



**B60**

# Domestic Voltage Optimisation Unit

## Installation Manual

V1.2 Nov 2013

**PRODUCT ADVISORY NOTICE**

**This product must be installed by a competent person in accordance with the IEE Wiring Regulations, BS7671 (17<sup>th</sup> Edition or later) and current Building Regulations. Ensure the electrical supply is disconnected before installation or removing the cover of the B60VO unit.**

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## Product Description

The single phase **matt:e** 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 **matt:e** 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 (17<sup>th</sup> Edition or later) and any relevant Building Regulations.**



**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 **matt:e** 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.

## Introduction

The **matt:e** B60 is a single phase Voltage Optimisation unit.

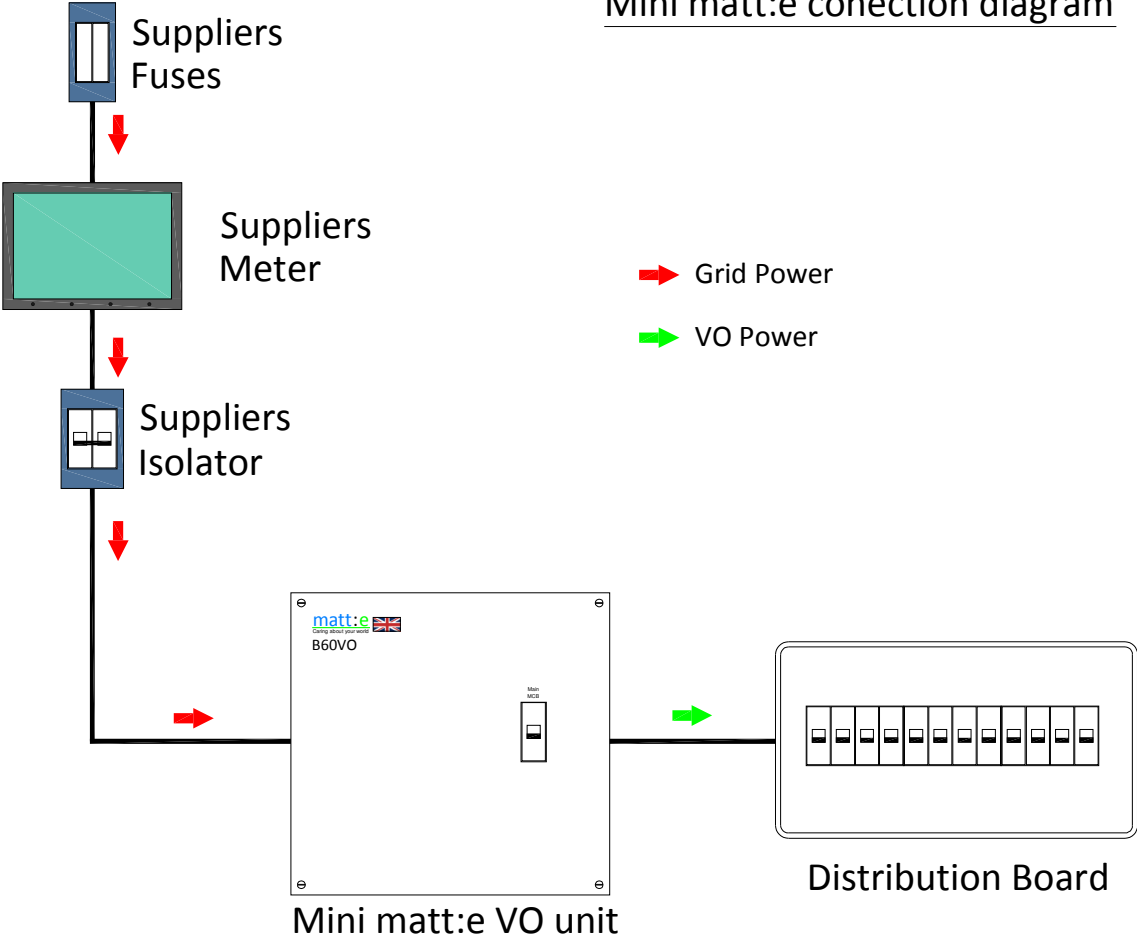
The unit reduces the incoming supply voltage by 18v (i.e.: a 240v supply would be reduced to 222v). It is designed to be connected in series with the incoming supply installed between the main electricity meter for the dwelling, and the consumer unit.

