

THE FUTURE IS EFFICIENCY

Solutions for Electrical energy efficiency

The future is efficiency

Technology development to offer products and comprehensive solutions to the market of electric power efficiency and electric mobility.



We create and develop new ways of managing electric power, tracing possible paths to a more efficient world.



We respond to energy needs, reducing their environmental impact. Committed to our own future.



We offer comprehensive solutions that allow for the optimisation of energy consumption.



Tailor-made and customised service. We treat your concerns as ours.

From 1973

- 2017.
Technology for energy efficiency.
-
- 1992.
Energy control technology.
-
- 1984.
Technology for energy saving.
-
- 1982.
Rational use of electric power



Present in all sectors

| Photovoltaic facilities



| Energy distribution



| Industrial sector



| Telecommunications, Data centres and critical facilities



| Tertiary sector, buildings and infrastructures

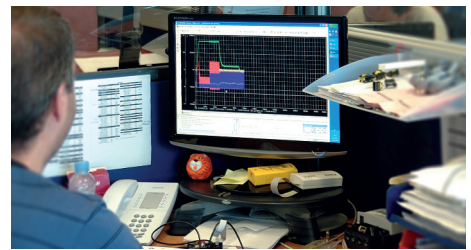


| Electric mobility



Innovation and development

We are committed to innovation, incorporating cutting-edge technology to continue proposing more efficient solutions in the electric sector.



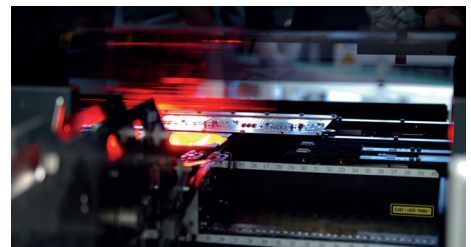
Production centres

We manufacture our own products in 6 centres located in Viladecavalls, Santa Perpètua, and Mexico.



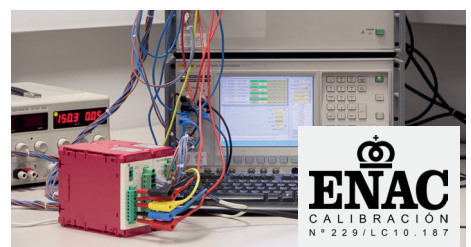
CIRCUTOR technology

Boasting an in-house R&D team made up of more than 100 engineers who work designing new products to meet market demand.



Testing laboratory

CIRCUTOR boasts in-house laboratories for compatibility testing (EMC/EMI), calibration and official metrological verification laboratory, which guarantee the highest quality.



Laboratory
ENAC accredited
N° 229/LC10-187
N° 1270 /LE2532

←
Head office of CIRCUTOR,
in Viladecavalls, Barcelona





CIRCUTOR

With all CIRCUTOR Services.

Technology development to offer products and comprehensive solutions to the market of electric power efficiency and electric mobility.



Pre-sale Services

Low voltage capacitor bank sizing

Harmonic filtering sizing

MV reactive power compensation projects

Energy efficiency systems installation (EMS)

Data analysis for energy audits

Assessment to collaborators

Support
Monday - Friday from
08 am to 6 pm.
(+34) 937 452 900



Technical Assistance Service (TAS)

Monday to Thursday
9 am to 2 pm and 3 pm to 5 pm.

Friday from 9 am to 2 pm.
(+34) 937 452 919
sat@circutor.com



After-sales services

Maintenance or repair of devices, is guaranteed through the comprehensive TAS service of CIRCUTOR.



Logistics

More than 3,000 references available in stock.



Technical support

Specialists at your disposal to answer any technical questions.



Equipment calibration

Equipment calibration service in in-house laboratory with ENAC certification.



Continuous training programmes for partners and customers

Online training sessions all year round

On-site technical training

Visits and specific sessions for training centres

Electrical energy efficiency

What is the Electrical energy efficiency?

Energy efficiency consists of optimising the energy resources of an electrical installation in order to reduce energy consumption and improve productivity without affecting its activity, whether in buildings, industry or distribution networks.

Why is it necessary?

