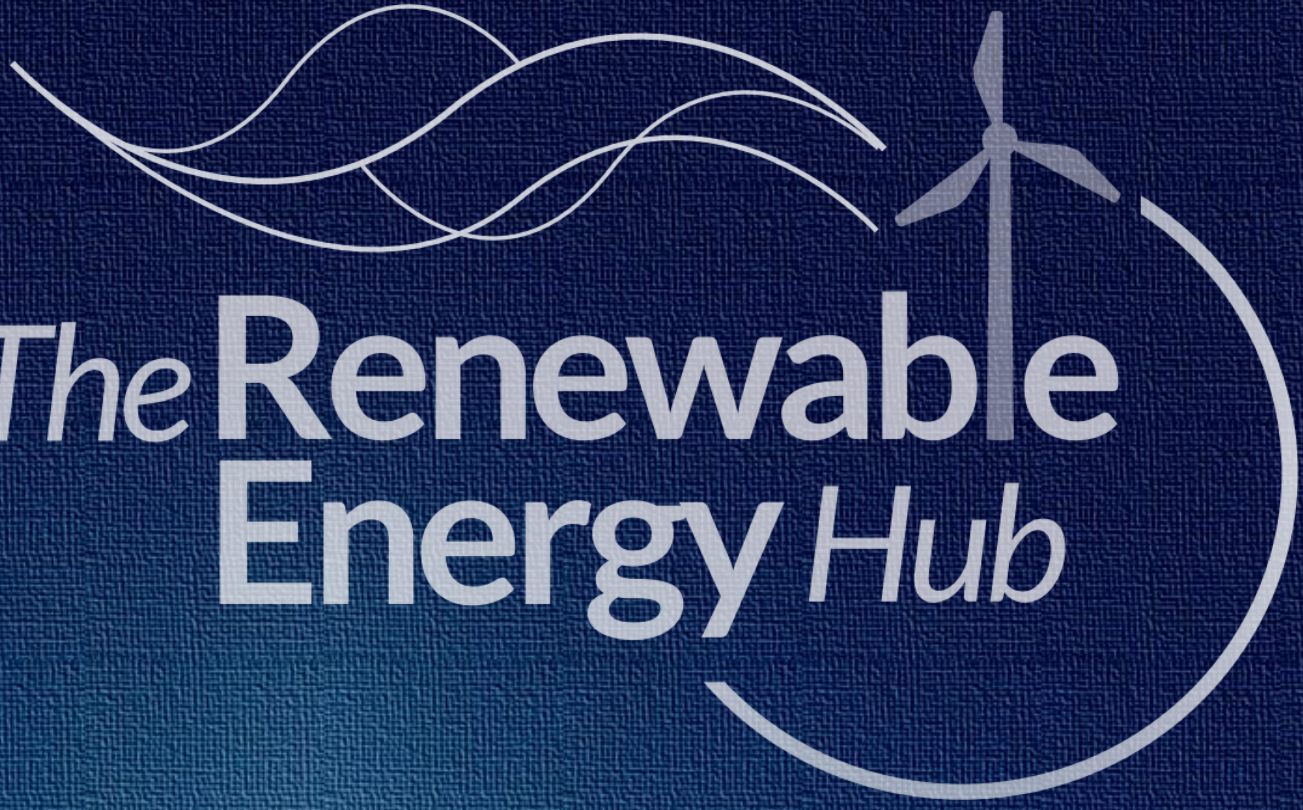


B60

**Domestic Voltage
Optimisation Unit**



The **Renewable**
Energy *Hub*

Installation Manual

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PRODUCT ADVISORY NOTICE

This product must be installed by a competent person in accordance with the IEE Wiring Regulations, BS7671 (17th Edition or later) and current Building Regulations. Ensure the electrical supply is disconnected before installation or removing the cover of the B60 unit.

