



B100

Voltage Optimisation

Unit

Installation Manual

V1.1 Jan 2016

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 B100 VO unit.

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Product Description

The single phase **matt:e** B100 Voltage Optimisation unit is designed for use in Large Domestic and Light Commercial / Retail Applications.

Installed between the electricity meter and main consumer unit, the **matt:e** offers 15 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 B100 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 current 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** B100 Voltage Optimisation unit is rated for a maximum 100A load.

For any information not contained within this document, please contact our technical support team on 01827 61231.

Introduction

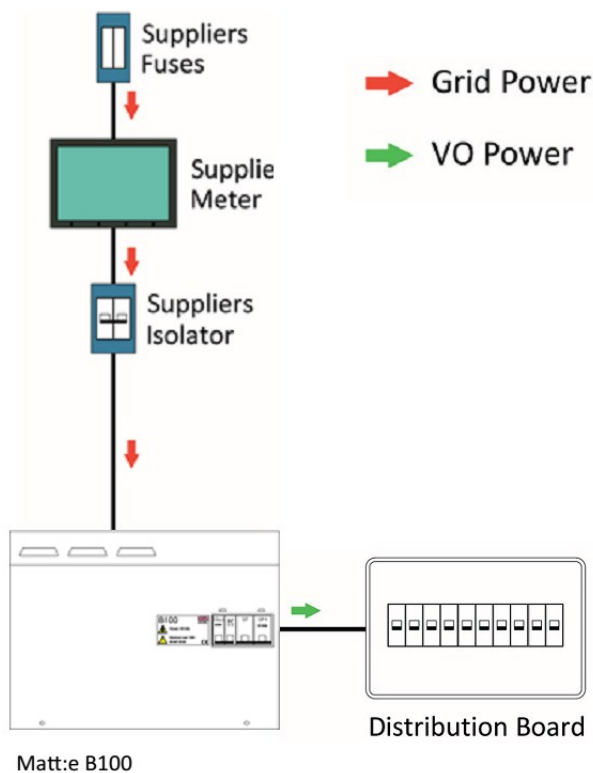
The **matt:e** B100 is a single phase Voltage Optimisation unit.

The unit reduces the incoming supply voltage by 15v (i.e.: a 240v supply would be reduced to 225v). It is designed to be connected in series with the incoming supply installed between the main electricity meter and the consumer unit.

The **matt:e** B100 has short circuit, overload and thermal protection built in.

Rated at 100 Amps, the unit is suitable for the majority of Large Domestic and Light Commercial / Retail Installations.

Typical Installations



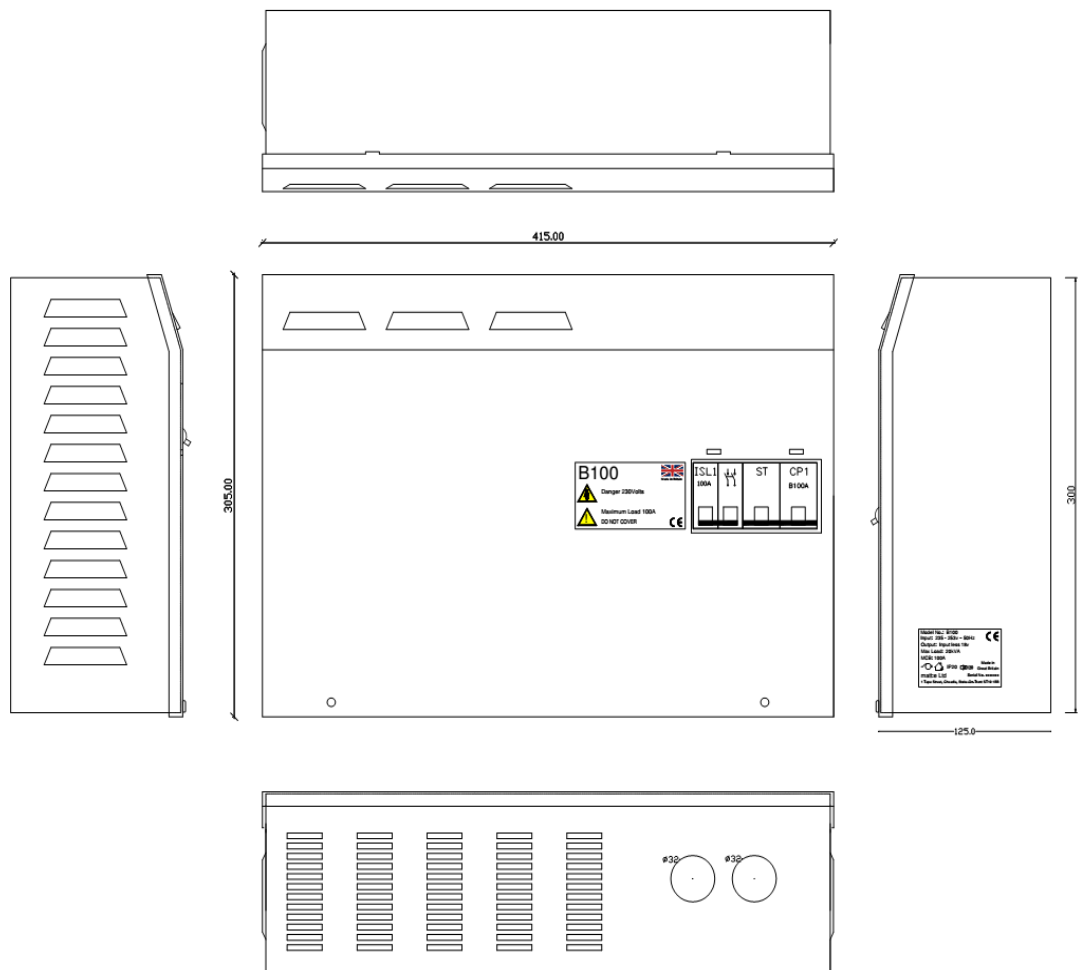
Dimensions & Mounting the [matt:e](#) B100