Because a correct energy management allows the following benefits to be obtained:

- | To reduce the economic cost of operating the installations and processes by optimising and saving on consumption (kWh, kvarh).
- | Avoid penalties, whether for reactive energy consumption or maximum demand.
- | Ensure the sustainability of the economic system and the preservation of the environment by reducing CO2 emissions.
- | Optimise the performance of the installations, avoiding unnecessary consumption and improving technical management.
- | Avoiding indirect costs due to production process outages or breakdowns (residual current control and harmonic filtering).

How to do it?

CIRCUTOR has the most appropriate equipment available within its 6 product families:



Measurement & Control

Measurement and monitoring of the main electrical parameters of your installation.



Protection & Control

Protection of facilities, equipment/loads and people.



Metering

Consumption management and billing by means of energy metering devices.



Power Factor correction & Harmonic filtering

Devices and monitoring systems to save on energy bills and eliminate problems due to harmonics.



Electric mobility

Smart charging points for recharging electric vehicles.



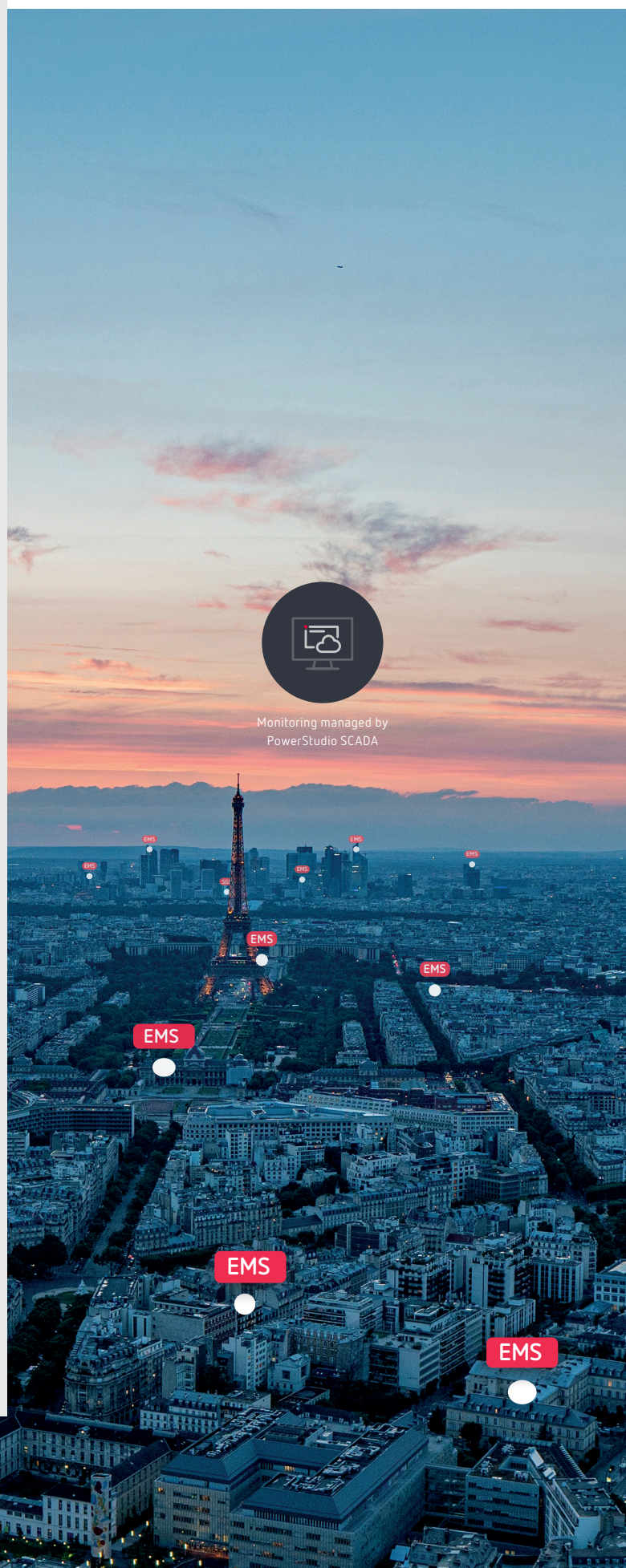
Renewable Energies

Self-consumption solutions for parking applications with EV recharge.

