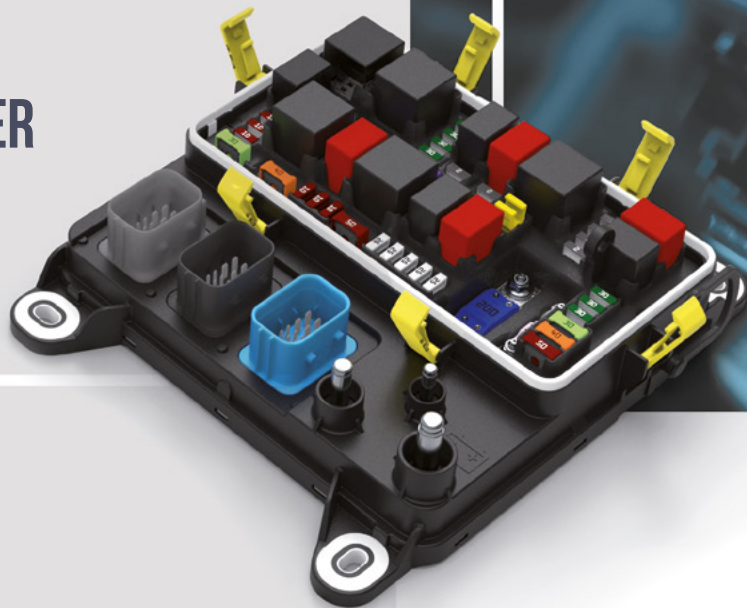


TECHNICAL DATA SHEET

MEC 97

CONFIGURABLE POWER DISTRIBUTION UNIT



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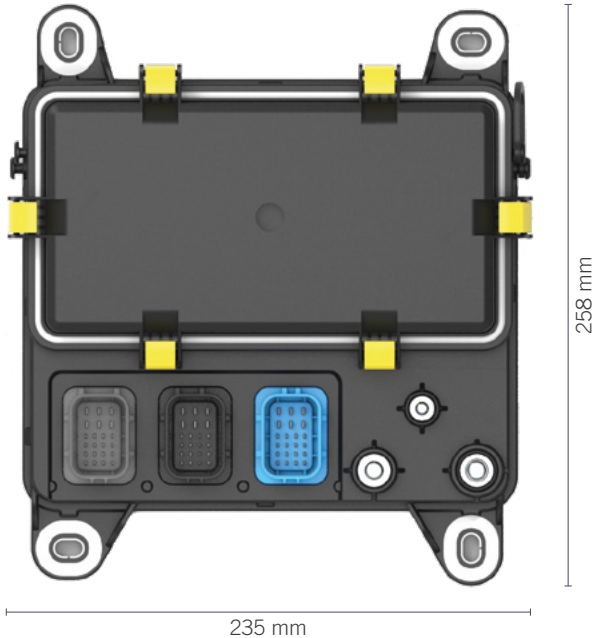
GENERAL DESCRIPTION

MEC 97 is a configurable Power Distribution Unit developed mainly for agriculture, construction, heavy duty and off-road applications.

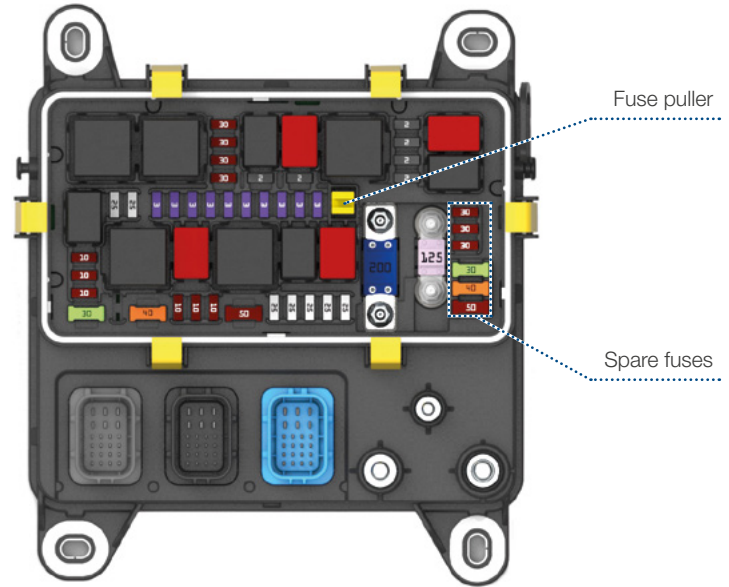
- Different MTA off-the-shelf waterproof modules can be put together in this unit.
- Quick and easy to install vertically or horizontally.
- Simplified wiring harness routings.
- Easy to connect.
- Easy serviceability.

