

**SINGLE
10 WATT**

IWS SERIES

key features

- industry standard package
- industry standard pin out
- 85C case operation
- short circuit protection
- 5V and 12V inputs
- input pi filter and 6 side shielding
- wide input voltage range
- 500V isolation



The IWS series converters offer excellent regulation and isolation in the industry standard 1 x 2 package. Available in several input versions, the IWS is perfect for industrial, datacom, or telecom applications. The IWS features shortcircuit protection, and 500VDC of isolation. Several output voltages are available, please see the IWD series for dual output applications.

technical specifications

input

voltage range	4.50 - 9.00 VDC
5VDC nominal	9.00 - 18.00 VDC
12VDC nominal	18.00 - 36.00 VDC
24VDC nominal	36.00 - 72.00 VDC
48 VDC nominal	20% I_N max.
reflected ripple	100% I_N max.
reverse input current	

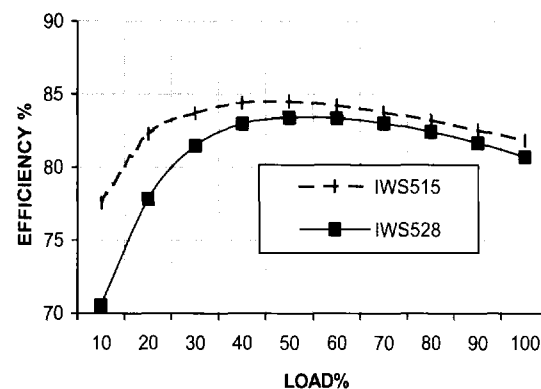
output

setpoint accuracy	$\pm 1\%$
line regulation V_{IN} min. - V_{IN} max., I_{OUT} rated	$\pm 0.5\%$ V_O
load regulation I_{OUT} min. - I_{OUT} max., V_{IN} nom.	$\pm 1.0\%$ V_O
minimum output current	10 %
dynamic regulation, loadstep	25% I_O
Pk deviation	1% V_O
settling time	500 μ s
temperature coefficient	0.02%/°C
ripple and noise, 20 MHz BW	1% V_{OUT} nom.
short circuit protection ¹	continuous
current limit	130%

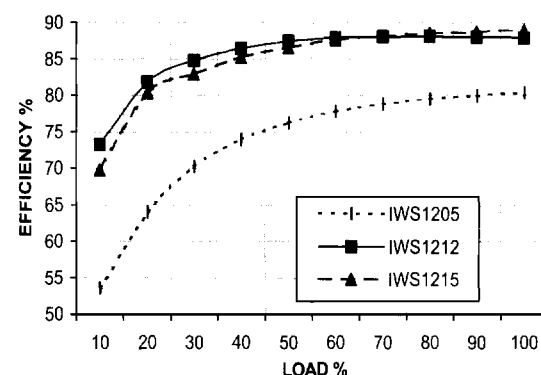
general

switching frequency	300 KHz
isolation	
input - output	500 VDC
input - case	500 VDC
output - case	500 VDC
isolation resistance - input to output	10 ⁹ Ohms
standard case operating range	-25 to +85°C
industrial range (add -I to p/n)	-40 to +85°C
storage range	-40 to +125°C
humidity max, non-condensing	95%
vibration, 3 axes, 5 min each	5 g, 10-55 Hz
safety	consult factory
weight (approx.)	1.4 oz.

eff. vs load (5 VIN)



eff. vs load (12 VIN)



notes

¹ Continuous short circuit protection is provided. Long term continuous operation in this mode is not recommended. Converter will auto-restart once fault has been removed.

Specifications typically at 25°C, normal line, and full load - unless otherwise stated.

Specifications subject to change without notice.

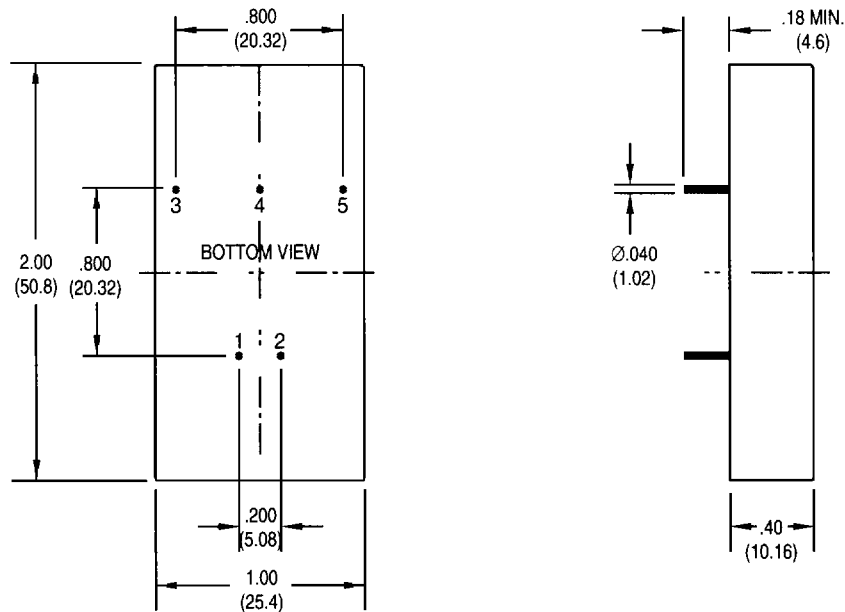
models

V _{IN} (volts)	V _{IN} range (volts)	I _{IN} max (amps)	V _{OUT} (volts)	I _{OUT} rated (amps)	ripple & noise pk-pk (mV)	efficiency typ.**	model
5	4.5 - 9.0	3.65	3.3	3.30	100	74%	IWS503.3
5	4.5 - 9.0	3.20	5	2.00	100	78%	IWS505
5	4.5 - 9.0	3.70	12	1.00	120	80%	IWS512
5	4.5 - 9.0	3.45	15	0.75	150	82%	IWS515
5	4.5 - 9.0	3.60	24	0.50	240	83%	IWS524
5	4.5 - 9.0	3.55	48	0.25	480	84%	IWS548
12	9.0 - 18.0	1.80	3.3	3.30	100	75%	IWS1203.3
12	9.0 - 18.0	1.60	5	2.00	100	80%	IWS1205
12	9.0 - 18.0	1.80	12	1.00	120	82%	IWS1212
12	9.0 - 18.0	1.65	15	0.75	150	84%	IWS1215
12	9.0 - 18.0	1.75	24	0.50	240	85%	IWS1224
12	9.0 - 18.0	1.75	48	0.25	480	86%	IWS1248
24	18.0 - 36.0	0.95	24	0.50	240	85%	IWS2424
24	18.0 - 36.0	0.90	48	0.25	480	86%	IWS2448
48	36.0 - 72.0	0.45	24	0.50	240	85%	IWS4824
48	36.0 - 72.0	0.45	48	0.25	480	89%	IWS4848

* max input current at minimum input voltage, maximum rated output power

** at nominal V_{IN}, rated output

mechanical drawing



thermal impedance	
natural convection	15.4 C/W
100 LFM	12.2 C/W
200 LFM	9.3 C/W
300 LFM	7.4 C/W
400 LFM	6.4 C/W

Thermal impedance data is dependant on many environmental factors. The exact thermal performance should be validated for specific application.

pin	function
1	+V _{IN}
2	-V _{IN}
3	+V _{OUT}
4	no pin
5	-V _{OUT}

tolerances (unless otherwise specified)	
Inches	(Millimeters)
.XX ± .040	.X ± 1.0
.XXX ± .010	.XX ± .25
Pin:	
± .002	± .05