

Power Supplies and DC-DC Converters



TDK-Lambda





Power Supply Solutions.

Worldwide

TDK-Lambda offers a broad range of standard power supplies for many applications. This brochure is designed to give a quick overview of complete product range.

To ease navigation the product ranges are sorted into special categories on the next page. Individual product information is abbreviated to the relevant data required to make an initial selection of possible models for your application. For detailed technical data, please follow the web link alongside each product highlight.

Each product page contains the following symbols to indicate the main applications that each product is designed for. The symbols are intended to give a quick guideline only and for many applications several different TDK-Lambda products will be suitable. For assistance in finding the best product for your application, please contact our technical sales department.



www.emea.tdk-lambda.com



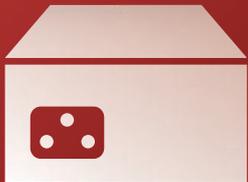
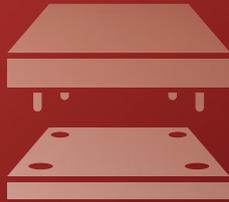
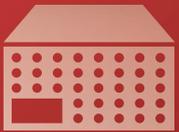
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AC-DC Power Supplies



Configurable

Configurable

Applications

Many but especially:

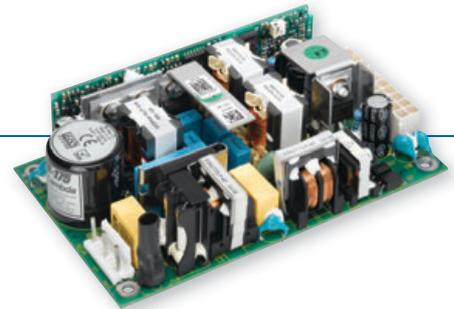
- Equipment needing several different or uncommon output voltages
- Systems with different output voltage requirements in same package style

Features

- 100W to 1500W output power
- 1 to 16 separate output voltages
- Single-phase, wide-range input
- Broad range of output voltages from 1.2V to 62Vdc
- Signal options on primary and secondary side
- Filter options with low leakage current for medical applications
- Cooling with integrated fans or external airflow (customer air)
- Safety approvals for international use
- Fast time to market
- Easy to configure with Quick Product Finder on TDK-Lambda website
- Combining outputs in parallel (for increased current or N+1 redundancy) and series (for increased output voltage) is possible with many of the product ranges, contact technical support for details

NVM175 – Series

180W



1 Output + standby

Isolation: 4.5kVac input to output (2 x MOPPs for IEC60601-1)
1.5kVac output to ground, 1.5kVac input to ground

Leakage current: <math><170\mu A</math>

Input fuse: Dual fuses (live and neutral)



Output power:	180W
Input voltage:	90 – 264Vac, 45 – 63Hz
Output voltage:	12 or 24Vdc
Efficiency:	Up to 90%, configuration dependent
Warranty:	3 years

More information: www.emea.tdk-lambda.com/nv

CFE400M – Series

300W, 400W, 450W



1 Output + standby

Environment: ErP compliant & 80+ Gold

Isolation: 4kVac input to output (2 x MOPPs for IEC60601-1)
1.5kVac output to ground, 1.5kVac input to ground



Output power:	300W convection, 400W fan cooled, 450W peak
Input voltage:	85 – 264Vac, 47 – 63Hz (440Hz with reduced PFC)
Output voltage:	12, 24 or 48Vdc (see datasheet for adjustment range)
Efficiency:	Up to 94% for 48Vdc and 24Vdc (91% for 12Vdc). At 230Vac, 80% load
Warranty:	5 years

More information: www.emea.tdk-lambda.com/cfe

EFE300 – Series

300W, 400W



Industrial



Test



Broadcast



Comms



Renewable



1 Output

High power density: 300W on 5 x 3 inch footprint

Input fuse: Dual fuses (live and neutral)

Peak power: 400W for up to 10 sec.



Air Flow



Fan

Output power:	300W continuous, 400W peak
Input voltage:	90 – 264Vac, 45 – 63Hz (440Hz with reduced PFC), 120 – 350Vdc
Output voltage:	12 or 24Vdc (non standard voltages available)
Efficiency:	Up to 90%
Warranty:	5 years

More information: www.emea.tdk-lambda.com/efe

EFE300M – Series

300W, 400W



Medical



Industrial



Test



Broadcast



Comms



Renewable



1 Output

High power density: 300W medical power on 6 x 3 inch footprint

Isolation: 4kVac input to output (2 x MOPPs for IEC60601-1)
1.5kVac output to ground, 1.5kVac input to ground



Air Flow



Fan

Output power:	300W continuous, 400W peak power
Input voltage:	90 – 264Vac, 45 – 63Hz (440Hz with reduced PFC), 120 – 350Vdc
Output voltage:	12, 24, 28, 48 or 50Vdc (non standard voltages available)
Efficiency:	Up to 90% (87% if Standby Supply is fully loaded)
Warranty:	5 years

More information: www.emea.tdk-lambda.com/efe-m

Configurable

Desktop

Chassis mount

PCB mount

DIN-Rail

LED

Rack mount

Programmable

DC-DC

Value Added

EFE400 – Series

400W, 530W



Industrial



Test



Broadcast



Comms



Renewable



1 Output + standby

High power density: 400W on 6 x 3 inch footprint

Input fuse: Dual fuses (live and neutral)

Peak power: 530W for up to 10 sec.



Air Flow



Fan

Output power:	400W continuous, 530W peak power
Input voltage:	90 – 264Vac, 45 – 63Hz (440Hz with reduced PFC), 120 – 350Vdc
Output voltage:	12 or 24Vdc (non standard voltages available)
Efficiency:	Up to 90%
Warranty:	5 years

More information: www.emea.tdk-lambda.com/efe

EFE400M – Series

400W, 530W



Medical



Industrial



Test



Broadcast



Comms



Renewable



1 Output

High power density: 400W on 6.5 x 3.5 inch footprint

Isolation: 4kVac input to output (2 x MOPPs for IEC60601-1)
1.5kVac output to ground, 1.5kVac input to ground



Air Flow



Fan

Output power:	400W continuous, 530W peak power
Input voltage:	90 – 264Vac, 45 – 63Hz (440Hz with reduced PFC), 120 – 350Vdc
Output voltage:	12, 24 or 48Vdc (non standard voltages available)
Efficiency:	Up to 90% (87% if Standby Supply is fully loaded)
Warranty:	5 years

More information: www.emea.tdk-lambda.com/efe-m

NV175M – Series

180W, 200W



Medical



Industrial



Test



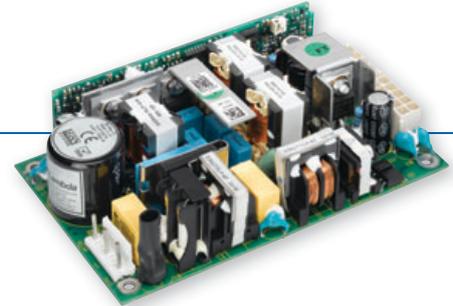
Broadcast



Comms



Renewable



1 to 3 Outputs

Isolation: 4kVac input to output (2 x MOPPs for IEC60601-1)
200Vdc output to ground, 1.5kVac input to ground

Case Styles: Multiple options from open frame, to closed case with IEC and fan.



Air Flow



Fan

Output power:	180W fan cooled, 200W peak power
Input voltage:	90 – 264Vac, 45 – 63Hz
Output voltage:	Output 1: 12, 15 or 24Vdc; Output 2: 12, 15 or 24Vdc; Output 3: 3.3, 5, 12, 15Vdc
Efficiency:	Up to 90%, configuration dependent
Warranty:	3 years

More information: www.emea.tdk-lambda.com/nv

NV100 – Series

100W



Industrial



Test



Broadcast



Comms



Renewable



4 Outputs

Efficiency: Up to 90%

Working altitude: –200 to 3000m

Connection: Single output connector



Convection



Air Flow

Output power:	100W fan cooled, 50W convection cooled
Input voltage:	90 – 264Vac, 45 – 63Hz, (440Hz with reduced PFC), 120 – 350Vdc
Output voltage:	Output 1: 5 or 24Vdc, Output 2: 3.3 or 5Vdc Output 3: 12, 15 or 24.5Vdc, Output 4: 12 or 15Vdc
Efficiency:	Up to 90%, configuration dependent
Warranty:	3 years

More information: www.emea.tdk-lambda.com/nv

NV175 – Series

180W, 200W



1 to 4 Outputs + standby option

Isolation: 3kVac input to output (2 x MOOPs for IEC60601-1)
200Vdc output to ground, 1.5kVac input to ground

Controls & signals: Industry standard or ATX compatible

Case Styles: Multiple options from open frame, to closed case with IEC and fan.



