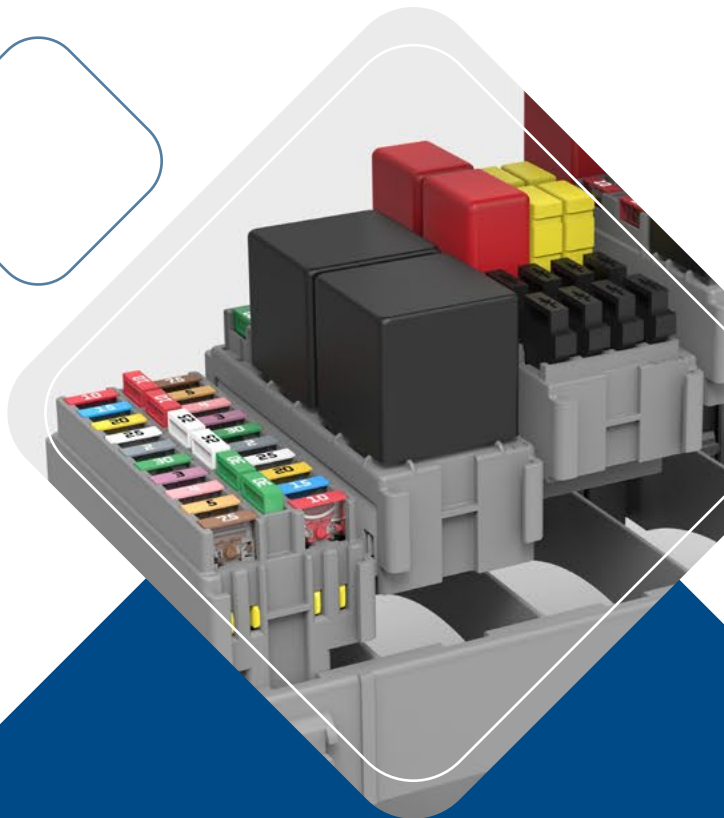
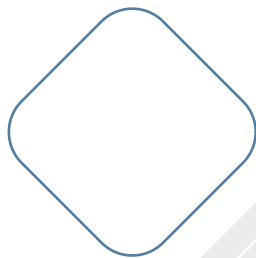


PROTECT & DISTRIBUTE

VERSION 1.0



POWER UNDER CONTROL

ADVANCED POWER DISTRIBUTION AND PROTECTION SOLUTIONS ENGINEERED FOR INCREASINGLY COMPLEX VEHICLE ARCHITECTURES, FROM LOW-VOLTAGE SYSTEMS TO 48V AND HIGH-VOLTAGE PLATFORMS

At MTA, protection and distribution has always been a core pillar of the business. From the very beginning, our engineering teams have consistently focused on the development of fuses and power distribution units, building strong expertise and delivering a wide range of solutions tailored to meet OEMs' specific requirements and enabling optimized load management and an efficient layout of the vehicle's entire electrical system.

