

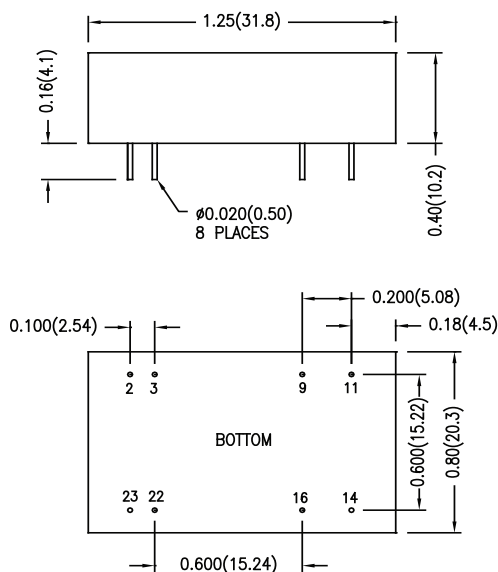
5-6 Watt DPJ Single and Dual Series



- Efficiency up to 86%
- 1500VDC Isolation
- MTBF > 1,000,000 Hours
- 2:1 Input Range
- Short Circuit Protection
- CSA60950 Approved
- 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)	Min (mA)	Max (mA)	Typ (mA)	Max (VDC)	@ Max Load (%, Typ)	Max (Dual each output)
DPJ4H12S3R3	12	9-18	3.3	20	429	60	1200	25	25	77	6800 μF
DPJ5H12S5	12	9-18	5	20	514	50	1000	25	25	81	6800 μF
DPJ6H12S12	12	9-18	12	20	595	25	500	25	25	84	6800 μF
DPJ6H12D12	12	9-18	±12	20	595	±12.5	±250	25	25	84	1000 μF
DPJ6H12D15	12	9-18	±15	20	595	±10	±200	25	25	84	1000 μF
DPJ4H24S3R3	24	18-36	3.3	5	209	60	1200	15	50	79	6800 μF
DPJ5H24S5	24	18-36	5	5	251	50	1000	15	50	83	6800 μF
DPJ6H24S12	24	18-36	12	5	291	25	500	15	50	86	6800 μF
DPJ6H24D12	24	18-36	±12	5	291	±12.5	±250	15	50	86	1000 μF
DPJ6H24D15	24	18-36	±15	5	291	±10	±200	15	50	86	1000 μF



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

Dimensions are inches (mm) unless noted

Tolerance: Inches Millimeters

X.XX ± 0.01 X.X ± 0.25

X.XXX ± 0.005 X.XX ± 0.13

Pin ± 0.002 ± 0.05

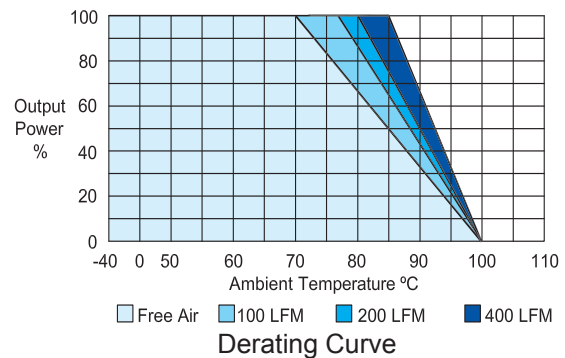


See Model Selection Table for Model Specific Parameters

Input Parameters	Min	Typ	Max	Units
Reverse Polarity Input Current			1	A
Short Circuit Input Power		1000	3000	mW
Start Voltage 12 Vin 24 Vin	4.5 8	6 12	8 16	VDC
Under Voltage Shutdown 12 Vin 24 Vin			8 16	VDC
Switching Frequency		300		kHz
Input Filter	Pi Filter			
Output Parameters	Min	Typ	Max	Units
Output Voltage Accuracy		±0.5	±1.0	%
Output Voltage Balance Dual Output, Balanced Loads		±0.5	±2.0	%
Load Regulation Io = 20% to 100%		±0.3	±1.0	%
Line Regulation Vin=Min. to Max.		±0.1	±0.3	%
Ripple & Noise (20MHz)		50	75	mV P-P
Ripple & Noise (20 MHz) Over Line, Load & Temp			100	mV P-P
Ripple & Noise (20 MHz)			15	mV RMS
Over Power Protection	120			%
Transient Recovery Time 25% Load Step Change		150	300	µs
Transient Response Deviation, 25% Load Step Change		±2	±6	%
Temperature Coefficient		±0.01	±0.02	% / °C
Short Circuit Protection	Continuous			
General Specifications	Min	Typ	Max	Units
Isolation Voltage, 60 seconds	1500			VDC
Isolation Resistance 500VDC	1000			Mohms
Isolation Capacitance, 100kHz, 1V		380	500	pF
Operating Temperature (Ambient)	-40		+71	°C
Storage Temperature	-40		+125	°C
Humidity			95	%
MTBF MIL-HDBK-217F @25°C, Ground Benign	1000			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	16.9g			
Agency Approval	CSA60950 Approved			

Notes:

- Specifications typical at Ta=+25°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 75% 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