Output power:	5V channel 1 are 175W (no peak power), all others are 180W (200W peak power)
Input voltage:	90 – 264Vac, 45 – 63Hz, (440Hz with reduced PFC), 120 – 350Vdc
Output voltage:	Output 1: 5, 12, 15 or 24Vdc; Output 2: 1.8, 2.7, 3.3 or 5Vdc; Output 3: 12, 15, 24Vdc; Output 4: 3.3, 5, 12 or 15Vdc
Efficiency:	Up to 90%, configuration dependent
Warranty:	3 years

More information: www.emea.tdk-lambda.com/nv

NV300 – Series

300W



1 to 4 Outputs + standby option

Isolation: 3kVac input to output (2 x MOOPs for IEC60601-1)
200Vdc output to ground, 1.5kVac input to ground

Controls & signals: ATX compatible



Output power:	300W
Input voltage:	90 – 264Vac, 45 – 63Hz, (440Hz with reduced PFC), 120 – 350Vdc
Output voltage:	Output 1: 5, 12 or 24Vdc; Output 2: 1.8, 2.7, 3.3, 5, 12 or 15Vdc; Output 3: 12, 15 or 24Vdc; Output 4: 3.3, 5, 12 or 15Vdc
Efficiency:	Up to 90%, configuration dependent
Warranty:	3 years

More information: www.emea.tdk-lambda.com/nv

NV350 – Series

350W, 660W, 740W



1 to 6 Outputs + standby option

- High flexibility:** 10 single and 14 dual output modules available
- Isolation:** 3kVac input to output (2 x MOOPs for IEC60601-1)
4kVac input to output (2 x MOPPs) products available
- Controls & signals:** 8 primary (global) and 4 secondary options



Output power:	350W at wide range input, 660W at high line, 740W peak power, fan cooled
Input voltage:	90 – 264Vac, 47 – 63Hz, (440Hz with reduced PFC)
Output voltage:	3.2 to 63Vdc / up to 40A
Efficiency:	Up to 90%, configuration dependent
Warranty:	3 years

More information: www.emea.tdk-lambda.com/nv350-700

NV700 – Series

700W, 1150W, 1450W



1 to 8 Outputs + standby option

- High flexibility:** 10 single and 14 dual output modules available
- Isolation:** 3kVac input to output (2 x MOOPs for IEC60601-1)
4kVac input to output (2 x MOPPs) products available
- Controls & signals:** 8 primary (global) and 4 secondary options



Output power:	700W at wide range input, 1150W at high line, 1450W peak power, fan cooled
Input voltage:	90 – 264Vac, 47 – 63Hz, (440Hz with reduced PFC)
Output voltage:	3.2 to 63Vdc / up to 40A
Efficiency:	Up to 90%, configuration dependent
Warranty:	3 years

More information: www.emea.tdk-lambda.com/nv350-700

Vega Lite – Series

550W, 750W, 900W



1 to 11 Outputs + standby option

High flexibility:	21 single and 7 dual output modules available
Isolation:	4kVac input to output (2 x MOPPs for IEC60601-1) 200Vdc output to ground, 1.5kVac input to ground
Operational Altitude:	Up to 5000m, application dependent



Output power:	550 or 750W with wide range input (converter dependent), 900W at high line
Input voltage:	85 – 264Vac, 47 – 63Hz, (440Hz with reduced PFC)
Output voltage:	1.8 to 56Vdc up to 60A, wide range adjustable
Efficiency:	Up to 75%, 230Vac & 100% rated power, configuration dependent
Warranty:	3 years

More information: www.emea.tdk-lambda.com/vega-lite

Vega – Series

450W, 650W, 900W



1 to 11 Outputs + standby option

Highest flexibility:	45 single and 25 dual output modules available
Isolation:	4kVac input to output (2 x MOPPs for IEC60601-1) 200Vdc output to ground, 1.5kVac input to ground
Operational Altitude:	Up to 5000m, application dependent



Output power:	450 or 650W with wide range input (converter dependent), 900W at high line
Input voltage:	90 – 264Vac, 47 – 63Hz, (440Hz with reduced PFC)
Output voltage:	1.8 to 62Vdc up to 40A, programmable modules also available
Efficiency:	Up to 75%, at 230Vac & 100% rated power, configuration dependent
Warranty:	3 years

More information: www.emea.tdk-lambda.com/vega

Vega-DC – Series

450W



1 to 11 Outputs + standby option

Highest flexibility: 45 single and 25 dual output modules available

Operational Altitude: Up to 5000m, application dependent



Output power:	450W
Input voltage:	34 – 75Vdc (derating below 44Vdc to 340W)
Output voltage:	1.8 to 62Vdc up to 40A, programmable modules also available
Efficiency:	Up to 75%, at 48Vdc & 100% rated power, configuration dependent
Warranty:	3 years

More information: www.emea.tdk-lambda.com/vega

Alpha – Series

1000W, 1500W



1 to 14 and 1 to 16 Outputs + standby option

High flexibility: 21 single and 5 dual output modules available

Number of outputs: 1 to 14 with Alpha1000, 1 to 16 with Alpha1500

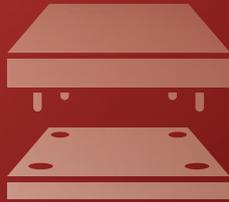
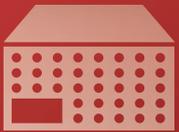


Output power:	1000W with wide range input, 1500W at high line
Input voltage:	85 – 264Vac, 47 – 63Hz
Output voltage:	1.8 to 48Vdc up to 60A, wide range adjustable
Efficiency:	Up to 75%, at 230Vac & 100% rated power, configuration dependent
Warranty:	3 years

More information: www.emea.tdk-lambda.com/alpha



AC-DC Power Supplies



External/Deskop

Applications

- External power supplies as accessory for end equipment
- Typically used for portable equipment

Features

- Fully enclosed plastic case
- Plug and play – no input range setting or output voltage adjustment required
- IEC mains input connection
- DC output cable and connector
- ErP, CEC and EISA compliant models
- DTM series suitable for medical equipment

DTM65 – Series

60 – 65W



Medical



Industrial



Test



Broadcast



Comms



Case:	Enclosed plastic case IEC320-C14 input connector
Power losses:	Conforms to ErP, CEC and EISA regulations
Safety:	EN/UL 60601-1 for medical equipment CE marked for Low Voltage Directive



Convection

Output power:	60 – 65W, convection cooled
Input voltage:	90 – 264Vac, 47 – 63Hz
Output voltage:	12, 15, 18, 24, 36 or 48Vdc
Efficiency:	87% average efficiency
Warranty:	2 years

More information: www.emea.tdk-lambda.com/dtm

DTM110 – Series

90 – 110W



Medical



Industrial



Test



Broadcast



Comms



Case:	Enclosed plastic case IEC320-C14 input connector
Power losses:	Conforms to ErP, CEC and EISA regulations
Safety:	EN60601-1 for medical equipment CE marked for Low Voltage Directive



Convection

Output power:	90 – 110W, convection cooled
Input voltage:	90 – 264Vac, 47 – 63Hz
Output voltage:	12, 13.5, 15, 19, 20 or 24Vdc
Efficiency:	87% average efficiency
Warranty:	2 years

More information: www.emea.tdk-lambda.com/dtm

DT150 – Series

140 – 150W



Industrial



Test



Broadcast



Comms



Case:	Enclosed plastic case IEC320-C14 input connector
Power losses:	Conforms to ErP, CEC and EISA regulations
Safety:	EN/CSA60950-1 for ITE / industrial equipment CE marked for Low Voltage Directive



Convection

Output power:	140 – 150W, convection cooled
Input voltage:	90– 264Vac, 47 – 63Hz
Output voltage:	12, 16, 19, 24, 36 or 48Vdc
Efficiency:	87% average efficiency
Warranty:	2 years

More information: www.emea.tdk-lambda.com/dt-c

Coming soon

DTM165 – Series

165W



Medical



Industrial



Test



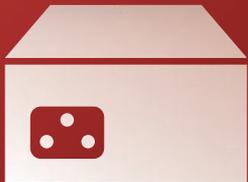
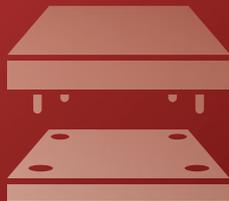
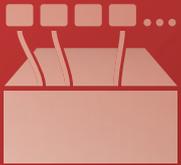
Broadcast



Comms



AC-DC Power Supplies



Chassis mount

Chassis mount

Applications

- Embedded (built-in) power supplies for a broad range of applications
- Suitable for industrial applications, automation, test equipment
- High reliability and low cost products available

Features

- 5 to 2500W output power
- Single-phase wide range input 85 – 265Vac
- Power factor correction meets EN61000-3-2 class A harmonics
- Input/output connection with screw terminals or PCB connectors
- Enclosed or open frame case style
- Safety meets EN/IEC/UL 60950-1 standard. CE marked for Low Voltage Directive

HWS-15A to HWS-150A – Series

15 – 150W



New: A-version with enhanced efficiency up to 91%
Direct replacement for HWS15-HWS150

Input: Wide range 85 – 265Vac without derating

Operating temperature: Up to 70°C



Convection

Output power:	15, 30, 50, 100, 150W
Input voltage:	85 – 264Vac, 47 – 63Hz or 120 – 370Vdc
Output voltage:	3.3, 5, 12, 15, 24 or 48Vdc
Efficiency:	Up to 91%
Warranty:	Lifetime*

More information: www.emea.tdk-lambda.com/hws_a

HWS300 to HWS600 – Series

300 – 600W



High efficiency: Up to 86%

Size: Unique height of 82mm

Input: Wide range 85 – 265Vac without derating



Fan

Output power:	300, 600W
Input voltage:	85 – 264Vac, 47 – 63Hz or 120 – 330Vdc
Output voltage:	3.3, 5, 12, 15, 24 or 48Vdc
Efficiency:	Up to 86%
Warranty:	Lifetime*

More information: www.emea.tdk-lambda.com/hws

* See TDK-Lambda's Terms & Conditions on our Website

HWS1000 to HWS1500 – Series

1000 – 1500W



Industrial



Test



Broadcast



Comms



LED



Size:

Unique height of 82mm

Output:

Remote voltage programming



Fan

Output power:	1000, 1500W
Input voltage:	85 – 264Vac, 47 – 63Hz or 120 – 330Vdc
Output voltage:	3.3, 5, 6, 7, 12, 15, 24, 36, 48 or 60Vdc
Efficiency:	Up to 90%
Warranty:	Lifetime*

More information: www.emea.tdk-lambda.com/hws

Chassis mount

HWS300P / HWS600P – Series

300 / 600W



Industrial



Test



Peak power capability:

