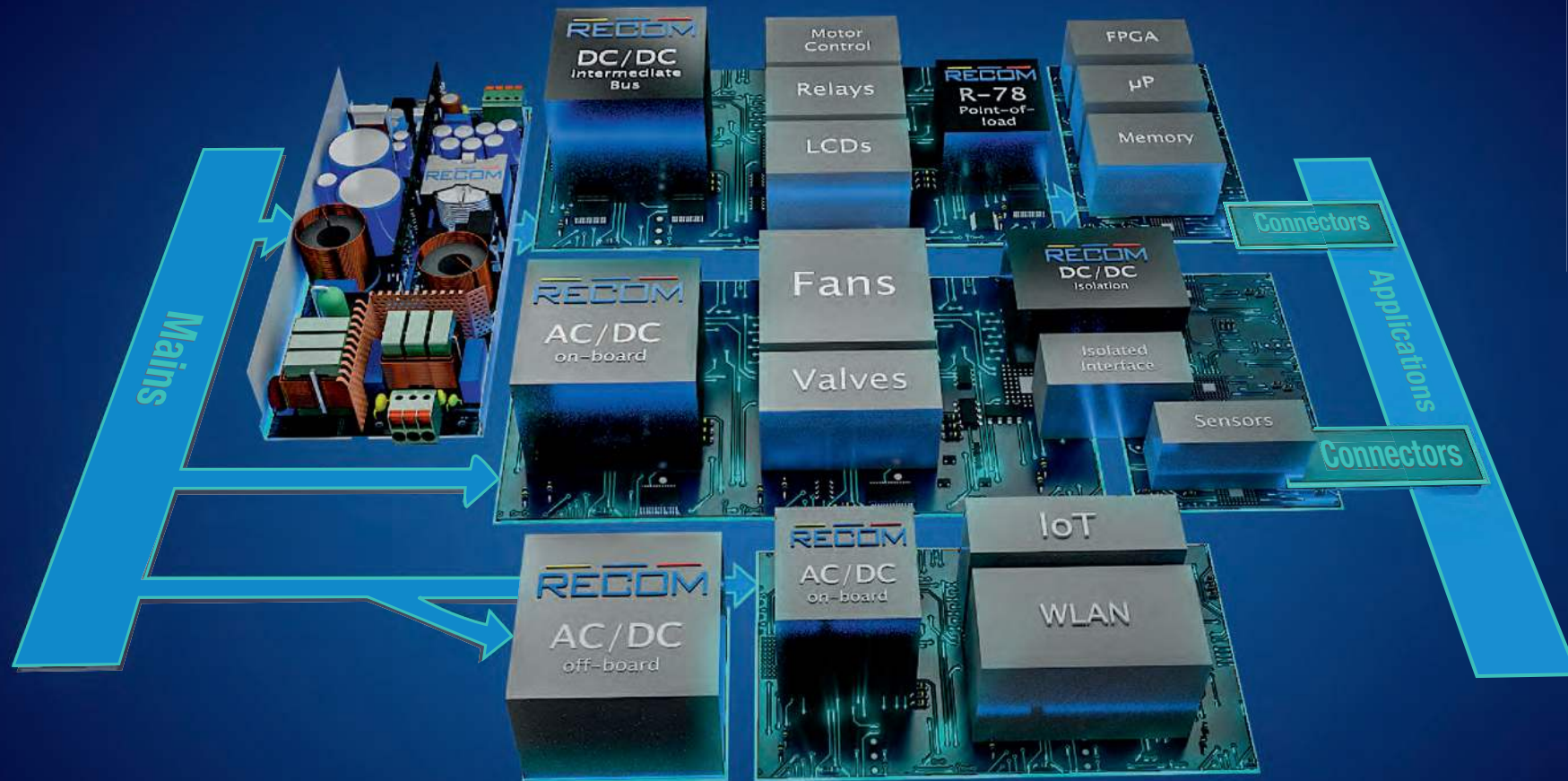


# PRODUCT SELECTION GUIDE

AC/DC Converters ■ DC/DC Converters ■ Switching Regulators ■ LED Drivers

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## WE POWER YOUR PRODUCTS

POWER SUPPLIES FOR DISTRIBUTED POWER ARCHITECTURE

**RECOM**

# POWER SUPPLIES FOR DISTRIBUTED POWER ARCHITECTURE

## Innovative. Efficient. Reliable.

The Distributed Power Architecture concept enables engineers to develop the power structure of their design flexibly and efficiently, using power converter modules. Therefore, RECOM has evolved AC/DC and DC/DC converters needed for current and future applications in **IoT, industry 4.0, smart homes and buildings, energy monitoring, medical, and transportation.**

RECOM manufactures a full range of standard and customized DC/DC and AC/DC converters in every power class from sub-1W to tens of kW, apart from switching regulators and LED drivers in a wide selection of formats. The company headquarters are located in Gmunden, Austria, and include the state-of-the-art logistics research and development center and laboratory wing and is supported by a global distribution network. The RECOM name has become synonymous with exceptional quality, integrity, innovation and excellent customer service.

### RECOM: A global manufacturer

Our global network of RECOM – owned factories are located in Italy, Mainland China, and Taiwan with numerous subcontractors situated throughout Asia and Europe, enabling us to provide both low cost commercial products as well as custom power solutions quickly and efficiently. RECOM manufacturing and logistics sites are IATF 16949 / ISO 9001 certified, guaranteeing the highest level of quality control.

### Innovative

Since our first DC/DC converter came off the production line, RECOM continues to launch innovative new products, often setting new standards within the industry. Over the past four decades, RECOM has become one of the fastest growing power supply manufacturers of standard and customized products in the industry. This is largely due to an exceptional, global team of forward-thinking engineers and technical sales personnel, along with our commitment to high-quality products and responsive customer service.



### Efficient

When it comes to efficiency, our aim is to go beyond industry expectations, not only in the performance of our converters, but

also by assisting engineers with integrating RECOM products into their designs. We pride ourselves in providing over 35.000 standard products to choose from, thus providing solutions for almost any application. Custom designs are also possible, through our subsidiary company Power Control Systems, as well as directly with RECOM. RECOM is able to provide production samples quickly through our reliable distribution network and can provide guidance with application and EMC issues through our skilled and knowledgeable team of support engineers.



### Reliable

Here at RECOM, we understand that reliability is the most critical factor when customers choose third-party power supply products for their applications. All RECOM products are thoroughly tested during development for performance, including rigorous EMC and Highly Accelerated Lifetime Testing (HALT), to identify any design weaknesses before they are released to the market. Due to our thorough development and testing process, whether for eventual mass production or a short-run order custom, we are able to offer a design of up to ten years and provide warranties of up to five years. RECOM continues to meet the highest international standards, backed with certification from international safety agencies.



### Certified products:

RECOM offers product safety certifications including CE, EN, UL, CSA, ENEC, and PSE marks to meet our customers' requirements of international safety standards.



# Product Selection Guide

This Selection Guide only represents a variety of our most popular products. Please visit [www.recom-power.com](http://www.recom-power.com) or contact your local sales rep in case you do not find what you are looking for.

## AC/DC CONVERTERS

PCB Mount | Chassis Mount

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## DC/DC CONVERTERS

Unregulated | Regulated | Power Solutions - Plug & Play | IGBT/SiC MOSFET/GaN | Accessories

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## CUSTOM SOLUTIONS

AC/DC | DC/DC | DC/AC

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# AC/DC POWER SUPPLIES

RECOM offers a wide range of AC/DC power supplies with performance and certifications suitable for applications ranging from **household to smart metering, industrial, medical, test and measurement, mobility/transportation, household/building automation, etc. Custom designs are additionally available for any application, including defense**, from RECOM subsidiary company PCS.

RECOM AC/DC power supplies utilize the latest design techniques to meet today's demands for safe, efficient, reliable, and cost-effective products with minimized light-load, no-load, and standby

losses – all this in the smallest case sizes and footprints with wide input ranges, most from 100VAC to 480VAC nominal. Accordingly, a special focus is on solutions for fan-less operation, supported by heat sinking base plates for easing thermal system integration of extra high-power density modules.

The standard ranges available span powers from 1W to 1200W with multi-kW parts available as platform solutions for custom designs. In addition, mechanical formats available include through-hole board-mount, encapsulated with wire connections, open frame with connectors or screw terminations, and even panel-

mounting in an IEC C14 'kettle' connector. Most products are rated for convection cooling up to high ambient temperatures while the higher power, open-frame parts, deliver maximum output with optional fan cooling. All products meet 'Class B' EMC emissions requirements without additional filtering and floating outputs. Many products feature isolation and leakage current performance suitable for the most sensitive medical applications.

The RECOM AC/DC 'Book of Knowledge' provides an insight into the design methodologies used in your choice of AC/DC converter. [www.recom-power.com/bok](http://www.recom-power.com/bok)





# AC/DC CONVERTERS

## PCB MOUNT

- 1 to 60 watts
- Regulated outputs
- OVP and OCP protected
- Low output ripple & noise
- High efficiency over the entire load range
- Optimized stand by mode operation
- Built-in EN55032 class B filter
- Ultra compact size
- Modified standards available

Series	Power (W)	Vin (VAC)	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Certifications	Other features
 RAC01-GA	1	85-264	3.3, 5, 12, 15, 24	3 kVAC / 1 min	33.7 x 22.2 x 19.0 mm (1.3" x 0.9" x 0.8")	EN/IEC/UL62368-1 EN60335-1	Household certified low leakage current
 RAC02E-K/277	2	85-305	3.3, 5, 12, 15, 24	4 kVAC / 1min	33.7 x 22.2 x 15.4 mm (1.3" x 0.9" x 0.6")	UL/IEC/EN62368-1 EN62233 IEC/EN61558-1, 2-16	Low profile / tiny footprint operating temperature range: -40°C to +90°C with derating, full load power up to 80°C no load power consumption <75mW
 RAC03-K	3	85-264	3.3, 5, 12, 15, 18, 24	3 kVAC / 1 min	28.5 x 23.5 x 17.9 mm (1.1" x 0.9" x 0.7")	UL/IEC/EN62368-1 IEC/EN60335-1	Operating temperature range: -40°C to +80°C household certified tiniest footprint at 3W
 RAC03-K/SMD	3	85-264	3.3, 5, 12, 15, 18, 24	3 kVAC / 1 min	27.7 x 23.7 x 19.2 mm (1.1" x 0.9" x 0.8")	UL/IEC/EN62368-1 IEC/EN60335-1	Operating temperature range: -40°C to +80°C household certified smallest SMD solution at 3W
 RAC03E-K/277	3	85-305	3.3, 5, 12, 15, 24	4 kVAC / 1min	37.0 x 24.0 x 15.4 mm (1.5" x 0.9" x 0.6")	UL/IEC/EN62368-1 EN62233 IEC/EN61558-1, 2-16 EN60335-1	Operating temperature range: -40°C to +85°C over Voltage category: OVC III household certified, low profile no load power consumption <75mW
 RAC04-K/277	4	80-305	3.3, 5, 12, 15, 24	4 kVAC / 1 min	36.7 x 27.2 x 17.4 mm (1.4" x 1.0" x 0.7")	EN/IEC/UL60950-1 EN/IEC/UL62368-1 IEC/EN61558-1, 2-16 EN61010-1 EN60335-1	Operating temperature range: -40°C to +90°C household certified 6W peak power extra robust series
 RAC04-G (B or A)	4	85-305	3.3, 5, 9, 12, 15, 24	3 kVAC / 1 min	37.0 x 24.0 x 15.0 mm (1.5" x 0.9" x 0.6")	EN/IEC/UL62368-1 EN60335-1 EN/IEC61558-1, 2-16	No load power consumption <75mW operating temperature range: -40°C to +85°C low profile and typ. 3W footprint RAC04-GA: household certified, low leakage current
 RAC05-K	5	85-264	3.3, 5, 12, 15, 24	3 kVAC / 1 min	25.4 x 25.4 x 16.5 mm (1.0" x 1.0" x 0.6")	EN/IEC/UL62368-1	Super compact size 1" x 1" high efficiency starting from 1W load

# AC/DC CONVERTERS

## PCB MOUNT

- 1 to 60 watts
- Regulated outputs
- OVP and OCP protected
- Low output ripple & noise
- High efficiency over the entire load range
- Optimized stand by mode operation
- Built-in EN55032 class B filter
- Ultra compact size
- Modified standards available

Series	Power (W)	Vin (VAC)	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Certifications	Other features
 RAC05E-K	5	90-264	4, 5, 12, 15, 24	3 kVAC / 1 min	37.0 x 24.0 x 18.0 mm (1.5" x 0.9" x 0.7")	EN/IEC/UL62368-1 EN/IEC60335-1 EN/IEC61558-1, 2-16	Economical design no load power consumption <100mW industry standard pinout for typ. 3W
 RAC05E-KT	5	90-264	4, 5, 12, 15, 24	3 kVAC / 1 min	32.1 x 27.1 x 21.8 mm (1.3" x 1.1" x 0.9")	UL/IEC/EN62368-1 IEC/EN60335-1 EN/IEC61558-1, 2-16	Operating temperature range: -25°C to +75°C economical design no load power consumption <100mW EI30 standard Transformer pinout
 RAC05-K/277	5	85-305	3.3, 5, 12, 15, 24	4.2 kVAC / 1 min	31.7 x 26.7 x 21.8 mm (1.2" x 1.0" x 0.9")	EN/UL62368-1 IEC/EN60335-1	Over voltage category: OVC III operating temperature range: -40°C to +90°C 6W peak power
 RAC05-K/480	5	85-528	5, 12, 15	5.4 kVAC / 1 min	52.5 x 27.4 x 23.0 mm (2.1" x 1.1" x 0.9")	IEC/EN62368-1 UL/IEC61010-1	Ultra-wide input range 85-528VAC OVC III input rating
 RAC10-K/277	10	85-305	3.3, 5, 12, 15, 18, 24 ±12, ±15	4 kVAC / 1 min	52.5 x 27.4 x 23.0 mm (2.1" x 1.1" x 0.9")	EN/IEC/UL60950-1 EN/IEC/UL62368-1 EN/IEC60335-1 EN62477-1	OVC III rated operating temperature range: -40°C to +80°C 14 Watt peak power single (S) / dual (D) outputs available
 RAC10E-K/277	10	85-305	3.3, 5, 12, 15, 24	4 kVAC / 1min	45.7 x 25.4 x 21.5 mm (1.8" x 1.0" x 0.8")	UL/IEC62368-1 EN/IEC61558-1, 2-16	Economical design compact shape over voltage category: OVC III EMI class B with grounded output
 RAC15-K	15	85-264	5, 12, 15, 24	3 kVAC / 1 min	52.5 x 27.4 x 23.0 mm (2.1" x 1.1" x 0.9")	EN/IEC/UL62368-1 IEC/EN60335-1 IEC/EN61558-1, -2-16	Standby mode optimized PSU (ENER Lot 6) ultra-high efficiency over entire load range operating temperature range: -40°C to +85°C
 RAC15-K/480	15	85-528	5, 12, 15, 24	4 kVAC / 1min	52.5 x 40.0 x 25.5 mm (2.1" x 1.6" x 0.9")	UL/IEC/EN62368-1 EN/IEC61010 EN60335	Phase to phase connections OVC III up to 5000m, PD3 and LPS operating temperature range: -40 to +90°C

# AC/DC CONVERTERS

## PCB MOUNT

- 1 to 60 watts
- Regulated outputs
- OVP and OCP protected
- Low output ripple & noise
- High efficiency over the entire load range
- Optimized stand by mode operation
- Built-in EN55032 class B filter
- Ultra compact size
- Modified standards available






Series	Power (W)	Vin (VAC)	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Certifications	Other features
  RACM18-ER	18	90-264	5, 12, 24	4.6 kVAC / 1 min	53.0 x 51.0 x 24.5 mm (2.1" x 2.0" x 1.0")	EN/IEC/UL60950-1 EN/IEC/UL60601-1 EN/IEC60335-1 EN/IEC61558-2-16 IEC/EN60601-1-2	Suitable for household and smart building IP68 waterproof 5000m altitude
 RAC20-K(/277)	20	85-264 (/277) 85-305	5, 12, 15, 24, 48 ±12, ±15	3 kVAC / 1 min	52.5 x 27.4 x 23.0 mm (2.1" x 1.1" x 0.9")	EN/IEC/UL62368-1 IEC/EN60335-1 IEC/EN61558-1, -2-16	Standby mode optimized PSU (ENER Lot 6) ultra-high efficiency over entire load range
 RAC20E-K/277	20	85-305	5, 12, 24	4 kVAC / 1min	52.7 x 27.6 x 23.0 mm (2.1" x 1.1" x 0.9")	UL/IEC/EN62368-1 EN/IEC61558-1, 2-16	Economical design over voltage category: OVC III 5000m altitude (OVC II)
<b>new</b>  RAC25-K/480	25	85-528	5, 12, 15, 24	4 kVAC / 1min	83.2 x 46.4 x 30.4 mm (3.3" x 1.8" x 1.2")	UL/IEC/EN62368-1 EN/IEC61010 EN603350	Phase to phase connections OVC III up to 5000m, PD3 and LPS operating temperature range: -40 to +90°C
   RACM30-K/277	30	85-305	5, 12, 15, 24, ±12, ±15	4 kVAC / 1 min	52.5 x 40.0 x 25.5 mm (2.1" x 1.6" x 0.9")	ANSI/AAMI ES60601-1 UL/EN/IEC62368-1 EN60335-1 EN62233 IEC/EN60601-1 IEC/EN61558-2	Industry standard pinning [P12] OVC III up to 5000m, PD3 and LPS operating temperature range: -40°C to +60°C up to 90°C operation for reduced load
  RACM40-K	40	80-264	5, 12, 15, 18, 24, 36, 48	4 kVAC / 1 min	83.2 x 46.4 x 30.4 mm (3.2" x 1.8" x 1.2")	ANSI/AAMI ES60601-1 EN/IEC60335-1 EN/IEC62368-1 EN/IEC60601-1 EN/IEC61558-1, 2-16	Internal EMC class B filter household certified operating temperature range: -40°C to +85°C
  RACM40-K/OF/PCB	40	80-264	5, 12, 15, 18, 24, 36, 48	4 kVAC / 1 min	78.3 x 40.6 x 25.5 mm (OF) (3.0" x 1.6" x 1.0") 78.3 x 40.6 x 29.1 mm (PCB) (3.0" x 1.6" x 1.1")	ANSI/AAMI ES60601-1 EN/IEC60335-1 EN/IEC62368-1 EN/IEC60601-1 EN/IEC61558-1, 2-16	Operating temperature range: -40° to +85°C over voltage category: OVC III rated optional 2"x3" package (/2"x3")
  RACM60-K/OF/PCB	60	80-264	5, 12, 15, 24, 36, 48	4 kVAC / 1 min	78.4 x 53.0 x 35.4 mm (3.0" x 2.0" x 1.4")	ANSI/AAMI ES60601-1 EN/IEC60335-1 EN/IEC62368-1 EN/IEC60601-1 EN/IEC61558-1, 2-16	Internal EMC class B filter household certified operating temperature range: -40°C to +85°C



# AC/DC CONVERTERS

## CHASSIS MOUNT

- 3 to 1200 watts
- Short circuit protection
- Built-in active PFC
- Built-in class B filter
- Different package types:  
enclosed and open-frame (/OF) versions