Contents

Product Description	4
Warning Notice	4
Safety Advice.....	4
Introduction	5
Installation	
Typical Installations.....	6
Dimensions & Mounting the unit	8
Electrical Connections	9
Specifications	10

Product Description

The single phase Domestic Voltage Optimisation unit is designed for use in domestic and light commercial / retail applications.

Installed between the electricity meter and main consumer unit, the B60 offers 18 volt subtractive performance.

The unit is not intended for any purpose other than that defined within this document.

Warnings

Please read and observe the following notices carefully. These warnings must be observed when installing and operating the Domestic Voltage Optimisation unit.

All relevant supplies must be isolated or disconnected before commencing any work.

This product must be installed by a competent person in accordance with the IEE Wiring Regulations, BS7671 (17th Edition or later) and any relevant Building Regulations.

Introduction

The B60PVM is a single phase Voltage Optimisation unit designed to work with PV installations.

The unit reduces the incoming supply voltage by 18v (i.e.: a 240v supply would be reduced to 222v). It is designed to be connected in series with the incoming supply installed between the main electricity meter for the dwelling, and the consumer unit.

The B60 has short circuit, overload and thermal protection built in.

Rated at 60 Amps, the unit is suitable for the majority of domestic and light commercial / retail installations. The unit will tolerate an overload of 70 Amps for a period of no more than 30 minutes before the thermal trip mechanism of the incoming MCB operates.

The unit has a dedicated PV supply RCCB and a MID meter.



Once installed, the unit has a Live Mains Supply (230v or higher) within the enclosure. The cover must not be removed until the supply to the unit has been isolated or disconnected.

