

# Riello MBB 125A 4P

## External Bypass Switch

For UPS ratings up to 20kVA single phase and 60kVA three phase



## Front of the Switch Module

with the clear Perspex cover raised to permit access to the isolators and operating instruction in multiple languages underneath.

Operating instruction label on the enclosure:

**NORMAL OPERATION:**  
With the UPS on, switches SWIN and SWOUT are closed (ON), whereas switch SWMB is open (OFF).

**USE OF THE BYPASS SERVICE TO DISCONNECT THE UPS:**


1. Close switch SWMB (BYPASS SERVICE).
2. Switch off the UPS (see user manual).
3. Open switches SWIN and SWOUT.

The UPS is now electrically disconnected from the mains and from the load.

**USE OF THE SERVICE BYPASS TO RE-CONNECT THE UPS:**

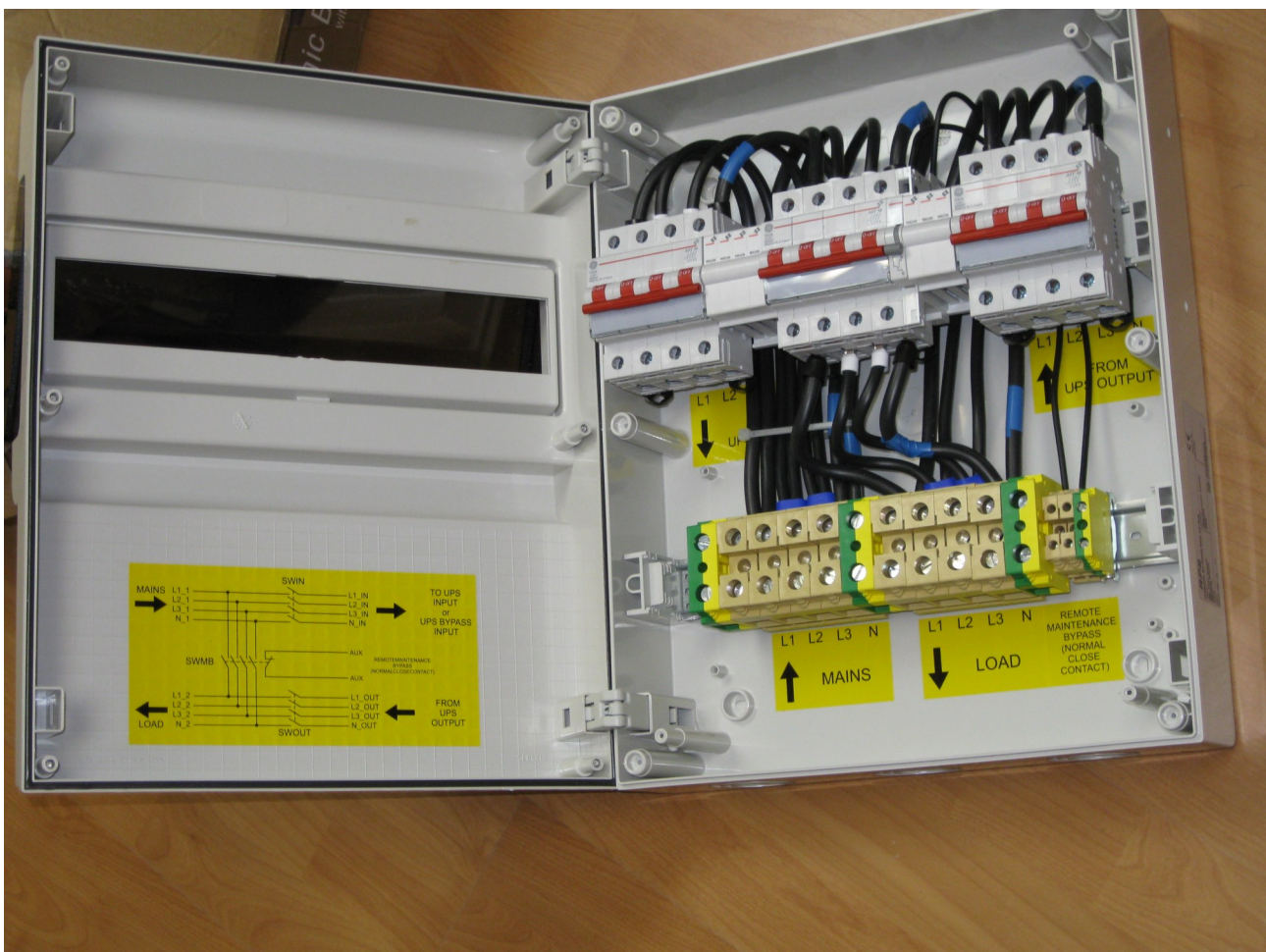
1. Close switches SWIN and SWOUT.
2. Switch on the UPS (see the user manual).
3. Open switch SWMB.

