

CELL POWER

Energy Storage Systems



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.

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Energy Storage Systems

Revolutionize your energy storage with our cutting-edge ESS Solutions. Designed to transform the way you store and utilize energy, our ESS solutions range from 100 to 3440 kWh, all within a compact and space-efficient cabinet or container. This optimized footprint ensures maximum storage capacity with high energy density, making our ESS the perfect fit for any space.

Our ESS systems are powered by Lithium Iron Phosphate (LFP) batteries, renowned for their exceptional safety and longevity. With an impressive lifespan of over 6,000+ cycles, these batteries provide sustained reliability, making them ideal for long-term energy storage needs. Plus, with the ability to seamlessly integrate additional modules, our ESS can easily scale to meet your growing energy requirements, ensuring you're prepared for both current and future demands.

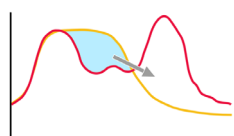
Safety is our top priority. Our ESS solutions are equipped with advanced fire suppression systems, extensive certifications like



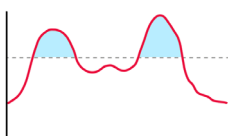
the UL 9540A, and the safest lithium battery technology: LFP. These features significantly reduce the risk of thermal runaway by actively monitoring and suppressing potential hazards, providing you with peace of mind and safeguarding the integrity of your stored energy.

Maintenance is a breeze with our accessible design, allowing for convenient and safe inspection, servicing, and troubleshooting. Experience the perfect blend of innovation, safety, and reliability with our high-quality ESS solutions.

Possible applications



**SELF-CONSUMPTION
OPTIMISATION**



PEAK-SHAVING

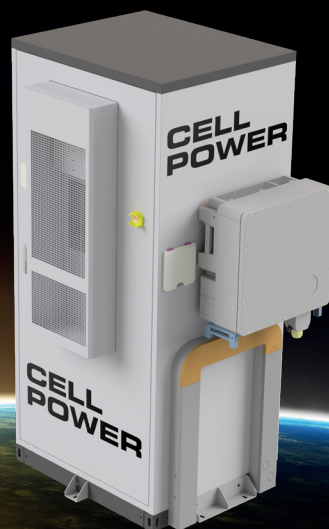


TRADING



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CESS 102 - 50



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

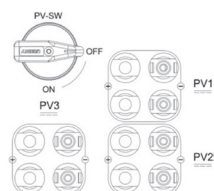
2 pcs	204,8 kWh - 100 kW
3 pcs	307,2 kWh - 150 kW
4 pcs	409,6 kWh - 200 kW
x pcs in parallel maximum	2048 kWh - 1MW
	20 pcs in parallel maximum

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



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CESS 233 - 116



GENERAL INFORMATION

Dimensions (LxWxH)	1300 x 1300 x 2374 mm
Weight	~2900kg
Housing	Outdoor cabinet
Anti corrosion level	C5
Noise level	≤75dB
Protection rating	IP55
Operating temperature	-30°C ~ +50°C
Relative humidity	20% ~ 85% (Non-condensing)
Maximum operating altitude	2000m (No derating)
Thermal management system	Liquid cooling
EMS functionality	Peak-shaving, optimized self consumption, energy trading
Communication interface	MODBUS TCP/RTU
Off-grid capability	No

INVERTER

Rated / nominal AC power	116 kW
Maximum AC power	138kVA
Grid voltage	400V
Grid voltage range	340V ~ 440V
AC current	180A
THD	<1,5% v (100% Load)
AC power factor	-1 (Lagging) ~ 1 (Leading)
AC frequency	50/60Hz ± 5HZ
Max efficiency	98.3%

BATTERY

Battery technology	LFP (LiFePO4/ Lithium Iron Phosphate)
Nominal Energy	232,96 kWh
Nominal Capacity	280 Ah
Nominal Voltage	832V
Voltage range (min. - Max.)	728V ~ 923V
Cycle life @0.5C / 25°C	≥6000 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	UN38.3; IEC 62619; UL 9540A
Certificates inverter	CE; IEC 62477; EN 50549-2:2019; EN 61000

