

TDK-Lambda Israel MAGAZINE

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Where Reliability Matters Most
Five Industries That Rely on Absolute Reliability
Pages 4-5

GENESYS™ AC



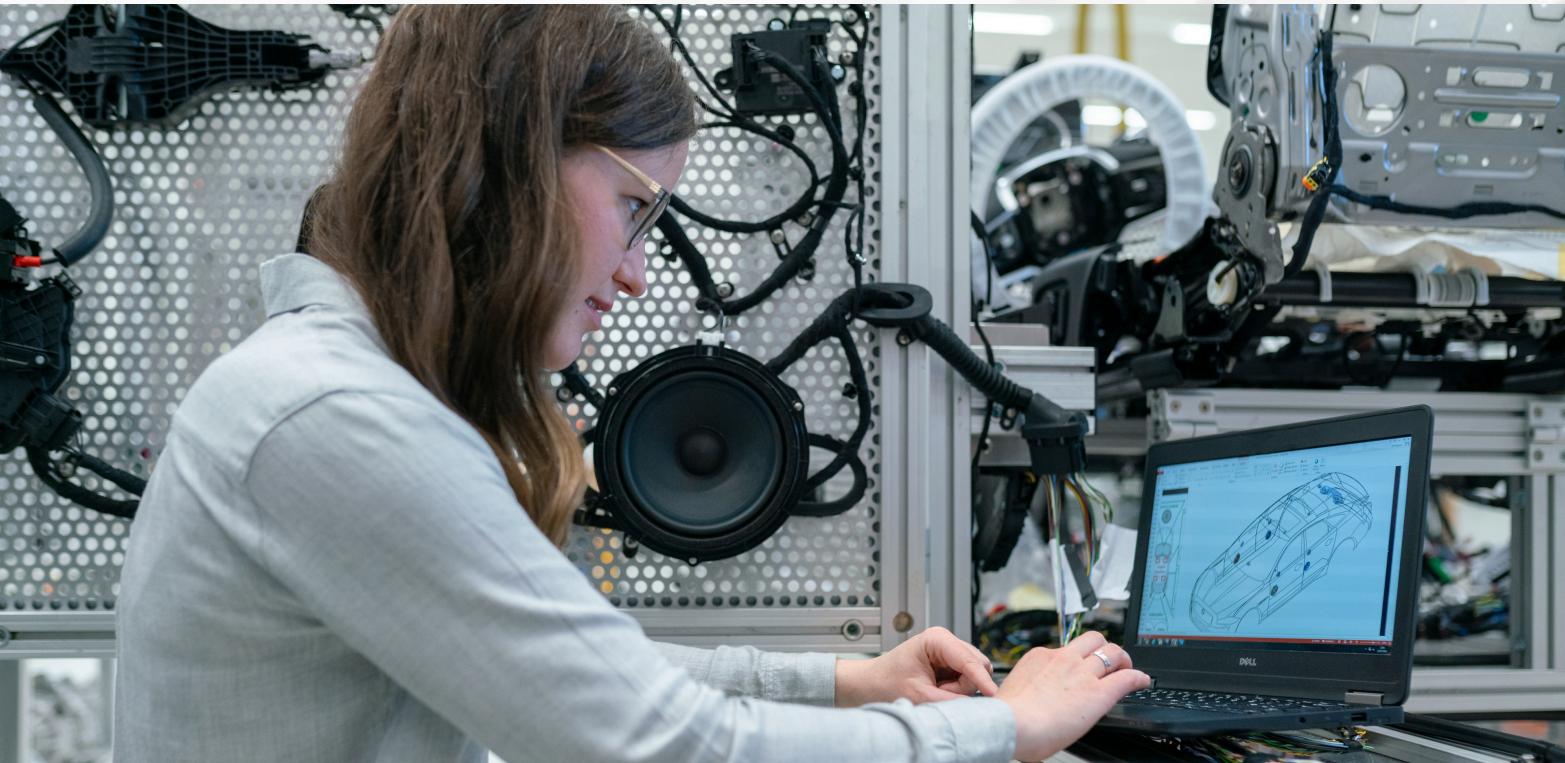
Where Brilliance Meets Precision

The GENESYS™ AC series is TDK-Lambda's newest addition to the world of programmable AC power, designed for engineers and test environments that need flexibility, reliability and room to grow. Available in compact 1U and 3U formats — with the 3U models delivering **up to 9 kVA**, the series covers a broad range of output levels suitable for both small lab setups and larger industrial test stations.

