

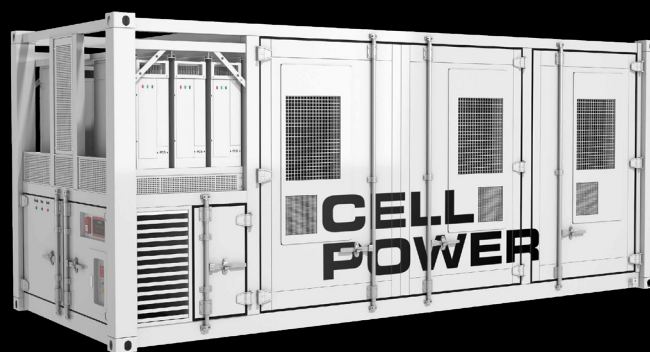
CELL POWER

Cellpower Energy Storage Systems

The Energy Storage Systems (ESS's) are a cutting-edge solution, designed to revolutionize the way energy is stored and utilized.

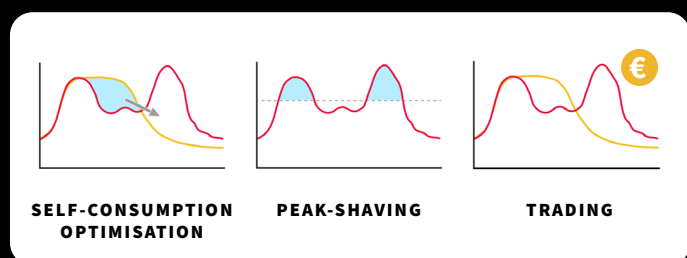
They have a high energy density of 100 to 3440 kWh, in a relatively small cabinet or container. With a compact and space-efficient design, the footprint is optimized while the maximum storage capacity is ensured.

The ESS's are built with Lithium Iron Phosphate (LFP) batteries, renowned for their exceptional safety and longevity. With an impressive lifespan of 5.000 cycles, the batteries offer sustained reliability. This makes them the ideal choice for long-term energy storage needs. Additional modules can be integrated seamlessly. By scaling the system this way, the ESS's can easily meet growing energy storage requirements. Which makes them the ideal choice for current and future needs.



Safety is a paramount topic. The energy storage systems are addressing this with fire suppression systems, extensive certification and the use of one of the safest battery technologies: LFP. The ESS's significantly reduce 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's is made easy with its accessible design, allowing for convenient and safe inspection, servicing, and troubleshooting.

Possible applications



- Renewable energy integration
- Peak-shaving
- Self-consumption optimisation
- Solving net congestion
- Option to control via external EMS

(for example energy trading focussed on the Dutch market)



Quality system

LFP: Safe, Long-life: 5000+ cycles, high energydensity and PGS 37-1 compatible



Experience

35+ years of battery knowledge and 10 years of lithium knowledge within Intercel



Turn-key systems

Pre-assembled, pre-tested and plug-and-play systems. Batteries, thermal management, inverters and fire suppression systems are fully integrated

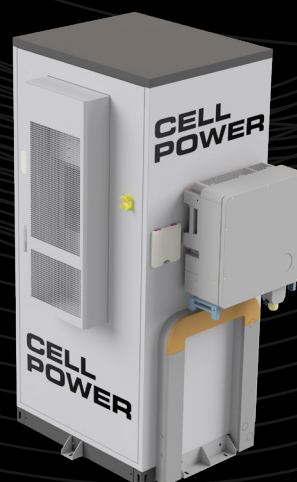


Easy expandability

Systems are many times expandable when grid connected. It is easy to connect additional systems.

CELL POWER

CESS 100 – 50



INVERTER

Rated / nominal AC power	50 kW
Maximum AC power	55 kVA
Grid voltage	400V
Grid voltage range	340V ~ 440V
AC current	80A
THDv	<3%(100% load)
AC Power Factor	-1(Lagging) ~ 1(Leading)
AC frequency	50/60Hz ±5Hz

GENERAL INFORMATION

Dimensions (LxWxH)	1100 x 1460 x 2380 mm
Weight	1500 kg
Housing	Outdoor cabinet (Anti-corrosion C4)
Protection rating	IP54
Operating temperature	-30°C~+50°C
Relative humidity	5%~95% (No condensing)
Maximum operating altitude	4000m(>3000m derating)
Thermal management system	Air conditioner
EMS-functionality	Peak-shaving, optimised self consumption, energytrading (optional, controlled externally)
Communication interface	TCP IEC 104
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

SAFETY

Fire supression system	Double fire suppression system design
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WARRANTY

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

EXAMPLE CONFIGURATIONS

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

CELL POWER

CESS 430 – 200



INVERTER

Rated / nominal AC power	200 kW
Maximum AC power	250 kVA
Grid voltage	400V
Grid voltage range	340V ~ 460V
AC current	288,6A
Output THDi	<3%
AC Power Factor	0,1~1 leading or lagging (Controllable)
AC frequency	50/60 ± 2,5Hz

