

CELL POWER

CESS 102 - 50

The CESS 102-50 is developed for applications where flexibility and reliability are key. From grid reinforcement and peak shaving to off-grid backup and charging plaza buffering. With more than 6000 charge cycles and a 5-year warranty, this system delivers long-lasting performance. Backed by over 35 years of battery expertise, Cellpower has created a modular energy system that is fully grid-compliant. Thanks to its three integrated MPPTs with two inputs each, it is possible to directly connect up to 75 kW of Solar PV without any inverter loss. With local service and support throughout Europe, the CESS 102-50 offers the scalable solution for future-oriented energy projects.

35⁺

35 years of expertise

Backed by over 35 years of battery experience, ensuring proven reliability and in-depth technical know-how.



Grid-Compliant

Meets the Netcode and is fully grid-compliant, ensuring seamless integration into the electricity grid.



PV Coupling

With 3 built-in MPPTs and 2 inputs per MPPT, the system can directly integrate up to 75 kW of Solar PV without additional inverters or conversion losses.



Local service and support

Focus on local services: from installation and maintenance to training. Our Dutch specialists are ready to assist you.



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EXAMPLE CONFIGURATIONS

2 pcs	204 kWh - 100 kW
3 pcs	306 kWh - 150 kW
4 pcs	408 kWh - 200 kW
10 pcs	2048 kWh - 1 MW
x pcs in parallel maximum	20 pcs in parallel maximum

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 integrations (multiplatform)	Built-in (basic EMS), other EMS systems supported
Communication interface	TCP IEC104, MODBUS TCP/RTU
Off-grid capability	Yes, ATS/STS 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	≥6000 cycles @90% D.o.D.; 70% EOL
DoD	90%
Fire suppression system	Multiple fire suppression systems; battery packs and cabinet protected with aerosols

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%

WARRANTY & CERTIFICATE

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

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

