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
A power supply is more than just an electronic device.

**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)

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

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.

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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

HWS30A/ME & HWS50A/ME
30W, 50W Medical Single Output Power Supplies
- 2 x MOPP Primary - Secondary
- 3kVAC Input - Output Isolation
- Suitable for BF Rated Equipment
- 85 - 265VAC Universal Input
- Limited Lifetime Warranty*
- cover option /MEA
- Working Altitude up to 4000m
- Low Earth Leakage < 500µA

**KMS-A Series**
15W, 30W, 60W Medical PCB-Mount Single Output Power Supplies
- 2 x MOOP 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

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

**CUT35 Series**
35W Medical 2” x 4” 2 & 3 Output Power Supplies
- 2 x MOOP 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

**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

NEW

Coming soon

* for details please visit our website
www.emea.tdk-lambda.com
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

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

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

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

NV175-M Series

180-200W Medical 3” x 5” Multiple Output Power Supplies
- 2 x MOPP 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

NVM175 Series

180W Medical 3” x 5” Single Output Power Supplies
- 2 x MOPP 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/in³)
- Suitable for 1U Applications

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* for details please visit our website
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 MOPP 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 Series
300W, 400W Medical Single Output Power Supplies
- 2 x MOPP 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 MOPP 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 MOPP 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

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

**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)

www.emea.tdk-lambda.com
AC-DC Power Supplies

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

HWS1000/ME & HWS1500/ME Series
1000W, 1500W Medical Single Output Power Supplies
- 2 x MOPP Primary - Secondary
- 3kVAC Input - Output Isolation
- Universal Input (85 - 265VAC)
- High Efficiency
- Limited Lifetime Warranty*
- Working Altitude up to 3000m
- Low Earth Leakage <500µA

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

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External / Desktop Power Supplies

**DTM65-C Series**

40-65W Medical AC-DC External Power Supplies
- 2 x MOPP Primary - Secondary
- 4kVAC Input - Output Isolation
- CE, EISA(1) & ErP Stage 2 Compliant
- Wide Range AC Input
- <0.21W Off-load Power Draw
- Meets DOE Level VI Efficiency
- Class II Input

**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
- 2 x MOPP Primary - Secondary
- 4kVAC Input - Output Isolation
- CE, EISA(1) & ErP Stage 2 Compliant
- Wide Range AC Input
- >87% Average Efficiency

**DTM110-C Series**

90-110W Medical AC-DC External Power Supplies
- 2 x MOPP Primary - Secondary
- 4kVAC Input - Output Isolation
- CE, 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
- CE, EISA and EISA(1) Level V Compliant Models
- Wide Range AC Input
- >87% Average Efficiency

**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

www.emea.tdk-lambda.com
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

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

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
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

**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

**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

**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

**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

**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

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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

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

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

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

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

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
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**

