SMA EV CHARGER 7.4 / 22
with SMA SMART CONNECTED

Universal

- Compatible with all standard electric vehicles
- Integration in new and existing PV systems

Quick and easy

- Charging with up to 22 kW
- Boost function for grid-compatible, single-phase charging with up to 7.4 kW
- Control and visualization via SMA Energy app

Sustainable

- Maximum utilization of solar energy
- Zero-emissions charging

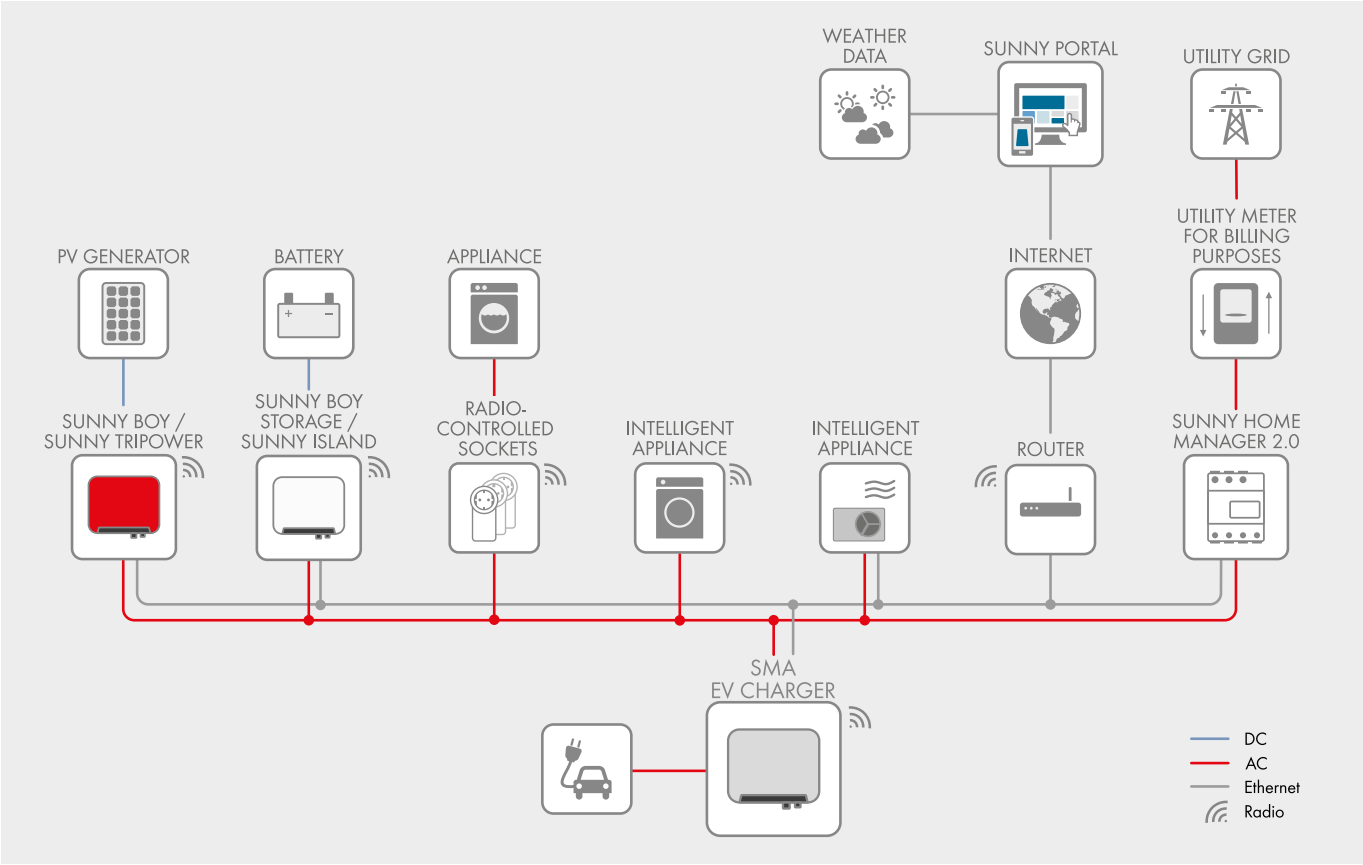
Worry-free

- Reliable thanks to power outage protection
- Integrated direct current failure monitoring reduces installation costs
- Safe investment with SMA Smart Connected

