



wireless energy management system

A smart load management and home automation solution based on LoRa communication



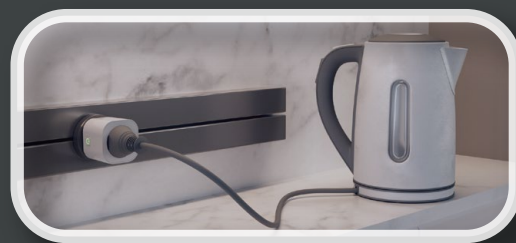
EL TEJADO SOLAR .COM

CREAMOS LA ENERGIA VERDE

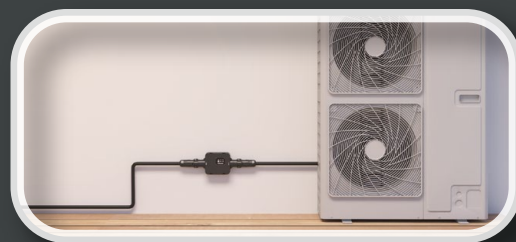
info@eltejadosolar.com

Telf: 965 055 969

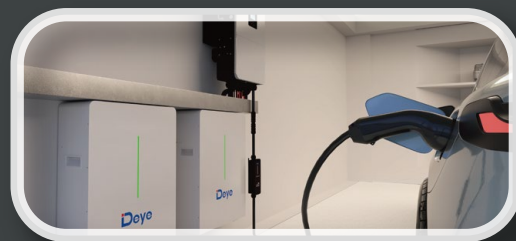
Telf: 668 636 637



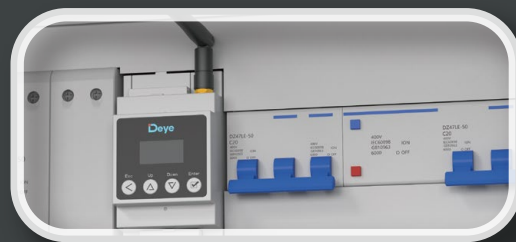
Smart Plug



Smart Switch



Smart EV Charger



Wireless CT

 Low latency

 Supports all Deye hybrid inverters

 Easily define non-essential and critical loads

 Offline operation

 Maximize the use of solar power

 Minimize the electricity bill as much as possible

 LoRa communication

 Smart Load management

 Charging control strategy based on time and SOC

Deye

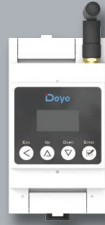
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A smart load management and home automation solution based on LoRa communication.

All Deye hybrid inverters can serve as the local control center for the Deye Smart Home IoT System. Simply install the Deye Smart Transmitter(TX) to the inverter's Meter port to easily pair with Deye LoRa devices.



Deye Wireless CT is installed in the distribution box to monitor power consumption, Supports both LoRa and RS485 communication methods simultaneously.



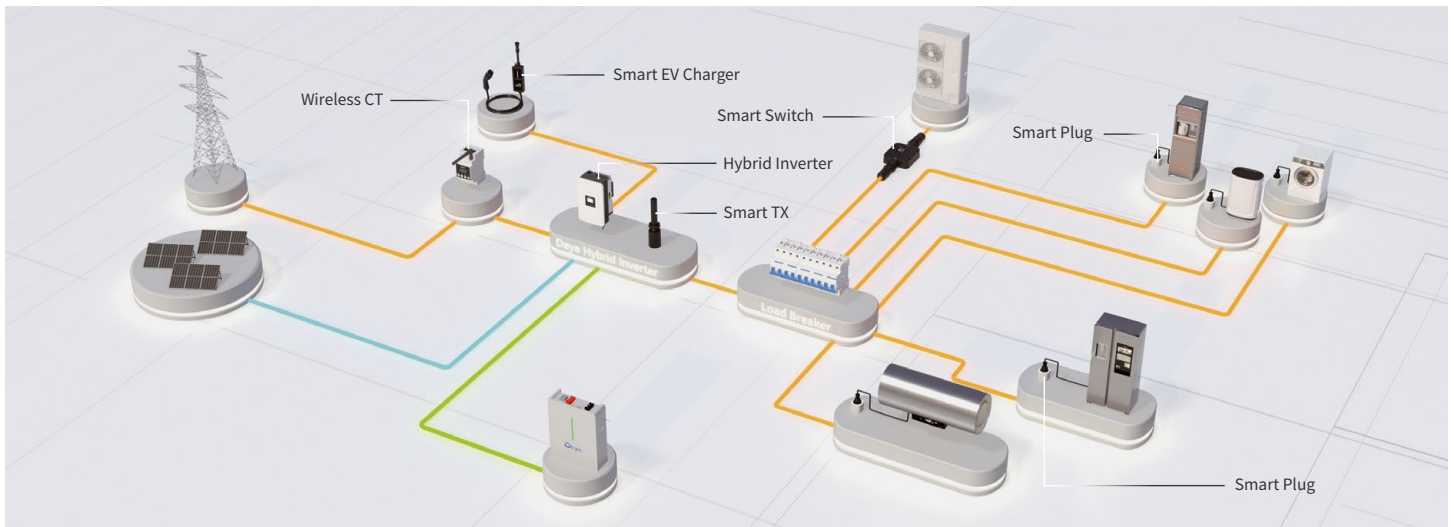
Deye Smart Plug can be easily installed in any standard socket, instantly upgrading the appliance plugged in to a smart device.