NOTE: the module is supplied without fuses and relays.

DIMENSIONS



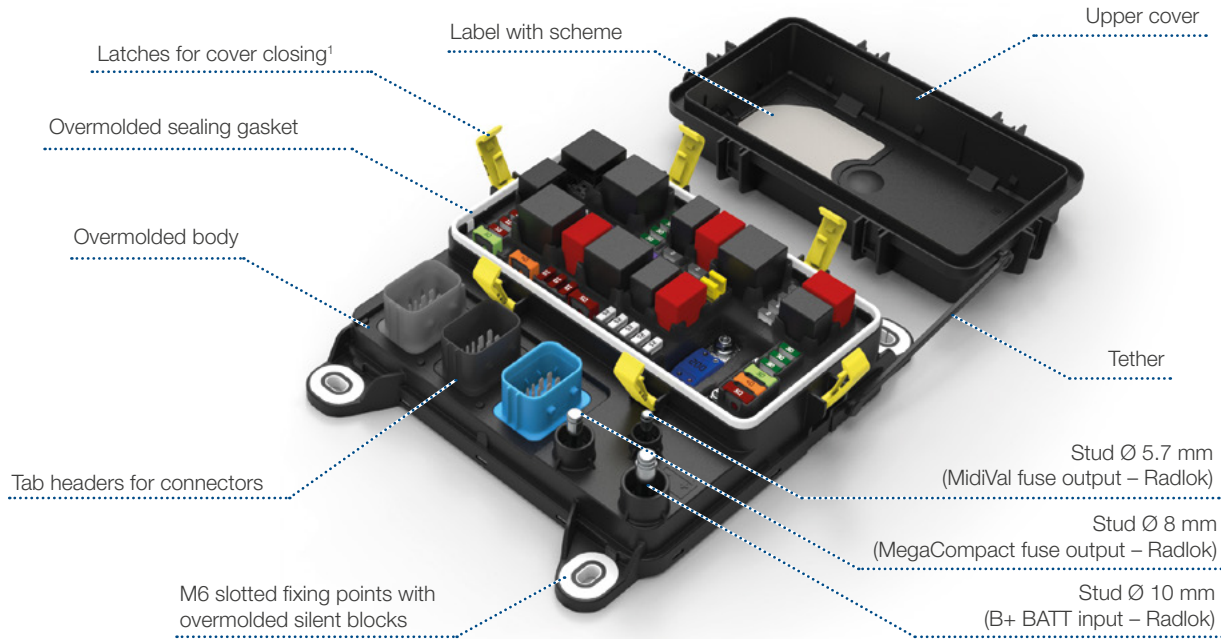
CONTENTS



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

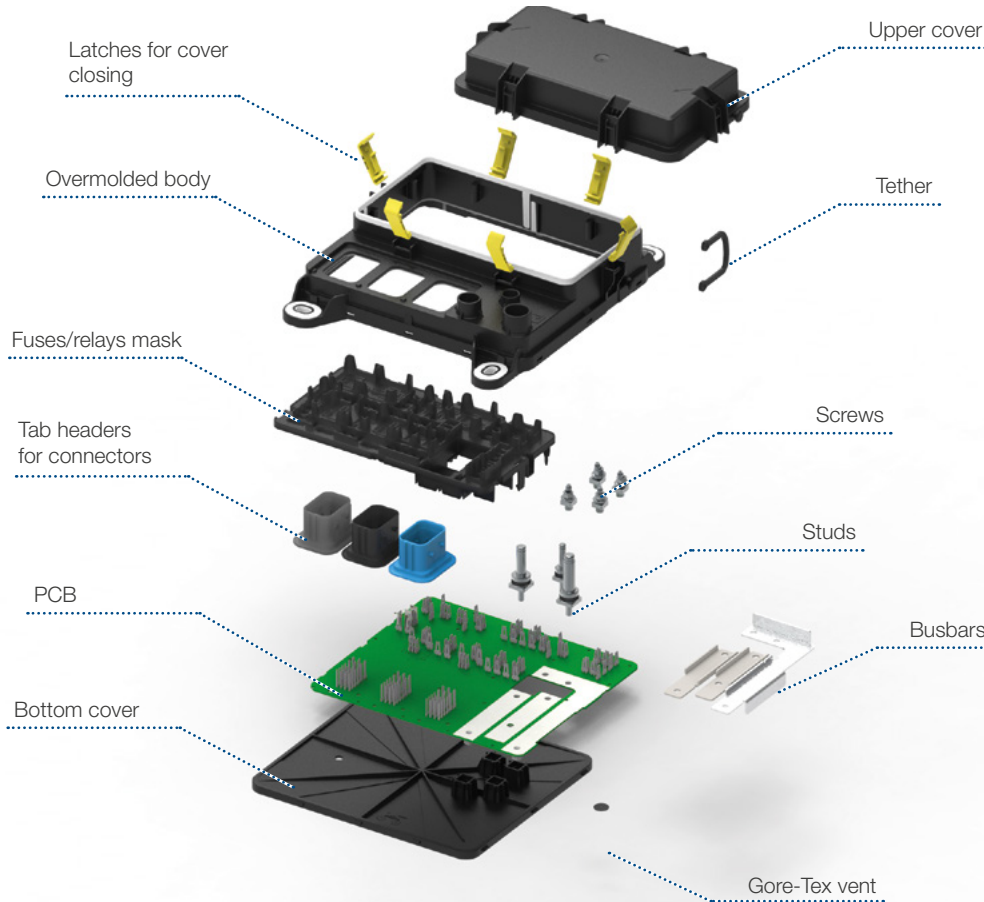
- 34 MiniVal fuses (+3 spare)
- 3 MaxiCompact fuses (+3 spare)
- 1 MegaCompact fuse
- 1 MidiVal fuse
- 8 Micro relays
- 5 Maxi relays

LAYOUT



1. Unlatching by hand or by tool. Latches can be replaced in case of breakage.

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.

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 or 24 Vdc

Current rate

To be evaluated according to customer request

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 ± 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 °C²

Ingress protection rating

IP69K³

Vibrational test

10 g (from 10 Hz up to 2 kHz)