**Up to 1008 Watt for 5 sec. for HWS-300P
Up to 1998 Watt for 5 sec. for HWS-600P**



Fan

Output power:	300, 600W
Input voltage:	85 – 264Vac, 47 – 63Hz or 120 – 330Vdc
Output voltage:	24, 36 or 48Vdc
Efficiency:	Up to 87%
Warranty:	Lifetime*

More information: www.emea.tdk-lambda.com/hws-p

* See TDK-Lambda's Terms & Conditions on our Website

HWS-A/ME / HWS/ME – Series

30–150W / 300–1500W



Medical

Warranty: Lifetime warranty
Highest reliability

Medical use: Reduced leakage current for medical applications

Safety: EN60601-1 for basic insulation



Output power:	30, 50, 100, 150, 300, 600, 1000, 1500W
Input voltage:	85 – 264Vac, 47 – 63Hz or 120 – 370Vdc
Output voltage:	3.3, 5, 12, 15, 24 or 48Vdc
Efficiency:	Up to 91%
Warranty:	Lifetime*

More information: www.emea.tdk-lambda.com/hws-me

HWS-A/HD / HWS/HD – Series

30–150W / 300–1500W



Industrial



Test



Broadcast



Comms



LED



COTS

Operation: Coating for harsh environmental conditions

Input: Wide range 85 – 265Vac without derating

Safety: EN/IEC/UL609501-1



Output power:	30, 50, 100, 150, 300, 600, 1000, 1500W
Input voltage:	85 – 264Vac, 47 – 63Hz or 120 – 370Vdc
Output voltage:	3.3, 5, 12, 15, 24 or 48Vdc
Efficiency:	Up to 91%
Warranty:	Lifetime*

More information: www.emea.tdk-lambda.com/hws-hd

* See TDK-Lambda's Terms & Conditions on our Website

HWS600L/BAT – Series

600W



Industrial



Test



Comms



Broadcast



Suitable for battery-charging

Current limit: Constant current mode
Adjustable with internal potentiometer

Output voltage control: Analog input to program 20 – 120%
of nominal output with 1 – 6Vdc



Fan

Output power:	600W
Input voltage:	85 – 265Vac, 47 – 63Hz or 120 – 350Vdc
Output voltage:	36 or 60Vdc
Efficiency:	Up to 86%
Warranty:	3 years

HWS1000L/BAT – Series

1000W



Medical



Test



Industrial



Comms



Broadcast



Suitable for battery-charging

Current limit: Constant current mode
Adjustable with internal potentiometer

Output voltage control: Analog input to program 20 – 120%
of nominal output with 1 – 6Vdc



Fan

Output power:	1000W
Input voltage:	85 – 265Vac, 47 – 63Hz or 120 – 350Vdc
Output voltage:	36 or 60Vdc
Efficiency:	Up to 86%
Warranty:	3 years

LZSa – Series

500 – 1500W



Line dips: SEMI F47 compliant above 100VAC input
Operation temperature: -40°C to +71°C
Vibration / shock: MIL-STD-810E
Output: Wide output voltage adjustment range



Output power:	500, 1000, 1500W
Input voltage:	85 – 264Vac, 47 – 63Hz or 100 – 400Vdc
Output voltage:	12, 24 or 48Vdc
Efficiency:	Up to 84%
Warranty:	5 years

More information: www.emea.tdk-lambda.com/lzsa



CPFE – Series

500 – 1000W



Cooling: Fanless operation
 Conduction cooling via baseplate
 Parallel operation with active current share
Control: I²C Interface on CPFE1000F



Output power:	500, 1000W
Input voltage:	90 – 265Vac, 47 – 63Hz
Output voltage:	12, 28 or 48Vdc
Efficiency:	Up to 86%
Warranty:	2 years

More information: www.emea.tdk-lambda.com/cpfe



RWS-B – Series

50W, 100W, 150W



Size: High power density
Reliability: Long E-Cap lifetime
Mounting: Optional DIN-Rail bracket



Convection

Output power:	50, 100, 150W
Input voltage:	85 – 265Vac, 47 – 63Hz or 120 – 370Vdc
Output voltage:	5, 12, 24 or 48Vdc
Efficiency:	Up to 89%
Warranty:	5 years

More information: www.emea.tdk-lambda.com/rws-b

Chassis mount

RWS-B – Series

300 – 600W



Size: High power density
Low noise: Fan stops at no load operation
Reliability: Long E-Cap lifetime
Optional: Signals (RWS-600B)



Fan

Output power:	300 – 600W
Input voltage:	85 – 265Vac, 47 – 63Hz or 120 – 370Vdc
Output voltage:	5, 12, 15, 24, 36 or 48Vdc
Efficiency:	Up to 88%
Warranty:	5 years

More information: www.emea.tdk-lambda.com/rws-b

SWS600L – Series

600W



Industrial



Test



LED



Comms



Dimensions:

Low profile

Temperature:

Wide operating temperature range up to 74°C

Output voltage control:

Analog input for remote programming of output voltage from 20–120%



Fan

Output power:	600W
Input voltage:	85 – 265Vac, 47 – 63Hz or 120 – 350Vdc
Output voltage:	3.3, 5, 12, 15, 24, 36, 48 or 60Vdc
Efficiency:	Up to 86%
Warranty:	3 years

More information:

www.emea.tdk-lambda.com/sws

SWS1000L – Series

1000W



Industrial



Test



LED



Comms



Medical



Temperature:

Wide operating temperature range up to 74°C

Safety:

Medical approval EN/IEC/UL 60601-1

Output voltage control:

Analog input for remote programming of output voltage from 20–120%



Fan

Output power:	100W
Input voltage:	85 – 265Vac, 47 – 63Hz or 120 – 350Vdc
Output voltage:	3.3, 5, 12, 15, 24, 36, 48 or 60Vdc
Efficiency:	Up to 86%
Warranty:	3 years

More information:

www.emea.tdk-lambda.com/sws

LS25 to LS150 – Series

25 – 150W



Industrial



Test



Broadcast



Comms



LED



High efficiency:

Up to 87%

Temperature:

Wide operating temperature range up to 70°C

Low cost



Convection

Output power:	25, 35, 50, 75, 100, 150W
Input voltage:	88 – 264Vac, 47 – 63Hz or 125 – 373Vdc
Output voltage:	3.3, 5, 12, 15, 24, 36 or 48Vdc
Efficiency:	Up to 87%
Warranty:	3 years

More information: www.emea.tdk-lambda.com/ls

LS200 – Series

200W



Industrial



Test



Broadcast



Comms



LED



Peak-Power:

250W peak rating on 24V & 36V models

High efficiency:

Up to 85%

Size:

Only 41mm high for 1U integration



Convection



Fan

Output power:	200W
Input voltage:	85 – 264Vac, 47 – 63Hz or 120 – 373Vdc
Output voltage:	3.3, 5, 7.5, 12, 15, 24, 36 or 48Vdc
Efficiency:	Up to 85%
Warranty:	3 years

More information: www.emea.tdk-lambda.com/ls

GWS250 – Series

250W



Industrial



Test



Broadcast



Comms



LED



Dimensions: 1U height

Eco-design: Standby Power Draw < 0.5 Watt
Built to meet ErP directive

Harmonics: Conforms to class C for lighting equipment



Convection

Output power:	250W
Input voltage:	85 – 264Vac (300Vac for 5 sec.), 47 – 63Hz or 120 – 373Vdc
Output voltage:	12, 24, 36 or 48Vdc
Efficiency:	Up to 93%
Warranty:	5 years

More information: www.emea.tdk-lambda.com/gws

GWS500 – Series

500W



Industrial



Test



Broadcast



Comms



LED



Dimensions: 1U height

Eco-design: Standby Power Draw < 0.5 Watt
Built to meet ErP directive

Harmonics: Conforms to class C for lighting equipment



Fan

Output power:	500W
Input voltage:	85 – 264Vac (300Vac for 5 sec.), 47 – 63Hz or 120 – 373Vdc
Output voltage:	5, 7.5, 12, 24, 36 or 48Vdc
Efficiency:	Up to 90%
Warranty:	5 years

More information: www.emea.tdk-lambda.com/gws

GWS/BAT – Series

250 – 500W



Industrial



Test



Broadcast



Comms



LED



- Dimensions:** 1U height
- Suitable:** For battery-charging
- Current limit:** Constant current mode
- Output voltage control:** Output voltage can be varied by applying an external voltage (3-6V)



Convection



Fan

Output power:	250W, 500W
Input voltage:	85 – 264Vac (300Vac for 5 sec.), 47 – 63Hz or 120 – 373Vdc
Output voltage:	24 (28.8) or 48 (57.6)Vdc
Efficiency:	Up to 93%
Warranty:	5 years

CUS250LD – Series

250W



Test



Broadcast



Comms



LED



- Low profile:** Only 30mm height
- Operation temperature:** –25°C to +70°C
- Cooling:** Natural convection
- Output:** Typical voltages for LED supply



Convection

Output power:	Up to 250W
Input voltage:	85 – 265Vac, 47 – 63Hz or 120 – 370Vdc
Output voltage:	3.3, 4.2, 5, 12 or 24Vdc
Efficiency:	Up to 90%
Warranty:	3 years

More information: www.emea.tdk-lambda.com/cus

RFE2500 – Series

2500W



Industrial



Test



Comms

High efficiency:	Meet 80+ Standard platinum/gold
Redundancy:	n+1 operation with integrated ORing FET
Paralleling:	With active current share
Signalling:	Full array of signals



Fan

Output power:	2500W
Input voltage:	85 – 265Vac, 47 – 63Hz
Output voltage:	12, 24, 32 or 48Vdc
Efficiency:	Up to 92%
Warranty:	3 years

