COD. 273S

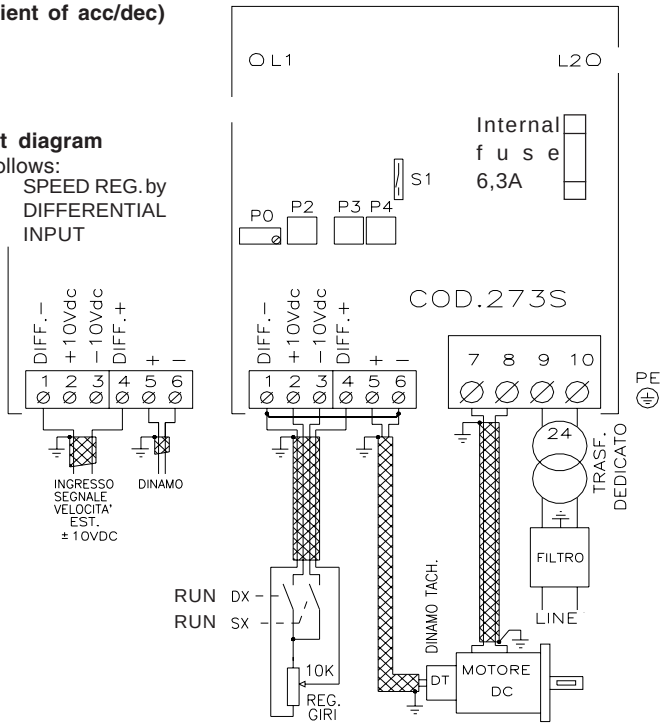
BIDIRECTIONAL DRIVE FOR 24V DC PERMANENT MAGNET MOTORS

Drive cod. 273S is a bidirectional speed regulator for DC permanent magnet motors using mosfet. It has the possibility of selecting armature or tachodynamo feedback.

Technical Characteristics

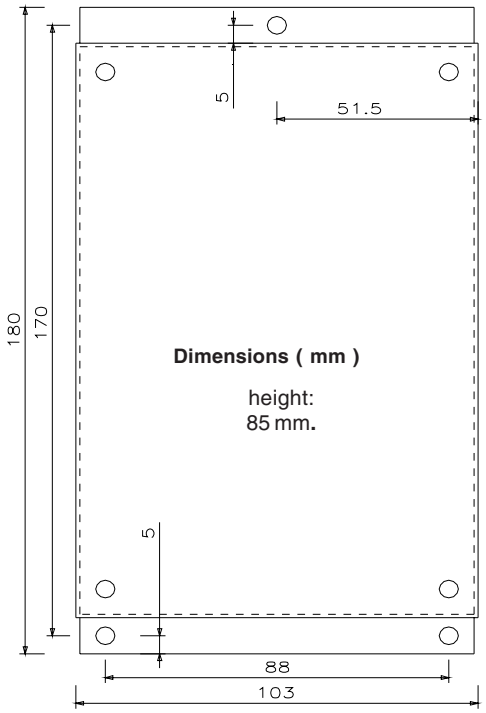
- Enclosure IP 20
- Supply voltage: 24 VAC + 10%.
- Max armature **continuative current**: 3A
- Max armature starting current: 6 A **(only for short transient of acc/dec)**
- Speed regulation:
  from analogue signal +/-10VDC with differential input or
  from potentiometer (min. 3Kohm)
- **Speed regulation from external potentiometer, connect the terminal 1 with 6 as shown on the circuit diagram**
- Feedback type selection by means of microswitch **S1**, as follows:
  CLOSED = armature feedback;
  OPEN = external feedback from tachodynamo (24Vdc/2800 g/min) connected to motor shaft;
- It is possible to adjust following parameters by means of internal trimmers:
  P0 Minimum speed regulation
  P2 Max speed regulation
  P3 Max current regulation
- **P4** Stability regulation.
  Acc/Dec ramp in the set input of fix speed with 50ms
  LED visualization of following functions
  L1 Power on.
  L2 Overload and/or short-circuit alarm
- Plug terminal boards
- Immunity to net disturbances in accordance with standard IEC 801.4., level 4
- Low noise thanks to 16 KHz PWM
- Operating temperature -5°C / 50°C.
- Stock temperature -25°C/ +70°C
- Relative humidity from 5% till 95%

Circuit Diagram for basic connection



Conformity to Standards

- General standard applied**: CEI EN 60204-1**
- General standard applied **EMC 89/336/CEE** with reference to norm **CEI EN 61800-3,** if the following rules are respected**:**
  - use of the net filter (consult Rowan Technical dept.)
  - use of shielded cables for connecting motor, tacho generator and potentiometer, with shielding connected to the ground. Motor and tacho cables must be connected to the ground, both to the board side and the motor side.
- Specific Standards applied with reference to Electromagnetic Compatibility: **EN50081-1 and EN50082-2** .



Dimensions (mm)

height:
85 mm.

CAUTION!

- The TERMINAL 6 (NEGATIVE of the board) is not decoupled from the supply so you need to pay attention to the following instructions:

1) Don't connect togheter the supply 24VAC and the NEGATIVE of the board to the ground.

2) Don't connect all the boards NEGATIVE togheter if you have several C273S supplied from the same trasformer.

3) If the boards are supplied from the same trasformer (as same point 2) it is possible to connect input DIFF- (1) and DIFF+ (4) togheter in parallel: for example if the speed set will be regulate from a unique supply +/-10Vdc (Ex. PLC); in this case the generator of the signal must be insulated from AC/DC supply of the C273S drives.

- It is not possible using the motor like a dinamic brake in continuos service (Ex. Unwinding spool); in this case you have to use the 273S/1 or 273S/2 models.

CONFORMITY EMC CE

Rowan Elettronica

Motori, azionamenti, accessori e servizi per l'automazione

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