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

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
<th>Output Power (W)</th>
<th>Outputs</th>
<th>Output Voltages (VDC)</th>
<th>Isolation i/p-o/p</th>
<th>Protection Class</th>
<th>Cooling</th>
</tr>
</thead>
<tbody>
<tr>
<td>KMS15</td>
<td>Enclosed PCB Mount</td>
<td>8.9 - 15</td>
<td>1</td>
<td>3.3, 5, 9, 12, 15, 24</td>
<td>2x MOPP</td>
<td>Class II</td>
<td>Convection</td>
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<tr>
<td>KMD15</td>
<td>Enclosed PCB Mount</td>
<td>15</td>
<td>2</td>
<td>±5, ±12, ±15</td>
<td>Class III</td>
<td>Convection</td>
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<tr>
<td>KMT15</td>
<td>Enclosed PCB Mount</td>
<td>15</td>
<td>3</td>
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<td>Class II</td>
<td>Convection</td>
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<td>KMS40</td>
<td>Enclosed PCB Mount</td>
<td>26.4 - 40</td>
<td>1</td>
<td>3.3, 5, 9, 12, 15, 24</td>
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<td>Convection</td>
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<td>Convection</td>
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<td>Convection</td>
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<td>KMS90A</td>
<td>Enclosed PCB Mount</td>
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<td>Convection</td>
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<td>CUS320M</td>
<td>Open - frame</td>
<td>30</td>
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<td>2x MOPP</td>
<td>Class I</td>
<td>Class II</td>
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<td>CUS60M</td>
<td>Open - frame</td>
<td>30 - 60</td>
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<td>Class I</td>
<td>Class II</td>
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<td>30</td>
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<td>2x MOOP</td>
<td>Class I</td>
<td>Convection</td>
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<tr>
<td>HW50A/ME</td>
<td>Enclosed</td>
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<td>5, 12, 15, 24, 48</td>
<td>2x MOOP</td>
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<td>Convection</td>
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<td>CUS735</td>
<td>Open - frame</td>
<td>35</td>
<td>2 - 3</td>
<td>5, ±12, ±15</td>
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<td>Convection</td>
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<td>ZMS100</td>
<td>Open - frame</td>
<td>80 - 100</td>
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<td>Class I</td>
<td>Class II</td>
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<td>Convection</td>
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<td>CUS150M</td>
<td>Open - frame</td>
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<td>Class II</td>
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<tr>
<td>HWS150A/ME</td>
<td>Enclosed</td>
<td>150</td>
<td>1</td>
<td>5, 12, 15, 24, 48</td>
<td>2x MOOP</td>
<td>Class I</td>
<td>Convection</td>
</tr>
<tr>
<td>NV117S</td>
<td>Open - frame (configurable)</td>
<td>175 - 180</td>
<td>1</td>
<td>0.9, ±5.5, 0.9 - 15 - 28</td>
<td>2x MOOP</td>
<td>Class I</td>
<td>Forced air</td>
</tr>
<tr>
<td>NV117S</td>
<td>Open - frame (configurable)</td>
<td>180</td>
<td>1</td>
<td>12, 24</td>
<td>2x MOOP</td>
<td>Class I</td>
<td>Forced air</td>
</tr>
<tr>
<td>NV117S</td>
<td>Open - frame (configurable)</td>
<td>180</td>
<td>1</td>
<td>3.3, ±5.5, 0.9 - 15 - 28</td>
<td>2x MOOP</td>
<td>Class I</td>
<td>Forced air</td>
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<tr>
<td>CUS1950M</td>
<td>Open - frame</td>
<td>200 - 250</td>
<td>1</td>
<td>12, 18, 24, 36, 48</td>
<td>2x MOOP</td>
<td>Class I</td>
<td>Convection</td>
</tr>
<tr>
<td>NV30</td>
<td>Open - frame (configurable)</td>
<td>300</td>
<td>1</td>
<td>0.9, ±5.5, 0.9 - 15 - 28</td>
<td>2x MOOP</td>
<td>Class I</td>
<td>Forced air</td>
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<tr>
<td>EFE30S0M</td>
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<td>300</td>
<td>1</td>
<td>12, 24, 28, 48, 50</td>
<td>2x MOOP</td>
<td>Class I</td>
<td>Forced air</td>
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<tr>
<td>HWS300/ME</td>
<td>Enclosed - End fan</td>
<td>300</td>
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<td>12, 15, 24, 48</td>