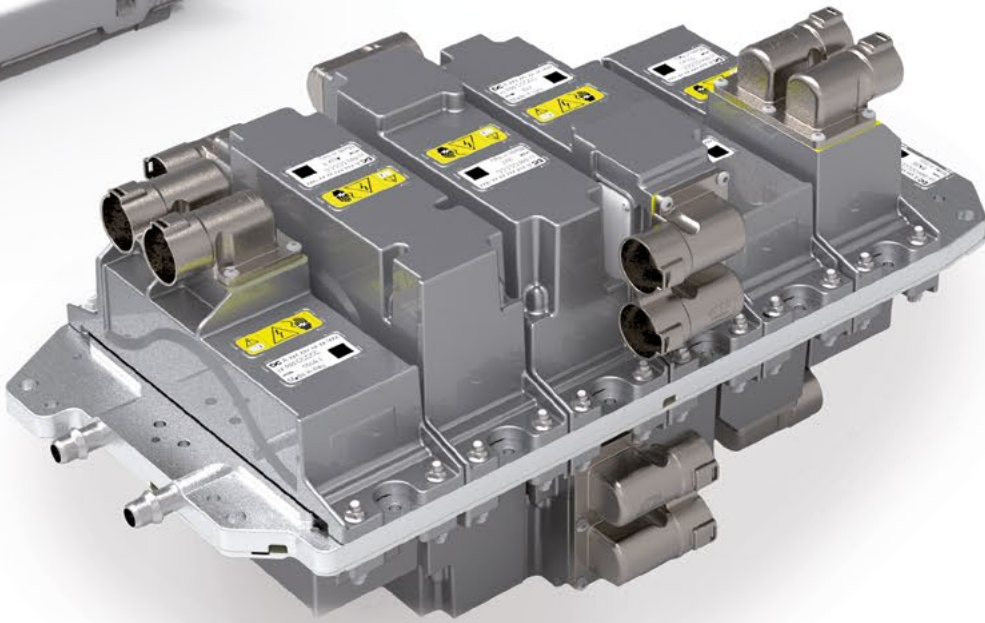
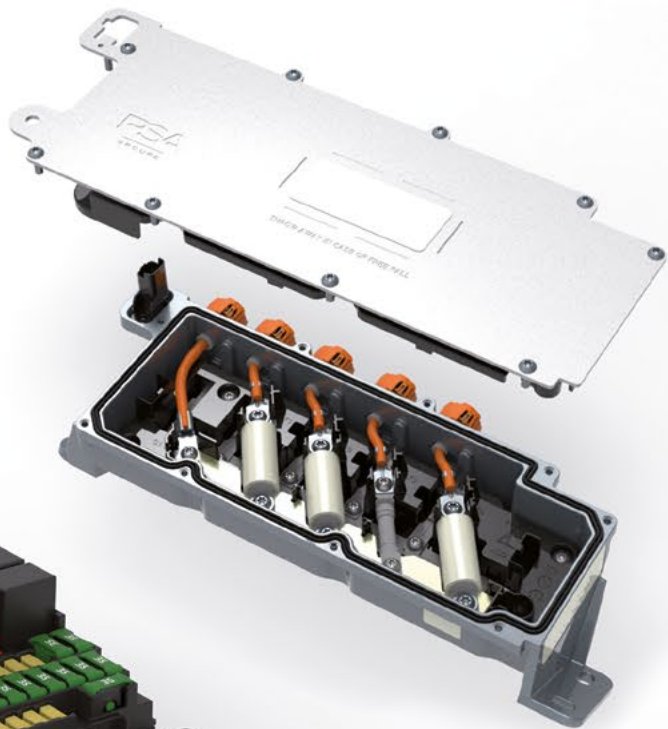
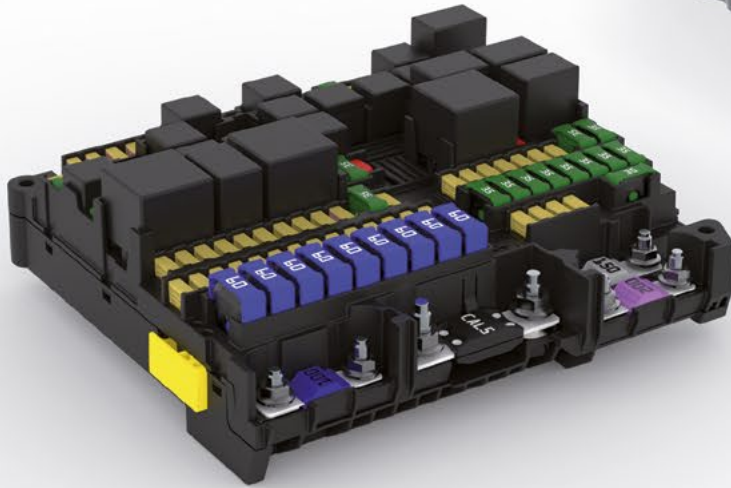
MTA offers two architectural types: hard wired units, integrated directly into the wiring harness using printed circuits (busbars), and stand alone units, based on PCB technology and connected to the harness.

In addition to fully customized solutions, MTA also offers a range of modular PDUs designed to simplify access to advanced power distribution systems and enable tailored configurations for different applications. These PDUs help simplify wiring layouts, optimize space and improve protection against harsh environmental conditions such as water, dirt and vibration. Their design enables scalable and flexible integration across multiple vehicle platforms, supporting increasingly power-demanding systems and more efficient electrical architectures.

CUSTOMIZED SOLUTIONS

Every vehicle has unique electrical architecture requirements. For this reason, MTA works closely with OEMs to develop fully customized Power Distribution Units that combine protection, power distribution and system integration in a single optimized solution.

Available in wired, busbar and PCB-based configurations, MTA PDUs are designed to meet the specific needs of each application, from passenger vehicles to agricultural, industrial and construction equipment. The examples shown on the following pages illustrate the versatility, engineering expertise and customization capabilities that have made MTA a trusted partner of leading manufacturers worldwide.

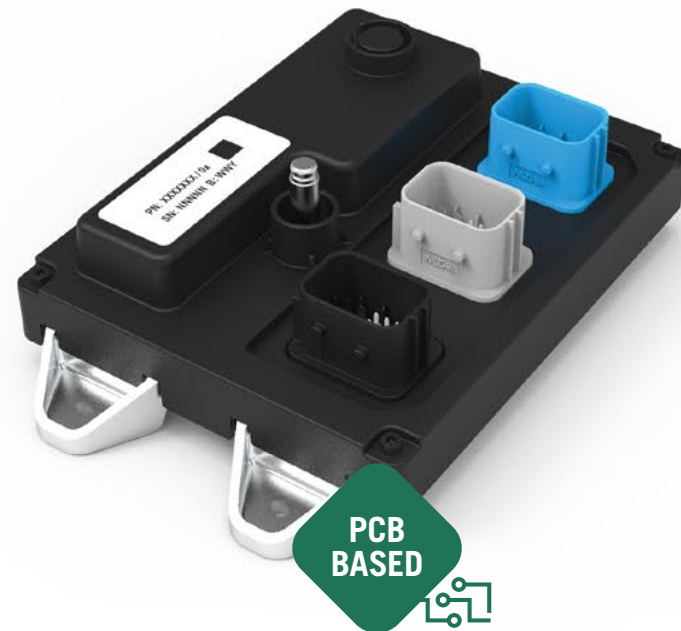


SMART FUSE BOX

The 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.



