

# PLUS L *Series Drives*

## GENERAL DESCRIPTION

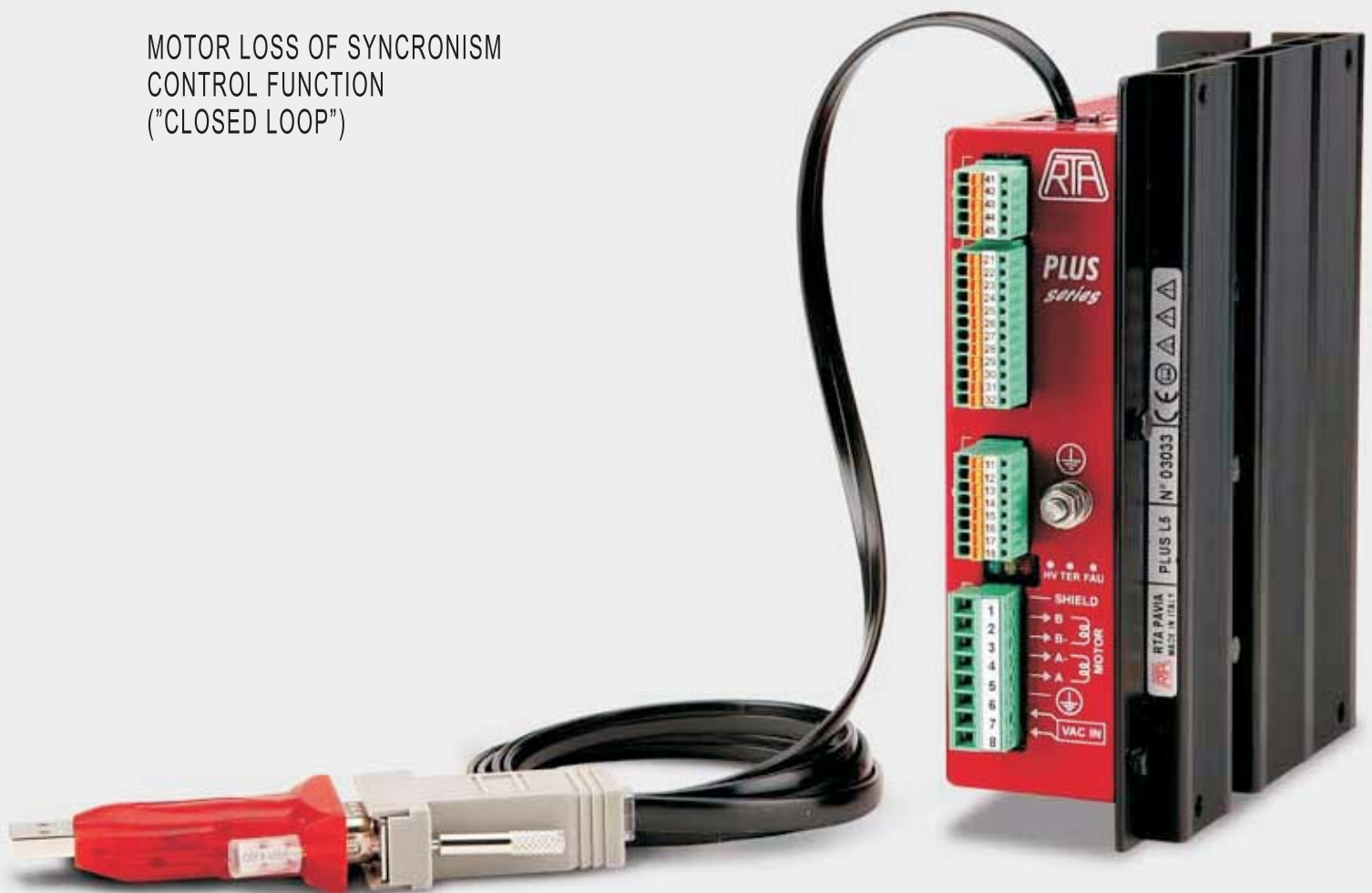
**PLUS L** is the name of a series of ministep bipolar chopper drives intended for driving R.T.A. EM series stepping motors with encoder (86 mm and 60 mm flange sizes). They are equipped with an on-board programmable motion controller that can be used:

- for the interfacing with a central control system (through RS485 serial line)
- as an independent unit.

**PLUS L** series drives can control EM stepping motors in a standard way ("OPEN LOOP"), but also give an alarm in case of loss of synchronism ("CLOSED LOOP").

**PLUS L** series drives are housed in a metallic box, 152 x 129 x 46 mm format, suitable for wall mounting. They do not need external fans: accordingly, they are ideal both for mounting inside a metallic electrical cabinet and for stand-alone applications.