One of the core strengths of the GENESYS™ AC family is its scalability. By combining multiple units together, customers can significantly extend their available output power. With the optional booster configuration, complete systems can reach a total capacity of **up to 45 kVA**, creating a powerful test platform without relying on a single oversized source. This modular approach allows teams to build exactly what they need today, while keeping the flexibility to expand later.

The user interface remains consistent with the familiar GENESYS+ design, making it easy to control voltage, frequency and operating modes directly from the front panel or through remote interfaces. For test labs and production environments that simulate real-world conditions, the series offers smooth, predictable control over key electrical parameters.

From development benches to automated test lines, the GENESYS™ AC series provides a reliable foundation for a wide range of applications. With its compact size, intuitive operation and high-power potential, it supports the growing need for efficient, scalable AC testing in modern engineering environments.



Beyond its scalable power architecture, the GENESYS AC series also supports a wide operating frequency range, allowing users to simulate various grid conditions and regional standards during product testing. The system's fast response time and stable waveform generation make it suitable for applications that require precise control over voltage and frequency changes, including verification of equipment behavior under disturbances, dips, or harmonics.

The series also benefits from TDK-Lambda's consistent design approach across its power platforms, giving users a unified control philosophy and simplifying integration in mixed AC/DC test environments. With multiple communication interfaces available as standard, the GENESYS™ AC can be incorporated easily into automated setups, enabling consistent, repeatable test sequences across different product lines.

These capabilities make the GENESYS™ AC a practical choice for teams looking for long-term reliability and predictable behavior in demanding test workflows.



Where Reliability Matters Most

Five Industries Shaped by Reliable Power

Across modern technology, stable and well-engineered power supplies are often the hidden backbone behind safe operation, accurate measurements, and long-term system performance. Below is a closer look at five key sectors where our customers rely on high-quality power solutions, and why reliability is absolutely essential in each one.

► Medical

From patient-monitoring systems to imaging and surgical platforms, medical devices demand uncompromising safety and stability. A reliable power supply ensures low leakage current, consistent output regulation, and full compliance with international medical standards—critical factors when equipment operates near or in direct contact with patients. In environments where lives depend on uninterrupted performance, high-quality design and rigorous testing are not optional, they're mandatory.

► Semiconductors

Fabrication tools, wafer inspection systems, and automated test equipment all require precise, low-noise power to maintain repeatability and yield. Even slight variations in voltage or transient spikes can disrupt processes measured at nanometer scales. Robust power supplies help ensure stable plasma generation, accurate metrology, and consistent test conditions directly supporting throughput and reducing costly downtime in semiconductor production.

► Renewable Energy

Solar inverters, battery-storage systems, and grid-connected converters operate under rapidly changing loads and environmental conditions. Reliable power sources are essential for validating system behavior, simulating grid disturbances, and performing long-duration stress testing. With renewable technologies deployed at scale, high-quality supplies help maintain efficiency, safety, and compliance as systems integrate into complex, distributed energy networks.

► Industrial

Factory equipment from motion controllers to test stations and PLC-based systems—depends on rugged, stable power capable of handling electrical noise, mechanical stress, and continuous operation. Reliable supplies ensure repeatable operation of sensors, actuators, and control electronics while minimizing downtime caused by overloads or thermal stress. In high-productivity environments, dependable power is key to maintaining throughput and protecting equipment.

