



# Power Supplies

# The Heart of your Application

At TDK-Lambda, a “Power Supply” is more than just an electronic device. It is the “heart” of our customers’ systems and the core element of safety and reliability.

Since 1948 as a leading global manufacturer we have been developing and producing innovative and highly reliable power supplies for a wide spectrum of applications. In addition, with our unique range of activities from research and development through to manufacturing, sales and service, our customers appreciate our experience, know-how and our passion for always wishing to find the best solution for our customers.

This short brochure will provide you with an overview of our power supplies and service and shows why leading manufacturers and OEM clients for industrial and medical applications rely on TDK-Lambda solutions.

**[www.emea.lambda.tdk.com](http://www.emea.lambda.tdk.com)**



# TDK-Lambda Value

TDK-Lambda Corporation, a group company of TDK Corporation, is a leading global power supply company providing highly reliable power supplies worldwide. Our comprehensive range of 1.5W to 100kW AC-DC power supplies, DC-DC converters, Programmable (Lab) DC power supplies and EMC/EMI noise filters suit many applications. With design and manufacturing facilities in EMEA, Asia and America, TDK-Lambda is a major supplier of power conversion products and recognized leader in the industrial market segment.

## **TDK-Lambda offers customers a unique proposition for power supply solutions.**

We offer you innovative reliable power supplies combined with design-in assistance, global logistics expertise and total life cycle support.

## **TDK-Lambda quality**

Quality can never be assured entirely by final inspection. Quality at TDK-Lambda means a continuous process beginning at the development of a power supply. Extensive R&D activities, field proven topologies, components and validation and test methodologies coupled with the extraordinary process reliability and high production quality leads to TDK-Lambda Quality.

## **Strong global organization**

As a member of TDK Group we are a global player based in five key areas covering Japan, EMEA, North America, China and SE Asia. All over the world we are confident of being a trusted partner and offer you innovative and reliable power products combined with dependable service.

## **Excellent sales and technical support**

We support you with everything from design-in assistance, EMC standards and safety certification through to mass production and long term back up. We offer responsive local sales and service support backed up by important Advanced Technology Research, new product development and manufacturing centres.

## **Highly experienced global logistics capability**

Uniquely we can provide the optimum manufacturing strategy for your needs in our own fully equipped plants from low volume to high volume manufacturing.

Similarly we have multiple strategically located warehouses, offering a full menu of logistic services including tailor-made solutions.

**Leaders in the development of advanced technologies**

Our position as a highly experienced, leading global supplier means we can capitalise on our extensive Advanced Technology Research and over 700 patents to provide the next generation of innovative, leading edge power solutions. Highly motivated R&D teams, located in design facilities worldwide have knowledge of the key attributes of many different applications gained from many years experience.

**Lowest cost of ownership**

Our key focus is not only ensuring the long term reliability of our products but also being reliable in all aspects of our business delivering high quality products and services. As well as satisfying your technical requirements we will always offer you the best all round solution taking into account cost, time to market and reliability.

Choose TDK-Lambda for excellent service and all your power needs.

# Highlights

Here we would like to present an overview of our latest power supply solutions designed for a wide spectrum of industrial and medical applications. We offer innovative and reliable AC-DC power supplies, DC-DC converters, programmable power supplies and EMI/EMC Filters.

Like all TDK-Lambda power supplies these models meet the highest criteria for quality and reliability. We support this by offering industry leading warranty.

Please see our complete product lineup at the end of the brochure.

## MU Series

### Configurable AC-DC power supplies

- Extremely low audible noise as low as 36dBA\*\*-Intelligent Fan Control (IFC)
- Safety certifications IEC/EN/UL60601-1, 62368-1
- Full MOPP, input & output to earth and primary to secondary
- Typically serves for B and BF rated equipment
- Output flexibility continuous output voltage 3.3-105.6Vdc
- PMBus™ communication option with individual output control and diagnostics
- 1U height



PMBus

medical

[www.emea.lambda.tdk.com/mu](http://www.emea.lambda.tdk.com/mu)



Model	Output power	Number of outputs**	Output voltage	Input voltage	Warranty	Cooling	Standby supply
MU4	600-800W	1-5	3.3-104Vdc	85-264Vac	7 years		optional 5V
MU6 *	1200-1500W	1-13	3.3-105.6Vdc	85-264Vac	7 years		optional 5V or 12V

\* coming soon

\*\*including auxiliary outputs

\*\*\* For MU4, Configuration dependent, nominal conditions of 25°C, 115Vac/240Vac and 80% unit power

## QM Series

### Configurable AC-DC power supplies







- Flexible with many output combinations
- Low speed, low audible noise fan
- BF ready medical isolation (MOPP)
- PMBus™ communication option



medical

[www.emea.lambda.tdk.com/qm](http://www.emea.lambda.tdk.com/qm)



Model	Output power	Number of outputs*	Output voltage	Input voltage	Warranty	Cooling	Standby supply
QM4	550-650W	1-10	2.8-105.6Vdc	90-264Vac	7 years		optional 5V or 12V
QM5	700-800W	1-12	2.8-105.6Vdc	90-264Vac	7 years		optional 5V or 12V
QM5H	700-1200W	1-12	2.8-105.6Vdc	90-264Vac	7 years		optional 5V or 12V
QM7	1200-1500W	1-16	2.8-105.6Vdc	90-264Vac	7 years		optional 5V or 12V
QM8	1200-1500W	1-18	2.8-105.6Vdc	90-264Vac	7 years		optional 5V or 12V
QM8B	1200-2000W	1-18	2.8-105.6Vdc	90-264Vac	7 years		optional 5V or 12V

\*including auxiliary outputs

## QS Series

### Single output AC-DC power supplies




- BF ready medical isolation (MOPP)
- Low speed, low audible noise fan
- Dual or single fusing
- PMBus™ communication option



medical

[www.emea.lambda.tdk.com/qs](http://www.emea.lambda.tdk.com/qs)



Model	Output power	Number of outputs*	Output voltage	Input voltage	Warranty	Cooling	Standby supply
QS4	600W	3	12, 24, 48Vdc	90-264Vac	7 years		optional 5V or 12V
QS5	600W	3	12, 24, 48Vdc	90-264Vac	7 years		optional 5V or 12V
QS5H / QS7	1080-1200W	3	12, 24, 48Vdc	90-264Vac	7 years		optional 5V or 12V

\*including auxiliary outputs

# HFE3500 Series

## 1U Hot swap front end power supplies

- Up to 3500W output power, up to 13.3kW (4 units) in 1U rack
- Internal ORing MOSFET and current share
- Suitable for N+1 redundancy
- 24V and 48V models with 5V or 12V standby
- Efficiency up to 95%
- PMBus™ and LAN options



PMBus

[www.emea.lambda.tdk.com/hfe](http://www.emea.lambda.tdk.com/hfe)



Model	Output power	Output voltage	Input voltage	Warranty	Cooling
HFE3500 *	2000-3500W	24, 48Vdc	85-264Vac	5 years	

