



BOLT.EARTH

Bolt.Earth BLAZE AC Level 2 EV Charger



User Manual

Version 1

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1. Introduction

The Bolt.Earth Blaze AC is the future of fast charging, designed for four-wheeler electric vehicles (EVs). It is tailored for individuals and businesses seeking a smart, secure, and connected charging solution.

For private use, the Blaze AC simplifies the charging process through the Bolt.Earth app. Just plug in the charger and start charging effortlessly. In public mode, the app manages all aspects of the charging process, making it easy to share and monetize your charger.

Offering a powerful 7.4 kW / 11 kW / 22 kW output, the Blaze AC delivers faster charging than standard Level 1 chargers. It combines speed with intuitive features that streamline your charging experience, making quick and simple power-ups a reality.

Its compact design, measuring just 400mm x 250mm x 125mm, ensures flexible installation options, fitting seamlessly on both wall and stand. From home garages to office parking lots or dedicated charging stations, it integrates effortlessly into any space.

Built to endure, the Blaze AC's durable and weather-resistant design guarantees reliable performance in all conditions. Whether in rain, snow, or sunshine, this charger stands up to the elements, providing dependable and efficient charging no matter where you are.

2. Product Technical Specifications

2.1 Input and Output Supply

AC Level 2 Charger Specifications				
Parameters	Specifications AC Charger	7.4 kW	11 kW	22 kW
Power Input	Input Voltage	Single Phase (L, N, PE) 220 +/- 10% VAC	Three Phase (L1, L2, L3, N, PE) 400 +/- 10% VAC	Three Phase (L1, L2, L3, N, PE) 400 +/- 10% VAC
Power Output	Power	7.4 kW	11 kW	22 kW
	Output Voltage	220 V	400 V	400 V
	Output Current	Max. 32A	Max. 16A	Max. 32A
	No. of Gun	1	1	1
Remote Connectivity	RFID	Yes	Yes	Yes
	4G SIM connectivity	Optional	Optional	Optional
	Wi-Fi Connectivity	Yes	Yes	Yes

2.1 Input and Output Supply

AC Level 2 Charger Specifications				
Parameters	Specifications AC Charger	7.4 kW	11 kW	22 kW
Mechanical	Charging Gun Type	Type 2	Type 2	Type 2
	IP Rating	IP 56	IP 56	IP 56
	Input Cable Length	1m	1m	1m
	Output Cable Length	5m	5m	5m
	Emergency push button	Y	Y	Y

2.2 General Specifications

Material	ABS
Installation Type	Wall / Stand Mount
Connector	IEC 62196 Type 2 Connector
User Authentication	RFID, QR code, Mobile App, Plug & Charge
Communication with Server	OCPP
Protection and Safety	Auto Cutoff, Over Voltage, Under Voltage, Surge Protection, Short Circuit, Over Temperature, Emergency Stop Switch
Energy Metering	Grid-responsive metering with 99% accuracy
Visual Indication	LED
Installation Place	Outdoor
Altitude	≤ 2000 m
Operating Temperature	-30°C to +50°C
Storage Temperature	-40°C to +70°C
Humidity	5%-95%
Dimensions (l*b*h)	400*250*125 mm
Weight	5Kg
Dynamic Load Balancing	Yes(Using additional hardware)

2.3. Technical Connectivity Features



Wi-Fi



4G (Optional)