EXAMPLE CONFIGURATIONS

2 pcs	466 kWh - 233 kW
3 pcs	699 kWh - 348 kW
4 pcs	932 kWh - 464 kW
x pcs in parallel maximum	2330 kWh - 1160 kW
	Unlimited expandability

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CESS 280 - 125



GENERAL INFORMATION

Dimensions (LxWxH)	1300 x 1300 x 2374 mm
Weight	~3250kg
Housing	Outdoor cabinet
Anti corrosion level	C5
Noise level	≤75dB
Protection rating	IP55
Operating temperature	-30°C ~ +50°C
Relative humidity	20% ~ 85% (Non-condensing)
Maximum operating altitude	2000m (No derating)
Thermal management system	Liquid cooling
EMS functionality	Peak-shaving, optimized self consumption, energy trading
Communication interface	MODBUS TCP/RTU
Off-grid capability	No

INVERTER

Rated / nominal AC power	125 kW
Maximum AC power	138kVA
Grid voltage	400V
Grid voltage range	340V ~ 440V
AC current	180A
THD	<1,5% v (100% Load)
AC power factor	-1 (Lagging) ~ 1 (Leading)
AC frequency	50/60Hz ± 5HZ
Max efficiency	98.3%

BATTERY

Battery technology	LFP (LiFePO4/ Lithium Iron Phosphate)
Nominal Energy	279,55 kWh
Nominal Capacity	280 Ah
Nominal Voltage	998,4V
Voltage range (min. - Max.)	873,6V ~ 1107,6V
Cycle life @0.5C / 25°C	≥6000 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	UN38.3; IEC 62619; UL 9540A
Certificates inverter	CE; IEC 62477; EN 50549-2:2019; EN 61000

EXAMPLE CONFIGURATIONS

2 pcs	560 kWh - 250 kW
3 pcs	840 kWh - 375 kW
4 pcs	1120 kWh - 500 kW
x pcs in parallel maximum	2800 kWh - 2500 kW
	Unlimited expandability

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CESS 372



GENERAL INFORMATION

Dimensions (LxWxH)	1300 x 1300 x 2374 mm
Weight	~3850kg
Housing	Outdoor cabinet
Anti corrosion level	C5
Noise level	≤75dB
Protection rating	IP55
Operating temperature	-30°C ~ +50°C
Relative humidity	20% ~ 85% (Non-condensing)
Maximum operating altitude	2000m (No derating)
Thermal management system	Liquid cooling
EMS functionality	Depends on EMS
Communication interface	CAN, MODBUS TCP/RTU
Off-grid capability	Depends on PCS

BATTERY

Battery technology	LFP (LiFePO4/ Lithium Iron Phosphate)
Nominal Energy	372,7 kWh
Nominal Capacity	280 Ah
Nominal Voltage	1331,2V
Voltage range (min. - Max.)	1164,8 ~ 1497,6V
Cycle life @0.5C / 25°C	≥6000 cycles
DoD	90%

SAFETY

Fire suppression system	Double (batterypack and cabinet) fire suppression system
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INVERTER

Compatible with CBI 215-1725

WARRANTY & CERTIFICATES

Warranty	5 years
Certificates battery	UN38.3; IEC 62619; UL 9540A
Certificates inverter	n.v.t.