Deye Smart Switch is designed for outdoor high-power loads, offering the same logic control as Smart Plugs, supporting both single-phase and three-phase loads. With the Deye Cloud APP or directly on the inverter's screen, you can customize the on/off logic for each Smart Plug based on factors like time and battery SOC levels.



Deye Smart EV Charger can be directly connected to any AC port of the inverter and is controlled by the inverter via LoRa communication. It offers flexible options to take advantage of low-cost electricity, with modes such as Plug and Play, Time of Charge, or Solar Energy Only.



Why choose LoRa communication solutions?

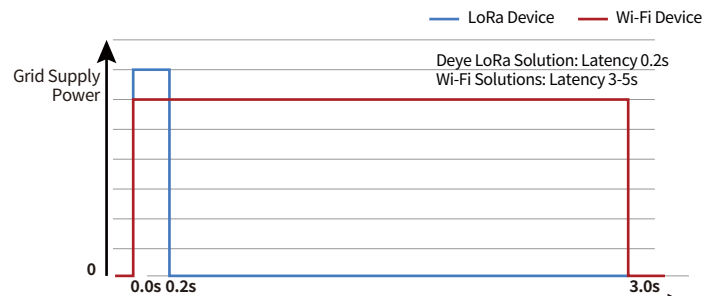
LoRa devices have shorter wake-up times and lower communication latency, ensuring instant response.

In comparison, Wi-Fi devices typically take longer to wake up and may experience longer communication latency due to routing data and commands through the cloud platform.

Excessive latency makes it difficult for household energy systems to maintain stable operation.

If the Internet is not available, the Wi-Fi device may not be able to communicate with the server. But Deye's IoT devices communicate via LoRa protocol, so these devices can continue to conduct local commands.

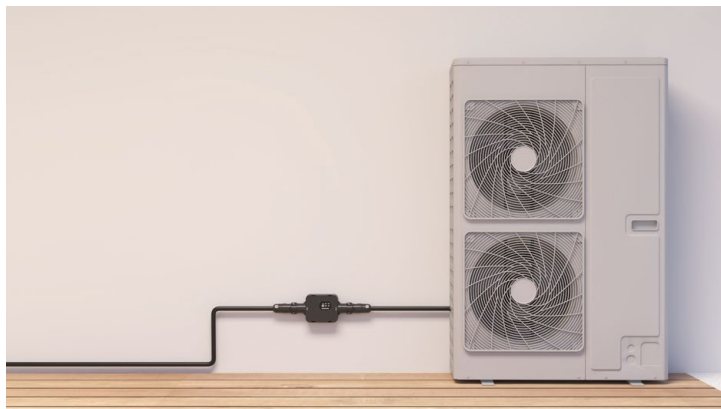
Zero-Export Function Response Time Diagram



Comparison of Response Times for CTs Based on LoRa Communication vs. WiFi Communication