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



**Motion Control Systems**

[www.automotsys.com.au](http://www.automotsys.com.au)

# R.T.A. STEPPING MOTOR DRIVES catalogue

## TECHNICAL FEATURES

- Wide range of operating voltages (in AC) and motor phase current setting. Up to 4 possible equidistant values, between  $I_{NF}$  min. and  $I_{NF}$  max., can be set by means of a serial line.
- Operation at 400, 800, 1600, 3200 and 500, 1000, 2000, 4000 steps/revolution set by means of serial line.
- Electronic resonance damping circuit to ensure acoustic noise and mechanical vibrations reduction at low and medium speed.

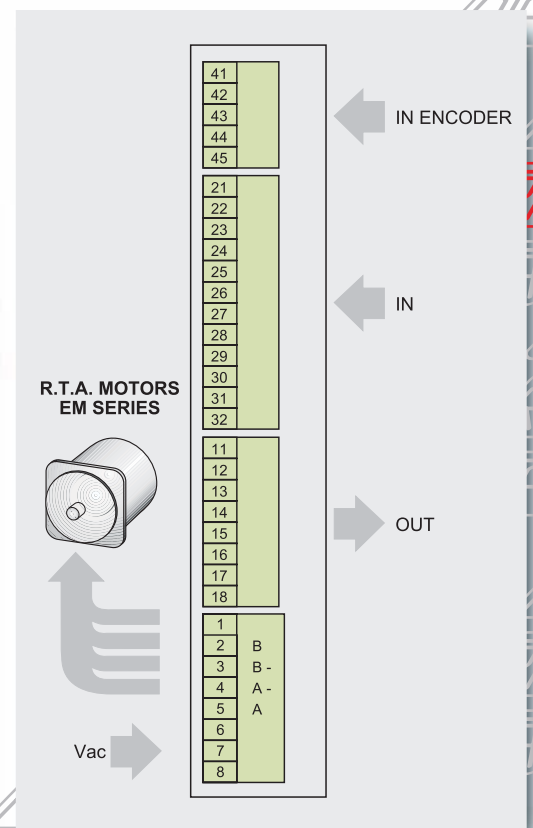
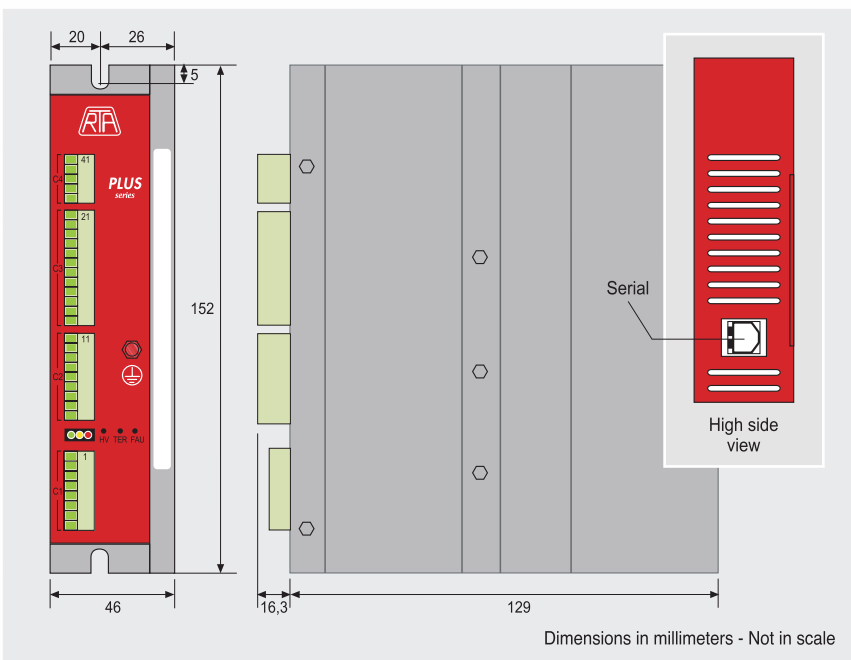
## PROGRAMMABLE MOTION CONTROLLER FEATURES

- 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. Possibility to control all programs previously stored or single instructions through the serial line.
- 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.

## MOTOR LOSS OF SYNCHRONISM CONTROL FUNCTION

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

Model	V <sub>AC</sub> range	I <sub>NF</sub> min. (Peak value)	I <sub>NF</sub> max. (Peak value)	Dimensions
	(VOLT)	(AMP)	(AMP)	(mm.)
<b>PLUS L5</b>	28 to 62	4.4	8	152x129x46



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