**WARNING:** when switch SWMB is inserted, the load is no longer protected by the UPS.

 **DANGER:** dangerous voltage inside. Do not open. ISOLATE THE UPS AND THE MAINS BEFORE TAKING ANY ACTION ON THIS CIRCUIT

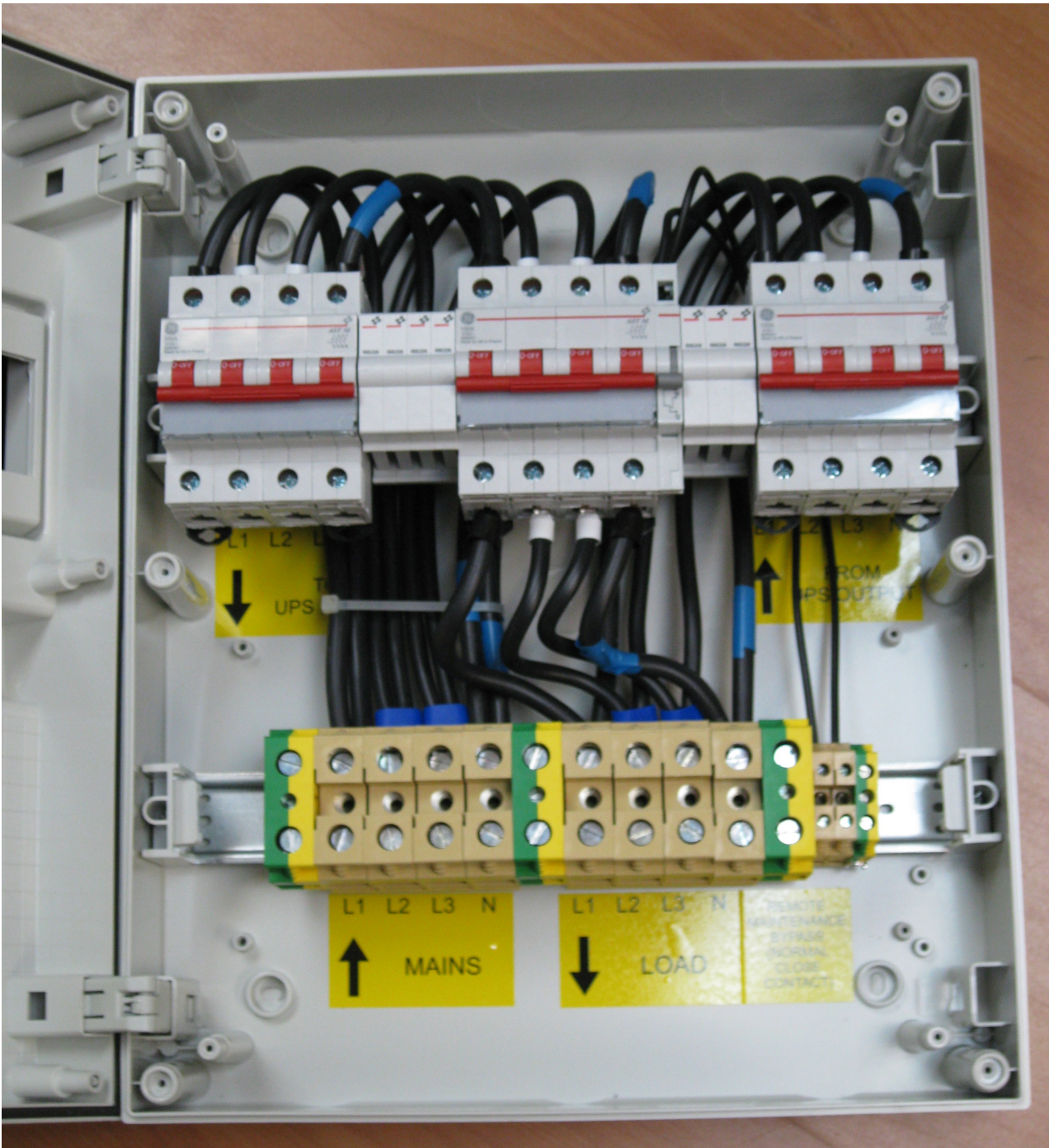
GB

FUNCIONAMIENTO NORMAL



The inside of the switch module. The other side of the left door is the front of the bypass module.