Model		SUN-SMART-CT01		
Electrical parameters				
Connection Type	 EL TEJADO SOLAR .COM CREAMOS LA ENERGIA VERDE info@eltejadosolar.com Telf: 965 055 969 Telf: 668 636 637	L1/N(Single phase) , L1/L2/L3/N(Three phase)		
CT		Secondary current: 50mA		
Operation Voltage		85~300Va.c.(L-N)		
Rated Frequency/Range		50Hz(45Hz-55Hz)/60Hz(55Hz-65Hz)		
Self Consumption Power		≤2W		
AC voltage withstand		4KV/1min		
Accuracy				
Voltage		±0.1V		
Current		±0.01A		
Frequency		±0.01Hz		
Power		±1W		
Communication and Display				
Communication Interface	 EL TEJADO SOLAR .COM CREAMOS LA ENERGIA VERDE info@eltejadosolar.com Telf: 965 055 969 Telf: 668 636 637	Lora/RS485		
Lora Communication Distance		≈200m(Barrier free)		
Display		LCD		
Display Data		Voltage、Current、Active power、Reactive power、Frequency、Power Factor、Energy		
General Data				
Operation Temperature	 EL TEJADO SOLAR .COM CREAMOS LA ENERGIA VERDE info@eltejadosolar.com Telf: 965 055 969 Telf: 668 636 637	-40 to +60°C		
Operation Humidity		0-75%		
Ingress Protection(IP) Rating		IP20		
Altitude		≤4000		
Mounting		DIN-Rail Mounting		
Size		53x96x64mm		
Weight		0.15kg		
Warranty		5 Years		
Certification standards		IEC/EN 61010-1		
Model		SUN-SMART-TX01		
Electrical Parameters				
Input Voltage	 EL TEJADO SOLAR .COM CREAMOS LA ENERGIA VERDE info@eltejadosolar.com Telf: 965 055 969 Telf: 668 636 637	DC 5V		
Communication				
Communication Model		LoRa		
Communication Distance		≈200m(Barrier free)		
Basic Parameters				
Operating Temperature Range	 EL TEJADO SOLAR .COM CREAMOS LA ENERGIA VERDE info@eltejadosolar.com Telf: 965 055 969 Telf: 668 636 637	-40 to +60°C		
Permissible Ambient Humidity		0-100%		
Ingress Protection(IP) Rating		IP20(After installation IP65)		
Allowable Altitude		≤4000		
Product size (WxHxD)		137.8x31.3x31.3mm		
Weight		45.8g		
Warranty		2 Years		
Standard	IEC/EN 62368-1			
LoRa Parameters				
Frequency Range		863MHz-870MHz		
Antenna		Built-in		
Antenna Gain		0.56dBi		



Model	SUN-SMART-SWITCH01P3
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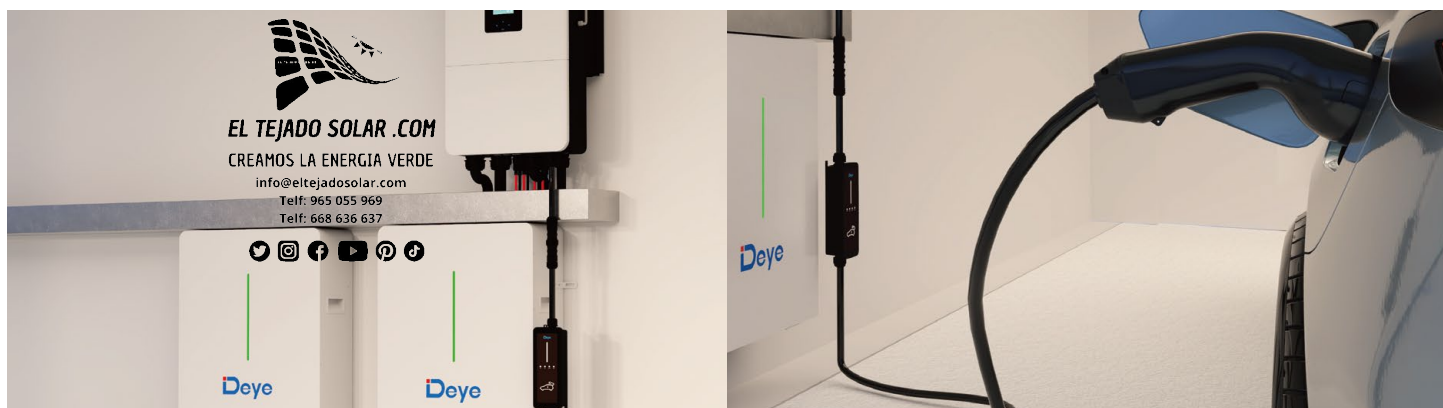
Electrical Parameters	
Voltage Range	94-238Va.c.(Phase voltage)
Connection Type	L1/N(single phase), L1/L2/L3/N(three phase)
Maximum Current	25Aa.c.(Phase current)
Frequency and Range	50Hz(45Hz-55Hz)/ 60Hz(55Hz-65Hz)
Connection	Connector plug-in type
Communication	
Communication Model	LoRa
Lora Communication Distance	≈200m(Barrier free)
Basic Parameters	
Working Temperature Range	-40 to +45°C
Allow Environmental Humidity	0-100% RH
Ingress Protection(IP) Rating	IP65
Protection level	CLASS I
Allowable altitude	≤4000m
Product size (WxHxD)	96.7x204.7x37.7mm
Weight	0.4kg
Warranty	5 Years
Standard	IEC/EN 61010-1
Lora Parameters	
Frequency Range	863MHz-870MHz
Antenna	Internal antenna
Antenna Gain	1.58dBi@868MHz



