



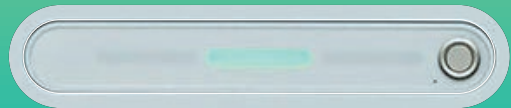
ZAPe.at  
e-charging solutions

11 kW  
Home  
BiDi DC  
Wallbox



ZAPe.at  
e-charging solutions

Bidirektionales  
Laden



11 kW

V2G  
VEHICLE  
TO GRID

V2H  
VEHICLE  
TO HOME



# General Specifications

## Specifications

<b>Version:</b>	11EU316
<b>AC max. power:</b>	11 kVA - 10,7kW charge / 10,4kW discharge
<b>AC Input Voltage level:</b>	3 Phases, 230/400V AC (Europe) , 50Hz
<b>AC Input voltage tolerance:</b>	+ - 10% (Static)
<b>Power factor:</b>	>= 99%
<b>Total Harmonic Distortion (THD):</b>	<= 5%
<b>DC Output voltage:</b>	150 – 500V DC
<b>DC Output Current:</b>	30A
<b>DC Output Current ripple:</b>	<+-3% max. current
<b>DC max. power:</b>	10.5kW charge & discharge at 350V
<b>Topology:</b>	Isolated
<b>Safety and Protection:</b>	Galvanic isolation Input to Output Rapid discharge DC Output Over current monitoring Reverse polarity protection DC Output Fuses Temperature monitoring Isolation monitoring 6mA DC differential current sensor Self-test
<b>Life time:</b>	10+ years
<b>Standby operation time:</b>	100.000 hours
<b>Active operation time:</b>	>21.000 hours (according OEM standard use case)
<b>Communication to car:</b>	ISO15118-2, ISO15118-20*, DIN SPEC 70121*
<b>Diagnose:</b>	Remote, OCCP
<b>to Backend/CPO/EMS:</b>	OCPP1.6J, OCPP2.0.1*, OCPP2.1*, HTTPS (Websockets etc.), MQTT*, SmartHome protocols*, Modbus TCP
<b>Data interfaces:</b>	Ethernet (LAN), WLAN
<b>Weight:</b>	27kg (w/o beauty cover and charging cable)
<b>Dimensions:</b>	633mm x 385mm x 230mm
<b>Operating temperature:</b>	-20 to +50°C
<b>Humidity:</b>	Up to 95 %
<b>Operation height:</b>	2000m over sea level
<b>Cooling concept:</b>	active, temperature controlled
<b>IP Class:</b>	IP54 enclosure
<b>EMC:</b>	According to EN61000-6-2 / EN61000-6-4
<b>Norms and Standards:</b>	IEC 61851-1, IEC 61851-23, EN 50549, local grid codes
<b>Certifications:</b>	CE for European market

\*via update/on request

## Options

CCS Combo1 (CCS1*)
NACS*
Stand / post for free stand mounting* extended Housing*
Touch Display*
Vandal proof for public places*
DC Metering*
RFID*
Cable- / Plugholder*

## Branding / Customization

Labels
Front cover
Interface
Housing

## Features

Bidirectional V2G/V2H operation
ISO 15118 compatible
sid-OS Energy Framework
Grid compliant - local grid code certifications

The **ambiCHARGE BiDi DC Wallbox** turns your electric vehicle into a battery on wheels.

Compared to conventional charging, bidirectional DC charging enables energy to be transferred in both directions – charging from the grid to the vehicle and discharging from the vehicle to the home or electricity grid.

### Vehicle-to-Home (V2H)

The vehicle can contribute to further optimizing PV self-consumption. Furthermore, your own electricity consumption can be optimized to take advantage of flexible electricity tariffs. In this way, the vehicle makes a significant contribution to smoothing out peak loads and feed-in peaks in the grid and improving grid stability.

### Vehicle to Grid (V2G)

The vehicle can actively participate in the energy market and grid services – it can be marketed as a storage device.

The **ambiCHARGE BiDi DC Wallbox** comes with an built in **Home-Energy-Management-System (HEMS)**. And is compatible with several available EMS.

# BiDi Carlist - full OEM Support

Brand	Type	Model year	BiDi yes/no	Protocol	max. discharge power [kW]	Energy limit [kWh]	SOC limit [%]	Test status	OEM OK
VW	iD family iD3, iD4, iD5, iD7 SW > 3.5 / large battery	2023 ff.	Yes	ISO 15118-2 VAS	10,2	10.000	20 - 80	Yes	Full support
Cupra	Born SW > 3.5 / large battery	2023 ff.	Yes	ISO 15118-2 VAS	10,2	10.000	20 - 80	Yes	Full support
Cupra	Tavascan SW > 3.5 / large battery	2024 ff.	Yes	ISO 15118-2 VAS	10,2	10.000	20 - 80	Yes	Full support
Skoda	Enyaq SW > 3.5 / large battery	2023 ff.	Yes	ISO 15118-2 VAS	10,2	10.000	20 - 80	Yes	Full support
Skoda	Elroq SW ... large Battery	2025	Yes	ISO 15118-2 VAS	10,2	10.000	20 - 80	Ongoing	Full support
VW	iD Buzz SW > 3.5 / large battery	2024 ff.	Yes	ISO 15118-2 VAS	10,2	10.000	20 - 80	Yes	Full support
Polestar	2		Yes	ISO 15118-2				Yes	Full support
Polestar	4		Yes	ISO 15118-2				Yes	Full support
Polestar	3		Yes	ISO 15118-2				Yes	Full support
Ford	Explorer	2024	Yes	ISO15118-2 VAS	10		20 - 80	Yes	Full support
Ford	Capri	2024	Yes	ISO15118-2 VAS	10		20 - 80	Yes	Full support
Ford	e Transit	2025	Yes	ISO 15118-2				Ongoing	In negotiation
Ford	e Puma	2025	Yes	ISO 15118-2				Ongoing	In negotiation
Ford	e Tourneo	2025	Yes	ISO 15118-2				Ongoing	In negotiation
SAIC / Maxus	eDeliver5	2025	Yes	ISO 15118-2	11			Yes	Full support
SAIC / Maxus	eDeliver7	2025	Yes	ISO 15118-2				Yes	Full support
SAIC / Maxus	eTERRON9	2025	Yes	ISO 15118-2				Yes	Full support
GWM	Ora	2025	Yes	ISO 15118-2				Yes	In negotiation
Nissan	Ariya	2024	Yes	ISO 15118-20				Ongoing	In negotiation
Aurora Powertrains	eSled		Yes	ISO 15118-20				Yes	Full support