LSC CONTROL SYSTEMS

GenVI

6 Channel GenVI TruPower 25Amp Rackmount/Portable Dimmer

Engineer and Consultant Specifications V2.02

General Description

The GenVI TruPower Dimmer (the Product) shall be a microprocessor controlled 3-phase input to 6 single-phase 25Amp output circuits, designed for rack-mounting or portable use. The Product shall be a user configurable Dimmer and Power Distribution product in one module (TruPower), whereby the operator can set any channel to be a dimmer or a zero-cross switched direct power relay channel. The Product shall be able to be configured for 8-bit or 16-bit dimming operation. The Auto Power function shall switch relay channels "On" when DMX512 is applied and "Off" when DMX512 has not been present for a user-selected time period.

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
- Select each channel to be a dimmer or relay
- DMX viewer capable of displaying all 512 channel output levels in bar graph format
- Graphical virtual faders for local control (rigger's control)
- Programmable "DMX Loss" scene
- Full 512 channel proportional Softpatch
- Software selectable DMX512 termination
- Fault indicators for loss of DMX512, over temperature and input power phase fail
- Help menus
- Owner information screen (back-up security)

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

Each output circuit shall be protected by a single-phase 25Amp "C" curve Type A Residual Current Breaker with Over current protection (RCBO). RCBOs that are not approved for use by the relevant electrical authorities shall not be accepted. The Product shall use electromechanical devices to switch power direct to the load output connectors. Devices using semi-conductors, such as Triacs or SCRs, to control the output alone shall not be accepted. The system shall utilise Pulse Transformer Fired Dimming (PTFD) technology and shall be able to drive inductive and reactive loads when in dimming mode, without the need for a ballast load. Units that use optocoupler technology shall not be accepted.

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.

Construction

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

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 19kgs in weight.

The front panel shall contain the GUI, XLR Input and Thru control connectors and the RCBOs. Two front panel mounted handles must be provided to allow for carrying the product or withdrawing the product from 19" racks and to also provide extra protection to the RCBOs and the GUI.

Insert appropriate rear connector option:

The rear panel shall house the six paired 3-pin 20A and 15A Australian output load connectors and the input power cable and gland.

The Product shall be a GenVI TruPower Dimmer from LSC Control Systems, model number GEN6/25A.

The rear panel shall house the output load and the input power cage-clamp style screw terminals.

The Product shall be a GenVI TruPower Dimmer from LSC Control Systems, model number GEN6/25T.

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