

CELL POWER

CESS 102 - 50

This Energy Storage System is a cutting-edge solution designed to revolutionize the way energy is stored and utilized.

With a high energy density of 102,4 kWh – 50 kW in a relatively small outdoor cabinet, the ESS boasts a compact and space-efficient design, optimizing its footprint while ensuring maximum storage capacity. The ESS is built with Lithium Iron Phosphate (LFP) batteries, renowned for their exceptional safety and longevity. With an impressive lifespan of 5000 cycles, the batteries offer sustained reliability, making them an ideal choice for long-term energy storage needs. With the ability to seamlessly integrate additional modules, the system can be easily scaled up to meet growing energy storage requirements, making it an ideal choice for both current and future needs.



Safety is a paramount topic, the ESS addresses this with a fire suppression system, extensive certifications and the use of one of the safest battery technologies: LFP. This system significantly reduces the risk of fire by actively monitoring and suppressing any potential hazards, providing added peace of mind and safeguarding the integrity of the stored energy. Maintenance of the ESS is made easy with its accessible design, allowing for convenient and safe inspection, servicing, and troubleshooting.



Superior Quality

Highly compact cabinets and containers with LFP technology offer superior energy density. Long-life: ≥ 6000 cycles and 15 years expectancy (70% EOL).



Extensive Experience

Over 35 years of battery knowledge and 10+ years of experience with lithium technology. Expert in manufacturing custom-made energy storage systems.



Turnkey systems

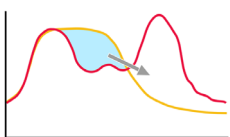
We deliver our systems plug-and-play. This means pre-assembling, pre-testing, and full integration of all the components in the Netherlands. <1 day installation time.



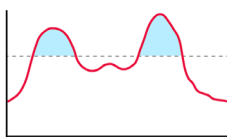
Robust safety

Ultimate protection due to superior thermal stability, dual fire protection safeguards (battery pack and cabinet). PGS 37-1 compliant.

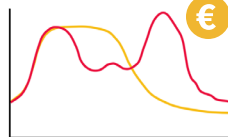
Possible applications



**SELF-CONSUMPTION
OPTIMISATION**



PEAK-SHAVING



TRADING

CELL POWER

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GENERAL INFORMATION

Dimensions (LxWxH)	1100 x 1460 x 2380mm
Weight	~1500kg
Housing	Outdoor cabinet
Anti corrosion level	C4
Noise level	≤75dB
Protection rating	IP54
Operating temperature	-30°C ~ +50°C
Relative humidity	5% ~ 95% (Non-condensing)
Maximum operating altitude	4000m (>3000m derating)
Thermal management system	Intelligent air cooling
EMS functionality	Peak-shaving, optimized self consumption, energy trading (optional, controlled externally)
Communication interface	TCP IEC104, MODBUS TCP/RTU
Off-grid capability	Yes, ATS required

BATTERY

Battery technology	LFP (LiFePO4/ Lithium Iron Phosphate)
Nominal Energy	102,4 kWh
Nominal Capacity	200 Ah
Nominal Voltage	512V
Voltage range (min. - Max.)	448V ~ 565V
Cycle life @0.5C / 25°C	≥5000 cycles
DoD	90%

SAFETY

Fire suppression system	Double (batterypack and cabinet) fire suppression system
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WARRANTY & CERTIFICATES

Warranty	5 years
Certificates battery	IEC62619-2017; UN38.3; IEC61000-6-2/4
Certificates inverter	IEC62477; IEC61000; CE; GB/T; IEC62109; IEC61683; IEC60068; IEC61727; IEC62116; EN50549; VDE4105; G99

EXAMPLE CONFIGURATIONS

2 pcs	204,8 kWh - 100 kW
3 pcs	307,2 kWh - 150 kW
4 pcs	409,6 kWh - 200 kW
x pcs in parallel maximum	2048 kWh - 1MW
	20 pcs in parallel maximum

INVERTER

Rated / nominal AC power	50 kW
Maximum AC power	55kVA
Grid voltage	400V
Grid voltage range	340V ~ 440V
AC current	80A
THD	<3% v (100% Load)
AC power factor	-1 (Lagging) ~ 1 (Leading)
AC frequency	50/60Hz ± 5HZ
Max efficiency	97.5%

PV SIDE

Max. Input Voltage	1000V
MPPT Voltage Range	350V~800V
Max. Current per MPPT	36A
Number of MPPT	3
Number of Inputs Per MPPT	2

