OEM AUTOMATIC

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ELECTROMEN - EM-316A BLDC MOTOR 4Q DRIVE 12-35 V DC, 10A

EM-316A

ELECTROMEN

- 12-24 V dc, 10 A continuous, 25 A peak
- Open & closed loop (hall sensor feedback) control operation
- Speed, direction, current limiting, soft start/stop and dynamic braking control
- Compact, din rail mountable
- EM-A1 card slot option for symmetrical control ±5V or ±10V (rev-stop-fwd)

PRODUCT DESCRIPTION

EM-316A is brushless DC-motor driver with hall sensor feedback. The unit has a mosfet power stage with good efficiency and it meets also todays EMC requirements. The driver can be used with 120° or 60° commutation. The unit has the basic digital command inputs like direction, brake, start/stop, disable and there is analog inputs for speed and current control. One digitally presetable second speed (speed-2) is possible to activate with digital command input. EM-316 has two NPN outputs for fault and overcurrent indication use. Some input and output functions can be modified with parameters. Driver includes overvoltage, undervoltage and overtemperature protections. These fault situations are indicated with fault on-board LED. Overtemperature and current limit situations can be reset with reset input, reset-timer or by setting analog speed control to value to 0.

There are two control options for speed. Direct control (open loop) sets motor voltage in propotion to control voltage as with a standard DC-motor. Closed loop uses hall sensor feedback for speed control, this modeoffers good speed regulation.

Start and stop ramps work in both mode. Speed adjust range, closed loop rpm range and rampse can be set with parameter.

Anolog input are filtered so that there can also use PWM signal for control speed and current.

EM-316A has added card slot for EM-A1card, which make possible to use symmetric control -5..0..+5V (rev-stop-fwd)

EM-A1 card generate also -5V auxliary voltage for local potentiometer control

Setting can be done digitally with EM-236 interface unit or with Emen-Tool lite program installed in PC and EM-268 adapter cable. Parameters stored into nonvolatile memory of device. This interface unit can also be monitored the current and rpm of motor.

Device can be installed in DIN-rail base and some enclosure options are also available.

FEATURES

- **Three phase output**
- **Speed and torgue adjustment**
- **Open/closed loop modes**
- **Dynamic braking**
- **Current limit and trip**
- **Fault and overcurrent outputs**
- **60° / 120° commutation options**
- **Good efficiency**
- **Low EMC emissions**
- **DIN-rail mountable**
- **EM-316A is compatible with EM-316**
- **Added EM-A1 card slot for ±10V control**
- **Rpm-pulse output option (prog v1.5)**

TECHNICAL DATA

Analogue input	+/-0-5V or +/-0-10V or 0-5V or 0-10V
Control type	Speed, Braking, Direction, Torque, Soft start / stop
Current setting range	0.1-25 A

Dimensions length x width x height	89x73x32mm mm
Logic input high	>4V = ON
Logic input low	<1V = OFF
Max continuous current	10 A
Mounting	DIN rail
Peak current	25 A
PWM frequency	16kHz
Suitable engine	BLDC
Supplier	Electromen
Supply voltage	12 V DC, 24 V DC
Weight	200 g