Watch the video
and discover more



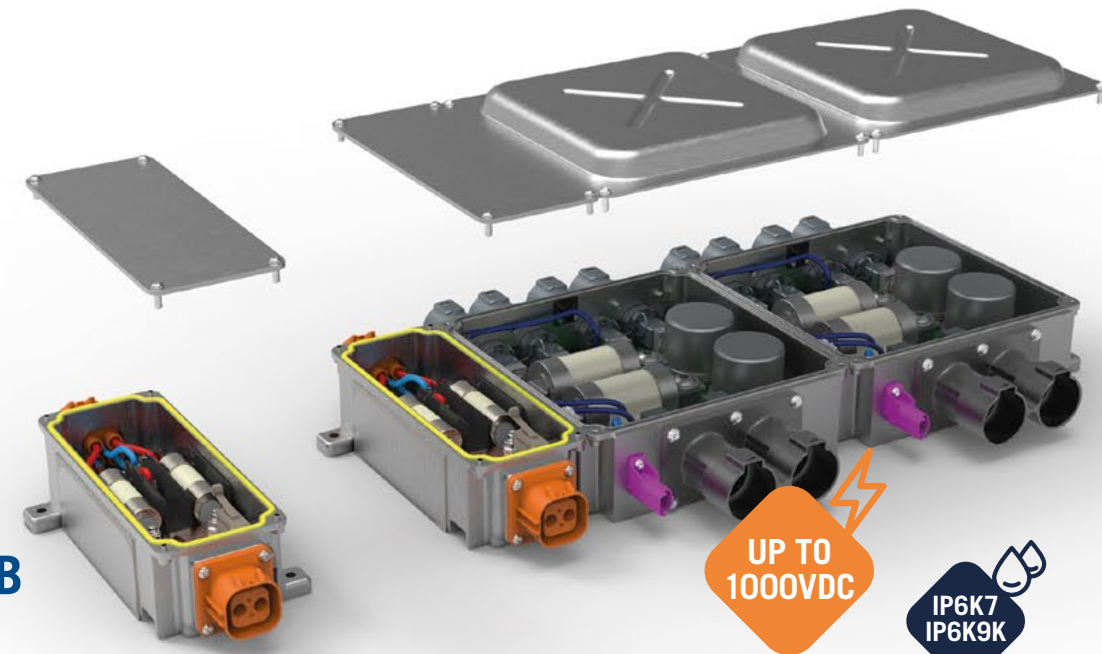
mHVPB & mHVAB

PATENT PENDING

The mHVPB and mHVAB are innovative modular high voltage solutions designed respectively for primary and auxiliary power distribution applications.

The Primary Box is intended for main loads such as inverters, rheostatic brake circuits and rechargeable energy storage systems, while the Auxiliary Box supports auxiliary loads including OBCs, heaters and cooling fans. Both solutions integrate two versatile base modules – the “In/Out module” and the “Out module” – which can operate independently or be linked together for expanded connections, ensuring maximum flexibility and adaptability.

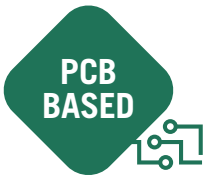
All module combinations can integrate a single interconnected HVIL circuit for enhanced safety. Compatible with a wide range of fuses, contactors and dedicated sensors, the system can be customized according to application requirements while ensuring high resistance to temperature, vibration and harsh environments, with IP67 and IP6K9K protection ratings.



CUBE BOX

PATENT PENDING

The Cube Box offers the customer the opportunity to create their own power distribution unit, starting from a thermoplastic injection mold specifically designed to accommodate various movable inserts. This helps reduce production costs and significantly shortens the time to market.



