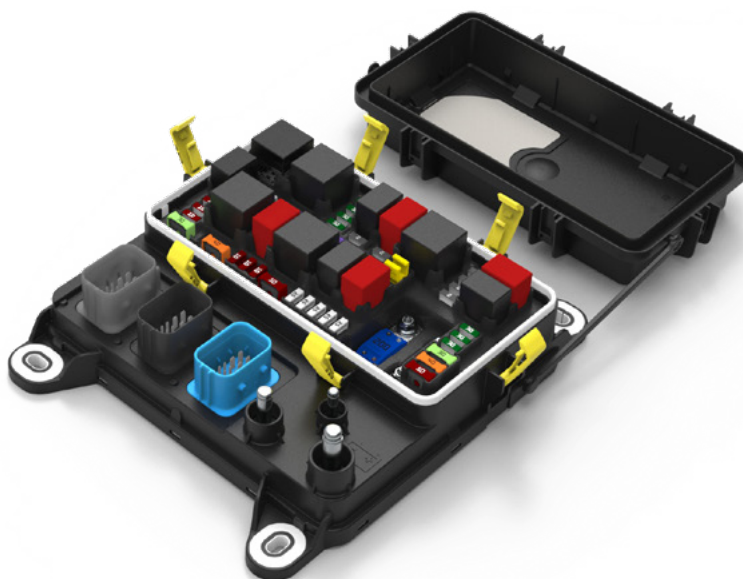


MEC 97



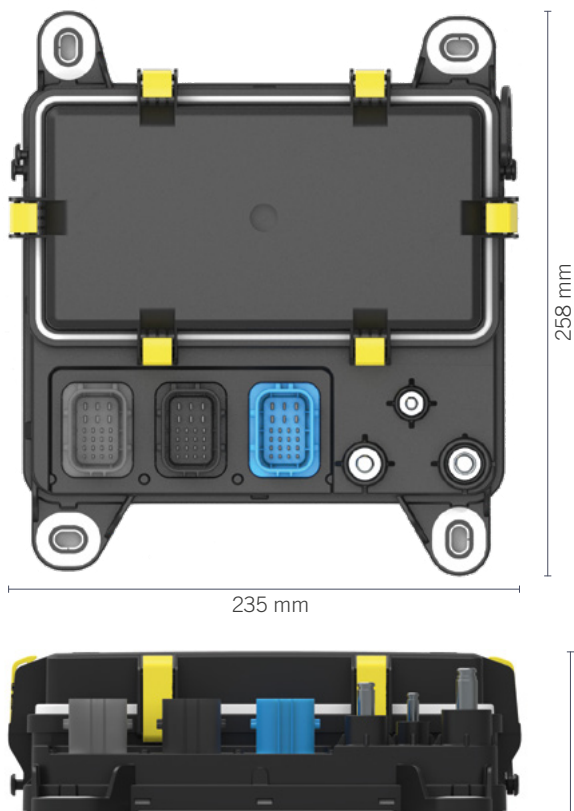
GENERAL DESCRIPTION

MEC 97 is a configurable waterproof power distribution unit developed mainly for agriculture, construction, heavy duty and off-road applications.

MEC 97 features:

- different MTA off-the-shelf waterproof modules can be put together in this unit;
- quick and easy to install vertically or horizontally;
- simplified wiring harness routings;
- easy to connect;
- easy serviceability.

DIMENSIONS



SPECIFICATIONS

Input/output connections

Radlok connections for studs Ø 10.0 mm, Ø 8.0 mm, Ø 5.7 mm

Power supply voltage

12 Vdc and 24 Vdc

Current rate

To be evaluated according to customers' requests

Output connectors

22-way Leavyseal TE
6-way 2.8 mm + 16-way 1.5 mm

Radlok connectors insertion

Max. 50 N

Radlok connectors retention (with lock depressed) load

Max. 50 N

Fixing points torque

6 Nm $\pm$ 20% (M6 screws)

Cover latching load

Max. 40 N (for each latch)

Cover unlatching load

Max. 40 N (for each latch)

Flammability

<100 mm/min (ISO 3795)

Operating temperature range

-40 °C to +85 °C¹

Ingress protection rating

IP69K²

Vibrational test

10 g (from 10 Hz up to 2 kHz)

