

**PC200 SERIES 3KV-2-3W REGULATED
DC-DC Converter**

Features

DUAL IN LINE PACKAGE
UP TO 3W REGULATED OUTPUT POWER
100% BURN IN
HIGH EFFICIENCY
LOW NOISE
NO EXTERNAL COMPONENTS
REQUIRED
3000 VDC ISOLATION
LOW COST
UL 94V-0 PACKAGE MATERIAL
CUSTOM SOLUTIONS AVAILABLE



Specification

Output Specification

Voltage Set-point Accuracy	+/-3% max.
Temperature Coefficient	+/-0.05%/°C
Ripple & Noise(20MHz BW) ¹	100mVp-p max.
Line Regulation ²	+/-1% max.
Load Regulation ³	+/-1% max.
Minimum Load	10% of Full Load
Short Circuit Protection	Current Limit Protection
Short Circuit Restart	Automatic
Transient Response	200uS max.

Input Specification

Input Voltage Range	+/-10% max.
Input Filter Protection	Pi Network Fuse Recommended

Environmental Specifications

Operating Temperature	-25 °C to +71 °C
Storage Temperature	-55 °C to +125 °C
Humidity	95% max.
Cooling	Free-Air Convection

General Specifications

Efficiency	60% min.
Isolation Voltage	3000 VDC min.
Isolation Resistance	109 ohms min.
Isolation Capacitance	80pF max.
Switching Frequency	50KHz min.
MTBF	>850,000 Hours
Weight	12.0g-14.4g
Case Material	Non-Conductive Plastic
Case Size	31.8mm*20.3mm *10.2mm
Conducted Emissions	EN55022 Class A
Radiated Emissions	EN55022 Class A

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

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

Selection Guide 2W-3W Output

MODEL NUMBER	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (mA)	INPUT ⁴		EFF (%) ⁵	ISOLATION(V DC)
				CURRENT(mA)			
				FULL LOAD	NO LOAD		
PC205-05S400-3K	4.5-5.5	5	400	645	80	62	3000
PC205-12S165-3K	4.5-5.5	12	165	634	80	63	3000
PC205-15S133-3K	4.5-5.5	15	133	634	80	63	3000
PC205-12D83-3K	4.5-5.5	+/-12	+/-83	634	80	63	3000
PC205-15D66-3K	4.5-5.5	+/-15	+/-66	634	80	61	3000
PC212-05S400-3K	10.8-13.2	5	400	264	40	63	3000
PC212-12S165-3K	10.8-13.2	12	165	256	40	65	3000
PC212-15S200-3K	10.8-13.2	15	200	378	45	66	3000
PC212-12D83-3K	10.8-13.2	+/-12	+/-83	256	40	65	3000
PC212-15D100-3K	10.8-13.2	+/-15	+/-100	378	45	66	3000
PC224-05S400-3K	21.6-26.4	5	400	132	20	63	3000
PC224-12S165-3K	21.6-26.4	12	165	128	20	65	3000
PC224-15S200-3K	21.6-26.4	15	200	192	25	65	3000
PC224-12D83-3K	21.6-26.4	+/-12	+/-83	128	20	65	3000
PC224-15D100-3K	21.6-26.4	+/-15	+/-100	192	25	65	3000
PC248-05S400-3K	43.2-52.8	5	400	66	10	63	3000
PC248-12S165-3K	43.2-52.8	12	165	65	10	64	3000
PC248-15S200-3K	43.2-52.8	15	200	97	12	64	3000
PC248-12D83-3K	43.2-52.8	+/-12	+/-83	65	10	64	3000
PC248-15D100-3K	43.2-52.8	+/-15	+/-100	97	12	64	3000

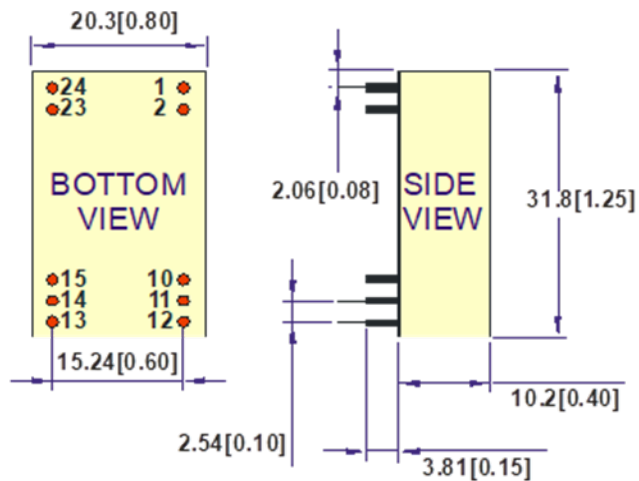
Note: Other input to output voltages may be available. Please contact factory.

