

**X10248**  
**TRIAC DRIVERS**

# FC36M DUAL Mode Firing Board

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



## CONTACT US:

☎ 0044 (0) 1704-516 501  
✉ enquiries@united-automation.com  
🌐 www.united-automation.com

## 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 minimizes 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

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



BMF House - Wight Moss Way,  
Southport Business Park  
Southport PR8 4HQ  
ENGLAND

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## 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)

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, fuse or Complete Assembled.  
For more details, please contact us [enquiries@united-automation.com](mailto: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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