## 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 | $\mathrm{V}_{\mathrm{AC}}$ range | $\mathrm{I}_{\mathrm{NP}}$ min. (Peak value) | $\underset{\text { (Peak value) }}{\mathrm{I}_{\mathrm{N}} \max }$ | Dimensions |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | (Volt) | (Amp) | (Amp) | (mm) |
| PLUS | J5 | 28 to 62 | 4.4 | 8.0 | $152 \times 129 \times 46$ |

## TECHNICAL FEATURES

- Range of operating voltage: $28-62 \mathrm{~V}_{\mathrm{Ac}}$
- 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 $\mathrm{V}_{\mathrm{DC}}$ or $0-10 \mathrm{~V}_{\mathrm{DC}}$
- Frequency range:
$-3000 \mathrm{~Hz}-48000 \mathrm{~Hz}$ (with ramp)
- $0 \mathrm{~Hz}-4100 \mathrm{~Hz}$ or $0 \mathrm{~Hz}-510 \mathrm{~Hz}$ (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 ${ }^{\ominus}$ is available in order to ease motion programs development by the user.
- Alarm memory by use of yellow blinking led.

MECHANICAL DIMENSIONS

POWER AND LOGIC CONNECTIONS


Dimensions in millimeters - Not in scale