EMS Energy Management System



Monitoring managed by
PowerStudio SCADA



EMS The Energy Management System by CIRCUTOR

PowerStudio SCADA Energy Management Software



Energy audits

- Energy and technical diagnosis of installations

Portable analyzers



Contracting management

- Official energy billing
- Supply and contract management

Billing Meters



Measure and Verification EMS

Mesuring of variables

- Control of energy consumption
- Integration of critical variables
- Ascertaining base line
- Energy Balance
- Consumption ratios
- Verification of savings

Remote management

- Remote control of distributed centres
- Energy control and management

Management and control software

Variables measuring

Power Analyzers
–
Energy meters
–
Power quality
analyzers
–
Transformers



Remote management

Efficiency Data
Server



Management and Control Software

Efficiency indicator



Demand management

- Acting on loads
- Power Factor correction
- Harmonic filtering

Acting on loads

Power Control



Power Factor correction

LV / MV Capacitor Banks



Improved productivity

Production costs

- Proper allocation of costs
- Energy and production ratios

Production costs

MID Energy meters for billing



Control of residual currents

Residual current relays



Maintenance

- Continuity of the service
- Technical management and disturbances control

Technical management and
disturbance control

Active filter



Continuity of the service

Residual current relays with
self-reclosing systems



Improvement of the environment

Photovoltaic self-consumption



Electric vehicle charge



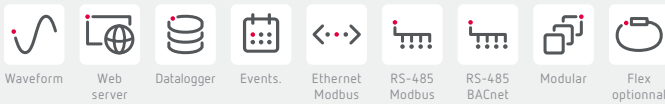
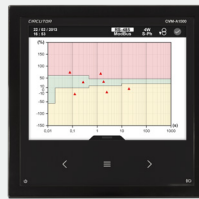
Energy Management Systems

Solutions to control, manage and reduce energy consumption.

CVM-A1500

Power quality analyser

- | IEC-61000-4-30 Class A certified
- | EN 50160 analysis
- | Events and transient capture
- | Data logger (1 year of data)
- | Integrated management software (EMS) and web server



CVM-C11

Power analyzer for panel mounting

- | 400 variables
- | Energy class 0.5S
- | Neutral current
- | Modbus/BACnet
- | Harmonic 31



CVM-B100/150

High performance power analyser for panel mounting

- | 500 variables
- | Harmonic 50
- | Up to 4 expansion modules: digital, relay, analog, datalogger, Ethernet,....



CVM-C4

Power analyzer for panel mounting

- | 230 variables
- | Energy class 0.5
- | 2 tariffs
- | Harmonic distortion (THD)



CVM-E3-MINI

Compact power analyser for DIN rail mounting

- | 400 variables
- | Energy class 1
- | Harmonic 31

CVM-E3-MINI:

- | RS-485, Modbus, BACnet
- | Transistor Output

CVM-E3-MINI-Wi-Eth

- | Ethernet, Wi-Fi, Modbus



CVM-NET4+

Multi-channel power analyser

- | 4 three-phase analysers ó 12 single-phase analysers
- | RS-485 communications
- | 4 programmable digital outputs



Line

Integral energy management system.
Easy to install.



Line 3G

Coms. 3G

Line EDS

1 year of data
PowerStudio or Cloud software
RS-485, Ethernet and Wi-Fi
Built-in web server

Line CVM-D32

500 variables
Harmonic 40
2 transistor outputs
I/O expandable

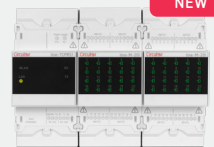
Line Input/Output

4 relay OUT + 4 digital IN
4 analog OUT + 4 analog IN
8 digital IN + 6 relay OUT

Kit Line- TCPRS1/2xM-20I

Pulse centralizer for
water, gas or heat

40 inputs
20 inputs (Kit Line-
TCPRS1/M-20I)
Ethernet
Wi-Fi
Modbus TCP



20/40
Inputs

Ethernet
Modbus

Wi-Fi

6 / 9 mod.
DIN

CEM-C12c-MID

MID

Energy meter for partial
consumption

Single-phase measurement in one
module
Direct measurement up to 100 A
V, A, kW, kvar, kWh, kvarh
RS-485/Modbus