\* coming soon

# TPS Series

## 3-Phase input AC-DC power supplies

- 400/440/480 Vac (Nominal) 3-Phase Delta or Wye
- Fully regulated, wide range adjustable output
- Remote programming of voltage and current
- -40°C (start up) to +70°C operation temperature
- Built in ORing FET for parallel operation
- PMBus™ communication



PMBus

[www.emea.lambda.tdk.com/tps](http://www.emea.lambda.tdk.com/tps)



Model	Output power	Output voltage	Input voltage	Warranty	Cooling
TPS3000	3000-3200W	24, 48Vdc	350-528Vac	3 years	
TPS4000	2000-4080W	12, 24, 48Vdc	350-528Vac	3 years	

## HWS3000 Series



### 1-Phase and 3-Phase AC-DC power supplies

- Serial or analogue programming (CV/CC)
- Compact size
- Scalable voltage and current
- Series and/or parallel operation



[www.emea.lambda.tdk.com/hws-g](http://www.emea.lambda.tdk.com/hws-g)



	Model	Output power	Output voltage	Input voltage	Warranty	Cooling
<b>NEW</b>	HWS3000G	3000W	24, 48, 60, 130Vdc	1Ø 85-265Vac	7 years	
<b>NEW</b>	HWS3000GT	3000W	24, 48, 60, 130Vdc	3Ø 170-265Vac	7 years	

## RWS-B Series










### General AC-DC power supplies

- High power density
- Compact size
- Long e-cap lifetime
- Standby option (1000B, 1500B)



[www.emea.lambda.tdk.com/rwsb](http://www.emea.lambda.tdk.com/rwsb)



	Model	Output power	Output voltage	Input voltage	Warranty	Cooling
	RWS50B	50W	5, 12, 24, 48Vdc	85-265Vac	7 years	
	RWS100B	100W	5, 12, 24, 48Vdc	85-265Vac	7 years	
	RWS150B	150W	5, 12, 15, 24, 28, 48Vdc	85-265Vac	7 years	
	RWS300B	300W	5, 12, 15, 24, 36, 48Vdc	85-265Vac	7 years	
	RWS600B	600W	5, 12, 15, 24, 36, 48Vdc	85-265Vac	7 years	
	RWS1000B/S	1000W	12, 15, 24, 36, 48Vdc + 5Vdc Aux.	85-265Vac	7 years	
	RWS1500B/S	1500W	12, 15, 24, 36, 48Vdc + 5Vdc Aux.	85-265Vac	7 years	
	RWS1000B/ME*	1000W	12, 15, 24, 36, 48Vdc	85-265Vac	7 years	
	RWS1500B/ME*	1500W	12, 15, 24, 36, 48Vdc	85-265Vac	7 years	

\* Medical versions available

# GUS Series

**Compact, low profile cost effective industrial AC-DC power supplies**

- 350W (convection), 600W & 1kW (forced air)
- Efficiency up to 95%
- Low acoustic noise, less than 45dBA (typ.)
- IEC/EN/UL62368-1, altitude 5.000m
- Designed to meet 62477-1 OVC III
- 1U height



Model	Output power	Output voltage	Input voltage	Warranty	Cooling
GUS350 *	300-350W	12, 24, 36, 48Vdc	85-265Vac	3 years	↓
GUS600 *	600W	12, 24, 36, 48Vdc	85-265Vac	3 years	⚙
GUS1000 *	1000W	12, 24, 36, 48Vdc	85-265Vac	3 years	⚙

\* coming soon

## CUS-M Series

**Single output AC-DC power supplies  
from 30W to 1500W**

- Safety Certifications EN62368-1 and EN60601-1
- Typically serves for B and BF rated equipment (2 x MOPP)
- Class B conducted and radiated EMI
- High efficiency up to 96%
- Models for Class I and Class II installations
- Peak power ratings up to 30 minutes (CUS400M), up to 1000W (CUS350MP-1000)
- Baseplate for conduction cooling (CUS100ME, CUS150M, CUS250M, CUS400M)
- Several mechanical options



medical

[www.emea.lambda.tdk.com/cus\\_m](http://www.emea.lambda.tdk.com/cus_m)



Model	Output power	Output voltage	Input voltage	Size	Mechanical format	Warranty	Cooling
CUS30M	30W	12, 15, 18, 24, 36, 48Vdc	85-265Vac	2x3"	Open frame, enclosed	3 years	
CUS60M	60W	5, 12, 15, 18, 24, 48Vdc	85-265Vac	2x3"	Open frame, enclosed	3 years	
CUS100ME	100W	12, 15, 18, 24, 28, 36, 48Vdc	85-264Vac	2x4"	Open frame, U-channel, baseplate, enclosed	5 years	
CUS150M	150W	12, 15, 18, 24, 28, 36, 48Vdc	85-264Vac	2x4"	Open frame, U-channel, baseplate, enclosed, enclosed with top fan	5 years	
CUS200M	200-250W	12, 18, 24, 36, 48Vdc	85-265Vac	3x5"	Open frame, L bracket, enclosed	3 years	
CUS250M	250W	12, 15, 18, 24, 28, 36, 48Vdc	85-264Vac	2x4"	Open frame with baseplate, U-channel, enclosed, enclosed with top fan	5 years	
CUS350MP	350-1000W	24, 30, 36, 48Vdc	85-265Vac	3.46x7.2"	Open frame, enclosed	5 years	
CUS400M	250-400W	12, 15, 19, 24, 28, 36, 48Vdc	85-264Vac	3x5"	Open frame with baseplate, U-channel, enclosed, enclosed with top fan	5 years	
CUS500M1	300-500W	12, 19, 24, 28, 32, 36, 48Vdc	85-264Vac	3x5"	Open frame, enclosed with end fan	5 years	
CUS600M	400-600W	12, 19, 24, 28, 32, 36, 48Vdc	85-265Vac	3x5"	Open frame, enclosed with end fan	5 years	
<b>NEW</b> CUS800M	680-800W	12, 24, 36, 48Vdc	85-265Vac	3.3x6.7"	Enclosed with end fan	5 years	
<b>NEW</b> CUS1000M	800-1000W	12, 24, 36, 48Vdc	85-265Vac	3.3x6.7"	Enclosed with end fan	5 years	
CUS1200M *	1200W	24, 36, 48Vdc	85-265Vac	3.3x7.6"	Enclosed with end fan	5 years	
CUS1500M	1500W	12, 18, 24, 36, 48Vdc	85-265Vac	5x10.3"	Enclosed with end fan	7 years	

\* coming soon

# DUSH Series

## Uninterruptible DC power supplies

- Maximum flexibility thanks to an integrated buck-boost converter
- Modbus/RTU interface for configuration and plant monitoring
- Battery health monitoring to increase availability and safeguard the emergency event



[www.emea.lambda.tdk.com/dush](http://www.emea.lambda.tdk.com/dush)



	Model	Output current	Output voltage	Input voltage	Warranty	Notes
NEW	DUSH960-1248-0M	20A	10-58Vdc	10-60Vdc	3 years	Including LCD and additional 5A auxiliary output
NEW	DUSH960-1248-1M	20A	10-58Vdc	10-60Vdc	3 years	

