

MEMORACK 180

Digital Dimming System

180/220 kW, high performance, all-digital dimming system consisting of up to six independent **MEMORACK 30** modules, mounted on telescopic guides and easily disconnectable. These modules are self-contained 19" x 3U units, configured as 12 x 3 kW, 6 x 5 kW, or 3 x 12 kW. The MEMORACK 180 system is intended for professional applications in stage and studio lighting whenever individual plug-in modularity is not required. The dimmer modules can easily be removed and installed in touring racks.

Available in several configurations:

- 72 x 3 kW
- 36 x 5 kW
- combinations of 12 x 3 kW and 6 x 5 kW modules. Alternatively, MEMORACK 180 can be equipped with up to 8 MICRORACK 25 or MEMORACK 15 modules for a total of 96 x 2.3 kW or 48 x 3 kW dimmers.

Main Features

- 5-key keypad, 12 character LED display and user friendly menus for easy access to all dimmer functions.
- Set-up functions can be limited to "DMX start address".
- Local controls for creation and storage of 20 lighting cues.
- Individual selection of dimmer address (patch), law, smoothing and multiplication factor.
- Fade smoothing (4000-step resolution).
- 10 dimmer laws (one is user-programmable).
- **Remote programming and monitoring capability**
 - from any other dimmer rack (standard)
 - from the NETBUS Dimmer Controller or a PC with the Dimmer Manager kit (options)
- **Extended diagnostics functions (option).**
- Professional grade filtering (200 µs), for efficient attenuation of lamp filament noise.
- Protection circuitry against accidental 400 V wiring.
- Local status reporting: 400 V - overtemperature - fan failure - processor check - presence of DMX signal - DMX and analogue control levels.
- Hard-fired thyristors for control of tungsten halogen lamps, resistive and inductive loads, transformer-fed low voltage lamps, fluorescent lighting with suitable ballasts.
- Local test of a dimmer (steady, flash or chaser).
- Automatic self-test capability.
- Programmable response to a DMX failure.
- Low noise fan(s) for effective cooling, with automatic fan-stop.
- overtemperature protection through gradual dimmer fade out.

Technical Specifications

- Power supply: 230 V / 400 V Star 3NPE (TN-S), 50/60 Hz.
- Individual protection by MCB/1P (standard version), optional 1P+N protection with MCB's or HRC fuses with "fuse OK" neon indicator and slot for spare fuse.
- Suitable for continuous duty (3 kW or 5 kW per dimmer) at 35°C; MemoRack 30: max. total load 30 kW.
- DMX512/1990 input (XLR5) with galvanic isolation + ADN bidirectional serial port (EIA-485). Optional analogue inputs 0/+10 V (DB25-S)

NETBUS (option)

It's 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.



Electrical Cabinet Protection

Each dimmer module has HRC fuse supply protection (3P or 3P+N) located on the front panel. Optional: MCB or RCD+MCB supply protection instead of HRC fuse.

To order a MEMORACK 180

A MEMORACK 180 cabinet can be equipped with pre-wired frames adapted to the selected dimmer modules. Blank panels (3U) are available for non-used frames. The complete description of a MEMORACK 180 will specify:

- the cabinet
- the pre-wired frames
- the optional power supply protections
- the dimmer modules, MEMORACK 30, MEMORACK 15, MICRORACK 25, and their individual protections and options.

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 an Ethernet network.

Characteristics

Power Supply : 3 NPE 400 (TN.S)
220 to 240 V +/- 10%, 50/60 Hz

Dimensions

W x D x H (mm) : 905 x 705 x 1810
Net Weight (kg) : ...



MEMORACK 180

Characteristics

- **Rated load of cabinets:** 180 kVA.
- **Types of load:** incandescent lamps, low voltage lamps via transformer, hot cathode fluorescent lamps, inductive loads with a power factor between 0.5 and 1.
- **Range of regulation:** full dimming of any incandescent lamp, rated between 1.5% and 100% of rated power of dimmer.
- **Dynamic performance**
No overshoot nor oscillation of output voltage.
- **Cold Tungsten lamps**
Allowed without damage to the thyristors.

