

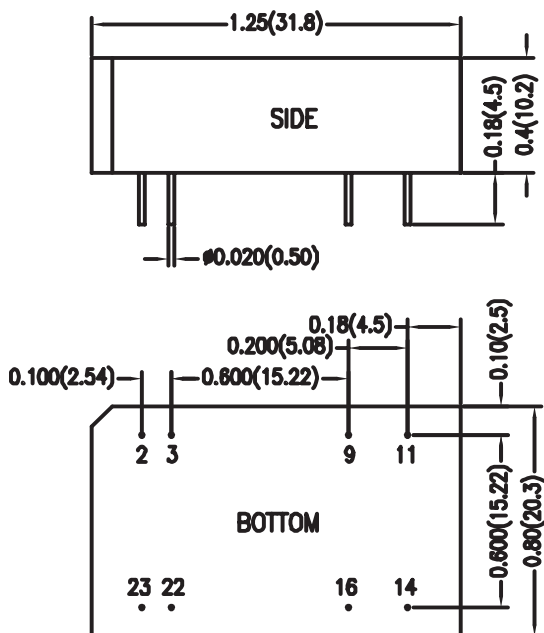
- Efficiency up to 84%
- 1500VDC Isolation
- MTBF > 1,000,000 Hours
- 4:1 Input Range
- Short Circuit Protection
- CSA 60950 Approved
- RoHS Compliant



2-3 Watt DPF Single and Dual Series



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)
DPF2R5H24S3R3	24	9-36	3.3	20	138	93	750	15	50	75	680 μF
DPF3H24S5	24	9-36	5	20	158	75	600	15	50	79	470 μF
DPF3H24S12	24	9-36	12	20	154	32	250	15	50	81	330 μF
DPF3H24S15	24	9-36	15	20	152	25	200	15	50	82	220 μF
DPF3H24D12	24	9-36	±12	20	156	±16	±125	15	50	80	150 μF
DPF3H24D15	24	9-36	±15	20	156	±13	±100	15	50	80	100 μF
DPF2R5H48S3R3	48	18-75	3.3	10	68	93	750	10	100	76	680 μF
DPF3H48S5	48	18-75	5	10	78	75	600	10	100	80	470 μF
DPF3H48S12	48	18-75	12	10	75	32	250	10	100	83	330 μF
DPF3H48S15	48	18-75	15	10	74	25	200	10	100	84	220 μF
DPF3H48D12	48	18-75	±12	10	76	±16	±125	10	100	82	150 μF
DPF3H48D15	48	18-75	±15	10	76	±13	±100	10	100	82	100 μF



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

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

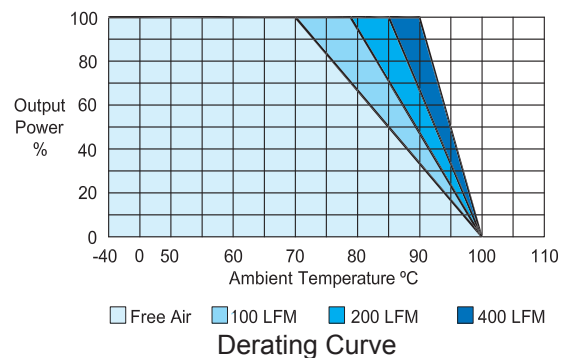


See Model Selection Table for Model Specific Parameters

Input Parameters		Min	Typ	Max	Units
Reverse Polarity Input Current				0.5	A
Short Circuit Input Power				2000	mW
Start Voltage	24 Vin 48 Vin	6 12	7.5 15	9 16	VDC
Under Voltage Shutdown	24 Vin 48 Vin			8.5 16	VDC
Switching Frequency			350		kHz
Input Filter		Pi Filter			
Output Parameters		Min	Typ	Max	Units
Output Voltage Accuracy			±0.5	±2.0	%
Output Voltage Balance Dual Output, Balanced Loads			±0.5	±3.0	%
Load Regulation Io = Min. to Max.			±0.3	±1.0	%
Line Regulation Vin=Min. to Max.			±0.2	±1.0	%
Ripple & Noise (20MHz)			40	75	mV P-P
Ripple & Noise (20 MHz) Over Line, Load & Temp				150	mV P-P
Ripple & Noise (20 MHz)				15	mV RMS
Over Power Protection		110			%
Transient Recovery Time 25% Load Step Change			150	500	µs
Transient Response Deviation, 25% Load Step Change			±2		%
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		12.2g			
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/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.

