XP Power

AC-DC Power Supplies

DC-DC Converters

High Voltage DC-DC

3 Phase Power

RF Power Systems

Custom Power Solutions
XP Power is a leading provider of power solutions. We offer total quality, from in-house design in Asia, Europe and North America through to manufacturing facilities and dedicated support through our 32 sales offices around the world.

Our people lie at the heart of our success. Our lean, flat, fast and flexible structure allows us to offer the widest range of power products available from one source. We provide unrivalled technical and customer support, aiding both vendor consolidation and cost reduction programmes.

- **Knowledge**
- **Flexibility**
- **Customer Focus**
- **Speed**
- **Integrity**

- Broadest product portfolio to meet all your critical power requirements
- Best in class manufacturing ensuring excellent quality, reliability and competitive cost
- Largest direct technical sales team dedicated to power
- Best in class customer service and technical support located close to our customers
- Engineering on three continents providing excellent design support throughout the process to reduce time to market
- XP Power reduces the production and running costs of your equipment enabling you to gain a competitive advantage
Featured Products

- **ECF40**
  - Page 19
  - 40 Watt AC-DC
  - Ultra-compact 3.0 x 1.5"
  - ITE & medical approvals

- **GCU500**
  - Page 29
  - 500 Watt AC-DC
  - Compact 6.5 x 3.3" footprint
  - High convection rating

- **HPT5K0**
  - Page 35
  - 5000 Watt AC-DC
  - 3 phase programmable
  - Digital interfaces

- **nanoflex**
  - Page 36
  - 1200 Watt AC-DC
  - 1U configurable PSU
  - PMBus Interface

- **DSR**
  - Page 39
  - 75 - 240 Watt AC-DC
  - Ultra-slim DIN rail
  - 150% peak load

- **ALM**
  - Page 43/44
  - 65 - 120 Watt AC-DC
  - Energy efficiency level VI
  - ITE & medical approvals

- **QSC**
  - Page 74
  - 150 Watt DC-DC
  - 4:1 input range
  - Quarter brick package

- **HRL30**
  - Page 88
  - 30 Watt DC-DC
  - Regulated high voltage
  - Up to 6000 VDC output
AC-DC Power Supplies

XP Power offers the world’s strongest range of AC-DC power solutions, covering 3W to 5000W in a variety of mechanical formats including open-frame, chassis mount, PCB mount, encapsulated, rack mount, base-plate cooled, plugtop, desktop and DIN rail mounting. Many of our products are classed as smallest in the industry, designed with a focus on low noise, efficiency and reliability to simplify integration into the end application.

Our AC-DC products are designed for a wide range of end equipment including industrial & process control, semiconductor fabrication equipment, medical devices, test and measurement equipment, scientific instruments, household consumer devices and defense applications.

DC-DC Converters

XP Power offers one of the largest portfolios of converters in the market, the range covers power levels from as low as 0.25W, all the way up to 750W, in various packages including SMD, through-hole, DIN rail, chassis mount and baseplate-cooled. Our DC-DC converters have some of the highest power densities in the market, from miniature low power SMD models up to 750W full brick converters.

Ensuring the extensive range is suitable for as many power requirements as possible, the DC-DC converters have been designed and approved for use in technology, industrial, medical, defense and railway applications.

3 Phase Power

Our 3 phase input power supplies are designed to operate from a wide variety of global 3 phase sources including nominal 208VAC, 380/400/415VAC and 480VAC. The product range includes chassis mount supplies to 5kW, configurable power supplies from 1500W to 3kW, DIN rail mounting supplies rated at 120, 240, 480 & 960W with output voltages from 3.3VDC to 400VDC.

These base products are also used in combination to provide user configured standard solutions or tailored, high power, stand alone and rack mounting 3 phase power solutions with power ratings to 30kW and beyond.
RF Power

With a tradition of durability, reliability and stability we are committed to designing and manufacturing the most reliable, stable and safe RF power systems available with the highest service levels. Our aim is to introduce cost-saving ideas, expand applications and improve engineering innovation in RF power applications. XP Power provides RF generators and matching networks from 20kHz to 100MHz in a wide range of power outputs from 50W to 10kW and beyond, including frequency agile and pulsed applications for a range of semiconductor fabrication, industrial, surface modification and medical device applications.

Our customized RF solutions provide RF power generation and matching solutions, optimized for performance, reliability and cost for plasma and other complex load applications.

- Semiconductor Etching
- Atomic Layer Deposition (ALD)
- Ceramic Deposition
- Induction Hardening and Tempering
- RF Heating and Sealing
- Lasers

High Voltage

Our high voltage solutions are used in scientific instruments, semiconductor fabrication equipment, medical devices, industrial equipment, security solutions and aerospace & defense applications. Our component, high voltage DC-DC converters change the way equipment manufacturers implement high voltage within their products. We offer a broad range of modules with output voltages from 100V to 10kV in both proportional and regulated topologies for use as stand-alone modules or for integration into application specific assemblies. These standard modules are miniaturized, PCB mounting, encapsulated, low noise assemblies generating a high voltage output that is fully controllable using standard low voltage circuitry.

When taking a distributed power solution approach, simply plug in a miniature high voltage module and locate it where the high voltage supply is needed. Alternatively, these versatile modules are used as building blocks to provide solutions to AC or DC input power requirements in a centralized power solution which can incorporate reversible high voltage outputs, low voltage outputs and digital or analog communications, signals & controls.

- Mass Spectrometry
- Radiation/Threat Detection
- Electrostatic Chucks
- Semiconductor Inspection
- Spectroscopy
- Medical Imaging
Who We Are

Sustainability
At XP Power we are fully committed to corporate social responsibility and believe we can make an impact in the world through our products, our people and the way we conduct business. We are a full member of the Responsible Business Alliance (RBA) driving us to promote ethical business practises, as well as a range of other sustainable initiatives. Our people are actively encouraged to get involved in their local communities by being given time off to volunteer in a number of areas. These include cleaning up water passageways and beaches, supporting local food banks and helping out at homeless shelters.

We also believe our power conversion products can play a pivotal role in the world of industrial and healthcare electronics where their high efficiency can save energy and reduce greenhouse gas emissions year after year.

Our People
We have significant strength and depth of talent within our organization, with the majority of our senior employees boasting long tenures with XP Power.

We have a number of training programs built around our core values of integrity, knowledge, flexibility, speed and customer focus. These core values are part of our DNA and have been responsible for driving our performance over the long term to ensure that our customers receive the highest level of service every step of the way from our solution oriented and technically trained staff.
Quality & Manufacturing

Quality

Every customer has their own unique standards and definition of quality. At XP Power we understand the importance of quality and are pro-active in all areas of our business to continually improve quality standards and exceed customer expectations.

XP Power has developed a culture within the organization in which quality is the core foundation and continuous improvement activities are the norm. Quality is an organizational commitment and transparent throughout all levels of the business.

All of XP Power’s key facilities have achieved registration with the ISO9001 quality management standard.

Kunshan Production Facility

The first state-of-the-art manufacturing facility XP Power constructed, in Kunshan, near Shanghai, China, opened in June 2009. It uses class leading manufacturing techniques and equipment. This process starts with rigorous supplier selection and incoming component inspection, through to automatic testing of the final product.

Throughout the manufacturing process, XP Power uses the latest equipment to improve throughput and enhance product reliability. This includes the latest automatic pick and place technology, computer controlled wave soldering, automatic optical inspection, in-process testing, full product burn-in and full function automatic testing of the completed product.

Manufacturing capability is instrumental to customers, who insist on detailed factory audits before awarding contracts. Customer audits of the Kunshan facility have been very successful, with a number of customers commenting that it is the best power converter factory that they have visited.

Vietnam Production Facility

The Vietnamese facility, located in Ho Chi Minh City, started production of magnetic windings for use in our power converters in 2012. The facility demonstrates our attitude to the environment as it is the most environmentally friendly manufacturing facility in our industry and the first industrial building to achieve the Gold Plus rating from the BCA Green Mark Scheme, the leading environmental standard set by the Singapore Building and Construction Authority. This rating covers not only energy efficiency of the building but also water efficiency, environmental protection and indoor environmental quality.

The facility’s photovoltaic solar panel array helps provide power, and rainwater is collected for use within “grey water” systems in the building. The photovoltaic solar panel array generated enough electricity to reduce XP Power’s carbon emissions by approximately 32 tonnes. Wherever possible water usage is minimized and alternative use of rainwater is maximised. High efficiency air conditioning systems have been deployed and energy saved through an efficient building envelope.
Off the shelf power supplies do not always meet the specific requirements of the target application. Many power systems require custom output voltage combinations, unique control/status signals and specific mechanical packaging for optimal performance and integration. XP Power offers solutions in cases where applications cannot be fulfilled from our standard product range or where customers require integrated products. We offer the world’s widest standard product range, which provides us with the largest selection of power platforms from which we quickly deliver modified standard power solutions.

Customer-specific power solutions are maintained under strict revision control and are clearly defined by their specifications and assembly drawings. Close attention is paid to designing a product fit for purpose, ensuring conformance to the relevant industry and safety standards as well as conformance to EMI, EMC and harmonic distortion levels.

With local engineering design teams in key regions throughout North America, Europe and Asia, XP Power is the ideal source to develop your power solution.

- Low development cost
- Low risk, proven technology
- World class design
- Short development times
- Worldwide local engineering support
- Low cost manufacturing in Asia
- Local manufacturing for low quantity production runs
- ISO 9001 certified quality management system

Medical Power Control System
350W AC-DC PSU with bespoke DC-DC converter built in to a custom chassis for a medical application.

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Medical Power Control System
350W AC-DC PSU with bespoke DC-DC converter built in to a custom chassis for a medical application.
Whatever the system power requirements, we offer cost effective, application specific solutions that meet your unique requirements. Being able to utilise our vast selection of power platforms ensures shortened development times and proven product quality. Examples include:

- **Patient Monitor**
  - 350W AC-DC PSU with bespoke DC-DC

- **Ultrasound**
  - 700W multiple output PSU with ultra low ripple & noise with USB & SMBus communications

- **Defense Application**
  - 1000W external PSU compliant to MIL-STD 461F

- **Semiconductor Fabrication**
  - 5KW multi output PSU. SEMI F47 compliant with EtherCAT control

- **Ion Implementation**
  - AC input ±1KV high voltage PSU, analogue and RS232 communications, EN61010-1 approvals

- **Water Ionizer**
  - 3 phase, AC input 10KW, 200VDC output PSU, with analogue and PMBus voltage and current programming

**Custom Power Solutions: Applications**

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**Mechanical Design**
- 3D-model, photo-rendering, animation
- Thermal, stress and mass simulation
- Environmentally sealed units

**Electrical Design**
- Filter design for specific noise and ripple standards
- I²C interface requirements for power supply health and control
- Blind-mate, hot-swap experts
- Embedded micro-processor based design
- Schematic capture / simulation
- Compliance with defense specifications

**Quality & Test**
- 100% parametric DVT testing
- In-system troubleshooting
- System specific testing can also be provided
  - Turnkey EMC certification
  - HALT / HASS integrity testing
  - Burn-in

**Safety & Compliance**
- Compliance engineering
- Expert knowledge of UL, TUV, CSA, CE & CB schemes
- NEBS & ETSI compliance
- IT, industrial & medical safety standards
- IT, industrial & medical EMC compliance
- MIL STD & DEF STAN EMC compliance

**Printed Circuit Board Design**
- Timely electrical assemblies improving customer time-to-market
- Safety specific creepage and clearance
- Design for manufacturability
- PCB modeling & layout

**Software Programming**
- In-house software / firmware development
- Serial bus interfaces - I²C & RS232 / 422
- Software / firmware functionality
  - Smart battery interface (SMBus)
  - Battery charging
  - Power supply sequencing
  - Power supply alarm and control

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  - Power supply sequencing
  - Power supply alarm and control
### 3-10 Watts
- **VCE03**
  - 3 Watts
  - 1.60” x 0.75” x 0.75”
  - Class II
  - PCB Mount
  - Low Cost
  - Page 16

- **ECE05**
  - 5 Watts
  - 1.00” x 1.00” x 0.60”
  - Class II
  - Open Frame
  - Encapsulated PCB Mount
  - Low Cost
  - Page 17

### 15-30 Watts
- **ECL15**
  - 15 Watts
  - 2.44” x 1.21” x 0.95”
  - Single & Multi Outputs
  - PCB & Chassis Mount
  - Class II
  - Page 18

- **ECL25/30**
  - 25/30 Watts
  - 2.96” x 1.36” x 1.05”
  - Single & Multi Outputs
  - PCB & Chassis Mount
  - Class II
  - Page 17

### 40-50 Watts
- **ECS25**
  - 25 Watts
  - 3.00” x 2.00” x 0.95”
  - Single Output
  - Class II
  - Encapsulated PCB Mount
  - Low Cost
  - Page 16

- **ECS45**
  - 45 Watts
  - 3.00” x 2.00” x 1.05”
  - Single Output
  - Class II
  - PCB & Chassis Mount
  - Low Leakage Current
  - Low Cost
  - Page 18

### 60-80 Watts
- **ECS60**
  - 60 Watts
  - 3.00” x 2.00” x 1.05”
  - Single Output
  - Low Leakage Current
  - <0.5W Standby Power
  - Class I & II
  - Page 19

- **ECS65**
  - 65 Watts
  - 3.00” x 2.00” x 1.05”
  - Single Output
  - <0.5W Standby Power
  - Class I & II
  - Page 22

### 100-110 Watts
- **ECS100**
  - 100 Watts
  - 4.00” x 2.00” x 1.25”
  - Single Output
  - Convection-cooled
  - Low Cost
  - Page 21

- **ECS130**
  - 130 Watts
  - 4.00” x 2.00” x 1.25”
  - Class I & II
  - High Efficiency
  - 100W Convection-cooled
  - Page 23

### 130-175 Watts
- **ECP130**
  - 130 Watts
  - 4.00” x 2.00” x 1.25”
  - Class I & II
  - High Efficiency
  - 100W Convection-cooled
  - Page 23

- **EPL150**
  - 150 Watts
  - 4.00” x 2.00” x 0.99”
  - Class I & II
  - Low Cost
  - Page 23

- **GCS150**
  - 150 Watts
  - 3.00” x 1.42”
  - Class I & II
  - Low Profile
  - Convection-cooled
  - Page 25

- **LC1150**
  - 150 Watts
  - 7.55” x 3.74” x 1.97”
  - Single Output
  - Convection-cooled
  - Low Cost
  - Page 30

- **RCL175**
  - 175 Watts
  - 5.50” x 3.70” x 1.28”
  - Single & Multi Outputs
  - Class I & II
  - Mechanical Options
  - Page 24
<table>
<thead>
<tr>
<th>Watt Range</th>
<th>Model</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>180-225 Watts</td>
<td>ECP180</td>
<td>• 180 Watts</td>
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<tr>
<td></td>
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<td>• 4.00” x 2.00” x 1.00”</td>
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<td>• Single Output</td>
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<td>• 120W Convection-cooled</td>
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<td></td>
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<td>• Up to 95% Efficiency</td>
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<td></td>
<td>GCS250</td>
<td>• 250 Watts</td>
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<td>• 5.00” x 3.00” x 1.43”</td>
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<td>• Medical BF Compliant</td>
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<td>• Convection-cooled</td>
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<td></td>
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<td>• 5V/0.5A Standby (optional)</td>
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<tr>
<td>250-300 Watts</td>
<td>UCP180</td>
<td>• 180 Watts</td>
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<tr>
<td></td>
<td></td>
<td>• Medical BF Compliant</td>
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<td></td>
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<td>• 4.24” x 2.47” x 1.16”</td>
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<td>• 120W Convection-cooled</td>
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<td>• 12V Fan Output</td>
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<td></td>
<td>CCM250</td>
<td>• 250 Watts</td>
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<td>• 6.00” x 4.00” x 1.50”</td>
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<td>• Single Output</td>
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<td>• Convection-cooled</td>
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<td>• Up to 95% Efficiency</td>
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<td>350-400 Watts</td>
<td>GCM250</td>
<td>• 250 Watts</td>
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<td>• 7.00” x 3.60” x 1.70”</td>
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<td>• Single Output</td>
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<td>• Low Noise Fan</td>
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<td>• 5V/0.5A Standby (optional)</td>
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<td></td>
<td>SMP350</td>
<td>• 350 Watts</td>
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<td>• 7.00” x 3.60” x 1.70”</td>
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<td>• Convection-cooled</td>
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<td>• 5V/0.5A Standby (optional)</td>
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<tr>
<td>500-750 Watts</td>
<td>GCM350</td>
<td>• 350 Watts</td>
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<td>• 7.00” x 3.60” x 1.70”</td>
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<td>• Low Noise Fan</td>
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<td>• 5V/0.5A Standby (optional)</td>
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<td></td>
<td>GHC500</td>
<td>• 500 Watts</td>
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<td></td>
<td></td>
<td>• 6.50” x 3.30” x 1.55”</td>
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<td></td>
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<td>• 250W Convection-cooled</td>
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<td></td>
<td>• 5V/0.2A Standby</td>
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<td></td>
<td>GCP500</td>
<td>• 500 Watts</td>
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<td></td>
<td></td>
<td>• 6.00” x 4.00” x 1.65”</td>
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<td></td>
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<td>• &lt;0.5W Standby Power</td>
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<td>• 5V/2A Standby</td>
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<tr>
<td>800-5000 Watts</td>
<td>GCM180</td>
<td>• 180 Watts</td>
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<td></td>
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<td>• 5.00” x 3.00” x 1.42”</td>
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<td>• Up to 95% Efficiency</td>
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<td>HCM250</td>
<td>• 250 Watts</td>
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<td>• 6.00” x 4.00” x 1.50”</td>
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<td>• Convection-cooled</td>
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<td></td>
<td>• 5V/0.5A Standby (optional)</td>
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<tr>
<td></td>
<td>LCM350</td>
<td>• 350 Watts</td>
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<td></td>
<td></td>
<td>• 7.00” x 3.60” x 2.10”</td>
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<td></td>
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<td>• Single Output</td>
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<td></td>
<td></td>
<td>• Remote On/Off</td>
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<td></td>
<td></td>
<td>• 5V/0.5A Standby (optional)</td>
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<tr>
<td>Configurable</td>
<td>XP500</td>
<td>• Programmable Voltage</td>
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<td></td>
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<td>• Programmable Current</td>
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<td>• Programmable Voltage</td>
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<td>• Programmable Voltage</td>
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## External/DIN Rail Selector Guide

### 5-12 Watts
- **VER05**
  - 5 Watts
  - Energy Efficiency Level VI
  - 2.16" x 1.45" x 1.69"
  - Changeable Input Plugs
  - LPS Approved
  - Changeable Input Plugs
  - Optional White Case
  - Page 41

### 18 Watts
- **ACM18**
  - 18 Watts
  - Level VI & CoC Tier 2
  - 3.46" x 1.18" x 1.95"
  - Optional White Case
  - 2 x MOPP
  - Page 40

### 24-30 Watts
- **ACM24**
  - 24 Watts
  - Level VI & CoC Tier 2
  - 3.46" x 1.18" x 2.24"
  - Optional White Case
  - 2 x MOPP
  - Page 40

### 36 Watts
- **ACM36**
  - 36 Watts
  - Level VI & CoC Tier 2
  - 3.81" x 1.30" x 2.34"
  - Optional White Case
  - 2 x MOPP
  - Page 40

### 40-65 Watts
- **VEC40**
  - 40 Watts
  - Level VI & CoC Tier 2
  - 4.58" x 2.06" x 1.23"
  - CCC Qualified
  - LPS Approved
  - Page 43

### 85-120 Watts
- **ALM85**
  - 85 Watts
  - Level VI & CoC Tier 2
  - 5.31" x 2.44" x 1.45"
  - IP32 Rating
  - 2 x MOPP
  - Class I & II Versions
  - CCC Qualified
  - Page 43

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[Images and details for each model are not provided here.]

**Legend:**
- 🍀 = Green Product
- ⭐️ = Medical Version Available
**Defense Selector Guide**

### 5-35 Watts
- **MTC05**
  - 15.5-40 VDC Input
  - 1.26” x 0.76” x 0.34”
  - Single Output
  - MIL-STD-461 with filter
  - MIL-STD-1275 with filter
  - Page 78

### 50-100 Watts
- **MTC15**
  - 15.5-40 VDC Input
  - 1.57” x 1.02” x 0.38”
  - Single & Dual Output
  - MIL-STD-461 with filter
  - MIL-STD-1275 with filter
  - Page 78

### 100-226 Watts
- **MTC75**
  - 10.40 VDC Input
  - 2.40” x 2.28” x 0.50”
  - Single & Dual Output
  - MIL-STD-461 with filter
  - MIL-STD-1275 with filter
  - Page 78

### 220 Watts
- **MTC150**
  - 10.40 VDC Input
  - 2.40” x 2.28” x 0.50”
  - Single & Dual Output
  - MIL-STD-461 with filter
  - MIL-STD-1275 with filter
  - Page 78

### 250 Watts
- **AHM250**
  - 250 Watts
  - Energy Efficiency Level VI
  - 8.80” x 3.48” x 1.46”
  - IP22 Rating
  - Low Profile
  - Page 45

### 300-600 Watts
- **AHM180**
  - 180 Watts
  - Energy Efficiency Level VI
  - 7.87” x 3.13” x 1.61”
  - IP22 Rating
  - Class I & II Versions
  - Page 45

### DIN Rail
- **DSF100**
  - MIL-STD Filter
  - 1.37” x 1.23” x 0.51”
  - DEF-STAN 59-411
  - MIL-STD-461
  - MIL-STD-1275
  - Page 76

### DIN Rail 3 Phase
- **DSF200LV**
  - MIL-STD Filter
  - 2.41” x 1.45” x 0.75”
  - DEF-STAN 59-411
  - MIL-STD-461
  - MIL-STD-1275
  - Page 76

---

**XP Power**

11
## DC-DC Selector Guide

### 0.25 Watt
- **IK**
  - ±10% Input
  - Unregulated
  - SIP & DIP Package
  - Single Output
  - 1000V Isolation
  - Page 47

### 1 Watt
- **ITA/ITB**
  - ±10% Input
  - Unregulated
  - SIP Package
  - Single & Dual Output
  - 1500V Isolation
  - Page 51/52

### 2 Watts
- **IL**
  - ±10% Input
  - Unregulated
  - SIP Package
  - Single Output
  - Up to 3000V Isolation
  - Page 54

### 3 Watts
- **IR**
  - ±10% Output
  - Semi-regulated
  - SIP Package
  - Single & Dual Output
  - 1000V/3000V Isolation
  - Page 58

### 4-5 Watts
- **JCA04**
  - 2:1 Input
  - 1" x 0.8" DIP24
  - Single & Dual Output
  - ITE Safety Approvals
  - 1500V Basic Isolation
  - Page 66

### 6 Watts
- **ITW/ITW**
  - 2:1 Input
  - Unregulated
  - SIP & DIP Package
  - Single Output
  - 1000V Isolation
  - Page 52/53

### 10 Watts
- **ITV**
  - ±10% Input
  - Unregulated
  - SIP Package
  - Single & Dual Output
  - 3000V Isolation
  - Page 52

### 15 Watts
- **IH**
  - ±10% Input
  - Unregulated
  - SIP & DIP Package
  - Single & Dual Output
  - 6000V Isolation
  - Page 53

### 25 Watts
- **ILS**
  - ±10% Input
  - Unregulated
  - SIP Packagen
  - Single & Dual Output
  - 1600V Isolation
  - Page 54

### 50 Watts
- **IU**
  - 2:1 Input
  - Regulated
  - SIP & DIP Package
  - Single & Dual Output
  - 1000V/3000V Isolation
  - Page 57

### 100 Watts
- **IEU03**
  - 2:1 Input
  - Regulated
  - SIP Package
  - Single & Dual Output
  - 1600V Isolation
  - Page 60

### 500 Watts
- **IEU00**
  - 2:1 Input
  - Unregulated
  - SIP Package
  - Single & Dual Output
  - 1500V Basic Isolation
  - Page 55

### 1 Amp
- **JA02**
  - 2:1 Input
  - 1" x 0.8" DIP24
  - Single & Dual Output
  - ITE Safety Approvals
  - Page 60

### 5 Amps
- **JCA03**
  - 2:1 Input
  - 1" x 0.8" DIP24
  - Single & Dual Output
  - ITE Safety Approvals
  - 1500V Basic Isolation
  - Page 61

### 10 Amps
- **JCA04**
  - 2:1 Input
  - 1" x 0.8" DIP24
  - Single & Dual Output
  - 1500V Basic Isolation
  - Page 66

### 30 Amps
- **ITQ**
  - 4:1 Input
  - SIP Package
  - Single & Dual Output
  - 1500V Basic Isolation
  - Page 65
### 8-9 Watts
- **JC108**
  - 2:1 Input
  - 1.25” x 0.8” Package
  - SIP24
  - Single & Dual Output
  - 1500V Isolation
  - ITE Safety Approvals
  - Page 67

### 10-12 Watts
- **JCA10**
  - 2:1 Input
  - 1” x 0.8” SIP24
  - Single & Dual Output
  - 1500V Basic Isolation
  - UL & TUV Approved
  - Page 66

### 15 Watts
- **JCM15**
  - 2:1 Input
  - 1” x 1” Package
  - Single & Dual Output
  - 1600V Isolation
  - Remote On/Off
  - Page 69

### 20-25 Watts
- **JCM20**
  - 2:1 Input
  - 1” x 1” Package
  - Single & Dual Output
  - 1600V Isolation
  - Remote On/Off
  - Page 69

### 30-50 Watts
- **JCM30**
  - 2:1 Input
  - 1” x 1” Package
  - Single & Dual Output
  - 1600V Isolation
  - Remote On/Off
  - Page 71

### 60-750 Watts
- **JCK60**
  - 2:1 Input
  - 2” x 2” Package
  - Single Output
  - 1600V Isolation
  - Remote On/Off
  - Page 72

### 1.25” x 0.8” Package
- **JCK10**
  - 2:1 Input
  - SIP24 Package
  - Single & Dual Output
  - 1500V Isolation
  - ITE Safety Approvals
  - Page 67

### 1” x 1” Package
- **JCK20**
  - 2:1 Input
  - SIP24 Package
  - Single & Dual Output
  - 1600V Isolation
  - Remote On/Off
  - Page 68

### 1.6” x 1” Package
- **JCK30/40**
  - 2:1 Input
  - SIP24 Package
  - Single & Dual Output
  - 1600V Isolation
  - Remote On/Off
  - Page 68

### 1” x 1” Package
- **JCK50**
  - 2:1 Input
  - SIP24 Package
  - Single & Dual Output
  - 1600V Isolation
  - ITE Safety Approvals
  - Page 72

### 2” x 1” Package
- **JCK60**
  - 2:1 Input
  - SIP24 Package
  - Single & Dual Output
  - 1600V Isolation
  - Remote On/Off
  - Page 72

### 1.25” x 0.8” Package
- **JCK750**
  - 2:1 Input
  - SIP24 Package
  - Single & Dual Output
  - 1600V Isolation
  - Remote On/Off
  - Page 72

### 2” x 1” Package
- **JCK80**
  - 2:1 Input
  - SIP24 Package
  - Single & Dual Output
  - 1600V Isolation
  - Remote On/Off
  - Page 72
### DC-DC Selector Guide

#### SMD

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<th>Wattage</th>
<th>Model</th>
<th>Features</th>
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<tbody>
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<td>0.25</td>
<td>ISK</td>
<td>- 10% Input&lt;br&gt;- Unregulated&lt;br&gt;- Single Output&lt;br&gt;- 1500V Isolation&lt;br&gt;- Industry Standard Pinout</td>
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<td>2</td>
<td>ISH</td>
<td>- 10% Input&lt;br&gt;- Unregulated&lt;br&gt;- Single Output&lt;br&gt;- 1500V Isolation&lt;br&gt;- 3000V Optional&lt;br&gt;- Page 56</td>
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<tr>
<td>3-6</td>
<td>ISR</td>
<td>- 2:1 Input&lt;br&gt;- Regulated&lt;br&gt;- Single &amp; Dual Output&lt;br&gt;- 1500V Isolation&lt;br&gt;- Industry Standard Pinout&lt;br&gt;- Page 59</td>
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<td>1</td>
<td>ISW</td>
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<td>1</td>
<td>ISD02</td>
<td>- 10% Input&lt;br&gt;- Unregulated&lt;br&gt;- 400VDC Working Voltage&lt;br&gt;- Single &amp; Dual Output&lt;br&gt;- 4200V Isolation&lt;br&gt;- Page 55</td>
</tr>
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<td>1</td>
<td>ISU02</td>
<td>- 4:1 Input&lt;br&gt;- Regulated&lt;br&gt;- Single &amp; Dual Output&lt;br&gt;- 1500V Isolation&lt;br&gt;- ITE Safety Approvals&lt;br&gt;- Page 59</td>
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<td>ISU03</td>
<td>- 4:1 Input&lt;br&gt;- Regulated&lt;br&gt;- Single &amp; Dual Output&lt;br&gt;- 1500V Isolation&lt;br&gt;- ITE Safety Approvals&lt;br&gt;- Page 59</td>
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<td>ISX06</td>
<td>- 4:1 Input&lt;br&gt;- Regulated&lt;br&gt;- Single &amp; Dual Output&lt;br&gt;- 1500V Isolation&lt;br&gt;- Remote Off/On&lt;br&gt;- Page 63</td>
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#### Medical

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<td>1 Watt</td>
<td>IMA01</td>
<td>- 10% Input&lt;br&gt;- SIP7 Package&lt;br&gt;- 4000 AC Isolation&lt;br&gt;- 1 x MOPP at 300VAC&lt;br&gt;- Page 49</td>
</tr>
<tr>
<td>2-3</td>
<td>IMA02</td>
<td>- 10% Input&lt;br&gt;- Unregulated&lt;br&gt;- SIP7 Package&lt;br&gt;- 4000VAC Isolation&lt;br&gt;- 2 x MOPP at 250VAC&lt;br&gt;- Page 56</td>
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<td>1 Watt</td>
<td>ISM01</td>
<td>- 10% Input&lt;br&gt;- Unregulated&lt;br&gt;- SIP7 Package&lt;br&gt;- 4000VAC Isolation&lt;br&gt;- 1 x MOPP at 250VAC&lt;br&gt;- Page 55</td>
</tr>
<tr>
<td>2-3</td>
<td>ISM02</td>
<td>- 10% Input&lt;br&gt;- Unregulated&lt;br&gt;- SIP7 Package&lt;br&gt;- 4000VAC Isolation&lt;br&gt;- 2 x MOPP at 250VAC&lt;br&gt;- Page 56</td>
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<td>1 Watt</td>
<td>IMO01</td>
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<tr>
<td>2-3</td>
<td>IMO02</td>
<td>- 2:1 Input&lt;br&gt;- Regulated&lt;br&gt;- SIP7 Package&lt;br&gt;- 1500VAC Isolation&lt;br&gt;- 1 x MOPP at 250VAC&lt;br&gt;- Page 55</td>
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<td>2-3</td>
<td>JHL06</td>
<td>- Wide Input Range&lt;br&gt;- Regulated&lt;br&gt;- SIP7 Package&lt;br&gt;- 4000VAC Isolation&lt;br&gt;- 2 x MOPP at 250VAC&lt;br&gt;- Page 64</td>
</tr>
<tr>
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<td>- 2:1 Input&lt;br&gt;- Regulated&lt;br&gt;- SIP7 Package&lt;br&gt;- 4200VAC Isolation&lt;br&gt;- 2 x MOPP at 250VAC&lt;br&gt;- Page 70</td>
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#### LED Drivers

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<th>Features</th>
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<td>LDU05/07/14</td>
<td>- 7 - 30 VDC Input&lt;br&gt;- Constant Current Output&lt;br&gt;- Up to 1000mA&lt;br&gt;- Non-isolated&lt;br&gt;- Dimming Control&lt;br&gt;- Page 83</td>
</tr>
<tr>
<td>20-56</td>
<td>LDU20/24</td>
<td>- 7 - 30 VDC Input&lt;br&gt;- Constant Current Output&lt;br&gt;- Up to 1000mA&lt;br&gt;- Non-isolated&lt;br&gt;- Dimming Control&lt;br&gt;- Page 83</td>
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<tr>
<td>2-3</td>
<td>JMU07</td>
<td>- 10 - 17VDC Input&lt;br&gt;- Wide Input Range&lt;br&gt;- 3 Pin SIP Package&lt;br&gt;- 4000VAC Isolation&lt;br&gt;- 2 x MOPP at 250VAC&lt;br&gt;- Page 64</td>
</tr>
<tr>
<td>2-3</td>
<td>JMM20</td>
<td>- 2:1 Input&lt;br&gt;- Regulated&lt;br&gt;- SIP7 Package&lt;br&gt;- 4200VAC Isolation&lt;br&gt;- 2 x MOPP at 250VAC&lt;br&gt;- Page 70</td>
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#### Switching Regulators

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<tr>
<th>Wattage</th>
<th>Model</th>
<th>Features</th>
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<tbody>
<tr>
<td>0.5 Amps</td>
<td>TR05</td>
<td>- Wide Input Range&lt;br&gt;- Non-isolated&lt;br&gt;- 3 Pin SIP Package&lt;br&gt;- Up to 94% Efficiency&lt;br&gt;- Short-circuit Protection&lt;br&gt;- Page 46</td>
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<td>0.5-1.0 Amps</td>
<td>SRH15</td>
<td>- Wide Input Range&lt;br&gt;- Non-isolated&lt;br&gt;- 3 Pin SIP Package&lt;br&gt;- Up to 97% Efficiency&lt;br&gt;- Short-circuit Protection&lt;br&gt;- Page 46</td>
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<td>0.5-1.0 Amps</td>
<td>TR10</td>
<td>- 1.0 A Regulator&lt;br&gt;- Non-isolated&lt;br&gt;- 3 Pin SIP Package&lt;br&gt;- Wide Input Range&lt;br&gt;- Short-circuit Protection&lt;br&gt;- Page 46</td>
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### Railway

#### Power Ratings

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<th>20-40 Watts</th>
<th>50 Watts</th>
<th>75 Watts</th>
<th>100 Watts</th>
<th>150-600 Watts</th>
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<tr>
<td>RDE03</td>
<td>RDC20/30</td>
<td>RCQ50</td>
<td>RDQ100</td>
<td>RDQ150</td>
<td>RDH300-600</td>
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<td>DTE40</td>
<td>RDC40</td>
<td>RCQ75</td>
<td>RDF50</td>
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<td>DDC30</td>
<td>DDC40</td>
<td>RDC60</td>
<td>RDQ100</td>
<td>RDF50</td>
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<td>RDF50</td>
<td>RDC60</td>
<td>RDQ100</td>
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<td>DDC40</td>
<td>RCQ75</td>
<td>RDF50</td>
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</table>

### Chassis Mount / DIN Rail

#### 15-30 Watts
- JVA15
  - 200 - 1500VDC Input
  - 4000V Isolation
  - Single Output
  - 3.3 to 24 V Outputs
  - Page 38

#### 40-60 Watts
- JVA40
  - 200 - 1500VDC Input
  - 4000V Isolation
  - 4000VAC Isolation
  - EN62109/UL1741
  - Page 72

#### Regulated

- **P**: 2.4 milliwatts
- **Up to 2kV Output**
- **Ultra Low Ripple**
- **Low Profile - 0.24"**
- **Magnetic Free Design**
  - Page 87

#### Regulated

- **CA**: 1 Watt
  - **Up to 2kV Output**
  - **Low Noise**
  - **Voltage Monitor**
  - **Shielded Case**
  - **Isolated Design**
  - **Single & Dual Output**
  - **Up to 6kV in 0.5" Cube**
  - Page 84

#### Proportional

- **CA-T**: 1 Watt
  - **Up to 2kV Output**
  - **Low Noise**
  - **Shielded Case**
  - **Isolated Design**
  - Page 84

#### Proportional

- **GP**: 1 Watts
  - **Up to 6kV Output**
  - **Isolated Design**
  - **Single & Dual Output**
  - **Isolated Design**
  - **Baseplate-cooled**
  - **Single Output**
  - Page 82

#### Proportional

- **G**: 1.5 Watts
  - **Up to 6kV Output**
  - **Isolated Design**
  - **Single & Dual Output**
  - **Compact Package**
  - Page 85

#### Proportional

- **F**: 2 - 3 Watts
  - **Up to 8kV Output**
  - **Isolated Design**
  - **Single & Dual Output**
  - **Low Leakage Current**
  - **Thermal Shutdown**
  - Page 86

#### High Voltage

- **A/AH**: 1 - 1.5 Watts
  - **Up to 6kV Output**
  - **Isolated Design**
  - **SMD Package**
  - **Isolated Design**
  - **Low Profile - 0.25"**
  - **Single & Dual Output**
  - **Shielded Case**
  - Page 86

- **FS**: 10 Watts
  - **Up to 6kV Output**
  - **Isolated Design**
  - **Single & Dual Output**
  - **Thermal Shutdown**
  - **Shielded Case**
  - Page 86
VCE03
3 Watts
• Ultra Compact SIL Package
• Single Outputs from 3.3 to 48VDC
• PCB Mount
• Encapsulated & Open Frame
• 85 to 305VAC Operation
• ITE & Household Appliance Approvals
• Class II
• Low Cost
• 3 Year Warranty

Dimensions:
VCE03: 1.60 x 0.75 x 0.75 in (40.6 x 19.0 x 19.0 mm)
VCE03-P: 1.50 x 0.65 x 0.65 in (38.1 x 16.5 x 16.5 mm)

EME05
5 Watts
• Compact Size
• Medical Approvals (2 x MOPP)
• Single Outputs from 3.3 to 48VDC
• Open Frame & Encapsulated PCB Mount
• Class II
• Peak Load Capability
• No External Components Required
• 3 Year Warranty

Dimensions:
EME05: 1.50 x 1.00 x 0.60 in (38.1 x 25.4 x 15.2 mm)
EME05-P: 1.40 x 0.94 x 0.69 in (35.6 x 23.7 x 17.6 mm)

VCE05
5 Watts
• Compact Size
• Single Outputs from 3.3 to 48VDC
• PCB Mount
• Encapsulated & Open Frame
• 5.0 to 150VAC Operation
• ITE & Household Appliance Approvals
• Class II
• Low Cost
• 3 Year Warranty

Dimensions:
VCE05: 1.30 x 1.10 x 0.75 in (33.0 x 27.9 x 19.0 mm)
VCE05-P: 1.20 x 1.00 x 0.705 in (30.8 x 25.4 x 17.9 mm)

Notes:
For open frame version add suffix ‘-P’ to model number, e.g. VCE05US12-P.

