XENIT by ATEX

MADE IN ITALY

HELP-AC

Patented system for detecting the presence of copper
and aluminium cables,
on power lines in AC (single-phase and 380V three-phase)
or not yet connected power lines.

XENIT.IT

Xenit is a division of ATEX INDUSTRIES for Photovoltaic and Security systems.

Made in Italy technology
for an efficient monitoring

Patented system (n. 001411374) for detecting the presence of copper and aluminium cables on power lines in AC (single-phase and 380V three-phase) or those not yet connected.

In the presence of electric current
it stays in standby

In the absence of electric current
it generates a series of pulses on the cables

Energy transfer
Through the TAHELP-TX device, the **energy is transferred by electromagnetic induction** to the cable, arriving **at the electrical panel** where the AC LOOP device is present, which closes the circuit.

Transformation and detection
The **impulse** then **retraces the return cable** until it reaches the TAHELP-RX device. Here, by electromagnetic induction, it is **transformed into a current pulse** and detected by HELP-AC, which measures it and **compares its values** with those memorized during installation.

Segnalazione con allarme
HELP-AC signals, with an alarm through the **programmable relay** or the **RS485 port with ModBus protocol**, if there are differences between the control signal and the value stored during the calibration phase, and allows you to alert the **security personnel or the Police**.

HELP-AC

Why power lines should be monitored

Technical and safety consequences of copper thefts

The main consequence of the theft of copper cables is the **interruption of the electricity supply**, and consequently of the service. All this creates many inconveniences, putting **people's safety at risk**.

Economic consequences

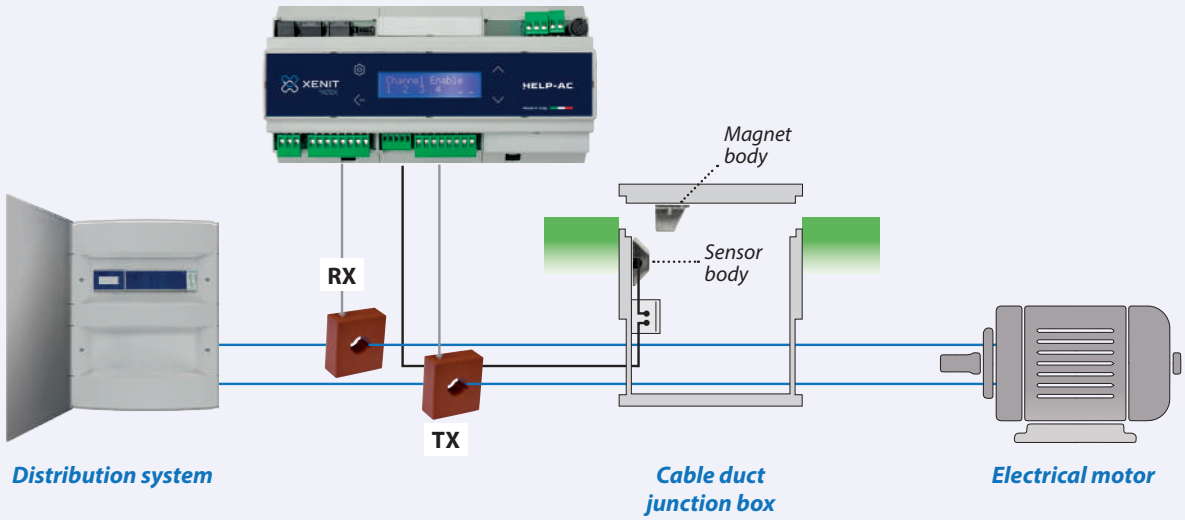
The consequential damages, i.e. those relating to the **shutdown and restoration of the plants**, far exceed the value of the removed asset. There is also an **insurance type problem**.
Generally, **the theft of copper cables is not covered by insurance**; this is because, often, the electrical conductors are placed **outside the system**, i.e. in a place considered unsafe.
There can be **insurance coverage** when there are electronic devices in the system with a **high intrinsic safety level** for signalling the presence of power lines.