Series	Power (W)	Vin (VAC)	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Certifications	Other features
 RAC03-SER/277	3	85-305	3.3, 5, 12, 24	3 kVAC / 1 min	50.3 x 50.3 x 11.0 mm (2.0" x 2.0" x 0.4")	EN/IEC/UL60950-1 EN60335-1	Extra low footprint <11mm low no load power consumption <40mW operating temperature range: -40°C to +85°C round design and flying wires for flushmounting
 RAC05-K/277/W	5	85-305	3.3, 5, 12, 15, 24	4.2 kVAC / 1 min	31.7 x 26.7 x 21.8 mm (1.2" x 1.0" x 0.9")	EN/UL62368-1 IEC/EN60335-1	Over voltage category: OVC III operating temperature range: -40°C to +90°C 6W peak power
 RAC05-K/C14	5	85-264	3.3, 5, 12, 15, 24	3 kVAC / 1 min	67.0 x 48.0 x 23.0 mm (2.6" x 1.9" x 0.9")	UL/IEC/EN62368-1 IEC/EN60950-1	Isolated power supply with integrated mains filter, safe, touchable DC outputs easy installation worldwide standard IEC input
 RACM18-ER/W	18	90-264	5, 12, 24	4.6 kVAC / 1 min	53.0 x 51.0 x 24.5 mm (2.1" x 2.0" x 1.0")	EN/IEC/UL60950-1 EN/IEC/UL60601-1 EN/IEC60335-1 EN/IEC61558-2-16 IEC/EN60601-1-2	Suitable for household and smart building IP68 waterproof 5000m altitude
 RAC20-K/W	20	85-264 (/277) 85-305	5, 12, 15, 24, 48	3 kVAC / 1 min	52.5 x 27.4 x 23.0 mm (2.1" x 1.1" x 0.9")	EN/IEC/UL62368-1 IEC/EN60335-1 IEC/EN61558-1 IEC/EN61558-2-16	Standby mode optimized PSU (ENER Lot 6) ultra-high efficiency over entire load range /277/W version on request
 RACM30-K/277/OF (/W)	30	85-305	5, 12, 15, 24, ±12, ±15	4 kVAC / 1 min	52.5 x 40.0 x 25.5 mm (W) (2.1" x 1.6" x 0.9") 72.2 x 38.1 x 23.0 mm (OF) (3" x 1.5" x 0.9")	UL/EN/IEC62368-1 EN60335-1 EN62233 IEC/EN60601-1 IEC/EN61558-2	OVC III up to 5000m, PD3 and LPS, operating temperature range: -40°C to +60°C, up to 90°C operation for reduced load, /PMP: panel mount version with push-in terminals /PMPD: din rail version with push-in terminals
 RACM40-K/OF	40	80-264	5, 12, 15, 18, 24, 36, 48	4 kVAC / 1 min	78.3 x 40.6 x 25.5 mm (OF) (3.0" x 1.6" x 1.0") 78.3 x 53.0 x 25.5 mm (2x3") (3.0" x 2.0" x 1.0")	ANSI/AAMI ES60601-1 EN/IEC60335-1 EN/IEC62368-1 EN/IEC60601-1 EN/IEC61558-1, 2-16	/PCB: solderpin printmount version available household certified operating temperature range: -40°C to +85°C
 RACM60-K/OF (/ENC/2x4) (/277/OF)	60	80-264, 80-305 (/277/OF)	5, 12, 15, 24, 36, 48	4 kVAC / 1 min	78.4 x 53.0 x 31.5 mm (OF) (3.0" x 2.0" x 1.2") 101.6 x 53.0 x 31.5 mm (2x4") (4.0" x 2.0" x 1.2")	ANSI/AAMI ES60601-1 EN/IEC60335-1 EN/IEC62368-1 EN/IEC60601-1 EN/IEC61558-1, 2-16	/PCB: solderpin printmount version available operating temperature range: -40°C to +85°C, /277/OF: 76.2 x 50.8 x 32.0 mm /ENC/2x4: 118.3 x 62.7 x 38.7 mm

# AC/DC CONVERTERS

## CHASSIS MOUNT

- 3 to 1200 watts
- Short circuit protection
- Built-in active PFC
- Built-in class B filter
- Different package types:  
enclosed and open-frame (/OF) versions

	Series	Power (W)	Vin (VAC)	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Certifications	Other features
<div><div><div>new</div><div></div></div><div></div></div> <div>RACM90-K/OF (/ENC)</div> <div>90</div> <div>85-264</div> <div>12, 15, 24, 36, 48</div> <div>4 kVAC / 1 min</div> <div>101.6 x 50.8 x 32.0 mm (OF) (4.0" x 2.0" x 1.3") 118.3 x 62.7 x 38.7 mm (ENC) (4.6" x 2.4" x 1.5")</div> <div>ANSI/AAMI ES60601-1 EN/IEC60335-1 EN/IEC62368-1 EN/IEC60601-1 EN/IEC61558-1, 2-16</div> <div>B and BF ready low leakage current &lt;75µA LPS limited power source rated</div>								
<div><div><div>new</div><div></div></div><div></div></div> <div>RACM130E-K/OF (/ENC)</div> <div>130</div> <div>85-264</div> <div>12, 15, 24, 36, 48</div> <div>4 kVAC / 1 min</div> <div>101.6 x 50.8 x 32.0 mm (OF) (4.0" x 2.0" x 1.3") 118.3 x 62.7 x 38.7 mm (ENC) (4.6" x 2.4" x 1.5")</div> <div>ANSI/AAMI ES60601-1 EN/IEC60335-1 EN/IEC62368-1 EN/IEC60601-1 EN/IEC61558-1, 2-16</div> <div>B and BF ready low leakage current &lt;75µA LPS limited power source rated</div>								
<div></div> <div>RAC150-G/OF (/ENC)</div> <div>150</div> <div>90-264</div> <div>12, 24, 48</div> <div>3 kVAC / 1 min</div> <div>105.0 x 62.0 x 35.0 mm (ENC) (4.1" x 2.4" x 1.4") 101.6 x 50.8 x 30.0 mm (OF) (4.0" x 2.0" x 1.2")</div> <div>EN/IEC/UL62368-1</div> <div>Efficiency up to 91% SCP and OVP protection coldplate cooling or /ENC: enclosed version output 125W at +50°C with natural convection</div>								
<div><div></div><div></div></div> <div>RACM230-G/OF (/ENC)</div> <div>160 / 230</div> <div>80-264</div> <div>12, 24, 36, 48, 54</div> <div>4 kVAC / 1 min</div> <div>101.6 x 50.8 x 32.0 mm (OF) (4.0" x 2.0" x 1.3") 105.0 x 62.0 x 35.0 mm (ENC) (4.1" x 2.4" x 1.4")</div> <div>ANSI/AAMI ES60601-1 EN/IEC62368-1 EN/IEC60335-1 EN/IEC60601-1 EN/IEC61558-1, 2-16</div> <div>160W conduction-cooled, fan-less operation household certified standby power consumption &lt;0.5W wide operating temperature range: -40°C to +80°C</div>								
<div><div></div><div></div></div> <div>RACM550-G/OF (/ENC)</div> <div>300 / 550</div> <div>80-264</div> <div>24, 36, 48, 56</div> <div>4 kVAC / 1 min</div> <div>127.0 x 76.0 x 38.0 mm (OF) (5.0" x 3.0" x 1.5") 150.0 x 87.0 x 45.0 mm (ENC) (5.9" x 3.4" x 1.8")</div> <div>ANSI/AAMI ES60601-1 IEC/EN62368-1 IEC/EN60335-1 IEC/EN60601-1 IEC/EN61558-1, 2-16</div> <div>300W conduction-cooled, fan-less operation 550W peak power or forced air rating household certified 5VSB Auxiliary and 12V fan outputs</div>								
<div><div></div><div></div></div> <div>RACM600-L/OF</div> <div>600</div> <div>80-275</div> <div>24</div> <div>4 kVAC / 1 min</div> <div>196.8 x 101.6 x 40.6 mm (7.7" x 4.0" x 1.6")</div> <div>UL/IEC/EN62368-1 ANSI/AAMI ES60601-1 IEC/EN60601-1</div> <div>450W convection cooled, 600W peak power, 5VSB Aux-out &amp; active current sharing, PMB monitoring</div>								
<div><div></div><div></div></div> <div>RACM1200-V</div> <div>1200</div> <div>80-264</div> <div>24, 36, 48</div> <div>4 kVAC / 1 min</div> <div>228.0 x 96.2 x 40.0 mm (9.0" x 3.8" x 1.6")</div> <div>ANSI/AAMI ES60601-1 IEC/EN/UL62368-1 IEC/EN60601-1 IEC/EN61558-1, 2-16</div> <div>Operating temperature range: -40°C to +85°C optional PMBus version (/PMB), conduction cooled, fanless operation, industrial certified, modified standards available</div>								

# DC/DC CONVERTERS

RECOM has been offering isolated DC/DC converters and non-isolated switching regulators since 1975 and has the most extensive range on the market.

The standard range of isolated converters spans from 0.25W to 300W with higher power to several kW, available in RECOM's subsidiary company PCS as custom products based on proven platform designs. Almost every imaginable format of converter is offered, with a range of through-hole products, open or encapsulated surface-mount types in 'gullwing' or 'pinless' variants along with wired, screw terminal, and connectorized parts, mostly in industry-standard SIP, DIP, 'brick', and SMD formats. In addition to the standard portfolio, customized solutions are also available. Fixed and wide input isolated converters are available up to 16:1 with isolation ratings up to 20kVDC and certifications to

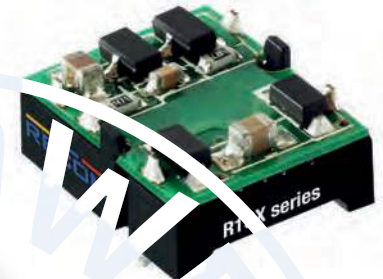
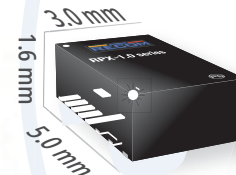
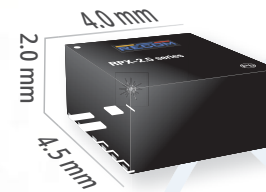
the highest 2MOPP medical grade. Unregulated and fully regulated parts are offered with variants featuring up to three outputs. For the **most cost sensitive applications** without sacrificing quality, the RECOM 'E' line provides the best value.

Non-isolated parts are available, ranging from 0.18W to 3kW and higher for custom designs from PCS. Input voltage ranges span 0.65V to 75V with some parts handling a 15:1 variation. Buck, boost, and buck-boost types have fixed or settable output voltages over a wide range from 0.8V to 30V. The package formats include SIP3/4/12, SMD, and 'brick'. Open frame and encapsulated types are available.

Many SMT parts feature RECOM's innovative '**3D Power Packaging®**' technology which utilizes advanced techniques to

leverage the 'third dimension' for maximum power density with minimum footprint. Typical construction methods are overmolded 'flip-chip on leadframe' for a QFN package, embedded die in substrates, and complex multi-layer PCBs with plugged and blind vias. 'Chip and wire bonding' with over-molding is another technique used with very high frequency planar magnetics for optimal thermal and functional performance. The result is a range of fully featured, high power density, low cost switching regulators, and isolated DC/DC converters in footprints down to 2x1.5mm with heights down to 1mm.

The RECOM DC/DC 'Book of Knowledge' gives an insight into the design methodologies used in your choice of DC/DC converter. [www.recom-power.com/bok](http://www.recom-power.com/bok)





# DC/DC CONVERTERS

- 0.25 to 3 watts
- Isolation voltages up to 20 kVDC
- Industry standard pinout
- Economical designs available
- (/E) – high efficiency
- (/H) – high isolation
- (/P) – short circuit protection
- Single (S), dual (D)

## UNREGULATED

Series		Power (W)	Vin (VDC)	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Certifications	Other features
	R0.25S (/E) R0.25D (DA)	0.25	3.3, 5, 12, 15, 24	3.3, 5, 9, 12, 15, 24, ±3.3, ±5, ±9, ±12, ±15, ±24, 5/5, 12/12	1 or 3 kVDC / 1 s	SMD 12.75 x 10.7 x 6.7 mm (S) (0.5" x 0.4" x 0.3") 15.24 x 10.7 x 6.7 mm (D) (0.6" x 0.4" x 0.3")	EN/IEC/UL60950-1 EN55032	Isolated independent dual outputs (A) operating temperature range: -40°C to +100°C high efficiency (/E) continuous short circuit protection (/P)
	RM	0.25	3.3, 5, 12, 15, 24	3.3, 5, 9, 12, 15	1 or 2 kVDC / 1 s	SIP4 11.5 x 6.0 x 10.0 mm (0.5" x 0.2" x 0.4")	EN/IEC/UL60950-1	Operating temperature range: -40°C to +85°C continuous short circuit protection (/P) higher isolation requirement 2kVDC
	R0.5S R0.5D	0.5	3.3, 5, 12, 24	5, 12, 15, ±5, ±12, ±15	1 or 3 kVDC / 1 s	SMD 12.75 x 10.7 x 6.7 mm (S) (0.5" x 0.4" x 0.3") 15.24 x 10.7 x 6.7 mm (D) (0.6" x 0.4" x 0.3")	UL60950-1	Operating temperature range: -40°C to +100°C continuous short circuit protection (/P) single (S) / dual (D) outputs available
	ROL	0.5	5, 12	5, 12, 15	1 or 2 kVDC / 1 s	SIP4 11.5 x 6.0 x 10.0 mm (0.5" x 0.2" x 0.4")	EN/IEC/UL60950-1	Operating temperature range: -40°C to +85°C continuous short circuit protection (/P)
	R1DA	1	3.3, 5, 9, 12, 15, 24	3.3/3.3, 5/5, 9/9, 12/12, 15/15	1 kVDC / 1 s	SMD 15.24 x 10.7 x 7.0 mm (0.6" x 0.4" x 0.3")	EN/UL60950-1	Isolated independent dual outputs operating temperature range: -40°C to +100°C continuous short circuit protection (/P)
	R1S (/E) R1D	1	3.3, 5, 12, 15, 24	3.3, 5, 9, 12, 15, 24 ±3.3, ±5, ±9, ±12, ±15, ±24	1, 2, or 3 kVDC / 1 s	SMD 12.75 x 10.7 x 7.0 mm (S) (0.5" x 0.4" x 0.3") 15.24 x 10.7 x 7.0 mm (D) (0.6" x 0.4" x 0.3")	EN/IEC/UL60950-1 EN55032	Operating temperature range: -40°C to +100°C high efficiency (/E) continuous short circuit protection (/P) economical design available (R1SE, R1SE/H2)
	R1SE	1	5	5	1 kVDC / 1 s	SMD 12.75 x 10.7 x 6.7 mm (0.5" x 0.4" x 0.3")	UL60950-1	Operating temperature range: -40°C to +85°C economical design
	R1SE/H2	1	3.3, 5, 12, 15	5, 12, 15	2 kVDC / 1 s	SMD 12.75 x 10.7 x 7.0 mm (0.5" x 0.4" x 0.3")	UL60950-1	Operating temperature range: -40°C to +100°C tape & reel packaging available (-R) economical design

# DC/DC CONVERTERS

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- Single (S), dual (D)

## UNREGULATED

Series	Power (W)	Vin (VDC)	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Certifications	Other features
 R1SX R1DX	1	3.3, 5, 12	3.3, 5 ±5, ±9, ±12, ±15	1 or 3 kVDC / 1 s	SMD 12.75 x 10.8 x 5.8 mm (S) (0.5" x 0.4" x 0.2") 15.24 x 10.7 x 8.5 mm (D) (0.6" x 0.4" x 0.3")	EN/IEC/UL62368-1 UL60950-1 EN55032/24	Operating temperature range: -40°C to +100°C single (S) / dual (D) outputs available pin compatible with R1S/R1D series economical design
 RAM	1	5, 12, 24	5	3.75 or 5 kVDC / 1 s	SMD 18.0 x 9.0 x 6.7 mm (0.7" x 0.3" x 0.2")	EN60950-1 EN55032	Operating temperature range: -40°C to +100°C very low isolation capacitance (4pF)
 RB (/E)	1	3.3, 5, 12, 15, 24	3.3, 5, 9, 12, 15, 24 ±3.3, ±5, ±9, ±12, ±15, ±24	1 or 2 kVDC / 1 s	SIP7 19.6 x 6.0 x 10.2 mm (0.8" x 0.2" x 0.4")	EN/IEC/UL60950-1 EN55032	High efficiency (/E), operating temperature range: -40°C to +85°C, continuous short circuit protec- tion (/P), single (S) / dual (D) outputs available, economical design available (RBE)
 RBE	1	5	5	1 kVDC / 1 s	SIP7 19.6 x 6.0 x 10.2 mm (0.8" x 0.2" x 0.4")	EN/IEC/UL60950-1	Operating temperature range: -40°C to +85°C industry standard economical design
 RBM	1	5, 12	5, 12, 15, ±5, ±12, ±15	3 kVDC / 1 s	SIP6 Micro 16.55 x 6.0 x 7.7 mm (0.7" x 0.2" x 0.3")	EN/IEC/UL60950-1	Operating temperature range: -40°C to +85°C continuous short circuit protection (/P)
 RE	1	3.3, 5, 12, 15, 24	3.3, 5, 9, 12, 15, 24	1 or 2 kVDC / 1 s	SIP7 19.6 x 6.0 x 10.2 mm (0.8" x 0.2" x 0.4")	EN/IEC/UL60950-1	Operating temperature range: -40°C to +85°C continuous short circuit protection (/P) economical design available (REE)
 REE	1	5	5	1 kVDC / 1 s	SIP7 19.6 x 6.0 x 10.2 mm (0.8" x 0.2" x 0.4")	EN/IEC/UL60950-1	Operating temperature range: -40°C to +85°C industry standard economical design
 REM1	1	3.3, 5, 12, 15, 24	3.3, 5, 12	5.2 kVDC / 1 min 4 kVAC / 1 min	SIP7 19.6 x 6.0 x 10.2 mm (0.8" x 0.2" x 0.4")	ANSI/AAMI ES60601-1 EN62368-1 EN/IEC60601-1 EN55032 IEC/EN60601-1-2	Reinforced isolation for 250VAC working voltage CF rated outputs, 5000m altitude, operating temperature range: -40°C to +90°C



# DC/DC CONVERTERS

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- (/P) – short circuit protection
- Isolation voltages up to 20 kVDC
- Economical designs available
- (/H) – high isolation
- Single (S), dual (D)

## UNREGULATED

Series	Power (W)	Vin (VDC)	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Certifications	Other features
 RFB	1	5	5	1 kVDC / 1 s	SIP7 19.6 x 6.0 x 10.2 mm (0.7" x 0.2" x 0.4")	UL60950-1	1:1 input voltage range 1kVDC isolation economical design
 RFM	1	5	5	1 kVDC / 1 s	SIP4 11.5 x 6.0 x 10.0 mm (0.4" x 0.2" x 0.4")	UL60950-1	Industry standard pinout 1kVDC isolation economical design
 RFMM	1	5	5	4 kVDC / 1 s	SIP7 19.65 x 7.05 x 10.2 mm (0.7" x 0.3" x 0.4")	UL60950-1	Industry standard pinout 4kVDC isolation economical design
 RK (/H) RH	1	5, 12, 15, 24	5, 9, 12, 15, ±5, ±9, ±12, ±15, +15/-9	3 or 4 kVDC / 1 s	SIP7 19.65 x 6.0 x 10.2 mm (0.8" x 0.2" x 0.4") 19.65 x 7.05 x 10.2 mm (H) (0.8" x 0.3" x 0.4")	EN/IEC/UL60950-1	Operating temperature range: -40°C to +90°C continuous short circuit protection (/P) economical design available (RKE) high isolation (/H)
 RK/H6 RH/H6	1	5, 12, 15, 24	3.3, 5, 12, 15, ±3.3, ±5, ±12, ±15	6.4 kVDC / 1 s	SIP7 19.65 x 7.05 x 10.2 mm (0.8" x 0.3" x 0.4")	IEC/UL60950-1 IEC62368-1 EN55032	Operating temperature range: -40°C to +90°C high capacitive load capability single (S) / dual (D) outputs available
 RKE/H	1	5, 12, 24	5	4 kVDC / 1 s	SIP7 19.6 x 7.05 x 10.2 mm (0.8" x 0.3" x 0.4")	EN/IEC/UL60950-1 EN55032/24	Operating temperature range: -40°C to +85°C high isolation economical design
 RNM	1	3.3, 5, 12, 15	3.3, 5, 9, 12, 15	1 or 2 kVDC / 1 s	DIP6 8.3 x 8.3 x 6.8 mm (0.3" x 0.3" x 0.3")	EN/IEC/UL60950-1	Ultra compact operating temperature range: -40°C to +85°C continuous short circuit protection (/P)
 RO (/E)	1	3.3, 5, 12, 15, 24	3.3, 5, 9, 12, 15, 24	1 or 2 kVDC / 1 s	SIP4 11.5 x 6.0 x 10.0 mm (0.5" x 0.2" x 0.4")	EN/IEC/UL60950-1	High efficiency (/E) operating temperature range: -40°C to +85°C continuous short circuit protection (/P) economical design available (ROE)



