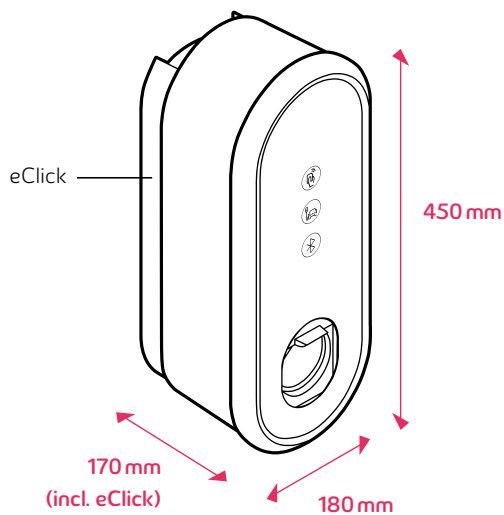


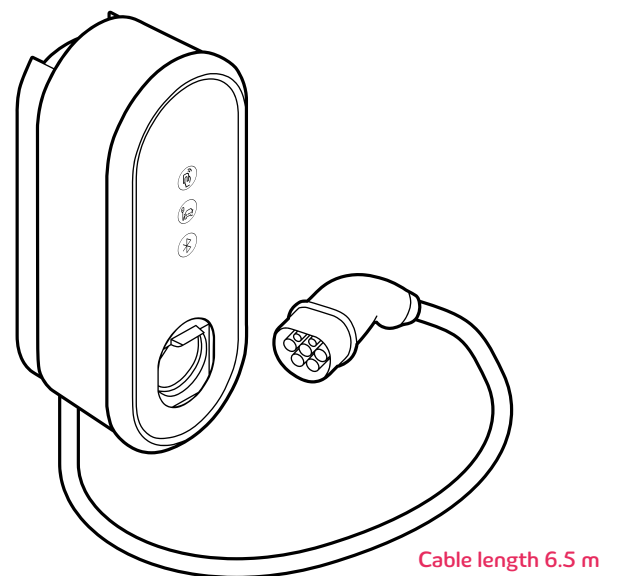
# eBox professional

## Data sheet

The eBox professional is a modern, leading-edge charging solution for electric vehicles. It can be used easily and quickly for charging up to 22 kW of power. It presents a large number of ports and authentication options. The eBoxes can be mounted in the eClick on a wall or pole. The eBox professional is available in two variants: one with a Type 2 socket and one with a Type 2 plug and cable.



eBox professional  
with Type 2 socket



eBox professional  
with Type 2 plug and cable

### Key features

- Charging up to 22 kW
- Charging status displayed by 3 LEDs and LED ring
- Commissioning: simple clicking in of the charging unit and simple commissioning via Bluetooth
- Facilities for authenticating and paying for charging processes by app, RFID card, or ISO 15118 or smart cable
- Backend communication for B2B applications: OCPP1.6J via WiFi, LAN or LTE/2G
- Backend communication for B2C applications: OCPP2.0 via WiFi

### Certificates



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### General specifications

Number of charging ports	1
Cable length (version with cable)	6.5 m
Charging mode	Mode 3 (IEC 61851)
Areas of use	Protected internal areas; unprotected exterior areas exposed to rain and direct sunlight
IP code of the housing	IP55
Protection category (impact strength)	IK10 in accordance with IEC 62262:2002
UV protection	Outdoors (F1)
Housing material	Lexan® EXL9330 (copolymer)
Weight	3.1 kg (version without cable)/6.4 kg (version with attached cable) (each without eClick and without eSmartMeter)
Storage temperature	-30 °C to +80 °C
Packaging dimensions (W x D x H)	515 mm x 225 mm x 235 mm (version without cable)/ 695 mm x 370 mm x 235 mm (version with attached cable)
Power consumption in standby mode	6 W
Certification	CE certificate (tested and confirmed by a certified body)
Foliation	High-quality standard film; custom films possible for a surcharge
Charging port number	Charging port number lasered on shutter bracket in production

### Working conditions

Operating temperature	-30 °C to +50 °C (full load output at -30 °C to +50 °C) Thermal overload protection: output power reduced at higher temperatures
Air humidity	5 % to 95 % as defined under IEC 61851-1 Ed.3/EN 61851-1 (2017)
Max altitude above sea level	Max 2,000 m (air pressure: 860 hPa to 1,060 hPa)
IEC protection class	I

