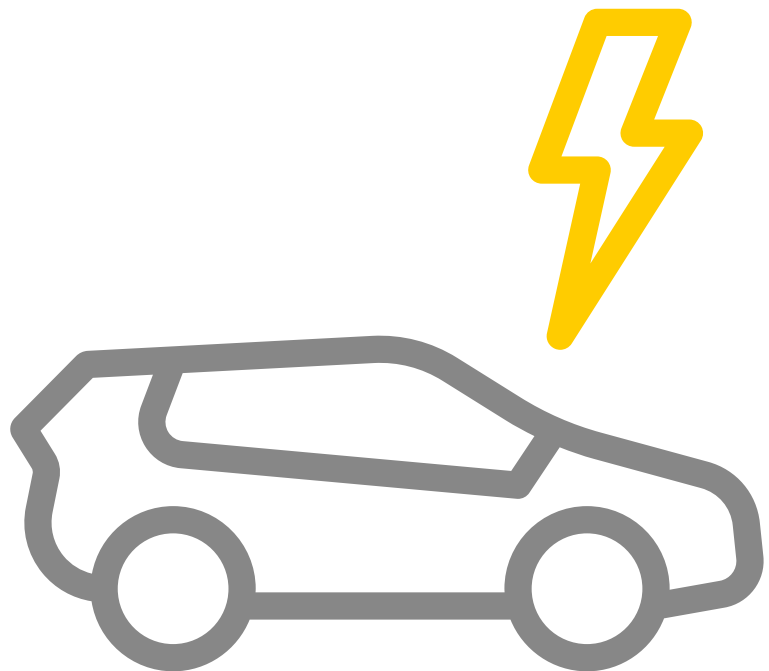


EMOBILITY PV CHARGING SOLUTIONS



PV CHARGING
SOLUTIONS
RESIDENTIAL
COMMERCIAL

krannich

Manufacturer



Product series		IQ EV Charger
Product name		IQ EV Charger 2
Wallbox / Charging station / Charging type (AC / DC)		Wallbox / AC
Cable / Socket		Type 2 Cable / Female
Suitable for	Private	☒
	Semi-public	☒
	In public	☐
Max. charging power (kW)		22 kW
Mains connection		1- or 3-phase 230/400V / 32A, 50Hz
Protection + access authorization	DC residual current switch	DC fault current detection > 6mA (on-site Residual current circuit breaker type A required)
	Dynamic load management	☐
	RFID / App	☒ / ☒
SMART Charging Features (PV surplus (with own system), Dynamic electricity tariffs, Manual loading times, Limitation by EVU according to EnWG 14a)		PV surplus; dynamic electricity tariffs; fixed charging times; Limitation by EVU (via eebus)
Collection of charging data Manufacturer portal - APP / MID meter / calibration law compliant		☒ / ☒ / ☐
Communication / Interfaces		WLAN, LAN, RS485, CAN
Special features		Flexible AC connection 1- or 3-phase, autom. Phase switching;