# DC/DC CONVERTERS

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- (/P) – short circuit protection
- Single (S), dual (D)









## UNREGULATED

Series	Power (W)	Vin (VDC)	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Certifications	Other features
 ROE	1	3.3, 5, 12, 15, 24	5, 12, 15	1 kVDC / 1 s	SIP4 11.5 x 6.0 x 10.0 mm (0.5" x 0.2" x 0.4")	EN/IEC/UL60950-1	Operating temperature range: -40°C to +85°C industry standard pinout economical design
 ROM	1	3.3, 5, 12	5, 12, 15	3 kVDC / 1 s	SIP4 Micro 11.5 x 6.0 x 7.7 mm (0.5" x 0.2" x 0.3")	EN/UL60950-1	Operating temperature range: -40°C to +85°C continuous short circuit protection (/P)
 RP	1	5, 9, 12, 15, 24	3.3, 5, 9, 12, 15, 24, ±3.3, ±5, ±9, ±12, ±15, ±24 +15/-9	5.2 kVDC / 1 s	SIP7 19.65 x 7.05 x 10.2 mm (0.8" x 0.3" x 0.4")	EN/IEC60950-1	Operating temperature range: -40°C to +85°C continuous short circuit protection (/P) single (S) / dual (D) outputs available
 RU	1	3.3, 5	5/5	1 or 2 kVDC / 1 s	SIP7 19.6 x 6.0 x 10.2 mm (0.8" x 0.2" x 0.4")	EN60950-1	Isolated independent dual outputs operating temperature range: -40°C to +85°C continuous short circuit protection (/P)
 RUM	1	3.3, 5	5/5	1 or 2 kVDC / 1 s	SIP6 16.55 x 6.0 x 7.7 mm (0.7" x 0.2" x 0.3")	EN60950-1	Isolated independent dual outputs operating temperature range: -40°C to +85°C continuous short circuit protection (/P) low profile
 RxxPxx (/R)	1	5, 12, 15, 24	3.3, 5, 6, 9, 12, 15, ±3.3, ±5, ±9, ±12, ±15, +15/-9	6.4 or 8 kVDC / 1 s	SIP7 19.5 x 9.8 x 12.5 mm (0.8" x 0.4" x 0.5")	EN/IEC/UL60950-1 EN/IEC/UL60601-1 ANSI/AAMI ES60601-1	Medical approved (/R6.4 & /R8 versions) operating temperature range: -40°C to +90°C continuous short circuit protection (/P) reinforced isolation (/R6.4 & /R8)
 RN	1.25	3.3, 5, 9, 12, 15, 24	3.3, 5, 7, 9, 12, 15, 24	1 or 2 kVDC / 1 s	DIP8 12.6 x 10.1 x 7.6 mm (0.5" x 0.4" x 0.3")	EN60950-1	Operating temperature range: -40°C to +85°C continuous short circuit protection (/P)
 R2S R2D	2	5, 12, 15, 24	3.3, 5, 9, 12, 15, 24, ±5, ±9, ±12, ±15, ±24	1 or 3 kVDC / 1 s	SMD 12.75 x 10.7 x 9.0 mm (S) (0.5" x 0.4" x 0.4") 15.24 x 10.7 x 9.0 mm (D) (0.6" x 0.4" x 0.4")	EN/IEC/UL60950-1 EN55032	Operating temperature range: -40°C to +100°C continuous short circuit protection (/P) single (S) / dual (D) outputs available

# DC/DC CONVERTERS

- 0.25 to 3 watts
- Isolation voltages up to 20 kVDC
- Industry standard pinout
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- (/H) – high isolation
- (/P) – short circuit protection
- Single (S), dual (D)








## UNREGULATED

Series		Power (W)	Vin (VDC)	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Certifications	Other features
	R2SX	2	5, 12, 24	3.3, 5, 15, 24	1 or 3 kVDC / 1 s	SMD 15.24 x 11.1 x 8.0 mm (0.6" x 0.4" x 0.4")	EN/IEC/UL62368-1 EN/IEC/UL60950-1 EN55032 EN55024	Operating temperature range: -40°C to +100°C no minimum load required economical design
	REM2	2	3.3, 5, 12, 15, 24,	3.3, 5, 9, 12, ±3.3, ±5, ±12,	5,2 kVDC / 1 min	SIP8 23.0 x 8.0 x 12.2 mm (0.9" x 0.4" x 0.5")	ANSI/AAMI ES60601-1 CAN/CSA60601-1 IEC/EN62368-1 EN/IEC60601-1 EN60601-1-2	Operating temperature range: -40°C to +95°C single (S) / dual (D) outputs available reinforced isolation for 250VAC working voltage CF rated outputs, 5000m altitude
	RD	2	5, 12, 24	±5, ±12, ±15, ±24	1 or 2 kVDC / 1 s	SIP7 19.65 x 7.0 x 10.2 mm (0.8" x 0.3" x 0.4")	IEC/EN60950-1	Operating temperature range: -40°C to +85°C continuous short circuit protection (/P)
	RI	2	5, 12, 15, 24	5, 12, 15	1 kVDC / 1 s	SIP4 11.5 x 7.6 x 10.2 mm (0.5" x 0.3" x 0.4")	IEC/EN60950-1	Operating temperature range: -40°C to +85°C continuous short circuit protection (/P)
	RJZ RGZ	2	3.3, 5, 9, 12, 15, 24	3.3, 5, 9, 12, 15, 24, ±3.3, ±5, ±9, ±12, ±15, ±24, +15/-9	3 or 4 kVDC / 1 s	DIP14 19.9 x 10.0 x 7.1 mm (0.8" x 0.4" x 0.3")	IEC/EN60950-1 EN55032	Operating temperature range: -40°C to +90°C continuous short circuit protection (/P) single, dual or asymmetric output options
	RKZ	2	5, 12, 24	5, 12, 15, ±5, ±12, ±15, +15/-9,	3 or 4 kVDC / 1 s	SIP7 19.65 x 7.05 x 10.2 mm (0.8" x 0.3" x 0.4")	EN/IEC/UL60950-1	Operating temperature range: -40°C to +85°C continuous short circuit protection (/P) single, dual or asymmetric output options
	RKZE	2	5, 12, 15, 24	5, 9, 12, 15, ±5, ±12, ±15	3 or 4 kVDC / 1 s	SIP7 19.65 x 7.05 x 10.2 mm (0.7" x 0.3" x 0.4")	EN62368-1 EN55032 EN55024	Economical design /H suffix for 4kV Isolation single (S) / dual (D) outputs available
	RTM	2	5, 12, 24	5	2 or 3 kVDC / 1 s	SMD 18.0 x 8.7 x 7.15 mm (0.7" x 0.3" x 0.3")	EN60950-1 EN55032	Operating temperature range: -40°C to +90°C

# DC/DC CONVERTERS

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- Single (S), dual (D)

## UNREGULATED


Series	Power (W)	Vin (VDC)	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Certifications	Other features
 RHV2	2	5, 12, 24	5, 12, 24, ±5, ±12	20 kVDC / 1 s	SIP16 45.0 x 15.0 x 17.0 mm (1.7" x 0.6" x 0.7")	IEC/EN62368-1 IEC/EN61010-1	Compact SIP16 case with >30mm pin separation low 4pF max. isolation capacitance operating temperature range: -40°C to +85°C at full load
 RUZ	2	5	5/5	1 or 2 kVDC / 1 s	SIP7 19.65 x 7.0 x 10.2 mm (0.8" x 0.3" x 0.4")	IEC/EN60950-1	Isolated independent dual outputs operating temperature range: -40°C to +85°C continuous short circuit protection (/P)
 RV (/R)	2	3.3, 5, 12, 15, 24	3.3, 5, 9, 12, 15, 24, ±3.3, ±5, ±9, ±12, ±15, ±24, +15/-9	6, 6.4, or 8 kVDC / 1 s	DIP24 Micro 32.4 x 14.7 x 11.1 mm (1.3" x 0.6" x 0.4") 32.4 x 14.4 x 11.4 mm (/R) (1.3" x 0.6" x 0.5")	EN/UL60950-1 EN61010-1 ANSI/AAMI ES60601-1 EN55032	Medical approved (/R6.4 & /R8 versions) continuous short circuit protection (/P) operating temperature range: -40°C to +90°C single, dual or asymmetric output options
 RxxP2xx (/R)	2	5, 12, 15, 24	3.3, 5, 9, 12, 15, ±3.3, ±5, ±9, ±12, ±15, +15/-3, +15/-9, +20/-5	6.4 or 8 kVDC / 1 s	SIP7 19.5 x 9.8 x 12.5 mm (0.8" x 0.4" x 0.5")	EN/UL60950-1 EN/IEC/UL60601-1 ANSI/AAMI ES60601-1 EN55032	Medical approved (/R6.4 & /R8 versions) continuous short circuit protection (/P) operating temperature range: -40°C to +95°C single, dual or asymmetric output options
 RI3	3	5, 12, 15, 24	5, 9, 12, 15	1, 2, or 3 kVDC / 1 s	SIP4 11.5 x 7.6 x 10.2 mm (0.5" x 0.3" x 0.4")	EN/IEC/UL60950-1 EN55032	Very high power density operating temperature range: -40°C to +100°C
 RKZ3	3	5, 12, 24	5, 12	3 or 4 kVDC / 1 s	SIP7 19.6 x 7.5 x 12.2 mm (0.8" x 0.3" x 0.5")	IEC/EN62368-1	High power density efficiency up to 90% pin-compatible with RK & RKZ
 RHV3	3	5, 12, 24	5, 12, 24, ±5, ±12	20 kVDC / 1 s	SIP16 45.0 x 15.0 x 17.0 mm (1.7" x 0.6" x 0.7")	IEC/EN62368-1 IEC/EN61010-1	Compact SIP16 case with >30mm pin separation low 4pF max. isolation capacitance operating temperature range: -40°C to +80°C at full load



# DC/DC CONVERTERS

## REGULATED

- 0.5 to 300 watts
- Isolation voltages up to 10 kVDC
- Short circuit protection
- Economical design available
- Modified standards available
- (-R) – tape & reel packaging
- (/P) – short circuit protection
- (Z), (W) – wide input range
- (-HC) – heatsink available
- (/SMD) – surface mount device
- (/M) – metal case

Series	Power (W)	Vin (VDC)	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Certifications	Other features
 R0.5Z	0.5	5, 12, 15, 24	5, 12, 15	1 or 2 kVDC / 1 s	SMD 15.24 x 10.7 x 7.1 mm (0.6" x 0.4" x 0.3")	EN/UL60950-1 EN55022	Operating temperature range: -40°C to +85°C continuous short circuit protection (/P)
 R0.5ZX	0.5	5	5	1 or 2 kVDC / 1 s	SMD 15.24 x 11.1 x 8.5 mm (0.6" x 0.4" x 0.4")	IEC/EN60950-1 UL60950-1 EN/IEC/UL62368-1 EN55032 EN55024	Operating temperature range: -40°C to +100°C regulated output with internal linear regulator industry standard pinout
 R05CT05S	0.5	4.5-5.5	3.3, 3.7, 5.0, 5.4	5 kVAC / 1 min	SMD 10.3 x 7.5 x 2.65 mm (0.4" x 0.3" x 0.1")	ANSI/AAMI ES60601-1 UL/IEC/EN62368-1 IEC/EN60601-1	Operating temperature range: -40°C to +140°C 1kVAC working voltage CTRL, SYNC, and UVLO selectable outputs
 R05C05TE05S	0.5	4.5-5.5	5	3 kVDC / 1 min	SMD 10.35 x 7.5 x 2.5 mm (0.4" x 0.3" x 0.1")	IEC/EN62368-1	Ultra-wide operating temperature range: -40°C to +125°C low EMI emissions, low profile (2.5mm) economical design
 R05CTE05S	1	4.5-5.5	5	3 kVDC / 1 min	SMD 10.35 x 7.5 x 2.5 mm (0.4" x 0.3" x 0.1")	IEC/EN62368-1	Ultra-wide operating temperature range: -40°C to +125°C low EMI emissions, low profile (2.5mm) economical design
 R1M/SMD	1	9-18, 18-36, 36-72	3.3, 5, 9, 12, 15, 24, ±5, ±12, ±15	1.6 kVDC / 1min	SMD 14.2 x 9.1 x 10.2 mm (0.6" x 0.4" x 0.4")	N/A	Operating temperature range: -40°C to 90°C efficiency up to 81% single (S) / dual (D) outputs available
 R1Z	1	3.3, 5, 12, 15, 24	3.3, 5, 9, 12, 15	1 or 2 kVDC / 1 s	SMD 15.24 x 10.7 x 9.0 mm (0.6" x 0.4" x 0.4")	EN/IEC/UL60950-1 EN55022	Operating temperature range: -40°C to +70°C continuous short circuit protection (/P)
 R1ZX	1	5	5	1 or 2 kVDC / 1 s	SMD 15.24 x 11.1 x 8.5 mm (0.6" x 0.4" x 0.4")	IEC/EN/UL60950-1 EN/IEC/UL62368-1 EN55032 EN55024	Operating temperature range: -40°C to +100°C regulated output with internal linear regulator industry standard pinout

# DC/DC CONVERTERS

## REGULATED









- 0.5 to 300 watts
- Isolation voltages up to 10 kVDC
- Short circuit protection
- Economical design available
- Modified standards available
- (-R) – tape & reel packaging
- (/P) – short circuit protection
- (Z), (W) – wide input range
- (-HC) – heatsink available
- (/SMD) – surface mount device
- (/M) – metal case

Series	Power (W)	Vin (VDC)	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Certifications	Other features
 RAZ	1	5, 12, 24	5	1.25 or 2.5 kVDC / 1 s	SMD 18.0 x 8.7 x 7.8 mm (0.7" x 0.3" x 0.3")	IEC/EN60950-1 EN60601-1	Operating temperature range: -40°C to +85°C
 RSO (Z)	1	4.5-9, 9-18, 18-36, 36-72 9-36, 18-72 (Z)	3.3, 5, 9, 12, 15, ±3.3, ±5, ±9, ±12, ±15	1, 2, or 3 kVDC / 1 s	SIP8 21.8 x 9.2 x 11.1 mm (0.9" x 0.4" x 0.4")	EN/IEC/UL60950-1	Operating temperature range: -40°C to +85°C 4:1 input voltage available (Z) economical design available (RSOE)
 RSOE (Z)	1	4.5-9, 18-36, 4.5-18, 9-36 (Z)	5	2 kVDC / 1 s	SIP8 21.8 x 9.2 x 11.1 mm (0.9" x 0.4" x 0.4")	UL60950-1 IEC/EN/UL62368-1	Operating temperature range: -40°C to +80°C 4:1 input voltage available (Z) economical design
 RY	1	5, 9, 12, 15, 24	5, 9, 12, 15, 24 ±5, ±9, ±12, ±15, ±24	1 kVDC / 1 s	SIP7 19.65 x 7.05 x 10.2 mm (0.8" x 0.3" x 0.4")	EN60950-1	Control pin (on/off) operating temperature range: -40°C to +70°C continuous short circuit protection (/P) single (S) / dual (D) outputs available
 R2M (/SMD)	2	9-18, 18-36, 36-72	3.3, 5, 9, 12, 15, 24, ±5, ±12, ±15	1.6 kVDC / 1 min	DIP8 SMD 13.2 x 9.1 x 10.2mm (0.5" x 0.4" x 0.4") 14.2 x 9.1 x 10.2 mm (0.6" x 0.4" x 0.4")	N/A	Operating temperature range: -40°C to 105°C efficiency up to 81% single (S) / dual (D) outputs available
 RS (Z)	2	4.5-9, 9-18, 9-36, 18-36, 18-72, 36-72 (Z)	3.3, 5, 9, 12, 15, ±3.3, ±5, ±9, ±12, ±15	1, 2, or 3 kVDC / 1 s	SIP8 21.8 x 9.2 x 11.1 mm (0.9" x 0.4" x 0.4")	EN/IEC/UL60950-1	Operating temperature range: -40°C to +85°C 4:1 input voltage available (Z), economical design available (RSE), single (S) / dual (D) outputs available, /SMD for SMD version
 RSE (Z)	2	4.5-9, 18-36, 4.5-18, 9-36 (Z)	5	2 kVDC / 1 s	SIP8 21.8 x 9.2 x 11.1 mm (0.9" x 0.4" x 0.4")	UL60950-1 IEC/EN/UL62368-1	Operating temperature range: -40°C to +75°C 4:1 input voltage available (Z) economical design
 RTC2	2	4.5-9, 18-36	5	3 kVDC / 1 s	SMD 14.9 x 14.2 x 9.6 mm (0.6" x 0.6" x 0.4")	EN/IEC62368-1 EN55022	Operating temperature range: -40°C to +100°C compact SMD package, control pin (on/off) economical design

# DC/DC CONVERTERS

## REGULATED









- 0.5 to 300 watts
- Economical design available
- (P) – short circuit protection
- (/SMD) – surface mount device
- Isolation voltages up to 10 kVDC
- Modified standards available
- (Z), (W) – wide input range
- (/M) – metal case
- Short circuit protection
- (-R) – tape & reel packaging
- (-HC) – heatsink available

