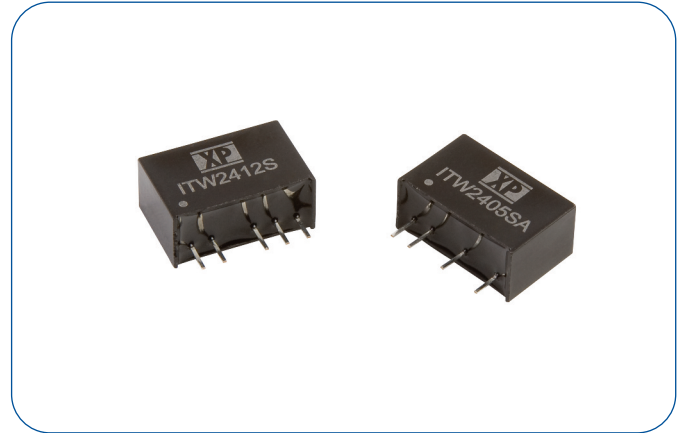


1 Watt

- 2:1 Input Range
- Operating Temperature -40 °C to +105 °C
- Single & Dual Outputs
- 1500 VDC Isolation
- Fully Regulated Output
- No Minimum Load Required
- 3 Year Warranty



Dimensions:

ITW:
0.67 x 0.43 x 0.30" (17.0 x 11.0 x 7.6 mm)

Models & Ratings

Input Voltage	Output Voltage	Output Current	Input Current ⁽¹⁾		Maximum Capacitive Load	Efficiency	Model Number
			No Load	Full Load			
4.5-9 V	5.0 V	200 mA	35 mA	263 mA	1680 µF	76%	ITW0505SA
	12.0 V	83 mA	35 mA	259 mA	820 µF	77%	ITW0512SA
	15.0 V	67 mA	35 mA	254 mA	680 µF	79%	ITW0515SA
	24.0 V	42 mA	35 mA	265 mA	470 µF	76%	ITW0524SA
	±12.0 V	±42 mA	35 mA	259 mA	±470 µF	77%	ITW0512S
	±15.0 V	±33 mA	35 mA	254 mA	±330 µF	79%	ITW0515S
9-18 V	5.0 V	200 mA	20 mA	108 mA	1680 µF	77%	ITW1205SA
	12.0 V	83 mA	20 mA	108 mA	820 µF	77%	ITW1212SA
	15.0 V	67 mA	20 mA	105 mA	680 µF	80%	ITW1215SA
	24.0 V	42 mA	20 mA	109 mA	470 µF	77%	ITW1224SA
	±12.0 V	±42 mA	20 mA	108 mA	±470 µF	77%	ITW1212S
	±15.0 V	±33 mA	20 mA	105 mA	±330 µF	80%	ITW1215S
18-36 V	5.0 V	200 mA	10 mA	54 mA	1680 µF	77%	ITW2405SA
	12.0 V	83 mA	10 mA	52 mA	820 µF	80%	ITW2412SA
	15.0 V	67 mA	10 mA	52 mA	680 µF	80%	ITW2415SA
	24.0 V	42 mA	10 mA	55 mA	470 µF	77%	ITW2424SA
	±12.0 V	±42 mA	10 mA	52 mA	±470 µF	80%	ITW2412S
	±15.0 V	±33 mA	10 mA	52 mA	±330 µF	80%	ITW2415S
36-75 V	5.0 V	600 mA	7 mA	27 mA	1680 µF	77%	ITW4805SA
	12.0 V	250 mA	7 mA	27 mA	820 µF	78%	ITW4812SA
	15.0 V	200 mA	7 mA	27 mA	680 µF	78%	ITW4815SA
	24.0 V	125 mA	7 mA	28 mA	470 µF	76%	ITW4824SA
	±12.0 V	±42 mA	7 mA	27 mA	±470 µF	77%	ITW4812S
	±15.0 V	±33 mA	7 mA	27 mA	±330 µF	77%	ITW4815S

Notes

1. Input currents measured at nominal input voltage.

Input

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Voltage Range	4.5		9	VDC	5 V nominal
	9		18	VDC	12 V nominal
	18		36	VDC	24 V nominal
	36		75	VDC	48 V nominal
Input Filter	Capacitor				
Input Reflected Ripple			35	mA pk-pk	Through 12 μ H inductor and 47 μ F capacitor
Input Surge			15	VDC for 1000 ms	5 V models
			25	VDC for 1000 ms	12 V models
			50	VDC for 1000 ms	24 V models
			100	VDC for 1000 ms	48 V models