1 mod.
DIN

Single-phase
measure

Up to
100 A

RS-485
Modbus

IEC/MID

CEM-C21 / CEM-C31

MID

Energy meter for partial
consumption

Three phase measurement
C-21: Direct 65A
C-31: CT connection .../5A
DS- Dual source model (1 input)
T1- Transistor output (tariff/pulses)
V,A,kW,kvar,kWh, kvarh
RS-485 / Modbus



1 Output
or
1 Input

4
quadrants

Sealable

Measurement
of parameters

RS-485
Modbus

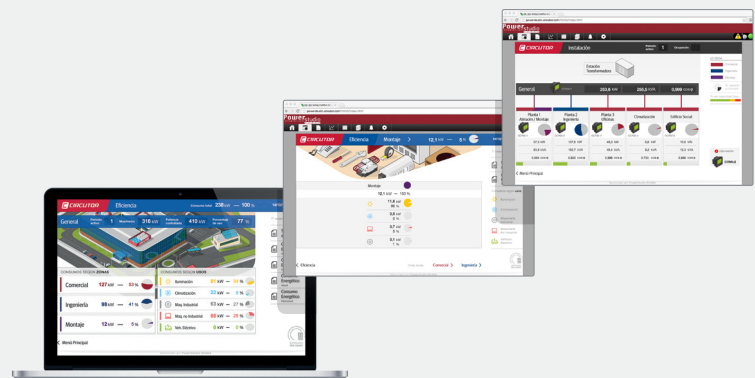
IEC/MID

PowerStudio SCADA

Energy monitoring software

Control and data acquisition system with real-time monitoring, reporting, alarm management and SCADA interface for simple diagramming. The main functions are as follows::

- Creation of databases
- Event logging
- Energy cost management
- Energy balancing
- Energy consumption ratio
- Consumption reports
- Alarm tables
- Power quality management
- Compatible with other SCADA software on the market
- Analysis and management of variables
- Energy / production ratio
- Cost / production ratio
- Essential tool for EN 16001 / ISO 50001 certification.



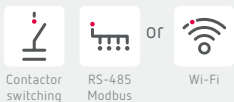
Power Factor correction

Reactive energy compensation, a key element for energy saving

OPTIM P&P

Automatic capacitor banks

- | From 2.5 to 1600 kvar
- | Reinforced at 440 V
- | Over 400 units for immediate delivery



OPTIM FR P&P

Automatic capacitor banks with filters

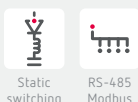
- | Resonance-free compensation
- | Epoxy resin reactance with high linearity and low losses
- | Independent design of ventilation elements
- | Possibility of integrating an EMS (energy management system)



OPTIM FRE P&P

Automatic capacitor banks with filters and static contactors

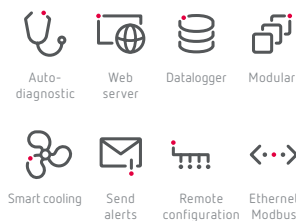
- | Instantaneous compensation (ms)
- | Reduced maintenance
- | Longer service life
- | Better network quality



SVGm

Static Var generator

- | Inductive reactive and capacitive compensation
- | From 0,7L to 0,7C
- | 30 to 400 kvar
- | Up to 480V
- | Immunity against harmonics
- | Wall mounted or cabinet
- | Expandable up to 100 units
- | Low maintenance



Computer C Wi-Fi

Power factor regulator

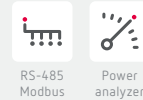
- 6 or 12 steps
- Wi-Fi connection
- VAR system compatibility
- Alarms
- Plug&Play
- Web server



Computer SMART III

Power factor regulator
with power analyzer

- 6 or 12 steps
- RS-485 connection, Modbus RTU
- Compensation in 1 or 3 phases
- Power analyzer with more than 250 variables
- Residual current monitoring
- 10 alarms
- Plug&Play

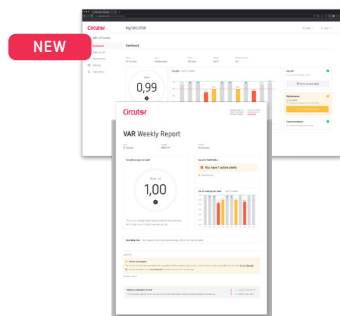


VAR system compatibility with Smart Link VAR (Wi-Fi)