Other

Gore-Tex vent presence

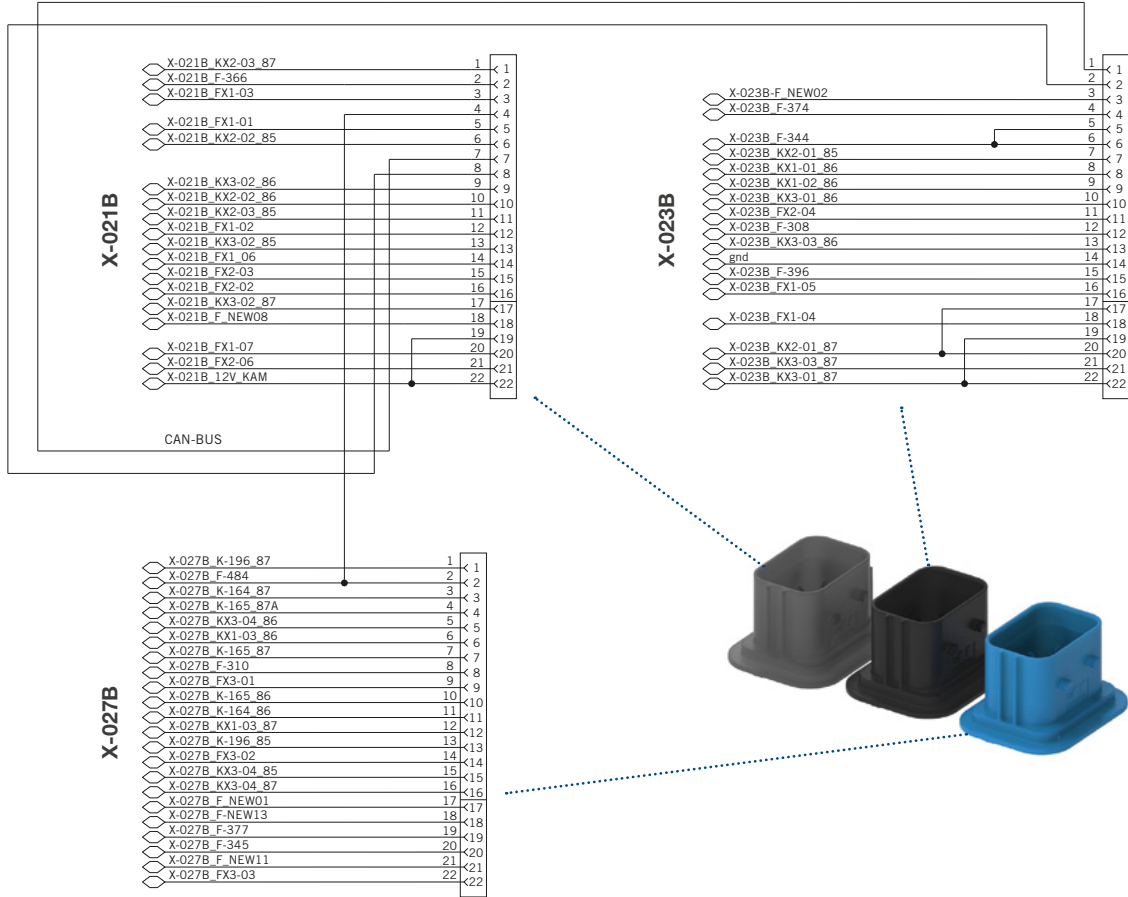
Weight

1 kg

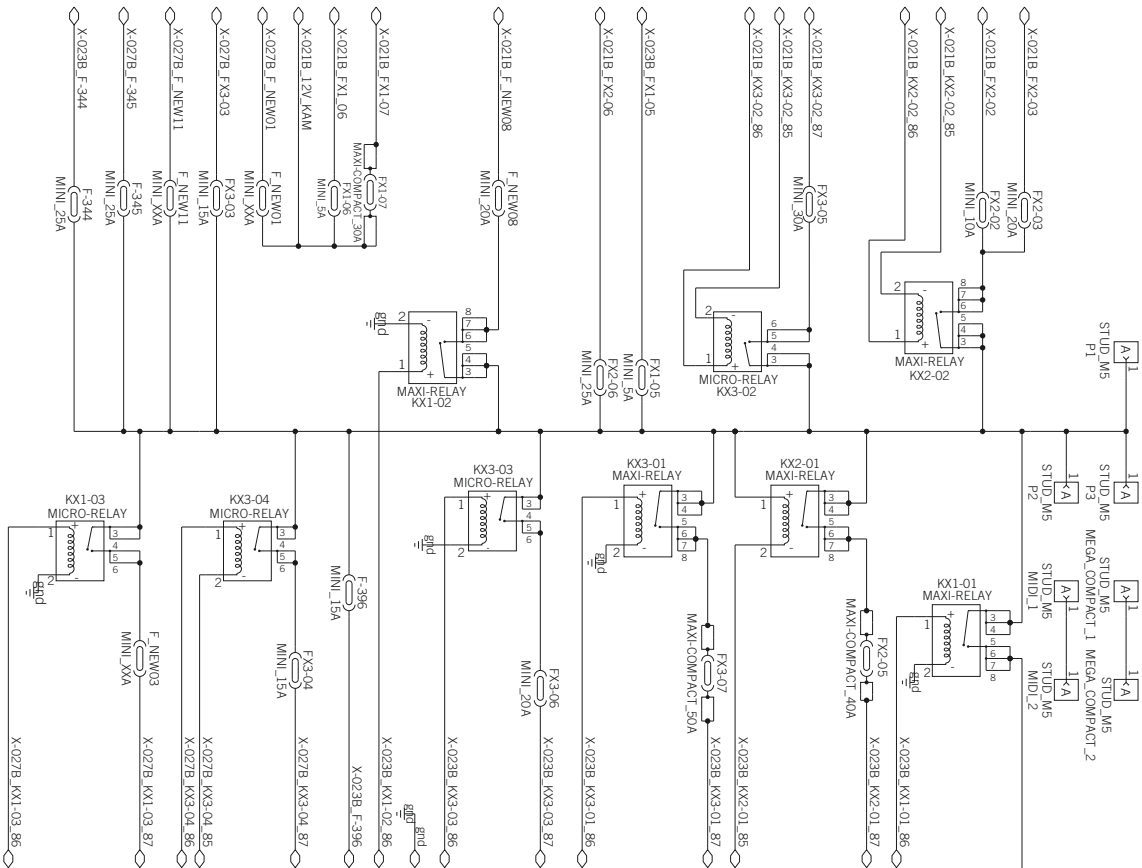
2. Maximum operating temperature could be up to 100 °C depending on applied current rate.

