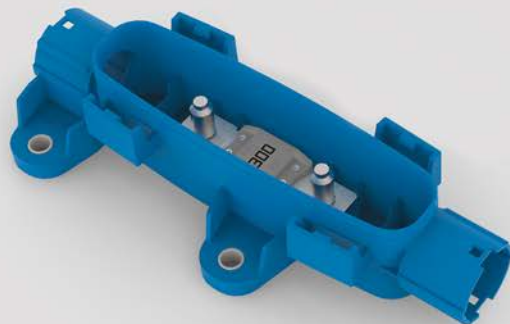
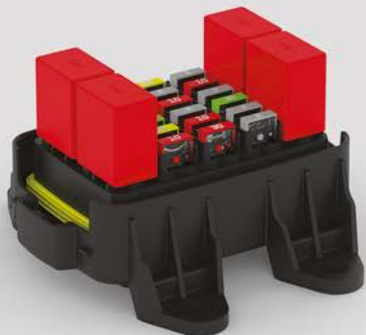


# POWER AND MODULAR SOLUTIONS

## 电源和模块化解决方案



# UTMOST VERSATILITY AND RELIABILITY

Designated for heavy duty power distribution and main electric services protection, these Power Distribution Units, Modular Electrical Centers and Frames with modules, are developed based on a modular design concept for the utmost versatility.

They have been updated to deliver higher performance and respond to the new demands of these applications. They permit a simplified wiring harness layout in the engine bay to keep harnesses safe from water and dirt.

The range includes some PDUs developed and produced to be suitable for 48 V and HV architectures to support the most energy-demanding systems.

## 最大的通用性和可靠性

指定用于重型配电和主要电力服务保护。这些配电单元、模块化电气中心和具有模块的框架，是基于模块化设计理念开发的，以实现最大的多功能性。

经过优化的PDU，能提供更优性能并满足这些应用的新需求。可有效地简化发动机舱内的电子线束布局，保护线束免受灰尘和水污染。

我们开发和生产了一些PDU，可更好的适用于48V电气架构，并支持最耗能的系统。



Read more about MTA power and modular solutions on  
如需阅读有关 MTA 电源和模块化解决方案的更多信息，请访问  
[www.mta.it/en/electrical-products](http://www.mta.it/en/electrical-products)



CARS  
汽车



TRACTORS  
拖拉机



OFF-HIGHWAY VEHICLES  
非公路车辆



MOTORCYCLES  
摩托车



TRUCKS  
卡车



E-MOBILITY  
电动交通

## NEW PRODUCTS 新产品

### SMART FUSE BOX PCB BASED PCB式

Smart Fuse Box is an intelligent power distribution unit, designed for agricultural, off-highway vehicles and buses. The ECU can be used to drive, protect and monitor up to 30 loads, through the eFuse, and to interface analog/digital signals and loads via CAN.

#### MAIN ADVANTAGES

- Size reduction (one device in place of fuse + relay).
- Serviceability: no need to access the ECU.
- Superior handling of loads with high current peaks and finer diagnostic.
- Reduced current consumption to control loads.
- Smoother switching without duty cycle limitations.
- No mechanical contacts.

### 智能保险丝盒

智能保险丝盒是一种智能配电装置, 专为农业、非公路车辆和公共汽车设计。ECU可用于通过eFuse驱动、保护和监测多达30个负载, 并通过CAN连接模拟/数字信号和负载。

#### 主要优势

- 尺寸减小 (一个装置代替保险丝+继电器)。
- 可维修性: 无需访问ECU。
- 对高电流峰值的负载的卓越处理以及更精细的诊断。
- 降低了控制负载的电流消耗。
- 无占空比限制的平稳切换。
- 无机械触点。



## NEW PRODUCTS 新产品

### 高压配电装置

MTA开发和生产适用于400 V和800 V额定系统的高压PDU: 从配备高压接触器并放置在电池组内的主断开装置到辅助设备的辅助高压保险丝盒, 再到特定的关键线路管理装置, 如快速充电断开装置。高压 PDU可以集成电力设备和电子控制或传感器管理设备, 与车辆系统具有不同的通信可能性。它们是即插即用组件, 满足所有最先进的要求和规范。

#### 可用功能的示例

- 塑料或铝制外壳 (取决于车辆中的位置和 EMC屏蔽需求)。
- 密封系统达到IP6K9K。
- 陶瓷密封室接触器, 可在减小的空间内满足非常高的电流需求。
- 高压保险丝和高温保险丝, 用于保护每条输出线路。
- 铜、铝、刚性和柔性母线技术。
- 屏蔽高压接头和直通式导线连接。
- 单回路和多回路HVIL内部电路, 包括高压连接器和盖子开关。
- 空气和液体冷却板系统。
- 基于内部温度、电压和电流传感器的诊断电子模块。
- 符合网络安全的软件。

### HIGH VOLTAGE POWER DISTRIBUTION UNITS

MTA develops and produces HV PDUs, both for 400 V and 800 V rated systems: from the main disconnection unit, provided with high voltage contactors and placed inside the battery pack that disconnects the battery from the rest of the vehicle, to the secondary high voltage fuse-boxes for the auxiliary devices, to specific critical line management units like fast charge disconnection units. HV PDUs can integrate electric power devices and electronic controls or sensor management devices, with different communication possibilities to the vehicle system. They are plug & play components and meet all state-of-the-art requirements and specifications.