Model	SUN-SMART-PLUG01P1-F
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Electrical Parameters	
Rated voltage	220-250Va.c.
Maximum current	16Aa.c.
Frequency and Range	50Hz(45Hz-55Hz)/60Hz(55Hz-65Hz)
Connection	Plug-type
Communication	
Communication Model	LoRa
Lora Communication Distance	≈200m(Barrier free)
Basic Parameters	
Working Temperature Range	-40 to +60°C
Ingress Protection(IP) Rating	IP20
Protection level	CLASS I
Allowable altitude	≤3000m
Product size (WxHxD)	51.2x51.2x64mm
Weight	0.08kg
Warranty	5 Years
Standard	VDE 0620-2-1;EN 61058
LoRa	
Frequency Range	863MHz-870MHz
Antenna	Internal antenna
Antenna Gain	0.3.23dBi@868MHz





Model	SUN-EVSE11K01-EU-AC	SUN-EVSE22K01-EU-AC
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Product Parameter		
Input Voltage/Range (V)	230/400	230(single phase), 230/400(three phase)
Connection Mode	3L+N+PE	L+N+PE,3L+N+PE
Input Current (A)	16	32
Input Frequency/Range	50/45-55, 60/55-65	
Maximum Output Power (kW)	11	7(single phase)/ 22(three phase)
Starting Method	Plug and Charge /Charge after Scanning/Appointment for Charging	
Equipment Protection		
Over Temperature Protection	 EL TEJADO SOLAR .COM CREAMOS LA ENERGIA VERDE info@eltejadosolar.com Telf: 965 055 969 Telf: 668 636 637 	Yes
Low Temperature Protection		Yes
Over Voltage Protection		Yes
Under Voltage Protection		Yes
Short Circuit Protection		Yes
Over Load Protection		Yes
Earth Fault Protection		Yes
Leakage Current Protection		DC 6mA
Surge Protection Level		TYPE II
General Data		
Operating Temperature Range (°C)	 EL TEJADO SOLAR .COM CREAMOS LA ENERGIA VERDE info@eltejadosolar.com Telf: 965 055 969 Telf: 668 636 637 	-40 to +55
Permissible Ambient Humidity		5%~95% No condensation
Permissible Altitude (m)		≤3000
Noise (dB)		<25
Ingress Protection(IP) Rating		IP 66
Cabinet Size (WxHxD mm)		104x264x57.5
Weight (kg)		3.7
Gun Cable Length (m)		4.2
Number Of Charging Guns		1
MTBF		100,000h
Safety EMC/Standard	EN IEC 61851-1:2019, IEC 61851-1:2017, EN 300 220-2 V3.1.1:2017, EN 300 328 V2.2.2:2019, EN IEC 62311:2020 EN 301 489-1 V2.2.3:2019, EN 301 489-3 V2.3.2:2023, EN 301 489-17 V3.3.1:2024, EN IEC 61000-6-1:2019 EN IEC 61000-6-3:2021, EN IEC 61851-21-2:2021	
Interface		
Communication Mode	LoRa/Wi-Fi/BLE	



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Deye Inverter

