

MAGNETIC SOLUTIONS

COMPONENTS

RENEWABLE ENERGY



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**ELETTRONICA
ROSSONI**
INNOVATIVE SOLUTIONS

Elettronica Rossoni Group, boasting over three decades of experience, presents a professional team dedicated to create solutions to your specific requirements.

Specializing in the manufacturing of appliances, electrical components, and electronics, we are committed to delivering innovative solutions to meet your needs.

RENEWABLE ENERGY

As the world transitions toward clean energy, the performance and reliability of every component in renewable systems become critical. Our advanced magnetic components are engineered to meet the demanding requirements of wind, solar, hydroelectric, and energy storage applications. Our transformers, chokes, inductors, and current sensors are specifically designed to support the high efficiency and power density requirements of inverters, converters, and control systems used in renewable energy installations.

MAIN CHARACTERISTICS

High Efficiency

Low core losses and optimized magnetic materials for minimal energy waste.

Thermal Stability

Designed to perform under wide temperature ranges and fluctuating load conditions.

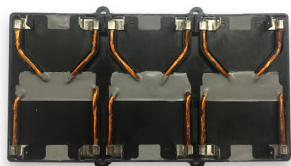
Compact & Lightweight

Space-saving solutions for modular and mobile energy platforms.

Custom Solutions

Tailored designs for specific voltage, current, and frequency requirements.

RENEWABLE ENERGY



TRANSFORMERS (Also Flat Wire) **POWER RANGE UP TO 22kW**

- Unpotted/potted (module) solution.
- High efficiency thermal characteristics.
- Wide temperature range: -50°C up to +180°C.
- Expert in safety standards (IEC, UL,).



PFC (Also Flat Wire) **POWER RANGE UP TO 22kW**

- Optimized thermal cooling link.
- Unpotted/potted (module) solution.
- Wide temperature range: -50°C up to +180°C.
- Expert in safety standards (IEC, UL,).



POWER INDUCTORS (Also Flat Wire) **CURRENT RANGE: up to 300A**

- Unpotted/potted (module) solution.
- Minimum DC Resistance.
- Wide temperature range: -50°C up to +180°C.
- High efficiency thermal characteristics.



CMC COMMON MODE CHOKES **POWER RANGE UP TO 22kW**

- Optimized thermal COOLING LINK.
- Unpotted/potted (module) solution.
- Wide temperature range: -50°C up to +180°C.
- Expert in safety standards (IEC, UL,).

Inductive Components for Medium Voltage

In medium voltage systems, every component must deliver uncompromising reliability, electrical stability, and thermal endurance. Our inductive components are specifically engineered to meet the challenges of medium voltage applications, ensuring optimal performance in demanding industrial environments.

We provide a comprehensive range of inductive components including reactors, chokes, transformers, and filters suitable for equipment operating in the 1kV to 35kV range. Each product is built to deliver long term performance under electrical, thermal, and mechanical stress.

KEY BENEFITS

High dielectric strength

Materials and insulation systems certified for medium voltage endurance.

Thermal efficiency

Low-loss core designs and advanced cooling solutions reduce heat buildup and enhance system longevity.

Mechanical robustness

Vibration-resistant construction for heavy duty industrial environments.

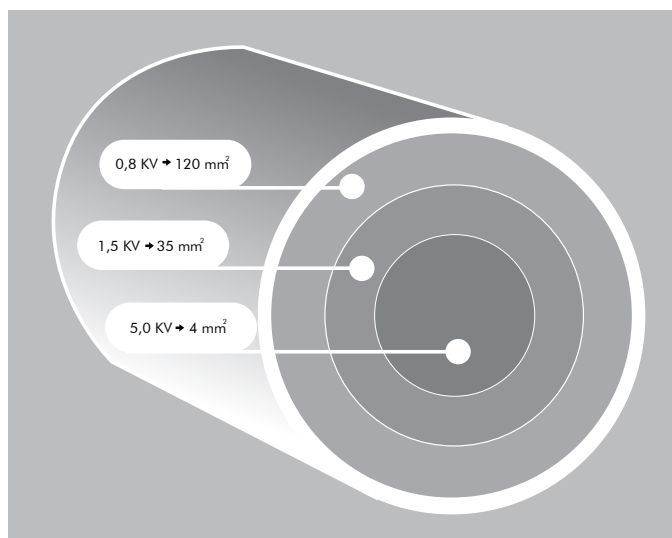
Custom engineering

Tailored to meet exact voltage, inductance, frequency, and dimensional requirements.