** Dependent on release and provision date of the manufacturer

Manufacturer



Product series		Wattpilot			
Product name		Wattpilot Go 11 Y / 22 J	Wattpilot Home 11 Y / 22 J	Wattpilot Flex Home 11 / 22 C6	Wattpilot Flex Pro 11 / 22 C6E
Wallbox / Charging station / Charging type (AC / DC)		Wallbox / AC			
Cable / Socket		Type 2 socket		Type 2 Cable	
Suitable for	Private	●		●	
	Semi-public	○		○	●
	In public	○		○	
Max. charging power (kW)		11 kW / 22 kW	11 kW / 22 kW	11 kW / 22 kW	11 kW / 22 kW
Mains connection		1-phase 230 V / 3-phase 400V, 50 Hz (by means of adapter)	1-phase 230 V / 3-phase 400V, 50 Hz (fixed connection)	1-phase 230 V / 3-phase 400V, 50 Hz (fixed connection)	1-phase 230 V / 3-phase 400V, 50 Hz (fixed connection)
Protection + access authorization	DC residual current switch	Integrated residual current cutSwitch type A and DC fault current detection > 6mA		Integrated residual current cutSwitch type A and DC fault current detection > 6mA	
	Dynamic load management	●		●	
	RFID / App	● / ●		● / ●	
SMART Charging Features (PV surplus (with own system), Dynamic electricity tariffs, Manual loading times, Limitation by EVU according to EnWG 14a)		PV surplus + fixed charging times; Limitation by EVU (Via integrated analog input)	PV surplus; Dynamic electricity tariffs; fixed charging times; limitation by EVU (Via integrated analog input)	PV surplus; dynamic electricity tariffs; fixed charging times; limitation by EVU (via integr.DI)	
Collection of charging data Manufacturer portal - APP / MID meter / calibration law compliant		● / ○ / ○		● / ○ / ○	● / ● / ○
Communication / Interfaces		Wi-Fi		LAN + WLAN / 2 x DI	
Special features		Mobile solution with variable power plug and APp connection, switching 1/3-phase charge	Up to 3 systems in parallel, unlimited with EMIL control, switching 1/3-phase charge, standalone app, Eco / Next-Trip mode	Permanently installed solution for 1/3-phase AC connection, LaduNg with PV surplus, 1P/3P phase switching	Permanently installed solution for 1-/3-phase AC connection, charging with PV excess, 1P/3P phase switching, can also be used in semi-public areas by MID counters

Manufacturer

GOODWE

Product series		HCA		HCA 2.0	
Product name		GW 11K-HCA	GW 22K-HCA	GW 11K-HCA-20	GW 22K-HCA-20
Wallbox / Charging station / Charging type (AC / DC)		Wallbox / AC		Wallbox / AC	
Cable / Socket		Type 2 Cable		Type 2 Cable	
Suitable for	Private	☒		☒	
	Semi-public	☐		☐	
	In public	☐		☐	
Max. charging power (kW)		11 kW	22 kW	11 kW	22 kW
Mains connection		3-phase 230V / 16A, 50Hz	3-phase 400V / 32A, 50Hz	3-phase 230V / 16A, 50Hz	3-phase 400V / 32A, 50Hz
Protection + access authorization	DC residual current switch	DC fault current detection > 6mA (on-site Residual current circuit breaker type A required)		DC fault current detection > 6mA (on-site Residual current circuit breaker type A required)	
	Dynamic load management	☐		☒	
	RFID / App	☐ / ☒		☒ / ☒	
SMART Charging Features (PV surplus (with own system), Dynamic electricity tariffs, Manual loading times, Limitation by EVU according to EnWG 14a)		PV surplus + fixed charging times (With Goodwe system)		PV surplus + fixed charging times (With Goodwe system) Limitation by EVU	
Collection of charging data Manufacturer portal - APP / MID meter / calibration law compliant		☒ / ☐ / ☐		☒ / ☐ / ☐	
Communication / Interfaces		Wi-Fi		WLAN, LAN, RS485	
Special features		Close networking with Goodwe home storage system		Close networking with Goodwe home storage system; phase switching; load management	

** Dependent on release and provision date of the manufacturer

Manufacturer


KOSTAL
Solar Electric

Product series		Huawei Smart Charger		Enector
Product name		Smart Charger AC 7.4 / 22		Enector AC Wallbox
Wallbox / Charging station / Charging type (AC / DC)		Wallbox / AC		Wallbox / AC
Cable / Socket		Type 2 socket		Type 2 Cable
Suitable for	Private	☒		☒
	Semi-public	☐		☐
	In public	☐		☐
Max. charging power (kW)		7.4 kW	22 kW (11 kW throttled)	3.7 (1-phase); 11 (3-phase)
Mains connection		1-phase 230V / 32A, 50Hz	3-phase 400V / 32A, 50Hz	1-phase 230V/16A, 50Hz, 3-phase 400V/16A, 50Hz
Protection + access authorization	DC residual current switch	DC fault current detection > 6mA (on-site Residual current circuit breaker type A required)		DC residual current detection > 6mA, residual current circuit breaker type A installed
	Dynamic load management	☐		☐
	RFID / App	☒ / ☒		☐ / ☐
SMART Charging Features (PV surplus (with own system), Dynamic electricity tariffs, Manual loading times, Limitation by EVU according to EnWG 14a)		PV surplus or Fixed charging times; Dynamic electricity tariffs (via EMMA); Limitation EVU (via Modbus)		PV surplus (with Kostal KSEM and activation code) Fixed charging times, Limitation EVU (integrated terminals)
Collection of charging data Manufacturer portal - APP / MID meter / calibration law compliant		☒ / ☐ / ☐		☒ / ☐ / ☐
Communication / Interfaces		WLAN + LAN		RS485
Special features		Autom. Switching 1-/3-phase charge; 2-fold cascade incl. PV excess charging with EMMA		Monitoring in the Kostal Portal, 7.5 m charging cable

