

EURODIM 3

Intelligent Digital Dimming System, with individual plug-in modules

High-density 270 kW cabinets with all digital, plug-in dimmer modules for professional theatre and television installations. For accurate, stable and reliable performance, combined with comprehensive remote programming and diagnostic functions. Two cabinet sizes are proposed:

DD3 180/270 divided into max. 5 crates for up to 90 x 3 or 5 kW dimmers, and **DD3 225/270** divided into max. 6 crates for up to 108 x 3 or 5 kW dimmers. **Optional individual crate protection** (45 kW) for maximum safety and operating comfort.

Standard configurations

- without crate protection:
 - 45 or 54 dual 3 kW modules
 - 45 or 54 single 5 kW modules
 - 45 or 54 dual 5 kW modules
- with crate protection:
 - 36 or 45 dual 3 kW modules
 - 36 or 45 single 5 kW modules
 - 36 or 45 dual 5 kW modules
 - depending on cabinet size
- combinations of 3 kW, 5 kW and 10 kW dimmers are possible

Set-up functions

- 5-key keypad, 12-character LED display and user-friendly menu for easy access to all dimmer functions.
- 10 user-selectable dimmer laws: linear r.m.s. voltage, linear r.m.s. to 120 V, TV laws (BBC, TV1, TV2), non-dim with hysteresis, fluorescent, linear r.m.s. voltage with preheating, square law, user-programmable custom law.
- voltage reduction factor for extended lamp life or variable load cable length compensation.
- 4000-step fade resolution, for noticeably smoother fades.
- global or individual programming of dimmer law, patching, voltage reduction factor and smoothing.
- Restore House Patch function recalls a preferred DMX patch.
- creation and storage of 20 lighting cues (19 + Priority) each with fade and wait times, for back-up cues, working lights, or stand-alone operation.
- after loss of DMX data: maintain last levels, or wait and fade to one of the internal cues, or wait and fade to black.
- all programmed data saved for unlimited time.

Electrical protection

- each dimmer is protected by a HRC fuse (100 kA), with "fuse OK" indicator; optional dimmer protection by mcb, or mcb+rcd.
- dimmer protection is available in three versions: single-pole, single-pole + N disconnect, true double-pole.
- main isolating switch with or without HRC fuses (option).
- **optional crate protection**, located on the front panel for direct access: 3P or 4P; HRC fuses (100 kA), mcb or mcb+rcd.

Residual current monitoring module (option)

- to measure and transmit true r.m.s. value of earth leakage current with latched or non-latched alarms. The system does not switch any dimmer off.

Filtering

- TV broadcast quality filtering (BBC, TDF) with large toroidal filter chokes, 400 μ s rise-time (10% to 90%) (-7%, +15%).
- professional quality filtering (200 μ s) as an alternative.

Types of loads

- hard-fired **thyristors** for control of 220/240V tungsten halogen lamps, resistive and inductive loads, transformer-fed low voltage lamps, fluorescent lighting with suitable ballasts.
- cold tungsten lamps allowed without damage to the thyristors.
- relay, bypass and feed-through modules are available for non-dimmable loads.

*EURODIM 3 cabinet with crate protection
and double control electronics*



System check, dimmer and load check

- up to 300 indicators and text messages for seeing at a glance the status of individual dimmers, DMX signals and CPU's, and also fan failures, over-temperature, missing supply phase...
- all error messages also available on the ADN network.
- local test of a dimmer: steady, flash or chaser.
- dimmer fuse/mcb indicator, output voltage and load current indicators.
- Load Scan test detects load changes, short circuits,...
- automatic self-test of control electronics.

Ventilation

- assisted ventilation by means of 6 low-noise fans.
- regulated airflow and automatic stop.
- the performance of each fan is monitored individually.

Reliability, instant back-up

- modules designed for continuous duty at full rated load.
- double control electronics provide instant back-up (option).
- a three-phase power supply for control electronics and fans guarantees continuity of control and full ventilation in the event of the loss of one supply phase.

Safety

- opto-isolated DMX and ADN inputs.

