PROFESSIONAL 1AC & 3AC DIN RAIL POWER SUPPLY SOLUTIONS, REDUNDANCY DIODES & E-FUSES

V01/25

THE NEW RACPRO1 SERIES FROM 120 - 960W

reddot winner 2025
industrial design

RECOM

recom-power.com/racpro

Powering the Future of Industry:
Smarter, Stronger, and Ready for Tomorrow's Demands

As smarter control systems, robotics, and automated assembly lines push industrial productivity to new levels, a steady, reliable flow of power is critical to keep operations running smoothly.

Artificial intelligence (AI), machine learning (ML), and the industrial internet of things (IIoT) are transforming operations but also driving up power requirements. Modern machines pack more functionality into every unit, making high-performance power solutions as important as their size and ease of use. **It takes more than sheer power: We wanted to make it easier for you to work with the DIN rail mounted power supply units (PSUs) that support these breakthrough technologies.**

To power the future of industry, only the best will do.

A better fit for DIN Rail Mounted Industrial Power Configurations

- Recommended separation distances to other equipment are 40mm above and 20mm below
- No separation distance required on the left or right sides
- Connect cables with simple, tool-less push-in terminals

reddot winner 2025
industrial design

TOOL-LESS INSTALLATION AND PUSH-IN CABLING

Easy to mount and dismount for maintenance or the reconfiguration of rail components, and easy to attach and detach cables

LONG LIFESPAN

With a design lifetime of 80,000 hours, members of the RACPRO1 can satisfy the longevity demands of industrial power supply applications

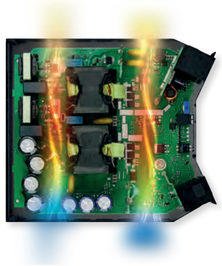
LIGHTWEIGHT AND COMPACT

Specially engineered to fit in densely packed enclosures without weighing down support rails (the 960W model measures only 80mm in width and weights only 1140g)

RACPRO1:
Maintain Reliability in High-Stakes Power Environments Like Industrial Automation, Renewable Energy, and Smart City Infrastructure

Addressing today's Industrial Power Needs

- **High reliability to withstand extended mains input surges** up to 6kV make RACPRO1 PSUs well-suited for demanding industrial applications while reducing risk of system downtime.
- Decelerating motors or inductors can generate reverse voltage, which can flow back into the power supply and cause hazardous back feeding. To mitigate this risk, **RACPRO1 PSUs feature a return voltage immunity of 35V at 24V and 63V at 48V, providing enhanced protection against potential damage and ensuring safer, more reliable operation in demanding industrial environments.**
- **Maintains high-performance output using only convection cooling.** RACPRO1 PSUs do not require any additional cooling components, making them even more reliable in dusty, dirty, humid environments from factory floors to wind farms.
- There's no need to invest in a higher-specified PSU just to handle brief peak requirements. **RACPRO1 PSUs' continuous overload capability can provide a power boost of 150% for as long as five seconds to handle heavy loads like system startup, thereby saving space and cost.**



The Chimney Effect

The chimney effect occurs where a vertical column of warm air rises creating a natural draught that can significantly lower the internal temperature of hot components.

The clever design of the RECOM RACPRO1 DIN-rail mount power supplies incorporates two separate through flue-channels to take full advantage of the chimney effect to offer 100% power operation at up to 60°C ambient temperature.

AC/DC CONVERTERS

1AC DIN-RAIL POWER SUPPLIES

- Input voltage range 1AC 85V to 264V
- DC input voltage range 88V to 370V
- Easy to connect: 25° push-in connectors
- Fast replacement without tools

- Active inrush current limit
- Highest efficiency up to 95%
- Ta -40°C/+70°C, full power at +60°C
- Extra power 120%/45°C, boost 150%/5s

- Easy fuse tripping
- Highest lifetime expectancy 80kh/40°C
- Return Voltage immunity 35V
- Reduced no load power consumption

