TRIAC DRIVERS



FC36MV DUAL Mode Firing

110V. 230V. 400V High Power Three Phase Thyristor Driver

CONTACT US:

- © 0044 (0) 1704-516 501
- □ enquiries@united-automation.com
- www.united-automation.com



KEY FEATURES:

- ✓ Auto Phase Rotation Correction & Phase-Loss Detection.
- Switch-Selectable Phasing Reversal.
- ✓ Versatile Control Modes: Phase-Angle, Burst-Fire, Combination
- ✓ Opto-Isolated Analogue/Digital Input Options.
- **Load Type Selection** Switch: Tailors performance for resistive or inductive loads.
- **LED Status Indicators**: Provides real-time operational feedback.
- Current Limit & Over-Current Protection.
- **Adjustable Ramp Control:** Smooth startup with 0-30 seconds delay.

APPLICATIONS:

Universally compatible with AC, DC, resistive, or inductive loads via thyristor pairs in threephase assemblies. Its SCR power handling capabilities provide smooth, proportional control across various industrial processes, including furnaces, electroplating, controlled rectifiers, and transformer management.

The FC36MV Dual Mode Firing, High-Power 3-Phase Thyristor Driver is a sophisticated, microprocessor-based firing circuit designed for seamless integration into three-phase power control assemblies. This populated PCB is ideal for controlling thyristors (SCRs) in high-power industrial applications. Available in various supply voltage configurations, the FC36MV minimises phase wiring complexity with its simplified gate/cathode outputs, eliminating the need for external phasing transformers. The versatile driver offers a wide array of selectable features, ensuring precision control and reliable performance.

Optimise your industrial power control solutions with the FC36MV, the ultimate high-power thyristor driver designed for precision and reliability in demanding environments.

TECHNICAL SPECIFICATIONS		
Nominal Supply Voltages (±10%)	110V, 230V, 400V, or 440V AC @ 50/60Hz	
Primary Fusing	Three HRC-F1A (ceramic 20 x 5mm)	
Current Consumption	650mA (Full Conduction)	
Initial Short Circuit Gate Current	750mA	
Sustaining Short Circuit Gate Current	400mA	
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 $10K\Omega/20K\Omega$	0-5V DC/10V DC	
Current Signal into 270Ω	4-20mA	
Opto-isolated Inputs	5-24V DC	
Adjustable Ramp Control from Power Up	0-30 seconds	
Control Limit or Over-current Trip	0-5V DC	
Load Type – selected by switch (SW4)	Resistive or Inductive	
Operating and Storage Temperature Range	0°C to +65°C	
Overall Dimensions		
Firing Circuit Board (PCB) only (L x W x H) (mm)	203 x 108 x 40	
Fixing Centres of PCB (6 x M3.5mm holes)	2 rows (75mm apart) of 3 holes (96.5mm between each)	
Firing Circuit with DIN-rail Enclosure (L x W x H) (mm)	207 x 128 x 70	

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

INSTALLATION REQUIRE
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 by a person responsible for their safety.



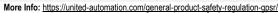
USAGE ENVIRONMENT

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



HOT SURFACE WARNING

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





FC36MV DUAL Mode Firing Board

110V, 230V, 400V 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
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
X20006	FC36MV	FC36MV Operating User Manual
X10652	CM-FC36M/MV	Remote HMI programmer – Commander Module CM-(FC36M/MV)
AP02/4	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.

OPTIONAL EXTRAS

Product Code	Product Description
A30102	FC36MV 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	

PRODUCT CODE AND RELATED PRODUCT CODE

For 110V		
Product Code	Product Description	
A34665	FC36MV (110V)	
A34665-DIN	FC36MV (110V) c/w DIN housing	

For 230V		
Product Code	Product Description	
A34433	FC36MV (230V)	
A34433-DIN	FC36MV (230V) c/w DIN housing	

For 400V		
Product Code	Product Description	
A34428	FC36MV (400V)	
A34428-DIN	FC36MV (400V) c/w DIN housing	



BMF House - Wight Moss Way, Southport Business Park Southport PR8 4HQ ENGLAND, UNITED KINGDOM Contact Us:

① 0044 (0) 1704-516 501

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