

FENECON Commercial 30

Commercial battery energy storage system
with back-up power supply



Variable. Adaptable. Robust.

- Powerful battery
- Efficient inverter
- Open-source based energy management FEMS

Complete integrated system

- AC power output: from 30 to 90 kW
- Capacity: scalable from 31.5 up to 357.0 kWh
- Modular expandable in capacity and power
- Back-up power*
- Including 3-phase sensor for the grid-connection point
- Sector coupling: heat, e-mobility

* with optional grid disconnection unit

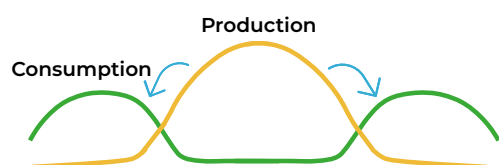


(30 kW / 35 kWh configuration)



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FERESTO

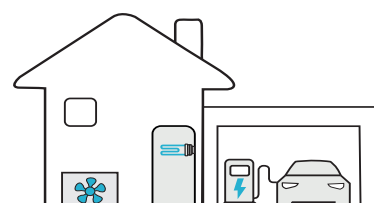
Self-consumption optimization



Back-up power



Activate sector coupling over-the-air



FENECON Commercial 30

System and inverter



SYSTEM

Product warranty	5 years
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Installation / Ambient conditions

PV connection	AC
Grid connection	400/380 V, 3L/N/PE, 50/60 Hz
IP classification	21
Operating altitude in m	<= 2,000
Installation/Operating temperature in °C	0 to +55
Battery operating temperature* in °C	0 to +40
Optimal battery operating temperature in °C	+15 to +30

Certifications / Guidelines

Overall system	CE
Inverter	VDE 4105:2018-11 TOR Erzeuger Typ A 1.0 OVE-Richtlinie R25 EN 50549-1:2019
Battery	UN38.3 IEC 62619:2017

* At cells temperature outside the optimum operating range, the charging and discharging power is reduced.



(30 kW / 59.5 kWh configuration)



INVERTER

Sinexcel (PWS2-30M-EX/CN)

AC connection

Grid connection	400/380 V, 3L/N/PE, 50/60 Hz
Max. output current in A	43.5
Nominal AC output power in kW	30
Max. AC output power in kW	33

Back-up power

Back-up power capability*	Yes (with grid disconnection unit)
Grid shape	400/380 V, 3L/N/PE, 50/60 Hz
Max. back-up load in kW	30
Unbalanced load in kW	10
Black start	No
Solar recharging	No

Efficiency

Max. efficiency in %	97.3
European efficiency in %	96.5

General information

IP classification	21
Dimensions** (W D H) in mm	600 225 910
Weight** in kg	79.5

* Back-up power only available for setup with one inverter (30 kW).

** Inverter incl. housing

More details: see Sinexcel data sheet

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Battery and system configuration



BATTERY

Cells technology	Lithium Iron Phosphate (LiFePO4)
Module weight in kg	37.5
Nominal module capacity in kWh	3.84
Usable module capacity in kWh	3.5
Extendable	Yes
Battery rack dimensions (W D H) in mm	625-1250 430 2281
Weight of battery rack (empty) in kg	54
Capacity guarantee*	12 years or 6,000 cycles



SYSTEM VARIANTS

Single inverter system - Nominal power 30 kW**

Number of modules per system	9	10	11	12	13	14	15	16	17
Usable capacity in kWh	31.5	35	38.5	42	45.5	49	52.5	56	59.5

Battery side parallel connection - Nominal power 30 kW**

Number of modules per system	18	20	22	24	26	28	30	32	34
Usable capacity in kWh	63	70	77	84	91	98	105	112	119

Inverter side parallel connection - Nominal power 60 kW**

Number of modules per system	18	20	22	24	26	28	30	32	34
Usable capacity in kWh	63	70	77	84	91	98	105	112	119

