

## Power Supplies, DC-DC Converters and EMC/EMI Filters

Healthcare



**TDK-Lambda**

# Healthcare Power Supply Solutions.

Worldwide.





TDK-Lambda Corporation, a group company of TDK Corporation, is a leading global power supply company providing highly reliable power supplies worldwide. TDK-Lambda Corporation meets the various needs of customers with our entire range of activities, from research and development through to manufacturing, sales, and service with bases in five key areas, covering Japan, EMEA, North America, China, and SE Asia.

TDK-Lambda is one of the oldest and most trusted manufacturers of high quality healthcare power supply solutions used in critical medical and laboratory applications.

#### Organization

- Founded in 1948; offering long term financial stability
- An independently recognized market leader
- Worldwide recognition for high reliability
- Outstanding customer support
- International organization with strong local presence
- Local design capability
- Experts in medical power supply solutions
- Preferred supplier for Tier 1 healthcare companies
- Local inventory / local buffer



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

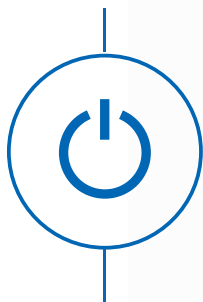




## Wide choice of Medical Power Supply Solutions

TDK-Lambda offers a broad product line of healthcare power supplies with over 5.000 models of standard medical AC-DC power supplies, DC-DC Converters and EMC/EMI Filters to choose from. For the most complex applications we provide a full custom medical power supply design service.

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.



## Product Offering & Attributes

- Standard, modified power solutions and full custom designs
- AC-DC power supplies + EMC/EMI Filters + DC-DC converters
- Products suitable for B & BF equipment
- Class I & II products
- IEC60601-1 approvals as standard
- Many products manufactured in ISO13485 factories

## Access our Expertise

Our expertise is based on 30+ years of experience powering healthcare products for major medical OEMs. Customers get our assistance and advice for medical power supply selection, application support, medical safety compliance and custom solutions.

- Approved supplier to many top global medical device companies
- Global multi-site design, manufacture and local technical support

## Medical Safety Approvals

TDK-Lambda is certified and approved to design and manufacture power supplies for medical applications using its own testing facilities to generate UL and CB safety reports and test data. The medical power supplies from TDK-Lambda are approved to the latest medical safety standards and meet with Edition 4 EMC compliance requirements.

- ISO13485 designed and manufactured products
- IEC, UL, CSA, ANSI/AAMI 60601-1 safety compliance
- EN60601-1-2:2015 (Edition4) EMC compliance
- Own testing facilities to generate UL and CB safety reports and test data





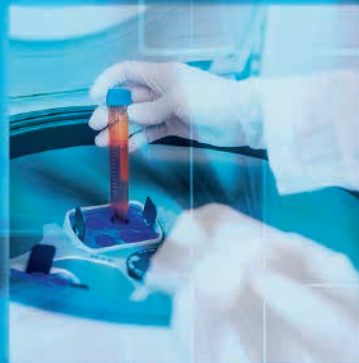
## Clinical

- Dialysis Equipment
- Ophthalmology Devices
- Patient Monitoring & Therapy
- Surgical & Ablation Systems
- Medical Beds • Surgical Lasers
- Neonatal Care • Electrocardiographs
- Anesthesia Devices • Endoscopes
- Radiotherapy • Infusion pumps
- ECG • Robotics • Ventilators
- Cosmetic Lasers • Powered tools
- Operating Theatre lighting



## Dental

- CAD/CAM Systems
- Oral Care Equipment
- X-Ray Machines
- Gamma Imaging Systems
- Digital Radiography
- Lighting • Chairs



## Laboratory / Bioscience

- Microbiology • Electron Microscopes
- Chemical Analysis Equipment
- Lab Process Automation
- Immunoassay Systems
- Mass Analyzers • In-Vitro Diagnostics
- Sterilization • Clinical Chemistry
- Centrifuges • PCRs • Osmometers
- Blood analysers • DNA Testers
- VHP Systems • Bioreactors
- Mixing systems



## Imaging

- X-Ray Machines • Ultrasound Scanners
- Single Photon Emission Computed Tomography (SPECT)
- Positron Emission Tomography (PET)
- Computed Tomography (CT) Scan
- Magnetic Resonance Imaging (MRI)

Medical applications require high reliability and high quality solutions. TDK-Lambda as one of the oldest and most trusted manufacturers of high quality healthcare power supplies serves this demand with long experience, many certifications and medical power supplies tested and approved to the highest safety standards. Backed by industry leading warranties, our motivation is complete customer satisfaction.



## Homecare

- Oxygen therapy
- Nebulizers
- Portable dialysis
- Telehealth
- Respirators



# AC-DC Power Supplies



## KM Series

### 15W, 40W Medical PCB-Mount Power Supplies

- 2 x MOPP Primary - Secondary
- 4kVAC Input - Output Isolation
- Suitable for BF Rated Equipment
- 90 - 264VAC Universal Input
- Protection Class II (No ground needed)
- 1, 2 or 3 Output Voltages available
- Working Altitude up to 5000m (Medical and Industrial)
- High Efficiency
- Small Size and Lightweight



Convection



Coming soon

## CUS30M & CUS60M

### 30W, 60W Medical 2" x 3" Single Output Power Supplies

- 2 x MOPP Primary - Secondary
- 4kVAC Input - Output Isolation
- Suitable for BF Rated Equipment
- Protection Class I and II Installations
- 30W / 60W Convection cooled
- Working Altitude up to 5000m (Medical and Industrial)
- Compact 2" x 3" x 0.95" / 1.05" Size



