

# QPO ENERGY, LLC LETTER REPORT

**SCOPE OF WORK**

QPO BESS 14 UL 1973

**REPORT NUMBER**

105843991CRT-001e

**ISSUE DATE**

28 Feb 2025

**PAGES**

12

**DOCUMENT CONTROL NUMBER**

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## LETTER REPORT

28 Feb 2025

Intertek Report No. 105843991CRT-001e  
Intertek Project No. G105843991

Virgil Beaston  
QPO Energy  
111325 SW Tualatin-Sherwood Rd  
Tualatin, OR 97062  
virgilb@qpoen.com

Ph: (714)592-8297

**Subject:** UL 1973 Construction Review and Testing of the QPO BESS 14

Dear Mr. Beaston,

This letter report represents the results of our evaluation of the above referenced product(s) to the requirements contained in the following standards:

*Batteries for Use in Stationary, Vehicle Auxiliary Power and Light Electric Rail (LER) Applications [ANSI/CAN/UL 1973:2018 Ed.2]*

### SECTION 1 SUMMARY

Intertek wish to inform you that, during our evaluation, non-conformances or additional information have been identified.

Due to the nature of these items, the project has been placed **on-hold** awaiting resolutions from you to address the items detailed in this letter report.

Your assigned Intertek Project Manager will be in contact with you shortly to discuss the following:

- The timelines for supplying resolutions to all findings detailed in this letter report.
- Any additional or repeat work required which will be subject to a Project Change Order Request (PCOR), and any additional associated costs.

We kindly ask you to check and confirm that all information supplied for your unit is correct and accurate and reply to us promptly if there are any discrepancies. Please contact either your assigned Intertek Project Manager or Intertek Engineer who will assist you, if required.

To assist you in addressing these issues, we have outlined these below. Each item is identified by the clause of the applicable standard.

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## LETTER REPORT

Please review the following identified sections of the above referenced standards for the complete details of the requirements in question.

Furthermore, if additional or modified samples or technical documentation are required to support the testing of your product, these will be detailed along with any non-conformity items in section 2.

### SECTION 2

#### NON-CONFORMANCES

1. Standard UL 1973, Clause 44.8 required that cautionary marking symbols meanings shall be explained in the instruction manual. During review of your product, it was observed that an instruction manual was not provided. To show compliance, please provide a revision-controlled instruction manual.

**LETTER REPORT**

**SECTION 3**

**CRITICAL COMPONENTS & MATERIALS**

The following critical components or materials have not been able to be identified as appropriately certified...

Photo #	Item no.	Name	Manufacturer/ trademark <sup>2</sup>	Type / model	Technical data	Mark(s) of conformity
1	1	Enclosure	Gold Chain Metal Technology Co., Ltd.	Steel	100.7 cm x 87.2 cm x 33.8 cm (W x H x D)	NR
1	2	Enclosure Coating	Kuo Pont Chemical Co., Ltd.	780-40H49HATL	Polyester, 70 µm (+/- 20 µm)	NR
2	3	Door Latch	Various	Various	Keyed Entry	NR
5	4	Module	QPO Energy	QPO 1P8S (801-100001-001)	25.6 V, 280 Ah, 7 kWh	cETLus
6	5	BMS	QPO Energy	ESS-P200S16-A-257	UL 94 V-0, 51.2 V, 200 A, 130 °C	cETLus
6	6	Terminal Block	Dinkle	DKM150	UL 94 V-0, 1500 V, 285 A, 120 °C	cURus
5	7	Fuse	Bussmann	JJN-150	Class T, 150 A, 160 Vdc	cULus
			Various	Various		cURus
5	8	Heatshrink	3M	FP-301	600 V, -55 to +135 °C	cULus
			Various	Various		cURus
6	9	Connector	Changjiang Connectors Co., LTD.	A3961WV-3P-A	250 V, 7 A, -40 to +105 °C	cURus
			Various	Various	UL 94 V-2	
6	10	Comms Board PCB	IBE Electronics CO., LTD	4-layer PCB	UL 94 V-0, 130 °C	NR
6	11	Cable	Various	UL 3279	1/0 AWG, 600 V, 105 °C	cURus
6	12	Cable	Various	UL 1015	20 AWG, 600 V, 105 °C	cURus
7,8	13	Label Material	FlexCon Co., Inc.	THERMLfilm Select 2197	Material: 2 Mil Gloss White Polyester film w/ Permanent Adhesive Use: Indoor and Outdoor Temp: -23 to +150 °C Surface: Polyester Powder Paint	cURus
7,8	14	Label Ribbon	Armor IIMAK	AXR8	Material: Resin Temp: 5 to 35 °C Surface: Polyester	cURus

**LETTER REPORT**

**SECTION 4**

**TESTING**

The below listed represents a summary of the tests & results, including any which are pending completion or have yet to be conducted.

