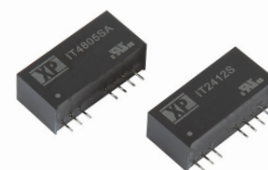


3W

DC-DC
converters 

The IT series is housed in a SIP9 plastic case. Featuring a 4:1 input voltage range of 9 to 36VDC or 18 to 75VDC with both single and dual outputs, singles have 3.3, 5, 12 or 15VDC with duals having ± 5 , ± 12 & ± 15 VDC.

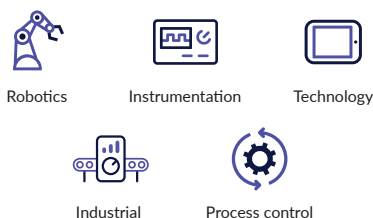
The 3W IT provides 1.5kVDC isolation between input and output, the output has short circuit protection, remote On/Off is standard. The operating temperature range is from -40°C to +100°C, with derating above +75°C.



Features

- ▶ Regulated single & dual outputs
- ▶ 4:1 input range
- ▶ Single outputs 3.3 to 15VDC
- ▶ Dual outputs ± 5.0 to ± 15 VDC
- ▶ SIP9 package
- ▶ 1.5kVDC isolation
- ▶ Remote On/Off
- ▶ -40°C to +100°C operating temperature
- ▶ Full power to +75°C
- ▶ 3 year warranty

Applications



Dimensions

26.0 x 12.5 x 9.3 (1.02" x 0.49" x 0.36")

More resources

Click the link or scan the code

→ xppower.com



Models & ratings

Model number ⁽¹⁾	Input voltage	Output voltage	Output current	No load input current ⁽¹⁾	Max capacitive load	Efficiency
IT2403SA	9.0-36.0VDC	3.3VDC	700mA	8mA	2200 μ F	77%
IT2405SA		5.0VDC	600mA	10mA	1000 μ F	82%
IT2412SA		12.0VDC	250mA	10mA	165 μ F	84%
IT2415SA		15.0VDC	200mA	10mA	100 μ F	85%
IT2405S		± 5.0 VDC	± 300 mA	10mA	± 470 μ F	81%
IT2412S		± 12.0 VDC	± 125 mA	10mA	± 100 μ F	84%
IT2415S		± 15.0 VDC	± 100 mA	15mA	± 47 μ F	84%

Continued on page 2

Notes:

1. Operation at no load will not damage the converter but may not meet all specifications.

2. When one output is set to 100% load and the other varies between 25%-100% load.

Models & ratings

Model number ⁽¹⁾	Input voltage	Output voltage	Output current	No load input current ⁽¹⁾	Max capacitive load	Efficiency
IT4803SA	18.0-75.0VDC	3.3VDC	700mA	8mA	2200μF	75%
IT4805SA		5.0VDC	600mA	8mA	1000μF	81%
IT4812SA		12.0VDC	250mA	8mA	165μF	84%
IT4815SA		15.0VDC	200mA	10mA	100μF	84%
IT4805S		±5.0VDC	±300mA	8mA	±470μF	81%
IT4812S		±12.0VDC	±125mA	8mA	±100μF	84%
IT4815S		±15.0VDC	±100mA	10mA	±47μF	83%

Notes:

- Operation at no load will not damage the converter but may not meet all specifications.
- When one output is set to 100% load and the other varies between 25%-100% load.

Input

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Input voltage range	See models and ratings table				
Input reflected rITple current		20		mA pk-pk	12μH inductor and 47μF capacitor, 5Hz to 20MHz
Input surge		25		VDC	12V models
		50			24V models for 100ms
		100			48V models for 100ms
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			±0.5	%	
Load regulation			±0.5	%	10-100% load change, operation at no load will not damage unit but it may not meet all specifications.
Setpoint accuracy			±1.0	%	
Ripple & noise		50		mV pk-pk	20MHz bandwidth
Temperature coefficient		0.02		%/°C	
Short circuit protection	Continuous with auto recovery (hiccup)				
Cross regulation		±5		%	On dual output models, when one output is set to 100% load and the other varies between 25%-100% load.
Remote on/off	Apply 2.7 to 15VDC to pin 3 to turn output off				

General

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Efficiency	See models & ratings table				
Isolation voltage		1500		VDC	
Isolation resistance		10 ⁹		Ω	
Isolation capacitance		500		pF	
Switching frequency		250		kHz	
Mean time between failure		>1.2		Mhrs	MIL-HDBK-217F, +25°C GB

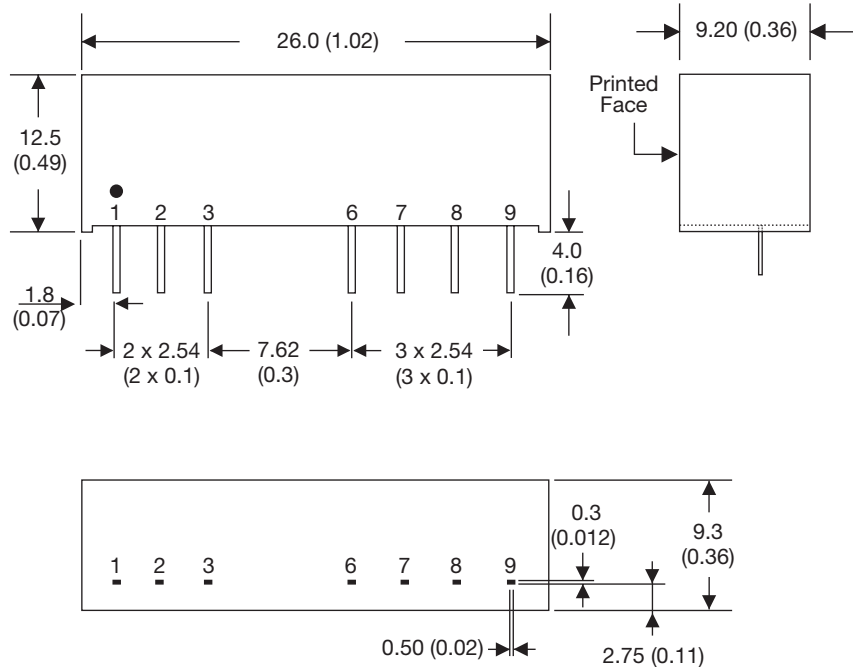
Environmental

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Operating temperature	-40		+100	°C	Derate from 100% load at +75°C to 0% load at +100°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	
CE	Meets all applicable directives	
UKCA	Meets all applicable legislation	

Mechanical details



Pin connections		
Pin	Single	Dual
1	-V Input	-V Input
2	+V Input	+V Input
3	Remote On/Off	Remote On/Off
6	+V Output	+V Output
7	Not Connected	Common
8	Not Connected	N.C.
9	-V Output	-V Output

- Notes:
- 1. All dimensions in mm (inches)
 - 2. Pin pitch tolerance: ± 0.35 (± 0.014)
 - 3. Case tolerance: ± 0.5 (± 0.02)
 - 4. Weight: 6.5g (0.014lbs)