

Preliminary Product Brief *

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For Discussion with Tyco Electronics Customers Only – Tyco Electronics Proprietary

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Electronics

HW/HC 6.6A-12A single output series

Industry standard 2 x 1 inch DC/DC converter, 18-36Vdc (24V) and 36Vdc-75Vdc (48V) input voltage range, Output voltages available from 5V down to 1.0V



CE I SF II UL III VDE IV
(approval pending)

The HW010-series converters are a new generation of DC/DC power modules designed for low power applications requiring tightly regulated single output voltages ranging from 5.0V down to 1.0V. The HW010-series provides up to 12A at 1.8V and below, and 10A at 3.3V, in an industry-standard 2 x 1 package. The converter uses synchronous rectification technology and achieves an efficiency of 90% at 3.3Vout full load. In addition, the HW010-series supports the migration of semiconductor and microprocessor supply voltages down to 1.0V. The HW010-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:** 90% @ 3.3V full load
- **Low output voltages down to 1.0V:** supports migration to future IC and microprocessor supply voltages
- **Low profile:** 8.5mm (0.335") height
- **Cost efficient open-frame design**
- **Tightly regulated output voltages**
- **SMT and Through Hole**

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 $10\text{mV}_{\text{rms}} (<3.3\text{V})$
 - Peak to peak $33\text{mV}_{\text{pk-pk}} (<3.3\text{V})$
- Operating temperature range: -40°C to 85°C
- Designed to meet basic insulation
- 1500Vdc isolation voltage

Protection

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

Options

- Positive remote on/off logic
- Through-hole pin version

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

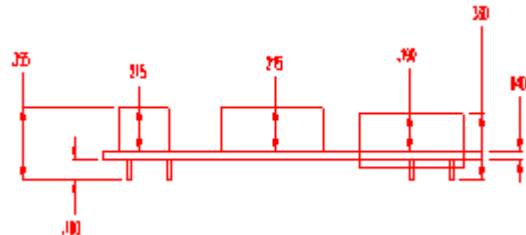
Physical Dimensions:

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

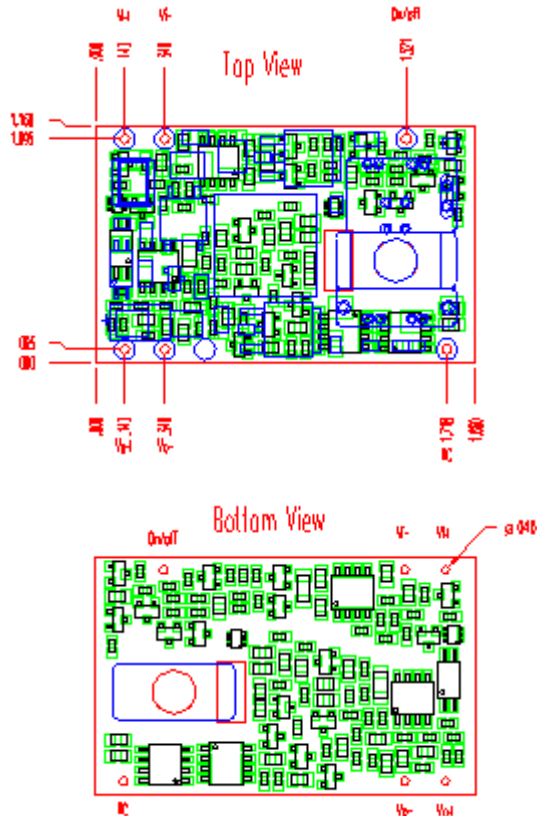
Weight: Less than 17g

The HW010-series has a robust open-frame construction able to withstand industry standard, through-hole, SMT handling, soldering, and cleaning processes.

Packaging: Available in either JEDEC-style tray or Tape & Reel



Side View – SMT and Through-hole maximum height dimensions are the same



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
HW006A6A1-S	48V (36-75Vdc)	5.0V	6.6A	90%	SMT/Through Hole	TBD
HW010A0F1-S	48V (36-75Vdc)	3.3V	10A	90%	SMT/Through Hole	108965625
HW010A0G1-S	48V (36-75Vdc)	2.5V	10A	88%	SMT/Through Hole	TBD
HW012A0Y1-S	48V (36-75Vdc)	1.8V	12A	86%	SMT/Through Hole	TBD
HW012A0M1-S	48V (36-75Vdc)	1.5V	12A	85%	SMT/Through Hole	TBD
HW012A0P1-S	48V (36-75Vdc)	1.2V	12A	83%	SMT/Through Hole	108965591
HW012A0S1R01-S	48V (36-75Vdc)	1.0V	12A	82%	SMT/Through Hole	TBD

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



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