



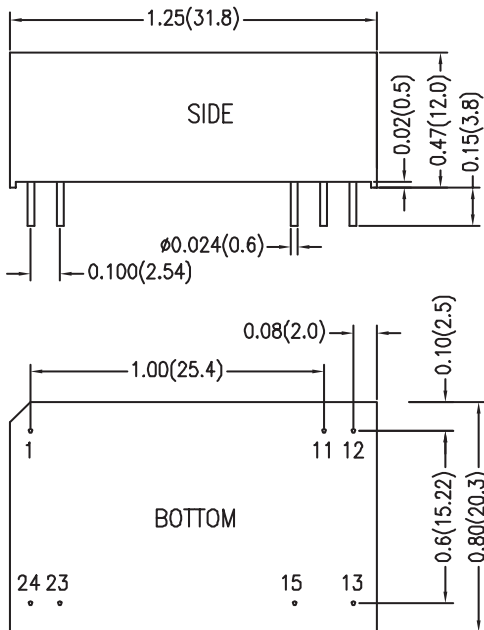
- Efficiency up to 80%
- 4000 VAC Isolation
- 5600 VDC Isolation
- MTBF > 700,000 Hours
- 2:1 Input Range
- Low Leakage Current
- Low Isolation Capacitance
- UL60950 and UL60601 Approved
- RoHS Compliant



5-6 Watt DPL Single and Dual Series



Model Number	Voltage		Current				Reflected Ripple	Under Voltage Shutdown	Input Overvoltage (1000ms)	Efficiency	Capacitive Load	
	Input		Input		Output							
	Nom. (VDC)	Range (VDC)	@ No Load (mA)	@ Max Load (mA)	Min (mA)	Max (mA)						Typ (mA)
DPL5L12S5	12	9-18	5	30	570	200	1000	60	8.5	25	75	1000 μ F
DPL6L12S12	12	9-18	12	30	641	100	500	60	8.5	25	78	470 μ F
DPL6L12D12	12	9-18	\pm 12	30	641	\pm 50	\pm 250	60	8.5	25	78	220 μ F
DPL6L12D15	12	9-18	\pm 15	30	641	\pm 40	\pm 200	60	8.5	25	78	220 μ F
DPL5L24S5	24	18-36	5	20	278	200	1000	30	16	50	77	1000 μ F
DPL6L24S12	24	18-36	12	20	313	100	500	30	16	50	80	470 μ F
DPL6L24D12	24	18-36	\pm 12	20	313	\pm 50	\pm 250	30	16	50	80	220 μ F
DPL6L24D15	24	18-36	\pm 15	20	313	\pm 40	\pm 200	30	16	50	80	220 μ F
DPL5L48S5	48	36-75	5	10	139	200	1000	15	34	100	77	1000 μ F
DPL6L48S12	48	36-75	12	10	156	100	500	15	34	100	80	470 μ F
DPL6L48D12	48	36-75	\pm 12	10	156	\pm 50	\pm 250	15	34	100	80	220 μ F
DPL6L48D15	48	36-75	\pm 15	10	156	\pm 40	\pm 200	15	34	100	80	220 μ F



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

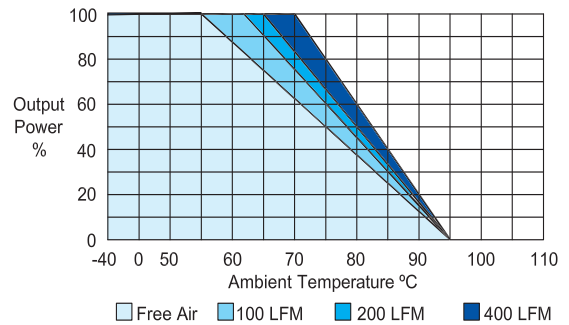
Pin Connections (NC) Not Connected		
Pin	Single	Dual
1	+Vin	+Vin
11	No Pin	Common
12	-Vout	No Pin
13	+Vout	-Vout
15	No Pin	+Vout
23	-Vin	-Vin
24	-Vin	-Vin

See Model Selection Table for Model Specific Parameters

Input Parameters	Min	Typ	Max	Units	
Short Circuit Input Power			3000	mW	
Start Voltage	12 Vin 24 Vin 48 Vin	7 13 30	8 15 33	9 18 36	VDC
Under Voltage Shutdown	12 Vin 24 Vin 48 Vin			8.5 16 34	VDC
Switching Frequency		150		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 = 100% to 25%		±0.5	±1.0	%	
Line Regulation Vin=Min. to Max.		±0.3	±0.5	%	
Ripple & Noise (20MHz) 5V Output Models 12V, ±12V, ±15V Models		75 100	100 150	mV P-P	
Ripple & Noise (20 MHz) Over Line, Load & Temp			180	mV P-P	
Ripple & Noise (20 MHz)			25	mV RMS	
Over Power Protection	120			%	
Transient Recovery Time 25% Load Step Change		300	500	µs	
Transient Response Deviation, 25% Load Step Change		±3	±6	%	
Temperature Coefficient		±0.02	±0.05	% / °C	
Short Circuit Protection	Continuous				
General Specifications	Min	Typ	Max	Units	
Isolation Voltage, 60 seconds	4000			VAC	
Isolation Voltage, 60 seconds	5600			VDC	
Isolation Resistance 500VDC	1000			Mohms	
Isolation Capacitance, 100kHz, 1V		7	13	pF	
Leakage Current 240VAC, 60 Hz			2	µA	
Operating Temperature (Ambient)	-40		+55	°C	
Storage Temperature	-40		+125	°C	
Humidity			95	%	
MTBF MIL-HDBK-217F @25°C, Ground Benign	700			K Hours	
Cooling	Free-Air Convection				
Case Size	1.25 x 0.80 x 0.47 inches 31.8 x 20.3 x 12.0 mm				
Case Material	Non Conductive Black Plastic (UL94V-0)				
Weight	18g				
Agency Approval	UL 60950 and UL60601 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

