# **PLUS J** Series Drives





#### **INTRODUCTION**

- Series of ministep bipolar chopper drives with an onboard 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.

Series	Model	$V_{\text{\tiny AC}}$ range	I <sub>№</sub> min. (Peak value)	I <sub>№</sub> max. (Peak value)	Dimensions
		(Volt)	(Amp)	(Amp)	(mm)
PLUS	J5	28 to 62	4.4	8.0	152x129x46

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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.
- Optoinsulated inputs compatible with Pull-Up or Pull-Down command signals.
- External fans not needed.
- Version: boxed, equipped with crimp-type connectors. Maximum compactness.
- Warranty: 24 months.

### 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  $V_{DC}$  or 0-10  $V_{DC}$
- Frequency range:
  - 3000 Hz- 48000 Hz (with ramp)

**MECHANICAL DIMENSIONS** 

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- 0 Hz-4100 Hz or 0 Hz-510 Hz (without ramp)
- Possibility of matching with potentiometers of 2.2 KOhm.

### 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  $\pm$  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 switchedoff and three run time instructions.
- A utility working in Windows<sup>®</sup> is available in order to ease motion programs development by the user.
- Alarm memory by use of yellow blinking led.







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#### POWER AND LOGIC CONNECTIONS

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