IB series

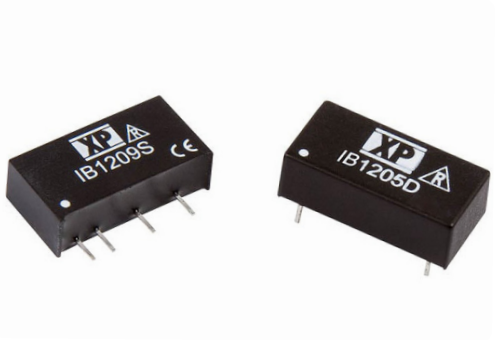
XP Power

1W Convection cooled

DC-DC converters

The IB series of compact SIP7 and DIP14 format DC-DC converters offer a cost effective, versatile and convenient solution to many applications within electronic circuits.

With 1kV isolation, these single output converters can be used for example in process control, instrumentation and logic circuits.



Features

- Unregulated single output
- ±10% input range
- Single outputs 3.3 to 24VDC
- SIP7 or DIP14 package
- Industry standard pinout
- 1.0kVDC isolation
- -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	Output voltage(2)	Output current	Efficiency
IB0503S	5.0VDC	3.3VDC	303mA	75%
IB0505S		5.0VDC	200mA	78%
IB0509S		9.0VDC	111mA	75%
IB0512S		12.0VDC	84mA	76%
IB0515S		15.0VDC	66mA	76%
IB0524S		24.0VDC	42mA	72%

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Notes:

1. Replace 'S' in model number with 'D' for DIP package.
2. Operation at no load will not damage unit but it may not meet all specifications.

Models & ratings

Model number[1]	Input voltage	Output voltage[2]	Output current	Efficiency
IB1203S	12.0VDC	3.3VDC	303mA	74%
IB1205S		5.0VDC	200mA	74%
IB1209S		9.0VDC	111mA	75%
IB1212S		12.0VDC	84mA	77%
IB1215S		15.0VDC	66mA	78%
IB1224S		24.0VDC	42mA	75%
IB2403S	24.0VDC	3.3VDC	303mA	75%
IB2405S		5.0VDC	200mA	77%
IB2409S		9.0VDC	111mA	75%
IB2412S		12.0VDC	84mA	78%
IB2415S		15.0VDC	66mA	78%
IB2424S		24.0VDC	42mA	78%

Notes:

1. Replace 'S' in model number with 'D' for DIP package.
2. Operation at no load will not damage unit but it may not meet all specifications.

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				

Output

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

General

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Efficiency	See models & ratings table				
Isolation voltage		1000		VDC	Optional 3000VDC. for optional 3kVDC isolation add suffix '-H' to the model number.
Isolation resistance		10^9		Ω	
Isolation capacitance		60		pF	
Switching frequency	40		160	kHz	Variable
Mean time between failure		>1.1		Mhrs	MIL-HDBK-217F, +25°C GB

Environmental

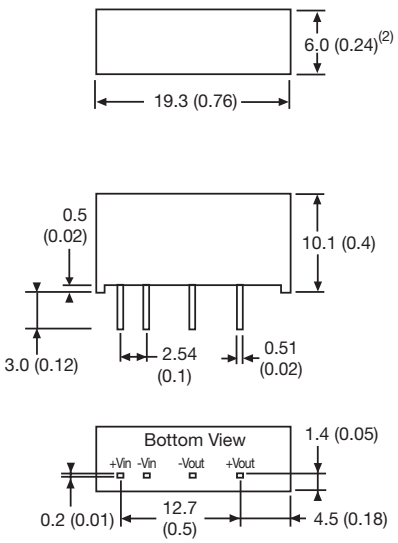
Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Operating temperature	-40		+85	°C	
Storage temperature	-40		+125	°C	
Case temperature			+100	°C	
Cooling	Convection cooled				

Safety approvals

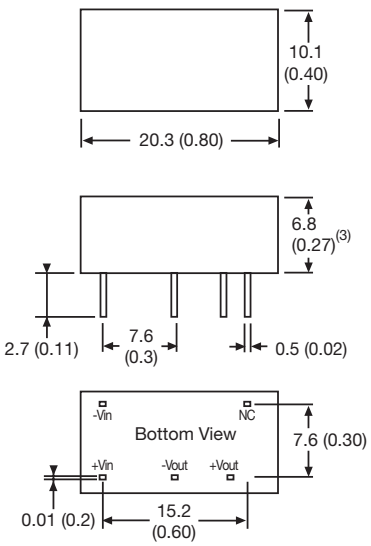
Certification	Standard	Notes & conditions
UL	UL60950-1 & CAN/CSA C22.2 No. 60950-1; UL62368-1	Information technology
CE	Meets all applicable directives	
UKCA	Meets all applicable legislation	

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), 2.3g (DIP 0.005lbs)