SMA EV CHARGER 7.4 / 22

Charging electric vehicles with solar power – intelligent, fast, cost-effective

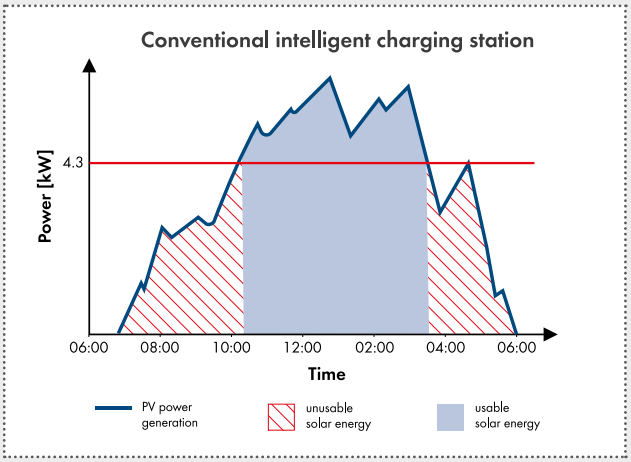
SMA EV Charger allows PV system operators to charge their electric vehicles intelligently and sustainably. This is because charging your electric vehicle with solar power keeps grid purchase costs to a minimum. Whether your system is brand-new or has been in operation for some time, SMA EV Charger is highly flexible and is compatible with all standard electric vehicles thanks to its permanently attached type 2 charging cable. In combination with SMA Sunny Home Manager 2.0, customers can prioritize solar power for charging their electric vehicles – and do this very fast if they are in a hurry. It can be easily operated via a rotary switch on the device or from the SMA Energy app. The boost function enables vehicles to be charged twice as fast as at conventional charging stations. Small solar capacities can also be utilized to the greatest possible extent through the automatic switchover from single-phase and three-phase charge modes. The smart system always takes loads into account and prevents the home connection from becoming overloaded.

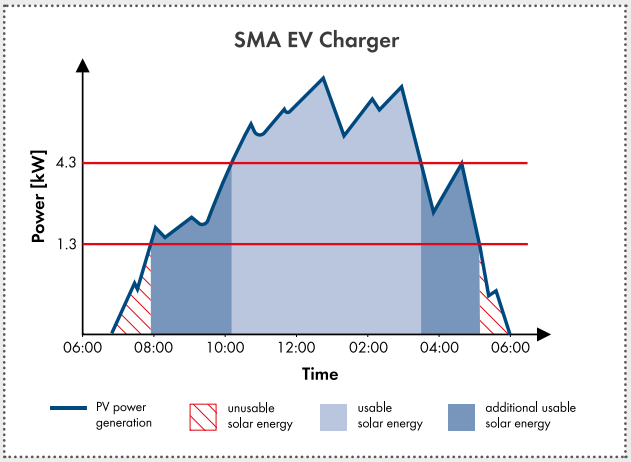


Technical data	SMA EV Charger 7.4	SMA EV Charger 22
Inputs and outputs (AC)		
Charge power (mode 3)	1.3 kW to 7.4 kW (configurable)	1.3 kW to 22 kW (configurable)
Nominal voltage	230 V	400 V
Nominal frequency	50 Hz	50 Hz
Nominal current	Max. 32 A single-phase	Max. 32 A three-phase
Connection cross-section	3 x 6 mm² / 3 x 10 mm² (fixed)	5 x 6 mm² / 5 x 10 mm² (fixed)
Vehicle connection	Plug type 2	
Communication		
Ethernet/Wi-Fi	● / ●	
Grid operator interface	Digital input	
Protective devices		
Integrated direct current failure monitoring	6 mA	
Power outage protection	●	
Ambient conditions during operation		
Ambient temperature	−25 °C to +40 °C (−13 °F to +104 °F)	
Storage temperature range	−25 °C to +70 °C (−13 °F to +158 °F)	
Degree of protection (according to IEC 60529) / impact resistance	IP 65 / IK 08	
Protection class (according to IEC 62103) / overvoltage category	I/III	
Max. permissible value for relative humidity (non-condensing)	100%	
Elevation above MSL	0 m to 2,000 m	
General data		
Dimensions (W/H/D)	460 mm / 357 mm / 122 mm (18.1 inches / 14.1 inches / 4.8 inches)	
Weight	8.0 kg (17.6 lbs)	
Grid configurations	TN/TT	
Display	LED status display, SMA Energy app	
Standby self-consumption	< 6.5 W	
Equipment		
Integrated charging cable	5 m	
Integrated energy meter	MID-compatible	
Warranty	Five years	
Certificates and permits (more available upon request)	IEC 61851, DIN IEC / TS 61439-7	
System compatibility (as of February 2020)	SMA Sunny Home Manager 2.0	
Country availability of SMA Smart Connected	AU, AT, BE, CH, DE, ES, FR, IT, LU, NL, UK	
● Standard feature ○ Optional feature – Not available Data at nominal conditions, as of February 2020		
Type designation	EVC7.4-1AC-10	EVC22-3AC-10

