caleg | group

Underfloor converter cabinet on the Metro-North Kawasaki M8

We protect hightech – in your train.

We've all ridden in a tram or train car at some point in our lives. But did you know there is a whole lot going on underneath your feet in one of those cars? For example, the operating voltage of 25,000 V from the overhead contact line is converted into the voltage for operating the lighting and on-board power supply – and all of this is protected by a sophisticated underfloor cabinet made by the caleg-group. Based on a welded, riveted construction, high-strength steels, aluminum and stainless steel are combined with each other to address both the taxing demands of railway-specific vibration testing and weight requirements. This cabinet, made by the caleg-group, protects both the frequency converter and the passengers, and has a minimum service life of 30 years.

Your one-stop supplier for hightech protection

The caleg-group is the specialist when it comes to keeping your electronics safe from harmful environmental influences.

Our **enclosures** and **cabinets** protect against:
- mechanical stress
- environmental factors (water, dust or sunlight)
- electromagnetic compatibility (EMC)

Our **cabling** and **test procedures** protect against:
- electrical faults

Our **cooling** and **heating solutions** protect against:
- overheating
- undercooling

We are your one-stop shop for this type of comprehensive protection and guarantee that your components will work together perfectly. Every product we produce is an individual solution tailored to the unique requirements of our customers.

Keeping your customers safe

The protection of your electronic components is important, but the safety of the people using it every day is even more important. Because with all our know-how about design and production and the standards associated with it, the safety of your customers has top priority.

Since we not only manufacture but also design enclosure solutions, we can take the user-friendliness of your systems into account and implement it in our designs.

Thus, we protect your customers and make working with your hightech equipment a pleasant experience.

From concept to finished product

Design – where the product development process begins

The required properties of a future product are defined as early as the design stage. This applies above all to the standards that the product will have to meet. Our competence extends beyond national boundaries. DIN, ISO, UL, CA, IP, NEMA and various railway standards are part of our daily business.

Using the latest CAD technology (HiCAD / Inventor), as well as our own automated design program, the initial steps towards a product solution are taken. When it comes to production technology, the caleg-group plant standard is incorporated into the future product during the design stage too. This ensures an optimal price-performance ratio.

Modern production lines with optimised processes

The caleg-group uses the most advanced CNC-controlled solutions for punching, laser cutting, bending, welding and PU sealing foams. Additional automated and semi-automated production processes are used in our welding and powder coating areas. Not only the systems themselves, but also the solutions adapted to the manufacturing process play an important role here.

Thanks to its quickly convertible machine systems, the caleg-group can offer a wide variety of lot size-optimized production possibilities based on the highest quality standards. Long-standing partnerships with machinery suppliers ensure that we are able to continually develop and improve the machinery we have.

Surface coating – component assembly – wiring

Depending on the intended application and usage conditions, different surface coating and corrosion protection systems are derived from the base material and coating powder. After completion, the goods are temporarily stored on the customer's premises for just-in-time further processing or prepared for direct dispatch.

We can also take care of component assembly and wiring based on the same standards.

The caleg-group Plants

The **Calau plant** is caleg-group's flagship plant, as well as its headquarters and has a production area of over 15,000 m².

The **Saarbrücken plant** has a production area of 7,000 m². This is where the caleg-group produces its custom-made 19-inch racks and plastics.

The 4,000 m² **Lubsko plant** specializes in metalworking and cable assembly.

In 2016/2017, the Calau site was enlarged to include a new hall with state-of-the-art painting and powder technology. At the same time, the machinery at the two other plants was harmonized and brought up to the same standard. The group's investments in these improvements exceeded 7.5 million Euro.

Companies belonging to the caleg-group

The **caleg Schrank und Gehäusebau GmbH** is the "manufacturer" of the caleg-group. They produce and develop highly individual enclosure and cabinet solutions in stainless steel, steel sheet, aluminum and plastic.

The **cam GmbH** is the "service provider" of the caleg-group and is responsible for assembly, component assembly and wiring work. A further core competency is the development and installation of enclosure air conditioning and ventilation.

More than 400 caleg-group employees are currently shaping the future on a production area of 26,000 m² with state-of-the-art equipment: from the development of customized enclosures and enclosure solutions to a wide variety of cabinet solutions, wiring and component assembly.

The caleg-group is represented by sales offices in: France, Switzerland, the Netherlands, Austria and Sweden.

Facts and Figures

Punching and laser cutting
1 x Trumpf TruMatic 3000
1 x Trumpf TruMatic 5000 FMC
2 x Trumpf TruMatic 6000 FMC
3 x Trumpf TruMatic 7000 FMC

With a fully automatic sheet storage system.

We process sheets up to:
3000 mm x 1500 mm

And a material thickness of:
- Steel sheet: 8 mm
- Stainless steel: 4 mm
- Aluminum: 8 mm

Bending, folding and rounding
10 x Amada
2 x ADIRA
1 x Weinbrenner
1 x Schröder PowerBend
1 x roll bender machine

We can process up to a length of 3400 mm with a maximum pressure of 170 tons.

Welding
- TIG, WIG, MAG and Plasma
- Steel sheet
- Stainless steel
- Aluminum
- Stud welding robot up to size M12
- Sanding or blasting (stainless steel)

Final processing
- Powder coating
- Foaming
- Final assembly
- Aluminum anodization
- Printing
- Cable assembly
- Wiring

International standards
- DIN ISO EN 9001:2015
- Approvals according to UL 50 and CSA 22.2.
- Welding according to DIN EN ISO 3834-2
- Welding on railway vehicles according to DIN EN ISO 15085-2
- Paintwork certificates from Alstom und DB

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