Convection



## HWS30A/ME & HWS50A/ME

### 30W, 50W Medical Single Output Power Supplies

- 2 x MOPP Primary - Secondary
- 3kVAC Input - Output Isolation
- 85 - 265VAC Universal Input
- Limited Lifetime Warranty\*
- cover option /MEA
- Working Altitude up to 4000m
- Low Earth Leakage <500μA



Convection

NEW



## KMS-A Series

### 15W, 30W, 60W Medical PCB-Mount Single Output Power Supplies

- 2 x MOPP Primary - Secondary
- 4kVAC Input - Output Isolation
- Suitable for BF Rated Equipment
- 90 - 264VAC Universal Input
- Protection Class II (No ground needed)
- Working Altitude up to 5000m (Medical and Industrial)
- Wide Temperature Range (-40 to +80°C)
- Low Off-load Power Draw
- High Efficiency
- Smaller Size than KMS



Convection



## CUT35 Series

### 35W Medical 2" x 4" 2 & 3 Output Power Supplies

- 2 x MOPP Primary - Secondary
- 3kVAC Input - Output Isolation
- 85 - 265VAC Universal Input
- Output 1 Isolated from Outputs 2 & 3
- 35W Convection cooled
- Working Altitude up to 3000m (Medical and Industrial)
- Low Earth Leakage < 300μA
- Compact 2" x 4" x 1.06" Size



Convection



## ZMS100

### 100W Medical 2" x 4" AC-DC Power Supplies

- 2 x MOPP Primary - Secondary
- 4kVAC Input - Output Isolation
- Suitable for BF Rated Equipment
- 85 - 264VAC Universal Input
- Protection Class I and II Installations
- 80W Convection, 100W Forced Air
- Working Altitude up to 5000m (Medical and Industrial)
- Dual Fusing (Live and Neutral)
- Long Capacitor Lifetimes, Ceramic Start-Up Cap
- Compact 2" x 4" x 1.25" Size



Air Flow



Convection





# AC-DC Power Supplies



## HWS100A/ME

### 100W Medical Single Output Power Supplies

- 2 x MOOP Primary - Secondary
- 3kVAC Input - Output Isolation
- 85 - 265VAC Universal Input
- Limited Lifetime Warranty\*
- cover option /MEA
- Working Altitude up to 4000m
- Low Earth Leakage <500μA



Convection



## HWS150A/ME Series

### 150W Medical Single Output Power Supplies

- 2 x MOOP Primary - Secondary
- 3kVAC Input - Output Isolation
- 85 - 265VAC Universal Input
- Limited Lifetime Warranty\*
- cover option /MEA
- Working Altitude up to 4000m
- Low Earth Leakage <500μA



Convection



## NV175-M Series

### 180-200W Medical 3" x 5" Multiple Output Power Supplies

- 2 x MOOP Primary - Secondary
- 4kVAC Input - Output Isolation
- Universal Input (90 - 264VAC)
- 1-3 Outputs
- Active Power Factor Correction
- Working Altitude up to 3000m (Medical and Industrial)
- Up to 90% Efficient
- No Minimum Loads
- Suitable for 1U Applications



Air Flow



Fan

NEW



## CUS150M Series

### 150W Medical 2" x 4" Single Output Power Supplies

- 2 x MOOP Primary - Secondary
- 4kVAC Input - Output Isolation
- Suitable for BF Rated Equipment
- 90 - 264VAC Universal Input
- Protection Class I and II Installations
- Convection, Conduction and Fan cooled options
- Working Altitude up to 5000m (Medical and Industrial)
- Dual Fusing (Live and Neutral)
- Long Capacitor Lifetimes
- Compact 2" x 4" x 1.24" Footprint



Baseplate



Air Flow



Fan



Convection



## NV175 Series

### 175-200W Medical 3" x 5" Multiple Output Power Supplies.

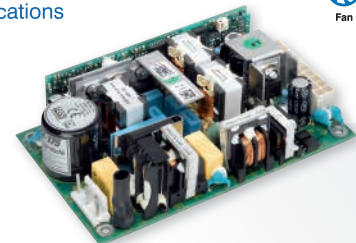
- 2 x MOOP Primary - Secondary
- 3kVAC Input - Output Isolation
- Universal Input (90 - 264VAC)
- 1-4 Main Outputs
- 5V, 12V and 13.5V Standby Supply, 12V Fan Supply, Remote On/Off
- Working Altitude up to 3000m (Medical and Industrial)
- Up to 90% Efficient
- No Minimum Loads
- Suitable for 1U Applications



Air Flow



Fan



## NVM175 Series

### 180W Medical 3" x 5" Single Output Power Supplies

- 2 x MOOP Primary - Secondary
- 4.5kVAC Input - Output Isolation
- Suitable for BF Rated Equipment
- Very Low Earth Leakage and Class B EMC
- 5V and 12V Standby Supply and Remote On/Off
- Working Altitude Medical 3000m, Industrial 5000m
- Dual Fusing (Live and Neutral)
- High Efficiency (90%) & High Power Density (9.3 W/in<sup>3</sup>)
- Suitable for 1U Applications



Air Flow



Fan



# AC-DC Power Supplies



## NV300 Series

### 300W Medical 3.75" x 7.25" Multiple Output Power Supplies

- 2 x MOOP Primary - Secondary
- 3kVAC Input - Output Isolation
- Universal Input (90 - 264VAC)
- Up to 5 Outputs (Including Standby)
- Working Altitude up to 3000m (Medical and Industrial)
- No Minimum Loads
- High Efficiency
- Suitable for 1U Applications



## CUS200M Series

### 200-250W Medical 3" x 5" Single Output Power Supplies

- 2 x MOOP Primary - Secondary
- 4kVAC Input - Output Isolation
- Suitable for BF Rated Equipment
- 5V Standby Output, Remote On/Off, Power Good
- 200W Convection, up to 250W with Airflow
- Working Altitude up to 5000m (Medical and Industrial)
- Dual Fusing (Live and Neutral)
- High Efficiency, up to 94%
- Suitable for 1U Applications