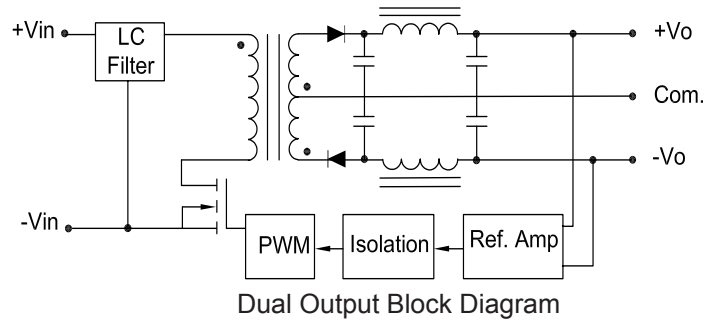
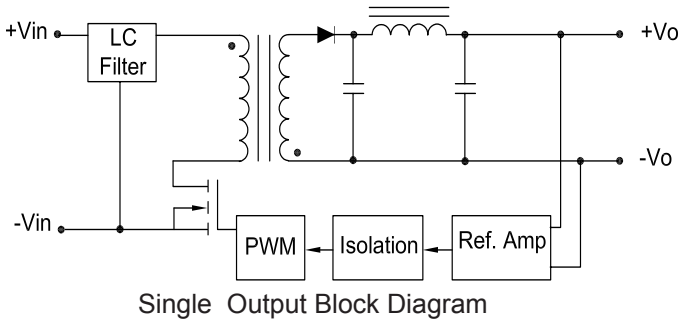
To avoid exceeding the maximum temperature rating of the components inside the power module, the case temperature must be kept below 90°C.

Input Fuse Selection Table	
12V Input	1200 mA Slow-Blow
24V Input	600 mA Slow-Blow
48V Input	300 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.

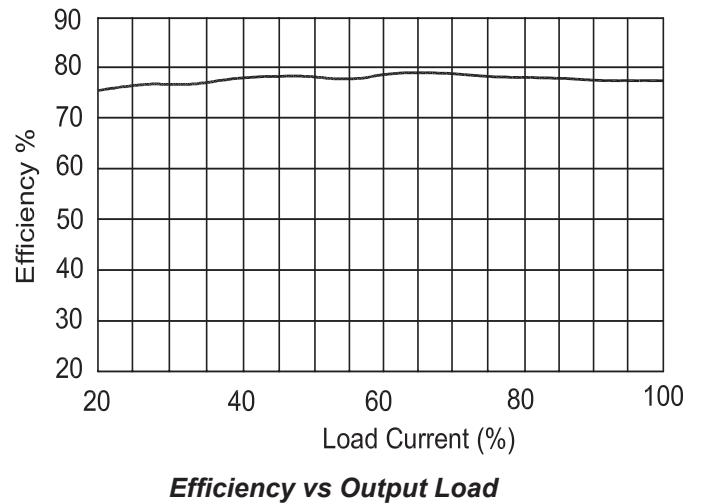
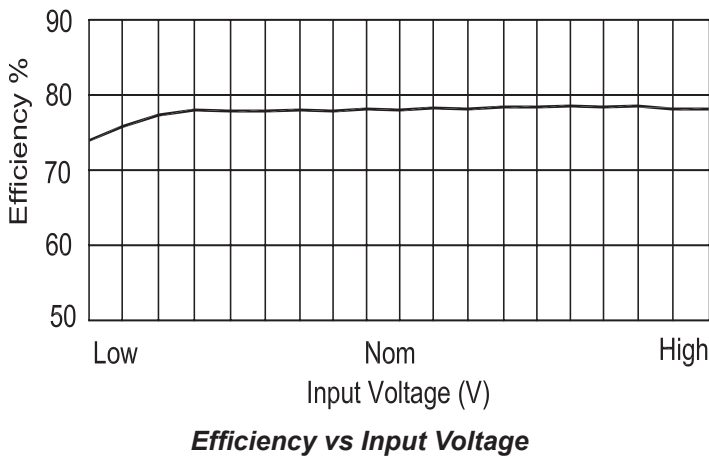


Block Diagrams



Efficiency Curves

Single Output



Dual Output

