

Preliminary Product Brief *

March 2002

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HW/HC 4A-6A single output series

Industry standard 2 x 1 DC/DC converter, 18-36Vdc (24V) and 36Vdc-75Vdc (48V) input voltage range, Output voltages available from 5.0V down to 1.0V



The HW005-series dc-dc converters are a new generation of DC/DC power modules designed for low power applications requiring tightly regulated single output voltages ranging from 5V down to sub 1V. The HW series provides up to 6A below 3.3V and 5A at 3.3V in an industry standard 2 x 1 with a low profile of only 8.5mm (0.335") max. The converter uses synchronous rectification technology and achieves an efficiency of 87% at 3.3Vout. In addition, the HW-series supports future migration of semiconductor and microprocessor supply voltages down to 1.0V. The HW 005-series is surface mountable and can be picked and placed by most standard production equipment.

Applications

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

- **High Efficiency:** 87% @ 3.3V full load
- **Low output voltages down to 1V:** supports migration to future IC and microprocessor supply voltages
- **Low profile:** 8.5mm (0.335") max
- **Cost efficient open frame design**
- **Tightly regulated output voltages**
- **SMT**

Specification

- Tightly regulated output, typical $\pm 1\%$
- Monotonic start-up into pre-biased output
- Output voltage adjustment trim +10% / -10%
- Load regulation 10mV max
- Line regulation $\pm 0.2\%$
- No minimum load required
- Ripple and noise (5Hz to 20MHz bandwidth)
 - RMS 10mV_{rms} (<3.3V)
 - Peak to peak 33mV_{pk-pk} (<3.3V)
- Operating temperature range: -40°C to 85°C
- Designed to meet basic insulation
- 2250Vdc 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
- Through hole pin

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.

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High Efficiency Industry Standard 2 x 1

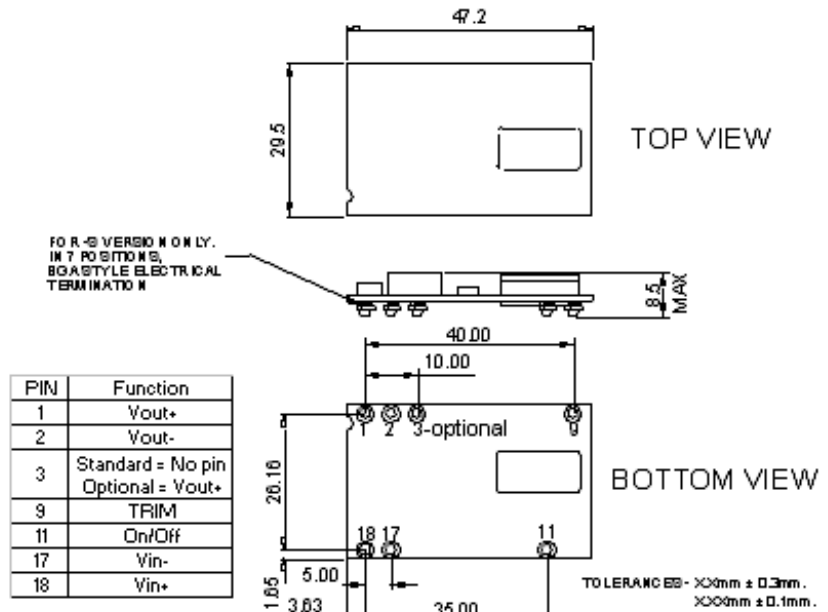
Physical Dimensions and design

Industry standard, 2 x 1 size with external dimensions of 47.24mm x 29.46mm x 8.5mm, (1.86" x 1.16" x 0.335")

Weight 13.0g (0.46oz)

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

Available in JEDEC type tray and Tape & Reel



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
HW004A0A1-S	48V (36-75Vdc)	5.0V	4A	89%	Surface Mount	108960634
HW005A0F1-S	48V (36-75Vdc)	3.3V	5A	87%	Surface Mount	108960667
HW006A0G1-S	48V (36-75Vdc)	2.5V	6A	86%	Surface Mount	108960774
HW006A0Y1-S	48V (36-75Vdc)	1.8V	6A	82%	Surface Mount	108960782
HW006A0M1-S	48V (36-75Vdc)	1.5V	6A	80%	Surface Mount	108963893
HW006A0P1-S	48V (36-75Vdc)	1.2V	6A	78%	Surface Mount	108963901
HW006A0S1R01-S	48V (36-75Vdc)	1.0V	6A	77%	Surface Mount	108963927

-1 Standard negative remote on/off logic, -S surface mount version



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