



- Efficiency up to 88%
- 1500VDC Isolation
- MTBF > 1,000,000 Hours
- 2:1 Input Range
- Over Voltage Protection
- CSA60950 Approved
- RoHS Compliant

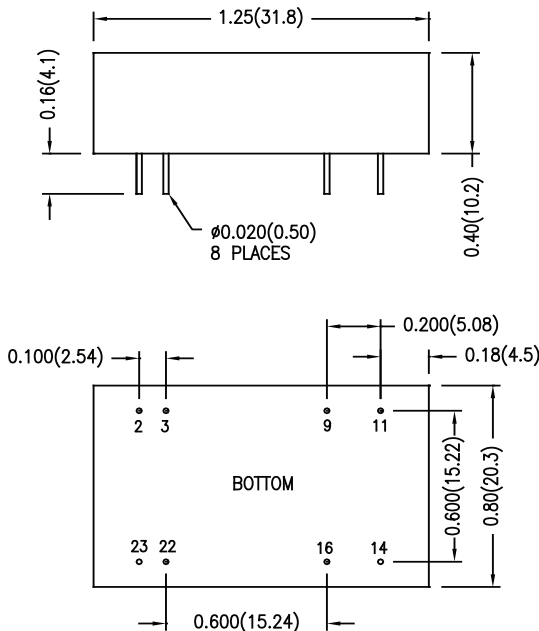


10 Watt DMS Single and Dual Series



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)				
*DMS10H12S3R3	12	9-18	3.3	40	1006	300	3000	60	25	82	2200 µF
*DMS10H12S5	12	9-18	5	40	1004	200	2000	60	25	83	2200 µF
*DMS10H12S5R1	12	9-18	5.1	40	1024	200	2000	60	25	83	2200 µF
*DMS10H12S12	12	9-18	12	40	957	83	833	60	25	87	820 µF
*DMS10H12S15	12	9-18	15	40	968	66.6	666	60	25	86	470 µF
*DMS10H12D12	12	9-18	±12	40	957	±42	±416	60	25	87	220 µF
*DMS10H12D15	12	9-18	±15	40	968	±33	±333	60	25	86	150 µF
DMS7R5H24S2R5	24	18-36	2.5	20	377	300	3000	40	50	83	2200 µF
DMS10H24S3R3	24	18-36	3.3	20	485	300	3000	40	50	85	2200 µF
DMS10H24S5	24	18-36	5	20	479	200	2000	40	50	87	2200 µF
DMS10H24S5R1	24	18-36	5.1	20	489	200	2000	40	50	87	2200 µF
DMS10H24S12	24	18-36	12	20	479	83	833	40	50	87	820 µF
*DMS10H24S15	24	18-36	15	20	478	66.6	666	40	50	87	470 µF
*DMS10H24D12	24	18-36	±12	20	473	±42	±416	40	50	88	220 µF
*DMS10H24D15	24	18-36	±15	20	478	±33	±333	40	50	87	150 µF
DMS7R5H48S2R5	48	36-75	2.5	10	188	300	3000	40	100	83	2200 µF
DMS10H48S3R3	48	36-75	3.3	10	243	300	3000	40	100	85	2200 µF
DMS10H48S5	48	36-75	5	10	239	200	2000	40	100	87	2200 µF
DMS10H48S5R1	48	36-75	5.1	10	244	200	2000	40	199	87	2200 µF
DMS10H48S12	48	36-75	12	10	240	83	833	40	100	87	820 µF
*DMS10H48S15	48	36-75	15	10	239	66.6	666	40	100	87	470 µF
*DMS10H48D12	48	36-75	±12	10	236	±42	±416	40	100	88	220 µF
*DMS10H48D15	48	36-75	±15	10	243	±33	±333	40	100	87	150 µF

* Models denoted with "*" are not CSA approved.