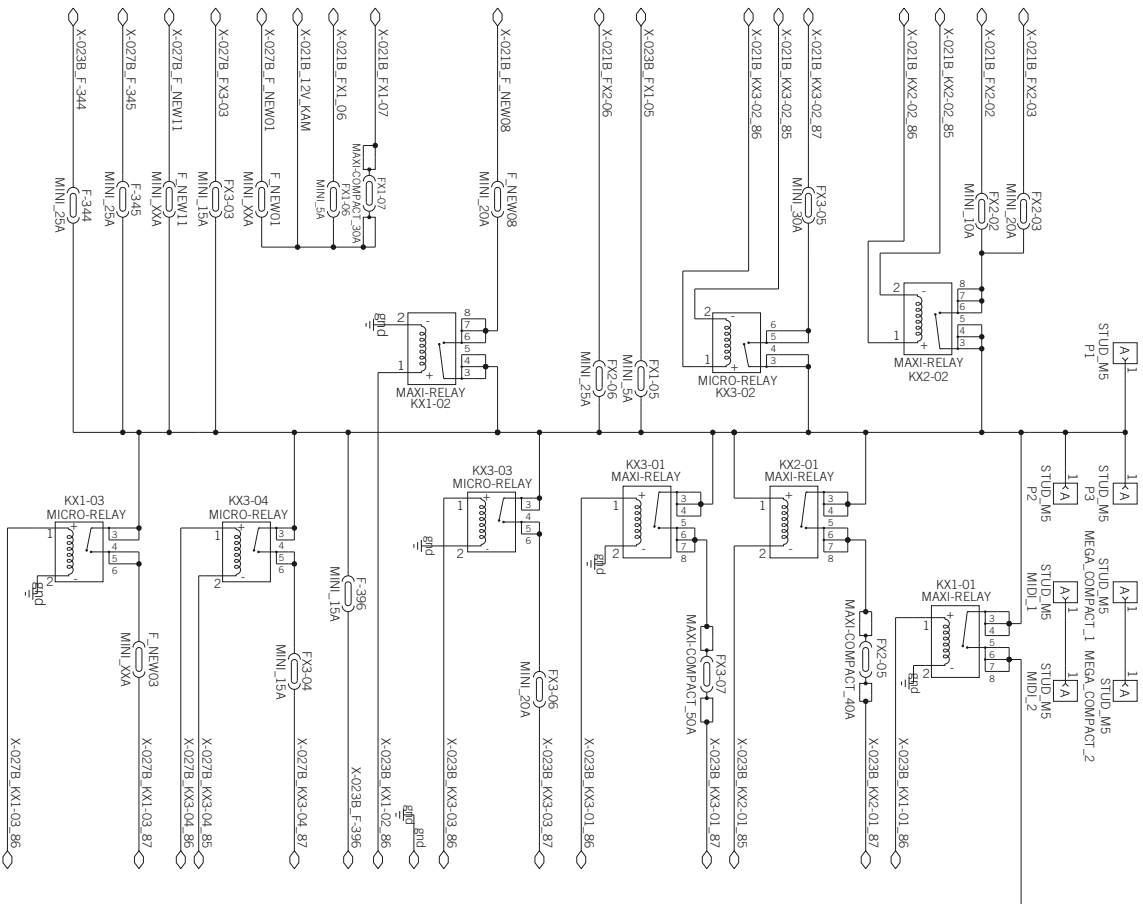
3. IP69K grade according to ISO 20653:2006.

