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A division of Rank Audio Visual Limited.

220/240v 50Hz

STM Thyristor Dimmers & Racks

STM Thyristor dimmers and their associated 20-dimmer racks are the power handling component of permanently installed lighting controls. These rugged and reliable, wired-in dimmer modules are each totally self-contained with their own temperature-stable trigger card for the pair of tungsten surge rated Thyristors and are complete with a substantial inductive filter. Maximum tungsten lamp load ratings are either 5000W or 2000/2500W at 220/240v 50Hz.

The totally enclosed, wall-mounting racks only require front and top access. Each rack is a complete distribution system for a three (or two, or single, if specified) phase and neutral supply including close-excess current protection for each of the 20 dimmer modules. All external connections terminate within an internal compartment behind the hinged fuse panel.

SPECIFICATION

Rack Construction

Wall-mounting and totally enclosed, requiring front and top access only. Alternatively two racks can be mounted back to back to form a free standing unit. Constructed from preformed aluminium alloy sections with a hinged fuse panel at the top, left hand side to provide access to an internal compartment for all external connections brought through the large cable entry plate above.

Power Distribution

Internally wired for three, two or single phase and neutral 50Hz supply with earth continuity conductor. The dimmer modules in each rack will be connected in strict phase sequence across three phases and neutral unless otherwise specified (normally necessary in the U.K. where regulations require 2m minimum phase separation between socket outlets).

Each single phase dimmer output internally wired to pressure-pad terminals for load line,

neutral and earth continuity conductors.

Fuse Protection

Fuse panel contains a single pole fuse for each dimmer module. 440v rated, shrouded-contact fuse holder including inexpensive HRC fuse-link providing close-excess current protection or, if specified, Diazed type fuse holder, cap and Flinke cartridge.

Control Wiring

All control signals are at extra-low voltage. Numbered pressure-pad control terminals are provided for the one conductor required for each dimmer channel and the one common for each rack.

Ventilation

The total heat dissipated does not exceed 2% of the maximum supply capacity or the maximum load capacity, whichever is the smaller. Low power handling racks with a high proportion of 2000W maximum dimmers are ventilated by natural air flow through large area grilles; higher power handling racks are fan-assisted. If the ambient temperature will exceed 35°C external ventilation of the environment is necessary.

Thyristor Dimmers

Modular construction on insulated backplate with pressure-pad terminals for rack internal power distribution and control connections. Each module totally self-contained with its own temperature and long term stable, printed circuit trigger card and a pair of Thyristors surge and continuously rated for 220/240v tungsten filament lamp load not exceeding the maximum rating of the dimmer.

Filtering

Each dimmer module contains a substantial inductive filter to full professional theatre standards and also RFI output suppression. All 5000W maximum, and if specified 2000/2500W modules, have a superior C-filter to broadcast studio standards. In addition, a RFI Suppressor Unit is supplied with each complete equipment for on-site connection across the origin of the power supply.

DIMMER MODULE RATINGS

STM 20

2000W maximum at 240v, with filter to professional theatre standards.

STM 20/C

2000W maximum at 240v, 2500W maximum at 220v with Diazed fuse protection, with superior C-filter to broadcast studio standards.

STM 50

5000W maximum at 220/240v, with C-filter.

10,000W maximum modules, requiring two module spaces, can be supplied to special order where a single load exceeds 5000W. For large, divisible loads two, or more, modules can be controlled simultaneously by a common control signal; these modules can be on different phases of the supply if required.

Some dimmer modules can be omitted initially but a blanking piece is then necessary to terminate the internal wiring.