### Electrical input/power connection

Input power from eClick	Three-phase current 400 V AC, 32 A (22 kW)/20 A (13.8 kW)/16 A (11 kW) Alternating (single-phase) current 230 V AC, 32 A (7.4 kW)/20 A (4.6 kW)/16 A (3.7 kW)
Charging power	3.7/4.6/7.4/11/13.8/22 kW (16 A, 20 A, 32 A; single- or three-phase)
Output power	Three-phase current 400 V AC, 32 A (22 kW) or 16 A (11 kW) Alternating (single-phase) current 230 V AC, 32 A (7.4 kW) or 16 A (3.7 kW)
Plug assembly	Without cable: Type 2 plug assembly as defined under DIN EN 62196-2 with automatic plug locking, shutter With cable: Type 2 plug as defined under DIN EN 62196-2, plug compartment on eBox, shutter
Consumption measuring	eSmartMeter: optional for eClick, MID-compliant (Europe) and CE-certified

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### Protective equipment

DC residual current monitoring (protection of people)	Integrated AC/DC sensitive RCD, triggering at: DC 6 mA
Welding detection (indication signal for welded power contacts)	Connection via change-over contact (max. 230 V, 1 A), use e.g. for shunt release for disconnection of main power path
Integrated overvoltage protection	According to IEC 61851-21-2:2018 (ESD/surge/burst)

### Communication

Vehicle communication	Charging current controlled via PWM pilot signal in accordance with IEC 61851-1:2017
Direct communication	Bluetooth Class 1 and 2 (power level)
Communication protocol B2B application	OCPP1.6J to innogy eOperate backend or to third-party provider backend
Communication protocol B2C application	OCPP2.0 to innogy eHome backend
Backend communication	WLAN with 2.4 GHz IEEE 802.11 b/g/n with WPA2 (antenna gain, frequency-dependent, max. 4.6 dBi) or LAN or SIM card (dependent on frequency and direction, max. 4.4 dBi antenna gain); no SIM for B2C application

### Authentication

Authentication/activation	Free charging, eCharge+ app (smartphone app for iOS®/Android™) from contracted providers or direct Payment (credit card/PayPal), direct Payment via web access
Plug&Charge (eCable smart)	Yes, in connection with eOperate
Plug&Charge (ISO 15118)	Yes
RFID authentication	Yes, in accordance with ISO 14443A, Type V (ISO/IEC 15693/Vicinity). Supported protocols: MIFARE Classic 1K, MIFARE Classic 4K, MIFARE DESfire V1 4K, MIFARE DESfire V2 4K, MIFARE DESfire V1 8K, MIFARE DESfire V2 8K, MIFARE Ultralight Standard, MIFARE Ultralight C, MIFARE Ultralight NXP NTAG 216, MIFARE Plus SE 1K, MIFARE Plus X 2K, LEGIC advant ATC 1024-MV, Legic advant ATC 4096, J3A081 JCOP 2.4.1 Rev 3, ICODE SLIX, ICODE ISO, TAG-IT HFI plus 2048 and SLE 66 R 35

### UI/UX

Display/interaction	LED ring for charging status; 2 status LEDs: authentication/RFID, vehicle link; 1 status LED as touch button: Bluetooth
Operating instructions	Graphical operating instructions have been installed on the product

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### External accessories

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User protection to be installed in sub-distribution	32 A connection: ABB F204A-40/0.03, Type A, 4-pin (short time delay operating voltage: 230/400 V AC)	Type A RCD:
	16 A connection: ABB F204A-25/0.03, Type A, 4-pin (short time delay operating voltage: 230/400 V AC)	
Short circuit/overload protection to be installed in sub-distribution	32 A connection: ABB S203-NA K40A (rated switching capacity: 6,000 A)	Over-current protection device:
	16 A connection: ABB S203-NA K20A (rated switching capacity: 6,000 A)	

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The eBox professional is available for wall-mounting as the following variants:

**eBox professional, Type 2 socket**

**eBox professional, Type 2 plug with cable**

each including eClick

The eBox professional is not branded and has a neutral colour. On request, the eBox may be ordered with the innogy branding. Additional accessories, e.g. the eSmartMeter, may be included in the order.

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