



Premium
Powering Your Challenge

POWER SUPPLIES EQUIPMENT AND SYSTEMS

DC/DC Converters | DC/AC Inverters | AC/DC UPS |
CUSTOM-MADE SOLUTIONS



Reliable. Innovative. Solutions.



Premium

Powering Your Challenge



Revolutionizing energy conversion systems since 1981

During 40 years, at Premium we have worked towards **transforming our goals into achievements, our team's talent into revolutionary ideas and our values into commitments**. As a result, in this catalogue we gather our range of DC/DC converters, DC/AC inverters, and uninterruptible power supplies (UPS), as well as **high reliability custom-made solutions (from 50W to 60kW)**.

All phases of our projects are carried out in Barcelona and guarantee the highest quality, from the design to the homologation, through manufacturing. **Thanks to the most advanced testing systems, we can ensure the compliance with the necessary specifications and standards that enable the use of our products in various markets, such as industrial, railway, energy or in defense applications.**

Over four decades of experience creating standard products and more than 900 custom-made designs have resulted in a unique know-how that transforms into solutions of reduced costs and delivery times.

Shaping the power of the future



Our quality and environmental commitment

ISO 9001

All Premium's processes are in compliance with the ISO 9001 regulation, which lays the groundwork of our day to day processes. These quality standards are always subject to inspection and improvement, keeping quality and security at pace of innovation and talent integration.

ISO 14001

Our quality commitment intends to boost sustainability. In 2019 we incorporated an environmental management system based in the UNE-EN ISO 14001 regulation. At Premium we believe that achieving good environmental practices speaks about our responsibility as a global company, where we have to consciously contribute to our environment's protection.

Conflict Minerals Policy, RoHs Directive and REACH Regulation

All our products **comply with the Conflict Minerals Policy, RoHs Directive and REACH Regulation**. Thanks to these regulations, we can assure that the materials used in our energy conversion solutions have not posed a social and/or sanitary risk in the manufacturing process.



Our markets

High-tech industry

Innovation at the service of reliable power systems

Developing reliable power conversion solutions is key to withstand and boost the digitalization and the progress toward the continuous industry revolution. During 40 years, at Premium we have offered the most pioneering technology, while evolving and keeping our quality standards high. Our solutions can be found in applications such as high-tech compressors, AGVs, coating machinery and semiconductor lithography machines among others. Our experience leads us to stay up to date with market trends and over 900 custom designs endorse our adaptive capability at all levels and specifications.

Railway and transportation

Taking us far since 1981

Efficiency, quality and reliability are merged in our railway solutions. In a demanding sector in terms of results and safety, our range of specific converters, inverters and power supplies for railway application stands out in performance and robustness. Our solutions can be found in vehicles such as trams, light rails, subways, locomotives, or on-board equipment from all over the world and in applications like HVAC systems, auxiliary and emergency systems, propulsion systems or low battery starters, among others. All our products comply with the EN50155 and EN45545 standards. Our know-how broadens our design possibilities, without sacrificing development cost and time to market.

Energy

40 years providing power to essential loads

Our mission at Premium has always been transforming in terms of solutions functionality, but also researching innovative ideas that allow us to make a difference. In the energy market, we are involved in projects related to high and medium voltage substations, smart grid applications and hydrogen fuel cells. Our partnership with the largest energy distributors and power generation market leaders, has allowed us to learn, grow and evolve with new technologies and communication protocols.

Extreme environments

Rising up to new challenges

Setting limits is not our style, and that is why for over 40 years our energy conversion systems have played the main role in constant optimization. The results of our solutions in extreme environments speak for themselves about our quality and efficiency.

Our solutions

Our ideas are developed from start to finish in Barcelona to be used all over the world. Our designs come true in the form of DC/DC converters, DC/AC inverters, AC/DC power supplies and AC/DC UPS and battery chargers from 50W to 50kW. The best of our products is that they give an answer to real needs. In case that the project demands a solution that does not exist as a standard product, at Premium we customize it with all the quality and safety guarantees.

We offer a 3-year warranty in industrial standard products and a 5-year warranty in railway products.

At Premium we supervise our products with extreme care in all phases, from their design to their final shipment. **We start with the premise of adapting our products to our customers, not the other way around.** Thus, we adjust our product's features in terms of security and quality tests for its correct development.

From the production department, product performance tests are carried out through automatic verification equipment. In addition, **either through internal or external laboratories, we can make electrical and functional tests, climatic tests and electromagnetic compatibility tests according to each project's needs.**

Once finished, 100% of our products spend several hours in a burn-in room under controlled temperature conditions. These intensive tests are what make a difference in our solutions, positioning us as technological leaders in our field.





Our facilities

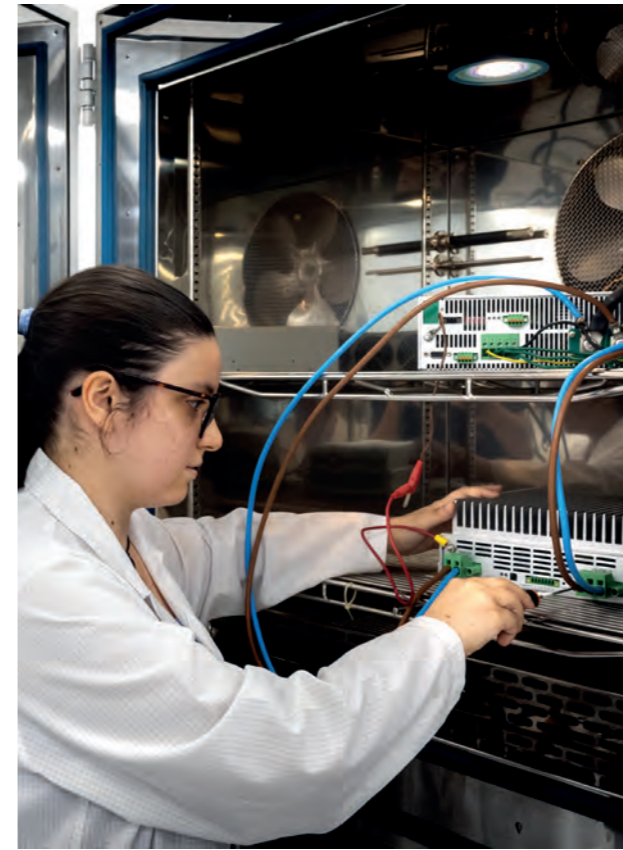
Our facilities are a continuation of Premium's innovative spirit and have been growing and evolving at the same time as our experience and knowledge. **The quality of Premium's solutions is the result of a strong investment in technological improvement and in the development of unique production techniques.** With over 3.000 sqm (32.000sqf), we currently have the optimal facilities to provide the best version of our power conversion solutions.

**BORN IN
BARCELONA,
POWERING
THE WORLD**

R&D Department

From the moment an idea is proposed until the solution materializes, we make sure that the product fulfills its needs during the foreseen life period. It all starts in Premium's brain: our R&D department, where a team of the best engineers starts designing the products according to specifications.

