



PLC filter for Smart Meters, CENELEC band A Linky, B, C and D (EN 50065-1)

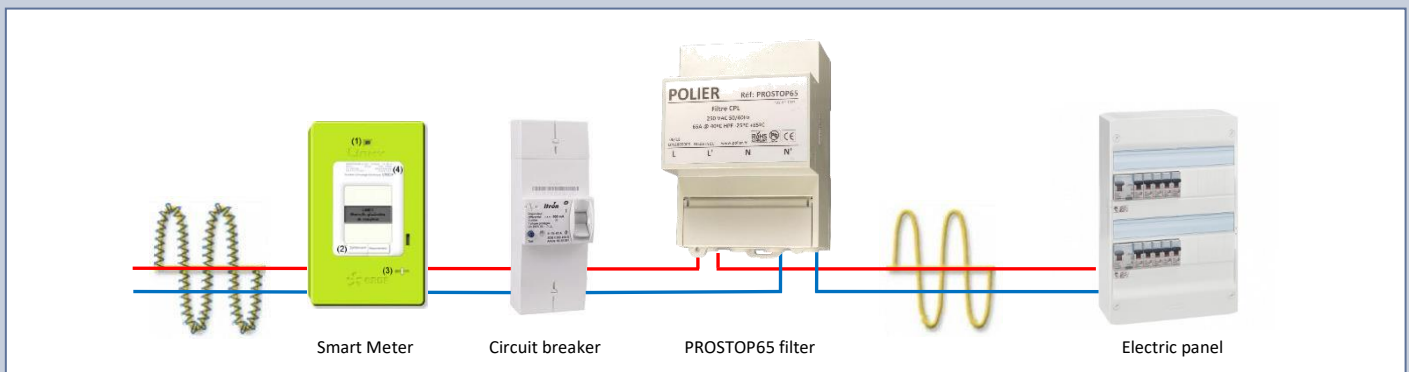
Smart Meters (digital electricity meters) as well as various domestic equipment (e.g. home automation, alarm, security system) emits Power Line Communication (PLC) signals through the electrical network. These parasitic signals cause a form of high frequency noise, often referred to as "dirty electricity", on the house wiring, and their presence on the electrical network can disturb electrosensitive people.

The signals can come from your own smart meter, but also from your neighbor's smart meter or equipment. These signals are transmitted over the entire electrical network.

With 35 years of experience in the field of energy control, POLIER offers the new high performance PROSTOP65 PLC filter, which effectively filters these types of signals from smart electricity meters and domestic equipment.

By installing the PROSTOP65 PLC filter between the circuit breaker and the electrical panel, these signals are blocked out and prevented from entering into the electrical wiring of your home.

Principle



Highlights

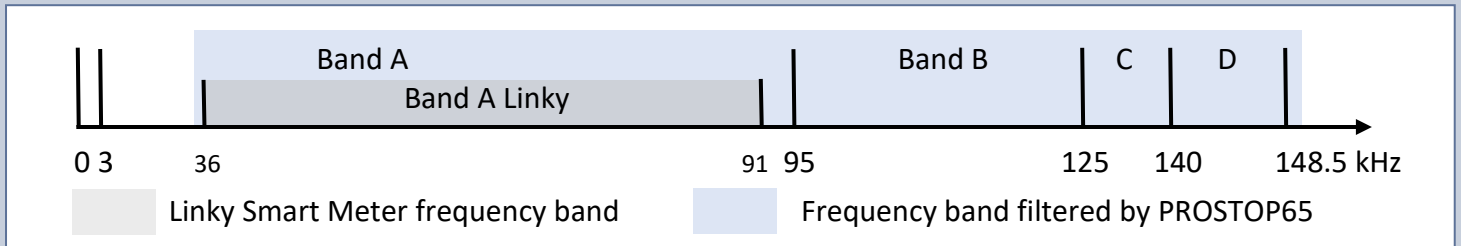
- Filters the 4 CENELEC Frequency bands (A Linky, B, C and D), 35 – 150 kHz
- Attenuation: -50 dB or better
- Installed on the private section of your electrical installation, which is legal.
- Compact size (4 modules)