Notes:
Peak load lasting <30s with a maximum duty cycle of 10%, average output power not to exceed nominal. For open frame version add suffix ‘-P’ to model number, e.g. EME05US12-P.

Notes:
Peak load lasting <30s with a maximum duty cycle of 10%, average output power not to exceed nominal. For open frame version add suffix ‘-P’ to model number, e.g. VCE05US12-P.
AC-DC Power Supplies

**ECE05-10**

- 5-10 Watts
- 5-10 Watts
- ITE

- Ultra Compact Size
- Single Outputs from 3.3 to 48VDC
- Open Frame & Encapsulated PCB Mount
- <0.3W No Load Input Power
- Peak Load Capability
- No External Components Required
- 3 Year Warranty

**Dimensions:**

- ECE05: 1.00 x 1.00 x 0.60 in (25.4 x 25.4 x 15.2 mm)
- ECE05-P: 0.94 x 0.94 x 0.61 in (23.9 x 23.9 x 15.5 mm)
- ECE10: 1.50 x 1.00 x 0.60 in (38.1 x 25.4 x 15.2 mm)
- ECE10-P: 1.40 x 0.93 x 0.67 in (35.9 x 23.9 x 17.1 mm)

**Notes:**

- Peak load lasting <30s with a maximum duty cycle of 10%, average output power not to exceed nominal. For open frame version add suffix ‘-P’ to model number, e.g. ECE05US12-P.

**Power**

<table>
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<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current Nom.</th>
<th>Output Current Peak</th>
<th>Model</th>
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<tr>
<td>5 W</td>
<td>3.3 VDC</td>
<td>1.51 A</td>
<td>1.81 A</td>
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<td>5 W</td>
<td>5.0 VDC</td>
<td>1.00 A</td>
<td>1.20 A</td>
<td>ECE05US05</td>
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<td>5 W</td>
<td>9.0 VDC</td>
<td>0.55 A</td>
<td>0.66 A</td>
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<td>5 W</td>
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<td>0.41 A</td>
<td>0.49 A</td>
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<td>0.33 A</td>
<td>0.40 A</td>
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<td>24.0 VDC</td>
<td>0.21 A</td>
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<td>5 W</td>
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<td>0.10 A</td>
<td>0.12 A</td>
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<td>3.12 A</td>
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<td>0.21 A</td>
<td>0.25 A</td>
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**ECL05-10**

- 5-10 Watts
- ITE

- Compact Size
- Single Outputs from 3.3 to 48VDC
- Open Frame PCB & Chassis Mount
- Encapsulated PCB Mount Versions
- <0.3W No Load Input Power
- Peak Load Capability
- 3 Year Warranty

**Dimensions:**

- ECL05/10-P: 1.95 x 1.00 x 0.90 in (49.5 x 25.4 x 22.9 mm)
- ECL05/10-T: 2.56 x 1.00 x 0.85 in (65.0 x 25.4 x 21.6 mm)
- ECL05/10-E: 2.06 x 1.07 x 0.91 in (52.4 x 27.2 x 23.1 mm)

**Notes:**

- Peak load lasting <30s with a maximum duty cycle of 10%, average output power not to exceed nominal. Add suffix ‘-P’ for open frame, add ‘-T’ for chassis mount, add ‘-E’ for encapsulated.

**Power**

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current Nom.</th>
<th>Output Current Peak</th>
<th>Model</th>
</tr>
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<tbody>
<tr>
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<td>1.30 A</td>
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<td>0.44 A</td>
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<td>10 W</td>
<td>48.0 VDC</td>
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<td>0.27 A</td>
<td>ECL10US48</td>
</tr>
</tbody>
</table>

**VCE10**

- 10 Watts
- ITE

- Compact Size
- Single Outputs from 3.3 to 48VDC
- PCB Mount
- Encapsulated & Open Frame
- 85 to 305VAC Input
- ITE & Household Appliance Approvals
- Class II
- Low Cost
- 3 Year Warranty

**Dimensions:**

- VCE10: 2.00 x 1.15 x 0.91 in (50.8 x 29.2 x 23.1 mm)
- VCE10-P: 1.90 x 1.05 x 0.88 in (48.3 x 26.7 x 22.4 mm)

**Notes:**

- For open frame version add suffix ‘-P’ to model number, e.g. VCE10US12-P.
### ECL15

**15 Watts**

- Compact Size
- Single, Dual & Triple Outputs
- Open Frame PCB & Chassis Mount
- Encapsulated PCB & Screw Terminal
- <0.3W No Load Input Power
- Peak Load Capability
- DIN Rail Version Available
- Class II
- 3 Year Warranty

**Power Output**

<table>
<thead>
<tr>
<th>Power</th>
<th>Voltage</th>
<th>Nom. Current</th>
<th>Peak Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 W</td>
<td>3.3 VDC</td>
<td>3.00 A</td>
<td>3.90 A</td>
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<td>5.0 VDC</td>
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<td>2.17 A</td>
<td>ECL15US09</td>
</tr>
<tr>
<td>15 W</td>
<td>12.0 VDC</td>
<td>1.25 A</td>
<td>1.62 A</td>
<td>ECL15US12</td>
</tr>
<tr>
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<td>15.0 VDC</td>
<td>1.00 A</td>
<td>1.30 A</td>
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<td>15 W</td>
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<td>0.63 A</td>
<td>0.82 A</td>
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</tr>
<tr>
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<td>48.0 VDC</td>
<td>0.32 A</td>
<td>0.41 A</td>
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</tbody>
</table>

**Dimensions:**

- ECL15-P: 2.44 x 1.21 x 0.95 in (62.0 x 30.7 x 24.1 mm)
- ECL15-T: 3.10 x 1.25 x 0.91 in (78.7 x 31.8 x 23.1 mm)
- ECL15-E: 2.56 x 1.31 x 0.96 in (65.0 x 33.3 x 24.4 mm)
- ECL15-S: 3.30 x 1.36 x 1.04 in (84.0 x 34.5 x 26.4 mm)

**Notes:**
- Peak load lasting <30s with a maximum duty cycle of 10%, average output power not to exceed nominal. Add suffix ‘-P’ for PCB mount, add ‘-T’ for chassis mount, add ‘-E’ for encapsulated, add ‘-S’ for screw terminals. A screw terminal version (S) is available with DIN clip attached, add suffix ‘D’. DIN rail mounting kit is available as a separate item, order code ECL15 DIN CLIP.

### EML15

**15 Watts**

- Compact Size
- Medical Approvals (2 x MOPP)
- Single Outputs from 3.3 to 48VDC
- Open Frame PCB & Chassis Mount
- Encapsulated PCB & Screw Terminal
- DIN Rail Version Available
- Class II
- Peak Load Capability
- 3 Year Warranty

**Power Output**

<table>
<thead>
<tr>
<th>Power</th>
<th>Voltage</th>
<th>Nom. Current</th>
<th>Peak Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 W</td>
<td>3.3 VDC</td>
<td>3.00 A</td>
<td>3.90 A</td>
<td>EML15US03</td>
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<td>3.90 A</td>
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<td>1.62 A</td>
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<td>1.30 A</td>
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<td>0.82 A</td>
<td>EML15US24</td>
</tr>
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<td>0.41 A</td>
<td>EML15US48</td>
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</tbody>
</table>

**Dimensions:**

- EML15-P: 2.44 x 1.21 x 0.95 in (62.0 x 30.7 x 24.1 mm)
- EML15-T: 3.10 x 1.25 x 0.91 in (78.7 x 31.8 x 23.1 mm)
- EML15-E: 2.56 x 1.31 x 0.96 in (65.0 x 33.3 x 24.4 mm)
- EML15-S: 3.30 x 1.36 x 1.04 in (84.0 x 34.5 x 26.4 mm)

**Notes:**
- Peak load lasting <30s with a maximum duty cycle of 10%, average output power not to exceed nominal. Add suffix ‘-P’ for PCB mount, add ‘-T’ for chassis mount, add ‘-E’ for encapsulated, add ‘-S’ for screw terminals. A screw terminal version (S) is available with DIN clip attached, add suffix ‘D’. DIN rail mounting kit is available as a separate item, order code ECL15 DIN CLIP.

### ECL25-30

**25-30 Watts**

- Compact Size
- Single, Dual & Triple Outputs
- Open Frame PCB & Chassis Mount
- Encapsulated PCB & Screw Terminal
- DIN Rail Version Available
- <0.3W No Load Input Power
- Peak Load Capability
- 3 Year Warranty

**Power Output**

<table>
<thead>
<tr>
<th>Power</th>
<th>Voltage</th>
<th>Nom. Current</th>
<th>Peak Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 W</td>
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<td>6.00 A</td>
<td>7.80 A</td>
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<td>5.0 VDC</td>
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<td>6.50 A</td>
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<td>3.64 A</td>
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<td>2.73 A</td>
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<tr>
<td>25 W</td>
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<td>1.04 A</td>
<td>1.35 A</td>
<td>ECL25US24</td>
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<td>25 W</td>
<td>48.0 VDC</td>
<td>0.32 A</td>
<td>0.68 A</td>
<td>ECL25US48</td>
</tr>
</tbody>
</table>

**Dimensions:**

- ECL25/30-P: 2.96 x 1.35 x 0.95 in (75.2 x 34.5 x 24.1 mm)
- ECL25/30-T: 3.46 x 1.36 x 1.00 in (87.9 x 34.5 x 25.4 mm)
- ECL25/30-E: 3.10 x 1.50 x 1.10 in (78.7 x 38.1 x 27.9 mm)
- ECL25/30-S: 3.78 x 1.57 x 1.12 in (96.0 x 40.0 x 28.5 mm)

**Notes:**
- Peak load lasting <30s with a maximum duty cycle of 10%, average output power not to exceed nominal. Add suffix ‘-P’ for PCB mount, add ‘-T’ for chassis mount, add ‘-E’ for encapsulated, add ‘-S’ for screw terminals. A screw terminal version (S) is available with DIN clip attached, add suffix ‘D’. DIN rail mounting kit is available as a separate item, order code ECL25/30 DIN CLIP.
AC-DC Power Supplies

**EML30**

30 Watts

- Compact Size
- Medical Approvals (2 x MOPP)
- Single Outputs from 3.3 to 48VDC
- Open Frame PCB & Chassis Mount
- Encapsulated PCB & Screw Terminal
- DIN Rail Version Available
- Class II
- Peak Load Capability
- 3 Year Warranty

**Power**

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current Nom.</th>
<th>Output Current Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 W</td>
<td>3.3 VDC</td>
<td>6.00 A</td>
<td>7.80 A</td>
</tr>
<tr>
<td>30 W</td>
<td>5.0 VDC</td>
<td>6.00 A</td>
<td>7.80 A</td>
</tr>
<tr>
<td>30 W</td>
<td>9.0 VDC</td>
<td>3.33 A</td>
<td>4.33 A</td>
</tr>
<tr>
<td>30 W</td>
<td>12.0 VDC</td>
<td>2.50 A</td>
<td>3.25 A</td>
</tr>
<tr>
<td>30 W</td>
<td>15.0 VDC</td>
<td>2.00 A</td>
<td>2.60 A</td>
</tr>
<tr>
<td>30 W</td>
<td>24.0 VDC</td>
<td>1.25 A</td>
<td>1.63 A</td>
</tr>
<tr>
<td>30 W</td>
<td>36.0 VDC</td>
<td>0.83 A</td>
<td>1.08 A</td>
</tr>
<tr>
<td>30 W</td>
<td>48.0 VDC</td>
<td>0.62 A</td>
<td>0.81 A</td>
</tr>
</tbody>
</table>

**Dimensions:**

- EML30-P: 2.96 x 1.36 x 1.05 in (75.2 x 34.6 x 26.7 mm)
- EML30-T: 3.46 x 1.36 x 1.00 in (87.9 x 34.6 x 25.4 mm)
- EML30-E: 3.10 x 1.50 x 1.10 in (78.7 x 38.1 x 27.9 mm)
- EML30-S: 3.78 x 1.57 x 1.12 in (96.0 x 40.0 x 28.5 mm)

**Notes:**

- Peak load lasting <30s with a maximum duty cycle of 10%, average output power not to exceed nominal. Add suffix ‘-P’ for PCB mount, add ‘-T’ for chassis mount, add ‘-E’ for encapsulated, add ‘-S’ for screw terminals. A screw terminal version (S) is available with DIN clip attached, add suffix ‘D’, e.g. EML30US24-SD, DIN rail mounting kit is available as a separate item, order code ECL25/30 DIN CLIP.

**ECE20-40**

20-40 Watts

- Ultra Compact Size
- Single Outputs from 3.3 to 48VDC
- Encapsulated PCB & Screw Terminal
- DIN Rail Version Available
- <0.3W No Load Input Power
- Peak Load Capability
- 3 Year Warranty

**Power**

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current Nom.</th>
<th>Output Current Peak</th>
</tr>
</thead>
<tbody>
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<td>4.00 A</td>
<td>5.20 A</td>
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<td>9.0 VDC</td>
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<td>2.89 A</td>
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<tr>
<td>20 W</td>
<td>12.0 VDC</td>
<td>1.67 A</td>
<td>2.17 A</td>
</tr>
<tr>
<td>20 W</td>
<td>15.0 VDC</td>
<td>1.33 A</td>
<td>1.73 A</td>
</tr>
<tr>
<td>20 W</td>
<td>24.0 VDC</td>
<td>0.83 A</td>
<td>1.08 A</td>
</tr>
<tr>
<td>20 W</td>
<td>48.0 VDC</td>
<td>0.42 A</td>
<td>0.55 A</td>
</tr>
<tr>
<td>33 W</td>
<td>3.3 VDC</td>
<td>10.00 A</td>
<td>13.00 A</td>
</tr>
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<td>4.44 A</td>
<td>5.77 A</td>
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<td>12.0 VDC</td>
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<td>4.33 A</td>
</tr>
<tr>
<td>40 W</td>
<td>15.0 VDC</td>
<td>2.67 A</td>
<td>3.47 A</td>
</tr>
<tr>
<td>40 W</td>
<td>24.0 VDC</td>
<td>1.67 A</td>
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</tr>
<tr>
<td>40 W</td>
<td>48.0 VDC</td>
<td>0.83 A</td>
<td>1.08 A</td>
</tr>
</tbody>
</table>

**Dimensions:**

- EC20: 2.06 x 1.07 x 0.91 in (52.4 x 27.2 x 23.0 mm)
- ECE40: 3.10 x 1.50 x 1.10 in (78.7 x 38.1 x 27.9 mm)
- ECE40-S: 3.78 x 1.57 x 1.12 in (96.0 x 40.0 x 28.5 mm)

**Notes:**

- Peak load lasting <30s with a maximum duty cycle of 10%. Average power not to exceed nominal power. ECE20 format is encapsulated PCB only. ECE40 screw terminal version ‘-S’ is available with DIN clip attached, add suffix ‘D’, e.g. ECE40US12-SD, DIN rail mounting kit is available as a separate item, order code ECL25/30 DIN CLIP.

**ECF40**

40 Watts

- 40W Convection-cooled
- Ultra Compact Size
- 3” x 1.5” Footprint & Low 1.1” Profile
- High Efficiency
- ITE & Medical (2 x MOPP) Approvals
- High Power Density
- Class I & Class II Installations
- <0.15W No Load Input Power
- 3 Year Warranty

**Power**

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current Nom.</th>
<th>Output Current Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 W</td>
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<td>3.34 A</td>
<td>4.40 A</td>
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<tr>
<td>40 W</td>
<td>15.0 VDC</td>
<td>2.67 A</td>
<td>3.40 A</td>
</tr>
<tr>
<td>40 W</td>
<td>18.0 VDC</td>
<td>2.23 A</td>
<td>2.89 A</td>
</tr>
<tr>
<td>40 W</td>
<td>24.0 VDC</td>
<td>1.67 A</td>
<td>2.17 A</td>
</tr>
<tr>
<td>40 W</td>
<td>36.0 VDC</td>
<td>1.11 A</td>
<td>1.45 A</td>
</tr>
<tr>
<td>40 W</td>
<td>48.0 VDC</td>
<td>0.83 A</td>
<td>1.08 A</td>
</tr>
</tbody>
</table>

**Dimensions:**

- ECF40: 3.00 x 1.50 x 1.11 in (76.2 x 38.1 x 28.14 mm)
**FCS40**

40 Watts

- 40W Convection-cooled
- Compact Package, 3”x 2”x 1.1”
- ITE & Medical (2 x MOPP) Approvals
- Single Output
- <0.15W No Load Input Power
- Class I & Class II Installations
- 3 Year Warranty

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
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<td>0.83 A</td>
<td>FCS40US48</td>
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</table>

**Dimensions:**

FCS40: 3.00 x 2.00 x 1.10 in (76.2 x 50.8 x 27.94 mm)

**ECP40**

40 Watts

- Low Profile Design
- Compact Size from 3”x 2”x 0.9”
- ITE & Medical (2 x MOPP) Approvals
- Single, Dual & Triple Outputs
- <0.3W No Load Input Power
- Peak Load Capability
- 3 Year Warranty

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
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<td>6.00 A</td>
<td>ECP40US05</td>
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<td>40 W</td>
<td>15.0 VDC</td>
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<td>ECP40US15</td>
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<tr>
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<td>5.0/2.0 A</td>
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<td>5.0/15.0 VDC</td>
<td>5.0/1.5 A</td>
<td>ECP40UD02</td>
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<tr>
<td>40 W</td>
<td>5.0/24.0 VDC</td>
<td>5.0/1.0 A</td>
<td>ECP40UD03</td>
</tr>
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<td>40 W</td>
<td>5/12.0 VDC</td>
<td>5/2/0.5 A</td>
<td>ECP40UT01</td>
</tr>
<tr>
<td>40 W</td>
<td>5/15.0 VDC</td>
<td>5/1.5/0.5 A</td>
<td>ECP40UT02</td>
</tr>
<tr>
<td>40 W</td>
<td>5/24/12 VDC</td>
<td>5/1.0/0.5 A</td>
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<td>5/24/-12 VDC</td>
<td>5/1.0/0.5 A</td>
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</table>

**Dimensions:**

ECP40: 3.00 x 2.00 x 0.91 in (76.2 x 50.8 x 23.0 mm)

**ECP40UD/UT:** 3.50 x 2.00 x 1.01 in (88.9 x 50.8 x 25.7 mm)

**Notes:**

Peak load lasting <30s with a maximum duty cycle of 10%, average output power not to exceed nominal.

**ECP60**

60 Watts

- 60W Convection-cooled
- Compact Package, 4”x 2”x 1.2”
- ITE & Medical (2 x MOPP) Approvals
- Single, Dual & Triple Outputs
- <0.5W No Load Input Power
- Peak Load Capability
- 3 Year Warranty

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
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<td>11 A</td>
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<td>7.0/3.0 A</td>
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<td>7.0/2.0 A</td>
<td>ECP60UD02</td>
</tr>
<tr>
<td>60 W</td>
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<td>7.0/1.5 A</td>
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<td>7/1.5/0.3 A</td>
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</tbody>
</table>

**Dimensions:**

ECP60: 4.00 x 2.00 x 1.20 in (101.6 x 50.8 x 30.4 mm)

**Notes:**

Peak load lasting <30s with a maximum duty cycle of 10%, average output power not to exceed nominal.
## AC-DC Power Supplies

### ECS25-60
**25-60 Watts**

- 25, 45 & 60W - Convection-cooled
- Very Small 3”x 2”x 0.95” Package
- ITE & Medical (2 x MOPP) Approvals
- <0.3W No Load Input Power
- Class I & Class II Installations
- -20 °C to +70 °C Operation
- 3 Year Warranty

**Model**

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
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<tr>
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<td>0.52 A</td>
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<td>1.25 A</td>
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</table>

**Dimensions:**

**ECS25 (5V)/ECS60:** 3.00 x 2.00 x 1.05 in (76.2 x 50.8 x 26.7 mm)

**Notes:**

For covered versions, add suffix “-C” to model number or order part number ECS25-60 COVER KIT for standalone cover. Not suitable for use in class II installations, derate output power by 20% with cover.

---

### FCS60
**60 Watts**

- 60W Convection-cooled
- Compact Package, 4” x 2” x 1.1”
- ITE & Medical (2 x MOPP) Approvals
- Single Output
- <0.15W No Load Input Power
- Class I & Class II Installations
- 3 Year Warranty

**Model**

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
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<td>60 W</td>
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<td>1.25 A</td>
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</table>

**Dimensions:**

**FCS60:** 4.00 x 2.00 x 1.10 in (101.6 x 50.8 x 27.94 mm)

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### ECE60-80
**60-80 Watts**

- Ultra Compact Size
- Single Outputs from 3.3 to 48VDC
- Encapsulated PCB & Screw Terminal
- DIN Rail Version Available
- <0.3W No Load Input Power
- -40 to +70 °C Operation
- Peak Load Capability
- 3 Year Warranty

**Model**

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
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</thead>
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<td>1.67 A</td>
<td>ECE80US48</td>
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</table>

**Dimensions:**

**ECE60:** 3.60 x 1.50 x 1.10 in (91.4 x 38.1 x 28.0 mm)

**ECE60-S:** 4.45 x 1.57 x 1.12 in (113.0 x 40.0 x 28.5 mm)

**ECE60:** 3.60 x 1.80 x 1.10 in (91.4 x 45.72 x 28.0 mm)

**ECE60-S:** 4.45 x 1.87 x 1.12 in (113.0 x 47.5 x 28.5 mm)

**Notes:**

Peak load lasting <30s with a maximum duty cycle of 10%, average output power not to exceed nominal power. A screw terminal version “-S” is available with DIN clip attached, add suffix ‘D’, e.g. ECE80US12-SD, DIN rail mounting kit is available as a separate item, order code ECE60 DIN CLIP or ECE80 DIN CLIP.
**ECS65-100**

65-100 Watts

- 65/80W Convection-cooled
- 100W Forced-cooled
- Industry Standard 4” x 2” Footprint
- ITE & Medical (2 x MOPP) Approvals
- Class I & Class II Construction
- <0.5W No Load Input Power
- Low Leakage Current
- 3 Year Warranty

**Dimensions:**
- ECS65/-B: 4.00 x 2.00 x 1.05 in (101.6 x 50.8 x 26.7 mm)
- ECS100: 4.00 x 2.00 x 1.25 in (101.6 x 50.8 x 31.8 mm)
- ECS100-B: 4.50 x 2.00 x 1.25 in (114.3 x 50.8 x 31.8 mm)

**Notes:**
For Class B radiated emissions models, add suffix -B to model number.
For covered versions, add suffix -C to model number or order part no.
ECM40/60 COVER for standalone cover. Derate output power by 20% with cover. The cover is not suitable for Class II installations. For ECS100 forced-cooled output requires 10CFM.

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**VCS50-100**

50-100 Watts

- Chassis Mount Industrial Supplies
- Single Outputs from 5 to 48VDC
- -25 °C to +70 °C Convection-cooled
- Class B Conducted & Radiated Emissions
- Screw Terminals
- <0.5W No Load Input Power
- Low Cost

**Dimensions:**
- VCS50: 4.35 x 3.07 x 1.38 in (110.5 x 78.0 x 35.0 mm)
- VCS70: 5.12 x 3.88 x 1.61 in (130.0 x 98.5 x 41.0 mm)
- VCS100: 6.26 x 3.87 x 1.65 in (159.0 x 98.2 x 42.0 mm)

**Notes:**
Add suffix ‘-HK- to receive with optional heat-sink fitted.

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**ASB110**

110 Watts

- Complete AC-DC Power Supply
- AC Input Range 85 to 264VAC
- Baseplate-cooled
- No Extra Components Required
- -40 to +85 °C Baseplate Temperature
- Low Profile in Full Brick Package
- High Efficiency - up to 91%
- <0.3W No Load Input Power
- Optional Heatsink Available
- 3 Year Warranty

**Dimensions:**
- ASB110: 4.6 x 2.4 x 0.67 in (116.8 x 61 x 17 mm)

**Notes:**
Add suffix ‘-HK- to receive with optional heat-sink fitted.
AC-DC Power Supplies

ECP130
130 Watts
- 100W Convection-cooled
- 130W Forced-cooled
- 3” x 2” Footprint
- Low 1.1” Profile
- High Efficiency - up to 95%
- ITE & Medical (2 x MOPP) Approvals
- <0.5W No Load Input Power
- 3 Year Warranty

Dimensions:
ECP130: 3.00 x 2.00 x 1.10 in (76.2 x 50.8 x 28.0 mm)

Notes:
- Add suffix ‘-S’ for input and output screw terminals e.g. ECP130PS24-S.
- Forced-cooled output requires 10CFM.

ECS130
130 Watts
- 100W Convection-cooled
- 130W Forced-cooled
- Industry Standard 4” x 2” Footprint
- ITE & Medical (2 x MOPP) Approvals
- Class I & Class II Installations
- <0.5W No Load Input Power
- Low Leakage Current
- 3 Year Warranty

Dimensions:
ECS130: 4.00 x 2.00 x 1.28 in (101.6 x 50.8 x 32.5 mm)

Notes:
- For covered versions, add suffix ‘-C’ to model number or order part no. ECM40/60 COVER for standalone cover, see derating curve. The cover is not suitable for Class II installations. Forced-cooled output requires 10CFM.

EPL150
150 Watts
- 100W Convection-cooled
- 150W Forced-cooled
- 4” x 2” Footprint
- Low 0.99” Profile
- Class I & Class II Operation
- 12V Fan Output
- High Efficiency - up to 95%
- ITE and Medical (BF) Approvals
- 3 Year Warranty

Dimensions:
EPL150: 4.00 x 2.00 x 0.99 in (101.6 x 50.8 x 25.1 mm)

Notes:
- Forced-cooled output requires 10CFM.
ECP150
150 Watts

- 100W Convection-cooled
- 150W Forced-cooled
- Low Profile Design
- Industry Standard 4” x 2” Footprint
- ITE & Medical (2 x MOPP) Approvals
- Output Voltages from 12 to 48VDC
- <0.5W No Load Input Power
- 12V Fan Output
- 3 Year Warranty

Dimensions:
ECP150: 4.00 x 2.00 x 1.16 in (101.6 x 50.8 x 29.5 mm)

Notes:
Forced-cooled output requires 10CFM.

RCL175
175 Watts

- 200W Peak Rating
- Up to 120W Convection-cooled
- Single, Dual, Triple & Quad Outputs
- ITE & Medical Approvals
- Class I & Class II Installations
- Connector & Mechanical Options
- 3 Year Warranty

Dimensions:
RCL175 (Open-frame): 5.50 x 3.70 x 1.38 in (139.7 x 93.9 x 34.9 mm)
RCL175 (U-channel): 5.71 x 3.90 x 1.50 in (145.0 x 99.0 x 38.1 mm)

Notes:
Standard is open frame. For U-channel version, add suffix ‘-U’. For U-channel & cover, add suffix ‘-C’. For U-channel & fan cover, add suffix ‘-F’. For screw terminals, add suffix ‘-S’. Outputs 3 & 4 are floating, they can be connected externally for positive or negative output. Forced-cooled output requires 10CFM.

ECP180
180 Watts

- 120W Convection-cooled
- 180W Forced-cooled
- Low 1” Profile with 4” x 2” Footprint
- Very High Efficiency - up to 95%
- ITE & Medical (2 x MOPP) Approvals
- Class I & Class II Installations
- 12V Fan Output
- <0.5W No Load Input Power
- 3 Year Warranty

Dimensions:
ECP180: 4.00 x 2.00 x 1.00 in (101.6 x 50.8 x 25.4 mm)

Notes:
Forced-cooled output requires 10CFM.
AC-DC Power Supplies

GCS150-180
150-180 Watts

- Convection & Forced-cooled Ratings
- ITE & Medical (2 x MOPP) Approvals
- Class I & Class II Installations
- ≤0.5W Standby Power
- 12V Fan Output
- -40°C to +70°C Operation
- Remote On/Off
- 3 Year Warranty

Dimensions:
GCS150/GCS180:
5.00 x 3.00 x 1.42 in (127.0 x 76.2 x 36.3 mm)
(-C): 5.50 x 3.48 x 1.70 in (139.7 x 88.5 x 43.2 mm)
(-TF): 5.50 x 3.48 x 2.20 in (139.7 x 88.5 x 57.8 mm)
(-EF): 6.35 x 3.48 x 1.70 in (161.3 x 88.5 x 43.2 mm)

Notes:
12V/0.6A fan supply available on open frame & -C versions. For convection-cooled cover, add suffix ‘-C’. For fan-cooled cover with end fan, add suffix ‘-EF’. For fan-cooled cover with top fan, add suffix ‘-TF’.
For remote on/off, add suffix ‘-R’. Forced-cooled output requires 7CFM.

Power Output Voltage | Output Current | Model
--- | --- | ---
150 W | 12.0 VDC | 9.2 A | 12.5 A | GCS150PS12
150 W | 15.0 VDC | 7.3 A | 10.0 A | GCS150PS15
150 W | 24.0 VDC | 4.6 A | 6.3 A | GCS150PS24
150 W | 28.0 VDC | 3.9 A | 5.4 A | GCS150PS28
150 W | 48.0 VDC | 2.3 A | 3.2 A | GCS150PS48
180 W | 12.0 VDC | 12.5 A | 15.0 A | GCS180PS12
180 W | 15.0 VDC | 10.0 A | 12.0 A | GCS180PS15
180 W | 24.0 VDC | 6.3 A | 7.5 A | GCS180PS24
180 W | 28.0 VDC | 5.4 A | 6.4 A | GCS180PS28
180 W | 48.0 VDC | 3.1 A | 3.7 A | GCS180PS48

UCP180
180 Watts

- 120W Convection-cooled
- 180W Forced-cooled
- Low 1.18” Profile U-channel Construction
- -40°C to +70°C Operation
- 4.3” x 2.5” Footprint
- 12V Fan Output
- ITE & Medical (BF) Approvals
- High Efficiency, up to 95%
- 3 Year Warranty

Dimensions:
UCP180:
4.24 x 2.47 x 1.16 in (107.6 x 62.8 x 29.5 mm)
UCP180-C:
4.24 x 2.47 x 1.40 in (107.6 x 62.8 x 35.5 mm)

Notes:
Add suffix ‘-T’ for input and output screw terminals, e.g. UCP180PS24-T.
Add suffix ‘-C’ for vented cover version, e.g. UCP180PS24-C. Forced-cooled output requires 10CFM.

Power Output Voltage | Output Current | Model
--- | --- | ---
180 W | 12.0 VDC | 10.0 A | 15.0 A | UCP180PS12
180 W | 15.0 VDC | 8.0 A | 12.0 A | UCP180PS15
180 W | 18.0 VDC | 6.67 A | 10.0 A | UCP180PS18
180 W | 24.0 VDC | 5.00 A | 7.50 A | UCP180PS24
180 W | 28.0 VDC | 4.30 A | 6.43 A | UCP180PS28
180 W | 36.0 VDC | 3.33 A | 5.00 A | UCP180PS36
180 W | 48.0 VDC | 2.50 A | 3.75 A | UCP180PS48

CCB200
200 Watts

- 200W Convection-cooled
- Industry Standard 5” x 3” Footprint
- Very Low Heat Dissipation
- ITE & Medical (BF) Approvals
- +70°C Full Power Operation
- Very High Efficiency - up to 95%
- Inhibit & Power Fail Signals
- Optional 5V/0.5A Standby (-A)
- 3 Year Warranty

Dimensions:
CCB200/CCB200-A:
5.00 x 3.00 x 1.43 in (127.0 x 76.2 x 36.3 mm)
CCB200/CCB200-C/CCB200/-AC:
5.50 x 3.48 x 1.75 in (139.7 x 88.5 x 44.4 mm)

Notes:
For covered version add suffix ‘-C’ to model number e.g. CCB200PS12-C.
Add suffix ‘-A’ for 5V standby option, or ‘-AC’ for standby and cover options combined.

Power Output Voltage | Output Current | Model
--- | --- | ---
200 W | 12.0 VDC | 16.7 A | CCB200PS12
200 W | 15.0 VDC | 13.3 A | CCB200PS15
200 W | 24.0 VDC | 8.3 A | CCB200PS24
200 W | 28.0 VDC | 7.1 A | CCB200PS28
200 W | 48.0 VDC | 4.2 A | CCB200PS48
200 W | 56.0 VDC | 3.6 A | CCB200PS56
### ECP225-A

**225 Watts**

- 150W Convection-cooled
- 225W Forced-cooled
- Low 1” Profile
- High Power Density
- 5” x 3” Footprint
- 5V/2A Standby & 12V Fan Outputs
- Remote On/Off
- ITE & Medical (2 x MOPP) Approvals
- High Efficiency - up to 94%
- <0.5W No Load Input Power
- 3 Year Warranty

**Dimensions:**
- ECP225-A: 5.00 x 3.00 x 1.00 in (127.0 x 76.2 x 25.4 mm)
- ECP225: 5.00 x 2.50 x 1.00 in (127.0 x 63.5 x 25.4 mm)

**Notes:**
For optional 2.5 x 5” version without 5V standby & remote on/off, remove ‘-A’ suffix, e.g. ECP225PS12. Forced-cooled output requires 10CFM.

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
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<td>48.0 VDC</td>
<td>4.69 A</td>
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</tbody>
</table>

### EPL225

**225 Watts**

- 150W Convection-cooled
- 225W Forced-cooled
- 4” x 2” Footprint
- Low 1.26” Profile
- 12V Fan Output
- Very High Efficiency - up to 95%
- ITE & Medical (2 x MOPP) Approvals
- <0.5W No Load Input Power
- 3 Year Warranty

**Dimensions:**
- EPL225: 4.00 x 2.00 x 1.26 in (101.6 x 50.8 x 32.3 mm)

**Notes:**
Forced-cooled output requires 10CFM.

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
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<td>225 W</td>
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<td>4.69 A</td>
<td>EPL225PS48</td>
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</table>

### UCP225

**225 Watts**

- 150W Convection-cooled
- 225W Forced-cooled
- Low 1.18” Profile U-channel Construction
- -40 °C to +70 °C Operation
- 5.0” x 3.12” Footprint
- Optional 5V/2A Standby & Remote On/Off
- 12V Fan Output
- ITE & Medical (2 x MOPP) Approvals
- Very High Efficiency - up to 95%
- <0.5W No Load Input Power
- 3 Year Warranty

**Dimensions:**
- UCP225: 5.00 x 3.12 x 1.18 in (127.0 x 79.2 x 29.2 mm)

**Notes:**
Forced-cooled output requires 10CFM, excluding ‘-TF’ versions. Add suffix -T for input and output screw terminals e.g. UCP225PS24-T. Add suffix -C for vented cover version e.g. UCP225PS24-C. Add suffix -A for optional 5V, 2A standby and remote on/off e.g. UCP225PS24-A.

<table>
<thead>
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<th>Output Current</th>
<th>Model</th>
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</table>
AC-DC Power Supplies

CCM250
250 Watts

- 250W Convection-cooled
- 300W Peak Rating for 500 ms
- Very High Efficiency - up to 95%
- Class B Conducted & Radiated Emissions
- 80 - 275VAC Operation
- ITE & Medical (2 x MOPP) Approvals
- 5V/0.5A Standby Output
- 3 Year Warranty

Dimensions:
CCM250: 6.00 x 4.00 x 1.54 in (152.4 x 101.6 x 39.1 mm)

Notes:
Peak duration is 500ms max, average power must not exceed 250W.

CHD250
250 Watts

- 250W Convection-cooled
- Industry Standard 5" x 3" Footprint
- 5V/0.5A Standby Output (Optional)
- <0.5W Standby Power
- ITE & Medical (BF) Approvals
- Power Fail & Inhibit Signals
- 80-300VAC Input
- 3 Year Warranty

Dimensions:
CHD250: 5.00 x 3.00 x 1.43 in (115 x 76 x 36.3 mm)
CHD250-C: 5.50 x 3.48 x 1.75 in (139.7 x 88.5 x 44.4 mm)

Notes:
Add suffix ‘-C’ for cover version e.g. CHD250PS24-C (derating will be applicable). Add suffix ‘-A’ for 5V standby option or ‘-AC’ for standby and cover options combined, (derating will be applicable).

CMP250
250 Watts

- 250W Convection-cooled
- 500W Peak Power Up To 1 Minute
- ITE & Medical (BF) Approvals
- U-channel 7.5" x 4" Package
- Constant Current Overload Protection
- 5V/1.5A Standby & Signals Set
- 3 Year Warranty

Dimensions:
CMP250: 7.50 x 4.00 x 1.57 in (190.5 x 101.6 x 39.9 mm)
CMP250-C: 7.89 x 4.12 x 1.92 in (200.5 x 104.6 x 48.8 mm)

Notes:
Add suffix ‘-C’ for covered version, e.g. CMP250PS24-C (20% derating applies). Peak current/power available for up to 1 minute. Average power must not exceed 225W, other peak and average load conditions can be accommodated, limited by the thermal considerations and average power rating. Peak power and average power derate below 90VAC.
GCS265
265 Watts

- 180W Convection-cooled
- 265W Forced-cooled
- 5V/3A Standby Output
- ITE & Medical (2 x MOPP) Approvals
- Class I & Class II Installations
- -40° C to +70° C Operation
- Power Fail & Remote On/Off
- 3 Year Warranty

Dimensions:
GCS265: 5.00 x 3.50 x 1.43 in (127.0 x 88.8 x 36.3 mm)
GCS265-C: 5.50 x 4.01 x 1.72 in (139.7 x 101.8 x 43.7 mm)

Notes:
To order power supply with optional cover fitted add suffix ‘-C’ to model number, e.g. GCS265PS24-C. To order power supply with optional top fan cover fitted add suffix ‘-TF’ to model number, e.g. GCS265PS24-TF. To order power supply with optional end fan cover fitted add suffix ‘-EF’ to model number, e.g. GCS265PS24-EF. Forced-cooled output requires 7CFM.

