Home 6, 10 & 15

FENECON

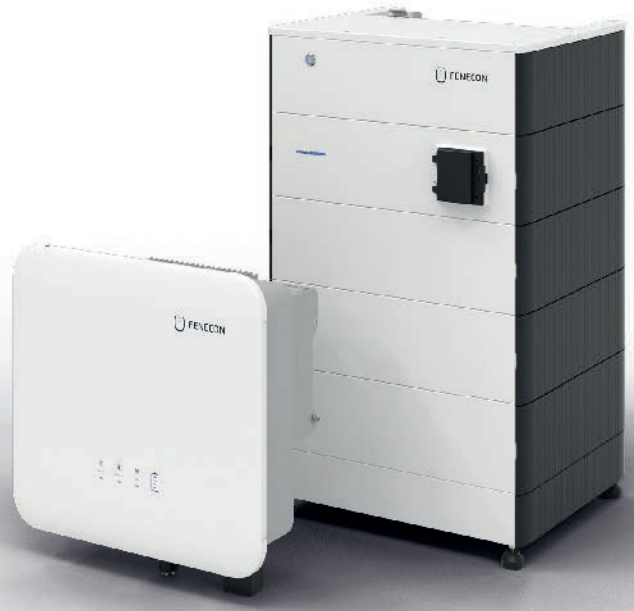
The smart residential energy storage system

Key Facts:

- Power: up to 15 kW
- Capacity: 8.4 to 156.8 kWh
- Integrated PV input for up to 22.5 kWp and up to three orientations

Benefits:

- Self-consumption optimization 2.0 with AI-optimized time-of-use tariffs*
- PV-optimized integration for electric vehicle charging stations, heat-pumps and heating element*
- 3-phase back-up power supply with solar recharging and black start function (< 10 ms switchover)
- Plug & Play installation
- All-in-one system with compact high-voltage battery, flexible DC, AC and hybrid inverter, intelligent FEMS energy management and full service from one manufacturer
- Ready for the Energy Journey of your own: extendable with battery modules and FEMS apps



(8.4 kWh system variant)

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

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System, battery module and inverter

SYSTEM

Product warranty	10 years

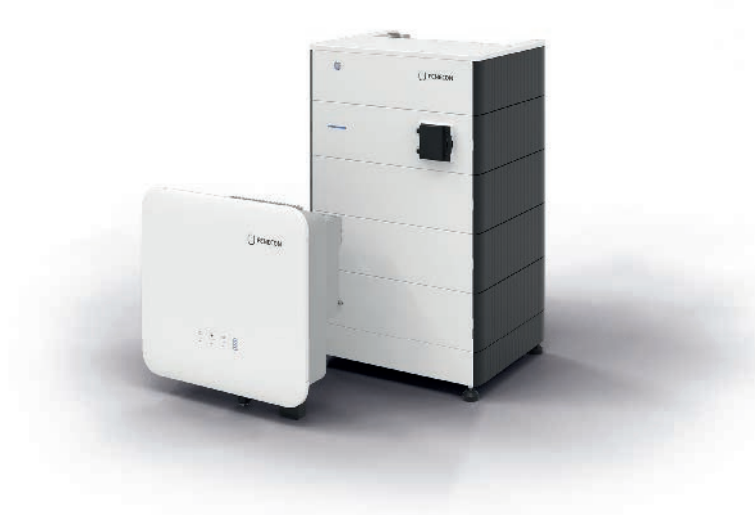
Installation / Ambient conditions

IP classification	IP55
Operating altitude in m	≤ 2,000
Installation temperature in °C	-35 to +60
Operating temperature in °C*	-20 to +55
Optimal battery operating temperature in °C*	+15 to +30
Max. grid connection in A	120

* Outside the optimum operating range, charging/discharging power is reduced.

Certifications / Guidelines

Overall system	CE
Inverter	VDE 4105:2018-11 TOR generator type A 1.1
Battery	UN38.3 VDE 2510-50 EMC; IEC62619



BATTERY

Cells 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
Extendable	Yes
Tower width | Tower depth in mm	506 | 401
Capacity warranty*	12 years or 6,000 cycles

* For more information, please refer to our warranty terms and conditions at www.fenecon.de

INVERTER

Modul	Home 6 FINV-6-2-DAH	Home 10 FINV-10-2-DAH	Home 15 FINV-15-2-DAH

DC connection

Max. DC input power in kWp	9	15	22.5
Number of MPP trackers	2	3	3
Number of inputs per MPPT	1 (MC4)		
MPPT start-up voltage in V	150		
Max. DC input voltage in V	1,000		
MPPT operating voltage range in V	120 up to 850		
Nominal input voltage in V	620		
Max. input current per MPPT in A	16		
Max. short circuit current per MPPT in A	24		
Max. charging/discharging in kW	6	10	15

AC connection

Grid connection	400/380 V, 3L/N/PE, 50/60 Hz		
Max. output current (400 V) in A	8.7	14.5	21.7
Max. input current (400 V) in A	15.7	26.1	26.1
Nominal apparent power output in VA	6,000	10,000	15,000
Max. apparent power output in VA	6,000	10,000	15,000
Max. apparent power from the grid in VA	7,200	12,000	18,000
Cos(Phi)	-0.8 to +0.8		

Back-up power

Back-up power capability	Yes		
Grid shape	400/380 V, 3L/N/PE, 50/60 Hz		
Max. back-up load (per phase) in VA	6,000 (2,000)	10,000 (3,333)	15,000 (5,000)
Unbalanced load in VA	2,000	3,333	5,000
Black start	Yes		
Solar recharging	Yes		

