

Power Factor Controller RVC

The user-friendly PF controller



RVC : The user-friendly PF controller



Powerful features

- Easy commissioning.
- Complete auto set-up (starting current-C/k, number of active outputs, type of switching sequence, phase shift, special connections).
- Easy to use thanks to a user-friendly interface and ease of access to parameters for manual setting.
- Highly efficient switching strategy combining integral, direct and circular switching.
 - This allows to :
 - control the $\cos \phi$ in presence of rapidly varying loads,
 - reduce the number of switching,
 - avoid unnecessary intermediary switchings,
 - increase the lifetime of the capacitors and contactors.
- Suitable for hot environments thanks to max. ambient temperature rating of 70°C.
- Insensitivity to the presence of harmonics.
- Overvoltage and undervoltage protection.
- Alarm : an alarm contact is closed when the target $\cos \phi$ is not reached within 6 minutes after all outputs have been switched on, the internal temperature of the RVC rises above 85°C or the power supply is out of range.

Easy commissioning

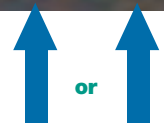
The AUTO SET mode allows the RVC commissioning in only 2 simple steps :

Activation of the automatic setting of :

- Phase shift
- C/k
- Number of outputs
- Switching sequence

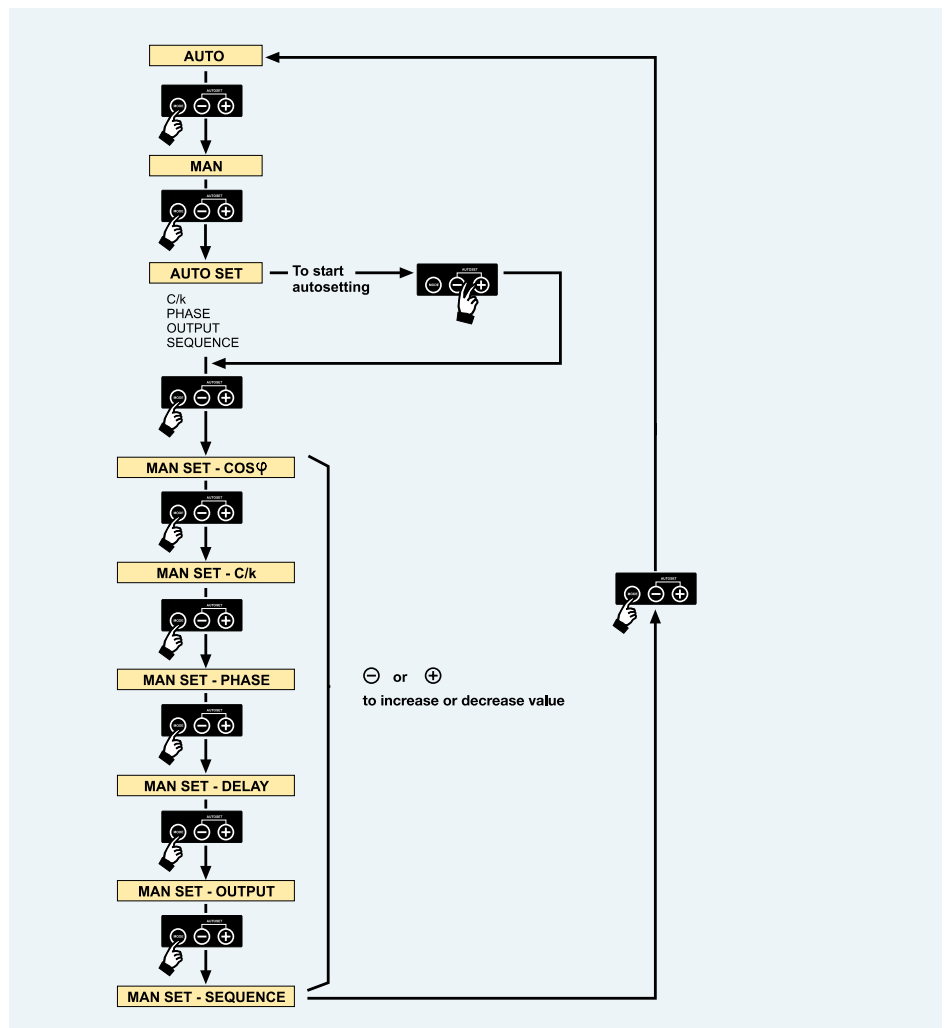


Setting of the target cos φ



Easy programming

All parameters are easily accessible for manual setting.