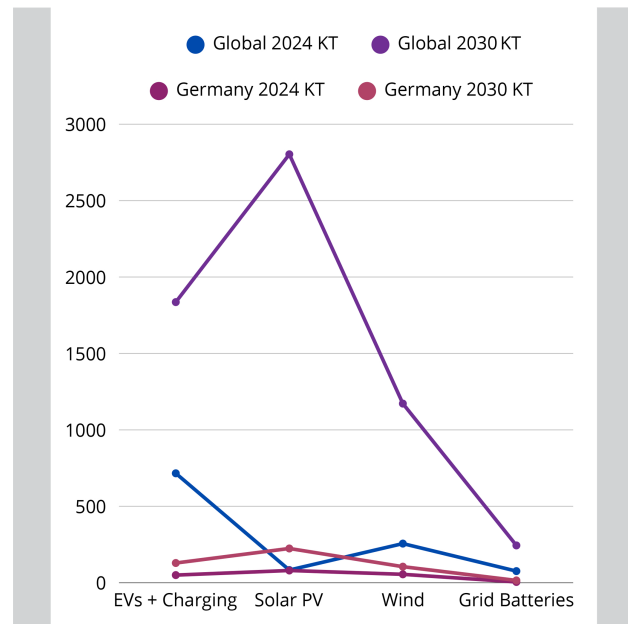
Inductive Components for Medium Voltage

Substantial CO₂ emission reductions over the coming decades will depend on the comprehensive electrification of high load sectors, including thermal systems and transport. Achieving a rapid and cost efficient energy transition requires the interconnection of power electronic converters through a medium-voltage (MV) infrastructure, enabling scalable and resource-optimized integration of distributed renewable generation.

Operating at elevated system voltages minimizes conductor cross sections and converter current ratings, thereby significantly reducing material usage, system losses, and overall capital expenditure.



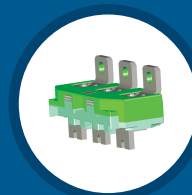
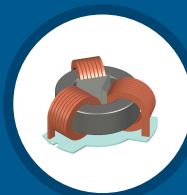
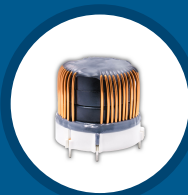
Operation at elevated system voltages



Demand in power electronics

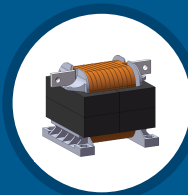
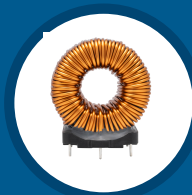


EMI

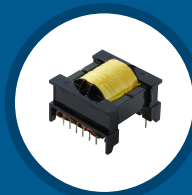
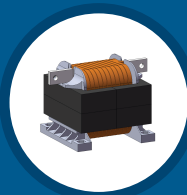
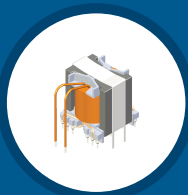
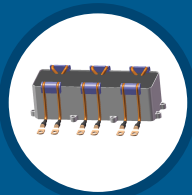


STEP UP
CONVERTER 1

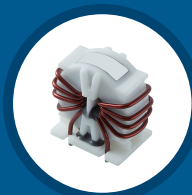
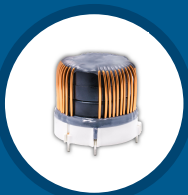
STEP UP
CONVERTER 2



H5
BRIDGE



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CERTIFIED QUALITY SYSTEM



Driving Trust in Actuators Components

In the fast evolving world of electric mobility, the quality of every component is critical. A Certified Quality Management System (QMS), is not just a formal requirement; it is a foundation for trust, performance, and long term reliability.

- **Consistency and Reliability**

A certified QMS ensures that every process, from design to production, is clearly defined, controlled, and continuously improved.

- **Compliance with Industry Standards**

Certified systems align with global regulatory and safety standards, ensuring that all products are suitable for use in international markets and meet the expectations of OEMs.

- **Risk Management and Traceability**

Full traceability across the supply chain allows for efficient quality control and fast response in case of any issues.

- **Customer Confidence**

Certification demonstrates a company's commitment to quality, safety, and continuous improvement. It builds trust with automotive partners, end users, and regulatory bodies.

- **Product Innovation with Assurance**

A structured quality framework supports innovation while maintaining high safety and performance standards vital in the development of next generation charging technologies.



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