Cost-effective due to maximum solar energy utilization

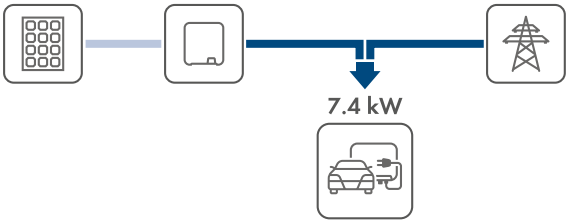
Conventional three-phase charging stations cannot utilize small solar capacities, for example, in the early morning and evening hours due to the standardized minimum charging power of electric vehicles. SMA EV Charger enables maximum utilization of this energy by starting the single-phase charging process at 1.3 kW and automatically switching to three-phase charging for larger solar capacities.





Quicker charging thanks to the boost function

SMA EV Charger uses a combination of grid and solar power to complete single-phase charging with up to 7.4 kW – and almost twice as fast as at conventional charging stations. The integrated symmetry feature ensures adherence to country-specific unbalanced load limits.



Safe and convenient thanks to power outage protection

Simple design and worry-free operation through automatic adjustment of the charge power, even during parallel operation of multiple loads – this ensures that it is always possible to utilize the maximum available power that the house connection and the vehicle allow for charging.

Everything from a single source

Thanks to the SMA Energy app, system owners have all the relevant information about their systems at the ready at all times. This ensures greater transparency thanks to up-to-date information about the charging process and maximum control through configuration of the charging mode.

Highly convenient: Simply enter when you want your car to be ready and the app starts the charging process automatically.

SMA SMART CONNECTED

Integrated service for ease and comfort

SMA Smart Connected* allows you to monitor your charging station via the SMA Sunny Portal for free. If any problems are detected, SMA proactively informs the PV system operator and installer. This saves valuable working time and costs.

With SMA Smart Connected, the installer benefits from rapid diagnoses by SMA. This allows the installer to rectify the fault quickly and offer customers a range of additional and highly attractive services.

ACTIVATION OF SMA SMART CONNECTED

During registration of the system in the Sunny Portal, the installer activates SMA Smart Connected and benefits from automatic charging station monitoring by SMA.

AUTOMATIC CHARGING STATION MONITORING

SMA monitors your charging station with SMA Smart Connected. SMA automatically checks the individual charging stations for problems around the clock during operation. As a result, every customer benefits from SMA's many years of experience.

PROACTIVE COMMUNICATION IN THE EVENT OF FAULTS

After a fault has been diagnosed and analyzed, SMA informs the installer and end customer immediately by email. This ensures that everyone involved is properly prepared for the troubleshooting process. This minimizes downtime and saves time and money. Regular power reports also provide valuable information about the overall system.

REPLACEMENT SERVICE

If a replacement device is necessary, SMA automatically supplies a new charging station within one to three days of the fault diagnosis. Installers can contact PV system operators of their own accord and replace charging stations so that end customers can get back on the road as quickly as possible.

PERFORMANCE SERVICE

The PV system operator can claim compensation from SMA if the replacement charging station is not delivered within three days.

* For details, see "Description of Services–SMA SMART CONNECTED."