Series	Power (W)	Vin (VDC)	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Certifications	Other features
 RSH2	2	2.8-5.5, 4.5-13.2, 9-18, 18-36	3.3, 5, 12, 15, 24	2 or 3 kVDC / 1 min	SMD 18.9 x 17.2 x 8.7 mm (0.7" x 0.7" x 0.3")	IEC/EN/UL62368-1 CAN/CSA-C22.2 NO. 62368-1	2:1 and 3:1 wide input range voltage 2W power in compact SMD package efficiency up to 84% operating temperature range: -40°C to +100 °C
 RW2	2	4.5-9, 9-18, 18-36, 36-72	3.3, 5, 12, 15, ±5, ±9, ±12, ±15	1, 2, or 3 kVDC / 1 s	Mini DIP16 DIP16 SMD 22.1 x 12.55 x 8.5 mm (0.9" x 0.5" x 0.3") 24.2 x 14.50 x 9.7 mm (1.0" x 0.6" x 0.4") 24.2 x 14.50 x 10.2 mm (1.0" x 0.6" x 0.4")	IEC/EN60950-1	Operating temperature range: -40°C to +85°C DIP16 Mini smaller case size (/B) SMD package available (/SMD) single (S) / dual (D) outputs available
 R3M/SMD	3	4.5-18, 9-36, 18-75	3.3, 5, 9, 12, 15, 24, ±5, ±12, ±15	1.6 kVDC / 1min	SMD 14.2 x 9.1 x 10.2 mm (0.6" x 0.4 x 0.4")	N/A	Operating temperature range: -40°C to +105°C efficiency up to 84% single (S) / dual (D) outputs available
 REC3A	3	4.5-9, 18-36	5	2 kVDC / 1 s	DIP24 31.8 x 20.3 x 10.2 mm (1.3" x 0.8" x 0.4")	UL60950-1 IEC/EN62368-1 EN55022	Operating temperature range: -40°C to +100°C no minimum load required optional UVLO (/X1) economical design
 REC3-RW	3	4.5-9, 9-18, 18-36, 36-72 9-36, 18-72 (Z)	3.3, 5, 9, 12, 15, ±5, ±12, ±15	2, 4, or 6 kVDC / 1 s	DIP24 SMD 32.0 x 20.3 x 10.2 mm (1.3" x 0.8" x 0.4") 32.0 x 19.9 x 11.2 mm (1.3" x 0.8" x 0.4")	EN/UL60950-1	Operating temperature range: -40°C to +80°C SMD package (/SMD) or metal case (/M) single (S) / dual (D) outputs available 4:1 input voltage available (Z)
 REM3(W)	3	4.5-9, 9-18, 18-36, 36-75 9-36, 18-75 (W)	3.3, 5, 12, 15, 24, ±5, ±12, ±15	5 kVAC / 1min	DIP24 31.8 x 20.3 x 10.4 mm (1.3" x 0.8" x 0.4")	ANSI/AAMI ES60601-1 CAN/CSA60601-1 IEC/EN60601-1 EN55011 EN60601-1-2	Reinforced isolation for 250VAC working voltage 4:1 input voltage available (W) CF rated outputs, 5000m altitude operating temperature range: -40°C to +100°C
 RP03-RAW	3	36-160	3.3, 5, 12, 15, 24, ±5, ±12, ±15	3kVAC / 1 min	DIP24 31.8 x 20.3 x 10.6 mm (1.3" x 0.8" x 0.4")	UL/IEC/EN62368-1 EN50155 EN45545-2	Designed for railway and industrial applications operating temperature range: -40°C to +105°C CE marked 3 kVAC/ 1 min reinforced insulation
 RS3 (Z)	3	4.5-9, 9-18, 18-36, 36-72 9-27, 20-60 (Z)	3.3, 5, 9, 12, 15, ±3.3, ±5, ±9, ±12, ±15	1, 2, or 3 kVDC / 1 s	SIP8 21.8 x 9.2 x 11.1 mm (0.9" x 0.4" x 0.4")	IEC/EN60950-1	Operating temperature range: -40°C to +71°C 3:1 input voltage available (Z) high power density control pin (on/off)

# DC/DC CONVERTERS

## REGULATED

- 0.5 to 300 watts
- Isolation voltages up to 10 kVDC
- Short circuit protection
- Economical design available
- Modified standards available
- (-R) – tape & reel packaging
- (/P) – short circuit protection
- (Z), (W) – wide input range
- (-HC) – heatsink available
- (/SMD) – surface mount device
- (/M) – metal case








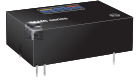





Series	Power (W)	Vin (VDC)	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Certifications	Other features
 RS3E	3	4.5-9, 9-18, 18-36, 36-72	3.3, 5, 9, 12, 15, 24	3kVDC / 1 min	SIP8 21.8 x 9.2 x 11.1 mm (0.9" x 0.4" x 0.4")	UL62368-1 IEC/EN62368-1 IEC60950-1	Operating temperature range: -40°C to +70°C 2:1 wide input range voltage efficiency up to 81%
 RSH3	3	9-18, 18-36	5, 12, 15, 24 ±12, ±15	3 kVDC / 1min	SMD 18.9 x 17.2 x 8.7 mm (0.7" x 0.7" x 0.3")	IEC/EN/UL62368-1 CAN/CSA-C22.2 NO. 62368-1	2:1 wide input range voltage 3W power in compact SMD package efficiency up to 83% operating temperature range: -40°C to +100 °C
 RW	3	4.5-9, 9-18, 18-36, 36-72	3.3, 5, 9, 12, 15, ±5, ±9, ±12, ±15	1 kVDC / 1 s (S) 3 kVDC / 1 s (D)	DIP24 SMD 32.3 x 14.7 x 7.0 mm (S) (1.3" x 0.6" x 0.3") 32.0 x 17.5 x 7.0 mm (D) (1.3" x 0.7" x 0.3")	EN60950-1	Operating temperature range: -40°C to +85°C SMD package for RW-S available (/SMD) single (S) / dual (D) outputs available
 Rxx-B	3 5	4.5-6, 10-14, 14-17, 21-27	41-120, 50-135, 92-200	3 kVDC / 1 s	DIP24 31.8 x 20.3 x 9.4 mm (1.3" x 0.8" x 0.4")	EN/IEC60950-1	Adjustable output voltage up to 200VDC cascadable for output voltages up to 400VDC remote voltage programming by external voltage or resistance
 REC3.5/R	3.5	4.5-9, 9-18, 18-36, 36-75	5, 9, 12, 15, 24, ±5, ±9, ±12, ±15	8 or 10 kVDC / 1 s	DIP24 32.0 x 20.3 x 10.2 mm (1.3" x 0.8" x 0.4")	UL60950-1 EN/IEC/UL60601-1 EN55022	Reinforced isolation (/R8 & /R10) operating temperature range: -40°C to +85°C no minimum load required
 REM3.5E	3.5	4.5-9, 9-18, 18-36, 36-75	5, 9, 12, 15, 24 ±5, ±9, ±12, ±15	8 or 10 kVDC / 1 s (DIP24) 6 kVDC / 1 min (SMD)	DIP24 SMD 31.8 x 20.3 x 10.2 mm (1.3" x 0.8" x 0.4") 31.8 x 20.3 x 11.2 mm (1.3" x 0.8" x 0.4")	EN/IEC/UL60601-1 ANSI/AAMI ES60601-1	250VAC working voltage isolation clearance and creepage distance >8mm up to 10kVDC reinforced insulation, 2:1 wide input operating temperature range: -40°C to +85°C
 R5M/SMD	5	9-36, 18-75	3.3, 5, 9, 12, 15, 24, ±5, ±12, ±15	1.6 kVDC / 1 min	SMD 14.2 x 9.1 x 10.2 mm (0.6" x 0.4" x 0.4")	N/A	Operating temperature range: -40°C to +105°C efficiency up to 84% single (S) / dual (D) outputs available
 REC5 (Z)	5	4.5-9, 9-18, 18-36, 36-72 9-36, 18-72 (Z)	3.3, 5, 9, 12, 15, ±5, ±9, ±12, ±15	1.6, 2, 4, or 6 kVDC / 1 s	DIP24 SMD 31.8 x 20.3 x 10.2 mm (1.3" x 0.8" x 0.4") 31.8 x 19.9 x 11.2 mm (1.3" x 0.8" x 0.4")	EN/IEC/UL60950-1	Operating temperature range: -40°C to +75°C 4:1 input voltage available (Z) SMD package (/SMD) or metal case (/M) single (S) / dual (D) outputs available



# DC/DC CONVERTERS

## REGULATED





- 0.5 to 300 watts
- Economical design available
- (/P) – short circuit protection
- (/SMD) – surface mount device
- Isolation voltages up to 10 kVDC
- Modified standards available
- (Z), (W) – wide input range
- (/M) – metal case
- Short circuit protection
- (-R) – tape & reel packaging
- (-HC) – heatsink available

Series	Power (W)	Vin (VDC)	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Certifications	Other features
 REC5A	5	4.5-9, 18-36	5	2 kVDC / 1 s	DIP24 31.8 x 20.3 x 10.2 mm (1.3" x 0.8" x 0.4")	UL60950-1 EN/IEC/UL62368-1 EN55032	Operating temperature range: -40°C to +100°C no minimum load required optional UVLO (/X1) economical design
  REM5E	5	4.5-9, 9-18, 18-36, 36-75	5, 9, 12, 15, 24 ±5, ±9, ±12, ±15	8 or 10 kVDC / 1 s (DIP24) 6 kVDC / 1 min (SMD)	DIP 24 SMD 31.8 x 20.3 x 10.2 mm (1.3" x 0.8" x 0.4") 31.8 x 20.3 x 11.2 mm (1.3" x 0.8" x 0.4")	EN/IEC/UL60601-1 EN/IEC60601-1-2 EN55032 EN55024	250VAC working voltage isolation clearance and creepage distance >8mm up to 10kVDC reinforced insulation, 2:1 wide input operating temperature range: -40°C to +85°C no derating, single (S) / dual (D) outputs available
 REC6A	6	4.5-9, 18-36	5	2 kVDC / 1 s	DIP24 31.8 x 20.3 x 10.2 mm (1.3" x 0.8" x 0.4")	UL623368-1 UL60950-1 EN/IEC62368-1 EN55032	Operating temperature range: -40°C to +100°C no minimum load required optional UVLO (/X1) economical design
  REC6/R	6	4.5-9, 9-18, 18-36, 36-75	5, 9, 12, 15, 24, ±5, ±9, ±12, ±15	8 or 10 kVDC / 1 s	DIP24 32.0 x 20.3 x 10.2 mm (1.3" x 0.8" x 0.4")	UL60950-1 EN/IEC/UL60601-1	Reinforced isolation (/R8 & /R10), operating tem- perature range: -40°C to +75°C no derating single (S) / dual (D) outputs available pinning option (A) or (C), optional UVLO (/X1)
  REM6(W)	6	4.5-9, 9-18, 18-36, 36-75 (W)	3.3, 5, 12, 15, 24, ±5, ±12, ±15	5 kVAC / 1 min	DIP24 31.8 x 20.3 x 10.4 mm (1.3" x 0.8" x 0.4")	ANSI/AAMI ES60601-1 EN/IEC60601-1 EN60601-1-2	Reinforced isolation for 250VAC working voltage CF rated outputs, 5000m altitude operating temperature range: -40°C to +105°C 4:1 input voltage available (W) single (S) / dual (D) outputs available
  REM6E	6	9-18, 18-36, 36-75	9, 12, 15, 24 ±9, ±12, ±15	8 or 10 kVDC / 1 s (DIP24) 6 kVDC / 1 min (SMD)	DIP24 SMD 31.8 x 20.3 x 10.2 mm (1.3" x 0.8" x 0.4") 31.8 x 20.3 x 10.9 mm (1.3" x 0.8" x 0.43")	ANSI/AAMI ES60601-1 EN55032 EN55024 EN/IEC60601-1-2 EN/IEC60601-1	2MOPP, 250VAC working voltage isolation clearance and creepage distance >8mm up to 10kVDC reinforced insulation, 2:1 wide input operating temperature range: -40°C to +75°C no derating, single (S) / dual (D) outputs available
  RP06-RAW	6	36-160	3.3, 5, 12, 15, 24 ±5, ±12, ±15	3 kVDC / 1 min	DIP24 31.8 x 20.3 x 10.6 mm (1.3" x 0.8" x 0.4")	UL/IEC/EN62368-1 EN50155 EN45545-2	Designed for railway and industrial applications operating temperature range: -40°C to +105°C CE marked 3 kVAC/ 1 min reinforced insulation
 RS6	6	4.5-9, 9-18, 18-36, 36-75	3.3, 5, 12, 15, ±5, ±12, ±15	1.6 kVDC / 1 min 2 kVDC / 1 s	SIP8 21.8 x 9.2 x 11.1 mm (0.9" x 0.4" x 0.4")	EN60950-1 EN/IEC62368-1 EN55022 EN55024	Very high power density operating temperature range -40°C to +75°C no derating single (S) / dual (D) outputs available

# DC/DC CONVERTERS

## REGULATED

- 0.5 to 300 watts
- Isolation voltages up to 10 kVDC
- Short circuit protection
- Economical design available
- Modified standards available
- (-R) – tape & reel packaging
- (/P) – short circuit protection
- (Z), (W) – wide input range
- (-HC) – heatsink available
- (/SMD) – surface mount device
- (/M) – metal case

Series	Power (W)	Vin (VDC)	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Certifications	Other features
 REC7.5-RW	7.5	9-18, 18-36, 36-72	3.3, 5, 9, 12, 15, ±5, ±9, ±12, ±15	1, 2, or 3 kVDC / 1 s	DIP24 SMD 32.0 x 20.3 x 10.5 mm (1.3" x 0.8" x 0.4") 32.0 x 19.9 x 11.2 mm (1.3" x 0.8" x 0.4")	EN/IEC/UL60950-1	Operating temperature range: -40°C to +71°C no derating SMD package available (/SMD) single (S) / dual (D) outputs available
 REC8-RW(Z)	8	4.5-9, 9-18, 18-36, 36-75, 9-36, 18-75 (Z)	3.3, 5, 12, 15, ±5, ±12, ±15	2 or 3 kVDC / 1 s	DIP24 SMD 32.0 x 20.3 x 10.2 mm (1.3" x 0.8" x 0.4") 32.0 x 19.9 x 11.2 mm (1.3" x 0.8" x 0.4")	EN/IEC/UL60950-1	Operating temperature range: -40°C to +85°C no derating, SMD package available (/SMD) single (S) / dual (D) outputs available 4:1 input voltage available (Z)
 REC8E	8	9-18, 18-36, 20-60	5, 9, 12, 15, 24 ±12, ±15	1.6 kVDC / 1 min	1" x 1" 25.4 x 25.4 x 10.5 mm (1.0" x 1.0" x 0.4")	EN/IEC/UL62368-1 IEC60950-1	2:1 input voltage range, compact 1"x1" package CTRL and UVLO standard Operating temperature range: -40°C to +75°C no derating
 RP08-A(W)	8	9-18, 18-36, 36-75, 9-36, 18-75, 43-160 (W)	3.3, 5, 12, 15, ±5, ±12, ±15	1.6 kVDC / 1 min	DIP24 SMD 31.8 x 20.3 x 10.2 mm (1.3" x 0.8" x 0.4") 32.0 x 20.3 x 11.2 mm (1.3" x 0.8" x 0.4")	EN/IEC/UL60950-1 EN50155 EN50121-3-2 EN55032	Operating temperature range: -40°C to +85°C RP08-AW designed for railway applications 4:1 input voltage available (W)
 REC10/M(Z)	10	9-18, 18-36, 36-75, 9-36, 18-75 (Z)	3.3, 5, 12, 15, ±5, ±12, ±15	2 or 3 kVDC / 1 s	2" x 1" 50.8 x 25.4 x 10.2 mm (2.0" x 1.0" x 0.4")	EN/IEC/UL60950-1	Operating temperature range: -40°C to +81°C no derating 4:1 input voltage available (Z) high isolation
 REC10-RW(Z)	10	9-18, 18-36, 36-75, 9-36, 18-75 (Z)	3.3, 5, 12, 15, ±5, ±12, ±15	2 or 3 kVDC / 1 s	DIP24 SMD 32.0 x 20.3 x 10.2 mm (1.3" x 0.8" x 0.4") 32.0 x 19.9 x 11.2 mm (1.3" x 0.8" x 0.4")	EN/IEC/UL60950-1	Operating temperature range: -40°C to +81°C no derating, SMD package available (/SMD) 4:1 input voltage available (Z) high isolation
 REM10(W)	10	4.5-9, 9-18, 18-36, 36-75, 9-36, 18-75 (W)	3.3, 5, 12, 15, 24, ±5, ±12, ±15	5 kVAC / 1 min	DIP24 31.8 x 20.3 x 10.4 mm (1.3" x 0.8" x 0.4")	EN/IEC60601-1 ANSI/AAMI ES60601-1 EN55011 EN60601-1-2	Reinforced isolation for 250VAC working voltage CF rated outputs, 5000m altitude 4:1 input voltage available (W) operating temperature range: -40°C to +100°C
 RP10-A(W)	10	9-18, 18-36, 36-75, 9-36, 18-75, (W)	3.3, 5, 12, 15, 24, ±5, ±12, ±15	1.6 kVDC / 1 min	1" x 1" 25.4 x 25.4 x 9.9 mm (1.0" x 1.0" x 0.4")	UL60950-1 EN55038	Operating temperature range: -40°C to +78°C no derating, optional heatsink with clamps (-HC) 4:1 input voltage available (W) single (S) / dual (D) outputs available



# DC/DC CONVERTERS

## REGULATED

- 0.5 to 300 watts
- Economical design available
- (/P) – short circuit protection
- (/SMD) – surface mount device
- Isolation voltages up to 10 kVDC
- Modified standards available
- (Z), (W) – wide input range
- (/M) – metal case
- Short circuit protection
- (-R) – tape & reel packaging
- (-HC) – heatsink available

Series	Power (W)	Vin (VDC)	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Certifications	Other features
 RP10-E(W)	10	9-18, 18-36, 36-75, 9-36, 18-75, (W)	3.3, 5, 12, 15, ±5, ±12, ±15	1.6 kVDC / 1 min	2" x 1" 50.8 x 25.4 x 10.2 mm (2.0" x 1.0" x 0.4")	UL60950-1 EN55032	Operating temperature range: -40°C to +78°C no derating, single (S) / dual (D) outputs available optional heatsink with clamps (-HC) 4:1 input voltage available (W)
  RP10-RAW	10	36-160	3.3, 5, 5.1, 2, 15, 24 ±5, ±12, ±15	3 kVDC / 1 min	DIP24 31.8 x 20.3 x 10.6 mm (1.3" x 0.8" x 0.4")	UL/IEC/EN62368-1 EN50155 EN45545-2	Designed for railway and industrial applications operating temperature range: -40°C to +105°C CE marked 3 kVAC/ 1 min reinforced insulation
  RS12-Z	12	9-36, 18-75	3.3, 5, 12, 15, 24	3 kVDC / 1 min	SIP8 21.8 x 9.6 x 12.1 mm (0.9" x 0.4" x 0.5")	UL/IEC/EN62368-1 EN55032	Very high power density operating temperature range: -40°C to +80°C 4:1 input voltage
 RP12-A(W)	12	9-18, 18-36, 36-75, 9-36, 18-75, (W)	3.3, 5.1, 12, 15, ±5, ±12, ±15	1.6 kVDC / 1 min	DIP24 SMD 31.8 x 20.3 x 10.2 mm (1.3" x 0.8" x 0.4") 32.0 x 20.3 x 11.2 mm (1.3" x 0.8" x 0.4")	UL60950-1 EN55032	Operating temperature range: -40°C to +105°C 4:1 input voltage available (W) single (S) / dual (D) outputs available
 RP12-AR	12	36-160	3.3, 5, 12, 15, 24, ±12, ±15, ±24	3 kVDC / 1 min	1" x 1" 25.4 x 25.4 x 9.9 mm (1.0" x 1.0" x 0.4")	IEC/EN60950-1 EN550155 EN55032	Operating temperature range: -40°C to +100°C efficiency up to 90% single (S) / dual (D) outputs available
 REC15E-Z	15	9-36, 18-75	3.3, 5, 12, 15, 24, ±12, ±15	2 kVDC / 1 s	1" x 1" 25.4 x 25.4 x 10 mm (1.0" x 1.0" x 0.4")	EN/IEC/UL62368-1 EN55032	4:1 input voltage, compact size 1" x 1" package, efficiency up to 90% operating temperature range: -40°C to +75°C no derating, continuous short circuit protection single (S) / dual (D) outputs available
  REC15(-Z)/M	15	9-18, 18-36, 36-75, 9-36, 36-75 (Z)	3.4, 5.1, 12, 15, ±5, ±12, ±15	2 or 3 kVDC / 1 s	2" x 1" 50.8 x 25.4 x 10.2 mm (2.0" x 1.0" x 0.4")	EN/IEC/UL60950-1 EN/IEC60601-1	Operating temperature range: -40°C to +71°C no derating, without CTRL pin (/X2) 4:1 input voltage available (Z) single (S) / dual (D) outputs available
  REM15-W	15	9-36, 18-75	5, 12, 15, 24 ±5, ±12, ±15	5 kVAC / 1 min	1.6" x 1" 40.6 x 25.4 x 10.2 mm (1.6" x 1.0" x 0.4")	UL60950-1 UL62368-1 EN55011, IEC60601-1 EN60601-1-2 ANSI/AAMI ES60601-1	Reinforced insulation for 250VAC working voltage, clearance and creepage distance > 8mm 5kVAC I/P to O/P isolation operating temperature range: -40°C to +105°C single (S) / dual (D) outputs available

This Selection Guide represents only the latest most popular products of our portfolio. Please check [www.recom-power.com](http://www.recom-power.com) for additional products.

