

# 2 Watts

## IH Series



- Dual Output
- SIP or DIP Package
- Industry Standard Pinout
- 1000 VDC Isolation
- Optional 3000 VDC Isolation
- Short Circuit Protection
- -40°C to +85°C Operation

### Specification

#### Input

Input Voltage Range	• Nominal $\pm 10\%$
Input Current (no load)	• See table
Input Reflected Ripple	• 20 mA rms
Input Reverse Voltage Protection	• None

#### Output

Output Voltage	• See table
Minimum Load	• None <sup>(6)</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	• $\pm 5\%$
Ripple & Noise	• 60 mV pk-pk
Temperature Coefficient	• 0.02%/°C
Short Circuit Protection	• 1 s max
Maximum Capacitive Load	• 470 $\mu$ F

#### General

Efficiency	• See table
Isolation Voltage	• 1000 VDC (3000 VDC -H option)
Isolation Capacitance	• 60 pF typical
Switching Frequency	• Variable
MTBF	• >1 Mhrs

#### Environmental

Operating Temperature	• -40 to +85 °C
Storage Temperature	• -40 to +125 °C
Case Temperature	• 100 °C max
Cooling	• Free-air convection

#### Notes

1. For DIP package, replace 'S' with 'D' in model number.
2. Add suffix '-H' to model number for 3000 VDC isolation.
3. Outputs will power-trade.
4. 0.31" (9.65mm) for 3000 VDC versions.
5. All dimensions in inches (mm).
6. Operation at no load will not damage unit but it may not meet all specifications.

Input Voltage	No Load Input Current	Output Voltage	Output Current <sup>(6)</sup>	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†
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†
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†
48 VDC	6 mA	$\pm 3.3$ V	$\pm 200$ mA	60%	IH4803S
	6 mA	$\pm 5.0$ V	$\pm 200$ mA	73%	IH4805S
	6 mA	$\pm 9.0$ V	$\pm 111$ mA	77%	IH4809S
	6 mA	$\pm 12.0$ V	$\pm 84$ mA	80%	IH4812S
	6 mA	$\pm 15.0$ V	$\pm 66$ mA	80%	IH4815S
	6 mA	$\pm 24.0$ V	$\pm 42$ mA	80%	IH4824S

† Available from Farnell, see pages 204-206.

### Mechanical Details

