# Best Practice Guide: Battery Storage Equipment Electrical Safety Requirements.

Eco4847P

**PowerPlus Energy Eco4847P Battery**

## 1. Type of battery storage equipment

The PowerPlus Energy Eco4847P is a 51.2VDC 92Ah 4.7kWh Battery using Lithium Ferro Phosphate cylindrical cells with an internal battery management system (BMS), a Noark 2-pole non-polarised ganged 63A DC circuit breaker, Amphenol Surlok battery terminals and volt free alarm contacts via a RJ45 connector in a robust metal enclosure.

## 2. Details of the Best Practice Guide - Battery Storage Equipment (BPGBSE) method chosen and standards applied

Method 1 of the Best Practice Guide – Battery Storage Equipment Electrical Safety Requirements has been chosen to demonstrate the compliance of the Eco4847P battery. This method mandates compliance with:

1. IEC 62619:2022 Secondary cells and batteries containing alkaline or other non-acid electrolytes:
   The PowerPlus Energy Eco4847P Battery, as well as the constituent Lithium Ferro Phosphate 26700 cells, are both certified compliant with IEC 62619 by TUV Rheinland Japan Ltd.
2. AS/NZS 62368.1:2022 Audio/video, information and communication technology equipment Safety requirements:
   Testing and evaluation of the PowerPlus Energy Eco4847P battery against AS/NZS 60368.1:2022 have been undertaken by C-PRAV Labs Pty Ltd (Springvale, VIC, 3171). A Certificate of Suitability has been issued by TUV Rheinland Australia Pty Ltd (Port Melbourne, VIC 3207).
3. UL 1973:2013 batteries for use in light electrical rail applications and stationary applications – Section 5.8.13 Software:

   The PowerPlus Energy Eco4847P battery does not contain any components in the Battery Management System (BMS) involving Software. Instead it uses analogue electronics and trip points set in hardware for the control of load and/or charger disconnection in the event of an over-current, over-voltage, under-voltage, or over-temperature fault event. Furthermore, the PowerPlus Energy Eco4847P relies upon a Noark 2-pole non-polarised ganged 63A DC circuit breaker for additional safety protection in the unlikely event of a solid-state circuit failure on the BMS. As such the Eco4847P adequately meets the conditions.

## 3. Certifications of compliance to standards cited by the mandatory method by certification bodies recognised in Australia

TUV Rheinland Japan Ltd have certified the PowerPlus Energy Eco4847P battery.
TUV Rheinland Japan Ltd have certified the FB Tech IFR26700-4600mAh-3.2V Lithium Ferro Phosphate cells:

> TUV Rheinland Japan Ltd certified the PowerPlus Energy Pty Ltd Eco4847P 51.2Vdc 92Ah rechargeable Li-ion battery as compliant with IEC 62619:2022, as of 14th March 2025 on certificate JPTUV-169320.
>
> TUV Rheinland Japan Ltd certified the FBTech IFR26700 4600mAh-3.2V Lithium Ferro Phosphate cells as compliant with IEC62619:2022, as of 23th August 2024 on certificate JPTUV-164220.

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Tuv Rheinland Australia Pty Ltd has certified that the PowerPlus Energy Eco4847P battery complies with AS/NZS 62368.1:2022 on certificate AZ 69028501 against test report CPRAV-SAF-2411003 Rev 1.00 issued by C-PRAV Labs Pty Ltd.

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TUV Rheinland Shenzhen Co., Ltd. has certified that the PowerPlus Energy Pty Ltd Eco4847P battery complies with the testing requirements of Section 38.3 of the Sixth revised edition Amendment 1 of the Recommendations on the Transport of Dangerous Goods, Manual of Test and Criteria (ST/SG/AC.10/11/Rev.6/Amend.1/Section 38.3), as of 25st December 2024 on report CN257JZ9001.

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C-PRAV Labs Pty Ltd certified that the PowerPlus Energy Pty Ltd Eco4847P battery complies with the testing requirements of EN 61000-6-3:2021 for emissions standard for equipment in residential environments, as of 20th December 2024 on report number CRPAV-EMC-2408009 Rev 1.00

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## Declaration of compliance

On the basis of assessment tests undertaken by nationally and internationally recognised test laboratories, and certificates issued by nationally and internationally recognised authorities,

I, Edwin Cotter, Engineering Head of Department for PowerPlus Energy Pty Ltd, hereby declare the Eco4847P battery to be compliant to Best Practice Guide for Battery Storage Equipment – Electrical Safety Requirements – Version 1 – Pre-assembled battery system equipment – Method 1 mandatory requirements.