

#### **SUPERNOVA**

# Fast charging you can rely on

Supernova is a full fast-charging solution designed under four key principles that make it profitable, easy to operate and scalable.



## Reliability

Maximizing uptime to increase revenue and customer satisfaction while reducing maintenance costs. From our product design focused on reliability and serviceability to the use of real-time data to optimize maintenance and management.



### **Efficiency**

Easy operation and reduced total cost of ownership. Supernova requires up to half the total investment compared to similar chargers, is a leader in terms of energy efficiency and ensures easy installation and operation.



### **User centricity**

Thanks to our end-user understanding, gained through years of delivering home charging solutions, we provide the best possible fast charging experience. A seamless experience attracts more drivers, increases turnover and reduces customer callbacks.



#### **Flexibility**

Supernova integrates into any existing charging network, can be installed in all kinds of locations and is compatible with today's and tomorrow's electric vehicles.



#### RELIABLITY

# Designed for maximum uptime and reduced maintenance

Our experience and dedication to EV charging allows us to insource R&D, validation, industrialization and production, which occurs just 5 minutes from our European headquarters. Furthermore, we manufacture our own power modules, gaining unprecedented control over the entire value chain to ensure the highest quality of all components and a seamless integration between hardware and software.

Based on our patented Quasar technology, its modular architecture with parallel power conversion ensures uptime even in the unlikely event that a module fails.

Our self-learning algorithm allocates power per module when EVs demand less than nominal power. Its cycling capability allows to switch modules off, **reducing wear and increasing lifetime**.

And with greater serviceability and connectivity

- Real-time data simplifies maintenance with remote diagnosis and service.
- Predictive approach, thanks to a wide range of sensors that detect and correct small faults before they cause a failure.
- Detailed diagnostic codes with an appropriate action plan to make service simple and efficient.



#### **EFFICIENCY**

# Easy operation and reduced total cost of ownership

#### **Product**

Up to half the total investment than similar competitors.

State-of-the-art Silicon Carbide Power Semiconductors (SiC) resulting in lightweight modules (11 kg), higher efficiency (95,4%) and reduced audible noise.

Our self-learning algorithm enhances our innovative six-module approach. Its cycling capability allows to switch modules off in order to **optimize energy efficiency** even when EVs demand less than nominal power.

## **Transport & Installation**

Light and modular design for easier and effortless transportation and installation.

**Simplified installation options** include forklift capability, eliminating the need for a crane. Our comprehensive training program simplifies the process for all partners and installers.

**Customized software configurations** can be performed in the production line, with a final and simple web interface process on site (no specific software needed).

#### **Maintenance**

**Efficient, low-cost maintenance** is achieved thanks to Supernova's comprehensive design, a wide array of sensors, real-time data and round-the-clock connectivity:

- All major components and modules are lightweight and easy to maintain or replace, with convenient access from three sides
- Remote diagnosis and troubleshooting to reduce onsite intervention
- Preventive and corrective maintenance adapted to real operating conditions

#### **USER CENTRICITY**

# Provide a seamless experience to customers

**Interactive light system** to guide drivers through the entire process, from finding a free spot to returning the plug to its holster. **Courtesy lights** simplify charging in dark places or during the night.

**10" sunlight readable touchscreen** with intuitive design, concise information and minimum interactions required to initiate charging.

All handled elements are **ergonomically accessible and wheelchair compliant**. Our retractable cable management system\* prevents floor contact and ensures that the installation remains clean.

Numerous payment options. Screen QR Code\* and credit card reader\*.

Authentication options: RFID or via OCPP interface.



#### **FLEXIBLITY**

## Adapt to current and future needs

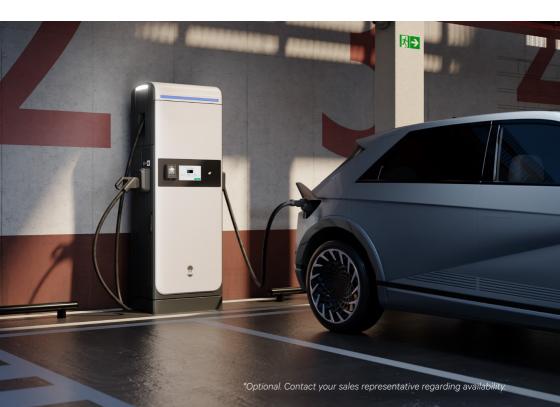
CCS2 & CHAdeMO or double CCS2\*.

Split charge\* delivers 30 kW per outlet when two EVs are connected. This **increases uitilization** as simultaneous sessions can start. Power increases to 60 kW to one car when the second one unplugs.

Easy integration with any existing charging network through OCPP.

**Over-the-air software updates** ensure up-to-date functionality and compatibility with current and future electric vehicles.

Supernova can be installed **against a back wall**. Considering also its slim design, it **adapts perfectly to locations with very limited space**. A minimum gap of 10 cm against the back wall is recommended to simplify service & repairs.



#### SUPERNOVA AT A GLANCE

## Reliable operation and maintenance

External antenna for enhanced connectivity

Robust. Corrosion free metal structure and full IK10 rating (including the screen)

Easy service. Power modules are lightweight and easy to replace in the cable-free rack system, demanding less than 90 sec

Easy service. Filters are easily accessible from both side doors

Easy service. Three access doors on the front & both sides with an open detection system and single lock. Provides high visibility and easy access

Safe handling: instant output power cut when any door is open

Bottom grooves for forklift to reduce installation time and costs



#### **SUPERNOVA**

## **Technical specifications**

 DC Connectors:
 CCS2+CHAdeMO / CCS2+CCS2

 Charging Protocol:
 ISO15118, DIN SPEC 70121, CHAdeMO

Cable Length: 3m, 5m [1]\*

Cable Management: Auto retractable system [1]\*

 Output Power:
 60 kW

 Nominal Efficiency:
 95,4%

 Power Factor:
 > 0,98

 THD:
 5%

 Output Voltage:
 150-500V

 Output Current:
 150A

Supply Input: 400V ± 10%, 91A, 50Hz
Electrical Protections: Grid disconnection, MCB,

Surge Arrestor

Environmental Ratings: IP54, IK10, 2000 m altitude

Operating Temperature: -35°C to 50°C
Cooling System: Active air cooling
Operational noise level: <55dBA

**Humidity:** 5% to 95% Non-condensing

Dimensions without holster: 2000 x 714x 453 mm

Weight: 290kg

**Branding Options:** Artwork Templates

Connectivity: Ethernet, 2G/3G/4G/LTE, Space for external router (DIN rail)

Backend Communication: OCPP 1.6J

Diagnostics: Auto-diagnostics system

User Interface: 10" Anti-vandal Colour Touch Display (sunlight readable), LED status lights

Authentication: App (OCPP) / RFID (MI-FARE ISO/IEC14443A/B, ISO/IEC15693,

ISO/IEC18000-3, FeliCa, NFC)

Ad-Hoc Payment: Credit Card Reader\* [1] (Numerous payment options)

Metering: AC MID [1]

CCS (DIN 70121, ISO15118\*), IEC 61851-23, IEC 61851-21-2, CHAdeMO 1.2 Certified

Safety & EMC Compliance: CE, IEC Cybersecurity Compliance: LINCE\*

Specifications are subject to change to improve design, function, or otherwise. [1] Optional. \*Contact your sales representative regarding availability.

#### Want to learn more about Supernova?

Contact us: sales@wallbox.com, +34 932 200 451





2000 mm

453 mm

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714 mm

868 mm