Communications

- DMX512/1990 digital input.
- Analogue inputs (option) : 0/+10V or 0/370 μ A.
- Diagnostic network (RS485) option.
- Remote memory control with simple SPST switches.

Remote Control and Diagnostic (option)

- Selective diagnostic: microprocessor assisted automatic detection of short-circuit, presence of load, failed fuse.
- Remote programming of patch, dimmer law selection, smoothing, proportional factor, memorised cues. Remote reporting of Diagnostic check (if applicable).

Remote Memory Control

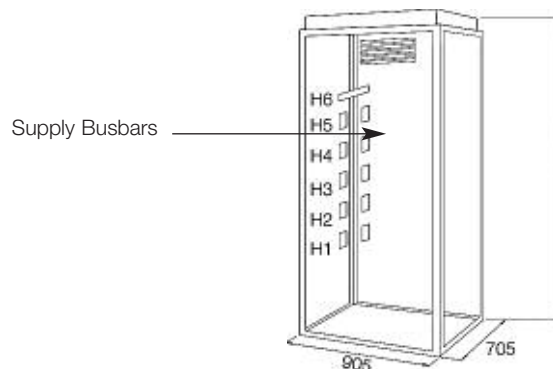
Requires "Analogue Inputs" option

- Direct selection of any of the 20 memories for playback or recording from DMX, with a simple SPST switch per memory used.
- Automatic or manual chaser through the memories, with fade and wait times. Remote "fade now to next cue" by means of a simple SPST switch.
- The local memories can override DMX levels, for use as back-up states. Or they can mix with DMX (Highest-Takes-Precedence). Applications include architectural control, and a common MEMORACK 180 dimmer cabinet for different rooms.

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 system management 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.

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



MEMORACK 30 Front Panel

Electrical protection

- Supply protection per MEMORACK 30 is available in various versions: 3P, 4P; HRC fuses, mcb, mcb+rcd. All are placed on the front panel for direct access.
- Each cabinet can be equipped with a residual current (earth leakage) monitoring system and central digital read-out and alarms. The monitoring system does not switch any dimmer off.

Indicators

- Presence of DMX signal
- Microprocessor running
- Error messages (temperature warning, DMX error, 400 V, fan error, ...)

Protections

- HRC fuses, single pole 10,3 x 38 mm
- Supply and "fuse OK" indicators integrated in the fuse-holders
- Protection circuitry against accidental 400 V wiring errors
- Overtemperature protection (gradual fade-out)

Local Control without Lighting Desk

- Flashing of one dimmer for easy luminaire identification in a rig
- Chaser
- Setting of a dimmer level
- Creation, editing and play-back of 20 lighting cues
- "Panic" cue

ADB - Your Partner for Light

ISO 9001 : 2000 certified

Belgium N.V. ADB-TTV Technologies S.A.

(Group Headquarters) Leuvensesteenweg 585, B-1930 Zaventem
Tel : 32.2.709.32.11, Fax : 32.2.709.32.80, E-Mail : adb@adblighting.com

Deutschland ADB GmbH

Dieselstraße 4, D-63165 Mülheim am Main
Tel : 49.6108.91.250, Fax : 49.6108.91.25.25, E-Mail : adblighting@t-online.de

France ADB S.A.S.

Sales office: 168/170, boulevard Camélinat F-92240 Malakoff
Tel : 33.1.41.17.48.50, Fax : 33.1.42.53.54.76, E-Mail : adb.fr@adblighting.com

Factory & group logistics centre: Zone industrielle Rouvroy F-02100 Saint-Quentin
Tel : 33.3.23.06.35.70, Fax : 33.3.23.67.66.56, E-Mail : adb.fr@adblighting.com

ADB
Lighting Technologies

DS-3113-E-06h Subject to modifications