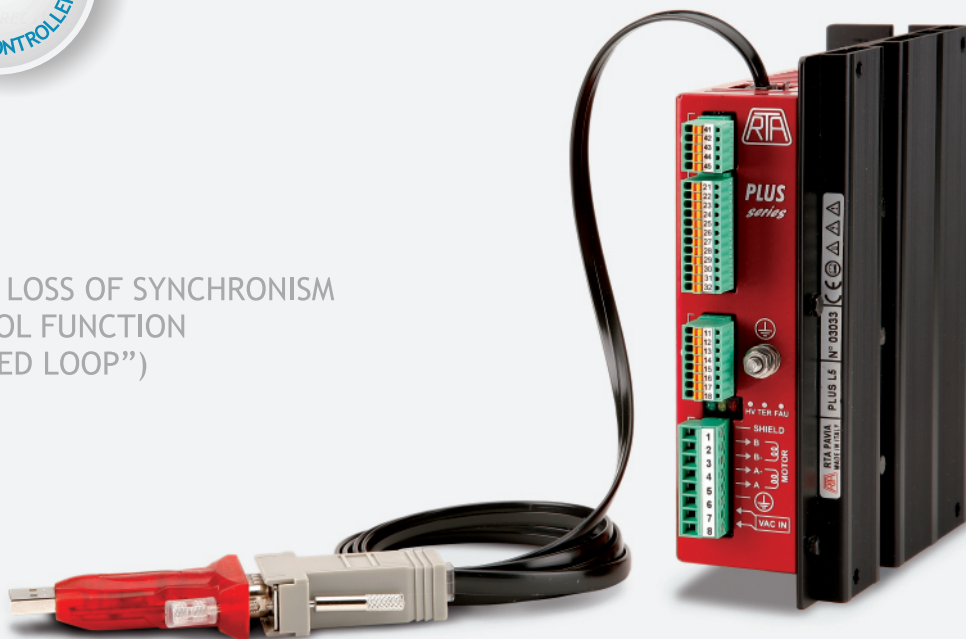


# PLUS L Series Drives



MOTOR LOSS OF SYNCHRONISM  
CONTROL FUNCTION  
("CLOSED LOOP")



## 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.
- Optimized for driving R.T.A. EM series stepping motors with encoder (86 mm and 60 mm flange sizes).
- Target: applications requiring a programmable motion controller and EM stepping motors. Control in a standard way ("OPEN LOOP") but also give an alarm in case of loss of synchronism ("CLOSED LOOP").

## HIGHLIGHTS

- Microstepping function up to 4.000 step/rev.
- Communication through RS485 serial line.
- Programmable motion controller allowing connection up to 48 drives on a single serial line.
- Setting of the sensitivity of the loss of synchronism alarm system.
- External fans not needed: ideal both for mounting inside a metallic electrical cabinet and for stand-alone applications.

Series	Model	V <sub>AC</sub> range (Volt)	I <sub>NP</sub> min. (Peak value) (Amp)	I <sub>NP</sub> max. (Peak value) (Amp)	Dimensions (mm)
PLUS	L5	28 to 62	4.4	8.0	152x129x46

## TECHNICAL FEATURES

- Range of operating voltage: 28-62 V<sub>AC</sub>.
- 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.
- External fans not needed.
- Version: boxed, equipped with crimp-type connectors. Maximum compactness.
- Warranty: 24 months.



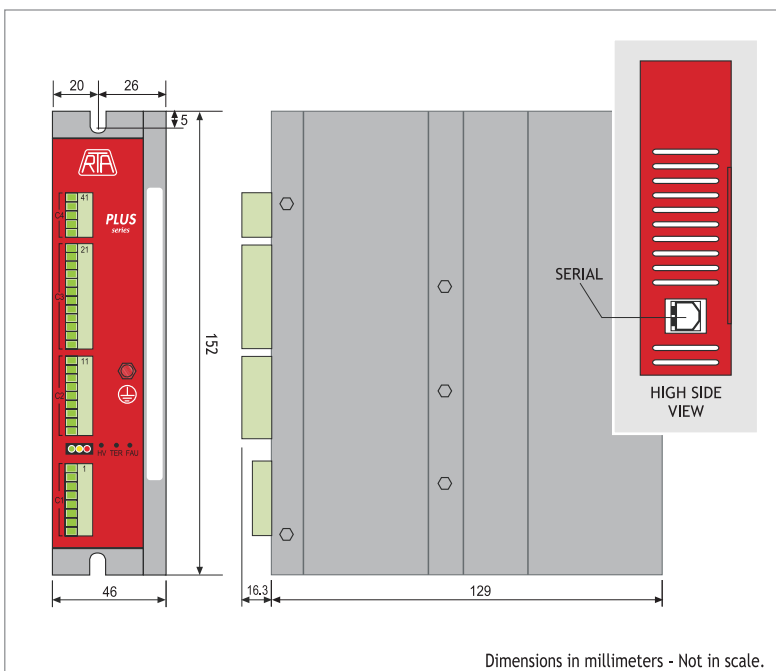
## MOTOR LOSS OF SYNCHRONISM CONTROL FUNCTION

- Input for the connection of the R.T.A. motors EM series encoder (NEMA 34 and 60 mm flange size).
- Output for the loss of synchronism alarm.
- Setting, by means of RS485, of the sensitivity of the loss of synchronism alarm system.

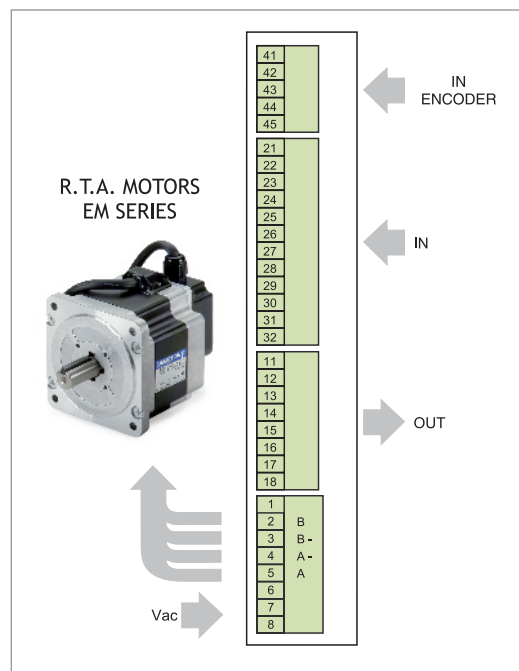
## PROGRAMMABLE MOTION CONTROLLER

- 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 and increased 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.

## MECHANICAL DIMENSIONS



## POWER AND LOGIC CONNECTIONS



R.T.A. s.r.l.  
Via E. Mattei - Fraz. Divisa  
27020 MARCIGNAGO (PV) ITALY  
Tel. +39.0382.929.855 - Fax +39.0382.929.150  
www.rta.it

R.T.A. Deutschland GmbH  
Bublitzer Straße 34  
40599 DÜSSELDORF (Germany)  
Tel. +49.211.749.668.60 - Fax +49.211.749.668.66  
www.rta-deutschland.de

R.T.A. IBERICA-Motion Control Systems S.L.  
C/Generalitat 22, 1º 3º  
08850 GAVA - BARCELONA (Spain)  
Tel. +34.936.388.805 - Fax +34.936.334.595  
www.rta-iberica.es

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INTRODUCTION

STEP & DIRECTION

ADVANCED

ANALOG INPUT

PROGRAMMABLE

EtherCAT

CANopen