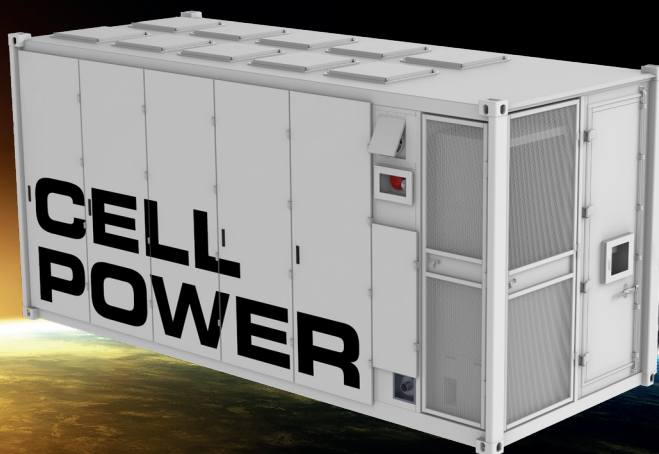
EXAMPLE CONFIGURATIONS

2 pcs	744 kWh
3 pcs	1116 kWh
4 pcs	1488 kWh
x pcs in parallel maximum	2236 kWh
6 pcs to one PCS maximum	



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CESS 3440



GENERAL INFORMATION

Dimensions (LxWxH)	6058 x 2438 x 2896mm
Weight	~37000kg
Housing	20ft high cube container
Anti corrosion level	C5
Noise level	≤80 dB
Protection rating	IP54
Operating temperature	-20°C ~ +50°C
Relative humidity	5% ~ 95% (Non-condensing)
Maximum operating altitude	2000m (No derating)
Thermal management system	Liquid cooling
EMS functionality	Depends on EMS
Communication interface	CAN, MODBUS TCP/RTU
Off-grid capability	Depends on PCS

BATTERY

Battery technology	LFP (LiFePO4/ Lithium Iron Phosphate)
Nominal Energy	3440 kWh
Nominal Capacity	2800 Ah
Nominal Voltage	1228,8V
Voltage range (min. - Max.)	1075,2 ~ 1363,2V
Cycle life @0.5C / 25°C	≥6000 cycles
DoD	90%

SAFETY

Fire suppression system	Double (batterypack and cabinet) fire suppression system
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INVERTER

Compatible with CBI 215-1725

WARRANTY & CERTIFICATES

Warranty	5 years
Certificates battery	UN38.3; IEC 62619; UL 9540A
Certificates inverter	n.v.t.

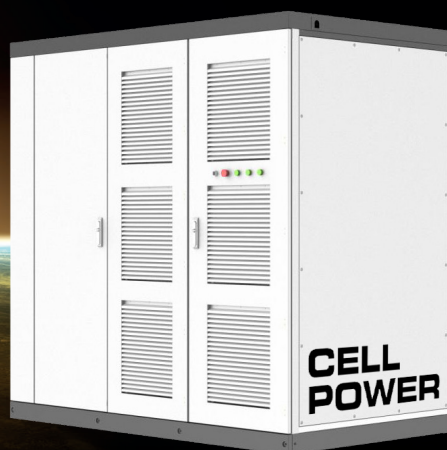
EXAMPLE CONFIGURATIONS

2 pcs	6880 kWh
3 pcs	10320 kWh
4 pcs	13760 kWh
x pcs in parallel maximum	34400 kWh
	Unlimited expandability



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CBI 215 - 1725



GENERAL INFORMATION

Dimensions (LxWxH)	2200 x 1300 x 2160mm
Weight	~ 1300 / 1400 / 1500 / 1600 / 1700 / 1800 / 1900 / 2000 kg
Housing	Outdoor cabinet
Anti corrosion level	C4
Noise level	≤75dB
Protection rating	IP55
Operating temperature	-20°C ~ +60°C (>45°C derating)
Relative humidity	5% ~ 95% (Non-condensing)
Maximum operating altitude	3000m (>3000m derating)
Thermal management system	Air fan cooling
EMS functionality	N/A
Communication interface	TCP IEC104, MODBUS TCP/RTU, IEC61850
Off-grid capability	Yes, ATS required

