PW SERIES

1W WIDE INPUT RANGE

DANUBE

FEATURES

- LEAD FREE
- 1500VDC ISOLATION
- SINGLE IN LINE PACKAGE
- NO EXTERNAL COMPONENTS REQUIRED
- INTERNAL FILTERING
- 100% BURN IN
- HIGH EFFICIENCY & INPUT UVLO
- UL 94V-0 PACKAGE MATERIAL
- CUSTOM SOLUTIONS AVAILABLE
- RoHS COMPLIANT
- 3 YEARS WARRANTY

OUTPUT SPECIFICATIONS

Voltage Setpoint Accuracy		+/-2% max.
Temperature Coefficient		+/-0.05%/°C
Ripple & Noise(20MHz BW)[1]		100mVp-p max.
Line Regulation[2]		+/-0.5% max.
Load Regulation[3]		+/-0.5% max.
	Output：3.3V	+/-1% max.
Minimum Load		10% of Full Load
Short Circuit Protection		Continuous
Short Circuit Restart		Automatic
Over Load Protection		150% typ.

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-40°C to +85°C
Case Temperature	+105°C max.
Storage Temperature	-55°C to +105°C
Humidity	95% max.
Cooling	Free-Air Convection

INPUT SPECIFICATIONS

Input Voltage Range	2:1 or 4:1 Input Range
Input Filter	Capacitor Type
Protection	Fuse Recommended

GENERAL SPECIFICATIONS

Efficiency	74% min.
Isolation Voltage[4]	1500VDC or 1000VAC min.
Isolation Resistance	10^9 ohms min.
Isolation Capacitance	80pF max.
Switching Frequency	100 KHz min.
MTBF[5]	>500,000 Hours
Weight	3.0g typ.
Case Material	Non-Conductive Plastic
Case Size	17.4 mm*7.75mm*11.1mm
Potting Material	Epoxy(UL94V-0)
Radiated Emissions	EN55032 Class B

ALL SPECIFICATIONS TYPICAL AT NOMINAL LINE, FULL LOAD, AND 25 °C UNLESS OTHERWISE NOTED.

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[1] *Measured with 1uF ceramic capacitor connect to the output pins.*
[2] *High Line to Low Line.*
[3] *Load Regulation is for output load current change from 10% to 100%.*
[4] *1500VDC or 1000VAC for 60 seconds.*
[5] *MIL-HDBK-217F @25 °C, Ground Benign.*

● SELECTION GUIDE
2:1 1W OUTPUT

Specifications typical at ta=25°C, nominal input voltage, rated output current unless otherwise specified.

MODEL NUMBER	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (mA)	INPUT[6] CURRENT(mA)		EFF (%)[7]	ISOLATION[8] (VDC)
				FULL LOAD	NO LOAD		
PWS-1203.3	9-18	3.3	300	110	20	75	1500
PWS-1205	9-18	5	200	108	20	77	1500
PWS-1212	9-18	12	83	106	20	78	1500
PWS-1215	9-18	15	67	106	20	79	1500
PWS-2403.3	18-36	3.3	300	55	10	75	1500
PWS-2405	18-36	5	200	54	10	77	1500
PWS-2412	18-36	12	83	53	10	78	1500
PWS-2415	18-36	15	67	53	10	79	1500
PWS-4803.3	36-75	3.3	300	28	7	75	1500
PWS-4805	36-75	5	200	27	7	77	1500
PWS-4812	36-75	12	83	27	7	78	1500
PWS-4815	36-75	15	67	27	7	79	1500

Note: Other input to output voltages may be available. Please contact factory.

[6] *NOMINAL INPUT VOLTAGE.*
[7] *NOMINAL INPUT VOLTAGE, FULL LOAD.*
[8] *1500VDC for 10 seconds.*

SELECTION GUIDE
4:1 1W OUTPUT

Specifications typical at ta=25°C, nominal input voltage, rated output current unless otherwise specified.

