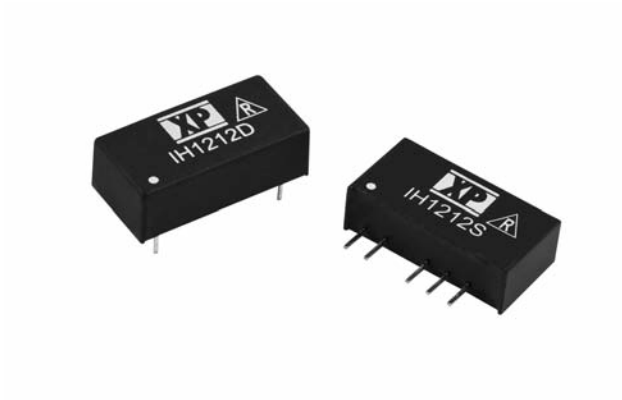
2 Watts
IH Series



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

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[3]
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%[4]

General

Efficiency	• See table
Isolation Voltage	• 1000 VDC[2]
Isolation Resistance	• 10^9 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. Operation at no load will not damage unit but it may not meet all specifications.
4. When one output is set to 100% load and the other varies between 25%-100% load.
5. All dimensions in inches (mm).
6. Pin pitch tolerance: ±0.014 (±0.35)
7. Case tolerance: ±0.02 (±0.5)
8. 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	Efficiency	Model Number[1,2]
5 VDC	30 mA	±3.3 V	±200 mA	65%	IH0503S†^
	30 mA	±5.0 V	±200 mA	72%	IH0505S†^
	30 mA	±9.0 V	±111 mA	77%	IH0509S†^
	30 mA	±12.0 V	±84 mA	78%	IH0512S†^
	30 mA	±15.0 V	±66 mA	80%	IH0515S†^
	30 mA	±24.0 V	±42 mA	80%	IH0524S†^
12 VDC	20 mA	±3.3 V	±200 mA	67%	IH1203S†^
	20 mA	±5.0 V	±200 mA	75%	IH1205S†^
	20 mA	±9.0 V	±111 mA	77%	IH1209S†^
	20 mA	±12.0 V	±84 mA	82%	IH1212S†^
	20 mA	±15.0 V	±66 mA	82%	IH1215S†^
	20 mA	±24.0 V	±42 mA	82%	IH1224S†^
24 VDC	10 mA	±3.3 V	±200 mA	68%	IH2403S†^
	10 mA	±5.0 V	±200 mA	75%	IH2405S†^
	10 mA	±9.0 V	±111 mA	80%	IH2409S†^
	10 mA	±12.0 V	±84 mA	82%	IH2412S†^
	10 mA	±15.0 V	±66 mA	82%	IH2415S†^
	10 mA	±24.0 V	±42 mA	82%	IH2424S†^
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

† Available from Farnell & element14. See pages 284-290.
^ Available from Newark. See pages 291-296.

Mechanical Details