Series	Power (W)	Vin (VAC)	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Certifications	Other features
COMING SOON  **RACPRO1-S120**	120	85-264	12, 24, 48	3.2 kVAC	100.0 x 100.0 x 28.0 mm (4.9" x 5.3" x 1.7")	EN/IEC/UL62368-1 EN/IEC/UL61010-1 EN/IEC/UL/CSA61010-2-201	Adjustable output voltage and DC OK signal slim design, lowest weight width only 28mm
COMING SOON  **RACPRO1-S240** **RACPRO1-S240 (E)**	240	85-264	12, 24, 48	3.2 kVAC	125.0 x 125.0 x 39.0 mm (4.9" x 4.9" x 1.5")	EN/IEC/UL62368-1 EN/IEC/UL61010-1 EN/IEC/UL/CSA61010-2-201	Adjustable output voltage and DC OK signal slim design, lowest weight width only 39mm economcial design **(E)**
COMING SOON  **RACPRO1-S480**	480	85-264	24, 48	3.2 kVAC	140.0 x 135.0 x 52.0 mm (5.5" x 5.3" x 2.0")	EN/IEC/UL62368-1 EN/IEC/UL61010-1 EN/IEC/UL/CSA61010-2-201	Adjustable output voltage and DC OK signal slim design, lowest weight width only 52mm

AC/DC CONVERTERS

3AC DIN-RAIL POWER SUPPLIES

- Input voltage range 3AC 320V to 576V
- DC input voltage range 450V to 850V
- Easy to connect: 25° push-in connectors
- Fast replacement without tools

- PFC up to 0.93 and active inrush current limit
- Highest efficiency up to 97.1%
- Ta -40°C/+70°C, full power at +60°C
- Extra power 120%/45°C, boost 150%/5s

- Easy fuse tripping
- Highest lifetime expectancy 80kh/40°C
- Extended surge immunity 2.5kV / 6kV
- Battery charging, parallel operation

Series	Power (W)	Vin (VAC)	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Certifications	Other features
new  **RACPRO1-T240**	240	3AC 320V-576V	24	3.5 kVAC	125.0 x 135.0 x 43.0 mm (4.9" x 5.3" x 1.7")	EN/IEC/UL62368-1 EN/IEC/UL61010-1 EN/IEC/UL/CSA61010-2-201	Reduced no load power consumption return voltage immunity >35V adjustable output voltage and DC OK signal width only 43mm, low weight 531g
new  **RACPRO1-T480**	480	3AC 320V-576V	24,48	3.5 kVAC	140.0 x 135.0 x 52.0 mm (5.5" x 5.3" x 2.0")	EN/IEC/UL62368-1 EN/IEC/UL61010-1 EN/IEC/UL/CSA61010-2-201	Reduced no load power consumption return voltage immunity >35V adjustable output voltage and DC OK signal width only 52mm, low weight 768g

new  **RACPRO1-T960**	960	3AC 320V-576V	24, 48	3.5 kVAC	140.0 x 135.0 x 80.0 mm (5.5" x 5.3" x 3.1")	EN/IEC/UL62368-1 EN/IEC/UL61010-1 EN/IEC/UL/CSA61010-2-201	Reduced no load power consumption return voltage immunity >35V adjustable output voltage and DC OK signal width only 80mm, low weight 1140g

AC/DC ACCESSORIES

e-FUSES

- Streamline design with push-in connector for tool-less wiring
- Fast installation with tool-less mounting and demounting

- Start-Up delay adjustable by switch to preserve the output of the PSU
- Manual handling by push button for every channel with button lock

- Adjustable power limitation and load indication by LED
- SCP and power boost 150%/5s
- OCP >150%/100ms

Series	Power (W)	Vin (VAC)	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Certifications	Other features
new  **RACPRO1-4SP/24V/5A**	480	19-28	24	N/A	61.9 x 110.2 x 72.0 mm (2.3" x 4.3" x 2.8")	EN/IEC/UL62368-1 EN/IEC61010-1, -2 UL1310 (NEC Class 2) CAN/CSA-C22.2 No 223	NEC class 2 option adjustable by switch start against highest capacitive loads highest lifetime expectancy 80kh/40°C intuitive user handling UVLO
new  **RACPRO1-4SP/24V/10A**	960	19-28	24	N/A	61.9 x 110.2 x 72.0 mm (2.3" x 4.3" x 2.8")	EN/IEC/UL62368-1 EN/IEC/61010-1, -2	Start against highest capacitive loads highest lifetime expectancy 80kh/40°C intuitive user handling UVLO

AC/DC ACCESSORIES

REDUNDANCY DIODES

- Streamlined performance with push-in connectors in 25° design
- Fast installation with tool-less mounting and demounting

- Minimum power loss with MOSFET technology
- Load sharing for parallel use
- n+1 redundancy operation

- Slim design only 43mm
- Highest lifetime expectancy 80kh/40°C
- Suitable for all power supplies
- Separate Input (-) connector included

Series	Power (W)	Vin (VAC)	Vout (VDC)	Isolation	Case / Dimensions (LxWxH)	Certifications	Other features
COMING SOON  **RACPRO1-RD**	2 x 20A	9-56	12,24,48	N/A	125.0 x 135.0 x 43.0 mm (4.9" x 5.3" x 1.7")	EN/IEC/UL62368-1	Universal input for parallel operation on 12V, 24V, and 48V power supplies input current 2 * 20A, output current 40A, easy daisy chaining with integrated (-) connector

Where you'll find RECOM's RACPRO1 PSU's:
Reliable Energy Solutions for Industry, Infrastructure, and Innovation

Whether your power supply equipment is within arm's reach or in a remote location with limited access, RACPRO1 PSUs are ready for any high-power, high-reliability application.

