

Nube City

MULTIPLE CONNECTION OPTIONS

AC MODE 2/3 CHARGING

SMART CITIES FUNCTIONALITIES

ELECTRICAL PROTECTIONS INTEGRATION

MID CERTIFIED METERS

FRIENDLY USER EXPERIENCE

MULTIPLE PAYMENT OPTIONS

EASY BACK-OFFICE INTEGRATION

SMART FLEET MANAGEMENT

24/7 RELIABLE SERVICE

OUTDOOR DURABILITY



THE BEST SOLUTION FOR SMART CITIES

THE COMBINATION OF MAXIMUM URBAN INTEGRATION WITH THE SIMPLICITY OF USE



Design

Nube City is an outdoor/indoor, robust and attractive charger for smart cities designed keeping in mind durability, reliability and maintainability.

Connector Types

Operating up to 2x22 kW (2x7.7 kW in US), Nube City is compatible with AC connectors Type 1 and 2. Available with outlet socket or hard-wired version.

Intuitive Smartphone App

For the best EV user experience the smartphone app allows monitoring, starting and stopping charging processes and user authentication via app.

Easy Interaction

With its smart advanced connectivity and a management system based on IoT, Nube City offers an easy user interaction with multiple options and a reliable solution.

Smart Design

Nube City offers advanced communication options such as Wifi or 4G connectivity and is compatible with any payment and authentication system, offering the most useful solutions in the market for an easy interaction with the customer: smartphone, RFID, credit/debit card (NFC). To comply with the most demanding requirements regarding billing, Nube City offers MID certified meters.

Smart Fleet Management

Dynamic power balancing for vehicle fleet management designed to minimize the initial investment and the operation costs.

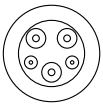


MULTIPLE CONNECTION OPTIONS

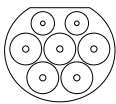
Nube City has been designed to offer the most flexible solution to be installed in smart cities. Compatible with Type 1 and 2 AC connectors with both outlet socket and hard-wired option.

Its advanced design to suit all costumers' needs offers:

- Outlet socket (in IEC models).
- Hardwired cable, straight and spiral.
- Schuko connector (in IEC models).
- Connector locker system.



AC Type 1



AC Type 2



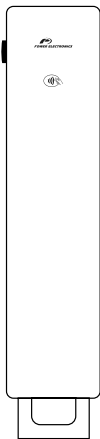
Schuko

READY FOR AN EASY INSTALLATION IN ANY PLACE

Car parks
Workplaces
Apartment complexes
Shopping centers
Hotels

OUTLET SOCKET VERSION

Type 2



2 x Type 2

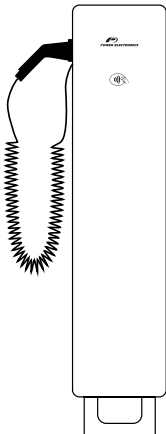


Type 2 + Schuko

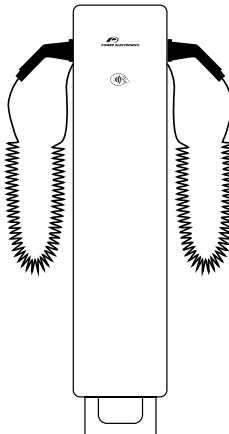


HARD-WIRED VERSION

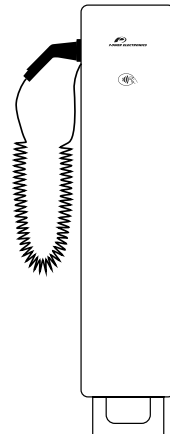
Type 1 or Type 2



2 x Type 1 or 2 x Type 2



Type 2 + Schuko



EASY TO USE JUST TAP

Power Electronics commitment is to operate an EV chargers network in a successful reliable and cost-effective way.

Intuitive Smartphone App

Nube City smartphone app has been designed to drive the mobility of tomorrow, easy and simple. It allows monitoring, starting and stopping the charging processes and user authentication via app .

User-friendly Interface

With a user-friendly interface, its optional daylight readable touch screen display with graphic visualization of charging progress, will provide EV drivers a quick, safe and easy interaction.

Presence Recognition

In smart cities the most advanced functionalities are necessary. The revolutioning Nube City built-in user authentication works simply by proximity.

Status Indicator

Power Electronics posts integrate a status indicator, so drivers can easily identify which posts are available.



Payment and Authentication System

Every recharging post is compatible with any payment and authentication system, offering the most useful solutions in the market for an easy interaction with the customer:



Bluetooth

Presence recognition by bluetooth.



RFID

Drivers can launch a charging session by tapping their RFID card.



Smartphone

Compatible with the most extended Apps in the market. These Apps for EV drivers are able to start a charging session, reserve a post at any time, or simply manage their historical charging sessions.



