# TRACOPOWER

RELIABLE. AVAILABLE. NOW.



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## RELIABLE. AVAILABLE. NOW.

Our claim is more than a promise. Reliability, availability and solution-oriented flexibility are firmly embedded in our DNA. This not only applies to our products but to the partnership with our customers as well. We look forward to demonstrate this when working with you.





#### **VALUED CUSTOMERS**

Digitizing, mobility or robotics: Modern developments change our lives at rapid speed. In most applications, the power supply serves as the heart of any system. It is therefore at the core of TRACO POWER's competency.

For more than three decades we have been the leading manufacturer of DC/DC converters, AC/DC switching power supplies and customer-specific power supply solutions. We are proud of our history while at the same time looking forward to our future with you.

This brochure contains everything you need to know about our competencies and how we can benefit your business. We hope you enjoy reading it.

#### A UNIQUE SUCCESS STORY

- Founded in 1944, the company is still owned today by the fourth generation founding family
- 120 employees in Switzerland, Germany, France, Ireland and the USA
- 20 engineers and top-of-the-line test laboratories at the development site in Ireland plus more than 100 additional engineers in the partner plants
- Worldwide distribution network with local warehouses
- Coordinated portfolio including over 5,500 standardized stock items



Sincerely, Sebastian Fischer, Co-CEO | Chief Customer Officer

# RELIABLE SOLUTIONS FOR COMPLEX SYSTEMS.

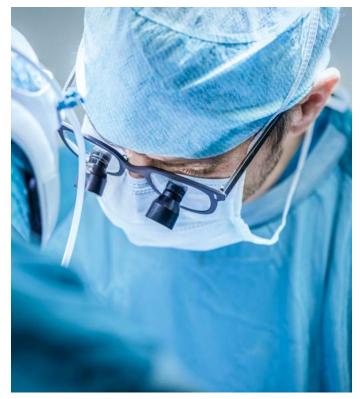
From Switzerland for the world: The TRACO POWER brand is already established as a leading supplier of industrial power supplies. In addition, our future emphasis will be increasingly on the highly demanding sectors of medical and railway/transport technology as well as the development of customer-specific power supply solutions.



#### **INDUSTRY**

Power supply units for industrial applications are subject to the highest quality standards. Therefore, our products comply with the current international safety standards and are primarily used in control & automation - even in rough and demanding environments. Besides a selection of standard products for the industry we also develop solutions for customer-specific requirements. Aside from mechanical applications, these also entail electrical performance features and approvals that are optimized to meet the requirements. An overview of our wide-ranging product portfolio can be found on pages 12 to 17.







#### **MEDICAL TECHNOLOGY**

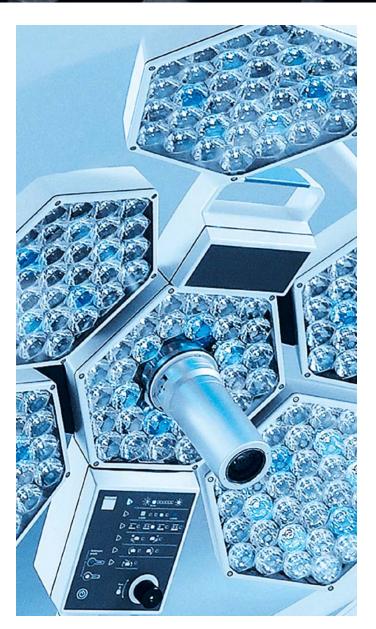
In this field, a reliable power supply is essential for system integrity and company reputation: Our products for the medical technology sector have proven successful around the world and enjoy an outstanding reputation thanks to their compact construction and high reliability. As a matter of course, they meet all current medical standards. You can find additional information on pages 8 and 9.

#### **RAILWAY AND TRANSPORTATION SYSTEMS**

Unprecendented performance and reliability under the harshest environmental conditions – our solutions for railway and transportation systems offer outstanding resistance against thermal and mechanical shocks, vibration, moisture, and airborne particles. It goes without saying that we back our claims with the appropriate certifications. See pages 10 and 11 for further information.

# QUALITY THAT SAVES LIFES.

Laser surgery, operation robots or endoscopes: The TRACO POWER power supply solutions are ideally suited for any situations that require the highest reliability with a limited amount of available space.



