

EM-176 WIRING AND INSTALLATION

INSTALLATION EM-176

Supply voltage 12-35VDC, ripple <30% at full load.
CAUTION ! Wrong polarity may damage the device.
CAUTION ! The device is not equipped with an internal fuse.

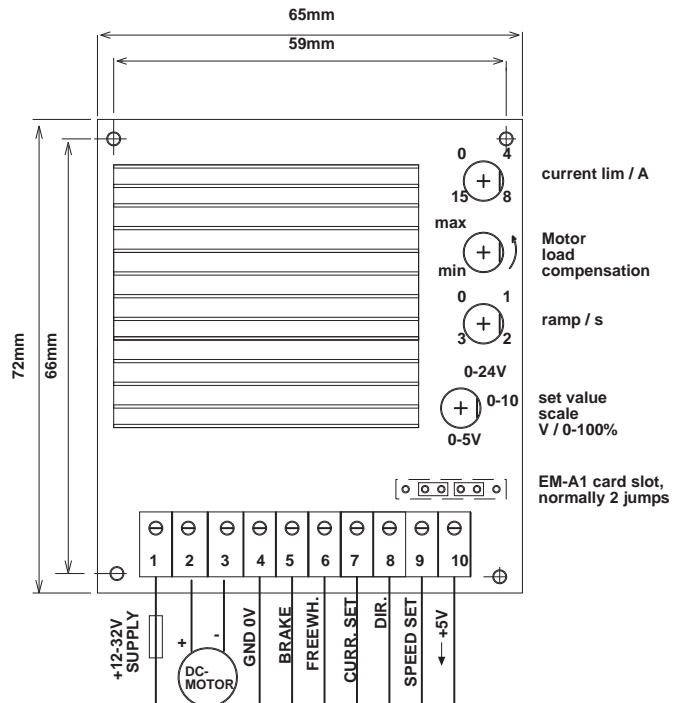
SETTINGS AND ADJUSTMENTS

Set trimmers in center position. Current limit can be set in the range of 0-15A. If an external voltage signal (0-5V) or potentiometer is used to set the current limit, set the inbuilt current limit trimmer to 0-position.

The compensation (Rxl) is used as follows: first set the motor running slowly. Then increase compensation until the motor starts twitching. Now decrease compensation a little so that the twitching ends. Finally test the operation: when loading the motor, the rotation speed should almost remain constant.

The acceleration- and braking ramp are set with trimmers in the range of 0-3s (the time from zero to full speed or vice versa). The speed can be set with potentiometer or with 0-5V voltage signal. With the set value trimmer the set value range can be scaled to match the motor rotating speed range.

If the use of bipolar control signal is desired, an auxiliary card EM-A1 can be fitted onboard, which makes it possible to use either $\pm 5V$ or $\pm 10V$ control voltage signals. EM-A1 card also gives -5V auxiliary voltage into pin8; this enables potentiometer to be used to control both speed and direction (forward-stop-reverse).

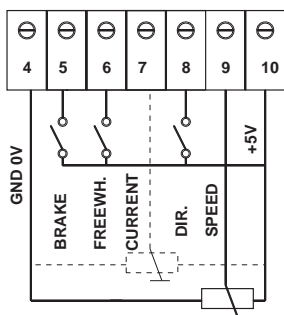


CAUTION !
Wrong polarity can damage the device.
Select a fuse (1-16A) in accordance with the application.

EXAMPLE 1

CONTROLLING WITH SWITCHES.
 SPEED SET WITH POTENTIOMETER.
 SPEED RANGE ADJUSTABLE WITH SPEED SET RANGE ADJUSTMENT.

CURRENT LIMIT CAN BE SET WITH INBUILT TRIMMER. IF EXTERNAL ADJUSTMENT IS USED, SET THE INBUILT CURRENT LIMIT TRIMMER TO MINIMUM.



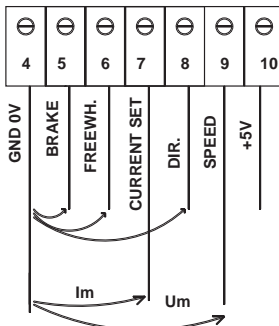
EXAMPLE 2

CONTROLLING WITH VOLTAGES.

CURRENT 0-5V CORRESPONDS TO 0-15A.
 CURRENT LIMIT TRIMMER IS SET TO MIN.

SPEED 0-5V CORRESPONDS TO 0-100%
 SPEED. SCALE WITH TRIMMER.

DIRECTION, FREEWHEEL OR BRAKE
 0-1V OR OPEN=OFF, 4-30V=ON.



EXAMPLE 3 (OPTIONAL)

EM-A1 BIPOLAR-CARD INSTALLED.

CONTROLLING WITH POTENTIOMETER
 FORWARD/REVERSE OR WITH VOLTAGE
 SIGNAL ($\pm 5V$ OR LARGER BIPOLAR
 VOLTAGE). RANGE ADJUSTABLE WITH
 RANGE SCALE TRIMMER ADJUSTMENT.

OTHER CONTROLS AS IN PREVIOUS
 EXAMPLES.

