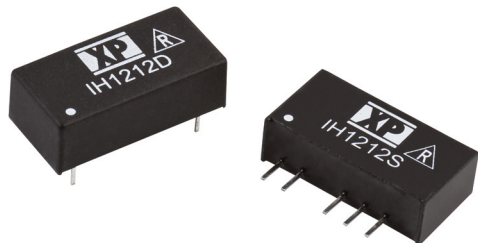


# 2 Watts

## IH Series



- Dual Output Unregulated
- SIP or DIP Package
- 1.0kV DC Isolation
- Optional 3.0kV–6.0kV DC Isolation
- MTBF >1.1 Mhrs
- -40 °C to +85 °C Operation
- 3 Year Warranty

### Specification

#### Input

- Input Voltage Range • Nominal  $\pm 10\%$
- Input Reflected Ripple Current • 20mA pk-pk through 12 $\mu$ H inductor, 5Hz to 20 MHz
- Input Reverse Voltage Protection • None
- Input Filter • Capacitor

#### Output

- Output Voltage • See table
- Minimum Load • None<sup>(3)</sup>
- Line Regulation • 1.2%/1%  $\Delta V_{in}$
- Load Regulation •  $\pm 10\%$  20-100% load change (3.3 V models  $\pm 20\%$ )
- Setpoint Accuracy •  $\pm 3\%$
- Ripple & Noise • 75 mV pk-pk max, 20 MHz bandwidth
- Temperature Coefficient • 0.02%/°C
- Maximum Capacitive Load •  $\pm 220 \mu$ F
- Cross Regulation • 3.3 V and 5 V:  $\pm 8\%$ , all others:  $\pm 5\%$ <sup>(4)</sup>

#### General

- Efficiency • See table
- Isolation Voltage • 1000 VDC<sup>(2)</sup>
- Isolation Resistance • 10<sup>9</sup>  $\Omega$
- Isolation Capacitance • 60 pF typical
- MTBF • >1.1 Mhrs to MIL-HDBK-217F at 25 °C, GB

#### Environmental

- Operating Temperature • -40°C to +85°C
- Storage Temperature • -40°C to +125°C
- Case Temperature • 100°C max
- Cooling • Convection-cooled

#### Safety

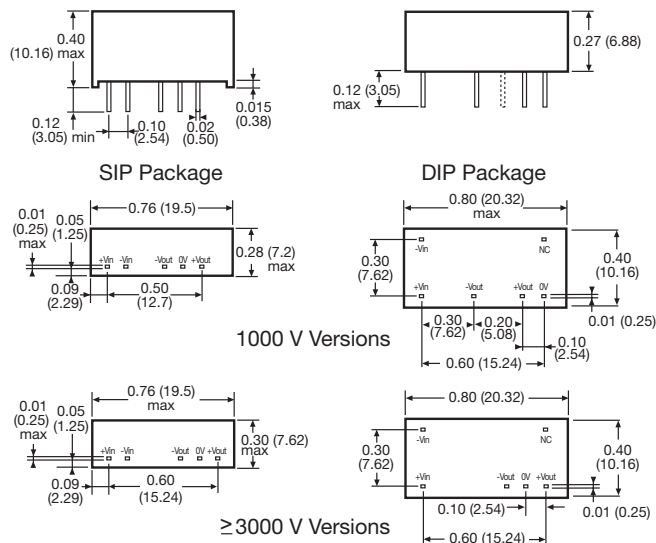
- Safety Agency • CE & UKCA meets all applicable directives & legislation.

Input Voltage	No Load Input Current	Output Voltage	Output Current	Efficiency	Model Number <sup>(1,2)</sup>
5 VDC	30 mA	$\pm 3.3$ V	$\pm 200$ mA	65%	IH0503S
	30 mA	$\pm 5.0$ V	$\pm 200$ mA	72%	IH0505S
	30 mA	$\pm 9.0$ V	$\pm 111$ mA	77%	IH0509S
	30 mA	$\pm 12.0$ V	$\pm 84$ mA	78%	IH0512S
	30 mA	$\pm 15.0$ V	$\pm 66$ mA	80%	IH0515S
	30 mA	$\pm 24.0$ V	$\pm 42$ mA	80%	IH0524S
12 VDC	20 mA	$\pm 3.3$ V	$\pm 200$ mA	67%	IH1203S
	20 mA	$\pm 5.0$ V	$\pm 200$ mA	75%	IH1205S
	20 mA	$\pm 9.0$ V	$\pm 111$ mA	77%	IH1209S
	20 mA	$\pm 12.0$ V	$\pm 84$ mA	82%	IH1212S
	20 mA	$\pm 15.0$ V	$\pm 66$ mA	82%	IH1215S
	20 mA	$\pm 24.0$ V	$\pm 42$ mA	82%	IH1224S
24 VDC	10 mA	$\pm 3.3$ V	$\pm 200$ mA	68%	IH2403S
	10 mA	$\pm 5.0$ V	$\pm 200$ mA	75%	IH2405S
	10 mA	$\pm 9.0$ V	$\pm 111$ mA	80%	IH2409S
	10 mA	$\pm 12.0$ V	$\pm 84$ mA	82%	IH2412S
	10 mA	$\pm 15.0$ V	$\pm 66$ mA	82%	IH2415S
	10 mA	$\pm 24.0$ V	$\pm 42$ mA	82%	IH2424S

#### Notes

- For DIP package, replace 'S' with 'D' in model number.
- Add suffix 'H' to model number for 3000 VDC isolation. For higher VDC isolation, add suffix 'Hx' to model number where x=4 for 4000 VDC isolation, x=5 for 5200 VDC isolation and x=6 for 6000 VDC isolation.
- Operation at no load will not damage unit but it may not meet all specifications.
- When one output is set to 100% load and the other varies between 25%-100% load.
- All dimensions in inches (mm).
- Pin pitch tolerance:  $\pm 0.014$  ( $\pm 0.35$ )
- Case tolerance:  $\pm 0.02$  ( $\pm 0.5$ )
- Weight: SIP 0.004 lbs (2.2 g), DIP 0.005 lbs (2.4 g)

#### Mechanical Details



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## XP Power:

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[IH2403D](#) [IH2403S](#) [IH1212S](#) [IH2415D](#) [IH4803SH](#) [IH4809SH](#) [IH1215SH](#) [IH1212SH](#) [IH1224S](#) [IH0515D](#) [IH2405S](#)  
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[IH4805D](#) [IH4824SH](#) [IH4803D](#) [IH0509S](#) [IH2403SH](#) [IH4805S](#)