X10819

THYRISTOR CONTROLLER | THREE PHASE

S/LAC Series

Up to 30A / Up to 480V
Three-Phase AC Power Regulators



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KEY FEATURES:

- ✓ **Current Capacity:** Handles load from 15A to 30A across three phases.
- ✓ **High-Efficiency Heatsink:** Features a massive 0.4°C/Watt earthed heatsink, ensuring effective thermal management without the need for cooling fans.
- ✓ **Versatile Control Options:** Offers phase angle, burst firing, and logic control methods.
- ✓ **Semiconductor Fuses:** Pre-fitted with high-speed fuses for enhanced protection and reliability.
- ✓ **Ease of Installation**
- ✓ **Durable Construction:** Comes with a protective Perspex cover to safeguard internal components.

APPLICATIONS:

The S/LAC Series is perfect for controlling various types of equipment, including:

- ➢ Heaters
- ➢ Ovens
- ➢ Dryers
- ➢ Air Curtains
- ➢ Hot Plates
- ➢ Furnaces
- ➢ Electroplating Systems
- ➢ Controlled Rectifiers
- ➢ Transformers

The **S/LAC Series of Thyristor stacks** is engineered to provide precise control for 3-phase 480V AC applications, capable of handling loads up to 30A. Designed for versatility and reliability, these power regulators offer a range of signal control options, including phase angle, burst firing, or a combination of both. Each unit is assembled to meet the specific needs of your application and includes high-speed semiconductor fuses, and an integral heatsink for efficient thermal management.

The **S/LAC Series 3-Phase AC Power Regulators** are the ideal solution for achieving smooth, precise power control in a variety of industrial applications. Whether you are managing heating elements, industrial processes, or ventilation systems, these thyristor stacks provide the performance and reliability you need.

TECHNICAL SPECIFICATIONS

Maximum Voltage	Up to 480VAC
Maximum Current	Up to 30A
Line/Load/Earth Connections	M6
Controlled/Uncontrolled	Both available
Control Signal	Manual potentiometer, 0-5v, 0-10V, 4-20mA
Control Method	Phase angle, Burst fire, Combination
Mounting Hole Centres	130mm x 225mm
Cooling Fan	Not required
Maximum Ambient Temperature	50°C
Number of Legs	Up to 3
Additional Specifications	Please check the X10322 datasheet; don't hesitate to get in touch with us

YOU MUST READ THIS BEFORE INSTALLATION

ELECTRICAL SAFETY
WARNING: RISK OF ELECTRIC SHOCK
Always consult the Installation & Maintenance Instructions before connecting this product to the power supply.
WARNING: Disconnect Power Before Servicing
Ensure the electrical supply is safely disconnected before connecting to any supply, load, or control terminals.

INSTALLATION REQUIREMENTS
WARNING: Installation by Qualified Personnel Only
This product must only be installed or fitted by a competent, qualified installer familiar with the relevant electrical standards and installation practices.

USER RESTRICTIONS
WARNING: Not for Use by Vulnerable Individuals
This product is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they are supervised or instructed by a person responsible for their safety.

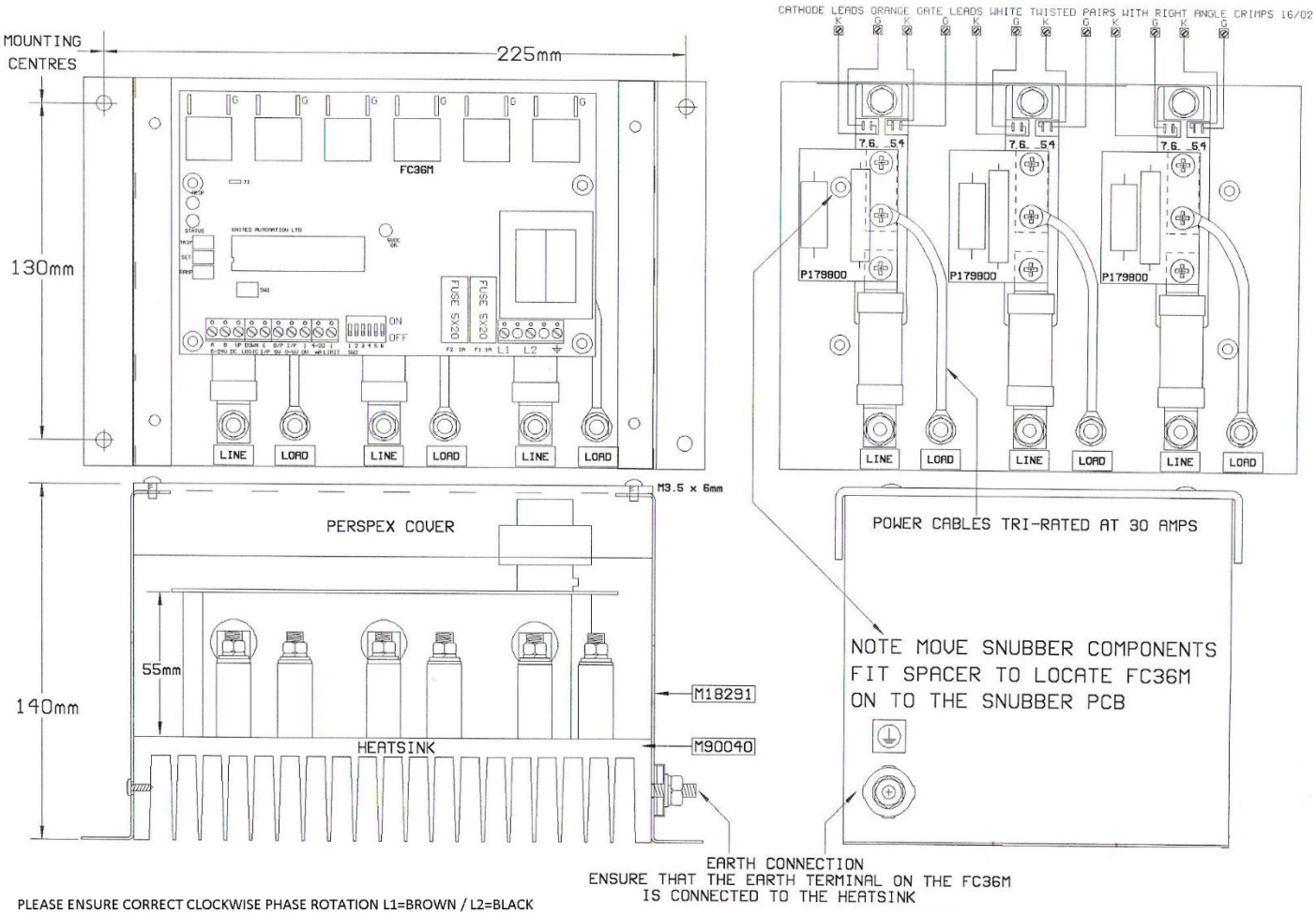
USAGE ENVIRONMENT
WARNING: Industrial Use Only
This is an industrial-grade product and is not intended for household use.