2.4. Functions and Features



OTA Support



OCPP Enabled



Plug and Charge



IP56 Protection



Emergency Stop Button



RFID
Authorized Charging



IEC 62196
Type 2 Connector



App Connectivity
iOS & Android

2.4. Functions and Features



Dynamic
Load Balancing



Over and Under
Voltage Protection



Private and
Public Modes



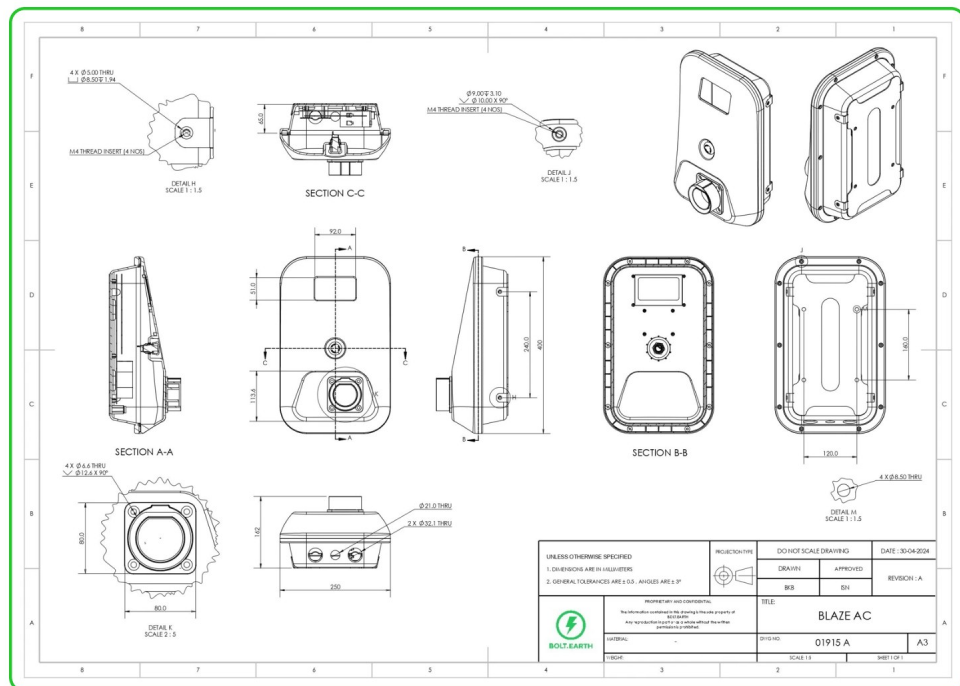
Short Circuit Protection and
Over Current Protection

2.5. Communication Protocol

The Bolt.Earth Blaze AC Charger offers versatile connectivity options to ensure seamless integration and operation. The charger supports multiple connectivity protocols:

- **Wi-Fi:** For installations where Wi-Fi is available, the charger can be easily configured to connect via this network, ensuring reliable communication and control.
 - **4G:** In areas where Wi-Fi is not feasible, the charger can be set up with a 4G connection, ensuring continuous connectivity.
 - **OCPP Protocol:** The Blaze AC Charger is compliant with the OCPP 1.6J (Open Charge Point Protocol), allowing for standardized communication with various network management systems.
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3. Enclosure Specifications



4. Charging Interface

The Bolt.Earth Blaze AC Charger is equipped with the IEC 62196 Type 2 connector, a widely accepted standard in EV charging. This connector is globally recognized and ensures seamless compatibility with most electric vehicles.

Why It Stands Out:

- **Universal Fit:** Compatible with a broad range of EVs, including major brands like BMW, Audi, Volkswagen, Tata, Nissan, Ford, Tesla.
- **Design:** Features a circular shape with five pins (three for AC power, one for grounding, and one for communication).
- **Power Up Efficiently:** Handles AC charging up to 22 kW, suitable for both home and public charging needs.
- **Safety:** Includes a locking mechanism to prevent accidental disconnection during charging.

Whether at home or on the go, the Type 2 connector delivers a reliable, easy, and fast charging experience.

5. Charger Operational Flow (Charge Modes)

Mode 1: Authentication using the mobile APP

- Plug the charging gun into the vehicle.
- Use Bolt.Earth App to start charging.
- The charger starts dispensing energy.
- Use the Bolt.Earth mobile app to stop charging.

Mode 2: Plug and Charge

- Plug the charging gun into the vehicle.
- The charger will automatically start charging the vehicle.
- Unlock and unplug the gun from the vehicle to stop charging.

Mode 3: Authentication using RFID

- Plug the charging gun into the vehicle.
 - Tap the given RFID on the charger to start charging.
 - The charger starts dispensing energy.
 - Tap the given RFID on the charger to stop charging.
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