#### EXAMPLES OF AVAILABLE FEATURES

- Plastic or aluminium case (depending on location in the vehicle and EMC shielding needs).
- Sealing systems up to IP6K9K.
- Ceramic sealed chamber contactors to meet very high current demands in reduced space.
- High voltage fuses and pyro-fuses to protect each single output line.
- Copper, aluminium, rigid and flexible busbar technologies.
- Shielded high voltage connectors and pass-through wire connections.
- Single and multiple loop HVIL internal circuits including HV connectors and lid switches.
- Air and liquid cooling plate systems.
- Diagnostic electronic modules based on internal temperature, voltage and current sensors.
- Cybersecurity compliant software.

## POWER DISTRIBUTION UNITS 配电单元

### FUSE HOLDERS & MULTIPLE FUSE BLOCK

This range of fuse holders can be used stand-alone or can be clipped together to form a multiple fuse block with busbar. They accept MidiVal, MegaCompact and MegaVal fuses.

### 保险丝座和多保 险丝组块

该新一代保险丝座可以单独使用，也可以用母线固定在一起，组成多保险丝组块。可装配 MidiVal、MegaCompact和MegaVal保险丝。



MIDI VAL  
HOLDER  
MIDI VAL  
底座



MEGA COMPACT  
HOLDER  
MEGA COMPACT  
底座



MEGA VAL  
HOLDER  
MEGA VAL  
底座

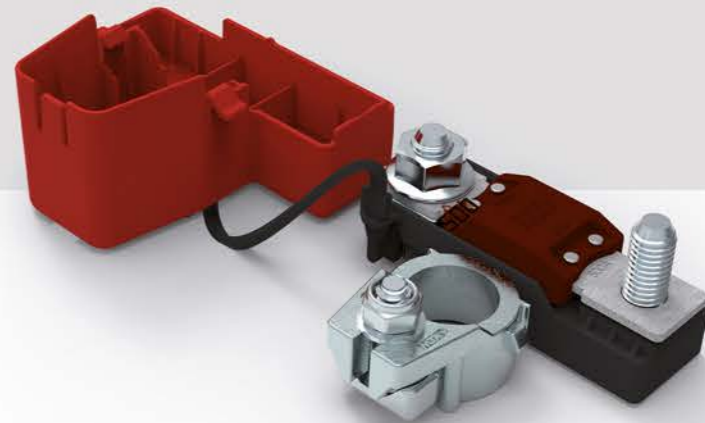
### BATTERY DISTRIBUTION UNIT

This BDU features a casted battery terminal in Z Axis in 2 versions: left or right side. It has compact dimensions which make it versatile and easy to be placed. Accomodates 1 MegaVal fuse.

### 电池配电单元

该电池配电单元提供 2 种不同型号，Z 轴右侧或左侧带有铸造电池端子，尺寸小巧紧凑，功能多样，方便安放。可适配 1 个 MegaVal 保险丝。

## POWER DISTRIBUTION UNITS 配电单元



## POWER DISTRIBUTION UNITS 配电单元

### MEGAVAL HOLDERS WATERPROOF 防水

These fuseholders provide great resistance against bumping and tampering. A sealed separated compartment protects the fuse and terminations from harsh environments. The cover has a fixing system with positive touch and it is linked to the body by a tether to avoid possible loosening. One fixing point is located at the center while a second one is satisfied by anti-rotation device on the main body, thus the possibility to fix the fuseholders in different positions.

Two versions available: one with cover and gasket to seal the fuse compartment, the other with "extended" cover to protect the 2 stainless screws too.

They can accommodate MegaVal fuses up to 500 A.

### MEGAVAL 保险丝座

这些保险丝座具有良好的抗碰撞和防篡改性能。密封的独立隔间可保护保险丝和端子免受恶劣环境的影响。盖子有一个具有积极接触的固定系统，它通过系绳连接到身体上，以避免可能的松动。一个固定点位于中心，而第二个固定点由主体上的防旋转装置满足，因此可以将保险丝座固定在不同的位置。

有两种版本可供选择：一种带有盖子和垫圈以密封保险丝盒，另一种带有“扩展”盖子以保护2个不锈钢螺钉。它们可以适配高达500安的MegaVal保险丝。



### MEGAVAL HOLDER WATERPROOF 防水

This new fuse holder has been studied to solve even the most critical room problems. The dimensions of this product are in fact reduced as much as possible, still assuring best performances in strength and water tightness. It is composed by a body and a cover with silicon gasket, 2 grommets, 2 retainers and a closing sealing assurance with or without M6 fixing flange.

