

PCW SERIES

5W WIDE INPUT RANGE

DANUBE

FEATURES

- LEAD FREE
- 1500VDC ISOLATION
- SINGLE IN LINE PACKAGE
- UP TO 5W REGULATED OUTPUT POWER
- NO EXTERNAL COMPONENTS REQUIRED
- INTERNAL FILTERING
- 100% BURN IN
- HIGH EFFICIENCY
- UL 94V-0 PACKAGE MATERIAL
- CUSTOM SOLUTIONS AVAILABLE
- ROHS COMPLIANT
- 3 YEARS WARRANTY



OUTPUT SPECIFICATIONS		INPUT SPECIFICATIONS	
Voltage Set-point Accuracy	+/-2% max.	Input Voltage Range	2:1 Input Range
Temperature Coefficient	+/-0.05%/°C	Input Filter	Capacitor Type
Ripple & Noise(20MHz BW) ¹	150mVp-p max.	Protection	Fuse Recommended
Line Regulation ²	+/-0.5% max.	Start up Time(Nominal Input)	10mS max.
Load Regulation ³	+/-0.5% max.		
	Output : 3.3V		
Minimum Load	20% of Full Load		
Short Circuit Protection	Continuous	GENERAL SPECIFICATIONS	
Short Circuit Restart	Automatic	Efficiency	80% min.
Over Load Protection	150% typ.	Isolation Voltage ⁴	1500VDC min.
Capacitive Load	5V:1000uF max.	Isolation Resistance	10 ⁹ ohms min.
	12V:470uF max.	Isolation Capacitance	80pF max.
	15V:330uF max.	Switching Frequency	100 KHz min.
ENVIRONMENTAL SPECIFICATIONS		MTBF ⁵	>900,000 Hours
Operating Temperature	-40°C to 60°C	Weight	4.8g typ.
Case Temperature	+95°C max.	Case Material	Non-Conductive Plastic
Storage Temperature	-55°C to +105°C	Case Size	21.80mm*9.20mm*11.10mm
Humidity	95% max.	Potting Material	Epoxy(UL94V-0)
Cooling	Free-Air Convection	Radiated Emissions	EN55022 Class B

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

¹ Measured with 1uF ceramic capacitor connects to the output pins.

² High Line to Low Line.

³ Load Regulation is for output load current change from 20% to 100%.

⁴ 1500VDC for 10 seconds 3000VDC for 3 seconds.

⁵ MIL-HDBK-217F @25°C, Ground Benign.

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● SELECTION GUIDE

5W OUTPUT

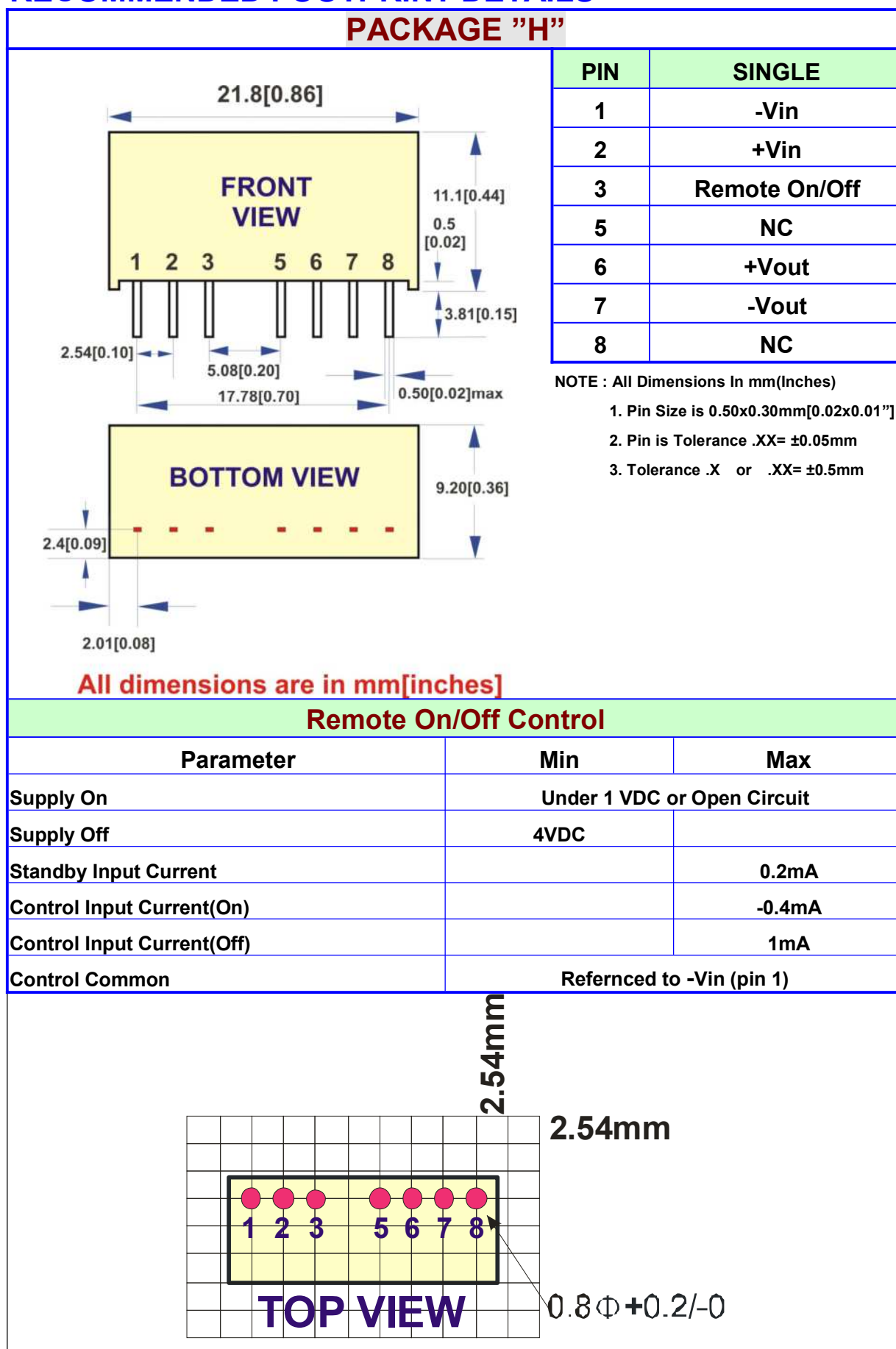
MODEL NUMBER	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (mA)	INPUT ⁶ CURRENT(mA)		EFF (%) ⁷	ISOLATION ⁸ (VDC)	PACKAGE
				FULL LOAD	NO LOAD			
PCWS-0505	4.5-9	5	800	1000	50	80	1500	H
PCWS-1203.3	9-18	3.3	1200	413	50	80	1500	H
PCWS-1205	9-18	5	1000	514	50	81	1500	H
PCWS-1212	9-18	12	417	491	50	85	1500	H
PCWS-1215	9-18	15	333	496	50	84	1500	H
PCWS-2403.3	18-36	3.3	1200	204	25	81	1500	H
PCWS-2405	18-36	5	1000	251	25	83	1500	H
PCWS-2412	18-36	12	417	245	25	85	1500	H
PCWS-2415	18-36	15	333	245	25	85	1500	H
PCWS-4803.3	36-75	3.3	1200	102	15	81	1500	H
PCWS-4805	36-75	5	1000	126	15	83	1500	H
PCWS-4812	36-75	12	417	123	15	85	1500	H
PCWS-4815	36-75	15	333	122	15	85	1500	H