## HWS300/ME Series

### 300W Medical Single Output Power Supplies

- 2 x MOOP Primary - Secondary
- 3kVAC Input - Output Isolation
- 85 - 265VAC Universal Input
- Limited Lifetime Warranty\*
- Working Altitude up to 3000m
- Low Earth Leakage <500μA



## EFE300M & EFE400M

### 300W, 400W Medical Single Output Power Supplies

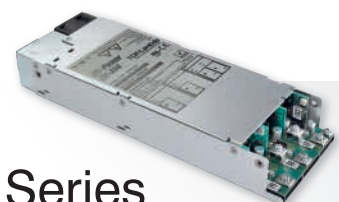
- 2 x MOOP Primary - Secondary
- 4kVAC Input - Output Isolation
- Suitable for BF Rated Equipment
- Universal Input (90 - 264VAC)
- Working Altitude Medical 3000m, Industrial 5000m
- ORing FET for Parallel Operation
- Dual Fusing (Live and Neutral)
- Peak Loading 400W / 530W (10s)
- Suitable for 1U Applications
- 5V or 12V Standby and 12V Fan Supply available



## CUS350M Series

### 350-420W Medical Single Output Power Supplies

- 2 x MOOP Primary - Secondary
- 4kVAC Input - Output Isolation
- Suitable for BF Rated Equipment
- Universal Input (85 - 265VAC)
- 350W Convection Cooled, 420W Forced Air Rating
- Working Altitude up to 5000m (Medical and Industrial)
- Dual Fusing (Live and Neutral)
- High Efficiency, up to 94%
- Suitable for 1U Applications
- 5V Standby and 12V Fan Supply available



## NV350/700 Series

### 350-1150W Medical Multiple Output Modular Power Supplies

- 2 x MOOP Primary - Secondary (C, CC, CM modules)
- 4kVAC Input - Output Isolation (C, CC, CM modules)
- 90 - 264VAC Universal Input
- Up to 8 Outputs (6 for NV350)
- Working Altitude Medical 3000m, Industrial 5000m
- Active Power Factor Correction
- No Minimum Loads
- Peak Power Rating of up to 1450W
- Up to 90% Efficiency
- Suitable for 1U Applications







# AC-DC Power Supplies



## CFE400M Series

### 300-400W Medical Single Output Power Supplies

- 2 x MOPP Primary - Secondary
- 4kVAC Input - Output Isolation
- Suitable for BF Rated Equipment
- 300W Convection, 400W Fan Cooled, 450W Peak Power (10s)
- Working Altitude up to 5000m (Medical and Industrial)
- 0.5W Standby Power
- Meets ERP/Eco-Design (2009/125/EC) and Climate Savers Gold Level
- Up to 94% Efficiency
- Suitable for 1U Applications
- 5V Standby and 12V Fan Supply available



NEW



## XMS500 Series

### 500W Medical AC-DC Single Output Power Supplies

- 2 x MOPP Primary - Secondary
- 4kVAC Input - Output Isolation
- Suitable for BF Rated Equipment
- Protection Class I and II Curve B EMC
- Working Altitude Medical 3000m, Industrial 5000m
- Dual Fusing (Live and Neutral) or Single Fusing
- Low Airflow Requirement
- High Efficiency
- Suitable for 1U Applications
- Case and Top Fan available
- 5V or 12V Standby, 12V Fan Supply available



## Vega Series

### 450-900W Medical Multiple Output Modular Power Supplies

- 2 x MOPP Primary - Secondary
- 4kVAC Input - Output Isolation
- 90 - 264VAC Universal Input and 48VDC Input available
- Up to 10 Wide Range Outputs with Adjustment plus 1 Standby supply
- Output Voltages from 0.5V to 62V
- 45 Single and 25 Dual Output Modules for Highest Flexibility
- Forward/Reverse/Low Noise/System Air Cooling
- Working Altitude up to 5000m (Medical and Industrial)
- MIL-STD-810 Shock and Vibration
- PFC Compliant to EN61000-3-2



## HWS600/ME Series

### 600W Medical Single Output Power Supplies

- 2 x MOPP Primary - Secondary
- 3kVAC Input - Output Isolation
- 85 - 265VAC Universal Input
- Limited Lifetime Warranty\*
- Working Altitude up to 3000m
- Low Earth Leakage <500µA



NEW



## QM5 & QM7 Series

### 700-1500W Medical Multiple Output Modular Power Supplies

- 2 x MOPP Primary - Secondary
- 4kVAC Input - Output Isolation
- Suitable for BF Rated Equipment
- 90 - 264VAC Universal Input
- Up to 14 Main Outputs plus 2 Standby supplies
- Industry Leading Flexibility
- Forward or Reverse Low Audible Noise Fans or System Air Cooling
- Working Altitude up to 5000m (Medical and Industrial)
- Dual Fusing (Live and Neutral) or Single Fusing
- 7 Year Warranty



## SWS1000-L Series

### 1000W Medical Single Output Power Supplies

- 2 x MOPP Primary - Secondary
- 4kVAC Input - Output Isolation
- Universal Input (85 - 265VAC)
- Active Power Factor Correction
- Input Transient Protected IEC61000-4
- Low Audible Noise
- Variable Speed Fan
- SEMI F47 Compliant (208VAC)





