

# WALLBOX DC CHARGING



## Product Features:

- **Vehicle-Grid Interaction:** Capable of accepting orderly grid charging/discharging scheduling, completing V2G protocol docking between the grid and vehicles, realizing orderly charging of electric vehicles in batches, and the consumption and storage of new energy power generation. Through the unified EMS platform management, it can realize peak-valley arbitrage, dynamic capacity expansion, load-side response, emergency power supply and other functions.
- **Safety and Efficiency:** Electrical isolation inside the module ensures no electrical connection between the grid, electric vehicles and other equipment, improving safety. Adopting an all-SiC design, the maximum charging/discharging efficiency is >95%, enhancing energy conversion efficiency.
- **Multi-standard Support:** Supports GBT/CCS standards and V2G charging/discharging protocols of mainstream vehicles. It can dock with protocols of the grid and mainstream platforms, featuring strong compatibility to meet the needs of different vehicles and platforms.
- **Face Recognition:** Simplifies the charging process with AI face recognition technology, solving many pain points of traditional charging pile methods such as card swiping and code scanning.
- **Voice Recognition:** Built-in exclusive voice assistant allows users to wake up the charging pile

and start charging by voice without additional operations, making operation simple and convenient.

## **Applications:**

- **Residential Communities:** Charging power can be intelligently regulated, compatible with 99% of vehicle models. Through the unified EMS (Energy Management System), the power and charging time of each charging pile are dynamically adjusted to realize orderly charging, meeting the charging needs of a large number of electric vehicles in the community. It also enables more than ten times flexible capacity expansion for the community, achieves peak shaving and valley filling, and reduces charging costs.
- **Industrial Parks:** It can help microgrids stabilize load pressure and absorb the clean photovoltaic energy generated in the park. Vehicle owners can automatically activate reverse discharge when the grid requires it, gaining revenue from price differences, while alleviating the peak power consumption pressure in the park.
- **Commercial Venues:** For parking lots in commercial areas such as shopping malls, hotels, and office buildings, the EMS system dynamically regulates power and charging time. This not only meets the charging needs of vehicle owners but also realizes optimized energy utilization. A small number of DC fast-charging equipment can be configured to meet the demand for faster charging.
- **Household Scenarios:** Centered on an 11kW V2G charging pile, and equipped with a V2H (Vehicle-to-Home) Box, photovoltaic modules, etc., a home PV-energy storage-charging system can be formed. Users can use clean solar energy to power household loads and charge electric vehicles. In the event of an unexpected grid power outage, electric vehicles can reversely supply

power to household loads, and surplus electricity from the home or vehicle can be fed back to the grid, saving household electricity costs.

## Product Parameters:

Item	
Input Voltage	400Vac(260Vac~520Vac)
Input Current	16A
Input Frequency	50/60Hz
Input Configuration	3P+N+PE
Output Voltage	250Vdc~1000Vdc
Output Power	11kW
Output Current	Charging: 0~44A; Discharging: 0~47A
Display Screen Size	4.3 inches
Start-up Mode	Plug-and-Charge / Card Swipe / QR Code Scan
Communication Mode	CAN Communication
Communication Protocol	GB/T 27930
Alarm Mode	Audible and Visual Alarm
Efficiency	Rectification/Inversion $\geq 95\%$
Metering Function	DC Energy Meter / AC Energy Meter
Metering Accuracy	Class 1
Current Regulation Accuracy	$\leq \pm 1\%$ (20% - 100% Rated Load)
Voltage Regulation Accuracy	$\leq \pm 0.5\%$
Power Factor	$> 0.98$
Total Harmonic Distortion (THD)	$< 5\%$
Number of Charging Channels	1Channel
Operating Temperature/Humidity	-30~+70°C, Derating required above 50°C

Altitude	≤2000m; Derating required above 2000m
Noise	≤60dB
Protection Class	IP65
Charging Cable Length	5m
Wiring Mode	Bottom Inlet & Bottom Outlet
Enclosure Material	Metal Enclosure
Cooling Method	Forced Air Cooling
Installation Mode	Wall-mounted / Pole-mounted (Optional)
Dimensions	680mm×380mm×198mm

### 3. Indicator light definition

#### 3.1 Indicator Light Scheme

Light Indicator	Status	Audio	Remarks
Steady Green Light	Device powered on normally, standby state	None	
Green Light Running (Top to Bottom)	Charging (Charging pile to vehicle)	None	Linear Brightness Change
Green Light Running (Bottom to Top)	Discharging (Vehicle feeding back power to grid/load)	None	Linear Brightness Change
Steady Yellow Light	Charging Complete	None	
Flashing Yellow Light	Charging Abnormal (Overvoltage, Undervoltage, etc.)	None	
Breathing Blue Light	In Intelligent Voice Dialogue	Yes	Tail gradient effect

Flashing Red Light	Minor Fault	None	
Steady Red Light	Major Fault (Leakage, Over-temperature Shutdown Protection)	Yes	