

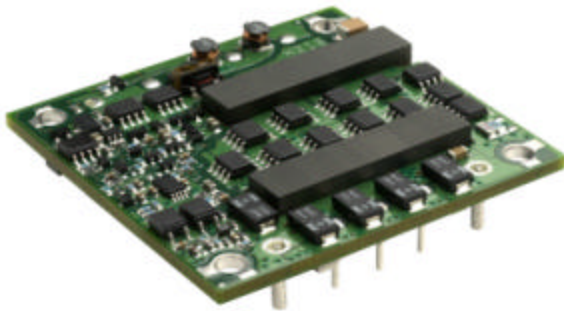
Preliminary Product Brief *

For Discussion with Tyco Electronics Customers Only – Tyco Electronics Proprietary



JRW 70A single output series

Industry standard Half brick DC/DC converter,
36Vdc-75Vdc (48V) input voltage range,
Output voltages available from 12V down to 1.0V



The JRW-series dc-dc converters are a new generation of DC/DC power modules designed for optimum efficiency and power density. The JRW provides up to 70A output current in an industry standard half brick, which makes it an ideal choice for small space, high current and low voltage applications. The converter uses synchronous rectification technology and innovative packaging techniques to achieve ultra high efficiency reaching 91% at 3.3V full load. The ultra high efficiency of this converter results in low power dissipation, such that for most applications a heat sink is not required. In addition, the JRW-series supports future migration of semiconductor and microprocessor supply voltages down to 1.0V.

Applications

- Wireless Networks
- Access and Optical Network Equipment
- Enterprise Networks
- Latest generation ICs (DSP, FPGA, ASIC) and Microprocessor powered applications

- **Delivers up to 70A output current**
- **Ultra High Efficiency:** 91% @ 3.3V full load
- **Optimal Thermal Performance**
- **High power density:** 96 W/in³
- **Low output voltages down to 1V:** supports migration to future IC and microprocessor supply voltages
- **Active load sharing option:** Parallel operation
- **Cost efficient open frame design**

Specification

- Tightly regulated output, typical $\pm 1\%$
- Monotonic start-up into pre-biased output
- Output voltage adjustment trim $+10\%$ / -20%
- Load regulation $\pm 0.2\%$
- Line regulation $\pm 0.2\%$
- No minimum load required
- Ripple and noise (5Hz to 20MHz bandwidth)
 - RMS 40mV_{rms} (3.3V)
 - Peak to peak $150\text{mV}_{\text{pk-pk}}$ (3.3V)
- Operating temperature range: -40°C to 85°C
- Designed to meet basic insulation
- 1500Vdc isolation voltage
- Remote output voltage sensing

Protection

- Output overcurrent and overvoltage protection
- Over-temperature protection
- Input under voltage protection

Options

- Positive remote on/off logic
- Active load sharing (Parallel operation)
- Case ground pin (Base plate version)
- Auto restart after fault shutdown

I) This product is intended for integration into end-use equipment. All the required procedures for CE marking of end-use equipment should be followed.
II) CSA is a registered trademark of Canadian Standards Association.
III) UL is a registered trademark of Underwriters Laboratories, Inc.
IV) VDE is a trademark of Verband Deutscher Elektrotechniker e.V.

JRW 70A single output series

High Efficiency Industry Standard Half Brick

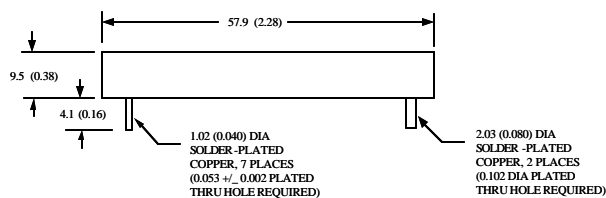
Outline Drawing and Pin-out

Physical Dimensions and design

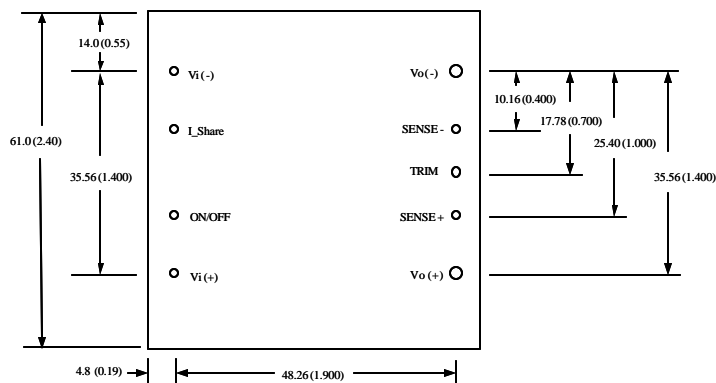
Industry standard, Half brick size
with external dimensions of
61.0 mm x 57.9mm x 9.5mm
(2.40" x 2.28" x 0.375")

The JRW series has a robust open frame construction able to withstand industry standard, through-hole handling, soldering and cleaning processes.

Side View



Bottom View



Ordering Information

Please contact your Tyco Electronics sales representative for pricing, availability and optional features.

| Product codes | Input Voltage | Output Voltage(s) | Output Current | Efficiency | Connector Type | Comcodes |
|---------------|----------------|-------------------|----------------|------------|----------------|----------|
| JRW017A0B1 | 48V (36-75Vdc) | 12V | 17A | 92% | Through hole | T.B.D |
| JRW040A0A1 | 48V (36-75Vdc) | 5V | 40A | 92% | Through hole | T.B.D |
| JRW060A0F1 | 48V (36-75Vdc) | 3.3V | 60A | 91% | Through hole | T.B.D |
| JRW065A0G1 | 48V (36-75Vdc) | 2.5V | 65A | 90% | Through hole | T.B.D |
| JRW065A0Y1 | 48V (36-75Vdc) | 1.8V | 65A | 87% | Through hole | T.B.D |
| JRW070A0M1 | 48V (36-75Vdc) | 1.5V | 70A | 85% | Through hole | T.B.D |
| JRW070A0P1 | 48V (36-75Vdc) | 1.2V | 70A | 84% | Through hole | T.B.D |
| JRW070A0S1R01 | 48V (36-75Vdc) | 1.0V | 70A | 83% | Through hole | T.B.D |

-1 Standard negative remote on/off logic



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