

# Earth leakage protection and monitoring solutions



# Guaranteeing an **optimum** electrical installation

*One of the most important aspects in the implementation of **Energy Management Systems (ISO 50001)**, is to maintain a continuous and reliable supply for the use of electricity in our production processes.*

*Unwanted stops and interruptions related to cuts in the electric supply generate high economic losses.*

*At this point, the use of equipment that provides us with high-immunity earth leakage protection in situations of unwanted tripping that is also capable of monitoring insulation in order to report on its state to prevent and then act (as applicable) is paramount.*



## state-of-the-art earth leakage protection and monitoring systems



**CIRCUTOR** has developed one of the most complete, efficient and safe ranges of earth leakage protection and monitoring systems on the market.

The range consists of electronic earth leakage relays for use with an external earth leakage transformer, and earth leakage transformers and earth leakage relays with an integrated earth leakage transformer.

This comprehensive range gives customers the ability to install immunised earth leakage protection systems in their installations with the best possible solution in terms of the quality and price that they require. From addressing a single crisis situation due to unwanted tripping to the protection and control of a series of lines with permanent leakages and set up of ongoing monitoring of the installation's health.

The relationship between the quality of the earth leakage protection systems and the physical space used in the installation is one of the best indicators that determines the use of our solution in current electrical installations.

**CIRCUTOR** is and has always been customer-focused, meeting long-standing needs, current needs and especially future needs. We have always believed that one of the engines for continuous innovation is solving the customer's future needs. The technological evolution of our equipment has been constant, year after year.

For years, our earth leakage protection systems have focused on seeking a balance between the safety of persons and property and the guarantee of a high continuity of service at the electrical installations where this protection is being provided.

Our mission is to ensure the comfort of customers by providing solutions to their common problems in electrical installations.

## Range of products

A complete range of products for earth leakage protection and installation monitoring, capable of covering the needs of each installation.

## Earth leakage transformers

Availability of a wide range of earth leakage transformers. Round and rectangular toroidal transformers, both available with a wide range of measurements and operating currents.

Toroidal / oval

**WGC** series

**IMPROVED IMMUNITY**  
to high current intensities

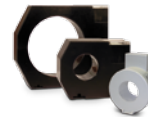


Available in:

- Ø 25 mm, Ø 35 mm, Ø 55 mm, Ø 80 mm, Ø 115 mm, Ø 140 mm, Ø 180 mm, \*
- 220x105 mm, 350x150 mm, 500x200 mm.

\* please ask

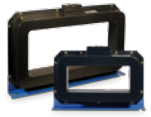
Toroidal **WG** series



Available in:

- Ø 20 mm, Ø 30 mm, Ø 35 mm, Ø 70 mm, Ø 105 mm, Ø 140 mm, Ø 210 mm.

Rectangular **WG** series



Available in:

- 70 x 175 mm, 115 x 305 mm, 150 x 350 mm, 200 x 500 mm.

## Ultra-immunised earth leakage relays

Fixed or adjustable earth leakage relays available for the WG / WGC series. Relays with an LCD display that show reclosing and leakage data are ideal for preventive maintenance.

**RG1M-0.03 / 0.3**



Compatible with WGC



**RGE-R / RGE-R1**



Compatible with WGC



**RGU-10 C / CBS-4 C**



Compatible with WGC



Earth leakage relay  
**WRU-10**

**Built-in toroidal transformer**

○ Ø 28 mm



*Model design with special features depending on specific needs, for example: preventive maintenance, control and telemanagement of electrical installations.*

## Comparison table. Protection relays

Classification of models based on needs, installation and features of the model.