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

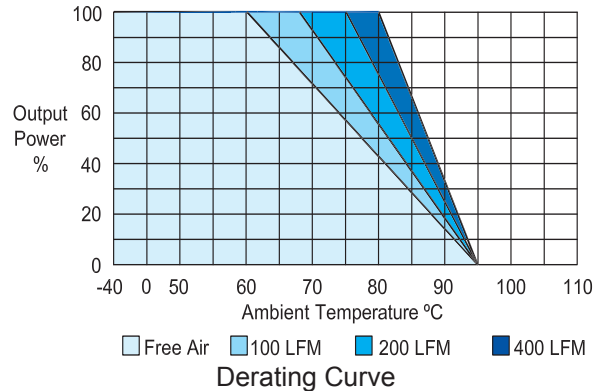


See Model Selection Table for Model Specific Parameters

Input Parameters	Min	Typ	Max	Units	
Reverse Polarity Input Current			1.5	A	
Short Circuit Input Power			2500	mW	
Start Voltage	12 Vin 24 Vin 48 Vin	7 14 30	8 16 33	9 18 36	VDC
Under Voltage Shutdown	12 Vin 24 Vin 48 Vin			8.5 17 34	VDC
Switching Frequency		400		kHz	
Input Filter	Pi Filter				
Output Parameters	Min	Typ	Max	Units	
Output Voltage Accuracy		±0.6	±1.2	%	
Output Voltage Balance Dual Output, Balanced Loads		±0.5	±2.0	%	
Load Regulation Io = 10% to 100% Io = 10% to 100% (2.5V only)		±0.5 ±0.7	±1.2 ±1.5	%	
Line Regulation Vin=Min. to Max.		±0.3	±1.0	%	
Ripple & Noise (20MHz)		50	85	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	110	150	180	%	
Transient Recovery Time 25% Load Step Change		250	500	µs	
Transient Response Deviation, 25% Load Step Change		±3	±5	%	
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		1000	1200	pF	
Operating Temperature (Ambient)	-40		+60	°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	Metal with Non-Conductive Baseplate UL94V-0				
Weight	17.3g				
Agency Approval	CSA60950 (see model selection table)				

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.



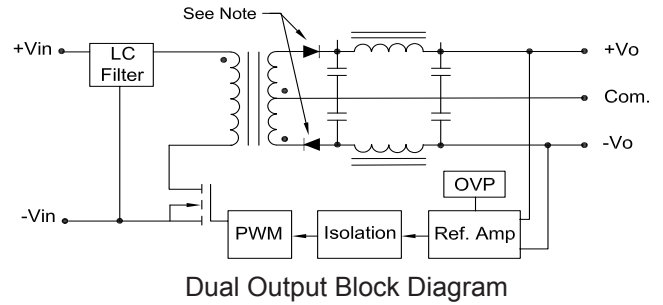
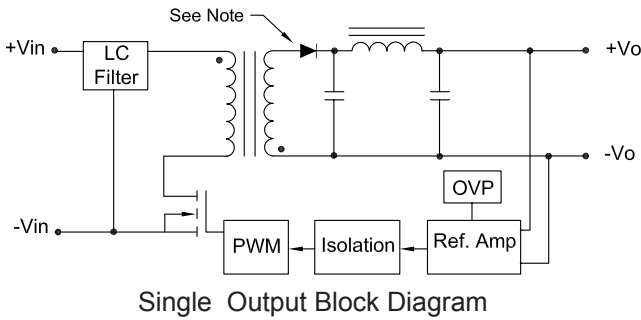
To avoid exceeding the maximum temperature rating of the components inside the power module, the case temperature must be kept below 90°C.

Input Fuse Selection Table	
12V Input	2000 mA Slow-Blow
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.



