

Easee AS

Grenseveien 19
4313 Sandnes
Norway

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Safety Compliance

Easee Home/Charge is designed and tested according to the EU harmonized standard for Electrical Vehicle Supply Equipment (EVSE), EN IEC 61851-1:2019, ensuring that all relevant safety aspects of the Low Voltage Directive 2014/35/EU are fulfilled.

Key parameters

Parameter	Value
Supply voltage	230V/400V AC, 50Hz
Supply network	TN/TT/IT Single or three-phase
Charging mode	Mode 3
Output current*	6-32A
Output power*	1.4kW – 22kW
Protection against electric shock	Class II
RCD	Integrated Type A + RDC-DD 30mA AC / 6mA DC
Overload protection	Integrated, 6-32A
Overvoltage category	III
Rated impulse voltage withstand	4kV

* Depending on supply network. Max current may be limited during installation.

Installation

Easee Home/Charge can be installed in any TN/TT/IT supply network. Local installation norms should be followed, typically the local adaptation of IEC 60364, e.g. VDE 0100 in Germany, BS 7671 in the UK etc.

Overvoltage protection

The supply circuit to Easee Home/Charge shall be protected by an external overvoltage protection according to IEC 60364 section 722.443.4.

Overcurrent protection

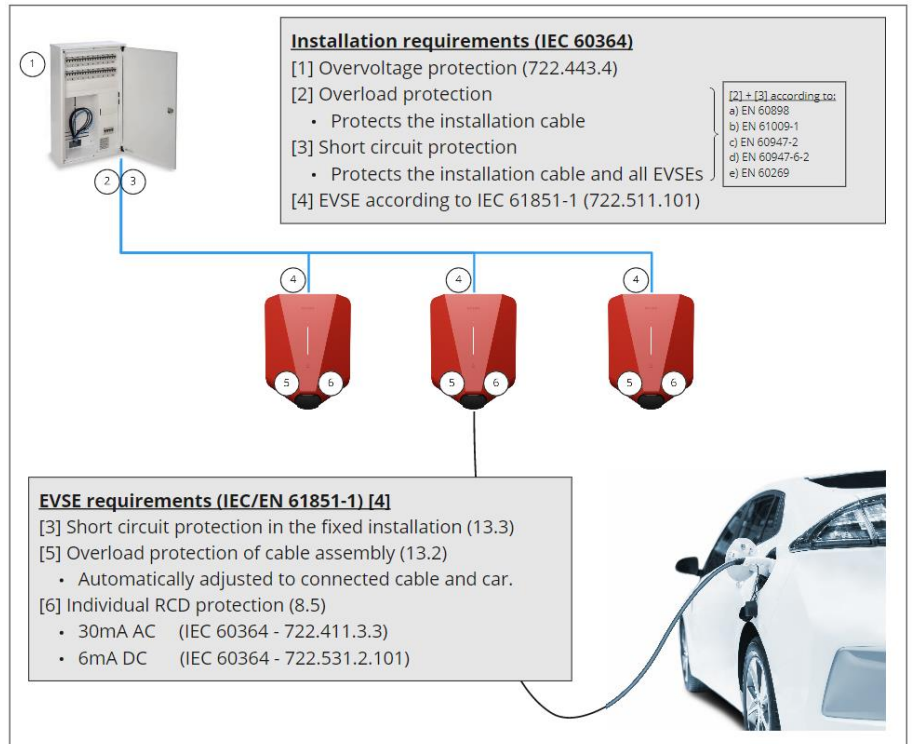
The supply circuit to Easee Home/Charge shall be protected by a circuit breaker of maximum 40A (Home) or 80A (Charge) and short circuit breaking capacity $I_k \geq 10kA$ complying with IEC 60898, IEC 60947-2, IEC 60947-6-2, IEC 61009-1 or IEC 60269. Several charge points may safely share the same overcurrent protections.

Overload protection

Easee Home/Charge integrates an adaptive overload protection according to EN IEC 61851-1:2019. If a connected vehicle draws more than 1.5A over the negotiated current, the charging session is terminated within 60seconds and all switching elements will open. Unplug the charging cable from Easee Home/Charge to reset the overload protection.

Residual Current Device (RCD)

Easee Home/Charge includes protection against both AC and DC residual current faults according to EN 61008-1 and IEC 62955. If a leakage current of minimum 30mA AC or 6mA DC is detected, the switching elements will open and the charging session is terminated. Unplug the charging cable from Easee Home/Charge to reset the RCD protection.



Maximum charging power

Easee Home/Charge support charging at up to 32A with either single or three phases. If a lower charging limit is required, either by local regulations or the rating of the installation, this can be configured by the installer during commissioning. When reduced to 20A, this setup is within the VDE AR 4100 regulation for Germany, as 4.6kW difference between L1, L2, L3 is not exceeded.

Load balancing

If several charge points share the same circuit, the Easee load balancing system ensures that the total combined load does not exceed the configured maximum limit set during installation. A proportion of the total available power is assigned to each charge point through wireless communication between the chargers.

Phase balancing

In a three-phase installation, with several charge points, the Easee phase balancing system distributes the load by dynamically assigning individual chargers to different phases. Phase balancing is coordinated by wireless communication between the chargers. With this setup, three EVs can charge simultaneously on their assigned phase, all at the maximum configured current. To ensure correct phase balancing, all phases L1-L3 shall be connected in the same order on all charge points (i.e. no phase rotation).