



computer SMART III Fast 12

computer SMART III Fast 12, Power factor regulator

Code: R13962.

- > Alarm relay: Yes
- > Communications: RS-485
- > Measurement Range (V): 100...520
- > I Δ n (A): yes
- > Power supply (Vac): 100...520 Vac
- > Nr steps: 12
- > Input current: .../5A | .../1A
- > Switching unit: EMF / EMB

Description

Measurement with three current transformers guarantees an analogue reading of the company meter. The **Computer SMART III Fast** 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.

Computer SMART III Fast 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

Computer Smart III fast it's the ideal solution to compensate installations with a variation of quick load, between 40 ms and 4 seconds, and/or large unbalances between phases, such as welding units, cranes, lifts and lifting units, smelters, hospitals, automotive industry or any other sector or unit that requires an efficient compensation of the power factor.

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

- Changing from 1 to 3 transformers in the following cases:
 - Single-phase fast changing equipment
 - Example: Single-phase welding
 - 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).



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Specifications

AC power supply

| | |
|-----------------------|-----------------|
| Installation category | CAT III 300 V |
| Consumption | 9 ... 15 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) | 0,545 |

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

| | |
|-------------------------------|-----------------|
| Installation category | CAT III 300 V |
| 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 |

Communications

| | |
|-------------------|--|
| Fieldbus (ModBus) | RS-485 |
| Protocol | Modbus RTU |
| Type | CPC-NET / RS-485 |
| Speed | RS-485: 9600-19200 / CPC-NET: 9600-19200-38400 |

Standards



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| | |
|---------------------------------------|---|
| Electrical safety, Maximum height (m) | 2000 |
| Standards | IEC 61010, IEC 61000, 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 |

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 |

Other digital transistor outputs

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

Digital relay outputs

| | |
|------------------------------|-----------------------------|
| Quantity | 2 (ventilador, 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 | 6 |
| Type | Opto MOSFET |
| Maximum current | 150 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 |



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| | |
|---------------------------------|-----------------|
| Active energy measurement (kWh) | Class 1 |
| Active power measurement (kW) | 0.5% ± 2 digits |
| Phase voltage measurement | 0.5% ± 1 digit |

computer SMART III-Fast

Power factor regulators for static switching

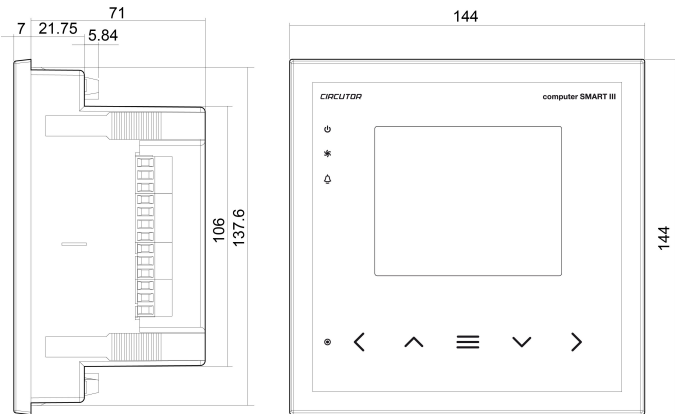
| CODE | TYPE | Switching unit | Nr steps | Input current |
|---------|------------------------------|----------------|----------|-----------------|
| R13953. | computer SMART III F6-12Vdc | EMB-2PH | 6 | .../5A .../1A |
| R13964. | computer SMART III F12-12Vdc | EMB-2PH | 12 | .../5A .../1A |
| R13951. | computer SMART III Fast 6 | EMF / EMB | 6 | .../5A .../1A |
| R13962. | computer SMART III Fast 12 | EMF / EMB | 12 | .../5A .../1A |



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Dimensions



Connections