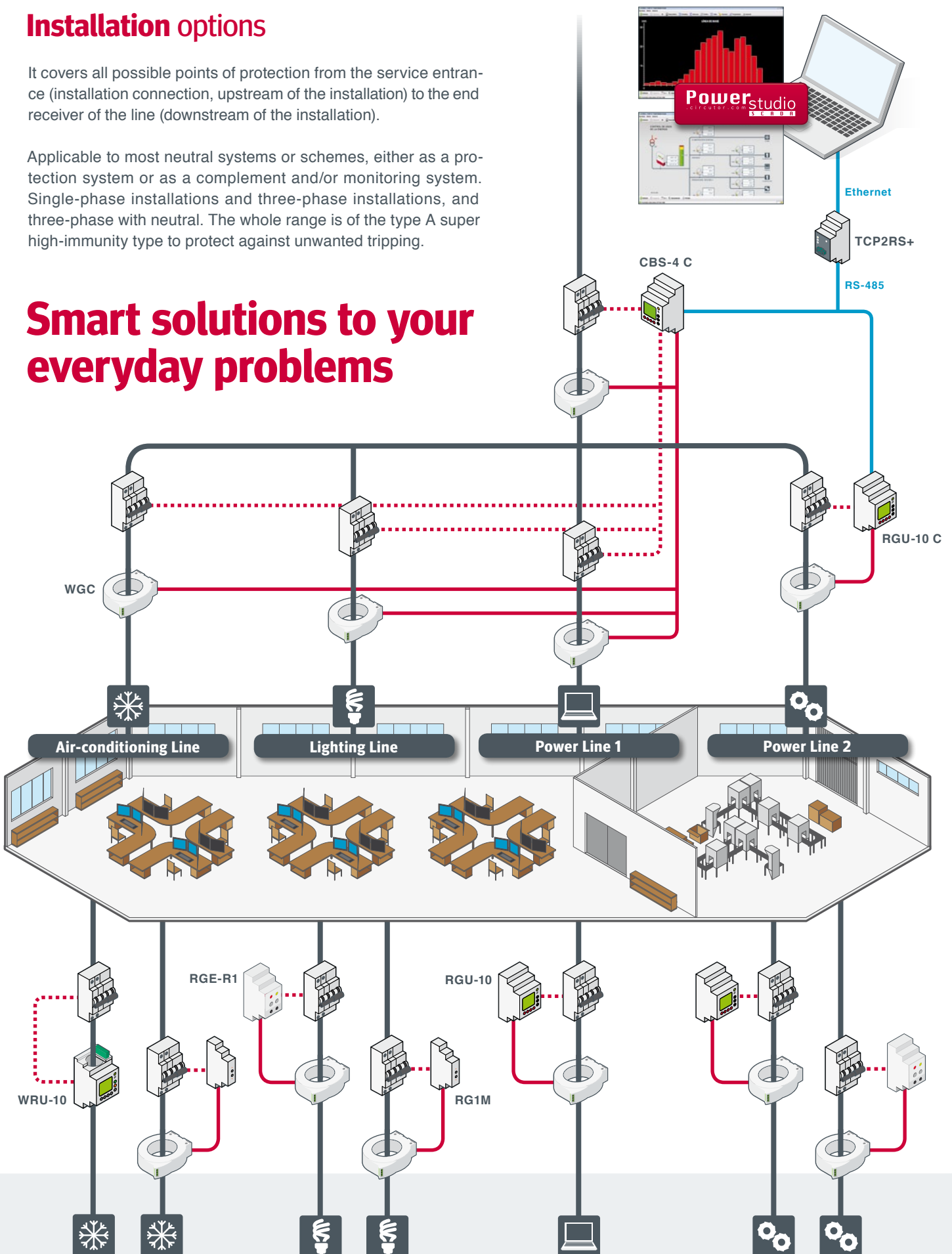
	RG1M-0.03	RG1M-0.3	RGE-R1	RGE-R	RGU-10 /C	CBS-4 /C	WRU-10
<b>Customer need</b>							
Service continuity ( <b>ultra-immunised</b> )	■	■	■	■	■	■	■
Control, telemanagement					■	■	■
Monitoring (Display/PC)					only RGU-10 C	only CBS-4 C	■
Preventive maintenance (Display/PC)					■	■	■
Pre-alarm (LED/relay)			■	■	■	■	■
<b>Installation</b>							
Use in single-phase installations	•	•	•	•	•	•	•
Three-phase, with and without neutral	•	•	•	•	•	•	•
<b>WGC</b> External earth leakage transformers	•	•	•	•	•	•	
28Ø Built-in earth leakage transformer							•
Nominal current line (A)	According to the installed <b>WGC</b> earth leakage toroidal transformer						80
Attached to DIN rail	•	•	•	•	•	•	•
Size in modules	1	1	2	2	3	3	3
<b>Model features</b>							
Type A earth leakage protection ( <b>ultra-immunised</b> )	•	•	•	•	•	•	•
Use as instantaneous protection	•	•	•	•	•	•	•
Use as selective protection			•	•	•	•	•
Fixed sensitivity and trip delay	•	•					
Adjustable sensitivity and trip delay			•	•	•	•	•
Number of prealarm outputs					1	1	2
RS-485 Communications, modbus protocol					•	•	
External input, remote control					•	•	•
Standard	IEC 60947-2 Annex M, IEC 62020						

