

emaldo

Power Sense 15kW

The true all-in-one power solution that connects directly to your solar panels. Adding battery storage, built-in the option to power backup the household.



PRODUCT TYPE

Complete system

PRODUCT LINE

Sense

PRODUCT NAME

Emaldo® Power Sense

SKU

EM-INV-04

EAN

5711826606165

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.



General

Dimensions(W/H/D)	700x1520x328mm
Weight	Cabinet: 62.0±2kg Inverter: 55.6kg±2kg Battery: 50.5±2kg
Battery slots	3
Topology	Transformerless isolation
Cooling	Forced air
Noise	<50dB
Self-consumption	<150W
Heating film energy consumption	200W (Single Battery)
Altitude	2000m
Relative humidity	10~85%
System operation temperature	-20°C~55°C
Storage temperature	0°C~35°C (3 months) -20°C ~ 45°C (1 month)
Display	APP
Communication	RS485 (Electrical Meter)
4G/WiFi/Bluetooth/LoRa	Yes / Yes / Yes / Yes
IP rating	IP54

Included

1 x Emaldo® Power Cabinet with slideON™ connectors and built-in cable management
1 x Emaldo® Power Sense 15 kW Inverter
1 x Emaldo® 5.12 kWh Power Boxes
1 x Starter Kit (Installation)



Developed in Denmark
EU support

AC input

Max input power	22500 VA
Rated voltage	3L/N/PE 230/400 a.c.V
Max input current	32.6A
Frequency range	50/60Hz
Current Total Harmonic Distortion	< 3%
Power factor	0.8 leading-0.8 lagging

AC output (off-grid)

Rated power	15000 VA
Rated output voltage	3L/N/PE 230/400 a.c.V
Max output current	23.9A
Rated output frequency	50/60Hz
Switch time	10ms
Wave form	Pure sine wave

AC output (on-grid)

Rated power	15000 VA
Rated voltage	3L/N/PE 230/400 a.c.V
Frequency range	50/60Hz
Max output voltage	23.9A
Max power factor	0.99
Max efficiency	97.3%
Europe efficiency	96 %

Battery

Battery type	LFP (LiFePO4)
Battery capacity	5120-15360Wh (1-3batteries)
Battery capacity expansion	143kWh
Rated battery voltage	51.2V
Working voltage range	43V-58.3V
Max charging current	100-300A (1-3batteries)
Max discharging current	100-300A (1-3batteries)
Charging temperature	-20-55°C
Discharging temperature	-20-60°C

Warranty**Battery**

Operation of the product	Charging temperature -20°C ~ 55°C Discharge temperature -20°C ~ 60°C
Storage	Storage temperature: -20°C ~ 45°C (within one month) or 0°C ~ 35°C (within three month). 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.

Inverter

Operation of the product	Operation of the product -20°C ~ 55°C
Storage	Storage temperature: -20°C ~ 45°C (within one month) or 0°C ~ 35°C (within three month). 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

Cabinet

Operation of the product	Operation of the product -20°C ~ 55°C
Storage	Storage temperature: -20°C ~ 45°C (within one month) or 0°C ~ 35°C (within three month). 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

Protection

Battery under-voltage protection(settable)	42±0.5V
Battery over-voltage protection(settable)	Yes
PV under-voltage protection	160V±3V
PV over-voltage protection	1000V±3V
AC input under-voltage protection	198V±0.5V
AC input over-voltage protection	254V±0.5V
AC output under-voltage protection	198V
AC output over-voltage protection	254V
AC output over-temperature protection	Support
AC output overload protection	Support
Anti-island protection	Support
Solar input reverse connection protection	Support
Insulation impedance detection	Support
Residual current detection	Support
AC surge protection	Support
DC surge protection	Support
Warranty period	>10 Years

Standard

Safety	IEC62109-1:2010, IEC62109-2:2011 IEC62477-1:2022
EMC	IEC61000-6-1, IEC61000-6-3
Battery	UN38.3, MSDS, IEC 62619
Grid	EN50549-1/EN50549-10/T RLV/EIFS:2018/VDE 4105:20 18/EIFS:2018/PPDS:P4.....
Emissions	RED 2014/53/EU

PV Input

Max input power	24kW
Max input open-circuit voltage	1000 d.c.V
MPPT Input string number	2/2
MPPT voltage range	160-900 d.c.V
Start-up voltage	160 d.c.V
Max input current	30A/30A
Max short-circuit input current	45A/45A
Max MPPT efficiency	>99%
Dynamic MPPT efficiency	>97%
Rated voltage	550 d.c.V
Operating voltage range	160-900 d.c.V

Note

1. Due to fuse-free overcurrent limitation, the 15kW model supports:

PV Input $P_{max} = P_e \times 1.6$

AC Input $P_{max} = P_e \times 1.5$

Grid Output $P_{max} = P_e \times 1.1$

2. For the 15kW specification, specifically supplied to Sweden and subject to local 20A fuse overcurrent limitations:

PV Input power $P_{max} = P_e \times 1.6$

AC Input power $P_{max} = P_e \times 1.0$

Grid Output $P_{max} = P_e \times 1.0$

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.