VAR

Power Factor Monitoring
System

- Online 24/7h cos phi monitoring
- Weekly report free suscription
- Warnings and maintenance notifications
- All your capacitor banks, managed from the same screen



CLZ-HD & RH / RBH

Low voltage capacitors and
reactors

- Cylindrical capacitors up to 50 kvar
- Polypropylene of European origin
- Small loss reactors



CIRKAP

Capacitor banks for MV power factor
correction

- Automatic or fixed batteries
- From IP00 to IP54
- From 3 to 110 kV
- Type test available

CHV

Complete range of
medium voltage
capacitors

- Single and three phase MV capacitors
- Up to 24 kV and 750 kvar
- With and without internal fuses
- Stainless steel housing



Fuse
protection



CHV-M - 25...750 kvar
CHV-T - 35...750 kvar



Energy audits

Portable network analyzers, cloud platform and measurement services.

MYeBOX®

More than a portable network analyser

- Real-time measurements
- Local and remote viewing
- Setting up, monitoring and stopping remote measurements
- Wi-Fi and 3G connectivity

Service measurement

- Measures for optimising of active and reactive power and reactive power
- Power quality supply analysis
- Analysis and reports

Databox

Solution for energy management and control

- Create your dashboards and widgets.
- Automatically send reports and simulate of invoices.
- Real-time alarms.
- Geolocation of your installations and devices.
- Monitoring and calendars.
- Compare data from all your facilities.
- Tariff schedule and energy cost calculation.
- Design your own monitoring and control screens.

Installation

Sensors

Gateway Databox

Cloud

Edge Computing

Fog Computing

Cloud Computing

Continuity of Service

Solutions to anticipate and avoid unwanted tripping of protections.

SMART RESIDUAL CURRENT PROTECTION

RGU-10A TYPE A

Ultra-immunised residual current relay and monitoring

- Real-time display of residual current.
- Display of the residual current when tripping
- Preventive maintenance
- More immunity to harmonics
- Sensitivity from 30mA ...30A
- Instantaneous/ selective up to 5s

NEW



RCD

3 modules
DIN

t and A

Preventive
control

1 channel

RGU-100B / CBS-400B TYPE B

Residual current relay and monitoring

- Real-time display of residual current.
- Display of the residual current when tripping
- 4 channels RCD (CBS-400B)
- Preventive maintenance
- Sensitivity from 30mA ...3A
- Instantaneous/ selective up to 10s



RCD

3 modules
DIN

t and A

Preventive
controlRS-485
Modbus1 or 4
channels

IDA-EV TYPE A + 6 mVdc

Residual Current Circuit Breaker

- 30 mA + 6 mAdc
- 40 or 63A
- 4 poles
- Built-in transformer

NEW



RCCB

4 modules
DIN

t and A

Preventive
control

1 channel

EV
compatible

IDB-4 TYPE B

Residual Current Circuit Breaker

- 30 mA or 300 mA
- 40 or 63A
- 4 poles
- Built-in transformer



RCCB

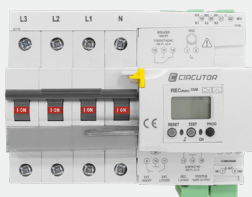
4 modules
DINEV
compatible

RESIDUAL CURRENT DEVICES WITH SELF-RECLOSING SYSTEM

RECmax CVM TYPE A

Circuit breaker & reclosing residual current protection with built-in power analyzer

- 2 or 4 poles
- Up to 63 A
- Sensitivity from 30mA ...1 A
- Instantaneous/ selective up to 1s
- Circuit breaker+ RCD + self-reclosing



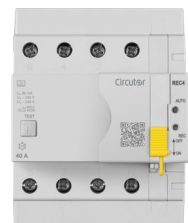
t and A

Power
analyzerRS-485
Modbus3 or 5 DIN
modules

REC 4 TYPE A

Self-reclosing residual current circuit breaker

- 30 mA or 300 mA
- 2 or 4 poles
- Built-in transformer

3 or 5 DIN
modules

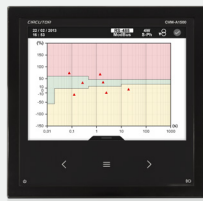
Quality Energy

Meeting standards and avoiding consumption and feeding problems are key factors.

