Ampure Boost

§14a EnWG

Made in Germany

The Ampure Boost – Your Future-Proof Charging Solution with Maximum Flexibility and Efficiency:

The Ampure Boost impresses with a wide range of features that combine convenience, safety, and performance:

- **Scalable Charging Power:** Choose between 11 kW or 22 kW
- **Connection Options:** Available with a fixed 7.5m cable or a socket with a locking mechanism for maximum compatibility
- **Digital Networking and Management:** Control and monitor the Boost safely and conveniently through the backend of your choice. With reliable real-time data transmission via OCPP 1.6J, you get maximum control for efficient charge management
- **Legally Compliant Billing:** MID- and German calibration law-compliant (Eichrecht) solutions allow billing for customers and reimbursement of charging costs by employers
- **Cluster Load Management:** The Ampure Boost includes integrated local load management, efficiently and reliably distributing power across multiple connected chargers - ideal for fleets, parking garages, and underground garages
- **Dynamic Load Management:** When combined with a Smart Meter[2], the Boost optimizes on-site charging power, prevents overloads, and ensures a stable energy supply
- **Active Phase Switching:** In combination with a EMS, the Boost enables efficient energy utilization by intelligently controlling the charging phases - perfect for solar energy surplus usage
- **Authentication Options:** Supports RFID cards and will soon feature Plug & Charge (ISO 15118)[1] for even greater user convenience
- **EMS Integration:** Compatible with Energy Management Systems (EMS)[2] via Modbus TCP or RTU
- **Integrated Display:** High-quality LED front display for quick and easy access to MID and calibration law (Eichrecht) data
- **Premium Design:** A robust housing that meets the highest quality and safety standards, complemented by a customizable design cover and an integrated cable holder
- **Temperature Regulation:** Built-in fan for maximum temperature control to achieve maximum power
- **Cost-Efficient Installation:** The integrated DC fault current protection eliminates the need for additional hardware costs
- **Guaranteed Grid Stability:** Compliant with German Energy Industry Act §14a EnWG for grid-oriented control by the network operator (DSO)
- **Easy Installation and Setup:** Flexible mounting plate for wall or stand installations, with multiple cable routing options. Setup is conveniently done via the built-in hotspot with the setup app or web interface (WebUI)
- **Always Connected:** Integrated eSIM ensures a seamless cellular connection - even beyond city limits
- **Future-Proof with OTA Updates:** Keep your charger up to date effortlessly with over-the-air (OTA) firmware updates

1 HW Ready: Functionality will be rolled-out via an OTA-Update
2 Compatible Smart Meter und EMS: ask us which devices are compatible

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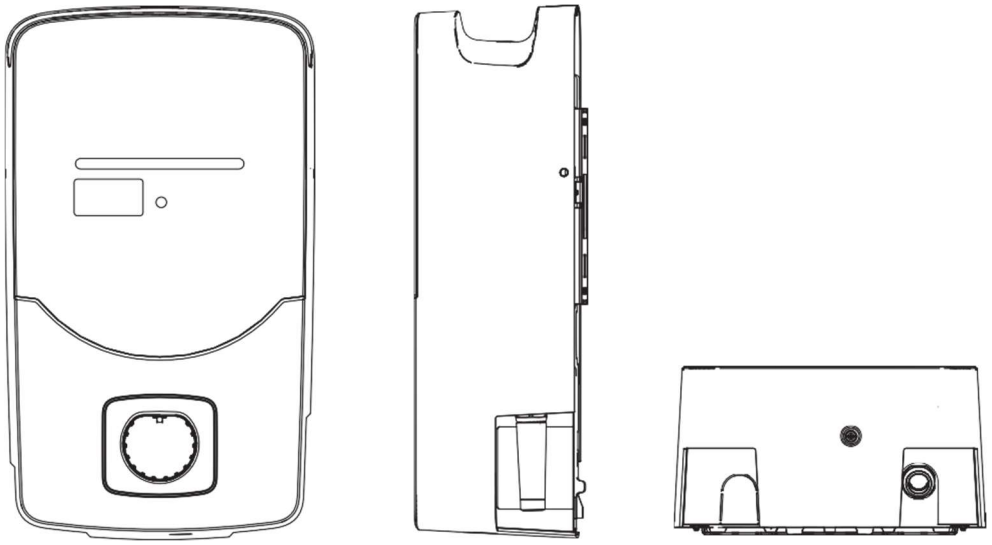