Completed Tests:

Test Location: Cortland, NY

<b>Test Description</b>	<b>Standard</b>	<b>Section</b>	<b>Result</b>
Tests for protection against access to hazardous parts	IEC 60529	12	Pass
Resistance check of grounding system	UL 1973	7.6.5	Pass
Overcharge Test	UL 1973	15	Pass
High-Rate Charge	UL 1973	16	Pass
Overload Under Discharge	UL 1973	18	Pass
Overdischarge Protection Test	UL 1973	19	Pass
Temperature and Operating Limits Check Test	UL 1973	20	Pass
Imbalanced Charging Test	UL 1973	21	Pass
Continuity Test	UL 1973	23	Pass
Working Voltage Measurements	UL 1973	25	Pass
Static Force Test	UL 1973	31	Pass
Impact Test	UL 1973	32	Pass
Short Circuit Test	UL 1973	17	Pass
Resistance to Moisture Test (IPX4)	UL 1973	39	Pass
Protection Against Solid Objects (IP4X)	IEC 60529	13.2	Pass
Single Cell Failure Design Tolerance	UL 1973	42	Pass

Pending Tests:

NA

**LETTER REPORT**

**SECTION 5**  
**PHOTOGRAPHS**

The following product photographs are provided to assist you in identifying the critical components identified above.