Credit / Debit Card

Compatibility with contact-less (NFC) solutions, letting drivers initiate the charging process by simply tapping their credit/debit card.

FULL 360° SERVICE

Power Electronics offers an innovative charging solution adapted to every client's needs. With its advanced connectivity, allows having Nube City the main services to operate, use and manage EV networks now and in the future.

- Compatible with any back-office (OCPP 1.6 and customized)
- O&M platform based on IoT (Internet of Things)
- Compatible with any payment management platform
- Web, PC and mobile monitoring tools (Android & iOS)
- MID certified meters

Fundamental services to operate successfully every Nube City



O&M

- Fault diagnosis
- Remote troubleshooting
- Charging point status
- Software updating
- Charging station management APIs



Customer Back-office

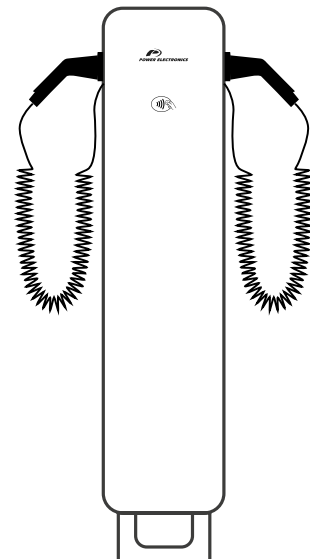
- Client authentication
- Payment platform
- Charging point reserve
- Charging station location

OCPP



Payment Platform

- RFID card
- Mobile apps
- Credit/Debit card

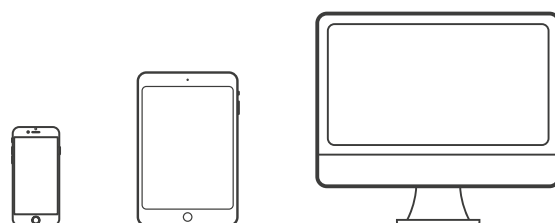


**Compatible with any Back-office**

OCPP is the internationally established open protocol for the communication between EV chargers and any back office system around the world. Power Electronics offers an easy integration to any back-office systems using standard-based APIs.

Monitoring Tools

Optionally, Power Electronics can provide advanced web, PC and mobile (Android & iOS) monitoring tools, offering our clients a useful and intuitive platform for managing in real time all chargers. These tools offer charging statistics, status and usage statistics among others.



SMART FLEET MANAGEMENT

Power Electronics has developed the most advanced functionality for power balancing in vehicle fleet management. Designed to minimize the initial investment and operation costs.

Smart fleet management functionality is able to balance the power based on the number of charging posts in use. Therefore, the total power required to supply the total energy gets substantially reduced, representing a cost reduction in the electrical facility infrastructure and a cost saving due to a minor power contracted. Besides, the hardware and the back-office communication is optimized.





SMART AND CUSTOMIZABLE DESIGN

EXACTLY THE WAY YOU WANT

Customizable External Enclosures

Power Electronics offers customizable external enclosures. Customize your charging post with branded labels that feature clients logos, texts, merchandising, advertisements...

Display

Power Electronics touch screen display allows to configure/monitor the charging process.



EXAMPLES OF POST CUSTOMIZATIONS



GENERAL SPECIFICATIONS

	BASIC			ADVANCED			PROFESSIONAL		
Model Reference	HCB4S	HCB2P	HCB4P	HCA4S	HCA2P	HCA4P	HCP4S	HCP2P	HCP4P
Protections	-			RCD Type A			RCD Type A		
Energy measurement	-			Internal energy measurement			Internal energy measurement		
	-			-			MID meter		
Communications	-			Ethernet + Wifi			Ethernet + Wifi + one 3G/4G card + OCPP 1.6		
Authentication	Bluetooth			Bluetooth			Bluetooth		
Connectors	1 x AC Type 2								
Cable length [m]	3								
External enclosure	IP54 / IK10 (IK08) ¹⁾								
	Colour white (RAL 9016) / Glass colour black								
	Corrosion protection C3								
Operating temperature	-25°C to 50°C								
Operating humidity	From 4% to 95%								
Interface	Customer smartphone App - Status LED indicator - Timetable programming								
Dimensions [mm]	320x250x1400 (preliminary)								
Regulations	IEC 61851-1, IEC 61000-6-2, IEC 61000-6-3								

STANDARD PRODUCT REFERENCES

	MODEL	AC INPUT/OUTPUT		CONNECTION MODE	
		1ph + N + PE 230Vac Max. 32 A (adjustable) 7,36 kW	3ph + N + PE 400Vac Max. 32 A (adjustable) 22,2 kW	Cable + Plug	Socket
BASIC	HCB4S	-	✓	-	✓
	HCB2P	✓	-	✓	-
	HCB4P	-	✓	✓	-
ADVANCED	HCA4S	-	✓	-	✓
	HCA2P	✓	-	✓	-
	HCA4P	-	✓	✓	-
PROFESSIONAL	HCP4S	-	✓	-	✓
	HCP2P	✓	-	✓	-
	HCP4P	-	✓	✓	-