# DRB 3-Phase Series

## 3-Phase DIN-Rail power supplies

- Wide 3-Phase input range for various AC power systems
- Boost current of up to 150% supports start-up into capacitive loads
- 20% power reserve enables for future system extensions



[www.emea.lambda.tdk.com/drb-3-phase](http://www.emea.lambda.tdk.com/drb-3-phase)



	Model	Output power	Output voltage	Input voltage	Warranty	Notes
	DRB120	120W	12, 24Vdc	3x400-500Vac	3 years	Available with screw or push-in terminals
	DRB240	240W	24, 48Vdc	3x400-500Vac	3 years	Available with screw or push-in terminals
	DRB480	480W	24, 48, 72Vdc	3x400-500Vac	3 years	Available with screw or push-in terminals
	DRB960	960W	24, 48, 72Vdc	3x400-500Vac	3 years	Available with screw or push-in terminals

# D1SE Series

## Essential power supplies without compromises

- Economical and reliable with an efficiency of up to 94%
- Perfect balance of cost-effectiveness and performance without any compromises on quality
- Dedicated models with coated circuit boards to endure harsh environments



	Model	Output power	Output voltage	Input voltage	Warranty	Notes
	D1SE120 *	120W	22.5-29Vdc	100-240Vac	3 years	DC-OK or conformal coating optional
	D1SE240 *	240W	22.5-29Vdc	100-240Vac	3 years	DC-OK or conformal coating optional
	D1SE480 *	480W	22.5-29Vdc	100-240Vac	3 years	DC-OK or conformal coating optional

\* coming soon

## DRB15-100 Series

### Single output DIN-Rail power supplies

- Single phase input
- Excellent efficiency-up to 93%
- Low-power devices in a polycarbonate housing for stringent safety requirements



[www.emea.lambda.tdk.com/dr1](http://www.emea.lambda.tdk.com/dr1)



Model	Output power	Output voltage	Input voltage	Warranty	Notes
DRB15	15W	24Vdc	85-265Vac	3 years	Polycarbonate housing
DRB30	30W	12, 24Vdc	85-265Vac	3 years	Polycarbonate housing
DRB50	50W	5, 12, 15, 24, 48Vdc	85-265Vac	3 years	Polycarbonate housing
DRB100	100W	24Vdc	85-265Vac	3 years	Polycarbonate housing

## DRB120-480 Series

### Single output DIN-Rail power supplies

- Single phase input
- Excellent efficiency-up to 93%
- Compact power supplies for efficient plant control systems



[www.emea.lambda.tdk.com/dr1](http://www.emea.lambda.tdk.com/dr1)

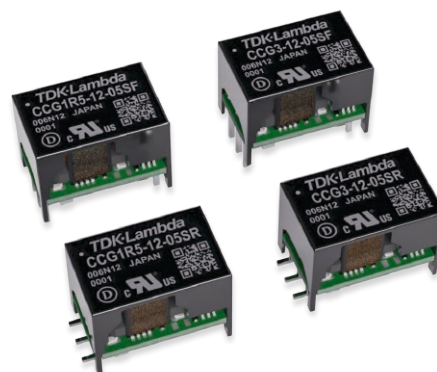


Model	Output power	Output voltage	Input voltage	Warranty	Notes
DRB120	120W	12, 24, 48Vdc	85-265Vac	3 years	Metal housing
DRB240	240W	24, 48Vdc	85-265Vac	3 years	Metal housing
DRB480	480W	24, 48Vdc	85-265Vac	3 years	Metal housing

# CCG Series

## 1.5 to 30W DC-DC converters

- All purpose DC-DC converters
- Compact size
- 4:1 Wide-range DC-input
- High efficiency, up to 92%
- Six sided shielding (CCG15, CCG30)
- THT and SMD versions (CCG1R5, CCG3, CCG6, CCG10)



[www.emea.lambda.tdk.com/ccg](http://www.emea.lambda.tdk.com/ccg)



Model	Output power	Output voltage	Input voltage	Size	Pin style	Warranty	Cooling
CCG1R5	1.5W	3.3, 5, 12, 15, $\pm 12$ , $\pm 15$ Vdc	4.5-18, 9-36, 18-76Vdc	0.62 x 0.41 x 0.45"	SMD, THT	5 years	↓
CCG3	3W	3.3, 5, 12, 15, $\pm 12$ , $\pm 15$ Vdc	4.5-18, 9-36, 18-76Vdc	0.62 x 0.41 x 0.45"	SMD, THT	5 years	↓
CCG6	6W	3.3, 5, 12, 15, $\pm 12$ , $\pm 15$ Vdc	4.5-18, 9-36, 18-76Vdc	0.75 x 0.49 x 0.45"	SMD, THT	5 years	↓
CCG10	10W	3.3, 5, 12, 15, $\pm 12$ , $\pm 15$ Vdc	4.5-18, 9-36, 18-76Vdc	0.75 x 0.49 x 0.45"	SMD, THT	5 years	↓
CCG15	15W	3.3, 5, 12, 15, $\pm 12$ , $\pm 15$ Vdc	9-36, 18-76Vdc	1 x 1 x 0.39"	THT	5 years	↓
CCG30	30W	3.3, 5, 12, 15, $\pm 12$ , $\pm 15$ Vdc	9-36, 18-76Vdc	1 x 1 x 0.39"	THT	5 years	↓

# i1, i3, i6, i7 Series

## Non-isolated DC-DC converters

- All purpose buck, buck-boost or inverting converters
- Compact size
- Very high efficiency, up to 98%
- Minimal external components needed
- Wide output adjustment range



[www.emea.lambda.tdk.com/i3-6-7](http://www.emea.lambda.tdk.com/i3-6-7)



Model	Converter type	Output current	Output voltage	Input voltage	Warranty	Package	Cooling
i1C	Buck-boost	10A	9.5-28Vdc	9-36Vdc	3 years	1 x 1"	↓ ↓
i3A	Buck	4.5, 8A	5-30, 3.3-16.5Vdc	9-53Vdc	3 years	1/32 Brick	↓ ↓
i6A	Buck	14A	3.3-24Vdc	9-40Vdc	3 years	1/16 Brick	↓ ↓
i6AN	Inverter	8A	-3.3 to -30Vdc	9-40Vdc	3 years	1/16 Brick	↓ ↓
i6A4W	Buck	10, 20A	3.3-40, 3.3-15Vdc	9-53Vdc	3 years	1/16 Brick	↓ ↓
i6A4W SIP	Buck	10, 20A	3.3-40, 3.3-15Vdc	9-53Vdc	3 years	1/16 Brick SIP	↓ ↓
i7A4W	Buck	33A	3.3-24Vdc	18-60Vdc	3 years	1/16 Brick	↓ ↓
i7A24	Buck	45A	3.3-18Vdc	18-32Vdc	3 years	1/16 Brick	↓ ↓
i7A12	Buck	60A	0.8-8Vdc	9-18Vdc	3 years	1/16 Brick	↓ ↓
i7A48	Buck	20A	3.3-32Vdc	28-60Vdc	3 years	1/16 Brick	↓ ↓
i7C4W	Buck-boost	8, 12.5A	9.6-48, 5.0-28Vdc	9-53Vdc	3 years	1/16 Brick	↓ ↓
i7C2W	Buck-boost	20A	8-24Vdc	9-36Vdc	3 years	1/16 Brick	↓ ↓