Other

Gore-Tex vent presence

Weight

1 kg

1. Maximum operating temperature could be up to 100 °C depending on applied current rate.

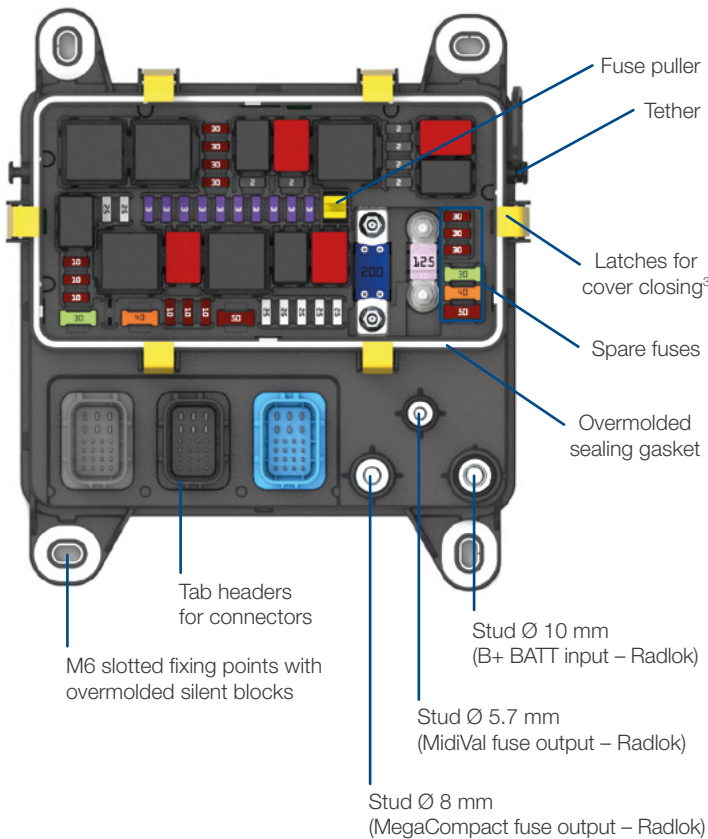
2. IP69K grade according to ISO 20653:2006.

CONTENTS

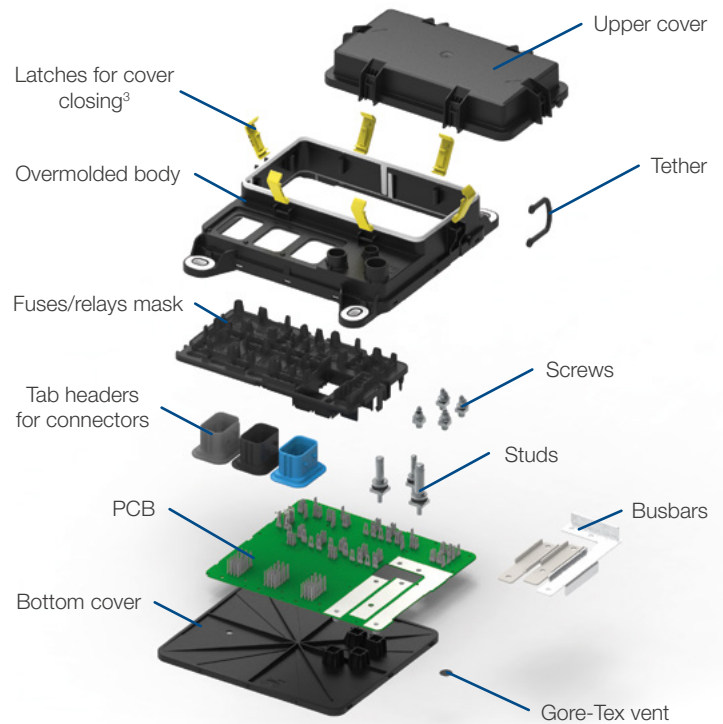
The standard unit can host 52 components (+6 spare):

- 34 MiniVal fuses (+3 spare)
- 3 MaxiCompact fuses (+3 spare)
- 1 MegaCompact fuse
- 1 MidiVal fuse
- 8 Micro relays
- 5 Maxi relays

LAYOUT



EXPLODED VIEW



PCB ASSEMBLY: PRESS-FIT TECHNOLOGY

All components are assembled on the PCB top side with the press-fit technology.

The press-fit is an innovative solderless connection technology. In this process the contact between the press-fit pin and the wall of the hole is gas-tight and it is characterized by good conductivity and high mechanical resistance. The condition is that the press-fit pin has a bigger dimension than the hole diameter on the PCB and this interference guarantees a highly conductive bond.