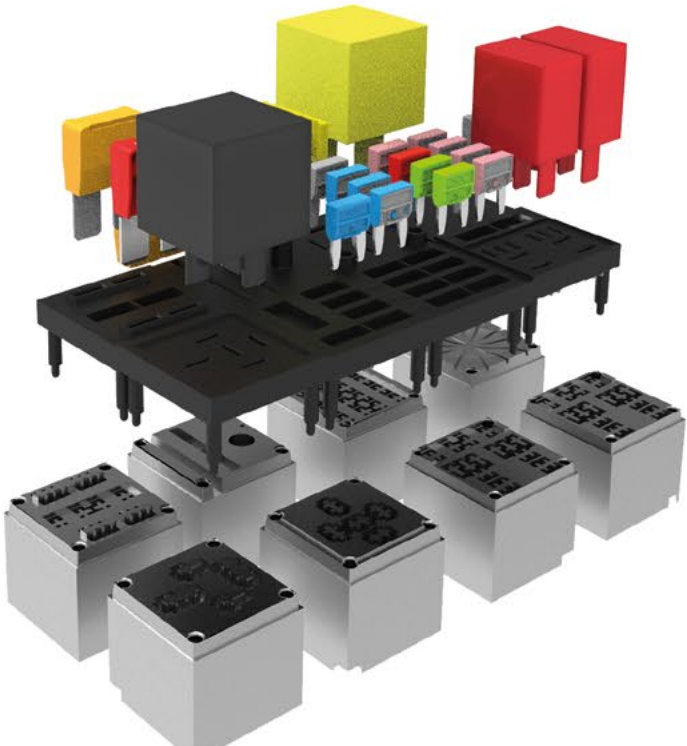
FULLY CUSTOMIZABLE PCB

The Printed Circuit Board (PCB) is fully customizable to match the specific electrical architecture and pinout of the target application. Small electronic components, such as diodes, resistors and LEDs can be soldered during the assembly stages.



FROM MOLD TO MARKET

Several 35x35 mm modules with different contents can be positioned and oriented in the mold according to the customer's layout to obtain the required mask for the customized power distribution unit. Each module can be placed and rotated in any position of the matrix and replicated as needed.



FLEXIBLE CONTENTS

The available modules can house all different blade fuses, relays and some accessories too. If necessary, it is also possible to provide for the use of screw-type power fuses, which will be bolted directly on the PCB.



CONNECTOR PLACEMENT FREEDOM

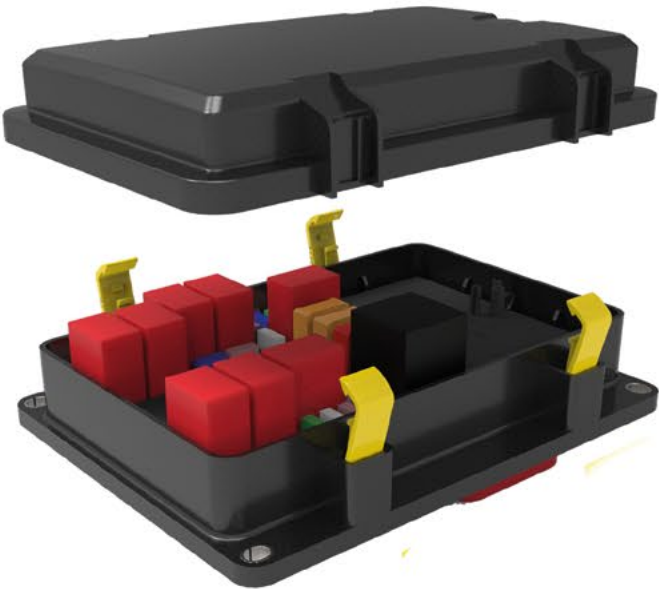
The outputs with multi-way sectioning connectors can be positioned on the lower or upper side.

Watch the video and discover more



FOR THE ENGINE BAY

The Cube Box for the engine bay is waterproof and equipped with sealed frame and lid with gasket.



MEC 25

Designed for the engine compartment, MEC 25 is intended for the distribution of power and the protection of major utilities in agricultural and earthmoving machines applications. This modular electrical center is a plug & play product with rational design and compact dimensions. MEC 25 accepts 6 MiniVal fuses, 3 MidiVal fuses, and 5 MaxiCompact fuses (+2 spare).

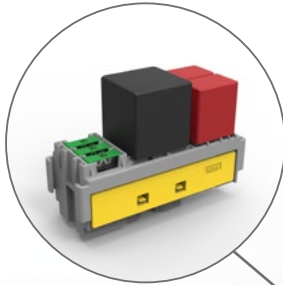
MAIN FEATURES

- Press-fit technology.
- MEC 25 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.

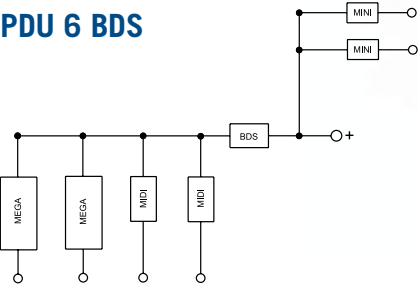


CONFIGURABLE PDUS

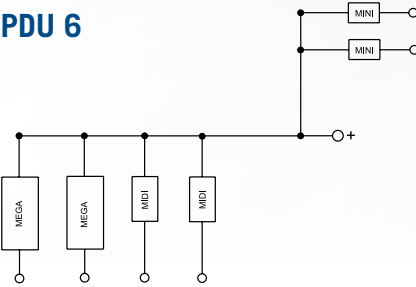
These power distribution units offer a high level of flexibility. They can house electronic BDS and different combinations of bussed MidiVal and MegaVal fuses (up to 4 MidiVal and 2 MegaVal). They can also accommodate 5 MiniVal fuses and any fuse and relay holder module in the MTA range. A seal mounted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