CVM-A1500 Class A

Power quality analyzer

- | IEC 61000-4-30 Class A certified
- | EN 50160 analysis
- | Events and transient capture
- | Data logger (1 year of data)
- | Integrated management software (EMS) and web server



MYeBOX® Class A

More than a portable network analyser

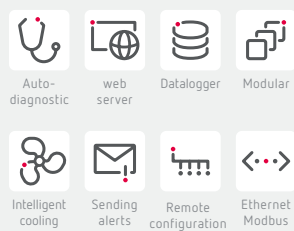
- | Class A according to IEC 61000-4-30
- | Real-time measurements
- | Local and remote monitoring
- | Setting up, starting and stopping remote measurements
- | Wifi and 3G connectivity



AFQm

Multifunctional active filter

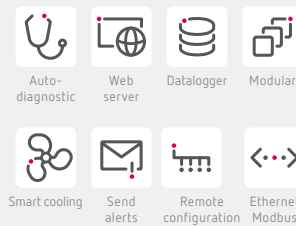
- | 3 in 1: Harmonic filtering, Reactive energy compensation and Phase Balancing
- | 30 to 400 A
- | Up to 690V
- | Inductive reactive and capacitive compensation from 0,7L to 0,7C
- | Wall mounted or cabinet
- | Expandable up to 100 units
- | Low maintenance



SVGm

Static Var generator

- | Inductive reactive and capacitive compensation
- | From 0,7L to 0,7C
- | 30 to 400 kvar
- | Up to 480V
- | Immunity against harmonics
- | Wall mounted or cabinet
- | Expandable up to 100 units
- | Low maintenance



Our stock at your fingertips
+3000 products

- | Service as a differentiator
- | 48 hour delivery of all our products in stock

TD

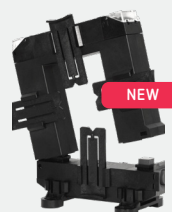
Transformers narrow profile



From 40 A to 4000 A

TQ

Transformers split core



From 100 A to 1000 A

MC1

Efficient transformers from 150 A to 1500 A



Ø 20 / 30 / 55 / 80 mm

Vehicle charging + Self-consumption

Renewable energy and electric mobility.

eHome Link

Power quality analyzer

- | TYPE 1 or TYPE 2 connectors or TYPE 2 with cable
- | RS-485 communications
- | Allows the resetting of the built-in relay of the billing meter.
- | Type A +6 mAdc residual current protection
- | Overvoltage protection system

7,4 kW 11 kW



Load management modes:



Genion One

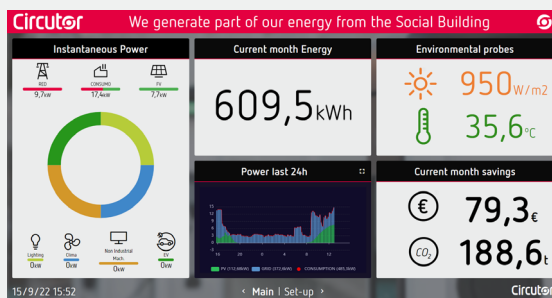
Energy demand manager for EV+self-consumption management

- | Dynamic power control
- | Consumption/generation management
- | Wi-Fi Communications
- | Integrated SIM card
- | Integration with eHOME Link through RS-485 communications
- | Compatible with any inverter
- | Contrated power management

Energy balance monitoring

Line-EDS-iMONITOR

Integrated solution for monitoring consumption and photovoltaic generation for facilities and public administrations.



NEW

- | Instantaneous power demanded from the distribution network
- | Photovoltaic instantaneous power
- | Total power demanded by the installation
- | Power generated during the current month
- | Interactive graph of daily energies (Photovoltaic, network, installation and injected)
- | Instant solar radiation
- | Temperature
- | Interactive daily power graph (pv, consumption & network)
- | Monthly savings in euros
- | Monthly emission savings (Tons of CO2)
- | Installation Image
- | Visualization on the corporate website
- | Monitoring the state of charge of EV charging points

MC3

Efficient transformers from 63 A to 250



Ø 7.1 / 14.6 / 26 mm

DCB/DHB

Digital instrumentation



CVM-D41 DC

Power analyzer for DC networks



Instrumentation analogique



Line- TCPRS1+

Converter Ethernet → RS-485





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