More information: www.emea.tdk-lambda.com/rfe

RFE1600 – Series

1600W



Industrial



Test



Comms

High efficiency:	Meet 80+ Standard gold
Redundancy:	n+1 operation with integrated ORing FET
Size:	Flat shape for 1U integration
Input:	Wide range 85 – 265Vac



Fan

Output power:	1600W
Input voltage:	85 – 265Vac, 47 – 63Hz
Output voltage:	12, 24 or 48Vdc
Efficiency:	Up to 92%
Warranty:	3 years

More information: www.emea.tdk-lambda.com/rfe



RFE1000 – Series

1000W



High efficiency: Up to 89%
Redundancy: n+1 operation with integrated ORing diode
Size: Flat shape for 1U integration
Input: Wide range 85 – 265Vac without derating

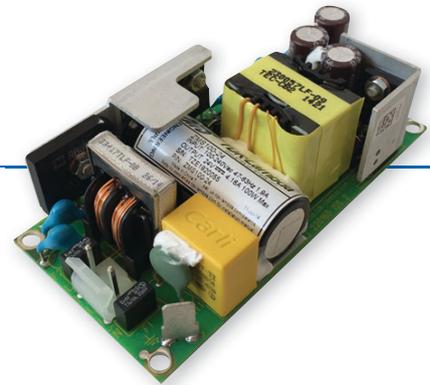


Output power:	1000W
Input voltage:	85 – 264Vac, 47 – 63Hz
Output voltage:	24, 32 or 48Vdc
Efficiency:	Up to 89%
Warranty:	2 years

More information: www.emea.tdk-lambda.com/rfe

ZMS – Series

100W



ErP compliant 2" x 4" power supply
Isolation: 2 MOPP for medical applications
Safety: EN60601-1 for Medical
 EN60950-1 for Industrial /IT...



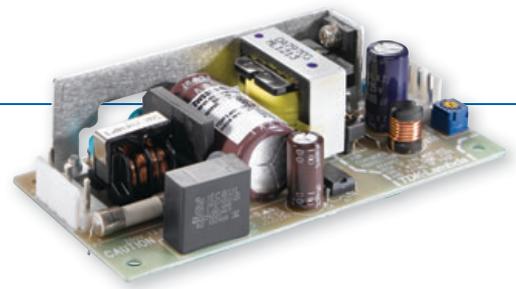
Output power:	100W (80W with convection cooling)
Input voltage:	90 – 265Vac, 47 – 63Hz
Output voltage:	12, 15, 24, 36 or 48Vdc
Efficiency:	Up to 90%
Warranty:	3 years

More information: www.emea.tdk-lambda.com/zms

Chassis mount

ZWS-B – Series

10 – 30W



Warranty: Highest reliability
10 year E-Cap lifetime

Operating temperature: -10°C to +70°C

Eco-design: No load input power <0,5W



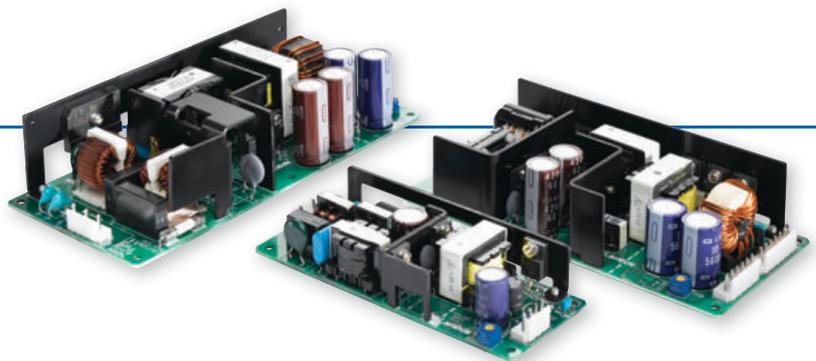
Convection

Output power:	10, 15, 30W
Input voltage:	85 – 264Vac, 47 – 63Hz or 120 – 370Vdc
Output voltage:	3.3, 5, 12, 15, 24 or 48Vdc
Efficiency:	Up to 88%
Warranty:	5 years

More information: www.emea.tdk-lambda.com/zws-b

ZWS-BAF – Series

50 – 300W



Warranty: 5 years

High efficiency: Up to 88%

Input: 85 – 264Vac, 47 – 63Hz or 120 – 370Vdc



Convection

Output power:	50, 75, 100, 150, 300W
Input voltage:	85 – 264Vac, 47 – 63Hz or 120 – 370Vdc
Output voltage:	3.3, 5, 12, 15, 24 or 48Vdc
Efficiency:	Up to 91%
Warranty:	5 years

More information: www.emea.tdk-lambda.com/zws-baf

ZWS-BP – Series

150 – 240W



Industrial



Test



Broadcast



Comms



LED



Warranty: **High reliability**
10 year E-Cap lifetime

Peak power capability: **200% for up to 5 sec. (duty: 0.35)**

Operating temperature: **-10°C to +70°C**



Convection

Output power:	150, 240W
Input voltage:	85 – 264Vac, 47 – 63Hz or 120 – 370Vdc
Output voltage:	24, 36 or 48Vdc
Efficiency:	Up to 88%
Warranty:	5 years

More information: www.emea.tdk-lambda.com/zws-bp

ZWD-PAF – Series

100 – 225W



Industrial



Test



Peak power capability: **200% for up to 5 sec. (duty: 0.35)**
on main output

Operating temperature: **-10°C to +70°C**

Input: **Wide range 85 – 265Vac**



Convection

Output power:	100, 150, 225W
Input voltage:	85 – 265Vac, 47 – 63Hz or 120 – 370Vdc
Output voltage:	5Vdc main, 24Vdc second
Efficiency:	83%
Warranty:	2 years

More information: www.emea.tdk-lambda.com/zwd-paf

CUT75 – Series

75W



Industrial



Test



Broadcast



Comms



Output: Triple output power supply without minimum load requirement
Case: L-bracket and cover option



Convection

Output power:	75W
Input voltage:	85 – 265Vac, 47 – 63Hz or 120 – 370Vdc
Output voltage:	5Vdc, ± 12 Vdc or 5Vdc, ± 15 Vdc
Efficiency:	Up to 85%
Warranty:	3 years

More information: www.emea.tdk-lambda.com/cut

ZWQ – Series

80 – 130W



Industrial



Test



Broadcast



Comms



Quad output: Output one and four adjustable
Floating adjustable fourth output
Input: Wide range 85–265Vac
Case: L-bracket and cover option



Convection

Output power:	80, 130W
Input voltage:	85 – 265Vac, 47– 63Hz or 120 – 370Vdc
Output voltage:	5Vdc main, $\pm 12/15$ Vdc and 3.3, 5, 12 or 24Vdc
Efficiency:	Up to 72%
Warranty:	1 year

More information: www.emea.tdk-lambda.com/zwq

ZPSA – Series

20 – 100W



Industrial



Test



Broadcast



Comms



Size: Low profile, industry standard footprint
2" x 4" and 3" x 5"

Immunity: Meets EN61000-4



Convection

Output power:	20, 40, 60, 100W
Input voltage:	90 – 264Vac, 47 – 63Hz or 120 – 370Vdc
Output voltage:	3.3, 5, 9, 12, 15, 18, 24, 28, 30, 36 or 48Vdc
Efficiency:	Up to 90%
Warranty:	2 years

More information: www.emea.tdk-lambda.com/zpsa

ZPD – Series

40W



Industrial



Test



Broadcast



Comms



Size: Low profile, industry standard footprint
2" x 4"

Safety: Global approvals

Immunity: Meets EN61000-4



Convection

Output power:	40W
Input voltage:	85 – 264Vac, 47 – 440Hz or 120 – 370Vdc
Output voltage:	5Vdc main and 12 or 24Vdc
Efficiency:	Up to 78%
Warranty:	2 years

More information: www.emea.tdk-lambda.com/zpd

ZPT – Series

40W



Industrial



Test



Broadcast



Comms



Size: Low profile, industry standard footprint
2" x 4"

Safety: Global approvals

Immunity: Meets EN61000-4



Convection

Output power:	40W
Input voltage:	85 – 264Vac, 47 – 440Hz or 120 – 370Vdc
Output voltage:	5 or 3.3Vdc main and 5, 12, 15, 24Vdc
Efficiency:	Up to 75%
Warranty:	2 years

More information: www.emea.tdk-lambda.com/zpt

CSS – Series

65 – 150W



Medical



Industrial



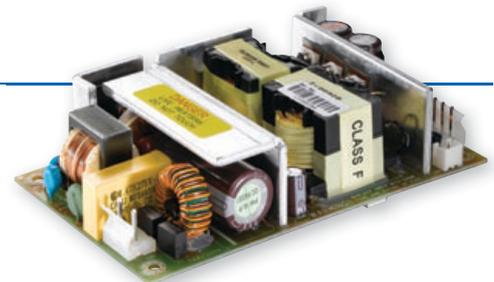
Test



Broadcast



Comms



Size: Low profile, industry standard footprint
2" x 4" and 3" x 5"

Safety: Global medical approvals

Protection: Dual input fuses



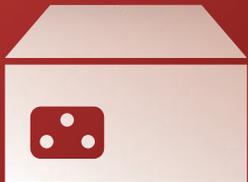
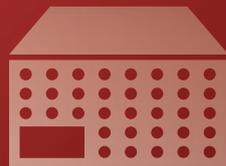
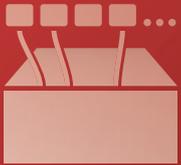
Convection

Output power:	65, 150W
Input voltage:	85 – 265Vac, 47 – 63Hz or 120 – 370Vdc
Output voltage:	65W: 12, 15, 24, 36 or 48Vdc 150W: 5, 12, 15, 19, 24, 36 or 48Vdc
Efficiency:	Up to 87%
Warranty:	2 years

