



# NB City

USER-FRIENDLY INTERFACE

SMART FLEET MANAGEMENT

DYNAMIC POWER CONTROL

BACK-OFFICE INTEGRATION OCPP 1.6

## THE BEST SOLUTION FOR SMART CITIES

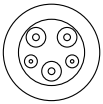
NB City is a robust and attractive outdoor AC charging system, making it ideal for “smart” cities. It has been designed with durability, reliability and ease of maintenance in mind. With output power of 2 x 22 kW (2 x 7.7 kW in US), NB City is compatible with AC Type 1 and 2 connectors.

Its smart design offers a simple, fast and easy charging experience, which makes NB City the best AC charging solution for applications that require maximum urban integration with the most advanced functionalities.

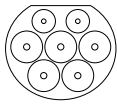
# MULTIPLE CONNECTION OPTIONS

**NB City has been designed to offer the most flexible charging solution to be installed in smart cities.**

NB City is compatible with Type 1 and 2 AC connectors with outlet socket options or versions with straight and spiral cables.



**AC Type 1**



**AC Type 2**

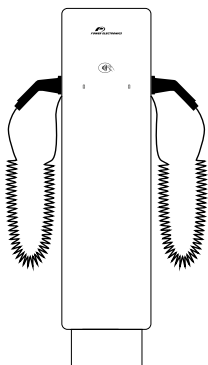
## OUTLET SOCKET VERSION

**2 x Type 2**



## HARD-WIRED VERSION

**2 x Type 1 or 2 x Type 2**



# USER-FRIENDLY INTERFACE

## Intuitive experience

NB City has a smartphone app to facilitate the interaction with the user. Optionally, it can install a display that allows the visualization of the charging process. Power Electronics chargers integrate a state indicator so that the drivers can easily identify its availability.

## Payment and authentication system

Every charging post is compatible with the most extended payment and authentication systems, offering the most useful solutions in the market for an easy interaction with the customer.



### Bluetooth

Presence recognition through bluetooth connectivity.



### RFID

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



### Credit / debit card

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



### Smartphone

Power Electronics' NB Charger smartphone application allows monitoring and the scheduling charging sessions, consult statistics and historical, update the software version, define users' roles and manage the charging energy.

# ENERGY MANAGEMENT

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

### Smart Fleet Management

This 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.

### Dual Power Sharing

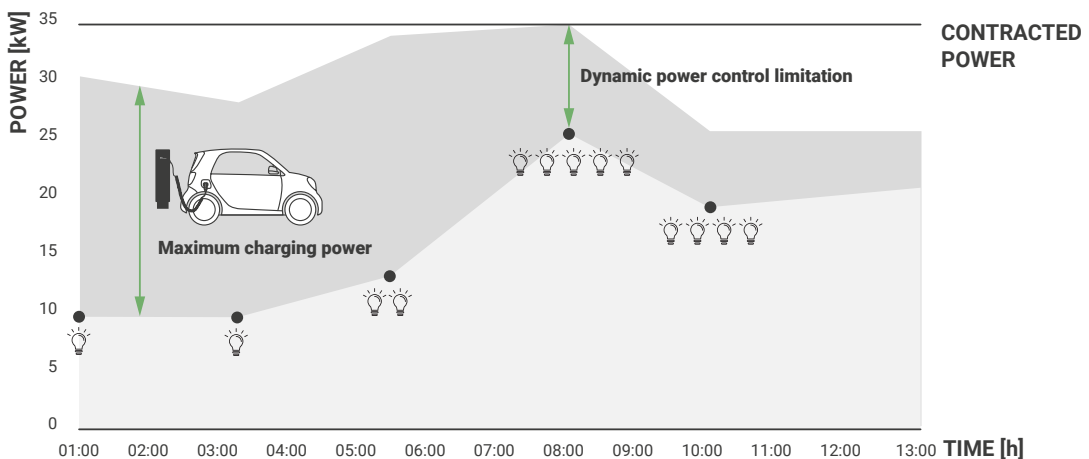
It allows to share the available power between the two charging points of the equipment so as not to exceed a fixed or dynamic limitation. This represents significant savings due to a lower contracted power.



### Dynamic Power Control

This optional device ensures dynamic adaptation of the power being used to charge the vehicle in accordance with the

energy being consumed by other electrical loads in the facility, without having to increase contractual power capacity.



