

# computer SMART III 12

computer SMART III 12, Power factor regulator

Code: R13862.

> Alarm relay: Yes
> Communications: RS-485
> Measurement Range (V): 20...300
> IΔn (A): yes
> Power supply (Vac): 100...520 Vac
> Nr steps: 12
> 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:
  - Changes in reactive energy penalties
  - Changes in consumption habits
  - Significant imbalances in the system
- Replacing the regulator of any capacitor bank
- Perfect for installations with up to 4 objective cos φ, since it can adapt to any compensation need (different time periods).
- It can be used with Medium Voltage compensation units.



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## Specifications

### AC power supply

| | |
|---|---|
| Installation category | CAT III 300 V |
| Consumption | 13 ... 20 VA |
| Frequency | 50 ... 60 Hz |
| Nominal voltage | 100 ... 520 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) | 0,6 |

### 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 | 20...300 V Ph-N , 35...520 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 |
| Type | 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 | 14 (12 salidas, 1 ventilador, 1 alarma) |
| Maximum current | 1A |
| Maximum open contact voltage | 1 kV |
| Electrical life | 30 x $10^3$ ciclos |
| Mechanical life | 5 x $10^6$ Cycles |
| Maximum switching capacity | 2500 VA |

### Digital transistor outputs

| | |
|---|---|
| Quantity | 2 |
| Type | NPN |
| Maximum current | 50 mA |
| Maximum voltage | 24 Vcc |

### Measurement accuracy

| | |
|---|---|
| Phase current measurement | 0.5% ± 1 digit |
| 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% ± 2 digits |
| Phase voltage measurement | 0.5% ± 1 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 |



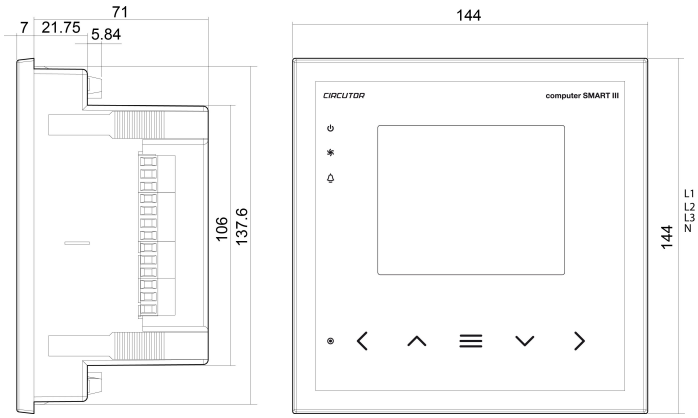
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## Dimensions




## Connections