#### **MEDICAL TECHNOLOGY**

When developing medical devices, special emphasis is placed on the protection of both the patient and the operator. Therefore, the uncompromising reliability of all components is of particular importance. Our carefully developed products meet all important medical safety standards, thereby ensuring the protection of the patient in accordance with MOPP (Means of Patient Protection) as well as the medical personnel in accordance with MOOP (Means of Operator Protection).

#### **CERTIFIED RELIABILITY**

- Wide-ranging portfolio of AC/DC power supplies (5 to 850 watt) and DC/DC converters (1 to 60 watt)
- Certified according to IEC/EN/ES 60601-1 (medical electrical devices, 3rd edition) and IEC/EN/ES 60601-1-2 (EMC for medical devices, 4th edition)
- Risk management according to ISO 14971 (including product-oriented Risk Management File)
- Design and production according to ISO 13485
   Quality Management System
- 5-year warranty





# STABILITY THAT MOVES PEOPLE.

Heat or cold, shock and vibration as well as dust: DC/DC converters in the transportation sector are subject to severe stress. TRACO POWER products impress with their safety, longevity and quality.



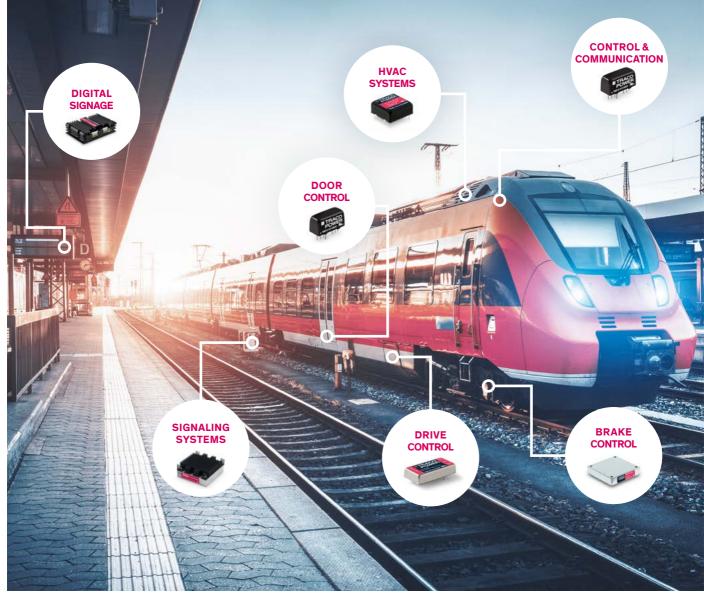
#### **TECHNOLOGY FOR ALL ENVIRONMENTS**

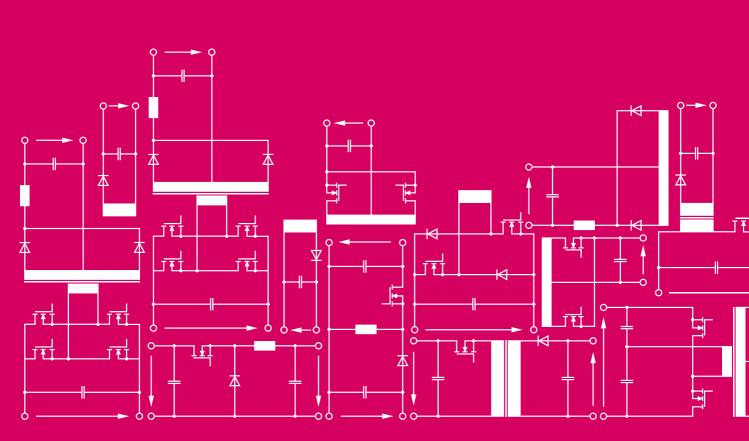
Our railway-certified DC/DC converters power the worlds most demanding transportation systems. Typical applications include door openers, HVAC systems, communication and control equipment, drives, brakes, switchgear, and signalling equipment. Thanks to our full coverage of all relevant standards, our products are favorably used in adjacent industries where reliable operation in equally harsh environments is required.