Power Output Voltage | Output Current Conv. | Forced | Model
--- | --- | --- | ---
265 W | 12.0 VDC | 15.0 A | 20.8 A | GCS265PS12
265 W | 15.0 VDC | 12.0 A | 16.7 A | GCS265PS15
265 W | 24.0 VDC | 7.5 A | 10.4 A | GCS265PS24
265 W | 28.0 VDC | 6.4 A | 8.9 A | GCS265PS28
265 W | 48.0 VDC | 3.7 A | 5.2 A | GCS265PS48

GCS250-350
250-350 Watts

- Convection-cooled & Forced-cooled Ratings
- Industry Standard 5” x 3” Footprint
- ITE & Medical (2 x MOPP) Approvals
- Class I & Class II Installations
- -40° C to +70° C Operation
- Remote On/Off
- Class B Emissions
- 3 Year Warranty

Dimensions:
GCS250/350: 5.00 x 3.00 x 1.42 in (127.0 x 76.2 x 36.3 mm)
GCS250-C: 5.50 x 3.48 x 1.70 in (139.7 x 88.5 x 43.2 mm)
GCS250-TF: 5.50 x 3.48 x 2.20 in (139.7 x 88.5 x 57.8 mm)
GCS250-ES: 6.00 x 3.48 x 1.70 in (152.4 x 88.5 x 43.2 mm)
GCS250-ES-EF: 6.35 x 3.48 x 1.70 in (161.3 x 88.5 x 43.2 mm)

Notes:
Add suffix ‘-C’ for convection cooled cover, e.g. Add suffix ‘-EF’ for fan cooled cover with end fan. Add suffix ‘-TF’ for fan cooled cover with top fan. Add suffix ‘-R’ for remote on/off. Add suffix ‘-J’ for optional dual row molex connector. Add suffix ‘-S’ for optional screw terminals. Forced-cooled output requires 7CFM for 250W and 15CFM for 350W.

Power Output Voltage | Output Current Conv. | Forced | Model
--- | --- | --- | ---
250 W | 12.0 VDC | 15.0 A | 18.8 A | GCS250PS12
250 W | 15.0 VDC | 12.0 A | 15.0 A | GCS250PS15
250 W | 24.0 VDC | 7.5 A | 10.4 A | GCS250PS24
250 W | 28.0 VDC | 6.4 A | 8.9 A | GCS250PS28
250 W | 56.0 VDC | 3.2 A | 4.5 A | GCS250PS56
250 W | 12.0 VDC | 16.7 A | 29.2 A | GCS250PS12
250 W | 15.0 VDC | 13.3 A | 23.4 A | GCS250PS15
250 W | 24.0 VDC | 8.3 A | 14.6 A | GCS250PS24
250 W | 28.0 VDC | 7.1 A | 12.5 A | GCS250PS28
250 W | 48.0 VDC | 4.2 A | 7.3 A | GCS250PS48
250 W | 56.0 VDC | 3.6 A | 6.25 A | GCS250PS56

SMP350
350 Watts

- Rugged Construction
- -40 °C to +70 °C Operation
- Screw Terminal Connections
- High Efficiency
- Remote On/Off
- Low Leakage Current <300 µA Optional
- Class B Emissions
- 3 Year Warranty

Dimensions:
SMP350: 7.0 x 3.6 x 1.7 in (177.8 x 91.4 x 43.1 mm)

Notes:
For reduced leakage current medical versions (<300µA) contact sales.

Power Lo/Hi Line | Output Voltage | Output Current Lo/Hi Line | Model
--- | --- | --- | ---
300/300 W | 12.0 VDC | 25.00/25.00 A | SMP350PS12
310/330 W | 15.0 VDC | 20.70/22.00 A | SMP350PS15
320/350 W | 18.0 VDC | 17.80/19.40 A | SMP350PS18
330/350 W | 24.0 VDC | 13.75/14.60 A | SMP350PS24
330/350 W | 28.0 VDC | 11.80/12.50 A | SMP350PS28
330/350 W | 36.0 VDC | 9.70/9.70 A | SMP350PS36
330/350 W | 48.0 VDC | 7.30/7.30 A | SMP350PS48
AC-DC Power Supplies

**CCL400**

*400 Watts*

- 400W Convection-cooled
- 94% Efficiency
- 5V/0.5A Standby Output
- <1W Standby Power
- ITE & Medical Approvals
- Power Fail & Inhibit Signals
- Conduction Cooling For High Temp. Operation
- 70 °C Full Power Operation
- 3 Year Warranty

**Dimensions:**

CCL400: 7.00 x 3.95 x 1.57 in (178 x 100 x 40 mm)
CCL400-C: 7.39 x 4.04 x 1.92 in (189.9 x 107.3 x 48.9 mm)

**Notes:**
Add suffix ‘-C’ for cover version e.g. CCL400PS24-C. Add suffix ‘-S’ for a right angled input screw terminal connector e.g. CCL400PS24-S or CCL400PS24-CS.

**Power** | **Output Voltage** | **Output Current** | **Model**
--- | --- | --- | ---
400 W | 12.0 VDC | 33.3 A | CCL400PS12
400 W | 24.0 VDC | 16.6 A | CCL400PS24
400 W | 30.0 VDC | 13.3 A | CCL400PS30
400 W | 48.0 VDC | 8.3 A | CCL400PS48

---

**FCM400**

*400 Watts*

- 400W Continuous, 600W Peak
- ITE & Medical Approvals
- 80 - 275VAC Operation
- Low Noise Fan
- Screw Terminals
- 5V/0.5A Standby Output, AC OK
- Remote On/Off
- 3 Year Warranty

**Dimensions:**

FCM400: 6.00 x 4.00 x 1.93 in (152.4 x 101.6 x 49.0 mm)

**Notes:**
Peak Output Power - The peak duration is 500ms maximum, average power must not exceed 400W.

**Power** | **Output Voltage** | **Output Current** | **Model**
--- | --- | --- | ---
400 W | 12.0 VDC | 33.3 A | FCM400PS12
400 W | 15.0 VDC | 26.6 A | FCM400PS15
400 W | 24.0 VDC | 16.6 A | FCM400PS24
400 W | 28.0 VDC | 14.2 A | FCM400PS28
400 W | 36.0 VDC | 11.1 A | FCM400PS36
400 W | 48.0 VDC | 8.3 A | FCM400PS48

---

**GCU500**

*500 Watts*

- 250W Convection-cooled
- 500W Forced-cooled
- 5 V/0.2A Standby Output
- ITE & Medical (2 x MOPP) Approvals
- -40° C to +70° C Operation
- Power Fail & Remote On/Off
- Optional End Fan Version
- 3 Year Warranty

**Dimensions:**

GCU500: 6.50 x 3.30 x 1.55 in (165.1 x 83.8 x 39.3 mm)
GCU500-EF: 8.24 x 3.30 x 1.64 in (209.3 x 83.8 x 41.7 mm)

**Notes:**
Forced-cooled output requires 10CFM. For end fan version add suffix ‘-EF’ to model number.

**Power** | **Output Voltage** | **Output Current** | **Model**
--- | --- | --- | ---
500 W | 12.0 VDC | 20.8 A | GCU500PS12
500 W | 15.0 VDC | 16.7 A | GCU500PS15
500 W | 18.0 VDC | 12.5 A | GCU500PS18
500 W | 24.0 VDC | 10.4 A | GCU500PS24
500 W | 36.0 VDC | 6.9 A | GCU500PS36
500 W | 48.0 VDC | 5.2 A | GCU500PS48
XP Power

**GSP500**

500 Watts

- Convection-cooled & Forced-cooled Ratings
- Compact Size
- Universal 80 to 264VAC Input
- ITE & Medical (2 x MOPP) Approvals
- < 0.5W No Load Input Power
- -40° C to +70° C Operation
- Remote On/Off & Remote Sense
- 5V/2A Standby Output
- 3 Year Warranty

**LCL150-500**

150-500 Watts

- Single Output Industrial Supplies
- High Efficiency
- Low Cost
- 150W Convection-cooled
- 300W & 500W with Internal Fans
- Screw Terminal Connections
- Outputs from 12V to 48V
- 3 Year Warranty

**CCH400-600**

400/600 Watts

- Baseplate-cooled
- High Efficiency
- -40° C to +85° C Operation
- Industrial & MIL-STD-461E EMC Compliance
- Power Fail & Inhibit
- Overtemperature Protection & Current Share
- 5V/0.5A Standby Output
- 3 Year Warranty

---

**Dimensions:**

GSP500: 6.71 x 4.00 x 1.65 in (170.4 x 101.6 x 41.91 mm)

LCL150: 7.55 x 3.74 x 1.97 in (192.0 x 95.0 x 50.0 mm)

LCL300: 8.07 x 4.33 x 1.97 in (205.0 x 110.0 x 50.0 mm)

LCL500: 9.84 x 5.00 x 2.08 in (250.0 x 127.0 x 53.0 mm)

CCH400/600: 8.43 x 4.02 x 1.69 in (214.0 x 102.0 x 43.0 mm)

---

**Notes:**

- Remove suffix ‘-EF’ (End Fan) for use with integral system cooling (12CFM).
- Peak power available for 100ms maximum with a 10% duty cycle. The average power in a period should be equal or less than the normal power.
- For optional current share version, add suffix ‘P’, e.g. GSP500PS24P or GSP500PS24PEF.
AC-DC Power Supplies

HHP650
650 Watts

- 1000W Peak Power Rating
- 85 to 305VAC Input
- MIL-STD-810F Shock & Vibration
- -40 °C to +70 °C Operation
- SEMI F47 Compliant
- 6kV Surge Rating - IEEE Std. C62.41
- UL508, ANSI/ISA 12.12.01 Class I, Div II
- Conformal Coating
- 3 Year Warranty

Dimensions:
HHP650: 9.99 x 4.20 x 2.50 in (253.8 x 106.8 x 63.5 mm)

Notes:
Peak Power available for 10 seconds maximum with a 35% duty cycle.
The average power in a period should be equal or less than the nominal power.

GSP750
750 Watts

- 900W Peak Power Rating
- Universal 80 to 264VAC Input
- ITE & Medical (2 x MOPP) Approvals
- 1W Standby Power
- -40 °C to +70 °C Operation
- Remote On/Off, Remote Sense & Current Share
- Intelligent Fan Speed Control
- 5V/3A Standby Output
- Power Fail
- 3 Year Warranty

Dimensions:
GSP750: 10.0 x 4.0 x 1.65 in (254.0 x 101.6 x 41.91 mm)

Notes:
Peak power available for 100ms maximum with a 10% duty cycle. The average power in a period should be equal to or less than the nominal power.

MHP650-1000
650-1200 Watts

- Medical (2 x MOPP) Approvals
- Variable Fan Speed for Noise Reduction
- -20 °C to +70 °C Operation
- AC OK
- Remote On/Off
- Active Current Share
- 5V/0.2A Standby Output
- 3 Year Warranty

Dimensions:
MHP650-EF: 9.18 x 4.00 x 2.50 in (233.2 x 101.6 x 63.5 mm)
MHP650-TF: 8.00 x 4.00 x 2.58 in (203.2 x 101.6 x 65.5 mm)
MHP1000: 9.55 x 5.90 x 2.40 in (242.6 x 149.8 x 61.0 mm)

Notes:
MHP650: For top fan version replace ‘-EF’ in model number with ‘-TF’.
For U-channel version remove suffix. U-channel models require a minimum of 5.5 m/s airflow from the system.
**SHP350-1000**

350-1200 Watts

- Rugged Construction
- Variable Fan Speed for Noise Reduction
- -40 °C to +70 °C Operation
- AC OK & Remote On/Off
- Active Current Share
- 5V/0.2A Standby
- Screw Terminals
- 3 Year Warranty

<table>
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<tr>
<th>Model</th>
<th>Power Cont.</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
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</table>

**Dimensions:**

SHP350: 7.06 x 3.60 x 2.10 in (179.3 x 101.6 x 53.3 mm)
SHP650-ES: 9.18 x 4.00 x 2.50 in (233.2 x 101.6 x 63.5 mm)
SHP650-TF: 8.00 x 4.00 x 2.58 in (203.2 x 101.6 x 65.5 mm)
SHP1000: 9.55 x 5.90 x 2.40 in (242.6 x 149.8 x 61.0 mm)

**Notes:**
- Replace suffix ‘-EF’ with ‘-TF’ for top fan (650W).
- Peak power available for 10s with 35% duty cycle (350W).

**GFR1K5**

1500 Watts

- 1U Blind-Mate, Hotswap, Redundant
- IPC Interface
- 56V Power Over Ethernet Compatible
- 5V/1A Standby Output
- Progam, Monitor
- AC OK & DC OK
- Inhibit, Enable
- Current Share
- Up to 6kW in 1U (Rack Available)
- 3 Year Warranty

<table>
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<tr>
<th>Model</th>
<th>Power</th>
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</table>

**Dimensions:**

GFR1K5: 11.80 x 4.00 x 1.70 in (299.7 x 101.6 x 43.3 mm)

**Notes:**
- A standard 1U 19" Rack is available which has space for 4 GFR’s (6 kW) along with I/O connections for power, signals & control. The standard rack is easily customized to suit customer specific requirements. Consult sales for full information.
HPD1K5

1500 Watts

- Low Profile for 1U Applications
- Wide Range Adjustable Output, 0 - 29VDC
- Variable Fan Speed To Reduce Noise
- -20 °C to +70 °C Operation
- AC OK, Inhibit & 5V/1A Standby Output
- Remote Sense
- Current Share
- Fault Signals & Overtemperature Signals
- SEMI F47 Compliant
- 3 Year Warranty

Dimensions:
HPD1K5: 12.75 x 4.00 x 1.70 in (323.9 x 101.6 x 43.2 mm)

Notes:
Power limited to 1500W or 62.5A.

HPU1K5

1500 Watts

- Low Profile for 1U Applications
- Medical Safety Approvals (-M Versions)
- Variable Fan Speed To Reduce Noise
- -20 °C to +70 °C Operation
- AC OK & DC OK
- Inhibit & 5V/0.2A Standby Output
- Remote Sense
- Current Share
- Fault & Overtemperature Signals
- SEMI F47 Compliant
- 3 Year Warranty

Dimensions:
HPU1K5: 14.40 x 4.00 x 1.70 in (365.8 x 101.6 x 43.2 mm) including connector

Notes:
For medical version, add suffix “-M” to model number.

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or from one of our many authorised global distributors:

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### HDS800-3000

**800-3000 Watts**

- High Efficiency - up to 92%
- High Power Density
- Programmable Output Voltage (0-105%)
- Programmable Output Current (0-105%)
- I²C Interface
- Parallel Operation
- 5V/0.5A or 9V/0.3A Standby Output
- Fully Featured Signals & Controls
- 3 Year Warranty

#### Dimensions:

<table>
<thead>
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**Dimensions:**

- HD8000: 9.80 x 5.00 x 1.61 in (249.0 x 127.0 x 40.9 mm)
- HD15000: 12.32 x 2.50 x 5.00 in (294.5 x 63.5 x 127 mm)
- HD30000: 14.41 x 5.00 x 5.00 in (366 x 127 x 127 mm)

### HDL3000

**3000 Watts**

- High Efficiency - up to 93%
- High Power Density
- Programmable Output Voltage (0-105%)
- Programmable Output Current (0-105%)
- I²C Interface
- Parallel Operation
- 5V/0.5A or 9V/0.3A Standby Output
- Fully Featured Signals & Controls
- 3 Year Warranty

#### Dimensions:

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<th>Output Current</th>
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<td>50.0 A</td>
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**Dimensions:**

- HDL3000: 12.48 x 6.69 x 2.50 in (319.0 x 170.0 x 63.5 mm)
  including connectors
3 Phase Power Supplies

**HPD4K5**

4500 Watts

- 3 Phase 180 to 264VAC Input
- High Efficiency - up to 91%
- Programmable Output Voltage
- <40ms Slew Rate
- 5V/1A Standby Output
- Fully Featured Signals & Controls
- Intelligent Fan Speed Control
- I²C Interface
- SEMI F47 Compliant
- 3 Year Warranty

**Dimensions:**

HPD4K5: 15.0 x 4.25 x 6.5 in (381.0 x 107.95 x 165.1 mm)

**Output Voltage**

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<th>Output Voltage Min/Max</th>
<th>Iout Min/Max</th>
<th>Model</th>
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**HPT5K0**

5000 Watts

- 3 Phase 180 to 528VAC Input
- High Efficiency - up to 94%
- Programmable Output Voltage (0-105%)
- Programmable Output Current (0-110%)
- <40ms Slew Rate
- Analog & Digital Interfaces
- Multiple Digital Protocols
- Fully Featured Signal & Controls
- Parallel Operation
- Graphical User Interface (GUI)
- 3 Year Warranty

**Dimensions:**

HPT5K0: 13.0 x 5.00 x 5.00 in (330.2 x 127.0 x 127.0 mm)

**Output Voltage**

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<th>Output Current Min/Max</th>
<th>Model</th>
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**Notes:**

Standard models include PMBus, CANopen and RS485 interfaces. To replace RS485 with RS232 add suffix ‘-S’. To replace RS485 with UART add suffix ‘-U’. For medical applications with 4000VAC isolation test add suffix ‘-M’. Installation Class 3 surge only. Derate to 3kW for 180-264VAC input.
nanofleX
1200 Watts

- Configurable Power Supply
- Low Profile for 1U Applications
- 850/1200W at Low/High Line
- I²C Interface
- User Adjustable Voltage, Current & Signal Levels
- Graphical User Interface (GUI)
- Output Voltages from 3.3 to 60V
- ITE & Medical (2 x MOPP) Approvals
- Module Power up to 300W
- Parallel Options for Increased Versatility
- Optional Reverse Air Flow with No Derating
- Fully Featured Signals & Controls
- 3 Year Warranty

Front End Designation
Model | 115 V | 230 V | Slots
N12   | 850 W | 1200 W | 4

Module Designation
Voltage | Current | Power | Slots | Code
3.3 VDC | 40.00 A | 132 W | 1 | A
Blank Plate | 1 | B
5.0 VDC | 40.00 A | 200 W | 1 | C
5.2 VDC | 38.50 A | 200 W | 1 | D
5.5 VDC | 36.40 A | 200 W | 1 | E
8.0 VDC | 20.80 A | 166 W | 1 | F
10.0 VDC | 20.80 A | 208 W | 1 | G
12.0 VDC | 20.80 A | 250 W | 1 | H
14.0 VDC | 17.90 A | 250 W | 1 | I
15.0 VDC | 16.70 A | 250 W | 1 | J
18.0 VDC | 12.50 A | 225 W | 1 | K
20.0 VDC | 12.50 A | 250 W | 1 | L
24.0 VDC | 12.50 A | 300 W | 1 | M
28.0 VDC | 10.70 A | 300 W | 1 | N
30.0 VDC | 10.00 A | 300 W | 1 | O
33.0 VDC | 9.09 A | 300 W | 1 | P
36.0 VDC | 8.33 A | 300 W | 1 | Q
48.0 VDC | 6.25 A | 300 W | 1 | R
54.0 VDC | 5.56 A | 300 W | 1 | S
60.0 VDC | 5.00 A | 300 W | 1 | T

Parallel Option Codes
Code | Description
00 | No parallel required
12 | Parallel module 1 & 2 from right
13 | Parallel modules 1 to 3 from right
14 | Parallel modules 1 to 4 from right
22 | Parallel module 1 & 2, 3 & 4

Option Codes
Code | Description
A00 | No options
A01 | Fan fail signal
A02 | Reverse air
A03 | Faston O/P connections
A04 | IEC inlet

Combined Option Codes
Code | Description
C01 | A01-02
C02 | A01 & 03
C03 | A01 & 04
C04 | A01-03
C05 | A01-02 & 04
C06 | A01-04
C07 | A02-03
C08 | A02 & 04
C09 | A02-04
C10 | A03-04
C11 | A01 & A03 & A04

Examples
1. 5V at 80A, 12V at 12A with no options: N12-CCHB-12A00

2. 24V at 10A, 48V at 18A with optional IEC Inlet: N12-RRRM-13A04
**Configurable Power Supplies**

**fleXPowers**

400-2500 Watts

- Configurable For Fast Time To Market
- Flexible Series & Parallel Capability
- 3 Phase Input Versions
- ITE & Medical (2 x MOPP) Approvals
- -20 °C to +70 °C Operation
- Variable Speed Fans (Optional)
- 1-14 Outputs
- Fully Featured Signals and Controls
- 3 Year Warranty

---

**Chassis Ratings**

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<th>Ppk</th>
<th>Slots</th>
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**Dual Output - Module Voltage/Current Rating**

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**Notes:**
1. Total power for dual output module must not exceed 175W max.
2. Module includes global inhibit & DC OK.
3. *No minimum load needed on output 1 for regulation.

---

**Signals**

- Global AC OK/Power Fail
- Global DC OK
- Global Inhibit
- Fan Fail
- Module DC OK
- Module Inhibit
- Current Share

---

**Dimensions:**

- **fleXPowers:**
  - X4/XM4/X5/XM5/X7/XM7:
    - 10.00 x 6.00 x 2.50 in (254.0 x 152.4 x 63.5 mm)
  - X9/XM9:
    - 10.00 x 6.00 x 2.50 in (254.0 x 152.4 x 63.5 mm)
  - X10/XM10:
    - 10.00 x 7.00 x 2.50 in (254.0 x 177.8 x 63.5 mm)
  - X15/XM15:
    - 11.0 x 6.00 x 5.00 in (279.4 x 152.4 x 127.0 mm)
  - XTL15/XT16 (3 Phase):
    - 11.00 x 7.00 x 2.50 in (279.4 x 177.8 x 63.5 mm)
  - XTL30 (3 Phase):
    - 12.50 x 5.00 x 5.00 in (317.5 x 127.0 x 127.0 mm)
  - X400/XM400/X500/XM500/X1000/XM1000:
    - 10.00 x 5.20 x 5.00 in (254.0 x 132.1 x 127.0 mm)
  - X900/XM900:
    - 10.00 x 6.20 x 5.00 in (254.0 x 157.5 x 127.0 mm)
  - X1000/XM1000:
    - 10.00 x 7.00 x 5.00 in (254.0 x 177.8 x 127.0 mm)

---

**Notes:**
1. Peak power available for 10 seconds with 35% duty cycle.
2. Chassis includes 3V/1A standby supply, global inhibit, global DC OK & global AC OK.
3. For operation above +50 °C, derate linearily to 50% load at 70 °C.

---

**Configurations**

To configure your fleXPower unit, select the required output power and application type, then add up to seven modules (ten modules for X15, XM15 & XT30) that meet your output requirements. Please see the fleXPower datasheet at www.xppower.com to assist in your model number construction and further details of series and parallel options and signals.
DNR05-18
5-18 Watts
• AC Input Range 90 to 264VAC
• DC Input Range 120 to 375VDC
• High Efficiency
• Full Power to +60 °C
• ANSI/ISA 12.12.01 Class 1, Division 2
• Wide Adjustment Range
• 3 Year Warranty

Dimensions:
DNR05/10/18:
3.48 x 0.89 x 4.53 in (88.5 x 22.5 x 115.0 mm)

Notes:
Add suffix ‘-S’ for spring clamp connection option.

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<thead>
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<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
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DDC15-40
15-40 Watts
• 4:1 DC Input Range 9 to 36VDC (15/30W)
• 3:1 DC Input Range 10 to 32VDC (40W)
• Single Outputs From 3.3 to 24VDC
• Low Profile Design
• -40 °C to +70 °C Ambient Operation
• 1500 VDC Isolation
• High Efficiency
• 3 Year Warranty

Dimensions:
DDC15: 3.58 x 0.71 x 2.22 in (91.0 x 18.0 x 56.5 mm)
DDC30: 3.58 x 1.38 x 2.22 in (91.0 x 35.0 x 56.5 mm)
DDC40: 3.58 x 2.09 x 2.22 in (91.0 x 53.0 x 56.5 mm)

Notes:
Input voltage range is nominal 24V.

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<th>Output Current</th>
<th>Model</th>
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<td>6.00 A</td>
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<td>4.00 A</td>
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DPC30-70
30-70 Watts
• AC Input Range 85 to 264VAC
• Ultra Slim Design
• -25 °C to +70 °C Ambient Operation
• High Efficiency
• Wide Output Adjustment Range
• 5V to 48V Nominal Outputs
• <0.5W No Load Input Power
• 3 Year Warranty

Dimensions:
DPC30: 3.6 x 0.89 x 3.94 in (90.0 x 22.5 x 100.0 mm)
DPC30: 3.6 x 1.18 x 3.94 in (90.0 x 30.0 x 100.0 mm)
DPC70: 3.6 x 1.59 x 3.94 in (90.0 x 40.5 x 100.0 mm)

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<th>Output Current</th>
<th>Model</th>
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<td>1.25 A</td>
<td>DPC30US24</td>
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<td>35 W</td>
<td>5.0 VDC</td>
<td>7.0 A</td>
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<td>50 W</td>
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<td>66 W</td>
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<td>72 W</td>
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## DIN Rail Power Supplies

### DSR75-240

**75-240 Watts**

- AC Input Range 85 to 264VAC
- Ultra Slim Design
- 150% Peak Load for 3 seconds
- 12V-48V Nominal Outputs
- -25 °C to +70 °C Ambient Operation
- High Efficiency - up to 94%
- Parallel Function
- DC OK Signal
- 3 Year Warranty

<table>
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<th>Output Current</th>
<th>Model</th>
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<td>32.2 A</td>
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<td>16.6 A</td>
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<td>5.0 A</td>
<td>DSR120SPS24</td>
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<td>2.5 A</td>
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<td>240 W</td>
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<td>10.0 A</td>
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<tr>
<td>240 W</td>
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<td>5.0 A</td>
<td>DSR240SPS48</td>
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</table>

**Dimensions:**
- DSR75: 4.88 x 1.26 x 4.69 in (124.0 x 32.0 x 119.0 mm)
- DSR120: 4.88 x 1.26 x 4.69 in (124.0 x 32.0 x 119.0 mm)
- DSR240: 4.88 x 1.77 x 4.69 in (124.0 x 45.0 x 119.0 mm)

**Notes:**
- Peak load is for a maximum of 3s, see datasheet for more details.
- Average power is not to exceed nominal output power.

### DNR120-480

**120-480 Watts**

- AC Input Range 90 to 264VAC
- DC Input Range 120 to 375VDC
- High Efficiency
- 12-48V Nominal Outputs
- Wide Adjustment Range
- Parallel Function
- DC Standby Versions
- Full Power from -40 °C to +60 °C
- ANSI/ISA 12.12.01 Class 1, Division 2
- 3 Year Warranty

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
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<td>120 W</td>
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<td>5.0 A</td>
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<td>20.0 A</td>
<td>DNR480PS24-I</td>
</tr>
<tr>
<td>480 W</td>
<td>48.0 VDC</td>
<td>10.0 A</td>
<td>DNR480PS48-I</td>
</tr>
</tbody>
</table>

**Dimensions:**
- DNR120: 4.92 x 2.50 x 4.57 in (125.0 x 63.5 x 116.0 mm)
- DNR240: 4.92 x 3.27 x 4.39 in (125.0 x 83.0 x 111.3 mm)
- DNR480: 4.92 x 6.89 x 4.57 in (125.0 x 175.0 x 116.0 mm)

**Notes:**
- Add suffix ‘D’ for detachable connector option. For DC standby, remove ‘-I’ and add '#' to the end of the model number. Available for OEM quantities, contact sales.

### DNR120-960TS

**120-960 Watts**

- 3 Phase AC Input/340 to 575VAC
- DC Input Range 480-820VDC
- High Efficiency - up to 93%
- Wide Adjustment Range
- Full Power to +60 °C
- Single Phase Operation
- ANSI/ISA 12.12.01 Class 1, Division 2
- 3 Year Warranty

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
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<td>10.0 A</td>
<td>DNR120TS12</td>
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<td>20.0 A</td>
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<td>10.0 A</td>
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<td>960 W</td>
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<td>20.0 A</td>
<td>DNR960TS48-I</td>
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</table>

**Dimensions:**
- DNR120TS: 4.87 x 2.93 x 4.39 in (123.6 x 74.3 x 111.3 mm)
- DNR240TS: 4.87 x 3.50 x 4.39 in (123.6 x 89.0 x 111.3 mm)
- DNR480TS: 4.87 x 5.91 x 4.39 in (123.6 x 150.0 x 111.3 mm)
- DNR960TS: 4.96 x 10.86 x 4.39 in (125.9 x 275.7 x 111.3 mm)

**Notes:**
- Reduce load by 25% for single phase input operation, (340-575VAC).
### ACM06-36

**6 to 36 Watts**

- Energy Efficiency Level VI
- European CoC Tier 2
- ITE & Medical (2 x MOPP) Approvals
- 4th Edition Medical EMC
- Interchangeable Mains Connectors
- Optional White Case Versions
- Output Voltages from 5V to 36V
- Class II Construction
- 3 Years Warranty

#### Dimensions:

ACM06 (body only):
- 2.89 x 1.21 x 1.67 in (73.5 x 30.7 x 42.5 mm)
ACM12 (body only):
- 2.99 x 1.19 x 1.9 in (76.0 x 30.3 x 48.2 mm)
ACM18 (body only):
- 3.46 x 1.18 x 1.95 in (88.0 x 30.0 x 49.5 mm)
ACM24 (body only):
- 3.46 x 1.18 x 2.24 in (88.0 x 30.0 x 57.0 mm)
ACM36 (body only):
- 3.81 x 1.3 x 2.34 in (96.7 x 33.0 x 59.5 mm)

#### Power

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
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<td>6 W</td>
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<td>600 mA</td>
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<td>6 W</td>
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#### Notes:

Model number is for body only. AC input plugs must be ordered separately. Other output voltages available, contact sales for details. For white case version add suffix ‘-W’. MOQ applies, contact sales for details. For 5V version with optional USB type A connector in case, add suffix ‘-BB’ (ACM06 only).

---

### VEU10

**10 Watts**

- USB Power Adapter
- Energy Efficiency Level VI
- European CoC Tier 2
- Fixed Mains Connectors
- Universal Input
- Class II Construction
- Low Cost

#### Dimensions:

VEU (case only):
- US: 1.45 x 0.86 x 2.00 in (37.0 x 22.0 x 50.8 mm)
- EU: 1.45 x 0.86 x 2.20 in (37.0 x 22.0 x 56.5 mm)
- UK: 1.92 x 1.68 x 2.00 in (48.8 x 42.8 x 50.8 mm)
### External Power Supplies

**VEL05-36**  
5-36 Watts

- Energy Efficiency Level VI  
- European CoC Tier 2 (12-36W)  
- Barrel Jack & USB Versions  
- Fixed Mains Connectors  
- Universal Input  
- Output Voltages from 5V to 24V  
- Class II Construction  
- Low Cost

#### Dimensions:

**VEL05 (body only):**
- US: 2.17 x 0.95 x 1.40 in (55.1 x 24.1 x 35.49 mm)  
- EU: 2.17 x 0.95 x 1.40 in (55.1 x 24.1 x 35.49 mm)  
- UK: 2.17 x 1.95 x 1.69 in (55.1 x 49.5 x 42.9 mm)

**VEL12 (body only):**
- US: 2.99 x 1.16 x 1.73 in (76.0 x 29.5 x 43.87 mm)  
- EU: 2.99 x 1.16 x 1.55 in (76.0 x 29.5 x 39.37 mm)  
- UK: 2.99 x 1.95 x 1.69 in (76.0 x 49.5 x 42.9 mm)

**VEL18/24 (body only):**
- US: 3.54 x 1.34 x 1.87 in (90.0 x 34.0 x 47.5 mm)  
- EU: 3.54 x 1.34 x 2.26 in (90.0 x 34.0 x 57.57 mm)  
- UK: 3.54 x 1.95 x 1.96 in (90.0 x 49.5 x 50.0 mm)

**VEL30/36 (body only):**
- US: 3.70 x 1.38 x 2.55 in (94.0 x 35.0 x 64.8 mm)  
- EU: 3.70 x 1.95 x 2.11 in (94.0 x 49.6 x 53.6 mm)

### Power Output Table:

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 W</td>
<td>5.0 VDC</td>
<td>1000 mA</td>
<td>VEL05US050-XX-BB</td>
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<td>5 W</td>
<td>5.0 VDC</td>
<td>1000 mA</td>
<td>VEL05US050-XX-MB</td>
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<td>1000 mA</td>
<td>VEL05US050-XX-UB</td>
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<td>5 W</td>
<td>6.0 VDC</td>
<td>830 mA</td>
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<td>5 W</td>
<td>9.0 VDC</td>
<td>550 mA</td>
<td>VEL05US090-XX-JA</td>
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<td>5 W</td>
<td>12.0 VDC</td>
<td>420 mA</td>
<td>VEL05US120-XX-JA</td>
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<td>12 W</td>
<td>5.0 VDC</td>
<td>2100 mA</td>
<td>VEL12US050-XX-JA</td>
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<td>12 W</td>
<td>9.0 VDC</td>
<td>1280 mA</td>
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<td>1320 mA</td>
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<td>2400 mA</td>
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<td>24.0 VDC</td>
<td>1500 mA</td>
<td>VEL36US240-XX-JA</td>
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</tbody>
</table>

**Notes:**
- Replace ‘XX’ in model number with ‘US’ for US mains plug, ‘UK’ for UK mains plug or ‘EU’ for European mains plug. The VER05 5V output has the following formats available: USB ‘-BB’, Mini USB ‘-MB’ or Micro USB ‘-UB’. Other output voltages available, contact sales for details.
- Level V Energy Efficiency.
VET18-36
18-36 Watts

- Energy Efficiency Level VI
- European CoC Tier 2
- ITE Safety Approvals
- Universal Input
- Output Voltages from 9V to 24V
- Class II Construction
- Low Cost

Dimensions:
VET18 & VET24:
4.21 x 1.71 x 1.22 in (107.0 x 43.5 x 31.0 mm)
VET30/VET36:
4.53 x 1.89 x 1.28 in (115.0 x 48.0 x 32.5 mm)

AKM36
36 Watts

- Energy Efficiency Level VI
- European CoC Tier 2
- ITE & Medical (2 x MOPP) Approvals
- 4th Edition Medical EMC
- Class II Construction
- Optional White Case Versions
- Output Voltages from 9V to 36V
- 3 Year Warranty

Dimensions:
AKM36: 4.25 x 1.97 x 1.33 in (108.0 x 50.0 x 33.8 mm)

AKM48-65
45-65 Watts

- Energy Efficiency Level VI
- European CoC Tier 2
- ITE & Medical (2 x MOPP) Approvals
- 4th Edition Medical EMC
- Class I & Class II Versions
- Optional White Case Versions
- Output Voltages from 9V to 48V
- Optional AC Cable Restraint
- 3 Year Warranty

Dimensions:
AKM45: 4.82 x 2.02 x 1.24 in (122.4 x 51.4 x 31.5 mm)
AKM65: 4.92 x 2.45 x 1.34 in (125.0 x 62.3 x 34.0 mm)

Notes:
For white case version add suffix “-W” e.g. AKM36US12C2-W. MOQ contact sales for details.

Notes:
For white case version add suffix “-W” e.g. AKM45US12-W/ AKM65US12-W. For optional Class II version add suffix C2, e.g. AKM45US12C2/AKM65US12C2. MOQ contact sales for details.
VEC40-65
40-65 Watts

- Energy Efficiency Level VI
- European CoC Tier 2
- ITE Safety Approvals
- Limited Power Source (LPS) Approved
- Optional IEC320-C6 Inlet Connector
- China Compulsory Certification (CCC)
- 0 °C to 60 °C Operation
- High Power Density
- Low Cost

Dimensions:
VEC40/50/60/65:
4.58 x 2.06 x 1.23 in (116.3 x 52.4 x 31.3 mm)

ALM65
65 Watts

- Energy Efficiency Level VI
- ITE & Medical (2 x MOPP) Approvals
- 4th Edition Medical EMC
- IP32 Environmental Rating
- Class I & Class II Versions
- <0.21W Standby Power
- 0 °C to +60 °C Operation
- Low Earth Leakage Current
- 3 Year Warranty

Dimensions:
ALM65: 4.94 x 2.19 x 1.32 in (125.5 x 55.5 x 33.5 mm)

Notes:
For class II versions, add suffix ‘C2-8’ to the end of the part number. For optional input connector retention clip add suffix ‘-A’ to the model number (not available for C2 versions). For optional 5.5 x 2.1 mm output connector add suffix B1 to the part number.

ALM85
85 Watts

- Energy Efficiency Level VI
- European CoC Tier 2
- ITE & Medical (2 x MOPP) Approvals
- 4th Edition Medical EMC
- IP32 Environmental Rating
- Class I & Class II Versions
- <0.15W Standby Power
- 0 °C to +60 °C Operation
- Low Earth Leakage Current
- 3 Year Warranty

Dimensions:
ALM85: 5.315 x 2.441 x 1.457 in (135.0 x 62.0 x 37.0 mm)

Notes:
For class II versions, add suffix ‘C2-8’ to the end of the part number. For optional input connector retention clip add suffix ‘-A’ to the model number (not available for C2 versions).
### AJM90

- **90 Watts**
- **Energy Efficiency Level VI**
- **ITE & Medical (2 x MOPP) Approvals**
- **4th Edition Medical EMC**
- **Class I & Class II Versions**
- **<0.21W Standby Power**
- **0 °C to +60 °C Operation**
- **Low Earth Leakage Current**
- **3 Year Warranty**

**Dimensions:**

AJM90: 5.51 x 2.8 x 0.87 in (140.0 x 71.0 x 22.0 mm)

**Notes:** For class II versions, add suffix ‘C2’ to the end of the part number. Class II versions do not have ITE approvals.

### ALM120

- **120 Watts**
- **Energy Efficiency Level VI**
- **ITE & Medical (2 x MOPP) Approvals**
- **EU CoC Tier 2 Compliant**
- **4th Edition Medical EMC**
- **IP32 Environmental Rating**
- **Class I and Class II Versions**
- **<0.15W Standby Power**
- **0 °C to +60 °C Operation**
- **3 Year Warranty**

**Dimensions:**

ALM120: 6.73 x 2.67 x 1.49 in (171.0 x 68.0 x 38.0 mm)

**Notes:** For class II versions, add suffix ‘C2’ to the end of the part number. For optional input connector retention clip add suffix ‘-A’ to the model number (not available for C2 versions). For optional output connector, DC barrel jack, add suffix '-B5' to model number. Power de-rating <100VAC for 12 & 15V models.