Advantages compared to conventional soldering:

- No need for additional washing.
- No thermal load on the PCB or electronic components.
- Quick and economic insertion of the PCB.
- Double-sided insertion of the circuit board.

3. Unlatching by hand or by tool. Latches can be replaced in case of break.

The diagram illustrates the CAN-BUS wiring for three nodes: X-021B, X-023B, and X-027B. Each node is represented by a 3-pin connector. The CAN-BUS lines are connected to the CAN-H and CAN-L pins of each node. The ground connection is connected to the ground pin of each node. The diagram also shows the CAN-BUS lines connected to the CAN-H and CAN-L pins of each node. The CAN-BUS lines are connected to the CAN-H and CAN-L pins of each node. The ground connection is connected to the ground pin of each node.

Node X-021B:

- Pin 1: CAN-H
- Pin 2: CAN-L
- Pin 3: Ground

Node X-023B:

- Pin 1: CAN-H
- Pin 2: CAN-L
- Pin 3: Ground

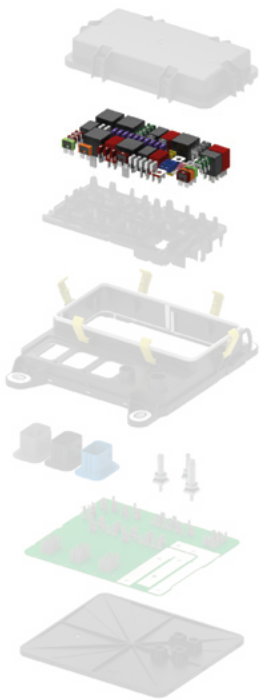
Node X-027B:

- Pin 1: CAN-H
- Pin 2: CAN-L
- Pin 3: Ground

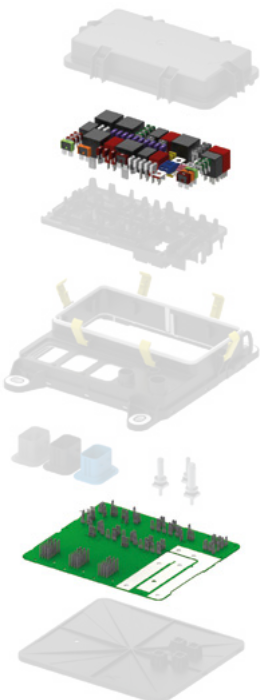
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CUSTOMIZATION LEVELS

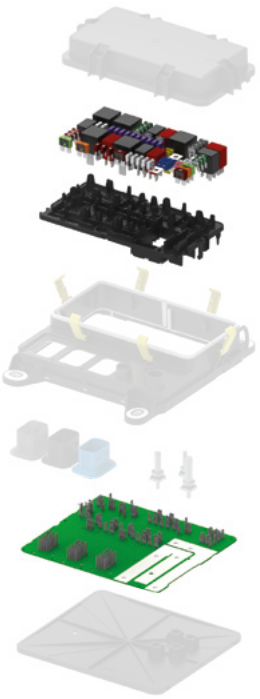
There are 4 customization levels: Soft, Medium, Medium+ and High, where:
✓ means “customizable component”, — means “default component”.
NOTE: supply status could be with or without fuses and relays (according to customers' requests).



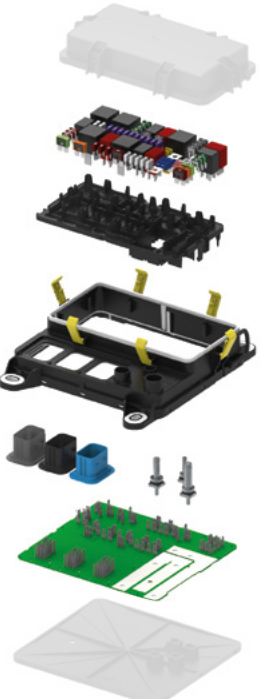
SOFT	
Fuses and relays	✓
Type and number of contents (mask)	—
PCB	—
External connections (studs and connectors)	—



MEDIUM	
Fuses and relays	✓
Type and number of contents (mask)	—
PCB	✓
External connections (studs and connectors)	—



MEDIUM+	
Fuses and relays	✓
Type and number of contents (mask)	✓
PCB	✓
External connections (studs and connectors)	—



HIGH	
Fuses and relays	✓
Type and number of contents (mask)	✓
PCB	✓
External connections (studs and connectors)	✓



Discover MTA complete range of modular power distribution units on www.mta.it

Please check on MTA website the latest version of this technical data sheet.