chanhvinh.com

IV series

XP Power

1W

DC-DC converters

The IV 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, single outputs have 3.3, 5, 9, 12, 15 & 24VDC.

The 1W IV provides 3.0kVDC isolation between input and output as standard, with 4 & 6kVDC isolation versions also available as an option. The operating temperature range is from -40°C to +85°C, with no derating.



Features

- Unregulated single outputs
- ±10% input range
- Single outputs 3.3 to 24VDC
- Duals outputs ±3.3, ±5, ±9, ±12, ±15 & ±24VDC.
- SIP7 or DIP14 package
- 3.0kVDC isolation, 4.0 & 6.0kVDC options
- -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(1,2,4)	Input voltage	No load input current	Output voltage	Output current(3)	Efficiency
IV0503A	5.0VDC	30mA	3.3VDC	300mA	75%
IV0505A		30mA	5.0VDC	200mA	78%
IV0509A		30mA	9.0VDC	112mA	75%
IV0512A		30mA	12.0VDC	84mA	76%
IV0515A		30mA	15.0VDC	66mA	76%
IV0524A		30mA	24.0 VDC	42mA	72%

Continued on page 2

Notes:

1. For dual output, delete suffix 'A', and split current equally between rails.
2. For DIP package, replace 'S' in part number with 'D'.
3. Operation at no load will not damage unit but it may not meet all specifications.
4. For 4000VDC Isolation, add suffix '-H4'. For 6000VDC Isolation, add suffix '-H6'.

IV series

DC-DC converters

Models & ratings

Model number(1,2,4)	Input voltage	No load input current	Output voltage	Output current(3)	Efficiency
IV1203A	12.0VDC	20mA	3.3VDC	300mA	74%
IV1205A		20mA	5.0VDC	200mA	74%
IV1209A		20mA	9.0VDC	112mA	75%
IV1212A		20mA	12.0VDC	84mA	77%
IV1215A		20mA	15.0VDC	66mA	78%
IV1224A		20mA	24.0 VDC	42mA	75%
IV2403A	24.0VDC	10mA	3.3VDC	300mA	75%
IV2405A		10mA	5.0VDC	200mA	77%
IV2409A		10mA	9.0VDC	112mA	75%
IV2412A		10mA	12.0VDC	84mA	78%
IV2415A		10mA	15.0VDC	66mA	78%
IV2424A		10mA	24.0 VDC	42mA	78%

Notes:

1. For dual output, delete suffix 'A', and split current equally between rails
2. For DIP package, replace 'S' in part number with 'D'
3. Operation at no load will not damage unit but it may not meet all specifications
4. For 4000VDC Isolation, add suffix '-H4'. For 6000VDC Isolation, add suffix '-H6'

Input

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Input voltage range		±10		%	Nominal
Input reflected ripple current		20		mA pk-pk	12µH inductor, 5Hz to 20MHz
Input reverse voltage protection	None				
Input filter	Capacitor				

Output

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Output voltage	See models & ratings table				
Minimum load	0			%	Operation at no load will not damage unit but it may not meet all specifications.
Line regulation		1.2/1		%	Δ Vin
Load regulation		±10		%	20-100% load change, (3.3V models ±20%)
Setpoint accuracy		±3		%	
Ripple & noise		75		mV pk-pk	20MHz bandwidth
Temperature coefficient		0.02		%/°C	
Maximum capacitive load		220		µF	Single output
		100			Dual output

chanhvinh.com

IV series

DC-DC converters

General

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Efficiency	See models & ratings table				
Isolation voltage		3000		VDC	For 4000VDC Isolation, add suffix '-H4'. For 6000VDC Isolation, add suffix '-H6'
Isolation resistance		10^9		Ω	
Isolation capacitance		60		pF	
Switching frequency		80		kHz	Variable
Mean time between failure		>1.1		Mhrs	MIL-HDBK-217F, +25°C GB

Environmental

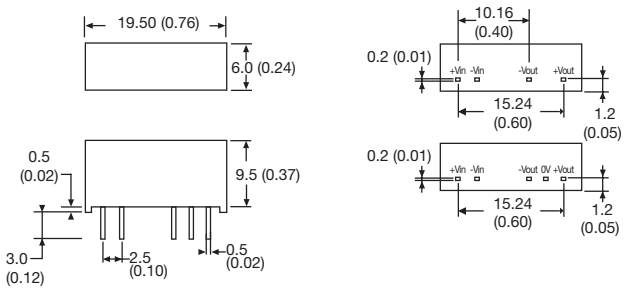
Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Operating temperature	-40		+85	°C	
Storage temperature	-40		+125	°C	
Case temperature			+100	°C	
Cooling	Convection cooled				

Safety approvals

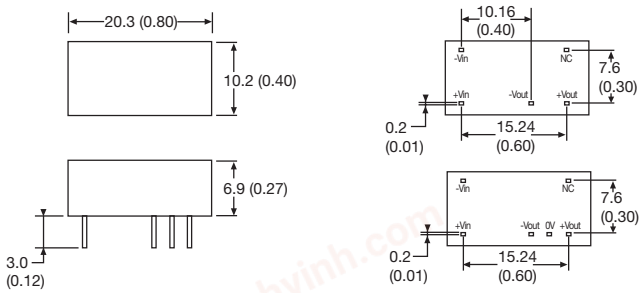
Certification	Standard	Notes & conditions
UL	UL60950-1 & CAN/CSA C22.2 No. 60950-1 UL62368-1 & CAN/CSA C22.2 No. 62368-1	
CE	Meets all applicable directives	
UKCA	Meets all applicable legislation	

Mechanical details

SIP package



DIP package



Notes:

1. All dimensions in mm (inches)
2. Pin pitch tolerance: ±0.35 (±0.014)
3. Case tolerance: ±0.5 (±0.02)
4. Weight: SIP 2.6g (0.006lbs), DIP 2.3g (0.005lbs)