# DC/DC CONVERTERS

## REGULATED

- 0.5 to 300 watts
- Economical design available
- (/P) – short circuit protection
- (/SMD) – surface mount device
- Isolation voltages up to 10 kVDC
- Modified standards available
- (Z), (W) – wide input range
- (/M) – metal case
- Short circuit protection
- (-R) – tape & reel packaging
- (-HC) – heatsink available

Series	Power (W)	Vin (VDC)	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Certifications	Other features
 RP15-A(W)	15	9-18, 18-36, 36-75 9-36, 18-75, (W)	3.3, 5, 12, 15, ±5, ±12, ±15	1.6 kVDC / 1 min	1" x 1" 25.4 x 25.4 x 9.9 mm (1.0" x 1.0" x 0.4")	UL60950-1 EN55032	Operating temperature range: -40°C to +105°C optional heatsink with clamps (-HC) 4:1 input voltage available (W) single (S) / dual (D) outputs available
 RP15-F(W)	15	9-18, 18-36, 36-75 9-36, 18-75, (W)	3.3, 5, 12, 15, ±5, ±12, ±15	1.6 kVDC / 1 min	2" x 1" 50.8 x 25.4 x 10.2 mm (2.0" x 1.0" x 0.4")	UL60950-1 EN55032	Operating temperature range: -40°C to +105°C optional heatsink with clamps (-HC) 4:1 input voltage available (W) single (S) / dual (D) outputs available
 RPM(D)	15-60	9.5-18, 9.5-36, 10-40, (D) 18-36, 18-75, 36-75	3.3, 5, 12, 15, ±5, ±12, ±15 5/±12, 5/±15	1.6 kVDC / 1 min	101.6 x 57.2 x 19.0 mm (4.0" x 2.3" x 0.7") 24.5 x 57.6 x 125.0 mm (D) (1.0" x 2.3" x 4.9")	EN/IEC60950-1 EN55022	Reverse polarity protected, soft start panel mount/bulkhead version RPM DIN-Rail version RPMD, screw terminals triple output only for 40W version available
 REC20 (Z)	20	9-18, 18-36, 36-75, 9-36, 18-75 (Z)	3.4, 5.1, 12, 15, ±5, ±12, ±15	1.6 kVDC / 1 min	2" x 1" 50.8 x 25.4 x 10.2 mm (2.0" x 1.0" x 0.4") 50.8 x 25.4 x 10.5 mm (Z) (2.0" x 1.0" x 0.4")	EN/IEC/UL60950-1 EN55022	Operating temperature range: -40°C to +100°C full load up to +80°C with natural convection 4:1 input voltage available (Z) continuous short circuit protection
 REM20-W	20	9-36, 18-75	5, 12, 15, 24 ±5, ±12, ±15	5 kVAC / 1 min	1.6" x 1" 40.6 x 25.4 x 10.2 mm (1.6" x 1.0" x 0.4")	UL60950-1 UL62368-1 EN55011, IEC60601-1 EN60601-1-2 ANSI/AAMI ES60601-1	Reinforced insulation for 250VAC working voltage, clearance and creepage distance > 8mm 5kVAC I/P to O/P isolation 4:1 input voltage
 RP20-A(W)	20	9-18, 18-36, 36-75 9-36, 18-75, (W)	3.3, 5, 12, 15, ±12, ±15	1.6 kVDC / 1 min	1" x 1" 25.4 x 25.4 x 9.9 mm (1.0" x 1.0" x 0.4")	UL60950-1 EN55032	Operating temperature range: -40°C to +102°C optional heatsink with clamps (-HC) 4:1 input voltage available (W)
 RP20-F(W)	20	9-18, 18-36, 36-75 9-36, 18-75, (W)	3.3, 5, 12, 15, ±12, ±15	1.6 kVDC / 1 min	2" x 1" 50.8 x 25.4 x 10.2 mm (2.0" x 1.0" x 0.4")	UL60950-1 EN55032	Operating temperature range: -40°C to +105°C optional heatsink with clamps (-HC) 4:1 input voltage available (W)
 RP20-FR	20	9-36, 18-75 43-160	3.3, 5, 12, 15, ±12, ±15	2.25 kVDC / 1 min	2" x 1" 50.8 x 25.4 x 10.2 mm (2.0" x 1.0" x 0.4")	UL60950-1 EN50155 EN55011 EN55032	Designed for railway applications, operating temperature range: -40°C to +79°C, up to +85°C with natural convection, optional heat-sink with clamps (-HC), CE and EAC marked



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Series	Power (W)	Vin (VDC)	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Certifications	Other features
 RPA20-AW	20	9-36	3.3, 5, 12, 15, ±12, ±15	1.6 kVDC / 1 min	1" x 1" 25.4 x 25.4 x 10.2 mm (1.0" x 1.0" x 0.4")	EN/IEC/UL60950-1 EN50155 EN55032	Designed for low cost industrial applications operating temperature range: -40°C to +85°C optional glued heatsink (-HC)
 REC30 (Z)	30	9-18, 18-36, 36-75 9-36, 18-75, (Z)	3.4, 5.1, 12, 15 ±12, ±15	1.6 kVDC / 1 min	2" x 1.6" 50.8 x 40.6 x 10.2 mm (2.0" x 1.6" x 0.4")	EN/IEC/UL60950-1 EN55032	Operating temperature range: -40°C to +70°C continuous short circuit protection 4:1 input voltage available (Z)
  REC30E	30	9-36, 18-75	3.3, 5, 12, 15, 24, ±12, ±15	2 kVDC / 1 min	1" x 1" 25.4 x 25.4 x 10.0 mm (1.0" x 1.0" x 0.4")	UL/IEC/EN62368-1	Operating temperature range: -40°C to +105°C efficiency up to 91% single (S) / dual (D) outputs available 4:1 input voltage
  REM30-W	30	9-36, 18-75	5, 12, 15, 24 ±5, ±12, ±15	5 kVAC / 1 min	2" x 1" 50.8 x 25.4 x 10.2 mm (2.0" x 1.0" x 0.4")	UL60950-1 UL62368-1 EN55011/IEC6061-1 EN60601-1-2 ANSI/AAMI ES60601-1	Reinforced insulation for 250VAC working voltage, clearance and creepage distance > 8mm, 5kVAC I/P to O/P isolation, industry standard pinout, 4:1 input voltage available (Z)
 RP30-E(W)	30	9-18, 18-36, 36-75 10-40, 18-75, (W)	3.3, 5, 12, 15, ±12, ±15	1.6 kVDC / 1 min	2" x 1.6" 50.8 x 40.6 x 10.2 mm (2.0" x 1.6" x 0.4")	UL60950-1 EN55032	Operating temperature range: -40°C to +100°C optional heatsink with clamps (-HC) 4:1 input voltage available (W)
 RP30-F(W)	30	9-18, 18-36, 36-75 9-36, 18-75, (W)	3.3, 5, 12, 15, ±5, ±12, ±15	1.6 kVDC / 1 min	2" x 1" 50.8 x 25.4 x 10.2 mm (2.0" x 1.0" x 0.4")	UL60950-1 EN55032	Operating temperature range: -40°C to +101°C optional heatsink with clamps (-HC) 4:1 input voltage available (W)
 RPA30-AW	30	9-36	3.3, 5, 12, 15, ±12, ±15	1.6 kVDC / 1 min	1" x 1" 25.4 x 25.4 x 10.2 mm (1.0" x 1.0" x 0.4")	EN/IEC/UL60950-1 EN50155 EN55032	Designed for railway and industrial applications, operating temperature range: -40°C to +100°C optional glued heatsink (-HC)
 RP40-FR	40	9-36, 18-75, 43-160	3.3, 5, 12, 15, 24, ±12, ±15, ±24	1.6 or 3 kVDC / 1 min	2" x 1" 50.8 x 25.4 x 10.2 mm (2.0" x 1.0" x 0.4")	UL60950-1 EN50155 EN50121-3-2 EN55032	Designed for railway applications operating temperature range: -40°C to +105°C optional heatsink with clamps (-HC) CE and EAC marked

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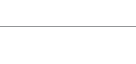
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- (Z), (W) – wide input range
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Series	Power (W)	Vin (VDC)	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Certifications	Other features
 RP40-G(W)	40	9-18, 18-36, 36-75 9-36, 18-75, (W)	3.3, 5, 12, 15, ±12, ±15 5/±12, 5/±15	1.6 kVDC / 1 min	2" x 2" 50.8 x 50.8 x 10.2 mm (2.0" x 2.0" x 0.4")	UL60950-1 EN55032	Operating temperature range: -40°C to +100°C optional heatsink with clamps (-HC) 4:1 input voltage available (W) available as power module RPM40-G(W)
 RP40Q-RUW	40	16-160	5, 12, 15, 24, 48	3 kVAC / 1 min	1/4 brick 57.9 x 36.8 x 12.7 mm (2.3" x 1.4" x 0.5")	EN/IEC/UL62368-1 EN50155 EN55032 EN55034	12:1 ultra-wide input voltage range operating temperature range: -40°C to +105°C optional fitted heatsink (-HC) CE marked
 RPA40-FR	40	36-160	5, 5.1, 12, 15, 24, ±12, ±15	3 kVAC / 1 min	2" x 1" 50.8 x 25.4 x 10.2 mm (2.0" x 1.0" x 0.4")	UL/IEC/EN62368-1 EN45545-2 EN50155	Designed for railway and industrial applications operating temperature range: -40°C to +105°C efficiency up to 90% single (S) / dual (D) outputs available
 RPA50S-W	50	18-75	3.3, 5, 12	2.25 kVDC / 1 min	1/16 brick 33.0 x 22.8 x 9.5 mm (1.3" x 0.9" x 0.4")	EN/IEC/UL60950-1 EN55032	Economical design remote on/off and trim pins efficiency up to 91% Operating temperature range: -40°C to +85°C
 REM60-W	60	9-36, 18-75	5, 5.1, 12, 15, 24, ±12, ±15	3 kVAC / 1 min	1/4 brick 57.9 x 36.8 x 12.7 mm (2.3" x 1.4" x 0.5")	EN60601-1-2 ANSI/AAMI ES60601-1 UL/IEC/EN62368-1	Operating temperature range: -40°C to +105°C efficiency up to 90% single (S) / dual (D) outputs available 3 kVAC / 1 min reinforced isolation
 RP60-G	60	18-36, 36-75	3.3, 5, 12, 15	1.6 kVDC / 1 min	2" x 2" 50.8 x 50.8 x 10.2 mm (2.0" x 2.0" x 0.4")	UL60950-1	Operating temperature range: -40°C to +110°C optional heatsink with clamps (-HC) available as power module RPM60-G
 RP60Q-RUW	60	16-160	5, 12, 15, 24, 48	3 kVAC / 1 min	1/4 brick 57.9 x 36.8 x 12.7 mm (2.3" x 1.4" x 0.5")	EN/IEC/UL62368-1 EN50155 EN55032 EN55034	12:1 ultra-wide input voltage range operating temperature range: -40°C to +105°C optional fitted heatsink (-HC) CE marked
 RPA60-FW	60	9-36	5, 12, 15, 24	1.5 kVDC / 1 min	2" x 1" 50.8 x 25.4 x 10.2 mm (2.0" x 1.0" x 0.4")	EN/IEC/UL60950-1 EN50155 EN55032 EN50121-3-2	Designed for railway and industrial applications operating temperature range: -40°C to +100°C optional glued heatsink (-HC)

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Series	Power (W)	Vin (VDC)	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Certifications	Other features
 RP75H-RW	75	9-36, 18-75, 43-160	5, 12, 15, 24, 48	2.25 kVDC / 1 min 3 kVAC / 1 min	1/2 brick 61.0 x 57.9 x 12.7 mm (2.4" x 2.3" x 0.5")	EN/IEC/UL60950-1 EN50155 EN55011 EN55032	Designed for railway and industrial applications operating temperature range: -40°C to +100°C 3 kVAC / 1 min reinforced isolation for 110VDC optional fitted heatsink (-HC), CE, and EAC marked
 RP90Q-RW	90	9-36, 16.5-75, 40-160	5, 12, 15, 24, 48	2.25 kVDC / 1 min 3 kVAC / 1 min	1/4 brick 57.9 x 36.8 x 12.7 mm (2.3" x 1.4" x 0.5")	EN/IEC60950-1 EN50155 EN55011 EN55032	Designed for railway and industrial applications, operating temperature range: -40°C to +95°C, 3 kVAC / 1 min reinforced isolation for 110VDC, optional fitted heatsink (-HC), CE, and EAC marked
 RP100H-RW	100	9-36, 16.5-75, 43-160	5, 12, 15, 24, 48	2.25 kVDC / 1 min 3 kVAC / 1 min	1/2 brick 61.0 x 57.9 x 12.7 mm (2.4" x 2.3" x 0.5")	EN/IEC/UL60950-1 EN50155 EN55011 EN55032	Designed for railway and industrial applications operating temperature range: -40°C to +105°C 3 kVAC / 1 min reinforced isolation for 110VDC optional fitted heatsink (-HC), CE, and EAC marked
 RPA100E-W	100	18-75	5, 12	1.5kVDC	1/8 brick 58.4 x 22.8 x 11.0 mm (2.3" x 0.9" x 0.4")	UL62368-1	Operating temperature range: -40°C to +85°C UVLO, OTP, OVP, OCP, and SCP economical design, selectable outputs CTRL and remote sense pins
 RPA100H-RUW	100	16.5-140	12, 15, 24, 48	4.242 kVDC / 1 min	1/2 brick 60.6 x 63.1 x 13.0 mm (2.4" x 2.5" x 0.5")	EN/IEC/UL60950-1 EN50155 EN50121-2-3 EN55032	Designed for railway and industrial applications operating temperature range: -40°C to +97°C 4.242 kVDC reinforced isolation 10:1 ultra wide input range, CE, and EAC marked
 RP120Q-RW	120	9-36, 16.5-75, 40-160	5, 12, 15, 24, 48	2.25 kVDC / 1 min 3 kVAC / 1 min	1/4 brick 57.9 x 36.8 x 12.7 mm (2.3" x 1.4" x 0.5")	EN/IEC60950-1 EN50155 EN55011 EN55022	Designed for railway and industrial applications operating temperature range: -40°C to +95°C 3 kVAC / 1 min reinforced isolation for 110VDC optional fitted heatsink (-HC), CE, and EAC marked
 REC150H-UW	150	9-75	12, 24, 28, 48, 54	3 kVDC / 1 min	1/2 brick 61.0 x 57.9 x 12.7 mm (2.4" x 2.3" x 0.5")	IEC/EN62368-1 EN50155	Operating temperature range: -40°C to +105°C efficiency up to 90% OTP, OVP, OCP, UVLO, remote ON/OFF control
 RPA150E-EW	150	9-60	12, 24, 48	3 kVDC / 1min	1/8 brick 58.4 x 22.9 x 12.9 mm (2.3" x 0.9" x 0.5")	EN/IEC/UL60950-1 EN/IEC/UL62368-1 EN50155 EN45545-2	Designed for railway and industrial applications efficiency up to 92% wide +/-20% output voltage trim range operating temperature range: -40°C to +85°C no minimum load required

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Series	Power (W)	Vin (VDC)	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Certifications	Other features
 RPA150Q-RUW	150	14.4-170	12, 15, 24, 54	4.242 kVDC / 1min	1/4 brick 60.6 x 39.0 x 12.7 mm (2.29" x 1.5" x 0.5")	UL62368-1 EN45545 EN50155	Designed for railway and industrial applications efficiency up to 90% output over-voltage protection operating temperature range: -40°C to 85°C reinforced isolation, 16:1 ultra-wide input
 RP180H-RW	180	9-36, 16.5-75, 43-160	5, 12, 15, 24, 48	2.25 kVDC / 1 min 3 kVAC / 1 min	1/2 brick 61.0 x 57.9 x 12.7 mm (2.4" x 2.3" x 0.5")	EN/IEC/UL60950-1 EN50155 EN55011 EN55032	Designed for railway and industrial applications operating temperature range: -40°C to +110°C, 4.242 kVDC / 1 min reinforced isolation for 110VDC, optional fitted heatsink (-HC), CE, and EAC marked
 RPA200H-RUW	200	16.5-140	12, 15, 24, 48	4.242 kVDC / 1min	1/2 brick 60.6 x 63.1 x 13.0 mm (2.4" x 2.5" x 0.5")	EN/IEC/UL60950-1 EN50155	Designed for railway and industrial applications operating temperature range: -40°C to +93.5°C 4.242 kVDC / 1 min reinforced isolation 10:1 ultra wide input range, CE, and EAC marked
 RP240H-RW	240	9-36, 16.5-75, 43-160	5, 12, 15, 24, 48	2.25 kVDC / 1 min 3 kVAC / 1 min	1/2 brick 61.0 x 57.9 x 12.7 mm (2.4" x 2.3" x 0.5")	EN/IEC/UL60950-1 EN50155 EN55011 EN55022	Designed for railway and industrial applications operating temperature range: -40°C to +110°C 3 kVAC / 1 min reinforced isolation for 110VDC optional fitted heatsink (-HC), CE, and EAC marked
 REC300H-W	300	9-36	12, 15, 24, 48	3 kVDC / 1 min	1/2 brick 61.0 x 57.9 x 12.7 mm (2.4" x 2.3" x 0.5")	EN62368-1	Operating temperature range: -40°C to +100°C Efficiency up to 90% OTP, OVP, OCP, UVLO, remote ON/OFF control
 RPA300E	300	36-72	32	2.25 kVDC / 1 min	1/8 brick 58.4 x 22.8 x 12.7 mm (2.3" x 0.9" x 0.5")	UL62368-1	Operating temperature range: -40°C to +85°C UVLO, OTP, OVP, OCP, and SCP, economical de- sign, selectable outputs, CTRL and remote sense pins, high efficiency up to 94.8%



# POWER SOLUTIONS

## PLUG & PLAY









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- Interchangeable with Melcher RCM-series
- Approved as per latest standards
- Very wide and ultra wide input voltage range
- Reverse polarity protection
- Hold-up time 10ms included
- Inrush current limitation
- Compact design
- Output decoupling with OR-ing diode
- Remote control and Power good signal
- No external components needed
- Custom design available
- Output voltage adjustable -20...+5%