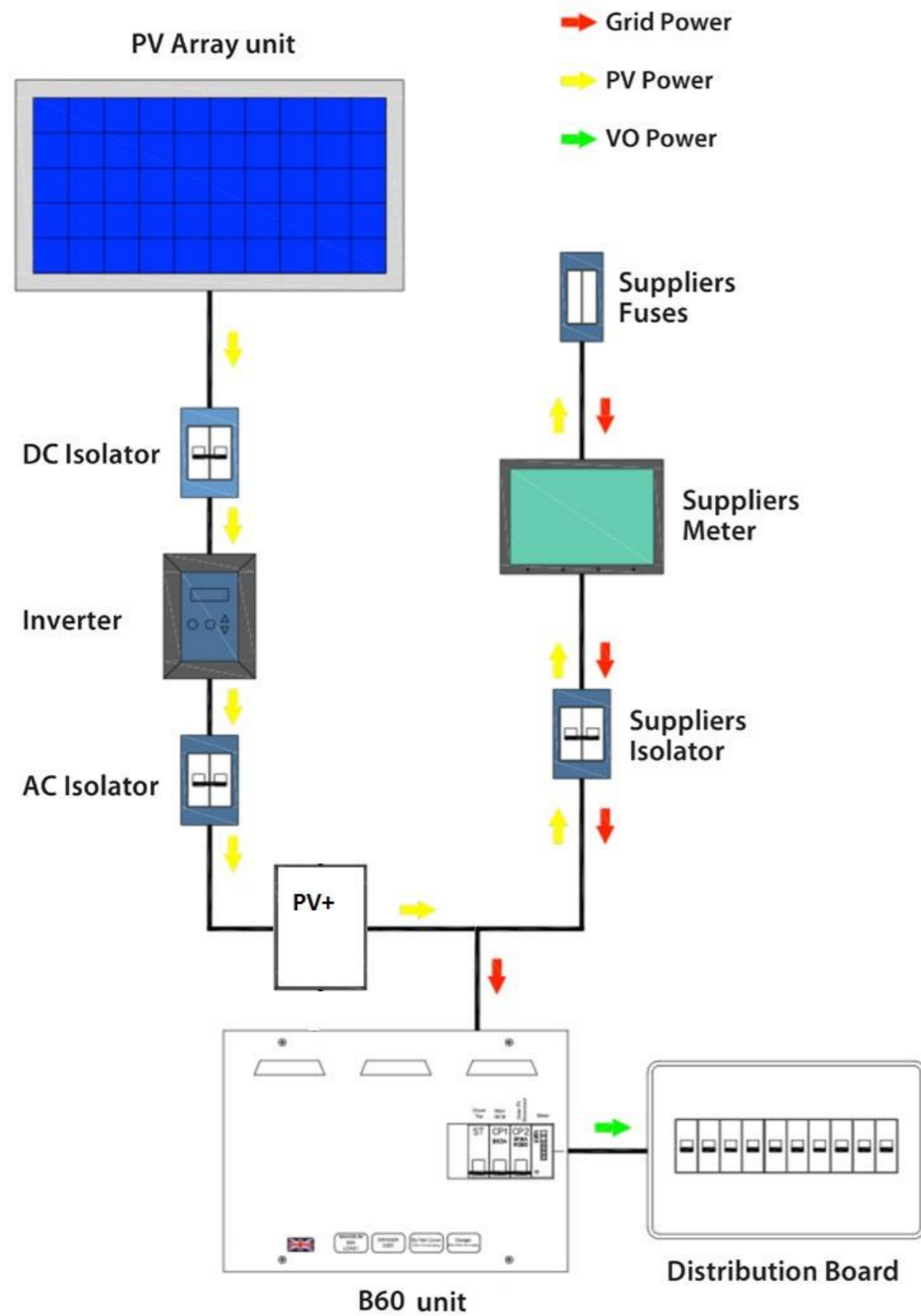
Safety Advice

The unit must be installed in a dry ventilated location, it must never be covered or have restricted ventilation.

The B60 voltage optimisation unit is rated for a maximum 60A load.

For any information not contained within this document, please contact our technical support team on 01782 473002.