## RGA, RGB, RGC Series

### Non-isolated ruggedized DC-DC converters

- Robust design in aluminum die cast housing
- Compact size with four mounting tabs
- Very high efficiency, up to 98%
- COTS-MIL STD-810G Shock & Vibration
- Wide output adjustment range



[www.emea.lambda.tdk.com/i3-6-7](http://www.emea.lambda.tdk.com/i3-6-7)



Model	Converter type	Output current	Output voltage	Input voltage	Warranty	Size	Cooling
RGA-010	Buck	10A	3.3-40Vdc	9-53V	3 years	1.4 x 1.4 x 0.51"	
RGA-014	Buck	14A	3.3-24Vdc	9-40V	3 years	1.4 x 1.4 x 0.51"	
RGA-020	Buck	20A	3.3-15Vdc	9-53V	3 years	1.4 x 1.4 x 0.51"	
<b>NEW</b> RGB-033	Buck	33A	3.3-24Vdc	18-60V	3 years	1.50 x 1.95 x 0.51"	
<b>NEW</b> RGB-045	Buck	45A	3.3-18Vdc	18-32V	3 years	1.50 x 1.95 x 0.51"	
<b>NEW</b> RGB-060	Buck	60A	0.8-8Vdc	9-18V	3 years	1.50 x 1.95 x 0.51"	
RGC-008	Buck-boost	8A	9.6-48Vdc	9-53V	3 years	1.50 x 1.95 x 0.51"	
RGC-012	Buck-boost	12A	5-28Vdc	9-53V	3 years	1.50 x 1.95 x 0.51"	

## PY Series

### Isolated DC-DC converters

- Ultra-wide input voltage range
- EN 50155 Railway compliant
- EN 45545-2 Fire protection assessed
- IEC 61373 Shock and vibration tested
- EC 62368-1 (ICT) approved
- High input to output isolation strength
- Tailored heatsink options available



[www.emea.lambda.tdk.com/py](http://www.emea.lambda.tdk.com/py)



Model	Output power	Output voltage	Input voltage	Size	Isolation	Warranty	Cooling
PYD20	20W	5, 12, 15, $\pm 12$ , $\pm 15$ , $\pm 24$ Vdc	8.5-160Vdc (18:1)	2 x 1 x 0.5"	3000Vac	3 years	
PYQ50	30-50W	5, 12, 24, 48Vdc	14-160Vdc (8:1)	Quarter-brick 2.28 x 1.45 x 0.5"	3000Vdc	3 years	
PYQ75	75W	12, 15, 24, 28, 48Vdc	9-75Vdc (12:1)	Quarter-brick 2.28 x 1.45 x 0.5"	3000Vac	3 years	
PYH200	200W	12, 15, 24, 48Vdc	14-160Vdc (12:1)	Half-brick 2.28 x 2.4 x 0.5"	3000Vac	3 years	

## NEW Advanced AC Power Sources

### High density, fully programmable and easy to use

- Ultra-high/class leading power density-up to 3kVA in 1U
- High-end specification for more accurate measurements
- Lighter than similar products
- Wide library of test profiles
- LAN, USB, RS232, RS485 as standard
- Optional IEEE / GPIB interface
- Full colour touch panel interface
- Crest Factor – 4:1 peak current
- Intuitive GUI
- DC source function availability
- Maintenance-free operation
- GUI commonality for Genesys™ AC and DC
- Parallel capable for higher power and multiple phases
- Safety IEC / UL / EN 61010-1 Ed. 3, CE / UKCA
- Five year warranty



[www.emea.lambda.tdk.com/ac-sources](http://www.emea.lambda.tdk.com/ac-sources)  
[www.emea.lambda.tdk.com/QPF/AC-Source](http://www.emea.lambda.tdk.com/QPF/AC-Source)



	GENESYS™ AC models		GENESYS™ AC-PRO models	
Model	GAC-02	GAC-03	GAC-PRO 02	GAC-PRO 03
Rated power AC	2000 VA	3000 VA	2000 VA	3000 VA
Operating modes	AC	AC	AC-DC, AC+DC	AC-DC, AC+DC
AC voltage range	0-350Vac	0-350Vac	0-350Vac	0-350Vac
AC current range	0-20A	0-30A	0-20A	0-30A
Output frequency	16-1200Hz	16-1200Hz	16-1200Hz (16-5000Hz option)	16-1200Hz (16-5000Hz option)
Peak AC current (Crest factor)	120A (6:1 CF)	120A (4:1 CF)	120A (6:1 CF)	120A (4:1 CF)
DC power	N/A	N/A	2000W	3000W
DC voltage range	N/A	N/A	from -500Vdc to +500Vdc	from -500Vdc to +500Vdc
DC current range	N/A	N/A	0-20A	0-30A
Phases*	Output phase per unit*			
Load PF	0-1 leading or lagging			
AC input range	Single phase: 85-265Vac (Derate to 1.5kVA below 170Vac), Three phase: 170-265 Vac or 342-528 Vac			

\* Multiple identical units are user configurable to parallel to higher power or split and three phase configurations.

# Z+ Series





## DC Programmable power supplies

- 2U high
- Rack or bench mount
- USB, RS232/485 & analogue control and monitoring
- Built in arbitrary function generation and storage
- User programmable output signal pins
- Optional: LAN, IEEE, isolated analogue interfaces & front panel output sockets



[www.emea.lambda.tdk.com/zplus](http://www.emea.lambda.tdk.com/zplus)



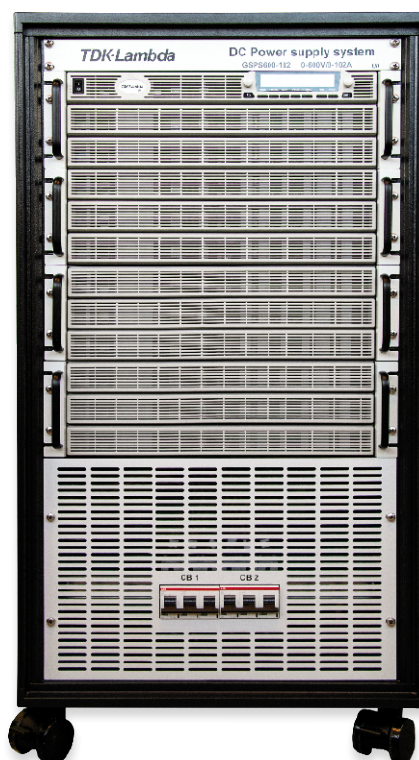
Power	Output voltage ranges	Output current ranges	Warranty	Height	Cooling
200W	0-10 to 0-650Vdc	0-20 to 0-0.32A	5 years	2U	
400W	0-10 to 0-650Vdc	0-40 to 0-0.64A	5 years	2U	
600W	0-10 to 0-650Vdc	0-60 to 0-1A	5 years	2U	
800W	0-10 to 0-650Vdc	0-72 to 0-1.25A	5 years	2U	