Easy installation

both on new and existing plants, in a few minutes

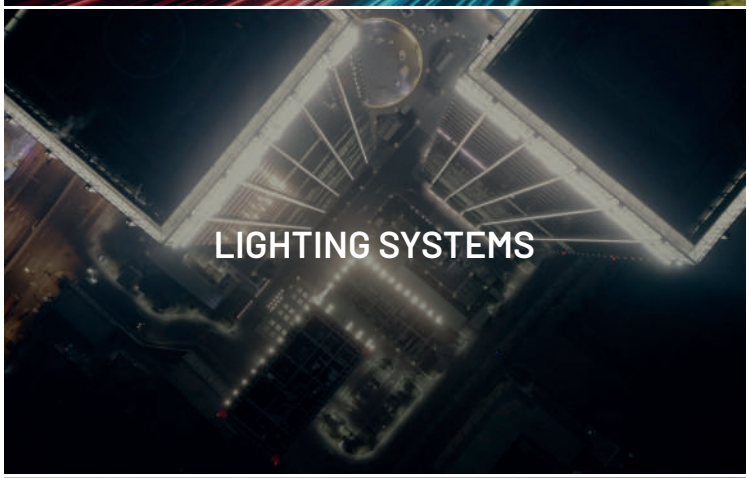
HELP-AC

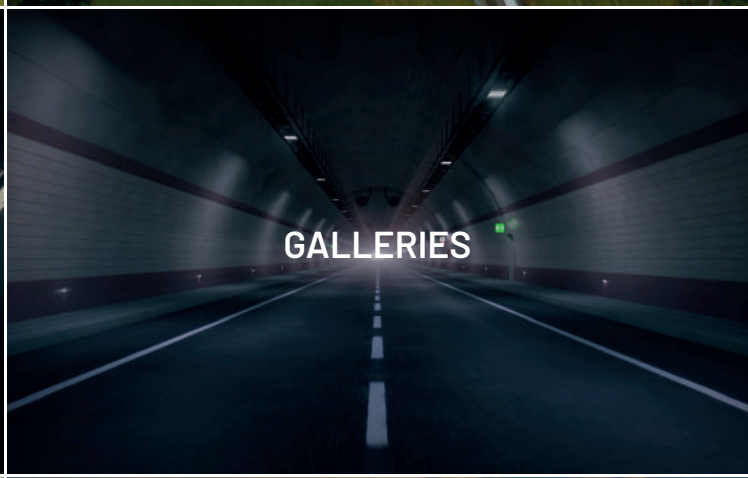
Anti-theft device for copper and aluminium cables



Areas of application

Protect power lines from theft and anomalies





Functionality and advantages

It reports tampering

HELP-AC goes into alarm if:

- the **AC LOOP device is removed**
- **a short circuit** occurs
- even only **one of the two system cables is cut**
- **the length** of even just one of the two cables of the system **changes**
- HELP-AC itself **is tampered with**

It offers total protection

HELP-AC gives you total protection, because it signals if:

- the 4 pairs of cables of each control unit are tampered with
- access to the cable duct wells or technical rooms takes place, thanks to 2 dedicated lines.

No electrical contact

During installation with **self-calibration**, **it adapts** to the lengths and characteristics of your system (**power and frequency of each channel**), to the **aging of the system** or to any **sudden changes in temperature and humidity**.

It checks for the presence of cables in two ways

Thanks to an innovative patented system, **it checks for the presence of cables in two ways**, without using any electrical contact with the line to be protected.

	HELP-AC
POWER SUPPLY	230VAC
NOMINAL ABSORPTION	Max 5W in normal operation and 12W in calibration
CONTROL CHANNELS	4 TAHELP-TX sensor outputs and 4 TAHELP-RX sensor inputs
ISOLATION VOLTAGE	4 kV between TAHELP-TX, TAHELP-RX and trunk cable
DISPLAY	LCD 16x2 backlit with the possibility of a second remote external display.
RELAY OUTPUT	NC and NO contacts, 1A capacity, normally powered in the absence of alarms
RS485 PORT	Opto isolated, with MODBUS-RTU SLAVE protocol for remote supervision
INPUTS/OUTPUTS	2 analog/digital 0-10V, Buzzer
OPERATING TEMPERATURE	-20° + 70°
AUTOMATIC ALARM RESET	Programmable at preset time intervals
WEIGHT	536 g
TRACK CONTAINER	DIN
DIMENSIONS (L X H X D)	213 x 62 x 110 mm

	TAHELP-TX	TAHELP-RX
TYPE	Transmitter	Receiver
CABLE TYPE	FG70R/4	
CABLE LENGTH	1.90 m extendable up to 10 m	
HOLE DIAMETER	Standard 26 mm suitable for cable with section up to 150 mm^2 Special versions for cables up to 300 mm^2	
DEGREE OF PROTECTION	IP65	
OPERATING TEMPERATURE	-20° + 85°	
ISOLATION VOLTAGE	4 kV, tested on 100% of the production, according to EN60742, EN60950	
WEIGHT	460g	587g
CONTAINER	Self-extinguishing plastic UL94-HB	
DIMENSIONI (L X H X P)	30 x 76 x 70 mm	

	AC LOOP
TYPE	Circuit breaker
CAPACITOR	10uF 5% 475Vac

Atex Industries Srl

Via Forgaria, 7
Zona Industriale Ponterosso
33078 San Vito al Tagliamento (PN) - Italia

VAT/no./Fiscal code 01633400930

Tel: +39 0434 85183
Fax: +39 0434 85338