HOT SURFACE WARNING
WARNING: Hot Surfaces
On certain models, surfaces marked with this symbol become hot during use. Avoid direct contact and follow all thermal safety precautions.

S/LAC Series

Up to 30A, Up to 480V | **Three-Phase AC Power Regulators**

INSTALLATION, CONNECTIONS & DIMENSIONS



PLEASE ENSURE CORRECT CLOCKWISE PHASE ROTATION L1=BROWN / L2=BLACK

RECOMMENDATIONS
MOUNT FINS UPRIGHT TO MAXIMISE AIRFLOW
IF UNIT FITTED IN ENCLOSURE, IT IS RECOMMENDED TO USE A FAN AND OR LOUVRES
IF USED IN PHASE ANGLE A FILTER WILL BE REQUIRED
WARNING
LIVE TERMINALS
ISOLATE SUPPLY BEFORE COMMENCING ANY SERVICING WORK.

Cooling Requirements

Heatsink temperature rating for standard stack assembly is calculated when naturally cooled. If mounted in enclosure or cabinet, adequate ventilation and/or forced air-cooling should be fitted. The heatsink should be mounted with the fins vertical to ensure optimum air flow.

Load Considerations

It is always advisable to indicate the type of load when ordering. For industrial reliability, based on long experience, the SAC range has considerable current overload capacity on the power devices used. The rated currents are maximum continuous RMS values for use within the temperature guidelines as shown in the table below.

Unusual heating loads such as Molybdenum, Platinum or Tungsten have a typical 10 to 1, hot to cold, resistance ratio and therefore, when cold, draw larger currents than normal. Transformers and other inductive loads have surge starting currents and require the correct type of phase angle firing circuit. These and similar types of surge loads should be indicated, so that appropriate slow start or larger rated units can be correctly supplied for the specific needs.

Terminal Connections

LINE/LOAD: EARTH: M6 size terminals – (Torque settings: 4.5 – 5.5 Nm)

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RECOMMENDATIONS
FUSING

It is recommended to use semiconductor (fast-acting) type fuses or circuit breakers (semiconductor-MCB) for unit/device protection. On initial 'switch-on ', some loads may need an increased Factor of Safety (F of S) for unit and/or device protection. See SRA datasheet for further information.

DOCUMENTS

Other documents available on request, which may be appropriate for your application:

Code	Identity	Description
X10327	3-RFI	3 Phase Filter Recommendations: Addressing the EMC Directive
X10213	ITA	Interaction: Uses for phase angle and for burst fire control
X10255	SRA	Safety Requirements: Addressing the Low Voltage Directive (LVD) including Thermal Data/Cooling, Live Parts Warning, Earthing Requirements and Fusing Recommendations
X10322	ASC	AC Stack Specification and Application Datasheet
X10378	ILR	Inductive loads remedy sheet for use with phase angle controllers
P01.1	COS	UAL Conditions of Sale

It is recommended that installation and maintenance of this equipment should be done with reference to the current edition of the I.E.T. regulations (BS7671) by suitably qualified/trained personnel. The regulations contain important requirements regarding the safety of electrical equipment. For International standards refer STANDARDS on D of C.

PRODUCT CODE AND RELATED PRODUCT CODE

Product Code	Product Description
ALAS3I415-MYCNXX015X	S/LAC 415V 4/5/6 15A- Three Phase
ALAS3I415-MYCNXX025X	S/LAC 415V 4/5/6 25A- Three Phase
ALAS3I415-MYCNXX030X	S/LAC 415V 4/5/6 30A- Three Phase
ALAS3I480-MYCNXX025X	S/LAC 480V 4/5/6 25A- Three Phase

Additional Voltage Options Available
Other voltage configurations may be available upon request. Please contact United Automation to discuss your specific application requirements and determine the most suitable solution.
Email: enquiries@united-automation.com
Phone: +44 0 1704 516 501

To order, please refer to the Stack Specification and Application Circuit document X10322 Datasheet, and feel free to contact us.