



Reference Guide

AVT - MC

Motor Controller

OVERVIEW

The AVT-MC Motor Controller has been designed to suit reversing AC motor control requirements such as motorised screens, lifts, curtains etc for audio-visual, commercial, industrial or domestic applications.

An internal 12V DC power supply provides power to drive two opto-isolated 8 Amp (inductive) power relays used to switch the 240VAC input to either the A1 (UP/OPEN) or A2 (DOWN/CLOSE) contacts on the industry standard 4-pin connector. A RISC microprocessor provides precise control and higher reliability than discrete components. Control inputs, typically from low voltage relays or switches, connect easily to the captive screw terminal block located on the opposite side to the power outlets on the motor controller.

Providing a latched or momentary contact to UP/OPEN or DOWN/CLOSE in respect to GND, will switch 240VAC to the A1 or A2 contact respectively of the 4-pin connector. Note that there is a **0.5 second delay** between an UP or DOWN or ALT movement to allow dissipation of back EMF current from the motor. The ALT input will drive the motor in the opposite direction to its last movement. All inputs are opto-isolated and float at a +5VDC level. STOP will immediately stop the motor.

In the unlikely event of the microprocessor failing the circuit has been designed to prevent both relays from being turned on at once.

Limit switches can be easily setup using the on-board switches for UP, DOWN & STOP, with LEDs showing the status of the unit.

The AVT-MC features a Power Timeout Delay feature which disconnects power to the controlled device at a specified time after a function is selected. Length of the timeout can be set using a small flat bladed screwdriver to turn the TIMEOUT potentiometer located on the front panel beside the input connector. Potentiometer is a single-turn type: fully anticlockwise is approximately a 2 second timeout, fully clockwise is approximately a 180 second timeout.

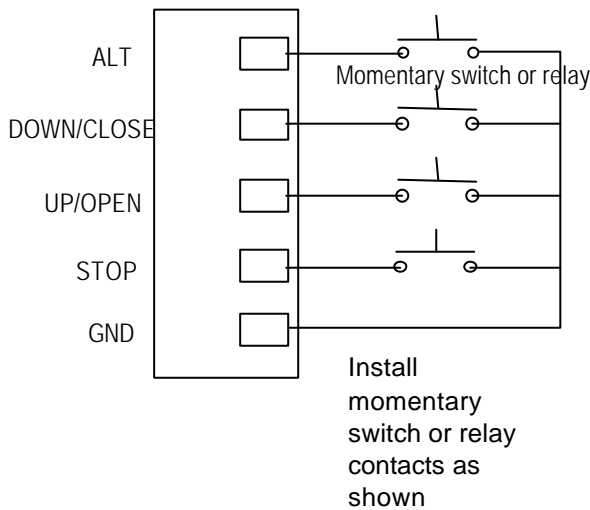
Housed in a compact metal enclosure with a textured black powder coated finish, the power controller can be easily fastened to any flat surface using the keyhole-shaped slots in the flanges.

FEATURES

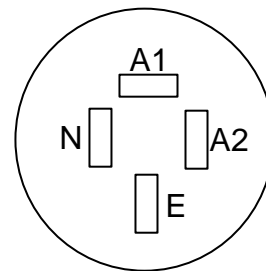
- 2 x 8 Amp (inductive) power relays
- Built-in protection to prevent both relays being on at once
- Latching low voltage input control
- Manual control via switches on unit
- LED status on unit
- 0.5 second delay between motor movements
- Standard 4-pin socket connection for screens
- 2 - 180 seconds Power Timeout Delay (additional delay available with x3 jumper on board)
- Manual mode available via onboard jumper

SETUP

Input Wiring



Output Wiring



4-PIN SOCKET

- A1 UP/OPEN
- A2 DOWN/CLOSE
- N NEUTRAL
- E EARTH

SPECIFICATIONS

Power

- Control - 5V DC with a maximum of 15mA/contact
- Outlets - 240V AC 8A (Inductive Load)

Case Size

75mm x 100mm x 185mm (HWD)

Weight

0.6 kg

Mounting

Horizontal/Vertical, keyhole slots on flange

A.V. Technology reserves the right to change specifications at any time without prior notice.