### VES90-150

- **90-150 Watts**
- **Energy Efficiency Level VI**
- **ITE Safety Approvals**
- **European CoC Tier 2**
- **High Power Density**
- **<0.15W Standby Power**
- **China Compulsory Certification (CCC)**
- **0 °C to 60 °C Operation**
- **Optional Output Connector**
- **Low Cost**

**Dimensions:**

VES90: 5.47 x 2.28 x 1.22 in (139.0 x 58.0 x 31.0 mm)
VES120: 6.61 x 2.80 x 1.48 in (168.0 x 71.0 x 37.5 mm)
VES150: 6.66 x 2.79 x 1.56 in (169.2 x 70.8 x 39.5 mm)

**Notes:** For optional barrel jack connector, 2.5mm inner positive, 5.5mm outer negative, 11mm length add suffix ‘-B’ to the model number, (VES90 & VES120 only), e.g. VES90PS12-B.
External Power Supplies

AHE220

220 Watts

- Energy Efficiency Level VI
- ITE Safety Approvals
- <0.21W Standby Power
- 0 °C to 60 °C Operation
- High Power Density
- Low Earth Leakage Current
- 3 Year Warranty

Dimensions:
AHE220: 7.76 x 3.46 x 1.73 in (197.0 x 88.0 x 44 mm)

Notes:
12 V: for IEC320-C6, add suffix 'C6' to the end of the part number.

Power | Output Voltage | Output Current | Model
--- | --- | --- | ---
180 W | 12.0 VDC | 15.0 A | AHE220PS12
220 W | 19.0 VDC | 11.37 A | AHE220PS19
220 W | 24.0 VDC | 9.16 A | AHE220PS24

AHM85-250

85-250 Watts

- Energy Efficiency Level V
- ITE & Medical (2 x MOPP) Approvals
- 4th Edition Medical EMC
- CE2008 & EISA 2007
- <0.5W No Load Input Power
- Class I & II Models (Except AHM250)
- Very High Efficiency
- IP22 Environmental Rating
- 3 Year Warranty

Dimensions:
AHM85: 5.90 x 2.52 x 1.45 in (150.0 x 64.0 x 37.0 mm)
AHM100: 6.29 x 2.52 x 1.45 in (160.0 x 64.0 x 37.0 mm)
AHM150: 7.80 x 3.15 x 1.45 in (200.0 x 80.0 x 37.0 mm)
AHM180: 7.80 x 3.15 x 1.61 in (200.0 x 80.0 x 41.0 mm)
AHM250: 8.80 x 3.48 x 1.45 in (223.0 x 88.5 x 37.0 mm)

Notes:
Models with suffix ‘C2’ have a Class II equipment protection classification. For IEC320-C8 input connector with Class II models, add suffix ‘-8’ to the model number. For optional input connector retention clip, add suffix ‘-A’ to the model number. Alternate case colours available for OEM quantities, contact sales for information. 250W: For 6 pin DIN connector, remove ‘T’ from the end of the model number. (DIN connector for medical applications only).

Power | Output Voltage | Output Current | Model
--- | --- | --- | ---
150 W | 12.0 VDC | 12.50 A | AHM150PS12
150 W | 15.0 VDC | 10.00 A | AHM150PS15
150 W | 19.0 VDC | 9.89 A | AHM150PS19
150 W | 24.0 VDC | 6.25 A | AHM150PS24
150 W | 48.0 VDC | 3.13 A | AHM150PS48
150 W | 12.0 VDC | 12.50 A | AHM150PS12C2
150 W | 15.0 VDC | 10.00 A | AHM150PS15C2
150 W | 19.0 VDC | 9.89 A | AHM150PS19C2
150 W | 24.0 VDC | 6.25 A | AHM150PS24C2
150 W | 48.0 VDC | 3.13 A | AHM150PS48C2

Power | Output Voltage | Output Current | Model
--- | --- | --- | ---
165 W | 12.0 VDC | 13.75 A | AHM165PS12
180 W | 15.0 VDC | 12.00 A | AHM180PS15
180 W | 19.0 VDC | 9.47 A | AHM180PS19
180 W | 24.0 VDC | 7.50 A | AHM180PS24
180 W | 48.0 VDC | 3.75 A | AHM180PS48
165 W | 12.0 VDC | 13.75 A | AHM165PS12C2
180 W | 15.0 VDC | 12.00 A | AHM180PS15C2
180 W | 19.0 VDC | 9.47 A | AHM180PS19C2
180 W | 24.0 VDC | 7.50 A | AHM180PS24C2
180 W | 48.0 VDC | 3.75 A | AHM180PS48C2

Power | Output Voltage | Output Current | Model
--- | --- | --- | ---
100 W | 12.0 VDC | 8.33 A | AHM100PS12
100 W | 15.0 VDC | 6.67 A | AHM100PS15
100 W | 19.0 VDC | 5.26 A | AHM100PS19
100 W | 24.0 VDC | 4.16 A | AHM100PS24
100 W | 48.0 VDC | 2.08 A | AHM100PS48
100 W | 12.0 VDC | 8.33 A | AHM100PS12C2
100 W | 15.0 VDC | 6.67 A | AHM100PS15C2
100 W | 19.0 VDC | 5.26 A | AHM100PS19C2
100 W | 24.0 VDC | 4.16 A | AHM100PS24C2
100 W | 48.0 VDC | 2.08 A | AHM100PS48C2

Power | Output Voltage | Output Current | Model
--- | --- | --- | ---
210 W | 12.0 VDC | 17.50 A | AHM210PS12T
220 W | 15.0 VDC | 14.66 A | AHM220PS15T
240 W | 19.0 VDC | 12.63 A | AHM240PS19T
250 W | 24.0 VDC | 10.41 A | AHM250PS24T
250 W | 48.0 VDC | 5.21 A | AHM250PS48T

Notes:
Models with suffix 'C2' have a Class II equipment protection classification. For IEC320-C8 input connector with Class II models, add suffix ‘-8’ to the model number. For optional input connector retention clip, add suffix ‘-A’ to the model number. Alternate case colours available for OEM quantities, contact sales for information. 250W: For 6 pin DIN connector, remove ‘T’ from the end of the model number. (DIN connector for medical applications only).
SRH05

0.5 Amps

- 3 Pin Switching Regulator
- Regulated Single Output
- Ultra Wide Input Range to 72V
- SIP3 Package
- -40 °C to +85 °C Operation
- Class B Conducted & Radiated Emissions
- MTBF >4.5MHrs
- 3 Year Warranty

Dimensions:
SRH05: 0.46 x 0.29 x 0.40 in (11.68 x 7.50 x 10.16 mm)

<table>
<thead>
<tr>
<th>Input Voltage</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
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<tbody>
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<td>SRH05S3V3</td>
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<td>6.5 VDC</td>
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<td>SRH05S6V5</td>
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<td>7.2 VDC</td>
<td>500 mA</td>
<td>SRH05S7V2</td>
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<td>9.0 VDC</td>
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<td>17-72 VDC</td>
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<td>21-72 VDC</td>
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<td>400 mA</td>
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STR05

0.5 Amps

- 3 Terminal Switching Regulator
- Regulated Single Output
- Wide Input Range
- Compact SMD Package
- -40 °C to +100 °C Operation
- Remote On/Off
- Very High Efficiency - up to 97%
- Output Voltage Trim
- Tape & Reel Package Available
- 3 Year Warranty

Dimensions:
STR05: 0.60 x 0.49 x 0.36 in (15.30 x 12.35 x 9.24 mm)

<table>
<thead>
<tr>
<th>Input Voltage</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
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<tbody>
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<td>500 mA</td>
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<td>18-32 VDC</td>
<td>15.0 VDC</td>
<td>500 mA</td>
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TR

0.5-1 Amp

- 3 Pin Switching Regulator
- Regulated Single Output
- Wide Input Range
- SIP3 Package
- -40 °C to +85 °C Operation
- Class B Conducted & Radiated Emissions
- MTBF >3.8MHrs
- 3 Year Warranty

Dimensions:
TR05/10: 0.46 x 0.29 x 0.4 in (11.68 x 7.5 x 10.16 mm)
IK

0.25 Watts

- Single Output
- ±10% Input Range
- SII4 or IIP8 Package
- 1000VDC Isolation
- Optional 3000VDC Isolation
- Small Package Sizes
- -40 °C to +85 °C Operation
- 3 Year Warranty

Dimensions:
IK SIP: 0.46 x 0.4 x 0.24 in (11.68 x 10.15 x 6.0 mm)
IK DIP: 0.50 x 0.4 x 0.27 in (12.7 x 10.14 x 6.86 mm)

Notes:
For input range: 5V replace xx with 05, e.g. IK0503SA
12V replace xx with 12 e.g. IK1203SA
24V replace xx with 24 e.g. IK2403SA
48V replace xx with 48 e.g. IK4803SA
For DIP package replace ‘S’ in model number with ‘D’.

ISK

0.25 Watts

- Single Output
- ±10% Input Range
- SMD Package
- Industry Standard Pinout
- -40 °C to +105 °C Operation
- 1500VDC Isolation
- Optional 3000VDC Isolation
- Tape and Reel Package Available
- 3 Year Warranty

Dimensions:
ISK: 0.500 x 0.44 x 0.285 in (12.7 x 11.2 x 7.25 mm)

Notes:
For tape & reel option add suffix ‘-TR’ to the end of the part number.

IA

1 Watt

- Dual Outputs
- ±10% Input Range
- SIP7 or SIP14 Package
- Industry Standard Pinout
- 1000VDC Isolation
- -40 °C to +85 °C Operation
- MTBF >1.1Mhrs
- ITE Safety Approvals
- 3 Year Warranty

Dimensions:
IA SIP: 0.76 x 0.4 x 0.24 in (19.3 x 10.16 x 6.09 mm)
IA DIP: 0.80 x 0.4 x 0.25 in (20.32 x 10.16 x 6.35 mm)

Notes:
For input range: 3.3V replace xx with 03, e.g. IA0303S
5V replace xx with 05, e.g. IA0503S
12V replace xx with 12 e.g. IA1203S
24V replace xx with 24 e.g. IA2403S
48V replace xx with 48 e.g. IA4803S
For DIP package replace ‘S’ in model number with ‘D’.
### IB

1 Watt

- Single Output
- ±10% Input Range
- SIP7 or DIP14 Package
- Industry Standard Pinout
- 1000VDC Isolation
- -40 °C to +85 °C Operation
- MTBF >1.1MHrs
- ITE Safety Approvals
- 3 Year Warranty

**Dimensions:**
- IB SIP: 0.76 x 0.4 x 0.24 in (19.3 x 10.16 x 6.09 mm)
- IB DIP: 0.80 x 0.4 x 0.27 in (20.32 x 10.16 x 6.8 mm)

**Notes:**
- For input range: 5V replace xx with 05, e.g. IB0503S
- 12V replace xx with 12 e.g. IB1203S
- 24V replace xx with 24 e.g. IB2403S
- 48V replace xx with 48 e.g. IB4803S
- For DIP package replace ‘S’ in model number with ‘D’.

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 W</td>
<td>3.3 VDC</td>
<td>303 mA</td>
<td>IBxx03S</td>
</tr>
<tr>
<td>1 W</td>
<td>5.0 VDC</td>
<td>200 mA</td>
<td>IBxx05S</td>
</tr>
<tr>
<td>1 W</td>
<td>9.0 VDC</td>
<td>111 mA</td>
<td>IBxx09S</td>
</tr>
<tr>
<td>1 W</td>
<td>12.0 VDC</td>
<td>84 mA</td>
<td>IBxx12S</td>
</tr>
<tr>
<td>1 W</td>
<td>15.0 VDC</td>
<td>66 mA</td>
<td>IBxx15S</td>
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<tr>
<td>1 W</td>
<td>24.0 VDC</td>
<td>42 mA</td>
<td>IBxx24S</td>
</tr>
</tbody>
</table>

### IE

1 Watt

- Single Output
- ±10% Input Range
- SIP4 or DIP8 Package
- 1000VDC Isolation
- Optional 3000VDC Isolation
- Small Package Sizes
- -40 °C to +85 °C Operation
- 3 Year Warranty

**Dimensions:**
- IE SIP: 0.46 x 0.4 x 0.24 in (11.68 x 10.15 x 6.0 mm)
- IE DIP: 0.50 x 0.4 x 0.27 in (12.7 x 10.14 x 6.86 mm)

**Notes:**
- For input range: 3.3V replace xx with 03, e.g. IE0303S
- 5V replace xx with 05 e.g. IE0503S
- 12V replace xx with 12 e.g. IE1203S
- 24V replace xx with 24 e.g. IE2403S
- 48V replace xx with 48 e.g. IE4803S
- For DIP package replace ‘S’ in model number with ‘D’.
- For 3000V isolation, add suffix ‘-H’ to model number.

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 W</td>
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<td>IExx03S</td>
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<tr>
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<td>200 mA</td>
<td>IExx05S</td>
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<tr>
<td>1 W</td>
<td>9.0 VDC</td>
<td>111 mA</td>
<td>IExx09S</td>
</tr>
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<td>1 W</td>
<td>12.0 VDC</td>
<td>84 mA</td>
<td>IExx12S</td>
</tr>
<tr>
<td>1 W</td>
<td>15.0 VDC</td>
<td>66 mA</td>
<td>IExx15S</td>
</tr>
<tr>
<td>1 W</td>
<td>24.0 VDC</td>
<td>42 mA</td>
<td>IExx24S</td>
</tr>
</tbody>
</table>

### IF

1 Watt

- Regulated Single Output
- ±10% Input Range
- SIP7 or DIP14 Package
- Low Ripple & Noise
- 1000VDC Isolation
- Optional 3000VDC Isolation
- MTBF 4.2MHrs
- 3 Year Warranty

**Dimensions:**
- IF SIP: 0.76 x 0.39 x 0.28 in (19.5 x 10.0 x 9.5 mm)
- IF DIP: 3.6 x 1.18 x 3.94 in (90.0 x 30.0 x 100.0 mm)

**Notes:**
- For input range: 5V replace xx with 05 e.g. IF0503S
- 12V replace xx with 12 e.g. IF1203S
- 24V replace xx with 24 e.g. IF2403S
- 48V replace xx with 48 e.g. IF4803S
- For DIP package replace ‘S’ in model number with ‘D’.
- For 3000V isolation, add suffix ‘-H’ to model number.

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
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<td>333 mA</td>
<td>IFxx03S</td>
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<tr>
<td>1 W</td>
<td>5.0 VDC</td>
<td>200 mA</td>
<td>IFxx05S</td>
</tr>
<tr>
<td>1 W</td>
<td>9.0 VDC</td>
<td>111 mA</td>
<td>IFxx09S</td>
</tr>
<tr>
<td>1 W</td>
<td>12.0 VDC</td>
<td>84 mA</td>
<td>IFxx12S</td>
</tr>
<tr>
<td>1 W</td>
<td>15.0 VDC</td>
<td>67 mA</td>
<td>IFxx15S</td>
</tr>
</tbody>
</table>
**IHA01**

1 Watt

- Single & Dual Outputs
- ±10% Input Range
- SIP7 Package
- High Isolation, 6000VDC
- 250VAC/400VDC Working Voltage
- Bipolar Outputs for MOSFET & IGBT Drives
- -40 °C to +85 °C Operation
- Full Load at 85 °C Ambient
- MTBF 2.5Mhrs
- 3 Year Warranty

**Dimensions:**

IHA01: 0.77 x 0.39 x 0.49 in (19.5 x 9.8 x 12.5 mm)

---

**IMA01**

1 Watt

- Single & Dual Outputs
- ±10% Input Range
- SIP7 Package
- World Wide Medical Approvals
- 4000VAC Isolation, 1 x MOPP
- 2 µA Patient Leakage Current
- -40 °C to +75 °C Operation
- Full Load at +75 °C Ambient
- MTBF 2.5Mhrs
- 3 Year Warranty

**Dimensions:**

IMA01: 0.77 x 0.36 x 0.44 in (19.5 x 9.2 x 11.1 mm)

---

**IMM01**

1 Watt

- Regulated Single & Dual Outputs
- Wide 2:1 Input Range
- SIP7 Package
- World Wide Medical Approvals
- 1500VAC Isolation, 1 x MOPP
- 2 µA Patient Leakage Current
- -20 °C to +100 °C Operation
- MTBF 1Mhrs
- 3 Year Warranty

**Dimensions:**

IMM01: 0.76 x 0.36 x 0.44 in (19.5 x 9.2 x 11.1 mm)

---

**Power Output Power**

<table>
<thead>
<tr>
<th>Model</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
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<td>3.3 VDC</td>
<td>303 mA</td>
<td>IHA01xxS3V3</td>
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<tr>
<td>IHA01</td>
<td>5.0 VDC</td>
<td>200 mA</td>
<td>IHA01xxS05</td>
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<td>IHA01</td>
<td>9.0 VDC</td>
<td>111 mA</td>
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</tr>
<tr>
<td>IHA01</td>
<td>12.0 VDC</td>
<td>83 mA</td>
<td>IHA01xxS12</td>
</tr>
<tr>
<td>IHA01</td>
<td>±3.3 VDC</td>
<td>±151 mA</td>
<td>IHA01xxD03</td>
</tr>
<tr>
<td>IHA01</td>
<td>±5.0 VDC</td>
<td>±100 mA</td>
<td>IHA01xxD05</td>
</tr>
<tr>
<td>IHA01</td>
<td>±9.0 VDC</td>
<td>±56 mA</td>
<td>IHA01xxD09</td>
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<td>IHA01</td>
<td>±12.0 VDC</td>
<td>±42 mA</td>
<td>IHA01xxD12</td>
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<tr>
<td>IHA01</td>
<td>±15.0 VDC</td>
<td>±33 mA</td>
<td>IHA01xxD15</td>
</tr>
<tr>
<td>IHA01</td>
<td>+15 VDC/-9 VDC</td>
<td>+33 mA/-55 mA</td>
<td>IHA01xxD1509</td>
</tr>
</tbody>
</table>

**Notes:**

For input range: 5V replace xx with 05, e.g. IHA0105S05
9V replace xx with 09 e.g. IHA0109S05
12V replace xx with 12 e.g. IHA0112S05
15V replace xx with 15 e.g. IHA0115S05
24V replace xx with 24 e.g. IHA0124S05

---

**Power Output Power**

<table>
<thead>
<tr>
<th>Model</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMA01</td>
<td>3.3 VDC</td>
<td>303 mA</td>
<td>IMA01xxS3V3</td>
</tr>
<tr>
<td>IMA01</td>
<td>5.0 VDC</td>
<td>200 mA</td>
<td>IMA01xxS05</td>
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<tr>
<td>IMA01</td>
<td>9.0 VDC</td>
<td>111 mA</td>
<td>IMA01xxS09</td>
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<td>IMA01</td>
<td>12.0 VDC</td>
<td>83 mA</td>
<td>IMA01xxS12</td>
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<td>IMA01</td>
<td>±3.3 VDC</td>
<td>±150 mA</td>
<td>IMA01xxD03</td>
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<td>±5.0 VDC</td>
<td>±100 mA</td>
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<td>IMA01</td>
<td>±9.0 VDC</td>
<td>±55 mA</td>
<td>IMA01xxD09</td>
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<td>IMA01</td>
<td>±12.0 VDC</td>
<td>±41.6 mA</td>
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<td>±15.0 VDC</td>
<td>±33.3 mA</td>
<td>IMA01xxD15</td>
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**Notes:**

For input range: 5V replace xx with 05, e.g. IMA0105S05
12V replace xx with 12 e.g. IMA0112S05
15V replace xx with 15 e.g. IMA0115S05
24V replace xx with 24 e.g. IMA0124S05

---

**Power Output Power**

<table>
<thead>
<tr>
<th>Model</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMM01</td>
<td>3.3 VDC</td>
<td>303 mA</td>
<td>IMM01xxS3V3</td>
</tr>
<tr>
<td>IMM01</td>
<td>5.0 VDC</td>
<td>200 mA</td>
<td>IMM01xxS05</td>
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<tr>
<td>IMM01</td>
<td>12.0 VDC</td>
<td>83 mA</td>
<td>IMM01xxS12</td>
</tr>
<tr>
<td>IMM01</td>
<td>15.0 VDC</td>
<td>67 mA</td>
<td>IMM01xxS15</td>
</tr>
<tr>
<td>IMM01</td>
<td>±3.3 VDC</td>
<td>±150 mA</td>
<td>IMM01xxD03</td>
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<td>IMM01</td>
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<tr>
<td>IMM01</td>
<td>±15.0 VDC</td>
<td>±33 mA</td>
<td>IMM01xxD15</td>
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</table>

**Notes:**

For input range: 5V replace xx with 05, e.g. IMM0105S3V3
12V replace xx with 12 e.g. IMM0112S3V3
**IQ**

* 1 Watt

- Semi-regulated Single & Dual Outputs
- ±10% Input Range
- SIP7 Package
- 1000VDC Isolation
- Optional 3000VDC Isolation
- -40 °C to +85 °C Operation
- 3 Year Warranty

**Dimensions:**

IQ: 0.76 x 0.39 x 0.24 in (19.5 x 10.0 x 6.0 mm)

**Notes:**

For input range: 5V replace xx with 05, e.g. IQ0505SA
12V replace xx with 12 e.g. IQ1205SA
15V replace xx with 15 e.g. IQ1505SA
24V replace xx with 24 e.g. IQ2405SA
48V replace xx with 48 e.g. IQ4805SA

For optional 3 kV DC Isolation, add suffix ‘-H’ to part number.

**Power**

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 W</td>
<td>5.0 VDC</td>
<td>200 mA</td>
<td>IQ0505SA</td>
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<tr>
<td>1 W</td>
<td>9.0 VDC</td>
<td>111 mA</td>
<td>IQ1205SA</td>
</tr>
<tr>
<td>1 W</td>
<td>12.0 VDC</td>
<td>83 mA</td>
<td>IQ1215SA</td>
</tr>
<tr>
<td>1 W</td>
<td>15.0 VDC</td>
<td>67 mA</td>
<td>IQ1515SA</td>
</tr>
</tbody>
</table>

**ISA**

* 1 Watt

- Dual Output
- ±10% Input Range
- SMD Package
- Industry Standard Pinout
- 1500VDC Isolation, 3000VDC Option
- -40 °C to +105 °C Operation
- Tape & Reel Package Available
- 3 Year Warranty

**Dimensions:**

ISA: 0.600 x 0.440 x 0.285 in (15.24 x 11.20 x 7.25 mm)

**Notes:**

For input range: 3V replace xx with 03 e.g. ISA0305
5V replace xx with 05 e.g. ISA0505
12V replace xx with 12 e.g. ISA1205
24V replace xx with 24 e.g. ISA2405
48V replace xx with 48 e.g. ISA4805

For optional 3000 VDC isolation add suffix ‘-H’ e.g. ISA1224-H.

* Output voltages not available for 3.3V input

**Power**

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 W</td>
<td>±5.0 VDC</td>
<td>±100 mA</td>
<td>ISA0505</td>
</tr>
<tr>
<td>1 W</td>
<td>±9.0 VDC</td>
<td>±56 mA</td>
<td>ISA0909</td>
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<td>1 W</td>
<td>±12.0 VDC</td>
<td>±42 mA</td>
<td>ISA1212</td>
</tr>
<tr>
<td>1 W</td>
<td>±15.0 VDC</td>
<td>±33 mA</td>
<td>ISA1515</td>
</tr>
<tr>
<td>1 W</td>
<td>±24.0 VDC</td>
<td>±21 mA</td>
<td>ISA2424</td>
</tr>
<tr>
<td>1 W</td>
<td>±15.0 VDC</td>
<td>±33 mA</td>
<td>ISA1515</td>
</tr>
</tbody>
</table>

**ISBO1**

* 1 Watt

- Regulated Single & Dual Outputs
- Wide 2:1 Input Range
- Compact SMD Package
- 1500VDC Isolation
- -40 °C to +95 °C Operation
- Remote On/Off
- Tape & Reel Package Available
- 3 Year Warranty

**Dimensions:**

ISBO1: 0.74 x 0.68 x 0.34 in (18.9 x 17.2 x 8.7 mm)

**Notes:**

For input range: 5V replace xx with 05 e.g. ISB0105S05
12V replace xx with 12 e.g. ISB0112S05
24V replace xx with 24 e.g. ISB0124S05
48V replace xx with 48 e.g. ISB0148S05
ISE
1 Watt

- Single Output
- ±10% Input Range
- SMD Package
- Industry Standard Pinout
- 1500VDC Isolation, 3000VDC Option
- -40 °C to +105 °C Operation
- Tape & Reel Package Available
- 3 Year Warranty

Notes:
For input range: 3.3V replace xx with 03 e.g. ISE0303A
5V replace xx with 05 e.g. ISE0503A
12V replace xx with 12 e.g. ISE1203A
15V replace xx with 15 e.g. ISE1503A
24V replace xx with 24 e.g. ISE2403A
For optional 3000VDC isolation add suffix ‘-H’ e.g. ISE0303A-H.

Dimensions:
ISE: 0.50 x 0.44 x 0.285 in (12.7 x 11.2 x 7.25 mm)

ISW
1 Watt

- Regulated Single Output
- ±5% Input Range
- SMD Package
- Industry Standard Pinout
- 1500VDC Isolation, 3000VDC Option
- -40 °C to +85 °C Operation
- Tape & Reel Package Available
- 3 Year Warranty

Notes:
For optional 3000VDC isolation add suffix ‘-H’ e.g. ISW0503A-H.
* ‘-H’ version not available.

Dimensions:
ISW: 0.60 x 0.44 x 0.285 in (15.24 x 11.2 x 7.25 mm)

ITA
1 Watt

- Dual Output
- ±10% Input Range
- SIP7 Package
- 1500VDC Isolation
- -40 °C to +105 °C Operation
- Full Load to 95 °C Ambient
- Class B Conducted & Radiated Emissions
- MTBF >3.5MHrs
- 3 Year Warranty

Notes:
For input range: 5V replace xx with 05, e.g. ITA0505S
12V replace xx with 12 e.g. ITA1205S
24V replace xx with 24 e.g. ITA2405S

Dimensions:
ITA: 0.76 x 0.24 x 0.39 in (19.5 x 6.0 x 10.0 mm)
### ITB

**1 Watt**

- Single Output
- ±10% Input Range
- SIP7 Package
- 1500VDC Isolation
- -40 °C to +105 °C Operation
- Full Load at 95 °C Ambient
- Class B Conducted & Radiated Emissions
- MTBF > 3.5Mhrs
- 3 Year Warranty

#### Power Specifications

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 W</td>
<td>5.0 VDC</td>
<td>200 mA</td>
<td>ITBxx05S</td>
</tr>
<tr>
<td>1 W</td>
<td>12.0 VDC</td>
<td>83.3 mA</td>
<td>ITBxx12S</td>
</tr>
<tr>
<td>1 W</td>
<td>15.0 VDC</td>
<td>66.7 mA</td>
<td>ITBxx15S</td>
</tr>
</tbody>
</table>

#### Dimensions:

**ITB:** 0.76 x 0.24 x 0.39 in (19.5 x 6.0 x 10.0 mm)

#### Notes:
For input range: 5V replace xx with 05, e.g. ITB0505S
12V replace xx with 12 e.g. ITB1205S
24V replace xx with 24 e.g. ITB2405S

### ITV

**1 Watt**

- Single & Dual Outputs
- ±10% Input Range
- SIP7 Package
- 3000VDC Isolation
- -40 °C to +105 °C Operation
- Full Load at 95 °C Ambient
- Class B Conducted & Radiated Emissions
- MTBF > 3.5Mhrs
- 3 Year Warranty

#### Power Specifications

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 W</td>
<td>5.0 VDC</td>
<td>200 mA</td>
<td>ITVxx05S</td>
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<tr>
<td>1 W</td>
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<tr>
<td>1 W</td>
<td>±5.0 VDC</td>
<td>±100 mA</td>
<td>ITVxx05S</td>
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<td>1 W</td>
<td>±12.0 VDC</td>
<td>±41.6 mA</td>
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<tr>
<td>1 W</td>
<td>±15.0 VDC</td>
<td>±33.3 mA</td>
<td>ITVxx15S</td>
</tr>
</tbody>
</table>

#### Dimensions:

**ITV:** 0.76 x 0.24 x 0.39 in (19.5 x 6.0 x 10.0 mm)

#### Notes:
For input range: 5V replace xx with 05, e.g. ITV0505SA
12V replace xx with 12 e.g. ITV1205SA
24V replace xx with 24 e.g. ITV2405SA

### ITW

**1 Watt**

- Regulated Single & Dual Outputs
- 2:1 Input Range
- SIP6 Package
- 1500VDC Isolation
- Operating Temperature -40 °C to +105 °C
- No Minimum Load Required
- ITE Safety Approvals
- MTBF > 2.8 Mhrs
- 3 Year Warranty

#### Power Specifications

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 W</td>
<td>5.0 VDC</td>
<td>200 mA</td>
<td>ITWxx05S</td>
</tr>
<tr>
<td>1 W</td>
<td>12.0 VDC</td>
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<td>15.0 VDC</td>
<td>67 mA</td>
<td>ITWxx15S</td>
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<tr>
<td>1 W</td>
<td>24.0 VDC</td>
<td>42 mA</td>
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<td>±12.0 VDC</td>
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<td>1 W</td>
<td>±15.0 VDC</td>
<td>±33 mA</td>
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</tbody>
</table>

#### Dimensions:

**ITW:** 0.67 x 0.43 x 0.30 in (17.0 x 11.0 x 7.6 mm)

#### Notes:
For input range: 5V replace xx with 05, e.g. ITW0505S
12V replace xx with 12 e.g. ITW1205S
24V replace xx with 24 e.g. ITW2405S
48V replace xx with 48 e.g. ITW4805S
## DC-DC Converters

### IV

**1 Watt**

- Single & Dual Outputs
- ±10% Input Range
- SIP7 or DIP14 Package
- 3000VDC Isolation
- Optional 4000 or 6000VDC Isolation
- -40 °C to +85 °C Operation
- MTBF >1.1 MHrs
- ITE Safety Approvals
- 3 Year Warranty

**Dimensions:**
- IV SIP: 0.76 x 0.37 x 0.24 in (19.5 x 9.5 x 6.0 mm)
- IV DIP: 0.80 x 0.4 x 0.27 in (20.3 x 10.2 x 6.9 mm)

**Notes:**
- For input range: 5V replace xx with 05, e.g. IV0503SA
- 12V replace xx with 12 e.g. IV1203SA
- 24V replace xx with 24 e.g. IV2403SA
- 48V replace xx with 48 e.g. IV4803SA
- For DIP package replace ‘S’ in model number with ‘D’.
- For dual output delete suffix ‘A’ & split the output current equally between rails. For optional 4 kV DC Isolation, add suffix ‘-H4’ to part number. For optional 6 kV DC Isolation, add suffix ‘-H6’ to part number.

**Power** | **Output Voltage** | **Output Current** | **Model**
---|---|---|---
1 W | 3.3 VDC | 300 mA | IVxx03SA
1 W | 5.0 VDC | 200 mA | IVxx05SA
1 W | 9.0 VDC | 112 mA | IVxx09SA
1 W | 12.0 VDC | 84 mA | IVxx12SA
1 W | 15.0 VDC | 66 mA | IVxx15SA
1 W | 24.0 VDC | 42 mA | IVxx245SA

### IW

**1 Watt**

- Regulated Single & Dual Outputs
- 2:1 Input Range
- SIP8 or DIP16 Package
- 1000VDC Isolation (Optional 3000VDC)
- Continuous Short Circuit Protection
- Optional Metal Case
- Optional Remote On/Off (SIP only)
- ITE Safety Approvals
- 3 Year Warranty

**Dimensions:**
- IW SIP: 0.86 x 0.44 x 0.36 in (21.85 x 11.1 x 9.2 mm)
- IW DIP: 0.92 x 0.55 x 0.4 in (23.4 x 14.0 x 10.16 mm)

**Notes:**
- For input range: 5V replace xx with 05, e.g. IW0505SA
- 12V replace xx with 12 e.g. IW1205SA
- 24V replace xx with 24 e.g. IW2405SA
- 48V replace xx with 48 e.g. IW4805SA
- For DIP package replace ‘S’ in model number with ‘D’.
- For dual output delete suffix ‘A’ & split the output current equally between rails. For optional metal case, add suffix ‘-M’. For optional Remote On/Off on SIP models, add suffix ‘-R’.

**Power** | **Output Voltage** | **Output Current** | **Model**
---|---|---|---
1 W | 5.0 VDC | 200 mA | IWxx05SA
1 W | 12.0 VDC | 83 mA | IWxx12SA
1 W | 15.0 VDC | 67 mA | IWxx15SA
1 W | 24.0 VDC | 42 mA | IWxx245SA

### IH

**2 Watts**

- Dual Output
- ±10% Input Range
- SIP7 or DIP14 Package
- 1000VDC Isolation
- Optional 3000 or 6000VDC Isolation
- -40 °C to +85 °C Operation
- MTBF >1.1 MHrs
- 3 Year Warranty

**Dimensions:**
- IH SIP: 0.76 x 0.4 x 0.3 in (19.5 x 10.16 x 7.62 mm)
- IH DIP: 0.80 x 0.4 x 0.4 in (20.43 x 10.16 x 10.16 mm)

**Notes:**
- For input range: 5V replace xx with 05, e.g. IH0505S
- 12V replace xx with 12 e.g. IH1205S
- 24V replace xx with 24 e.g. IH2405S
- 48V replace xx with 48 e.g. IH4805S
- For DIP package replace ‘S’ in model number with ‘D’. For dual output delete suffix ‘A’ & split the output current equally between rails. For optional 3000VDC isolation, add suffix ‘-H’. For higher VDC isolation, add suffix ‘-Hx’ to model number where x=4 for 4000 VDC isolation, x=5 for 5200VDC isolation and x=6 for 6000 VDC isolation.