More information: www.emea.tdk-lambda.com/css



AC-DC Power Supplies



PCB mount

PCB mount

Applications

Power modules

- Distributed power architectures
- Customised designs with specific dimensions

PCB modules

- Low power applications

Features

- 5 to 1500W output power
- Single-phase wide range input 85 – 265Vac
- For PCB mounting
- Flexibility for different cooling concepts

KPSA – Series

5 – 15W



Industrial



Test



Broadcast



Comms



Size: Small size & lightweight
No external components needed

Input: Universal input voltage
Low cost



Convection

Output power:	5, 10, 15W
Input voltage:	85 – 264Vac, 47 – 63Hz or 100 – 370Vdc
Output voltage:	3.3, 5, 12, 15 or 24Vdc
Efficiency:	Up to 82%
Warranty:	1 year

More information: www.emea.tdk-lambda.com/kpsa

KMS / KMD / KMT – Series

15 – 40W



Medical



Industrial



Test



Broadcast



Comms



Connection: Class II power supply (no PE required)
Single-, dual-, triple output

Safety: Medical safety approvals

Case: Enclosed case with encapsulation



Convection

Output power:	15, 40W
Input voltage:	90 – 264Vac, 47 – 440Hz or 100 – 375Vdc
Output voltage:	3.3, 5, 9, 12, 15, 24, ± 12 or ± 15 Vdc
Efficiency:	Up to 83%
Warranty:	2 years

More information: www.emea.tdk-lambda.com/km

PFE-SA – Series

300 – 700W



Industrial



Test



Broadcast



Comms



COTS



LED



Format: Full-Brick module with baseplate
Basic element for customised power supply designs
100°C baseplate temperature



Baseplate

Output power:	300, 500, 700W
Input voltage:	90 – 264Vac, 47 – 63Hz
Output voltage:	12, 28 or 48Vdc
Efficiency:	Up to 91%
Warranty:	5 years

More information: www.emea.tdk-lambda.com/pfe-sa

PCB mount

PFE-F – Series

500 – 1000W



Industrial



Test



Broadcast



Comms



COTS



LED



Format: Power module with baseplate
Basic element for customised power supply designs
100°C baseplate temperature



Baseplate

Output power:	500, 1000W
Input voltage:	90 – 264Vac, 47 – 63Hz
Output voltage:	12, 28 or 48Vdc
Efficiency:	Up to 86%
Warranty:	2 years

More information: www.emea.tdk-lambda.com/pfe

PF-A – Series

500 – 1500W



Industrial



Test



Format: Power module with baseplate
Basic element for customised power supply designs together with PAF/PAH DC/DC-converters

Paralleling: Parallel operation with active current share



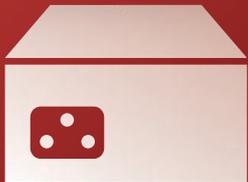
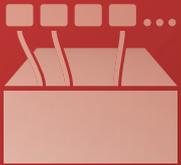
Baseplate

Output power:	500(750), 1000(1500)W
Input voltage:	85 – 265Vac 47 – 63Hz
Output voltage:	~360Vdc bulk power bus
Efficiency:	Up to 95%
Warranty:	2 years

More information: www.emea.tdk-lambda.com/pf-a



AC-DC Power Supplies



DIN-Rail

DIN-Rail

Applications

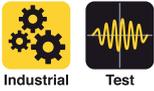
- Factory Automation and controls
- Facility & Hotel or Home Automation
- Food & Beverage Industry
- Robot Controls
- Paper Handling, Sorting, Dispatch Systems
- Process Automation
- Conveyors, Elevators, Rolling Stairs
- Typical for DIN-Rail mounting in cabinets

Features

- Efficiency up to 94% – NEW DRF-Series
- Mainly with 24V output, but also other output voltages from 5V to 48V are available
- Power range from 10W to 1000W with convection-cooling
- Single-phase and three-phase input (for models from 120W output power onwards)
- Plastic cases for low-power units up to 100W, metal cases for higher output power
- Flat shape for wall mounted cabinets
- Slim shape for industrial cabinets
- UL 508 Listed
- Additional DC/DC-Converters up to 60W for DIN-Rail are also available

DRB – Series

15 – 100W



Output voltages: 5 to 48Vdc
Operating temperature: -20°C to +70°C
Dimensions: Very compact, slim shape
ErP Compliant



Convection

Output power:	15, 30, 50, 100W
Input voltage:	85 – 264Vac, 47 – 63Hz
Output voltage:	5, 12, 24 or 48Vdc
Efficiency:	Up to 89%
Warranty:	3 years

More information: www.emea.tdk-lambda.com/drb

DRF single-phase – Series

120 – 480W



Case: Enclosed metal case
Operating temperature: -25°C to +70°C
Parallel operation: Possible
Peak Power: 150% nominal for 4 sec.



Convection

Output power:	120, 240, 480W
Input voltage:	90 – 264Vac, 47 – 63Hz
Output voltage:	24Vdc
Efficiency:	Up to 94%
Warranty:	5 years

More information: www.emea.tdk-lambda.com/drf

DSP – Series

10 – 100W



Industrial

Shape: Flat profile for wall mount cabinets
Operating temperature: -25°C to +71°C
Safety: UL 508 Listed
Class II double insulation



Convection



Output power:	10, 30, 60, 100W
Input voltage:	85 – 264Vac, 47 – 63Hz or 120 – 370Vdc
Output voltage:	5, 12, 15, or 24Vdc
Efficiency:	Up to 89%
Warranty:	3 years

More information: www.emea.tdk-lambda.com/dsp

DPP – Series

15 – 100W



Industrial

Output voltages: 5 to 48 Volt
Operating temperature: -10°C to +71°C
Safety: UL 508 Listed
NEC Class II Compliant



Convection



Output power:	15, 25, 30, 50, 100W
Input voltage:	85 – 264Vac, 47 – 63Hz or 90 – 375Vdc
Output voltage:	5, 12, 15, 24 or 48Vdc
Efficiency:	Up to 87%
Warranty:	3 years

More information: www.emea.tdk-lambda.com/dpp

DPP single-phase – Series

120 – 480W



Industrial



Case:	Enclosed metal case
Operating temperature:	-40°C to +71°C
Parallel operation:	With current share function
Safety:	UL 508 Listed



Convection

Output power:	120, 240, 480W
Input voltage:	90 – 264Vac, 47 – 63Hz or 120 – 370Vdc
Output voltage:	12, 24 or 48Vdc
Efficiency:	Up to 88%
Warranty:	3 years

More information: www.emea.tdk-lambda.com/dpp

DPP three-phase – Series

120 – 960W



Industrial



Case:	Enclosed metal case
Operating temperature:	-40°C to +71°C
Parallel operation:	With current sharing
Safety:	UL 508 Listed



Convection

Output power:	120, 240, 480, 960W
Input voltage:	340 – 575Vac, 3-phase or 480 – 820Vdc
Output voltage:	12, 24 or 48Vdc
Efficiency:	Up to 93%
Warranty:	3 years

More information: www.emea.tdk-lambda.com/dpp

DPX – Series

10 – 60W



Industrial

Output: Single, dual and triple output modules
Adjustable with front panel trimmer

Input: 4:1 input with nominal 24V or 48V
Protected against reverse voltage



Convection



Output power:	10, 15, 20, 30, 40, 60W
Input voltage:	9.5 – 36Vdc or 18 – 75Vdc
Output voltage:	3.3, 5, 12, 15, ± 5 , ± 12 , ± 15 Vdc
Efficiency:	Up to 86%
Warranty:	2 years

More information: www.emea.tdk-lambda.com/dpx

L-DIN – Series

DIN-Rail Adapters



Industrial

Mounting brackets with DIN-Rail clip to adapt standard build in power supplies on DIN-Rail.

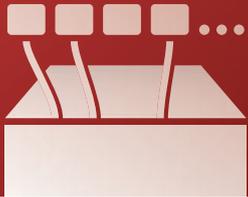
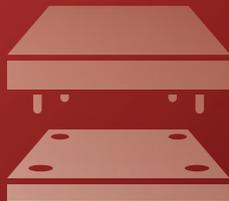
Usable for special requirements on output voltage or features which are not available with standard DIN-Rail power supplies

Available for: RWS-50B to RWS-150B
HWS-15A to HWS-150A
LS-25 to LS-150





AC-DC Power Supplies



Rack mount

Applications

- High reliability applications with n+1 redundancy
- High power applications for cabinet mounting
- Broadcast, RF-amplifiers, Telecoms

Features

- 19" rack with hot-swap power modules – up to 10kW in 1U
- Modules have integrated ORing MOSFETs for redundant operation
- Individual IEC connectors or terminal blocks for mains input
- Parallel operation between racks with active current sharing for higher output power levels
- 12V, 24V, 32V and 48V supplies for bus-voltages in distributed power architecture and other applications
- Optional PM-bus I²C interface for status monitoring and control

HFE-1600 – Series

1600W



COTS

Industrial

Test

Broadcast

Comms



Redundancy: Internal ORing MOSFET & Current Share
High efficiency: Meet 80+ Standard gold
Interface: PMBus option



Fan

Output power:	1600W single unit, up to 8 kW in 19" 1U shelf
Input voltage:	85 – 265Vac, 47 – 63Hz
Output voltage:	12, 24, 32 or 48Vdc
Efficiency:	Up to 92%
Warranty:	3 years

More information: www.emea.tdk-lambda.com/hfe

HFE-1600-S1U/-D1U – Series

6000 – 8000W



COTS

Industrial

Test

Broadcast

Comms



Rack mount

HFE-1600-S1U: Parallel operation up to 5 units HFE-1600 (8000W total)
HFE-1600-D1U: 2 separate outputs for 2x 2 units HFE-1600 (2x 3000W)
High efficiency: Meet 80+ Standard gold
Interface: PMBus option



