NBi Dispenser

FLEXIBLE ARCHITECTURE

USER-FRIENDLY INTERFACE

SMART POWER BALANCE

BUS PLUS READY

BACK-OFFICE INTEGRATION OCPP 1.6

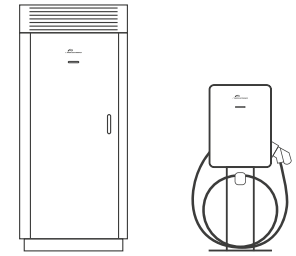
THE COMBINATION OF MODULARITY AND HIGH PERFORMANCE

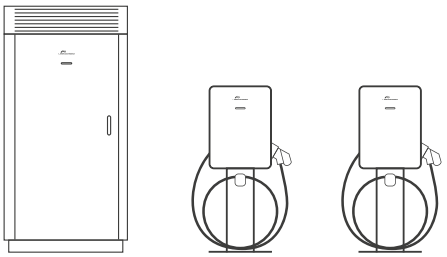
NBi Dispenser is an outdoor robust and modular charger, designed for durability, reliability and ease of maintenance. Thanks to its flexible architecture NBi Dispenser series allows the installation in any location. The charging solution consists of a power cabinet with low voltage input, which combines with industrial posts. With output power of up to 150 kW in DC (180 kW in US), NBi Dispenser allows the simultaneous charging of three vehicles thanks to the advanced functionality, Smart Power Balance. NBi Dispenser can be configured to charge either at 400 or 800 Vdc depending on the characteristics of the electric vehicle battery. Its smart design offers a simple, fast and safe charging experience, which makes it being the best solution for sites with space reduced that require maximum return on investment.

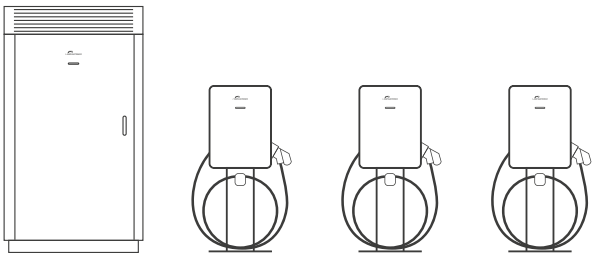
FLEXIBLE ARCHITECTURE

NBi Dispenser is the charging solution for locations where space is at a premium.

The NBi Dispenser series is a DC charging solution with low voltage input consisting of a power cabinet which supplies energy to industrial charging posts. The available power cabinet configurations are from 50 kW to 150 kW (from 60 kW up to 180 kW in US) and are combined with DC post of 50, 100 and 150 kW (60, 120 and 180 kW in US).







USER-FRIENDLY INTERFACE

Intuitive experience

Power Electronics posts integrate a status indicator so that the drivers can easily identify its availability. It provides drivers a fast, safe and simple interaction.

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.

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

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.