Connections shown in greater detail.

**Contacts Current Rating**

125 amps

**Dimensions (mm)**

300W x 400H x 150D

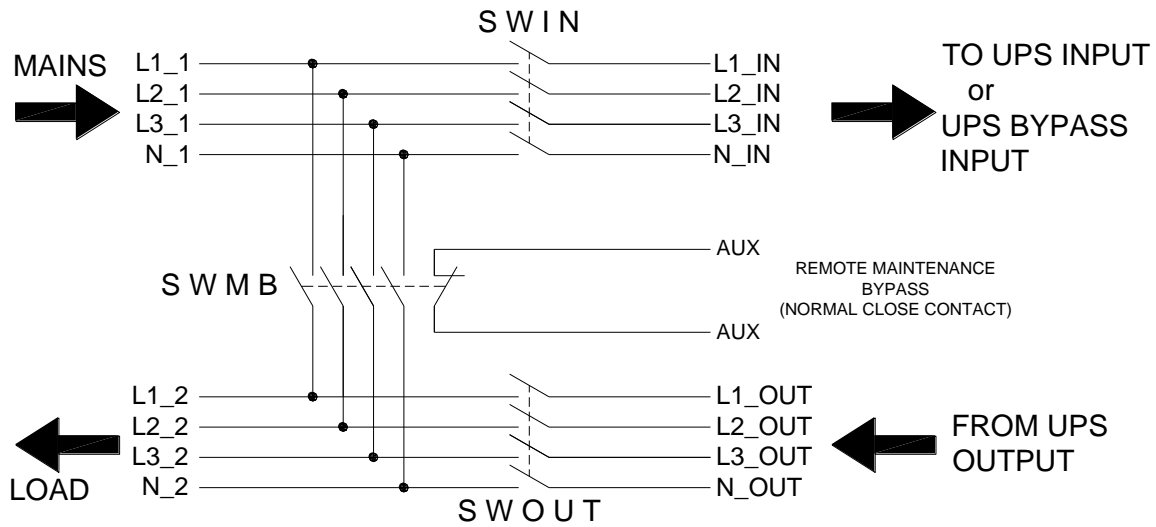
**Auxiliary Contacts Delay Angle**

The delay between the auxiliary contact opening and the main contact SWMB closing is not stated so it has been measured in the Enertec workshop. When operating SWMB from open, accepting that it rotates from approximately 0° (open) to 180° (closed), the auxiliary opens at about 45° and SWMB closes at about 90°.

# Installation of the electric box

**WARNING: installation must be carried out exclusively by qualified personnel**

## WIRING DIAGRAM:



NOTE 1: refer to the UPS user manual for choosing the cable section.

NOTE 2: connect the phase to the “L1\_xx” terminals and the neutral to the “N\_xx” terminals, if the UPS to supply is single phase.

NOTE 3: connect the UPS output phase to L1\_OUT and the neutral to N\_OUT, if the UPS is three phases input and single phase output; likewise connect the load to L1\_2 and N\_2.

NOTE 4: connect L1\_1, L2\_1, L3\_1, and N\_1 to UPS Bypass mains if the UPS has “separate bypass input”, use this line for the connections.

**ATTENTION: is absolutely necessary connect the auxiliary terminal contact “remote maintenance bypass” of the SERVICE BYPASS switch (SWMB) to the respective terminals on the UPS. When the SERVICE BYPASS switch closes, this auxiliary contact opens, indicating to the UPS that the SERVICE BYPASS is close. If this connection is not present, during Bypass operation load continuity may not be assured and the UPS could be damaged.**

## Use of the electric box

### NORMAL OPERATION:

With the UPS on, switches SWIN and SWOUT are closed (ON), whereas switch SWMB is open (OFF).

### USE OF THE BYPASS SERVICE TO DISCONNECT THE UPS:

1. Switch ON SWMB (SERVICE BYPASS).
2. Switch OFF the UPS (see the user manual of the UPS).
3. Switch OFF SWIN and SWOUT.

The UPS is now electrically disconnected from the mains and from the load.

