

Power Supply solutions
aimed at your application



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It's the detail that makes all the difference.

Power Supply solutions aimed at your application

When it comes to the power supply to be selected for your equipment you do not compromise. You require 100% specification and product lifetime compliance with attention paid to the smallest detail. No matter how extreme or diverse your requirements are TDK Lambda is the right partner for you.

With our innovative special assembly solutions, we can offer you products that fit your specific requirements perfectly. Experience the tailor-made service we can offer with our first-class quality products and professional support.



Promises are good. Competency is better.

From initial concept to the production phase – step by step, a product perfectly suited to your application evolves.

Our proven project management model covers the whole process including design and approvals and ensures that the project succeeds.

THE DESIGN PROCESS

Technical draft

- ▶ Detailed draft based on customer specifications
- ▶ SPICE circuit simulation
- ▶ Mechanical draft in 3D CAD
- ▶ Solid Works models, detailing connectors, signalling and fixtures
- ▶ Circuit draft and layout design using PADS software

Field-proven standard technology

- ▶ Flyback/forward boost converters
- ▶ Resonant and multi-resonant
- ▶ Synchronous rectifier
- ▶ Digital control and monitoring
- ▶ High efficiency, low audible noise

Component selection

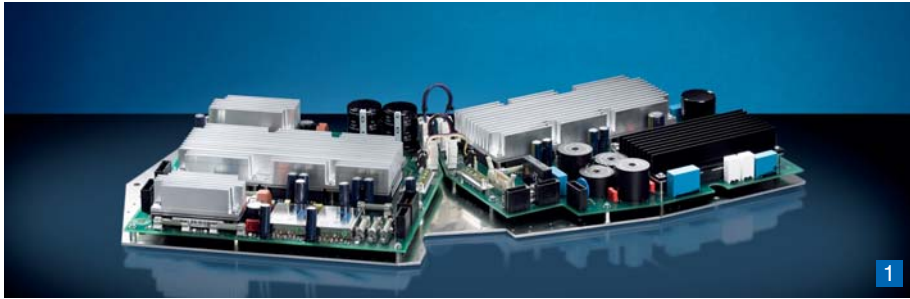
- ▶ Optimizing costs by using standard components
- ▶ In-house lab for component measurements and evaluation
- ▶ All components are certified according to TDK-Lambda group standards
- ▶ RoHS certification labs in Europe

Construction tests

- ▶ Electrical power source emulation for all operating conditions
- ▶ Thermal characteristics for all operating conditions
- ▶ Compliance with EMC directive is verified in house
- ▶ Noise immunity – surge, burst, ESD, ring wave
- ▶ Mechanical stability, vibration, shock resistance
- ▶ HALT aging test, maximum altitude simulation, thermal shock, humidity
- ▶ Protection class test (IP)
- ▶ Earth resistance test
- ▶ High voltage and isolation tests

Approvals

- ▶ Certified in-house lab for safety tests
IECEE SMT test program acc. to UL for IEC/EN60950-1, IEC/EN60601-1, IEC/EN61010-1 and CB
- ▶ CTDP (Client Test Data Program) for UL/CSA60950-1, UL/CSA60601-1, UL/CSA61010-1
- ▶ CE certification
- ▶ Other certifications on request



Competent, reliable – focussed!

Medical applications (Fig. 1)

Large acceleration forces: We have considerable experience in developing specific solutions for medical equipment applications where the power supply may be fixed to the rotating gantry in a scanner and thus has to cope with high rotational speed and acceleration and deceleration forces. Multiple output voltages specified by the customer can be realised using standard components, taking advantage of our easy-to-install modular technology.

Medical applications (Fig. 2)

Harsh environment conditions: If your application requires a controllable power supply that works reliably under harsh electromagnetic conditions the Genesys™ series of

programmable power supplies, delivering up to 15 kW in a single unit, can provide what you need.

Food industry (Fig. 3)

High safety level: For optimal user protection according to IP classification, a modified HWS300 standard power supply was built into an IP54 enclosure. The enclosure protects the operating personnel and additionally matched specific functional requirements in a harsh environment with wide operating temperature range.

Measuring (Fig. 4)

Identical ac or dc input products: Another innovative concept is employed in this equipment. Depending on the requirement, a standard ac input

power supply can be utilised or a customized power supply with dc input. Your advantage: Both variants have the same dimensions and connections