### MEGAVAL 保险丝座

这种新型保险丝座已被研究用于解决最关键的空间问题。事实上，该产品的尺寸已尽可能减小，仍能确保强度和水密性方面的最佳性能。它由一个带有硅垫圈的上部和下部壳体、2个索环、2个保持器和一个带或不带M6固定法兰的闭合密封保证组成。

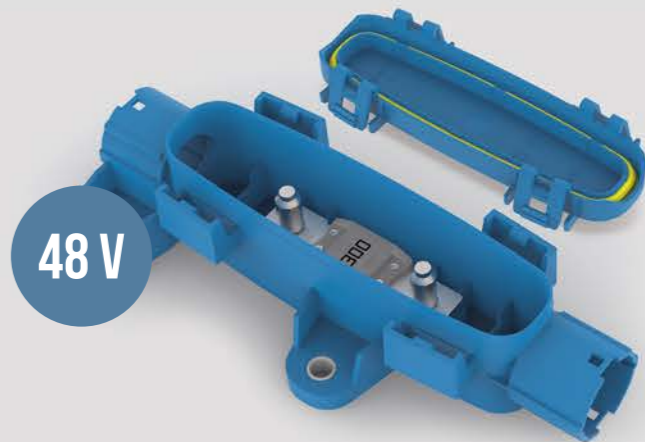
## POWER DISTRIBUTION UNITS 配电单元

### 48 V MEGAVAL HOLDER WATERPROOF 防水

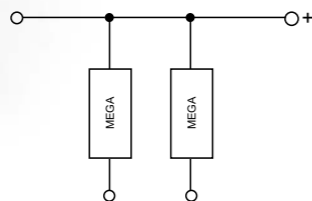
This 48 V MegaVal fuse holder has been developed with very high-performing characteristics. It has been put through a series of tests with the result to be qualified for applications under the wading depth of cars. It can accommodate MegaVal fuses up to 500 A.

### 48 V MEGAVAL 保险丝座

这款48 V MegaVal保险丝座具有非常高的性能。它已经通过了一系列测试，结果符合汽车在涉水深度下应用的要求。它可以适配高达500安的MegaVal保险丝。



## POWER DISTRIBUTION UNITS 配电单元



### PDU 2M WATERPROOF 防水

The PDU 2M is particularly indicated for harsh environments and in the presence of possible corrosion-related problems. Hence the choice of V2 grade materials in the body of the unit and the cover, external screws in stainless steel, increased degrees of protection and sealed separated fuse compartment.

The PDU is distinguished by the presence of a high-thickness copper busbar and breathable valve pressure relief mechanism.

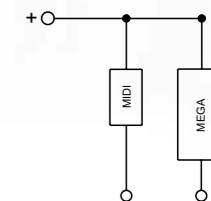
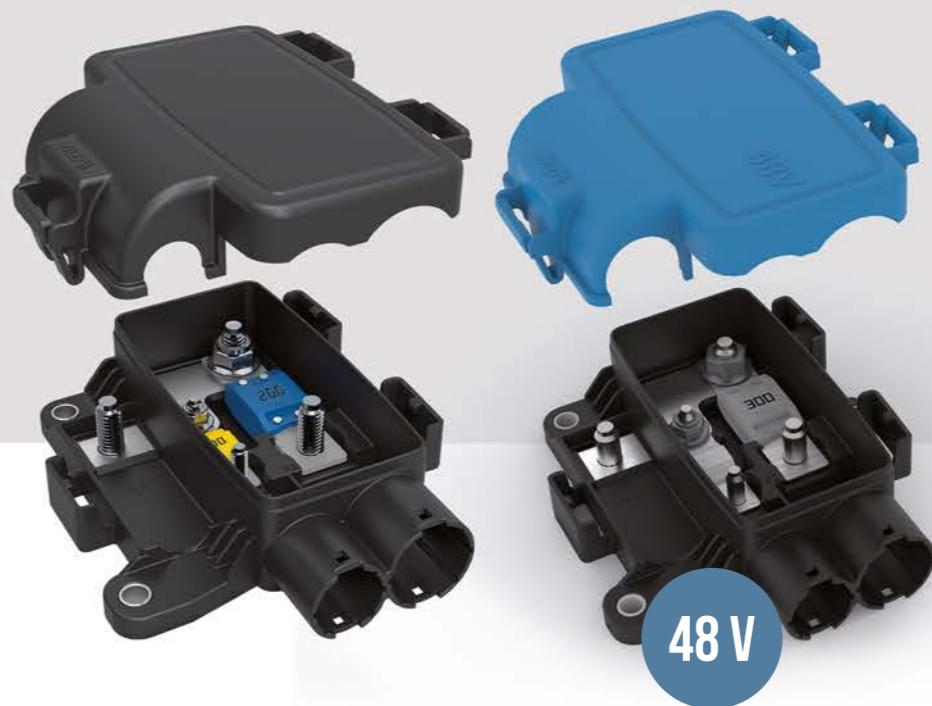
The cover has a fixing system with positive touch and it is linked to the body by a tether to avoid possible loosening. The PDU has 2 fixing points allowing to fix the device in different positions. It can accommodate MegaVal fuses up to 500 A.

### PDU 2M

PDU 2M特别适用于恶劣环境和可能存在腐蚀相关问题的情况。因此，在机身和盖子上选择了V2级材料，不锈钢外部螺钉，增加了保护程度，并密封了独立的保险丝舱。

PDU的特点是具有高厚度铜母线和透气阀减压机构。

盖子有一个具有积极接触的固定系统，它通过系绳连接到壳体上，以避免可能的松动。PDU具有2个固定点，允许将设备固定在不同的位置。它们可以适配高达500安的MegaVal保险丝。



## POWER DISTRIBUTION UNITS 配电单元

### PDU 2-WAY WATERPROOF 防水

Designed for both light vehicles and heavy-duty applications, these Power Distribution Units can accommodate MidiVal and MegaVal fuses.