⁶ NOMINAL INPUT VOLTAGE.

⁷ NOMINAL INPUT VOLTAGE, FULL LOAD.

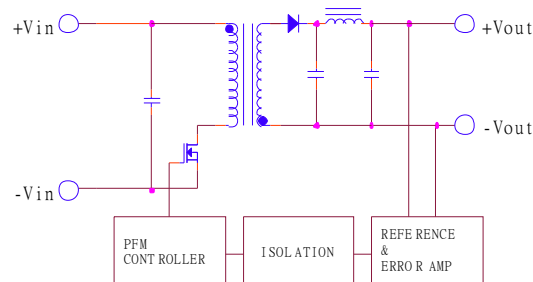
⁸ 1500VDC for 10 seconds.

● MECHANICAL DIMENSIONS & RECOMMENDED FOOTPRINT DETAILS



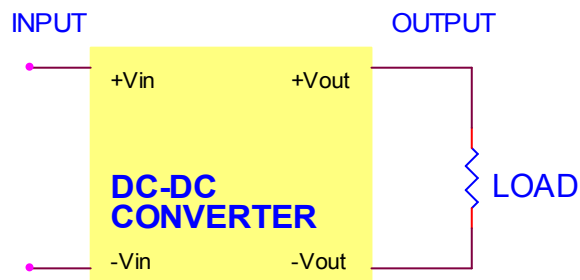
● SIMPLIFIED SCHEMATIC

SINGLE OUTPUT



● TYPICAL APPLICATIONS

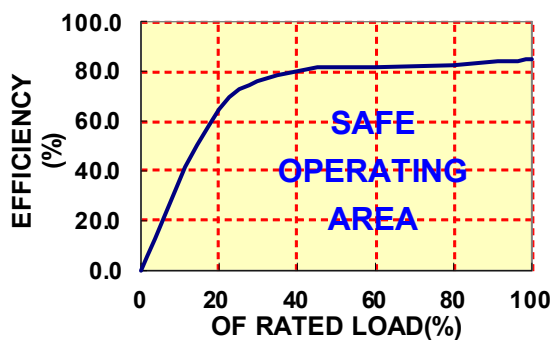
SINGLE OUTPUT



● TYPICAL PERFORMANCE CURVES

Specifications typical at $T_A=25^\circ\text{C}$, nominal input voltage, rated output current unless otherwise specified.

OUTPUT LOAD VS EFFICIENCY



TEMPERATURE DERATING



● INPUT FUSE SELECTION GUIDE

9-18V INPUT VOLTAGE(VDC)	18-36V INPUT VOLTAGE(VDC)	36-75V INPUT VOLTAGE(VDC)
1000mA Slow-Blow Type	600mA Slow-Blow Type	300mA Slow-Blow Type

The diagram shows the input fuse selection guide. A yellow box labeled 'DC-DC CONVERTER' has input pins +Vin and -Vin, and output pins +Vout and -Vout. A fuse is connected between the input and the converter.

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

PCW SERIES APPLICATION NOTES:

EXTERNAL CAPACITANCE REQUIREMENTS:

No external capacitance is required for operation of the PCW 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 EN55011/22 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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Home Page

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