# AC-DC Power Supplies

NEW



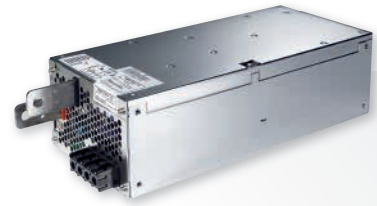
## RWS1000B/ME & RWS1500B/ME

### 1000W, 1500W Medical Single Output Power Supplies

- 2 x MOPP Primary - Secondary
- Compact Size
- Long E-cap Lifetime
- Operating Temperature up to 60°C
- 7 Year Warranty
- Working Altitude up to 4000m
- Low Earth Leakage <300μA



Fan



## HWS1000/ME & HWS1500/ME Series

### 1000W, 1500W Medical Single Output Power Supplies

- 2 x MOOP Primary - Secondary
- 3kVAC Input - Output Isolation
- Universal Input (85 - 265VAC)
- High Efficiency
- Limited Lifetime Warranty\*
- Working Altitude up to 3000m
- Low Earth Leakage <500μA



Fan

NEW



## QS5-1200 & QS7-1200

### 1200W Medical Single Output Power Supplies

- 2 x MOPP Primary - Secondary
- 4kVAC Input - Output Isolation
- BF ready medical isolation (MOPP)
- Low speed, low audible noise fan or system air cooling
- high power single output + up to 2 standby supplies
- Single or dual fusing
- PMBus™ communication option
- 7 year warranty



Fan



Air Flow



# External / Desktop Power Supplies



## DTM65-C Series

### 40-65W Medical AC-DC External Power Supplies

- 2 x MOPP Primary - Secondary
- 4kVAC Input - Output Isolation
- CEC, EISA(1) & ErP Stage 2 Compliant
- Wide Range AC Input
- 85% Efficient, >87% Average (12V Models & Above)



## DTM65-C8 Series

### 40-65W Medical Class II AC-DC External Power Supplies

- 2 x MOPP Primary - Secondary
- 4kVAC Input - Output Isolation
- Meets DOE Level VI Efficiency
- Class II Input
- < 0.21W Off-load Power Draw



## DTM110-C Series

### 90-110W Medical AC-DC External Power Supplies

- 2 x MOPP Primary - Secondary
- 4kVAC Input - Output Isolation
- CEC, EISA & ErP Stage 2 Compliant
- Wide Range AC Input
- >87% Average Efficiency



## DTM165-C Series

### 160-165W Medical AC-DC External Power Supplies

- 2 x MOPP Primary - Secondary
- 4kVAC Input - Output Isolation
- CEC, ErP and EISA(1) Level V Compliant Models
- Wide Range AC Input
- >87% Average Efficiency



**NEW**



## DTM300-D Series

### 300W Medical Class I and II External Power Supplies

- 2 x MOPP Primary - Secondary
- 4kVAC Input - Output Isolation
- Meets DOE Level VI Efficiency
- Class I & II Inputs
- < 0.5W Off-load Power Draw
- Suitable for BF Rated Equipment







# DC-DC Converters

NEW



## PXC-M03

### 3W Medical DC-DC Converters

- 2 x MOPP Primary - Secondary
- 5kVAC Input - Output Isolation
- Industry Standard DIP-24 Package
- 9-36V or 18-75VDC Input
- 2.5uA Leakage Current
- Low Off-Load Power Draw



Convection

NEW



## PXC-M06

### 6W Medical DC-DC Converters

- 2 x MOPP Primary - Secondary
- 5kVAC Input - Output Isolation
- Industry Standard DIP-24 Package
- 9-36V or 18-75VDC Input
- 2.5uA Leakage Current
- Low Off-Load Power Draw



Convection

NEW



## PXC-M10

### 10W Medical DC-DC Converters

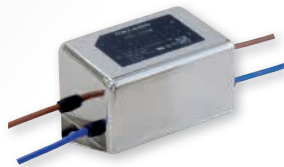
- 2 x MOPP Primary - Secondary
- 5kVAC Input - Output Isolation
- Industry Standard DIP-24 Package
- 9-36V or 18-75VDC Input
- 2.5uA Leakage Current
- Low Off-Load Power Draw



Convection



# EMC/EMI Filters



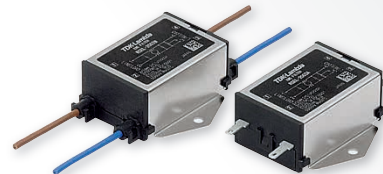
## RSAL Series

**0.5A – 6A, 250VAC EMI Filters**

- High Voltage Pulse Attenuation
- Lug or Wire Terminations
- Low Earth Leakage Current Option
- Conforms to UL, CSA and EN Safety Agency Certifications



Convection



## RSEL Series

**0.5A – 6A, 250VAC EMI Filters**

- Lower cost compared to the RSAL Series
- Lug or Wire Terminations
- Low Earth Leakage Current Option
- Conforms to UL, CSA and EN Safety Agency Certifications



Convection



## RSAN Series

**3A – 30A, 250VAC EMI Filters**

- High Voltage Pulse Attenuation
- DIN Rail Mount Option
- Low Earth Leakage Current Option
- Conforms to UL, CSA and EN Safety Agency Certifications



Convection



## RSEN Series

**3A – 30A, 250VAC EMI Filters**

- Lower cost compared to the RSHN Series
- DIN Rail Mount Option
- Low Earth Leakage Current Option
- Conforms to UL, CSA and EN Safety Agency Certifications



Convection



## RSHN Series

**3A – 30A, 250VAC EMI Filters**

- Two Stage Filter for Better Performance
- DIN Rail Mount Option
- Low Earth Leakage Current Option
- Conforms to UL, CSA and EN Safety Agency Certifications



Convection



## RSMN Series

**3A – 30A, 250VAC EMI Filters**

- High Voltage Pulse Attenuation
- Two Stage Filter for Better Performance
- DIN Rail Mount Option
- Low Earth Leakage Current Option
- Conforms to UL, CSA and EN Safety Agency Certifications