### USE OF THE SERVICE BYPASS TO RE-CONNECT THE UPS:

1. Switch ON SWIN and SWOUT.
2. Switch ON the UPS (see the user manual of the UPS).
3. Switch OFF SWMB (SERVICE BYPASS).

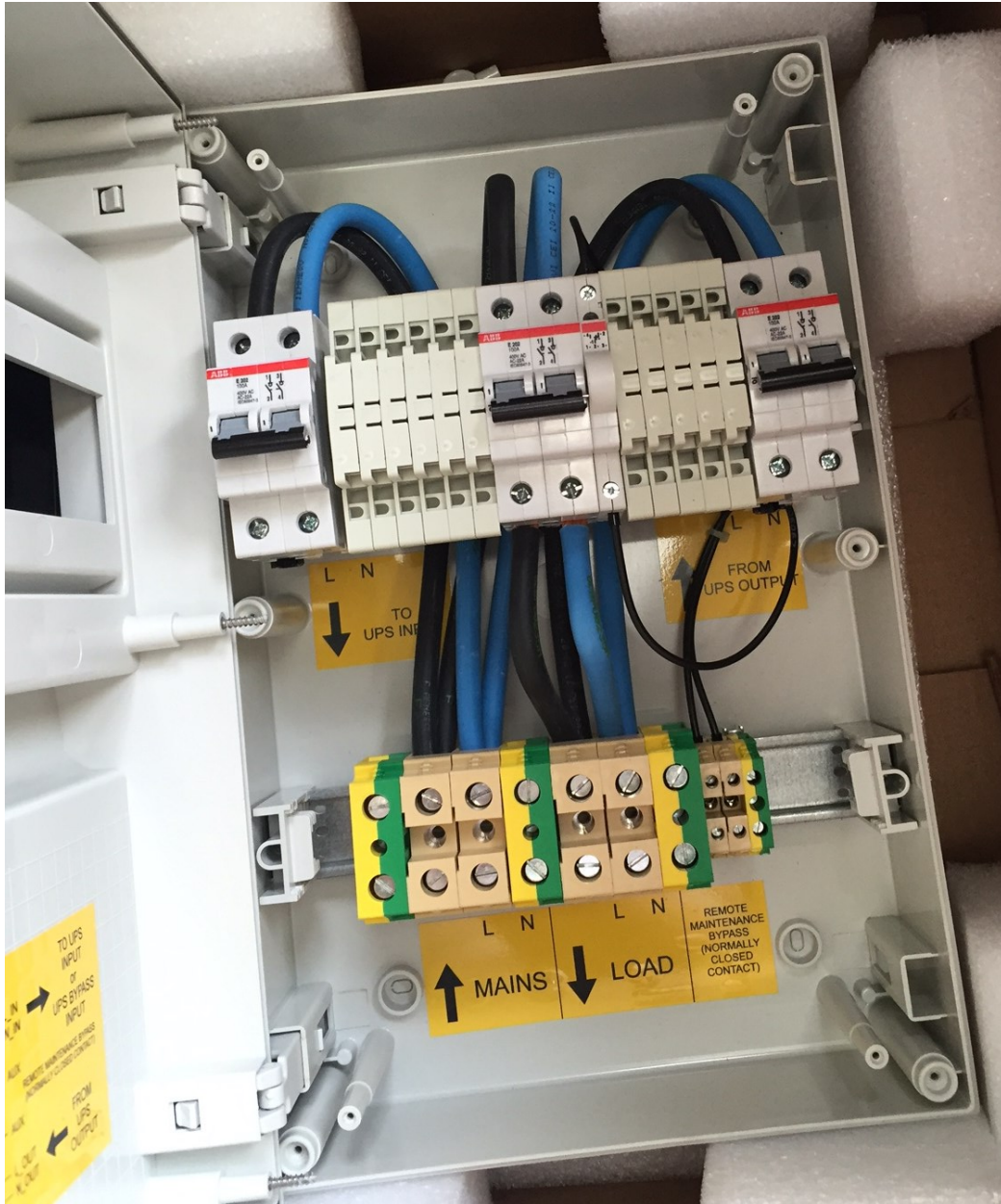
## Electrical characteristics

	Three-phase connection	Three-phase input and single-phase output connection	Single-phase connection
Connectable UPS Maximum Power with Nominal Voltage 220-230-240V	60KVA	20KVA	20KVA



