EVmate Wall-Mounted Charging Stations for Electric Vehicles and Plug-in Hybrids with Dynamic Charging Power Control and Direct Wireless Communication with PV Inverters – STR Version

A safe solution for fast EV charging with simple integration into photovoltaic systems without the need for dedicated metering for dynamic charging power control. The EVmate STR wall-mounted charging station provides reliable AC charging up to 22 kW and simplifies PV installation through wireless communication with supported inverter brands.

EVmate STR wallbox:



- offers single- or three-phase connection enabling charging at 3.7 kW, 7.4 kW, 11 kW and 22 kW
- is always equipped with a built-in charging cable with a Type 2 ("Mennekes") connector, or (on request) a Type 1 ("Yazaki") connector, enabling convenient everyday charging
- is always equipped with a built-in residual current sensor, thereby reducing the requirements for installation and equipping of the electrical connection
- enables direct wireless communication with selected PV inverters and uses inverter data for dynamic charging power management without the need to install separate energy metering
- the connection between the inverter and the EVmate charging station uses the local Wi-Fi network (both devices must be connected to the same network)
- supports full integration into the Infigy smart energy management system
- can be extended with a wireless access control module (RFID), including a version with readable charging consumption history per individual authorized user
- is available in three different electrical connection variants: a version with a power cable fitted with a five-pin three-phase plug (in 16 A or 32 A configuration), a wallbox version without a supply cable that can be installed directly at the point where the supply cable exits (e.g. directly from the wall), with the power supply connected directly to the prepared terminals inside the charging station, and a version for connection to cable raceways, where the charging station is equipped with a cable gland for the supply of power and data cables — the gland is of the same design as for the charging cable, and the power supply is connected directly to the prepared terminals inside the charging station
- has a high IP protection rating, enabling installation of the wallbox both in a garage and in outdoor environments such as car parks, outside buildings, etc.
- is always available with enhanced UV protection for outdoor installation
- is fully certified, and both the individual components and the complete station meet the highest standards and norms for electric vehicle charging
- supports GoodWe inverters (ES/EM/SBP with ARM firmware version 15 or higher, ET/BT/EH/BH/EHB with ARM firmware version 13 or higher, and the Wi-Fi+LAN module or Modbus TCP communication enabled)



- supports Victron Energy, SolaX, Dražice and Huawei inverters
- supports Sunways, Sofar, Deye and Wattsonic inverters (an RTU/TCP converter is required; not available for the 22 kW version)
- is continuously being improved — we are working on integrating additional inverter types and models (e.g. Solinteg integration is currently being finalized) and will be adding them progressively, with backward compatibility handled via a simple remote firmware update of the charging station
- is easy to install with no need for a wired connection between the station and energy balance metering of the building for dynamic charging power management
- can be controlled and configured via a dedicated mobile app (Android and iOS), available for free download
- also offers a robust installation pedestal as an accessory (surface finish: galvanized + powder coating)

Technical Specifications

INPUT

Parameter	Specification
Number of phases	Versions: 1 (1P+N) / 3 (3P+N)
Rated voltage	Versions: 230 V / 400 V (3×230 V)
Rated frequency	50/60 Hz (±1%)
Max. input current	32 A
Integrated supply cable	Optional: yes (2 m standard) / no
Earthing system	TN-S or TN-C-S
Residual current protection	Yes, DC 6 mA, AC 30 mA

OUTPUT

Parameter	Specification
Number of charging points	1
Rated output power	Versions: 3.7 kW / 7.4 kW / 11 kW / 22 kW
Integrated charging cable	Yes, Type 1 / Type 2 versions
Integrated cable length	Standard 6 m / optional 2–8 m
Cable holder	Yes
Charging station cover	Yes

FEATURES

Parameter	Specification
Automatic charging control	Yes, via PV inverter, Wi-Fi TCP or RTU
External manual charging control	Yes, via mobile application
Charging power reduction	Automatic and configurable
Timer / utility tariff (HDO) charging control	Available
Access control	Optional accessory, RFID (MIFARE)
Power/standby indication	Yes, LED
Status indication	Yes, LED
Fault indication	Yes, LED
Access indication (RFID)	Yes, integrated in RFID module, LED
Configuration options	Yes, via the configurator at www.evmate.cz

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GENERAL

Parameter	Specification
IP protection rating	IP54 according to DIN EN 60529 (VDE 0470-1)
Mechanical impact rating	IK10 according to ČSN EN 50102
Flame-retardant design	Yes, V0 / V2 (UL94)
UV protection	Yes
Operating temperature range	-30 °C to +50 °C
Storage temperature range	-30 °C to +80 °C
Permissible relative humidity	5% to 95%, non-condensing
Certifications	Yes, CE, Declaration of Conformity, EZÚ certification

Weight	
EVmate 01/1-1-16 or 01/1-1-32	Approx. 4 kg
EVmate 01/2-3-16 or 01/2-3-32	Approx. 6 kg
	All components are included in the delivery. Weight may vary depending on cable length.
Dimensions (H × W × D)	300 × 300 × 90 mm (excluding cables)
Shipping dimensions	600 × 400 × 200 mm

TYPES

Type	Input current	Charging connector	No. of phases	Charging power
EVmate 01/1-1-16	1 x 16A	type 1 or type 2	1	3,7kW
EVmate 01/1-1-32	1 x 32A	type 1 or type 2	1	7,4kW
EVmate 01/2-3-16	3 x 16A	type 2	3	11kW
EVmate 01/2-3-32	3 x 32A	type 2	3	22kW

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