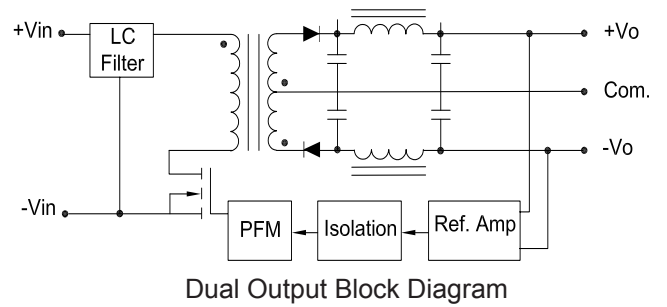
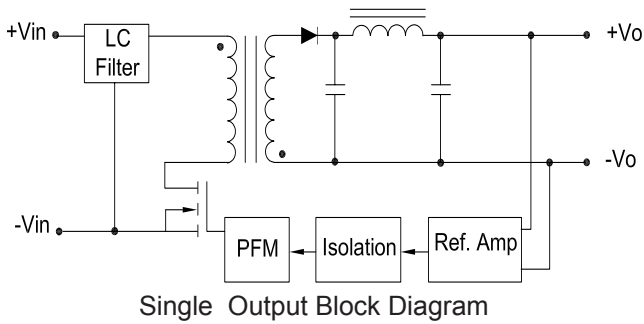
Input Fuse Selection Table

24V Input	1000 mA Slow-Blow
48V Input	500 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.

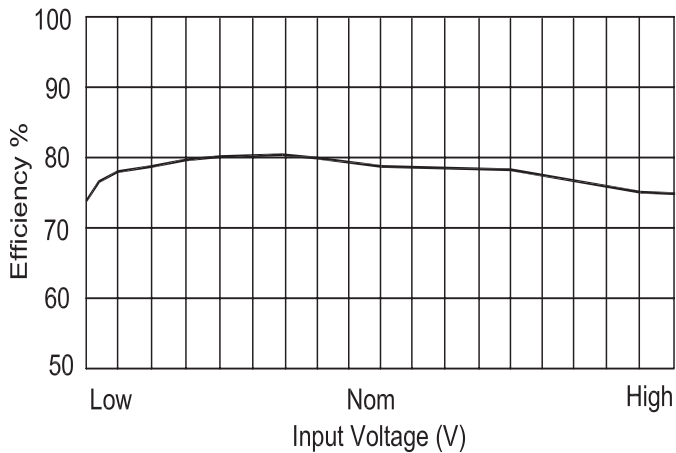


Block Diagrams

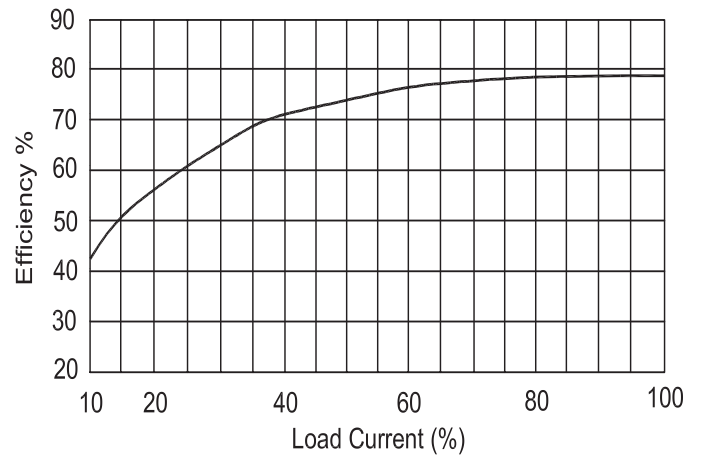


Efficiency Curves

Single Output

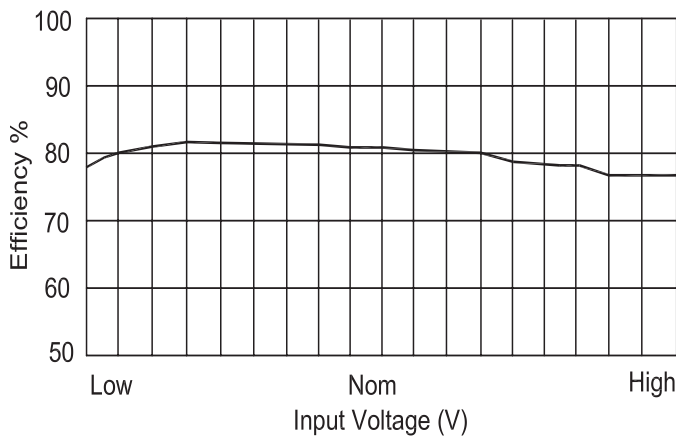


Efficiency vs Input Voltage

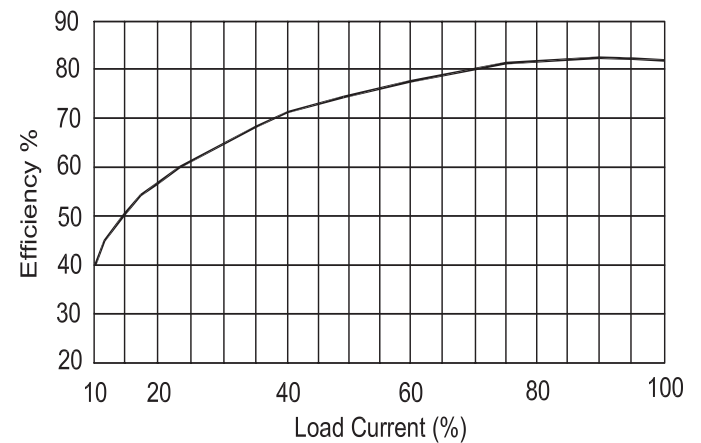


Efficiency vs Output Load

Dual Output



Efficiency vs Input Voltage



Efficiency vs Output Load

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