33 models available

# GENESYS+™ GSPS Series

**Configurable solutions 30kW/45kW/60kW/67.5kW/90kW  
20U height, 19 inch rack cabinet**

- Constant voltage and constant current modes with power limit operation
- Output current up to 4500A and output voltages up to 1500V
- Wide 3-Phase input range 342-528Vac or 170-265Vac
- Arbitrary waveform generation and storage with auto trigger capability
- Programmable slew rate control (Vout/Iout)
- Internal resistance programming
- Built-In remote isolated analogue interface
- Built-In LAN (**LAN** 1.5), USB, and RS-232/RS-485 interfaces
- Optional EtherCAT, Modbus-TCP, IEEE (488.2) interfaces
- Blank front panel option available
- Safety IEC 61010-1:2010, IEC 61010-1:2010/AMD1:2016




[www.emea.lambda.tdk.com/gspd](http://www.emea.lambda.tdk.com/gspd)



	Model	Power	Output voltage ranges	Output current ranges	Height	Cooling
	GSPS	30kW	0-10 to 0-600V	0-51 to 0-3000A	20U/19"	
	GSPS	45kW	0-20 to 0-600V	0-76.5 to 0-2250A	20U/19"	
<b>NEW</b>	GSPS	45kW	0-1000 to 0-1500V	0-45 to 0-30A	20U/19"	
	GSPS	60kW	0-10 to 0-600V	0-102 to 0-4500A	20U/19"	
<b>NEW</b>	GSPS	67.5kW	0-1000V	0-67.5A	20U/19"	
<b>NEW</b>	GSPS	90kW	0-20 to 0-1500V	0-4500 to 0-60A	20U/19"	

# GENESYS+™ Series












## DC Programmable power supplies

- Industry leading power density  
(1-7.5kW-1U, 10/15kW-2U, 15/22.5kW-3U)
- Half Rack Mount for 1/1.5kW
- 1.7kW, 3.4kW, 5kW-fast-speed Models
- 1.7kW, 3.4kW-with power sink option
- Standard Interfaces: LAN ( 1.5), USB, RS-232/RS-485, isolated analogue monitoring and control
- Arbitrary waveform functions and profiles
- Scalable power systems up to 90kW (auto-configuring) for more power\*
- Constant power limit and slew rate control
- Internal resistance simulation programming
- Wide range of AC inputs
- Efficiency up to 92%
- Optional EtherCAT, Modbus-TCP and IEEE488 interfaces
- Options: blank front panel, dust filter cover, rack -mount kits (only for GH models)



[www.emea.lambda.tdk.com/genplus](http://www.emea.lambda.tdk.com/genplus)



Power	Output voltage ranges	Output current ranges	Warranty	Height	Cooling
GH1kW	0-10 to 0-600Vdc	0-100 to 0-1.7A	5 years	1U, ½ 19"	
GH1.5kW	0-10 to 0-600Vdc	0-150 to 0-2.6A	5 years	1U, ½ 19"	
G1kW	0-10 to 0-600Vdc	0-100 to 0-1.7A	5 years	1U	
G1.7kW	0-10 to 0-600Vdc	0-170 to 0-2.8A	5 years	1U	
G2.7kW	0-10 to 0-600Vdc	0-265 to 0-4.5A	5 years	1U	
G3.4kW	0-10 to 0-600Vdc	0-340 to 0-5.6A	5 years	1U	
G5kW	0-10 to 0-1500Vdc	0-500 to 0-8.5A	5 years	1U	
G7.5kW	0-20 to 0-1500Vdc	0-375 to 0-5A	5 years	1U	
GSP10kW	0-10 to 0-600Vdc	0-1000 to 0-17A	5 years	2U	
GSPL15kW	0-20 to 0-1500Vdc	0-750 to 0-10A	5 years	2U	
GSP15kW	0-10 to 0-600Vdc	0-1500 to 0-25.5A	5 years	3U	
GSPL22.5kW	0-20 to 0-1500Vdc	0-1125 to 0-15A	5 years	3U	

**121 models available** \* contact factory for availability

# Power+ Solutions

What if a standard power supply does not meet your specifications? You need a different cable, or a special housing?

What if you need this “custom solution” not just once, but for high volume production?

That’s exactly the reason TDK-Lambda has developed the Power+ Solutions programme.

This programme can be adjusted to meet your needs perfectly with additional services in a modular way, up to the full package. Many successful strategic partnerships with our customers are based on the reliability of this concept.

## Value of using TDK-Lambda Power+ Solutions:

- Leading range of customizable standard products
- Full back-up of engineering, logistics and manufacturing services
- Optimum flexibility of local and overseas manufacturers
- Prolonged product lifetime and quality
- Highly experienced local teams
- One dedicated contact takes care of all your demands



## Programme:

### • Modified standard

- A slight modification (electrical and physical) to a standard TDK-Lambda product
- Customized mechanical housing (chassis)
- Filter solutions for input and output
- Additional function and communication/signals
- Non standard voltages
- Cable looms and connectors
- Ruggedisation for shock, vibration, high g and outdoor environments
- Brick on board
- Custom designs utilizing our broad range of AC-DC and DC-DC power modules. Benefits include low NRE and fast time to market.