OPTIONAL PRODUCT REFERENCES

	BASIC	ADVANCED	PROFESSIONAL	OPTIONAL REF.
2 x AC Type 2	✓	✓	✓	A2
1 x AC Type 2 + Schuko	✓	✓	✓	A3
Cable 4 meters (spiral)	✓	✓	✓	B2
Cable 5 meters (straight)	✓	✓	✓	B3
Internal energy measurement	✓	-	-	C1
MID meter	-	✓	-	C2
Surge arrester Type 2	-	✓	✓	D1
Surge arrester Type 1 + 2	-	✓	✓	D2
RCD Type A	✓	-	-	E1
RCD Type A + RCM	✓	✓	✓	E2
RCD Type A with reset	✓	✓	✓	E3
Circuit breaker	-	✓	✓	F1
Second 3G/4G card	-	-	✓	G2
RFID	-	✓	✓	H1
Credit/debit card reader compatibility (NFC)	-	-	✓	H2
Connector locker	-	✓	✓	I1
Corrosion protection C5-M	-	-	✓	J2
Enclosure colour grey (RAL 7016)	✓	✓	✓	K2
Stainless steel enclosure	-	✓	✓	K3
I/O interface	-	✓	✓	L1
Datalogger	-	-	✓	M1
4.3" Touch screen display	-	✓	✓	O1
Extended temperature range (-30°C to 50°C)	-	-	✓	P1

GENERAL SPECIFICATIONS

	BASIC	ADVANCED	PROFESSIONAL
Model Reference	UCB2P	UCA2P	UCP2P
Protections	-	RCD Type A	RCD Type A
Energy measurement	-	Internal energy measurement	Internal energy measurement
	-	-	Revenue meter
Communications	-	Ethernet + Wifi	Ethernet + Wifi + one 3G/4G card + OCPP 1.6
Authentication	Bluetooth	Bluetooth	Bluetooth
AC input	208V or 240V AC single-phase: L1, L2, and earth		
Maximum output current per connector	32 A (adjustable)		
Maximum output power per connector	6,7 kW or 7,7 kW		
Connectors	1 x AC Type 1		
Cable length [ft]	12		
External enclosure	NEMA 3R		
	Colour white (RAL 9016) / Glass colour black		
	Corrosion protection C3		
Operating temperature	-25°C to 50°C		
Operating humidity	From 4% to 95%		
Interface	Customer smartphone App - Status LED indicator - Timetable programming		
Dimensions [ft]	1.05x0.82x4.6 (preliminary)		
Regulations	UL 2594, FCC Part 15 Class B, NEC 625		

OPTIONAL PRODUCT REFERENCES

	BASIC	ADVANCED	PROFESSIONAL	OPTIONAL REF.
2 x AC Type 1	✓	✓	✓	A2
Cable 13.1 ft (spiral)	✓	✓	✓	B2
Cable 18 ft (straight)	✓	✓	✓	B3
Internal energy measurement	✓	-	-	C1
Revenue meter	-	✓	-	C2
Surge arrester Type 2	-	✓	✓	D1
Surge arrester Type 1 + 2	-	✓	✓	D2
RCD Type A	✓	-	-	E1
RCD Type A + RCM	✓	✓	✓	E2
RCD Type A with reset	✓	✓	✓	E3
Circuit breaker	-	✓	✓	F1
Second 3G/4G card	-	-	✓	G2
RFID	-	✓	✓	H1
Credit/debit card reader compatibility (NFC)	-	-	✓	H2
Connector locker	-	✓	✓	I1
Corrosion protection C5-M	-	-	✓	J2
Enclosure colour grey (RAL 7016)	✓	✓	✓	K2
Stainless steel enclosure	-	✓	✓	K3
I/O interface	-	✓	✓	L1
Datalogger	-	-	✓	M1
4.3" Touch screen display	-	✓	✓	O1
Extended temperature range (-30°C to 50°C)	-	-	✓	P1

CONFIGURATION TABLE

		MODEL REFERENCE						OPTIONAL PRODUCT REFERENCES			
Model		Enclosure		Versions		Input Voltage		Connection mode			
H	IEC	C	City	B	Basic	2	230 Vac	S	Socket	A2	2 x AC connectors
							208/240 Vac			...	
U	US			A	Advanced	4	400 Vac	P	Cable + Plug	P1	Extended temperature range
				P	Professional						

[1] IK08 for display and ventilation grilles.