computer plus-TF

Fast power factor regulator (Static capacitor banks)

Description

State-of-the-art intelligent regulators that are capable of measuring the three-phase networks and compensating the reactive consumption of each phase in real time. In addition, they correct the total zero reactive energy and balance the active power in each phase.

The **Plus-TF** power factor regulators have been designed with **CIRCUTOR's** measurement system technology, effectively creating a compensation + measurement unit. As a power quality analyzer, it displays any electrical parameter of the network in real time and records it in its internal memory, with maximum and minimum values, date and hour.

The user can benefit from the following advantages as a result of the many new features:

- The measurement of the three phases guarantees the real compensation of the installation.
- Phase-by-phase compensation and in real time
- Protection against harmonics, with anti-resonance system
- Easy to install, fully self-programmable, starts operating by pressing just one key
- New regulation program that enables the use of any type of sequence
- Greater continuity of the service, control and display of leakages, with step-by-step earth leakage protection
- Internal temperature sensor, for the protection against excessive temperatures, with alarm and/or disconnection system
- Test function to check the whole unit by pressing just one key.
- The communications system can be used by the user to display the distance of unit parameters and the network for the preventive supervision and maintenance tasks.

Application

Computer Plus-TF regulators are ideal to compensate modern installations that often have unbalanced loads. Its three-phase measurement system, phase-by-phase compensation and power analyzer functions make it the ideal solution to compensate installations with a variation of quick loads, between 20 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.

Some of the advantages of this compensation system are as follows:

- Elimination of transients produced by the capacitor's connection.
- The lack of transients in the connection allows us to eliminate gaps, flicker and any other alteration generated by the connection's transient
- Limited switching operations, guaranteeing a longer working life for the unit
- Immediate response to the compensation request
- Lower wear of capacitors and switching elements, due to the elimination of transients and the total absence of mobile mechanical parts
- Eliminates or reduces the effects of voltage drops caused by reactive consumption peaks.

Its phase-by-phase compensation functions make **computer Plus-TF** the most efficient regulator in the market.

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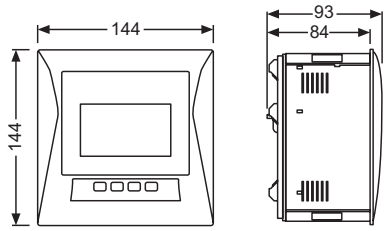
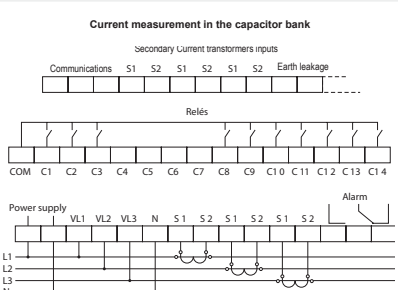
Features

Features	
Type of measurement	Three-phase
Type of compensation	Phase-by-phase
Minimum response time	2 cycles (40 ms)
Power analyzer	Measurement: cos φ, PF, *U, I,* I_n, THD*(I)*, THD*(U)*, kV·A, kW, kvar*C*, kvar*L*, kW·h, kvar·h, Hz, temperature. max. and min. records, with date and hour of the electrical parameters.
Alarms	Temperature, voltage, current, THD*(I)*, THD*(U)*, kvar, cos φ, loss of capacity.
Test function	Loss of capacity, resonance, cos φ.
Anti-resonance system	Built-in
Plug and play *function* (self-programmable)	Built-in
Step-by-step earth leakage protection	CDI Version
RS-485 Communications (modbus protocol)	Built-in
Measurement of current in capacitors	CDI Version
Measurement of temperature	Built-in
Power supply circuit	
Voltage	110 - 480 Vac
Consumption	6 VA
Frequency	45 ... 65 Hz
Measurement circuit	
Nominal voltage	110 - 300 V_{ph-n}, 190 - 520 V_{ph-ph}
Frequency	45 ... 65 Hz
Nominal current	1 to 5 A max.
Overload (permanent)	15 %
Voltage class	0,5
Current class	0,5
Power class	0,5
Ambient conditions	
Operating temperature	0...55 ºC
Build features	
Type of box	V0 self-extinguishing plastic
Fitted unit, protection degree (frontal)	IP 51
Fitted unit, protection degree (rear)	IP 21
Dimensions	144 x 144 x 90 mm
Safety	CAT III

Dimensions



Connections



References

No. of steps	Three-phase measurement	Alarms	Communications	Earth Leakage, $I_{capacitors}$	Type	Code
16	**Yes**	**Yes**	**No**	**No**	**computer Plus TF**	**R12511**
16	**Yes**	**Yes**	**Yes**	**Yes**	**computer Plus TF CDI**	**R12611**