# 🎸 C O M P L E O

eBOX professional is a future-proof charging solution for electric vehicles. It is particularly suitable for networked use in the commercial sector. It features fast charging with up to 22 kW and can be networked via WLAN, LAN and mobile radio. The backend connection is made via OCPP 1.6J. Charging can be activated via app, RFID charging card or Plug & Charge. eBOX professional communicates with the user via a coloured LED ring, thus enabling intuitive user guidance. With the help of eCLICK, eBOX professional can be mounted on the wall or on a pillar and is available with both Type 2 socket and Type 2 charging cable.



eBOX professional with Type 2 socket

#### Highlights

- ✓ Ajustable charging power: stepless from 3.7 kW to 22 kW
- ✓ Networkable via: WLAN, LAN and mobile radio
- ✓ Energy-/load management: via Modbus protocol, grid control interface
- ✓ Connection to IT backends: OCPP 1.6J
- ✓ Calibration-compliant billing (optional\*): OCMF, according to German law
- ✓ With backend connection (OCPP 1.6J): activation with e.g. RFID card or Plug & Charge (ISO 15118)
- ✓ Low-cost pre-installation: DC residual current detection integrated
- ✓ Simply click in: upgrade or replace device without electrician
- ✓ Especially robust: suitable for indoor and outdoor use
- ✓ Foliation: possible with customer logo



eBOX professional with Type 2 charging cable





As of: 03/2022 Document Center:



\* see data sheet "eBOX with design complying with calibration regulations"

#### General data

Number of charge points	1
Cable length (version with cable)	6.5m
Charging mode	Mode 3 according to IEC 61851
Areas of use	Indoor and outdoor areas
IP code of the housing	IP 55
Protection category (impact strength)	IK10 according to IEC 62262:2002
UV protection	Outdoors (F1)
Housing material	Copolymer
Storage temperature	-30 °C to +80 °C
Weight	3.1 kg (without charging cable)/6.4 kg (with charging cable) (both without eCLICK and without eSmartMeter)
Packaging dimensions (W x D x H)	515 mm x 225 mm x 235 mm (without charging cable)/ 695 mm x 370 mm x 235 mm (with charging cable)
Self-consumption in standby mode	6W
Certifications	CE (tested and confirmed by certified body); UKCA
Foliation	Individual foliation with customer logo possible
Charge point number (EVSE-ID)	Lasered on shutter

#### Conditions of work

Operating temperature	-30°C to +50°C at full load Overheating protection: reduction of output power at higher temperatures
Humidity	5 % to 95 % according to 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)
Protection class	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 charging cable: Type 2 plug assembly as defined under DIN EN 62196-2 with automatic plug locking, shutter With charging cable: Type 2 plug as defined under DIN EN 62196-2, plug compartment on eBOX, shutter
Consumption measuring	eSmartMeter electricity meter: optional for eCLICK, MID-compliant (Europe) and CE-certified

#### 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)
Backend connectivity	Via OCPP 1.6J to Compleo backend or third-party backends (with connection via SIM card the provider is to be specified prior to order)
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 mobile radio via backend-specific and fixed SIM card, can be provided prior to production (frequency and directionally dependent, max. 4.4 dBi antenna gain); for use of private Compleo software services via WLAN or LAN only
Control by grid operator	Potential-free contacts available to connect to a grid control box

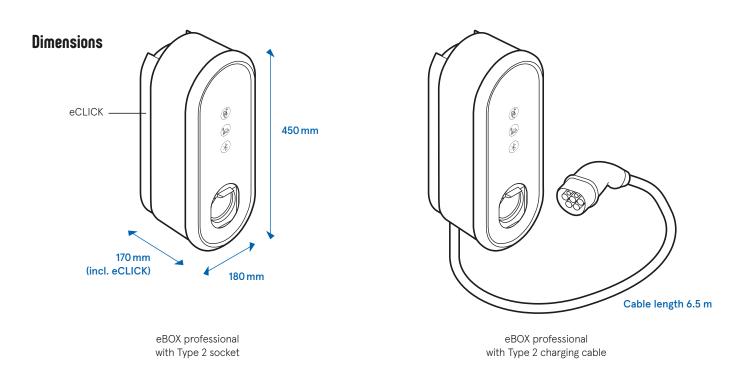
### **Authentication**

Authentication/activation	Free charging, smartphone app (eCHARGE+ app/third-party apps) from contracted providers or direct payment via epowerdirect.com
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 display, 2 LED indicators for status authentication and vehicle connection, 1 LED button for Bluetooth connection
Operating instructions	Attached to the side of eBOX as a graphic

### **External accessories**

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



#### **Mounting options**

eCLICK can also be used as installation preparation for clicking in the eBOX later without an electrician.





Wall mounting with eCLICK

ePOLE



ePOLE side-by-side



ePOLE back-to-back



ePOLE duo

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