BATTERY

Compatible with CESS 372, CESS 3440 & CESS 5015

INVERTER

Rated / nominal AC power	215 / 431 / 646 / 862 / 1078 / 1293 / 1509 / 1725 kVA
Maximum AC power	1897 kVA
Grid voltage	690V
Grid voltage range	586 ~ 759V
AC current	180 / 360 / 541 / 720 / 900 / 1082 / 1262 / 1443A
THD	<3% i (100% Load)
AC power factor	-1 (Lagging) ~ 1 (Leading)
AC frequency	50/60Hz ± 5HZ
Max efficiency	98,50%

WARRANTY & CERTIFICATES

Warranty	3 years, 5% cost per year for further warranty extension
Certificates battery	n.v.t
Certificates inverter	EN 50549-2:2019/AC:2019

EXAMPLE CONFIGURATIONS

2 pcs	3450 kW
3 pcs	5175 kW
4 pcs	6900 kW
x pcs in parallel maximum	17250 kW
	Unlimited expandability

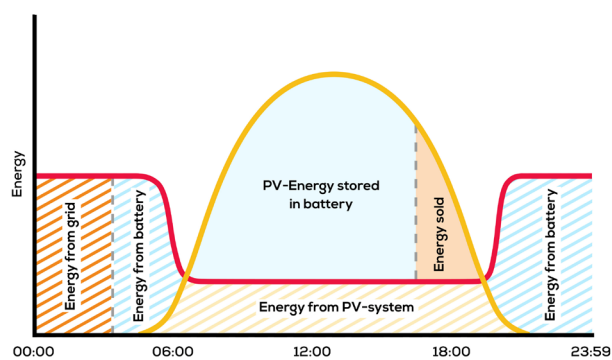
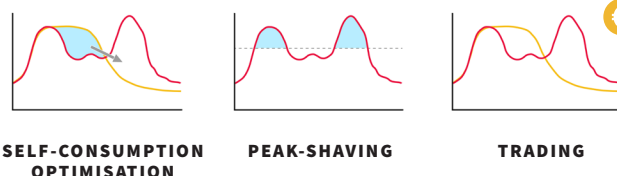
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C EMS

The Energy Management System (EMS) we implement is locally produced in the Netherlands. This EMS is tailored for European users, making it ideal for trading on the energy market. Additionally, we ensure that all the data we collect remains within our borders, and the battery management is controlled here in the Netherlands. This expertise is vital, and we prefer to retain it within our country. Working with a different or own EMS is possible.

The EMS is well suited for the following applications:

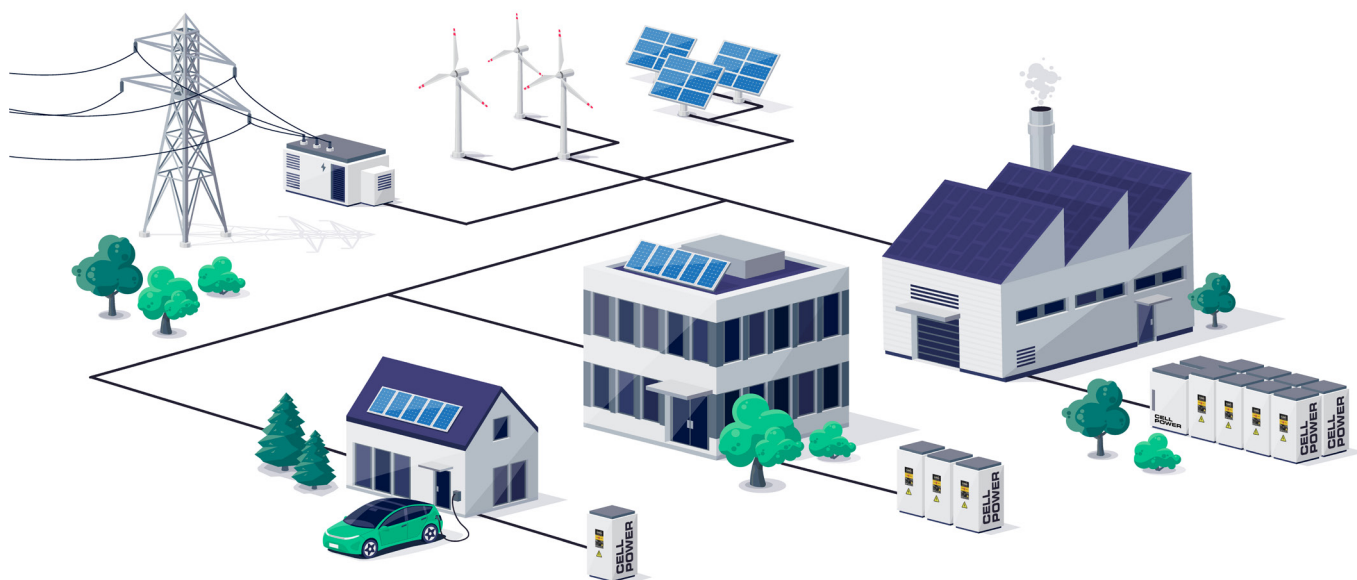
- **Optimized self consumption:** Maximizing the use of self-generated energy to reduce reliance on external power sources.
- **Renewable energy integration:** Incorporating renewable energy sources, like solar or wind, into the energy storage system.
- **Peak shaving:** Reducing electricity use during peak demand times to lower energy costs and reduce strain on the grid.
- **Energy trading:** Buying and selling stored energy to and from the grid (onbalansmarkt & FCR/aFFR) to help network operators stabilize the net and earn money by doing so.
- **Off-grid power supply:** Providing reliable electricity without relying on the main grid, useful in remote areas.
- **Emergency power:** Supplying backup electricity during power outages to ensure continuous operation of essential systems.



