X10647 Variable AC Voltage Regulators

PATFC

Phase Angle Triac Firing Circuit

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#### **KEY FEATURES:**

- $\checkmark$ **Compact Thick Film** Technology: Utilizes advanced thick film technology for a compact and efficient design, ensuring reliable performance in demanding environments.
- ✓ Simple Triggering Device: Offers a straightforward triggering mechanism, simplifying operation and enhancing usability for seamless integration into diverse applications.

#### **APPLICATIONS:**

- $\triangleright$ Ovens
- $\triangleright$ **Electric Furnaces**
- $\triangleright$ Heating Tapes
- $\triangleright$ Smelters
- ≻ Quartz Lamps / Heat Lamps
- ≻ Moulders
- ≻ Dryers
- Stress Relieving  $\triangleright$
- Space Heating  $\triangleright$
- $\triangleright$ **Heating Mantles**

\*Note: This product is unsuitable for use with inductive loads.

Introducing the Phase Angle Triac Firing Circuit (PATFC), a versatile thick-film hybrid firing circuit designed for phase control, offering simple and efficient proportional control for driving triac power devices across various load applications.

Upgrade your firing circuit with the Phase Angle Triac Firing Circuit (PATFC), offering precise phase control and reliable performance across a wide range of applications. Built with innovative thick film technology, it ensures efficient operation and simplified control for enhanced functionality.

#### **TECHNICAL SPECIFICATIONS**

Supply voltage	50V to 250V ac @ 50 to 60Hz	
Hysteresis (typical)	5%	
Power rating	5A (max.).	
Controlled conduction angle	10W (min.); 1kW (max.)	
Maximum gate current	50mA	
Storage temperature	0 to 65ºC	
Total conduction angle	0 to 160º	
Further Dimensions		
Overall (max.)	18(H) x 11(W) x 4(D) mm	
Lead pitch	5 & 2.5mm-pin S.I.L. type	
Lead length (max.)	10mm	
Lead diameter	0.5mm (typical)	
Body length	9mm	
Body width	11mm	
Body thickness	4mm	



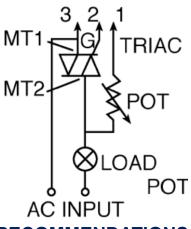
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**Phase Angle Triac Firing Circuit** 

# INSTALLATION DIMENSIONS & CONNECTIONS



### WARNING

This unit requires fusing.

All HAZARDOUS LIVE terminals - isolate supply before commencing any installation work.

#### <u>NOTE</u>

Front view - Lead connections are right to left (as above photo). Leads 1 to 2 are 2.5mm pitch; leads 2 to 3 are 5mm pitch.

## 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 unit protection. Integral gate protection is provided) but further appropriate fusing should be integrated into the 12V supply (e.g., HRC F1A) and load circuit. See SRA Datasheet for further information.

### DOCUMENTS

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

Code	Identity	Description
X10229	RFI	Filtering recommendation – addressing 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

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.

### **OPTIONAL EXTRAS**

Product Code	Product Description
A403027	250kΩ Potentiometer

### PRODUCT CODE AND RELATED PRODUCT CODE

Product Code	Product Description	
D31410	PATFC Angle TRIAC Firing Circuit	



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