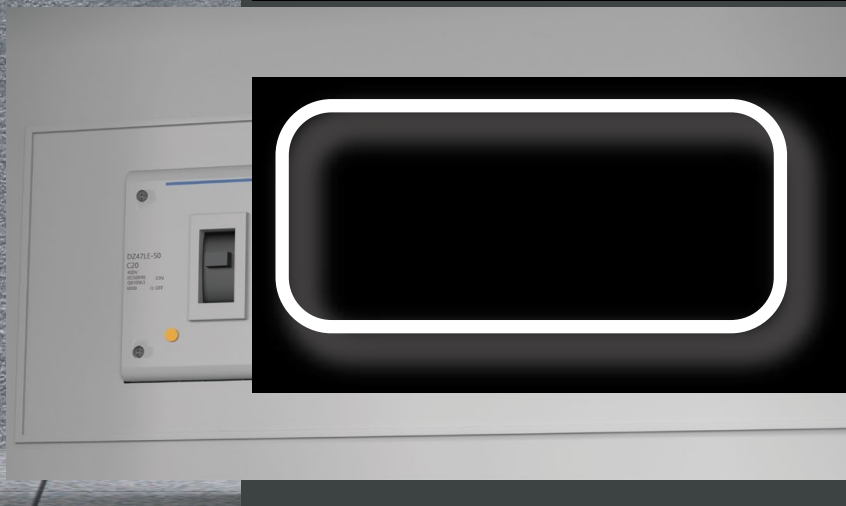
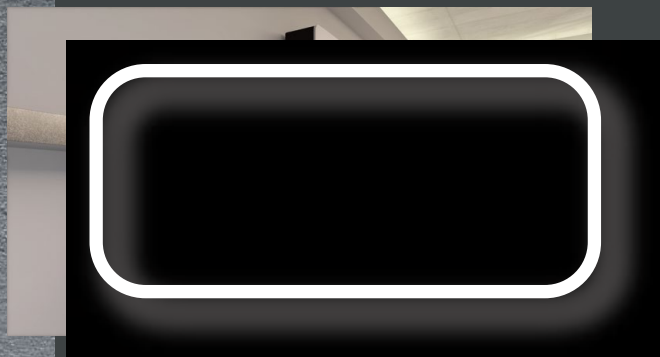
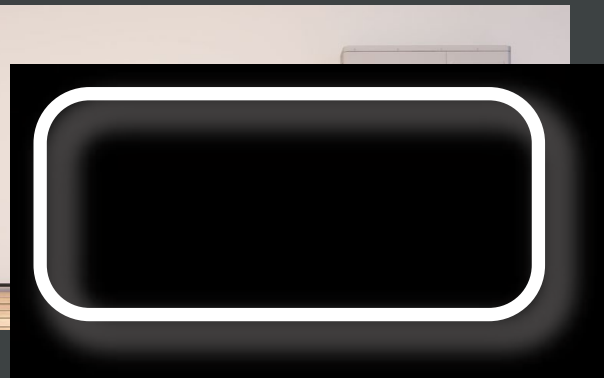
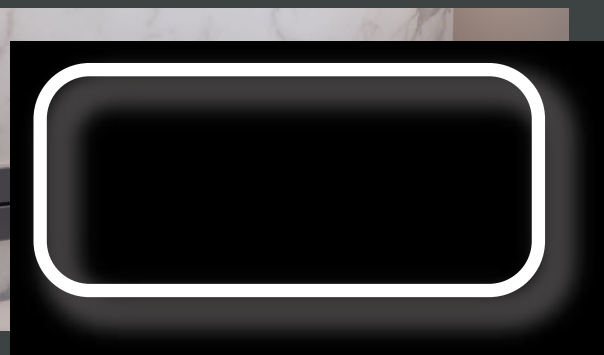




wireless energy management system

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



 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

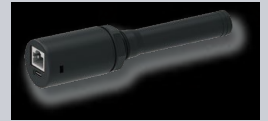
 Charging control strategy based on time and SOC

Deye

wireless energy management system

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.