⁴ NOMINAL INPUT VOLTAGE.

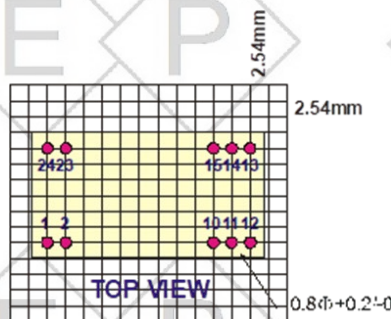
⁵ NOMINAL INPUT VOLTAGE, FULL LOAD.

Mechanical Dimensions & Recommended Footprint Details

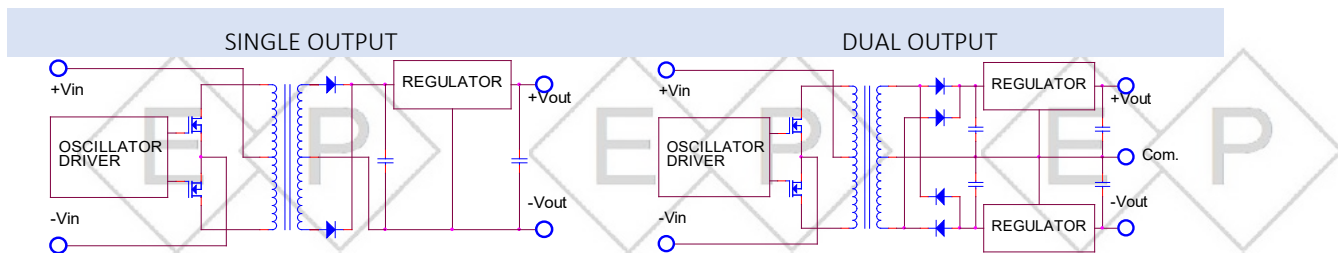
PIN	SINGLE	DUAL
1 & 2	+Vin	+Vin
10 & 11	NO PIN	Common
12	-Vout	NO PIN
13	+Vout	-Vout
14	NO PIN	NO PIN
15	NO PIN	+Vout
23 & 24	-Vin	-Vin



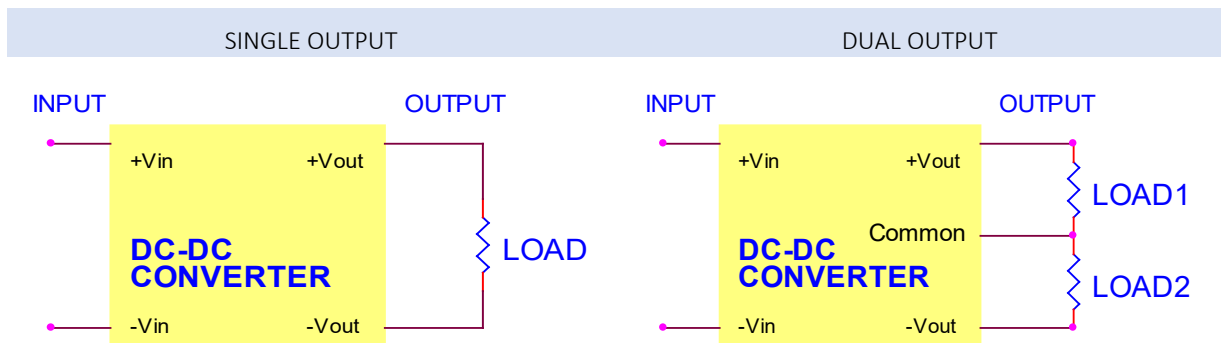
All dimensions are in mm[inches]



