



computer SMART III 14, Power factor regulator

Code: R13864.

> Alarm relay: Yes

> Communications: RS-485

> Measurement Range (V): 20...300

> I∆n (A): yes

> Power supply (Vac): 100...400 Vac

> Nr steps: 14

> Input current: .../5A | .../1A > Switching unit: Contactor

#### Description

Measurement with three current transformers guarantees an analogue reading of the company meter. The Computer SMART III reactive energy regulator is the only regulator on the market that offers the possibility of using 3 measurement transformers in addition to the conventional method of measuring with a single current transformer, as well as providing the functions of an integral power analyzer and controlling residual leakage currents (WG series current transformers).

Computer SMART III is a regulator that ensures excellent preventive maintenance by means of programming its alarms and the options for testing the capacitor status, offering maximum supervision and safety of your compensation unit.

#### **Application**

The connection of 1 or 3 transformers makes Computer SMART III the perfect regulator in any installation, allowing the following:

- Changing from 1 to 3 transformers in the following cases:
  - O Changes in reactive energy penalties
  - o Changes in consumption habits
  - o Significant imbalances in the system
- o Replacing the regulator of any capacitor bank
- $\circ$  Perfect for installations with up to 4 objective cos  $\varphi$ , since it can adapt to any compensation need (different time periods).
- o It can be used with Medium Voltage compensation units.







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### Specifications

AC power supply	
Installation category	CAT III 300 V
Consumption	14 18 VA
Frequency	50 60 Hz
Nominal voltage	100 400 V ~
Mechanical characteristics	
Size (mm) width x height x depth	144 x 144 x 71 (mm)
Envelope	Plastic V0 self-extinguishing
Fastening	Panel
Weight (kg)	0,619
Environmental characteristics	
Protection class	IP 51 (Front), IP 31 (unmounted)
Relative humidity (without condensation)	5 95%
Storage temperature	-20 +70 °C
Working temperature	-10 +55 °C
Current measurement circuit	
Nominal current (In)	/5A ó/1A
Phase current measuring range	1 120 % In
Minimum current measurement	50 mA
Voltage measurement circuit	
Installation category	CAT III 300 V
Sampling frequency	45 65 Hz
Input impedance	660 kΩ
Frequency measuring range	45 65 Hz
Voltage measuring range	20300 V Ph-N , 35520 V Ph-Ph
Nominal voltage	230 V Ph-N, 400 V Ph-Ph
Minimum measurement voltage (Vstart)	20 V F-N, 35 V F-F
Standards	
Electrical safety, Maximum height (m)	2000
Standards	IEC 61010, IEC 61000-6-2, IEC 61000-6-4, Medidas conforme a : IEC 61557-12
User interface	
LED	4 LED
Keyboard	Capacitive, 5 keys
Display type	LCD Custom COG







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#### Digital inputs

Input/output insulation	Optoisolated
Quantity	2
Туре	Potential-free contact

#### Leakage current measurement (ID)

Secondary nominal current	0,003 A
Minimum current measurement (Istart)	10 mA
Measurement range	0,01 1,5 A

#### Digital relay outputs

Quantity	16 (14 salidas, 1 ventilador, 1 alarma)	
Maximum current	1A	
Maximum open contact voltage	1 kV	
Electrical life	$30 \times 10^3$ ciclos	
Mechanical life	5 x 10 <sup>6</sup> Cycles	
Maximum switching capacity	2500 VA	

#### Digital transistor outputs

Quantity	2
Туре	NPN
Maximum current	50 mA
Maximum voltage	24 Vcc

### Measurement accuracy

Reactive energy measurement (kvarh) Class 1	
Reactive power measurement (kvar) 1% ± 2 digit	
Active energy measurement (kWh) Class 1	
Active power measurement (kW) $0.5\% \pm 2$ digits	
Phase voltage measurement $0.5\% \pm 1  \text{digit}$	

#### Serial communication

Protocol	Modbus RTU
Technology / Type	RS-485

#### computer SMART III

Three-phase Power factor controllers. Regulation, measurement, leakage control and communications

CODE	TYPE	Switching unit	Nr steps	Input current
R13851.	computer SMART III 6	Contactor	6	/5A  /1A







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CODE	TYPE	Switching unit	Nr steps	Input current
R13862.	computer SMART III 12	Contactor	12	/5A  /1A
R13864.	computer SMART III 14	Contactor	14	/5A  /1A







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#### Dimensions

#### Connections