Photo 1: External 1 – Front

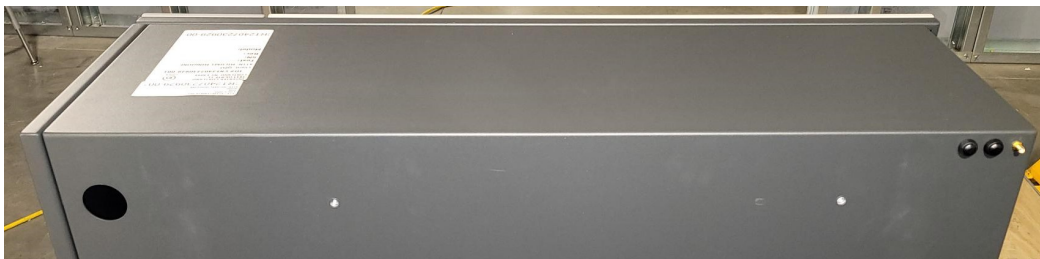


**LETTER REPORT**

Photo 2: External 2 – Side



Photo 3: External 3 – Back

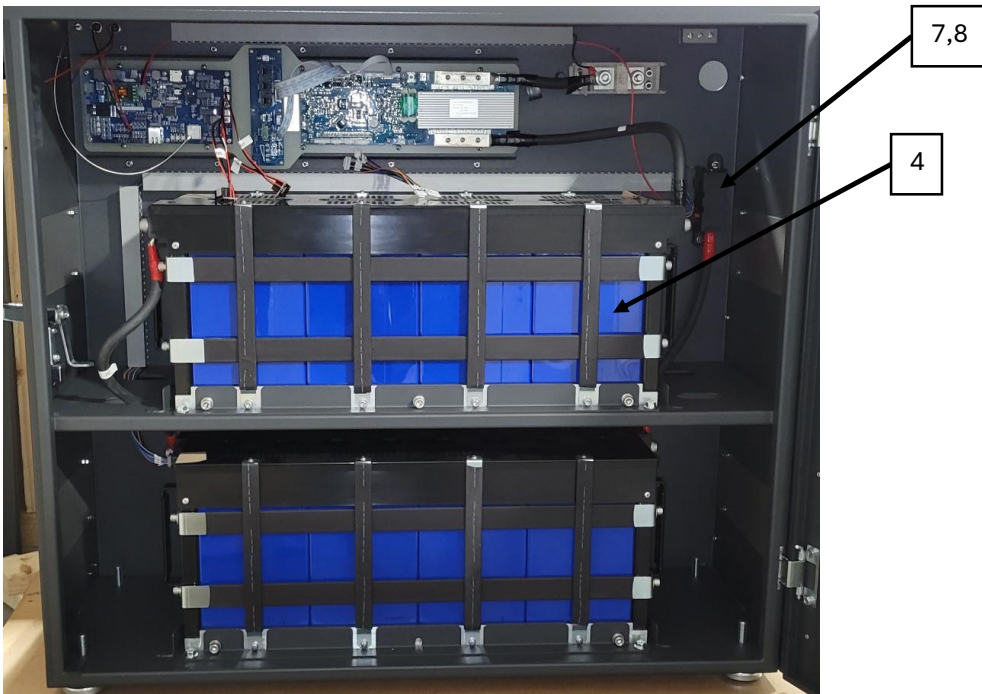


**LETTER REPORT**

Photo 4: Internal 1 – Front



Photo 5: Internal 2 – Cabinet



**LETTER REPORT**

Photo 6: Internal 3 – PCBAs

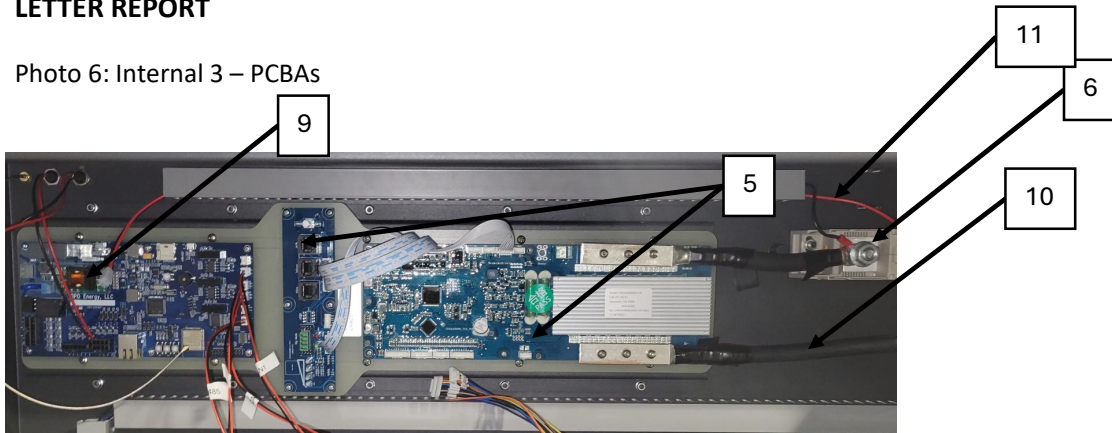


Photo 7: Label System (English)

# ⚡ Meter

**Model** QPO BESS 14

**Electrical**

Battery Type	LiFePO4 (Lithium Iron Phosphate)
Nominal Capacity	280 AH
Nominal Voltage	51.2 VDC
Battery Max Short Circuit Current	4312 A (duration 185µs)

**Environment**

Ingress Protection	IP44
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**WARNING:**



**Manufacturer**  
**Manufacture Date**

Meter Home (Portland, OR)

**LETTER REPORT**

Photo 8 - Label System (French)

 **Meter**

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**Modèle** QPO BESS 14

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**Électrique**

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Type de batterie	LiFePO4 (Phosphate de fer lithium)
Capacité nominale	280 AH
Tension nominale	51.2 VDC
Courant de court-circuit maximal de la batterie	4312 A (durée 185µs)

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**Environnement**


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Indice de protection	IP44
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**AVERTISSEMENT:**

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**Fabricant**  
**Date de fabrication**  
Meter Home (Portland, OR)

**LETTER REPORT**

**SECTION 6**

**PROJECT STATUS & ACTION**

Issuance of this letter report completes the testing (Stage 2) portion covered by Intertek Project No. G105843991.

In responding, please provide a written record of your proposed resolutions numbered in accordance with the items outlined in this letter report. Responding in this way assures that all responses are properly identified.



Once Intertek has received your response to all items outlined in this letter report, a Project Change Order (PCOR) may be issued to cover the scope of work necessary to review these responses (follow-up evaluation) or additional testing that may be required.

Please note, to facilitate the follow-up project for your product(s), a modified sample will be required to be submitted to Intertek.

**IMPORTANT – CLIENT DECISION:**

When you are ready to do so, please confirm your decision by completing the option table on page 11 with your preferred option and returning it to Dillon Badman via [Dillon.badman@intertek.com](mailto:Dillon.badman@intertek.com), along with your proposed resolutions and ready date for re-submission.

If there are any questions regarding the results contained in this report, or any of the other services offered by Intertek, please do not hesitate to contact your dedicated Intertek Project Manager.

Completed by:	Dillon Badman	Reviewed by:	Rudolph Sporman
Title:	Project Engineer	Title:	Project Engineer
Signature:		Signature	
Date	28 Feb 2025	Date:	28 Feb 2025

Please note: this Letter Report does not represent authorization for the use of any Intertek certification marks.

## LETTER REPORT

### PLEASE RETURN THIS PAGE TO THE INTERTEK PROJECT MANAGER

**Project Manager Name:** Dillon Badman

Please advise which of the following options **you** wish us to pursue

OPTION	DESCRIPTION	
1	<p>We will supply resolutions to address ALL failures item identified along with modified sample(s) and documentation requested in this Letter Report (if applicable)</p> <p>Once the modifications and documents necessary to address ALL of the issues have been compiled, please contact your dedicated Intertek Project Manager to initiate continuing the evaluation or follow-up evaluation.</p> <p>Client Ready Date:</p> <p><i>Note 1: As the project has been placed on-hold, Intertek reserve the right to invoice for work completed.</i></p> <p><i>Note 2: This may require a PCOR – Project Change Order Request to cover the additional scope of work necessary to review your responses and complete the project. This will be issued via your Account Manager.</i></p> <p><i>Note 3: Intertek upon receipt of ALL resolutions/modified sample/s &amp; PCOR approval (if required) will reschedule the project at the next available opportunity.</i></p>	<input type="checkbox"/>
2	<p>Please halt all further testing at this stage and invoice my project for work completed to date.</p>	<input type="checkbox"/>

