

APPLICATION GUIDE

FRONIUS PRIMO GEN24 & GEN24 PLUS SERIES – PV POINT SETUP & OPERATION (AUSTRALIA & NZ ONLY)

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Gender-specific wording refers equally to female and male form.

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1. CHANGE LOG

Date	Version	Comments	Author
13/05/2023	1.0	Initial Release	Fronius Australia

2. SCOPE

This document provides technical information on the operation of the GEN24 PV Point backup function. It also outlines the recommended alternate installation method required in <u>Australia & New Zealand</u> to meet the AS/NZS 3000 wiring regulations.

NOTE: This document should only be used for installations in Australia & NZ and is a recommendation only. The installer should consult AS/NZS 3000 to ensure they meet all wiring requirements.

The following inverter series are relevant to this document:

- / Fronius GEN24 Primo
- / Fronius GEN24 Primo Plus

3. GENERAL

The Fronius GEN24 PV Point / Opportunity Power (OP) function is a separate AC power output on the inverter that can provide power in a grid outage from PV only, Battery only or both simultaneously. The PV Point is only active / live when the grid is not present at the inverter's normal grid interactive terminals. i.e. The PV Point is NOT live or active when the grid is present and therefore SHOULD NOT be used to backup loads that require constant power. E.g., refrigerator, house lighting etc. It is designed to be an "emergency power source". Caution must be exercised when selecting electrical loads as some devices have high starting currents such as fridges, freezers, AC pumps and etc. Overload capacity of 35% is possible for a duration of 5 seconds, depending on the capacity of the solar modules and/or the battery at that moment in time. PV Point is NOT a UPS type backup source and will take approx. 30 sec to start up after grid failure.

An appliance(s) should be directly connected to the PV Point GPO. The GPO should not be connected to the electrical installation via an inlet and/or changeover device arrangement.

Technical characteristics:

Output Voltage: 220/230/240Vac (selected during commissioning. Default is 230Vac)

/ Max. Current: 13A / Max. continuous power: 3000VA / Overload capacity: 35% for 5 sec

For higher output capacity it is then recommended to use the "full backup function" and constantly power loads. See the Full Backup Application Guide for information.

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4. WIRING INSTRUCTIONS

AS/NZS 3000 requires the maintenance of the continuity of the Neutral conductor to ensure correct operation of RCDs. The following wiring & enclosure recommendations assist in fulfilling this requirement when installing the PV Point. It contains 6-Pole IP 56 rated enclosure with the following components:

Example 1:

In this example the GPO is located within the same enclosure as the *Inverter AC Isolator* and *RCBO* for the GPO.

Components used in example:

- / Hager SBR180 80A Main Switch [Function Main Switch Inverter Supply / Inverter AC Isolator]
- / Hager ADC916T 16A RCBO [Function Main Switch Stand Alone Supply / Final subcircuit RCBO]
- / Clipsal 4SSO15D | 10 Amp Din Mounted GPO (Double Pole) [Function PV Point power outlet]





The enclosure contains an Earth bar & a Neutral bar. These are necessary to combine all the Earth connections and combine all the Neutral connections. An MEN point <u>shall NOT</u> be made within this enclosure. i.e. joining of Neutral & Earth together within the enclosure.



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Example 2:

In this example the GPO is located outside & adjacent to the Inverter AC Isolator and RCBO for the GPO.

Components used this example:

- Hager MSN132 32A MCB [Function Main Switch Inverter Supply / Inverter AC Isolator]
- / Hager ADC916T 16A RCBO [Function Main Switch Stand Alone Supply / Final subcircuit RCBO]
- / 10 Amp Surface Mounted GPO (Double Pole) [Function PV Point power outlet]





NOTE: the above examples are suggestions <u>only,</u> there may be other methods and other components that can be utilised to achieve the same technical & compliant arrangement.

5. LABELING

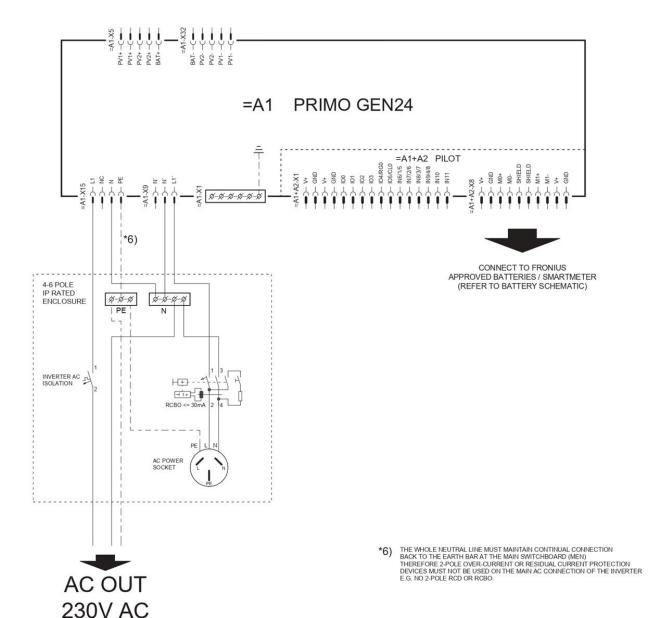
For correct labelling requirements of the above enclosures, isolation devices and outlets, Australian Standard AS/NZS 4777.1 should be used.

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6. SCHEMATIC / WIRING DIAGRAM

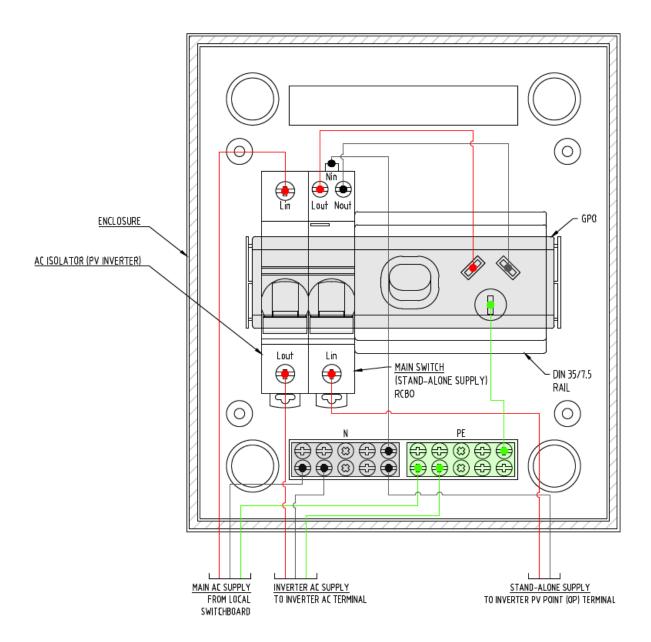




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7. PHYSICAL WIRING (RE: EXAMPLE #1)



NOTE: Devices shown in this diagram are for orientation only. Local site conditions and constraints to be considered by qualified personnel designing and/or installing the equipment.

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