Typical Installation



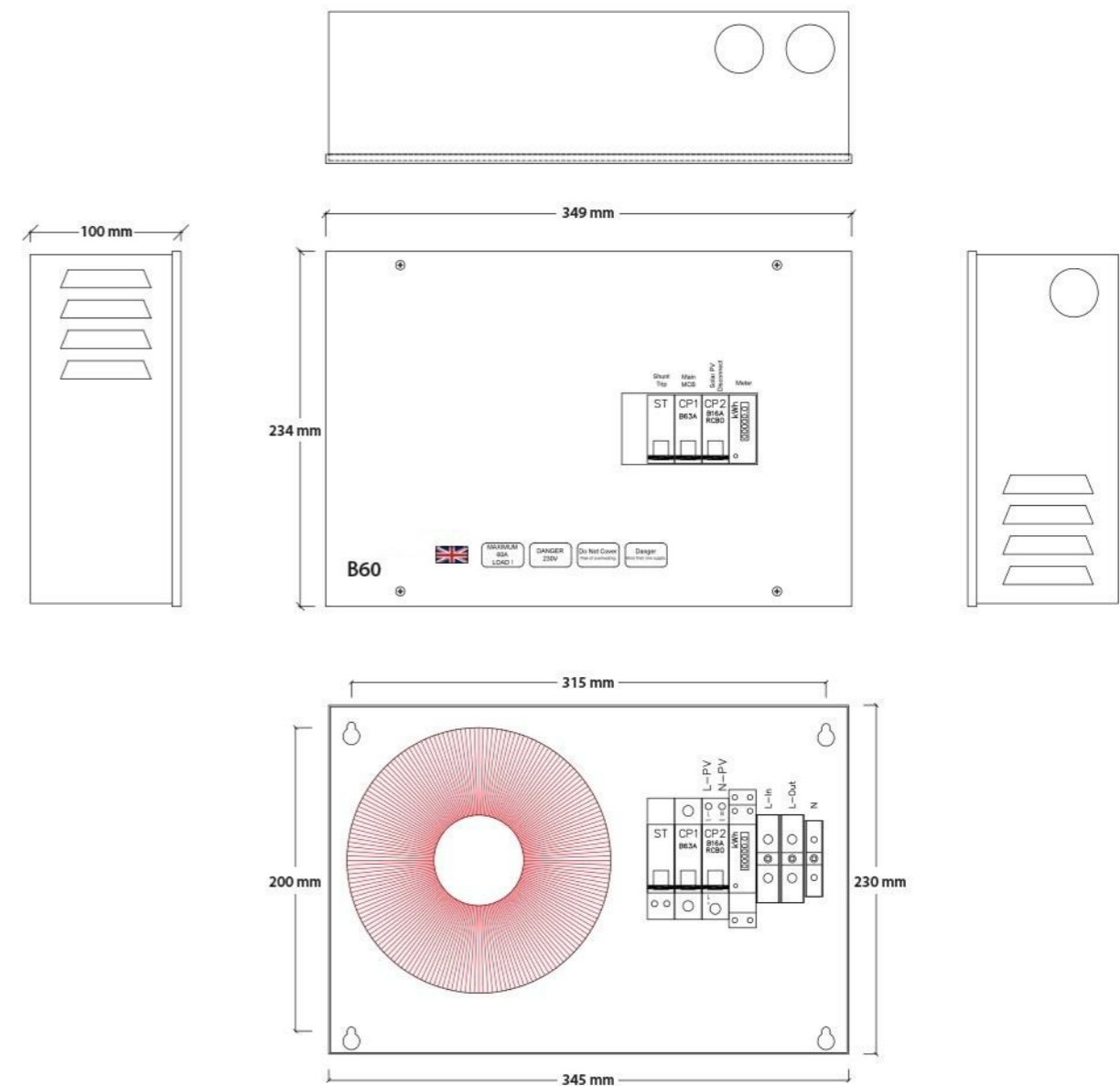
Mounting the unit

The unit is designed to be installed between the main electricity meter and consumer unit in the most practical and accessible position available.

The installation location should be clean, dry and well ventilated.

Please refer to the diagram below for the dimensions and mounting arrangements of the unit.

NOTE: The unit weighs approximately 10.0kgs. Always handle the unit with both hands.