### 双路PDU

这些配电装置专为轻型车辆和重型应用而设计，可适配MidiVal和MegaVal保险丝。

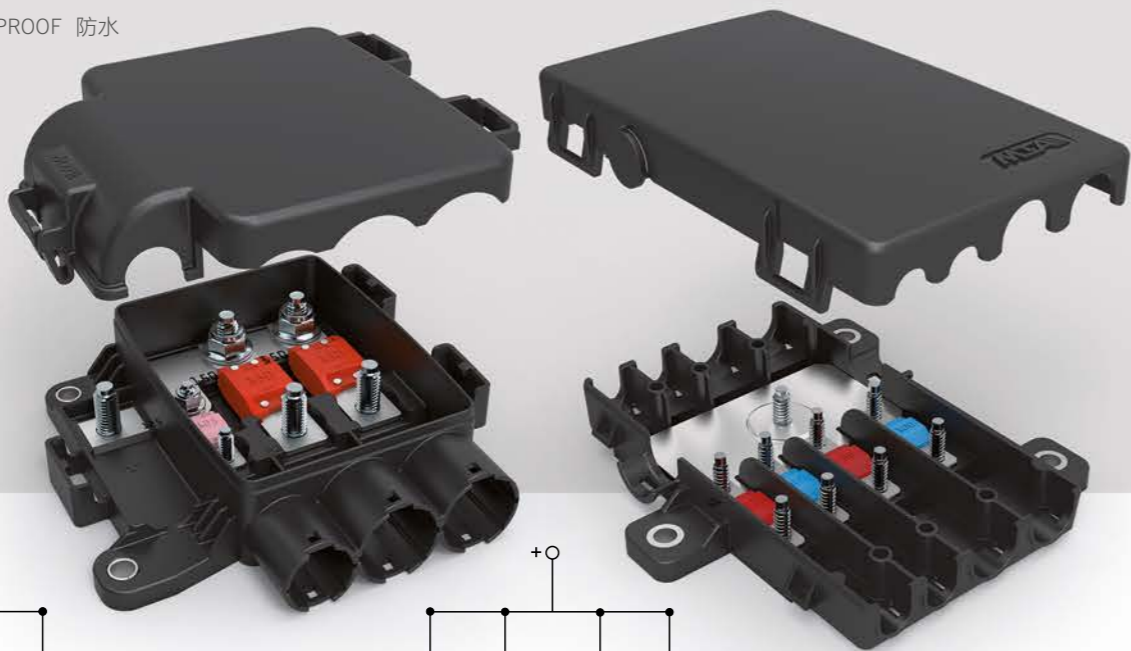
## POWER DISTRIBUTION UNITS 配电单元

### PDU 3, 4-WAY WATERPROOF 防水

Thanks to their compact shape and multiple fastening points, these Power Distribution Units are versatile and easy to use. They can accommodate MidiVal and MegaVal fuses.

### 3, 4路PDU

由于其紧凑的形状和多个固定点，这些配电装置用途广泛，易于使用。它们可以适配 MidiVal 和 MegaVal 保险丝。



## POWER DISTRIBUTION UNITS 配电单元

### CONFIGURABLE PDUs SPLASH PROOF 防溅

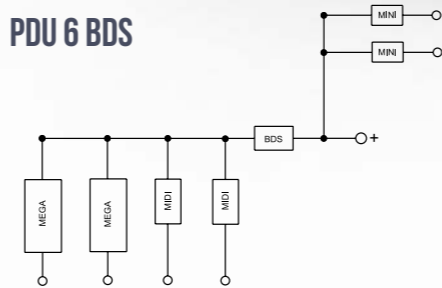
These PDUs offer a high level of flexibility. They can house electronic BDS and different combinations of bussed MidiVal and MegaVal fuses (up to 4 MidiVal and 2 MegaVal). They can also accommodate 5 MiniVal fuses and any fuse/relay holder module in the MTA range. A seal mounted in the cover assures protection from dust and water.

### 可配置 PDUs

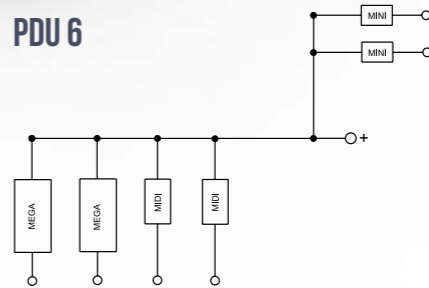
此类 PDU 适配性很强：可以容纳电子 BDS 和各种带母线 MidiVal 和 MegaVal 保险丝组合（最高达 4 个 MidiVal 和 2 个 MegaVal）。它们还可以适配 5 个 MiniVal 保险丝或者 MTA 系列的任意保险丝和继电器底座模块。壳体设有密封、防尘、防水。



