

# computer SMART III

Power factor relay





“If you do not think about your future,  
you cannot have one.”

John Galsworthy, Nobel Prize in Literature



# Beyond compensation





≡ **3 in 1** ■

Compensation



≡ **3 in 1** ■

Compensation

Measurement



≡ **3 in 1** □

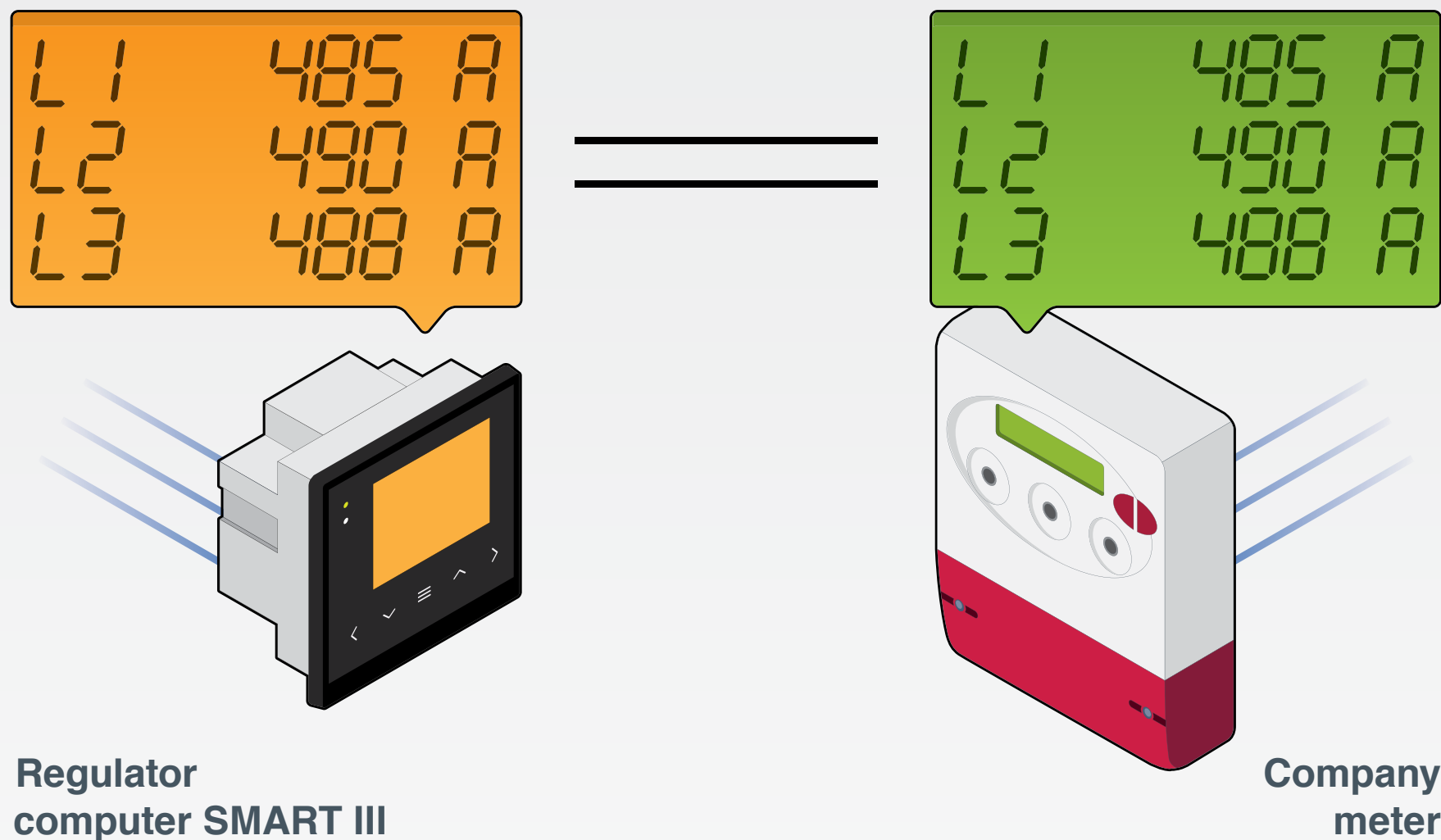
Compensation

Measurement

Protection

# Advanced compensation

Measurement of the 3 phases is equivalent to the reading of the company's meter.





# Future vision

The possibility of changing from 1 to 3 transformers makes it possible **to adapt to the requirements** of any installation without the need to replace the regulator.

Changing from 1 to 3 transformers in the following cases:

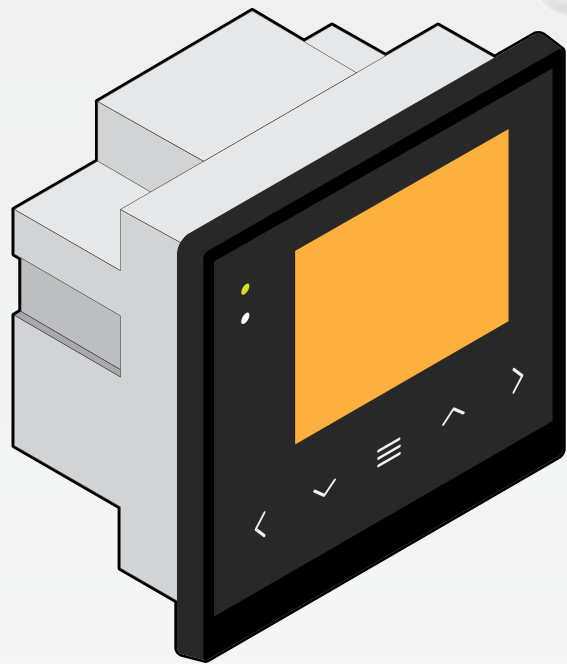
- Changes in reactive energy penalties.
- Changes in consumption habits.
- Significant unbalances in the system.

## Measurement methods

$$III + N [V] \rightarrow III [A]$$

$$III + N [V] \rightarrow I [A]$$

$$II [V] \rightarrow I [A]$$



# Measurement

Powerful three-phase power analyzer



Regulator

+



Analyzer

=



Over 150 variables.



# Safety and Protection

## Residual current supervision

Service continuity of the capacitor bank, only disconnecting those steps where leakages are detected.

## Overtemperature protection

Internal temperature probe. Output relay dedicated to independently activate the fan.

## Antiresonance protection

Antiresonance self-protection system that protects against the presence of harmonics.



# Setup

## PLUG & PLAY

The setup is fully automatic by simply pushing a key.

## Communication

### RS-485 output with MODBUS protocol

The communications system allows remote control, supervision and preventive maintenance of both the unit and the installation.





# Flexibility

## Up to 4 independent objective $\cos\phi$

Capacity to adjust and activate 4 independent objective  $\cos\phi$  with digital inputs.

## ON/OFF/AUTO Status, per step

The ON function does not affect the measurement of regulated steps, saving time and money for the installation.

## Operation meter and alarm

Operation and maintenance alert meter.

# Simplification of fixed compensation operations

## The ON/OFF/AUTO configuration

- Can select a step for the fixed compensation of the power transformer.
- Saves the installation of a fixed independent group





# Industry

Avoids surcharges as a result of excessive or lack of compensation.  
Higher accuracy.



# Supermarkets

Warns of compensation problems in the capacitor bank with alarms, preventing penalties in the electricity bill.



# Office Buildings

Facilitates the maintenance of the capacitor bank.





# Renewable energies

Offers remote control of the status of the capacitor bank and installation. Multipoint systems.





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