

Certificate of Conformity

Certificate Number: CN-PV-230585

On the basis of the tests undertaken, the samples of the below product have been found to comply with the requirements of the referenced specifications /standards at the time the tests were carried out. It does not imply that Intertek has performed any surveillance or control of the manufacture. The manufacturer shall ensure that the manufacturing process assures compliance of the production units with the examined products mentioned in this certificate.

Applicant Name & Address:	Emaldo ApS Bygmarken 4A, 3650 Ølstykke, Denmark
Product Description:	Emaldo Home Power Station
Ratings & Principle Characteristics:	See Annex to Certificate of Conformity
Models/Type References:	EM-CAB-WH-01
Brand Name:	
Specification/Standard:	EN 50549-1: 2019, Requirements for generating plants to be connected in parallel with distribution networks Part 1: Connection to a LV distribution network - Generating plants up to and including Type B Type approval for type B
Certificate Issuing Office Name & Address:	Intertek Testing Services Ltd. Shanghai West Area, 2 nd Floor, No. 707, Zhangyang Road China (Shanghai) Pilot Free Trade Zone, Shanghai, P. R. China Accredited by ACCREDIA in accordance with ISO/IEC 17065:2012
Test Report Number:	230831070GZU-001, 30 September 2023

According to Annex H of the standard EN 50549-1:2019, generating plants compliant with the clauses of this European Standard are considered to be compliant with the relevant Article of COMMISSION REGULATION (EU) 2016/631, provided, that all settings as provided by the DSO and the responsible party are complied with.

Additional information in Appendix.



Signature

Certification Manager: Grady Ye
Date: 25 October 2023



PRD N° 306B

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APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PV-230585

Model	EM-CAB-WH-01
PV Input data	
Max. PV Input Voltage [Vdc]	550Vdc
MPPT voltage range [Vdc]	90 ~ 500
Max. PV current [A]	13A*3
Max. input power [W]	10800
AC output/Input data	
Rated output power [VA]	10800
Rated output voltage [Vac]	400
Nominal voltage [Vac]	230
Rated output current [A]	15.6*3
Max. output current [A]	16*3
Nominal Frequency [Hz]	50/60
Power Factor range	0.8 Leading ~ 0.8 Lagging
Battery data	
Battery voltage range [Vdc]	40 ~ 58.4
Max. charging current [A]	58
Max. discharging current [A]	160
Type of battery	LFP (Lithium Iron Phosphate)
Capacity [kWh]	3.072kWh*(1-3)
Charge temperature [°C]	-20 ~ 50
Discharge temperature [°C]	-20 ~ 60

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Interface protection settings according to EN 50549-1:2019			
Parameter	Max. disconnection time	Min. operate time	Trip value
Undervoltage threshold stage 1 [27 <]	100s	0.1s (0.1 s steps)	Trip value Config. from 0.2 to 1 Un (0.01 Un steps)
Undervoltage threshold stage 2 [27 <<]	5s	0.1s (0.05 s steps)	Trip value Config. from 0.2 to 1 Un (0.01 Un steps)
Overvoltage threshold stage 1 [59 >]	100s	0.1s (0.1 s steps)	Trip value Config. from 1.0 to 1.2 Un (0.01 Un steps)
Overvoltage threshold stage 2 [59 >>]	5s	0.1s (0.05 s steps)	Trip value Config. from 1.0 to 1.3 Un (0.01 Un steps)
Overvoltage 10 min mean protection	Trip time Config ≤ 3s not adjustable Time delay setting = 0 ms		Trip value Config. from 1.0 to 1.15Un (0.01 Un steps)
Underfrequency threshold stage 1 [81 <]	100s	0.1s (0.1s steps)	Trip value Config. from 47.0 to 50.0Hz (0.1Hz steps)
Underfrequency threshold stage 2 [81 <<]	5s	0.1s (0.05 s steps)	Trip value Config. from 47.0 to 50.0Hz (0.1Hz steps)
Overfrequency threshold stage 1 [81 >]	100s	0.1s (0.1s steps)	Trip value Config. from 50.0 to 52.0Hz (0.1Hz steps)
Overfrequency threshold stage 2 [81 >>]	5s	0.1s (0.05 s steps)	Trip value Config. from 50.0 to 52.0Hz (0.1Hz steps)
Starting to and reconnection settings for voltage	50%-120% adjustable, 85%Un ≤ U ≤ 1.10Un default		
Starting to generate electrical power	47Hz – 52Hz adjustable, 49.5Hz ≤ U ≤ 50.1Hz default		
Reconnection settings for frequency	47Hz – 52Hz adjustable, 49.5Hz ≤ U ≤ 50.2Hz default		
Observation time	10s-60s adjustable, 60s default		
Active power increase gradient	6%-3000%/min adjustable, 10%/min default		
Permanent DC injection	0.5% of rated inverter output		
Loss of mains according to EN 62116	Within 2s		

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