



PRO Hybrid

Technical features

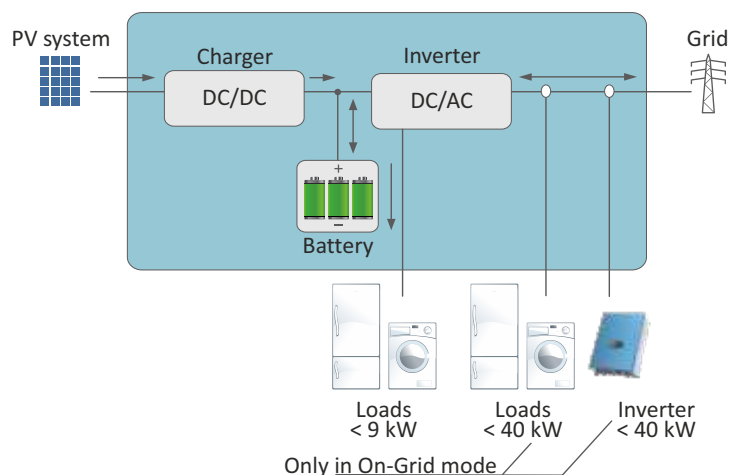
- **LiFePO₄** battery technology – offers maximum security with usable capacity of **8,5 kWh, 17 kWh or 25,5 kWh**
- **Hybrid** (both-sided) **charging** of the battery from AC and DC sources
- Load-supply via **three integrated bidirectional inverters**
- **Three-phase alternating current** in On/Off-Grid mode
- Designed for **parallel generation** as well as for **island-mode** (Recharging of battery using DC-PV-system in the event of a power failure)
- Max. generator connected power:
40 kW AC connection and 2 x 4 kW DC connection

The FENECON by BYD **PRO Hybrid** is a compact and intelligent system for storage of electrical energy in order to increase the personal electricity **self-consumption** and **self-coverage**.

Hybrid stands for the possibility to use AC and DC generators to charge the **lithium iron phosphate battery** as well as the possibility to supply two separate, independent load outputs.

The storage system offers highest flexibility in connecting **PV installations, windmills and block heating stations**.

System structure



Product designation

DESS P09 B10 - HC08

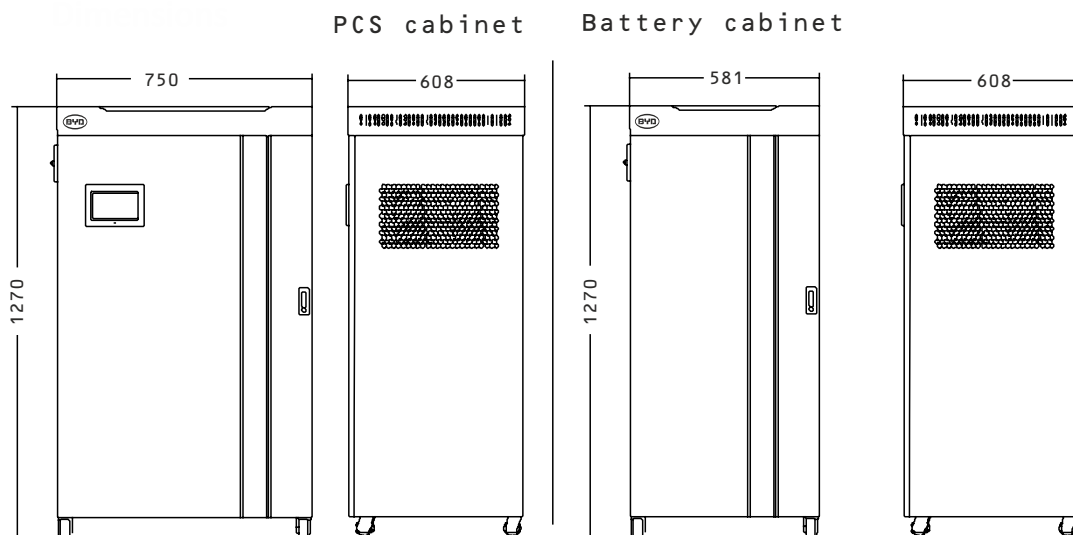
Hybrid; 8 kW charger performance for DC connection (PV module)

10 kWh battery capacity

3 x 3 kW charge/discharge capacity (three-phase)

Distributed Energy Storage System

Your energy storage expert:



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Technical parameters according to manufacturer

		PRO Hybrid 9-10	PRO Hybrid 9-20	PRO Hybrid 9-30
System type		DESS P09B10-HC08	DESS P09B20-HC08	DESS P09B30-HC08
Max. output current		3 x 30 A (small load) / 3 x 63 A (big load)		
Max. AC generator power		40 kW (charger power max. 9 kW)		
Inverter	Nominal output	3 x 3 kVA		
	Nominal voltage	230 V / 400 V		
	Frequency	47,5 - 51,5 Hz		
	Max. output current	3 x 13,1 A		
	Power factor (cos ϕ)	0,9 (inductive) - 0,9 (capacitive)		
	Efficiency	93 %		
	Switching time UPS	< 200 ms		
	THD	< 4 % (current in grid mode), < 2 % (voltage in island mode)		
PV Charger	PV output	2 x 5 kWp		
	Open-circuit voltage	65 - 145 V _{DC}		
	MPP voltage	70 - 120 V _{DC}		
	MPP tracker	2		
	Max. input current	2 x 64 A		
	Efficiency	97,3 %		
Battery	Nominal voltage	51,2 V _{DC}		
	Cell type	LiFePO ₄		
	No. of cycles	6.000 (until 80 % residual capacity)		
	Capacity	10 kWh	20 kWh	30 kWh
	Depth of discharge DOD	85 %		
	Battery management	Yes		
	Active balancing	Yes		
Warranty FENECON	5 years complete product warranty, 10 years 80% time value replacement warranty according to KfW-terms, 12 years or 6,000 cycles capacity warranty till 70% residual capacity			
Certifications	CE, low voltage directive (VDE-AR-N 4105), type test (IEC 62109-1:2010), EMC (EN 61000-3-3:2008, EN 61000-3-2:2009, EN 55022:2010), dangerous goods (UN 38.3)			
Interfaces	RS485, Ethernet			
IP protection class	IP 20			
Temperature range	0 - 45 °C			
Humidity	10 - 90 %			
Altitude above mean sea level	< 2.000 m			
Max. sound level	65 dB			
Dimensions (W/D/H)	PCS	750 x 608 x 1.270 mm		
	Battery	581 x 608 x 1.270 mm	2 * 581 x 608 x 1.270 mm	3 * 581 x 608 x 1.270 mm
Weight	PCS + Battery	210 kg + 206 kg	210 kg + 2 * 206 kg	210 kg + 3 * 206 kg