

# CELL POWER

**CESS 100 – 50**

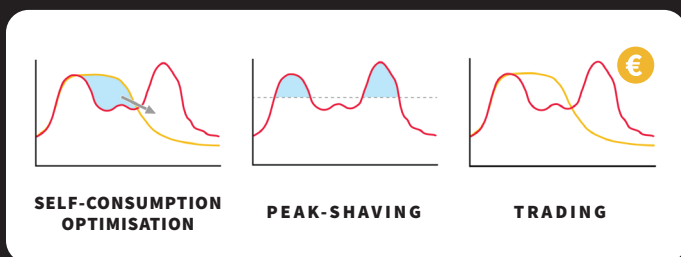
The Energy Storage System is a cutting-edge solution designed to revolutionize the way energy is stored and utilized.

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.

## Possible applications



- Renewable energy integration
- Peak-shaving
- Self-consumption optimisation
- Solving net congestion
- Back-up functionality
- Control via external EMS (for example energy trading focussed on the Dutch market)



### Quality system

LFP: Safe, Long-life: 5000+ cycles, high energy density, air cooled 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



### Expandability

Gridconnected 20 times expandable. It is easy to connect additional systems.

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### 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, energy trading (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