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IF series

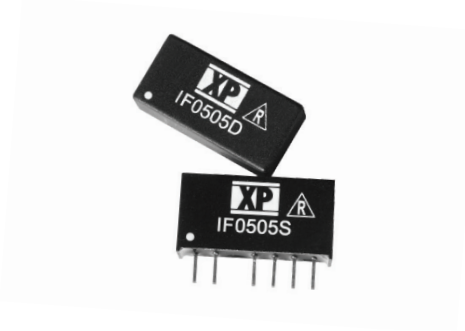
XP Power

0.25W

DC-DC converters

The IF 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 single outputs of 3.3, 5, 9, 12 or 15VDC.

The 1W IF provides 1kVDC isolation between input and output as standard, with 3kVDC isolation available as an option. The operating temperature range is from -40°C to +85°C.



Features

- Regulated single output
- ±10% input range
- Single outputs 3.3 to 15VDC
- SIP7 or DIP14 package
- 1.0kVDC isolation, 3.0kVDC optional
- Low ripple & noise
- -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)	Input voltage	Output voltage	Output current(3)	Efficiency
IF0503S	5.0VDC	3.3VDC	333mA	57%
IF0505S		5.0VDC	200mA	65%
IF0509S		9.0VDC	111mA	65%
IF0512S		12.0VDC	84mA	68%
IF0515S		15.0VDC	67mA	68%

Continued on page 2

Notes:

1. For DIP package, replace suffix 'S' with suffix 'D'.
2. For 3000 VDC isolation, add suffix '-H'.
3. Operation at no load will not damage unit but it may not meet all specifications.

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IF series

DC-DC converters

Models & ratings

Model number[1,2]	Input voltage	Output voltage	Output current[3]	Efficiency
IF1203S	12.0VDC	3.3VDC	333mA	57%
IF1205S		5.0VDC	200mA	63%
IF1209S		9.0VDC	111mA	66%
IF1212S		12.0VDC	84mA	68%
IF1215S		15.0VDC	67mA	66%
IF2403S	24.0VDC	3.3VDC	333mA	60%
IF2405S		5.0VDC	200mA	65%
IF2409S		9.0VDC	111mA	68%
IF2412S		12.0VDC	84mA	68%
IF2415S		15.0VDC	67mA	68%

Notes:

1. For DIP package, replace suffix 'S' with suffix 'D'.
2. For 3000 VDC isolation, add suffix '-H'.
3. 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	12µF 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			%	Operation at no load will not damage unit but it may not meet all specifications.
Line regulation			±0.5	%	
Load regulation			±0.5	%	10-100% load change (±1.0% for 3.3VDC output)
Setpoint accuracy			±2	%	
Ripple & noise		50		mV pk-pk	20MHz bandwidth
Temperature coefficient		0.02		%/°C	
Maximum capacitive load		220		µF	

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IF series

DC-DC converters

General

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Efficiency	See models & ratings table				
Isolation voltage		1000		VDC	Standard (3000VDC option, for 3000VDC isolation, add suffix '-H')
Isolation resistance	1000			MΩ	
Isolation capacitance		60		pF	
Switching frequency	36		150	kHz	Variable
Mean time between failure		4.2		Mhrs	MIL-HDBK-217F, +25°C GB

Environmental

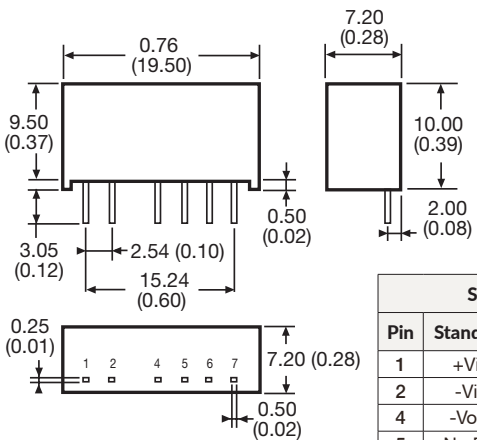
Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Operating temperature	-40		+85	°C	No derating
Storage temperature	-40		+125	°C	
Case temperature			+100	°C	
Cooling	Convection cooled				

Safety approvals

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

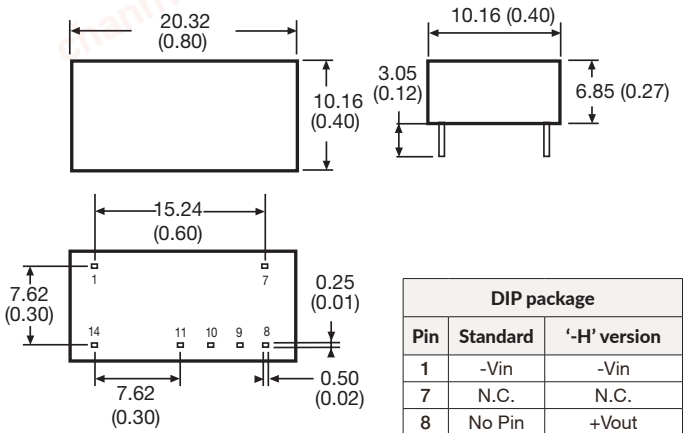
Mechanical details

SIP package



SIP package		
Pin	Standard	'-H' version
1	+Vin	+Vin
2	-Vin	-Vin
4	-Vout	No Pin
5	No Pin	-Vout
6	+Vout	No Pin
7	No Pin	+Vout

DIP package



DIP package		
Pin	Standard	'-H' version
1	-Vin	-Vin
7	N.C.	N.C.
8	No Pin	+Vout
9	+Vout	No Pin
10	No Pin	-Vout
11	-Vout	No Pin
14	+Vin	+Vin

Notes:

1. All dimensions in mm (inches).
2. Pin pitch tolerance: ±0.35 (±0.014)
3. Case tolerance: ±0.5 (±0.02)
4. Weight: 2.4g (0.005lbs)