CONNECTORS PINOUT



ELECTRIC DIAGRAM

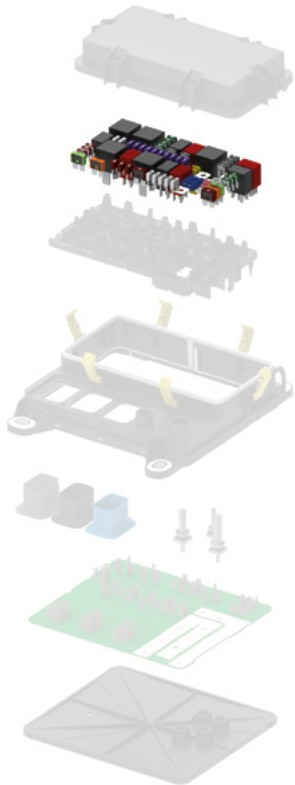




CUSTOMIZATION LEVELS

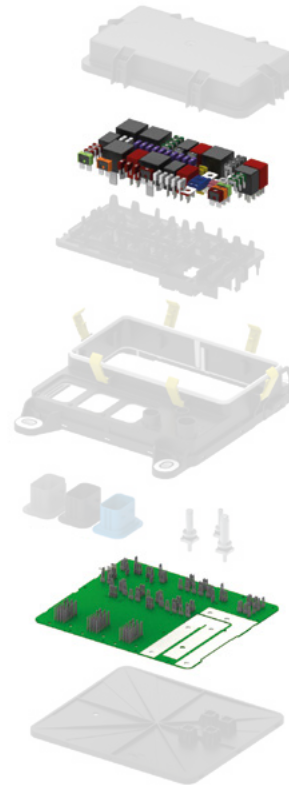
There are 4 customization levels Soft, Medium, Medium⁺ and High, where: ✓ means “customizable component”, — means “default component”.

NOTE: supply status could be with or without fuses and relays (according to customer request).



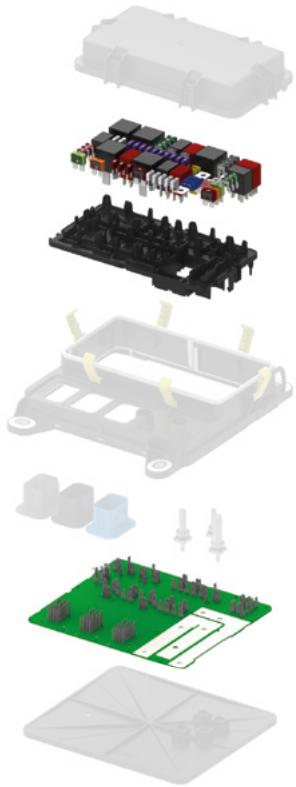
SOFT

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



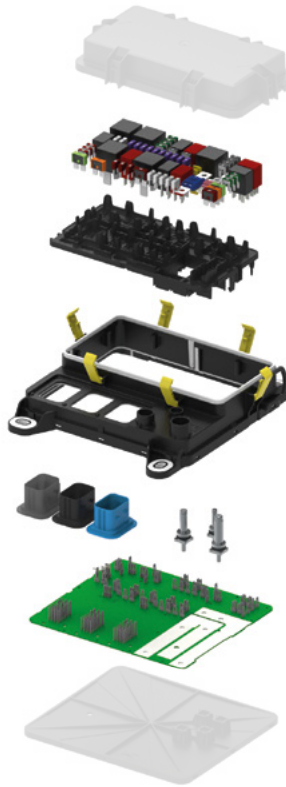
MEDIUM

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)	✓



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