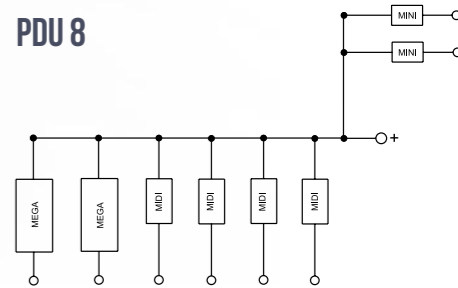
### PDU 6 BDS



### PDU 6



### PDU 8



## MODULAR ELECTRICAL CENTERS 模块化电气中心

Designed for the engine compartment, MEC 25 and MEC 97 are intended for the distribution of power and the protection of major utilities in agricultural and earthmoving machines applications. These Modular Electrical Centers are plug & play product with rational design and compact dimensions. They have a high level of customization, which can concern the fuses and relays; the inner mask; the PCB and the connectors depending from the needs of the users.

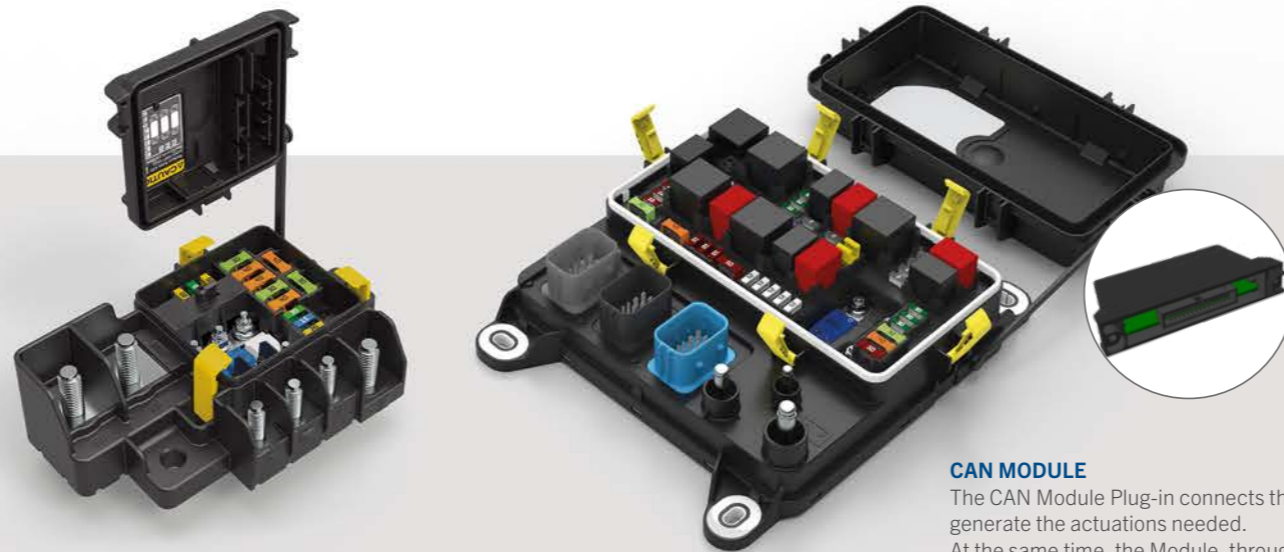
MEC 25和MEC 97专为发动机舱设计，用于分配电力和保护农业和土方机械应用中的主要公用设施。这些模块化电气中心是即插即用产品，设计合理，尺寸紧凑。它们具有高度定制性，根据客户需求可以涉及保险丝和继电器；内部遮罩；PCB和连接器。

### MEC 25 WATERPROOF 防水 PCB BASED PCB式

MEC 25 accepts 6 MiniVal fuses, 3 MidiVal fuses, and 5 MaxiCompact fuses (+2 spare).

#### MAIN FEATURES

- Press-fit technology.
- It can be fixed in flat, inclined or vertical position.
- Appropriate latches preload the cover against the seal and close the MEC.
- The cover is tethered to the body to ensure it won't be displaced.



### MEC 25

MEC 25可安装6个MiniVal保险丝、3个MidiVal保险丝和5个MaxiCompact保险丝(+2个备用)。

#### 主要特点

- 压配技术。
- 可以固定在平坦、倾斜或垂直的位置。
- 适当的门锁将盖子预加装到密封件上，然后关闭MEC。
- 盖子被拴在壳体上，以确保它不会移位。

#### CAN MODULE

The CAN Module Plug-in connects the MEC with the CAN Bus line to generate the actuations needed. At the same time, the Module, through the CAN Bus line, transmits the diagnostic information. The CAN Bus Module is configurable with MTA Studio, an in-house developed code composing tool.

#### CAN模块

CAN模块插件将MEC与CAN总线连接，以产生所需的驱动。同时，模块通过CAN总线传输诊断信息。CAN总线模块可通过内部开发的代码编写工具MTA Studio进行配置。

#### MTA STUDIO

MTA Studio is a specific tool used to program dashboards, displays and electronic control units which have been developed with customizable functions allowing the customers to create "tailored" devices.