**Power** | **Output Voltage** | **Output Current** | **Model**
---|---|---|---
1.32 W | ±3.3 VDC | ±200 mA | IHxx03S
2 W | ±5.0 VDC | ±200 mA | IHxx05S
2 W | ±9.0 VDC | ±111 mA | IHxx09S
2 W | ±12.0 VDC | ±84 mA | IHxx12S
2 W | ±15.0 VDC | ±66 mA | IHxx15S
2 W | ±24.0 VDC | ±42 mA | IHxx245S

Notes:
- For input range: 5V replace xx with 05, e.g. IH0505S
- 12V replace xx with 12 e.g. IH1205S
- 24V replace xx with 24 e.g. IH2405S
- 48V replace xx with 48 e.g. IH4805S
- For DIP package replace ‘S’ in model number with ‘D’. For optional 3000VDC isolation, add suffix ‘-H’ to model number. For higher VDC isolation, add suffix ‘-Hx’ to model number where x=4 for 4000 VDC isolation, x=5 for 5200VDC isolation and x=6 for 6000 VDC isolation.
**IHL**

- **Single & Dual Outputs**
- ±10% Input Range
- SIP7 Package
- High Isolation, 5200VDC
- 250VAC/400VDC Working Voltage
- Bipolar Outputs for MOSFET & IGBT Drives
- -40 °C to +95 °C Operation
- MTBF 2.5MHrs
- 3 Year Warranty

### Power Output Specifications

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.65 W</td>
<td>3.3 VDC</td>
<td>500 mA</td>
<td>IHL02xs3V3</td>
</tr>
<tr>
<td>2 W</td>
<td>5.0 VDC</td>
<td>400 mA</td>
<td>IHL02xs05</td>
</tr>
<tr>
<td>2 W</td>
<td>9.0 VDC</td>
<td>222 mA</td>
<td>IHL02xs09</td>
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<td>2 W</td>
<td>12.0 VDC</td>
<td>167 mA</td>
<td>IHL02xs12</td>
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<tr>
<td>2 W</td>
<td>±5.0 VDC</td>
<td>±200 mA</td>
<td>IHL02x05</td>
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<tr>
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<td>2 W</td>
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<td>2 W</td>
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<td>±66.7 mA</td>
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<tr>
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<td>±5.0 VDC</td>
<td>±200 mA</td>
<td>IHL02x05</td>
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<td>2 W</td>
<td>±9.0 VDC</td>
<td>±111 mA</td>
<td>IHL02x09</td>
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<td>2 W</td>
<td>±12.0 VDC</td>
<td>±83.3 mA</td>
<td>IHL02x12</td>
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<tr>
<td>2 W</td>
<td>±15.0 VDC</td>
<td>±66.7 mA</td>
<td>IHL02x15</td>
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<tr>
<td>2 W</td>
<td>15.0/-9.0 VDC</td>
<td>±66.7/-111 mA</td>
<td>IHL02x1509</td>
</tr>
</tbody>
</table>

### Dimensions:

**IHL:** 0.77 x 0.28 x 0.39 in (19.5 x 7.2 x 10.0 mm)

---

**IL**

- **Single Output**
- ±10% Input Range
- SIP4 Package
- 1000VDC Isolation
- Optional 3000VDC Isolation
- -40 °C to +85 °C Operation
- MTBF >1.2MHrs
- 3 Year Warranty

### Power Output Specifications

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.32 W</td>
<td>3.3 VDC</td>
<td>400 mA</td>
<td>ILxx03S</td>
</tr>
<tr>
<td>2 W</td>
<td>5.0 VDC</td>
<td>400 mA</td>
<td>ILxx05S</td>
</tr>
<tr>
<td>2 W</td>
<td>9.0 VDC</td>
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<td>ILxx09S</td>
</tr>
<tr>
<td>2 W</td>
<td>12.0 VDC</td>
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<td>2 W</td>
<td>15.0 VDC</td>
<td>132 mA</td>
<td>ILxx15S</td>
</tr>
<tr>
<td>2 W</td>
<td>24.0 VDC</td>
<td>84 mA</td>
<td>ILxx24S</td>
</tr>
</tbody>
</table>

### Dimensions:

**IL:** 0.46 x 0.29 x 0.4 in (11.68 x 7.5 x 10.16 mm)

---

**IM**

- Regulated Single & Dual Outputs
- Wide 4:1 Input Range
- SIP9 Package
- 1500VDC Isolation
- -40 °C to +100 °C Operation
- ITE Safety Approvals
- Remote On/Off
- Continuous Short Circuit Protection
- 3 Year Warranty

### Power Output Specifications

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.65 W</td>
<td>3.3 VDC</td>
<td>500 mA</td>
<td>IMxx03SA</td>
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<tr>
<td>2 W</td>
<td>5.0 VDC</td>
<td>400 mA</td>
<td>IMxx05SA</td>
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<td>2 W</td>
<td>12.0 VDC</td>
<td>165 mA</td>
<td>IMxx12SA</td>
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<tr>
<td>2 W</td>
<td>15.0 VDC</td>
<td>135 mA</td>
<td>IMxx15SA</td>
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<td>±200 mA</td>
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</tr>
<tr>
<td>2 W</td>
<td>±15.0 VDC</td>
<td>±65 mA</td>
<td>IMxx15S</td>
</tr>
</tbody>
</table>

### Dimensions:

**IM:** 1.02 x 0.49 x 0.36 in (26.0 x 12.5 x 9.2 mm)
### DC-DC Converters

**IML02**

- 2 Watts
- Single & Dual Outputs
- ±10% Input Range
- SIP7 Package
- World Wide Medical Approvals
- 4000VAC Isolation, 1 x MOPP
- 2µA Patient Leakage Current
- -40 °C to +85 °C Operation
- Full Load at 85 °C Ambient
- MTBF 2.5Mhrs
- 3 Year Warranty

**Dimensions:**

IML02: 0.77 x 0.39 x 0.49 in (19.5 x 9.8 x 12.5 mm)

**Notes:**
For input range: 5V replace xx with 05, e.g. IML02xxS05
12V replace xx with 12 e.g. IML02xxS12
15V replace xx with 15 e.g. IML02xxS15
24V replace xx with 24 e.g. IML02xxS24

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 W</td>
<td>3.3 VDC</td>
<td>600 mA</td>
<td>IML02xxS3V3</td>
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<tr>
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<td>2 W</td>
<td>9.0 VDC</td>
<td>222 mA</td>
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<td>2 W</td>
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</tr>
<tr>
<td>2 W</td>
<td>±9.0 VDC</td>
<td>±111 mA</td>
<td>IML02xxD09</td>
</tr>
<tr>
<td>2 W</td>
<td>±12.0 VDC</td>
<td>±83 mA</td>
<td>IML02xxD12</td>
</tr>
<tr>
<td>2 W</td>
<td>±15.0 VDC</td>
<td>±66 mA</td>
<td>IML02xxD15</td>
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</tbody>
</table>

**IMM02**

- 2 Watts
- Regulated Single & Dual Outputs
- 2:1 Input Range
- SIP8 Package
- World Wide Medical Approvals
- 1500VAC Isolation, 1 x MOPP
- 2µA Patient Leakage Current
- -20 °C to +100 °C Operation
- MTBF 1Mhrs
- 3 Year Warranty

**Dimensions:**

IMM02: 0.86 x 0.36 x 0.44 in (21.85 x 9.2 x 11.1 mm)

**Notes:**
For input range: 5V replace xx with 05 e.g. IMM0205S12
12V replace xx with 12 e.g. IMM0212D03

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 W</td>
<td>3.3 VDC</td>
<td>606 mA</td>
<td>IMM02xxS3Y3</td>
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<td>2 W</td>
<td>5.0 VDC</td>
<td>400 mA</td>
<td>IMM02xxS05</td>
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<td>12.0 VDC</td>
<td>167 mA</td>
<td>IMM02xxS12</td>
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<tr>
<td>2 W</td>
<td>15.0 VDC</td>
<td>133 mA</td>
<td>IMM02xxS15</td>
</tr>
<tr>
<td>2 W</td>
<td>±3.3 VDC</td>
<td>±303 mA</td>
<td>IMM02xxD03</td>
</tr>
<tr>
<td>2 W</td>
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<td>±200 mA</td>
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<td>±83 mA</td>
<td>IMM02xxD15</td>
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<tr>
<td>2 W</td>
<td>±15.0 VDC</td>
<td>±66 mA</td>
<td>IMM02xxD15</td>
</tr>
</tbody>
</table>

**ISD01-02**

- 1-2 Watts
- Single & Dual Outputs
- ±10% Input Range
- Ultra Compact SMD Package
- 4200VDC Isolation
- 250VAC/400VDC Working Voltage
- -40 °C to +105 °C Operation
- Full Load at +100 °C
- Tape & Reel Package Available
- ITE Safety Approvals
- 3 Year Warranty

**Dimensions:**

ISD01/02 Single: 0.50 x 0.44 x 0.27 in (12.7 x 11.2 x 6.85 mm)
ISD01/02 Dual: 0.60 x 0.44 x 0.27 in (15.2 x 11.2 x 6.85 mm)

**Notes:**
For input range: 3V replace xx with 03 e.g. ISD0103S05/ISD0203S05
5V replace xx with 05 e.g. ISD0105S05/ISD0205S05

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 W</td>
<td>3.3 VDC</td>
<td>303 mA</td>
<td>IS0D1xxS3Y3</td>
</tr>
<tr>
<td>1 W</td>
<td>5.0 VDC</td>
<td>200 mA</td>
<td>IS0D1xxS05</td>
</tr>
<tr>
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<td>±3.3 VDC</td>
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<td>1 W</td>
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<td>±100 mA</td>
<td>IS0D1xxD05</td>
</tr>
<tr>
<td>2 W</td>
<td>3.3 VDC</td>
<td>500 mA</td>
<td>IS0D2xxS3Y3</td>
</tr>
<tr>
<td>2 W</td>
<td>5.0 VDC</td>
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<td>±303 mA</td>
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<tr>
<td>2 W</td>
<td>±5.0 VDC</td>
<td>±200 mA</td>
<td>IS0D2xxD05</td>
</tr>
</tbody>
</table>
ISH

2 Watts

- Single Output
- ±10% Input Range
- SMD Package
- Industry Standard Pinout
- 1500VDC Isolation, 3000VDC Option
- -40 °C to +105 °C Operation
- Tape & Reel Package Available
- 3 Year Warranty

Dimensions:

ISH: 0.500 x 0.44 x 0.285 in (12.7 x 11.2 x 7.25 mm)

---

ISM01-02

1-2 Watts

- Single & Dual Outputs
- ±10% Input Range
- Compact SMD Package
- World Wide Medical Approvals
- 4000VAC Reinforced Isolation
- 1 x MOPP
- 2 µA Patient Leakage Current
- -25 °C to +105 °C Operation
- Tape & Reel Package Available
- 3 Year Warranty

Dimensions:

ISM01: 0.74 x 0.68 x 0.41 in (18.9 x 17.2 x 10.5 mm)
ISM02: 0.94 x 0.71 x 0.36 in (24.0 x 18.0 x 9.0 mm)

---

ISP

2 Watts

- Regulated Single & Dual Outputs
- 2:1 Input Range
- SMD Package
- Industry Standard Pinout
- 1500VDC Isolation
- -40 °C to +85 °C Operation
- Tape & Reel Package Available
- 3 Year Warranty

Dimensions:

ISP: 0.94 x 0.54 x 0.29 in (23.86 x 13.24 x 7.50 mm)
ISQ
2 Watts

- Single Output
- ±10% Input Range
- SMD Package
- Industry Standard Pinout
- 6000VDC Isolation
- -40 °C to +85 °C Operation
- MTBF >3.5MHrs
- Tape & Reel Package Available
- 3 Year Warranty

Dimensions:
ISQ: 0.94 x 0.54 x 0.29 in (23.86 x 15.24 x 7.50 mm)

IU
2 Watts

- Regulated Single & Dual Outputs
- 2:1 Input Range
- SIP8 or DIP16 Package
- 1000VDC Isolation (Optional 3000VDC)
- Optional Metal Case
- Optional Remote On/Off (SIP only)
- Continuous Short Circuit Protection
- ITE Safety Approvals
- 3 Year Warranty

Dimensions:
IU SIP: 0.86 x 0.44 x 0.36 in (21.85 x 11.1 x 9.2 mm)
IU DIP: 0.92 x 0.55 x 0.4 in (23.4 x 14.0 x 10.16 mm)

IEU02-03
2-3 Watts

- Regulated Single & Dual Outputs
- 2:1 Input Range
- Compact DIP8 Package
- 1500VDC Isolation
- -40 °C to +95 °C Operation
- Full Load at 70 °C
- ITE Safety Approvals
- 3 Year Warranty

Dimensions:
IEU03/03: 0.55 x 0.55 x 0.31 in (14.0 x 14.0 x 8.0 mm)

Notes:
For input range: 5V replace xx with 05, e.g. IEU0305S05
12V replace xx with 12 e.g. IEU0312S05
24V replace xx with 24 e.g. IEU0324S05
48V replace xx with 48 e.g. IEU0348S05
### IP

#### 3 Watts

- Regulated Single & Dual Outputs
- Wide 4:1 Input Range
- SIP8 Package
- 1600VDC Isolation
- -40 °C to 85 °C Operation
- Remote On/Off
- 3 Year Warranty

#### Dimensions:

IP: 0.86 x 0.44 x 0.36 in (21.85 x 11.1 x 9.2 mm)

#### Notes:

For input range: 12V replace xx with 12, e.g. IP1205SA
For 48V replace xx with 48 e.g. IP4805SA

#### Models

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 W</td>
<td>3.3 VDC</td>
<td>700 mA</td>
<td>IPxx03SA</td>
</tr>
<tr>
<td>3 W</td>
<td>5.0 VDC</td>
<td>600 mA</td>
<td>IPxx05SA</td>
</tr>
<tr>
<td>3 W</td>
<td>12.0 VDC</td>
<td>250 mA</td>
<td>IPxx12SA</td>
</tr>
<tr>
<td>3 W</td>
<td>15.0 VDC</td>
<td>200 mA</td>
<td>IPxx15SA</td>
</tr>
<tr>
<td>3 W</td>
<td>±5.0 VDC</td>
<td>±300 mA</td>
<td>IPxx05S</td>
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<td>3 W</td>
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<td>±125 mA</td>
<td>IPxx12S</td>
</tr>
<tr>
<td>3 W</td>
<td>±15.0 VDC</td>
<td>±100 mA</td>
<td>IPxx15S</td>
</tr>
</tbody>
</table>

### IR

#### 3 Watts

- Semi-regulated Single & Dual Outputs
- ±10% Input Range
- SIP7 Package
- 1000VDC Isolation
- Optional 3000VDC Isolation
- -40 °C to +85 °C Operation
- 3 Year Warranty

#### Dimensions:

IR: 0.76 x 0.39 x 0.28 in (19.5 x 10.0 x 7.20 mm)

#### Notes:

For input range: 5V replace xx with 05, e.g. IR0505SA
12V replace xx with 12 e.g. IR1212S
For optional 3000VDC isolation, add suffix ‘-H’

#### Models

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 W</td>
<td>5.0 VDC</td>
<td>600 mA</td>
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<tr>
<td>3 W</td>
<td>9.0 VDC</td>
<td>333 mA</td>
<td>IRxx09SA</td>
</tr>
<tr>
<td>3 W</td>
<td>12.0 VDC</td>
<td>250 mA</td>
<td>IRxx12SA</td>
</tr>
<tr>
<td>3 W</td>
<td>15.0 VDC</td>
<td>200 mA</td>
<td>IRxx15SA</td>
</tr>
<tr>
<td>3 W</td>
<td>±5.0 VDC</td>
<td>±300 mA</td>
<td>IRxx05S</td>
</tr>
<tr>
<td>3 W</td>
<td>±9.0 VDC</td>
<td>±167 mA</td>
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</tr>
<tr>
<td>3 W</td>
<td>±12.0 VDC</td>
<td>±125 mA</td>
<td>IRxx12S</td>
</tr>
<tr>
<td>3 W</td>
<td>±15.0 VDC</td>
<td>±100 mA</td>
<td>IRxx15S</td>
</tr>
</tbody>
</table>

### IS

#### 3 Watts

- Regulated Single Output
- ±10% Input Range
- SIP12 Package
- 1000VDC Isolation
- Optional 3000VDC Isolation
- Continuous Short Circuit Protection
- MTBF >1.1MHrs
- 3 Year Warranty

#### Dimensions:

IS: 1.26 x 0.57 x 0.32 in (32.0 x 14.5 x 8.0 mm)

#### Notes:

Add suffix ‘-H’ to model number for 3000VDC isolation.
For input range: 5V replace xx with 05 e.g. IS0505SA
12V replace xx with 12 e.g. IS1205SA
For optional 3000VDC isolation, add suffix ‘-H’

#### Models

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 W</td>
<td>3.3 VDC</td>
<td>600 mA</td>
<td>ISxx03SA</td>
</tr>
<tr>
<td>3 W</td>
<td>5.0 VDC</td>
<td>600 mA</td>
<td>ISxx05SA</td>
</tr>
<tr>
<td>3 W</td>
<td>9.0 VDC</td>
<td>333 mA</td>
<td>ISxx09SA</td>
</tr>
<tr>
<td>3 W</td>
<td>12.0 VDC</td>
<td>250 mA</td>
<td>ISxx12SA</td>
</tr>
<tr>
<td>3 W</td>
<td>15.0 VDC</td>
<td>200 mA</td>
<td>ISxx15SA</td>
</tr>
<tr>
<td>3 W</td>
<td>24.0 VDC</td>
<td>125 mA</td>
<td>ISxx245A</td>
</tr>
</tbody>
</table>

#### Notes:

Add suffix ‘-H’ to model number for 3000VDC isolation.
For input range: 5V replace xx with 05 e.g. IS0505SA
12V replace xx with 12 e.g. IS1205SA
24V replace xx with 24 e.g. IS2405SA
DC-DC Converters

### ISC03

**3 Watts**

- Regulated Single & Dual Outputs
- Wide 4:1 Input Range
- Compact SMD Package
- 1500VDC Isolation
- -40 °C to +100 °C Operation
- Remote On/Off
- Tape & Reel Package Available
- 3 Year Warranty

#### Dimensions:

ISC: 0.94 x 0.71 x 0.32 in (24.00 x 18.10 x 8.25 mm)

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
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<tr>
<td>3 W</td>
<td>3.3 VDC</td>
<td>600 mA</td>
<td>ISC03x5V3</td>
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<tr>
<td>3 W</td>
<td>5.0 VDC</td>
<td>600 mA</td>
<td>ISC03x505</td>
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<tr>
<td>3 W</td>
<td>12.0 VDC</td>
<td>250 mA</td>
<td>ISC03x512</td>
</tr>
<tr>
<td>3 W</td>
<td>15.0 VDC</td>
<td>200 mA</td>
<td>ISC03x515</td>
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<tr>
<td>3 W</td>
<td>24.0 VDC</td>
<td>125 mA</td>
<td>ISC03x524</td>
</tr>
<tr>
<td>3 W</td>
<td>±5.0 VDC</td>
<td>±300 mA</td>
<td>ISC03xxD05</td>
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<tr>
<td>3 W</td>
<td>±12.0 VDC</td>
<td>±125 mA</td>
<td>ISC03xxD12</td>
</tr>
<tr>
<td>3 W</td>
<td>±15.0 VDC</td>
<td>±100 mA</td>
<td>ISC03xxD15</td>
</tr>
</tbody>
</table>

Notes:

For input range: 24V replace xx with 24 e.g. ISC0324S05
48V replace xx with 48 e.g. ISC0348S05

### ISR

**3 Watts**

- Regulated Single Output
- 2:1 Input Range
- SMD Package
- Industry Standard Pinout
- 1500VDC Isolation, 3000VDC Option
- -40 °C to +95 °C Operation
- Tape & Reel Package Available
- 3 Year Warranty

#### Dimensions:

ISR: 0.94 x 0.765 x 0.31 in (23.86 x 19.42 x 8.0 mm)

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 W</td>
<td>5.0 VDC</td>
<td>600 mA</td>
<td>ISRx05A</td>
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<tr>
<td>3 W</td>
<td>12.0 VDC</td>
<td>250 mA</td>
<td>ISRx12A</td>
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<tr>
<td>3 W</td>
<td>15.0 VDC</td>
<td>200 mA</td>
<td>ISRx15A</td>
</tr>
</tbody>
</table>

Notes:

For input range: 12V replace xx with 12 e.g. ISR1205A
24V replace xx with 24 e.g. ISR2405A
48V replace xx with 48 e.g. ISR4805A

### ISU02-03

**2-3 Watts**

- Regulated Single & Dual Outputs
- Wide 4:1 Input Range
- Compact SMD Package
- 1500VDC Isolation
- -40 °C to +95 °C Operation
- ITE Safety Approvals
- Remote On/Off
- Tape & Reel Package Available
- 3 Year Warranty

#### Dimensions:

ISU02/03: 0.75 x 0.67 x 0.34 in (19.0 x 17.0 x 8.7 mm)

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
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<tr>
<td>2 W</td>
<td>5.0 VDC</td>
<td>400 mA</td>
<td>ISU02x505</td>
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<td>12.0 VDC</td>
<td>167 mA</td>
<td>ISU02x512</td>
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<tr>
<td>2 W</td>
<td>15.0 VDC</td>
<td>134 mA</td>
<td>ISU02x515</td>
</tr>
<tr>
<td>2 W</td>
<td>24.0 VDC</td>
<td>83 mA</td>
<td>ISU02x524</td>
</tr>
<tr>
<td>2 W</td>
<td>±12.0 VDC</td>
<td>±83 mA</td>
<td>ISU02xD12</td>
</tr>
<tr>
<td>2 W</td>
<td>±15.0 VDC</td>
<td>±67 mA</td>
<td>ISU02xD15</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
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</thead>
<tbody>
<tr>
<td>3 W</td>
<td>5.0 VDC</td>
<td>600 mA</td>
<td>ISU03x505</td>
</tr>
<tr>
<td>3 W</td>
<td>12.0 VDC</td>
<td>250 mA</td>
<td>ISU03x512</td>
</tr>
<tr>
<td>3 W</td>
<td>15.0 VDC</td>
<td>200 mA</td>
<td>ISU03x515</td>
</tr>
<tr>
<td>3 W</td>
<td>24.0 VDC</td>
<td>125 mA</td>
<td>ISU03x524</td>
</tr>
<tr>
<td>3 W</td>
<td>±12.0 VDC</td>
<td>±125 mA</td>
<td>ISU03xD12</td>
</tr>
<tr>
<td>3 W</td>
<td>±15.0 VDC</td>
<td>±100 mA</td>
<td>ISU03xD15</td>
</tr>
</tbody>
</table>

Notes:

Input currents measured at nominal input voltage.
For input range: 5V replace xx with 5 e.g. ISU0205S05/ISU0305S05
24V replace xx with 24 e.g. ISU022450S/ISU032450S
48V replace xx with 48 e.g. ISU024850S/ISU034850S
### IT

**3 Watts**

- Regulated Single & Dual Outputs
- Wide 4:1 Input Range
- SIP8 Package
- 1500VDC Isolation
- -40 °C to +100 °C Operation
- Remote On/Off
- ITE Safety Approvals
- 3 Year Warranty

#### Power Output Voltage Output Current Model
<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.31 W</td>
<td>3.3 VDC</td>
<td>700 mA</td>
<td>ITxx03SA</td>
</tr>
<tr>
<td>3 W</td>
<td>5.0 VDC</td>
<td>600 mA</td>
<td>ITxx05SA</td>
</tr>
<tr>
<td>3 W</td>
<td>12.0 VDC</td>
<td>250 mA</td>
<td>ITxx12SA</td>
</tr>
<tr>
<td>3 W</td>
<td>15.0 VDC</td>
<td>200 mA</td>
<td>ITxx15SA</td>
</tr>
<tr>
<td>3 W</td>
<td>±5.0 VDC</td>
<td>±300 mA</td>
<td>ITxx05S</td>
</tr>
<tr>
<td>3 W</td>
<td>±12.0 VDC</td>
<td>±125 mA</td>
<td>ITxx12S</td>
</tr>
<tr>
<td>3 W</td>
<td>±15.0 VDC</td>
<td>±100 mA</td>
<td>ITxx15S</td>
</tr>
</tbody>
</table>

### IZ

**3 Watts**

- Regulated Single & Dual Outputs
- 2:1 Input Range
- SIP8 Package
- 1600VDC Isolation
- Continuous Short Circuit Protection
- Remote On/Off
- ITE Safety Approvals
- 3 Year Warranty

#### Power Output Voltage Output Current Model
<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.31 W</td>
<td>3.3 VDC</td>
<td>700 mA</td>
<td>IZxx03SA</td>
</tr>
<tr>
<td>3 W</td>
<td>5.0 VDC</td>
<td>600 mA</td>
<td>IZxx05SA</td>
</tr>
<tr>
<td>3 W</td>
<td>12.0 VDC</td>
<td>250 mA</td>
<td>IZxx12SA</td>
</tr>
<tr>
<td>3 W</td>
<td>15.0 VDC</td>
<td>200 mA</td>
<td>IZxx15SA</td>
</tr>
<tr>
<td>3 W</td>
<td>±5.0 VDC</td>
<td>±300 mA</td>
<td>IZxx05S</td>
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<tr>
<td>3 W</td>
<td>±12.0 VDC</td>
<td>±125 mA</td>
<td>IZxx12S</td>
</tr>
<tr>
<td>3 W</td>
<td>±15.0 VDC</td>
<td>±100 mA</td>
<td>IZxx15S</td>
</tr>
</tbody>
</table>

#### Notes:
- For input range: 24V replace xx with 24 e.g. IT2412SA
- 48V replace xx with 48 e.g. IT4805S

### JCA02-03

**2-3 Watts**

- Regulated Single & Dual Outputs
- 2:1 Input Range
- Compact 1.0” x 0.8” Metal Package
- Industry Standard DIP24 Pin Out
- ITE Safety Approvals
- 1500VDC Basic Isolation
- -40 °C to +100 °C Operation
- 3 Year Warranty

#### Power Output Voltage Output Current Model
<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 W</td>
<td>3.3 VDC</td>
<td>0.600 A</td>
<td>JCA02xxS03</td>
</tr>
<tr>
<td>2 W</td>
<td>5.0 VDC</td>
<td>0.400 A</td>
<td>JCA02xxS05</td>
</tr>
<tr>
<td>2 W</td>
<td>12.0 VDC</td>
<td>0.170 A</td>
<td>JCA02xxS12</td>
</tr>
<tr>
<td>2 W</td>
<td>15.0 VDC</td>
<td>0.140 A</td>
<td>JCA02xxS15</td>
</tr>
<tr>
<td>2 W</td>
<td>±5.0 VDC</td>
<td>±0.200 A</td>
<td>JCA02xxD01</td>
</tr>
<tr>
<td>2 W</td>
<td>±12.0 VDC</td>
<td>±0.085 A</td>
<td>JCA02xxD02</td>
</tr>
<tr>
<td>2 W</td>
<td>±15.0 VDC</td>
<td>±0.070 A</td>
<td>JCA02xxD03</td>
</tr>
<tr>
<td>3 W</td>
<td>3.3 VDC</td>
<td>0.910 A</td>
<td>JCA03xxS03</td>
</tr>
<tr>
<td>3 W</td>
<td>5.0 VDC</td>
<td>0.600 A</td>
<td>JCA03xxS05</td>
</tr>
<tr>
<td>3 W</td>
<td>12.0 VDC</td>
<td>0.260 A</td>
<td>JCA03xxS12</td>
</tr>
<tr>
<td>3 W</td>
<td>15.0 VDC</td>
<td>0.200 A</td>
<td>JCA03xxS15</td>
</tr>
<tr>
<td>3 W</td>
<td>±5.0 VDC</td>
<td>±0.300 A</td>
<td>JCA03xxD01</td>
</tr>
<tr>
<td>3 W</td>
<td>±12.0 VDC</td>
<td>±0.130 A</td>
<td>JCA03xxD02</td>
</tr>
<tr>
<td>3 W</td>
<td>±15.0 VDC</td>
<td>±0.100 A</td>
<td>JCA03xxD03</td>
</tr>
</tbody>
</table>

#### Notes:
- For input range: 5V replace xx with 05 e.g. JCA0205S05
- 12V replace xx with 12 e.g. JCA0212S05
- 24V replace xx with 24 e.g. JCA0224S05
- 48V replace xx with 48 e.g. JCA0248S05

#### Dimensions:
- IT: 1.02 x 0.49 x 0.36 in (26.0 x 12.5 x 9.2 mm)
- IZ: 0.86 x 0.44 x 0.36 in (21.85 x 11.1 x 9.2 mm)
- JCA02-03: 1.0 x 0.8 x 0.4 in (25.4 x 20.3 x 10.0 mm)
## DC-DC Converters

### JCE03

**3 Watts**

- Regulated Single & Dual Outputs
- 2:1 Input Range
- DIP24 Plastic Case
- 1500VDC Isolation, 3000VDC Option
- -40 °C to +100 °C Operation
- No Minimum Load Required
- ITE Safety Approvals
- 3 Year Warranty

**Dimensions:**

JCE03: 1.25 x 0.80 x 0.40 in (31.75 x 20.32 x 10.16 mm)

**Notes:**

- For input range: 12V replace xx with 12 e.g. JCE0312S05
- 24V replace xx with 24 e.g. JCE0324S05
- 48V replace xx with 48 e.g. JCE0348S05

**Input Voltage**

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 W</td>
<td>3.3 VDC</td>
<td>900 mA</td>
<td>JCE03x3V3</td>
</tr>
<tr>
<td>3 W</td>
<td>5.0 VDC</td>
<td>600 mA</td>
<td>JCE03x505</td>
</tr>
<tr>
<td>3 W</td>
<td>12.0 VDC</td>
<td>250 mA</td>
<td>JCE03x12</td>
</tr>
<tr>
<td>3 W</td>
<td>15.0 VDC</td>
<td>200 mA</td>
<td>JCE03x15</td>
</tr>
<tr>
<td>3 W</td>
<td>24.0 VDC</td>
<td>125 mA</td>
<td>JCE03x24</td>
</tr>
<tr>
<td>3 W</td>
<td>±3.3 VDC</td>
<td>±450 mA</td>
<td>JCE03x003</td>
</tr>
<tr>
<td>3 W</td>
<td>±5.0 VDC</td>
<td>±300 mA</td>
<td>JCE03x005</td>
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<td>3 W</td>
<td>±12.0 VDC</td>
<td>±125 mA</td>
<td>JCE03x12</td>
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<tr>
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<tr>
<td>3 W</td>
<td>±24.0 VDC</td>
<td>±63 mA</td>
<td>JCE03x24</td>
</tr>
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</table>

**Output Voltage**

<table>
<thead>
<tr>
<th>Power</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 W</td>
<td>JCE03x3V3</td>
</tr>
<tr>
<td>3 W</td>
<td>JCE03x505</td>
</tr>
<tr>
<td>3 W</td>
<td>JCE03x12</td>
</tr>
<tr>
<td>3 W</td>
<td>JCE03x15</td>
</tr>
<tr>
<td>3 W</td>
<td>JCE03x24</td>
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</tbody>
</table>

### JTE03

**3 Watts**

- Regulated Single & Dual Outputs
- Wide 4:1 Input Range
- DIP24 Plastic Case
- 1500VDC Isolation, 3000VDC Option
- -40 °C to +100 °C Operation
- Fully Regulated Output
- No Minimum Load Required
- ITE Safety Approvals
- 3 Year Warranty

**Dimensions:**

JTE03: 1.25 x 0.80 x 0.40 in (31.75 x 20.32 x 10.16 mm)

**Notes:**

- For input range: 24V replace xx with 24 e.g. JTE0324S05
- 48V replace xx with 48 e.g. JTE0348S05

**Output Voltage**

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 W</td>
<td>3.3 VDC</td>
<td>900 mA</td>
<td>JTE03x3V3</td>
</tr>
<tr>
<td>3 W</td>
<td>5.0 VDC</td>
<td>600 mA</td>
<td>JTE03x505</td>
</tr>
<tr>
<td>3 W</td>
<td>12.0 VDC</td>
<td>250 mA</td>
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</tr>
<tr>
<td>3 W</td>
<td>15.0 VDC</td>
<td>200 mA</td>
<td>JTE03x15</td>
</tr>
<tr>
<td>3 W</td>
<td>24.0 VDC</td>
<td>125 mA</td>
<td>JTE03x24</td>
</tr>
<tr>
<td>3 W</td>
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<td>±15.0 VDC</td>
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<tr>
<td>3 W</td>
<td>±24.0 VDC</td>
<td>±63 mA</td>
<td>JTE03x24</td>
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**Output Voltage**

<table>
<thead>
<tr>
<th>Power</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 W</td>
<td>JTE03x3V3</td>
</tr>
<tr>
<td>3 W</td>
<td>JTE03x505</td>
</tr>
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<td>3 W</td>
<td>JTE03x12</td>
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<td>3 W</td>
<td>JTE03x15</td>
</tr>
<tr>
<td>3 W</td>
<td>JTE03x24</td>
</tr>
</tbody>
</table>

### JCD04

**4 Watts**

- Regulated Single & Dual Outputs
- 2:1 Input Range
- Industry Standard DIP24 Package
- 1600VDC Isolation
- Continuous Short Circuit Protection
- -40 °C to +100 °C Operation
- Optional 3500VDC Isolation
- ITE Safety Approvals
- 3 Year Warranty

**Dimensions:**

JCD04: 1.25 x 0.8 x 0.4 in (31.75 x 20.32 x 10.16 mm)

**Notes:**

- For input range: 5V replace xx with 05, e.g. JCD0405S05
- 12V replace xx with 12 e.g. JCD0412S05
- 24V replace xx with 24 e.g. JCD0424S05
- 48V replace xx with 48 e.g. JCD0448S05

**Input Voltage**

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 W</td>
<td>3.3 VDC</td>
<td>1200 mA</td>
<td>JCD04x3V3</td>
</tr>
<tr>
<td>4 W</td>
<td>5.0 VDC</td>
<td>800 mA</td>
<td>JCD04x505</td>
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<tr>
<td>4 W</td>
<td>9.0 VDC</td>
<td>444 mA</td>
<td>JCD04x909</td>
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<tr>
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<td>12.0 VDC</td>
<td>333 mA</td>
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</tr>
<tr>
<td>4 W</td>
<td>15.0 VDC</td>
<td>266 mA</td>
<td>JCD04x15</td>
</tr>
<tr>
<td>4 W</td>
<td>24.0 VDC</td>
<td>166 mA</td>
<td>JCD04x24</td>
</tr>
<tr>
<td>4 W</td>
<td>±3.3 VDC</td>
<td>±600 mA</td>
<td>JCD04x003</td>
</tr>
<tr>
<td>4 W</td>
<td>±5.0 VDC</td>
<td>±400 mA</td>
<td>JCD04x005</td>
</tr>
<tr>
<td>4 W</td>
<td>±9.0 VDC</td>
<td>±220 mA</td>
<td>JCD04x009</td>
</tr>
<tr>
<td>4 W</td>
<td>±12.0 VDC</td>
<td>±166 mA</td>
<td>JCD04x12</td>
</tr>
<tr>
<td>4 W</td>
<td>±15.0 VDC</td>
<td>±133 mA</td>
<td>JCD04x15</td>
</tr>
<tr>
<td>4 W</td>
<td>±24.0 VDC</td>
<td>±83 mA</td>
<td>JCD04x24</td>
</tr>
</tbody>
</table>

**Output Voltage**

<table>
<thead>
<tr>
<th>Power</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 W</td>
<td>JCD04x3V3</td>
</tr>
<tr>
<td>4 W</td>
<td>JCD04x505</td>
</tr>
<tr>
<td>4 W</td>
<td>JCD04x909</td>
</tr>
<tr>
<td>4 W</td>
<td>JCD04x12</td>
</tr>
<tr>
<td>4 W</td>
<td>JCD04x15</td>
</tr>
<tr>
<td>4 W</td>
<td>JCD04x24</td>
</tr>
</tbody>
</table>
### JTC04
4 Watts

- **Regulated Single & Dual Outputs**
- **Wide 4:1 Input Range**
- **DIP24 Metal Package**
- **1500VDC Isolation, 3500VDC Option**
- **-40 °C to +100 °C Operation**
- **Continuous Short Circuit Protection**
- **3 Year Warranty**

#### Dimensions:
- JTC04: 1.25 x 0.8 x 0.4 in (31.75 x 20.32 x 10.4 mm)

#### Power Output Voltage Output Current Model
<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 W</td>
<td>3.3 VDC</td>
<td>1200 mA</td>
<td>JTC04xS3V3</td>
</tr>
<tr>
<td>4 W</td>
<td>5.0 VDC</td>
<td>800 mA</td>
<td>JTC04xS5V5</td>
</tr>
<tr>
<td>4 W</td>
<td>9.0 VDC</td>
<td>445 mA</td>
<td>JTC04xS9V9</td>
</tr>
<tr>
<td>4 W</td>
<td>12.0 VDC</td>
<td>335 mA</td>
<td>JTC04xS12V12</td>
</tr>
<tr>
<td>4 W</td>
<td>15.0 VDC</td>
<td>267 mA</td>
<td>JTC04xS15V15</td>
</tr>
<tr>
<td>4 W</td>
<td>18.0 VDC</td>
<td>223 mA</td>
<td>JTC04xS18V18</td>
</tr>
<tr>
<td>4 W</td>
<td>24.0 VDC</td>
<td>167 mA</td>
<td>JTC04xS24</td>
</tr>
<tr>
<td>4 W</td>
<td>±3.3 VDC</td>
<td>±606 mA</td>
<td>JTC04xD03</td>
</tr>
<tr>
<td>4 W</td>
<td>±5.0 VDC</td>
<td>±400 mA</td>
<td>JTC04xD05</td>
</tr>
<tr>
<td>4 W</td>
<td>±9.0 VDC</td>
<td>±222 mA</td>
<td>JTC04xD09</td>
</tr>
<tr>
<td>4 W</td>
<td>±12.0 VDC</td>
<td>±167 mA</td>
<td>JTC04xD12</td>
</tr>
<tr>
<td>4 W</td>
<td>±15.0 VDC</td>
<td>±134 mA</td>
<td>JTC04xD15</td>
</tr>
<tr>
<td>4 W</td>
<td>±24.0 VDC</td>
<td>±84 mA</td>
<td>JTC04xD24</td>
</tr>
</tbody>
</table>

**Notes:**
- For input range: 24V replace xx with 24 e.g. JTC0424S05
- 48V replace xx with 48 e.g. JTC0448S05
- For optional 3500VDC isolation add suffix ‘-H’ to model number. For optional plastic case, add suffix ‘-P’ to model number. For both options add suffix ‘-HP to model number.

### IEQ05
5 Watts

- **Regulated Single & Dual Outputs**
- **Wide 4:1 Input Range**
- **SIP8 Package**
- **1500VDC Isolation**
- **Optional 3500VDC Isolation**
- **-40 °C to +90 °C Operation**
- **Remote On/Off**
- **3 Year Warranty**

#### Dimensions:
- IEQ05: 0.86 x 0.37 x 0.44 in (21.8 x 9.3 x 11.2 mm)

#### Power Output Voltage Output Current Model
<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.55 W</td>
<td>3.3 VDC</td>
<td>1075 mA</td>
<td>IE05xS3V3</td>
</tr>
<tr>
<td>5 W</td>
<td>5.0 VDC</td>
<td>1000 mA</td>
<td>IE05xS5V5</td>
</tr>
<tr>
<td>5 W</td>
<td>12.0 VDC</td>
<td>417 mA</td>
<td>IE05xS12V12</td>
</tr>
<tr>
<td>5 W</td>
<td>15.0 VDC</td>
<td>334 mA</td>
<td>IE05xS15V15</td>
</tr>
<tr>
<td>5 W</td>
<td>24.0 VDC</td>
<td>209 mA</td>
<td>IE05xS24</td>
</tr>
<tr>
<td>5 W</td>
<td>±12.0 VDC</td>
<td>±209 mA</td>
<td>IE05xD12</td>
</tr>
<tr>
<td>5 W</td>
<td>±15.0 VDC</td>
<td>±167 mA</td>
<td>IE05xD15</td>
</tr>
</tbody>
</table>

**Notes:**
- For input range: 12V replace xx with 12, e.g. IEQ0512S05
- 24V replace xx with 24 e.g. IEQ0524S05
- 48V replace xx with 48 e.g. IEQ0548S05

### JCD05
5 Watts

- **Regulated Single & Dual Outputs**
- **2:1 Input Range**
- **Industry Standard DIP24 Package**
- **1600VDC Isolation**
- **Optional 3500VDC Isolation**
- **-40 °C to +100 °C Operation**
- **Continuous Short Circuit Protection**
- **ITE Safety Approvals**
- **3 Year Warranty**

#### Dimensions:
- JCD05: 1.25 x 0.8 x 0.4 in (31.75 x 20.32 x 10.16 mm)

#### Power Output Voltage Output Current Model
<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.29 W</td>
<td>3.3 VDC</td>
<td>1300 mA</td>
<td>JCD05xS3V3</td>
</tr>
<tr>
<td>5 W</td>
<td>5.0 VDC</td>
<td>1000 mA</td>
<td>JCD05xS5V5</td>
</tr>
<tr>
<td>5 W</td>
<td>9.0 VDC</td>
<td>555 mA</td>
<td>JCD05xS9V9</td>
</tr>
<tr>
<td>5 W</td>
<td>12.0 VDC</td>
<td>417 mA</td>
<td>JCD05xS12V12</td>
</tr>
<tr>
<td>5 W</td>
<td>15.0 VDC</td>
<td>333 mA</td>
<td>JCD05xS15V15</td>
</tr>
<tr>
<td>5 W</td>
<td>24.0 VDC</td>
<td>208 mA</td>
<td>JCD05xS24*</td>
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<tr>
<td>5 W</td>
<td>±3.3 VDC</td>
<td>±350 mA</td>
<td>JCD05xD03</td>
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<tr>
<td>5 W</td>
<td>±5.0 VDC</td>
<td>±500 mA</td>
<td>JCD05xD05</td>
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<tr>
<td>5 W</td>
<td>±8.0 VDC</td>
<td>±278 mA</td>
<td>JCD05xD09*</td>
</tr>
<tr>
<td>5 W</td>
<td>±12.0 VDC</td>
<td>±208 mA</td>
<td>JCD05xD12</td>
</tr>
<tr>
<td>5 W</td>
<td>±15.0 VDC</td>
<td>±167 mA</td>
<td>JCD05xD15</td>
</tr>
<tr>
<td>5 W</td>
<td>±24.0 VDC</td>
<td>±104 mA</td>
<td>JCD05xD24*</td>
</tr>
</tbody>
</table>

**Notes:**
- For input range: 5V replace xx with 05, e.g. JCD0505S05
- 12V replace xx with 12, e.g. JCD0512S05
- 24V replace xx with 24, e.g. JCD0524S05
- 48V replace xx with 48, e.g. JCD0548S05
- For optional 3500VDC isolation add suffix ‘-H’ to part number. *Not available in 5V input versions
**ISX06**

6 Watts

- Regulated Single & Dual Outputs
- Wide 4:1 Input Range
- Compact SMD Package
- 1500VDC Isolation
- -40 °C to +100 °C Operation
- Remote On/Off
- Tape & Reel Package Available
- 3 Year Warranty

**ITQ**

6 Watts

- Regulated Single & Dual Outputs
- Wide 4:1 Input Range
- SIP8 Plastic Case
- 1500VDC Isolation
- Optional 3000VDC Version
- -40 °C to +100 °C Operation
- Remote On/Off
- ITE Safety Approvals
- 3 Year Warranty

**ITX**

6 Watts

- Regulated Single & Dual Outputs
- 2:1 Input Range
- SIP8 Plastic Case
- 1500VDC Isolation, 3000VDC Option
- -40 °C to +90 °C Operation
- Remote Control Option
- ITE Safety Approvals
- 3 Year Warranty
JCD06

6 Watts

- Regulated Single & Dual Outputs
- Wide 4:1 Input Range
- Industry Standard DIP24 Package
- 1500VDC Isolation
- Optional 3000VDC Isolation
- Continuous Short Circuit Protection
- -40 °C to +100 °C Operation
- ITE Safety Approvals
- 3 Year Warranty

Dimensions:
JCD06: 1.25 x 0.8 x 0.4 in (31.75 x 20.32 x 10.16 mm)

Notes:
For input range: 5V replace xx with 05, e.g. JCD06S05S05
12V replace xx with 12 e.g. JCD06S12S05
24V replace xx with 24 e.g. JCD06S24S05
48V replace xx with 48 e.g. JCD06S48S05
For optional 3000VDC isolation add suffix -H to part number.
*Not available in 5V input versions

JCE06

6 Watts

- Regulated Single & Dual Outputs
- 2:1 Input Range
- DIP24 Plastic Case
- 1500VDC Isolation, 3000VDC Option
- -40 °C to +100 °C Operation
- Optional Metal Case
- ITE Safety Approvals
- 3 Year Warranty

Dimensions:
JCE06: 1.25 x 0.8 x 0.4 in (31.75 x 20.32 x 10.16 mm)

Notes:
For input range: 12V replace xx with 12 e.g. JCE06S12S05
24V replace xx with 24 e.g. JCE06S24S05
48V replace xx with 48 e.g. JCE06S48S05
For optional 3000VDC isolation add suffix -H to part number.
For optional metal case version add suffix -M to part number.