Efficiency

Max. efficiency in %	98.2		
European efficiency in %	97.2%	97.5%	97.5%

General information

Dimensions (W|D|H) in mm	496 | 221 | 460		
Weight in kg	23	25	25
Topology	Non-isolated		
DC-surge protection	Type 2		
Inputs for ripple control receiver	Yes		
Cooling	Natural Convection		

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System configuration

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BATTERY VARIANTS

Number of modules per tower	3	4	5	6	7	8	9	10	11	12	13	14
Nominal capacity in kWh												
1 tower with x modules	8.6	11.4	14.3	17.2	20.0	22.9	25.8	28.7	31.5	34.4	37.3	40.1
2 towers, each with x modules						45.9	51.6	57.4	63.1	68.8	74.6	80.3
3 towers, each with x modules									94.7	103.3	111.9	120.5
4 towers, each with x modules										137.7	149.2	160.7
Usable capacity in kWh*												
1 tower with x modules	8.4	11.2	14.0	16.8	19.6	22.4	25.2	28.0	30.8	33.6	36.4	39.2
2 towers, each with x modules						44.8	50.4	56.0	61.6	67.2	72.8	78.4
3 towers, each with x modules									92.4	100.8	109.2	117.6
4 towers, each with x modules										134.4	145.6	156.8
Nominal power in kW**												
Nominal power in kW (6 kW WR)	4.03	5.38	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Nominal power in kW (10 kW WR)	5.38	7.17	8.96	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Nominal power in kW (15 kW WR)	5.38	7.17	8.96	10.75	12.54	14.34	15.00	15.00	15.00	15.00	15.00	15.00
Weight in kg												
1 tower with x modules	127	157	187	217	247	277	307	337	367	397	427	457
2 towers, each with x modules						554	614	674	734	794	854	914
3 towers, each with x modules									1,101	1,191	1,281	1,371
4 towers, each with x modules										1,588	1,708	1,828
Approx. height tower in mm	834	977	1.120	1.263	1.406	1.549	1.692	1.835	1.978	2.121	2.264	2.407

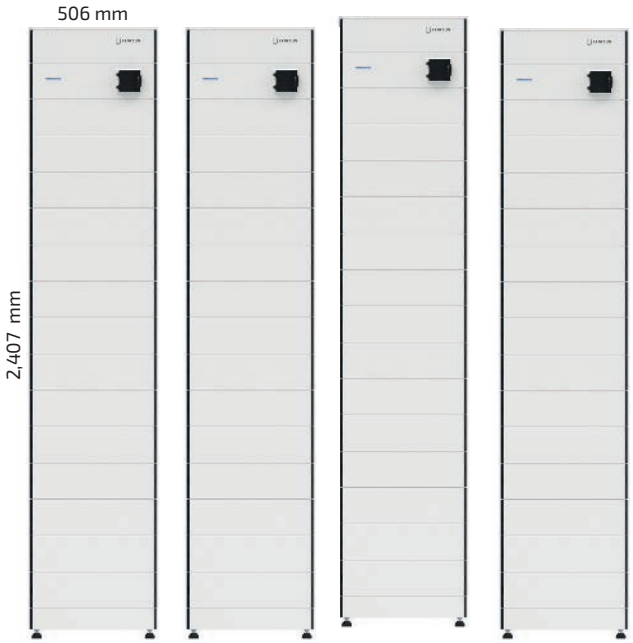
* From DC side at 25°C and 0.2 C
** Average power at nominal voltage; actual power depends on other factors such as state of charge, ambient temperature, cells temperature and residual capacity

AVU (optional)

Inverter

Compatible with Home 6 & 10

System variant - 4 towers each with 14 modules



System variant - 1 tower with 3 modules

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FEMS Energy Management System

Hardware interfaces

Inputs	4 digital inputs
Outputs (FEMS relay board)	3 load switch contacts (10 A per channel & measured) 2 potential-free contacts 1 analog Output (0 to 10 V)
Parallel connection	CAN
Communication of components	RS485 – Modbus RTU

Communication interfaces

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

Basis & Sustainability

Operating System	FEMS based on OpenEMS (Open Source)
Classification	OpenEMS Ready Gold
Updates	Unrestricted, automatical and free of charge
Feed-in-management	0% to 100%

Advanced charging and discharging strategy

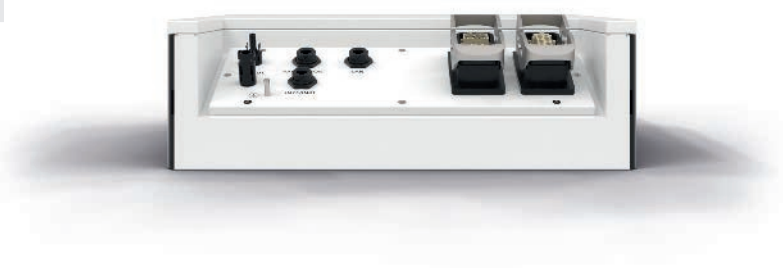
Grid optimized charging	Standard
Time-off-use tariffs	Optional (compatible electricity tariff required)

Options for sector coupling

Heating element control	Optional
Heat pump control „SG-Ready“	Optional
Threshold control	Optional
Manual relay control	Optional
Wallbox control	Optional
Control of several wallboxes	Optional

Production & consumption monitoring

Integration of external producers or consumers	Optional
Metering (max. 120 A)	Internal energy meter included in standard scope of delivery (length: 10 m); External energy meter (length: 100 m) optional



FEMS App Center

Easy installation of energy management apps

FEMS apps are important building blocks of the future energy world, where users can adapt their FENECON energy storage system according to their individual needs.

- Use the advantages of FEMS on your energy journey even more efficiently with FENECON
- Simply download apps and install them via license key
- Fast and convenient installation process

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