



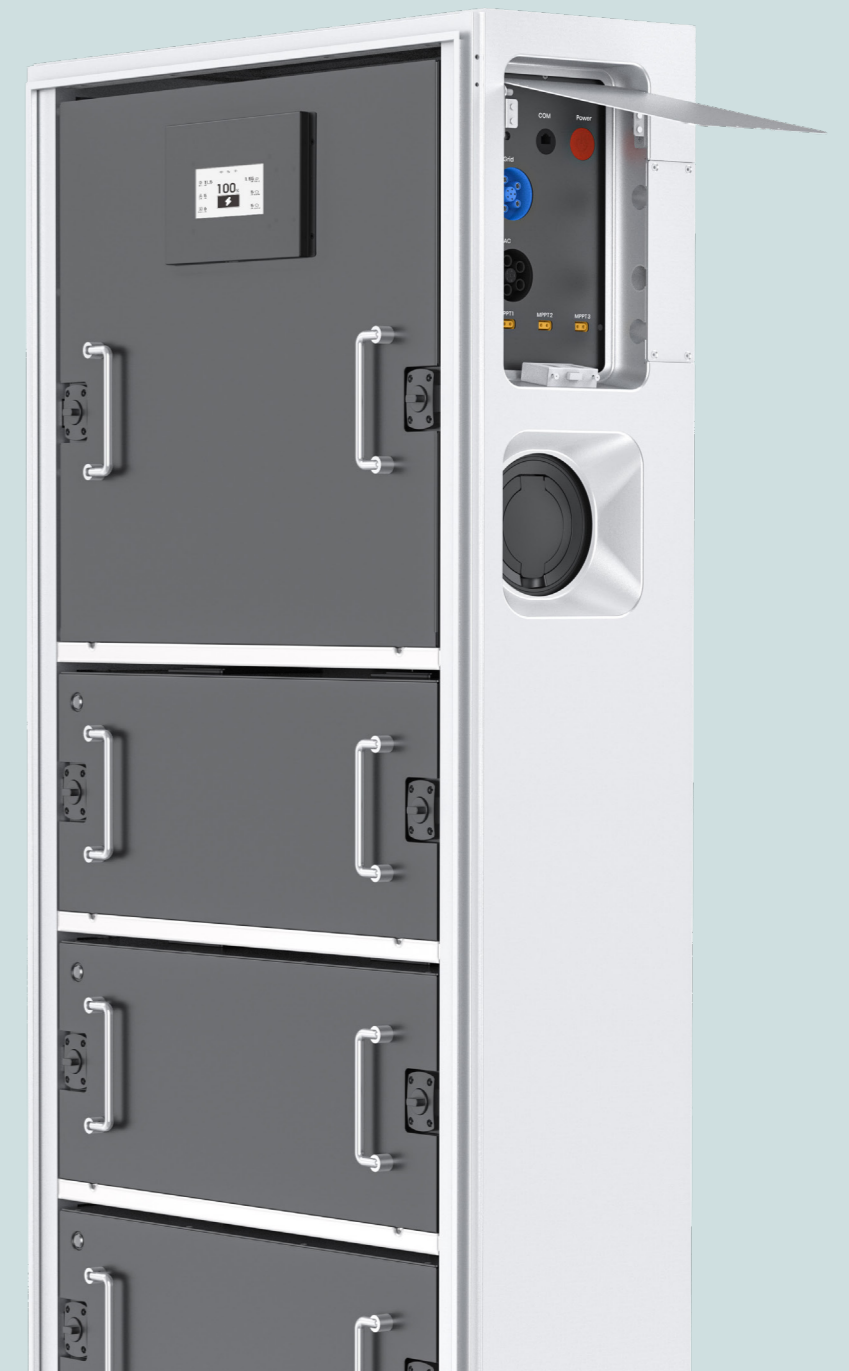
Developed in Denmark

emaldo® one  
/home



# Emaldo® Power Core

*Specifications*



All-in-one power solution that connects directly to your solar panels. Adding battery storage, built-in EV charger and the option to power backup the household.

# Emaldo® Power Core

## Specifications

### General

Dimensions(W/H/D)	700×1520×328mm
<b>Weight</b>	
Cabinet	62.0
Inverter	49kg
Battery	50.5
Battery slots	3
Topology	Transformerless
Cooling	Forced air
Noise	< 50dB
Self-consumption	< 150W
Altitude	2000m
Relative humidity	10~85%
Inverter operation temperature	-20°C~60°C
Charging operation temperature	-20°C ~ 55°C
Discharging operation temperature	-20°C~60°C
Storage temperature	-20°C~55°C
Display	E-INK+APP
Communication	RS485 (Smart Meter)
4G/WiFi/Bluetooth/LoRa	Yes / Yes / Yes / Yes
IP rating	IP54
<b>SKU</b>	
Inverter	EM-INV-02
Cabinet	EM-CAB-WH-EMP-02
Battery	EM-BAT-02 / EM-BAT-02-xx
Complete system	EM-SYS-WH-02

### AC input

Rated power	10800VA
Rated voltage	400Vac (3W+N+PE)
Rated current	15.6A*3
Max input current	16A*3
AC voltage range	184-264Vac
Frequency range	50/60Hz

