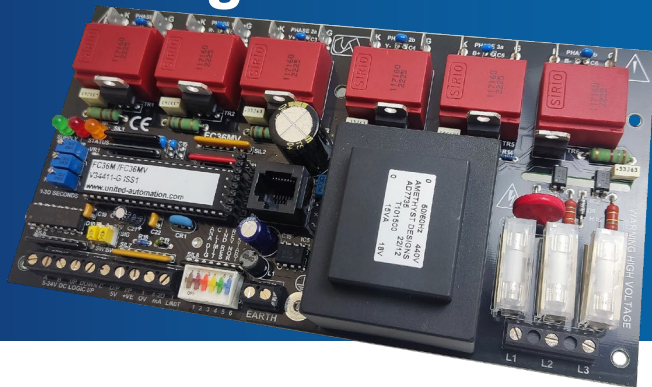


X10622  
**TRIAC DRIVERS**



# FC36MV DUAL Mode Firing

110v, 230v, 400v  
 High Power Three Phase Thyristor Driver



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## 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 three-phase 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

<b>Nominal Supply Voltages (±10%)</b>	110V, 230V, 400V, or 440V AC @ 50/60Hz
<b>Primary Fusing</b>	Three HRC-F1A (ceramic 20 x 5mm)
<b>Current Consumption</b>	650mA (Full Conduction)
<b>Initial Short Circuit Gate Current</b>	750mA
<b>Sustaining Short Circuit Gate Current</b>	400mA
<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/20KΩ</b>	0-5V DC/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>	0-5V DC
<b>Load Type – selected by switch (SW4)</b>	Resistive or Inductive
<b>Operating and Storage Temperature Range</b>	0°C to +65°C
<b>Overall Dimensions</b>	
<b>Firing Circuit Board (PCB) only (L x W x H) (mm)</b>	203 x 108 x 40
<b>Fixing Centres of PCB (6 x M3.5mm holes)</b>	2 rows (75mm apart) of 3 holes (96.5mm between each)
<b>Firing Circuit with DIN-rail Enclosure (L x W x H) (mm)</b>	207 x 128 x 70



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# FC36M 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
X10621	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	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
A34665	FC36MV (110v)
A34665-DIN	FC36MV (110v) c/w DIN housing

### For 230V

Product Code	Product Description
A34433	FC36M (230v)
A34433-DIN	FC36M (230v) c/w DIN housing

### For 400V

Product Code	Product Description
A34428	FC36M (400v)
A34428-DIN	FC36M (400v) c/w DIN housing



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