



DCM 24v - 30A, 40A, 60A

A DC motor controller is an electronic device that manages the performance of a direct current (DC) motor. You can use it to start and stop the motor, control its speed, torque, and rotational direction. This general purpose, modulated, pulse-width, low voltage dc controller, can be operated in any of the following modes:

Motor Control: High Frequency (RT/RT1 no link) speed control set by a 5kΩ potentiometer.

Lighting/Heating Control: Low frequency (RT/RT1 linked) output level set by a 5kΩ potentiometer as above.

Temperature Control: Thermistor connected across RT/RT1, with a temperature range of 5-130°C. Temperature set by a 5kΩ potentiometer.

Applications

- Speed Control of low voltage
- High Frequency
- DC Motors
- Low Voltage Lighting and
- Medium Frequency Heaters



Features

- Manual or signal control.
- Temperature control with optional sensor.
- 180 or 350Hz selectable frequency ranges.
- Short-circuit protection.
- 6 to 24V dc supply voltage range.

Technical Specifications

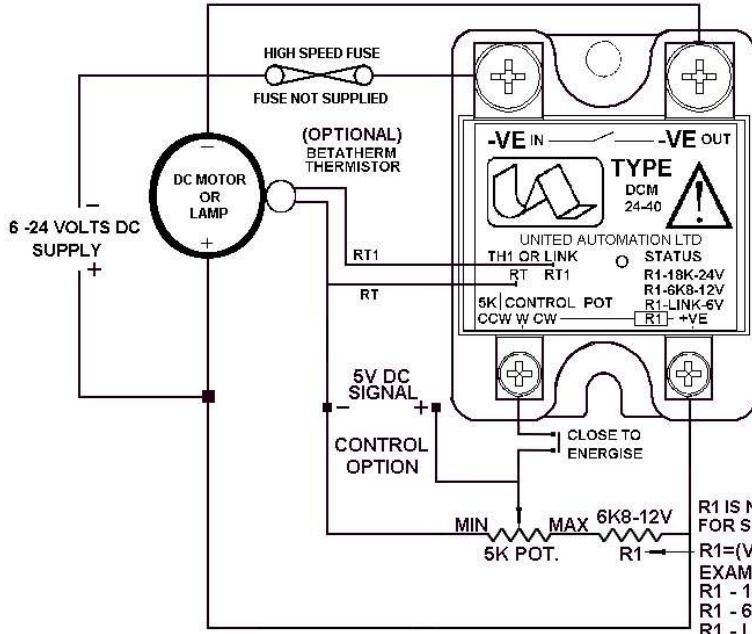
Specifications	DCM24 - 30	DCM24 - 40	DCM24 - 60
Unit Limiting DC Current	30A	40A	60A
Maximum DC System Line Voltage	24V DC		
Control Input Voltage Range	0-5V DC		
Control Input Current @ 5V Typical	1mA DC		
High Frequency Mode (no link across RT and RT1)	350Hz		
Medium Frequency Mode (link RT and RT1)	180Hz		
Optional for temperature control (terminals RT & RT1): Thermistor type – Betatherm – 10K3A1	5 - 130°C		
Unit Operating Temperature Range	0°C to 65°C		
Unit Storage Temperature Range	0°C to 85°C		



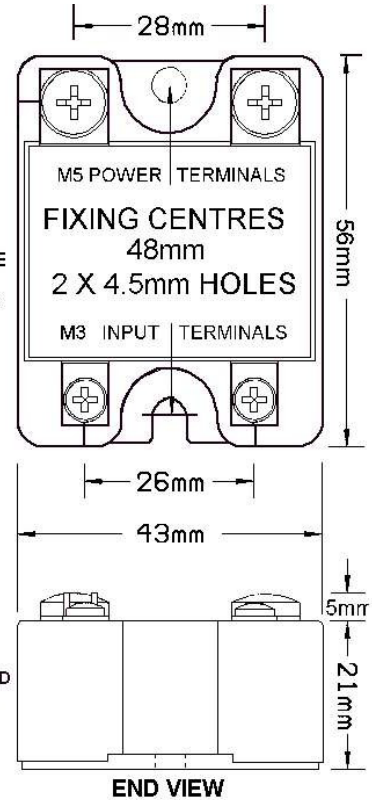
Installation

MOTOR CONTROL CONNECTIONS

WARNING
SWITCH OFF SUPPLY BEFORE COMMENCING ANY SERVICE WORK.
ALL SET POINTS CAN BE CONTROLLED
BY BOTH A 5K POT AND 0-5V DC SIGNAL