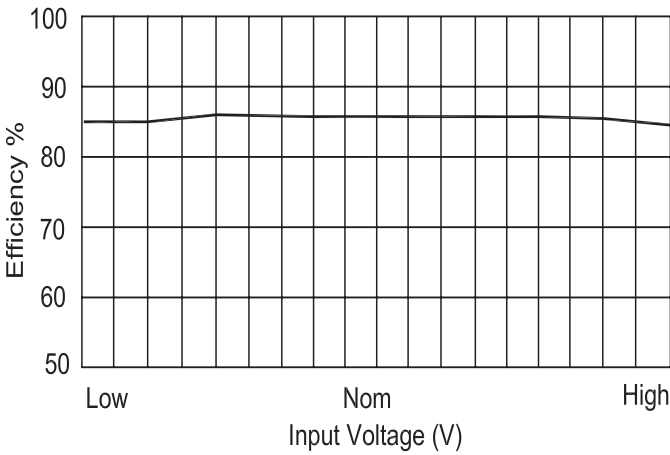
Block Diagrams



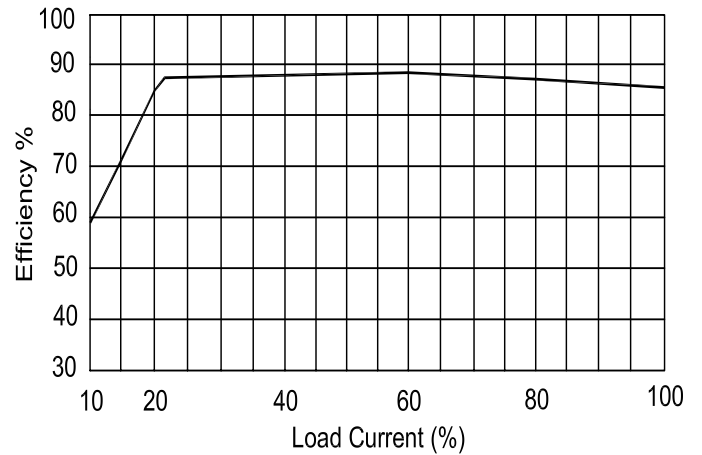
Note:
 2.5V, 3.3V, 5V, and 5.1V - output models use the synchronous-rectifier configuration shown above.
 12V, 15V, ±12V and ±15V - output models employ a standard, diode-rectification architecture.

Efficiency Curves

Single Output

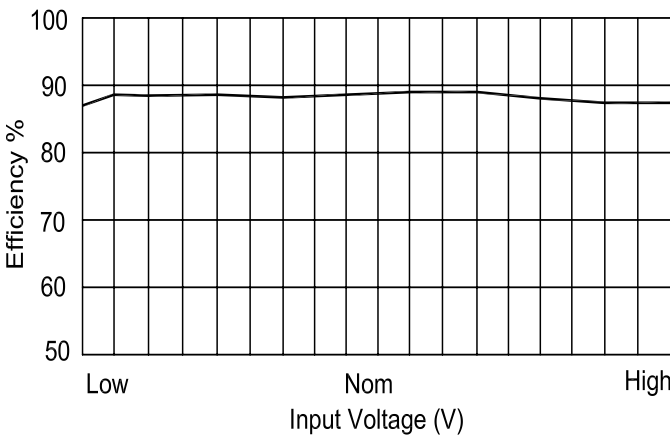


Efficiency vs Input Voltage

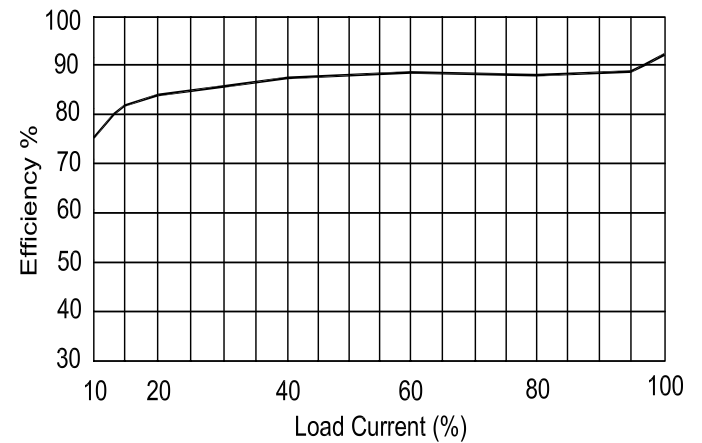


Efficiency vs Output Load

Dual Output



Efficiency vs Input Voltage



Efficiency vs Output Load