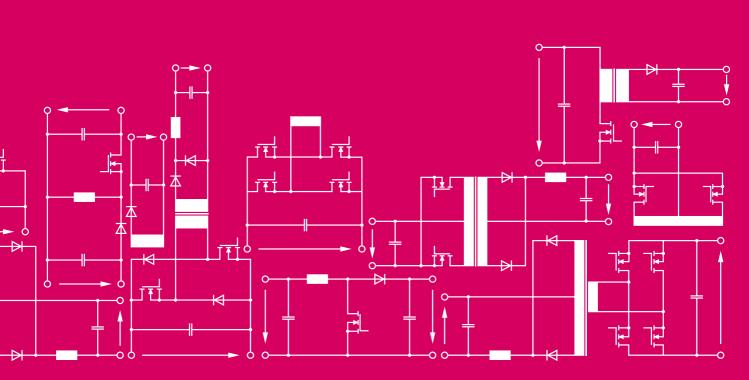
#### **CERTIFIED ROBUSTNESS YOU CAN TRUST**

- Complete portfolio of heavy-duty DC/DC converters
- Output power options from 3 to 350 watt
- Operating temperature range -40 °C up to 85°C
- Galvanic isolation up to 4,000 VAC
- Certified according to EN 50155 (electronic devices in railway vehicles)
- Shock & vibration resistant acording to EN 61373
- Qualified according to EN 45545-2 (fire protection in rail vehicles)
- EMI compliant with EN 50121-3-2
- 3-year product warranty

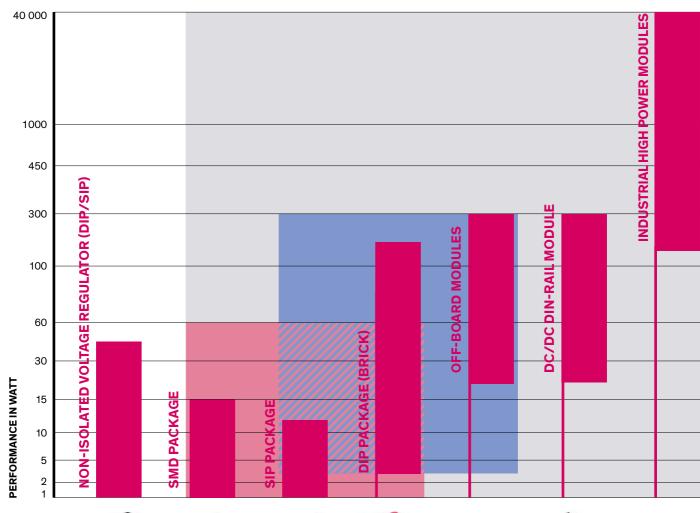






















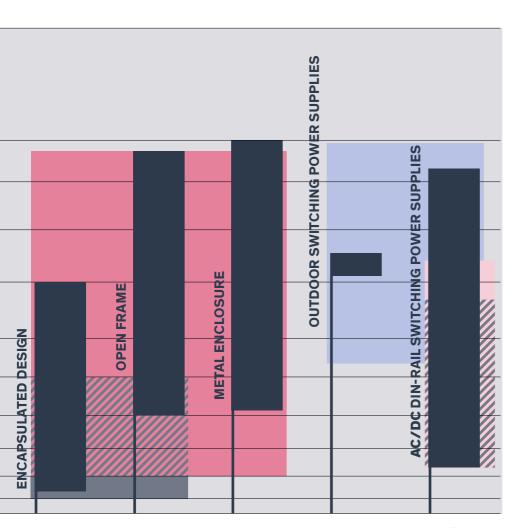




## **ONE STOP SHOP**

We offer one of the most comprehensive portfolios off-theshelf standard products and can guaranty above-average availability and delivery within a few days. Our products stand for the highest possible efficiency and have been consistently tested, certified and approved.