### AC output (on-grid)

Rated power	10800VA
Rated voltage	400Vac (3W+N+PE)
Rated current	15.6A*3

Max output current	15.8A*3
Max power factor	>0.99
Frequency range	50/60Hz
Max efficiency	97 %
Europe efficiency	96 %

### AC output (off-grid)

Rated power	10800VA (PF=1)
Rated output voltage	400Vac (3W+N+PE)
Rated output frequency	50/60Hz±0.5
Rated current	15.6A*3
Max output current	15.8A*3
Max power output (startup)	21600VA
Switch time	10ms
Wave form	Pure sine wave

### Battery

Battery type	LFP (LiFePO4)
Battery capacity	5120-15360Wh (1-3 batteries)
Battery capacity expansion	143kWh
Rated battery voltage	51.2V
Working voltage range	43.2V~57.6V
Max charging current	100-200A (1-3 batteries)
Max discharging current	100-200A (1-3 batteries)
Charging temperature	-20~55°C
Discharging temperature	-20~60°C
Heat film	200-400W

### PV input

Max input power	10800W (4000W*3)
Max input open-circuit voltage	550Vdc
MPPT Input string number	3
MPPT voltage range	90-500Vdc
Start-up voltage	100Vdc
Max input current	14.5A*3
Max short-circuit input current	18A*3
Max MPPT efficiency	>99%
Dynamic MPPT efficiency	>97%

Energy storage. Enabling the capability of storing self-produced solar electricity for when you actually need it. Works with all inverters. Can be installed on a property even if this has a solar system installed already. Option to add power backup. Add power backup of the things that matters the most. Sold separately. Electric car charger. Built-in type 2 electric vehicle charger.

### EV output

Rated charge power	10800W
Rated voltage	400Vac (3W+N+PE)
Interface type	IEC type2
Frequency range	50/60

### Protection

Battery under-voltage protection (settable)	Yes
Battery over-voltage protection (settable)	Yes
PV under-voltage protection (80Vdc)	Yes
PV over-voltage protection (530Vdc)	Yes
AC output under-voltage protection (184Vac)	Yes
AC output over-voltage protection (282Vac)	Yes
AC output over-temperature protection	Yes
AC output overload protection	Yes
Solar input reverse connection protection	Yes
Insulation impedance detection	Yes
Residual current detection	Yes
AC surge protection (three grade)	Yes
DC surge protection (three grade)	Yes
EV over-voltage protection	Yes
EV over-temperature protection	Yes
EV leakage protection (IEC 62955:2018)	Yes

### Standard

Safety	IEC62109-1:2010, IEC62109-2:2011
EMC	IEC61851-21-2:20218, IEC61000-6-1, IEC61000-6-3
Battery	IEC62619:2022, UN38.3, MSDS
Grid	TRLV/G98:2022/VDE 4105:2018/EIFS:2018/EN50549.....
System	IEC61851-1:2017, IEC62955, IEC60529:2013, EN61984
Emissions	RED 2014/53/EU

#### Terms

The product specifications provided herein are subject to change without notice, and while we endeavor to maintain accuracy, Emaldo® cannot guarantee completeness, accuracy, or reliability. Performance metrics are based on typical scenarios and actual performance may vary. Compatibility with third-party products is not guaranteed. The limited warranty terms, proper installation by a qualified electrician, and adherence to safety practices are essential. Energy data accuracy is aimed for but not guaranteed. Technical support availability varies. Emaldo® is not liable for any damages from product use. Specifications and features are subject to change. Usage implies agreement to these terms. For legal compliance, consult professionals.

### Efficiency

Max efficiency	97%
European efficiency	96%
MPPT efficiency	>99%
Grid	TRLV/G98:2022/VDE 4105:2018/EIFS:2018/EN50549.....
System	IEC61851-1:2017, IEC62955, IEC60529:2013, EN61984
Emissions	RED 2014/53/EU

### Warranty

<b>Battery</b>	
Operation of the product	Charging temperature -20°C ~ 50°C. Discharge temperature -20°C ~ 60°C.
Storage	Storage temperature: -10°C ~ 40°C (within one month) or 0°C ~ 35°C (within one year). Recommended storage humidity: 0%~95%RH (non-condensing).
Product Warranty	Emaldo® guarantees that the battery system will retain 70% of the usable energy for 10 years or 6000 cycles if installed and handled correctly as described in the user manual.
<b>Inverter</b>	
Operation of the product	Operation of the product -20°C ~ 60°C
Storage	Storage temperature: -20°C ~ 40°C (within one month) or 0°C ~ 35°C (within one year). Recommended storage humidity: 0%~95%RH (non-condensing).
Product Warranty	10-year Inverter Performance Guarantee: Emaldo® guarantees that the inverter will work according to specification if handled according to user guidelines and standards.
<b>Cabinet</b>	
Operation of the product	Operation of the product -20°C ~ 60°C
Storage	Storage temperature: -10°C ~ 40°C (within one month) or 0°C ~ 35°C (within one year). Recommended storage humidity: 0%~95%RH (non-condensing).
Product Warranty	10-year Hardware Guarantee: Emaldo® guarantees that the hardware will work according to specification if handled according to user guidelines and standards.