Completed by:

Title:

Signature:

Date

1.0 Reference and Address			
Report Number	105843991CRT-001	DRAFT Issued: 27-Feb-2025	For Review and Comment
Standard(s)	Batteries for Use in Stationary and Motive Auxiliary Power Applications [ANSI/CAN/UL 1973:2022 Ed.3]		
Applicant	QPO Energy	Manufacturer 1	<b>QPO Energy</b>
Address	11325 SW Tualatin-Sherwood Rd. Tualatin, OR 97062	Address	11325 SW Tualatin-Sherwood Rd. Tualatin, OR 97062
Country	USA	Country	USA
Contact	Mr. Virgil Beaston	Contact	Mr. Virgil Beaston
Phone	(714) 592-8297	Phone	(714) 592-8297
FAX	NA	FAX	NA
Email	<a href="mailto:virgilb@qpoen.com">virgilb@qpoen.com</a>	Email	<a href="mailto:virgilb@qpoen.com">virgilb@qpoen.com</a>

<b>2.0 Product Description</b>	
Product	Battery Energy Storage System
Brand name	Meter Home
Description	The product covered by this report is a stationary, residential, indoor, floor-mounted, wall-supported, battery energy storage system.
Models	QPO BESS 14
Model Similarity	NA
Ratings	51.2 Vdc, 280 Ah, 14.3 kWh
Other Ratings	IP 44, -30 to 35 °C

**3.0 Product Photographs**

**Photo 1 - External View, Front of Model QPO BESS 14**



**Photo 2 - External View, Side of Model QPO BESS 14**



### 3.0 Product Photographs



**Photo 3** - External View, Rear of Model QPO BESS 14



**Photo 4** - Internal View, Front of Model QPO BESS 14

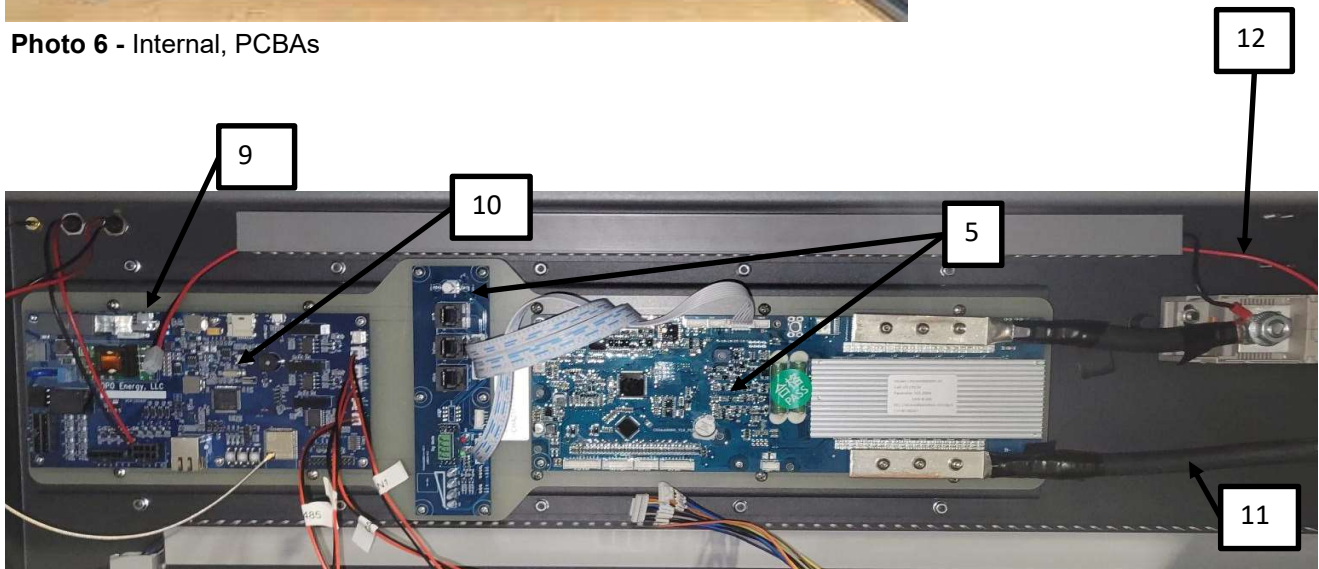


**3.0 Product Photographs**

**Photo 5 - Internal View, Cabinet**



**Photo 6 - Internal, PCBAs**



**3.0 Product Photographs**

**Photo 7 - Label System (English)**



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<b>Model</b>	QPO BESS 14
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**Electrical**

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Battery Type	LiFePO4 (Lithium Iron Phosphate)
Nominal Capacity	280 AH
Nominal Voltage	51.2 VDC
Battery Max Short Circuit Current	4312 A (duration 185µs)

