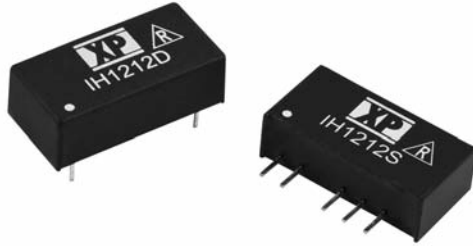


# IH SERIES

DC/DC Dual Output: 2 Watts



## Features

- Dual Output
- SIP or DIP Package
- 1000 VDC Isolation
- Optional 3000–6000 VDC Isolation
- MTBF >1.1 Mhrs
- -40 °C to +85 °C Operation

## Specification

### Input

- |                                  |   |
|----------------------------------|---|
| Input Voltage Range              | • Nominal ±10%                                      |
| Input Reflected Ripple Current   | • 20 mA pk-pk through 12 µH inductor, 5Hz to 20 MHz |
| Input Reverse Voltage Protection | • None  |
| Input Filter                     | • Capacitor   |

### Output

- |                         |  |
|-------------------------|--|
| Output Voltage          | • See table  |
| Minimum Load            | • None <sup>(4)</sup>                                |
| Line Regulation         | • 1.2%/1% Δ Vin                                      |
| Load Regulation         | • ±10% 20-100% load change (3.3 V models ±20%)       |
| Setpoint Accuracy       | • ±3%  |
| Ripple & Noise          | • 75 mV pk-pk max, 20 MHz bandwidth                  |
| Temperature Coefficient | • 0.02%/°C   |
| Maximum Capacitive Load | • ±220 µF  |
| Cross Regulation        | • 3.3 V and 5 V: ±8%, all others: ±5% <sup>(5)</sup> |

### General

- |                       |   |
|-----------------------|---|
| Efficiency            | • See table                               |
| Isolation Voltage     | • 1000 VDC <sup>(2)</sup>                 |
| Isolation Resistance  | • 10 <sup>9</sup> Ω                       |
| 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 |

### Notes

1. For DIP package, replace 'S' with 'D' in model number.
2. 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.
3. Outputs will power-trade.
4. Operation at no load will not damage unit but it may not meet all specifications.
5. When one output is set to 100% load and the other varies between 25%-100% load.
6. All dimensions in inches (mm).
7. Pin pitch tolerance: ±0.014 (±0.35)
8. Case tolerance: ±0.02 (±0.5)
9. Weight: SIP 0.004 lbs (2.2 g), DIP 0.005 lbs (2.4 g)

Input Voltage	No Load Input Current	Output Voltage	Output Current <sup>(6)</sup>	Efficiency	Model Number <sup>(1,2)</sup>
5 VDC	30 mA	±3.3 V	±200 mA	65%	IH0503S↑A
	30 mA	±5.0 V	±200 mA	72%	IH0505S↑A
	30 mA	±9.0 V	±111 mA	77%	IH0509S↑A
	30 mA	±12.0 V	±84 mA	78%	IH0512S↑A
	30 mA	±15.0 V	±66 mA	80%	IH0515S↑A
	30 mA	±24.0 V	±42 mA	80%	IH0524S↑A
12 VDC	20 mA	±3.3 V	±200 mA	67%	IH1203S↑A
	20 mA	±5.0 V	±200 mA	75%	IH1205S↑A
	20 mA	±9.0 V	±111 mA	77%	IH1209S↑A
	20 mA	±12.0 V	±84 mA	82%	IH1212S↑A
	20 mA	±15.0 V	±66 mA	82%	IH1215S↑A
	20 mA	±24.0 V	±42 mA	82%	IH1224S↑A
24 VDC	10 mA	±3.3 V	±200 mA	68%	IH2403S↑A
	10 mA	±5.0 V	±200 mA	75%	IH2405S↑A
	10 mA	±9.0 V	±111 mA	80%	IH2409S↑A
	10 mA	±12.0 V	±84 mA	82%	IH2412S↑A
	10 mA	±15.0 V	±66 mA	82%	IH2415S↑A
	10 mA	±24.0 V	±42 mA	82%	IH2424S↑A
48 VDC	6 mA	±3.3 V	±200 mA	60%	IH4803S
	6 mA	±5.0 V	±200 mA	73%	IH4805S
	6 mA	±9.0 V	±111 mA	77%	IH4809S
	6 mA	±12.0 V	±84 mA	80%	IH4812S
	6 mA	±15.0 V	±66 mA	80%	IH4815S
	6 mA	±24.0 V	±42 mA	80%	IH4824S

## Mechanical Details