MTA Studio是一款用于对仪表盘、显示器和电子控制单元进行编程的特定工具，这些仪表盘、显示屏和电子控制装置已开发出可定制的功能，允许客户创建“量身定制”的设备。

## MODULAR ELECTRICAL CENTERS 模块化电气中心

### MEC 97 WATERPROOF 防水 PCB BASED PCB式

MEC 97 accepts 3 MaxiCompact (+3 spare), 34 MiniVal (+3 spare), 1 MegaCompact, 1 MidiVal, 8 Micro relays, 5 Maxi relays.

#### MAIN FEATURES

- Press-fit technology.
- A Gore-Tex vent provides a barrier against water and dust and allows the free circulation of air, avoiding the formation of moisture.
- It can be fixed in flat, inclined or vertical position.
- Appropriate latches preload the cover against the seal and close the MEC.
- The cover is tethered to the body to ensure it won't be displaced.
- Anti-vibration system integrated inside the fixing points.

### MEC 97

MEC 97可装3个MaxiCompact (+3个备用)、34个MiniVal (+3个备用)、1个MegaCompact、1个MidiVal、8个Micro继电器和5个Maxi继电器。

#### 主要特点

- 压配技术。
- Gore-Tex通风口提供了防水和防尘的屏障，并允许空气自由循环，避免湿气的形成。
- 可以固定在平坦、倾斜或垂直的位置。
- 适当的门锁将盖子预加装到密封件上，然后关闭MEC。
- 盖子被拴在壳体上，以确保它不会移位。
- 防振系统集成在固定点内部。



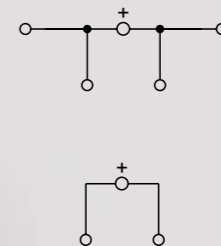
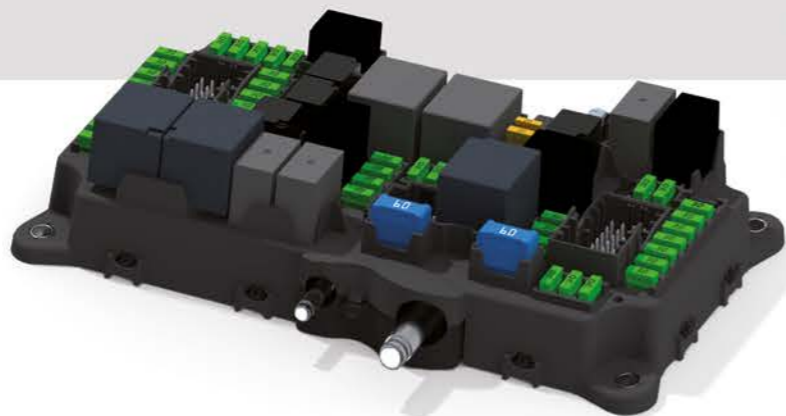
## MODULAR ELECTRICAL CENTERS 模块化电气中心

### C-MEC 138 PCB BASED PCB式

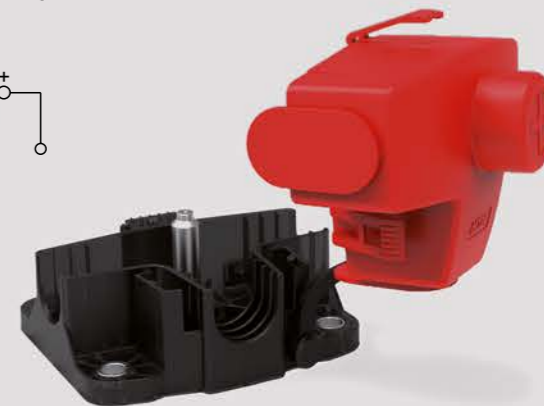
This Modular Electrical Center is a plug & play product with press-fit PCB allowing to integrate all the functions in one piece, this eliminating the need of different modules and associated wirings. The C-MEC 138 is designed for installation in the cabin and has a high level of customization, which can concern the fuses and relays; the inner mask; the PCB and the connectors depending from the needs of the users. It is ideal for new applications and for those who already use the MTA 5-way frame, with which it is interchangeable. C-MEC 138 accepts 49 MiniVal fuses, 3 M8Compact fuses, 1 UniVal fuse and 1 shunt.

### C-MEC 138

该模块化电气中心是一款即插即用产品，具有压配PCB，可将所有功能集成在一个部件中，从而消除了对不同模块和相关布线的需求。C-MEC 138设计用于安装在客舱中，并具有高度定制，可涉及保险丝和继电器；内部遮罩；PCB和连接器取决于用户的需求。它非常适合新的应用程序和那些已经使用MTA 5向框架的人，因为它可以互换。C-MEC 138装配49个MiniVal保险丝、3个M8Compact保险丝、1个UniVal保险丝和1个分流器。



## JUMP START NODES 跳线跨接启动节点



### JUMP START NODES

These products provide a solution for rational safe multi-way electric power distribution. They are used to disconnect the electric system downstream of the battery. They have a special design that allows them to be adapted to each application. Optional: a threaded middle pin which serves as a safe power connection to start up and/or charge external electric devices such as batteries or other equipments.

### 跳线跨接启动节点

这些产品为合理安全的多路配电提供了解决方案。它们用于断开蓄电池下游的电气系统。它们有一种特殊的设计，可以适应每种应用。可选：一个带螺纹的中间销，用作启动和/或为电池等外部电气设备充电的安全电源连接。

## WATERPROOF MODULES WATERPROOF 防水

Vehicles operating around water and mud need advanced environmental protection. Our range of watertight modules has been developed to satisfy this need.