# SMART AND CUSTOMIZABLE DESIGN

## Customizable external enclosures

Power Electronics offers customizable external enclosures. The colour can be changed or logos and advertising can be added. Optionally, a panel for advertising can be included on the back of the charger.



## NB CITY

IEC

Model	BASIC	ADVANCED	PROFESSIONAL
AC input [V]		400 (3ph + N +PE)	
Maximum output power per connector [kW]		22.2	
Energy measurement		Internal energy measurement	
	-	-	MID meter
Energy management		Smart Fleet Management	
Communications		Wifi	
	-	-	3G/4G connectivity
		Ethernet	
		OCPP 1.6	
Authentication		Bluetooth	
		RFID card reader	
Protections	-	RCD Type A	RCD Type A
	-	MCB	MCB
	-	RCM	RCM
	-	Surge arrester Type 2	Surge arrester Type 2
External enclosure		IP54 / IK10 (IK08 for display and ventilation grilles)	
		White colour (RAL 9016 - microtexture painting)	
		C4 anti-corrosion protection <sup>[1]</sup>	
Glass colour		Black	
Operating temperature		From -25°C to 50°C	
Relative humidity		4% - 95%	
Interface		NB Charger App - Status indicator	
Dimensions (W x D x H) [mm]		350 x 200 x 1300	
Regulation		IEC 61851-1, IEC 61000-6-2, IEC 61000-6-3	

[1] C3 anti-corrosion protection for stainless steel enclosure.

## STANDARD MODELS

## IEC

MODEL	REFERENCE	TYPE OF CONNECTOR
BASIC	NBCHB46	2 x AC Type 2 (Plug - 4 m spiral)
	NBCHB47	2 x AC Type 2 (Socket)
ADVANCED	NBCHA46	2 x AC Type 2 (Plug - 4 m spiral)
	NBCHA47	2 x AC Type 2 (Socket)
PROFESSIONAL	NBCHP46	2 x AC Type 2 (Plug - 4 m spiral)
	NBCHP47	2 x AC Type 2 (Socket)

## AVAILABLE OPTIONS

CABLE LENGTH	5 m cable (straight)
ENERGY MANAGEMENT	Dynamic Power Control (< 65 A)
	Dynamic Power Control (< 300 A)



## NB CITY

US

Model	BASIC	ADVANCED	PROFESSIONAL
AC input [V]	208 (L1, L2, PE) / 240 (L1, L2, PE) / 277 (L1, N, PE)		
Maximum output power per connector [kW]	6.7 / 7.7 / 7.7		
Energy measurement	Internal energy measurement		
	-	-	Revenue meter <sup>[1]</sup>
Energy management	Smart Fleet Management		
Communications	Wifi		
	-	-	3G/4G connectivity
	Ethernet		
	OCPP 1.6		
Authentication	Bluetooth		
	RFID card reader		
Protections	-	CCID	CCID
	-	MCB	MCB
	-	Surge arrester Type 2 <sup>[1]</sup>	Surge arrester Type 2 <sup>[1]</sup>
External enclosure	NEMA 3R		
	White colour (RAL 9016 - microtexture painting)		
	C4 anti-corrosion protection <sup>[2]</sup>		
Glass colour	Black		
Operating temperature	From -13°F to 122°F		
Relative humidity	4% - 95%		
Interface	NB Charger App - Status indicator		
Dimensions (W x D x H) [ft]	1.15 x 0.65 x 4.27		
Regulation	UL 2594, FCC Part 15 Class B, NEC 625		

[1] Not included in models at 277 V (input voltage).

[2] C3 anti-corrosion protection for stainless steel enclosure.

**STANDARD MODELS**

**US**

AC INPUT [V]	MODEL	REFERENCE	TYPE OF CONNECTOR
208 / 240 (L1, L2, PE)	<b>BASIC</b>	NBCUB28	2 x AC Type 2 (Plug - 13.1 ft spiral)
	<b>ADVANCED</b>	NBCUA28	2 x AC Type 2 (Plug - 13.1 ft spiral)
	<b>PROFESSIONAL</b>	NBCUP28	2 x AC Type 2 (Plug - 13.1 ft spiral)
277 (L1, N, PE)	<b>PROFESSIONAL</b>	NBCUP38	2 x AC Type 2 (Plug - 13.1 ft spiral)

**AVAILABLE OPTIONS**

<b>CABLE LENGTH</b>	18 ft cable (straight)
<b>ENERGY MANAGEMENT</b>	Dynamic Power Control (< 3 00 A)