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 18.0kgs. Always handle the unit with both hands.

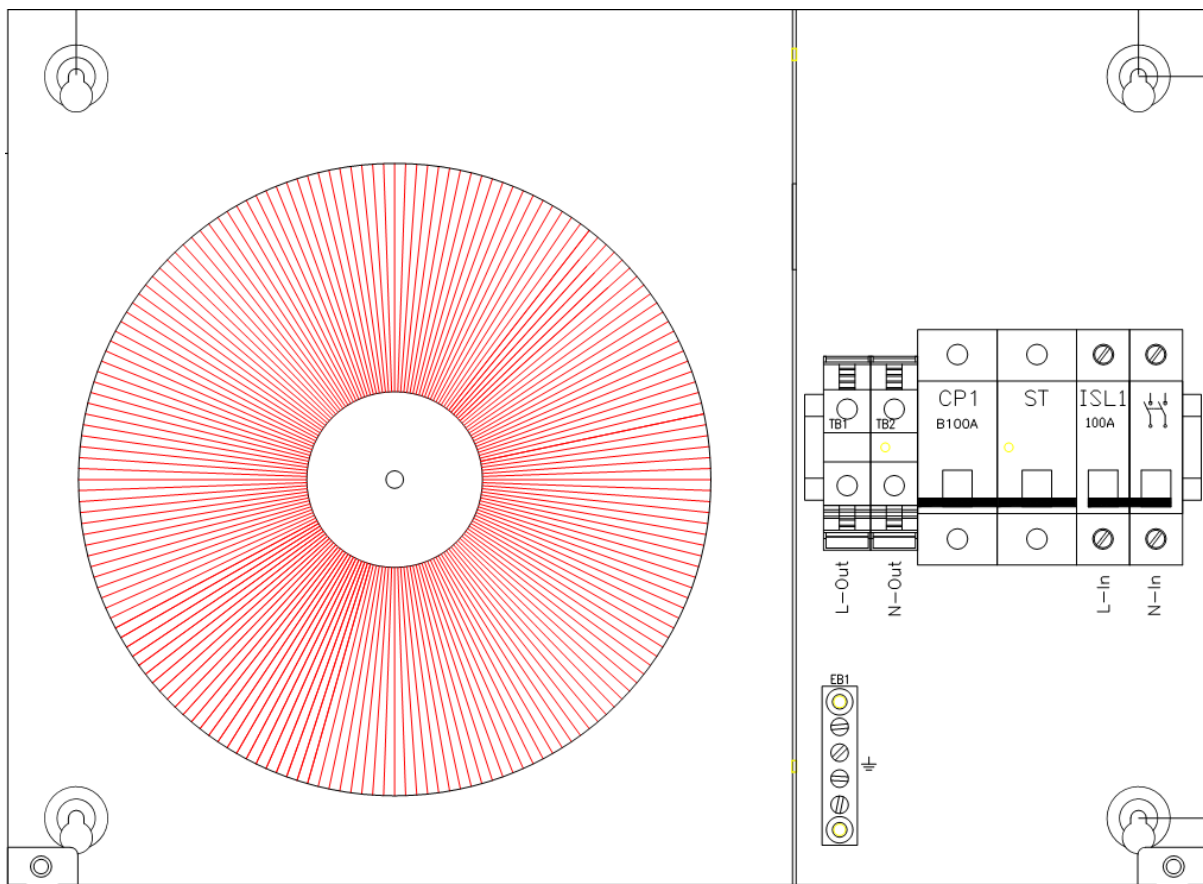


Electrical Connections

The unit is supplied with a 100Amp 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	matte B100 Voltage Optimisation Unit
Input (Volts)	Nominal input voltage 232 – 253v, 50Hz, Single Phase AC
Output (Volts)	Nominal input voltage less 15v
Current (Amps)	100 Amps continuous
Weight	Approximately 18.0 kgs
Operating Temperature	-5°C to +40°C
Terminal Capacity	Incoming Live = 35.0mm ² Outgoing Live = 35.0mm ² Incoming Neutral = 35.0mm ² Outgoing Neutral = 35.0mm ²
Miniature Circuit Breaker	100 Amp 6kA Type B to BS EN 60898
Enclosure	Mild Steel Powder Coated
Ingress Protection	IP20
Cable Entry Facility	Bottom – 2 x 32mm Diameter
Standards	MCBs to BS EN 60898

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Warranty

The B100 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:

**matt:e Ltd,
Unit 1c Neander
Lichfield Road Industrial Estate
Tamworth
Staffordshire
B79 7XA**