EURODIM TWIN TECH
Thyristor plug-in modular dimmers cabinet

ADB

EURODIM **Twin Tech** is a high density dimmer cabinet designed specifically for professional lighting installations in theatres, concert halls, TV studios. It is designed on the cost effective **Thyristor Technology** with its proven track record.

The universal cabinet can host up to 128 channels of 3 kW (thyristors) installed in 32 plug-in modules, with 2 more slots for central electronics and optional back-up.

An innovative concept allows for plug-in modules of any type or rating to be freely mixed and moved in any configuration within the universal cabinet. This is made possible by the instant, automatic module identification by the central electronics and represents the ultimate in terms of flexibility. So no reprogramming is necessary whenever the cabinet configuration is modified.

Dimmer modules and ratings
- 4 x 3 kW thyristors: up to 128 x 3 kW per cabinet.
- 3 x 5 kW thyristors: up to 96 x 5 kW per cabinet.
- 1 x 10 kW thyristors: up to 32 x 10 kW per cabinet.
- 2 x 3 kW Fluo with switched 230 V output for preheat.

Other modules
- 4 x 3 kW and 3 x 5 kW DimSwitch.
- 4 x 3 kW and 3 x 5 kW feed-through (non-dim).
- DimSwitch can be either a dimmer channel or a solid state relay.
- full diagnostics is optional in thyristor modules.

Reliability and instant back-up
- Plug-in control electronics and power supply module.
- Double control electronics provide instant back-up (option).
- All programming data stored on plug-in memory card.
- Guaranteed continuity of control and full ventilation in the event of the loss of any one supply phase.
- All modules designed for continuous duty at full rated load.

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THE POWER OF 384 kW IN YOUR HAND

REMOTE CONTROL FOR TWINTECH DIMMER
Download the "RDM Dimmer Remote" App for iOS and Android

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Filtering
- TV broadcast quality filtering (BBC & TDF TV standards: minimum 400 µs rise time, 10% to 90%).
- professional quality filtering (200 µs) as an alternative.

Set-up functions
- Graphical backlit touch-screen LCD, softkeys and user- friendly menu for easy access to all dimmer functions.
- Programming per dimmer, or globally by local human interface.
- Five control inputs with free DMX addressing.
- 10 user-selectable dimmer laws: linear r.m.s voltage, linear r.m.s to 120 V, TV laws (BBC, TV1, TV2), zero-crossing, non-dim with hysteresis, fluorescent, square law, and 6 user-programmable custom law.
- Voltage reduction factor for extended lamp life or variable load cable length compensation.
- Programming of dimmer law, patching, voltage reduction factor, dimmer response time, preheat.
- Restore Points to recall earlier settings.
- Creation and storage of 80 lighting cues and 1 priority cue, each with fade and wait times, for back-up cues, working lights, or stand-alone operation.
- After loss of DMX data: switch to other console, or maintain last levels, or wait and fade to a cue, or wait and fade to black; programmable globally, or per dimmer.

Cue control
Remote Cue Control functions such as playing and fading up/down of the cues, starting a Cue Chaser, storing a cue,… can be triggered via standard DMX, by TT Management Software (for PC) or local human interface.

System check, dimmer and load check
- Up to 300 indicators, and clear text messages, for seeing at a glance the status of individual dimmers, DMX signals and CPUs, as well as fan failures, overtemperature, missing supply phase...
- All error messages also available over the Ethernet network.
- Local test of a dimmer: steady, flash or test chaser.
- Output voltage and load current indicators per dimmer, supply indicator per module.

Human Interface

Power Distribution

Busbars   Ventilation   Load terminals

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Electrical protection
- Each module is protected by an HRC supply fuse (50 kA), and each dimmer is protected by an MCB.
- Dimmer protection available as 1P+N disconnect.
- Optional 30 mA RCD protection per module or per dimmer.

EDTT Dimmer Management Software
The EDTT Dimmer Management Software for PC (RDM Dimmer Manager) combines four products in one: a Cue Control system, a Status Reporting system, a Remote Programming tool, and a Commissioning & Service tool. The TT Dimmer Management Software provides a system-wide overview of status of CPU and back-up CPU, error and alarm messages (loss of DMX, fan failure, temperature, missing phase...), and Diagnostics information about individual dimmers. The TT Dimmer Management Software functions include downloading & uploading of dimmer parameters, on-line, library of custom dimmer laws, and creating back-ups of system configurations e.g. per show or per stage.
- system-wide search by channel number, by dimmer name
- view and edit the priorities and DMX patches, per dimmer
- view and edit dimmer laws, shape of custom laws
- view and edit preheat level, reduction factor
- view and edit cues: levels, fade and wait times
- view type of dimmer module per slot
- view all input levels for a dimmer

Standard Diagnostics
The Diagnostics System constantly monitors all key parameters and components of the EURODIM Twin Tech installation.
It displays all this information on the local LCD and remotely on the TT Dimmer Management Software.

