

INSTRUCTION MANUAL

Code 287P.C/2YDC(48Vdc)

Working principles

The code 287P.C/2YDC board is a MOSFET mono-directional voltage switching regulator. Its main use is the control of small DC motors, frictions, electro-magnetic brakes or proportional electronic controlled valves with a maximum working voltage of 50Vdc.

TECHNICAL CHARACTERISTICS:

Power supply: 48Vdc \pm 10% **by batteries only**;

Maximum current in continuous service 100A. Switching frequency 5KHz.

Feedback regulation of the voltage and the output current by 10K Ohm potentiometer or 0+10Vdc Analog signal.

Working environment air limits temperature -5° C + 40°C and variable non condensated humidity from 5% to 95%.

Storage temperature air limits temperature -25°C + 70°C

Maximum output voltage variation 5Vdc from unloaded to nominal loaded.

Possibility of slipping compensation in case of DC motor control.

CONFORMITY TO ELECTROMAGNETIC COMPATIBILITY REQUIREMENTS

The code 287P.C/2YDC board conforms to the EMC 89/336/EEC (electromagnetic compatibility) with reference to the limits and to the test conditions and product regulations CEI EN 61800-3 for electric drivers; such conformity is guaranteed if the following precautions are observed:

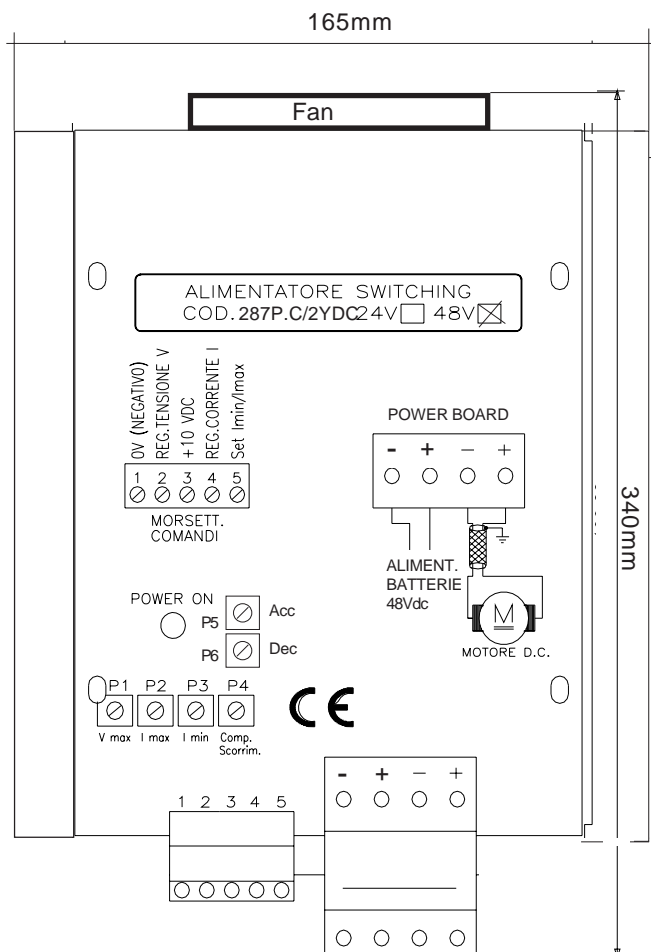
- screened cables must be used for the potentiometer and motor connection;
- passing signal cables in channels together with power cables must be avoided;
- one end only of the screened cable shield must be connected to earth;

CONNECTION AND SET-UP INSTRUCTIONS

1) The code 287P.C/2YDC board is servo-ventilated so it works correctly with room air temperature between -5°C and +40°C; above these limits abnormalities may occur as **thermal drifts** or **breakages**; it is advisable to position the board away from heat sources and ventilate the cabinet if high environment temperatures are reached.

2) Put a 100A GL type protection fuse on the supply line.

CONNECTION DIAGRAM OVERALL DIMENSIONS AND FITTINGS



Height = 180mm

TRIMMERS DESCRIPTION

P1 = output maximum voltage

P2 = output maximum current

P3 = output current

P4 = slipping compensation of the DC motor since unloaded until full loaded

P5 = acceleration ramp 0 ÷ 3 sec.

P6 = deceleration ramp 0 ÷ 3 sec.

(all trimmers clockwise regulated raise the relative value)

COMMAND BOARD DESCRIPTION

1 = 0V common negative

2 = signal input 0 ÷ +10Vdc to regulate the output voltage

3 = +10Vdc pot. supply max 10mA

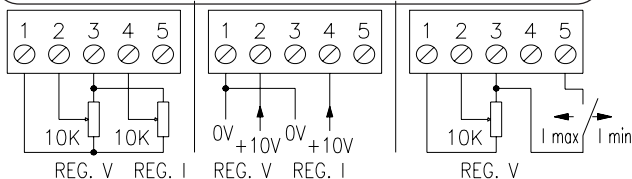
4 = signal input 0 ÷ +10Vdc to regulate the output voltage: in this case the trimmer P3 works as the minimum

5 = limitation on output voltage selection:

- non connected clip = minimum current (adjustable by P3)

- 10÷24Vdc connected clip = max current (adjustable by P2)

HOW TO CONNECT THE COMMAND BOARD



Rowan Elettronica

Motori, azionamenti, accessori e servizi per l'automazione

Via U. Foscolo, 20 - CALDOGNO - VICENZA - ITALIA

Tel.: 0444 - 905566 (4 linee r.a.)

Fax: 0444 - 905593

Internet Address:

E-mail: info@rowan.it

www.rowan.it

