FENECON

The high-power residential energy storage system

HOME 20 | 30

Key Facts

30

Power in kWh

14 – 168

Capacity in kWh

45

Integrated PV connection in kWp and for up to three orientations

Benefits

- PV-optimized integration of wallboxes, heat pumps and a heating element*
- Self-Consumption Optimization 2.0 with AI-optimized utilization of dynamic electricity tariffs*
- 3-phase emergency power supply with solar recharging and black-start capability
- Plug & Play installation
- All-in-one system with a compact high-voltage battery, a flexible DC, AC, and hybrid inverter, FEMS, the intelligent Energy Management System and service by the manufacturer
- Ready for the Energy Journey of your own: Increase your battery capacity, or add new functionality via FEMS Apps

* FFEMS App Self-Consumption Optimization and FEMS App Grid Optimized Charge included. Further apps optional.

System

Product warranty 10 years

Installation / Ambient conditions	
IP classification	IP55
Operating altitude in m	≤ 2,000
Installation temperature in °C	-20 to +50
Operating temperature in °C*	-20 to +55
Optimal battery operating temperature in °C*	+15 to +30
Max. grid connection in A	120

* Outside of the optimal operating temperature, the charging/discharging performance is reduced.

** Higher supply currents are possible through optional meters.

Certifications and Directives	
Overall system	CE VDE 2510-50
Inverter	VDE 4105:2018-11 TOR Erzeuger Typ A 1.1
Battery	UN38.3 IEC62619 EMV (complete)
Other countries	Sweden (registered Rikta Rätt), Netherlands (Synergrid C10/11 planned)

Battery module

Cell technology	Lithium iron phosphate (LiFePO4)
Module weight in kg	29.6
Nominal module capacity in kWh	2.87
Usable module capacity in kWh	2.8
Expandable capacity	Yes
Tower - Width | Depth in mm	506 | 401
Capacity warranty*	12 years or 6,000 cycles

* Find further information in our warranty terms at www.fenecon.de.

Inverter

Product name	Home 20 FHI-20-DAH	Home 30 FHI-29,9-DAH
DC connection		
Max. DC input power in kWp	30	45
MPP-Tracker	2	3
Inputs per MPPT	2 (MC4)	
Starting voltage MPPT in V	200	
Max. DC input voltage in V	1,000	
MPPT voltage range in V	200 - 850	
Nominal input voltage in V	620	
Max. effective input current per MPPT in A	30	
Max. short circuit current per MPPT in A	38	
AC connection		
Grid connection	400/380 V, 3L/N/PE, 50/60 Hz	
Max. output current (400 V) in A	29	43.3
Max. input current (400 V) in A	45	50
Nominal apparent power output in VA	20,000	29,900
Max. apparent power output in VA	22,000	29,900
Cos(Phi)	-0.8 to +0.8	
Emergency power		
Emergency power capability	Yes	
Electrical network configuration	400/380 V, 3L/N/PE, 50/60 Hz	
Loads supplied with emergency power (per phase) in VA	20,000 (6,666)	29,900 (9,966)
Unbalanced load in VA	6,666	9,966
Black start capability	Yes	
Solar recharging	Yes	
Efficiency		
Max. efficiency in %	98.0	
Europ. efficiency in %	97.5	
Allgemein		
Dimensions (W|D|H) in mm	520 | 220 | 660	
Weight in kg	48	54
Topology	Not insulated	
DC overvoltage protection	Type 2	
Ripple control receiver inputs	Yes	
Cooling	adaptiver Ventilator	