During the design process, our team is in constant contact with the customer in order to use all its experience to increase the customer's competitiveness to its fullest, while implementing state of the art technologies in order to reduce energy consumption and reducing environmental impact. Our R&D department also makes sure all prototypes are verified and put through numerous simulations and tests before industrializing the product.



R&D Testing Lab

Most of the testing can be carried out in our facilities and with our own state of the art equipment:

- **Semi-anechoic chamber** for EMC both in emission and immunity
- **Climatic chamber** for temperature, damp heat, and accelerated aging tests
- **Insulation resistance and dielectric strength** up to 15kV for electrical safety directives
- **Complete range of AC & DC sources and electronic loads**

At Premium we continually strive to achieve the necessary means to elevate our results and exceed our costumers' expectations.





Production area

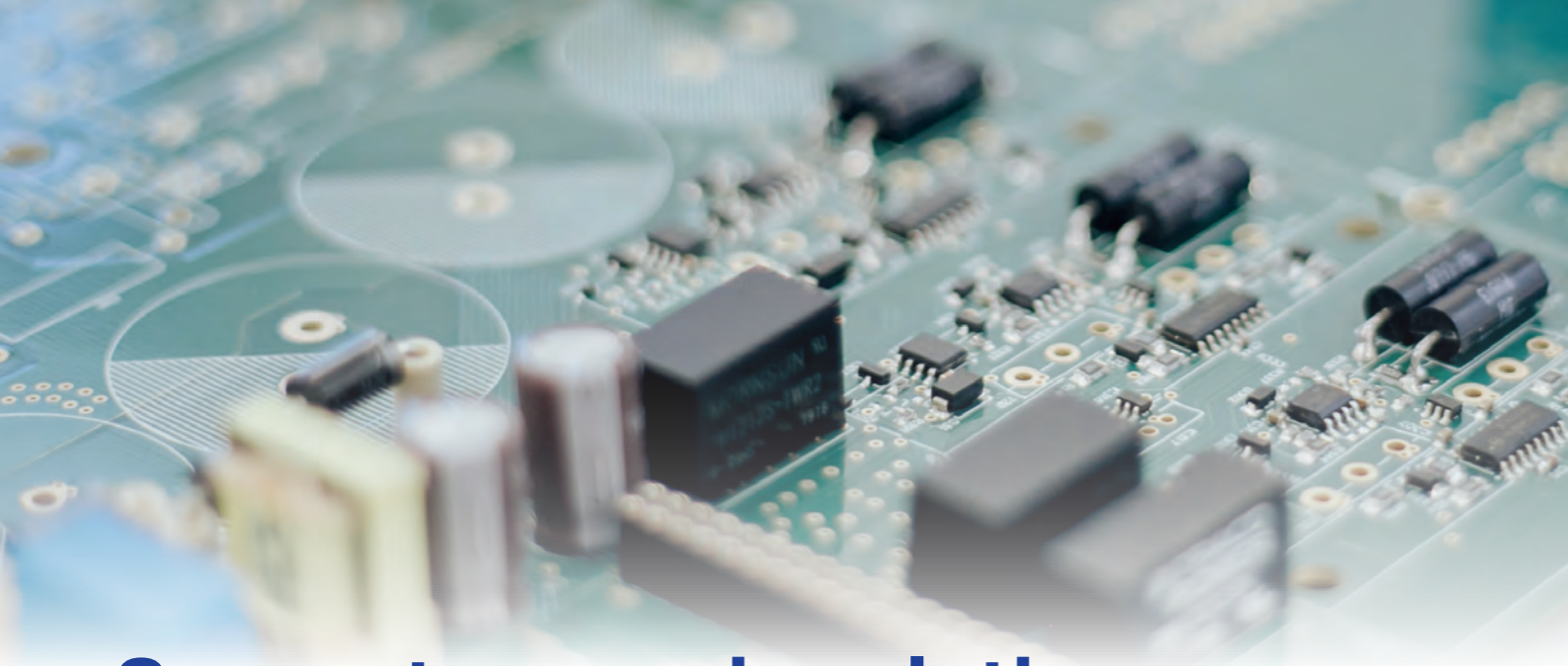
Premium's production area is within an antistatic circuit that includes not only the reception of raw material, packaging and shipping areas, but also the entire production, assembly and verification chain. Due to this concentration of work phases in the same area, our industrialization process is considerably short. In addition, by introducing automated processes, human errors are minimized and our efficiency increases significantly.

One of our latest additions to our facilities is a clean room, which aims to meet the most demanding needs of our customers. Our clean room is ISO 14644 certified and complies with the highest security and quality guarantees. Regarding its functionality, this equipment allows us to optimize the cleaning process for products intended to be used in controlled environments. Premium's clean room includes 3 independent spaces with different cleaning degrees: ISO8, ISO7 and ISO6.

We also have automatic verification equipment to guarantee the correct functioning of the products before being stored and shipped. All our products spend several hours in a burn-in room under controlled temperature conditions and a verification test report that includes the most representative results is available for all units sent out from our website.

Our facilities are not only crucial in the manufacturing of current products, but also in the establishment of new goals in order to keep revolutionizing high level power electronics.





Our custom made solutions

There are times when finding the perfect standard solutions is nearly impossible. At Premium, we believe in pushing the limits and because of that we follow this principle: if we can imagine it, we can design it.

Our custom-made solutions are our main commitment at Premium. **We design from scratch, based in over 900 previous designs, and make modifications to standard products** to meet the needs of any project's specification.

Going for a custom-made product from Premium is an ideal solution for several reasons:



Performance and reliability: at Premium we maximize the efficiency when faced with any power electronics challenge.



Flexibility: our custom-made solutions can evolve and allow continuous improvement after being placed on the market.



Time: the development phase for a custom-made solution can go anywhere from 3 weeks to 6 months, being 25% faster than our competition.



Differentiation: a custom-made solution rises our customers' added value, which contributes to the positioning of their product ahead from their competitors.



Price: we set a budget without unexpected fluctuations.



Security: we guarantee the quality and safety of our products by making sure they comply with the needed regulations.

At Premium, custom is our standard

Premium's customization is a 360° process: we design, test, validate and manufacture all of our solutions in our facilities in Barcelona with our team of over 50 engineers. **We assist our customers throughout all the customization process and offer technical advice based in our unique know-how to make the solution excellent.** Not in vain, our experience of over 40 years and a dream R&D Team have made us technological leaders in energy solutions.