Technical characteristics

	PROSTOP65
Attenuation	-50 dB
Filtered frequencies	35 – 150 kHz (CENELEC A Linky, B, C and D)
Nominal current (max)	10 (65) A
Certification – CENELEC standards	CE - EN 50065-1
Operating voltage	110 -270 V
Operating frequency	50 – 60 Hz
IP protection	IP51
Operating lifetime	25 years
Operating temperature	-25 to +85 °C
Max section phase / neutral connection	6 - 16 mm ²
Connector screws, tightening torque	3 ± 0.1 Nm
Weight	0,8 kg
Nominal power consumption	< 3 W

What is the CENELEC band?

The CENELEC standard (EN 50065-1) defines the frequencies used for PLC communications. The standard defines 4 bands.



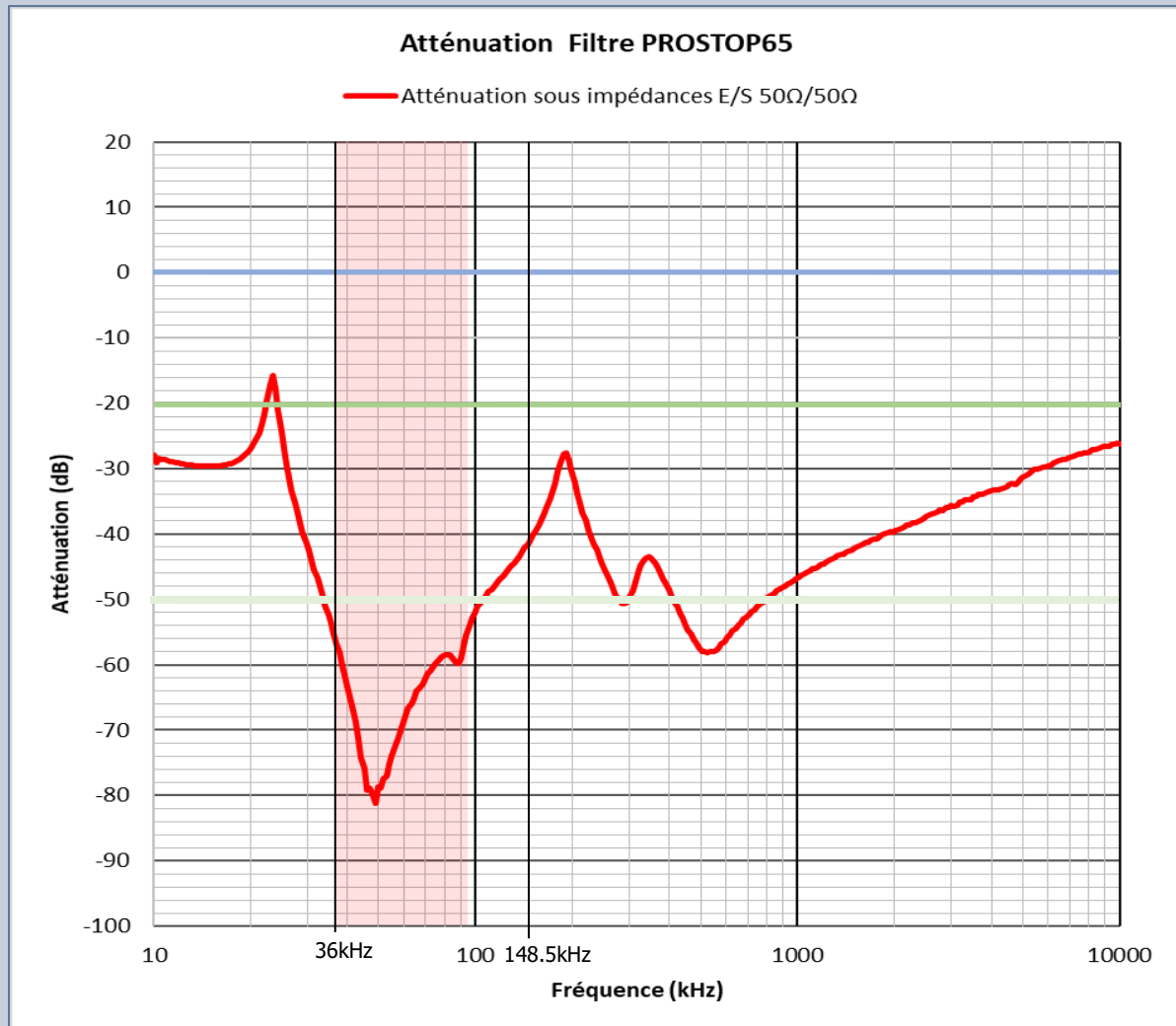
CENELEC band A: Reserved for electricity suppliers => Smart Meter / LINKY (36 kHz to 91 kHz)