► Defence

Radar, communication platforms, electronic warfare systems and field-deployed test equipment all operate in extreme and unpredictable conditions. Defense applications require supplies that can tolerate shock, vibration, temperature extremes, and input irregularities while meeting stringent electromagnetic and safety standards. High-reliability power ensures mission readiness and system stability, even under the most demanding operational profiles.

Closing a Long Chapter

Last NNS/NND Produced at TDK-Lambda Israel



Closing a Long Chapter

After nearly four decades of continuous production, TDK-Lambda Israel has completed the final unit of the NNS/NND series at its Karmiel manufacturing site. This moment marks the end of a long and meaningful chapter, one defined by consistency, reliability, and long-term support for customer needs.

The NNS/NND series, built on linear technology, has served as a dependable non-programmable power solution for many years. Throughout its lifecycle, it supported a wide range of applications, with a strong presence in the medical sector, where stability and trust are essential.

As this chapter comes to a close, the focus at the Karmiel plant is now fully directed toward programmable power supplies and Power+ Solutions. This shift reflects the evolving needs of customers and a continued investment in flexible and tailored power solutions.

This milestone is also an opportunity to acknowledge the people behind the product. In particular, we remember and honor Shmuel Shimshon (RIP), who served as R&D Manager of TDK-Lambda Ltd. at the time the NNS/NND series was introduced and played a key role in its early development.

While the NNS/NND series reaches its conclusion, the commitment to reliable, advanced, and customer-focused power solutions continues, building on the strong foundation laid over the past 40 years.

i7A Series

High-Power Density

DC-DC



i7A Series

High-Power Density for Next-Generation Designs

TDK-Lambda is extending its i7A family of non-isolated DC-DC buck converters with new high-performance models that raise the bar for power density in distributed power architectures. The latest additions deliver up to 1000 W of output power with current ratings of 60 A and 80 A, giving system designers a broader performance envelope without increasing board space.

Despite the significant power boost, the converters maintain the familiar 1/16th brick footprint, a key advantage for applications where PCB real estate is at a premium. Another important enhancement is the inclusion of redundant input and output power pins, which improves conductivity at higher loads and enables scalable configurations ranging from 400 W to 1000 W. This allows engineers to streamline mechanical layouts and simplify thermal planning when designing multi-module systems.

One of the standout characteristics of the series is its exceptionally low mass: each unit weighs just 85 grams. This makes the new i7A modules particularly attractive for applications where every gram matters such as aerospace electronics, robotics, and compact industrial systems.

The efficiency performance remains a major strength, reaching up to 99%, significantly reducing thermal losses and minimizing the need for complex cooling solutions. Designers also benefit from a wide 18–60 VDC input range and an adjustable 3.3–28 VDC output, accommodating a broad variety of intermediate bus and point-of-load architectures.



2025 Exhibitions : Connecting With Our Industry

Throughout 2025, TDK-Lambda Israel participated in three major New-Tech exhibitions, each offering a unique opportunity to engage with professionals, present our latest developments, and better understand the evolving needs of the market.

The first and largest event took place in May, a two-day **New-Tech Exhibition** that brought together thousands of visitors from across the electronics, testing, automation, and defense sectors. Our team showcased a wide range of power solutions and held continuous conversations with engineers, integrators, and industry partners. The scale and diversity of the audience made this event a highlight of the year, offering meaningful insights into new projects and application trends.

In November, we took part in the **New-Tech Military & Defense** Exhibition, focused on mission-critical technologies and rugged systems. This event drew professionals from aerospace programs, communication platforms, and project teams working under strict environmental requirements. Discussions centered on reliability, compliance, and long-term performance, reflecting the growing complexity of defense-oriented systems.

To conclude the year, we participated in the **New-Tech Power Solutions** Exhibition in December, dedicated fully to power electronics, testing infrastructure, and energy-focused innovation.

This exhibition allowed us to present a concentrated view of our product and technologies, while meeting customers who are actively shaping next-generation power architectures.