Manufacturer



Product series		SMA EV Charger		
Product name		SMA EV Charger 7,4	SMA EV Charger 22	SMA EV Charger 22 DS SMA EV Charger Business
Wallbox / Charging station / Charging type (AC / DC)		wallbox / AC		
Cable / Socket		Type 2 cable	Type 2 socket	2 x Type 2 socket / Type 2 cable
Suitable for	Private			
	Semi-public			
	In public			
Max. charging power (kW)		7.4 kW	22 kW	22 kW 2 x 22 kW
Mains connection		1-phase 230V / 32A, 50Hz	3-phase 400V / 32A, 50Hz	3-phase 400V / 32A, 50Hz 3-phase 400V / 64A, 50Hz
Protection + access authorization	DC residual current switch	PV surplus; fixed + flexible charging times (via Home Manager) Limitation by EVU		DC residual current detection > 6mA, residual current circuit breaker type A installed
	Dynamic load management	, with SMA Home Manager		, with compatible counter
	RFID / App	/		/
SMART Charging Features (PV surplus (with own system), Dynamic electricity tariffs, Manual loading times, Limitation by EVU according to EnWG 14a)		PV surplus; dynamic electricity tariffs (via Home Manager); manual charging times; Limitation by EVU (via Home Manager)		
Collection of charging data Manufacturer portal - APP / MID meter / calibration law compliant		/ /		** / ** / **
Communication / Interfaces		WLAN + LAN		LAN
Special features		Boost function, blackout protection; forecast-based charging	3-way cascable; RFID; boost function, blackout protection; forecast-based charging; preparation for bidirectional charging	Boost function, blackout protection; forecast-based charging

** Dependent on release and provision date of the manufacturer

Manufacturer



Product series		Smappee EV Charger			
Product name		EV Wall Home 22	EV One Home 22	EV Ultra Single 80S / 240S	"EV Ultra Dual 40D / 120D
Wallbox / Charging station / Charging type (AC / DC)		Wallbox / AC	Charging station / AC	Charging station / DC	Charging station / DC
Cable / Socket		Type 2 socket	Type 2 socket	CCS Combo-2 plug	2 x CCS Combo-2 connectors
Suitable for	Private				
	Semi-public	(only version with calibration right)		(with Pay Station)	
	In public	(mit Pay Station)		(with Pay Station)	
Max. charging power (kW)		22 kW	22 kW	80 / 240 kW	2 x 40 / 2 x 120 kW
Mains connection		1-/3-phase 230/400V / 16/32A, 50Hz	3-phase 400V / 32A, 50Hz	3-phase 400V / 120A/350A, 50Hz	3-phase 400V / 120A/350A, 50Hz
Protection + access authorization	DC residual current switch	DC fault current detection > 6mA, residual current circuit breaker type A installed		DC fault current detection > 6mA and Residue current circuit breaker type A Required on site	
	Dynamic load management	(with Infinity Kit)	(with Infinity Kit)		
	RFID / App	/			
SMART Charging Features (PV surplus (with own system), Dynamic electricity tariffs, Manual loading times,Limitation by EVU according to EnWG 14a)		PV surplus (with Infinity Kit + Solar Add-on), fixed charging times; limitation by EVU (Infinity Kit + Solar Add-on + SG Ready)		Dynamic electricity tariffs (via business subscription plan); fixed charging times; limitation by EVU	
Collection of charging data Manufacturer portal - APP / MID meter / calibration law compliant		/ / Optional	/ /	/ /	
Communication / Interfaces		WLAN + LAN	WLAN + LAN	LAN + 4G	
Special features		Wallbox for home use; incl. 5 year subscription for Smappee Smart subscription plan	Charging station for home use; incl. measuring converters for PV surplus charging; incl. 5 year subscription for Smappee Smart Subscription Plan	DC-Charger, cascadeable, 1 / 2 charging points; calibration law compliant; with optional payment terminal (Pay Station); additional functions via Smappee Business subscription plan	