<td>2x MOOP</td>
<td>Class I</td>
<td>Forced air</td>
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<tr>
<td>CUS300</td>
<td>U-Channel</td>
<td>350 - 420</td>
<td>1</td>
<td>12, 18, 24, 36, 48</td>
<td>2x MOOP</td>
<td>Class I</td>
<td>Convection</td>
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<tr>
<td>NV30</td>
<td>Enclosed - End fan (configurable)</td>
<td>350 - 660</td>
<td>1</td>
<td>3.3, ±64</td>
<td>2x MOOP/MOOP*</td>
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<td>Forced air</td>
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<tr>
<td>CFE400M</td>
<td>U-Channel</td>
<td>300 - 400</td>
<td>1</td>
<td>12, 24, 48</td>
<td>2x MOOP</td>
<td>Class I</td>
<td>Convection</td>
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<tr>
<td>CFE400M(TF)</td>
<td>Enclosed - Top fan</td>
<td>400</td>
<td>1</td>
<td>12, 24, 48</td>
<td>2x MOOP</td>
<td>Class I</td>
<td>Convection</td>
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<tr>
<td>EFE400M</td>
<td>Open-frame</td>
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<td>1</td>
<td>12, 24, 48</td>
<td>2x MOOP</td>
<td>Class I</td>
<td>Forced air</td>
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<tr>
<td>XMS5000(N)</td>
<td>Open-frame</td>
<td>500</td>
<td>1</td>
<td>12, 24, 36, 48</td>
<td>2x MOOP</td>
<td>Class I</td>
<td>Convection</td>
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<tr>
<td>XMS5000(S)</td>
<td>U-Channel</td>
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<td>2x MOOP</td>
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<td>Convection</td>
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<tr>
<td>XMS5000(TF)</td>
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<td>500</td>
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<td>2x MOOP</td>
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<td>Convection</td>
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<tr>
<td>HWS8000/ME</td>
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<td>2x MOOP</td>
<td>Class I</td>
<td>Forced air</td>
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<tr>
<td>Vega</td>
<td>Enclosed - End fan (configurable)</td>
<td>450 - 900</td>
<td>1</td>
<td>0.5, ±62</td>
<td>2x MOOP</td>
<td>Class I</td>
<td>Forced air</td>
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<tr>
<td>NV700</td>
<td>Enclosed - End fan (configurable)</td>
<td>700 - 1150</td>
<td>1</td>
<td>3.2, ±64</td>
<td>2x MOOP/MOOP*</td>
<td>Class I</td>
<td>Forced air</td>
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<tr>
<td>GM5</td>
<td>Enclosed - End fan (configurable)</td>
<td>700 - 1200</td>
<td>1</td>
<td>2.6, ±61.6</td>
<td>2x MOOP</td>
<td>Class I</td>
<td>Forced air</td>
</tr>
<tr>
<td>SWS1000L</td>
<td>Enclosed - End fan</td>
<td>1000</td>
<td>1</td>
<td>3.3, 5, 12, 15, 24, 36, 48, 60</td>
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<td>Class I</td>
<td>Forced air</td>
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<tr>
<td>RWS1000B/ME</td>
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<td>1000</td>
<td>1</td>
<td>12, 15, 24, 36, 48</td>
<td>2x MOOP</td>
<td>Class I</td>
<td>Forced air</td>
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<tr>
<td>HWS1000/ME</td>
<td>Enclosed - End fan</td>
<td>1000</td>
<td>1</td>
<td>12, 24, 48</td>
<td>2x MOOP</td>
<td>Class I</td>
<td>Forced air</td>
</tr>
<tr>
<td>Q5S-1200</td>
<td>Enclosed - End fan</td>
<td>1200</td>
<td>2</td>
<td>12, 24, 48</td>
<td>2x MOOP</td>
<td>Class I</td>
<td>Forced air</td>
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<tr>
<td>Q5S-1200</td>
<td>Enclosed - End fan</td>
<td>1200</td>
<td>1</td>
<td>12, 24, 48</td>
<td>2x MOOP</td>
<td>Class I</td>
<td>Forced air</td>
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<tr>
<td>QM</td>
<td>Enclosed - End fan (configurable)</td>
<td>1200 - 1500</td>
<td>1</td>
<td>2.6, ±61.6</td>
<td>2x MOOP</td>
<td>Class I</td>
<td>Forced air</td>
</tr>
<tr>
<td>RWS1500B/ME</td>
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<td>1500</td>
<td>1</td>
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<td>2x MOOP</td>
<td>Class I</td>
<td>Forced air</td>
</tr>
<tr>
<td>HWS1500/ME</td>
<td>Enclosed - End fan</td>
<td>1500</td>
<td>1</td>
<td>24, 36, 48</td>
<td>2x MOOP</td>
<td>Class I</td>
<td>Forced air</td>
</tr>
</tbody>
</table>