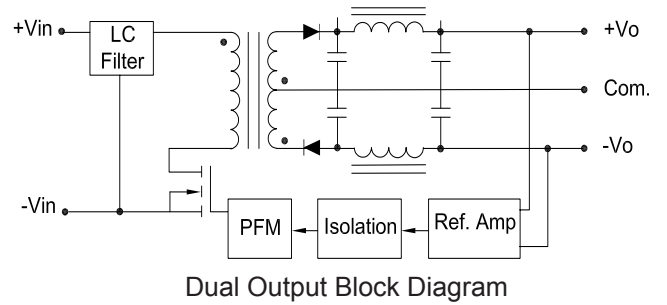
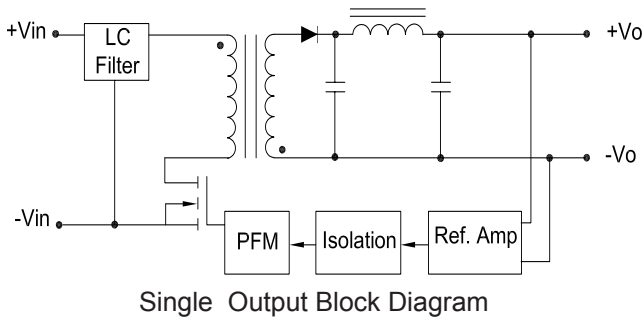
To avoid exceeding the maximum temperature rating of the components inside the power module, the case temperature must be kept below 90°C.

Input Fuse Selection Table	
12V Input	1500 mA Slow-Blow
24V Input	700 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.

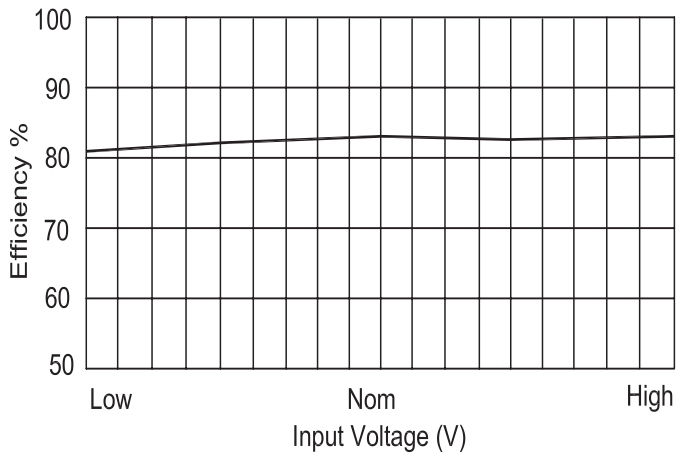


Block Diagrams

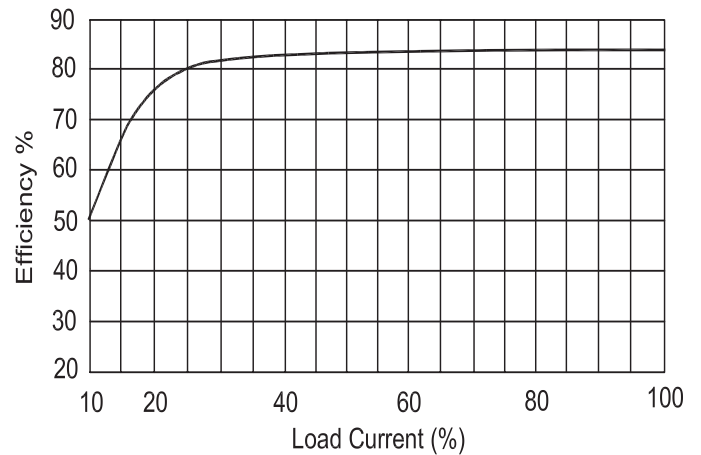


Efficiency Curves

Single Output

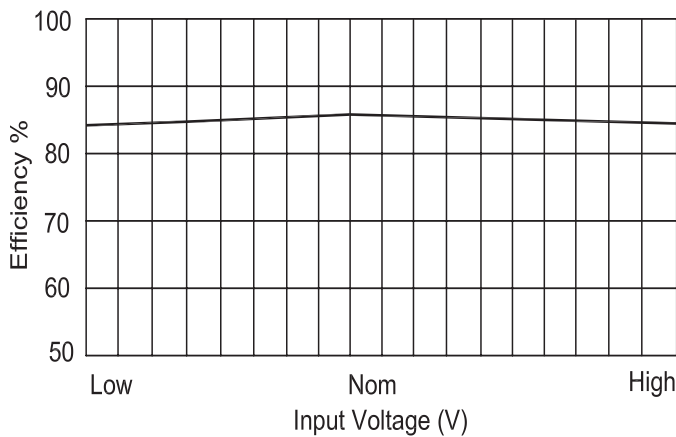


Efficiency vs Input Voltage

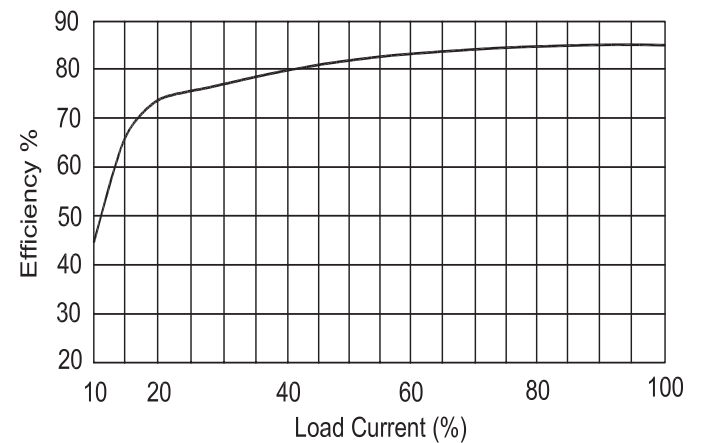


Efficiency vs Output Load

Dual Output



Efficiency vs Input Voltage



Efficiency vs Output Load

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