Manufacturer

SOFAR

Product series		Sofar EV-Charger
Product name		EV11k-AC-02
Wallbox / Charging station / Charging type (AC / DC)		Wallbox / AC
Cable / Socket		Type 2 Cable
Suitable for	Private	☒
	Semi-public	☐
	In public	☐
Max. charging power (kW)		11 kW
Mains connection		3-phase 230V / 16A, 50Hz
Protection + access authorization	DC residual current switch	DC residual current detection > 6mA, residual current circuit breaker type A installed
	Dynamic load management	☐
	RFID / App	☒
SMART Charging Features (PV surplus (with own system), Dynamic electricity tariffs, Manual loading times, Limitation by EVU according to EnWG 14a)		PV surplus; Fixed charging times;
Collection of charging data Manufacturer portal - APP / MID meter / calibration law compliant		☒ / ☐ / ☐
Communication / Interfaces		RS485, WLAN,
Special features		Monitoring in the Sofar Portal; 7.0 m charging cable

Manufacturer



Product series		Home EV Charger	One EV Charger
Product name		SE-EVK22Cxx-01	One / One Pro
Wallbox / Charging station / Charging type (AC / DC)		Wallbox / AC	Wallbox AC
Cable / Socket		Type 2 Cable	Type 2 socket
Suitable for	Private	☒	Yes
	Semi-public	☐	Yes (only Pro version)
	In public	☐	No
Max. charging power (kW)		22 kW (11 kW throttled)	22 kW (11 kW throttled)
Mains connection		3-phase 400V / 32A, 50Hz	1-/3 phase 400V / 32A, 50Hz
Protection + access authorization	DC residual current switch	DC fault current detection > 6mA (on-site Residual current circuit breaker type A required)	
	Dynamic load management	☐	☒
	RFID / App	☒ / ☐	☒ / ☒
SMART Charging Features (PV surplus (with own system), Dynamic electricity tariffs, Manual loading times, Limitation by EVU according to EnWG 14a)		PV surplus; Dynamic electricity tariffs + fixed charging times (With SolarEdge ONE controller); Limitation by EVU (With SolarEdge ONE Controller)	
Collection of charging data Manufacturer portal - APP / MID meter / calibration law compliant		☒ / ☒ / ☒	☒ / ☒ / ☐
Communication / Interfaces		WLAN + LAN	WLAN + LAN (LTE only Pro version)
Special features		Wallbox for home use; Calibration right; 1- and 3-phase operation possible	Wallbox for home use; Pro version with MID counter; autom. Phase switching; dyn. Load management; 1- and 3-phase operation possible

Manufacturer



Product series		Smart EV Charger		Smart EV Charger G2	
Product name		X3-EVC11K	X3-EVC22K	X3-HAC-11	X3-HAC-22
Wallbox / Charging station / Charging type (AC / DC)		Wallbox / AC			
Cable / Socket		Both possible		Both possible	
Suitable for	Private	☒			
	Semi-public	☐			
	In public	☐			
Max. charging power (kW)		11 kW	22 kW	11 kW	22 kW
Mains connection		3-phase 400V / 16A, 50Hz	3-phase 400V / 32A, 50Hz	3-phase 400V / 16A, 50Hz	3-phase 400V / 32A, 50Hz
Protection + access authorization	DC residual current switch	Integrated residual current cutSwitch type A and DC fault current detection > 6mA		Integrated residual current cutSwitch type A and DC fault current detection > 6mA	
	Dynamic load management	Yes, with Solax Smart Meter			
	RFID / App	☒ / ☐		☒ / ☐	
SMART Charging Features (PV surplus (with own system), Dynamic electricity tariffs, Manual loading times,Limitation by EVU according to EnWG 14a)		PV surplus; manual charging times (With Solax Smart Meter); Limitation by EVU (integrated terminals / Datahub)		PV surplus (with Solax Smart Meter); manual charging times; Limitation by EVU(Integrated terminals / data hub)	
Collection of charging data Manufacturer portal - APP / MID meter / calibration law compliant		☒ / ☐ / ☐		☒ / ☐ / ☐	
Communication / Interfaces		WLAN + RS485		LAN + WLAN + 4G (opt.) / 2 x RS485	
Special features				E-phase Wallobox; autom. Phase switching; dyn. Load management	