Series	Power (W)	Vin	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Certifications	Other features
  RMD40-UW	40	14.4-170	12, 24	3 kVAC	100.0 x 60.0 x 30.0 mm (3.9" x 2.3" x 1.2")	EN50155, EN 62368-1 EN45545-2 EN50124-1 EN50121-3-2 EN61373	Full railway approved base plate cooled for natural convection reinforced isolation
  RMD75-UW	75	14.4-170	12, 24	3 kVAC	110.0 x 70.0 x 30.0 mm (4.3" x 2.8" x 1.2")	EN50155 EN 62368-1 EN45545-2 EN50124-1 EN50121-3-2 EN61373	Full railway approved base plate cooled for natural convection reinforced isolation
  RMD150-UW	150	14.4-154	12, 24	3.5 kVAC	88.6 x 116.0 x 38.5 mm (7.4" x 4.6" x 1.5")	EN50155 (S2) EN62368-1 EN50121-3-2 EN50124-1 EN45545-2 EN61373	Input for 24V-110Vnom ultra wide range efficiency up to 94% designed for natural convection
  RMD300-UW	300	14.4-170	12, 24	3.5 kVAC	188.6 x 116.0 x 38.5 mm (7.4" x 4.6" x 1.5")	EN50155 (S2) EN62368-1 EN50121-3-2 EN50124-1 EN45545-2 EN61373	Input for 24V-110Vnom ultra wide range efficiency up to 95% designed for natural convection
  RMOD300-EW	300	18-60 36-106	12.2, 13.7, 24.5	2.25 kVDC	44.0 x 190.0 x 76.0 mm (1.7" x 7.5" x 3.0")	UL60950 EN12895 CISPR11 Class A ISO7637-2	IP67 protection for selective model operating temperature range: -40°C to +75°C protections: input reverse polarity protection, input UVLO, output OCL, SCP, OVP, OTP
  RMOD300-UW	300	18-106	12.2, 13.7, 24.5	2.25 kVDC	44.0 x 190.0 x 76.0 mm (1.7" x 7.5" x 3.0")	UL60950 EN12895 CISPR11 Class A ISO7637-2	IP67 protection for selective model operating temperature range: -40°C to +75°C protections: input reverse polarity protection, input UVLO, output OCL, SCP, OVP, OTP
  RMOD360-UW	360	18-106	24.5	2.25 kVDC	44.0 x 190.0 x 76.0 mm (1.7" x 7.5" x 3.0")	UL60950 EN12895 CISPR11 Class A ISO7637-2	Operating temperature range: -40°C to +75°C protections: input reverse polarity protection, input UVLO, output OCL, SCP, OVP, OTP
  RMOD400-EW	400	33.6-125	13	1.2 kVAC	115.0 x 61.0 x 203.0 mm (4.5" x 2.4" x 8.0")	EN12895/CISPR11 Class A CE/ISO7637-2 IEC62368-1	IP69k protection for selective model operating temperature range: -35°C to +80°C protections: input reverse polarity protection input UVLO, output OCL, SCP, OVP, OTP

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Series		Power (W)	Vin	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Certifications	Other features
	RMOD400-W	400	16.8-56 33.6-96	13, 24	1.2 kVAC	115.0 x 61.0 x 203.0 mm (4.5" x 2.4" x 8.0")	EN12895/CISPR11 Class A CE/ISO7637-2 IEC62368-1	IP65 (24V)/IP69k (13V) protection for selective model, operating temperature range: -35°C to +70/80°C, protections: input reverse polarity protection, input UVLO, output OCL, SCP, OVP, OTP
	RMD500-EW	500	43.2-170	24	3.5 kVAC	209.0 x 141.0 x 48.0 mm (8.23" x 5.56" x 1.9")	EN50155 EN50124-1 IEC/EN62368-1 EN61373	Input for 72/110V efficiency up to 96% designed for natural convection and baseplate cooling
	RMOD500-W	500	36-96	13.7, 24.5	2.25 kVDC	45.0 x 198.0 x 113.0 mm (1.7" x 7.8" x 4.4")	EC/EN/UL 62368-1 EN 12895-2015 EN 55011 EN 55014-2 CISPR11 Class A	IP67 protection, operating temperature range: -40°C to +90°C, protections: input reverse polarity protection, input UVLO, output OCL, SCP, OVP, OTP, control ON/OFF function
	RMOD600-EW	600	33.6-125	13	1.2 kVAC	115.0 x 71.0 x 203.0 mm (4.5" x 2.8" x 8.0")	EN12895/CISPR11 Class A CE/ISO7637-2 IEC62368-1	IP69k protection for selective model operating temperature range: -35°C to +80°C protections: input reverse polarity protection input UVLO, output OCL, SCP, OVP, OTP
	RMOD600-W	600	33.6-96	24	1.2 kVAC	115.0 x 71.0 x 203.0 mm (4.5" x 2.8" x 8.0")	CISPR11 Class A CE/ISO7637-2 IEC62368-1	IP65 protection for selective model operating temperature range: -35°C to +70°C protections: input reverse polarity protection, input UVLO, output OCL, SCP, OVP, OTP
	RMSD1000-W	600-1000	24, 36, 48, 72, 110	12, 24, 36, 48, 72, 110	2.2 kVAC	246.0 x 260.0 x 80.0 mm (9.6" x 10.2" x 3.1")	EN50155 EN62368-1 EN50121-3-2 EN50124-1 EN45545-2 EN61373	Designed for natural convection and base plate cooling, flexible input - output voltage combination full power@OT4 70/85°C
	RMOD2000-EW	2000	180-950	12, 24, 48	3 kVAC	250.0 x 292.0 x 65.6 mm (9.8" x 11.5" x 2.6")	EN62477-1 ECE R100 ECE R10 EN60664-1 EN62368-1	Covering 800VNom high voltage DC/DC for e-mobility high IP level, liquid cooled or base plate cooled
	RMOD4000-EW	4000	180-950	12, 24, 48	3 kVAC	250.0 x 292.0 x 65.5 mm	EN62477-1 ECE R100 ECE R10 EN60664-1 EN62368-1	Covering 800VNom high voltage DC/DC for e-mobility high IP level, liquid cooled or base plate cooled

# DC/DC CONVERTERS

IGBT / SiC MOSFET / GaN

- Designed for SiC/IGBT/GaN gate drivers
- Up to 3 watts
- Isolation voltages up to 6.4 kVDC
- Alternate pinout and package styles
- Asymmetric output
- High efficiency
- High isolation
- (P) – short circuit protection








Series	Power (W)	Vin (VDC)	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Certifications	Other features
 RH-xx1509D	1	5, 12, 24	+15/-9	3 or 4 kVDC / 1 s	SIP7 19.65 x 7.05 x 10.2 mm (0.8" x 0.3" x 0.4")	IEC/EN60950-1	Asymmetrical outputs designed for isolated IGBT drivers operating temperature range: -40°C to +90°C continuous short circuit protection (P)
 RP-xx1509D RP-xx06S	1	5, 12, 24 5, 12, 15, 24	+15/-9 6	5.2 kVDC / 1 s	SIP7 19.65 x 7.05 x 10.2 mm (0.8" x 0.3" x 0.4")	EN/IEC/UL60950-1 IEC/EN60601-1	Designed for isolated IGBT or GaN drivers operating temperature range: -40°C to +85°C RP-xx06S series medical approved
 RxxP1509D RxxP06S	1	5, 12, 24 5, 12, 15, 24	+15/-9 6	6.4 kVDC / 1 s	SIP7 19.5 x 9.8 x 12.5 mm (0.8" x 0.4" x 0.5")	EN/IEC60950-1 EN/IEC/UL62368-1	Designed for isolated IGBT or GaN drivers operating temperature range: -40°C to +90°C continuous short circuit protection (P)
 RGZ-xx1509D	2	5, 12, 24	+15/-9	3 or 4 kVDC / 1 s	DIP14 19.9 x 10.0 x 7.1 mm (0.8" x 0.4" x 0.3")	EN60950-1	Asymmetrical outputs designed for isolated IGBT drivers operating temperature range: -40°C to +90°C continuous short circuit protection (P)
 RKZ-xx1509D RKZ-xx2005D	2	5, 12, 24 5, 12, 15, 24	+15/-9 +20/-5	3 or 4 kVDC / 1 s	SIP7 19.65 x 7.05 x 10.2 mm (0.8" x 0.3" x 0.4")	EN/IEC/UL60950-1 EN55022	Asymmetrical outputs designed for isolated IGBT/SiC drivers operating temperature range: -40°C to +100°C continuous short circuit protection (P)
 RV-xx1509D	2	5, 12, 24	+15/-9	6 kVDC / 1 s	DIP24 32.35 x 14.7 x 11.1 mm (1.3" x 0.6" x 0.4")	EN60950-1	Asymmetrical outputs designed for isolated IGBT drivers operating temperature range: -40°C to +90°C
 RxxP21503D RxxP21509D RxxP22005D RxxP209S	2	12, 15, 24 5, 12, 24 5, 12, 15, 24 5, 12, 15, 24	+15/-3 +15/-9 +20/-5 9	6.4 kVDC / 1 s	SIP7 19.5 x 9.8 x 12.5 mm (0.8" x 0.4" x 0.5")	EN/IEC/UL60950-1 EN55022	Asymmetrical outputs designed for isolated IGBT/SiC drivers operating temperature range: -40°C to +95°C continuous short circuit protection (P)
 RA3/SMD	3	5, 12, 24	8, 9, +7/-1, +15/-3, +20/-5	5.2 kVDC / 1 min	DIP16 SMD 23.4 x 15.0 x 8.5 mm (0.9" x 0.6" x 0.3")	UL/IEC/EN62368-1 EN61204-3	Operating temperature range: -40°C to +85°C ideal for IGBT, Si, SiC, and GaN gate drive power isolation capacitance <10pf

This Selection Guide represents only the latest most popular products of our portfolio. Please check [www.recom-power.com](http://www.recom-power.com) for additional products.

# ACCESSORIES FOR DC/DC CONVERTERS

- SMD wire-wound power inductor suitable for EMC filtering
- Reflow solderable with J-STD-020C standard profile (250°C ±5°C peak)




## LINE INDUCTORS

Series	Description	Suitable for	Other features
 RLS-397	saturation current: 2.1A, inductance: 3.9µH	RI3, RS, RS0, R1Z, RS3, R-78xx-1.0, R-78xx-0.5, R-78Exx-0.5, R-78AAxx-0.5, R-78Bxx-1.5, R-78Bxx-1.0L	Tested and approved in RECOM filter design RoHS compliant SMD
 RLS-567	saturation current: 1.9A, inductance: 5.6µH	RK/H6, RI3, RS, RS3, RW2, R-78xx-1.0, R-78xx-0.5, R-78AAxx-0.5, R-78Cxx-1.0, R-78Bxx-1.5	Tested and approved in RECOM filter design RoHS compliant SMD
 RLS-126	saturation current: 1.4A, inductance: 12µH	R1S, R2S, R1SE, RH/H6, RKZ, RS, RS0, REC5, R1Z, R-78Exx-1.0, R-78Exx-0.5, R-78Cxx-1.0, R-78Bxx-1.5	Tested and approved in RECOM filter design RoHS compliant SMD
 RLS-186	saturation current: 2.14A, inductance: 18µH	REC5	Tested and approved in RECOM filter design RoHS compliant SMD
 RLS-226	saturation current: 1.0A, inductance: 22µH	RO, RM, ROM, RK, RB, RP, RE, ROE, RK/H6, RH/H6, RxxPxx, RKZ, REC5, RW2	Tested and approved in RECOM filter design RoHS compliant SMD
 RLS-686	saturation current: 1.05A, inductance: 68µH	R-78Exx-1.0	Tested and approved in RECOM filter design RoHS compliant SMD
 RLS-105	saturation current: 1.1A, inductance: 100µH	REC5	Tested and approved in RECOM filter design RoHS compliant SMD



# ACCESSORIES FOR DC/DC CONVERTERS









## SURGE PROTECTORS

Series	Power (W)	Vin	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Comply with	Other features
 RSP20-168	20	40-160	168VDC Clamping Voltage	N/A	DIP24 31.8 x 20.3 x 10.2 mm (1.25" x 0.8" x 0.4")	UK BRB/RIA12 NF F 01-510	Output follows input up to the clamp voltage compliant with RIA12 and NF F 01-510 surge susceptibility operating temperature range: -40°C to +95°C
 RSP150-168	150	40-160	168VDC Clamping Voltage	N/A	1.6" x 1" 40.6 x 25.4 x 10.2 mm (1.6" x 1.0" x 0.4")	UK BRB/RIA12 NF F 01-510	Output follows input up to the clamp voltage operating temperature range: -40°C to +100°C compliant to RIA12 and NF F 01-510 surge susceptibility
 RSP300-168	300	40-160	168VDC Clamping Voltage	N/A	1.6" x 1" 40.6 x 25.4 x 10.2 mm (1.6" x 1.0" x 0.4")	UK BRB/RIA12 NF F 01-510	Output follows input up to the clamp voltage operating temperature range: -40°C to +100°C compliant to RIA12 and NF F 01-510 surge susceptibility

# EVALUATION MODULES

- Advanced 3D Power Packaging









## EVALUATION MODULES REFERENCE DESIGNS / BREAKOUT BOARDS

Series	Description	Suitable for	Other features
 R-78S3.3-0.1-EVM-1	The R-78S3.3-0.1-EVM-1 evaluation module generates 3.3V from a single AA battery or from an external source. By using the external input source, any voltage source (other types of batteries, energy harvesters, etc.) in the range from 0.65V to 3.15V can be used. The evaluation module contains a AA battery holder, power switch, R-78S3.3-0.1 boost converter, and a micro-USB connector. Jumper headers are provided to permit various test measurements to be made.	R-78S3.3-0.1	Input and output power measurement capability micro-USB type B or 0.1" (2.54mm) pin output input voltage range down to 0.65V efficiency 93%, >80% at 10% load
 R-78S3.3-0.1-EVM-1/STM-1	The R-78S3.3-0.1-EVM-1/STM-1 is a breakout board intended for use with an ST Microelectronics STEVAL STLCS01V1 SensorTile module and the R-78S3.3-0.1-EVM-1 evaluation module to demonstrate IoT applications using the SensorTile module. Applications of the SensorTile module include MEMS digital microphone, 3D accelerometer and gyroscope, 3D magnetometer, MEMS atmospheric pressure sensor and ambient temperature.	R-78S3.3-0.1	Accessory for the R-78S3.3-0.1-EVM-1 mates with STLCS01V1
 R-78S3.3-0.1-EVM-1/SBL-1	The R-78S3.3-0.1-EVM-1/SBL-1 is a breakout board developed for use with a SensiBLE v1.0 module from SensiEDGE and the R-78S3.3-0.1-EVM-1 evaluation module to demonstrate IoT applications using the SensiBLE v1.0 module. Applications of the SensiBLE v1.0 module include 3-axis accelerometer, 3-axis magnetometer, 3-axis digital gyroscope, pressure, microphone, relative humidity, ambient light, and temperature sensors.	R-78S3.3-0.1	Accessory for the R-78S3.3-0.1-EVM-1 mates with SensiBLE v1.0
 RBB10-2.0-EVM-1	The RBB10-2.0-EVM-1 is an evaluation board for the RBB10-2.0. The Input can be lower, higher, or the same as the output. The buck-boost modules are pre-set to 5V output but can be trimmed over a range from 1 to 5.5V up to 4A output.	RBB10-2.0	2.3-5.5V input voltage (buck-boost) up to 96% efficiency, class B EMC filter thermally enhanced PCD design output sense, sense and powergood connections
 R-REF01-HB	The R-REF01-HB reference design consists of a half-bridge layout with a fully-isolated driver stage using isolated power supplies for both the low-side and the high-side switching transistors. Included in the package are four sets of different DC/DC converters which generate the appropriate isolated driver voltages for the different transistor types.	R12P22005D R12P21503D R12P21509D R12P06S	Half-bridge voltage up to 1kV TTL-compatible signal input shoot-through protection separate input for low and high-side switch
 R-REF02-78S	The R-REF02-78S generates 3.3V from a single AA battery and can be used directly in any application. The reference design contains a AA battery holder and a R-78S3.3-0.1 boost converter. Two jumper headers J1 and J2 ensure connectivity to the output voltage and the CTRL pin of the R-78S converter.	R-78S3.3-0.1	3.3V from a single AA battery (boost converter) efficiency 93% , >80% at 10% load Input range down to 0.65V 0.100" (2.54mm) pin output
 R-REF03-CAN1	The R-REF03-CAN1 reference board demonstrates the ISO1042 isolated CAN transceiver supplied by the R1SX-3.305/H isolated DC/DC converter. To supply the reference board only one 3.3V external supply is required. The green LED indicates the presence of the VCC2 supply on the secondary (CAN bus) side. The reference board allows designers to develop and analyze isolated systems quickly.	R1SX-3.305/H	Complete isolated solution for CAN bus, contains galvanically-isolated CAN transceiver IS1042, up to 5Mbit data rate in CAN FD mode, input and output test points, meets ISO11898-2 (2016)
 R-REF04-RIA12-1	The R-REF04-RIA12-1 reference design consists of a high-current (40A) PCB layout for 24V/48V operation complete with input and output connectors, RIA12 surge voltage limiter, EMC filter, Hold-up capacitors, fan output, and isolated remote enable. The universal PCB accepts 2"x1", quarter-brick, and half-brick DC/DC converters from 60W up to 240W (not supplied).	RPA60-24xxSFQ RP75H-24(48)xxSRW RP90Q-24(48)xxSRW RP100H-24(48)xxSRW RP120Q-24(48)xxSRW RP180H-24(48)xxSRW RP240H-24(48)xxSRW	3 different filter component footprints for EMC filter optimization connectors for external hold-up capacitor bank