At Premium we develop custom-made DC/DC converters, DC/AC inverters, AC/DC power supplies, AC/DC battery chargers and rectifiers, bidirectional converters and AC/AC frequency converters. We can develop limitless solutions. Some of the most common technical capabilities we work based on are:

Very high-power density & high frequency: from 50W to 60kW

Communication and alarm protocols based on each project needs

Input voltages up to 460Vac (1-3ph) and 1500Vdc (4,5kV pk)

Output voltages up to 480Vac (1-3ph) and 750Vdc

Efficiencies up to 95%

Multiple and wide input and output voltages

Up to IP68 protection

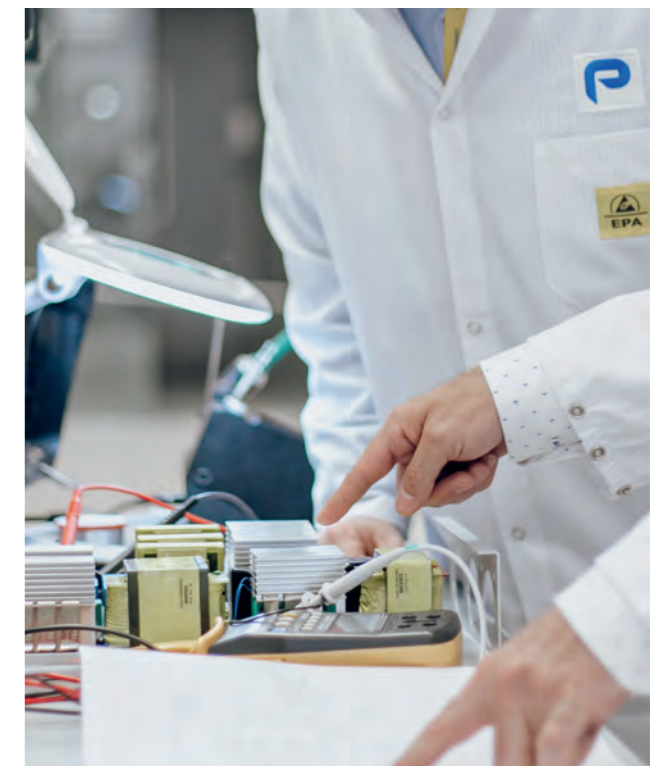
Wide operating temperature: from -40°C to +85°C

15kV isolation (surges of ±20kV 1,2/50 μs)

In order to give the best in our solutions, the most common items we usually work on are:

- Design: mechanic and PCB
- Ripples and specific noises
- High efficiencies
- Design personalization according to client requirements in terms of regulations and market standards (EMC, MIL-STD, DEF-STAN, UL, CE, UKCA, CSA CB, DNV...)
- RAMS analysis and SIL approval
- Software driven functionalities
- Specific systems testing
- Innovation from design to industrialization

Without any doubt, **custom-made solutions are what sets us apart** and allow us to go further.



PRODUCT CATALOGUE

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DC/DC converters

High efficiency and high reliability in a compact size

Power range from 50W to 6KW

Wide variety of input/output combinations

Series specifically designed according to EN50155, EN45545, and EN61373

Temperature range from -40°C to +85°C (OT6 class)

Easy install options

CCS-60

RAILWAY 50-70W DC/DC CONVERTERS



Power [W] 50 - 70
 Input Voltage Range [V] 9.5 - 144
 Output Voltage Range [V] 4.5 - 55.2
 Cooling: Natural convection
 Dimensions [LxWxH in mm]: 100 x 160 x 18



KEY FEATURES

Low profile
 Extreme reliability

CCS-60	12 Vin 9.5V ... 15V	24 Vin 14.4V ... 30V	36 Vin 21.6V ... 45V	48 Vin 28.8V ... 60V	72 Vin 43.2V... 90V	110 Vin 66V... 144V
5Vout	CCS-60-6551 50W	CCS-60-6555 50W	CCS-60-6571 50W	CCS-60-6559 50W	CCS-60-6563 50W	CCS-60-6567 50W
12Vout	CCS-60-6552 60W	CCS-60-6556 70W	CCS-60-6572 70W	CCS-60-6560 70W	CCS-60-6564 70W	CCS-60-6568 70W
24Vout	CCS-60-6553 60W	CCS-60-6557 70W	CCS-60-6573 70W	CCS-60-6561 70W	CCS-60-6565 70W	CCS-60-6569 70W
48Vout	CCS-60-6554 60W	CCS-60-6558 70W	CCS-60-6574 70W	CCS-60-6562 70W	CCS-60-6566 70W	CCS-60-6570 70W

CRS-60

50-60W DC/DC CONVERTERS



Power [W] 50 - 60
 Input Voltage Range [V] 9.5 - 144
 Output Voltage Range [V] 4.5 - 55.2
 Cooling: Natural convection
 Dimensions [LxWxH in mm]: 127 x 84,5 x 40



KEY FEATURES

Extreme reliability
 Wide input/output range combinations
 +1M @40°C

CRS-60	12 VIN 9.5V ... 15V	24VIN 18V ... 30V	48VIN 36V ... 60V	72VIN 50,4V ... 90V	110VIN 77V ... 144V
5Vout	CRS-60-6731 50W	CRS-60-6735 50W	CRS-60-6739 50W	CRS-60-6743 50W	CRS-60-6747 50W
12Vout	CRS-60-6732 60W	CRS-60-6736 60W	CRS-60-6740 60W	CRS-60-6744 60W	CRS-60-6748 60W
24Vout	CRS-60-6733 60W	CRS-60-6737 60W	CRS-60-6741 60W	CRS-60-6745 60W	CRS-60-6749 60W
48Vout	CRS-60-6734 60W	CRS-60-6738 60W	CRS-60-6742 60W	CRS-60-6746 60W	CRS-60-6750 60W

CTS-60
RAILWAY 50-70W DC/DC CONVERTERS



Power [W] 50 - 60
 Input Voltage Range [V] 9.5 - 144
 Output Voltage Range [V] 4.5 - 55.2
 Cooling: Natural convection
 Dimensions [LxWxH in mm]: 127 x 84,5 x 40



KEY FEATURES

Extreme reliability
 Wide input/output range combinations
 +1M @40°C

CTS-60	24 Vin 14.4V ... 30V	36 Vin 21.6V ... 47V	48 Vin 28.8V ... 60V	72 Vin 43.2V... 90V	110 Vin 66V... 144V
5Vout	CTS-60-6835 50W	CTS-60-6851 50W	CTS-60-6839 50W	CTS-60-6843 50W	CTS-60-6847 50W
12Vout	CTS-60-6836 60W	CTS-60-6852 60W	CTS-60-6840 60W	CTS-60-6844 60W	CTS-60-6848 60W
16Vout	CTS-60-6856 60W	Available under request	Available under request	Available under request	CTS-60-6855 60W
24Vout	CTS-60-6837 60W	CTS-60-6853 60W	CTS-60-6841 60W	CTS-60-6845 60W	CTS-60-6849 60W
48Vout	CTS-60-6838 60W	CTS-60-6854 60W	CTS-60-6842 60W	CTS-60-6846 60W	CTS-60-6850 60W

CTS-120
RAILWAY 100-140W DC/DC CONVERTERS



Power [W] 100 - 140
 Input Voltage Range [V] 14.4 - 144
 Output Voltage Range [V] 4.5 - 55.2
 Cooling: Natural convection
 Dimensions [LxWxH in mm]: 100 x 160 x 38,5



KEY FEATURES

MTBF 1M+ @40°C
 Extreme reliability
 Easy install: wall mount, DIN rail, rack mount