The **matt:e** B60 has short circuit, overload and thermal protection built in.

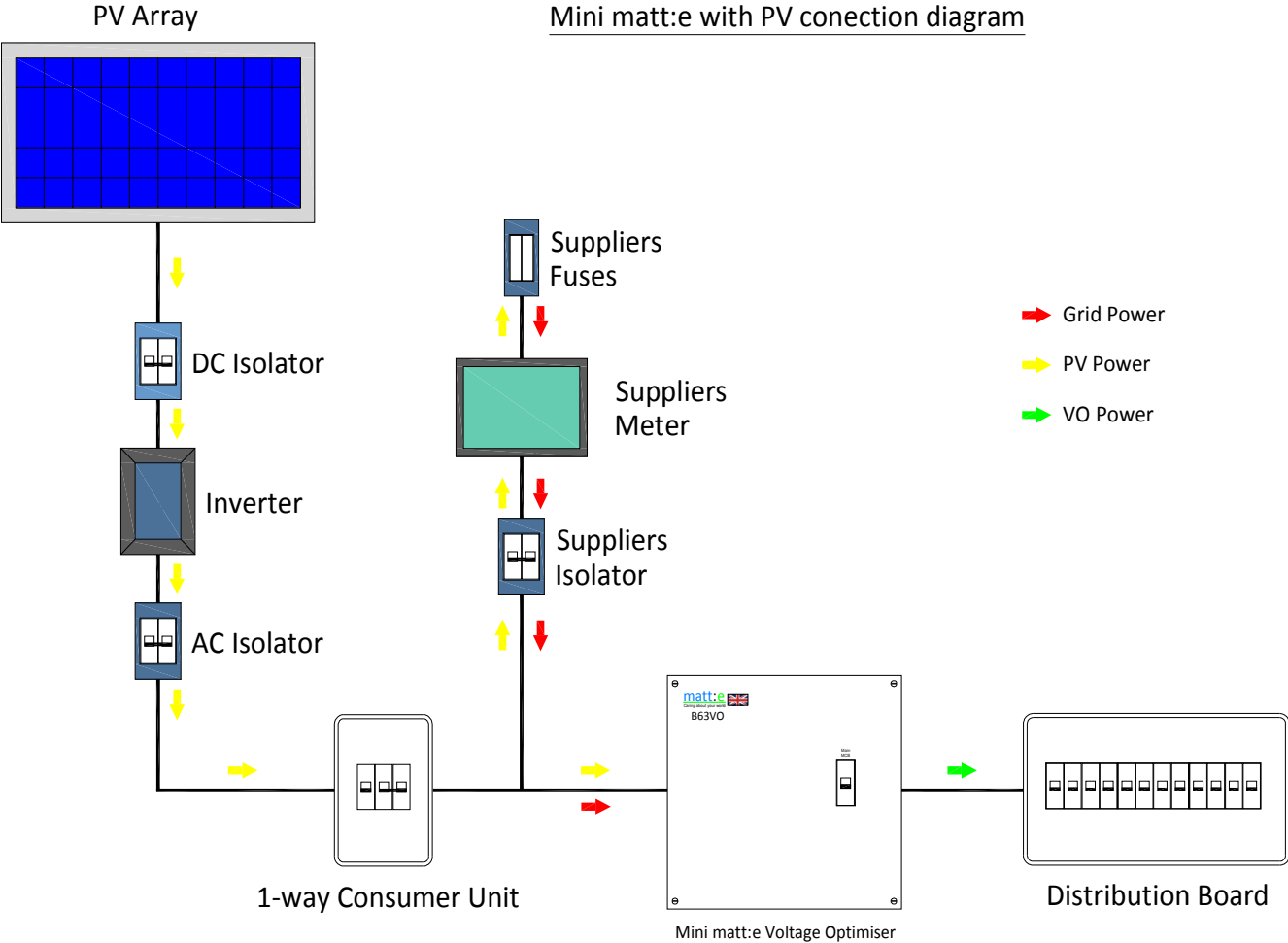
Rated at 60 Amps, the unit is suitable for the majority of domestic and light commercial / retail installations. The unit will tolerate an overload of 70 Amps for a period of no more than 30 minutes before the thermal trip mechanism of the incoming MCB operates.