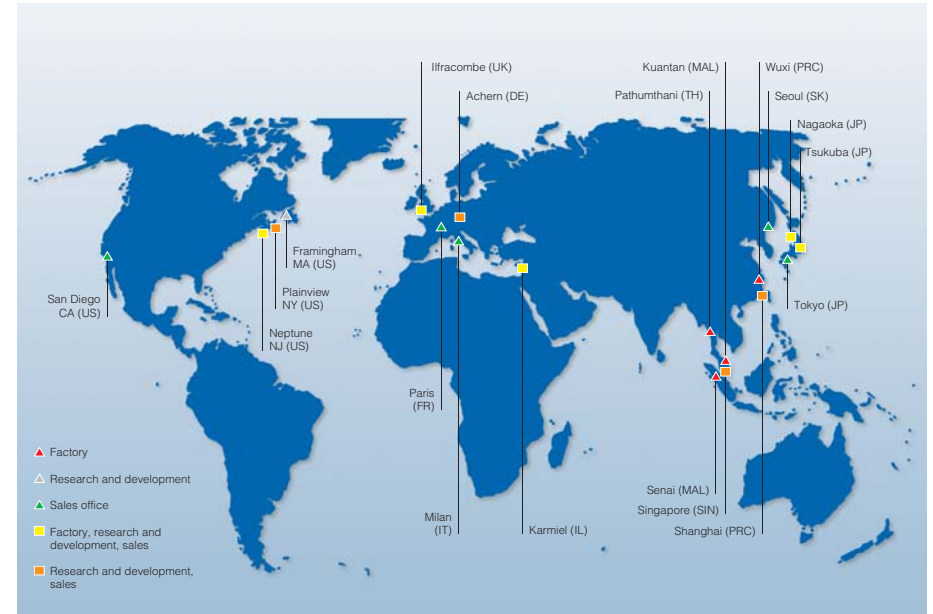
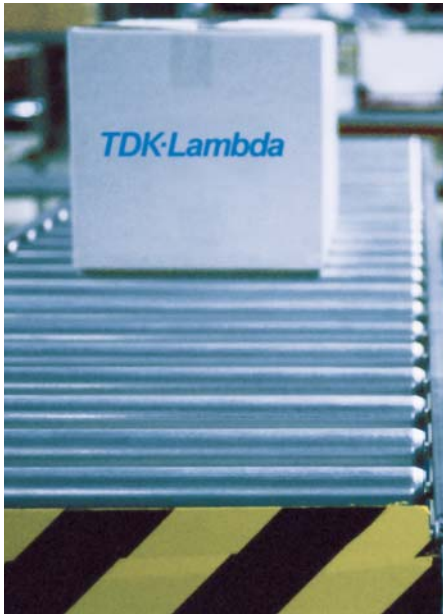
Display (Fig. 5)

Maritime and industrial applications: A common challenge in maritime applications is the requirement to cope with extreme operating temperatures, saline air, erosion along with considerable vibration and shock. In addition, large-area electromagnetic interference (EMI) may occur, which could potentially affect normal equipment operation. Specifically for this type of requirement TDK-Lambda has developed a high-performance multi-output power supply with both ac and dc inputs and 130W output power. A special

coating protects the unit from a highly polluted atmosphere – a fundamental precaution for long lifetime, reliability and maintenance-free operation.

Vending and cash machines (Fig. 6)

Rapid integration: A tailored solution to match customer requirement for limited output power (NEC class 2), the HWS150 standard power supply was built into a metal enclosure and equipped with specific cables and connectors. Result: Easy installation in the field.



Our focus: Your added value

TDK-Lambda is the perfect partner to make your special assembly requirements a reality. Together with our customers, we analyse the individual logistic service requirements – ranging from an optimisation of production and stock planning up to tailored supply chain solutions including Vendor Managed Inventory (VMI).

Your advantage: slimmer and more efficient operational procedures, lower transportation costs, a rapid response time and an improved quality of service.

- ▶ Optimization of your storage planning and factory availability
- ▶ Function transfer in Supply Chain Management (SCM)
- ▶ Vendor Managed Inventory (VMI)
- ▶ And much more

Think globally – act locally

Developing excellent products is one thing. However, having a reliable and competent partner next to you is just as important. And that's why we are wherever you need us. Everywhere.

Our cross-functional way of thinking in systems and processes enables us to be innovative and creative. Based on proven expertise and specific know-how, we develop and manufacture in our own plants in Asia, USA, Israel and Europe.

In Germany, Europe, and all over the world.



We always have your goals in mind.

To identify and realise customer needs and requirements early is a central characteristic of TDK-Lambda.

We work with you throughout the entire project, from the planning phase to product realisation. With TDK-Lambda, you have a partner available that understands your critical business issues, provides unique solutions and services for you and aims to extend your competitive advantage.

No matter where, be it in Germany, Europe or world-wide.

- ▶ Measurements and system tests after deployment
- ▶ Execution of labour-intensive operations or entire installation processes
- ▶ Support hotline
- ▶ And much more

Our goal is to always be one step ahead!

We are not happy until you are.

To ensure that your specific power supply solution meets your requirements one hundred percent, we work with you from concept via prototyping phase through to the production phase with competence, innovation and passion.

- ▶ Technical draft
- ▶ Minimal development risk by utilising field-proven standard technology
- ▶ Component selection
- ▶ Construction tests
- ▶ Approvals
- ▶ Very short time-to-market