** Dependent on release and provision date of the manufacturer

Manufacturer

Product series		Sungrow EV Charger			
Product name		AC011E-01	AC22E-01	IDC30E	IDC180E
Wallbox / Charging station / Charging type (AC / DC)		Wallbox / AC	Wallbox / AC	Wallbox / DC	Charging station / DC
Cable / Socket		Type 2 Cable	Type 2 Cable	CCS Combo-2 plug	2 x CCS Combo-2 connectors
Suitable for	Private				
	Semi-public				
	In public		 (only MID version)		
Max. charging power (kW)		11 kW	22 kW	30 kW	180 kW
Mains connection		3-phase 400V / 16A, 50Hz	3-phase 400V / 32A, 50Hz	3-phase 400V / 63A, 50Hz	3-phase 400V / 275A, 50Hz
Protection + access authorization	DC residual current switch	DC fault current detection > 6mA (on-site Residual current circuit breaker type A required)	DC fault current detection > 6mA (on-site Residual current circuit breaker type A required)	DC fault current detection > 6mA (on-site Residual current circuit breaker type A required)	DC fault current detection > 6mA and Residual current circuit breaker type A Required on site
	Dynamic load management	Yes			
	RFID / App	 / 		 / 	 / 
SMART Charging Features (PV surplus (with own system), Dynamic electricity tariffs, Manual loading times, Limitation by EVU according to EnWG 14a)		PV surplus; Dynamic electricity tariffs + fixed charging times (With iHomeManager); Limitation by EVU (Via Modbus + OCCP)		PV surplus; Dynamic electricity tariffs + fixed charging times (Via iHomeManager)	Fixed charging times (With Sungrow system)
Collection of charging data Manufacturer portal - APP / MID meter / calibration law compliant		 /  / 	 /  / 	 /  / 	 /  / 
Communication / Interfaces		Wi-Fi			Ethernet, 2G, 3G, 4G
Special features		Autom. Switching 1/3-phase charge; compatible with SHRT V11, V112 and SHRT-20. The iHomeManager is required for connection to SH-T.	Autom. Switching 1/3-phase charge; compatible with SHRT V11, V112 and SHRT-20. The iHomeManager is required for connection to SH-T.	DC-Charger, cascable, with optional payment terminal	DC charger, cascadeable, compliant with the law; with optional payment terminal

Explanation of
the specifications

Instructions

Product series		Model series of the manufacturer
Product name		Name of the article
Wallbox / charging station / charging type (AC / DC)		Design and charging type of the charger
Cable / Socket		Design of the charging connection
Suitable for	Private	Application for home use
	Half-Public	Application in commercial / company charging park
	Public	Use in public areas with billing
Max. charging power (kW)		Maximum charging capacity
Grid connection		Type of mains connection
Protection + access authorisation	DC residual current device	Integrated DC residual current circuit breaker
	Dynamic load management	Monitoring of the maximum power consumption at the grid connection point
	RFID / App	Access authorization with RFID
SMART Charging Features (PV surplus (with own system), Dynamic electricity tariffs, Manual loading times, Limitation by EVU according to EnWG 14a)		Available charging modes (PV surplus / fixed charging times / externally controlled charging times via exchange, energy supply company, etc.)
Acquisition of charging data Manufacturer portal - APP / MID meter / calibration law compliant"		Version for recording the charging data (app - residential / MID for commercial / calibration law for public use)
Communication / Interfaces		Integrated com interfaces (WLAN, LAN, etc.)
Features		Various special features for the charger

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