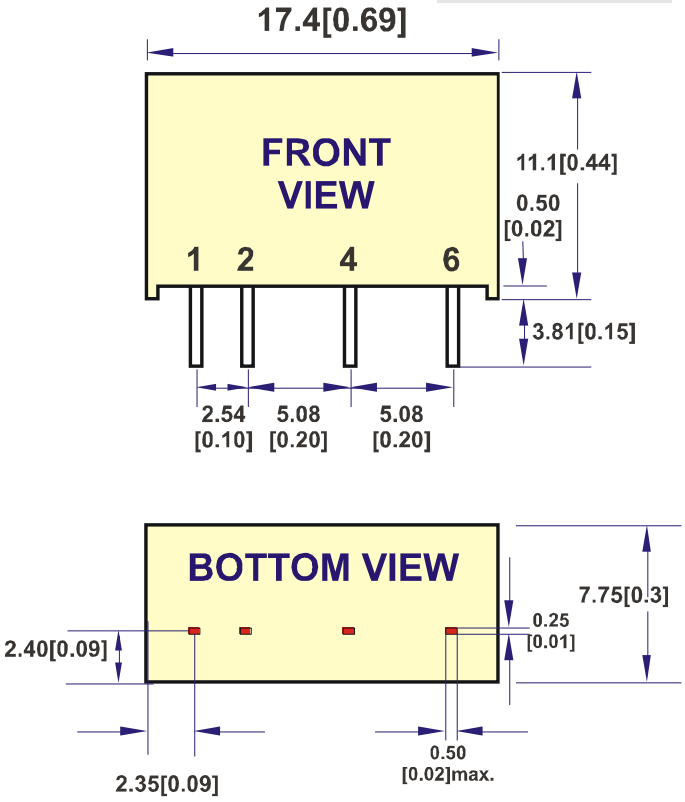
MODEL NUMBER	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (mA)	INPUT[9] CURRENT(mA)		EFF (%)[10]	ISOLATION[11] (VDC)
				FULL LOAD	NO LOAD		
PWS-1203.3T	9-36	3.3	300	112	20	74	1500
PWS-1205T	9-36	5	200	111	20	75	1500
PWS-1212T	9-36	12	83	108	20	77	1500
PWS-1215T	9-36	15	67	109	20	77	1500
PWS-2403.3T	18-72	3.3	300	56	10	74	1500
PWS-2405T	18-72	5	200	56	10	75	1500
PWS-2412T	18-72	12	83	54	10	77	1500
PWS-2415T	18-72	15	67	54	10	77	1500

Note: Other input to output voltages may be available. Please contact factory.

[9] *NOMINAL INPUT VOLTAGE.*
[10] *NOMINAL INPUT VOLTAGE, FULL LOAD.*
[11] *1500VDC for 10 seconds.*

MECHANICAL DIMENSIONS & RECOMMENDED FOOTPRINT DETAILS

PACKAGE



PIN	SINGLE
1	-Vin
2	+Vin
4	+Vout
5	NP
6	-Vout

NOTE :

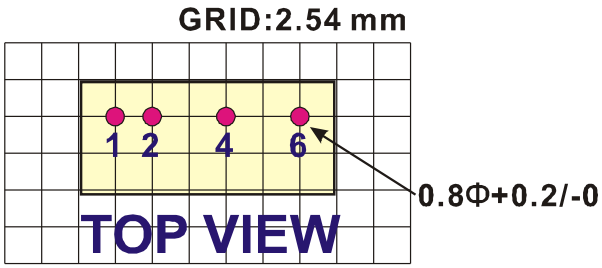
All dimensions are in mm [inches]

