

Power
>0.25MW

Capacity
>0.28MWh

Reaction time
<500ms

Lifetime
15+years

The **SOLIS** product line (which represents one of the 4 great elements = sun) is the medium battery energy storage system series designed for use and operation in the most demanding conditions.

The whole line is built on a highly-modular principle, which allows you to adapt to the client's requirements during the first installation and continuously according to his changing needs, or the phasing of his own development.

The modular principle ensures the preparation of all parts within our own production plant, where the system is delivered, connected and revived without significant work on site, thus enabling fast start-up and use of all functionalities.

KEY FEATURES



Own developed control system with machine learning algorithms



Control system and the entire version ready for deployment on functionalities thanks to its own comprehensive control software



Modular concept with prepared elements for fast delivery & ready to operation



Top technology that ensures a high number of cycles and low degradation of the system at a very high overall round trip efficiency



24/7 monitoring and tracking key performance indicators to ensure high availability (up to 99.5%), operational reliability and low service costs

KEY APPLICATION

Local photovoltaics & wind power plants, cooperation with local resources as cogeneration units, large office buildings, industry sites, large electromobility charging hubs

PERFORMANCE PARAMETERS

POWER OUTPUT	Parameter	Value
POWER OUTPUT	Nominal power	85-1020kW
	Manufacturer	MR reinhausen
	AC output voltage	400V+-10%
	Nominal frequency	50Hz
	Max load capability	100%
	Cos fi (adjustable)	0-1-0
	Efficiency	>97.6%@Pmax,25°C
	Cooling type	forced air
BATTERY BLOCK	Parameter	Value
BATTERY BLOCK	Nominal capacity	279.5kW/unit
	Manufacturer	CATL
	Chemistry type	LFP (LiFePo ₄)
	C-rate	up to 1.0
	Battery cell type	280Ah
	Depth of discharge	100%
	Guaranteed cycle life	6000@95%DoD
	Residual capacity	80%
	RTE efficiency	>93%
	Fire safety system	heptafluoropropane
Cooling type	liquid (water/glycol)	
Size (D*W*H)	1300*1300*2280mm	
Weight	2850kg	
SYSTEM PARAMETERS	Parameter	Value
SYSTEM PARAMETERS	Reaction time	<500ms
	Ramp up time	<1s
	Connectivity	LTE/ethernet
	Total RTE efficiency	>89.5%
	Connectivity	LTE/ethernet
	Protocol	Modbus, m-bus, RS485
	Grid standard	ENTSO-E compliance

SYSTEM FUNCTIONALITIES

- Peak shaving
- Cooperation with PV&WPP
- Ancillary services
- Price arbitrage
- Power quality optimization (cos fi, harmonics filtering, active balancing, voltage control)
- Backup / grid forming
- Island grid

MECHANICAL SPECIFICATIONS

Standard color scheme	RAL7035 (option to any RAL colour scheme design)
System size	20" / 1.1MWh
	30" / 1.6MWh
	40" / 2.2MWh

ENVIRONMENTAL SPECIFICATIONS

Operating temperature	-20/+40°C
Operating altitude	<1000m
Environment	outdoor
Ingress rating	IP55+
Noise level	<40dB@5m
Operating humidity (RH)	<95%

STANDARD SCOPE OF DELIVERY

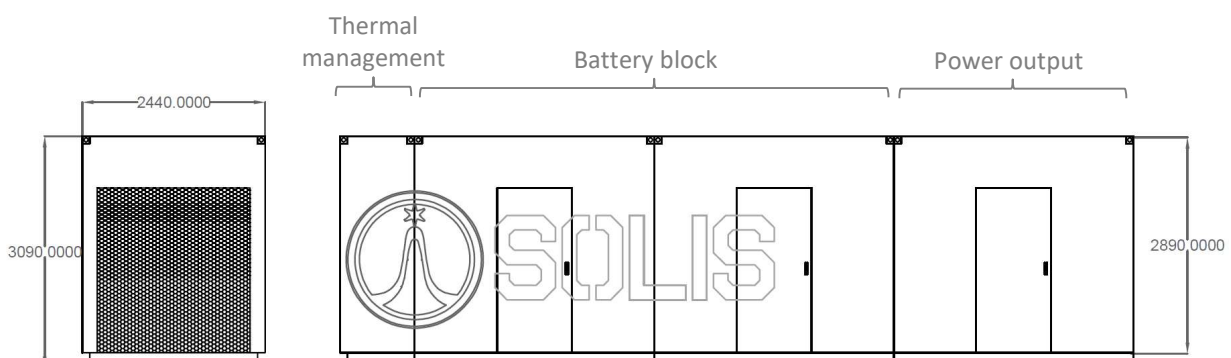
Isolated containers, temperature management, fire safety system, intruder alarm, energy management system, HVAC/chiller, MID standard power metering, backup UPS, photovoltaics on roof for own consumption, communication interface, AC grid protection unit, battery racks, inverter units, all cabling, commissioning, first set-up functionalities with client, related engineering for project design

WARRANTY

Technical service life	15+years
Degradation warranty	8years
Technology warranty	3-8years

CERTIFICATION

EN50178, EN61439-1-2, EN61000-6-2, EN61000-6-4, EN55011, UN38.3, UL1973, UL9540A, EN62619, EN62477-1,



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