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Shenzhen Poweroak Newener Co Ltd

TEST REPORT

SCOPE OF WORK NEMA 4X TESTING-- See page 2

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Applicant Name : Shenzhen Poweroak Newener Co Ltd
Applicant Address: F19, BLD No.1, Kaidaer, Tongsha Rd No.168, Xili Street,
Nanshan, Shenzhen, China

Sample Description:

Product Name Energy storage system
Brand Name  (BLUETTI)
Model No. B500
Rating NEMA 4X
Date Received 09 June 2023
Date Test Conducted Refer to cl.8.6, 8.9 and 8.13 of UL 50E

Test specification:

Test Requested NEMA 4X test
Test Method (standards) According to UL standard UL 50E
Test Result See the attached sheets

Conclusion:

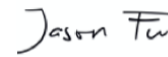
- From the results of examining and testing on the submitted sample(s), we are of the opinion that the submitted sample(s) **COMPLIED WITH** specified standard clauses listed in Test Requested.

Prepared by:



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Engineer

Reviewed by:



Jason Fu
Supervisor

Notes:

1. This report does not imply the compliance of all requirements of above standards. The mentioned test is only partial checking according to above standards.
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3. When determining of test conclusion, measurement uncertainty of tests has been considered.

Test Results:

Clause	Description Requirement	Verdict
8.5	External icing	*N/A
8.6	Hosedown	P
8.8	Outdoor corrosion protection	^N/A
8.9	Additional corrosion protection	P
8.13	Gasket	P
8.15	Misalignment	#N/A
<p>Note: Verdict: P-Pass; N/A -Not applicable; Info-Information only; F-failed N.C.-Not checked</p> <p>*: No evaluation, due to the top enclosure is one piece, and no groove between main enclosure and side enclosure. ^: No evaluation, the material of metal enclosure is aluminum, instead of ferrous metal. #: No evaluation, the product no detachable threaded conduit hub.</p>		

Appendix A:

Table of test data:

8.6	TABLE: Hosedown		P
Test condition		Test result	
Internal diameter of the nozzle	25mm	No water inside the enclosure	
Delivery rate:	240 L per minute		
Distance from nozzle to enclosure surface	3.0m		

8.9	TABLE: Additional corrosion protection		P
Test condition		Test result	
Salt used	Analytical reagent	Sample 1 (Center enclosure)	Sample 2 (Side enclosure)
Water used	Conductivity not higher than 20 μ S/cm	After 200 hours neutral salt spray test, the test surface was not corroded.	
Salt concentration of the collected solution	1.031		
PH of collected solution	6.8		
Temperature in test chamber	35°C		
Temperature in the saturation tower	45°C		
Atomizing pressure	70kPa		
Angle at which the tested surfaces were inclined	20°C		
Volume of the collected solution	1.53mL/h		
Intervals of inspection	24h		
Duration of the test	200h		

Table 8.13	Gasket tests		P
8.13.2 Tensile strength and elongation tests			
	Tensile strength (percent of aged/ unaged)	Elongation (percent of aged/ unaged)	
Test result	92.3%	84.2%	
Limit	≥75%	≥60%	
8.13.3 Compression test			
	Compression percent		
	Sample 1	Sample 2	Sample 3
8.13.3.2 After 69kPa 2h, remove weight and rest at room temperature for 30 min.	1%	1%	1%
8.13.3.3 After 70°C 5 days, and then repeat 8.13.3.2 approximately 24h after removal from the oven	1%	1%	1%
8.13.3.4 After -30°C 24h, impact from a hammer of 1.35 kg mass falling from a height of 150 mm, 3 cycles, and then removed from the cold chamber to rest at room temperature 24h. Repeat 8.13.3.2	1%	1%	1%
Limit	≤50%	≤50%	≤50%

Appendix B:

Table of critical components and materials

object/part No.	Manufacturer/ trademark ²⁾	Type / model ²⁾	technical data	standard	mark(s) of conformity ¹⁾
Whole enclosure	Various	Various	Aluminum, min. 1.5mm thick	UL 50E	NR
Centre enclosure	Various	Various	Aluminum, min. 1.5mm thick		NR
Side enclosure	Various	Various	Aluminum, min. 1.5mm thick		NR
Gasket	DONGGUAN NANJU POLYMER MATERIAL COLTD	NJ-352H/N- 60(#)	V-0, 150°C		cURus
<p>1) An asterisk indicates a mark which assures the agreed level of surveillance. 2) "Various" means any type from any manufacturer that complies with the specification can be used.</p>					

Appendix C:

Product Photos:



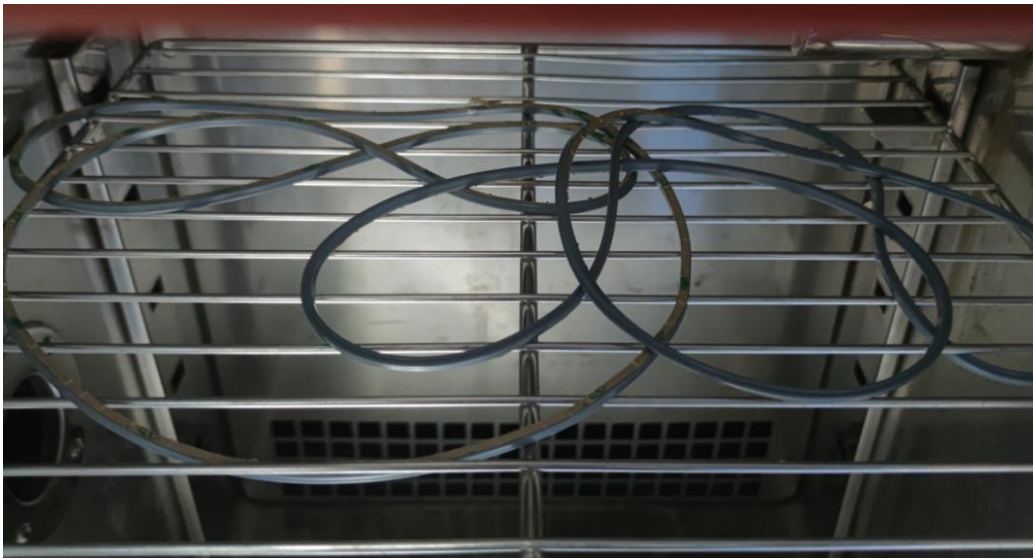
The whole unit before test



Hosedown test setup



Additional corrosion protection test setup



Gasket test setup

(End of report)