All terminals are equipped with a grommet and a radial silicone seal housed between the module and its cover keeps the modules secured tightly.

Modularity is the core philosophy behind these products: all modules can be used interconnected or stand alone and fixed with dedicated mounting brackets. They can all accommodate fuses, relays, or both.

### 防水模块

在水和泥浆环境中行驶的车辆需要更先进的环境保护。我们开发的一系列防水模块可满足这一需求。所有端子都配有一个套环和一个径向硅胶密封件，该密封件位于模块及其盖子之间，可使模块牢固固定。模块化是这些产品背后的核心理念：所有模块都可以互连使用，也可以单独使用，并用专用安装支架固定。它们都可以适配保险丝、继电器或两者兼而有之。

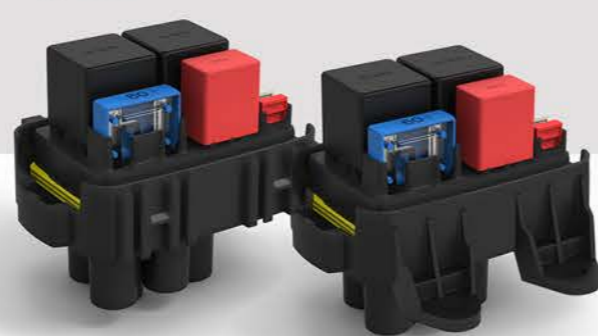
30 MiniVal fuses or 10 Micro 280 relays or mixed relays and MiniVal fuses

30个MiniVal保险丝或10个Micro 280继电器或混合继电器和MiniVal保险丝。



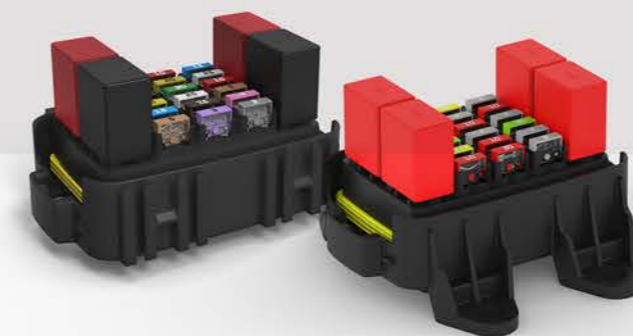
6 MiniVal fuses, 1 MaxiVal fuse, 2 Maxi relays and 1 Micro relay. Integrated mounting brackets version available.

6个MiniVal保险丝，1个MaxiVal保险丝，2个Maxi继电器和1个Micro继电器。提供集成安装支架版本。



18 MiniVal fuses and 4 Micro relays. Integrated mounting brackets version available.

18个MiniVal保险丝和4个Micro继电器。提供集成安装支架版本。



6 MiniVal fuses, 1 MaxiVal fuse, 1 Mini relay and 3 Micro relays. Integrated mounting brackets version available.

6个MiniVal保险丝，1个MaxiVal保险丝，1个Mini继电器和3个Micro继电器。提供集成安装支架版本。



## MODULES 模块

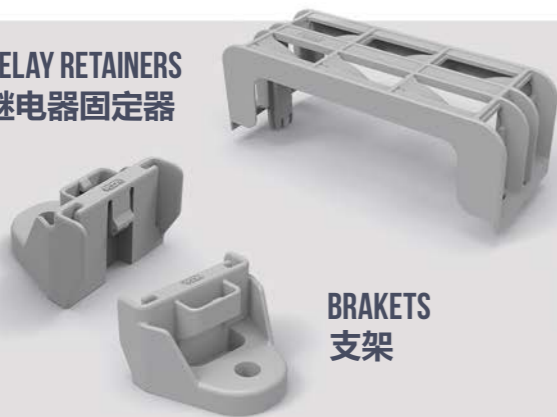
### FRAMES, BRACKETS, COVERS & MODULES

We offer 15 modules and a variety of frames, covers, and brackets to build a wide range of flexible modular solutions for holding fuses, relays, or diodes. All of these products are equipped with secondary locks to guarantee maximum safety and high performance. They are built to resist stress and provide reliable technology.