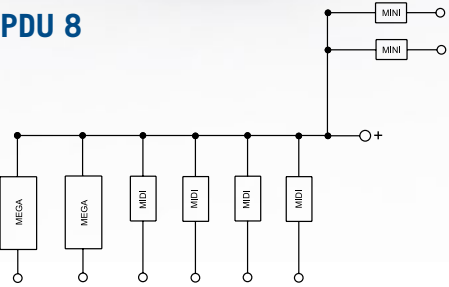
PDU 6 BDS



PDU 6

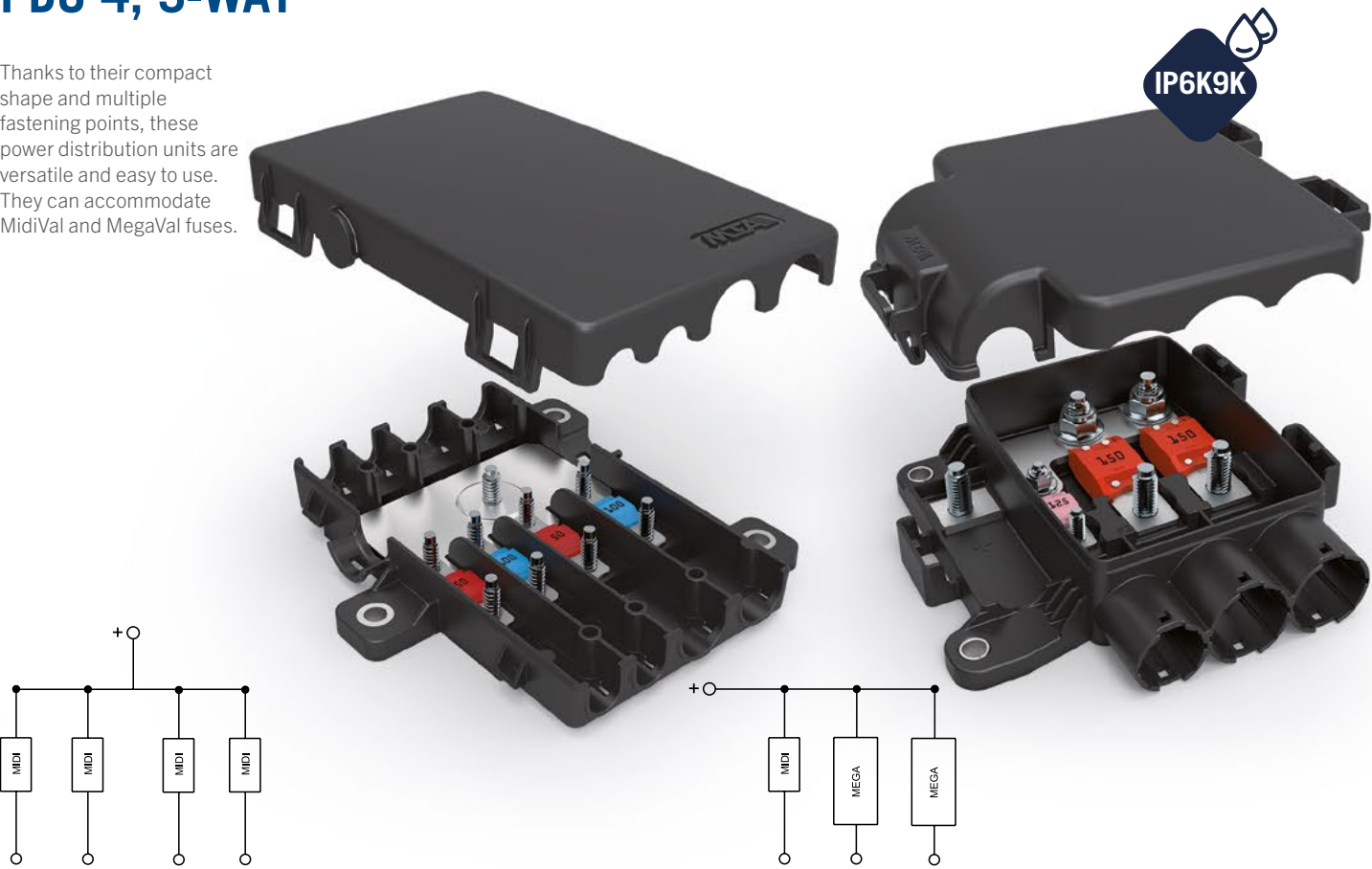


PDU 8



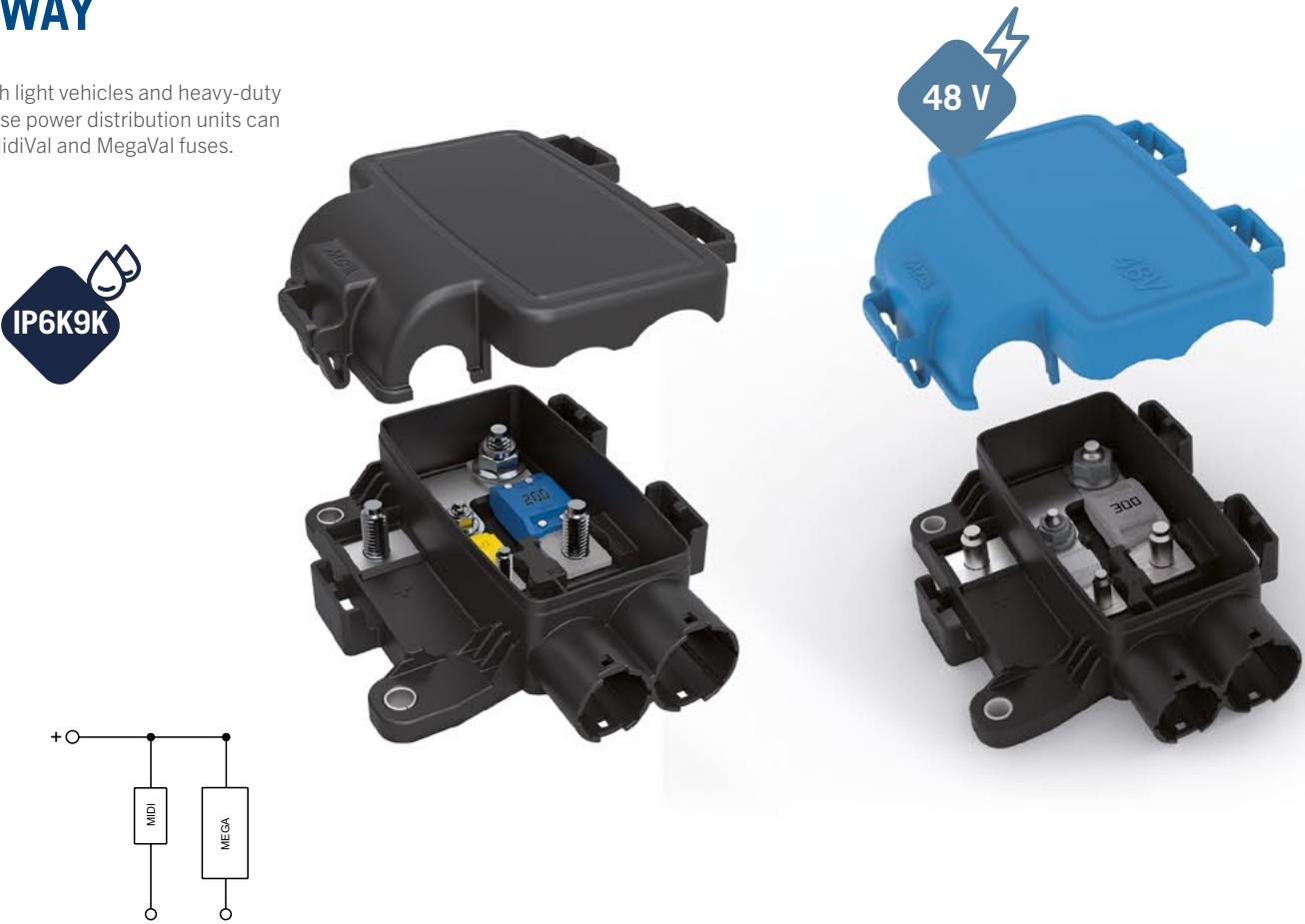
PDU 4, 3-WAY

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.



PDU 2-WAY

Designed for both light vehicles and heavy-duty applications, these power distribution units can accommodate MidiVal and MegaVal fuses.

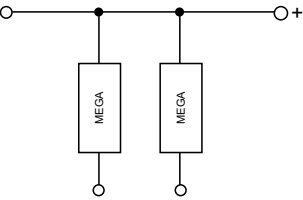


PDU 2M

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 unity 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 loosing. The PDU has 2 fixing points allowing to fix the device in different positions. It can accomodate MegaVal fuses up to 500 A.



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.



MIDIVAL
HOLDER



MEGACOMPACT
HOLDER

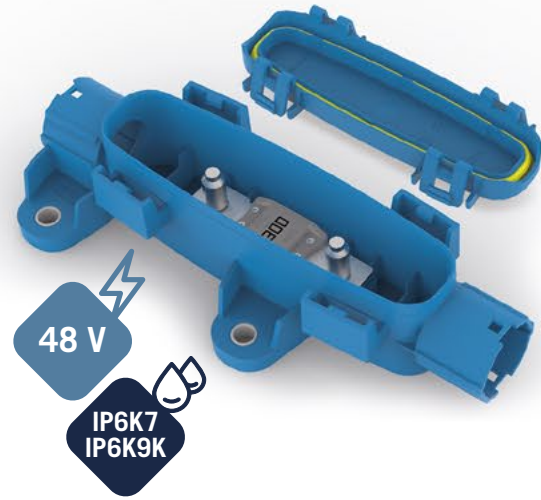


MEGAVAL
HOLDER



MEGAVAL AND MIDIVAL HOLDERS

MegaVal holder specifically designed for 48 V systems. Can accomodate fuses up to 500 A. It has been engineered with exceptional performance features tested to confirm its suitability for applications involving the wading depth of vehicles.



MegaVal and MidiVal holders presenting minimized dimensions to the utmost extent while ensuring optimal performance in terms of durability and water resistance. The housings feature a co-molded gasket, while the top cover securely clips onto the base, ensuring a perfect seal thanks to the CSA (Closing Sealing Assurance) system. The crimps are protected by silicone grommets, and cables are kept in the correct position by specific tube retainers. The fastening points for brackets allow to connect multiple fuse holders or to mount them on the chassis.