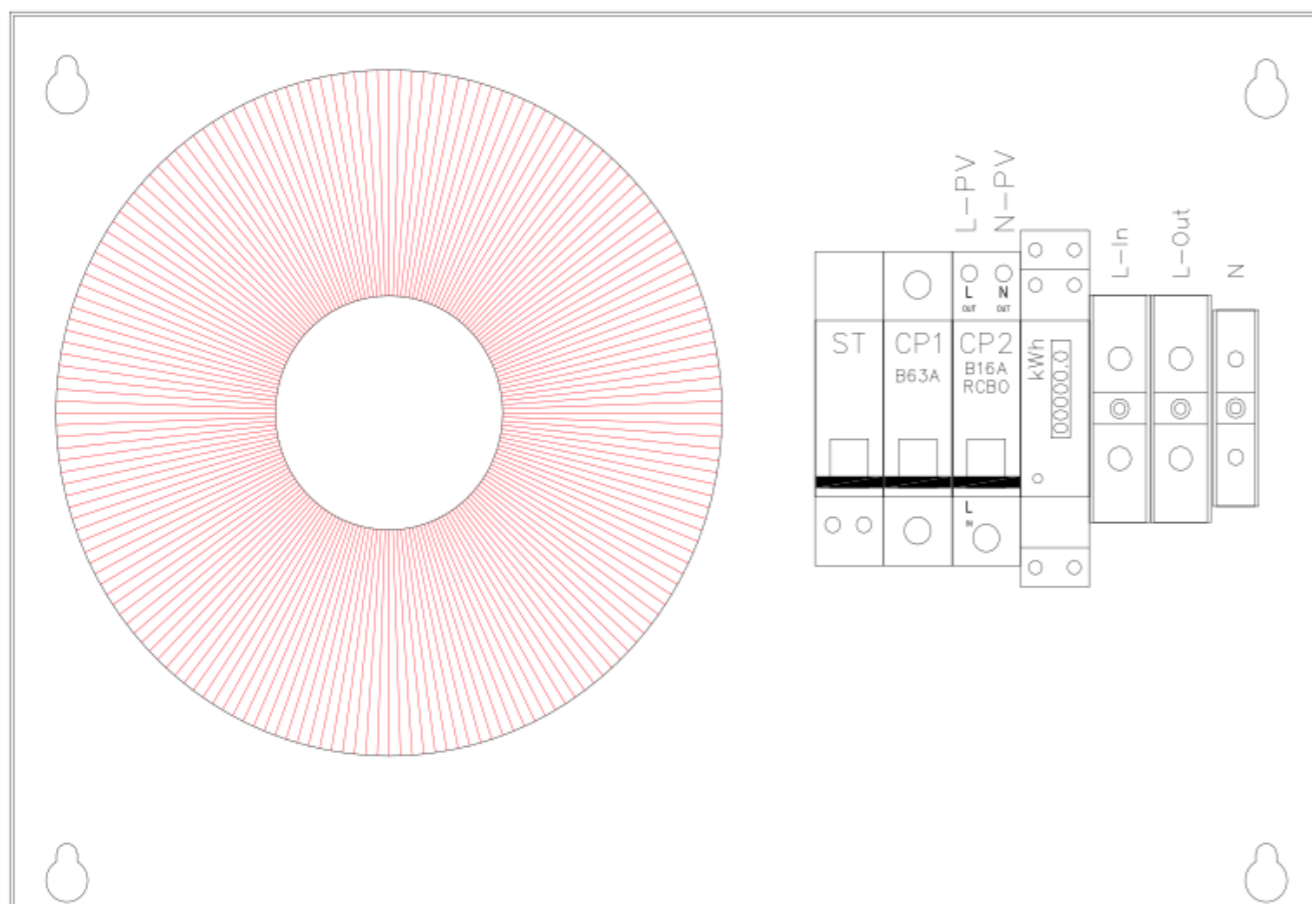


Electrical Connections

The unit is supplied with a 63 Amp miniature circuit breaker that provides overload and short circuit protection for the unit.

The transformer is fitted with an embedded thermal switch. Should the temperature of the transformer increase beyond acceptable levels the thermal switch will operate and automatically shut off the supply to the transformer by 'tripping' the incoming MCB (CP1). Once the transformer temperature has returned to an acceptable level the thermal switch will reset and the MCB can be closed.

The user wiring connections are indicated in the diagram below:



Specifications

Description	B60-PVM Domestic Voltage Optimisation Unit
Input (Volts)	Nominal input voltage 232 – 253v, 50Hz, Single Phase AC
Output (Volts)	Nominal input voltage less 18v
Current (Amps)	60 Amps continuous
70 Amps for 30 minutes	
Weight	Approximately 10.0 kgs
Operating Temperature	-5°C to +40°C
Terminal Capacity	Incoming Live = 35.0mm ²
Outgoing Live = 35.0mm ²	
Neutral = 16.0mm ²	
Miniature Circuit Breaker	63 Amp 6kA Type B to BS EN 60898
Enclosure	Mild Steel Powder Coated
Ingress Protection	IP20
Cable Entry Facility	Top – 2 x 32mm Diameter
Standards	MCBs to BS EN 60898

Document Revision	v1.1 May 2014
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Warranty

The B60PVM Domestic Voltage Optimisation Unit is guaranteed for a period of 12 months from the date of purchase. To extend this warranty to 5 years record the serial number of the unit on the enclosed Warranty Card and return it with proof of purchase to the address given on the Warranty Card.

This warranty is limited to the replacement of faulty components only.

Warranty Card

Model No. :

Serial No. :

Date of Installation :

Installers Details :

Site Address :

Please complete the warranty card and return to:

The Renewable Energy Hub
Unit 15
Cridlake
Axminster
Exeter
EX13 5BT
info@renewableenergyhub.co.uk
www.renewableenergyhub.co.uk