Technical Specifications

Electrical Characteristics

Nominal Current (A) (Configurable Connection Values)	16 or 32 1-phase or 3-phase Configurable in 1A increments
Input Voltage (V AC)	230 / 400 (Europe) Tolerance range: -18 % to +13 %
Frequency (Hz)	50 (±10 %)
Grid Types	TN/TT (1-phase and 3-phase) IT (only 1-phase) Other grid types e.g. split-phase (L1+L2, without N, 230 V nominal)
EMC Class	Emission: Class B (residential, commercial, and industrial areas) Immunity: Residential, commercial, and industrial areas
Overvoltage Category	III according to EN 60664
Protection Class	I
Required Protective Devices	Residual current device (RCD) Type A and circuit breaker must be installed according to national requirements
Integrated Safety Features	≥6 mA DC fault current detection
Integrated Energy Meter	– M ID-compliant meter: Accuracy class B according to EN IEC 62052-11: 2021 / A11: 2022 and EN 50470-3: 2022 – Calibration law (Eichrecht) compliant meter: Accuracy class A according to EN IEC 62052-11: 2021 / A11: 2022 and EN 50470-3: 2022
Phase Rotation (3-phase)	Automatic phase sequence detection with fault detection

Connections

Mounting Type	Wall and stand mounting (fixed installation)
Cable Routing	Surface-mounted or flush-mounted
Electrical Connection / Input Terminal	Conductor cross-section must comply with local conditions, laws, and standards (permanent electrical connection): – fixed (min – max) 2.5 – 16 mm^2 – flexible (min – max) 2.5 – 16 mm^2 – flexible (min – max) mit Aderendhülse: 2,5 – 16 mm^2 Recommended minimum cross-section for standard installations (depending on cable type and installation method): – 6 mm^2 (für 16 A) – 10 mm^2 (für 32 A)
Charging Cable or Socket	Typ-2 Cable: Up to 16 A / 400 V AC acc. to EN 62196-1 and EN 62196-2, Length: 7.5m Type-2 Socket: Up to 32 A / 400 V AC acc. to IEC 62196
Output Voltage (V AC)	230 / 400
Max. Charging Power (kW)	3.7 or 7.4 (in 1-phase operation) 11 or 22 (in 3-phase operation)

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Communication & Functions	
Authentication	– RFID reader (ISO 14443 A) – „Plug & Charge" (ISO 15118)[1] (in development)
Display	RGB-LEDs, buzzer, display (calibration law (Eichrecht) / MID)
Network Interfaces	– LAN (RJ45), 10 / 100 Base-TX – WiFi 802.11b / g / n – WiFi hotspot – RFID – Cellular integrated eSim, narrow band IoT / LTE-M (4G)
Communication Protocols	– IEC61851-1 (Annex A) – OCPP 1.6J – Modbus TCP (EMS[2] or smart meter[2]), – Modbus RTU (smart meter[2]) – ISO15118-2[1] (in development)
Backend Integration	Third-party backends from selected providers
External Interfaces	– Switch for network operator control (DSO) – RJ45 for network connection (e.g. EMS[2], smart meter[2], internet) – RS485 for external smart meter[2]
Local Load Management[1]	– Stand-alone load management (dynamic) through integration of compatible external smart meters[2] – Cluster load management (dynamic) through integration of compatible external smart meters[2] – Cluster load management (static)
Phase Switching	1-phase / 3-phase-switching
Mechanical Data	
Dimensions (L × W × H) (mm)	506 x 294 x 160
Weight (kg)	< 7.5 (version with fixed cable) < 5.5 (version with socket)
IP-Protection Class	IP65 (version with fixed cable) IP55 (version with socket)
Protection Against Mechanical Impact	IK10
Output Voltage (V AC)	230 / 400
Max. Charging Power (kW)	3.7 or 7.4 (in 1-phase operation) 11 or 22 (in 3-phase operation)
Environmental Conditions	
Installation Location	No direct sunlight (recommended)
Operating Temperature Range (°C)	-30 to +50
Temperature Behavior	Hardware and software protection against overheating, built-in fan
Storage Temperature Range (°C)	-40 to +85
Permissible Relative Humidity (%)	5 to 95 (non-condensing)
Altitude (m)	Max. 3,000 above sea level
Compliance Information	
Regulations and Directives	– CE conformity – 2014 / 53 / EU Radio Equipment Directive – 2011/ 65 / EU RoHS Directive – 2001/ 95 / EG General Product Safety – 2012 / 19 / EU Waste Electrical and Electronic Equipment Directive (WEEE) – 1907/ 2006 REACH Regulation – 2014 / 32 / EU Measuring Instruments Directive (MID)
Logistics Data	
Packaging Dimensions (mm)	570 x 380 x 300 (version with fixed cable) 570 x 380 x 230 (version with socket)
Quantity per Pallet	12 (version with fixed cable) 16 (version with socket)
Scope of Delivery	Quick Start Guide Wall mount incl. screws/dowels 2 RFID cards Cable fastening elements, feed-throughs, and grommets

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