SMART POWER BALANCE

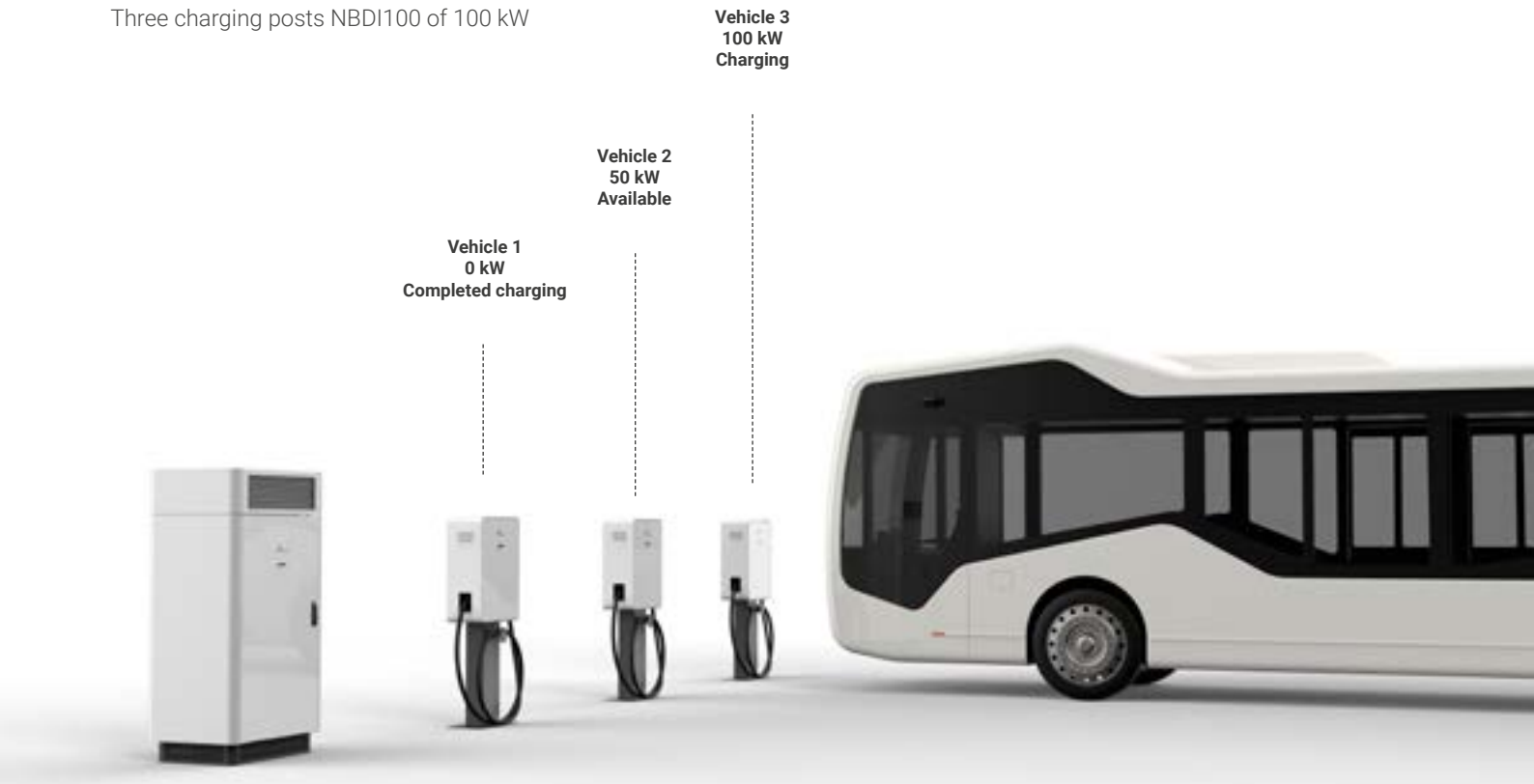
Power Electronics has developed the most advanced functionality for power balancing in vehicle fleet management. Designed to minimize the initial investment and the operation costs.

Smart Power Balance 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.

CONFIGURATION EXAMPLE

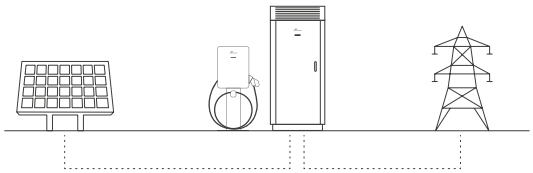
NBD150S Industrial

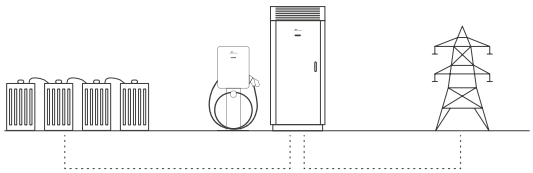
Three charging posts NBDI100 of 100 kW



BUS PLUS READY

NBi Dispenser can connect to a DC power supply to provide electric vehicle charging power. The power source could be the photovoltaic energy, a battery system or the utility grid.





SMART AND CUSTOMIZABLE DESIGN

EXACTLY THE WAY YOU WANT

Customizable external enclosures
Power Electronics offers customizable external enclosures for the central power station and the posts. The colour can be modified or logos and advertising can be added.

EXAMPLES OF POST CUSTOMIZATIONS

Consult with Power Electronics for other options and colours.