1. Pin Size is 0.50x0.30mm[0.02x0.01"]

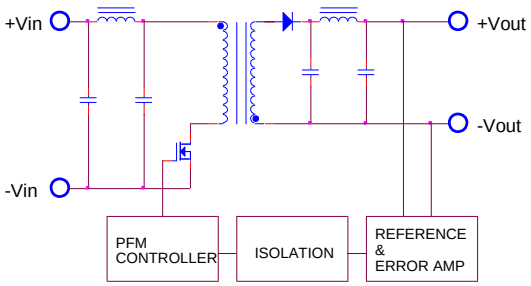
2. Pin is Tolerance .XX= ±0.05mm

3. Tolerance .X or .XX= ±0.5mm

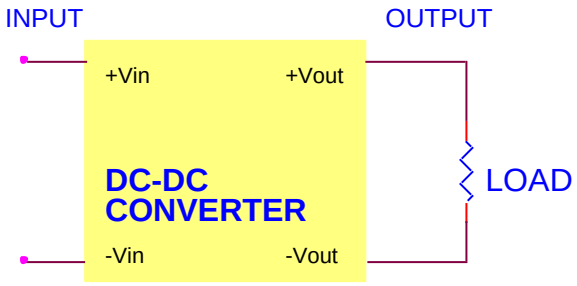
All dimensions are in mm[inches]



SIMPLIFIED SCHEMATIC



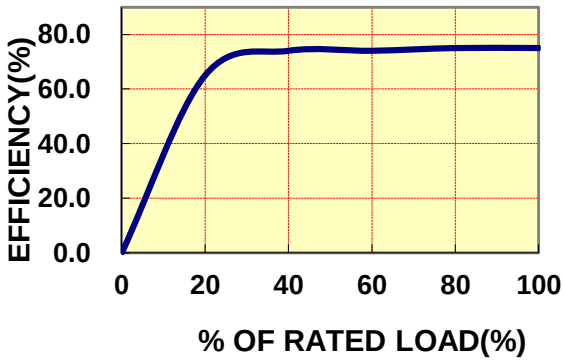
● TYPICAL APPLICATIONS



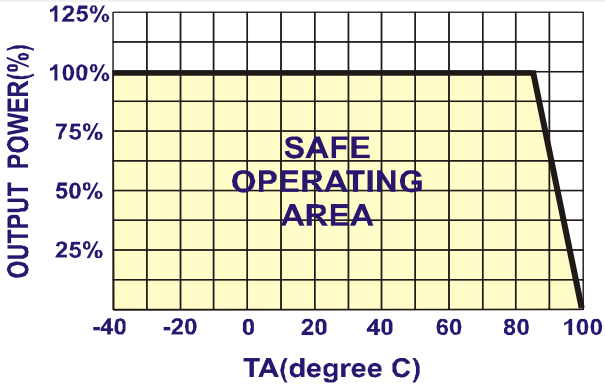
● TYPICAL PERFORMANCE CURVES

Specifications typical at ta=25 °C, nominal input voltage, rated output current unless otherwise specified.

OUTPUT LOAD VS EFFICIENCY

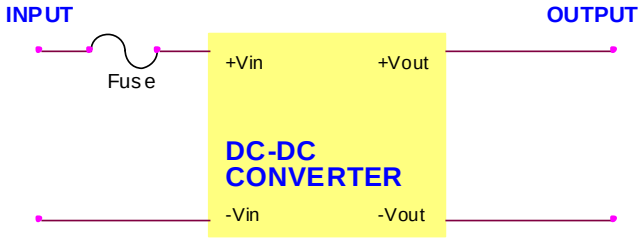


TEMPERATURE DERATING



● INPUT FUSE SELECTION GUIDE

9V-18V & 9V-36V INPUT VOLTAGE(VDC)	18V-36V & 18V-72V INPUT VOLTAGE(VDC)	36V-75V INPUT VOLTAGE(VDC)
400mA Slow-Blow Type	200mA Slow-Blow Type	100mA Slow-Blow Type



Note: Certain applications may require the installation of external fuse in front of the input.

PWS-SERIES APPLICATION NOTES:

EXTERNAL CAPACITANCE REQUIREMENTS:

No external capacitance is required for operation of the PWS-SERIES.

To meet the reflected ripple requirements of the converter, an input impedance of less than 0.5 ohm from DC to 100KHz is required.

External output capacitance is not required for operation, however it is recommended that 10uF tantalum and 0.1uF ceramic capacitance be selected for reduced system noise.

Additional output capacitance may be added for increased filtering, but should not exceed 220uF.

We Can Offer EMC-Filter According To EN55032 Class B.

Negative Outputs:

A negative output voltage may be obtained by connecting the +OUT to circuit ground and connecting –OUT as the negative output.

FOR MORE INFORMATION CALL:

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