without adding extra circuits (supported only at 60hz)
- **Ride Thru** - Optional accessory which holds up the processor electronics through a power outage for a few seconds
- **Battery Pack** - Optional accessory which holds up the processor electronics through a power outage for many minutes

## ORDERING INFORMATION

### Control Module

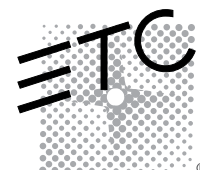
| MODEL | DESCRIPTION           |
|-------|-----------------------|
| CEM3  | CEM3 Power Controller |

### Compatible Systems

| MODEL                             | DESCRIPTION                          |
|-----------------------------------|--------------------------------------|
| <b>SENSOR3 INSTALLATION RACKS</b> |                                      |
| SR3-48/SR3AF-48                   | Sensor3 48 module installation racks |
| SR3-24/SR3AF-48                   | Sensor3 24 module installation racks |
| SR3-12/SR3AF-12                   | Sensor3 12 module installation racks |
| SR3-6/SR3AF-6                     | Sensor3 6 module installation racks  |
| HSR3/HSR3AF-                      | Sensor3 230V installation racks      |
| SR3AFN                            | Sensor3 GFCI installation racks      |
| ESR3AFN                           | Sensor3 CE installation racks        |
| <b>SENSOR3 TOURING RACKS</b>      |                                      |
| SP3                               | Sensor3 small frame touring rack     |
| SP3                               | Sensor3 large frame touring rack     |
| <b>SENSOR+ PORTABLE PACKS</b>     |                                      |
| SP3-2420                          | Sensor3 12 module portable pack      |
| SP3-1220                          | Sensor3 6 module portable pack       |

### CEM3 Accessories

| MODEL | DESCRIPTION                                   |
|-------|---|
| RK    | Retrofit kit for Sensor standard and AF racks |



## ETC Power Control Series

## SPECIFICATIONS

## GENERAL

- Universal Control Electronics Module
- Direct Ethernet connectivity for dimmer levels, feedback and system control
- UL, cUL LISTED and CE Marked

## PHYSICAL

- Formed steel body
- Die cast face panel finished with textured epoxy paint
- Slide-in module installs and removes without tools
- Spring-loaded module release
- Airflow sensor to ensure adequate airflow

## ELECTRICAL

- Accepts:
  - Single phase
  - Three phase WYE or Delta
- Universal Voltage range 91-139V and 181-259 VAC\*
- Line feed frequencies from 47-53Hz and 57-63Hz
- Automatic frequency variation compensation
- Two configurable DMX512 inputs (2500V opto-isolated)

\*Note: Suggested max main transformer tap 135V or 255V to allow for line fluxuation.

## CONTROL FEATURES

- Eight-line by 20-character graphical LCD for system configuration, live control, and status display
- Full number pad for quick access to dimmers
- Shortcut buttons for Setup, About, and live control
- Five status LED indicators: Power, Network activity, DMX-A, DMX-B, and Panic
- 64 user-programmable presets
- Single Panic circuit with flexible programming (Spring 2011)
- Replacement CEM3 automatically loads rack configuration
- Configuration backups saved on USB or network
- Dimmer outputs regulate to maintain constant power  $\pm 1V$
- Individual output scale voltage settings for load wiring compensation
- Selectable Firing Modes: Normal (forward phase, Reverse Phase, Dimmer Doubled, Sinewave, and Fluorescent
- Control Modes: Dimmed, Switched, Latch/lock, Always On, and Off
- Selectable Dimmer Output Curves: Linear, Modified Linear, Square, Modified Square, and Sensor 2.0, and five custom curves
- 16-Bit fade resolution (> 30,000-Step Resolution per 1/2 cycle)
- Selectable Data Loss Behavior

## FEEDBACK

- All Sensor racks with CEM3 modules include basic system diagnostic reporting
- Standard rack feedback includes: DMX input status, Rack power status, and Rack temperature
- Advanced Features (AF) provides dimmer specific status and load feedback (requires AF dimmer rack and AF dimmer modules)

## LOCAL PROGRAMMING

## LOCAL LIVE CONTROL

- Set Levels, Preset Activation, and Dimmer Check

## STATUS (ABOUT)

- All modules: module type, mode, control source, and module location, overtemp
- AF modules: module removed, breaker trip, recorded and actual load
- Rack: temperature, rack type, Run Hours
- Network: IP address, SubNet mask, Gateway and active link
- Rack Data Ports: status for DMXA and B, and sACN
- About Rack Power: frequency, voltage per phase, and voltage headroom
- About Software: version number

## SETUP

- Setup dimmer: Firing Mode, Curve, Scale Voltage and Name
- Patch
- Set rack priority per DMX port
- Data Loss Behavior: Hold last Look, Wait and fade, Play Preset
- Name the rack (using ACN)
- Custom dimmer numbering
- Get Config and save Config to USB

## PHYSICAL

## CEM3 Dimensions

| MODEL | HEIGHT |    | WIDTH  |     | DEPTH  |     |
|-------|--------|----|--------|-----|--------|-----|
|       | inches | mm | inches | mm  | inches | mm  |
| CEM3  | 2.06   | 52 | 11.80  | 300 | 7.00   | 178 |

## CEM3 Weight

| MODEL    | WEIGHT |     | SHIPPING WEIGHT |     |
|----------|--------|-----|-----------------|-----|
|          | lbs    | kgs | lbs             | kgs |
| All CEM3 | 3.5    | 1.6 | 6.2             | 2.8 |

## Maximum BTU Production per Module

| MODEL    | BTUS | WATTS | EFFICIENCY |
|----------|------|-------|------------|
| All CEM3 | <10  | <4    | N/A        |



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