SINGLE 5 WATT

EWS SERIES

key features

- industry standard 1 x 2 package
- industry standard pin out
- 85C case operation
- short circuit protection
- 5V and 12V inputs
- input pi filter and 6 sided shielding
- regulated outputs
- 500V isolation

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

technical specifications

input

voltage range	
5VDC nominal	4.50 - 9.00 VDC
12VDC nominal	9.00 - 18.00 VDC
reflected ripple	20% I_{IN} max.
reverse input current	100% I_{IN} max.

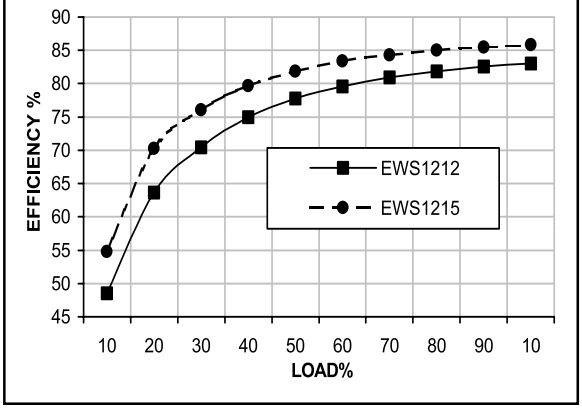
output

setpoint accuracy	±5%
line regulation V_{IN} min. - V_{IN} max., I_{OUT} rated	±1.0% Vo
load regulation I_{OUT} min. - I_{OUT} max., V_{IN} nom.	±1.0% Vo
minimum output current	10 %
dynamic regulation, loadstep	25% Io
Pk deviation	1% Vo
settling time	500 us
temperature coefficient	150 mV
ripple and noise, 20 MHz BW	1% V_{OUT} nom.
short circuit protection[1]	continuous
current limit	130%

general

switching frequency	200 KHz
isolation	
input - output	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 (12 V_{IN})



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.

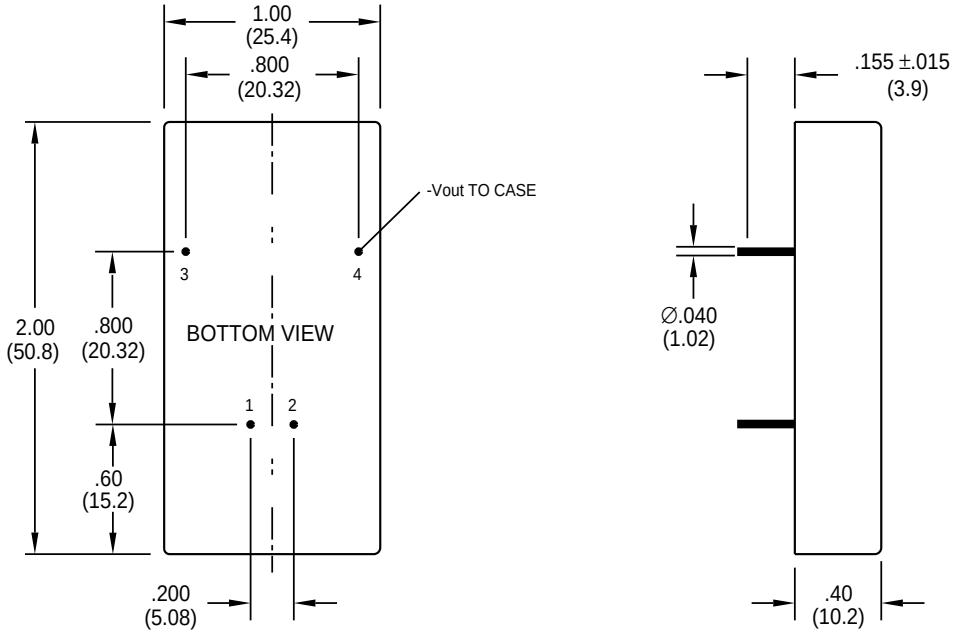
Specifications subject to change without notice.

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	1.80	5	1.00	150	70%	EWS0505
5	4.5 - 9.0	2.10	12	0.50	150	73%	EWS0512
5	4.5 - 9.0	1.95	15	0.40	150	76%	EWS0515
12	9.0 - 18.0	0.85	5	1.00	150	73%	EWS1205
12	9.0 - 18.0	0.95	12	0.50	150	80%	EWS1212
12	9.0 - 18.0	0.91	15	0.40	150	82%	EWS1215

* 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

pin	function
1	+V_{IN}
2	-V_{IN}
3	+V_{OUT}
4	-V_{OUT}

tolerances (unless otherwise specified)

Inches	**(Millimeters)**
.XX ± .040	.X ± 1.0
.XXX ± .010	.XX ± .25
Pin:	
± .002	± .05