

6 Watt DPZ Single and Dual Series

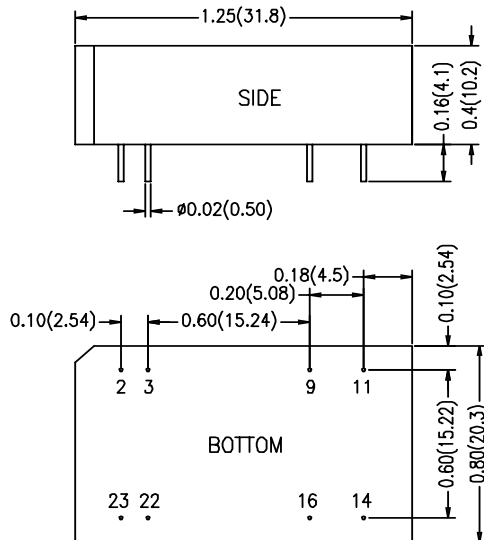


- Efficiency up to 84%
- 3000VDC Isolation
- MTBF > 1,000,000 Hours
- 4:1 Input Range
- RoHS Compliant



Model Number	Voltage			Current			Reflected Ripple	Input Overvoltage (1000ms)	Efficiency	Capacitive Load
	Input		Output	Input		Output				
	Nom. (VDC)	Range (VDC)	(VDC)	@ No Load (mA)	@ Max Load (mA)	Max (mA)				
DPZ4K24S3	24	9-36	3.3	20	214	1200	20	50	77	470 μ F
DPZ6K24S5	24	9-36	5	20	313	1200	20	50	80	470 μ F
DPZ6K24S12	24	9-36	12	20	298	500	20	50	84	100 μ F
DPZ6K24S15	24	9-36	15	20	298	400	20	50	84	100 μ F
DPZ6K24S24	24	9-36	24	20	298	250	20	50	84	47 μ F
DPZ6K24D5	24	9-36	\pm 5	20	260	\pm 500	20	50	80	100 μ F
DPZ6K24D12	24	9-36	\pm 12	20	298	\pm 250	20	50	84	100 μ F
DPZ6K24D15	24	9-36	\pm 15	20	298	\pm 200	20	50	84	100 μ F
DPZ4K48S3	48	18-75	3.3	10	107	1200	15	100	77	470 μ F
DPZ6K48S5	48	18-75	5	10	156	1200	15	100	80	470 μ F
DPZ6K48S12	48	18-75	12	10	149	500	15	100	84	100 μ F
DPZ6K48S15	48	18-75	15	10	149	400	15	100	84	100 μ F
DPZ6K48S24	48	18-75	24	10	149	250	15	100	84	47 μ F
DPZ6K48D5	48	18-75	\pm 5	10	130	\pm 500	15	100	80	100 μ F
DPZ6K48D12	48	18-75	\pm 12	10	149	\pm 250	15	100	84	100 μ F
DPZ6K48D15	48	18-75	\pm 15	10	149	\pm 200	15	100	84	100 μ F

Dimensions are inches (mm) unless noted



	Inches	Millimeters
	X.XX \pm 0.01	X.X \pm 0.25
	X.XXX \pm 0.005	X.XX \pm 0.13
Pin	\pm 0.002	\pm 0.05

Pin Connections (NC) Not Connected		
Pin	Single	Dual
2	-Vin	-Vin
3	-Vin	-Vin
9	No Pin	Common
11	NC	-Vout
14	+Vout	+Vout
16	-Vout	Common
22	+Vin	+Vin
23	+Vin	+Vin