#### **AC/DC SWITCHING POWER SUPPLIES & DIN-RAIL POWER SUPPLIES**



SPECIAL APPROVALS / TARGET MARKETS

MEDICAL TECHNOLOGY

RAILWAY AND TRANSPORTATION

HOUSEHOLD

BUILDING TECHNOLOGY

HARSH ENVIRONMENT ATEX

INDUSTRIAL/ICT













#### **DC/DC CONVERTER**



NON-ISOLATED VOLTAGE REGULATORS 0.5 – 3 AMP



SMD PACKAGE 1 – 15 WATT



SIP PACKAGE 1 – 12 WATT



HIGH POWER MODULES (DIP, PCB) 1 - 60 WATT



HIGH POWER MODULE (CHASSIS) 40 – 300 WATT



DC/DC DIN-RAIL MODULES 20-300 WATT



BRICK TYPE 60-200 WATT



CUSTOMER-SPECIFIC SOLUTIONS

#### **AC/DC SWITCHING POWER SUPPLIES & DIN-RAIL POWER SUPPLIES**



**ENCAPSULATED** 3 – 100 WATT



OPEN FRAME 15-850 WATT



METAL ENCLOSURE 18 – 1000 WATT



OUTDOOR SWITCHING POWER SUPPLY 120 WATT



AC/DC DIN-RAIL MODULES 6-960 WATT



CUSTOMER-SPECIFIC POWER SUPPLIES



#### **DC/DC CONVERTER**

#### Standard models between 1 and 300 watt

Various designs, regulated and unregulated, for PCB mount or chassis mount applications. Adjusted versions up to 40,000 watt are optionally available for special applications.

#### **AC/DC SWITCHING POWER SUPPLIES**

#### Standard models between 2 and 1'000 watt

Various AC/DC power supplies in encapsulated modules, open frame, metal enclosed, flush-mounted boxes, and NEMA-4X die-cast housings for industrial, commercial, medical and home & building applications.

#### **DIN-RAIL POWER SUPPLIES**

#### Standard models between 6 and 960 watt

Standard DIN-rails for industry, robotics, trade and communication. Worldwide safety applications, certified according to UL HazLoc and ATEX.

#### **AT A GLANCE**

- Highest reliability
- Highest possible efficiency
- Compact design
- Wide operating temperature range
- Long service life
- Available for decades
- Maintenance-free application

#### **CERTIFICATIONS AND APPROVALS**

### Medical technology power supplies and DC/DC converters

- IEC/EN/ES 60601-1 (3rd edition), 2×MOPP
- Risk Management ISO 14971
- Electromagnetic compatibility according to IEC/EN 60601-1-2 (4th edition)
- Quality Management System ISO 13485
- Maintenance-free application

#### Railway DC/DC converter

- EN 50155
- EN 45545-2
- EN 61373
- EN 50121-3-2

#### Hazardous location environments

- ATEX
- UL HazLoc class 1 Div. 2

#### Industrial/ICT

■ IEC/EN/UL 62368-1

#### Household

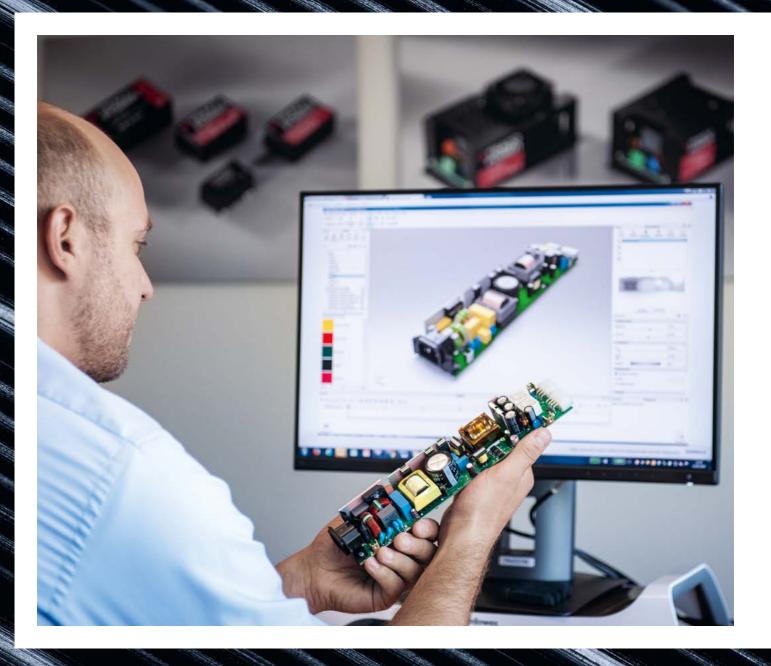
■ EN 60335-1

#### General

- CE-compliant
- ISO 9001
- ISO 14001
- RoHS-compliant
- REACH-compliant

# HERE, WE MEET YOUR UNIQUE REQUIREMENTS.

At our location in Ireland, our engineers are involved in developing customer-specific switching power supplies and power supply solutions. Thanks to decades of experience, a good network of suppliers and universities and a high degree of power innovation, optimized AC/DC switching power supplies and DC/DC converters are being designed and produced here.