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**Environment**

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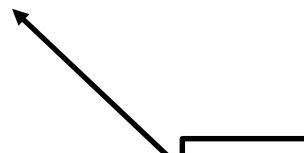
Ingress Protection	IP44
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**WARNING:**

**Manufacturer**  
**Manufacture Date**

Meter Home (Portland, OR)



**3.0 Product Photographs**

**Photo 8 - Label System (French)**

13, 14



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<b>Modèle</b>	QPO BESS 14
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**Électrique**

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Type de batterie	LiFePO4 (Phosphate de fer lithium)
Capacité nominale	280 AH
Tension nominale	51.2 VDC
Courant de court-circuit maximal de la batterie	4312 A (durée 185µs)

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**Environnement**

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Indice de protection	IP44
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**AVERTISSEMENT:**

**Fabricant**  
**Date de fabrication**

Meter Home (Portland, OR)



4.0 Critical Components						
Photo #	Item no. <sup>1</sup>	Name	Manufacturer/ trademark <sup>2</sup>	Type / model <sup>2</sup>	Technical data and securement means	Mark(s) of conformity <sup>3</sup>
1	1	Enclosure	Gold Chain Metal Technology Co., Ltd.	Steel	100.7 cm x 87.2 cm x 33.8 cm (W x H x D)	NR
1	2	Enclosure Coating	Kuo Pont Chemical Co., Ltd.	780-40H49HATL	Polyester, 70 µm (+/- 20 µm)	NR
2	3	Door Latch	Various	Various	Keyed Entry	NR
5	4	Module	QPO Energy	QPO 1P8S (801-100001-001)	25.6 V, 280 Ah, 7 kWh	cETLus
6	5	BMS	QPO Energy	ESS-P200S16-A-257	UL 94 V-0, 51.2 V, 200 A, 130 °C	cETLus
6	6	Terminal Block	Dinkle	DKM150	UL 94 V-0, 1500 V, 285 A, 120 °C	cURus
5	7	Fuse	Bussmann	JJN-150	Class T, 150 A, 160 Vdc	cULus
			Various	Various		
5	8	Heatshrink	3M	FP-301	600 V, -55 to +135 °C	cURus
			Various	Various		
6	9	Connector	Changjiang Connectors Co., LTD.	A3961WV-3P-A	250 V, 7 A, -40 to +105 °C UL 94 V-2	cURus
			Various	Various		
6	10	Comms Board PCB	IBE Electronics CO., LTD	4-layer PCB	UL 94 V-0, 130 °C	NR
6	11	Cable	Various	UL 3279	1/0 AWG, 600 V, 105 °C	cURus
6	12	Cable	Various	UL 1015	20 AWG, 600 V, 105 °C	cURus
7,8	13	Label Material	FlexCon Co., Inc.	THERMLfilm Select 2197	Material: 2 Mil Gloss White Polyester film w/ Permanent Adhesive Use: Indoor and Outdoor Temp: -23 to +150 °C Surface: Polyester Powder Paint	cURus
7,8	14	Label Ribbon	Armor IIMAK	AXR8	Material: Resin Temp: 5 to 35 °C Surface: Polyester	cURus
NOTES:						
1) Not all item numbers are indicated (called out) in the photos, as their location is obvious.						
2) "Various" means any type, from any manufacturer that complies with the "Technical data and securement means" and meets the "Mark(s) of conformity" can be used.						
3) Indicates specific marks to be verified, which assures the agreed level of surveillance for the component. "NR" - indicates Unlisted and only visual examination is necessary. "See 5.0" indicates Unlisted components or assemblies to be evaluated periodically refer to section 5.0 for details.						