INDUSTRIAL AUTOMATION + SMART MANUFACTURING
Smarter intelligence awakens in industrial facilities every day. Lean manufacturing, real-time sensors, semi-automated processes, and activities that bring AI and human workers together are all part of Industry 4.0, an era that demands state-of-the-art power supplies to provide consistent, reliable energy.

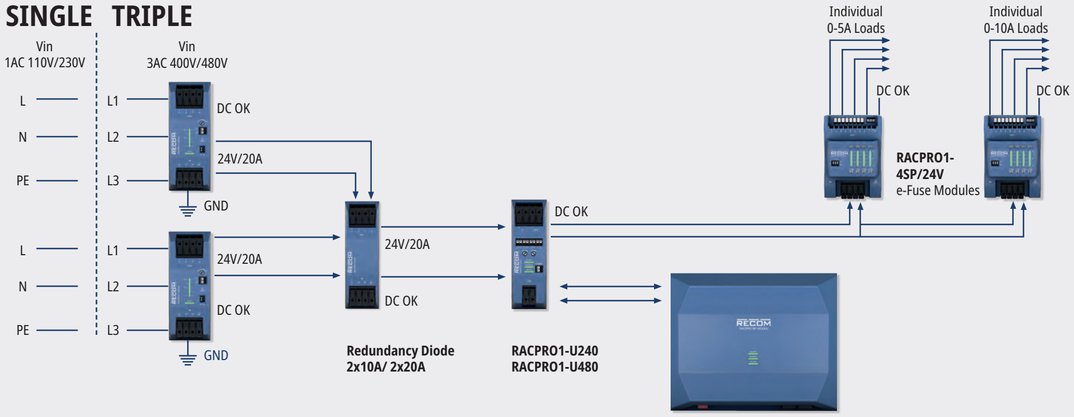
RENEWABLE ENERGY
Renewable energy facilities use innovations like AI-driven energy optimization, smart grids, and automated control systems to balance energy consumption, storage, and generation from cleaner sources. From safety mechanisms on a turbine to redundant power systems, RACPRO1 PSUs can handle temporary overloads without tripping.

INFRASTRUCTURE, TRAFFIC ENGINEERING, AND SMART CITIES
Urban innovation sectors face rising power needs due to the integration of advanced technologies, such as autonomous vehicles, intelligent street lighting, and connected public transportation systems. These innovations rely on continuous data exchange, real-time analytics, and IoT-driven systems to ensure efficiency and responsiveness—all impossible without high-reliability, low-maintenance power supply equipment built to last in damp and dusty locales.

POWER DISTRIBUTION AND BATTERY STORAGE SYSTEMS
Grid-scale energy storage and decentralized energy networks are increasing demands in battery storage systems and power distribution. Augmenting the features of the RACPRO1 family of PSUs, RACPRO1-4SP e-Fuses optimize efficiency and safety with selective power to protect each load from overcurrent and deliver power precisely where it's needed. The combination of RACPRO1 PSUs and e-Fuses reduces downtime, enhances control, and safeguards your entire operation from potential power disruptions.

MEASUREMENT AND TESTING EQUIPMENT
Equipment that detects and analyzes variables under various operating conditions requires stable and substantial power to function accurately. These systems must deliver precise results in real-time, often while processing large amounts of data, which places additional power demands on the equipment. RACPRO1 PSUs make it easier for engineers and technicians to use their equipment safely and reliably.