CENELEC band B: All applications, no collision management.

CENELEC band C: Home networks with collision management

CENELEC band D: Alarms and security systems without collision management

Attenuation



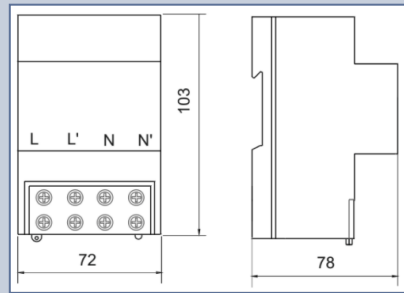
 Frequency band for Smart Meters

 - 20 dB (99%)

 - 50 dB (99,999%)

Note that the attenuation for the frequency band used by Linky Smart Meters is at least -50 dB. Also note that the PROSTOP65 importantly offers high attenuation at higher frequencies above 91 kHz. This effectively allows "dirty electricity" to be filtered out, all the way up to the 10+ MHz range.

Dimensions

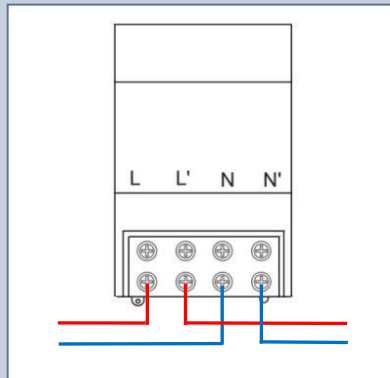


Connection diagram

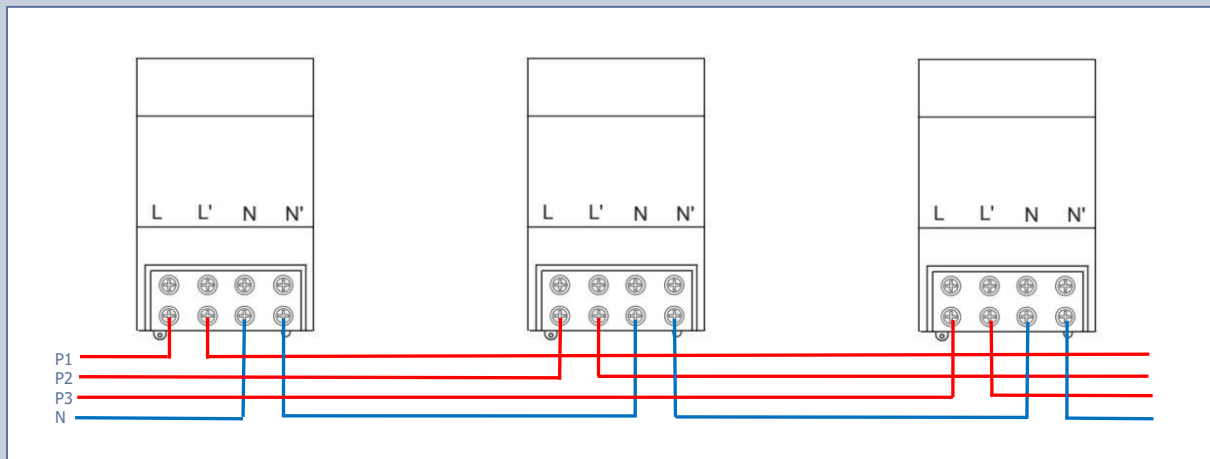
The PROSTOP filter is connected between the Smart meter and the electrical panel. It is therefore installed on the private section of the installation.