CTS-120	24 Vin 14.4V ... 30V	36 Vin 21.6V ... 45V	48 Vin 28.8V ... 60V	72 Vin 43.2V... 90V	110 Vin 66V... 144V
5Vout	CTS-120-6865 100W	CTS-120-6885 100W	CTS-120-6869 100W	CTS-120-6873 100W	CTS-120-6877 100W
12Vout	CTS-120-6866 120W	CTS-120-6886 120W	CTS-120-6870 120W	CTS-120-6874 120W	CTS-120-6878 120W
24Vout	CTS-120-6867 120W	CTS-120-6887 140W	CTS-120-6871 140W	CTS-120-6875 140W	CTS-120-6879 140W
48Vout	CTS-120-6868 120W	CTS-120-6888 140W	CTS-120-6872 140W	CTS-120-6876 140W	CTS-120-6880 140W

CRS-120
100-140W DC/DC CONVERTERS



Power [W] 100 - 140
 Input Voltage Range [V] 9 - 275
 Output Voltage Range [V] 4.5 - 55.2
 Cooling: Natural convection
 Dimensions [LxWxH in mm]: 100 x 160 x 38,5



KEY FEATURES

MTBF 1M+ @40°C
 Extreme reliability
 Easy install: wall mount, DIN rail, rack mount

CRS-120	12 Vin 9V ... 15V	24 Vin 18V ... 30V	48 Vin 36V ... 72V	72 Vin 50.4V ... 90V	110 Vin 77V.. 144V	220 Vin 165V.. 275V
5Vout	CRS-120-6761 100W	CRS-120-6765 100W	CRS-120-6769 100W	CRS-120-6773 100W	CRS-120-6777 100W	CRS-120-6781 100W
12Vout	CRS-120-6762 100W	CRS-120-6766 120W	CRS-120-6770 120W	CRS-120-6774 120W	CRS-120-6778 120W	CRS-120-6782 120W
24Vout	CRS-120-6763 120W	CRS-120-6767 120W	CRS-120-6771 140W	CRS-120-6775 140W	CRS-120-6779 140W	CRS-120-6783 140W
48Vout	CRS-120-6764 120W	CRS-120-6768 120W	CRS-120-6772 140W	CRS-120-6776 140W	CRS-120-6780 140W	CRS-120-6784 140W

CLS-120 NEW!
120W WIDE INPUT RANGE DC/DC CONVERTERS



Power [W] 120
 Input Voltage Range [V] 14.4 - 154
 Output Voltage Range [V] 10.8 - 69.6
 Cooling: Natural convection
 Dimensions [LxWxH in mm]: 100 x 160 x 40



KEY FEATURES

Ultra wide input range
 Efficiency up to 91%

CLS-120	Universal Railway Input 14.4V ... 154V
12Vout	CLS-120-6512 120W
24Vout	CLS-120-6513 120W
48Vout	CLS-120-6514 120W

CRS-240

180-280W DC/DC CONVERTERS



Power [W] 180 - 280
 Input Voltage Range [V] 9 - 275
 Output Voltage Range [V] 4.5 - 55.2
 Cooling: Natural convection
 Dimensions [LxWxH in mm]: 100 x 2200 x 38,5



KEY FEATURES

MTBF 1M+ @40°C
 Extreme reliability
 Easy install: wall mount, DIN rail, rack mount

CRS-240	12 Vin 9V ... 15V	24 Vin 18V ... 30V	48 Vin 36V ... 72V	72 Vin 50.4V ... 90V	110 Vin 77V.. 144V	220 Vin 165V.. 275V
5Vout	CRS-240-6351 180W	CRS-240-6355 180W	CRS-240-6359 180W	CRS-240-6363 180W	CRS-240-6367 180W	CRS-240-6371 180W
12Vout	CRS-240-6352 180W	CRS-240-6356 240W	CRS-240-6360 240W	CRS-240-6364 240W	CRS-240-6368 240W	CRS-240-6372 240W
24Vout	CRS-240-6353 200W	CRS-240-6357 240W	CRS-240-6361 280W	CRS-240-6365 280W	CRS-240-6369 280W	CRS-240-6373 280W
48Vout	CRS-240-6354 200W	CRS-240-6358 240W	CRS-240-6362 280W	CRS-240-6366 280W	CRS-240-6370 280W	CRS-240-6374 280W

CTS-240

RAILWAY 180-240W DC/DC CONVERTERS



Power [W] 180 - 280
 Input Voltage Range [V] 14.4 - 275
 Output Voltage Range [V] 4.5 - 55.2
 Cooling: Natural convection
 Dimensions [LxWxH in mm]: 100 x 220 x 38,5



KEY FEATURES

MTBF 1M+ @40°C
 Extreme reliability
 Easy install: wall mount, DIN rail, rack mount

CTS-240	24 Vin 14,4V ... 30V	36 Vin 21,6V ... 47V	48 Vin 28,8V ... 60V	72 Vin 43,2V ... 90V	110 Vin 66V.. 144V	220 Vin 132V.. 275V
5Vout	CTS-240-6655 180W	CTS-240-6672 180W	CTS-240-6659 180W	CTS-240-6663 180W	CTS-240-6667 180W	Available under request
12Vout	CTS-240-6656 240W	CTS-240-6673 240W	CTS-240-6660 240W	CTS-240-6664 240W	CTS-240-6668 240W	Available under request
24Vout	CTS-240-6657 240W	CTS-240-6674 280W	CTS-240-6661 280W	CTS-240-6665 280W	CTS-240-6669 280W	CTS-240-6678 280W
48Vout	CTS-240-6658 240W	CTS-240-6675 280W	CTS-240-6662 280W	CTS-240-6671 280W	CTS-240-6670 280W	Available under request

CKR-2000

1960W REDUNDANT DC/DC CONVERTERS



Power [W] 1920 - 2240
 Input Voltage Range [V]
 Output Voltage Range [V] 10.8 - 55.2
 Cooling: Natural convection
 Dimensions [LxWxH in mm]: Sub-rack 19" 3U



KEY FEATURES

Configurable input and output redundancy
 Railway version available

CKR-2000	B - Sub-rack		A - Módulos / Modules	
	Total power	Redun. N+1	48 Vin (36V + 60V)	110 Vin (77V + 144V)
12Vout	NP-9176	1920W	1680W	NP-9179 240W NP-9182 280W
24Vout	NP-9177	2240W	1960W	NP-9180 280W NP-9183 280W
48Vout	NP-9178	2240W	1960W	NP-9181 280W NP-9184 280W

CRS-500

500W DC/DC CONVERTERS



Power [W] 500
 Input Voltage Range [V] 14.4 - 144
 Output Voltage Range [V] 21.6 - 55.2
 Cooling: Natural convection
 Dimensions [LxWxH in mm]: 266 x 180 x 54,8



KEY FEATURES

Extreme reliability, Oring FET, current sharing & hold-up time options
 Railway version available