### • Full custom design to customer specification

A power supply designed to meet the customer’s unique set of requirements



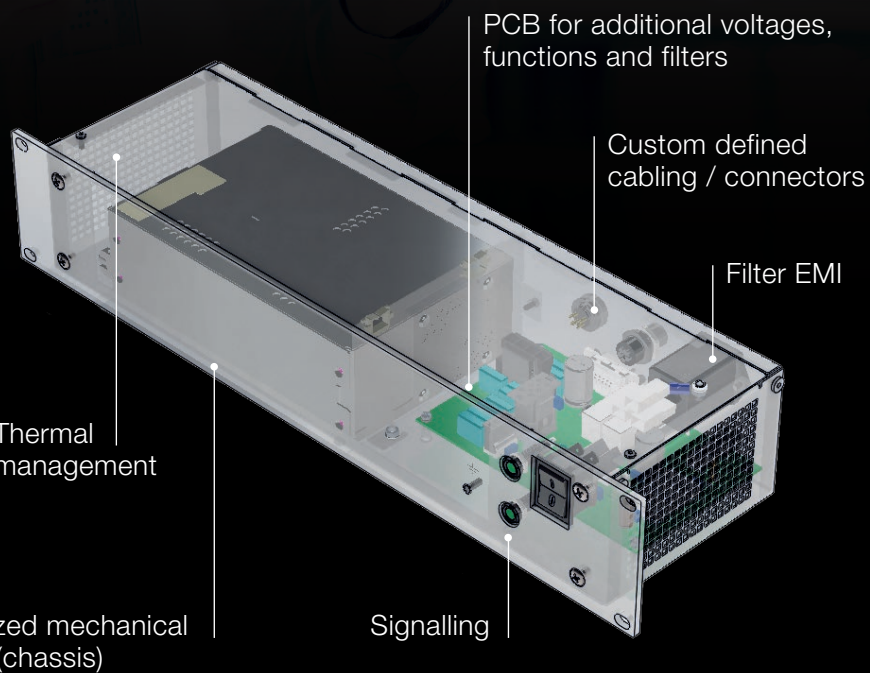
+design-in

+functional add-ons

+customer specific

+value added




















+non standard









# Product Overview















## AC-DC Chassis mount – Single output

	LS	GUS <b>NEW</b>	CUS-M <b>NEW MODELS</b>	CUS-LD	GWS	SWS-L	HWS-A/HD/P/ME/G <b>NEW MODELS</b>
							
Cooling			  	 	 		 
Output power	25 – 200W	350 – 1000W	30 – 1500W	200, 250W	250, 500W	600, 1000W	15 – 3000W
Main features	Cost optimized	up to 95% efficiency 1U high compact OVCIII	up to 95% efficiency low profile low leakage current many case-styles	up to 94% efficiency low profile	ErP compliant Class C Harmonics (IEC 61000-3-2) > 25% Load	Low profile –40°C start up –20°C to 74°C operating	HD: Harsh environment, P: Peak power for 5sec ME: Medical very high reliability
Warranty	5 years	3 years	3, 5, 7 years	3 years	5 years	3 years	<b>Leading warranty *</b>

## AC-DC Chassis mount – Multiple output

	ZWQ	CUT
		
Cooling		
Output power	80 – 170W	35, 75W
Main features	1U height versions 4 outputs	3 outputs 2x4" and 3x5" footprint individual output regulation low profile (1.06")
Warranty	1 years	3 years





## AC-DC Configurable

	MU <b>NEW MODELS</b>	NV/M	EFE/M	XMS500A
				
Cooling	 	  	 	 
Output power	600 – 1500W	175 – 960W	300, 400W	500W
Main features	1 – 13 outputs 3.3 – 105.6Vdc Low audible noise Suitable for 1U 	1 – 8 outputs configurable	Full digital control high power density	Single output suitable for 1U low airflow requirement
Warranty	7 years	3 years	5 years	5 years

## AC-DC DIN Rail

	DRL	DRB	D1SE <b>NEW</b>	DRB 3 Phase	DRF	DRM	DBM
							
Cooling							
Output power	10 – 100W	15 – 480W	120 – 480W	120, 240, 480, 960W	120, 240, 480, 960W	2x20A / 1x40A	20A
Main features	Designed for building automation systems with Class II reinforced insulation.	Compact power supplies for efficient plant control systems.	Essential power supplies without compromises on performance and quality	Efficient design for conventional mechanical and plant engineering.	Well equipped and designed for harsh environments.	Buffer and redundancy modules further increase plant up-time.	
Warranty	3 years	3 years	3 years	3 years	5 years	5 years	5 years

## AC-DC Desktop

	DT/DTM	WMM30
		
Cooling		
Output power	25 – 300W	30W
Main features	Single output ErP compliant	Single output ErP compliant Class II wide range AC input
Warranty	2 or 3 years	3 years

## DC Programmable

	Genesys+™ Genesys™
	
Cooling	
Output power	750 – 90.000W
Main features	750W in 1U half with up to 90kW in 20U cabinet 0 – 1500V, 0 – 4500A CV, CC, CP-operation mode, arbitrary waveform, multiple interfaces, blank panel, fast speed
Warranty	5 years

RWS-B/ME	GXE600	RFE	TPS	CPFE/Fi	EVS	ZPSA	ZWS/B BAF/P/C
50 – 1500W	600W	1000, 1600, 2500W	3000, 4000W	1000W	300, 600W	20 – 60W	10 – 300W
Compact size 10-year +e-cap lifetime	Digital (RS-485) and analogue programming CV, CC mode up to 95% efficiency	1U · current share optional: PM Bus, internal Oring diodes	400/480 VAC 3phase voltage and current programming	Fanless diode ORing – share option I2C interface	Constant current source	2x3.5" (20W) 2x4" (40/60W) very low height profile	Long e-cap lifetime
7 years	7 years	2 or 3 years	3 years	2 years	5 years	2 years	5 years





AC-DC Rack mount					
QM	QS	VEGA	FPS	HFE <i>NEW MODELS</i>	TPF45000-385
550 – 2000W	600 – 1200W	450 – 900W	1000W	1600 – 3500W	45000W
1 – 18 outputs Very low audible noise	Single output low audible noise dual or single fusing	1 – 11 outputs configurable	Single output · up to 3000W 3 units in 19" Rack · hot swap optional: I2C bus	up to 13.3kW in 1U hot swap PMBus™, LAN options	PFC-Frontend, 385Vdc, 3-phase input 400 – 480Vac, PMBus™, USB
7 years	7 years	3 years	2 years	3 years	3 years

DC-UPS	Buffer module	AC-DC PCB mount – Single / multiple output					
DUSH <i>NEW</i>	ZBM20	PFE	PFH500	PF-B	KPSA/KPSB	KAS/KMS-A/KMD/KMT	KWS-A
20A	20A	300 – 1000W	500W	1500W	5 – 25W	4 – 60W	5, 10, 15, 25W
First class reliability for mission-critical applications	12, 15, 24V nom. 380msec. Holdup	Operating up to 100°C baseplate · PFC high efficiency	101.6 x 61.0mm size PMBus™ communication (read-write) · High efficiency up to 92%	Low profile PFC front end 360Vdc output	Single output · no external components needed · open frame	90 - 305Vac protection class II 2x MOPP isolation	Single · dual output protection class II efficiency values up to 88%
3 years	5 years	2 or 5 years	3 years	5 years	2 or 3 years	2 or 3 years	3 years






Z+
200, 400, 600, 800W
2U · 0 – 650V · bench, 2U rack mounted (6 units) · built in USB, RS232/485, analogue · integrated arbitrary function · options: LAN, IEEE, isolated analogue, front panel output sockets
5 years

AC Power Sources
<b>Genesys™ AC</b>
2000 – 9000kVA
Single-Phase or 3-Phase · 0 – 350Vac, ±500Vdc Output frequency: DC, 16Hz to 5kHz Multiple interfaces, integrated immunity testing
5 years






## Isolated DC-DC Converters

	CC-E	CCG	PX	PX-M
				
<b>Package</b>	Designed for compact size	Designed for compact size	1x1", 1.25x0.8", 2x1", 2x1.6", 2x2"	1.25x0.8", 1.6x1", 2x1"
<b>Cooling</b>	⬇️	⬇️	⬇️	⬇️
<b>Output</b>	1.5, 3, 6, 10, 15, 30W	1.5, 3, 6, 10, 15, 30W	5, 10, 15, 20, 30, 40, 60W	3, 6, 10, 15, 20, 30W
<b>Features</b>	Input: DC 5, 12, 24, 48V (2:1) Output: 3.3 – 15Vdc, Single, dual outputs	Input: DC 5, 12, 24, 48V (4:1) Output: 3.3 – 15Vdc Single, dual outputs	Input: DC 12V, 24V, 48V Output: 3.3 – 48Vdc Single, dual, tripple outputs	Input: DC 12, 24, 48V (4:1) Output: 3.3 – 48Vdc
<b>Warranty</b>	5 years	5 years	2 years	5 years