**5.0 Critical Unlisted CEC Components**

No Unlisted CEC components are used in this report

<b>6.0 Critical Features</b>
<p><u>Recognized Component</u> - A component part, which has been previously evaluated by an accredited certification body with restrictions and must be evaluated as part of the basic product considering the restrictions as specified by the Conditions of Acceptability.</p>
<p><u>Listed Component</u> - A component part, which has been previously Listed or Certified by an accredited Certification Organization with no restrictions and is used in the intended application within its ratings.</p>
<p><u>Unlisted Component</u> - A part that has not been previously evaluated to the appropriate designated component standard. It may also be a Listed or Recognized component that is being used outside of its evaluated Listing or component recognition.</p>
<p><u>Critical Features/Components</u> - An essential part, material, subassembly, system, software, or accessory of a product that has a direct bearing on the product's conformance to applicable requirements of the product standard.</p>
<p><u>Construction Details</u> - For specific construction details, reference should be made to the photographs and descriptions. All dimensions are approximate unless specified as exact or within a tolerance. In addition to the specific construction details described in this Report, the following general requirements also apply.</p>
<p>1. <u>Spacing</u> - In primary circuits, 0.8 mm minimum spacing are maintained through air of insulating material between current-carrying parts of opposite polarity and between such current-carrying parts and dead-metal parts or low voltage isolated circuits. In primary circuits, 2.0 mm minimum spacing are maintained over surfaces of insulating material between current-carrying parts of opposite polarity and between such current-carrying parts and dead-metal parts or low voltage isolated circuits. Refer to Illustration 2 for areas to verify.</p>
<p>2. <u>Mechanical Assembly</u> - Components such as switches, fuseholders, connectors, wiring terminals and display lamps are mounted and prevented from shifting or rotating by the use of lockwashers, starwashers, or other mounting format that prevents turning of the component.</p>
<p>3. <u>Corrosion Protection</u> - All ferrous metal parts are protected against corrosion by painting, plating or the equivalent.</p>
<p>4. <u>Accessibility of Live Parts</u> - All uninsulated live parts in primary circuitry are housed within a metal enclosure constructed with no openings other than those specifically described in Sections 4 and 5.</p>
<p>5. <u>Grounding</u> - All exposed dead-metal parts and all dead-metal parts within the enclosure that are exposed are connected to the equipment grounding terminal.</p>
<p>6. <u>Polarized Connection</u> - This product is provided with a polarized power supply connection. All single pole switches and fuses are connected only to the ungrounded supply circuit conductor. Modules are provided with polarity markings.</p>
<p>7. <u>Internal Wiring</u> - Internal wiring is routed away from sharp or moving parts. Internal wiring leads terminating in soldered connections are made mechanically secure prior to soldering. Recognized Component separable (quick disconnect) connectors of the positive detent type, closed loop connectors, or other types specifically described in the text of this report are also acceptable as internal wiring terminals. At points where internal wiring passes through metal walls or partitions, the wiring insulation is protected against abrasion or damage by plastic bushings or grommets. All wiring is minimum 20 AWG, with a minimum rating of 600 V, 105 °C.</p>
<p>8. <u>Schematics</u> - Refer to Illustration 1 for schematics requiring verification during Field Representative Inspection Audits.</p>

## 6.0 Critical Features

9. Markings - The product is marked on a labeling system as described in item no. 14 and 15 of Section 4.0 or by molding into polymeric enclosure as follows:

Manufacturer's name, trade name, trademark, or other identifying marking of the Basic Listee as defined in section 9.0;  
Model number;  
Electrical ratings in Volts dc and capacity in Ampere-hours or Watt-hours;  
Cell chemistry;  
Date of manufacture;  
Maximum short circuit current and duration;  
IP rating;  
Orientation.

The product is marked by molding into polymeric enclosure as follows:  
Battery module terminals indicate positive (+) or negative (-) polarity.

The following markings in French are required:

Manufacturer's name, trade name, trademark, or other identifying marking of the Basic Listee as defined in section 9.0;  
Model number;  
Electrical ratings in Volts dc and capacity in Ampere-hours or Watt-hours;  
Cell chemistry;  
Date of manufacture;  
Maximum short circuit current and duration;  
IP rating;  
Orientation.

10. Cautionary Markings - The following are required:

Read instruction manual.

(either include the actual text here or refer to a clear illustration page showing the actual text including any required French text in minimum 10 pt font. Note: If evaluated to a Canadian Standard, **all cautionary markings are required to be provided in both French and English** - regardless if required by the standard.) <if no cautionary marking is required or provided then indicate "none required".>