Convection



# EMC/EMI Filters



## SIFI F

### 3A – 36A, 250VAC EMI Filters

- Standard Attenuation
- Faston or Stud-Connection
- No Earth Leakage Current (no Y-Caps)
- Conforms to ENEC, UL and cUL Certifications



Convection



## SIFI G

### 2A – 36A, 250VAC EMI Filters

- Enhanced Attenuation
- Faston or Stud-Connection
- No Earth Leakage Current (no Y-Caps)
- Conforms to ENEC, UL and cUL Certifications



Convection



## SIFI H

### 3A – 36A, 250VAC EMI Filters

- Very High Attenuation
- Faston or Stud-Connection
- No Earth Leakage Current (no Y-Caps)
- Conforms to ENEC, UL and cUL Certifications



Convection



## B84771

### 1A – 20A, 250VAC IEC-EMI Filters

- IEC-Inlet C14 based on IEC60320-1
- Metal-case
- No Earth Leakage Current (no Y-Caps)
- Conforms to ENEC, UL and cUL Certifications



Convection



## B84773

### 1A – 10A, 250VAC IEC-EMI Filters including fuse

- IEC-Inlet C14 based on IEC60320-1
- Metal-case
- No Earth Leakage Current (no Y-Caps)
- Conforms to ENEC, UL and cUL Certifications



Convection



## B84776

### 1A – 10A, 250VAC IEC-EMI Filters including fuse and switch

- IEC-Inlet C14 based on IEC60320-1
- Metal-case
- No Earth Leakage Current (no Y-Caps)
- Conforms to ENEC, UL and cUL Certifications



Convection



In addition to our broad range of standard products, we offer a full bespoke service ranging from modified standards to full custom designs.

Our “Power+ Solutions” design teams are located close to all of our major markets for fast response.

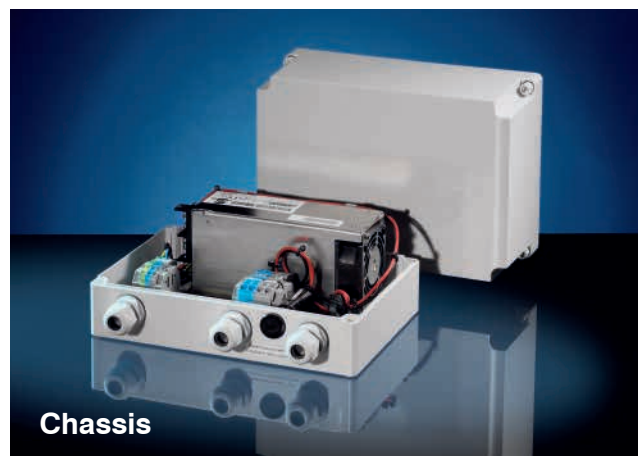
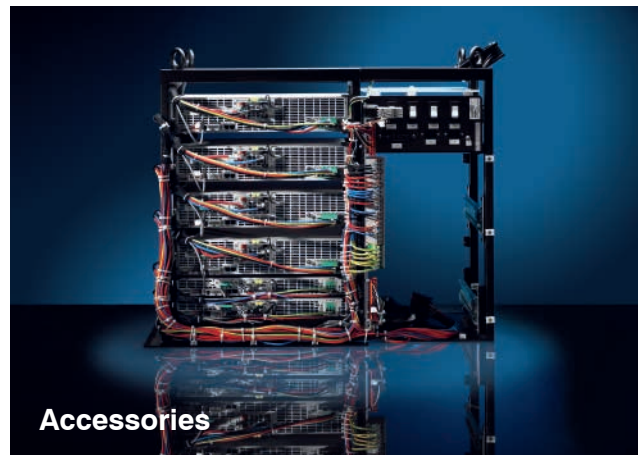
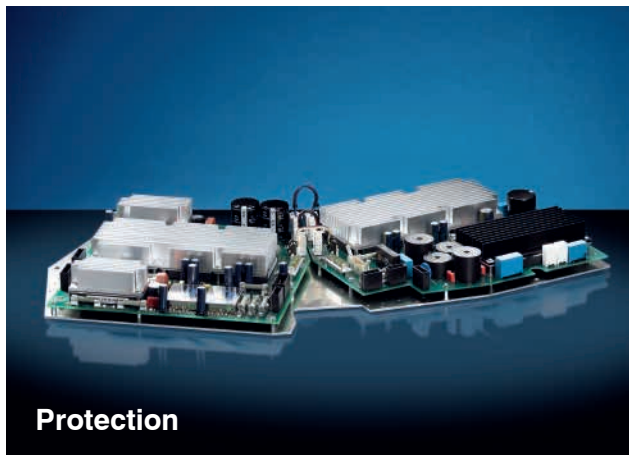
- **Modified Standard Power Supply**
- **Customized Power Supply**

## Modified Standard

Modifications (electrical or physical) to a Standard / Existing TDK-Lambda product.

The product retains the inherent reliability of the product from which it was modified.

Examples include Input/Output connector, signal, output voltage, color changes, conformal coating, firmware change, reduced leakage current, addition of test points or indicator lights, etc.



## Customized Power Supply

A customized power solution adding enhanced circuitry or packaging around a Standard/Existing TDK-Lambda Power Supply to meet customer's specifications.

Any TDK-Lambda supply may be used as a starting point and these customized solutions also retain the proven reliability of the product from which it was modified.

Examples include custom racks or enclosures, communications/control, ruggedization, special wire harnesses, switches, fuses, fans, heat sinks, and other additional functionality to a standard product.