Simplified Schematic



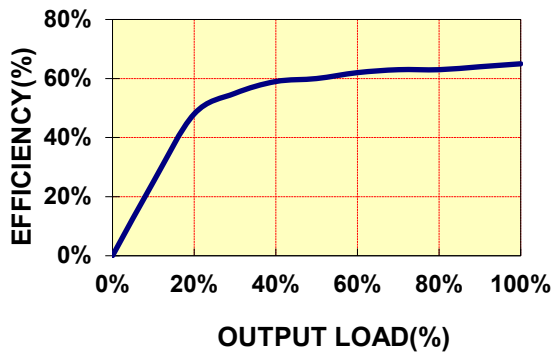
Typical Applications



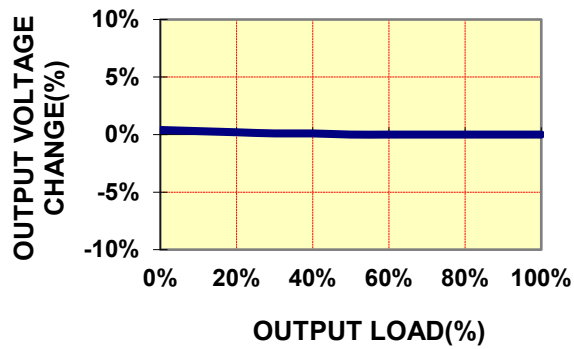
Typical Performance Curves

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

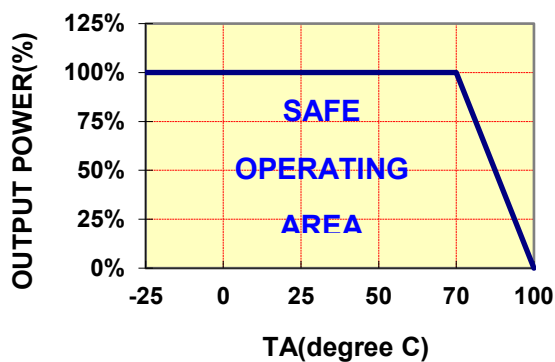
OUTPUT LOAD VS EFFICIENCY



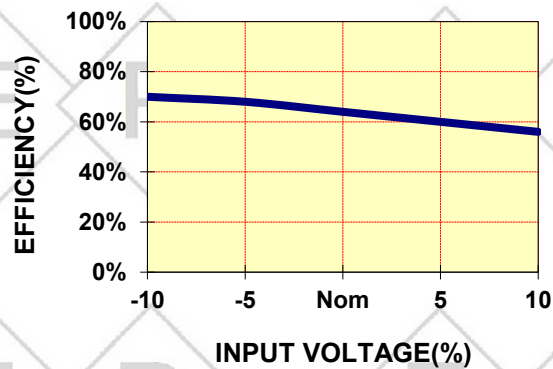
OUTPUT LOAD VS OUTPUT VOLTAGE



TEMPERATURE DERATING

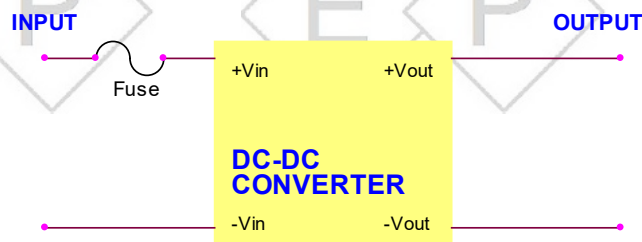


INPUT VOLTAGE VS EFFICIENCY



Input Fuse Selection Guide

4.5-5.5V	10.8-13.2V	21.6-26.4V	43.2-52.8V
INPUT VOLTAGE(VDC)	INPUT VOLTAGE(VDC)	INPUT VOLTAGE(VDC)	INPUT VOLTAGE(VDC)
1500mA Slow-Blow Type	800mA Slow-Blow Type	250mA Slow-Blow Type	200mA Slow-Blow Type



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

PC200 Series Application Notes:

EXTERNAL CAPACITANCE REQUIREMENTS:

No external capacitance is required for operation of the PC200 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

Spezifikationen können sich ohne Vorankündigung ändern.

Für etwaige fehlerhafte Angaben oder unvollständige Bezeichnungen kann keine Haftung übernommen werden.

