



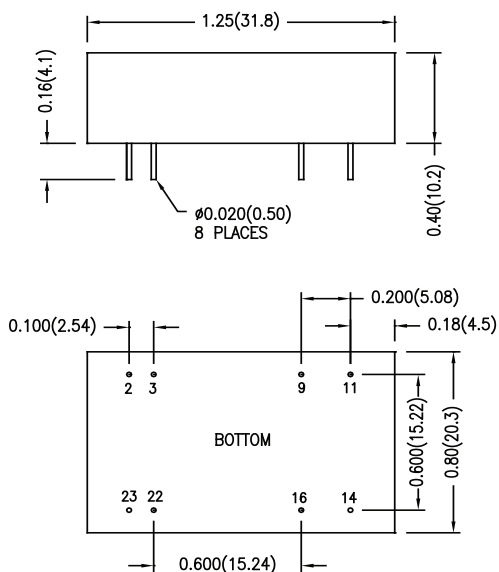
- Efficiency up to 86%
- 1500VDC Isolation
- MTBF > 1,000,000 Hours
- 2:1 Input Range
- Short Circuit Protection
- CSA60950 Approved
- RoHS Compliant



## 5-6 Watt DPJ Single and Dual Series



Model Number	Voltage		Current				Reflected Ripple	Input Overvoltage (1000ms)	Efficiency	Capacitive Load	
	Input		Output		Output						
	Nom. (VDC)	Range (VDC)	(VDC)	@ No Load (mA)	@ Max Load (mA)	Min (mA)					Max (mA)
DPJ4H12S3R3	12	9-18	3.3	20	429	60	1200	25	25	77	6800 $\mu$ F
DPJ5H12S5	12	9-18	5	20	514	50	1000	25	25	81	6800 $\mu$ F
DPJ6H12S12	12	9-18	12	20	595	25	500	25	25	84	6800 $\mu$ F
DPJ6H12D12	12	9-18	$\pm 12$	20	595	$\pm 12.5$	$\pm 250$	25	25	84	1000 $\mu$ F
DPJ6H12D15	12	9-18	$\pm 15$	20	595	$\pm 10$	$\pm 200$	25	25	84	1000 $\mu$ F
DPJ4H24S3R3	24	18-36	3.3	5	209	60	1200	15	50	79	6800 $\mu$ F
DPJ5H24S5	24	18-36	5	5	251	50	1000	15	50	83	6800 $\mu$ F
DPJ6H24S12	24	18-36	12	5	291	25	500	15	50	86	6800 $\mu$ F
DPJ6H24D12	24	18-36	$\pm 12$	5	291	$\pm 12.5$	$\pm 250$	15	50	86	1000 $\mu$ F
DPJ6H24D15	24	18-36	$\pm 15$	5	291	$\pm 10$	$\pm 200$	15	50	86	1000 $\mu$ F



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

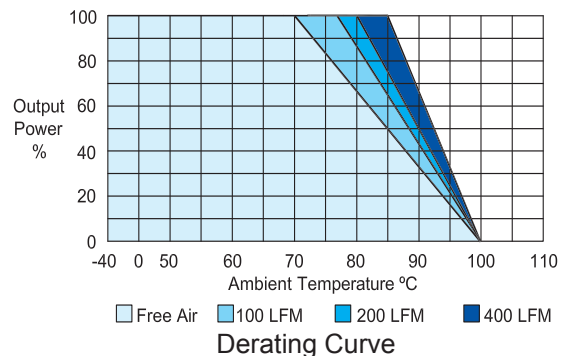
Tolerance: Inches	Millimeters
X.XX $\pm 0.01$	X.X $\pm 0.25$
X.XXX $\pm 0.005$	X.XX $\pm 0.13$
Pin $\pm 0.002$	$\pm 0.05$

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](http://www.ConTech-us.com/appnotes.html)
- Specifications subject to change without notice.
- See ConTech website [www.ConTech-us.com/pdf/rohs.pdf](http://www.ConTech-us.com/pdf/rohs.pdf) for RoHS Statement.

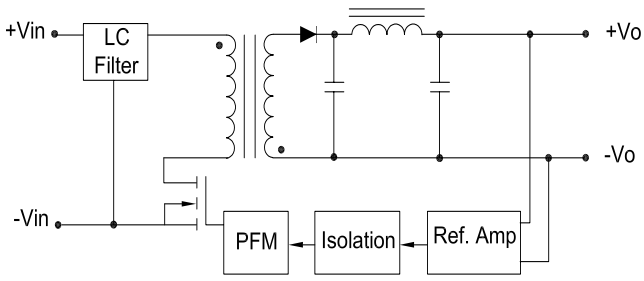


To avoid exceeding the maximum temperature rating of the components inside the power module, the case temperature must be kept below 90°C.

