

SMARTPLUG

SMARTPLUG is a LoRaWAN® Class C smart device that monitors and controls plugged equipment. It monitors and sends reports about power line quality.

APPLICATIONS

- Switch on/off devices – Local and Remote Control.
- Remote Power Scheduling – Easily create On/Off schedules for your devices with your application.
- Load Curve Report & Usage Statistics – Monitor & report power/energy consumption of connected devices.
- Quality statistics – Monitor & report power line voltage and frequency.

BENEFITS & KEY FEATURES

- LoRaWAN®, Class C.
- Easy to use and deploy.
- Up to 3500W – 16A switch On/Off capability.
- Monitor and report Power/Energy/Voltage/Frequency.
- Socket types E, F and G available.

QUALITY & RELIABILITY

- RED, RoHS



*Non contractual picture
Sensors delivered without WATTECO marking*

The Class C LoRaWAN® **SMARTPLUG** from Watteco is a compact, multi-purpose and easy-to-use device that is used to monitor and control other devices from any LoRaWAN® network.

SMARTPLUG allows a connected device to be switched on/off instantly or according to a schedule thanks to your IoT application.

3 versions of **SMARTPLUG** are available:

- Type E (Fr)
- Type F (EU)
- Type G (UK)

The embedded multifunction meter continuously measures active/reactive power and energy. It also provides power quality measurements such as average/min/max voltage (rms/peak) and frequency.

If the variation of one of the quality parameters (frequency, voltage) is greater than the threshold set by the user, a “change over variation” or CoV report is automatically generated to track and analyse power line disturbances.

The measured parameters can be locally stored, concatenated and compressed. This unique batch mechanism significantly reduces the amount of data transmitted for demanding applications such as load curve reporting.

THE LARGEST IOT PRODUCTS RANGE FOR YOUR PROJECT

WATTECO is a European leader in the design and manufacture of smart IoT devices to suit all remote reading and data collection solutions.

WATTECO is a LoRa Alliance® member.

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SMARTPLUG

TECHNICAL DATA

RADIOFREQUENCY	Frequency (MHz)	Transmit Power (dBm)	Receiver Sensitivity (dBm)
	863-870	+14	-140

FIRMWARE

Protocol	LoRaWAN®, Class C
Activation method	Activation by Personalization (ABP) or Over-The-Air Activation (OTAA)
Data encryption	AES128
Application layer	ZCL (ZigBee Cluster Library) – to be interpreted by the remote server
Measurements & Transmission cycles	Configurable from 10 minutes to 24 hours
Data compression	Yes (differential coding)

POWER MEASUREMENTS

Active / Reactive power resolution	1 W / Var
Active / Reactive energy resolution	1 W.h / Var.h
Power accuracy	<1% above 100 W >2,5% below 100 W

QUALITY LINE INDICATOR

Frequency	Current/min/max values
RMS Voltage	Current/min/max values
Overvoltage	Number of occurrence the voltage exceed the overvoltage threshold
Sag	Number of occurrence the main voltage is lower than the "Sag voltage Threshold" for at least the number of half cycle defined by the "Sag cycle Threshold" attribute

POWER SUPPLY	Operating Voltage	Frequency	Max load capacity
	100 ... 250 VAC	50 – 60 Hz	16A/250VAC

USER INTERFACES	LED	Push Button
	Configuration and network pairing	Reset, ON/OFF

ENCLOSURE	Size (mm)	IP rating	SOCKET types
	62 x 114 x 40	IP20	Type E (Fr) – Type F (EU) – Type G (UK)

ENVIRONMENT	Operating temperature	Storage conditions
	-20°C to +50°C	0°C to +50°C +20%rH to +60%rH

DIRECTIVES & STANDARD

Radio Equipment Directive 2014/53/EU, RoHS



PRODUCT NUMBER

REFERENCE	DESCRIPTION
50-70-003	LoRAWAN® SMARTPLUG FR
50-70-020	LoRAWAN® SMARTPLUG EU
50-70-021	LoRAWAN® SMARTPLUG UK