# Healthcare Product Overview

## AC/DC

Product	Description	Output Power (W)	Outputs	Output Voltages (VDC)	Isolation I/p-o/p	Protection Class	Cooling
KMS15	Enclosed PCB Mount	9.9 - 15	1	3.3, 5, 9, 12, 15, 24	2x MOPP	Class II	Convection
KMD15	Enclosed PCB Mount	15	2	±5, ±12, ±15	2x MOPP	Class II	Convection
KMT15	Enclosed PCB Mount	15	3	5, ±12.5, ±15	2x MOPP	Class II	Convection
KMS40	Enclosed PCB Mount	26.4 - 40	1	3.3, 5, 9, 12, 15, 24	2x MOPP	Class II	Convection
KMD40	Enclosed PCB Mount	40	2	±5.5/12.5/24, ±12, ±15	2x MOPP	Class II	Convection
KMT40	Enclosed PCB Mount	40	3	5, ±12.5, ±15	2x MOPP	Class II	Convection
KMS15A	Enclosed PCB Mount	15	1	5, 9, 12, 15, 24	2x MOPP	Class II	Convection
KMS30A	Enclosed PCB Mount	25 - 30	1	5, 12, 15, 24	2x MOPP	Class II	Convection
KMS60A	Enclosed PCB Mount	51 - 60	1	5.1, 9, 12, 15, 24	2x MOPP	Class II	Convection
CUS30M	Open -frame	30	1	12, 15, 18, 24, 36, 48	2x MOPP	Class I /Class II	Convection
CUS60M	Open -frame	30 - 60	1	5, 12, 15, 18, 24, 36, 48	2x MOPP	Class I /Class II	Convection
HWS30A/ME	Enclosed	30	1	5, 12, 15, 24, 48	2x MOOP	Class I	Convection
HWS50A/ME	Enclosed	50	1	5, 12, 15, 24, 48	2x MOOP	Class I	Convection
CUT35	Open -frame	35	2 - 3	5, ±12, ±15	2x MOOP	Class I	Convection
ZMS100	Open -frame	80 - 100	1	12, 15, 24, 36, 48	2x MOPP	Class I /Class II	Convection/Forced air
HWS100A/ME	Enclosed	100	1	5, 12, 15, 24, 48	2x MOOP	Class I	Convection
CUS150M	Open -frame	120 - 150	1	12, 15, 18, 24, 28, 36, 48	2x MOPP	Class I /Class II	Convection/Forced air
HWS150A/ME	Enclosed	150	1	5, 12, 15, 24, 48	2x MOOP	Class I	Convection
NV175	Open -frame (configurable)	175 - 180	1 - 5	0.9 - 5.5, 12 - 15, 18 - 28	2x MOOP	Class I	Forced air
NVM175	Open -frame (configurable)	180	1	12, 24	2x MOPP	Class I	Forced air
NV175-M	Open -frame (configurable)	180	1 - 3	3.3, 5, 12 - 15, 18 - 28	2x MOPP	Class I	Forced air
CUS200M	Open -frame	200 - 250	1	12, 18, 24, 36, 48	2x MOPP	Class I	Convection/Forced air
NV300	Open -frame (configurable)	300	1 - 5	0.9 - 5.5, 12 - 15, 18 - 28	2x MOOP	Class I	Forced air
EFE300M	Open-frame	300	1	12, 24, 28, 48, 50	2x MOPP	Class I	Forced air
HWS300/ME	Enclosed - End fan	300	1	12, 15, 24, 48	2x MOOP	Class I	Forced air
CUS350M	U-Channel	350 - 420	1	12, 18, 24, 36, 48	2x MOPP	Class I	Convection/Forced air
NV350	Enclosed-End fan(configurable)	350 - 660	1 - 6	3.3 - 64	2x MOOP/MOPP <sup>1</sup>	Class I	Forced air
CFE400M	U-Channel	300 - 400	1	12, 24, 48	2x MOPP	Class I	Convection/Forced air
CFE400M(TF)	Enclosed -Top fan	400	1	12, 24, 48	2x MOPP	Class I	Convection/Forced air
EFE400M	Open-frame	400	1	12, 24, 48	2x MOPP	Class I	Forced air
XMS500(N)	Open-frame	500	1	12, 24, 36, 48	2x MOPP	Class I /Class II <sup>3</sup>	Forced air
XMS500(S)	U-Channel	500	1	12, 24, 36, 48	2x MOPP	Class I /Class II <sup>3</sup>	Forced air
XMS500(TF)	Enclosed -Top fan	500	1	12, 24, 36, 48	2x MOPP	Class I /Class II <sup>3</sup>	Forced air
HWS600/ME	Enclosed - End fan	600	1	5, 12, 15, 24, 48	2x MOOP	Class I	Forced air
Vega	Enclosed-End fan(configurable)	450 - 900	1 - 10	0.5 - 62	2x MOPP	Class I	Forced air
NV700	Enclosed-End fan(configurable)	700 - 1150	1 - 8	3.2 - 64	2x MOOP/MOPP <sup>1</sup>	Class I	Forced air
QM5	Enclosed-End fan(configurable)	700 - 1200	1 - 12	2.8 - 61.6	2x MOPP	Class I	Forced air
SWS1000L	Enclosed - End fan	1000	1	3.3, 5, 12, 15, 24, 36, 48, 60	2x MOPP	Class I	Forced air
RWS1000B/ME	Enclosed - End fan	1000	1	12, 15, 24, 36, 48	2x MOPP	Class I	Forced air
HWS1000/ME	Enclosed - End fan	1000	1	24, 36, 48	2XMOOP	Class I	Forced air
QS5-1200	Enclosed-End fan	1200 <sup>2</sup>	1	12, 24, 48	2x MOPP	Class I	Forced air
QS7-1200	Enclosed-End fan	1200	1	12, 24, 48	2x MOPP	Class I	Forced air
QM7	Enclosed-End fan(configurable)	1200 - 1500	1 - 16	2.8 - 61.6	2x MOPP	Class I	Forced air
RWS1500B/ME	Enclosed - End fan	1500	1	12, 15, 24, 36, 48	2x MOPP	Class I	Forced air
HWS1500/ME	Enclosed - End fan	1500	1	24, 36, 48	2x MOOP	Class I	Forced air