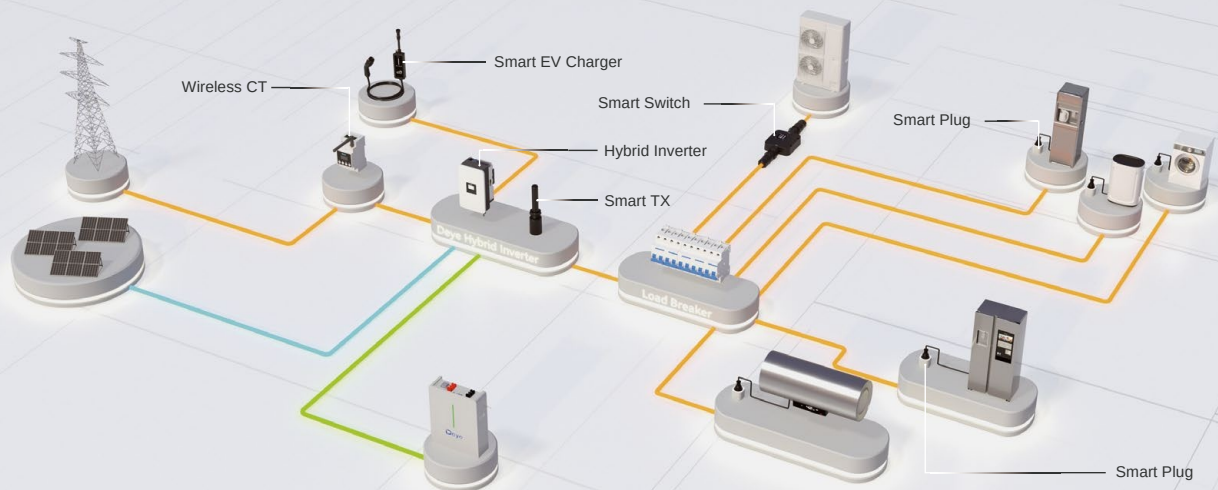
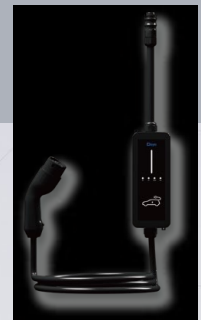
Deye Smart Plug can be easily installed in any standard socket, instantly upgrading the appliance plugged in to a smart device.



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?

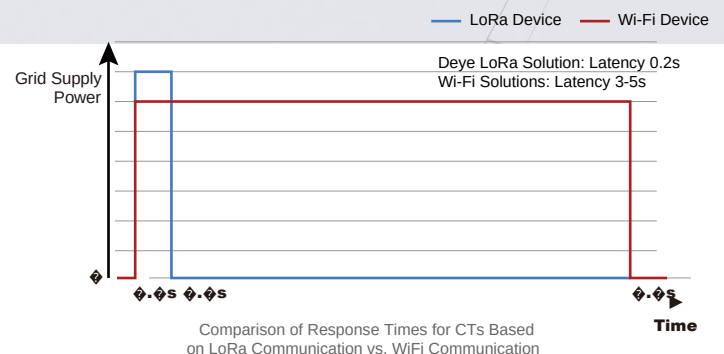
LoRa devices have shorter wake-up times and lower communication latency, ensuring instant response.

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





Model	SUN-SMART-CT01
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Electrical parameters	
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Connection Type	L1/N(Single phase) , L1/L2/L3/N(Three phase)
CT	Secondary current: 50mA
Operation Voltage	85~300V _{a.c.} (L-N)
Rated Frequency/Range	50Hz(45Hz-55Hz)/60Hz(55Hz-65Hz)
Self Consumption Power	≤2W

AC voltage withstand	4KV/1min
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Accuracy	
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Voltage	±0.1V
Current	±0.01A
Frequency	±0.01Hz
Power	±1W

Communication and Display	
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Communication Interface	Lora/RS485
Lora Communication Distance	≈200m(Barrier free)
Display	LCD
Display Data	Voltage Current Active power Reactive power Frequency Power Factor Energy