CRS-500	24VIN 14.4V ... 30V	36 VIN 21.6V ... 45V	48VIN 28.8V ... 60V	72VIN 43.2V ... 90V	110VIN 66V ... 144V
24Vout	CRS-500-6455 500W	CRS-500-6467 500W	CRS-500-6458 500W	CRS-500-6461 500W	CRS-500-6464 500W
48Vout	CRS-500-6456 500W	CRS-500-6468 500W	CRS-500-6459 500W	CRS-500-6462 500W	CRS-500-6465 500W
110Vout	CRS-500-6457 500W	Available under request	Available under request	Available under request	Available under request

CRS-1000
1000W DC/DC CONVERTERS



Power [W] 1000
Input Voltage Range [V] 14.4 - 144
Output Voltage Range [V] 21.6 - 126.4
Cooling: Natural convection, Conduction, Internal forced air
Dimensions [LxWxH in mm]: 266 x 180 x 54,8



KEY FEATURES

Extreme reliability, Oring FET, current sharing & hold-up time options
 Railway version available

CRS-1000	24 Vin 14.4V ... 30V	36 Vin 21.6V ... 45V	48 Vin 28.8V ... 60V	72 Vin 43.2V... 90V	110 Vin 66V... 144V
24Vout	CRS-1000-6475 1000W	CRS-1000-6487 1000W	CRS-1000-6478 1000W	CRS-1000-6481 1000W	CRS-1000-6484 1000W
48Vout	CRS-1000-6476 1000W	CRS-1000-6488 1000W	CRS-1000-6479 1000W	CRS-1000-6482 1000W	CRS-1000-6485 1000W
72Vout	CRS-1000-6490 1000W	CRS-1000-6491 1000W	Available under request	Available under request	CRS-1000-6494 1000W
110Vout	CRS-1000-6492 1000W	Available under request	Available under request	Available under request	CRS-1000-6493 1000W

CRS-2000 NEW!
2000W DC/DC CONVERTERS



Power [W] 2000
Input Voltage Range [V] 14.4 - 154
Output Voltage Range [V] 21.6 - 126.5
Cooling: Internal forced air, natural convection
Dimensions [LxWxH in mm]: 314,6 x 220 x 79



KEY FEATURES

SiC Technology: high power density
 Wide input/output range combinations

CRS-2000	24 Vin 14.4V ... 30V	36 Vin 21.6V ... 45V	48 Vin 28.8V ... 60V	72 Vin 43.2V... 90V	110 Vin 66V... 144V
24Vout	CRS-2000-6951 2000W	CRS-2000-6955 2000W	CRS-2000-6959 2000W	CRS-2000-6963 2000W	CRS-2000-6967 2000W
48Vout	CRS-2000-6952 2000W	CRS-2000-6956 2000W	CRS-2000-6960 2000W	CRS-2000-6964 2000W	CRS-2000-6968 2000W
72Vout	CRS-2000-6953 2000W	CRS-2000-6957 2000W	CRS-2000-6961 2000W	CRS-2000-6965 2000W	CRS-2000-6969 2000W
110Vout	CRS-2000-6954 2000W	CRS-2000-6958 2000W	CRS-2000-6962 2000W	CRS-2000-6966 2000W	CRS-2000-6970 2000W

CVS-280 NEW!
280W DC/DC LOW BATTERY VOLTAGE STARTER



Power [W] 280
Input Voltage Range [V] 400 - 1100
Output Voltage Range [V] 21.6 - 121
Cooling: Natural convection
Dimensions [LxWxH in mm]: 65 x 162 x 230



KEY FEATURES

Parallelizable units by ORing
 Active catenary surges filter
 Input voltage according to EN50163:2006 and EN50124-2:2017

CVS-280	600 & 750 VIN 400 ... 1100V (4.5KV PK)
24Vout	CVS-280-6973 280W / 400W pk
48Vout	CVS-280-6975 280W / 400W pk
72Vout	CVS-280-6976 280W / 400W pk
110Vout	CVS-280-6977 280W / 400W pk

CBS-10K NEW!
10kW PEAK SINGLE OUTPUT DC/DC CONVERTER



Power [W] 6000 average
Input Voltage Range [V] 16.8 - 138 (14.4 - 154Vdc 0.1s)
Output Voltage Range [V] 500
Cooling: Internal forced air
Dimensions [LxWxH in mm]: 477,2 x 257,4 x 84,8



KEY FEATURES

Up to 10 kW during 40s
 500Vdc output (up to 700V under request)
 ORing diode at the output for decoupling from 2kW lines
 SiC Technology: high power density

CBS-10K	24 VDC 16.8 ... 30 V	48 VDC 33.6 ... 60 V	72 VDC 50.4 ... 90 V	110 VDC 77 ... 138 V
500 Vdc	CBS-10K-6001 5200 Wpk Available under request	CBS-10K-6003 10000 Wpk Available under request	CBS-10K-6004 10000 Wpk Available under request	CBS-10K-6005 10000 Wpk Coming Soon

DC/AC inverters

- Compact design, very high power density
- Sine wave output voltage
- Power range from 260VA to 24kVA
- Up to 94% efficiency
- In compliance with EN50155 and EN45545
- Widest range in the market for railway applications

OCS-260

INDUSTRIAL & RAILWAY 260VA DC/AC INVERTERS



Power [W] 180 - 220
 Input Voltage Range [V] 9.5 - 138
 Output Voltage Range [V] 144 - 241.5
 Cooling: Natural convection
 Dimensions [LxWxH in mm]: 100 x 220 x 40



KEY FEATURES

- Extreme reliability
- Sine wave output voltage
- Railway version available



OCS-260	12Vdc 9.5 ... 15V	24Vdc 16.8 ... 30V	36Vdc 25.2 ... 45V	48Vdc 33.6 ... 60V	72Vdc 50.4 ... 90V	110Vdc 77 ... 138V
120Vac	OCS-260-7041 180W	OCS-260-7043 200W	OCS-260-7044 220W	OCS-260-7045 220W	OCS-260-7046 220W	OCS-260-7047 220W
230Vac	OCS-260-7031 180W	OCS-260-7033 200W	OCS-260-7034 220W	OCS-260-7035 220W	OCS-260-7036 220W	OCS-260-7037 220W

OPS-260

NEW!

1PH IP66 260VA DC/AC INVERTER



Power [W] 180 - 220
 Input Voltage Range [V] 9.5 - 138
 Output Voltage Range [V] 114 - 241.5
 Cooling: Natural convection
 Dimensions [LxWxH in mm]: 67 x 249 x 135



KEY FEATURES

- Extreme reliability
- Sine wave output voltage
- IP66



OPS-260	12Vdc 9.5 ... 15V	24Vdc 16.8 ... 30V	36Vdc 25.2 ... 45V	48Vdc 33.6 ... 60V	72Vdc 50.4 ... 90V	110Vdc 77 ... 138V
120Vac	OPS-260-7741 180W	OPS-260-7743 200W	OPS-260-7744 220W	OPS-260-7745 220W	OPS-260-7746 220W	OPS-260-7747 220W
230Vac	OPS-260-7731 180W	OPS-260-7733 200W	OPS-260-7734 220W	OPS-260-7735 220W	OPS-260-7736 220W	OPS-260-7737 220W