All EURODIM Twin Tech cabinets detect and report in real time:
- CPU, back-up CPU: responding / missing
- DMX and eDMX status: present / missing / type of DMX error
- fan status per fan
- room temperature warning
- missing supply phase, mains overvoltage
- change of module type
All events & parameters are available over the network. An error message on the EURODIM's LCD warns of important events.

Sequential Diagnostics
Sequential Diagnostics and the related Scan Load functions are pre-show test routines providing additional information on the status of each dimmer.
- value of the dimmer load (kW)
- deviation from reference load
- no load, overload warnings
- short-circuit

Full Diagnostics
Thyristor modules with full diagnostics, also detect and report in real time:
- dimmer protection tripped (MCB, RCD)
- overload and no-load
- load changes and comparison with memorised reference load (requires a test sequence)

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Technical Data

- Protocols: DMX512-A, Art-Net, sACN and RDM over Art-Net allowing remote management.
- Power supply: star 3 NPE 400 (TN-S), 198 V to 264 V, 50/60 Hz.
- Rated current 600 A max. per cabinet; fault current rating Icc 50 kA.
- Rated load of dimmer modules valid for continuous duty at + 35 °C ambient temperature for Thyristor Dimmer Modules.
- Control inputs: two DMX512-A digital inputs and three universes over Ethernet; opto-isolated.
- Software updates via plug-in memory card.
- Dimming range: full dimming of any incandescent lamp from 20 W for thyristor modules up to the full rated load.
- Efficiency at rated load: low loss thyristor dimmers with an exceptional efficiency η ≥ 98.3%, reducing costs in energy and HVAC.
- Dimensions: see drawings (in mm)
- Weight:
  cabinet: 229 kg
  plug-in modules: 12 kg ± 10 % depending on module type
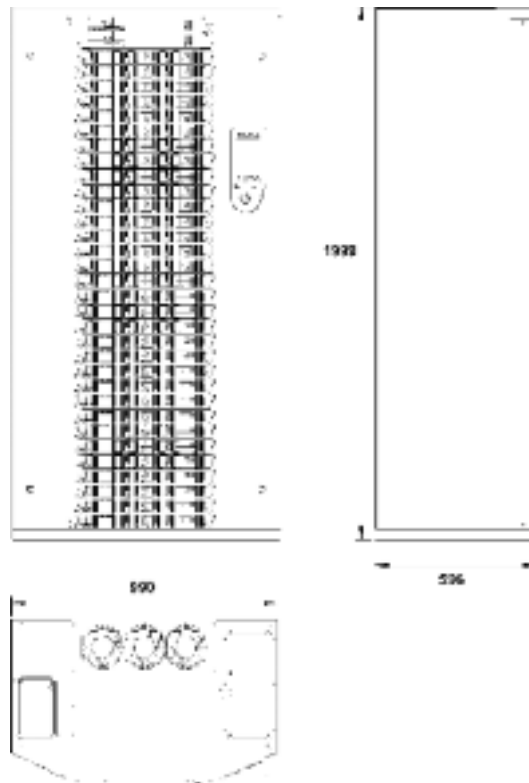
Installation

- Cabinets designed for top and bottom entry of all cabling.
  They can be installed against a wall.
- two cabling compartments, readily accessible without removal of the dimmer modules, ensuring easy installation and maintenance.
- load wiring terminals suitable for 2.5 - 10 mm2 ; adaptors for 16 mm^2 ; 35 mm^2 for 10 kW.
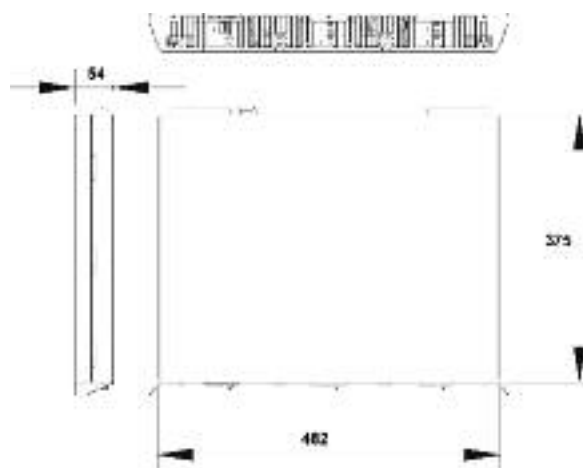
Ventilation

- assisted ventilation by means of 3 axial fans.
- automatic fan management.
- the performance of each fan is monitored individually.
- Warning message in case of too high dimmer room temperature.

Standard cabinet

Plug-in module