

## ELECTROMEN - EM-180

C motor 2Q drive 12-24Vdc, 10A

EM-180

DC motor 2Q drive 12-24 V dc, 10 A

- 12-24Vdc, 10A continuous, 15A peak
- On/Off, direction and braking control
- Adjustable start ramp and two current limit modes
- Compact, DIN rail mountable



### PRODUCT DESCRIPTION

EM-180 is developed for controlled ON-OFF driving and direction change of a DC-motor with brushes. Driver has advanced current limit features. It limits the motor current in start-up and jamsituations and that way protects the motor and mechanics from over torque. Driver has also an error output to indicate error / over current situations.

The acceleration ramp time for start-up is adjustable to suit each application. In other word the motor voltage is slowly rised to give a smooth start-up. As the control is set off, the motor is dynamically braked with so called short-circuit braking. The motor poles are connected together. The reverse and forward commands can be set with positive or negative control. The freewheel command sets motor run free. Freewheel overrides forward and backwards commands.

The current protection is double acting. First there is a continuous and adjustable current limit which decreases the motor voltage if the current exceeds the adjusted value. Second there is settable trip feature that cuts the motor voltage if the current limit value is exceeded (after trip delay 2ms). After trip the motor starts only to the opposite direction. Additionally the driver doubles the adjusted current value for 0.3 seconds in start-up to ensure sufficient power to overcome the start-up friction.

#### FEATURES:

- Fast change of direction
- Soft start-up, acceleration ramp
- Settable current limit
- Trip or continuous current limit
- High efficiency
- Dynamic braking
- High momentary load capacity
- Rail base fittable
- Freewheel option
- Two control modes

### TECHNICAL DATA

|   |   |
|---|---|
| <b>Control type</b>                       | Braking, Direction, Torque, Soft start / stop |
| <b>Current setting range</b>              | 0-15 A  |
| <b>Dimensions length x width x height</b> | 73x43x35mm mm                                 |
| <b>Logic input high</b>                   | >4V = ON                                      |
| <b>Logic input low</b>                    | <1V = OFF                                     |
| <b>Max continuous current</b>             | 10 A  |
| <b>Mounting</b>                           | DIN rail                                      |

|                       |                  |
|-----------------------|------------------|
| Operating temperature | -20°C...+70°C    |
| Peak current          | 30 A             |
| PWM frequency         | 500Hz            |
| Suitable engine       | DC               |
| Supplier              | Electromen       |
| Supply voltage        | 12 V DC, 24 V DC |
| Weight                | 80 g             |