ODS-750

INDUSTRIAL & RAILWAY 450-750W
DC/AC INVERTERS



Power [W] 450 - 750
Input Voltage Range [V] 9.5 - 138
Output Voltage Range [V] 0 - 230
Cooling: Internal forced air
Dimensions [LxWxH in mm]: 130 x 270 x 50



KEY FEATURES

- High power density
- Sine wave output voltage
- Railway version available



ODS-750	12Vdc 9.5 ... 15V	24Vdc 16.8 ... 30V	36Vdc 25.2 ... 45V	48Vdc 33.6 ... 60V	72Vdc 50.4 ... 90V	110Vdc 77 ... 138V
120Vac	ODS-750-7281 450W	ODS-750-7283 750W	ODS-750-7284 750W	ODS-750-7285 750W	ODS-750-7286 750W	ODS-750-7287 750W
230Vac	ODS-750-7271 450W	ODS-750-7273 750W	ODS-750-7274 750W	ODS-750-7275 750W	ODS-750-7276 750W	ODS-750-277 750W

ODS-1500

INDUSTRIAL & RAILWAY 1500VA
DC/AC INVERTERS



Power [W] 1200 - 1500
Input Voltage Range [V] 10 - 138
Output Voltage Range [V] 0 - 230
Cooling: Internal forced air
Dimensions [LxWxH in mm]: 360,48 x 161,6 x 65,6



KEY FEATURES

- Very high power density
- Sine wave output voltage
- Configurable power
- Railway version available



ODS-1500	12Vdc 10 ... 15V	24Vdc 16.8 ... 30V	36Vdc 25.2 ... 45V	48Vdc 33.6 ... 60V	72Vdc 50.4 ... 90V	110Vdc 77 ... 138V
120Vac	ODS-1500-7121 1200W	ODS-1500-7123 1500W	ODS-1500-7124 1500W	ODS-1500-7125 1500W	ODS-1500-7126 1500W	ODS-1500-7127 1500W
230Vac	ODS-1500-7111 1200W	ODS-1500-7113 1500W	ODS-1500-7114 1500W	ODS-1500-7115 1500W	ODS-1500-7116 1500W	ODS-1500-7117 1500W

ODS-3000

INDUSTRIAL & RAILWAY 3000VA
DC/AC INVERTERS



Power [W] 2400 - 4000
Input Voltage Range [V] 16.8 - 138
Output Voltage Range [V] 0 - 230
Cooling: Internal forced air
Dimensions [LxWxH in mm]: 386,9 x 193,9 x 78,5



KEY FEATURES

- Very high power density
- Sine wave output voltage
- Configurable power
- Railway version available



ODS-3000	24Vdc 16.8 ... 30V	36Vdc 25.2 ... 45V	48Vdc 33.6 ... 60V	72Vdc 50.4 ... 90V	110Vdc 77 ... 138V	120Vdc 84 ... 150V	300Vdc 290 ... 330V
120Vac	ODS-3000-7163 2400W	ODS-3000-7164 2500W	ODS-3000-7165 2500W	ODS-3000-7166 2500W	ODS-3000-7167 2500W	Available under request	Available under request
230Vac	ODS-3000-7153 2400W	ODS-3000-7154 3000W	ODS-3000-7155 3000W	ODS-3000-7156 3000W	ODS-3000-7157 3000W	Available under request	Available under request
	Available under request	Available under request	Available under request	Available under request	ODS-3000-7177 4000W	ODS-3000-7178 4000W	ODS-3000-7179 4000W

ODX-1300

3PH 1300VA DC/AC INVERTERS



Power [W] 1100
Input Voltage Range [V] 16.5 - 140
Output Voltage Range [V] 0 - 400
Cooling: Internal forced air
Dimensions [LxWxH in mm]: 315 x 178 x 66,5



KEY FEATURES

- Very high power density
- Sine wave output voltage
- Configurable power & soft start
- Railway version available



ODX-1300	24Vdc 16.8 ... 30V	72Vdc 50 ... 90V	110Vdc 77 ... 140V
250Vac	ODX-1300-7442 1100W	ODX-1300-7445 1100W	ODX-1300-7447 1100W
400Vac	ODX-1300-7452 1100W	ODX-1300-7455 1100W	ODX-1300-7457 1100W

ODX-3000

3PH 3000VA DC/AC INVERTERS



Power [W] 2400 - 3000
 Input Voltage Range [V] 16.8 - 138
 Output Voltage Range [V] 0 - 400
 Cooling: Internal forced air
 Dimensions [LxWxH in mm]: 392,87 x 220 x 80,5



KEY FEATURES

Very high power density
 Sine wave output voltage
 Configurable power & soft start
 Railway version available



ODX-3000	24Vdc 16.8 ... 30V	36Vdc 25.2 ... 45V	48Vdc 33.6 ... 60V	72Vdc 50.4 ... 90V	110Vdc 77 ... 138V
230Vac	ODX-3000-7413 2400W	Available under request	Available under request	Available under request	ODX-3000-7417 3000W
400Vac	ODX-3000-7403 2400W	ODX-3000-7404 3000W	ODX-3000-7405 3000W	ODX-3000-7406 3000W	ODX-3000-7407 3000W

ODX-4500

3PH 4500VA DC/AC INVERTERS



Power [W] 4000
 Input Voltage Range [V] 50.4 - 138
 Output Voltage Range [V] 0 - 400
 Cooling: Internal forced air
 Dimensions [LxWxH in mm]: 392,87 x 220 x 80,5



KEY FEATURES

Very high power density
 Configurable power & soft start
 Railway version available



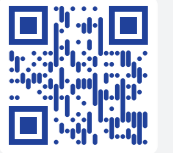
ODX-4500	72Vdc 50 ... 90V	110Vdc 77 ... 125V	110Vdc 77 ... 138V
400Vac	ODX-4500-7425 4000W	ODX-4500-7426 4000W	ODX-4500-7427 4000W

ODX-6000

3PH 6000VA DC/AC INVERTERS



Power [W] 3500 - 6000
 Input Voltage Range [V] 16.8 - 138
 Output Voltage Range [V] 0 - 400
 Cooling: Internal forced air
 Dimensions [LxWxH in mm]: 455,44 x 260 x 84,8



KEY FEATURES

Very high power density
 Sine wave output voltage
 Up to 5 units in parallel
 Configurable power & soft start
 Railway version available



ODX-6000	24Vdc 16.8 ... 30V	48Vdc 33.6 ... 60V	72Vdc 50.4 ... 90V	110Vdc 77 ... 138V
400Vac	ODX-6000-7502 3500W	ODX-6000-7505 6000W	ODX-6000-7506 6000W	ODX-6000-7507 6000W

OVX-6400 NEW!