Fan

Output power:	Up to 8kW in 19" 1U shelf
Input voltage:	85 – 265Vac, 47 – 63Hz
Output voltage:	12, 24, 32 or 48Vdc
Efficiency:	Up to 92%
Warranty:	3 years

More information: www.emea.tdk-lambda.com/hfe

HFE-2500 – Series

2500W



COTS



Industrial



Test



Broadcast



Comms



Redundancy: Internal ORing MOSFET & Current Share
High efficiency: Meet 80+ Standard platinum/gold
Interface: PMBus option



Fan

Output power:	2500W single unit, up to 10kW in 19" 1U shelf
Input voltage:	85 – 265Vac, 47 – 63Hz
Output voltage:	12, 24, 32 or 48Vdc
Efficiency:	Up to 92.5%
Warranty:	3 years

More information: www.emea.tdk-lambda.com/hfe

HFE-2500-S1U – Series

10000W



COTS



Industrial



Test



Broadcast



Comms



1U 19" shelf: Suitable for up to 4 rectifiers HFE-2500
High efficiency: Meet 80+ Standard platinum/gold
Interface: PMBus option



Fan

Output power:	Up to 10kW in 19" 1U shelf
Input voltage:	85 – 265Vac, 47 – 63Hz
Output voltage:	12, 24, 32 or 48Vdc
Efficiency:	Up to 92.5%
Warranty:	3 years

More information: www.emea.tdk-lambda.com/hfe

FPS-1000 – Series

1000W



COTS



Industrial



Test



Broadcast



Comms



Redundancy:

Build in ORing diode & Current Share

Interface:

I²C-bus option

AC-Input:

Via IEC connector on front panel or via Positronic connector in rack



Fan

Output power:	1000W single unit, up to 3 kW in 19" 1U shelf
Input voltage:	85 – 264Vac, 47 – 63Hz
Output voltage:	12, 24, 32 or 48Vdc
Efficiency:	Up to 88%
Warranty:	2 years

More information: www.emea.tdk-lambda.com/fps

FPS-S1U / FPS-T1U – Series

3000W



COTS



Industrial



Test



Broadcast



Comms



Rack mount

1U 19" shelf:

Suitable for up to 3 power modules FPS-1000

Shelf with three individual outputs or common bus bar

AC-Input:

Via IEC connector on rear or direct to FPS module front panel



Fan

Output power:	Up to 3kW in 19" 1U shelf
Input voltage:	85 – 265Vac, 47 – 63Hz
Output voltage:	12, 24, 32 or 48Vdc
Efficiency:	Up to 88%
Warranty:	2 years

More information: www.emea.tdk-lambda.com/fps



Programmable Power Supplies



Applications

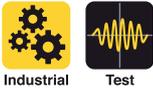
- ATE Systems
- Battery simulation
- Component burn-in
- Plating and etching

Features

- Output voltage up to 1500V, output current up to 1000A, power range from 200W to 150000W
- Constant voltage or constant current operation with automatic crossover
- Last setting memory stores latest settings when power supply is switched off
- Analogue programming and monitoring for output voltage and current with 0-5V or 0-10V scale
- Integrated RS232/RS485 (and USB for Z+) communication interface as standard
- IEEE, LAN and isolated analogue optional interfaces
- Comprehensive parameter setting menus via front panel or digital interface
- Parallel operation with active current share and advanced parallel mode
- Arbitrary function generation and storage on Z+
- Suitable for benchtop use or 19" rack integration

Z⁺ – Series

200 – 800W



Interfaces: RS232/RS485, USB, analogue (standard)
LAN, IEEE (optional)

Features: Arbitrary function generation and storage
Optional front panel output jacks / CAT III type



Output power:	200, 400, 600, 800W
Input voltage:	Single-phase 85 – 265Vac, 47 – 63Hz
Output voltage:	10, 20, 36, 60, 100, 160, 320, 375, 650Vdc
Efficiency:	Up to 89,5%
Warranty:	5 years

More information: www.emea.tdk-lambda.com/zplus

ZUP – Series

200 – 800W



Interface: RS232/RS485, analogue (standard)
IEEE (with external controller)

Features: Optional front panel output jacks
Constant voltage / constant current

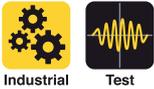


Output power:	200, 400, 800W
Input voltage:	Single-phase 85 – 265Vac, 47 – 63Hz
Output voltage:	6, 10, 20, 36, 60, 80 or 120Vdc
Efficiency:	Up to 87%
Warranty:	3 years

More information: www.emea.tdk-lambda.com/zup

GENH – Series

750W



Interface: RS232/RS485, analogue (standard)
LAN, IEEE (optional)

Case: Suitable for benchtop use or 19" rack

Output current: Up to 100A



Output power:	750W
Input voltage:	Single-phase 85 – 265Vac, 47 – 63Hz
Output voltage:	6, 8, 12.5, 20, 40, 60, 80, 100, 150, 300 or 600Vdc
Efficiency:	Up to 87%
Warranty:	5 years

More information: www.emea.tdk-lambda.com/genh

GEN 1U – Series

750 – 2400W



Interface: RS232/RS485, analogue (standard)
LAN, IEEE (optional)

Option: Integrated power sink

Output current: Up to 300A

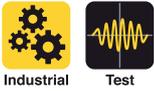


Output power:	750, 1500, 2400W
Input voltage:	Single-phase 85 – 264Vac, 47 – 63Hz (170 – 265Vac for 2400W) Optional: Three-phase 170 – 265Vac for 2400W only
Output voltage:	6, 8, 12.5, 16, 20, 30, 40, 50, 60, 80, 100, 150, 300 or 600Vdc
Efficiency:	Up to 88%
Warranty:	5 years

More information: www.emea.tdk-lambda.com/gen1u

GEN 2U – Series

3300 – 5000W



Interface: RS232/RS485, analogue (standard)
LAN, IEEE (optional)

Dynamic response: Fast speed option for Automotive

Output current: Up to 600A

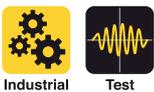


Output power:	3300, 5000W
Input voltage:	Single-phase 170 – 265Vac, 47 – 63Hz (3300W only) Three-phase 170 – 265Vac or 342 – 460Vac
Output voltage:	8, 10, 15, 16, 20, 30, 40, 60, 80, 100, 150, 200, 300, 400, 500 or 600Vdc
Efficiency:	Up to 88%
Warranty:	5 years

More information: www.emea.tdk-lambda.com/gen2u

GEN 3U – Series

10000 – 15000W



Interface: RS232/RS485, analogue (standard)
LAN, IEEE (optional)

Output current: Up to 1000A

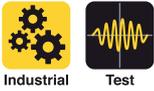


Output power:	10000, 15000W
Input voltage:	Three-phase 208Vac, 400Vac or 480Vac
Output voltage:	7.5, 10, 12.5, 20, 25, 30, 40, 50, 60, 80, 100, 125, 150, 200, 300, 400, 500, 600, 800, 1000, 1250 or 1500Vdc
Efficiency:	Up to 88%
Warranty:	5 years

More information: www.uk.tdk-lambda.com/gen3u

EVA2400 – Series

2400W



Build in model: No front-panel or display
Interface: RS232/RS485, analog
Cooling: Variable speed fan
Output: Constant voltage, constant current with automatic crossover



Output power:	2400W
Input voltage:	Single-phase 170 – 265Vac, 47 – 63Hz
Output voltage:	150, 300, 600Vdc
Efficiency:	Up to 88%
Warranty:	5 years

More information: www.emea.tdk-lambda.com/eva



EMC/EMI Filters



Applications

- Improve EMC performance in complex equipment
- Improve EMC performance with long mains wires

Features

- Single-phase, three-phase and three-phase with Neutral
- 0.5A to 300A line current
- Single-stage and two-stage filters with high attenuation over a wide frequency range
- With surge protection
- Medical versions with reduced leakage currents
- Models for DIN-Rail mounting

RSEL – Series

0.5 – 6A



Medical



Industrial



Test



Broadcast



Comms

Type: Single-phase filter
Attenuation: 70 – 80dB at ~1-6MHz
Construction: Single-stage
optional low leakage type



Convection

Current:	0.5, 1, 2, 3, 6A
Rated voltage:	250Vac
Connection:	Wire or Faston
Warranty:	1 year

More information: www.emea.tdk-lambda.com/r-series

RSEN, RSAN, RSHN – Series

3 – 60A



Medical



Industrial



Test



Broadcast



Comms

Type: Single-phase filter
Attenuation: High attenuation over a wide frequency range
Construction: Single-stage or two-stage
optional low leakage type and DIN-Rail mount



Convection

Current:	3, 6, 10, 16, 20, 30, 40, 50, 60A
Rated voltage:	250Vac
Connection:	Screw terminals
Warranty:	1 year

More information: www.emea.tdk-lambda.com/r-series

RTEN, RTHN – Series

6 – 300A



Medical



Industrial



Test



Broadcast



Comms

Type:	Three-phase filter
Attenuation:	High attenuation over a wide frequency range
Construction:	Single-stage or two-stage optional low leakage type and DIN-Rail mount



Convection

Current:	6, 10, 20, 30, 40, 50, 60, 80, 100, 150, 200, 300A
Rated voltage:	500Vac
Connection:	Screw terminals
Warranty:	1 year

More information: www.emea.tdk-lambda.com/r-series

RDEN-048-050 – Series

50A



Industrial



Test



Broadcast



Comms

Type:	DC-line filter for Information and Telecommunication equipment
Attenuation:	High attenuation for noise from low frequency to high frequency



