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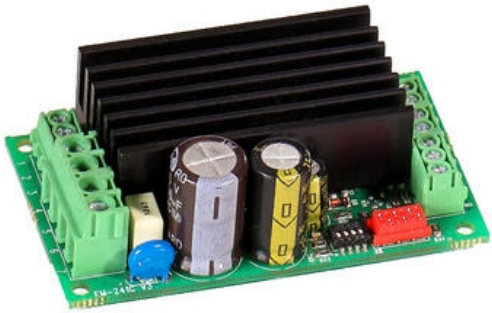
ELECTROMEN - EM-241C

DC motor 2Q drive 12-48Vdc, 10-15A

EM-241C
DC motor 2Q drive 12-24 V dc, 15 A



- 12-48Vdc, 10-15A continuous, 25-30A peak
- Speed, direction, current limiting, soft start/stop and auto-reverse control
- Limit switch inputs for end of travel
- Compact, DIN rail mountable

PRODUCT DESCRIPTION

EM-241C is brushed DC motor drive with a 10/15A nominal output and offers a number of special functions.
There are adjustable acceleration and deceleration ramps to ensure smooth motion and adjustable current limits to protect the motor against overcurrent damage - this feature can also be used as an end-stop limiter. The device has also two settable speeds, which can be useful in positioning applications.

Control inputs FW and BW start the forward and backward motion, STOP will shut the motor down, and there are also available limit switch inputs for both directions. The SPEED-2 input by default activates preset speed-2, although it can also be used for analog speed control with 0-5V signal. FAULT terminal pin can be used to signal fault conditions, or pulled down to ground to disable the drive - for example, several fault pins could be linked together on multiple units and ensure a synchronised stop.

There are two selectable control modes - continuous and impulse. In continuous mode the motor runs as long as the control is active, in impluse mode the drive only needs a momentary comand start the motor, and further impulse to change the status. Additionally, there are user adjustable 'starting kick' and auto reverse settings, as well as selectable NPN or PNP input logics. The C-version includes two new parameters: freewheel options for release of the rotor and PWM frequency selection - 16kHz PWM is silent, although the output capacity current is lower.

The parameters can be set with the EM-236 stand-alone interface unit or the EM-328 programming cable (with free PC software), both the software and programmer allow for monitoring and diagnostics of some of the functional values on the unit.

Features
- Small size with high current output
- Current limit
- Zero current limit
- Overvoltage brake
- Speed setting
- Flexible control inputs
- Impulse / continuous mode
- DIN rail base mountable
- 2kHz or 16kHz PWM frequency
- Suited to 5-50W DC motors
- Digital parameter setting
- Freewheel options (new)
- C-version replaces A and B versions
- C-firmware can be loadad B ver. card
- C.version available with molex connector

* Continuous current output when ambient temp is <50°C

12-24Vdc version drive =
15A at 100% speed / 10A at 5-99% speed PWM=2kHz
10A at 100% speed / 5A at 5-99% speed PWM=16kHz
Peak (5secs) 30A at 2khz PWM and 25A at 16kHz PWM

24-48Vdc version drive =
10A at 100% speed / 7A at 5-99% speed PWM=2kHz

7A at 100% speed / 4A at 5-99% speed PWM=16kHz
Peak (5secs) 25A at 2khz PWM and 20A at 16kHz PWM

TECHNICAL DATA

2053_Current limit (A)	0,1-25
2421_Peak current (A)	(5s) *30
5646_Dimensions length x width x height (mm)	72x42x25mm
Analogue input	0-5V
Brake output	No
Change direction of rotation (CW/CCW)	Yes
Current limit adjustable	Yes
Current setting range	0.1-15 A
Currenttrip autoreveice	Yes
Forward/Reverse	Yes
Functions	Currenttrip autoreversing, Speed settings, Impulse/continuous mode, Joystick analog input, Softstart/stop, Potentiometer adjustable speed, RS485/Modbus, Stop at limit position, Speedregulator, Change direction of rotation (CW/CCW)
Impulse/continuous mode	Yes
Joystick analog input	No
Logic input high	>4V = ON
Logic input low	<1V = OFF
Max continuous current	*15 A
Mounting	DIN rail
Operating temperature	-40°C...+60°C
Parallel driver four motors	No
Parallel driver two motors	No
Position with potentiometer	No
Positioning	No
Potentiometer adjustable speed	Yes
PWM frequency	2kHz/16kHz
RS485/Modbus	No
Softstart/stop	Yes
Speed settings	Yes
Speedregulator	Yes
Stop at limit position	Yes

Suitable engine	DC
Supplier	Electromen
Supply voltage	12 V DC, 24 V DC
Weight	75 g