## Isolated DC-DC Converters

	PH-A280	HQA	GQA	iEA, iEH	iQE, iQG, iQL
					
<b>Package</b>	1/4 Brick, 1/2 Brick, Full Brick	1/4 Brick	1/4 Brick	1/8 Brick	1/4 Brick
<b>Cooling</b>	⬇️	⬇️	⬇️	⬇️ ⬅️ ➡️	⬇️ ⬅️ ➡️
<b>Output</b>	50, 75, 100, 150, 300, 600, 1200W	85W, 120W	120W	48 – 78, 300W	72 – 504W
<b>Features</b>	Input: DC 280V Output: 3.3 – 48Vdc	Input: DC 12, 24V Output: 5 – 48Vdc	Input: DC 12, 24V Output: 5 – 48Vdc	Input: DC 48V Output: 5 – 28Vdc	Input: DC 48V Output: 1.2 – 28Vdc
<b>Warranty</b>	5 years	3 years	3 years	3 years	3 years




## Non-isolated DC-DC Converters

	IAH/iBH/iCH	i1C <b>NEW</b>	i3A/i6A	i7A	i7C
					
<b>Package</b>	0.48x0.48", 0.8x0.45", 1.3x0.53"	1x1"	1/16, 1/32 Brick	1/16 Brick pin-out	1/16 Brick pin-out
<b>Topology</b>	Buck	Buck-boost	Buck, inverter	Buck	Buck-boost
<b>Output</b>	3, 5, 6, 12, 20, 40A	10A	4.5, 8, 10, 14, 20A	33, 45, 60A	8, 12.5, 20A
<b>Features</b>	Input: DC 5, 12V Output: 0.6 – 8.5Vdc	Input: DC 24, 48V (4:1) Output: 9.6 – 28Vdc	Input: DC 12, 24, 48V Output: 3.3 – 40Vdc	Input: DC 24, 48V Output: 0.8 – 24Vdc	Input: DC 12, 24, 48V Output: 3.3 – 24Vdc
<b>Warranty</b>	3 years	3 years	3 years	3 years	3 years

## High Voltage POL DC-DC

	CHVM
	
<b>Package</b>	Various sizes (SIL)
<b>Topology</b>	Capacitive converter
<b>Output</b>	1.4 – 3W
<b>Features</b>	Input 12VDC Output 180 – 2000VDC
<b>Warranty</b>	1 years

## EMC-Line Filters

	RS/RT	SIFI	IEC
			
<b>Current</b>	0.5 – 1000A	3 – 36A	1 – 20A
<b>Voltage</b>	250, 500V	250V	250V
<b>Features</b>	1-phase, 3-phase conform to ENEC, UL, CSA, RoHS low leakage	1-phase conform to UL, CSA, ENEC compact size	1-phase conform to UL, CSA, ENEC
<b>Warranty</b>	5 years	1 years	1 years

PY	CN-A/CN-B <b>NEW</b>	PAH	PAF
2x1", 1/4 Brick, 1/2 Brick	1/4 Brick, 1/2 Brick	1/2 Brick	Full Brick
20, 50, 75, 200W	30, 50, 100, 150, 200, 300W	300, 350, 450W	504, 600, 700W
Input: DC 24, 36, 48, 72, 96, 110V Output: 3.3 – 15Vdc Single, dual outputs	for railway Input: 24, 110Vdc Output: 5 – 48Vdc	Input: DC 24, 48V Output: 12 – 48Vdc	Input: DC 24, 48V Output: 12 – 28Vdc
3 years	5 years	2 years	2 years

DPX	EZA
DIN-Rail	19-inch Rack 1U
15, 20, 30, 40, 60W	2500, 11.000W
Input: DC 12, 24, 48V Output: 3.3 – 15Vdc Single, dual, tripple outputs	Bi-directional DC 320V <-> 48V (2.5kW) DC 320V <-> 240V (11kW)
3 years	5 years

RGA, RGB <b>NEW</b>	RGC <b>NEW</b>	DDA
1.4x1.4" Die cast	1.4x1.4" Die cast	DIN-Rail
Buck	Buck-boost	Buck, inverter
10, 14, 20, 33, 45, 60A	8, 12.5A	250, 325, 500W
Input: DC 12, 24, 48V Output: 0.8 – 40Vdc	Input: DC 12, 24, 48V Output: 3.3 – 48Vdc	Input: DC 12, 24, 48V Output: 3.3 – 24Vdc Single, dual outputs
3 years	3 years	3 years

DC-DC EMC-Filter		
FQA/FQB	iDQ	RDEN
20A	10A	50A
+/-40V	up to 75V	48V
Harsh Environment	Exceptional differential mode performance	Metal case stud terminals
3 years	3 years	1 years



## Power+ Solutions

TDK-Lambda custom power solutions include full bespoke designs, modified standards and 'brick on board' products. Our expertise is vast, covering 0.6V to 50kV, 1W to 90kW AC-DC and DC-DC.