Convection

Current:	50A
Rated voltage:	48Vdc (76Vdc max.)
Connection:	Large stud type terminals
Warranty:	1 year

More information: www.emea.tdk-lambda.com/r-series



SIFI F, G, H – Series

3 – 36A



Industrial



Test



Broadcast



Comms



Type:	Single-phase filter
Attenuation:	High attenuation over a wide frequency range
Construction:	Single-stage or two-stage optional low leakage type



Convection

Current:	3, 6, 10, 16, 20, 25, 36A
Rated Voltage:	250Vac, 50/60Hz and 250Vdc
Connection:	Faston or screw terminals
Warranty:	1 year

More information: www.emea.tdk-lambda.com/sifi

B84771-B84776 – Series

1 – 10(20)A



Industrial



Test



Broadcast



Comms



Types:	With IEC-Inlet With IEC-Inlet and fuse With IEC-Inlet, fuse and switch
Option:	Medical versions



Convection

Current:	1, 3, 6, 8, 10A (12, 15, 16, 20A)
Rated voltage:	250Vac, 50/60Hz
Connection:	IEC-input, Faston-output
Warranty:	1 year

More information: www.emea.tdk-lambda.com/iec



DC-DC Converters



Applications DC/DC Converters

- Distributed Power Architecture with DC Bus
- Small subsystems with battery backup

Applications bidirectional DC/DC Converters

- Electrical motor energy re-generation/storage (lifts, cranes, etc)
- Battery tests systems energy re-generation to avoid energy waste
- Smart-grid, particularly “micro-grid” applications

Features DC-DC Converters

- Galvanic isolation between input and output
- Power range from 1.5W to 700W
- Convection cooling, conduction cooling with baseplate or forced air cooling
- Input voltage ranges 2:1 or 4:1
- Nominal input voltages 5V, 12V, 24V, 48V, 110V or 280V

Features Point of Load Converters

- No galvanic isolation
- High efficiency
- Very fast transient response time
- SMT or through hole mounting
- Supply of logic voltages below 5V direct at the load

Features bidirectional DC/DC converters

- Grid voltage 320Vdc nominal, (300-380Vdc)
- Battery voltage 48Vdc nominal, (36-60Vdc)
- High efficiency up to 94.6%

PXA / PXB – Series

15W



Industrial



Test



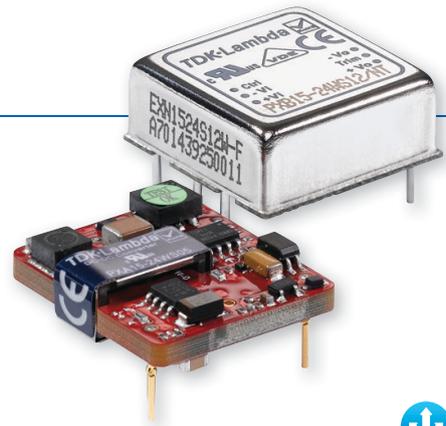
Broadcast



Comms

Shape: Standard industrial footprint 1" x 1"
 PXA open frame
 PXB six side shielding

Mounting: Pin and surface mount



Convection

Output power:	15W
Input voltage:	12, 24 or 48Vdc nominal 9 – 36 or 18 – 75Vdc
Output voltage:	3.3, 5, 12, 15Vdc
Efficiency:	Up to 88%
Warranty:	2 years

More information: www.emea.tdk-lambda.com/pxa

PXD / PXE / PXF – Series

10 – 60W



Industrial



Test



Broadcast



Comms

Shape: Industrial standard footprint
 2" x 1", 2" x 1.6", 2" x 2"

Input: 2:1 and wide range 4:1

Safety: Industry standard footprint



Convection

Output power:	10, 15, 20, 30, 40, 60W
Input voltage:	12, 24 or 48Vdc nominal 9 – 36 or 18 – 75Vdc
Output voltage:	3.3, 5, 12, 15Vdc
Efficiency:	Up to 89%
Warranty:	2 years

More information: www.emea.tdk-lambda.com/pxd

PXC – Series

3 – 6W



Industrial



Test



Broadcast



Comms



Shape: Industry Standard 24 Pin DIP Package through hole and SMT versions

Case: Five sided shielding

Input: Wide range 4:1



Convection

Output power:	3 – 6W
Input voltage:	9 – 36 or 18 – 75Vdc
Output voltage:	3.3, 5, 12, 15Vdc, ± 5 , ± 12 , ± 15 Vdc
Efficiency:	Up to 82%
Warranty:	2 years

More information: www.emea.tdk-lambda.com/pxc

Coming soon

1" x 1" 30W wide input range dc-dc converters

3W, 6W and 10W DIL Medical dc-dc converters with 5kVac isolation

CC-E / CC-P-E – Series

1.5 – 30W



Industrial



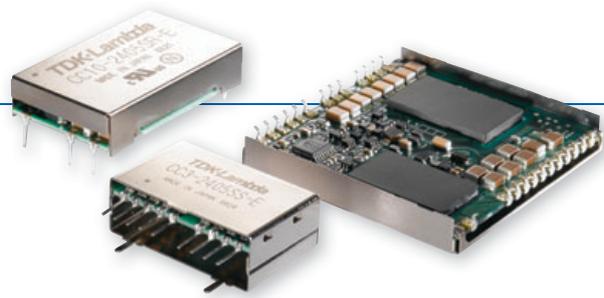
Test



Broadcast



Comms



Shape: SMT or through hole, flat profile
Single and Dual outputs

Trim: Adjustable output voltage

Isolation: 500Vac Input to Output



Convection

Output power:	1.5, 3, 6, 10, 15, 25, 30W
Input voltage:	5, 12, 24 or 48Vdc nominal
Output voltage:	3.3, 5, 12/15, or $\pm 12/15$ Vdc
Efficiency:	Up to 90%
Warranty:	5 years

More information: www.emea.tdk-lambda.com/cc-e

CE-10xx – Series

5 – 15W



Industrial



Test



Broadcast



Comms



Shape: SMT mounting, closed case

Height: Only 4.5mm (5.5mm for CE-1050)

Temperature: -40°C to $+85^{\circ}\text{C}$
Non isolated output



Convection

Output current:	1.5, 2.5A
Input voltage:	3 – 5.25, 6 – 16, 9 – 26.4Vdc
Output voltage:	1.5 – 3.3, 3.3 – 5, 1.0 – 3.3, 3.3 – 12.6Vdc (adjustable)
Efficiency:	Up to 91.5%
Warranty:	1 year

More information: www.emea.tdk-lambda.com/ce

iCF / iCG – Series

5 – 15W



Industrial



Test



Broadcast



Comms



Shape: 2nd generation DOSA
Regulation: Excellent transient response
Soldering: LGA or EPC format
Non isolated output



Air Flow

Output current:	3 or 6A
Input voltage:	4.5 – 14Vdc
Output voltage:	0.7 – 5.5Vdc (adjustable)
Efficiency:	Up to 96.5%
Warranty:	3 years

More information: www.emea.tdk-lambda.com/icf

iJB – Series

Up to 120 W



Industrial



Test



Broadcast



Comms



Size: Ultra high power density, dual phase 60A
Interface: PM Bus read and write compliant
Accuracy: Precision Vout setpoint; 0,5%
Digital adaptive control



Air Flow

Output current:	60A
Input voltage:	8 – 14Vdc
Output voltage:	0.6 – 2.0Vdc (adjustable)
Efficiency:	Up to 93%
Warranty:	3 years

More information: www.emea.tdk-lambda.com/ijb

iBF / iAF – Series

5 – 15W



Industrial



Test



Broadcast



Comms



Shape: 2nd generation DOSA
Regulation: Excellent transient response
Soldering: LGA or EPC format
Non isolated output



Air Flow

Output current:	12, 20A
Input voltage:	4.5 – 14Vdc
Output voltage:	0.7 – 5.5Vdc (adjustable)
Efficiency:	Up to 93.5%
Warranty:	3 years

More information: www.emea.tdk-lambda.com/ibf

iEA – Series

Up to 78W



Industrial



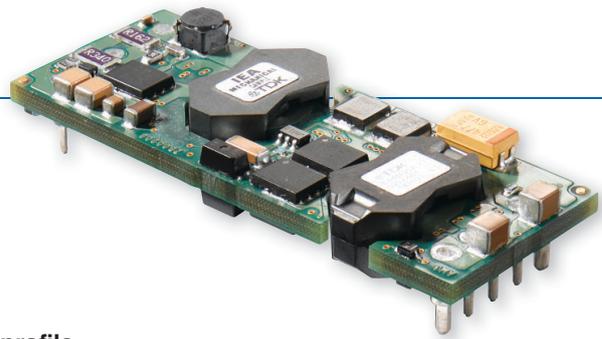
Test



Broadcast



Comms



Size: Standard “eighth-brick” format
Open frame design, low 8.8mm profile

Mounting: Through hole

Isolation: 1500Vdc basic isolation



Air Flow

Output power:	Up to 78W
Input voltage:	36 – 75Vdc or 18 – 60Vdc
Output voltage:	1.2, 1.5, 1.8, 2.5, 3.3, 5, 12, 15, 18 or 28Vdc
Efficiency:	Up to 90%
Warranty:	3 years

More information: www.emea.tdk-lambda.com/iea

iEH – Series

Up to 308W



Industrial



Test



Broadcast



Comms



Size: Standard “eighth-brick” format
Baseplate option

Isolation: 2250Vdc Input to Output



Air Flow

Output power:	Up to 308W
Input voltage:	36 – 75Vdc
Output voltage:	9.6, 10.2, 10.8 or 2Vdc
Efficiency:	Up to 96%
Warranty:	3 years