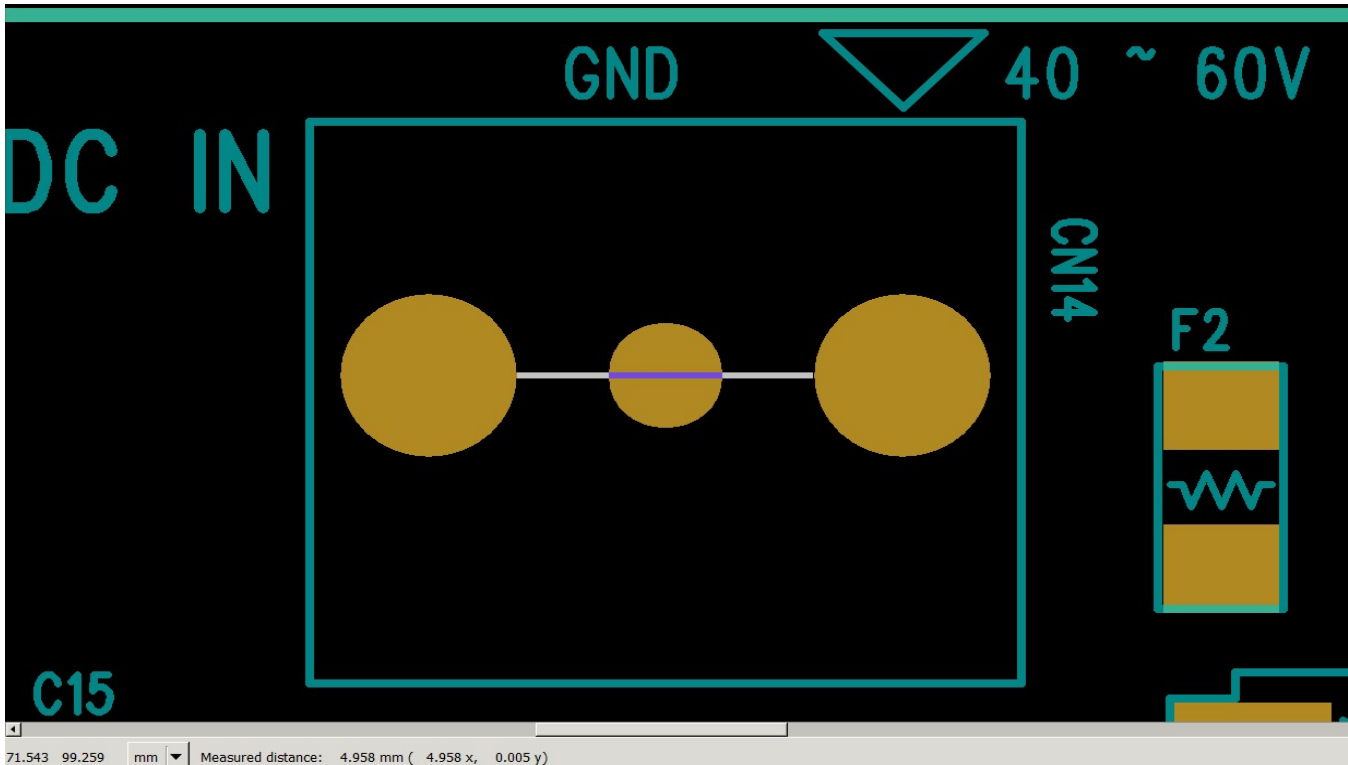
11. Installation, Operating and Safety Instructions - Instructions for installation and use of this product are provided by the manufacturer. (When required by the standard or needed to demonstrate compliance) Refer to Illustrations ++ for details. (Illustration page showing the actual text including required French text.) (Do not include more than just a few pages of Installation, Operating and Safety Instructions in the Illustration. If a large instruction set is required by the standard or to demonstrate compliance, include the cover page in the Illustration and control the 'Revision Level or Code' of the instruction set.) <If no instructions are required for compliance to the standard, indicate "none required".>

**7.0 Illustrations**

**Illustration 1** - Table of controlled documents that must be available at the factory during inspections.

Item Number	Document Title	Document Number	Rev Level	To be Verified
1				Version

**Illustration 2** - Spacings



<b>8.0 Test Summary</b>			
Evaluation Period	23 Jul 2024 to 9 Jan 2025		Project No. G105943991
Sample Rec. Date	23-Jul-2024	Condition Production	Sample ID. CRT2407230929
Test Location	35 S Franklin St, Cortland, NY 13045		
Test Procedure	Testing Lab		
Determination of the result includes consideration of measurement uncertainty from the test equipment and methods. The product was tested as indicated below with results in conformance to the relevant test criteria.			
The following tests were performed:			
Test Description	Batteries for Use in Stationary and Motive Auxiliary Power Applications [ANSI/CAN/UL 1973:2022 Ed.3]	Degrees of Protection Provided by Enclosures (IP Code) [IEC 60529:2013 Ed.2.2]	
Overcharge	15	-	
High Rate Charge	16	-	
Short Circuit	17	-	
Overload Under Discharge	18	-	
Overdischarge Protection	19	-	
Temperature and Operating Limits Check	20	-	
Imbalanced Charging Test	21	-	
Continuity	23	-	
Working Voltage Measurements	25	-	
Static Force	31	-	
Impact	32	-	
Resistance to Moisture	39	-	
Single Cell Failure Design Tolerance	42	-	
Tests for protection against access to hazardous parts	-	12	
Tests for protection against solid foreign objects indicated by the first characteristic numeral	-	13.2	
Test for second characteristic numeral 4 with oscillating tube or spray nozzle	-	14.2.4	

<b>8.1 Signatures</b>			
A representative sample of the product covered by this report has been evaluated and found to comply with the applicable requirements of the standards indicated in Section 1.0.			
Completed by:	Dillon Badman	Reviewed by:	Rudolph Sporman
Title:	Project Engineer	Title:	Project Engineer
Signature:	<i>Signature on file</i>	Signature:	<i>Signature on file</i>

<b>9.0 Correlation Page For Multiple Listings</b>	
The following products, which are identical to those identified in this report except for model number and Listee name, are authorized to bear the ETL label under provisions of the Intertek Multiple Listing Program.	
<b>BASIC LISTEE</b>	QPO Energy
<b>Address</b>	11325 SW Tualatin-Sherwood Rd. Tualatin, OR 97062
<b>Country</b>	USA
<b>Product</b>	Battery Energy Storage System