<sup>1</sup> configuration dependent · <sup>2</sup> 1200W highline 700W lowline · <sup>3</sup> optional

## External / Desktop Power Supplies

Product	Description	Output Power (W)	Outputs	Output Voltages (VDC)	Dimensions (mm) W x L x H	Protection Class	Cooling
DTM65-C8	External adapter	40 - 65	1	5, 12, 15, 19, 24, 28, 48	60 x 106 x 31	Class II	Convection
DTM65-C	External adapter	40 - 65	1	5, 12, 15, 18, 24, 36, 48	69 x 132 x 39.9	Class I	Convection
DTM110-C	External adapter	90 - 110	1	12, 13.5, 15, 19, 20, 24	170 x 64.8 x 38.5	Class I	Convection
DTM165-C	External adapter	160 - 165	1	12, 15, 19, 24, 28, 36, 48	85 x 170 x 44	Class I	Convection
DTM300-D	External adapter	300	1	12, 19, 24, 28, 48, 54	112 x 222 x 45	Class I / Class II	Convection

## DC/DC

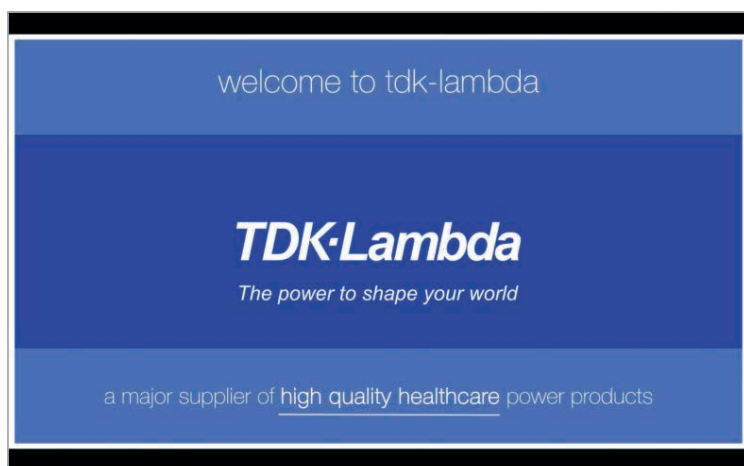
Product	Description	Output Power (W)	Outputs	Output Voltages (VDC)	Dimensions 10.2 x 20.3 x 31.8 mm 1.25 x 0.8 x 0.4"	Cooling
PXC-M03 (S)	Enclosed - PCB Mount	3	1	3.3, 5, 12, 15, 24	DIP-24 Package	Convection
PXC-M03 (D)	Enclosed - PCB Mount	3	2	±5, ±12, ±15	DIP-24 Package	Convection
PXC-M06 (S)	Enclosed - PCB Mount	6	1	3.3, 5, 12, 15, 24	DIP-24 Package	Convection
PXC-M06 (D)	Enclosed - PCB Mount	6	2	±5, ±12, ±15	DIP-24 Package	Convection
PXC-M10 (S)	Enclosed - PCB Mount	10	1	3.3, 5, 12, 15, 24	DIP-24 Package	Convection
PXC-M10 (D)	Enclosed - PCB Mount	10	2	±5, ±12, ±15	DIP-24 Package	Convection

## Filters

Product	Medical product code (_xx)	Description	Input (VAC)	Rated Current (A)	Cooling
RSAL-20xx	/L	Chassis Mount	250	0.5 - 6	Convection
RSEL-20xx	/L	Chassis Mount	250	0.5 - 6	Convection
RSAN-20xx	/L	Chassis Mount, Din rail optional	250	3 - 30	Convection
RSEN-20xx	/L	Chassis Mount, Din rail optional	250	3 - 30	Convection
RSHN-20xx	/L	Chassis Mount, Din rail optional	250	3 - 30	Convection
RSMN-20xx	/L	Chassis Mount, Din rail optional	250	3 - 30	Convection
SIFI F	M	Chassis Mount	250	3 - 36	Convection
SIFI G	M	Chassis Mount	250	2 - 36	Convection
SIFI H	M	Chassis Mount	250	3 - 36	Convection
B84771	M	IEC-Filter	250	1 - 20	Convection
B84773	M	IEC-Filter with fuse	250	1 - 10	Convection
B84776	M	IEC-Filter with fuse and switch	250	1 - 10	Convection