JHL03-06

3-6 Watts

- Regulated Single & Dual Outputs
- Wide Input Range
- DIP24 Package
- World Wide Medical (2 x MOPP) Approvals
- IEC60601-1, 3rd Edition 2 x MOPP
- 4000VAC Reinforced Insulation
- 2µA Patient Leakage Current
- EN55011 Level A (No External Components)
- 3 Year Warranty

Dimensions:
JHL03/JHL06: 1.25 x 0.8 x 0.4 in (31.15 x 20.32 x 10.20 mm)

Notes:
For input range: 12V replace xx with 12 e.g. JHL03S12S05
24V replace xx with 24 e.g. JHL03S24S05
48V replace xx with 48 e.g. JHL03S48S05
For optional 3000VDC isolation add suffix -H to part number.
For optional metal case version add suffix -M to part number.
### DC-DC Converters

#### JTE06

- **6 Watts**
- Regulated Single & Dual Outputs
- Wide 4:1 Input Range
- DIP24 Plastic Case
- 1500VDC Isolation, 3000VDC Option
- Operating Temperature -40 °C to +100 °C
- Optional Metal Case
- ITE Safety Approvals
- 3 Year Warranty

**Dimensions:**

JTE06: 1.25 x 0.8 x 0.4 in (31.75 x 20.32 x 10.16 mm)

#### JSE08

- **8 Watts**
- Regulated Single & Dual Outputs
- 2:1 Input Range
- DIP16 Package
- 1500VDC Isolation
- -40 °C to +105 °C Operation
- ITE Safety Approvals
- High Power Density
- Metal Case
- 3 Year Warranty

**Dimensions:**

JSE08: 0.94 x 0.54 x 0.31 in (23.8 x 13.7 x 8.0 mm)

#### JWE06-08

- **6-8 Watts**
- Regulated Single & Dual Outputs
- Wide 4:1 Input Range
- DIP16 Package
- 1500VDC Isolation
- -40 °C to +105 °C Operation
- ITE Safety Approvals
- High Power Density
- Metal Case
- 3 Year Warranty

**Dimensions:**

JWE06/08: 0.94 x 0.54 x 0.31 in (23.8 x 13.7 x 8.0 mm)

---

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 W</td>
<td>3.3 VDC</td>
<td>1400 mA</td>
<td>JTE06xxS3V3</td>
</tr>
<tr>
<td>6 W</td>
<td>5.0 VDC</td>
<td>1200 mA</td>
<td>JTE06xxS05</td>
</tr>
<tr>
<td>6 W</td>
<td>12.0 VDC</td>
<td>500 mA</td>
<td>JTE06xxS12</td>
</tr>
<tr>
<td>6 W</td>
<td>15.0 VDC</td>
<td>400 mA</td>
<td>JTE06xxS15</td>
</tr>
<tr>
<td>6 W</td>
<td>24.0 VDC</td>
<td>250 mA</td>
<td>JTE06xxS24</td>
</tr>
<tr>
<td>6 W</td>
<td>±3.3 VDC</td>
<td>±909 mA</td>
<td>JTE06xxD03</td>
</tr>
<tr>
<td>6 W</td>
<td>±5.0 VDC</td>
<td>±600 mA</td>
<td>JTE06xxD05</td>
</tr>
<tr>
<td>6 W</td>
<td>±12.0 VDC</td>
<td>±250 mA</td>
<td>JTE06xxD12</td>
</tr>
<tr>
<td>6 W</td>
<td>±15.0 VDC</td>
<td>±200 mA</td>
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</tr>
<tr>
<td>6 W</td>
<td>±24.0 VDC</td>
<td>±125 mA</td>
<td>JTE06xxD24</td>
</tr>
</tbody>
</table>

**Notes:**

For input range: 24V replace xx with 24, e.g. JTE0624S05
48V replace xx with 48 e.g. JTE0648S05
For optional 3000 VDC isolation add suffix -H to part number.
For optional metal case version, add suffix ‘M’ to part number, eg. JTE06xxS05-M

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.28 W</td>
<td>3.3 VDC</td>
<td>1600 mA</td>
<td>JSE08xxS3V3</td>
</tr>
<tr>
<td>8 W</td>
<td>5.0 VDC</td>
<td>1600 mA</td>
<td>JSE08xxS05</td>
</tr>
<tr>
<td>8 W</td>
<td>12.0 VDC</td>
<td>665 mA</td>
<td>JSE08xxS12</td>
</tr>
<tr>
<td>8 W</td>
<td>15.0 VDC</td>
<td>535 mA</td>
<td>JSE08xxS15</td>
</tr>
<tr>
<td>8 W</td>
<td>24.0 VDC</td>
<td>335 mA</td>
<td>JSE08xxS24</td>
</tr>
<tr>
<td>8 W</td>
<td>±12.0 VDC</td>
<td>±335 mA</td>
<td>JSE08xxD12</td>
</tr>
<tr>
<td>8 W</td>
<td>±15.0 VDC</td>
<td>±265 mA</td>
<td>JSE08xxD15</td>
</tr>
</tbody>
</table>

**Notes:**

For input range: 12V replace xx with 12 e.g. JSE0812S05
24V replace xx with 24 e.g. JSE0824S05
48V replace xx with 48 e.g. JSE0848S05

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.95 W</td>
<td>3.3 VDC</td>
<td>1500 mA</td>
<td>JWE06xxS3V3</td>
</tr>
<tr>
<td>6 W</td>
<td>5.0 VDC</td>
<td>1200 mA</td>
<td>JWE06xxS05</td>
</tr>
<tr>
<td>6 W</td>
<td>12.0 VDC</td>
<td>500 mA</td>
<td>JWE06xxS12</td>
</tr>
<tr>
<td>6 W</td>
<td>15.0 VDC</td>
<td>400 mA</td>
<td>JWE06xxS15</td>
</tr>
<tr>
<td>6 W</td>
<td>24.0 VDC</td>
<td>250 mA</td>
<td>JWE06xxS24</td>
</tr>
<tr>
<td>6 W</td>
<td>±12.0 VDC</td>
<td>±250 mA</td>
<td>JWE06xxD12</td>
</tr>
<tr>
<td>6 W</td>
<td>±15.0 VDC</td>
<td>±200 mA</td>
<td>JWE06xxD15</td>
</tr>
</tbody>
</table>

**Notes:**

For input range: 24V replace xx with 24 e.g. JWE0624S05/JWE0824S05
48V replace xx with 48 e.g. JWE0648S05/JWE0848S05
ICZ09
9 Watts

- Regulated Single & Dual Outputs
- 2:1 Input Range
- Ultra Compact SIP8 Package
- 1600VDC Isolation
- Operating Temperature -40 °C to +85 °C
- Smallest Footprint 9W Converter
- Remote On/Off
- 3 Year Warranty

Power | Output Voltage | Output Current | Model
---|---|---|---
6.6 W | 3.3 VDC | 2000 mA | ICZ09xx3V3
8 W | 5.0 VDC | 1600 mA | ICZ09xx505
9 W | 9.0 VDC | 1000 mA | ICZ09xx909
9 W | 12.0 VDC | 750 mA | ICZ09xx912
9 W | 15.0 VDC | 600 mA | ICZ09xx915
9 W | 24.0 VDC | 375 mA | ICZ09xx924
9 W | ±5.0 VDC | ±600 mA | ICZ09xx905
9 W | ±12.0 VDC | ±250 mA | ICZ09xx912
9 W | ±15.0 VDC | ±200 mA | ICZ09xx915

Notes:
- For input range: 12V replace xx with 12 e.g. ICZ0912S05
- 24V replace xx with 24 e.g. ICZ0924S05
- 48V replace xx with 48 e.g. ICZ0948S05

Dimensions:
ICZ09: 0.86 x 0.38 x 0.44" [21.8 x 9.6 x 11.2 mm]

ITZ09
9 Watts

- Regulated Single & Dual Outputs
- Wide 4:1 Input Range
- Ultra Compact SIP8 Package
- 1600VDC Isolation
- -40 °C to +85 °C Operation
- Smallest Footprint 9W Converter
- Remote On/Off
- 3 Year Warranty

Power | Output Voltage | Output Current | Model
---|---|---|---
6.6 W | 3.3 VDC | 2000 mA | ITZ09xx3V3
8 W | 5.0 VDC | 1600 mA | ITZ09xx505
9 W | 9.0 VDC | 1000 mA | ITZ09xx909
9 W | 12.0 VDC | 750 mA | ITZ09xx912
9 W | 15.0 VDC | 600 mA | ITZ09xx915
9 W | 24.0 VDC | 375 mA | ITZ09xx924
9 W | ±5.0 VDC | ±600 mA | ITZ09xx905
9 W | ±12.0 VDC | ±250 mA | ITZ09xx912
9 W | ±15.0 VDC | ±200 mA | ITZ09xx915

Notes:
- For input range: 24V replace xx with 24 e.g. ITZ0924S05
- 48V replace xx with 48 e.g. ITZ0948S05

Dimensions:
ITZ09: 0.86 x 0.38 x 0.44 in [21.9 x 9.6 x 11.2 mm]

JCA04-10
4-10 Watts

- Regulated Single & Dual Outputs
- 2:1 Input Range
- Compact 1.0” x 0.8” Metal Package
- Industry Standard DIP24 Pin Out
- 1500VDC Basic Isolation
- -40 °C to +100 °C Operation
- 3 Year Warranty

Power | Output Voltage | Output Current | Model
---|---|---|---
4 W | 3.3 VDC | 1.22 A | JCA04xxS03
4 W | 5.0 VDC | 0.80 A | JCA04xxS05
4 W | 12.0 VDC | 0.34 A | JCA04xxS12
4 W | 15.0 VDC | 0.28 A | JCA04xxS15
4 W | ±5.0 VDC | ±0.40 A | JCA04xxD01
4 W | ±12.0 VDC | ±0.17 A | JCA04xxD02
4 W | ±15.0 VDC | ±0.14 A | JCA04xxD03
5 W | 3.3 VDC | 1.22 A | JCA06xxS03
6 W | 5.0 VDC | 1.00 A | JCA06xxS05
6 W | 12.0 VDC | 0.50 A | JCA06xxS12
6 W | 15.0 VDC | 0.40 A | JCA06xxS15
6 W | ±5.0 VDC | ±0.50 A | JCA06xxD01
6 W | ±12.0 VDC | ±0.25 A | JCA06xxD02
6 W | ±15.0 VDC | ±0.20 A | JCA06xxD03
8 W | 3.3 VDC | 2.42 A | JCA10xxS03
10 W | 5.0 VDC | 1.60 A | JCA10xxS05
10 W | 12.0 VDC | 0.83 A | JCA10xxS12
10 W | 15.0 VDC | 0.66 A | JCA10xxS15
10 W | ±5.0 VDC | ±0.80 A | JCA10xxD01
10 W | ±12.0 VDC | ±0.42 A | JCA10xxD02
10 W | ±15.0 VDC | ±0.33 A | JCA10xxD03

Notes:
- For input range: 5V replace xx with 05 e.g. JCA1005S05
- 12V replace xx with 12 e.g. JCA1012S05
- 24V replace xx with 24 e.g. JCA1024S05
- 48V replace xx with 48 e.g. JCA1048S05
DC-DC Converters

**JCJ08-10**
8-10 Watts

- Regulated Single & Dual Outputs
- 2:1 Input Range
- DIP24 Metal Package
- 1500VDC Isolation
- -40 °C to +100 °C Operation
- Continuous Short Circuit Protection
- ITE Safety Approvals
- 3 Year Warranty

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.6 W</td>
<td>3.3 VDC</td>
<td>2.000 A</td>
<td>JCJ08xS3V3</td>
</tr>
<tr>
<td>8 W</td>
<td>5.0 VDC</td>
<td>1.500 A</td>
<td>JCJ08xS05</td>
</tr>
<tr>
<td>8 W</td>
<td>12.0 VDC</td>
<td>0.665 A</td>
<td>JCJ08xS12</td>
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<tr>
<td>8 W</td>
<td>15.0 VDC</td>
<td>0.535 A</td>
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<tr>
<td>8 W</td>
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<td>±0.800 A</td>
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<tr>
<td>8 W</td>
<td>±12.0 VDC</td>
<td>±0.335 A</td>
<td>JCJ08xD12</td>
</tr>
<tr>
<td>8 W</td>
<td>±15.0 VDC</td>
<td>±0.265 A</td>
<td>JCJ08xD15</td>
</tr>
</tbody>
</table>

**JTF08-10**
8-10 Watts

- Regulated Single & Dual Outputs
- Wide 4:1 Input Range
- High Power Density
- 1600VDC Isolation
- -40 °C to +105 °C Operation
- Standard Remote On/Off
- ITE Safety Approvals
- 3 Year Warranty

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
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<tr>
<td>6.6 W</td>
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<td>2.0 A</td>
<td>JTF08xS3V3</td>
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<tr>
<td>8 W</td>
<td>5.0 VDC</td>
<td>1.5 A</td>
<td>JTF08xS05</td>
</tr>
<tr>
<td>8 W</td>
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<td>0.665 A</td>
<td>JTF08xS12</td>
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<tr>
<td>8 W</td>
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<td>0.535 A</td>
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</tr>
<tr>
<td>8 W</td>
<td>±5.0 VDC</td>
<td>±0.8 A</td>
<td>JTF08xD05</td>
</tr>
<tr>
<td>8 W</td>
<td>±12.0 VDC</td>
<td>±0.335 A</td>
<td>JTF08xD12</td>
</tr>
<tr>
<td>8 W</td>
<td>±15.0 VDC</td>
<td>±0.265 A</td>
<td>JTF08xD15</td>
</tr>
</tbody>
</table>

**JHM10-15**
10-15 Watts

- Regulated Single & Dual Outputs
- 2:1 Input Range
- World Wide Medical (2 x MOPP) Approvals
- 4000VAC Reinforced Insulation
- 2µA Patient Leakage Current
- EN55011 Level A (No External Components)
- 3 Year Warranty

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
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<tbody>
<tr>
<td>10 W</td>
<td>5.0 VDC</td>
<td>2000 mA</td>
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<td>10 W</td>
<td>12.0 VDC</td>
<td>833 mA</td>
<td>JHM10xS12</td>
</tr>
<tr>
<td>10 W</td>
<td>15.0 VDC</td>
<td>666 mA</td>
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</tr>
<tr>
<td>10 W</td>
<td>±5.0 VDC</td>
<td>±1000 mA</td>
<td>JHM10xD05</td>
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<tr>
<td>10 W</td>
<td>±12.0 VDC</td>
<td>±420 mA</td>
<td>JHM10xD12</td>
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<tr>
<td>10 W</td>
<td>±15.0 VDC</td>
<td>±333 mA</td>
<td>JHM10xD15</td>
</tr>
</tbody>
</table>

**Dimensions:**

**JCJ08/10:** 1.25 x 0.8 x 0.4 in (31.75 x 20.32 x 10.16 mm)

**JTF:** 1.25 x 0.8 x 0.4 in (31.75 x 20.32 x 10.4 mm)

**JHM10:** 1.25 x 0.8 x 0.4 in (31.75 x 20.32 x 10.40 mm)

**JHM15:** 1.60 x 1.00 x 0.40 in (40.60 x 25.40 x 10.20 mm)
• Regulated Single & Dual Outputs
• 2:1 Input Range
• High Power Density
• 1600VDC Isolation
• -40 °C to +100 °C Operation
• Remote On/Off
• 3 Year Warranty

### JCG12-15
12-15 Watts

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
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<tbody>
<tr>
<td>9.75 W</td>
<td>2.5 VDC</td>
<td>3.5 A</td>
<td>JCG12xS2V5</td>
</tr>
<tr>
<td>11.35 W</td>
<td>3.3 VDC</td>
<td>3.5 A</td>
<td>JCG12xS3V3</td>
</tr>
<tr>
<td>12 W</td>
<td>5.0 VDC</td>
<td>2.4 A</td>
<td>JCG12xS05</td>
</tr>
<tr>
<td>12 W</td>
<td>12.0 VDC</td>
<td>1.0 A</td>
<td>JCG12xS12</td>
</tr>
<tr>
<td>12 W</td>
<td>15.0 VDC</td>
<td>0.8 A</td>
<td>JCG12xS15</td>
</tr>
<tr>
<td>12 W</td>
<td>±12.0 VDC</td>
<td>±0.5 A</td>
<td>JCG12xB12</td>
</tr>
<tr>
<td>12 W</td>
<td>±15.0 VDC</td>
<td>±0.4 A</td>
<td>JCG12xB15</td>
</tr>
</tbody>
</table>

**Notes:**
- For input range: 12V replace xx with 12 e.g. JCG1212S05
- 24V replace xx with 24 e.g. JCG1224S05
- 48V replace xx with 48 e.g. JCG1248S05

**Dimensions:**
JCG: 1.25 x 0.80 x 0.40 in (31.75 x 20.32 x 10.16 mm)

### JTF12-15
12-15 Watts

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.75 W</td>
<td>3.3 VDC</td>
<td>3.5 A</td>
<td>JTF12xS3V3</td>
</tr>
<tr>
<td>12 W</td>
<td>5.0 VDC</td>
<td>2.4 A</td>
<td>JTF12xS05</td>
</tr>
<tr>
<td>12 W</td>
<td>12.0 VDC</td>
<td>1.0 A</td>
<td>JTF12xS12</td>
</tr>
<tr>
<td>12 W</td>
<td>15.0 VDC</td>
<td>0.8 A</td>
<td>JTF12xS15</td>
</tr>
<tr>
<td>12 W</td>
<td>±5.0 VDC</td>
<td>±1.2 A</td>
<td>JTF12xS05</td>
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<tr>
<td>12 W</td>
<td>±12.0 VDC</td>
<td>±0.5 A</td>
<td>JTF12xB12</td>
</tr>
<tr>
<td>12 W</td>
<td>±15.0 VDC</td>
<td>±0.4 A</td>
<td>JTF12xB15</td>
</tr>
</tbody>
</table>

**Notes:**
- For input range: 24V replace xx with 24 e.g. JTF1224S05
- 48V replace xx with 48 e.g. JTF1248S05

**Dimensions:**
JTF12/15: 1.25 x 0.8 x 0.4 in (31.75 x 20.32 x 10.4 mm)

### JCK15-20
15-20 Watts

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.9 W</td>
<td>3.3 VDC</td>
<td>3.00 A</td>
<td>JCK15xS3V3</td>
</tr>
<tr>
<td>15 W</td>
<td>5.0 VDC</td>
<td>3.00 A</td>
<td>JCK15xS05</td>
</tr>
<tr>
<td>15 W</td>
<td>12.0 VDC</td>
<td>1.250 A</td>
<td>JCK15xS12</td>
</tr>
<tr>
<td>15 W</td>
<td>15.0 VDC</td>
<td>1.000 A</td>
<td>JCK15xS15</td>
</tr>
<tr>
<td>15 W</td>
<td>±3.3 VDC</td>
<td>±1.500 A</td>
<td>JCK15xS03</td>
</tr>
<tr>
<td>15 W</td>
<td>±5.0 VDC</td>
<td>±1.500 A</td>
<td>JCK15xS05</td>
</tr>
<tr>
<td>15 W</td>
<td>±12.0 VDC</td>
<td>±0.625 A</td>
<td>JCK15xS12</td>
</tr>
<tr>
<td>15 W</td>
<td>±15.0 VDC</td>
<td>±0.500 A</td>
<td>JCK15xS15</td>
</tr>
</tbody>
</table>

**Notes:**
- For optional 3.5kV isolation version, add suffix ‘-H’ to part number.

**Dimensions:**
JCK15/20: 2.0 x 1.0 x 0.39 in (50.8 x 25.4 x 9.9 mm)

**Power Output Voltage Output Current Model**
| 13.2 W     | 3.3 VDC        | 4.0 A          | JTF15xS3V3  |
| 15 W       | 5.1 VDC        | 3.0 A          | JTF15xS05   |
| 15 W       | 12.0 VDC       | 1.25 A         | JTF15xS12   |
| 15 W       | 15.0 VDC       | 1.0 A          | JTF15xS15   |
| 15 W       | ±5.0 VDC       | ±1.5 A         | JTF15xS05   |
| 15 W       | ±12.0 VDC      | ±0.625 A       | JTF15xS12   |
| 15 W       | ±15.0 VDC      | ±0.5 A         | JTF15xS15   |

**Power Output Voltage Output Current Model**
| 13.2 W     | 3.3 VDC        | 4.0 A          | JTF15xS3V3  |
| 15 W       | 5.1 VDC        | 3.0 A          | JTF15xS05   |
| 15 W       | 12.0 VDC       | 1.25 A         | JTF15xS12   |
| 15 W       | 15.0 VDC       | 1.0 A          | JTF15xS15   |
| 15 W       | ±5.0 VDC       | ±1.5 A         | JTF15xS05   |
| 15 W       | ±12.0 VDC      | ±0.625 A       | JTF15xS12   |
| 15 W       | ±15.0 VDC      | ±0.5 A         | JTF15xS15   |

**Power Output Voltage Output Current Model**
| 18.15 W    | 3.3 VDC        | 5.500 A        | JCK20xS3V3  |
| 20 W       | 5.0 VDC        | 4.000 A        | JCK20xS05   |
| 20 W       | 12.0 VDC       | 1.670 A        | JCK20xS12   |
| 20 W       | 15.0 VDC       | 1.330 A        | JCK20xS15   |
| 20 W       | ±12.0 VDC      | ±0.835 A       | JCK20xB12   |
| 20 W       | ±15.0 VDC      | ±0.665 A       | JCK20xB15   |

**Power Output Voltage Output Current Model**
| 18.15 W    | 3.3 VDC        | 5.500 A        | JCK20xS3V3  |
| 20 W       | 5.0 VDC        | 4.000 A        | JCK20xS05   |
| 20 W       | 12.0 VDC       | 1.670 A        | JCK20xS12   |
| 20 W       | 15.0 VDC       | 1.330 A        | JCK20xS15   |
| 20 W       | ±12.0 VDC      | ±0.835 A       | JCK20xB12   |
| 20 W       | ±15.0 VDC      | ±0.665 A       | JCK20xB15   |
### JCM15-20

**15-20 Watts**

- Regulated Single & Dual Outputs
- 2:1 Input Range
- 1” x 1” Package
- Very High Power Density
- 1600VDC Isolation
- -40 °C to +105 °C Operation
- High Efficiency - up to 89%
- Remote On/Off
- ITE Safety Approvals
- 3 Year Warranty

**Dimensions:**

JCM15/20: 1.0 x 1.0 x 0.39 in (25.4 x 25.4 x 9.9 mm)

**Notes:**

For input range: 12V replace xx with 12 e.g. JCM1512S05

48V replace xx with 48 e.g. JCM1548S05

### JTD15-20

**15-20 Watts**

- Regulated Single and Dual Outputs
- Wide 4:1 Input Range
- 1.6” x 1” Footprint
- 3000VDC Isolation
- -40 °C to +100 °C Operation
- Output Trim ±10%
- Remote On/Off
- ITE Safety Approvals
- 3 Year Warranty

**Dimensions:**

JTD15/20: 1.6 x 1.0 x 0.41 in (40.6 x 25.4 x 10.4 mm)

**Notes:**

For input range: 24V replace xx with 24 e.g. JTD1524S05

48V replace xx with 48 e.g. JTD1548S05

### JTK15-20

**15-20 Watts**

- Regulated Single and Dual Outputs
- Wide 4:1 Input Range
- 1” x 1” Package
- 1600VDC Isolation
- Very High Power Density
- -40 °C to +100 °C Operation
- Single & Dual Outputs
- High Efficiency - up to 89%
- ITE Safety Approvals
- 3 Year Warranty

**Dimensions:**

JTK15/20: 1.0 x 1.0 x 0.39 in (25.4 x 25.4 x 9.9 mm)

**Notes:**

For input range: 24V replace xx with 24 e.g. JTK1524S05

48V replace xx with 48 e.g. JTK1548S05

---

### DC-DC Converters

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.2 W</td>
<td>3.3 VDC</td>
<td>4.0 A</td>
<td>JCM15xxS3V3</td>
</tr>
<tr>
<td>15 W</td>
<td>3.0 VDC</td>
<td>3.0 A</td>
<td>JCM15xxS05</td>
</tr>
<tr>
<td>15 W</td>
<td>12.0 VDC</td>
<td>1.3 A</td>
<td>JCM15xxS12</td>
</tr>
<tr>
<td>15 W</td>
<td>15.0 VDC</td>
<td>1.0 A</td>
<td>JCM15xxS15</td>
</tr>
<tr>
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<td>±1.5 A</td>
<td>JCM15xxD05</td>
</tr>
<tr>
<td>15 W</td>
<td>±12.0 VDC</td>
<td>±0.625 A</td>
<td>JCM15xxD12</td>
</tr>
<tr>
<td>15 W</td>
<td>±15.0 VDC</td>
<td>±0.500 A</td>
<td>JCM15xxD15</td>
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</table>

<table>
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<th>Model</th>
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<td>4.0 A</td>
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<td>20 W</td>
<td>12.0 VDC</td>
<td>1.67 A</td>
<td>JCM20xxS12</td>
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<tr>
<td>20 W</td>
<td>15.0 VDC</td>
<td>1.33 A</td>
<td>JCM20xxS15</td>
</tr>
<tr>
<td>20 W</td>
<td>±12.0 VDC</td>
<td>±0.833 A</td>
<td>JCM20xxD12</td>
</tr>
<tr>
<td>20 W</td>
<td>±15.0 VDC</td>
<td>±0.667 A</td>
<td>JCM20xxD15</td>
</tr>
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<table>
<thead>
<tr>
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<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.9 W</td>
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<td>3000 mA</td>
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<td>12.0 VDC</td>
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<td>15 W</td>
<td>±15.0 VDC</td>
<td>±500 mA</td>
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<th>Power</th>
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<th>Output Current</th>
<th>Model</th>
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<td>±665 mA</td>
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<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.2 W</td>
<td>3.3 VDC</td>
<td>4.0 A</td>
<td>JTK15xxS3V3</td>
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<td>15 W</td>
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<td>15 W</td>
<td>±15.0 VDC</td>
<td>±0.500 A</td>
<td>JTK15xxD15</td>
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<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
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<td>4.5 A</td>
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<td>±0.833 A</td>
<td>JTK20xxD12</td>
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<tr>
<td>20 W</td>
<td>±15.0 VDC</td>
<td>±0.667 A</td>
<td>JTK20xxD15</td>
</tr>
</tbody>
</table>
### JMM20
**20 Watts**
- Regulated Single & Dual Outputs
- 2:1 Input Range
- 2" x 1" Package
- 4200VAC Isolation
- World Wide Medical (2 x MOPP) Approvals
- 2 x MOPP at 300VAC
- 5µA Patient Leakage Current
- -40 °C to +95 °C Operation
- Six-sided Metal Case
- 3 Year Warranty

**Dimensions:**
JMM20: 2.00 x 1.00 x 0.47 in (50.8 x 25.4 x 12.0 mm)

**Notes:**
For input range: 12V replace xx with 12 e.g. JMM2012S05
24V replace xx with 24 e.g. JMM2024S05
48V replace xx with 48 e.g. JMM2048S05

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 W</td>
<td>5.0 VDC</td>
<td>4.00 A</td>
<td>JMM20x5S05</td>
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<td>20 W</td>
<td>5.1 VDC</td>
<td>4.00 A</td>
<td>JMM20x5S5V1</td>
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<tr>
<td>20 W</td>
<td>12.0 VDC</td>
<td>1.67 A</td>
<td>JMM20x5S12</td>
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<tr>
<td>20 W</td>
<td>15.0 VDC</td>
<td>1.33 A</td>
<td>JMM20x5S15</td>
</tr>
<tr>
<td>20 W</td>
<td>24.0 VDC</td>
<td>0.84 A</td>
<td>JMM20x5S24</td>
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<tr>
<td>20 W</td>
<td>±12.0 VDC</td>
<td>±0.84 A</td>
<td>JMM20xxD12</td>
</tr>
<tr>
<td>20 W</td>
<td>±15.0 VDC</td>
<td>±0.67 A</td>
<td>JMM20xxD15</td>
</tr>
</tbody>
</table>

### JSM10-25
**10-25 Watts**
- Regulated Single & Dual Outputs
- 2:1 Input Range
- 1” x 1” Package
- 1500VDC Isolation
- -40 °C to +105 °C Operation
- ITE Safety Approvals
- High Power Density
- Optional Heatsink
- Optional Remote On/Off
- 3 Year Warranty

**Dimensions:**
JSM10/25: 1.00 x 1.00 x 0.40 in (25.4 x 25.4 x 10.16 mm)

**Notes:**
For input range: 12V replace xx with 12 e.g. JSM1012S05 24V replace xx with 24 e.g. JSM1024S05 48V replace xx with 48 e.g. JSM1048S05
Add suffix ‘-R’ for optional remote on/off, ‘-HK’ for optional heatsink or ‘-RHK’ for optional remote on/off and heatsink.

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.25 W</td>
<td>3.3 VDC</td>
<td>2.50 A</td>
<td>JSM10x3S3V3</td>
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<td>10 W</td>
<td>5.0 VDC</td>
<td>2.00 A</td>
<td>JSM10x5S05</td>
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<tr>
<td>10 W</td>
<td>5.1 VDC</td>
<td>2.00 A</td>
<td>JSM10x5S5V1</td>
</tr>
<tr>
<td>10 W</td>
<td>12.0 VDC</td>
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<tr>
<td>10 W</td>
<td>15.0 VDC</td>
<td>0.67 A</td>
<td>JSM10x5S15</td>
</tr>
<tr>
<td>10 W</td>
<td>±5.0 VDC</td>
<td>±1.00 A</td>
<td>JSM10x5D05</td>
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<tr>
<td>10 W</td>
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<td>10 W</td>
<td>±15.0 VDC</td>
<td>±0.33 A</td>
<td>JSM10x5D15</td>
</tr>
</tbody>
</table>

### JWK10-25
**10-25 Watts**
- Regulated Single & Dual Outputs
- Wide 4:1 Input Range
- 1” x 1” Package
- 1500VDC Isolation
- -40 °C to +100 °C Operation
- ITE Safety Approvals
- Remote On/Off
- Optional Heatsink
- 3 Year Warranty

**Dimensions:**
JWK10/25: 1.00 x 1.00 x 0.40 in (25.4 x 25.4 x 10.16 mm)

**Notes:**
Add suffix ‘-HK’ for optional heatsink.
For input range: 24V replace xx with 24 e.g. JWK1024S05 48V replace xx with 48 e.g. JWK2548S05

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
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<td>3.3 VDC</td>
<td>2.20 A</td>
<td>JWK10x3S3V3</td>
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<tr>
<td>10 W</td>
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<td>2.00 A</td>
<td>JWK10x5S05</td>
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<tr>
<td>10 W</td>
<td>5.1 VDC</td>
<td>2.00 A</td>
<td>JWK10x5S5V1</td>
</tr>
<tr>
<td>10 W</td>
<td>12.0 VDC</td>
<td>0.83 A</td>
<td>JWK10x5S12</td>
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<tr>
<td>10 W</td>
<td>24.0 VDC</td>
<td>0.41 A</td>
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<td>±5.0 VDC</td>
<td>±1.00 A</td>
<td>JWK10x5D05</td>
</tr>
<tr>
<td>10 W</td>
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<td>10 W</td>
<td>±15.0 VDC</td>
<td>±0.33 A</td>
<td>JWK10x5D15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 W</td>
<td>3.3 VDC</td>
<td>6.00 A</td>
<td>JWK25x3S3V3</td>
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<tr>
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<td>5.00 A</td>
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<tr>
<td>25 W</td>
<td>15.0 VDC</td>
<td>1.67 A</td>
<td>JWK25x5S15</td>
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<tr>
<td>25 W</td>
<td>±12.0 VDC</td>
<td>±1.04 A</td>
<td>JWK25x5D12</td>
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<tr>
<td>25 W</td>
<td>±15.0 VDC</td>
<td>±0.84 A</td>
<td>JWK25x5D15</td>
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</tbody>
</table>
## DC-DC Converters

### JCM30
30 Watts

- Regulated Single & Dual Outputs
- 2:1 Input Range
- 1” x 1” Package
- 1600VDC Isolation
- -40 °C to +100 °C Operation
- Output Trim ±10%
- Remote On/Off
- Optional Heatsink
- ITE Safety Approvals
- 3 Year Warranty

**Dimensions:**
JCM30: 1.0 x 1.0 x 0.41 in (25.4 x 25.0 x 10.4 mm)

**Notes:**
For input range: 12V replace xx with 12 e.g. JCM3012S05
24V replace xx with 24 e.g. JCM3024S05
48V replace xx with 48 e.g. JCM3048S05
Add suffix ‘-HK’ for optional heatsink.

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>23.1 W</td>
<td>3.3 VDC</td>
<td>7.0 A</td>
<td>JCM30xxS3V3</td>
</tr>
<tr>
<td>30 W</td>
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<td>6.0 A</td>
<td>JCM30xxS05</td>
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<tr>
<td>30 W</td>
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<td>30 W</td>
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<td>30 W</td>
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<td>±1.25 A</td>
<td>JCM30xxD12</td>
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<tr>
<td>30 W</td>
<td>±15.0 VDC</td>
<td>±1.0 A</td>
<td>JCM30xxD15</td>
</tr>
</tbody>
</table>

### JTK30
30 Watts

- Regulated Single & Dual Outputs
- Wide 4:1 Input Range
- 1” x 1” Package
- 1600VDC Isolation
- -40 °C to +100 °C Operation
- Output Trim ±10%
- Remote On/Off
- Optional Heatsink
- ITE Safety Approvals
- 3 Year Warranty

**Dimensions:**
JTK30: 1.0 x 1.0 x 0.43 in (25.4 x 25.0 x 10.9 mm)

**Notes:**
For input range: 24V replace xx with 24 e.g. JTK3024S05
48V replace xx with 48 e.g. JTK3048S05
Add suffix ‘-HK’ for optional heatsink.

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>23.1 W</td>
<td>3.3 VDC</td>
<td>7.00 A</td>
<td>JTK30xxS3V3</td>
</tr>
<tr>
<td>30 W</td>
<td>5.0 VDC</td>
<td>6.00 A</td>
<td>JTK30xxS05</td>
</tr>
<tr>
<td>30 W</td>
<td>12.0 VDC</td>
<td>2.50 A</td>
<td>JTK30xxS12</td>
</tr>
<tr>
<td>30 W</td>
<td>15.0 VDC</td>
<td>2.00 A</td>
<td>JTK30xxS15</td>
</tr>
<tr>
<td>30 W</td>
<td>±12.0 VDC</td>
<td>±1.25 A</td>
<td>JTK30xxD12</td>
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<tr>
<td>30 W</td>
<td>±15.0 VDC</td>
<td>±1.00 A</td>
<td>JTK30xxD15</td>
</tr>
</tbody>
</table>

### JCK30-40
30-40 Watts

- Regulated Single & Dual Outputs
- 2:1 Input Range
- 1600VDC Isolation
- High Efficiency - up to 92%
- Remote On/Off
- Optional Heatsink
- 3 Year Warranty

**Dimensions:**
JCK30/40: 2.00 x 1.00 x 0.40 in (50.8 x 25.4 x 10.16 mm)

**Notes:**
For input range: 12V replace xx with 12 e.g. JCK3012S05
24V replace xx with 24 e.g. JCK4024S05
48V replace xx with 48 e.g. JCK4048S05
Add suffix ‘-HK’ for optional heatsink.