General Data	
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Operation Temperature	-40 to +60℃
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
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Electrical Parameters	
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Input Voltage	DC 5V
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Communication	
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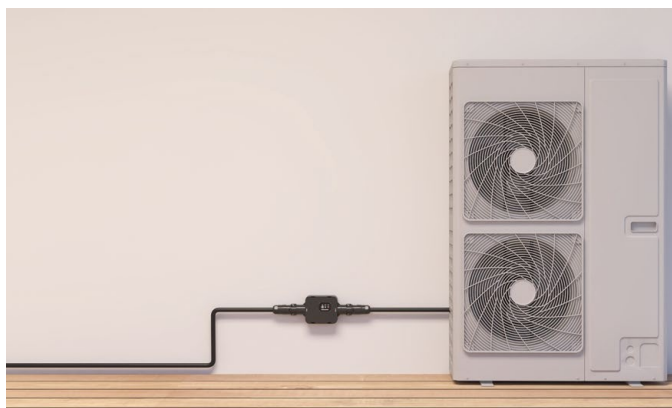
Communication Model	LoRa
Communication Distance	≈200m(Barrier free)

Basic Parameters	
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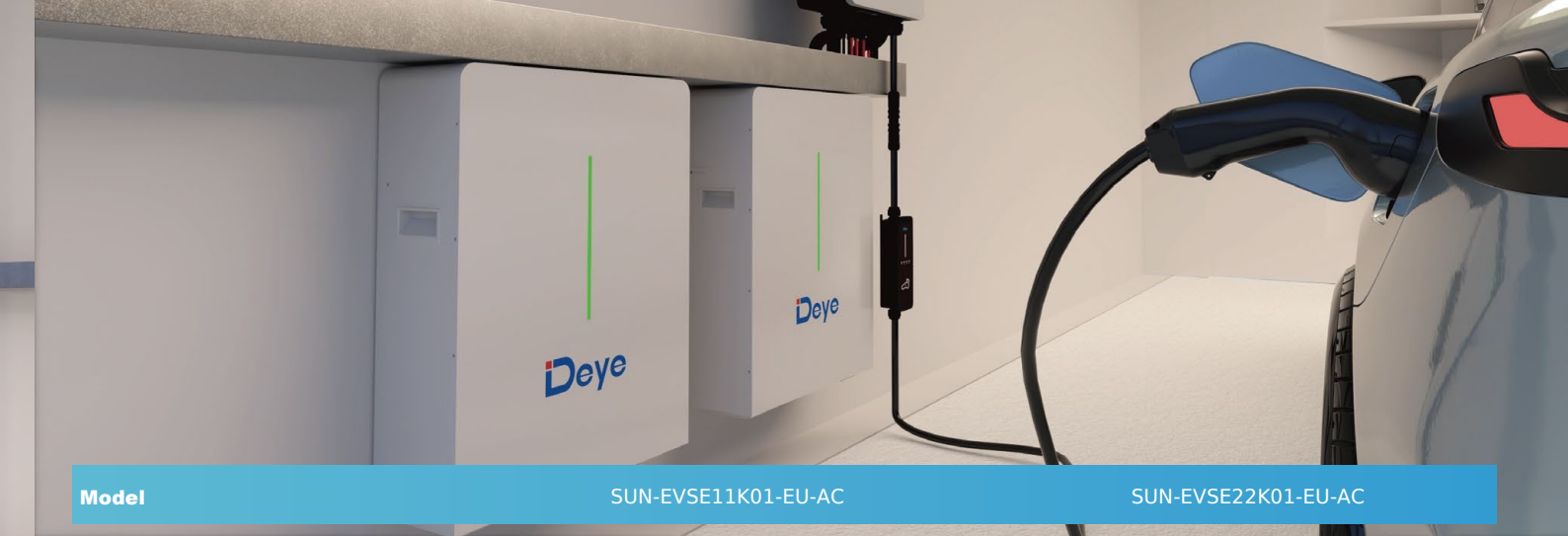
Operating Temperature Range	-40 to +60℃
Permissible Ambient Humidity	0-100%
Ingress Protection(IP) Rating	IP20(After installation IP65)
Allowable Altitude	≤4000
Product size(WxHxD)	137.8x31.3x31.3mm
Weight	45.8g
Warranty	2 Years
Standard	IEC/EN 62368-1

LoRa Parameters	
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Frequency Range	863MHz-870MHz
Antenna	Built-in
Antenna Gain	0.56dBi



Model		SUN-SMART-SWITCH01P3
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)		96.7x204.7x37mm
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
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	
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	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)	-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)	3			
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 62311:2019, 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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