RACPRO1 Family:
DIN-Rail Power Solutions for Automation Technology



SYSTEM COMPONENTS

Power Supply Units

Single Phase:	Triple Phase:
RACPRO1 - S120	RACPRO1 - T240
RACPRO1 - S240	RACPRO1 - T480
RACPRO1 - S480	RACPRO1 - T960

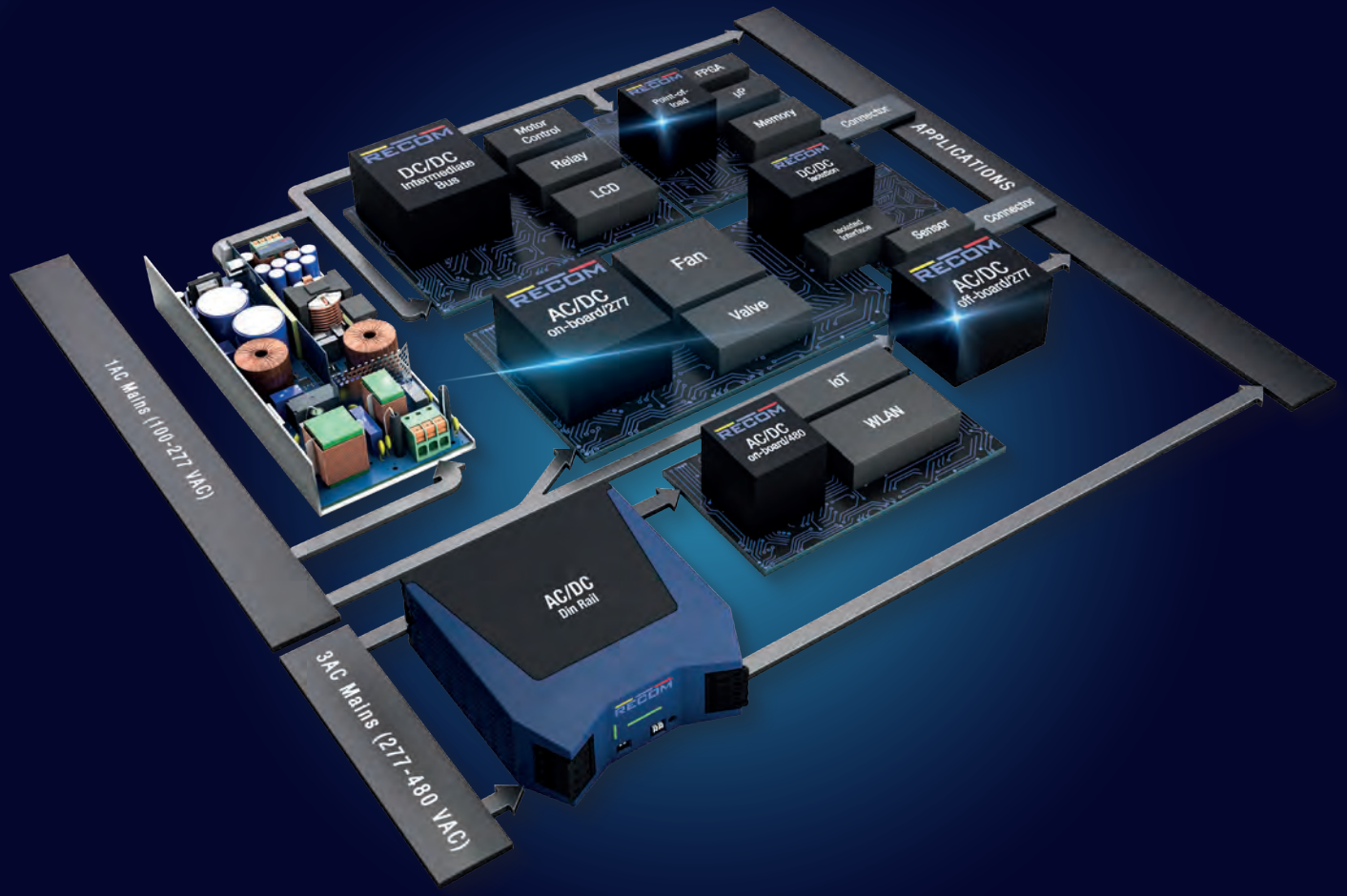
Redundancy Diode
RACPRO1 - RD

DC UPS Systems inclusive Battery Pack
RACPRO1 - U240
RACPRO1 - U480

24V Battery Pack
Automatic Constant Current/
Constant Voltage Charging Mode

Selective Protection e-Fuse
RACPRO1 - 4SP/24V/5A
RACPRO1 - 4SP/24V/10A

POWER SUPPLIES
FOR DISTRIBUTED POWER ARCHITECTURE



RECOM

www.recom-power.com/racpro

RECOM Power GmbH
RECOM Engineering GmbH & Co KG
Münzfeld 35
4810 Gmunden
AUSTRIA

Phone: +43 7612 88325 700
info@recom-power.com
www.recom-power.com