**PLUS J Series Drives**

### INTRODUCTION
- Series of ministep bipolar chopper drives with an on-board programmable motion controller that can be used:
  - for the interfacing, through RS485 serial line, with a central control system
  - as an independent unit.
- Presence of a dedicated analog input for the setting of motor target speed.
- Target: medium power applications needing AC power supply and a programmable motion controller.

### HIGHLIGHTS
- Microstepping function up to 4,000 step/rev.
- Setting of the motor target speed sampled at the beginning of the motion sequence (before motor starts running).
- Programmable motion controller allowing connection up to 48 drives on a single serial line.
- External fans not needed: ideal both for mounting inside a metallic electrical cabinet and for stand-alone applications.

<table>
<thead>
<tr>
<th>Series</th>
<th>Model</th>
<th>$V_{AC}$ range</th>
<th>$I_{ac}$ min. (Peak value)</th>
<th>$I_{ac}$ max. (Peak value)</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLUS</td>
<td>J5</td>
<td>28 to 62</td>
<td>4.4</td>
<td>8.0</td>
<td>152x129x46</td>
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TECHNICAL FEATURES

- Range of operating voltage: 28-62 V AC.
- Range of current: 4.4-8.0 Amp. Setting up to four possible values by means of a serial line.
- Microstepping: 400, 800, 1,600, 3,200 and 500, 1,000, 2,000, 4,000 steps/revolution. Setting by means of a serial line.
- Automatic current reduction at motor standstill.
- Protections:
  - Protection against under-voltage and over-voltage.
  - Protection against a short-circuit at motor outputs.
  - Overtemperature protection.
- Electronic damping facility for further acoustic noise and mechanic vibrations reduction at low and medium speed.
- Optoisolated inputs compatible with Pull-Up or Pull-Down command signals.
- External fans not needed.
- Warranty: 24 months.

PROGRAMMABLE MOTION CONTROLLER

- Communication through RS485 serial line; up to 48 drives can be connected on a single serial line. One instruction can be broadcasted to all drives.
- Various types of available instructions, as for example: indexed run with ramp, free run with ramp, indexed run without ramp, run with a programmable braking distance, zero research. Space can be programmed in relative or absolute mode (linear or circular).
- Number of steps for indexed ramp up to ± 8,338.607 in relative or absolute mode, speed from 1 to 24,000 Hz in standard resolution and from 1 to 48,000 Hz in high resolution, ramp times from 16 to 1440 msec.
- Availability of instructions to develop motion programs as, for example: conditional jump, time delay, program block and recovery, I/O management, FOR NEXT loop.
- Possibility to control the execution of 16 previously stored motion programs through hardware inputs. Accordingly, the drive can be used in stand-alone applications, without serial connection.
- 11 inputs and 6 outputs, all optically insulated. Among them 3 inputs and 4 outputs are freely programmable.
- Memory of 128 instructions kept also at drive switched-off and three run time instructions.
- A utility working in Windows® is available in order to ease motion programs development by the user.
- Alarm memory by use of yellow blinking led.

ANALOG INPUT TO CONTROL MOTOR SPEED

- Target speed setting by means of analog input sampled at the beginning of the motion sequence (before motor starts running).
- Input setting: 0-5 Vdc or 0-10 Vdc.
- Frequency range:
  - 3000 Hz - 48000 Hz (with ramp)
  - 0 Hz - 4100 Hz or 0 Hz - 510 Hz (without ramp)
- Possibility of matching with potentiometers of 2.2 KOhm.

MECHANICAL DIMENSIONS

Dimensions in millimeters - Not in scale.

POWER AND LOGIC CONNECTIONS

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