

FullSet Extreme energy storage and management system data sheet

FullSet Extreme is an industrial, high-voltage energy storage system based on durable lithium-ion cells.

It guarantees stability in the operation of your business - **uninterrupted access to energy**, even in the event of blackout, **economy** - the possibility of reducing the power ordered (thanks to the reduction of current peaks) **and energy independence** - using up to 100% of the resources produced by the PV installation.



FullSet Monolith 265.50h

FullSet is a complete system:
energy storage + hybrid inverter

Why choose FullSet?



Durability

≥8000 cycles of charge and discharge; more than 20 years of service under standard conditions



Warranty

Up to 10 years warranty



BMS

Battery management system that controls the efficiency of the device



Safety

The products meet European safety standards and are certified



Expandability

Possibility to expand the system with additional energy storages or inverters



Off grid

Use energy during a power failure

High-voltage
energy storage system

FullSet Monolith 265.50h

265 kWh / 50 kW



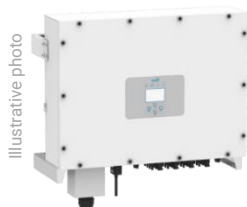
Technical specification of 265 kWh energy storage

Nominal energy	265 kWh
Dimensions (height x width x depth)	2000 mm x 1800 mm x 1180 mm
Estimated weight	~3000 kg
Output voltage range	500 VDC ÷ 750 VDC
Maximum discharge current @ 25°C	150 A
Maximum charge current @ 25°C	150 A
Certifications	UN38.3; CE
Operating temperature range	0°C ... +55°C
Recommended temperature	25°C
Communication interface ¹	CAN Bus, Modbus TCP
IP class	20IP
High-current connection between battery blocks	Wire connection
Cycle life	≥8000 ²
Level of discharge (DoD)	80%
Battery chemistry	Li-ion NMC
Installation	In a closed facility
Warranty	Up to 10 years

¹ Depending on customer needs, it is possible to order CAN Bus, Modbus RTU and Modbus TCP simultaneously. CAN bus communication is adaptable according to customer requirements.

² At DoD=100%, the number of cycles is ≥ 6000.

The control system of the energy storage system does not need an external power supply.



Technical specifications of 50 kW hybrid inverter

Battery Input Data

Battery Type	Li-Ion
Battery Voltage Range	200 V~700 V
Max. Charging Current	50 A + 50 A
Max. Discharging Current	50 A + 50 A
Number of battery input	2
Charging Curve	3 Stages / Equalization
Charging Strategy for Li-Ion Battery	Self-adaption to BMS

PV String Input Data

Max. DC Input Power	65 000 W
Max. DC Input Voltage	1000 V
Start-up Voltage	160 V
MPPT Range	200 V-850 V
Min. DC Input Voltage	150 V
Full Load DC Voltage Range	450 V-850 V
Rated DC Input Voltage	625 V
PV Input Current	36 A + 36 A + 36A + 36 A
Max. PV ISC	50 A + 50 A + 50 A + 50 A
Number of MPPT / Strings per MPPT	4/2 + 2 + 2 + 2

AC Output Data

Rated AC Output and UPS Power	50 000 W
Max. AC Output Power	55 000 W
AC Output Rated Current	75,8 A
Max. AC Current	83,3 A
Max. Continuous AC Passthrough	100 A
Peak Power (off grid)	2 time of rated power, 10 S
Generator input / Smart load / AC couple current [A]	75,8 / *180 / 75,8
Power Factor	0.8 leading to 0.8 lagging
Output Frequency and Voltage	50/60 Hz; 3L/N/PE 220/380, 230/400 Vac
Grid Type	Three Phase
DC injection current [mA]	<0.5%1n

Efficiency

Max. Efficiency	97,6%
Euro Efficiency	97,0%
MPPT Efficiency	99,9%

Technical specifications of 50 kW hybrid inverter

Protection	
Integrated	PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection
Output Over Voltage Protection	DC Type II/AC Type III
Certifications and Standards	
Grid Regulation	CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98, VDE 0126-1-1, RD 1699, C10-11
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2
General Data	
Operating Temperature Range	-45°C~60°C, >45°C derating
Cooling	smart cooling
Noise (dB)	<45 dB
Communication with BMS	RS485; CAN
Weight	60,0 kg
Size (W x H x D)	560,5 mm x 837,0 mm x 319,0 mm
Protection Degree	IP65