More information: www.emea.tdk-lambda.com/ieh

iQE / iQG – Series

Up to 400W



Industrial



Test



Broadcast



Comms



Size: Standard “quarter-brick” format
Open frame design, low profile

Soldering: Through hole mounting



Air Flow



Baseplate

Output power:	Up to 400W
Input voltage:	18 – 36, 18 – 60 or 36 – 75Vdc
Output voltage:	3.3, 5, 8, 9.6, 10.8, 12 or 15Vdc
Efficiency:	Up to 95%
Warranty:	3 years

More information: www.emea.tdk-lambda.com/iqe

iHG – Series

Up to 300W



Industrial



Test



Broadcast



Comms



Size: Standard “half-brick” format
Open frame design, low profile

Soldering: Through hole mounting



Air Flow

Output power:	Up to 300W
Input voltage:	36 – 75Vdc
Output voltage:	1.8, 3.3, 5Vdc
Efficiency:	Up to 95%
Warranty:	3 years

More information: www.emea.tdk-lambda.com/ihg

CN-A – Series

30 – 100W



Industrial

Railway

COTS



Size: Standard “quarter-brick” format
Optional: Coating (suffix /CO)
Shock/vibration: EN/IEC 61373
Temperature: Full power at 100°C (baseplate temperature)
Input: EN50155/IEC60571



Baseplate

Output power:	30, 50, 100W
Input voltage:	60 – 160Vdc or 18 – 36Vdc (50W, 100W)
Output voltage:	5, 12, 15 or 24Vdc
Efficiency:	Up to 88%
Warranty:	5 years

More information: www.emea.tdk-lambda.com/cn-a

CN-A – Series

200W



Industrial

Railway

COTS



Size: Standard “half-brick” format
Optional: Coating (suffix /CO)
Shock/vibration: EN/IEC 61373
Temperature: Full power at 100°C (baseplate temperature)
Input: EN50155/IEC60571



Baseplate

Output power:	200W
Input voltage:	60 – 160Vdc
Output voltage:	5, 12, 15 or 24Vdc
Efficiency:	Up to 88%
Warranty:	5 years

More information: www.emea.tdk-lambda.com/cn-a

PAH – Series

50 – 450W



Industrial



Test



Comms



COTS



Size:	Standard “half-brick” format
Safety:	EN/UL/CSA 60950-1 approval
Temperature:	Full power at 100°C (baseplate temperature)
Output:	Wide adjustable voltage range



Baseplate

Output power:	50, 75, 100, 150, 200, 300, 350, 450W
Input voltage:	24, 48Vdc nominal
Output voltage:	2.5, 3.3, 5, 12, 15, 24, 28 or 48Vdc
Efficiency:	Up to 92%
Warranty:	2 years

More information:	www.emea.tdk-lambda.com/pah
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PAF – Series

400 – 700W



Industrial



Test



Comms



COTS



Size:	Standard “full brick” format
Safety:	EN/UL/CSA 60950-1 approval
Temperature:	Full power at 100°C (baseplate temperature)
Output:	Wide adjustable voltage range



Baseplate

Output power:	450, 500, 600, 700W
Input voltage:	24, 48, 280Vdc nominal
Output voltage:	12, 24, 28 or 48Vdc
Efficiency:	Up to 91%
Warranty:	2 years

More information:	www.emea.tdk-lambda.com/paf
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PH-A – Series

50 – 150W



Industrial

Test

Comms

COTS



Size: Quarter-brick module with baseplate
Isolation: High withstand voltage for PoE application
Safety: EN/UL/CSA 60950-1 approval
Temperature: Full power at 100°C (baseplate temperature)



Baseplate

Output power:	50, 75, 100, 150W
Input voltage:	280Vdc nominal; range: 200 – 425Vdc
Output voltage:	5, 12, 24, 48Vdc
Efficiency:	Up to 90%
Warranty:	5 years

More information: www.emea.tdk-lambda.com/ph-a

EZA – Series

2500W



Industrial

Test

Renewable



Size: Bidirectional DC-DC converter
 1U 19" shelf
Isolation: Full digital control with RS-485 interface
 3kV AC between grid and battery



Fan

Output power:	2500W
Grid voltage:	320Vdc nominal; range: 300 – 380Vdc
Batterie voltage:	48Vdc nominal; range: 36 – 60Vdc
Efficiency:	Up to 94% in booth directions
Warranty:	5 years

More information: www.emea.tdk-lambda.com/eza



The Design Process

- Technical draft
- Field-proven technology from our standard products
- Careful component selection
- Design verification tests (DVT)
- Approvals (Safety, EMC...)

Protection

examples 5 – 15000W



Medical applications (Fig. 1)

High Transportation Safety: The MRT Ramp Up Power Supply system is designed for a withstand repeated shipping, rough handling and vibration.

The Power Modules have comprehensive front panel controls with individual rotary encoders for output current and voltage and extensive self-test and quality control functions.

Medical applications (Fig. 2)

Fast acceleration forces: Individual solutions are a standard at TDK-Lambda. In this application, the power supply including its components is part of the rotating gantry and thus has to cope with high speeds of rotation. The multiple output voltages specified by the customer are realized using standard components, taking advantage of the easy-to-install modular technology.



Display (Fig. 3)

Specifically for maritime applications: A common challenge in maritime applications is the need to cope with extreme operating temperatures, saline air, erosion, considerable vibrations and shocks. In addition, large-area electromagnetic interferences (EMI) may occur, which can obstruct the orderly operation of the equipment. Specifically for requirements like this, TDK-Lambda has developed a high performance multiple output power supply with AC and DC input and 130W output power. A special coating protects the unit from a highly polluted atmosphere – a fundamental precaution for a long-lasting, reliable and particularly maintenance-free performance.

Accessories

examples 5 – 15000W



4

Analysis applications (Fig. 4)

Power supplies for various applications: Flexible use in different systems with 5 output voltages. The standard power supply has an IEC input connector, DC cabling and a customised cooling concept.



5

Medical applications (Fig. 5)

Harsh environment conditions: Your application requires a controllable power supply that works reliably under harsh electromagnetic conditions. The programmable Genesys™ series delivering up to 16kW provides what you need.



6

Measuring (Fig. 6)

Fast Integration: Fitted for the customer's pin connectors, this pc board is included with screw terminals for easy integration. Result: Easy to mount and connect.

Chassis

examples 5 – 15000W



Vending and ticketing (Fig. 7)

Rapid integration: As a tailored solution to match the customer requirement for limited output power (NEC class 2), the HWS-150 standard power supply was built into a customer-specific metal enclosure and was equipped with specific connection cables and connectors. Result: Easy installation and connection.

Food industry (Fig. 8)

High safety level: For best user protection according to the IP classifications, a modified HWS-300 standard power supply (240W) was built into an IP54 enclosure. The protection enclosure protects the operating personnel and additionally matches specific functional requirements in a harsh environment with extraordinary thermal impacts.

Measuring (Fig. 9)

Universal applicability: Another innovative concept is employed in this equipment. Depending on your requirements, you are flexible to choose between an AC power supply from our standard range and a customised power supply with DC input with a minimum manufacturing level. Your advantage: Both variants have the same terminal block and the same volume.

Filters

examples 5 – 15000W



Medical applications (Fig. 10)



Display applications (Fig. 11)

Reduction of ripple and noise: These Vega 450 and NV175 applications with integrated DC filter ensure enhanced ripple and noise performance. Integration into the customers equipment is eased by used of their specified connector types.

You need Technical Information?

The TDK-Lambda website www.emea.tdk-lambda.com has a huge library of data:

- Quick Product Finder
- Datasheets
- Installation Manuals
- Application Notes
- Software Tools
- Evaluation & Reliability Data
- Safety Certification
- Technical Articles / Product Videos

The screenshot shows the TDK-Lambda website's Technical Centre page. At the top, there is a cookie consent banner with 'ACCEPT COOKIES', 'DECLINE COOKIES', and 'Cookie Policy' buttons. The main navigation bar includes 'Products', 'Technical Centre', 'Distributors', 'News', 'About', and 'Contact', along with a 'Site Search' field. Below the navigation, a breadcrumb trail reads 'You are here : home » technical centre'. The main heading is 'Welcome to the TDK-Lambda Technical Centre'. A row of six icons represents different resources: Technical Data, Brochures & Catalogues, Support, Software Tools, Videos, and FAQ. Below this, a section titled 'Latest TDK-Lambda Product Videos »' features a video player for 'DRB Series DIN Rail Power supplies'. The video player shows a play button, a progress bar at 01:10, and an HD icon. To the right of the video player, the text reads 'DRB 15-100W Single Output DIN Rail Power Supplies' and describes them as 'Compact, Erp Compliant and suitable for a wide range of applications including factory automation, process control, chemical processing and many other industrial applications.' On the right side of the page, there is a vertical sidebar with icons for a phone, an envelope, and a back arrow.



You want Engineering Support?

Please contact your local TDK-Lambda salesperson or distribution partner to speak to our inside technical support team.

TDK-Lambda – Global Operations





Please contact your local sales office to find the best solution to your application.



TDK-Lambda France SAS

ZAC des Delaches
CS 41077
9 rue Thuillere
91978 Villebon Courtaboeuf
France
Tel. +33 1 60 12 71 63
Fax +33 1 60 12 71 66
france@fr.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@tdk-lambda.nl
www.tdk-lambda.nl



Austria Sales Office

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



Scandinavia Sales Office

Valdemarsgade 7
4100 Ringsted
Denmark
Tel. +45 24 63 95 65
Fax +45 69 80 44 99
info@de.tdk-lambda.com
www.tdk-lambda.dk



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 Hashlosha 48800
Israel
Tel. +9 723 902 4333
Fax. +9 723 902 4777
info@tdk-lambda.co.il
www.tdk-lambda.co.il



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



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



Switzerland Sales Office

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

TDK-Lambda EMEA
www.emea.tdk-lambda.com