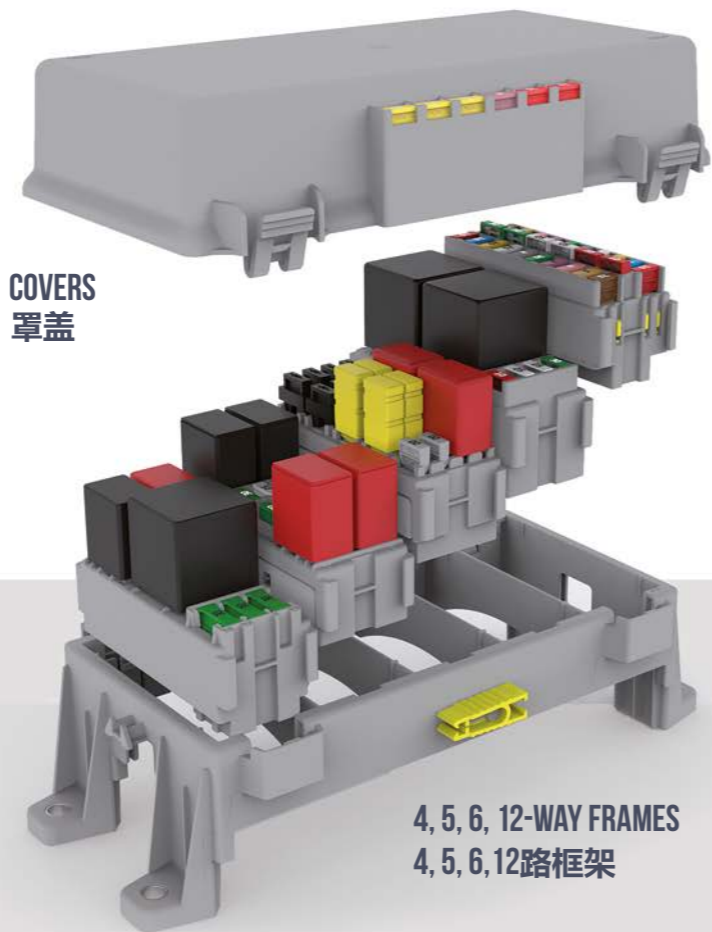
### 框架、支架、 罩盖和模块

我们提供 15 种模块和各种类型的框架、罩盖和支架，给保险丝、继电器和二极管的安装和定位提供各种灵活的模块化解决方案。所有此类产品都配有二次锁，保证安全最大化、性能最优化。独特抗压设计，可靠技术保障。

#### RELAY RETAINERS 继电器固定器



#### BRACKETS 支架



#### COVERS 罩盖

#### 4, 5, 6, 12-WAY FRAMES 4, 5, 6, 12路框架



20 MiniVal fuses

20个MiniVal保险丝。



20 diodes or 20 MiniVal fuses

20个二极管或20个MiniVal保险丝。



8 MiniVal fuses and 4 Micro relays

8个MiniVal保险丝和4个Micro继电器。



6 Micro relays

6个Micro继电器。



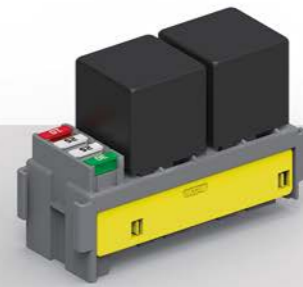
1 Maxi relay and 1 Mini relay

1个Maxi继电器和1个Mini继电器。



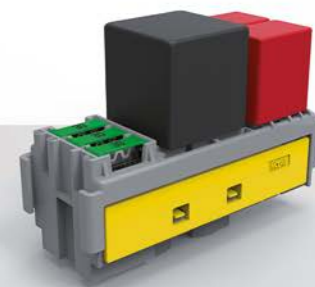
2 Maxi relays

2个Maxi继电器。



4 MiniVal fuses and 2 Mini relays

4个MiniVal保险丝和2个Mini继电器。



3 MaxiCompact fuses, 1 Maxi relay and 2 Micro relays

3个MaxiCompact保险丝、1个Maxi继电器和2个Micro继电器。

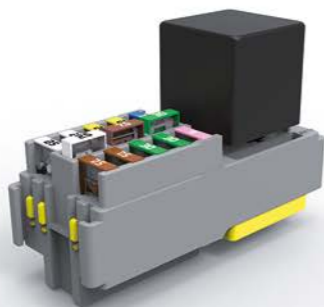
## MODULES 模块

## MODULES 模块



6 MaxiVal fuses

6个MaxiVal保险丝。



10 MiniVal fuses  
and 1 Maxi relay

10个MiniVal保险丝  
和1个Maxi继电器。



3 MaxiVal fuses  
and 6 UniVal fuses

3个MaxiVal保险丝和  
6个UniVal保险丝。



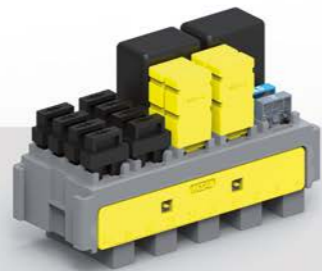
4 MiniVal fuses  
and 6 type A1 S fuses

4个MiniVal保险丝和  
6个A1 S型保险丝。



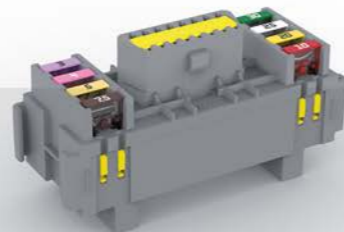
5 MiniVal fuses,  
5 MaxiCompact fuses  
and 3 M8Compact fuses

5个MiniVal保险丝、  
5个MaxiCompact保险丝和3  
个M8Compact保险丝。



20 MiniVal fuses or 20 circuit breakers  
or 20 diodes or 6 Micro 280 relays or  
mixed

20个MiniVal保险丝或20个断路器或20  
个二极管或6个Micro 280继电器或混合  
继电器。



8 MiniVal fuses  
and 1 OBD connector

8个MiniVal保险丝和  
1个OBD连接器。