# EVALUATION MODULES

- Advanced 3D Power Packaging

## EVALUATION MODULES REFERENCE DESIGNS / BREAKOUT BOARDS






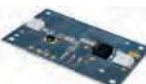
Series	Description	Suitable for	Other features
 R-REF04-RIA12-2	The R-REF04-RIA12-2 reference design consists of a high voltage PCB layout for 96V/110V operation complete with input and output connectors, RIA12 surge voltage limiter, EMC filter, hold-up capacitor, fan output, and isolated remote enable. The universal PCB accepts 2"x1", quarter-brick, and half-brick DC/DC converters from 60W up to 240W (not supplied).	RP75H-110xxSRW RP90Q-110xxSRW RP100H-110xxSRW RP120Q-110xxSRW RP180H-110xxSRW RP240H-110xxSRW	3 different filter component footprints for EMC filter optimization Connectors for external hold-up capacitor bank
 RAC-ADAPT-ST-1	The RAC-ADAPT-ST-1 is an adapter board which allows many of RECOM's latest AC/DC products in the range of 1 to 20 Watts of output power to be fitted with screw terminals for easy connection. Wide input voltage and wide ambient operating temperature ratings of the design and appropriate clearance make it an easy-to-use board for short run or low-volume production and prototyping as well as for evaluation purposes.	RAC01-GA RAC03-K RAC04-G (A/B) RAC05-K/27 RAC05-K/480 RAC10-K/277 RAC15-K, RAC20-K	Up to 488VAC input voltage range 9A current rating for up 90°C air temperature stable solderability by secure packaging screw terminal adapter board
 RPL-3.0-EVM-1	The RPL-3.0-EVM-1 generates a constant output voltage selectable from 1.8V, 3.3V, or 5V from a DC input in the range of 4 – 18V. It has a maximum continuous output current of 3 A. All the functions of the RPL-3.0 such as output voltage selection, control, power good, and output sense can be readily evaluated. Also the behavior in overload or over-temperature can be evaluated easily before it is designed in. The evaluation board also contains the filter components to meet EMC Class A levels. Alternate component positions are included to allow experimentation to optimize the EMC performance depending on operating conditions and budget.	RPL-3.0	Thermal design considerations included EMI class A filter, easy evaluation of output voltage selection, control, power good and sensing functions/rising functions
 RPMxx-1.0-EVM-1 /2.0-EVM-1 /3.0-EVM-1 /6.0-EVM-1	The RPMx3.3-xx-EVM-1 and RPM5.0-xx-EVM-1 are evaluation boards for the RPM3.3-xx and RPM5.0-xx power modules. The fitted power modules are pre-set to 3.3V or 5V output, but both can be trimmed over a 0.9V to 6.0V range. The continuous output current can be 1, 2, 3, or 6A.	RPM3.3-1.0, RPM5.0-1.0 RPM3.3-2.0, RPM5.0-2.0 RPM3.3-3.0, RPM5.0-3.0 RPM3.3-6.0, RPM5.0-6.0	3-17V input voltage (buck), up to 99% efficiency on board class B EMC filter thermally enhanced PCB design output Sense, PG, and SEQ connectors
 RPMB-2.0-EVM-1	The RPMB-2.0-EVM-1 generates a constant output voltage with an output current up to 2.0A from an external DC source. Functions of the RPMB-2.0 such as trimming, control, and sensing can be evaluated. Further the behavior in overload or over temperature can be evaluated easily before design-in.	RPMB3.3-2.0 RPMB5.0-2.0 RPMB12-2.0 RPMB15-2.0	Thermally enhanced PCB design EMI class B filter easy evaluation of control, power good, and sensing functions
 RPMH-0.5-EVM-1	The RPMH-0.5-EVM-1 generates a constant output voltage with an output current up to 0.5A from an external DC source. All the functions of the RPMH-0.5 such as trimming, sequencing, control, and sensing can be evaluated. Additionally the behavior in overload or over temperature can be evaluated easily before design-in.	RPMH3.3-0.5 RPMH5.0-0.5 RPMH12-0.5 RPMH15-0.5 RPMH24-0.5	Thermal design considerations included EMI class B filter easy evaluation of control, power good, and sensing functions
 RPX-1.0-EVM-1 1.5-EVM-1	The RPX-1.0-EVM-1 generates a constant output voltage selectable from 0.8V, 1.8V, 3.3V, 5V, 12V, 15V, or 24V from a DC input in the range of 4-36V. It has a maximum continuous output current of 1A.	RPX-1.0 RPX-1.5	Thermal design considerations included EMI class B filter easy evaluation of output voltage selection, control, and sensing functions
 RPMH-1.5-EVM-1	The RPMH-1.5-EVM-1 generates a constant output voltage with an output current up to 1.5A from an external DC source. All the functions of the RPMH-1.5 like trimming, sequencing, control, and sensing can be evaluated. Further the behavior in overload or over temperature can be evaluated easily before it is designed in.	RPMH3.3-1.5 RPMH5.0-1.5 RPMH12-1.5 RPMH15-1.5 RPMH24-1.5	Thermal design considerations included EMI class B filter easy evaluation of control, power good, sequencing and sensing functions

# EVALUATION MODULES

- Advanced 3D Power Packaging

## EVALUATION MODULES

## REFERENCE DESIGNS / BREAKOUT BOARDS









Series	Description	Suitable for	Other features
 RPX-2.5-EVM-1	The RPX-2.5-EVM-1 generates a constant output voltage selectable from 1.8V, 3.3V or 5V from a DC input in the range of 4.5 – 28V (6V – 28V for the 5V output). It has a maximum continuous output current of 2.5 A	RPX-2.5	Thermal design considerations included EMI class B filter easy evaluation of output voltage selection, control, and sensing functions
 RPMB-3.0-EVM-1	The RPMB-3.0-EVM-1 generates a constant output voltage with an output current up to 3.0A from an external DC source. Functions of the RPMB-3.0 such as trimming, control, and sensing can be evaluated. Also the behavior in overload or over temperature can be evaluated easily before it design-in.	RPMB3.3-3.0 RPMB5.0-3.0 RPMB12-3.0 RPMB15-3.0	Thermal design considerations included EMI class B filter easy evaluation of control, power good, and sensing functions
 RPX-4.0-EVM-1	The RPX-4.0-EVM-1 generates a constant output voltage selectable from 1.8V, 3.3V, or 5V from a DC input up to 36V. It has a maximum continuous output current of 4A.	RPX-4.0	Thermal design considerations included EMI class A filter easy evaluation of functions such as control and power good
<b>new</b>  RPX-0.5Q-EVM-1	The RPX-0.5Q-EVM-1 generates a constant output voltage selectable from 0.8VDC, 1.8VDC, 3.3VDC, 5VDC, 12VDC, 15VDC or 24VDC from a DC input in the range of 4 – 36VDC. It has a maximum continuous output current of 0.5A.	RPX-0.5Q	Thermal design considerations included EMI class B filter easy evaluation of output voltage selection, control and sensing functions
<b>new</b>  RPX-1.5Q-EVM-1	The RPX-1.5Q-EVM-1 generates a constant output voltage selectable from 0.8VDC, 1.8VDC, 3.3VDC, 5VDC, 12VDC, 15VDC or 24VDC from a DC input in the range of 4 – 36VDC. It has a maximum continuous output current of 1.5A.	RPX-1.5Q	Thermal design considerations included EMI class B filter easy evaluation of output voltage selection, control and sensing functions
<b>new</b>  RPY-1.5Q-EVM-1	The RPY-1.5Q-EVM-1 generates a constant output current selectable from 0.5A, 1A, or 1.5A from a DC input in the range of 4 – 36VDC. It has a maximum continuous output current of 1.5A.	RPY-1.5Q	Thermal design considerations included CISPR25 class 5 EMI filter Easy evaluation of output current selection PWM dimming and fault indication functions



# SWITCHING REGULATORS

- Standard pinout
- MTBF up to 21 million hours
- Short circuit protection
- Very high efficiency up to 98%
- Internal SMD construction
- No heatsink required
- Wide operating temperature range









## STEP DOWN

Series	Output current (A)	Vin (VDC)	Vout (VDC)	Case / Dimensions (LxWxH)	Certifications	Other features
 R-78HE-0.3	0.3	6.5-72	5	SIP3 11.5 x 8.5 x 12.5 mm (0.5" x 0.3" x 0.7")	EN55032	Wide input range (6.5V - 72V) 100V surge with stand operating temperature range: -40°C to +105°C at 48V input, full load
 R-78HB-0.5 R-78HB-24-0.3	0.5 (0.3)	9-72 (36-72)	3.3, 5, 6.5, 9, 12, 15 (24)	SIP3 11.5 x 8.5 x 17.5 mm (0.5" x 0.3" x 0.7")	EN/IEC60950-1 EN55032	Operating temperature range: -40°C to +85°C high input voltage 90° pins (L)
 R-78HB-0.5/W	0.5	9-72	5, 12	SIP3 12.1 x 9.7 x 24.0 mm (0.5" x 0.4" x 0.9")	EN/IEC60950-1 EN55032	Operating temperature range: -40°C to +85°C high input voltage flying wires
 R-78(E)-0.5	0.5	4.75-32 6-28 (E)	1.5, 1.8, 2.5, 3.3(E), 5(E), 6.5, 9(E), 12(E), 15(E)	SIP3 11.5 x 7.6 x 10.2 mm (0.5" x 0.3" x 0.4") 11.6 x 8.5 x 10.4 mm (E) (0.5" x 0.3" x 0.4")	EN/IEC60950-1 EN5502 EN55024	Operating temperature range: -40°C to +85°C economical design available (R-78E-0.5) up to 97% efficiency
 R-78W-0.5	0.5	6.5-32	3.3, 5, 9, 12	SIP3 11.5 x 8.5 x 17.5 mm (0.5" x 0.3" x 0.7")	EN/IEC60950-1	Operating temperature range: -40°C to +85°C flying wires up to 96% efficiency
 R-78AA-0.5SMD	0.5	4.75-32	1.5, 1.8, 2.5, 3.3, 5, 6.5, 9, 12, 15	SMD 15.3 x 9.6 x 8.8 mm (0.6" x 0.4" x 0.4")	EN/IEC60950-1 EN55032	Operating temperature range: -40°C to +85°C adjustable output, on/off pin tape & reel packaging (-R) up to 97% efficiency
 ROF-78E	0.5	5 -36	3.3, 5, 12	SMD 12.5 x 13.5 x 4.0 mm (0.5" x 0.5" x 0.2")	EN55032	Economical design, low profile operating temperature range: -40°C to +85°C pinless design, on/off pin
 R-78(E)-1.0	1.0	4.75-18 7 -28 (E)	1.8, 2.5, 3.3(E), 5(E), 12(E)	SIP3 11.5 x 7.6 x 10.2 mm (0.5" x 0.3" x 0.4") 11.6 x 8.5 x 10.4 mm (E) (0.5" x 0.3" x 0.4")	EN/IEC60950-1 EN55032	Operating temperature range: -40°C to +85°C economical design available (R-78E-1.0) up to 97% efficiency

# SWITCHING REGULATORS

- Standard pinout
- MTBF up to 21 million hours
- Short circuit protection
- Very high efficiency up to 98%
- Internal SMD construction
- No heatsink required
- Wide operating temperature range





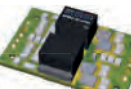
## STEP DOWN

Series	Output current (A)	Vin (VDC)	Vout (VDC)	Case / Dimensions (LxWxH)	Certifications	Other features
 R-78AA-1.0SMD	1.0	4.75-18	1.5, 1.8, 2.5, 3.3, 5	SMD 15.3 x 9.6 x 8.8 mm (0.6" x 0.4" x 0.4")	EN/IEC60950-1	Operating temperature range: -40°C to +85°C adjustable output, on/off pin tape & reel packaging (-R)
 R-78B-1.0	1.0	4.75-32	1.5, 1.8, 2.5, 3.3, 5, 6.5, 9, 12, 15	SIP3 11.5 x 8.5 x 17.5 mm (0.5" x 0.3" x 0.7")	EN/IEC60950-1 EN55032	Operating temperature range: -40°C to +85°C 90° pins (L), input voltage up to 32V efficiency up to 97% output voltage up to 15V
 R-78C-1.0	1.0	5-42	1.8, 3.3, 5, 9, 12, 15	SIP3 11.6 x 8.5 x 10.4 mm (0.5" x 0.3" x 0.4")	EN/IEC60950-1 EN55032	Operating temperature range: -40°C to +85°C output voltage up to 15V input voltage up to 42V 1A continuous in small package
 R-78T-1.0	1.0	7-42	3.3, 5, 12	SMD 23.0 x 27.2 x 10.0 mm (/AC or /AL) (0.9" x 1.1" x 0.4") 23.0 x 29.4 x 8.0 mm (/FC) (0.9" x 1.2" x 0.3")	N/A	Operating temperature range: -40°C to +85°C input voltage up to 42V tape & reel packaging (-R) tray packaging (-Tray)
 R-78B-1.5 (L)	1.5	4.5-18	3.3, 5, 6.5	SIP3 11.5 x 8.5 x 17.5 mm (0.5" x 0.3" x 0.7")	IEC/EN60950-1	Operating temperature range: -45°C to +85°C "L" version with 90° pins efficiency up to 95%
 R-78B-2.0	2	4.75-32	1.2, 1.5, 1.8, 2.5, 3.3, 5, 9, 12, 15	SIP3 11.5 x 8.5 x 17.5 mm (0.5" x 0.3" x 0.7")	EN/IEC62368-1 EN55032 EN55024	Operating temperature range: -40°C to +85°C efficiency up to 96% input voltage up to 32V output voltage 1.2 to 15V
 R-5xxxA	2, 3, 4, 5	4.5-18	1.2, 1.8, 2.5, 3.3, 5	SIP12 32.2 x 9.1 x 15.0 mm (1.3" x 0.4" x 0.6")	IEC/EN60950-1	Operating temperature range: -40°C to +85°C auto sense adjustable output, 90° pins (DA) control pin (on/off)
 R-6xxx	1-2	9-32	1.8, 2.5, 3.3, 5, 9, 12	SIP12 32.2 x 9.1 x 15.0 mm (1.3" x 0.4" x 0.6")	IEC/EN60950-1	Operating temperature range: -40°C to +85°C adjustable output, 90° pins (D) control pin (on/off) efficiency up to 97%

# SWITCHING REGULATORS

- Standard pinout
- MTBF up to 21 million hours
- Short circuit protection
- Very high efficiency up to 98%
- Internal SMD construction
- No heatsink required
- Wide operating temperature range

## STEP DOWN

Series	Output current (A)	Vin (VDC)	Vout (VDC)	Case / Dimensions (LxWxH)		Certifications	Other features
 R-7xxx	2, 3, 4	4.5-28	3.3, 5, 6.5, 9, 12, 15	SIP12	32.2 x 9.1 x 15.0 mm (1.3" x 0.4" x 0.6")	IEC/EN60950-1	Operating temperature range: -40°C to +85°C adjustable output, 90° pins (D) control pin (on/off) efficiency up to 97%
 RPMA-4.5	4.5	9-53	5-30	1/32 brick	19.1 x 23.4 x 9.6 mm (0.75" x 0.9" x 0.4")		Ultra-wide operating temperature range: -40°C to +85°C OCP and OTP, CTRL, and remote sense selectable outputs
 RPMA-8.0	8	9-53	3.3-16.5	1/32 brick	19.1 x 23.4 x 9.6 mm (0.75" x 0.9" x 0.4")		Ultra-wide operating temperature range: -40°C to +85°C OCP and OTP, CTRL, and remote sense selectable outputs
 RPMGS-20	20	18-75	3.3 - 8 8 - 24	1/16 brick	36.83 x 34.04 x 15mm (1.4" x 1.3" x 0.6")		Ultra-wide operating temperature range: -40°C to +120°C, efficiency up to 97% UVLO, OTP, OCP and SCP protected adjustable output voltage
 RPMGQ-20	20	18-75	3.3 - 8 8 - 24	1/4 brick	56.4 x 36.83 x 15mm (2.2" x 1.4" x 0.6")		Ultra-wide operating temperature range: -40°C to +120°C, efficiency up to 97% UVLO, OTP, OCP and SCP protected adjustable output voltage









# SWITCHING REGULATORS

## POWER MODULES

- Advanced 3D Power Packaging
- No heatsink required
- Compact SMD footprint

- 0.5 to 4A
- Wide operating temperature range
- Trimmable outputs

- High efficiency up to 99%
- Short circuit protection
- Fully-automated production

Series	Output current (A)	Vin (VDC)	Vout (VDC)	Case / Dimensions (LxWxH)	Certifications	Other features
 RPMH-0.5	0.5	4.3-65	3.3, 5, 12, 15, 24	LGA-25 12.19 x 12.19 x 3.75 mm (0.5" x 0.5" x 0.2")	EN55032	High input voltage, wide operating temperature range: -40°C to +95°C at full load on/off, sense, trim, power good, and sequencing functions
 RPX-0.5Q	0.5	4-36	0.8-30	QFN 3.0 x 5.0 x 1.6 mm (0.1" x 0.2" x 0.06")	N/A	AEC-Q100 Grade 1, wettable flank package available, SCP, OCP, OTP, and UVLO protection, 3.0 x 5.0mm low profile QFN package, operating temperature range: -40°C to +125°C, trimmable output
 RPX-1.0 RPX-1.5	1, 1.5	4-36	0.8-30	QFN 3.0 x 5.0 x 1.6 mm (0.1" x 0.2" x 0.06")	N/A	SCP, OCP, OTP, and UVLO protection 3.0 x 5.0mm low profile QFN package operating temperature range: -40°C to +125°C trimmable output
 RPX-1.5Q	1.5	4-36	0.8-30	QFN 3.0 x 5.0 x 1.6 mm (0.1" x 0.2" x 0.06")	N/A	AEC-Q100 Grade 1, wettable flank package, SCP, OCP, OTP, and UVLO protection, 3.0 x 5.0mm low profile QFN package, operating temperature range: -40°C to +125°, trimmable output
 RPY-1.5Q	0-1.5	4-36	0.8-34.8	QFN 3.0 x 5.0 x 1.6 mm (0.1" x 0.2" x 0.06")	N/A	AEC-Q100 qualified constant current power module with integrated shielded inductor, 1.5A output current with 0-100% PWM dimming, enable, fault thermal shutdown, and soft start functions
 RPMH-1.5	1.5	5-60	2.64-3.63, 4-5.5, 7.2-13.2, 9-16.5 15-28	LGA-25 12.19 x 12.19 x 3.75 mm (0.5" x 0.5" x 0.2")	EN55032	Wide input voltage range wide operating temperature range: -40°C to 100°C at full load
 RPM-1.0 RPM-2.0 RPM-3.0 RPM-6.0	1, 2, 3, 6	3-17	3.3, 5 trimmable 0.9-6.0V	LGA-25 12.19 x 12.19 x 3.75 mm (0.5" x 0.5" x 0.2")	EN55032	Operating temperature range: -40°C to +105°C at full load, very high efficiency up to 99% 6-sided shielding for low EMI
 RPMB-2.0 RPMB-3.0	2, 3	4-36	3.3, 5, 12, 15 trimmable 1-24V	LGA-25 12.19 x 12.19 x 3.75 mm (0.5" x 0.5" x 0.2")	EN55032	Operating temperature range: -40°C to +100°C with derating, convection cooled input voltage up to 36V output voltage up to 24V


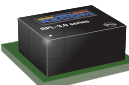

# SWITCHING REGULATORS

## POWER MODULES

- Advanced 3D Power Packaging
- No heatsink required
- Compact SMD footprint

- 0.5 to 4A
- Wide operating temperature range
- Trimmable outputs

- High efficiency up to 99%
- Short circuit protection
- Fully-automated production




Series	Output current (A)	Vin (VDC)	Vout (VDC)	Case / Dimensions (LxWxH)	Certifications	Other features
 RPX-2.5	2.5	4.5-28	1.2-6	QFN 4.5 x 4.0 x 2.0 mm (0.2" x 0.1" x 0.07")	N/A	Very high power density 28V maximum input voltage 2.5A maximum output current SCP, OCP, OTP, OVP, and UVLO protection
 RPL-3.0	3	4-18	0.8-5.2	LGA-10 3.0 x 3.0 x 1.45 mm (0.1" x 0.1" x 0.06")	N/A	Very high power density 3A maximum output current very low 1.45mm profile enable, sense, and power good functions
 RPX-4.0	4	3.8-36	1-7	QFN 5.0 x 5.5 x 4.0 mm (0.2" x 0.2" x 0.2")	N/A	Very high power density 36V maximum input voltage excellent thermal performance power good, enable, and trimmable output



# SWITCHING REGULATORS

## BOOST / BUCK-BOOST

- Standard Pinout
- MTBF up to 21 million hours
- Short circuit protection
- High efficiency up to 99%
- Internal SMD construction
- Wide operating temperature range
- No heatsink required
- RoHS compliant
- REACH compliant
- Ultra high specification

Series	Output current (A)	Vin (VDC)	Vout (VDC)	Case / Dimensions (LxWxH)		Certifications	Other features	
BOOST								
	R-78S-0.1	0.1	0.65-3.3	1.8, 3.3, 3.6	SIP4	11.6 x 8.5 x 10.4 mm (0.5" x 0.3" x 0.4")	IEC/EN62368-1 EN55032 EN55024	Designed to power microprocessors and IoT operating temperature range: -40°C to +100°C boost converter to run from single cell batteries
BUCK-BOOST								
	RBB10-2.0	4	2.3-5.5	1-5.5	LGA-25	12.19 x 12.19 x 3.75 mm (0.5" x 0.5" x 0.2")	EN55032	7µA standby power consumption SCP, OTP, OCP dual regulation modes for optimized performance or efficiency
	RBBA3000	50	9-60	0-60	1/2 brick	60.6 x 63.2 x 13.0 mm (2.4" x 2.5" x 0.5")	EN55032	Adjustable output voltage and current efficiency up to 96% operating temperature range: -40°C to +85°C without derating