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>26.4 W</td>
<td>3.3 VDC</td>
<td>8.00 A</td>
<td>JCK30xxS3V3</td>
</tr>
<tr>
<td>30 W</td>
<td>5.0 VDC</td>
<td>6.00 A</td>
<td>JCK30xxS05</td>
</tr>
<tr>
<td>30 W</td>
<td>5.1 VDC</td>
<td>6.00 A</td>
<td>JCK30xxS5V1</td>
</tr>
<tr>
<td>30 W</td>
<td>12.0 VDC</td>
<td>2.50 A</td>
<td>JCK30xxS12</td>
</tr>
<tr>
<td>30 W</td>
<td>15.0 VDC</td>
<td>2.00 A</td>
<td>JCK30xxS15</td>
</tr>
<tr>
<td>30 W</td>
<td>±5.0 VDC</td>
<td>±3.00 A</td>
<td>JCK30xxD05</td>
</tr>
<tr>
<td>30 W</td>
<td>±12.0 VDC</td>
<td>±1.25 A</td>
<td>JCK30xxD12</td>
</tr>
<tr>
<td>30 W</td>
<td>±15.0 VDC</td>
<td>±1.00 A</td>
<td>JCK30xxD15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>26.4 W</td>
<td>3.3 VDC</td>
<td>8.00 A</td>
<td>JCK40xxS3V3</td>
</tr>
<tr>
<td>40 W</td>
<td>5.0 VDC</td>
<td>8.00 A</td>
<td>JCK40xxS05</td>
</tr>
<tr>
<td>40 W</td>
<td>12.0 VDC</td>
<td>3.33 A</td>
<td>JCK40xxS12</td>
</tr>
<tr>
<td>40 W</td>
<td>15.0 VDC</td>
<td>2.67 A</td>
<td>JCK40xxS15</td>
</tr>
<tr>
<td>40 W</td>
<td>±12.0 VDC</td>
<td>±1.67 A</td>
<td>JCK40xxD12</td>
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<tr>
<td>40 W</td>
<td>±15.0 VDC</td>
<td>±1.33 A</td>
<td>JCK40xxD15</td>
</tr>
</tbody>
</table>
**XP Power**

**JVA15-40**

15-40 Watts

- Renewable Energy & Industrial Applications
- Ultrawide Input Range - 200-1500VDC
- 4000VAC Isolation
- Fully Encapsulated PCB Mount Versions
- DIN Rail Version Available
- -40 °C to +70 °C Operating Temperature
- EMI Filter Options
- 3 Year Warranty

**Power**  |  **Output Voltage**  |  **Output Current**  |  **Model**
--- | --- | --- | ---
10 W  |  5.0 VDC  |  2000 mA  |  JVA151500S05
15 W  |  12.0 VDC  |  1250 mA  |  JVA151500S12
15 W  |  15.0 VDC  |  1000 mA  |  JVA151500S15
15 W  |  24.0 VDC  |  625 mA  |  JVA151500S24

**Notes:**
- For DIN rail mount option, add suffix '-D' e.g. JVA151500S12-D
- For DIN rail with added EMI filter option, add suffix '-DF' e.g. JVA151500S12-DF

**Dimensions:**
- JVA151500S05: 4.4 x 2.95 x 1.58 in (111.76 x 75.0 x 40.0 mm)
- JVA151500S12: 5.43 x 5.75 x 2.17 in (138.0 x 146.0 x 55.0 mm)
- JVA151500S15: 4.4 x 2.95 x 1.58 in (111.76 x 75.0 x 40.0 mm)
- JVA151500S24: 5.43 x 5.75 x 2.17 in (138.0 x 146.0 x 55.0 mm)
- JVA151500S05-DF: 5.08 x 4.02 x 1.92 in (129.0 x 102.0 x 49.0 mm)

**JWL40-50**

40-50 Watts

- Regulated Single & Dual Outputs
- Wide 4:1 Input Range
- 2" x 1" Package
- 1500VDC Isolation
- -40 °C to +105 °C Operation
- ITE Safety Approvals
- Optional Heatsink
- Six-sided Metal Case
- Remote On/Off
- 3 Year Warranty

**Power**  |  **Output Voltage**  |  **Output Current**  |  **Model**
--- | --- | --- | ---
26.4 W  |  3.3 VDC  |  8.00 A  |  JWL40xxS3V3
40 W  |  5.0 VDC  |  8.00 A  |  JWL40xxS05
40 W  |  12.0 VDC  |  3.33 A  |  JWL40xxS12
40 W  |  15.0 VDC  |  2.67 A  |  JWL40xxS15
40 W  |  24.0 VDC  |  1.67 A  |  JWL40xxS24
40 W  |  ±12.0 VDC  |  ±1.67 A  |  JWL40xxS12
40 W  |  ±15.0 VDC  |  ±1.33 A  |  JWL40xxS15

**Notes:**
- For input range: 24V replace xx with 24 e.g. JWL4048S05
- Add suffix '-HK' for optional heatsink.

**Dimensions:**
- JWL40 (24V): 2.00 x 1.00 x 0.43 in (50.8 x 25.4 x 11.0 mm)
- JWL40 (All other models): 2.00 x 1.00 x 0.40 in (50.8 x 25.4 x 10.2 mm)

**JCK50-60**

50-60 Watts

- Regulated Single Output
- 2:1 Input Range
- 1600VDC Isolation
- High Efficiency - up to 92%
- Remote On/Off
- High Power Density
- Optional Heatsink
- ITE Safety Approvals
- 3 Year Warranty

**Power**  |  **Output Voltage**  |  **Output Current**  |  **Model**
--- | --- | --- | ---
33 W  |  3.3 VDC  |  10.00 A  |  JCK50xxS3V3
50 W  |  5.0 VDC  |  10.00 A  |  JCK50xxS05
50 W  |  12.0 VDC  |  4.17 A  |  JCK50xxS12
50 W  |  15.0 VDC  |  3.33 A  |  JCK50xxS15

**Notes:**
- For input range: 12V replace xx with 12 e.g. JCK5012S05
- Add suffix '-HK' for optional heatsink.

**Dimensions:**
- JCK50: 2.00 x 1.00 x 0.45 in (50.8 x 25.4 x 11.5 mm)
- JCK60: 2.00 x 2.00 x 0.40 in (50.8 x 50.8 x 10.16 mm)
DC-DC Converters

- Regulated Single & Dual Outputs
- Wide 4:1 Input Range
- 1600VDC Isolation
- -40 °C to +85 °C Operation
- Output Trim ±10%
- Remote On/Off
- Optional Heatsink
- 3 Year Warranty

### JTL30-60
30-60 Watts

#### Dimensions:
- JTL30: 2.00 x 1.00 x 0.40 in (50.8 x 25.4 x 10.16 mm)
- JTL40: 2.00 x 2.00 x 0.40 in (50.8 x 50.8 x 10.16 mm)
- JTL60: 2.00 x 1.00 x 0.45 in (50.8 x 25.4 x 11.5 mm)

#### Notes:
- For input range: 24V replace xx with 24 e.g. JTL3024S05
- 48V replace xx with 48 e.g. JTL6048S05
- Add suffix ‘-HK’ for optional heatsink.

### Power

**Output Voltage** | **Output Current** | **Model**
--- | --- | ---
30 W | 3.3 VDC | 7.50 A | JTL30xxS3V3
30 W | 5.0 VDC | 6.00 A | JTL30xxS05
30 W | 12.0 VDC | 2.50 A | JTL30xxS12
30 W | 15.0 VDC | 2.00 A | JTL30xxS15
30 W | ±5.0 VDC | ±3.00 A | JTL30xxD05
30 W | ±12.0 VDC | ±1.25 A | JTL30xxD12
30 W | ±15.0 VDC | ±1.00 A | JTL30xxD15
30 W | ±3.3 V, ±12.0 V | 5.00 A, ±0.42 A | JTL30xxT0312
30 W | ±3.3 V, ±15.0 V | 5.00 A, ±0.33 A | JTL30xxT0315
30 W | ±5.0 V, ±12.0 V | 4.00 A, ±0.42 A | JTL30xxT0512
30 W | ±5.0 V, ±15.0 V | 4.00 A, ±0.33 A | JTL30xxT0515

### DTE20-60
20-60 Watts

#### Dimensions:
- DTE20: 3.78 x 2.13 x 0.92 in (96.0 x 54.0 x 23.3 mm)
- DTE40: 4.41 x 2.51 x 1.01 in (112 x 63.8 x 25.6 mm)
- DTE60: 4.41 x 2.67 x 1.5 in (112 x 67.8 x 38 mm)

#### Notes:
- For optional version fitted with DIN Clip add suffix ‘-D’
  e.g. DTE2024S24-D/DTE4024S24-D/DTE6024S24-D

### Power

**Input Voltage** | **Output Voltage** | **Output Current** | **Model**
--- | --- | --- | ---
20 W | 24.0 VDC | 5.1 VDC | 4.0 A | DTE2024S5V1
20 W | 24.0 VDC | 12.0 VDC | 1.67 A | DTE2024S12
20 W | 24.0 VDC | 24.0 VDC | 0.835 A | DTE2024S24
20 W | 24.0 VDC | 48.0 VDC | 0.42 A | DTE2024S48
20 W | 48.0 VDC | 5.1 VDC | 4.0 A | DTE2048S5V1
20 W | 48.0 VDC | 12.0 VDC | 1.67 A | DTE2048S12
20 W | 48.0 VDC | 24.0 VDC | 0.835 A | DTE2048S24
20 W | 48.0 VDC | 48.0 VDC | 0.42 A | DTE2048S48

### Power

**Input Voltage** | **Output Voltage** | **Output Current** | **Model**
--- | --- | --- | ---
40 W | 24.0 VDC | 5.1 VDC | 8.0 A | DTE4024S5V1
40 W | 24.0 VDC | 12.0 VDC | 3.33 A | DTE4024S12
40 W | 24.0 VDC | 24.0 VDC | 1.67 A | DTE4024S24
40 W | 24.0 VDC | 48.0 VDC | 0.835 A | DTE4024S48
40 W | 48.0 VDC | 5.1 VDC | 8.0 A | DTE4048S5V1
40 W | 48.0 VDC | 12.0 VDC | 3.33 A | DTE4048S12
40 W | 48.0 VDC | 24.0 VDC | 1.67 A | DTE4048S24
40 W | 48.0 VDC | 48.0 VDC | 0.835 A | DTE4048S48

### Power

**Input Voltage** | **Output Voltage** | **Output Current** | **Model**
--- | --- | --- | ---
60 W | 24.0 VDC | 5.1 VDC | 12.0 A | DTE6024S5V1
60 W | 24.0 VDC | 12.0 VDC | 5.0 A | DTE6024S12
60 W | 24.0 VDC | 24.0 VDC | 2.5 A | DTE6024S24
60 W | 24.0 VDC | 48.0 VDC | 1.25 A | DTE6024S48
60 W | 48.0 VDC | 5.1 VDC | 12.0 A | DTE6048S5V1
60 W | 48.0 VDC | 12.0 VDC | 5.0 A | DTE6048S12
60 W | 48.0 VDC | 24.0 VDC | 2.5 A | DTE6048S24
60 W | 48.0 VDC | 48.0 VDC | 1.25 A | DTE6048S48
**QSB75-150**

75-150 Watts

- Single Output
- Wide 4:1 Input Range
- Industry Standard Packages
- 1500VDC Isolation
- -40 °C to +100 °C Operation
- High Power Density
- Baseplate-cooled
- Remote On/Off & Remote Sense
- Thermal Shutdown
- 3 Year Warranty

**Dimensions:**
QSB75/100: 2.28 x 1.45 x 0.50 in (57.9 x 36.8 x 12.7 mm)
QSB150: 2.28 x 2.40 x 0.52 in (57.9 x 61.0 x 13.2 mm)

**Notes:**
For input range: 24V replace xx with 24 e.g. QSB7524S05
48V replace xx with 48 e.g. QSB10048S05
Add suffix ‘N’ to the model number to receive the unit with negative logic Remote On/Off.

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>39.6 W</td>
<td>3.3 VDC</td>
<td>12.00 A</td>
<td>QSB75xxS3V3</td>
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<tr>
<td>60 W</td>
<td>3.0 VDC</td>
<td>12.00 A</td>
<td>QSB75xxS05</td>
</tr>
<tr>
<td>75 W</td>
<td>12.0 VDC</td>
<td>6.25 A</td>
<td>QSB75xxS12</td>
</tr>
<tr>
<td>75 W</td>
<td>15.0 VDC</td>
<td>5.00 A</td>
<td>QSB75xxS15</td>
</tr>
<tr>
<td>75 W</td>
<td>24.0 VDC</td>
<td>3.12 A</td>
<td>QSB75xxS24</td>
</tr>
<tr>
<td>100 W</td>
<td>3.3 VDC</td>
<td>30.00 A</td>
<td>QSB100xxS3V3</td>
</tr>
<tr>
<td>100 W</td>
<td>5.0 VDC</td>
<td>20.00 A</td>
<td>QSB100xxS05</td>
</tr>
<tr>
<td>100 W</td>
<td>12.0 VDC</td>
<td>8.30 A</td>
<td>QSB100xxS12</td>
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<td>100 W</td>
<td>15.0 VDC</td>
<td>6.70 A</td>
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<td>24.0 VDC</td>
<td>4.17 A</td>
<td>QSB100xxS24</td>
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<tr>
<td>100 W</td>
<td>3.3 VDC</td>
<td>30.00 A</td>
<td>QSB150xxS3V3</td>
</tr>
<tr>
<td>150 W</td>
<td>5.0 VDC</td>
<td>30.00 A</td>
<td>QSB150xxS05</td>
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<tr>
<td>150 W</td>
<td>12.0 VDC</td>
<td>12.50 A</td>
<td>QSB150xxS12</td>
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<tr>
<td>150 W</td>
<td>15.0 VDC</td>
<td>10.00 A</td>
<td>QSB150xxS15</td>
</tr>
<tr>
<td>150 W</td>
<td>24.0 VDC</td>
<td>6.50 A</td>
<td>QSB150xxS24</td>
</tr>
</tbody>
</table>

**QSB150W**

150 Watts

- Single Output
- Ultra Wide 8:1 Input Range
- Industry Standard Half Brick Package
- 1500VDC Isolation
- -40 °C to +100 °C Operation
- Output Trim ±10%
- Remote On/Off
- Thermal Shutdown
- 3 Year Warranty

**Dimensions:**
QSB150W: 2.4 x 2.28 x 0.5 in (61.0 x 57.9 x 12.7 mm)

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>150 W</td>
<td>12.0 VDC</td>
<td>12.50 A</td>
<td>QSB15048WS12</td>
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<tr>
<td>150 W</td>
<td>15.0 VDC</td>
<td>10.00 A</td>
<td>QSB15048WS15</td>
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<td>150 W</td>
<td>24.0 VDC</td>
<td>6.25 A</td>
<td>QSB15048WS24</td>
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<tr>
<td>150 W</td>
<td>28.0 VDC</td>
<td>5.35 A</td>
<td>QSB15048WS28</td>
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<tr>
<td>150 W</td>
<td>48.0 VDC</td>
<td>3.13 A</td>
<td>QSB15048WS48</td>
</tr>
</tbody>
</table>

**Notes:**
Input voltage range is nominal 48V (9-75V).

**QSC150**

150 Watts

- Single Output
- Wide 4:1 Input Range
- Industry Standard Quarter Brick Package
- 2250VDC Isolation
- -40 °C to +105 °C Operation
- Output Trim ±10%
- Remote On/Off
- Thermal Shutdown
- 3 Year Warranty

**Dimensions:**
QSC150: 2.28 x 1.45 x 0.5 in (57.9 x 36.8 x 12.7 mm)

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>150 W</td>
<td>5.0 VDC</td>
<td>30.0 A</td>
<td>QSC15024S05</td>
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<tr>
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<td>6.3 A</td>
<td>QSC15024S24</td>
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<tr>
<td>150 W</td>
<td>28.0 VDC</td>
<td>3.2 A</td>
<td>QSC15024S28</td>
</tr>
<tr>
<td>150 W</td>
<td>5.0 VDC</td>
<td>30.0 A</td>
<td>QSC15048S05</td>
</tr>
<tr>
<td>150 W</td>
<td>12.0 VDC</td>
<td>12.5 A</td>
<td>QSC15048S12</td>
</tr>
<tr>
<td>150 W</td>
<td>24.0 VDC</td>
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<td>QSC15048S24</td>
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<td>150 W</td>
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<td>5.4 A</td>
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<tr>
<td>150 W</td>
<td>48.0 VDC</td>
<td>3.2 A</td>
<td>QSC15048S48</td>
</tr>
</tbody>
</table>

**Notes:**
Input voltage range is nominal 48V (9-75V).
**QHL600-750**

**600-750 Watts**

- 180-425VDC Input Range (QHL600)
- 200-425VDC Input Range (QHL750)
- Single Output
- Industry Standard Full Brick Package
- 3000VAC Isolation
- Output Trim -40% to +10%
- Remote On/Off
- Current Share and Power Good Signals
- ITE Safety Approvals
- Thermal Shutdown
- 3 Year Warranty

**Dimensions:**
QHL600/750: 4.6 x 2.4 x 0.5 in (116.8 x 61.0 x 12.7 mm)

---

**QSB400-600**

**400-600 Watts**

- Up to 89% Efficiency
- Wide 4:1 Input Range (QSB400)
- 2:1 Input Range (QSB600)
- Industry Standard Full Brick Package
- -40 °C to +100 °C Operation
- Baseplate-cooled
- Remote On/Off & Remote Sense
- Thermal Shutdown
- 3 Year Warranty

**Dimensions:**
QSB400/600: 4.6 x 2.4 x 0.5 in (116.0 x 61.0 x 12.7 mm)

---

**QSB200-350**

**200-350 Watts**

- Single Output
- Wide 4:1 Input Range (QSB200-300)
- 2:1 Input Range (QSB350)
- Industry Standard Half Brick Package
- High Efficiency
- High Power Density
- Baseplate-cooled
- Remote On/Off & Remote Sense
- Thermal Shutdown
- 3 Year Warranty

**Dimensions:**
QSB200-350: 2.40 x 2.28 x 0.52 in (61.0 x 57.9 x 12.7 mm)

---

**Power**

<table>
<thead>
<tr>
<th>Model</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>QSB200xxS3V3</td>
<td>3300VDC</td>
<td>25.0A</td>
<td>QSB200xxS05</td>
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<tr>
<td>QSB200xxS15</td>
<td>5000VDC</td>
<td>12.5A</td>
<td>QSB200xxS15</td>
</tr>
<tr>
<td>QSB200xxS24</td>
<td>1250VDC</td>
<td>6.25A</td>
<td>QSB200xxS24</td>
</tr>
<tr>
<td>QSB200xxS3V3</td>
<td>1500VDC</td>
<td>7.50A</td>
<td>QSB200xxS3V3</td>
</tr>
<tr>
<td>QSB200xxS48</td>
<td>2000VDC</td>
<td>12.5A</td>
<td>QSB200xxS48</td>
</tr>
</tbody>
</table>

Notes:
- For input range: 24V replace xx with 24 e.g. QSB20024S05
- 48V replace xx with 48 e.g. QSB35048S05
- Add suffix ‘N’ to the model number to receive the unit with negative logic Remote On/Off.

**Power**

<table>
<thead>
<tr>
<th>Model</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>QSB400xxS05</td>
<td>3300VDC</td>
<td>25.0A</td>
<td>QSB400xxS05</td>
</tr>
<tr>
<td>QSB400xxS12</td>
<td>5000VDC</td>
<td>12.5A</td>
<td>QSB400xxS12</td>
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<tr>
<td>QSB400xxS24</td>
<td>1250VDC</td>
<td>6.25A</td>
<td>QSB400xxS24</td>
</tr>
<tr>
<td>QSB400xxS3V3</td>
<td>1500VDC</td>
<td>7.50A</td>
<td>QSB400xxS3V3</td>
</tr>
<tr>
<td>QSB400xxS48</td>
<td>2000VDC</td>
<td>12.5A</td>
<td>QSB400xxS48</td>
</tr>
</tbody>
</table>

Notes:
- For input range:
  - 24V replace xx with 24 e.g. QSB40024S05/QSB60024S05
  - 48V replace xx with 48 e.g. QSB40048S05/QSB60048S05
- Add suffix ‘P’ to the model number to receive the unit with positive logic Remote On/Off.
**MCC**

**400-600 Watts**

- Up to 4 Regulated Outputs
- Nominal 28VDC Input Range
- Baseplate-cooled
- Optional 200W Conditioned Output
- MIL-STD 1275 and DEF-STAN 61-5
- MIL-STD 461 and DEF-STAN 59-411
- Rugged Construction to MIL-STD 810F
- 3 Year Warranty

### Chassis Designations, Power & Sizes

<table>
<thead>
<tr>
<th>Code</th>
<th>Power</th>
<th>Slots</th>
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</thead>
<tbody>
<tr>
<td>MCC4</td>
<td>400 W</td>
<td>4</td>
</tr>
<tr>
<td>MCC6</td>
<td>400 W + 200 W AUX</td>
<td>4</td>
</tr>
</tbody>
</table>

**Notes:**

1. Modules 1 to 4 available for MCC400/600 e.g. MCC4Q2D2J2PED.
2. 4 series output modules to be used with single MCC400/600 models only.
3. DC-DC output modules are stress-screened for -55 °C to +90 °C operation.
4. Low cost option with passive EMI filtering only. No auxiliary output, EMI to EN55022 level B only.
5. Global inhibit will also turn off the auxiliary output - Option A.

### Dimensions:

MCC400/MCC600: 7.29 x 6.50 x 1.08 in (185.0 x 165.0 x 27.5 mm)

---

**MTF50**

**50 Watts**

- EMI Filter With Active Surge Protection
- Wide Input Voltage Range 10-50VDC
- For Use With MTC05-50
- Max Output Power 50W
- Wide Temperature Range -55 °C to +100 °C
- MIL-STD 461 & DEF-STAN 59-411
- MIL-STD 1275 & DEF-STAN 61-5
- 3 Year Warranty

### Dimensions:

MTF50: 1.570 x 1.023 x 0.500 in (40.0 x 26.0 x 12.7 mm)
**MTH100**

100 Watts

- Extended Hold Up Module
- 80% Less Hold Up Capacitance Required
- For Use With MTC05-50
- Reduces System Size and Weight
- 10A Output Current
- Wide Input Range
- User Programmable
- 3 Year Warranty

**Dimensions:**

MTH100: 1.57 x 1.02 x 0.50 in (40.0 x 26.0 x 12.7 mm)

**Notes:**

1. During normal operation.
2. During hold-up time.

For -55 °C extended operating range add suffix “-LT” to the part number

---

**DSF & FSO**

30-500 Watts

- Defense EMC & Surge Filter (DSF100&226)
- Defense Surge Filter (DSF500)
- Defense EMC Filter (FSO)
- Up to 500W Output Power
- MIL-STD 461 & DEF-STAN 59-411
- MIL-STD 1275 & DEF-STAN 61-5
- MIL-STD 810
- 3 Year Warranty

**Dimensions:**

DSF100: 1.57 x 1.25 x 0.52 in (39.9 x 31.9 x 13.2 mm)
DSF200LV/DSF226: 2.41 x 1.45 x 0.51 in (61.2 x 36.8 x 13.0 mm)
DSF500: 2.28 x 2.28 x 0.51 in (57.9 x 57.9 x 13.0 mm)
FSO461: 2.28 x 2.28 x 0.51 in (57.9 x 57.9 x 13.0 mm)

**Power**

<table>
<thead>
<tr>
<th>Power</th>
<th>Input Voltage</th>
<th>Output Voltage</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 W</td>
<td>10-40 VDC</td>
<td>Vin - (Iout x 0.013)</td>
<td>MTH100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vcap - 0.8 V^2</td>
<td></td>
</tr>
</tbody>
</table>

**Power**

<table>
<thead>
<tr>
<th>Power</th>
<th>Input Voltage</th>
<th>Output Voltage</th>
<th>Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 W</td>
<td>10-33 VDC</td>
<td>&lt;36 VDC</td>
<td>3.7 A</td>
<td>DSF100</td>
</tr>
<tr>
<td>150-54 W</td>
<td>10-18 VDC</td>
<td>&lt;36 VDC</td>
<td>3.0 A</td>
<td>DSF200LV</td>
</tr>
<tr>
<td>150-330 W</td>
<td>18-33 VDC</td>
<td>&lt;36 VDC</td>
<td>7.0 A</td>
<td>DSF226</td>
</tr>
<tr>
<td>200 W</td>
<td>15-33 VDC</td>
<td>&lt;36 VDC</td>
<td>13.3 A</td>
<td>DSF226</td>
</tr>
<tr>
<td>280-500 W</td>
<td>10-33 VDC</td>
<td>&lt;36 VDC</td>
<td>28.0 A^2</td>
<td>DSF500^2</td>
</tr>
<tr>
<td>500 W</td>
<td>0-100 VDC</td>
<td>Vin - Iin x 0.013</td>
<td>28.0 A</td>
<td>FSO461^2</td>
</tr>
</tbody>
</table>

**Notes:**

1. During normal operation.
2. For input voltages above 18V, maximum load is 500W.
3. DSF500 has surge protection only. To meet stated EMC performance it must be used with FSO461.
4. FSO461 has filter circuitry only. To be used with DSF500 for conducted immunity compliance.

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### MTC05-30

**5-30 Watts**

- 10-40VDC Input Range
- Designed for Vetronic & Avionic Use
- Single & Dual Output Versions
- -55 °C Operation Available
- MIL-STD 461 & DEF-STAN 59-411
- MIL-STD 1275 & DEF-STAN 61-5
- 3 Year Warranty
- Active Surge Protection & EMI Filter (MTF50)
- Extended Hold Up Module (MTH100)

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 W</td>
<td>3.3 VDC</td>
<td>1.21 A</td>
<td>MTC0528S3V3</td>
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<tr>
<td>4 W</td>
<td>5.0 VDC</td>
<td>0.80 A</td>
<td>MTC0528S505</td>
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<tr>
<td>5 W</td>
<td>12.0 VDC</td>
<td>0.42 A</td>
<td>MTC0528S12</td>
</tr>
<tr>
<td>5 W</td>
<td>15.0 VDC</td>
<td>0.33 A</td>
<td>MTC0528S15</td>
</tr>
<tr>
<td>5 W</td>
<td>28.0 VDC</td>
<td>0.18 A</td>
<td>MTC0528S28</td>
</tr>
<tr>
<td>10 W</td>
<td>3.3 VDC</td>
<td>3.03 A</td>
<td>MTC1528S3V3</td>
</tr>
<tr>
<td>12 W</td>
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<td>2.40 A</td>
<td>MTC1528S05</td>
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<td>15 W</td>
<td>12.0 VDC</td>
<td>1.25 A</td>
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<tr>
<td>15 W</td>
<td>15.0 VDC</td>
<td>1.00 A</td>
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<td>28.0 VDC</td>
<td>0.54 A</td>
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<td>±12.0 VDC</td>
<td>±1.0 A</td>
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<td>15 W</td>
<td>±15.0 VDC</td>
<td>±0.8 A</td>
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<td>20 W</td>
<td>3.3 VDC</td>
<td>6.06 A</td>
<td>MTC3028S3V3</td>
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<td>25 W</td>
<td>5.0 VDC</td>
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<td>32 W</td>
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<td>2.70 A</td>
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<td>35 W</td>
<td>±12.0 VDC</td>
<td>±2.0 A**</td>
<td>MTC3028D12</td>
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<tr>
<td>35 W</td>
<td>±15.0 VDC</td>
<td>±1.6 A**</td>
<td>MTC3028D15</td>
</tr>
</tbody>
</table>

**Dimensions:**

MTC05: 1.260 x 0.760 x 0.340 in (32.0 x 19.3 x 8.7 mm)
MTC15 Single: 1.575 x 1.024 x 0.382 in (40.0 x 26.0 x 9.2 mm)
MTC15 Dual: 1.575 x 1.024 x 0.500 in (40.0 x 26.0 x 12.7 mm)
MTC30: 2.283 x 1.811 x 0.500 in (58.0 x 46.0 x 12.7 mm)

**Notes:**

For additional ESS screening, add the suffix ‘-ESS’ to the part number e.g. MTC0528S05-ESS. For -55 °C extended operating range option, add suffix ‘-LT’ to the part number e.g. MTC0528S05-LT.

* Max power 15W must not be exceeded.
** Max power 30W must not be exceeded.

---

### MTC35-150

**35-150 Watts**

- 10-40VDC Input Range
- Designed for Vetronic & Avionic Use
- Magnetic Feedback Technology
- -55 °C to +100 °C Operation
- MIL-STD 461 & DEF-STAN 59-411
- MIL-STD 1275 & DEF-STAN 61-5
- Remote On/Off
- 3 Year Warranty
- Active Surge Protection & EMI Filter (MTF50)
- Extended Hold Up Module (MTH100)

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>35 W</td>
<td>3.3 VDC</td>
<td>10.00 A</td>
<td>MTC3528S3V3</td>
</tr>
<tr>
<td>35 W</td>
<td>5.0 VDC</td>
<td>7.00 A</td>
<td>MTC3528S505</td>
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<tr>
<td>35 W</td>
<td>12.0 VDC</td>
<td>2.90 A</td>
<td>MTC3528S12</td>
</tr>
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<td>35 W</td>
<td>15.0 VDC</td>
<td>2.30 A</td>
<td>MTC3528S15</td>
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<td>35 W</td>
<td>28.0 VDC</td>
<td>1.30 A</td>
<td>MTC3528S28</td>
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<td>50 W</td>
<td>3.3 VDC</td>
<td>15.00 A</td>
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<td>50 W</td>
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<td>4.20 A</td>
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</tr>
<tr>
<td>50 W</td>
<td>28.0 VDC</td>
<td>1.80 A</td>
<td>MTC5028S28</td>
</tr>
<tr>
<td>66 W</td>
<td>3.3 VDC</td>
<td>20.00 A</td>
<td>MTC6628S3V3</td>
</tr>
<tr>
<td>75 W</td>
<td>5.0 VDC</td>
<td>15.00 A</td>
<td>MTC7528S505</td>
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<tr>
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<td>12.0 VDC</td>
<td>6.25 A</td>
<td>MTC7528S12</td>
</tr>
<tr>
<td>75 W</td>
<td>15.0 VDC</td>
<td>5.00 A</td>
<td>MTC7528S15</td>
</tr>
<tr>
<td>75 W</td>
<td>28.0 VDC</td>
<td>2.70 A</td>
<td>MTC7528S28</td>
</tr>
<tr>
<td>75 W</td>
<td>±12.0 VDC</td>
<td>±3.13 A**</td>
<td>MTC7528D12</td>
</tr>
</tbody>
</table>

**Dimensions:**

MTC35: 2.0 x 1.10 x 0.5 in (50.8 x 27.9 x 12.7 mm)
MTC50: 2.28 x 1.45 x 0.5 in (58.0 x 36.8 x 12.7 mm)
MTC75/150: 2.4 x 2.28 x 0.5 in (61.0 x 57.9 x 12.7 mm)

**Notes:**

1. Each output can deliver 70% of the combined current when other output delivers between 5% and 30%.
2. Minimum load of 5% required on one output for ±4% regulation on the other.

---

### XP Power
**Railway DC-DC Converters**

**RDE03**
3 Watts

- Regulated Single & Dual Outputs
- Wide 4:1 Input Range
- 24, 48 & 110 Nominal VDC Input
- 3000VAC Isolation
- Operating Temperature -40 °C to +105 °C
- Complies with EN50155 & IEC60571
- EN50121-3-2 EMC for Rail Applications
- 3 Year Warranty

**Power** | **Output Voltage** | **Output Current** | **Model**
---|---|---|---
3 W | 5.0 VDC | 600 mA | RDE03x50S
3 W | 12.0 VDC | 250 mA | RDE03x50S112
3 W | 15.0 VDC | 200 mA | RDE03x50S115
3 W | ±12.0 VDC | ±125 mA | RDE03x51D112
3 W | ±15.0 VDC | ±100 mA | RDE03x51D115

**Dimensions:**
RDE03: 1.25 x 0.80 x 0.47 in (31.8 x 20.3 x 12.0 mm)

**Notes:**
For 24V replace xx with 24 e.g. RDE0324S12
48V replace xx with 48 e.g. RDE0348S12
110V replace xx with 110 e.g. RDE03110S12

**RDD08**
8 Watts

- Regulated Single & Dual Outputs
- 13-70VDC Input (24VDC Nominal)
- 42-176VDC Input (110VDC Nominal)
- EN50121-3-2 EMC
- Complies with EN50155
- DIP24 Package
- -40 °C to +85 °C Operation
- Full Load at +70 °C Ambient
- 3000VDC Isolation
- 3 Year Warranty

**Power** | **Output Voltage** | **Output Current** | **Model**
---|---|---|---
8 W | 3.3 VDC | 2400 mA | RDD0824S3V3
8 W | 5.0 VDC | 1600 mA | RDD0824S05
8 W | 12.0 VDC | 665 mA | RDD0824S12
8 W | 15.0 VDC | 535 mA | RDD0824S15
8 W | ±5.0 VDC | ±800 mA | RDD0824D05
8 W | ±12.0 VDC | ±335 mA | RDD0824D12
8 W | ±15.0 VDC | ±265 mA | RDD0824D15
8 W | 3.3 VDC | 2400 mA | RDD08110S3V3
8 W | 5.0 VDC | 1600 mA | RDD08110S05
8 W | 12.0 VDC | 665 mA | RDD08110S12
8 W | 15.0 VDC | 535 mA | RDD08110S15
8 W | ±5.0 VDC | ±800 mA | RDD08110D05
8 W | ±12.0 VDC | ±335 mA | RDD08110D12
8 W | ±15.0 VDC | ±265 mA | RDD08110D15

**Dimensions:**
RDD08: 1.25 x 0.80 x 0.42 in (31.8 x 20.3 x 10.7 mm)

**Notes:**
Add suffix '-HK' for optional heatsink.

**RDC20**
20 Watts

- Regulated Single & Dual Outputs
- 36-140VDC Input (72VDC Nominal)
- 55-176VDC Input (110VDC Nominal)
- EN50121-3-2 EMC
- Complies with EN50155
- 1500 VAC Basic Isolation
- -40 °C to +85 °C Operation
- Remote On/Off
- Optional Heatsink
- 3 Year Warranty

**Power** | **Output Voltage** | **Output Current** | **Model**
---|---|---|---
20 W | 3.3 VDC | 6.00 A | RDC20723V3
20 W | 5.0 VDC | 4.00 A | RDC20725V0
20 W | 12.0 VDC | 1.65 A | RDC2072512
20 W | 15.0 VDC | 1.33 A | RDC2072515
20 W | ±12.0 VDC | ±0.83 A | RDC2072D05
20 W | ±15.0 VDC | ±0.67 A | RDC2072D12
20 W | 3.3 VDC | 6.00 A | RDC20110S3V3
20 W | 5.0 VDC | 4.00 A | RDC20110S05
20 W | 12.0 VDC | 1.65 A | RDC20110S12
20 W | 15.0 VDC | 1.33 A | RDC20110S15
20 W | ±5.0 VDC | ±2.00 A | RDC20110D05
20 W | ±12.0 VDC | ±0.83 A | RDC20110D12
20 W | ±15.0 VDC | ±0.67 A | RDC20110D15

**Dimensions:**
RDC20: 2.00 x 1.00 x 0.40 in (50.8 x 25.4 x 10.16 mm)

**Notes:**
Add suffix ‘-HK’ for optional heatsink.
### RDC30
**30 Watts**
- Regulated Single & Dual Outputs
- 36-140VDC Input (72VDC Nominal)
- 55-176VDC Input (110VDC Nominal)
- EN50121-3-2 EMC
- Complies with EN50155
- 1500VAC Basic Isolation
- -40 °C to +85 °C Operation
- Remote On/Off
- Optional Heatsink
- 3 Year Warranty

**Power** | **Output Voltage** | **Output Current** | **Model**
--- | --- | --- | ---
30 W | 3.3 VDC | 6.00 A | RDC30xxS3V3
30 W | 5.0 VDC | 4.00 A | RDC30xxS505
30 W | 12.0 VDC | 1.65 A | RDC30xxS12
30 W | 15.0 VDC | 1.33 A | RDC30xxS15
30 W | ±12.0 VDC | ±0.83 A | RDC30xxD12
30 W | ±15.0 VDC | ±0.67 A | RDC30xxD15
30 W | +3.3 V, ±12.0 V | 5.00 A, ±0.42 A | RDC30xxT0312
30 W | +3.3 V, ±15.0 V | 5.00 A, ±0.33 A | RDC30xxT0315
30 W | +5.0 V, ±12.0 V | 4.00 A, ±0.42 A | RDC30xxT0512
30 W | +5.0 V, ±15.0 V | 4.00 A, ±0.33 A | RDC30xxT0515

**Dimensions:**
RDC30: 2.00 x 1.00 x 0.40 in (50.8 x 25.4 x 10.16 mm)

### RDC40
**40 Watts**
- Regulated Single & Dual Outputs
- 36-140VDC Input (72VDC Nominal)
- 55-176VDC Input (110VDC Nominal)
- EN50121-3-2 EMC
- Complies with EN50155
- 1500VAC Basic Isolation
- -40 °C to +85 °C Operation
- Remote On/Off
- Optional Heatsink
- Thermal Shutdown
- 3 Year Warranty

**Power** | **Output Voltage** | **Output Current** | **Model**
--- | --- | --- | ---
40 W | 3.3 VDC | 10.00 A | RDC4072S3V3
40 W | 5.0 VDC | 8.00 A | RDC4072S05
40 W | 12.0 VDC | 3.35 A | RDC4072S12
40 W | 15.0 VDC | 2.65 A | RDC4072S15
40 W | ±12.0 VDC | ±1.65 A | RDC4072D12
40 W | ±15.0 VDC | ±1.35 A | RDC4072D15
40 W | +3.3 V, ±12.0 V | 5.00 A, ±0.42 A | RDC4072T0312
40 W | +3.3 V, ±15.0 V | 5.00 A, ±0.33 A | RDC4072T0315
40 W | +5.0 V, ±12.0 V | 4.00 A, ±0.42 A | RDC4072T0512
40 W | +5.0 V, ±15.0 V | 4.00 A, ±0.33 A | RDC4072T0515