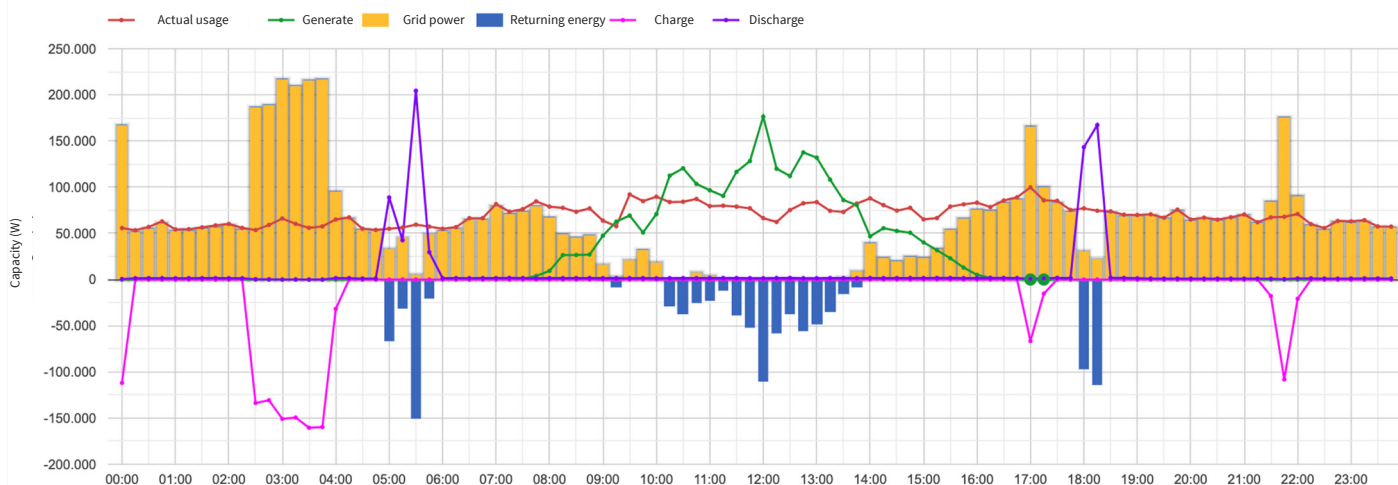
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C EMS

ELECTRICAL DIAGRAM



ENERGY TRADING



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Possible Configurations

