

DC/DC CONVERTERS

TWO CHANNEL, HIGH ISOLATION

FEATURES

- Barrier Leakage current 100% tested at 240vac
- 3000V ISOLATION TEST VOLTAGE
- single or dual unregulated outputs
- Wide operating temperature RANGE: -40°C to +100°C
- INPUT and OUTPUT filtering
- six-sided shielding

DESCRIPTION

The PWR3XX Series offers a large selection of unregulated 2W DC/DC converters for use in such diverse applications as process control, telecommunications, portable equipment, medical systems, airborne and shipboard electronic circuits, and automatic test equipment.

Thirty-six models allow the user to select input voltages of 5 VDC to 48 VDC and output voltages of 5, 12, 15, ±5, ±12, or ±15VDC.

Surface-mounted devices and manufacturing processes are used in the PWR3XX Series to provide the user a device that is environmentally rugged. The use of surface-mount technologies also gives the PWR3XX Series superior isolation voltage. Each PWR3XX Series unit is tested with the dielectric withstand voltage methods of UL544, VDE750, and CSA C22.2.

ABSOLUTE MAXIMUM RATINGS

Internal Power Dissipation.....	2W
Output Short-Circuit Duration.....	Continuous to Output Common
Lead Temperature (soldering, 10 seconds max).....	+300°C

ORDERING INFORMATION

Device Family	PWR 3XX H
PWR Indicates DC/DC Converter	
Model Number	Selected From Table Above
Screening Option	

MECHANICAL

TOP VIEW

Width: $1.125 \pm .015"$ (28.58 ± 0.38)

Height: $1.125 \pm .015"$ (28.58 ± 0.38)

SIDE VIEW

Pin 1 offset: $0.15 \pm 0.010"$ (0.38)

Pin 2 offset: $0.040 \pm .003"$ (1.02 ± .08)

Case height: $0.400 \pm 0.010"$ (10.16)

Minimum clearance: $0.170"$ MIN (4.32)

BOTTOM VIEW

MATERIAL: Units are encapsulated in Iso-ThermoFlex™, a low thermal resistance molding compound which has excellent chemical resistance, wide operating temperature range, and good electrical properties under high humidity environments. The encapsulant and outer shell of the unit have UL94V-0 ratings. Lead material is brass with a solder plated surface to allow ease of solderability.

NOTES: All dimensions are in inches (millimeters).
Product is marked with specific model ordered, date code and job code.
GRID: 0.100 inches (2.54 millimeters)
PIN PLACEMENT TOLERANCE: ±0.015

PIN CONNECTIONS		
1. +V _{IN}	3. +V _{OUT1}	6. -V _{OUT2}
2. -V _{IN}	4. COMMON1	7. COMMON2
5. -V _{OUT1}	8. +V _{OUT2}	

ELECTRICAL SPECIFICATIONS

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

MODEL	NOMINAL INPUT VOLTAGE (VDC)	RATED OUTPUT VOLTAGE (VDC)	RATED OUTPUT CURRENT (MA)	MAXIMUM INPUT CURRENT (MA)
PWR300	5	5	200	690
PWR301	5	12	84	690
PWR302	5	15	67	690
PWR303	5	± 5	± 100	690
PWR304	5	± 12	± 42	690
PWR305	5	± 15	± 34	690
PWR306	12	5	200	265
PWR307	12	12	84	265
PWR308	12	15	67	265
PWR309	12	± 5	± 100	265
PWR310	12	± 12	± 42	265
PWR311	12	± 15	± 34	265
PWR312	15	5	200	205
PWR313	15	12	84	205
PWR314	15	15	67	205
PWR315	15	± 5	± 100	205
PWR316	15	± 12	± 42	205
PWR317	15	± 15	± 34	205
PWR318	24	5	200	130
PWR319	24	12	84	130
PWR320	24	15	67	130
PWR321	24	± 5	± 100	130
PWR322	24	± 12	± 42	130
PWR323	24	± 15	± 34	130
PWR324	28	5	200	115
PWR325	28	12	84	115
PWR326	28	15	67	115
PWR327	28	± 5	± 100	115
PWR328	28	± 12	± 42	115
PWR329	28	± 15	± 34	115
PWR330	48	5	200	70
PWR331	48	12	84	70
PWR332	48	15	67	70
PWR333	48	± 5	± 100	70
PWR334	48	± 12	± 42	70
PWR335	48	± 15	± 34	70

NOTE: Other input to output voltage options may be available. Please consult factory.

COMMON SPECIFICATIONS

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

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
INPUT Voltage Range Input Ripple Current	$I_{LOAD} = \text{Rated Load}$		30	$\pm 20\%$ of Rated Input	mAp-p
ISOLATION Rated Voltage Test Voltage Resistance Capacitance Leakage Current	Input to Output, Channel to Channel 60Hz, 60 seconds $V_{ISO} = 240\text{VAC}$	1000 3000	10 25	10	VDC Vpk GΩ pF μA
OUTPUT Voltage Setpoint Accuracy Voltage Ripple Voltage Line Regulation	Rated Load, Nominal V_{IN} No Load, $V_{OUT} = 5\text{V Models}$ No Load, $V_{OUT} = 12\text{V Models}$ No Load, $V_{OUT} = 15\text{V Models}$ No Load, $I_{LOAD} = \text{Rated Load}$		50 1	± 5 7 15 18	% VDC VDC VDC mV, p-p %/%
TEMPERATURE Specification Operation Storage		-25 -40 -40	+25	+85 +100 +110	$^\circ\text{C}$ $^\circ\text{C}$ $^\circ\text{C}$
GENERAL Switching Frequency Package Weight			200 16		kHz g