

EC Motor controller EC750



Description

EC 750 is a new and unique BLDC motor controller for the growing market of energy saving fans etc. It is also a **SENSORLESS** controller, and therefore has no need for positioning sensors in the EC motors.

It can be supplied in an IP54 rated case, or integrated to individual OEM requirements.

Compared to traditional Frequency inverters and AC machines, the new EC 750 and EC motor can save between 20-30% of your energy requirements.. It's also a GREEN product that meets new environmental demands around the world.

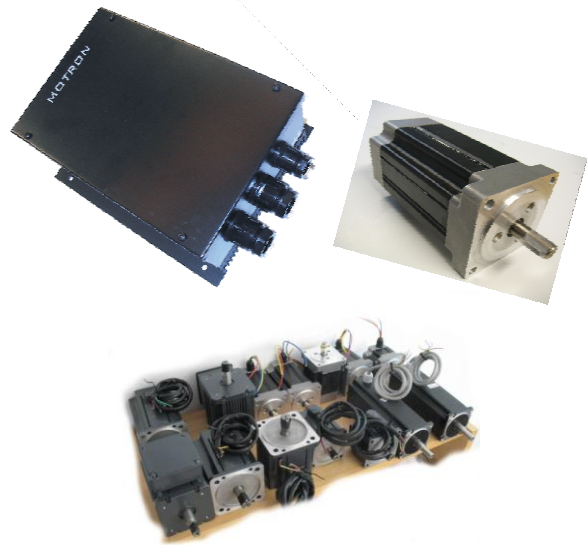
Moreover, EC motors have a flat characteristic, so the moment of inertia is almost constant throughout the controllable speed range.

Motors have to be matched to the controller for optimum performance and energy savings. Therefore DeltaSense work together with suppliers and customers to tailor their EC motor to match the EC750.

EC 750 comes as a "plug and play" unit. Connect power and motor, analogue control and that's it!. Multiple safety functions make the controller extremely robust, and the integrated EMC filter ensures CE compatibility.

The EC 750 can be controlled digitally and customised as required.

Picture



Technical

- Input supply 180-260VAC 50/60Hz
- Input current max 7.5A continous
- Input current max 10A 15 sec
- Typical motor 750W / 6 Pole
- Output Current max 3.5A continous
- Output Current max 5.5A 15 sec
- Max leakage current > 3.5mA
- >Short circuit protection from outputs
- >Short circuit protection to Ground
- >Over and undervoltage protected
- >Temperature protected
- >Overcurrent protected
- LED for status indication
- Modular jack for configuration program (PC)
- Alarm relay output with C-NO-NC contacts
- Fixet Acceleration/Deceleration
- Analog control 0-10V or 2-10V,
- Digital control RS485 with Modbus protocol (soon)
- RUN start input
- DIR direction input
- Restart by any failure after apr. 30 seconds
- Modulation pt 16 Khz for the non audible area.
- Environmental temperatures 0-40°C
- Meassures: 225x180x105 mm .
- CE: EMC 89/336/EEC LVD 73/23/EEC

Connections etc

STATUS LED:
GREEN WHEN OK
ORANGE WHEN CURRENT EXCEEDS LIMIT SET ON DIAL RED WHEN STOPPED BY CURRENT LIMIT OR ANY INTERNAL FAILURE

MODULAR:
USED FOR DOWNLOAD OF FIRMWARE AND FOR CONNECTION TO CONFIGURATION PROGRAM

ADJUST MOTOR CURRENT FOR MOTOR PROTECTION (DIAL):

- 1 APPLY POWER. MOTOR AND 10V AT U_{in}
- 2 MAKE SURE MOTOR HAS FULL LOAD AT THE APPLICATION
- 3 TURN DIAL CCW FOR THE LED TO BE ORANGE
- 4 ADJUST DIAL 2 LEVELS HIGHER THAN THIS SETTING

18 Gnd	↔	
17 B	↔	RS 485 BUS
16 A	↔	
15 NC	↔	Relay output: (max 230V / 2A)
14 NO	↔	ALARM RELAY
13 C	↔	
12 RUN	← 0VDC IN	START/STOP
11 DIR	← 0VDC IN	DIRECTION
10 Gnd	← 0VDC	
9 U _{in}	← 0-10VDC IN	SPEED CONTROL INPUT
8 +10V	← +10VDC	
7 PE	↔	
6 W	→	OUTPUT MOTOR 3 x 230VAC Max 3.5A (Min. 4x1.5 Kv / Screened cable max lenght 25 m.)
5 V	→	
4 U	→	
3 N	←	INPUT SUPPLY 1 x 230VAC/50Hz Max 7.5A (Min. 3x1.5 Kv.)
2 L1	←	
1 PE	↔	