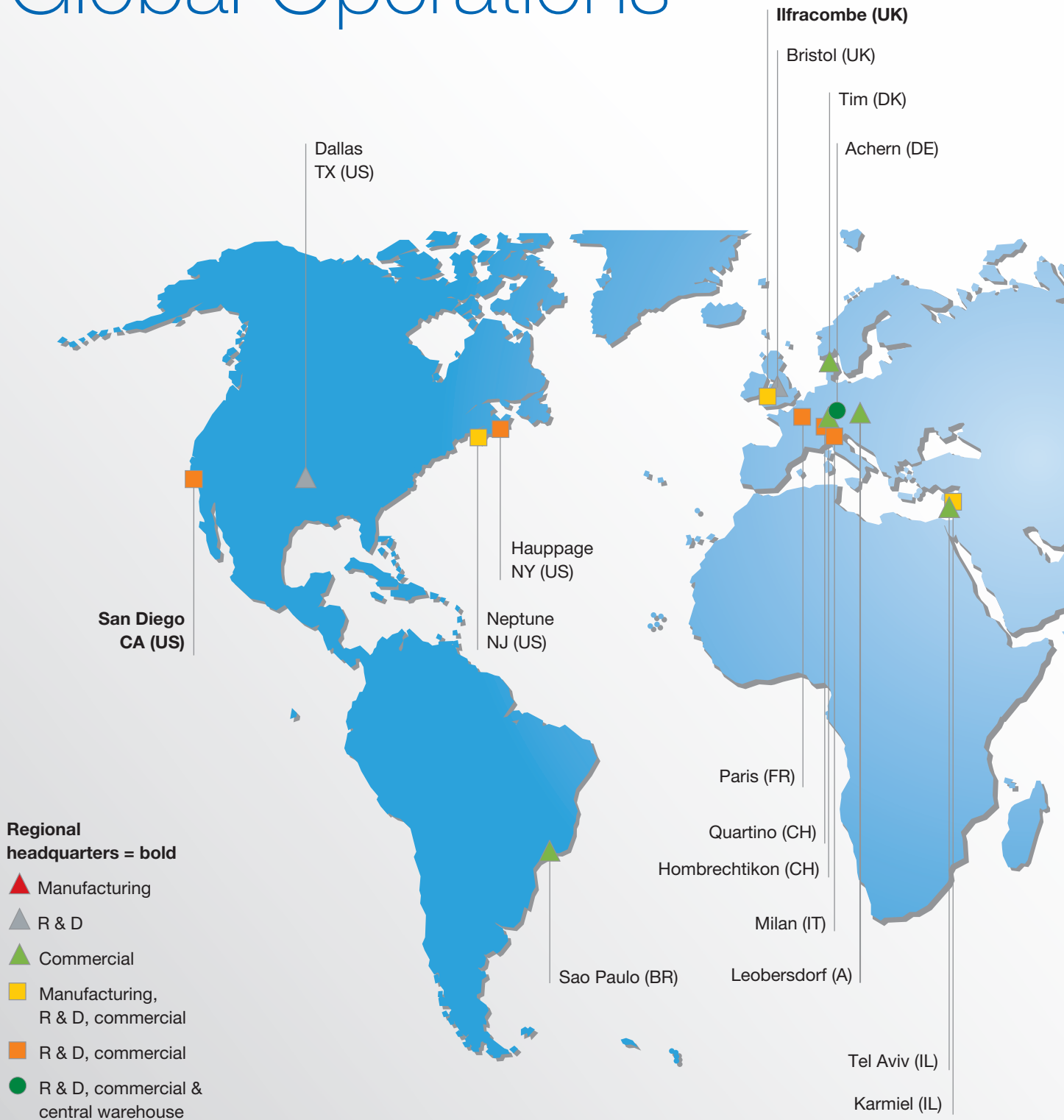
### Modified standard

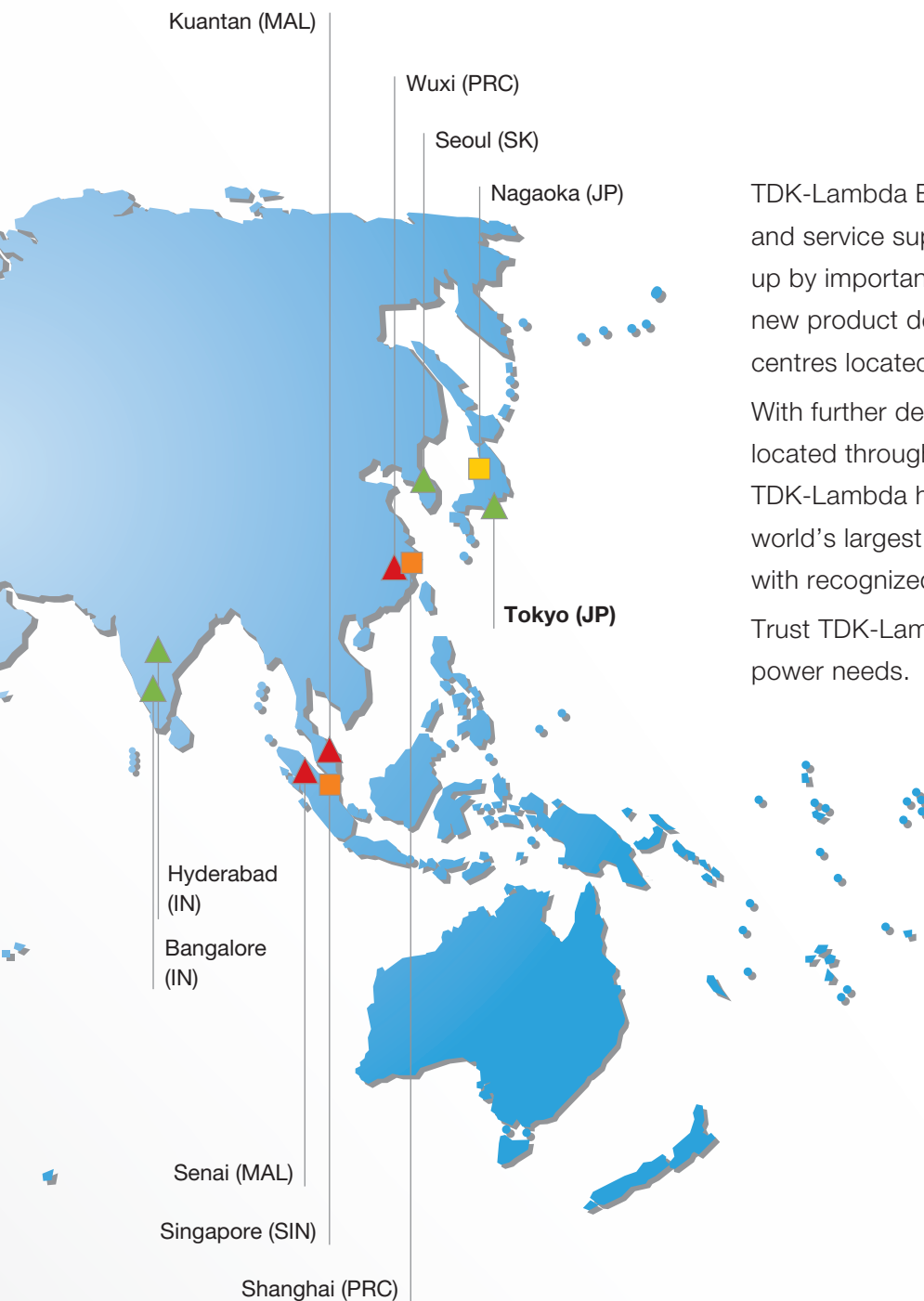
- A slight modification (electrical and physical) to a standard TDK-Lambda product
- Customized mechanical housing (chassis)
- Filter solutions for input and output
- Additional function and communication/signals
- Non standard voltages
- Cable looms and connectors
- Ruggedisation for shock, vibration, high g and outdoor environments
- Brick on board
- Custom designs utilising our broad range of AC-DC and DC-DC power modules. Benefits include low NRE and fast time to market.

### Full custom design to customer specification

A power supply designed to meet the customer's unique set of requirements.

# Global Operations





TDK-Lambda EMEA offer responsive local sales and service support throughout EMEA backed up by important advanced technology research, new product development and manufacturing centres located in EMEA.

With further design and manufacturing centres located throughout Asia and North America, TDK-Lambda has positioned itself as one of the world's largest manufacturers of power supplies with recognized leadership.

Trust TDK-Lambda for all your healthcare power needs.

Our team of experts will be happy to help you find the best power supply for your application.



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## Local Distribution