

Certificate of Conformity

Certificate Number: CN-PVES-250098

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

Applicant:

Emaldo Aps
Bygmarken 4A, 3650 Ølstykke, Denmark

**Product:
Ratings & Principle
Characteristics:**

Hybrid Inverter
See appendix of Certificate of Conformity

Model:

EM-INV-03, EM-INV-03-B, EM-INV-03-* (*=A-Z)

Brand Name<s>:



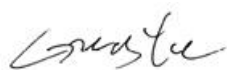
Product Complies with:

EN 50549-1:2019/A1:2023, 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
EN 50549-10:2022, Requirements for generating plants to be connected in parallel with distribution networks - Part 10: Tests for conformity assessment of generating units
Type approval for type A and B
Intertek Testing Services Ltd. Shanghai
West Area, 2nd 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
241021058GZU-001, February 21, 2025

**Certificate Issuing Office
Name & Address:**

Test Report No.<s>:

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 February 2025



PRD N° 306B

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APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PVES-250098

Model	EM-INV-03, EM-INV-03-B, EM-INV-03-* (*=A-Z)
Battery	
Rated Voltage	51.2 d.c.V
Voltage Range	43.2~57.6 d.c.V
Max Charging Current	210 d.c.A
Max Discharging Current	240 d.c.A
AC Input	
Rated voltage	3/N/PE 230/400 a.c.V
Rated Frequency	50/60Hz
Max Current	30 a.c.A*3
Grid Output	
Max Apparent Power	10800VA
Rated voltage	3/N/PE 230/400 a.c.V
Rated Frequency	50/60Hz
Max Current	15.8 a.c.A*3
Power Factor	0.9leading~0.9lagging
Off Grid	
Max Apparent Power	10800VA
Rated voltage	3/N/PE 230/400 a.c.V
Rated Frequency	50/60Hz
Max Current	15.8 a.c.A*3
Power Factor	1.0
General	
Operation temperature	Inverter:-20°C~55°C
Protective Class	Class I
Inverter Topology	Transformerless
Dimension(W/H/D)	590*543*275mm
Weight	42kg±1kg
Enclosure Type	IP20
Software version	V3.50

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Interface protection settings according to EN 50549-1			
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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