#### **EFFICIENT, FAST AND AFFORDABLE**

In the TRACO POWER SOLUTIONS competence center we have the capability to quickly and efficiently develop customer-specific power supplies and to manufacture prototypes and pre-production samples. By integrating the critical functions required by the system application into the power supply, we are able to achieve the best technical performance and the most advantageous overall solution.

#### **COMPETENCIES AND SERVICES**

- Research and design of customer-specific solutions
- Modification of standard products
- Commercial and technical customer support
- Pre-compliance safety and EMC tests
- Mechanical and thermodynamic tests
- HALT and performance test
- 100% function test and burn-in
- Project support with external test and certification capabilities
- Production of OEM and White Label power supplies

## YOU CAN COUNT ON US. ANYTIME.

When we talk about reliability and quality, we mean far more than just the finished product. We also guarantee the utmost integrity in the procurement of components, the management of our warehouses and the delivery of our products. You can rely on us.

#### **HARD TESTS**

To achieve a durable and reliable performance, we subject our products to a number of hard tests, analyses and functional tests in our laboratories during production:

- Failure Mode and Effects Analysis (FMEA)
- Detailed Temperature Test (DTT)
- Mechanical Vibration Test (MVT)
- Mean Time Between Failure Calculation (MTBF)

#### **TIMELY DELIVERY**

Our warehouse management can be compared with a Swiss watch: Around the world, our products arrive at the customers' door almost exactly on the hour. This greatly simplifies the planning for our customers.

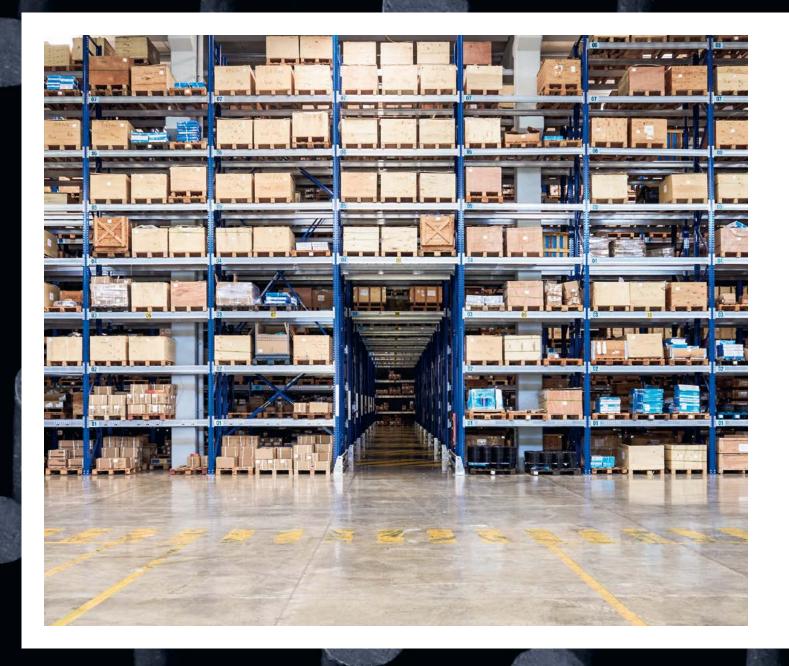






# IMMEDIATELY, AND FOR DECADES TO COME: AVAIL-ABILITY THAT CONVINCES.

We stock up our inventory, while others scale down. With this far-sighted, anticyclical thinking we are able to guarantee the highest level of availability. Our location in Baar is one of Europe's largest warehouses for industrial power supplies. Due to our intensive portfolio and storage capabilities, our distribution partners can obtain practically all parts directly from the warehouse.





#### **IMMEDIATE AND LONG-TERM AVAILABILITY**

Our warehouses in Switzerland, Germany and Ireland contain finished goods with a value far in excess of 20 million US dollars, which can be sent out within one day upon receipt of an order. The finished goods are not only available at short notice, but also in the long term, for decades to come.