Typical Installations

Mini matt:e conection diagram



Mini matt:e with PV conection diagram



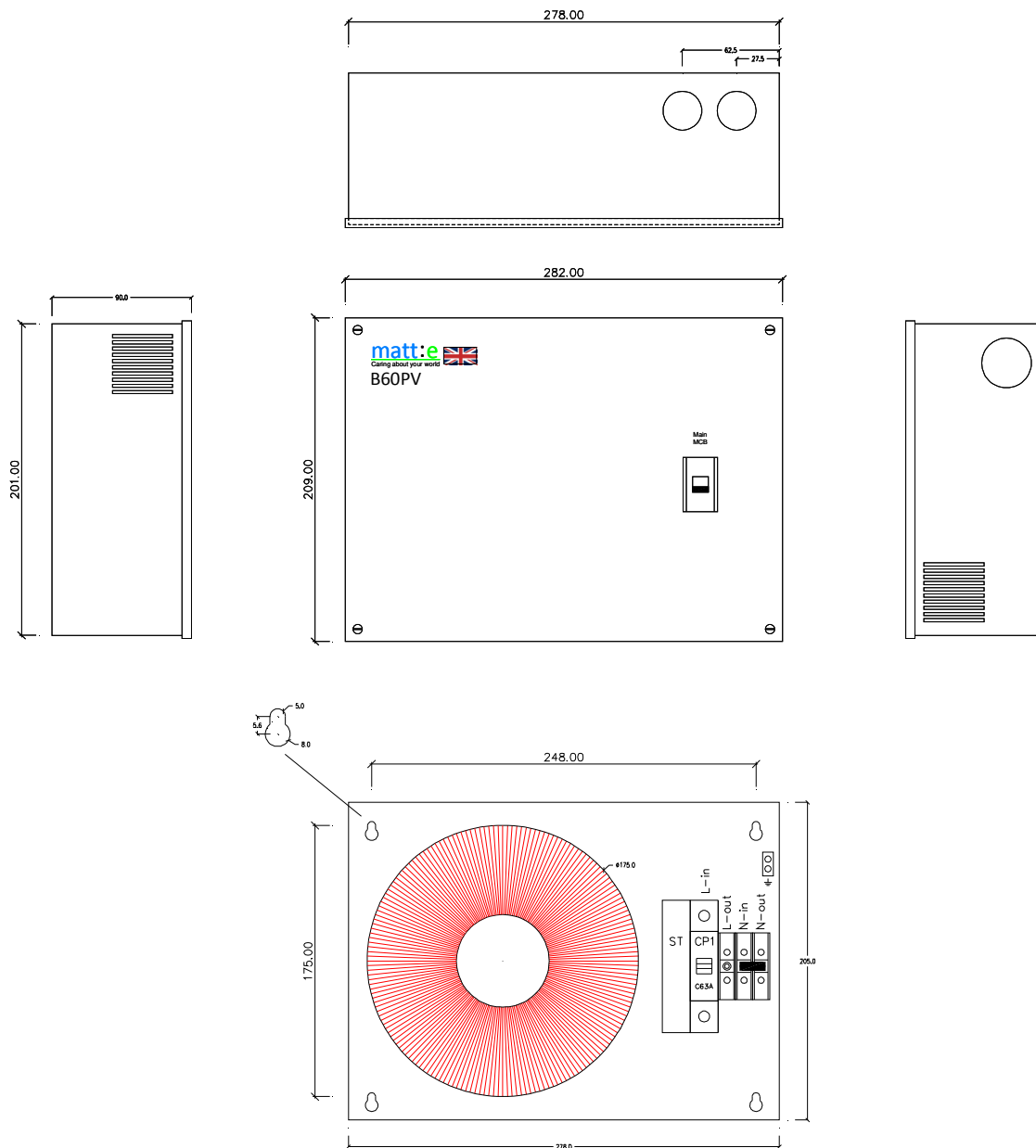
Mounting the **matt:e** unit

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.**



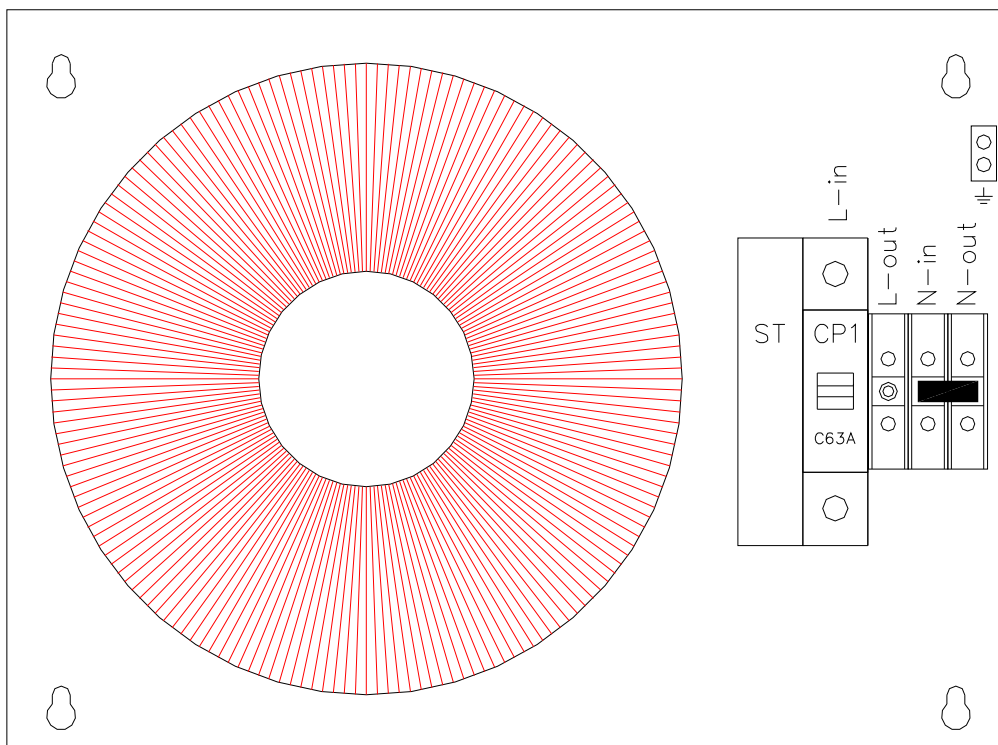


## Electrical Connections

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

<b>Description</b>	<b>Mini matt:e Domestic Voltage Optimisation Unit</b>
<b>Input (Volts)</b>	Nominal input voltage 232 – 253v, 50Hz, Single Phase AC
<b>Output – Save Mode (Volts)</b>	Nominal input voltage less 18v
<b>Current (Amps)</b>	60 Amps continuous Save Mode 70 Amps for 30 minutes
<b>Weight</b>	Approximately 10.0 kgs
<b>Operating Temperature</b>	-5°C to +40°C
<b>Terminal Capacity</b>	Incoming Live = 25.0mm <sup>2</sup> Incoming Neutral = 25.0mm <sup>2</sup> Outgoing Live = 25.0mm <sup>2</sup> Outgoing Neutral = 25.0mm <sup>2</sup>
<b>Miniature Circuit Breaker</b>	63 Amp 6kA Type B to BS EN 60898
<b>Enclosure</b>	Mild Steel Powder Coated
<b>Ingress Protection</b>	IP3x
<b>Cable Entry Facility</b>	Top – 2 x 32mm Diameter Side –1 x 32mm Diameter
<b>Standards</b>	MCBs to BS EN 60898

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### Warranty

The B60 Domestic Voltage Optimisation Unit is guaranteed for a period of 12 months from the date of purchase. To extend this warranty to 3 years record the serial number of the unit on the enclosed Warranty Card and return it with proof of purchase to . . . . .