EURODIM 3 DIAGNOSTIC detects and reports in real time:

- Missing supply phase, mains over-voltage
- Fan failure (checks each of the six fans)
- Over-temperature: warning
- Over-temperature: gradual shutdown
- CPU, back-up CPU: responding / missing
- DMX status: present / missing / type of DMX error
- Loads (kW) detected during Load Scan test
- Load changes detected during Load Scan test
- View incoming DMX values for inputs A and B
- View and edit the DMX patches for inputs A and B
- View and edit dimmer law selection
- View and edit shape of custom dimmer law
- View and edit smoothing, voltage reduction factor
- View and edit memories: levels, fade, wait times

All events / parameters are available on the ADN network. Important problems generate a flashing error message on the EURODIM's red alphanumeric LED display.

A Load Scan test routine reports additional information about the status of each dimmer:

- Value of the load (kW)
- Load deviation from reference load
- No load, overload
- Short-circuit
- Thyristor failure

The routine is applied to one dimmer or to the whole cabinet. When Load Scan test detects a dimmer with a short circuit e.g. in the luminaire or cable, then it will report this Short but it won't trip the dimmer protection.

Technical Data

- **Power supply:** star 3 NPE 400 (TN-S), 198 V to 264 V, 50/60Hz. Delta supply upon request.
- **Max. load:** 400 A / 270 kW per cabinet or 45 kW per crate with crate protection.
- **Rated load of dimmer modules**
(continuous duty at 35° C ambient): 2 x 3 kW; 1 x 5 kW; 2 x 5 kW; 1 x 10 kW; 1 x 3 kW (Fluo).
- **Control inputs** (opto-isolated): 2 DMX512/1990 digital inputs each with individual patch + ADN bidirectional serial port (EIA-485) + optional multi-protocol input (DMX512, ADB S20, AVAB, D-54, AMX 192). 2 x 5 kW modules with 400 µs chokes require crate protections.
- **Dimming range:** full dimming of any incandescent lamp between 1.5 % and 100 % of rated dimmer power.
- **Efficiency:** better than 98% at rated load.
- **Output voltage response time :** 30 ms typical.

This equipment complies with all applicable European directives and carries a CE mark.

Installation

- cabinets designed for top or bottom power supply cable entry. They can be installed against a wall.
- a 300 mm wide cabling and termination compartment is provided, where all load and control wiring is terminated, and where main isolating switch and/or power supply input protection can be located together with the busbar system. Access is via an independent front panel and does not require removal of the dimmer modules. This concept is ensuring easy and low cost installation and maintenance.

Advanced Dimmer Network (ADN)

Dimmers of the MEMOPACK / MEMORACK / EURORACK 60 / EURODIM 3 families can be networked over the DMX cable via a proprietary bidirectional protocol for the purpose of remote programming, monitoring, fault reporting and memory management from the NETBUS Dimmer Controller or a laptop PC with the Dimmer Manager kit, which also provides a gateway to Ethernet.

NETBUS (option)

NETBUS is a small (340 x 285 x 75 mm), portable, low cost Remote Dimmer Controller which can be inserted anywhere in the ADN network and provides:

- 23 direct access keys for storing and replaying the lighting cues in the dimming system
- remote access to all dimmer functions
- overview of centralised error messages

NETBUS is particularly useful for architectural lighting sequences.

Dimmer Manager Kit (option)

The kit consists of a NETPORT/XT Ethernet to DMX+ADN converter and Dimmer Manager, a remote programming and reporting software for PC. Its **graphical user interface** gives an overview of, and remote access to all the dimmers in the most complex installation. Dimmer Manager provides a system-wide overview of events such as absent dimmer units, status of CPU and back-up CPU, error and alarm messages (fan failure, temperature, missing phase...), start of Scan Load routine, reporting of actual load per dimmer. Dimmer Manager functions include downloading/uploading of dimmer parameters, on-line and off-line editing, graphical editing and library of custom dimmer laws, and creating back-ups of system configurations e.g. per show or per venue.

Dimensions

	DD3 / 180 / 270	DD3 / 225 / 270
Dimensions (mm) :	900 x 690 x 1804	900 x 690 x 2071
Weight (kg)		
without dimmers :	+/- 230	+/- 250

ADB - Your Partner for Light

ISO 9001 : 2000 certified

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