Across all three events, the combination of deep technical conversations, recurring visitors, and new professional connections strengthened our position within the local engineering community. We appreciate the engagement, the feedback, and the opportunity to support a wide range of industries through face-to-face interaction.



HWS3000G

High-Power Programmable

AC-DC



HWS3000G

High-Power, Programmable

Meet our HWS3000G: a powerful, compact, and programmable AC-DC power supply delivering up to 3000 W of reliable performance.

With programmable voltage and current, multiple control options (analog or RS-485), and efficiency reaching up to 93%, the HWS3000G provides flexibility and precision for demanding environments.

Highlights:

- ▶ Compact design: only 270 × 150 × 61 mm
- ▶ Programmable output up to 130 V
- ▶ Operates from -20°C to $+70^{\circ}\text{C}$
- ▶ Parallel or series operation for higher power
- ▶ Certified to IEC/EN/UL 62368-1 standards

Perfect for industrial automation, test & measurement, semiconductor, and laser systems, where performance, control, and reliability matter most.



Strengthening Relationships

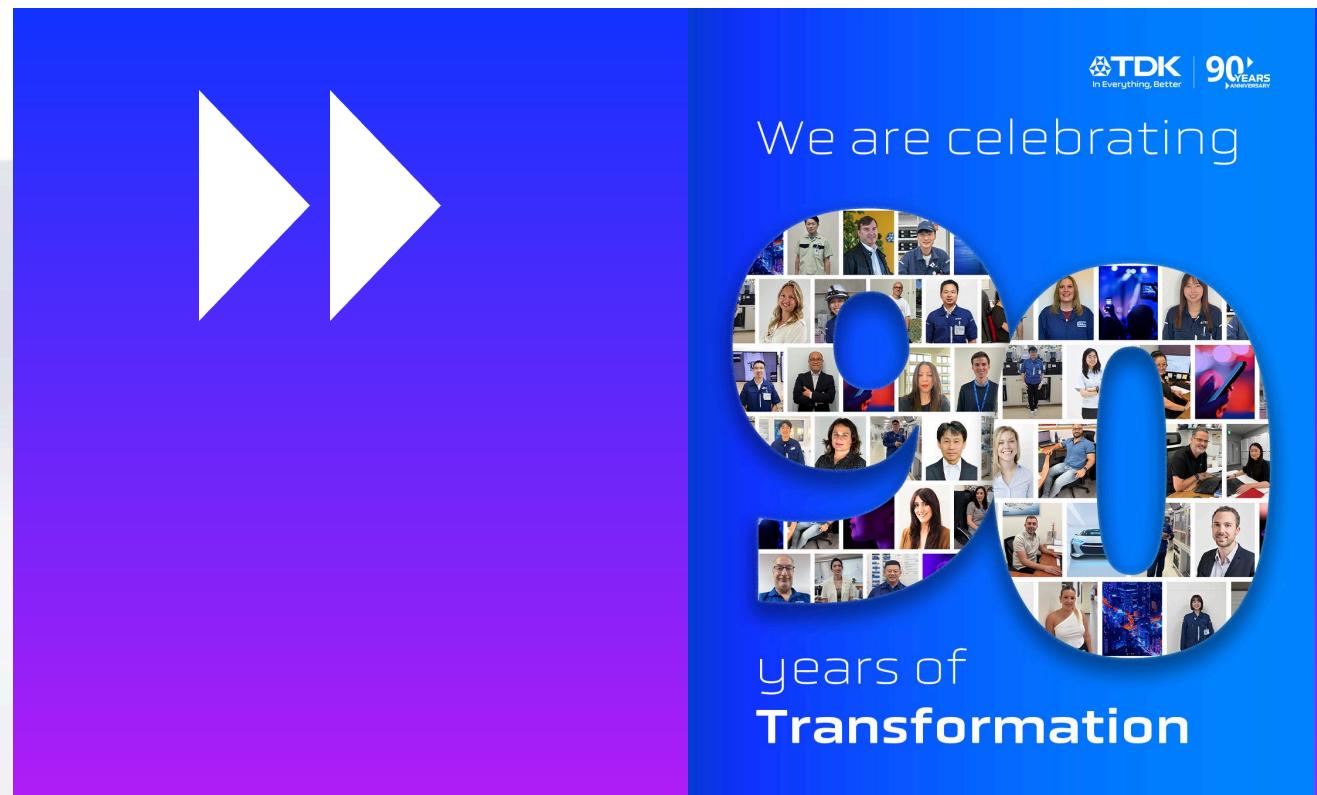
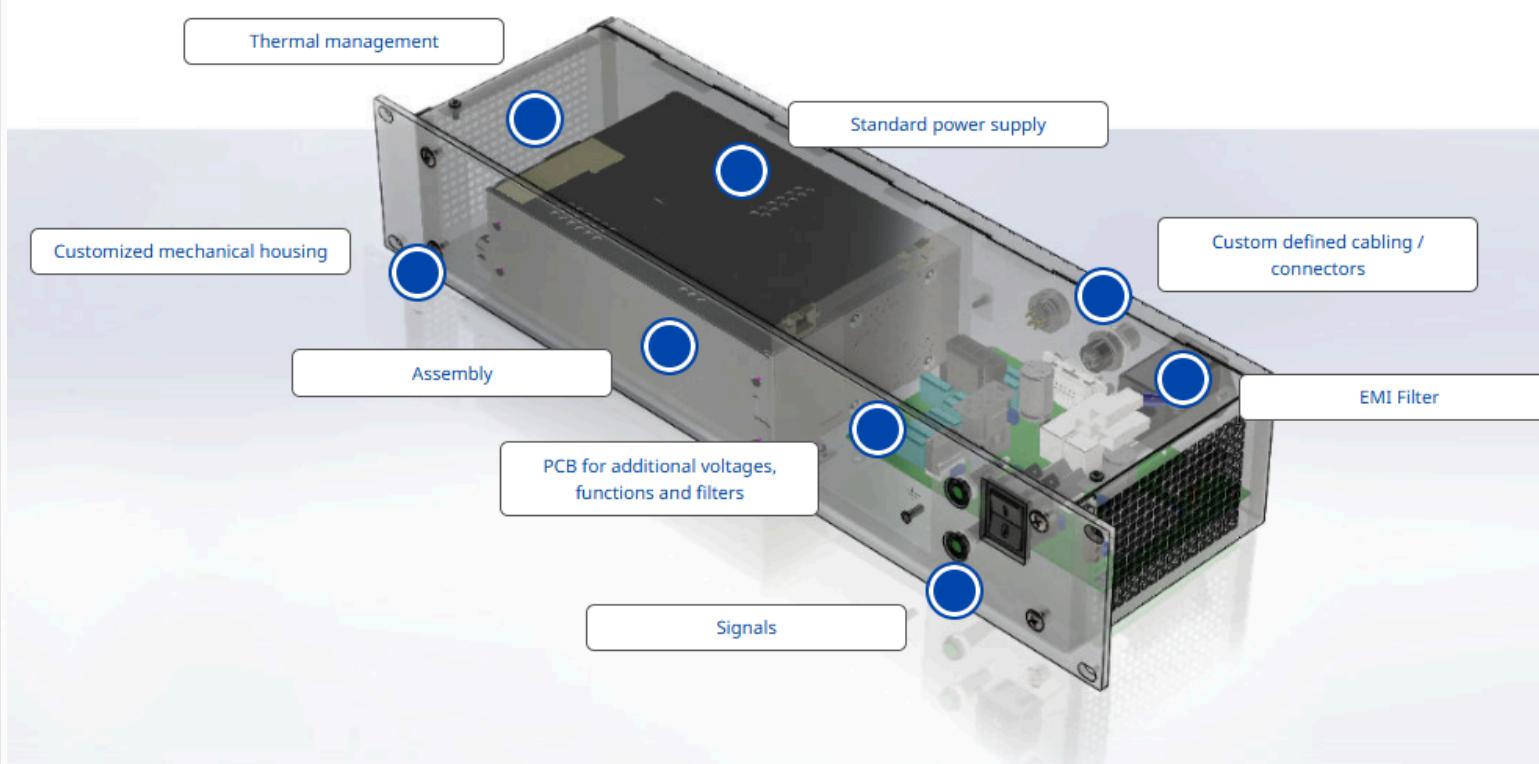
On last September, TDK-Lambda Israel hosted a special VIP event for key customers, held at the **Binyamina Winery**.