Technical specification

Measuring system:

micro-processor system for balanced three-phase networks or single-phase networks.

Operating voltage:

100V to 120V, 220V to 240V, 380V to 440V depending on type of RVC.

Voltage tolerance:

+/- 10% on indicated operating voltages.

Frequency range:

50 or 60 Hz +/- 5% (automatic adjustment to network frequency).

Current input:

5A (RMS).

Current input impedance:

<0.1 Ohm.

Consumption:

15 VA max.

Output contact rating:

- max. continuous current: 1.5 A;
- max. peak current: 5 A;
- max. voltage: 440 Vac;
- terminal A is rated for a continuous current of 16 A.

Power Factor setting:

from 0.7 inductive to 0.7 capacitive.

Starting current setting (C/k):

0.05 to 1A.

Automatic measurement of C/k.

Number of outputs:

- RVC-3 (400V only): programmable up to 3 outputs.
- RVC-6: programmable up to 6 outputs.
- RVC-8 (400V only): programmable up to 8 outputs.
- RVC-10 (400V only): programmable up to 10 outputs.
- RVC-12: programmable up to 12 outputs.

Switching time between steps:

programmable from 1s to 999s (independent of reactive load).

Switching sequences:

1:1:1:1:1:1:1:1:1:1:1:1	1:2:2:2:2:2:2:2:2:2:2:2
1:2:4:4:4:4:4:4:4:4:4:4	1:2:4:8:8:8:8:8:8:8:8:8
1:1:2:2:2:2:2:2:2:2:2:2	1:1:2:4:4:4:4:4:4:4:4:4
1:1:2:4:8:8:8:8:8:8:8:8	1:2:3:3:3:3:3:3:3:3:3:3
1:2:3:6:6:6:6:6:6:6:6:6	1:1:2:3:3:3:3:3:3:3:3:3
1:1:2:3:6:6:6:6:6:6:6:6	

Mode of switching:

the mode of switching for all the programmable switching sequences is integral, direct, circular or linear.

Saving-function:

all programmed parameters and modes are saved in a non-volatile memory.

Power outage release:

quick automatic disconnection in less than 20ms (50Hz) in case of power outage or voltage drop.

Power outage reset delay time:

40 s.

Alarm contact:

- normally closed contact;
- max. continuous current : 5A;
- rated/max. breaking voltage: 250Vac/440Vac.

Overvoltage and undervoltage protection

Autoadaptation to the phase-rotation of the network and the CT-terminals.

Insensitivity to harmonics.

Working with generative and regenerative loads.

LCD contrast automatically compensated with temperature.

Operating temperature:

-10° C to 70° C.

Storage temperature:

- 30° C to 85° C.

Mounting position:

vertical panel mounting.

Dimensions:

144x144x80 mm (hwxwd).

Weight:

0.8 kg (unpacked).

Connector:

WAGO.

Front plate protection:

IP40.

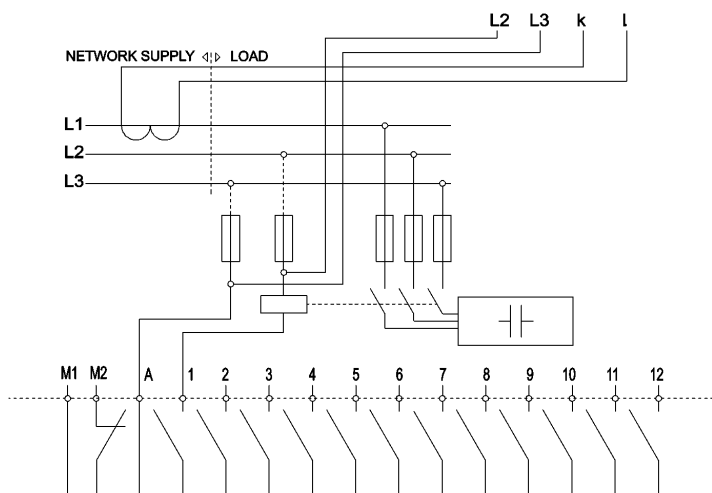
Relative humidity:

maximum 95%, non-condensing.

CE Marked.

Wiring diagram

- k, l:** leads of the current transformer
- L2, L3:** 2 of the 3 phases (not monitored by the CT)
- M1, M2:** leads of the normally closed contact
- A:** output relay common source
- 1-12:** outputs



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