Output

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Output Voltage					See Models and Ratings table
Initial Set Accuracy			± 2	%	
Minimum Load	0			A	
Line Regulation			± 0.2	%	
Load Regulation			± 1	%	
Cross Regulation			± 5	%	On dual output models when one load is varied between 25% and 100% and other is fixed at 100%
Transient Response			3	% deviation	Recovery within 2% in less than 2 ms for a 25% load change
Ripple & Noise			50	mV pk-pk	20 MHz bandwidth. Measured using 1 μ F ceramic capacitor
Short Circuit Protection					Continuous, with auto recovery
Maximum Capacitive Load					See Models and Ratings table
Temperature Coefficient			0.02	%/°C	

General

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Efficiency					See Models and Ratings table
Isolation: Input to Output			1500	VDC	
Switching Frequency	150		550	kHz	Variable
Isolation Resistance	10^9			Ω	
Isolation Capacitance		70		pF	
Power Density			11.5	Win ³	
Mean Time Between Failure	2.8			MHrs	MIL-HDBK-217F, +25 °C GB
Weight		0.0067 (3.0)		lb (g)	

Environmental

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Operating Temperature	-40		+105	°C	Derate from 100% load at +85 °C to no load at +105 °C
Storage Temperature	-55		+125	°C	
Case Temperature			+105	°C	
Humidity			95	%RH	Non-condensing
Cooling					Natural convection

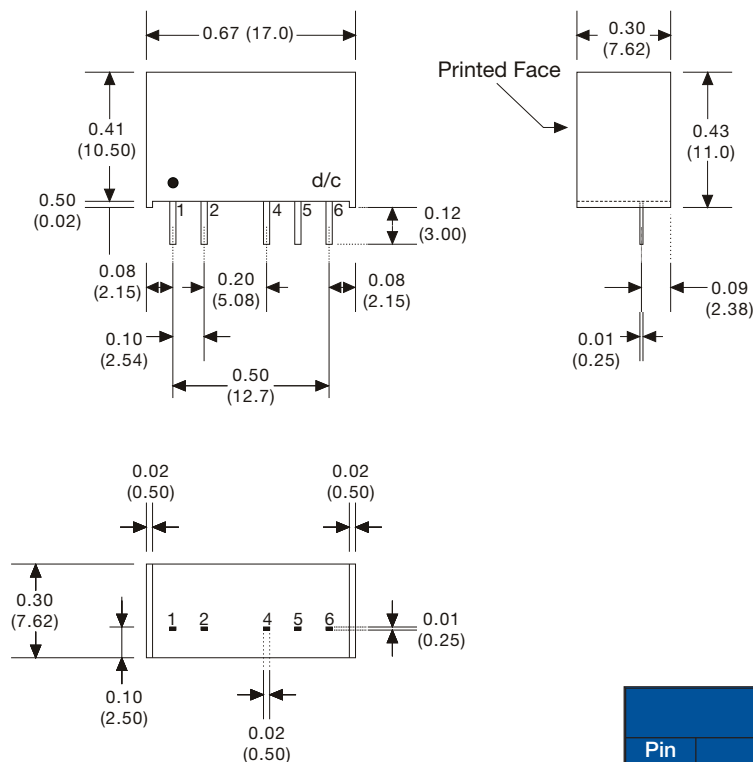
EMC: Emissions

Phenomenon	Standard	Test Level	Notes & Conditions
Conducted	EN55022	Class A	
Radiated	EN55022	Class A	

EMC: Immunity

Phenomenon	Standard	Test Level	Criteria	Notes & Conditions
ESD Immunity	EN61000-4-2	3	A	
Radiated Immunity	EN61000-4-3	20 Vrms	A	
EFT/Burst	EN61000-4-4	3	A	External input capacitor required 330 μ F/100 V
Surges	EN61000-4-5	Installation class 2	A	External input capacitor required 330 μ F/100 V
Conducted Immunity	EN61000-4-6	3 V rms	A	
Magnetic Fields	EN61000-4-8	1 A/m	A	

Mechanical Details



Pin Connections		
Pin	Single	Dual
1	-Vin	-Vin
2	+Vin	+Vin
4	+Vout	+Vout
5	N.P.	Common
6	-Vout	-Vout

Notes

- All dimensions are in inches (mm)
- Weight: 0.0067 lbs (3.0 g) approx.
- Pin diameter: 0.02 \pm 0.002 (0.5 \pm 0.05)
- Pin pitch tolerance: \pm 0.014 (\pm 0.35)
- Case tolerance: \pm 0.02 (\pm 0.5)