<b>MULTIPLE LISTEE 1</b>	None
<b>Address</b>	
<b>Country</b>	
<b>Brand Name</b>	
<b>ASSOCIATED MANUFACTURER</b>	
<b>Address</b>	
<b>Country</b>	
<b>MULTIPLE LISTEE 1 MODELS</b>	
<b>BASIC LISTEE MODELS</b>	

<b>MULTIPLE LISTEE 2</b>	None
<b>Address</b>	
<b>Country</b>	
<b>Brand Name</b>	
<b>ASSOCIATED MANUFACTURER</b>	
<b>Address</b>	
<b>Country</b>	
<b>MULTIPLE LISTEE 2 MODELS</b>	
<b>BASIC LISTEE MODELS</b>	

<b>MULTIPLE LISTEE 3</b>	None
<b>Address</b>	
<b>Country</b>	
<b>Brand Name</b>	
<b>ASSOCIATED MANUFACTURER</b>	
<b>Address</b>	
<b>Country</b>	
<b>MULTIPLE LISTEE 3 MODELS</b>	
<b>BASIC LISTEE MODELS</b>	

("None" should be used as shown if there are no Multiple Listings. The remainder of the form should be blank. All entries on this Correlation Page must be documented on a signed, completed Multiple Listee Registration Form). There is no reason to delete any part of this form.

## 10.0 General Information

The Applicant and Manufacturer have agreed to produce, test and label ETL Listed products in accordance with the requirements of this Report. The Manufacturer has also agreed to notify Intertek and to request authorization prior to using alternate parts, components or materials.

### COMPONENTS

Components used shall be those itemized in this Intertek report covering the product, including any amendments and/or revisions.

### LISTING MARK

The ETL Listing mark applied to the products shall either be separable in form, such as labels purchased from Intertek, or on a product nameplate or other media only as specifically authorized by Intertek. Use of the mark is subject to the control of Intertek.

The mark must include the following four items:

- 1) applicable country identifiers "US" and/or "C" or "US", "C" and "EU"
- 2) the word "Listed" or "Classified" or "Recognized Component" (whichever is appropriate)
- 3) a control number issued by Intertek
- 4) a product descriptor that identifies the standards used for certification. Example:

**For US standards**, the words, "Conforms to" shall appear with the standard number along with the word, "Standard" or "Std." Example: "Conforms to ANSI/UL Std. XX."

**For Canadian standards**, the words "Certified to CAN/CSA Standard CXX No. XX." shall be used, or abbreviated, "Cert. to CAN/CSA Std. CXX No. XX."

Can be used together when both standards are used.

**If all standards on the ATM have the same standard title**, the shared title or its abbreviation may be used in place of the examples above. Example: "Medical Electrical Equipment" or "MEE"; "Information Technology Equipment" or "ITE"; "Audio/Video Information And Communication Technology Equipment" or "A/V ICTE".

**Note: A facsimile must be submitted to Intertek, Attn: Follow-up Services for approval prior to use.**

The facsimile need not have a control number. A control number will be issued **after signed Certification**

**Agreements** have been received by the Follow-up Services office, approval of the facsimile of your proposed Listing Mark, satisfactory completion of the Listing Report, and scheduling of a factory assessment in your facility.

### MANUFACTURING AND PRODUCTION TESTS

Manufacturing and Production Tests shall be performed as required in this Report.

### FOLLOW-UP SERVICE

Periodic unannounced audits of the manufacturing facility (and any locations authorized to apply the mark) shall be scheduled by Intertek. An audit report shall be issued after each visit. Special attention will be given to the following:

1. Conformance of the manufactured product to the descriptions in this Report.
2. Conformance of the use of the ETL mark with the requirements of this Report and the Certification Agreement.
3. Manufacturing changes.
4. Performance of specified Manufacturing and Production Tests.

In the event that the Intertek representative identifies non-conformance(s) to any provision of this Report, the Applicant shall take one or more of the following actions:

1. Correct the non-conformance.
2. Remove the ETL Mark from non-conforming product.
3. Contact the issuing product safety evaluation center for instructions.

### **10.1 Evaluation of Unlisted Components**

Because Unlisted Components are uncontrolled, and they do not fall under a third party follow up program, Intertek may require these components to be tested and/or evaluated at least once annually, more often for certain components, as part of the independent certification process. The Unlisted Components in Section 5.0 require testing and/or evaluation as indicated.

Sample Disposition: Due to the destructive nature of the testing, all samples will be discarded at the conclusion of testing unless, the manufacturer specifically requests the return of the samples. The request for return must accompany the initial component shipment.

**11.0 Manufacturing and Production Tests**

The manufacturer agrees to conduct the following Manufacturing and Production Tests as specified:

**Required Tests**

Grounding Continuity Test

**11.1 Grounding Continuity Test**

Method

Using a milliohmmeter or other method on 100% of production units, the continuity check shall determine that measurements made on any two points of the grounding system do not exceed 0.1  $\Omega$ .

**Products Requiring Grounding Continuity Test:**

All products covered by this Report.