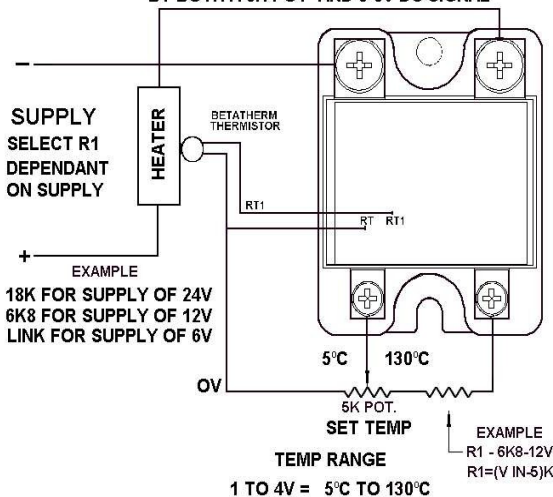


USE
HEATSINK
PASTE
FOR
EFFECTIVE
THERMAL
COUPLING

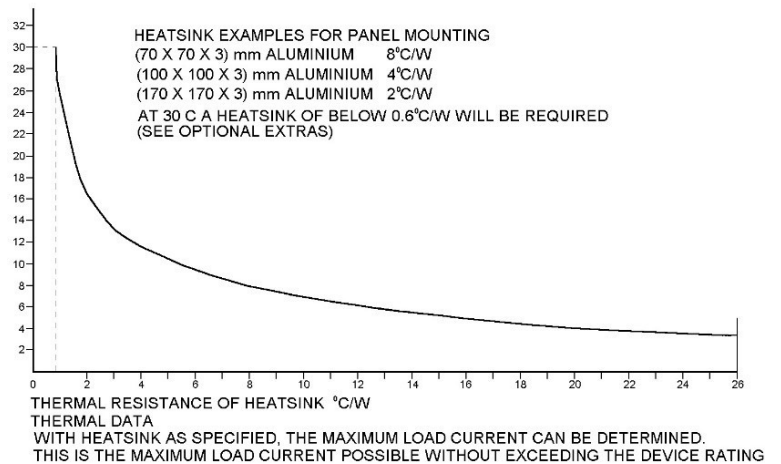


TEMPERATURE CONTROL CONNECTION FOR 12V SUPPLY

WARNING
SWITCH OFF SUPPLY BEFORE COMMENCING ANY SERVICE WORK.
ALL SET POINTS CAN BE CONTROLLED
BY BOTH A 5K POT AND 0-5V DC SIGNAL



COOLING REQUIREMENTS



PROTECTION NOTE: Use a minimum 3A Rated Cable for the +VE supply of the DCM controller For controller protection a 'TRANSIL' component device is recommended to be fitted (hard wired) across the following supply terminals – "M3 +ve" and "M5 – ve IN".



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.

Recommendations

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

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
D80005	Betatherm 10K2A1 bead sensor only
A26046	Betatherm 10K3A1 bead (type - X) sensor with 1m PTFE leads
A26036	Betatherm 10K3A1 enclosed (type - X) sensor with 1m PTFE leads
Z01062	Heatsink Compound Syringe (Must be applied while fitting)
A403001	5K Potentiometer
A80030	SSR Cover Kit

PRODUCT CODE AND RELATED PRODUCT CODE

Product Code	Product Description
A75228	DCM24-30 24v DC 30A Motor Controller
A75250	DCM24-40 24v DC 40A Motor Controller
A75251	DCM24-60 24v DC 60A Motor Controller