GENERAL INFORMATION

Dimensions (LxWxH)	2991 x 2438 x 2591mm
Weight	7,7t
Housing	10ft container
Protection rating	IP54
Operating temperature	-10 ~ 40°C (Max. -20 ~ 50°C)
Relative humidity	0%~95% (non-condensing)
Maximum operating altitude	2000m (non-derating)
Thermal management system	Air conditioner
EMS-functionality	Peak-shaving, optimised self consumption, energytrading (optional, controlled externally)
Communication interface	RS485 / MODBUS RTU, TCP
Off-grid capability	Grid-Connected only

BATTERY

Battery technology	LFP (LiFePO4 / Lithium Iron Phosphate)
Nominal Energy	430 kWh
Nominal Capacity	280 Ah
Nominal Voltage	768V
Voltage range (Min. - Max.)	672V ~ 852V
Cycle life @ 0,5°C / 25°C	80% Retention with 5000 Cycles

SAFETY

Fire supression system	NOVEC1230 (K-5-1-12)
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WARRANTY

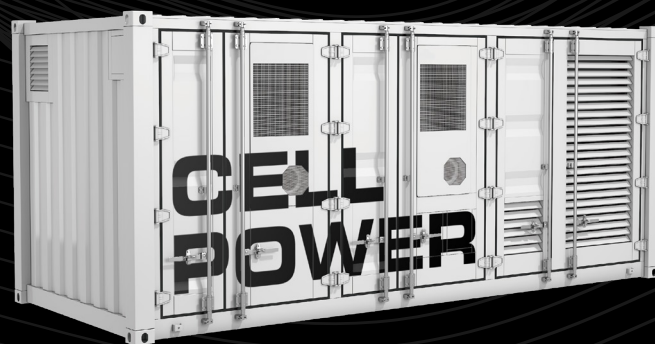
Warranty	5 years
Certificates inverter	EN 50549, EN 61000, EN62477
Certificates battery	UL1973, UL9540A, IEC62619, CE , UN38.3
Certificates system	UL9540, UN3536

EXAMPLE CONFIGURATIONS

860 kWh – 400 kW	2 pcs
1290 kWh – 600 kW	3 pcs
1720 kWh – 800kW	4 pcs
5,2 MWh – 2,4 MW	12 pcs

CELL POWER

CESS 1100 – 1000



INVERTER

Rated / nominal AC power	1000 kVA
Maximum AC power	1100 kVA
Grid voltage	400V
Grid voltage range	360V ~ 440V
AC current	2 * 721,7A (AC rate of current)
Output THDi	<3%
AC Power Factor	0,1 ~ 1 leading or lagging (Controllable)
AC frequency	50/60 ± 2,5Hz

GENERAL INFORMATION

Dimensions (LxWxH)	6058 x 2438 x 2591mm
Weight	19t
Housing	20ft container
Protection rating	IP54
Operating temperature	-10 ~ 40°C (Max. -20 ~ 50°C)
Relative humidity	0%~95% (non-condensing)
Maximum operating altitude	2000m (non-derating)
Thermal management system	Air conditioner
EMS-functionality	Peak-shaving, optimised self consumption, energytrading (optional, controlled externally)
Communication interface	RS485 / MODBUS RTU, TCP
Off-grid capability	Off-grid optional

BATTERY

Battery technology	LFP (LiFePO4 / Lithium Iron Phosphate)
Nominal Energy	1100 kWh
Nominal Capacity	180 Ah
Nominal Voltage	768V
Voltage range (Min. - Max.)	672V ~ 852V
Cycle life @ 1,0°C / 25°C	80% Retention with 5000 Cycles

SAFETY

Fire supression system	NOVEC1230 (K-5-1-12)
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WARRANTY

Warranty	5 years
Certificates inverter	EN 50549, EN 61000, EN62477
Certificates battery	UL1973, UL9540A, IEC62619, CE , UN38.3
Certificate system	UL9540, UN3536

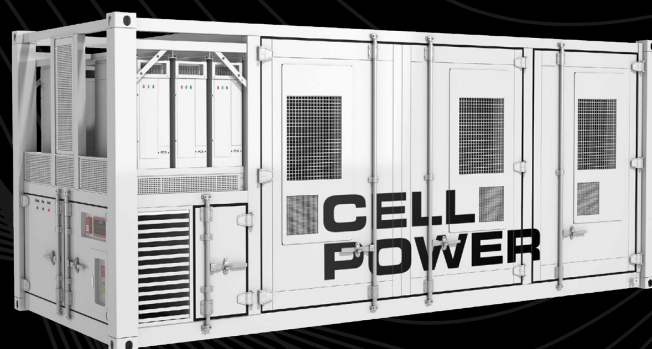
EXAMPLE CONFIGURATIONS

Maximum expandability (Grid connected UNLIMITED)