Inverter side parallel connection - Nominal power 90 kW**

Number of modules per system	27	30	33	36	39	42	45	48	51
Usable capacity in kWh	94.5	105	115.5	126	136.5	147	157.5	168	178.5

Inverter and battery side parallel connection - Nominal power 60 kW**

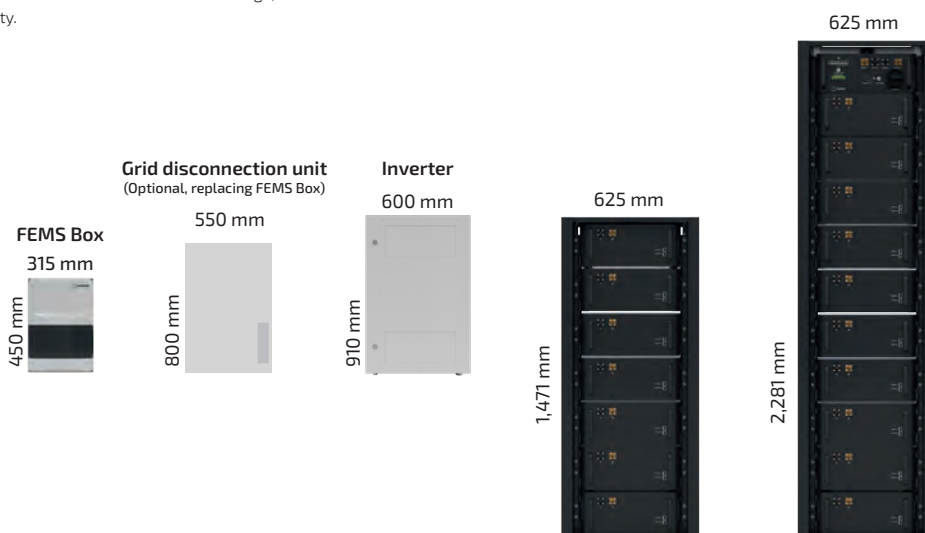
Number of modules per system	36	40	44	48	52	56	60	64	68
Usable capacity in kWh	126	140	154	168	182	196	210	224	238

Inverter and battery side parallel connection - Nominal power 90 kW**

Number of modules per system	54	60	66	72	78	84	90	96	102
Usable capacity in kWh	189	210	231	252	273	294	315	336	357

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

** Average power at nominal voltage; actual power depends on other factors such as state of charge, ambient temperature, cells temperature and residual capacity.



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FEMS energy management system



Hardware

	FEMS-Box	Grid disconnection unit*
Dimensions (W/D/H) in mm	315 155 450	550 160 800
Weight in kg	4.5	23
Outputs (FEMS relay board)	5 x load switch contacts (10 A per channel)	
Parallel connection	CAN	
Communication of components	RS485 – Modbus RTU / RJ45 – Modbus TCP IP	

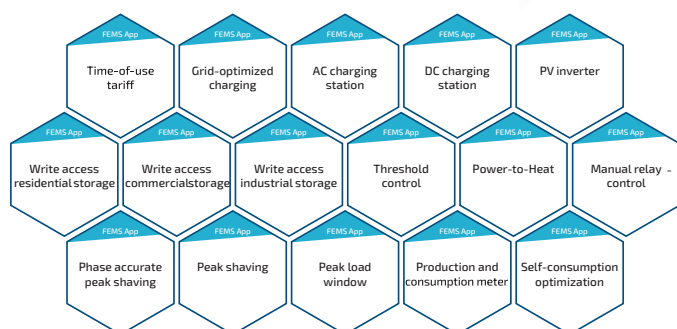
Communication interfaces

Connection to internet	LAN
Local	Modbus/TCP-API (read, optional write), REST-API (read, optional write)
Online	Cloud-Rest-API (read, optional write)

Basis and sustainability

Operating system	FEMS (based on OpenEMS)
Classification	OpenEMS Ready Gold
Updates	Unrestricted, automatic and free of charge

* Optional: for backup-power



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
- Purchase apps optionally as bundle
- Fast and convenient installation process

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