



FC36M DUAL Mode Firing Board

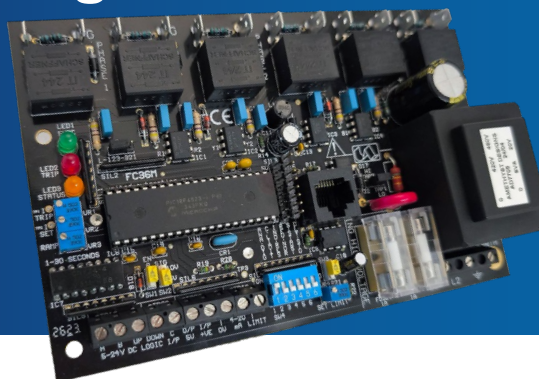
110V, 230V, 415V
Three Phase Thyristor Driver

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KEY FEATURES:

- ✓ Switch-Selectable Phasing Reversal
- ✓ **Dual Control Modes:** Phase-angle and burst-fire options
- ✓ **Analogue & Digital Control Options:** Opto-isolated inputs
- ✓ **Load Type Selection:** For resistive or inductive loads
- ✓ LED Status Indicators
- ✓ **Current Limit & Over-Current Protection:** Latching trip feature
- ✓ **Adjustable Ramp Control:** 0-30 seconds
- ✓ RJ45 Communications Port

APPLICATIONS:

The FC36M DUAL Mode Firing Board is perfect for a broad range of industrial applications, including:

- Power Supplies
- Half and Fully Controlled Rectifiers
- AC Motor Control
- DC Motor Control
- Soft Starters
- Heater Controllers
- Induction Generators
- AC Voltage Regulation

The **FC36M DUAL Mode Firing Board** is a sophisticated, microprocessor-based three-phase thyristor driver designed for seamless integration into power control assemblies. This versatile firing circuit is ideal for controlling thyristors (SCRs) across various industrial applications, ensuring precise and reliable power management. Available in multiple supply voltage options—110V, 230V, and 415V—this board minimises phase wiring complexity, requiring only simple gate/cathode outputs without the need for external phasing supply transformers.

The **FC36M DUAL Mode Firing Board** is a reliable and efficient solution for managing and controlling power in a wide range of industrial settings, offering advanced features and robust performance tailored to meet the demands of complex industrial processes.

TECHNICAL SPECIFICATIONS

Nominal Supply voltages (+/-10%)	110V, 230V or 415V ac @ 50/60 Hz
Primary fusing	Two HRC-F1A (ceramic 20 x 5mm)
Current consumption	350mA (Full Conduction)
Initial short circuit gate current	500mA
Sustaining short circuit gate current	250mA
Initial pulse voltage	9V
Sustaining pulse voltage	5V
Pulse train frequency	25kHz
Trigger mode-selected by input	Burst Fire and Phase Angle
Voltage signal into 10kΩ / 20k	0-5V dc / 0-10V dc
Current signal into 240Ω	4 - 20mA
Opto-isolated inputs	5 - 24V dc
Adjustable ramp control from power up	0-30 seconds
Control limit or over-current trip	0-100 mV dc or 0-25V dc
Load type-Selected by switch (SW4)	Resistive or Inductive
Operating and storage temperature range	0 to +65°C
Further Dimensions	
Firing Circuit board (PCB) only	L 162mm x W 108mm x H 40mm
Hole size and Fixing centres of PCB	4x M3.5 clear holes, 150mm x 62mm
Firing Circuit with DIN-rail enclosure	L 166mm x W 128 mm x H 70 mm

YOU MUST READ THIS BEFORE INSTALLATION

 ELECTRICAL SAFETY	 INSTALLATION REQUIREMENTS	 USER RESTRICTIONS	 USAGE ENVIRONMENT	 HOT SURFACE WARNING
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.	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.	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.	WARNING: Industrial Use Only This is an industrial-grade product and is not intended for household use.	WARNING: Hot Surfaces On certain models, surfaces marked with this symbol become hot during use. Avoid direct contact and follow all thermal safety precautions.

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110V, 230V, 415V | Three Phase Thyristor Driver

RECOMMENDATIONS

FUSING

It is recommended to use semiconductor (fast acting) type fuses or circuit breakers (Semiconductor - MCB) for unit 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 information.

DOCUMENTS

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

Code	Identity	Description
X10229	RFI	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
P01.1	COS	UAL Conditions of Sale
X10652	CM-(FC36M/MV)	Commander Module (Remote Programmer)
X20004	User Manual	User Manual - FC36M Three Phase Firing Card

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
A30102	FC36M DIN Housing Kit
J02001	RJ45 lead
A402131	Commander Module

United Automation can also supply Thyristors, Fuses or Complete Assembled.
For more details, please contact us enquiries@united-automation.com

PRODUCT CODE AND RELATED PRODUCT CODE

For 110V

Product Code	Product Description
A34424	FC36M (110V)
A34424-DIN	FC36M (110V) c/w DIN housing

For 230V

Product Code	Product Description
A34416	FC36M (230V)
A34416-DIN	FC36M (230V) c/w DIN housing

For 415V

Product Code	Product Description
A34411	FC36M (415V)
A34411-DIN	FC36M (415V) c/w DIN housing



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