LSC CONTROL SYSTEMS

RED3

12 Channel 10Amp Rackmount/Portable Dimmer

Engineer and Consultant Specifications V0.90

General Description

The RED3 Dimmer (the Product) shall be a microprocessor controlled 3-phase input to 12 single-phase 10Amp output circuits, designed for rack-mounting or portable use.

Output load connectors are to be rear-mounted and the User Interface control panel and input control connectors are to be front panel mounted. The Product must be able to control loads, without flicker, from as little as 100 Watts.

Power Requirements

The Product shall be designed to operate from a nominal 230V AC 3-phase plus Neutral and earth power supply, with a nominal frequency of 50Hz. The Product must be able to operate without loss in performance, between 190-260V AC and a frequency range between 45-65Hz.

The Product shall be capable to operate with single-phase or 3-phase with any phase rotation order. The failure of any two of the three phases shall not stop the operation of the Product on the remaining phase.

Control Requirements

5-pin XLR input and thru connectors shall be provided on the front panel to allow the remote control of the Product by any of the following control signals: DMX512 (1990), DMX512-A (E1-11) or RDM (E1-20).

The operating mode and preferences shall be set using a full-colour TFT touchscreen Graphical User Interface (GUI) and shall be stored in non-volatile memory, to be recalled automatically to the last operating state once power has been reconnected to the Product. Units that use battery-backed memory will not be accepted.

Standard Features

The GUI shall be easy to use and provide the following information as a minimum:

- Set and display DMX512 start address
- DMX viewer capable of displaying all 512 channel output levels in bar graph format
- Graphical virtual faders for local control (rigger's control)
- Create internally stored chase from 6 pre-defined patterns with adjustable BPM (Beats Per Minute)
- Programmable "DMX Loss" scene with time delay
- Full 512 channel proportional Softpatch
- Two dimmer curves per individual output channel
- User-selectable minimum (bottom-set) and maximum (top-set) levels per channel
- Visual alarms for phase fail, over temperature and loss of input signal
- Help menus

Each output circuit shall be protected by a single-phase 10Amp "C" curve Type A Miniature Current Breaker (MCB). The Product and MCBs must be rated to take full inrush currents from cold incandescent lamps of any combination up to 2400VA (at 240VAC input) and to protect the devices from short circuits.

The Product shall operate without hindrance simultaneously across all channels on a 100% duty cycle at 25°C ambient temperature. A cooling fan shall be incorporated within the chassis that may be user-selected to run at a constant speed or set to adjust the speed automatically in relation to the product's internal temperature.

The GUI shall be lockable with a PIN code to prevent accidental or intentional changing of the Product's parameters.

Software for the Product must be upgradeable via a front panel mounted SD card receptacle. Dimmers that require EPROM change-overs, special cables, computer software or partial dismantling to upgrade software, will not be accepted.

Construction

The Product shall be designed for use with 19" racking systems, flight cases and open portable frames.

The chassis must be constructed from zinc-coated steel and finished in durable powder-coat paint. Overall dimensions must not exceed 483mm wide by 132mm high by 300mm deep and 14kg in weight.

The Product shall have a central heat sink, that has the toroidal inductors, MCBs, triacs and firing circuit card mounted on it. Construction must be in such a way to allow continuous airflow drawn in over the MCBs on the front panel, passed through the tunnel of the heat sink and expelling the hot air out the side of the dimmer.

The front panel shall contain the GUI, XLR input and thru control connectors and allow access to the MCBs.

Insert appropriate rear connector option:

(refer page 2)

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The rear panel shall house the 12 3-pin Australian 10A output load connectors and the input power cable and gland.

The Product shall be a RED3 Dimmer from LSC Control Systems, model number RED12/10A.

The rear panel shall house the 12 CEE7 style output load connectors and the input power cable and gland.

The Product shall be a RED3 Dimmer from LSC Control Systems, model number RED12/10S.

The rear panel shall house the two 16-pole Wieland (or similar) output load connectors and the input power cable and gland.

The Product shall be a RED3 Dimmer from LSC Control Systems, model number RED12/10W.

The rear panel shall house the two 19-pin Socapex (or similar) output load connectors and the input power cable and gland.

The Product shall be a RED3 Dimmer from LSC Control Systems, model number RED12/10X.