The filter is installed after the circuit breaker

Single phase installation:



3 phase installation:



Conformity

Certification bodies: ENAC/ECA

EN-50065-1 ; EN-60939-2
IEC-60950-1 ; IEC-62052-31 ; IEC-60950-1
2004/108/EC ; 2011/65/UE

UNE-20324 ; UNE-EN-50102 ; UNE-EN-61709
UL-1283
ROHS

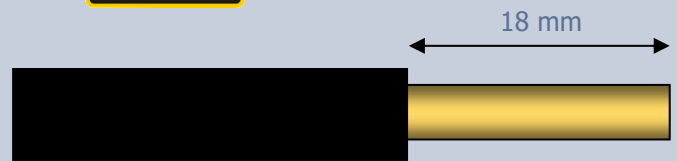
Installation

Installation must be done by a professional.

1 / Make sure all power sources are turned off.



2/ Strip the cables over 18 mm



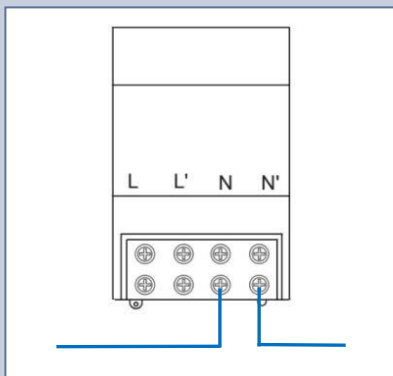
3/ Use solid wires, or end pieces in the case of using stranded wires



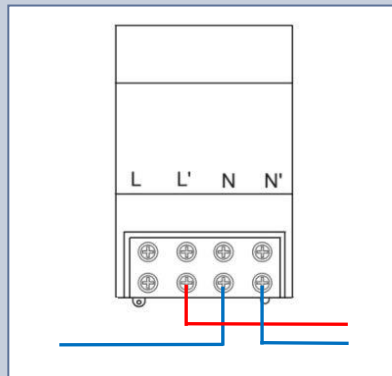
4/ Use a suitable screwdriver (PZ2 bit). Apply a tightening torque of 3 Nm to the two screws.

5/ Connection order:

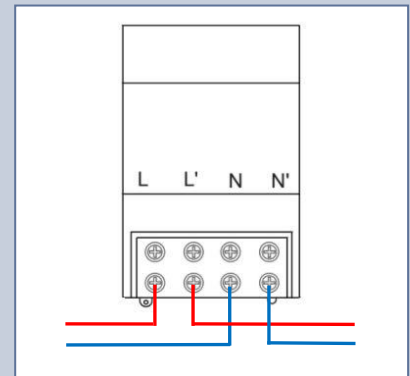
1 : Neutral In (N) and Out (N')



2 : Phase Outgoing (L')



3 : Phase Incoming (L)



Safety

Installation must be performed by a qualified professional.

The filter should never be thermally insulated.

The filter must be protected from moisture or liquids.

The filter must be mounted in a closed environment.

The filter is not suitable for outdoor use.

The current should never exceed the max rating.

The installation must be done with the power turned off.