



## computer SMART III 14

computer SMART III 14, Power factor regulator

Code: R13864.

- > Alarm relay: Yes
- > Communications: RS-485
- > Measurement Range (V): 20...300
- > I $\Delta$ 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:
  - 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  $\cos \varphi$ , 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           | 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              | 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                     | 16 (14 salidas, 1 ventilador, 1 alarma) |
| Maximum current              | 1A                                      |
| Maximum open contact voltage | 1 kV                                    |
| Electrical life              | 30 x 10 <sup>3</sup> ciclos             |
| Mechanical life              | 5 x 10 <sup>6</sup> 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 | Contactora     | 6        | .../5A   .../1A |



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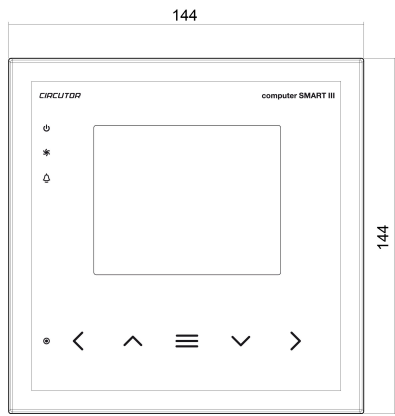
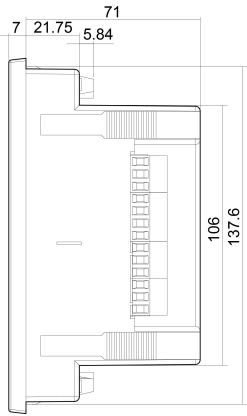
| CODE    | TYPE                  | Switching unit | Nr steps | Input current   |
|---------|-----------------------|----------------|----------|-----------------|
| R13862. | computer SMART III 12 | Contactora     | 12       | .../5A   .../1A |
| R13864. | computer SMART III 14 | Contactora     | 14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



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## Dimensions



## Connections