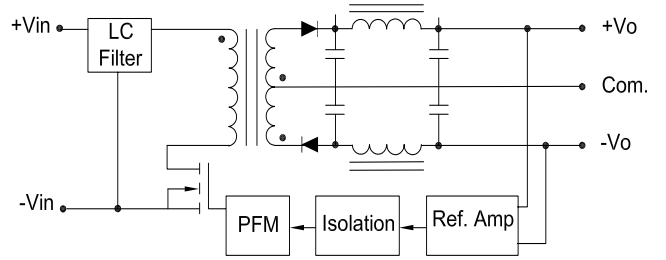
Input Fuse Selection Table	
12V Input	1500 mA Slow-Blow
24V Input	700 mA Slow-Blow

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



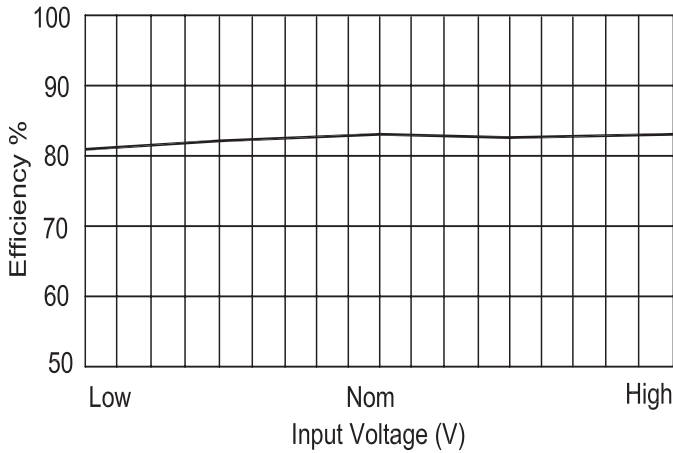
Single Output Block Diagram



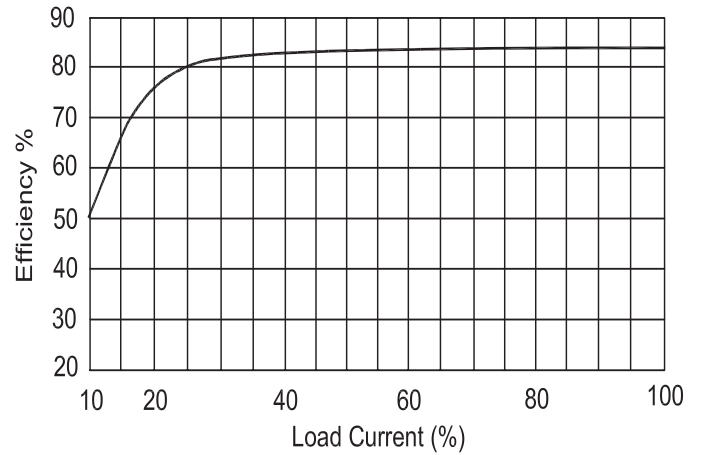
Dual Output Block Diagram

# Efficiency Curves

## Single Output

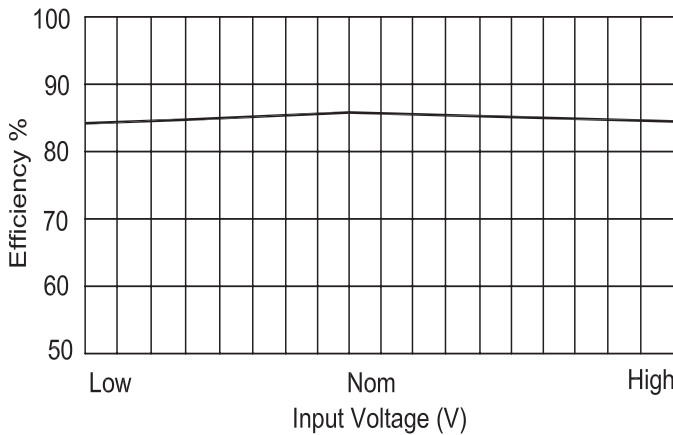


Efficiency vs Input Voltage

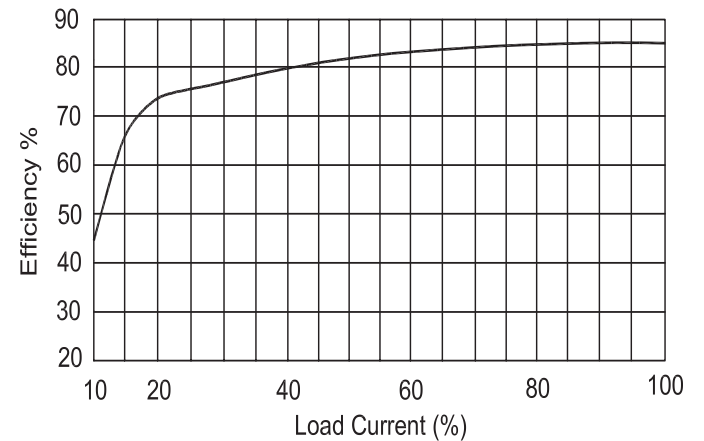


Efficiency vs Output Load

## Dual Output



Efficiency vs Input Voltage



Efficiency vs Output Load