6400VA 3PH CATENARY DC/AC INVERTER (600/750 VIN)



OVX-6400-7701

Power [W] 6400
 Input Voltage Range [V] 400-1000
 Output Voltage Range [V] 80 - 400
 Cooling: Internal forced air
 Dimensions [LxWxH in mm]: 85,8 x 372 x 455,3



KEY FEATURES

SiC Technology: high power density
 Sine wave output voltage
 Input voltage according to EN50163:2006 and EN50124-2:2017
 Active catenary surges filter
 Configurable power & soft start



COMPLEMENTARY SOLUTIONS FOR DC/AC INVERTERS

ACI-3000

INRUSH CURRENT LIMITING



- Suitable for DC/AC series: ODS-1500 ODS-3000 ODX-3000
- Remote ON/OFF with low standby current
- Active polarity reversal protection
- According to EN-50155 and EN-45545

ACB-3000 NEW!

REDUNDANCY STATIC TRANSFER SWITCH



- Suitable for DC/AC series: ODS-750, ODS-1500 and ODS-3000
- Compatible with any 120/230V mains line
- 2ms high speed failure detection and transfer time
- Does not require a synchronised network

Suitable for series	24Vdc	36Vdc	48Vdc	72Vdc	110Vdc
ODS-1500 ODS-3000 ODX-3000	ACI-3000-9333	ACI-3000-9334	ACI-3000-9335	ACI-3000-9336	ACI-3000-9337

AC/DC UPS - BATTERY CHARGERS

- Power from 100W to 500W
- Limitless communication possibilities
- SMART functionalities

ECS-100

100W AC/DC UPS BATTERY CHARGER



Power [W] 100
 Input Voltage Range [V] 88 - 264
 Output Voltage Range [V] 12 - 57.6
 Cooling: Natural convection
 Dimensions [LxWxH in mm]: 100 x 160 x 45



KEY FEATURES

- High reliability
- Discharged battery cut off

ECS-100	Nominal Voltage	Maximum Rectifier Power	Maximum Rectifier Current	Maximum Battery Current	Battery Floating Voltage	Battery Cut off Voltage	Charging current selection I1	Charging current selection I2	Charging current selection I3	Charging current selection I4
ECS-100-5173	12V	100W	7.35A	12A	13.6V	10V	1.0A	1.2A	2.4A	4.8A
ECS-100-5177	24V	100W	3.68A	6A	27.2V	20V	0.5A	0.6A	1.2A	2.4A
ECS-100-5179	48V	100W	1.84A	3A	54.4V	40V	0.22A	0.3A	0.6A	1.2A

ECS-200

200W AC/DC UPS BATTERY CHARGER



Power [W] 200 - 230
 Input Voltage Range [V] ±20%
 Output Voltage Range [V] 12 - 57.6
 Cooling: Natural convection
 Dimensions [LxWxH in mm]: 100 x 220 x 45



KEY FEATURES

- High reliability
- Discharged battery cut off

ECS-200	Nominal Voltage	Maximum Rectifier Power	Maximum Rectifier Current	Maximum Battery Current	Battery Floating Voltage	Battery Cut off Voltage	Charging current selection I1	Charging current selection I2	Charging current selection I3	Charging current selection I4
ECS-200-5183	12V	200W	14.7A	20A	13.6V	10V	2.0A	2.4A	4.8A	9.6A
ECS-200-5187	24V	225W	8.30A	15A	27.2V	20V	1.0A	1.2A	2.4A	4.8A
ECS-200-5189	48V	230W	4.20A	6A	54.4V	40V	0.44A	0.6A	1.2A	2.4A

EPS-120
120W SMART UPS BATTERY CHARGER



Power [W] 120
 Input Voltage Range [V] 184 - 265
 Output Voltage Range [V] 0 - 57.6
 Cooling: Natural convection
 Dimensions [LxWxH in mm]: 247 x 115 x 115



KEY FEATURES

Ethernet network controlled (Web services & SNMP)
 Battery test, temperature sensor, 10kV I/O isolation
 Especially designed for IoT applications

EPS-120	OUT-1	Total power	Peak power	Battery	Input isolation	Housing
EPS-120-5192	48V / 3A 4.6 Apk	120W	180W	48V	10000Vrms	Plastic case

EDT-150
150W 3 OUTPUTS SMART UPS BATTERY CHARGER



Power [W] 150
 Input Voltage Range [V] 184 - 265
 Output Voltage Range [V] 0 - 57.6
 Cooling: Natural convection
 Dimensions [LxWxH in mm]: 247 x 115 x 115



KEY FEATURES

Ethernet network controlled (Web services & SNMP)
 Battery test, temperature sensor, 30kV I/O isolation
 Especially designed for IoT applications

EDT-150	OUT-1	OUT-2	OUT-3	Total power	Peak power	Battery	Input isolation	Housing
EDT-150-5191	12V / 16A 25 Apk	48V / 2.2A 5.2 Apk	48V / 0.83A 0.83 Apk	150W	250W	12V	3000Vrms	Aluminium case

EPS-200
200W SMART UPS BATTERY CHARGER



Power [W] 200
 Input Voltage Range [V] 184 - 265
 Output Voltage Range [V] 0 - 57.6
 Cooling: Natural convection
 Dimensions [LxWxH in mm]: 247 x 115 x 115



KEY FEATURES

Ethernet network controlled (Web services & SNMP)
 Battery test, temperature sensor, 10kV I/O isolation
 Especially designed for IoT applications

EPS-200	OUT-1	Total power	Peak power	Battery	Input isolation	Housing
EPS-200-5193	48V / 5.2A 10.3 Apk	200W	400W	48V	10000Vrms	Plastic case

EDS-500 NEW!
500W DC UPS BATTERY CHARGER



Power [W] 500
 Input Voltage Range [V] 90 - 264
 Output Voltage Range [V] 0 - 57.6
 Cooling: Natural convection
 Dimensions [LxWxH in mm]: 186.5 x 87 x 124.4



KEY FEATURES

Battery test
 Temperature sensor
 CAN communication

EDS-500	Input Voltage	Nominal output voltage	Maximum output power	Maximum output current	Maximum output peak current from battery
EDS-500-5243	90 ... 264 Vac	12V	500W	36.7A	50A 30s
EDS-500-5247	90 ... 264 Vac	24V	500W	18.4A	30A 30s
EDS-500-5249	90 ... 264 Vac	48V	500W	9.19A	15A 30s
EDS-500-5251	90 ... 264 Vac	110V	500W	4A	6.5A 30s

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SMART 125V/35A THYRISTOR RECTIFIER

SECURE DC POWER FOR MV/LV SUBSTATIONS



2KW 3PH DC/AC INVERTER, PARALLELIZABLE UP TO 4 UNITS
RAILWAY INTEGRATED TRACK MANOEUVRING SYSTEM



3PH AC/DC POWER SUPPLY 15KW (60KW/PK)
MECHATRONICS



UL DC/DC 70V..900VIN 300W (800WPK)
HIGH TECH OIL-FREE AIR CENTRIFUGAL BLOWER



400W DC/DC CONVERTER, 110VIN/290VOUT
RAILWAY EMERGENCY VENTILATION



IOT BATTERY CHARGER, DUAL OUTPUT, 200W (400W/PK)
SECURE DC POWER FOR MV/LV SUBSTATIONS



2KW BATTERY CHARGER, >90% EFFICIENCY
RAILWAY LEVEL CROSSING GATES












35KW+5KW V/F 3PH INVERTER 750VIN
RAILWAY HVAC COMPRESSOR AND FANS POWER SOURCE









DC/DC CONVERTER, MULTIPLE REDUNDANT OUTPUT
RAILWAY SIGNALING (ERTMS)