**Dimensions:**
RDC40: 2.00 x 1.60 x 0.40 in (50.8 x 40.6 x 10.16 mm)

### RDF50
**50 Watts**
- Ultra Wide 12:1 Input Range (14-160VDC)
- Single Output
- Industry Standard Quarter Brick Package
- -40 °C to +100 °C Operation
- 3000VDC Isolation
- Output Trim ±10%
- Remote On/Off & Remote Sense
- Complies with EN50155
- Meets EN50121-3-2
- 3 Year Warranty

**Power** | **Output Voltage** | **Output Current** | **Model**
--- | --- | --- | ---
50 W | 5.0 VDC | 6.00 A | RDF5072S505
50 W | 12.0 VDC | 4.20 A | RDF5072S12
50 W | 24.0 VDC | 2.10 A | RDF5072S24
50 W | 48.0 VDC | 1.05 A | RDF5072S48

**Dimensions:**
RDF50: 2.28 x 1.45 x 0.50 in (57.9 x 36.8 x 12.7 mm)
## RCQ50-75
### 50-75 Watts
- Regulated Single Output
- 43-101VDC Input (72VDC Nominal)
- 66-160VDC Input (110VDC Nominal)
- Complies with EN50155 and IEC60571
- EN50121-3-2 EMC
- 3000VAC Isolation
- -40 °C to +105 °C Operation
- Remote On/Off & Remote Sense
- Optional Heatsink
- 3 Year Warranty

### Dimensions:
RCQ50/75: 2.28 x 1.45 x 0.50 in (57.9 x 36.8 x 12.7 mm)

### Notes:
Add suffix ‘-HK’ for optional heatsink.
For input range: 72V replace xx with 72 e.g. RCQ5072S05
110V replace xx with 110 e.g. RCQ50110S05

### Power | Output Voltage | Output Current | Model
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>50 W</td>
<td>5.0 VDC</td>
<td>10.00 A</td>
<td>RCQ50x505</td>
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<tr>
<td>50 W</td>
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<td>4.17 A</td>
<td>RCQ50x512</td>
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<tr>
<td>50 W</td>
<td>15.0 VDC</td>
<td>3.33 A</td>
<td>RCQ50x515</td>
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<td>50 W</td>
<td>24.0 VDC</td>
<td>2.08 A</td>
<td>RCQ50x524</td>
</tr>
</tbody>
</table>

## RDL100
### 100 Watts
- Wide 3:1 Input Range
- 110VDC Nominal
- Complies with EN50155
- Meets EN50121-3-2
- Single Output
- Industry Standard Half Brick Package
- -40 °C to +100 °C Operation
- Output Trim ±10%
- Remote On/Off
- 3 Year Warranty

### Dimensions:
RDL100: 2.4 x 2.28 x 0.50 in (61.0 x 57.9 x 12.7 mm)

### Power | Output Voltage | Output Current | Model
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>100 W</td>
<td>12.0 VDC</td>
<td>8.30 A</td>
<td>RDL100110S12</td>
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<tr>
<td>100 W</td>
<td>15.0 VDC</td>
<td>6.70 A</td>
<td>RDL100110S15</td>
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<tr>
<td>100 W</td>
<td>24.0 VDC</td>
<td>4.17 A</td>
<td>RDL100110S24</td>
</tr>
<tr>
<td>100 W</td>
<td>28.0 VDC</td>
<td>2.08 A</td>
<td>RDL100110S48</td>
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</tbody>
</table>

## RDQ100
### 100 Watts
- Regulated Single Output
- 66-160VDC Input (110VDC Nominal)
- EN50121-3-2 EMC
- Up to 92% Efficiency
- Industry Standard Quarter Brick Package
- -40 °C to +100 °C Operation
- Baseplate-cooled
- Remote On/Off & Remote Sense
- 3 Year Warranty

### Dimensions:
RDQ100: 2.28 x 1.45 x 0.50 in (57.9 x 36.8 x 12.7 mm)

### Notes:
Add suffix ‘N’ to the model number to receive the unit with negative logic Remote On/Off.

### Power | Output Voltage | Output Current | Model
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>100 W</td>
<td>5.0 VDC</td>
<td>20.0 A</td>
<td>RDQ100110S05</td>
</tr>
<tr>
<td>100 W</td>
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<td>8.40 A</td>
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<tr>
<td>100 W</td>
<td>24.0 VDC</td>
<td>4.20 A</td>
<td>RDQ100110S24</td>
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</tbody>
</table>
**RDQ150**

150 Watts

- Regulated Single Output
- 66-160VDC Input (110VDC Nominal)
- EN50121-3-2 EMC
- Up to 92% Efficiency
- Industry Standard Half Brick Package
- -40 °C to +100 °C Operation
- Baseplate-cooled
- Remote On/Off & Remote Sense
- 2250VDC Isolation
- 3 Year Warranty

### Dimensions:
RDQ150: 2.40 x 2.28 x 0.50 in (61.0 x 57.9 x 12.7 mm)

### Power Output Table

<table>
<thead>
<tr>
<th>Power (W)</th>
<th>Output Voltage (V)</th>
<th>Output Current (A)</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>150</td>
<td>5.0</td>
<td>30.0</td>
<td>RDQ150110505</td>
</tr>
<tr>
<td>150</td>
<td>12.0</td>
<td>12.5</td>
<td>RDQ150110512</td>
</tr>
<tr>
<td>150</td>
<td>24.0</td>
<td>6.50</td>
<td>RDQ150110524</td>
</tr>
</tbody>
</table>

### Notes:
Add suffix ‘N’ to the model number to receive the unit with negative logic Remote On/Off.

---

**RDH300**

300 Watts

- Wide 4:1 Input Range
- Covers 72 & 110VDC Nominal Inputs
- Complies with EN50155
- Meets EN50121-3-2
- Single Output
- Industry Standard Half Brick Package
- -40 °C to +100 °C Operation
- 3000VDC Isolation
- Output Trim ±10%
- Remote On/Off and Remote Sense
- 3 Year Warranty

### Dimensions:
RDH300: 2.40 x 2.28 x 0.50 in (61.0 x 57.9 x 12.7 mm)

### Power Output Table

<table>
<thead>
<tr>
<th>Power (W)</th>
<th>Output Voltage (V)</th>
<th>Output Current (A)</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>300</td>
<td>5.0</td>
<td>60.0</td>
<td>RDH30072WS05</td>
</tr>
<tr>
<td>300</td>
<td>12.0</td>
<td>25.0</td>
<td>RDH30072WS12</td>
</tr>
<tr>
<td>300</td>
<td>24.0</td>
<td>12.5</td>
<td>RDH30072WS24</td>
</tr>
<tr>
<td>300</td>
<td>28.0</td>
<td>10.7</td>
<td>RDH30072WS28</td>
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<tr>
<td>300</td>
<td>48.0</td>
<td>6.25</td>
<td>RDH30072WS48</td>
</tr>
</tbody>
</table>

---

**RDH600**

600 Watts

- Wide 4:1 Input Range
- Covers 72 & 110VDC Nominal Inputs
- Complies with EN50155
- Meets EN50121-3-2
- Single Output
- Industry Standard Full Brick Package
- -40 °C to +100 °C Operation
- Output Trim 60-110%
- Remote On/Off
- 3 Year Warranty

### Dimensions:
RDH600: 4.60 x 3.35 x 0.50 in (116.8 x 85.09 x 12.7 mm)
**LED Drivers**

- **Constant Current LED Driver**
- **LED Drive Current From 150 to 1000mA**
- **LED Strings from 2 to 57VDC**
- **PWM Dimming Control**
- **Analog Dimming Control**
- **High Efficiency - up to 97%**
- **Open or Short Circuit LED Protection**
- **3 Year Warranty**

### LDU05-56

**5-56 Watts**

<table>
<thead>
<tr>
<th>Power</th>
<th>Voltage</th>
<th>Output</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Input</td>
<td>Output</td>
<td>mA</td>
<td></td>
</tr>
<tr>
<td>4.2 W</td>
<td>7-16 VDC</td>
<td>2-14 VDC</td>
<td>300 mA</td>
<td>LDU0516S300</td>
</tr>
<tr>
<td>4.9 W</td>
<td>7-16 VDC</td>
<td>2-14 VDC</td>
<td>350 mA</td>
<td>LDU0516S350</td>
</tr>
<tr>
<td>7 W</td>
<td>7-16 VDC</td>
<td>2-14 VDC</td>
<td>500 mA</td>
<td>LDU0716S500</td>
</tr>
<tr>
<td>8 W</td>
<td>7-30 VDC</td>
<td>2-28 VDC</td>
<td>300 mA</td>
<td>LDU0830S300</td>
</tr>
<tr>
<td>8 W</td>
<td>7-30 VDC</td>
<td>2-28 VDC</td>
<td>350 mA</td>
<td>LDU0830S350</td>
</tr>
<tr>
<td>8.4 W</td>
<td>7-16 VDC</td>
<td>2-14 VDC</td>
<td>600 mA</td>
<td>LDU1416S600</td>
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<tr>
<td>9.8 W</td>
<td>7-16 VDC</td>
<td>2-14 VDC</td>
<td>700 mA</td>
<td>LDU1416S700</td>
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<td>14 W</td>
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<td>2-14 VDC</td>
<td>1000 mA</td>
<td>LDU1416S1000</td>
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<td>2-28 VDC</td>
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<td>LDU2030S500</td>
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<td>17 W</td>
<td>7-30 VDC</td>
<td>2-28 VDC</td>
<td>600 mA</td>
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</tr>
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<td>20 W</td>
<td>7-30 VDC</td>
<td>2-28 VDC</td>
<td>700 mA</td>
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<td>2-28 VDC</td>
<td>500 mA</td>
<td>LDU2430S500</td>
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<td>17 W</td>
<td>7-30 VDC</td>
<td>2-28 VDC</td>
<td>600 mA</td>
<td>LDU2430S600</td>
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<tr>
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<td>7-30 VDC</td>
<td>2-28 VDC</td>
<td>700 mA</td>
<td>LDU2430S700</td>
</tr>
<tr>
<td>24 W</td>
<td>7-30 VDC</td>
<td>2-28 VDC</td>
<td>1000 mA</td>
<td>LDU2430S1000</td>
</tr>
<tr>
<td>9 W</td>
<td>7-60 VDC</td>
<td>2-57 VDC</td>
<td>150 mA</td>
<td>LDU4860S150</td>
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<td>14 W</td>
<td>7-60 VDC</td>
<td>2-57 VDC</td>
<td>250 mA</td>
<td>LDU4860S250</td>
</tr>
<tr>
<td>17 W</td>
<td>7-60 VDC</td>
<td>2-57 VDC</td>
<td>300 mA</td>
<td>LDU4860S300</td>
</tr>
<tr>
<td>20 W</td>
<td>7-60 VDC</td>
<td>2-57 VDC</td>
<td>350 mA</td>
<td>LDU4860S350</td>
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<td>29 W</td>
<td>7-60 VDC</td>
<td>2-57 VDC</td>
<td>500 mA</td>
<td>LDU4860S500</td>
</tr>
<tr>
<td>40 W</td>
<td>7-60 VDC</td>
<td>2-57 VDC</td>
<td>700 mA</td>
<td>LDU4860S700</td>
</tr>
<tr>
<td>48 W</td>
<td>7-60 VDC</td>
<td>2-48 VDC</td>
<td>1000 mA</td>
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<tr>
<td>16.8 W</td>
<td>9-60 VDC</td>
<td>2-56 VDC</td>
<td>300 mA</td>
<td>LDU5660S300</td>
</tr>
<tr>
<td>19.6 W</td>
<td>9-60 VDC</td>
<td>2-56 VDC</td>
<td>350 mA</td>
<td>LDU5660S350</td>
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<tr>
<td>28.0 W</td>
<td>9-60 VDC</td>
<td>2-56 VDC</td>
<td>500 mA</td>
<td>LDU5660S500</td>
</tr>
<tr>
<td>33.6 W</td>
<td>9-60 VDC</td>
<td>2-56 VDC</td>
<td>600 mA</td>
<td>LDU5660S600</td>
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<tr>
<td>39.2 W</td>
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<td>2-56 VDC</td>
<td>700 mA</td>
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<td>56.0 W</td>
<td>9-60 VDC</td>
<td>2-56 VDC</td>
<td>1000 mA</td>
<td>LDU5660S1000</td>
</tr>
</tbody>
</table>

**Notes:**

LDU08, 24, 48 & 56 available as wired versions (100 mm), add suffix "-W".
For wired (100mm) with dimming control, add suffix "-WD".

---

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#### Q

**0.5 Watts**

- 100VDC to 10kVDC Output Voltage
- Isolated Vout is Proportional to Vin
- Low Turn On Voltage: <0.7VDC
- Positive & Negative Output Versions
- Very Low I/O Leakage Current
- Reversible Polarity (Up to 900V)
- Dual Output/Center Tap Version (Up to 900V)
- 3 Year Warranty

<table>
<thead>
<tr>
<th>Power</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5 W</td>
<td>0-100 VDC</td>
<td>5.00 mA</td>
<td>Q01-xx</td>
</tr>
<tr>
<td>0.5 W</td>
<td>0-150 VDC</td>
<td>3.33 mA</td>
<td>Q015-xx</td>
</tr>
<tr>
<td>0.5 W</td>
<td>0-200 VDC</td>
<td>2.50 mA</td>
<td>Q02-xx</td>
</tr>
<tr>
<td>0.5 W</td>
<td>0-250 VDC</td>
<td>2.00 mA</td>
<td>Q025-xx</td>
</tr>
<tr>
<td>0.5 W</td>
<td>0-300 VDC</td>
<td>1.67 mA</td>
<td>Q03-xx</td>
</tr>
<tr>
<td>0.5 W</td>
<td>0-350 VDC</td>
<td>1.43 mA</td>
<td>Q035-xx</td>
</tr>
<tr>
<td>0.5 W</td>
<td>0-400 VDC</td>
<td>1.25 mA</td>
<td>Q04-xx</td>
</tr>
<tr>
<td>0.5 W</td>
<td>0-450 VDC</td>
<td>1.11 mA</td>
<td>Q045-xx</td>
</tr>
<tr>
<td>0.5 W</td>
<td>0-500 VDC</td>
<td>1.00 mA</td>
<td>Q05-xx</td>
</tr>
<tr>
<td>0.5 W</td>
<td>0-600 VDC</td>
<td>0.83 mA</td>
<td>Q06-xx</td>
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<tr>
<td>0.5 W</td>
<td>0-700 VDC</td>
<td>0.71 mA</td>
<td>Q07-xx</td>
</tr>
<tr>
<td>0.5 W</td>
<td>0-800 VDC</td>
<td>0.62 mA</td>
<td>Q08-xx</td>
</tr>
<tr>
<td>0.5 W</td>
<td>0-900 VDC</td>
<td>0.56 mA</td>
<td>Q09-xx</td>
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<tr>
<td>0.5 W</td>
<td>0-1000 VDC</td>
<td>0.50 mA</td>
<td>Q10-xx</td>
</tr>
<tr>
<td>0.5 W</td>
<td>0-1200 VDC</td>
<td>0.41 mA</td>
<td>Q12-xx</td>
</tr>
<tr>
<td>0.5 W</td>
<td>0-1500 VDC</td>
<td>0.33 mA</td>
<td>Q15-xx</td>
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<tr>
<td>0.5 W</td>
<td>0-2000 VDC</td>
<td>0.25 mA</td>
<td>Q20-xx</td>
</tr>
<tr>
<td>0.5 W</td>
<td>0-2500 VDC</td>
<td>0.2 mA</td>
<td>Q25-xx</td>
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<td>0.5 W</td>
<td>0-3000 VDC</td>
<td>0.167 mA</td>
<td>Q30-xx</td>
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<td>0.5 W</td>
<td>0-4000 VDC</td>
<td>0.125 mA</td>
<td>Q40-xx</td>
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<td>0.5 W</td>
<td>0-5000 VDC</td>
<td>0.100 mA</td>
<td>Q50-xx</td>
</tr>
<tr>
<td>0.5 W</td>
<td>0-6000 VDC</td>
<td>83.0 µA</td>
<td>Q60-xx</td>
</tr>
<tr>
<td>0.5 W</td>
<td>0-8000 VDC</td>
<td>62.5 µA</td>
<td>Q80-xx</td>
</tr>
<tr>
<td>0.5 W</td>
<td>0-10000 VDC</td>
<td>50.0 µA</td>
<td>Q101-xx</td>
</tr>
</tbody>
</table>

**Notes:**
- Select polarity: Standard polarity is positive e.g. Q01-xx
- Add ‘N’ to the part number for negative e.g. Q01-xx
- Select input range:
  - 5V replace xx with 5 e.g. Q01-5
  - 12V replace xx with 12 e.g. Q01-12
  - 15V replace xx with 15 e.g. Q01-15
  - 24V replace xx with 24 e.g. Q01-24
  - (5V only above 3kV)
- For dual output (center tap) add ‘CT’ to the part number e.g. Q01CT-12, provides ±50VDC output
- For extended operational temperature range add suffix ‘T’ e.g. Q01-12T
- For a control pin option, add suffix ‘C’ e.g. Q01-5C (up to Q50)

**Dimensions:**
- Q01-Q50 (100V-5kV): 0.50 x 0.50 x 0.50 in (12.7 x 12.7 x 12.7 mm)
- Q60-Q101 (6kV-10kV): 0.85 x 0.85 x 0.85 in (21.59 x 21.59 x 21.59 mm)

---

#### GP

**1 Watts**

- 100VDC to 6kVDC Output Voltage
- Isolated Vout is Proportional to Vin
- Low Power Consumption
- Low Turn On Voltage: <0.7VDC
- -40 °C to +100 °C Operation
- Positive & Negative Output Versions
- Very Low I/O Leakage Current
- Reversible Polarity
- Optional Mounting Enclosure
- 3 Year Warranty

<table>
<thead>
<tr>
<th>Power</th>
<th>Input Voltage</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 W</td>
<td>0-12 VDC</td>
<td>0-100 VDC</td>
<td>10.0 mA</td>
<td>GP01</td>
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<tr>
<td>1 W</td>
<td>0-12 VDC</td>
<td>0-200 VDC</td>
<td>5.0 mA</td>
<td>GP02</td>
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<tr>
<td>1 W</td>
<td>0-12 VDC</td>
<td>0-300 VDC</td>
<td>3.3 mA</td>
<td>GP03</td>
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<td>1 W</td>
<td>0-12 VDC</td>
<td>0-500 VDC</td>
<td>2.0 mA</td>
<td>GP05</td>
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<td>1 W</td>
<td>0-12 VDC</td>
<td>0-600 VDC</td>
<td>1.67 mA</td>
<td>GP06</td>
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<td>1 W</td>
<td>0-12 VDC</td>
<td>0-800 VDC</td>
<td>1.25 mA</td>
<td>GP08</td>
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<tr>
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<td>0-12 VDC</td>
<td>0-1000 VDC</td>
<td>1.0 mA</td>
<td>GP10</td>
</tr>
<tr>
<td>1 W</td>
<td>0-12 VDC</td>
<td>0-1200 VDC</td>
<td>840 µA</td>
<td>GP12</td>
</tr>
<tr>
<td>1 W</td>
<td>0-12 VDC</td>
<td>0-1500 VDC</td>
<td>640 µA</td>
<td>GP15</td>
</tr>
<tr>
<td>1 W</td>
<td>0-12 VDC</td>
<td>0-2000 VDC</td>
<td>500 µA</td>
<td>GP20</td>
</tr>
<tr>
<td>1 W</td>
<td>0-12 VDC</td>
<td>0-2500 VDC</td>
<td>400 µA</td>
<td>GP25</td>
</tr>
<tr>
<td>1 W</td>
<td>0-12 VDC</td>
<td>0-3000 VDC</td>
<td>340 µA</td>
<td>GP30</td>
</tr>
<tr>
<td>1 W</td>
<td>0-12 VDC</td>
<td>0-4000 VDC</td>
<td>250 µA</td>
<td>GP40</td>
</tr>
<tr>
<td>1 W</td>
<td>0-12 VDC</td>
<td>0-5000 VDC</td>
<td>200 µA</td>
<td>GP50</td>
</tr>
<tr>
<td>1 W</td>
<td>0-12 VDC</td>
<td>0-6000 VDC</td>
<td>166 µA</td>
<td>GP60</td>
</tr>
</tbody>
</table>

**Notes:**
- Add suffix ‘AB’ to the model number for external mounting enclosure, e.g. GP01AB

**Dimensions:**
- GP: 1.5 x 1.5 x 0.63 in (38.1 x 38.1 x 16.0 mm)
### A/AH

**1/1.5 Watts**

- **100VDC to 6kVDC Output Voltage**
- **Isolated Vout is Proportional to Vin**
- **Low Turn On Voltage: <0.7VDC**
- **Ultra-Miniature, Low Profile**
- **Positive & Negative Output Versions**
- **Very Low I/O Leakage Current**
- **3 Year Warranty**

**Dimensions:**
- A/AH (100-2kV): 0.92 x 0.45 x 0.25 in (23.73 x 11.43 x 6.35 mm)
- A/GH (3-5kV): 1.13 x 0.45 x 0.25 in (28.70 x 11.43 x 6.35 mm)
- A/AH (6kV): 1.32 x 0.45 x 0.25 in (33.53 x 11.43 x 6.35 mm)

**Notes:**
- Select polarity by adding "P" for positive e.g. A01P-xx
- "N" for negative e.g. A01N-xx
- For extended operational temperature range (A models only) add suffix "T" e.g. A01P-12T

### AG/AGH

**1/1.5 Watts**

- **100VDC to 6kVDC Output Voltage**
- **Isolated Vout is Proportional to Vin**
- **Low Turn On Voltage: <0.7VDC**
- **Ultra-Miniature, Low Profile, SMT**
- **Positive & Negative Output Versions**
- **Very Low I/O Leakage Current**
- **Surface Mount**
- **3 Year Warranty**

**Dimensions:**
- AG/AGH (100-2kV): 0.92 x 0.45 x 0.25 in (23.73 x 11.43 x 6.35 mm)
- AG/AGH (3-5kV): 1.13 x 0.45 x 0.25 in (28.70 x 11.43 x 6.35 mm)
- AG/AGH (6kV): 1.32 x 0.45 x 0.25 in (33.53 x 11.43 x 6.35 mm)

**Notes:**
- Select polarity by adding "P" for positive e.g. AG01P-xx
- "N" for negative e.g. AG01N-xx
- For extended operational temperature range (AG models only) add suffix "T" e.g. AG01P-12T

### G

**1.5 Watts**

- **100VDC to 6kVDC Output Voltage**
- **Isolated Vout is Proportional to Vin**
- **Low Turn On Voltage: <0.7VDC**
- **Positive & Negative Output Versions**
- **Very Low I/O Leakage Current**
- **Reversible Polarity**
- **Optional Mounting Enclosure**
- **Dual Output/Center Tap Version**
- **3 Year Warranty**

**Dimensions:**
- G: 1.5 x 1.5 x 0.63 in (38.1 x 38.1 x 16.0 mm)

**Notes:**
- For dual output (center tap) add ‘CT’ to the part number e.g. G01CT, provides ±50VDC output
- Add suffix ‘AB’ to the model number for external mounting enclosure, e.g. G01AB

---

### Power Output Specifications

<table>
<thead>
<tr>
<th>Power</th>
<th>Input Voltage</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0/1.5 W</td>
<td>0-100 VDC</td>
<td>0-150 VDC</td>
<td>10.00 mA</td>
<td>A01-xx/AH01-xx</td>
</tr>
<tr>
<td>1.0/1.5 W</td>
<td>0-200 VDC</td>
<td>0-300 VDC</td>
<td>5.00 mA</td>
<td>A02-xx/AH02-xx</td>
</tr>
<tr>
<td>1.0/1.5 W</td>
<td>0-500 VDC</td>
<td>0-750 VDC</td>
<td>2.50 mA</td>
<td>A05-xx/AH05-xx</td>
</tr>
<tr>
<td>1.0/1.5 W</td>
<td>0-1000 VDC</td>
<td>0-1500 VDC</td>
<td>1.25 mA</td>
<td>A10-xx/AH10-xx</td>
</tr>
<tr>
<td>1.0/1.5 W</td>
<td>0-1500 VDC</td>
<td>0-2500 VDC</td>
<td>0.75 mA</td>
<td>A15-xx/AH15-xx</td>
</tr>
<tr>
<td>1.0/1.5 W</td>
<td>0-3000 VDC</td>
<td>0-5000 VDC</td>
<td>0.37 mA</td>
<td>A30-xx/AH30-xx</td>
</tr>
<tr>
<td>1.0/1.5 W</td>
<td>0-6000 VDC</td>
<td>0-9000 VDC</td>
<td>0.25 mA</td>
<td>A60-xx/AH60-xx</td>
</tr>
</tbody>
</table>

---

### Additional Specifications

- **85**
**E**

**2-3 Watts**

- 200VDC to 7kVDC (3W) Output Voltage
- 8 kVDC (2W) Output Voltage
- Isolated Vout is Proportional to Vin
- Low Turn On Voltage: <0.7VDC
- Positive & Negative Output Versions
- Very Low I/O Leakage Current
- Reversible Polarity
- Dual Output/Center Tap Version
- 3 Year Warranty

**Dimensions:**

<table>
<thead>
<tr>
<th>E</th>
<th>Width</th>
<th>Height</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5 x 1.5 x 0.85 in (63.5 x 38.1 x 21.6 mm)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

For dual output (center tap) add ‘CT’ to the part number e.g. E02CT, provides ±100VDC output.

---

**F**

**10 Watts**

- 200VDC to 8kVDC Output Voltage
- Isolated Vout is Proportional to Vin
- Low Turn On Voltage: <0.7VDC
- Positive & Negative Output Versions
- Very Low I/O Leakage Current
- Reversible Polarity
- Dual Output/Center Tap Version
- 3 Year Warranty

**Dimensions:**

<table>
<thead>
<tr>
<th>F (200V-6kV)</th>
<th>Width</th>
<th>Height</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.8 x 1.7 x 0.85 in (71.2 x 43.1 x 21.6 mm)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>F (7kV-8kV)</th>
<th>Width</th>
<th>Height</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.8 x 1.7 x 0.85 in (71.2 x 43.1 x 21.59 mm)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

For dual output (center tap) add ‘CT’ to the part number e.g. F02CT, provides ±100VDC output. For mounting holes option add suffix ‘H’

---

**FS**

**10 Watts**

- 200VDC to 6kVDC Output Voltage
- Isolated Vout is Proportional to Vin
- Low Turn On Voltage: <0.7VDC
- Compact Package With Smart Features
- Positive & Negative Output Versions
- Very Low I/O Leakage Current
- Dual Output/Center Tap Version
- 3 Year Warranty

**Dimensions:**

<table>
<thead>
<tr>
<th>FS</th>
<th>Width</th>
<th>Height</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.25 x 1.12 x 0.50 in (57.15 x 28.50 x 12.70 mm)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

For dual output (center tap) add ‘CT’ to the part number e.g. E02CT, provides ±100VDC output. For extended operational temperature range add suffix ‘T’ e.g. FS02-12T

---

**Power Specifications**

<table>
<thead>
<tr>
<th>Power</th>
<th>Input Voltage</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>E02</td>
<td>0-12 VDC</td>
<td>0-300 VDC</td>
<td>3.0 mA</td>
<td>E02</td>
</tr>
<tr>
<td>E03</td>
<td>0-12 VDC</td>
<td>0-500 VDC</td>
<td>5.0 mA</td>
<td>E03</td>
</tr>
<tr>
<td>E06</td>
<td>0-12 VDC</td>
<td>0-750 VDC</td>
<td>7.5 mA</td>
<td>E06</td>
</tr>
<tr>
<td>E09</td>
<td>0-12 VDC</td>
<td>0-1000 VDC</td>
<td>10 mA</td>
<td>E09</td>
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<tr>
<td>E10</td>
<td>0-12 VDC</td>
<td>0-1500 VDC</td>
<td>15 mA</td>
<td>E10</td>
</tr>
<tr>
<td>E12</td>
<td>0-12 VDC</td>
<td>0-2000 VDC</td>
<td>20 mA</td>
<td>E12</td>
</tr>
<tr>
<td>E30</td>
<td>0-15 VDC</td>
<td>0-3000 VDC</td>
<td>30 mA</td>
<td>E30</td>
</tr>
<tr>
<td>E40</td>
<td>0-15 VDC</td>
<td>0-4000 VDC</td>
<td>40 mA</td>
<td>E40</td>
</tr>
<tr>
<td>E50</td>
<td>0-15 VDC</td>
<td>0-5000 VDC</td>
<td>50 mA</td>
<td>E50</td>
</tr>
<tr>
<td>E60</td>
<td>0-15 VDC</td>
<td>0-6000 VDC</td>
<td>60 mA</td>
<td>E60</td>
</tr>
<tr>
<td>E70</td>
<td>0-15 VDC</td>
<td>0-7000 VDC</td>
<td>70 mA</td>
<td>E70</td>
</tr>
<tr>
<td>E80</td>
<td>0-15 VDC</td>
<td>0-8000 VDC</td>
<td>80 mA</td>
<td>E80</td>
</tr>
<tr>
<td>F02</td>
<td>0-12 VDC</td>
<td>0-200 VDC</td>
<td>50 mA</td>
<td>F02</td>
</tr>
<tr>
<td>F03</td>
<td>0-12 VDC</td>
<td>0-300 VDC</td>
<td>33.30 mA</td>
<td>F03</td>
</tr>
<tr>
<td>F04</td>
<td>0-12 VDC</td>
<td>0-400 VDC</td>
<td>25 mA</td>
<td>F04</td>
</tr>
<tr>
<td>F05</td>
<td>0-12 VDC</td>
<td>0-500 VDC</td>
<td>20 mA</td>
<td>F05</td>
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<td>F06</td>
<td>0-12 VDC</td>
<td>0-600 VDC</td>
<td>15 mA</td>
<td>F06</td>
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<td>F08</td>
<td>0-12 VDC</td>
<td>0-800 VDC</td>
<td>10 mA</td>
<td>F08</td>
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<tr>
<td>F10</td>
<td>0-12 VDC</td>
<td>0-1000 VDC</td>
<td>10 mA</td>
<td>F10</td>
</tr>
<tr>
<td>F12</td>
<td>0-12 VDC</td>
<td>0-1200 VDC</td>
<td>8 mA</td>
<td>F12</td>
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<tr>
<td>F15</td>
<td>0-12 VDC</td>
<td>0-1500 VDC</td>
<td>6.60 mA</td>
<td>F15</td>
</tr>
<tr>
<td>F20</td>
<td>0-12 VDC</td>
<td>0-2000 VDC</td>
<td>5.00 mA</td>
<td>F20</td>
</tr>
<tr>
<td>F30</td>
<td>0-15 VDC</td>
<td>0-3000 VDC</td>
<td>3.30 mA</td>
<td>F30</td>
</tr>
<tr>
<td>F40</td>
<td>0-15 VDC</td>
<td>0-4000 VDC</td>
<td>2.5 mA</td>
<td>F40</td>
</tr>
<tr>
<td>F50</td>
<td>0-15 VDC</td>
<td>0-5000 VDC</td>
<td>2.00 mA</td>
<td>F50</td>
</tr>
<tr>
<td>F60</td>
<td>0-15 VDC</td>
<td>0-6000 VDC</td>
<td>1.66 mA</td>
<td>F60</td>
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<tr>
<td>F70</td>
<td>0-15 VDC</td>
<td>0-7000 VDC</td>
<td>1.50 mA</td>
<td>F70</td>
</tr>
<tr>
<td>F80</td>
<td>0-15 VDC</td>
<td>0-8000 VDC</td>
<td>1.25 mA</td>
<td>F80</td>
</tr>
</tbody>
</table>
Regulated High Voltage DC-DC

**P**

2.4 milliwatts

- 1.2kVDC to 2kVDC Output Voltage
- Precision Regulated
- 0 to 100% Programmable
- Ultra-Low Noise, Magnetic Free Design
- Light Weight, Shielded Case
- Positive & Negative Output Versions
- Voltage Monitor
- Soft-Start for Sensitive Detectors
- 3 Year Warranty

**Dimensions:**
P: 1.38 x 0.68 x 0.25 in (35.05 x 17.27 x 6.40 mm)

**Notes:**
For extended operational temperature range add suffix 'T' e.g. P12P-T

**CA/CA-T**

1 Watt

- 200VDC to 2kVDC Output Voltage
- Precision Regulated
- 0 to 100% Programmable
- Very Low Ripple
- Calibration Trim-Pot
- Positive & Negative Output Versions
- Shielded Case with Isolated Case Ground
- Voltage Monitor
- 3 Year Warranty

**Dimensions:**
CA: 1.75 x 1.10 x 0.50 in (44.45 x 27.94 x 12.70 mm)
CA-T: 1.80 x 1.12 x 0.51 in (45.72 x 28.45 x 12.95 mm)

**Notes:**
Select polarity by adding: ‘P’ for positive e.g. CA02P-x
‘N’ for negative e.g. CA02N-x
For extended operational temperature range add suffix ‘T’ e.g. CA02P-T

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<th>Input Voltage</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Model</th>
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CB
1 Watt

- 10kVDC Output Voltage
- Precision Regulated
- 0 to 100% Programmable
- Voltage and Current Monitors
- Operating Temperature -10°C to +60°C
- Calibration Trim-Pot
- Positive & Negative Output Versions
- Steel Case with Isolated Case Ground
- 3 Year Warranty

Dimensions:
CB: 3.00 x 1.25 x 0.60 in (76.2 x 31.75 x 15.24 mm)

Notes:
For extended operational temperature range, contact sales.

SIP90-100
0.1/1 Watt

- 25VDC to 100VDC Output Voltage
- Regulated
- Analog Programmable
- Ultra-Thin, Single In-Line Package
- Low Ripple Biasing Supply
- High Performance, Low Cost
- Enable/Disable Pin
- 3 Year Warranty

Dimensions:
SIP90: 1.15 x 0.55 x 0.16 in (29.2 x 13.97 x 4.06 mm)
SIP100: 1.45 x 0.75 x 0.16 in (36.83 x 19.05 x 4.06 mm)

HRL30
30 Watts

- 100VDC to 6kVDC Output Voltage
- Output Voltage & Current Regulated
- 0 to 100% Programmable Voltage & Current
- Voltage & Current Monitor Outputs
- Operating Temperature -40°C to +70°C
- Short Circuit, Arc, and Overload Protections
- On-board +5V Reference
- Positive & Negative Output Versions
- 3 Year Warranty

Dimensions:
HRL30: 3.0 x 1.5 x 0.75 in (76.2 x 38.1 x 19.05 mm)

Notes:
For positive output voltage replace suffix 'x' with 'P' e.g. HRL3024S100P provides 0 to +100VDC output. For negative output voltage replace suffix 'x' with 'N' e.g. HRL3024S100N for 0 to -100VDC output.
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### North American Sales Offices
- Toll Free: +1 (800) 253-0490
- New England: +1 (603) 818-4020
- Central Region: +1 (972) 578-1530
- Western Region: +1 (408) 732-7777

### European Sales Offices

<table>
<thead>
<tr>
<th>Country</th>
<th>Phone Number</th>
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<tr>
<td>Austria</td>
<td>+49 (0)421 63 93 3 0</td>
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<tr>
<td>Belgium</td>
<td>+33 (0)1 45 12 31 15</td>
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<tr>
<td>Denmark</td>
<td>+45 43 42 38 33</td>
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<tr>
<td>Finland</td>
<td>+358 44 0505703</td>
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<tr>
<td>France</td>
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<tr>
<td>Germany</td>
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<tr>
<td>Israel</td>
<td>+972 (0)9 8800771</td>
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<tr>
<td>Italy</td>
<td>+39 02 70103517</td>
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<td>Netherlands</td>
<td>+49 (0)421 63 93 3 0</td>
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<tr>
<td>Norway</td>
<td>+47 63 94 60 18</td>
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<tr>
<td>Sweden</td>
<td>+46 (0)8 555 367 00</td>
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<tr>
<td>Switzerland</td>
<td>+41 (0)56 448 90 90</td>
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<tr>
<td>United Kingdom</td>
<td>+44 (0)118 984 5615</td>
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### Asian Sales Offices

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<tr>
<td>Japan</td>
<td>+81 90 3877 0682</td>
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<td>South Korea</td>
<td>+82 31 242 8892</td>
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<tr>
<td>Shanghai</td>
<td>+86 21 6486 7817</td>
</tr>
<tr>
<td>Singapore</td>
<td>+65 6411 6902</td>
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### Global Distributors

#### Americas
- Allied Electronics: alliedelec.com
- Digi-Key: digikey.com
- Newark element14: newark.com

#### Europe
- Digi-Key: digikey.com
- Farnell element14: farnell.com
- RS Components: rs-components.com

#### Asia
- Digi-Key: digikey.com
- element14: element14.com
- RS Components: rs-components.com

### Distributors

- Australia: +61 2 7200 9200
- Austria: +43 (0)421 63 93 3 0
- Belgium: +32 (0)1 45 12 31 15
- Bulgaria: +359 2915 5800
- Czech Rep.: +420 235 36 129
- China: +86 21 6486 7817
- Czech Rep.: +420 539 050 630
- Denmark: +45 43 42 38 33
- Finland: +358 44 0505703
- France: +33 (0)1 45 12 31 15
- Germany: +49 (0)421 63 93 3 0
- Ghana: +233 1 47 95 99 00
- Greece: +30 210 921 9405
- Hungary: +36 206312424
- India: +91 98867 68870
- Ireland: +353 1 4110302
- Italy: +39 0444 4110302
- Japan: +81 3 3559 6900
- Korea: +82 31 422 8882
- Latvia: +371 67501005
- Lithuania: +370 5 2652683
- New Zealand: +64 9 835 0700
- Norway: +47 63 94 60 18
- Poland: +48 22 8625700
- Portugal: +351 21 2049211
- Russia: +7 495224 0606
- Slovakia: +421 948 430 500
- Slovenia: +386 1 383 9300
- South Africa: +27 11 454 8053
- Spain: +34 90 3877200
- Sweden: +46 20 9800 00
- Switzerland: +41 (0)1 634 0101
- Taiwan: +886 02 29999281
- Turkey: +90 212 465 7199
- Ukraine: +380 95 299 9886
- United Kingdom: +44 (0)118 984 5615

#### Worldwide
- www.xppower.com

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