2,2 MWh – 2 MW	2 pcs
3,3 MWh – 3 MW	3 pcs
4,4 MWh – 4 MW	4 pcs
11 MWh – 10 MW	10 pcs

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CESS 2064 - 1000



INVERTER

Rated / nominal AC power	1000 kVA
Maximum AC power	1200 kVA
Grid voltage	690V
Grid voltage range	586,5V ~ 759V
AC current	1104,6A
Output THDi	<3%
AC Power Factor	0,1 ~ 1 leading or lagging (Controllable)
AC frequency	50/60 ± 2,5Hz

GENERAL INFORMATION

Dimensions (LxWxH)	6058 x 2438 x 2591mm
Weight	26,5t
Housing	20ft container
Protection rating	IP54
Operating temperature	-20 ~ 40°C (Max. -30 ~ 55°C)
Relative humidity	0%-95% (non-condensing)
Maximum operating altitude	3000m (non-derating)
Thermal management system	Air conditioner
EMS-functionality	Peak-shaving, optimised self consumption, energytrading (optional, controlled externally)
Communication interface	RS485 / MODBUS RTU, TCP
Off-grid capability	Grid connected only

BATTERY

Battery technology	LFP (LiFePO4 / Lithium Iron Phosphate)
Nominal Energy	2064 kWh
Nominal Capacity	280 Ah
Nominal Voltage	1228,8V
Voltage range (Min. - Max.)	1075,2V ~ 1363,2V
Cycle life @ 0,5°C / 25°C	80% Retention with 5000 Cycles

SAFETY

Fire supression system	FK-5-1-12(NOVEC1230)
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WARRANTY & CERTIFICATES

Warranty	5 years
Certificates inverter	EN 61000, EN62477
Certificates battery	UL1973, UL9540A, IEC62619, CE , UN38.3
Certificate system	UL9540, UN3536

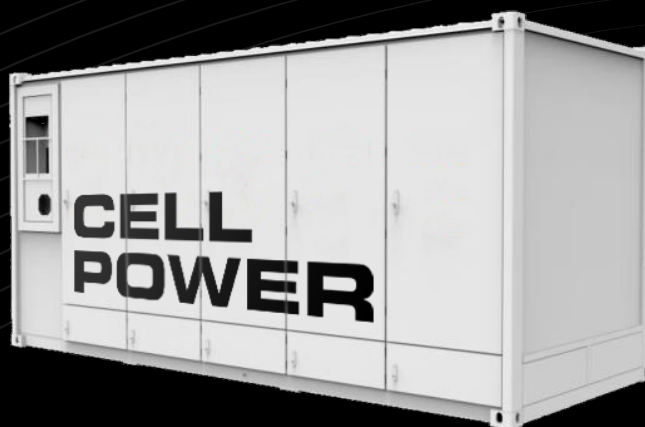
EXAMPLE CONFIGURATIONS (MWh)

Maximum expandability (Grid connected UNLIMITED)

4,1 MWh – 2,0 MW	2 pcs
6,2 MWh – 3,0 MW	3 pcs
8,3 MWh – 4,0 MW	4 pcs
20,1 MWh – 10 MW	10 pcs

CELL POWER

CESS 3440



GENERAL INFORMATION

Dimensions (LxWxH)	6058 x 2438 x 2896mm
Weight	~35t
Housing	20ft high cube container
Protection rating	IP54
Noise level	70dB@1m
Operating temperature	Charge: 0 ~ 50 °C Discharge: -20 ~ 50 °C
Relative humidity	5% ~ 95% (non-condensing)
Thermal management system	Liquid cooling
EMS-functionality	Depends on PCS
Communication interface	MODBUS TCP/IP
Off-grid capability	Depends on PCS

BATTERY

Battery technology	LFP (LiFePO4 / Lithium Iron Phosphate)
Nominal Energy	3440 kWh
Nominal Capacity	2800Ah
Nominal Voltage	1228,8V
Voltage range (Min. - Max.)	1075,2V ~ 1401,6V
Cycle life @ 0,5°C / 25°C	80% Retention with 5000 Cycles

SAFETY

Fire suppression system	Watering fire suppression system
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WARRANTY & CERTIFICATES

Warranty	5 years
Certificates battery	UL1973, UL9540A, IEC62619, CE , UN38.3
Certificate system	UN3536

EXAMPLE CONFIGURATIONS

Expandability (Depends on inverter in theory UNLIMITED)

6,9 MWh	2 pcs
10,3 MWh	3 pcs
13,8 MWh	4 pcs
34,4 MWh	10 pc