1 configuration dependent  
2 1200W highline  
700W lowline  
* optional

### External / Desktop Power Supplies

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
<th>Output Power (W)</th>
<th>Outputs</th>
<th>Output Voltages (VDC)</th>
<th>Dimensions (mm) W x L x H</th>
<th>Protection Class</th>
<th>Cooling</th>
</tr>
</thead>
<tbody>
<tr>
<td>DTM65-C8</td>
<td>External Adapter</td>
<td>40 - 65</td>
<td>1</td>
<td>5, 12, 15, 19, 24, 28, 36, 48</td>
<td>60 x 106 x 31</td>
<td>Class II</td>
<td>Convection</td>
</tr>
<tr>
<td>DTM65-C</td>
<td>External Adapter</td>
<td>40 - 65</td>
<td>1</td>
<td>5, 12, 15, 18, 24, 36, 48</td>
<td>69 x 132 x 39.9</td>
<td>Class I</td>
<td>Convection</td>
</tr>
<tr>
<td>DTM10-C</td>
<td>External Adapter</td>
<td>90 - 110</td>
<td>1</td>
<td>12, 13.5, 15, 19, 20, 24</td>
<td>170 x 64.8 x 38.5</td>
<td>Class I</td>
<td>Convection</td>
</tr>
<tr>
<td>DMT65-C</td>
<td>External Adapter</td>
<td>160 - 165</td>
<td>1</td>
<td>12, 15, 19, 24, 28, 36, 48</td>
<td>85 x 170 x 44</td>
<td>Class I</td>
<td>Convection</td>
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<tr>
<td>DTMS650D</td>
<td>External Adapter</td>
<td>300</td>
<td>1</td>
<td>12, 19, 24, 28, 48, 54</td>
<td>112 x 222 x 46</td>
<td>Class I</td>
<td>Class II</td>
</tr>
</tbody>
</table>

* configuration dependent  
* 1200W highline  
* 700W lowline  
* optional

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### DC/DC

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
<th>Output Power (W)</th>
<th>Outputs</th>
<th>Output Voltages (VDC)</th>
<th>Dimensions</th>
<th>Cooling</th>
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<tbody>
<tr>
<td>PXC-M03 (S)</td>
<td>Enclosed - PCB Mount</td>
<td>3</td>
<td>1</td>
<td>3.3, 5, 12, 15, 24</td>
<td>DIP-24 Package</td>
<td>Convection</td>
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<tr>
<td>PXC-M03 (D)</td>
<td>Enclosed - PCB Mount</td>
<td>3</td>
<td>2</td>
<td>±5, ±12, ±15</td>
<td>DIP-24 Package</td>
<td>Convection</td>
</tr>
<tr>
<td>PXC-M06 (S)</td>
<td>Enclosed - PCB Mount</td>
<td>6</td>
<td>1</td>
<td>3.3, 5, 12, 15, 24</td>
<td>DIP-24 Package</td>
<td>Convection</td>
</tr>
<tr>
<td>PXC-M06 (D)</td>
<td>Enclosed - PCB Mount</td>
<td>6</td>
<td>2</td>
<td>±5, ±12, ±15</td>
<td>DIP-24 Package</td>
<td>Convection</td>
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<tr>
<td>PXC-M10 (S)</td>
<td>Enclosed - PCB Mount</td>
<td>10</td>
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<td>3.3, 5, 12, 15, 24</td>
<td>DIP-24 Package</td>
<td>Convection</td>
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<tr>
<td>PXC-M10 (D)</td>
<td>Enclosed - PCB Mount</td>
<td>10</td>
<td>2</td>
<td>±5, ±12, ±15</td>
<td>DIP-24 Package</td>
<td>Convection</td>
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### Filters

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

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