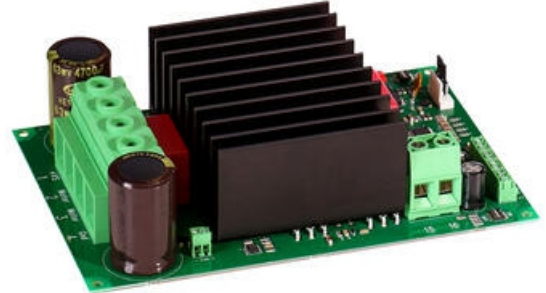


## EM-282D

DC motor 2Q drive 12-48 V dc, 80-100 A

EM-282D  
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- 12-48Vdc, 80-100A continuous, 160-200A peak
- Speed, direction, current limiting, soft start/stop, braking load output and auto-reverse control
- Limit switch inputs for end of travel
- Compact, DIN rail mountable
- EM-A1 card slot option for symmetrical control  $\pm 5V$  or  $\pm 10V$  (rev-stop-fwd)



### PRODUCT DESCRIPTION

EM-282 is a full bridge DC-motor starter. It is designed to work with DC-motor in applications where some special functions are needed. Starter has adjustable acceleration and deceleration ramps, which make possible the smooth starts and stops. Adjustable current limit protects motor against overcurrent and there is also current limitation for brake ( regeneration ) . This device has also two settable speeds, which are useful in positioning applications. Control inputs FW and BW start the forward and backward run. STOP is for the motor shut-down but there are also available individual limit inputs for FW and BW directions. SPEED-2 input activates preset speed-2, but it can also be used as input for analog speed control signal 0-5V. FAULT terminal has at the same time input and output function, the pin is normally high, but is pulled down in overheat and conditionally also in current trip situation. If FAULT-line is pulled down externally it will cause a stop and prevent the new start. For example, it is possible to link fault pins of several units together and achieve a synchronous stop. There are 2 selectable control modes, continuous and impulse. In continuous mode the motor runs as long as the control is active. In impulse mode a short command starts the motor, and only a new impulse will change the status. The card has selectable input logics. Inputs are divided in two groups, control and limit -inputs. Groups can be individually set for NPN or PNP logic. The parameters are set with EM-236 interface unit. Operation of the controller and some of its functional values can also be monitored with EM-236 interface unit.

### FEATURES

- high current output
- brake load output
- current limit
- current limit for brake also
- zero current limit
- speed setting
- flexible control inputs
- impulse / continuous mode
- rail base mountable
- digital parameter setting

\* 12-24Vdc version drive =

Motor current max. continuous 100A ( at 25°C amb temp),  
80A ( at 60° amb temp ) and peak 200A ( 5s )  
Motor currents are about 20% lower if pwm frequency is 16kHz

\* 24-48Vdc version drive =

Motor current max. continuous 80A (at 25°C amb. temp)  
70A ( at 50° amb temp ) and peak 160A ( 5s )  
Motor currents are about 20% lower if pwm frequency is 16kHz

### TECHNICAL DATA

**Analogue input**

+/-0-5V or +/-0-10V or 0-5V or 0-10V

<b>Brake output</b>	Yes
<b>CanOpen</b>	No
<b>Change direction of rotation (CW/CCW)</b>	Yes
<b>Continuous current max.</b>	2x100A
<b>Current limit</b>	1-200
<b>Current limit adjustable</b>	Yes
<b>Current setting range</b>	1-200 A
<b>Currenttrip autoreveice</b>	Yes
<b>Dimensions length x width x height</b>	180x122x60mm
<b>Ethercat</b>	No
<b>Forward/Reverse</b>	Yes
<b>Functions</b>	Currenttrip autoreversing, Brake output, Speed settings, Impulse/continuous mode, Softstart/stop, Potentiometer adjustable speed, RS485/Modbus, Stop at limit position, Speedregulator, Change direction of rotation (CW/CCW)
<b>Impulse/continuous mode</b>	Yes
<b>Joystick analog input</b>	No
<b>Logic input high</b>	>4V = ON
<b>Logic input low</b>	<1V = OFF
<b>Max continuous current</b>	*100 A
<b>Mounting</b>	DIN rail
<b>Operating temperature</b>	-40°C...+60°C
<b>Parallel driver four motors</b>	No
<b>Parallel driver two motors</b>	No
<b>Peak current</b>	200
<b>Position with potentiometer</b>	No
<b>Positioning</b>	No
<b>Potentiometer adjustable speed</b>	Yes
<b>PWM frequency</b>	2kHz/16kHz
<b>RS232</b>	No
<b>RS485/Modbus</b>	Yes
<b>Softstart/stop</b>	Yes
<b>Speed settings</b>	Yes
<b>Speedregulator</b>	Yes
<b>Stop at limit position</b>	Yes
<b>Suitable engine</b>	DC