Quick product guide

DC/DC Converters							
Product series	Power [W]	Input Voltage Range [V]		Output Voltage [V]	Temperature Range [°C]	Cooling	Page
 CCS-60	50 - 70	9,5 ... 15 14,4 ... 30 21,6 ... 45	28,8 ... 60 43,2 ... 90 66 ... 144	5, 12, 24, 48	-25 ... 85	Natural convection	17
 CRS-60	50 - 60	9,5 ... 15 18 ... 30 36 ... 60	50,4 ... 90 77 ... 144	5, 12, 24, 48	-25 ... 80	Natural convection	17
 CTS-60	50 - 60	14,4 ... 30 21,6 ... 45 28,8 ... 60	43,2 ... 90 66 ... 144	5, 12, 16, 24, 48	-25 ... 85	Natural convection	18
 CKR-2000	1920 - 2240	28 ... 60	66 ... 144	12, 24, 48	-25 ... 70	Natural convection	21
 CRS-120	100 - 140	9 ... 15 18 ... 30 36 ... 72	50,4 ... 90 77 ... 144 165 ... 275	5, 12, 24, 48	-25 ... 80	Natural convection	18
 CTS-120	100 - 140	14,4 ... 30 21,6 ... 47 28,8 ... 60	43,2 ... 90 66 ... 144	5, 12, 24, 48	-25 ... 85	Natural convection	19
 CLS-120	120	14,4 ... 154		12, 24, 48	-40 ... 85	Natural convection	19
 CRS-240	180-280	9 ... 15 18 ... 30 36 ... 60	50,4 ... 90 77 ... 144 165 ... 275	5, 12, 24, 48	-25 ... 80	Natural convection	20
 CTS-240	180 - 280	14,4 ... 30 21,6 ... 47 28,8 ... 60	43,2 ... 90 66 ... 144 132 ... 275	5, 12, 24, 48	-25 ... 85	Natural convection	20
 CRS-500	500	14,4 ... 30 21,6 ... 47 28,8 ... 60	43,2 ... 90 66 ... 144	24, 48, 110	-25 ... 70	Natural convection	21
 CRS-1000	1000	14,4 ... 30 21,6 ... 47 28,8 ... 60	43,2 ... 90 66 ... 144	24, 48, 72, 110	-25 ... 70	Natural convection	22
 CRS-2000	2000	14,4 ... 33,8 21,6 ... 50,4 28,8 ... 67,2	43,2 ... 100,8 66 ... 154	24, 48, 72, 110	-25 ... 70	Internal fan Natural convection	22
 CVS-280	280	500 ... 1100		24, 48, 72, 110	-25 ... 85	Natural convection	23
 CBS-10K	6000 average	16.8 - 138 (14.4 - 154Vdc 0.1s)		500	-40 ... 85	Internal forced air	23

DC/AC Inverters							
Product series	Apparent Output Power [VA]	Input Voltage Range [V]		Output Voltage [V]	Temperature Range [°C]	Cooling	Page
 OCS-260	260	9,5 ... 15 16,8 ... 30 25,2 ... 45	33,6 ... 60 50,4 ... 90 77 ... 138	1ph 120, 230	-40 ... 70	Natural convection	25
 OPS-260	260	9,5 ... 15 16,8 ... 30 25,2 ... 45	33,6 ... 60 50,4 ... 90 77 ... 138	1ph 120, 230	-40 ... 70	Natural convection	25
 ODS-750	750	9,5 ... 15 16,8 ... 30 25 ... 45	33,6 ... 60 50,4 ... 90 77 ... 138	1ph 120, 230	-25 ... 70	Internal fan	26
 ODS-1500	1200 - 1500	10 ... 15 16,8 ... 30 25,2 ... 45	33,6 ... 60 50,4 ... 90 77 ... 138	1ph 120, 230	-25 ... 70	Internal fan	26
 ODS-3000	2400 - 4000	16,8 ... 30 25,2 ... 45 33,6 ... 60	50,4 ... 90 77 ... 138	1ph 120, 230	-25 ... 70	Internal fan	27
 ODX-1300	1300	16,8 ... 30 50,4 ... 90 77 ... 138		3ph 250, 400	-25 ... 85	Internal fan	27
 ODX-3000	2400 - 3000	16,8 ... 30 25,2 ... 45 33,6 ... 60	50,4 ... 90 77 ... 138	3ph 230, 400	-25 ... 85	Internal fan	28
 ODX-4500	4500	50,4 ... 90 70 ... 125 77 ... 138		3ph 400	-25 ... 85	Internal fan	28
 ODX-6000	4500 - 6000	16,8 ... 30 33,6 ... 60	50,4 ... 90 77 ... 138	3ph 400	-25 ... 85	Internal fan	29
 OVX-6400	6400	400...1000		3ph 80 - 400	-25 ... 85	Internal fan	29

AC/DC UPS - Battery chargers							
Product series	Power [W]	Input Voltage [V]	Output Voltage [V]	Temperature Range [°C]	Cooling	Page	
 ECS-100	100	88 ... 265	12, 24, 48	-25 ... 70	Natural convection	31	
 ECS-200	200 - 230	88 ... 133	12, 24, 48	-25 ... 70	Natural convection	31	
 EPS-120	120	184 ... 264	48	-25 ... 70	Natural convection	32	
 EPS-200	200	184 ... 265	48	-25 ... 70	Natural convection	32	
 EDT-150	150	184 ... 264	Triple output: 12V/16A 48V/2,2A 48V/0,83A	-25 ... 70	Natural convection	33	
 EDS-500	500	90 ... 264	12, 24, 48	-25 ... 70	Natural convection	33	

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After 40 years of history as a company, we have achieved challenges that would have been impossible to accomplish without our team's talent. **The experience provided by our senior members, along with the innovation and freshness of our latest additions, have made us better, faster and stronger.** Premium's values are our compass in our path to achieve the best version of our team. We are guided by:

- **Innovation:** continuous change and evolution bring top quality and state of the art technology
- **Flexibility:** adaptive ability is one of our strengths. Challenges have no limits.
- **Excellence:** not losing sight of our strengths while improving our services has turned us into one of the most competitive organizations in the market.
- **Passion:** we like what we do. We design and manufacture meticulously to offer unique technological products.
- **Transparency:** team members integrate our company's approach into their actions and make it their own. Premium's results are its team's outcome.

We also take responsibility for our role as a company in today's world through our commitment and ethical policies. We are aware that every action has an important impact, so **we are committed to make positive social and environmental contributions.** Our intentions come true through supporting the 2030 Plan defined in the United Nations Sustainable Development Goals (SDGs).

Thanks to the effort and continuous improvement on top of mind we transform challenges into sustainable and responsible solutions that will keep powering us to go even further. **Our customers are an essential part of our company's mission,** and that is why we make their challenges ours through innovative power conversion solutions.

Powering Your Challenge



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