#### STRONG PARTNER, STRONG NETWORK

We share our expertise regarding product management and logistics with our partners. Our sales network consists of franchise distributors who are renowned in the industry for first-class design, inventory management and supply chain services and will deliver within 24 hours. Our products are available anywhere in the world; in most sales channels, we are the global leader for DC/DC converters.

# UNCOMPLICATED PARTNERSHIP. FAST SUPPORT.

For many decades we have experienced and contributed to the technical development in electronics and power supplies. Our strategy is therefore based on the continuous adaptation and expansion of our product portfolio, competent, straightforward and highly responsive customer support and sustainable partnerships.

#### **PROFESSIONAL SOLUTIONS**

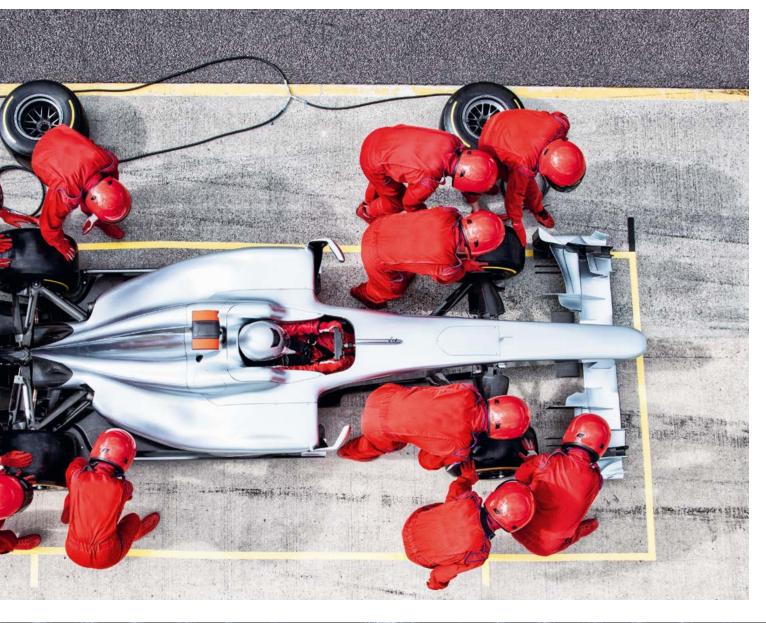
Simple communication and sales channels allow our experienced engineers to provide fast customer support and to develop ideal solutions together with the customer. Our experts provide support for complex electronic designs with the selection and application of our long-standing, tried-and-true products.

#### STREAMLINED PROCESSES

One hand does not know what the other is doing? That is not the case with us: Development, sales and support work in close cooperation with each other, thereby ensuring streamlined and efficient processes. Our employees regularly attend conferences and further educational courses.







# FROM SWITZERLAND. FOR THE WORLD.

The TRACO POWER Group comprises the Swiss companies headquartered in Baar, CH, the sales companies in Ismaning, DE, Paris, FR and San Jose, USA, as well as a branch office near Boston, USA. The development department is located in Wexford, IE.

## TRACO POWER GROUP HEADQUARTERS

#### TRACO ELECTRONIC AG

Sihlbruggstrasse 111 6340 Baar Switzerland +41 43 311 45 11 info@tracopower.com

## TRACO POWER SUBSIDIARIES

#### TRACO ELECTRONIC GMBH

Oskar-Messter-Strasse 20a 85737 Ismaning/München Germany +49 89 96 11 82-0 info@tracopower.de

### TRACO POWER NORTH AMERICA, INC.

2025 Gateway Place #330 San Jose, CA 95110 United States +1 (408) 916-4570 salesusa@tracopower.com

#### **TRACO POWER FRANCE**

2 rue du nouveau bercy Bâtiment Le Levant 94220 Charenton Le Pont France +33 (0)9 70 66 76 74 info@tracopower.fr

## TRACO POWER RESEARCH AND DEVELOPMENT

#### TRACO POWER SOLUTIONS LTD.

Whitemill Industrial Estate
Whitemill Road, Wexford
Y35 YH66
Ireland
+353 53 9167 700
info@tracopower.ie