## Riello MBB 100A 2P

External Bypass Switch for single phase UPS rated up to 20kVA



**Contacts Current Rating**  
100 amps

**Dimensions (mm)**  
250W x 400H x 120D

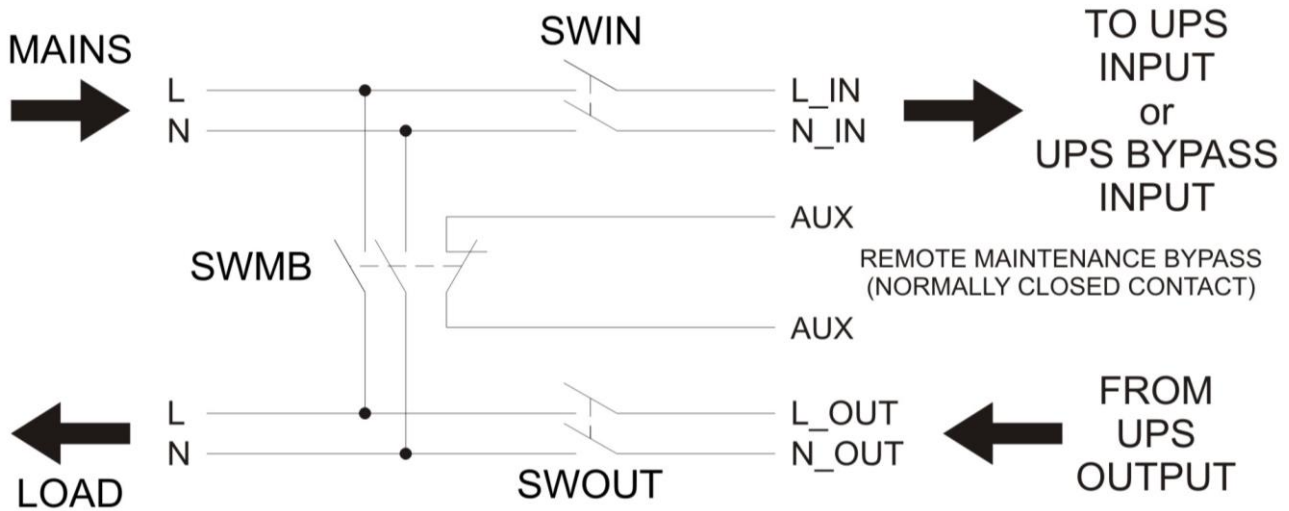
### **Auxiliary Contacts Delay Angle**

The delay between the auxiliary contact opening and the main contact SWMB closing is not stated so it has been measured in the Enertec workshop. When operating SWMB from open, accepting that it rotates from approximately 0° (open) to 180° (closed), the auxiliary opens at about 45° and SWMB closes at about 90°.

## Installation of the electric box

**WARNING: installation must be carried out exclusively by qualified personnel**

### WIRING DIAGRAM



- NOTE 1: connect the cables only from the bottom of the box.  
 NOTE 2: refer to the UPS user manual for choosing the cable section.  
 NOTE 3: connect the phase to the “L” terminals and the neutral to the “N” terminals.  
 NOTE 4: connect L\_IN, and N\_IN to UPS Bypass mains if the UPS has “separate bypass input”, use this line for the connections.

**ATTENTION: is absolutely necessary connect the auxiliary terminal contact “remote maintenance bypass” of the SERVICE BYPASS switch (SWMB) to the respective terminals on the UPS. When the SERVICE BYPASS switch closes, this auxiliary contact opens, indicating to the UPS that the SERVICE BYPASS is close. If this connection is not present, during Bypass operation load continuity may not be assured and the UPS could be damaged.**

## Use of the electric box

### NORMAL OPERATION:

With the UPS on, switches SWIN and SWOUT are closed (ON), whereas switch SWMB is open (OFF).

### USE OF THE BYPASS SERVICE TO DISCONNECT THE UPS:

1. Switch ON SWMB (SERVICE BYPASS).
2. Switch OFF the UPS (see the user manual of the UPS).
3. Switch OFF SWIN and SWOUT.

The UPS is now electrically disconnected from the mains and from the load.

### USE OF THE SERVICE BYPASS TO RE-CONNECT THE UPS:

1. Switch ON SWIN and SWOUT.
2. Switch ON the UPS (see the user manual of the UPS).
3. Switch OFF SWMB (SERVICE BYPASS).

## Electrical characteristics

	Single-phase connection
Connectable UPS Maximum Power with Nominal Voltage 220-230-240V	20KVA