NBi DISPENSER

IEC

REFERENCE		NBD050	NBD100 NBD100S	NBD150 NBD150S
DC OUTPUT (default)	Power cabinet maximum output power [kW]	50	100	150
	Post maximum power [kW]	50	50 / 100	50 / 100 / 150 [1]
	Voltage range [V]	50 - 500 / 150 - 1000		
	Available connectors	CCS-2 [1], CHAdeMO		
AC OUTPUT (option)	Power [kW]	22		
	Current [A]	32		
	Voltage [V]	400 ± 10 % (3ph + N + PE)		
	Available connectors	AC Type 2 [1]		
AC INPUT FOR DC OUTPUT	Power [kW]	53	106	159
	Voltage [V]	400 ± 10 % (3ph + N + PE)		
	Power factor	> 0,99		
	Frequency [Hz]	50 / 60		
	Efficiency	94 % (preliminary)		
GENERAL	Interface	Post status LED indicator		
		Button to stop charging		
		Emergency stop		
		RFID card reader (optional)		
	Protections	Isolation monitor		
		RCD Type A [2]		
		Fuses		
		Surge arrester Type 2		
	Others	MID meter (optional)		
	Cable length [m] [3]	4		
	Degree of protection	IP54 | IK10 [5]		
	Operating temperature	From -25ºC to 50ºC (optionally, from -30ºC to 50ºC)		
	Relative humidity	4% - 95%		
	Maximum altitude (above sea level)	2000 m; > 2000 m power derating (max. 3000 m)		
	Enclosure power cabinet colour	Grey (RAL 7035)		
	Post colour (enclosure / foot)	White (RAL 9016 - microtexture painting) / Grey (RAL 7016 - microtexture painting)		
	Customization	Enclosure		
	Communications	Ethernet + OCPP 1.6 + Wifi + 3G / 4G connectivit		
	Post dimensions with pedestal (W x D x H) [mm]	600 x 300 x 800 (1445 with pedestal)		

STANDARD CONFIGURATIONS

REFERENCE	SMART POWER BALANCE	POSTS		
		NBDI050	NBDI100	NBDI150
NBD050	-	1	-	-
NBD100	-	2	1	-
NBD100S	√	-	2	-
NBD150	-	3	-	1
NBD150S	√	-	3	3

[1] Type 1 under request.
[2] RCD type A + RCM + MCB for AC charge, if it is included.
[3] Optional cable length 7 m.
[4] IK08 for ventilation grilles.

NBi DISPENSER

US

REFERENCE		NBD060	NBD120 NBD120S	NBD180 NBD180S
DC OUTPUT (default)	Power cabinet maximum output power [kW]	60	120	180
	Post maximum power [kW]	60	60 / 120 [1]	60 / 120 [1] / 180 [1]
	Voltage range [V]	50 - 500 / 150 - 1000		
	Available connectors	CCS-1, CHAdeMO		
AC OUTPUT (option)	Power [kW]	6.7 / 7.7		
	Current [A]	32		
	Voltage [V]	208 / 240 ± 10 % (L1, L2, PE)		
	Available connectors	AC Type 1		
AC INPUT FOR DC OUTPUT	Power [kW]	64	128	191
	Voltage [V]	480 ± 10 % (3ph + N + PE)		
	Power factor	> 0.99		
	Frequency [Hz]	60		
	Efficiency	94 % (preliminary)		
GENERAL	Interface	Post status LED indicator		
		Button to stop charging		
		Emergency stop		
		RFID card reader (optional)		
	Protections	Isolation monitor		
		RCD Type A [1]		
		Fuses		
		Surge arrester Type 2		
	Others	Revenue meter (optional)		
	Cable length [ft] [2]	13.12		
	Degree of protection	NEMA 3R		
	Operating temperature	From -25ºC to 50ºC (optionally, from -30ºC to 50ºC)		
	Relative humidity	4% - 95%		
	Maximum altitude (above sea level)	2000 m; > 2000 m power derating (max. 3000 m)		
	Enclosure power cabinet colour	Grey (RAL 7035)		
	Post colour (enclosure / foot)	White (RAL 9016 - microtexture painting) / Grey (RAL 7016 - microtexture painting)		
	Customization	Enclosure		
	Communications	Ethernet + OCPP 1.6 + Wifi + 3G / 4G connectivity		
	Post dimensions (W x D x H) [ft]	2.0 x 1.0 x 2.6 (3.8 with pedestal)		

STANDARD CONFIGURATIONS

REFERENCE	SMART POWER BALANCE	POSTS		
		NBDI060	NBDI120	NBDI180
NBD060	-	1	-	-
NBD120	-	2	1	-
NBD120S	√	-	2	-
NBD180	-	3	-	1
NBD180S	√	-	3	3

[1] CCID + MCB for AC charge, if it is included.
[2] Optional cable length 22.97 ft.