## Installation options

It covers all possible points of protection from the service entrance (installation connection, upstream of the installation) to the end receiver of the line (downstream of the installation).

Applicable to most neutral systems or schemes, either as a protection system or as a complement and/or monitoring system. Single-phase installations and three-phase installations, and three-phase with neutral. The whole range is of the type A super high-immunity type to protect against unwanted tripping.

## Smart solutions to your everyday problems

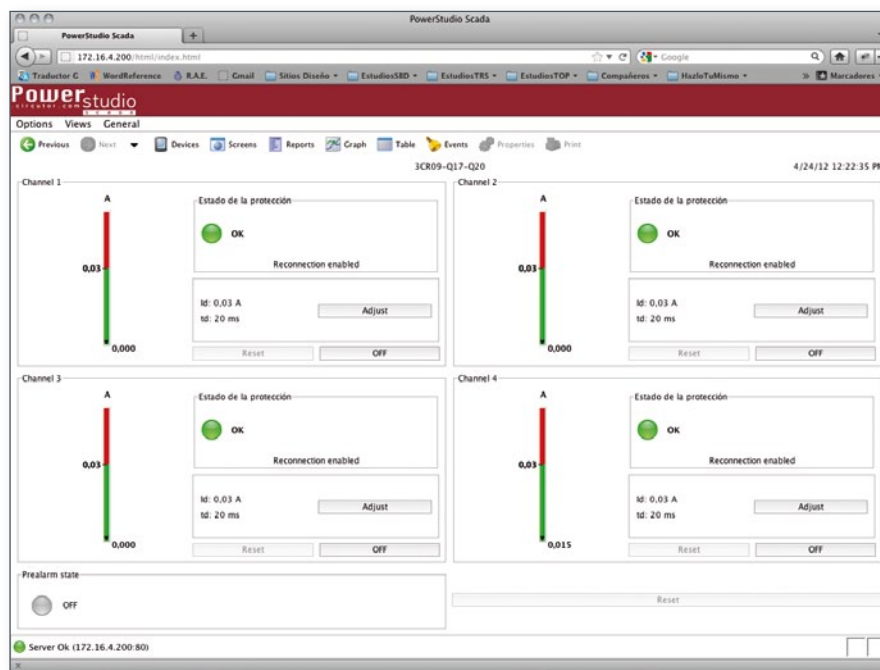
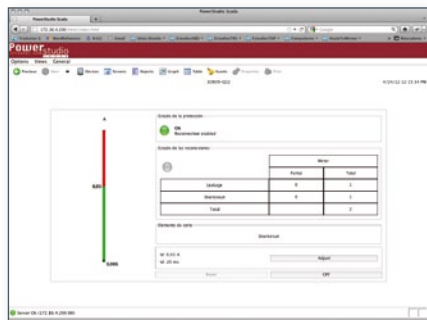
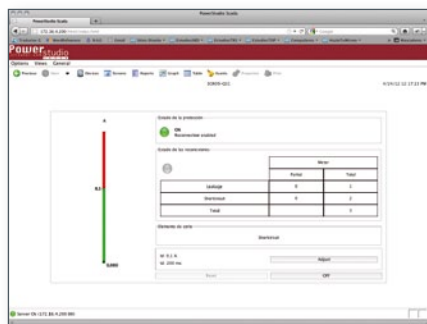


## Management and monitoring software

With PowerStudio Scada you can:

- Guarantee the accurate energy supervision of your installation
- Achieve the preventive maintenance of all lines and installations

The **RGU-10 C** and **CBS-4 C** series use the standardised Modbus/RTU (RS-485) or Modbus/TCP (Ethernet) protocols, which can be queried from any other market application.



<http://powerstudio.circutor.com>



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