The evening included a festive dinner followed by a guest lecture from journalist Shay Gal, who spoke about leadership and shared insights from his professional journey.

The event provided an opportunity to step away from daily work and engage in open, personal conversations in a warm and informal setting.

Maintaining close relationships with our customers is important to us, and gatherings like this allow us to better understand their needs, exchange ideas, and strengthen long-term cooperation.

We were glad to see many familiar faces and look forward to continuing these meaningful encounters in the future.



Power + Solutions

Custom Solutions from TDK-Lambda

Sometimes, off-the-shelf power supplies can't keep pace with the unique demands of a system. That's where Power+Solutions steps in, turning our vast library of over 6,000 standard models into a fully customized power solution you can deploy straight away. From enhancing EMI filtering and optimizing thermal management to integrating bespoke cable harnesses and tailored control signals like PMBus and I²C, we work hand in hand with your team.

Our flexible approach spans every stage of delivery selecting the ideal base supply, adapting mechanical housings for rugged environments, modifying PCBs to meet special voltage or safety requirements, and even performing custom assembly with your own labeling.

This single-supplier model streamlines logistics and speeds time-to-market, especially for small to medium production runs where efficiency and reliability are paramount.

Throughout development, we uphold rigorous quality standards: environmental stress testing (HALT/HASS), full certification under IEC, UL, and other global norms, and 100% parametric and functional testing on every unit. The result is a power solution that not only meets your exact specifications but also delivers peace of mind with TDK-Lambda's worldwide support network standing behind it.

Celebrating 90 years of Transformation

This year marks 90 years since Kenzo Saito founded **TDK** with a bold vision: to bring ferrite to the world and enrich his hometown of Akita, Japan. That idea became the foundation for decades of innovation that have powered radios, computers, smartphones, cars — and the modern electronics industry.

From ferrite to cassette tape, and now advancing the AI ecosystem, TDK has continually transformed while staying true to its mission: "Contribute to culture and industry through creativity."

With over 100,000 team members worldwide, we look to the future guided by our long-term vision of TDK Transformation — a commitment not only to transforming itself but also to supporting transformation across society.

Thank you for being part of our journey. Here's to the next chapter: 100 years of Transformation! 



Join Our Team!

Are you looking for an opportunity to work in a global company with the heart and warmth of a family?

At TDK-Lambda, we're always searching for talented individuals to join our growing team, whether you're an engineer, a production expert, or looking for other exciting roles, we have opportunities waiting for you.

Become part of a company where innovation meets collaboration, and every employee makes an impact.

For more information and to send your CV: HR@tdk-lambda.co.il

We'd love to hear from you!



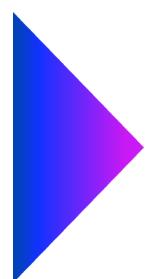
Celebrating 10,000 Followers on LinkedIn

We are delighted to reach the milestone of 10,000 followers and want to thank everyone who has joined our community.

Following TDK-Lambda Israel means staying updated on company news, product highlights, events, and stories from our team. We share insights from the field, give a look behind the scenes, and keep you connected to what is happening in our industry.

We appreciate your trust and look forward to growing together.

Scan and
follow!



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