

## RPM Controller for 1-phase AC Motors SCRM

- ◆ AC motor power from 0.5 to 5 A / 230 VAC
- ◆ 0...100% speed control
- ◆ Automatic triac retriggering
- ◆ Variant with soft start
- ◆ Load-current sensing available

The SCRM rail-mountable RPM controller, manufactured by COMECO, is designed to control the speed of single-phase AC motors up to 5A/230VAC. The unit operates on the principle of 'phase angle control' from 25 to 180 degrees, adjusted by a front-panel thumbwheel and applied to an internal power triac. SCRM can switch up to 500 VA AC motors of fans or other industrial appliances, connected to the device output. A soft-starter variant allows the motor to reach gradually the pre-adjusted speed, while the 'load-current sensing' option allows keeping the motor speed relatively constant and independent on the load. Thanks to its reliability and simplicity, the SCRM controller can be widely used in applications requiring low-cost AC-motor speed control.



### Technical specifications

#### Motor output

<b>Control output type</b>	phase-controlled triac
<b>Maximum motor power ratings</b>	0.5...5 A / 230 VAC
<b>Non rep. surge current at t = 20 ms</b>	50 A
<b>Minimum holding current</b>	50 mA
<b>Maximum leakage current</b>	2 mA
<b>Critical rate of current rise di/dt</b>	50 A/μs
<b>Critical off-state voltage rise dv/dt</b>	1000 V/μs
<b>I<sup>2</sup>t value for fusing at t = 10 ms</b>	78 A <sup>2</sup> s
<b>Fusing</b>	by external fuses

#### Device variants

<b>RPM controller</b>	25...180° phase angle
<b>Soft-starter</b>	0 to max. speed for ≈ 2 s <sup>(1)</sup>

#### Control feedbacks

<b>Mains voltage compensation</b>	≈ 1% of set-point angle per 10 V
<b>Load-current sensing (option) <sup>(2)</sup></b>	≈ 10% of set-point angle per 1 A

<sup>(1)</sup> The time depends on motor current.

<sup>(2)</sup> Only for RMP controller variant!

#### Power supply

<b>Supply voltage</b>	230 VAC or 115 VAC ± 10%
<b>Consumption</b>	max. 2.5 VA

#### Operating conditions

<b>Operating temperature</b>	-10...40 °C
<b>Temperature drift</b>	max. 0.05% for 1 °C
<b>Operating humidity</b>	0...85 %RH

#### Indication and controls

<b>LEDs</b>	LED for power ON
<b>Front-panel potentiometer <sup>(2)</sup></b>	for speed set-point adjustment, 0...100%

#### Design and materials

<b>Case material</b>	plastic
<b>Mounting</b>	on 35 mm DIN rail
<b>Wiring</b>	screw terminals, 2.5 mm <sup>2</sup> max.
<b>Dimensions</b>	35x86x58 mm
<b>Weight</b>	max. 80 g
<b>Protection class</b>	IP40

### Ordering code SCRM\* - G1 - #1

Code	Feature or option	Code values
*	Variant	<b>1</b> - RPM controller, <b>2</b> - soft-starter
G1	Power supply	<b>A</b> - 230 VAC, <b>B</b> - 115 VAC
#1	Load-current sensing <sup>(2)</sup>	<b>X</b> - none, <b>LS</b> - load-current compensation mounted