System configurations

No. of modules per tower	5	6	7	8	9	10	11	12	13	14	15
Nominal capacity in kWh											
1 tower with x modules	14.34	17.20	20.07	22.94	25.8	28.67	31.46	34.41	37.27	40.14	43.01
2 towers with x modules				45.88	51.61	57.34	62.92	68.81	74.55	80.28	86.02
3 towers with x modules							94.38	103.22	111.82	120.42	129.02
4 towers with x modules								137.63	149.09	160.56	172,03
Effective capacity in kWh*											
1 tower with x modules	14.0	16.8	19.6	22.4	25.2	28.0	30.8	33.6	36.4	39.2	42.0
2 towers with x modules				44.8	50.4	56.0	61.6	67.2	72.8	78.4	84.0
3 towers with x modules							92.4	100.8	109.4	117.6	126.0
4 towers with x modules								134.4	145.6	156.8	168.0
Nominal power in kW**											
Nom. power in kW (20 kW WR)	11.20	13.44	15.68	17.92	20.00	20.00	20.00	20.00	20.00	20.00	20.00
Nom. power in kW (30 kW WR)	11.20	13.44	15.68	17.92	20.16	22.40	24.64	26.88	29.12	30.00	30.00
Weight in kg											
1 tower with x modules	187	217	247	277	307	337	367	397	427	457	487
2 towers with x modules				554	614	674	734	794	854	914	974
3 towers with x modules							1,101	1,191	1,281	1,371	1,461
4 towers with x modules								1,588	1,708	1,828	1,948
Height in mm (approx.)	**1,120**	**1,263**	**1,406**	**1,549**	**1,692**	**1,835**	**1,978**	**2,121**	**2,264**	**2,407**	**2.550**

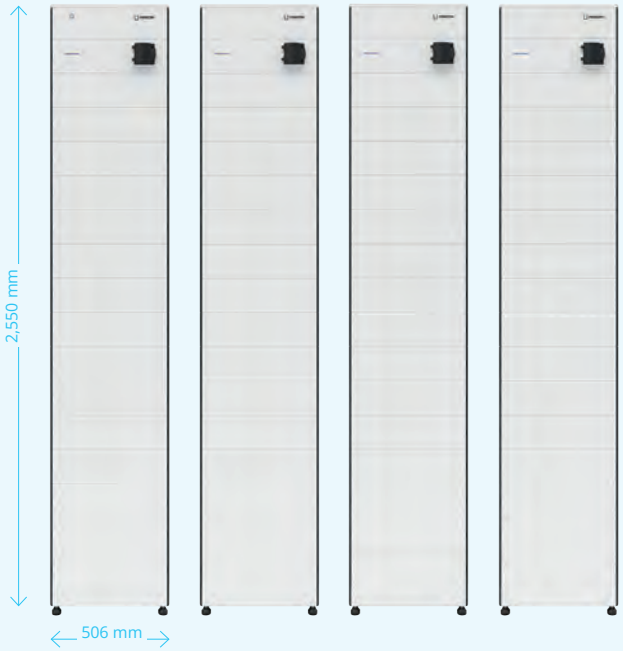
* DC-side at 25 °C and 0.2 C

** Average power at nominal voltage; The actual power depends on factors like state of charge, ambient and cell temperature.

Inverter

System variant 1 tower with 5 modules

System variant 4 towers with 15 modules each



FEMS Hardware

Hardware interfaces	
Inputs	4 floating inputs
Outputs (FEMS relay board)	3 digital inputs (10 A per channel & metered), 2 dry contacts 1 analog output (0 to 10 V)
Parallel connection	CAN
Communication with internal components	RS485 – Modbus RTU
Communication with external components	RS485 – Modbus RTU/LAN-Modbus TCP

Communication interfaces	
Internet connection	LAN
Local	Modbus/TCP-API, REST-API (read access, write access optional)
Online	Cloud-Rest-API (read access, write access optional)

Base & future capability	
Operating system	FEMS, based on OpenEMS
Classification	OpenEMS Ready Gold
Updates	Unlimited, automatic & free of charge
Feed-in management	0% (e.g., outside EEG) up to 100%

Advanced charging & discharging	
Grid-optimized charging	Standard
Time-of-use tariffs	Optional (compatible tariff required)

Options for sector coupling	
Heating element controller	Optional
Heat pump control „SG-Ready“	Optional
Threshold controller	Optional
Manual relay controller	Optional
Wallbox controller	Optional
Controller for multiple wallboxes	Optional

FEMS

FENECON Energymanagement System

A system that selects the best route every day.

Included

FEMS is the heart of your energy system and is fully integrated into the storage unit as a compact box right from the start.

Future-proof

Thanks to FEMS, your storage unit remains open for whatever the future may bring. Optional FEMS apps allow you to expand your energy system with new devices, ideas, and possibilities at any time. This is no problem thanks to the manufacturer-independent open-source approach.

Proactive

FEMS ensures that your energy doesn't just run – it follows your life. The AI-based forecast creates a holistic, customized energy roadmap in real time that takes into account weather data, consumption profiles, tariffs, and grid conditions.

More info about FEMS

Test it yourself with our demo access

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Mehr Infos zum Produkt