# LED DRIVERS

## AC/DC CONSTANT CURRENT

- 3 to 25 watts
- Constant current or constant voltage available

- High efficiency
- Ultra-low profile packages
- Custom designs available





- Dimmable series available

Series	Power (W)	Output current (mA)	Vin (VAC)	Vout (VDC)	Isolation	Dimensions (LxWxH)	Certifications	Other features
 RACD03	3	350 500 700	90-264 90-132	2.5-15 (3-12) 2.5-11 (3-9.5) 2.5-6 (3-4.5)	3.75 kVAC / 1 min	52.1 x 29.6 x 23.1 mm (2.1" x 1.2" x 0.9")	UL8750 EN/IEC61347-1, 2-13	IP66, CC/CV wired connections compact size
 RACD06	6	350 500 700	90-264	2.5-24 2.5-15 2.5-12	3.75 kVAC / 1 min	68.0 x 35.0 x 21.0 mm (2.7" x 1.4" x 0.8")	UL8750 EN/IEC/J61347-1, 2-13	CC/CV compact size screw terminals
 RACD06-LP	6	350 500 700	198-264	2-18 2-12 2-9	3.75 kVAC / 1 min	98.0 x 46.0 x 11.0 mm (3.9" x 1.8" x 0.4")	EN/IEC61347-1 EN/IEC61347-2-13 EN/IEC62384	Ultra-low profile economical design screw terminals
 RACD07	7	250 350 500 700	90-295	14-28 10-20 5-14.5 3-10.5	3.75 kVAC / 1 min	57.0 x 40.8 x 24.0 mm (2.2" x 1.6" x 0.9")	UL8750 EN61347-1 EN61347-2-13 EN61547	IP67 wired connections compact size
 RACD12-LP	12	350 500 700	198-264	2-37 2-24 2-19	3.75 kVAC / 1 min	128.0 x 50.0 x 13.0 mm (5.0" x 2.0" x 0.5")	EN/IEC61347-1 EN/IEC61347-2-13 EN/IEC62384	Ultra-low profile economical design screw terminals fully protected (OLP, SCP, OCP, OTP)
 RACD20-LP	20	350 500 700	198-264	2-59 2-40 2-31	3.75 kVAC / 1 min	128.0 x 50.0 x 13.0 mm (5.0" x 2.0" x 0.5")	EN/IEC61347-1 EN/IEC61347-2-13 EN/IEC62384	Ultra-low profile economical design screw terminals fully protected (OLP, SCP, OCP, OTP)
 RACT25	25	500 700 1050	198-264	25-50 18-36 12-24	3.75 kVAC / 1 min	120.0 x 45.0 x 28.0 mm (4.7" x 1.8" x 1.1")	EN/IEC61347-1 EN/IEC61347-2-13 EN61547 EN62493 EN55015	dimmmable with leading or trailing edge dimmers class II with SELV output (no earth required)

# LED DRIVERS



## DC/DC CONSTANT CURRENT

- All-in-one
- Ready to use (no external components necessary for basic use)
- High efficiency up to 97%
- PWM / digital and analog dimming
- Wide input voltage range
- Buck & buck-boost topology
- Optional flying wires (/W)
- Low emissions (built-in EMC filter)
- Short circuit protected
- Custom designs available

Series	Output current (A)	Vin (VDC)	Vout (VDC)	Case / Dimensions (LxWxH)	Certifications	Other features
 RCD-24 (/W)	0.3-1.2	4.5-36	2-35	DIP 22.1 x 12.55 x 8.5 mm (0.9" x 0.5" x 0.3")	EN/UL60950-1 EN61373 EN50121-3-2	Buck topology IP67 rated wired version available (/W) Vref out (/Vref) digital PWM and analog voltage dimming
 RCD-24/PL	0.3-1.0	4.5-36	2-35	SMD 31.0 x 11.4 x 6.6 mm (1.2" x 0.5" x 0.3")	EN/UL60950-1 EN61373 EN50121-3-2 EN55022	Buck topology low profile, class B filter built-in tape & reel packaging (-R)
 RCD-48 (/W)	0.35-1.2	9-60	2-56	DIP 32.6 x 16.7 x 11.1 mm (1.3" x 0.7" x 0.4") 32.6 x 16.0 x 11.2 mm (/M) (1.3" x 0.7" x 0.4")	EN/UL60950-1 EN61373 EN50121-3-2 EN55011	Buck topology wired version with Vref out available (/W) IP67 rated for wired version (/W) metal case (/M)
 RCDE-48	0.35-1.05	6-60	3-52	DIP24 32.1 x 20.6 x 12.3 mm (1.2" x 0.8" x 0.5")	EN55015	Buck topology constant current output (350, 700, or 1050mA) digital PWM and analog voltage dimming high efficiency up to 97%

# LED DRIVERS

## ACCESSORIES

Series	Operating principle	Power (W)	Input Voltage (VAC)	Other features
 RELI-DA01/R	DALI-to-PWM/analog control signal interface	1.6	90-290	DALI IEC62386, PWM / 0-10V output compatible with all RECOM dimmable drivers spring terminals
 RELV4-16	DALI Bus power supply	3.2	90-264	Designed to power the DALI bus DALI compliant screw terminals

# POWER CONTROL SYSTEMS – CUSTOM SOLUTIONS

RECOM's subsidiary company Power Control Systems (PCS) specializes in custom power converter solutions and has over 40 years of experience with **high reliability/harsh environment applications**. Its design and manufacturing is in Europe with close local technical and sales support. Products developed include: high power DC input and single/three-phase AC input converters, cascadable up to 30kW, battery chargers and balancers up to 11kW, suitable for a range of battery voltages up to 110VDC and above, bi-directional power supplies and modular inverters with single/three-phase outputs. All AC input products incorporate active power factor correction, and modular PFC 'front ends' are available up to 4kW with universal single and three-phase AC inputs.





Special products **for rugged vehicle solutions in the marine, avionics, and defence sectors** have also been developed up to 4kW rating, with single or multiple outputs, high levels of functionality, robustness, and environmental protection. PCS has extensive expertise in standards compliance in high reliability markets and can provide certification of products to functional, safety, and **EMC standards for the industrial, rail, transportation, medical, and defense markets**. Although most products are bespoke (customized), PCS uses a variety of proven platform designs as a basis for new projects, to minimize costs, risk, and turn-round time. Customers are invited to browse the featured products as examples of PCS capability and to contact the company with your particular requirements.



## CUSTOM SOLUTIONS

30kW BATTERY CHARGERS |  
INVERTERS | PFC FRONT ENDS |

- High power solutions for DC or AC line with DC, 1AC or 3AC
- Wide operating temperature range
- Bidirectional power supplies up to 11kW with 3AC input and active PFC
- Inverters up to 5kW
- Special applications & rugged vehicle solutions up to 4kW
- Battery charging & battery balancing up to 30kW
- OCP, OTP, OVP, and SCP

Series	Power (W)	Vin	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Comply with	Other features
 MD200	220	28VDC	5V / 2 x 12VDC	1500VDC	184.4 x 167.0 x 40.6 mm (7.2" x 6.5" x 1.6")	MIL-STD-704A MIL-STD-810F DEF-STAN 59-41 DO-160E/ED14E BS.2011, IPC-A-610D MIL-HDBK-217F EN62368-1	Plug & play DC/DC converter for special applications, robust, high reliability, multiple output, contact cooling IP 40 for ambient protection
 ID250	240	24 - 48 - 72 - 110VDC	48VDC: 50-156VAC 24-72-110VDC: 200-240VAC	3500VAC	289.0 x 128.0 x 100.0 mm (11.4" x 5.0" x 3.9")	EN50155 EN50121-4, -3-2 EN50124-1, EN50125-3 EN61373 (1B) EN62368-1 IS402, CE	Railway inverter power for passenger socket or for driver desks fully railway-approved reliable AC-power
 SD280	280	28VDC	Multiple output DC	N/A	250.0 x 130.0 x 100.0 mm (9.8" x 5.1" x 3.9")	N/A	High functionality converter, power supply with integrated functional interfaces compact design for critical ambient conditions excellent EMC behavior
 PFC800	800	230V1AC	365VDC	N/A	186.0 x 80.0 x 43.6 mm (7.3" x 3.1" x 1.7")	EN61000-6-2 EN61000-6-4 EN61000-3-2/A14 EN62368-1 CE	Modular power factor correction mobile or stationary use excellent performance compact design, high efficiency



# CUSTOM SOLUTIONS

## 30kW BATTERY CHARGERS | INVERTERS | PFC FRONT ENDS

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- Special applications & rugged vehicle solutions up to 4kW
- Battery charging & battery balancing up to 30kW
- OCP, OTP, OVP, and SCP




Series	Power (W)	Vin	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Comply with	Other features
 IPS1200	1200	48VDC±10% 24V or 48VDC	115V 3AC	1500VAC	250.0 x 149.9 x 96.7 mm (9.8" x 5.9" x 3.8")	MIL-STD-461F (Cat. Submarine) AECTP-400 (Edt.3) Method 403 AECTP-400 (Edt.3) Method 401 MIL-STD-810F 807.4, CE	Navi/marine inverter base plate cooling high efficiency, compact design robust, high reliability
 PFC1600	1600	230V 1AC	360	N/A	186.0 x 158.0 x 44.0 mm (7.3" x 6.2" x 1.7")	EN61000-6-2 EN61000-6-4 EN61000-3-2/A14 EN62368-1 CE	Modular power factor correction mobile or stationary use excellent performance compact design, high efficiency
 MA2000	1400-2000	90-264VAC 3-120VDC	12 2-80	1750VAC	318.0 x 212.0 x 165.0 mm (12.5" x 8.3" x 6.4")	EN61000-6-1, -6-3 EN62368-1 EN61010 EN60068-2-6 EN61326 class B CE	Battery conditioner for e-mobility production automation digital regulation concept high functionality
 PFC3200	3200	230V 1AC	365	N/A	199.0 x 186.0 x XX.0 mm (7.8" x 7.3" x xx.0" )	EN61000-6-2 EN61000-6-4 EN61000-3-2/A14 EN62368-1 CE	Modular power factor correction mobile or stationary use, excellent performance compact design, high efficiency easy to integrate
 RMOC(D) 3200	3200	400V 3AC or 700VDC	24-110	1500VAC	410.0 x 235.0 x 85.0 mm (16.1" x 9.2" x 3.3")	EN62368-1 EN61000-6-2, -6-4 EN50155, EN50121-3-2 EN61373 1B EN50124-1, EN50153 EN45545-2	Battery charger for mobile applications railway-approved according to EN 50155 robust and compact design interface for data communication
 PFC4000	4000	230-480V 3AC	360	N/A	Plattform design	EN61000-6-2 EN61000-6-4 EN62638-1 CE	Modular power factor correction mobile or stationary use excellent performance compact design, high efficiency
 RMOC4000	4000	115VAC 400V 3AC	24, 48 24, 48, 60	>200MW with 500VDC	617.0 x 483.0 x 132.0 mm (24.3" x 19.0" x 5.2")	STANAG 1008 EN62638-1 CE101 RE101 RE102 (Navy Fixed) CS101	Robust, compact design high efficiency industry AC power supply for 700VDC version see SD4000
 SD4000	4000	320/450 600VDC	24, 48	1500VAC	483.5 x 370.0 x 132.0 mm (19.0" x 14.5" x 5.2")	EN62368-1 EN61000-6-2 EN61000-6-4 CE	Converter for high level DC-input traction battery 320VDC / 450VDC / 600VDC high efficiency robust, compact design

This Selection Guide represents only the latest most popular products of our portfolio. Please check [www.recom-power.com](http://www.recom-power.com) for additional products.

# CUSTOM SOLUTIONS

## 30kW BATTERY CHARGERS | INVERTERS | PFC FRONT ENDS

- High power solutions for DC or AC line with DC, 1AC or 3AC
- Wide operating temperature range
- Bidirectional power supplies up to 11kW with 3AC input and active PFC
- Inverters up to 5kW
- Special applications & rugged vehicle solutions up to 4kW
- Battery charging & battery balancing up to 30kW
- OCP, OTP, OVP, and SCP

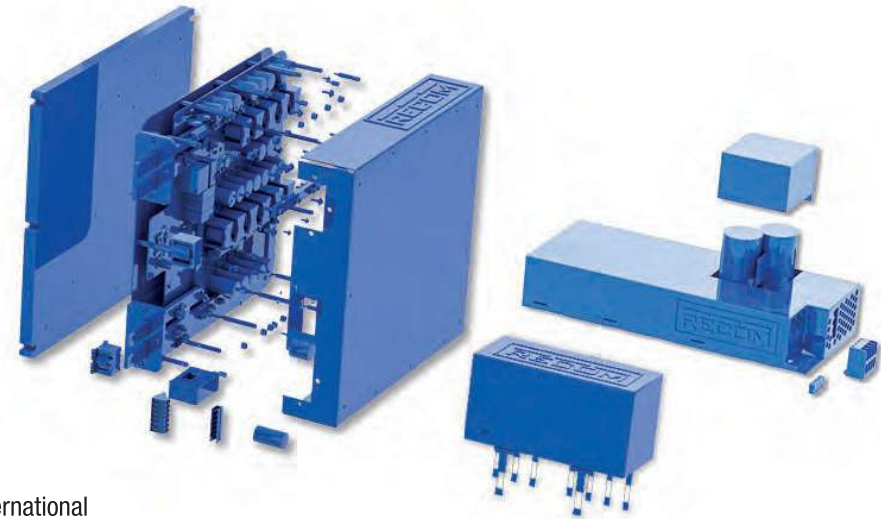
Series	Power (W)	Vin	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Comply with	Other features
 RMOC5000	5000	360-440V 3AC	39.5-58	4 kVAC	526.0 x 483.0 x 88.0 mm (20.7" x 19.0" x 3.5")	EN62368-1 EN50125-3 EN50129 EN50124-1/A1/A2 EN50121-3-2, -4 EN50155, EN45545-2	5kw battery charger for mobile use railway-approved concept 3Ph-AC input with active PFC output for 24V up to 110V battery
 SAB10000	10000	340-470V 3AC 520-700VDC	20 24	1500VAC	670.0 x 443.0 x 128.0 mm (26.4" x 19.4" x 5.0")	EN62368-1 EN61000-6-4, -3-2 EN61000-4-2, -4-3 EN61000-4-4, -4-5 EN61000-4-6, -4-8 EN61000-4-11	Bidirectional battery balancer for e-mobility production automation digital regulation concept high functionality
 MA11000	11000	180-480V 3AC	24, 48	1500VAC	503.0 x 430.0 x 141.0 mm (19.8" x 16.9" x 5.5")	EN61000-6-3 EN61000-6-1 EN62368-1, EN61010 EN60068-2-6 EN61326 class B CE	Battery conditioner for e-mobility production automation digital regulation concept high functionality

# POWER PRODUCTS DESIGNED TO FIT YOUR SPECIFICATIONS

RECOM is renowned for an exceptionally wide range of cost-effective standard products available globally. Additionally, we invite inquiries for full or semi-custom designs made to fit your specifications. All power levels can be considered, right from sub-1W to kilowatts for any application – industrial, medical, energy, aerospace, rail, or military COTS. Customizable product types include AC/DCs, DC/DCs, battery chargers/conditioners, inverters, PFC front ends, and much more. Your special requirement may also be met by modifying a standard product while retaining its existing safety certification, providing you with a very economical, simple, and quick solution. In the past, RECOM has modified many standard production parts as per particular customer specifications; we might hence already have the part you need in our design library.

RECOM has design teams in Austria, Italy, China, and Taiwan, who design with the latest technologies, using state-of-the-art CAD tools for circuit emulation and thermal simulation. In-house EMC test facilities can confirm compliance with international standards and our experienced R&D engineers ensure that the designs fully meet the application requirements. Third-party safety agency and EMC certificates can be arranged for any custom design.

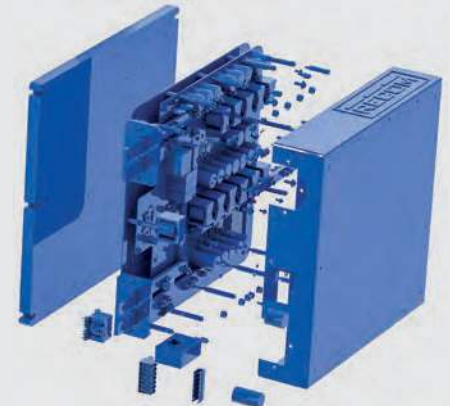
RECOM recommends that you discuss your power converter requirements with us before drawing up a final specification. This will ensure that the proposed product can be made most cost-effectively and designed, built, and certified in the fastest timescale. For example, matching a new design BoM to the RECOM manufacturing technology database will enable the use of common components that are always kept in stock, resulting in the most economical custom product.



## FULL CUSTOMIZE

- Built to your specification
- From concept to production
- Any shape, size or color
- Meets safety & EMC standards

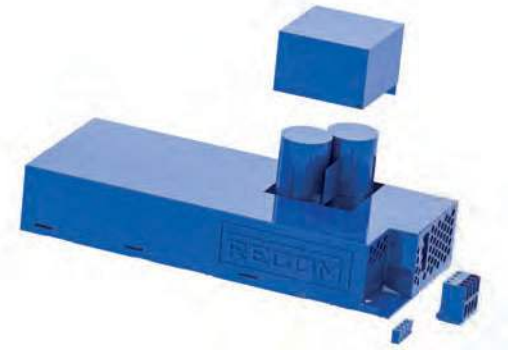
Full customs can be designed from sub-1W to kilowatts by our engineering teams in Austria, Italy, Taiwan, and China, depending on the individual specification. RECOM's subsidiary company PCS in Italy has particular expertise in custom high-power single- and three-phase AC/DCs, DC/DCs, battery chargers/conditioners, PFC front ends, and inverters. These can be designed for any particular market — industrial, medical, energy, aerospace, rail, and military COTS. State-of-the-art design techniques are used for high power density and high efficiency, with the lowest cost. Safety certification can be arranged to meet all the common standards. EMC compliance can also be realized with the pre-compliance testing performed using our in-house test chambers, and we can arrange for a third-party EMC certification.



## SEMI CUSTOM

- Based on proven designs
- Accelerate time-to-market
- Lower cost than a full custom
- Uses existing infrastructure

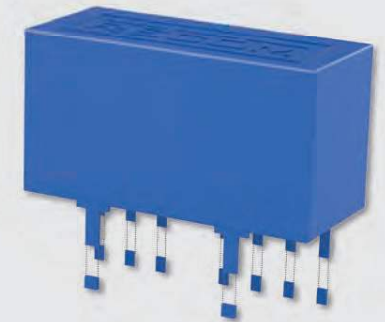
Often, a customer specification can be met using an existing 'platform' design that has the advantage of proven performance and reliability in the field. This is a more economical approach than a full custom, and product safety assurance and EMC certification are simplified, reducing the risk and accelerating the time to the market. Existing in-house stock components, tooling, and manufacturing processes may be used, resulting in a cost-effective product.



## MODIFIED STANDARD

- Standard designs, fine tuned
- Certifications remain valid
- Lowest cost and fastest TTM
- Uses existing supply chain

Do you sometimes look at a datasheet and think, 'If only this one specification were changed, it would be ideal'? RECOM and PCS have a large range of standard products that can often be easily modified to accommodate simple customer requests, such as a change to the output voltage, pinout, or encapsulation material. In many cases, existing certifications for safety and EMC remain valid, saving significant costs and time. RECOM has manufactured many 'modified standards' in the past; so, we might already have met your particular requirements.



## Notes

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.





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