chanhvinh.com

IH series

XP Power

2W Convection cooled

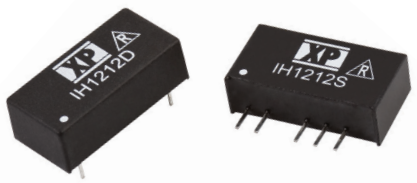
DC-DC converters

The IH series is housed in a SIP7 or DIP14 plastic case for PCB mounting.

Featuring a ±10% input voltage range for 5, 12 & 24VDC nominal inputs, offering dual outputs ±3.3, ±5, ±9, ±12, ±15 & ±24VDC.

The 2W IH provides 1.0kVDC isolation between input and output, with 3, 4, 5.2 & 6kV isolation as an option, short circuit protection is standard.

The operating temperature range is from -40°C to +85°C with no derating.



Features

- Unregulated dual outputs
- ±10% input range
- Dual outputs ±3.3 to ±24VDC
- SIP7 or DIP14 package
- 1.0kVDC isolation, options up to 6.0kVDC
- -40°C to +85°C operating temperature
- 3 year warranty

Applications

Robotics
Instrumentation
Technology
Industrial
Process control

Dimensions

See mechanical details

More resources

Click the link or scan the code

xppower.com

Models & ratings

Model number(1)	Input voltage	No load input current	Output voltage	Output current	Efficiency
IH0503S	5.0VDC	30mA	±3.3VDC	±200mA	65%
IH0505S		30mA	±5.0VDC	±200mA	72%
IH0509S		30mA	±9.0VDC	±111mA	77%
IH0512S		30mA	±12.0VDC	±84mA	78%
IH0515S		30mA	±15.0VDC	±66mA	80%
IH0524S		30mA	±24.0VDC	±42mA	80%

Continued on page 2

Notes:

1. For DIP package, replace 'S' with 'D' in model number.
2. Add suffix 'H' to model number for 3kVDC isolation. For higher VDC isolation, add suffix 'Hx' to model number where x=4 for 4kVDC isolation, x=5 for 5.2kVDC isolation and x=6 for 6kVDC 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 mm (inches).
6. Pin pitch tolerance: ±0.35 (±0.014)
7. Case tolerance: ±0.5 (±0.02)
8. Weight: SIP 2.2g (0.004lbs), DIP 2.4g (0.005lbs)

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Models & ratings

Model number[1]	Input voltage	No load input current	Output voltage	Output current	Efficiency
IH1203S	12.0VDC	20 mA	±3.3VDC	±200mA	67%
IH1205S		20 mA	±5.0VDC	±200mA	75%
IH1209S		20 mA	±9.0VDC	±111mA	77%
IH1212S		20 mA	±12.0VDC	±84mA	82%
IH1215S		20 mA	±15.0VDC	±66mA	82%
IH1224S		20 mA	±24.0VDC	±42mA	82%
IH2403S	24.0VDC	10 mA	±3.3VDC	±200mA	68%
IH2405S		10 mA	±5.0VDC	±200mA	75%
IH2409S		10 mA	±9.0VDC	±111mA	80%
IH2412S		10 mA	±12.0VDC	±84mA	82%
IH2415S		10 mA	±15.0VDC	±66mA	82%
IH2424S		10 mA	±24.0VDC	±42mA	82%

Notes:

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Input

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Input voltage range		±10		%	
Input reflected ripple current		20		mA pk-pk	12µH inductor and 47µF capacitor, 5Hz to 20MHz
Input filter	Capacitor				

Output

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Output voltage	See models & ratings table				
Minimum load	0			%	No minimum load required
Line regulation		1.2/1		%	Δ Vin
Load regulation		±10			20-100% load change (3.3VDC models ±20%)
Setpoint accuracy		±3		%	
Ripple & noise		75		mV pk-pk	20MHz bandwidth
Maximum capacitive load		±220		µF	
Cross regulation		±8		%	3.3 & 5VDC (all others: ±5%), when one output is set to 100% load and the other varies between 25%-100% load
Temperature coefficient		±0.02		µF	

General

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Efficiency	See models & ratings table				
Isolation voltage		1000		VDC	Add suffix 'H' to model number for 3kVDC isolation. For higher VDC isolation, add suffix 'Hx' to model number where x=4 for 4kVDC isolation, x=5 for 5.2kVDC isolation and x=6 for 6kVDC isolation.
Isolation resistance		10^9		Ω	
Isolation capacitance		60		pF	
Mean time between failure		>1.34		Mhrs	MIL-HDBK-217F, +25°C GB

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DC-DC converters

Environmental

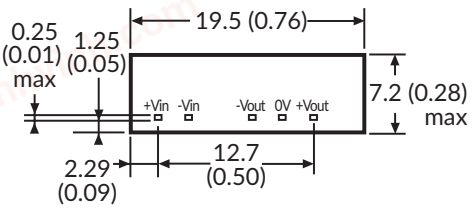
Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Operating temperature	-40		+85	°C	
Storage temperature	-40		+125	°C	
Case temperature			+100	°C	
Cooling	Convection cooled				

Safety approvals

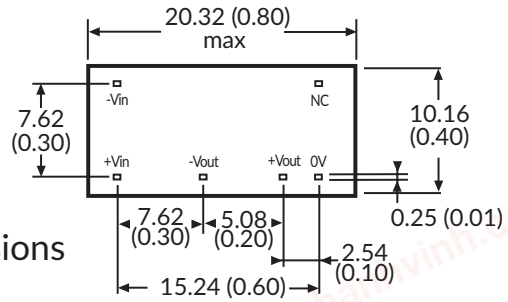
Certification	Standard	Notes & conditions
CE	Meets all applicable directives	
UKCA	Meets all applicable legislation	

Mechanical details

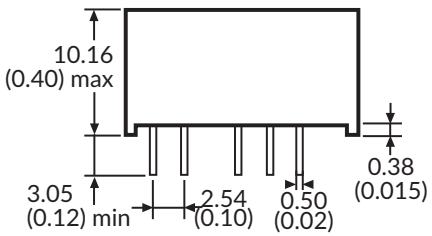
SIP Package

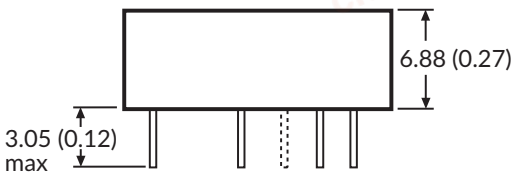


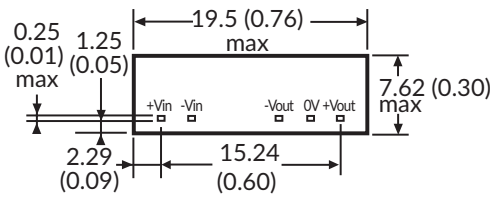
DIP Package

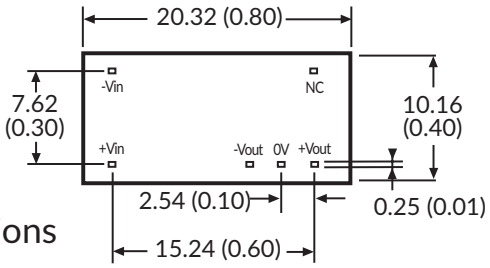


1kVDC Versions









≥ 3kVDC Versions

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