MegaVal holders with excellent resistance against impacts and tampering. A sealed, separate compartment shields the fuse and the connections from harsh environmental conditions. The cover features a secure fastening system with a tactile confirmation and is attached to the body with a tether to prevent loss. One fixing point is located at the center, while a second one is provided by an anti-rotation device on the main body, allowing for flexible installation in various positions. Two versions are available: one with a cover and gasket to seal the fuse compartment, and another with an extended cover to also protect the two stainless steel screws. They can accomodate MegaVal fuses up to 500 A.



WATERPROOF MODULES

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 the 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.



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



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

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



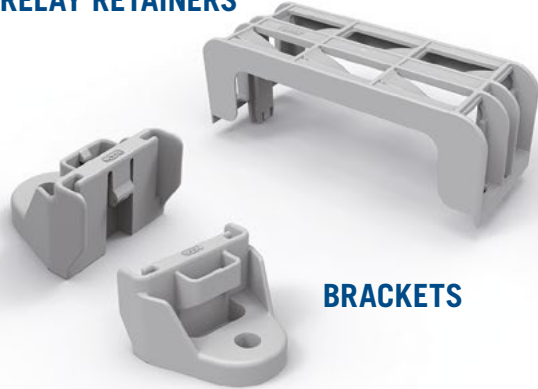
6 MiniVal fuses, 1 MaxiVal fuse, 1 Mini relay and 3
Micro relays.
Integrated mounting brackets version available.



FRAMES, BRACKETS, COVERS & MODULES

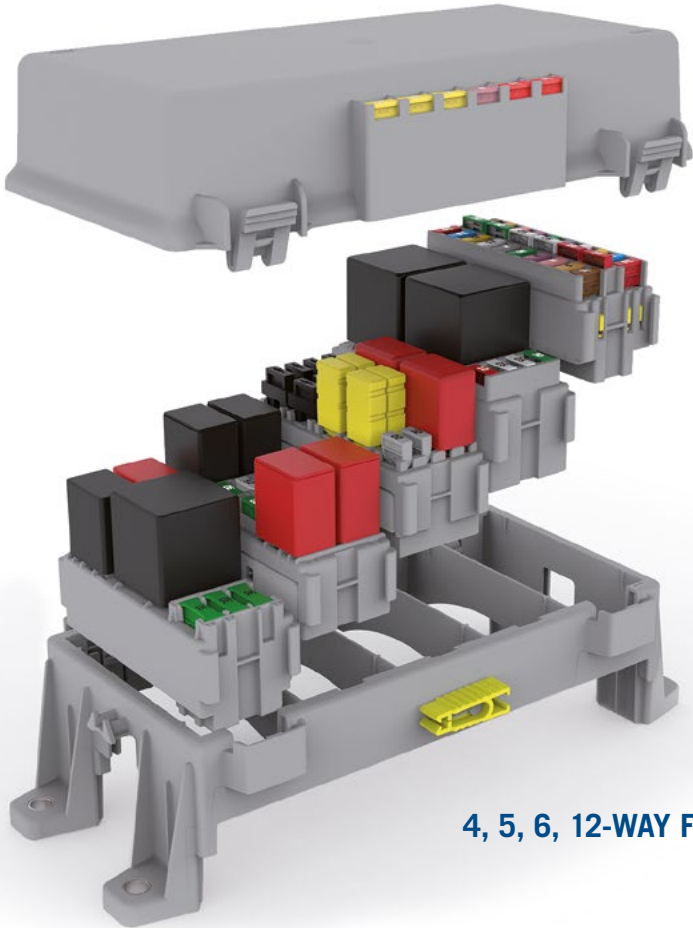
We offer 15 modules and a variety of frames, covers, and brackets to build a wide range of flexible modular solutions for holding fuses, relays, or diodes. All of these products are equipped with secondary locks to guarantee maximum safety and high performance. They are built to resist stress and provide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