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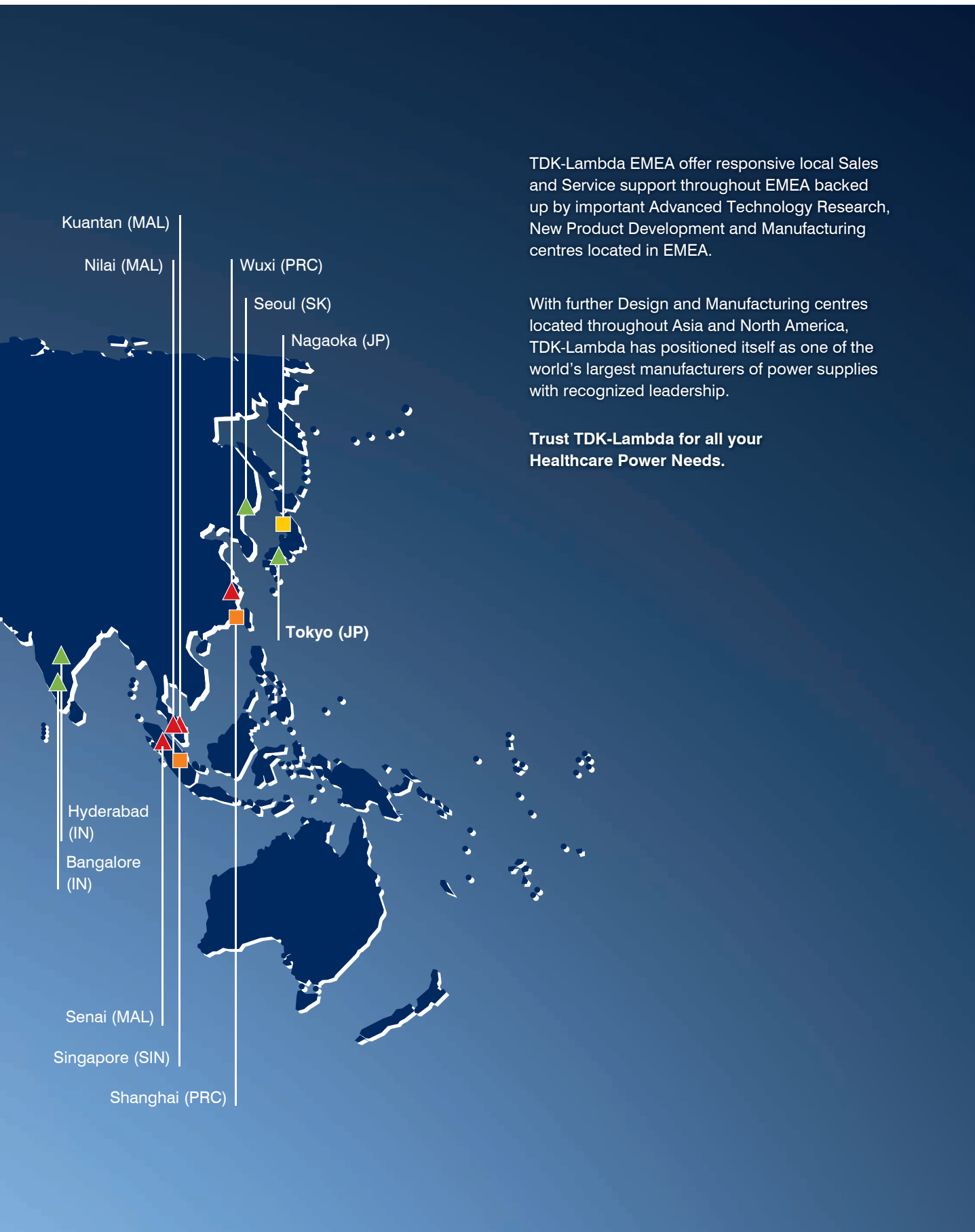


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**TDK-Lambda France SAS**  
3 avenue du Canada  
Parc Technopolis – Bâtiment Sigma  
91940 Les Ulis  
France  
Tel. +33 1 60 12 71 65  
Fax +33 1 60 12 71 66  
france@tdk-lambda.com  
www.fr.tdk-lambda.com



**Italy Sales Office**  
Via dei Lavoratori 128/130  
20092 Cinisello Balsamo (MI)  
Italy  
Tel. +39 02 61 29 38 63  
Fax +39 02 61 29 09 00  
info.italia@it.tdk-lambda.com  
www.it.tdk-lambda.com



**Netherlands**  
info@nl.tdk-lambda.com  
www.nl.tdk-lambda.com



**TDK-Lambda Germany GmbH**  
Karl-Bold-Strasse 40  
77855 Achern  
Tel. +49 7841 666 0  
Fax +49 7841 5000  
info@de.tdk-lambda.com  
www.de.tdk-lambda.com



**Austria Sales Office**  
Aredstrasse 22  
2544 Leobersdorf  
Austria  
Tel. +43 2256 655 84  
Fax +43 2256 645 12  
info@at.tdk-lambda.com  
www.at.tdk-lambda.com



**Nordic Sales Office**  
Haderslevvej 36B  
6000 Kolding  
Denmark  
Tel. +45 2911 9656  
info@dk.tdk-lambda.com  
www.dk.tdk-lambda.com



**Switzerland Sales Office**  
Bahnhofstrasse 50  
8305 Dietlikon  
Switzerland  
Tel. +41 44 850 53 53  
Fax +41 44 850 53 50  
info@ch.tdk-lambda.com  
www.ch.tdk-lambda.com



**TDK-Lambda UK Ltd.**  
Kingsley Avenue  
Ilfracombe  
Devon EX34 8ES  
United Kingdom  
Tel. +44 12 71 85 66 66  
Fax +44 12 71 86 48 94  
powersolutions@uk.tdk-lambda.com  
www.uk.tdk-lambda.com



**TDK-Lambda Ltd.**  
Kibbutz  
Givat Hashlosa 48800  
Israel  
Tel. +9 723 902 4333  
Fax. +9 723 902 4777  
info@tdk-lambda.co.il  
www.tdk-lambda.co.il



**C.I.S.**  
**Commercial Support:**  
Tel. +7 495 665-26 27  
**Technical Support:**  
St. Petersburg  
Tel. +7 812 658-04 63  
info@tdk-lambda.ru  
www.tdk-lambda.ru

## Local Distribution

Ihr Vertriebspartner:

**HY-LINE®**  
POWER COMPONENTS

Inselkammerstraße 10  
D-82008 Unterhaching  
Tel: +49 (0)89 614 503 10  
Fax +49 (0)89 614 503 20  
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URL: www.hy-line.de