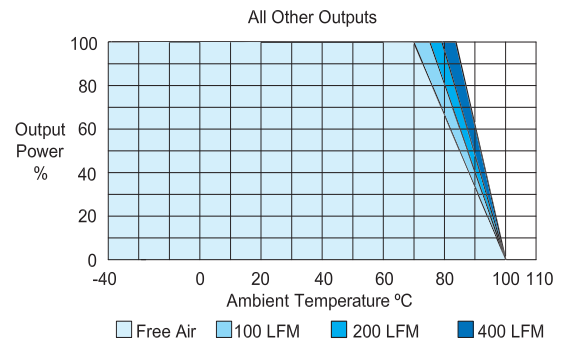
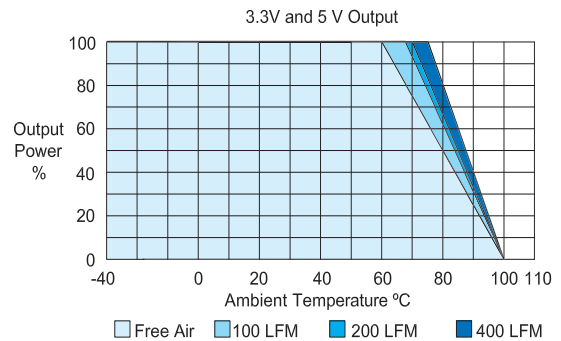
See Model Selection Table for Model Specific Parameters

Input Parameters	Min	Typ	Max	Units	
Short Circuit Input Power			3000	mW	
Start Voltage	24 Vin 48 Vin	7 14	8 16	9 18	VDC
Under Voltage Shutdown	24 Vin 48 Vin		8.5 16	VDC	
Switching Frequency		330		kHz	
Input Filter Conducted EMI	Meets EN55022, Class A and FCC Part 15, Class A				
Output Parameters	Min	Typ	Max	Units	
Output Voltage Accuracy 50% Load Nom. V_{IN}		±1.0	±2.0	%	
Output Voltage Balance Dual Output, Balanced Loads		±1.0	±2.0	%	
Load Regulation $I_o = 10\%$ to 100%		±0.6	±1.2	%	
Line Regulation $V_{in} = \text{Min. to Max.}$		±0.1	±0.5	%	
Ripple & Noise (20MHz)		50	80	mV P-P	
Over Power Protection	110	150		%	
Transient Recovery Time 25% Load Step Change		300	600	µs	
Transient Response Deviation, 25% Load Step Change		±3		%	
Temperature Coefficient		±0.01	±0.02	% / °C	
Short Circuit Protection	Continuous				
General Specifications	Min	Typ	Max	Units	
Isolation Voltage, 60 seconds	3000			VDC	
Isolation Resistance 500VDC	1000			Mohms	
Isolation Capacitance, 100kHz, 1V		1000		pF	
Operating Temperature (Ambient)	-40		+85	°C	
Case Temperature			+100	°C	
Storage Temperature	-50		+125	°C	
Humidity			95	%	
MTBF MIL-HDBK-217F @25°C, Ground Benign	800			K Hours	
Cooling	Free-Air Convection				
Case Size	1.25 x 0.80 x 0.40 inches 31.8 x 20.3 x 10.2 mm				
Case Material	Non Conductive Black Plastic (UL94V-0)				
Weight	12.7g				
Agency Approvals	CSA 60950-1				

Notes:

- Specifications typical at $T_a = +25^\circ\text{C}$, resistive load, nominal input voltage, full rated output current unless otherwise noted.
- Transient recovery time is measured to within 1% error band for a step change in output load 50% to 100%.
- ConTech power converters require a minimum output loading to maintain specified regulation. Operation under no-load conditions will not damage these modules; however, they may not meet all specifications listed.
- The series has a limitation of a maximum connected capacitance at the output. The power module may be operated in current limiting mode during start-up, affecting the ramp-up and the startup time.
- When measuring peak-to-peak output noise, use a Cout 0.47µF ceramic capacitor. Scope measurement should be made by using a BNC socket, measurement bandwidth is 0-20MHz. Position the load between 2" and 2.5" from the converter.
- Water washability - ConTech DC/DC converters are designed to withstand most solder/wash processes. Careful attention should be used when assessing the applicability in your specific manufacturing process. Converters are not hermetically sealed.
- See ConTech website for Definition of Terms, Application Notes, and Test Setups and Parameters. www.contech-us.com/appnotes.html.
- Specifications subject to change without notice.
- See ConTech website www.contech-us.com/pdf/rohs.pdf for RoHS Statement.

Derating Curve



To avoid exceeding the maximum temperature rating of the components inside the power module, the case temperature must be kept below 100°C.

Input Fuse Selection Table	
24V Input	1500 mA Slow-Blow
48V Input	800 mA Slow-Blow

External fusing should be used for system protection due to a catastrophic failure. See ConTech website for Fusing Application Notes to determine the correct fuse.