RELAY RETAINERS



BRACKETS

COVERS



4, 5, 6, 12-WAY FRAMES



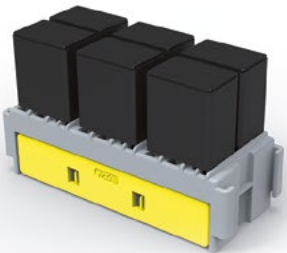
20 MiniVal fuses



20 diodes
or 20 MiniVal fuses



8 MiniVal fuses
and 4 Micro relays



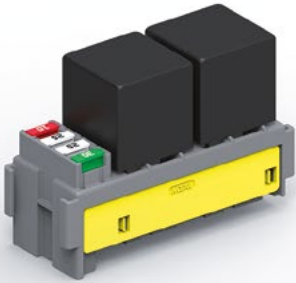
6 Micro relays



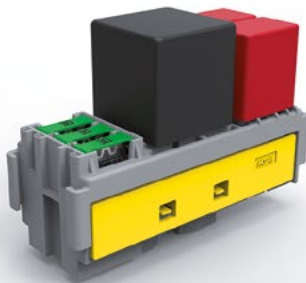
1 Maxi relay
and 1 Mini relay



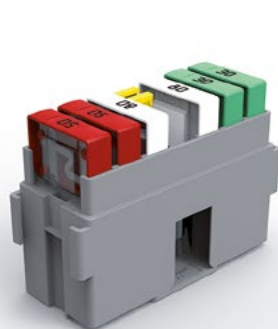
2 Maxi relays



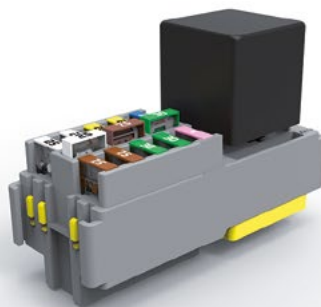
4 MiniVal fuses
and 2 Mini relays



3 MaxiCompact fuses,
1 Maxi relay
and 2 Micro relays



6 MaxiVal fuses



10 MiniVal fuses
and 1 Maxi relay



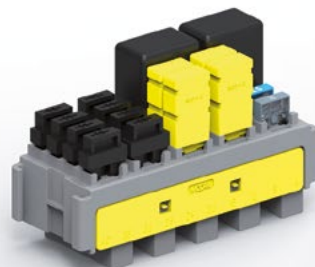
3 MaxiVal fuses
and 6 UniVal fuses



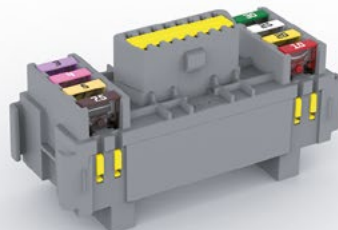
4 MiniVal fuses
and 6 type A1 S fuses



5 MiniVal fuses,
5 MaxiCompact fuses
and 3 M8Compact fuses



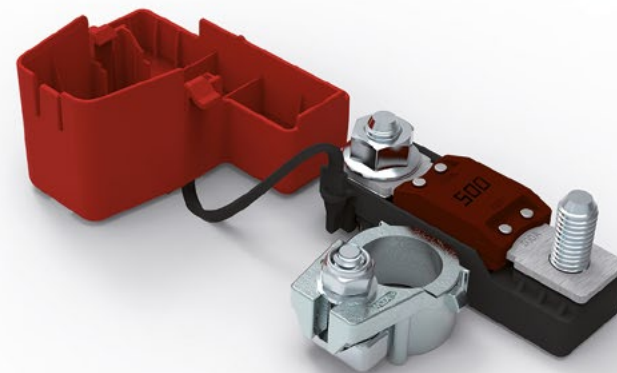
20 MiniVal fuses or 20 circuit
breakers or 20 diodes or 6 Micro
280 relays or mixed



8 MiniVal fuses
and 1 OBD connector

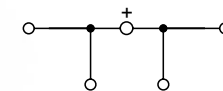
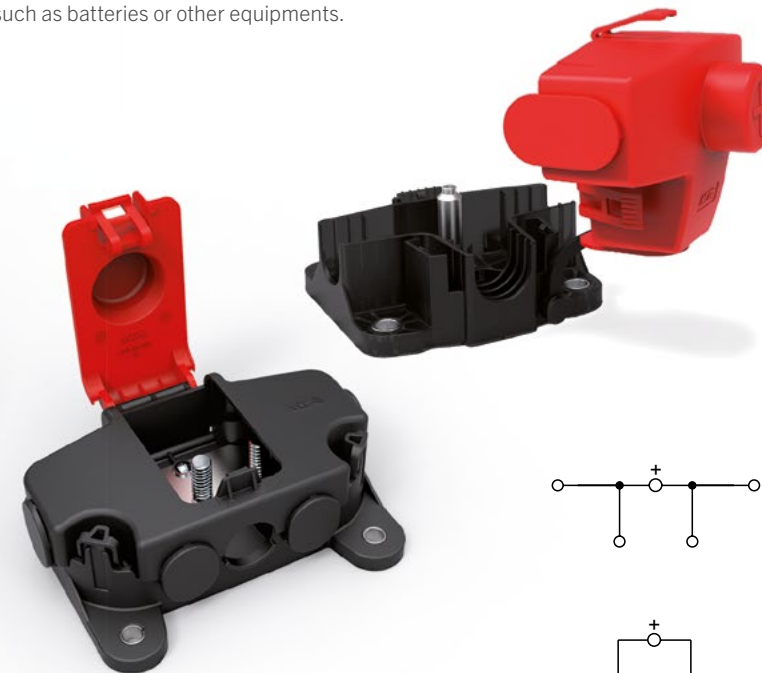
BATTERY DISTRIBUTION UNITS

These battery distribution units feature a casted battery terminal in Z Axis in 2 versions: left or right side. They have compact dimensions which make them versatile and easy to be placed.
They accommodate 1 MegaVal fuse.



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 feature a special design that enables seamless adaptation to various applications.
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.





DISPLAY

POWER

CONTROL

CONNECT