

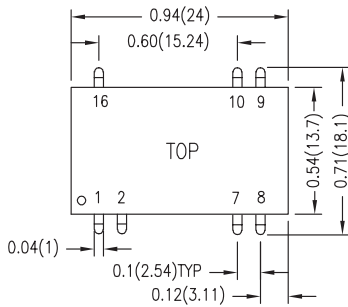
3 Watt SMU Single and Dual Series



- Efficiency up to 80%
- 1500VDC Isolation
- 4:1 Input Range
- Remote On/Off
- RoHS Compliant



Model Number	Voltage			Current				Efficiency	Capacitive Load
	Input		Output	Input		Output			
	Nom. (VDC)	Range (VDC)	(VDC)	@ No Load (mA)	@ Max Load (mA)	Min (mA)	Max (mA)		
SMU3H24S3R3	24	9 - 36	3.3	30	110	90	600	75	220 μ F
SMU3H24S5	24	9 - 36	5	30	160	90	600	78	220 μ F
SMU3H24S12	24	9 - 36	12	30	156	38	250	80	47 μ F
SMU3H24S15	24	9 - 36	15	30	156	30	200	80	47 μ F
SMU3H24S24	24	9 - 36	24	30	156	19	125	80	47 μ F
SMU3H24D5	24	9 - 36	± 5	30	162	± 45	± 300	77	47 μ F
SMU3H24D12	24	9 - 36	± 12	30	156	± 19	± 125	80	47 μ F
SMU3H24D15	24	9 - 36	± 15	30	156	± 15	± 100	80	47 μ F
SMU3H48S3R3	48	18 - 75	3.3	20	55	90	600	75	220 μ F
SMU3H48S5	48	18 - 75	5	20	80	90	600	78	220 μ F
SMU3H48S12	48	18 - 75	12	20	78	38	250	80	47 μ F
SMU3H48S15	48	18 - 75	15	20	78	30	200	80	47 μ F
SMU3H48S24	48	18 - 36	24	20	78	19	125	80	47 μ F
SMU3H48D5	48	18 - 75	± 5	20	81	± 45	± 300	77	47 μ F
SMU3H48D12	48	18 - 75	± 12	20	78	± 19	± 125	80	47 μ F
SMU3H48D15	48	18 - 75	± 15	20	78	± 15	± 100	80	47 μ F



Dimensions are inches (mm) unless noted

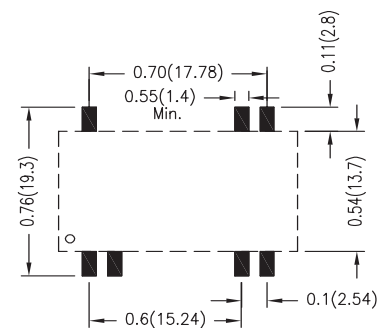
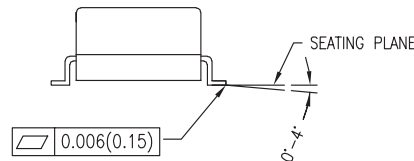
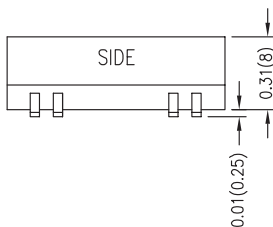
Tolerance: Inches Millimeters

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
1	-Vin	-Vin
2	Remote On/Off	Remote On/Off
7	NC	NC
8	NC	Common
9	+Vout	+Vout
10	-Vout	-Vout
16	+Vin	+Vin



Pad Footprint

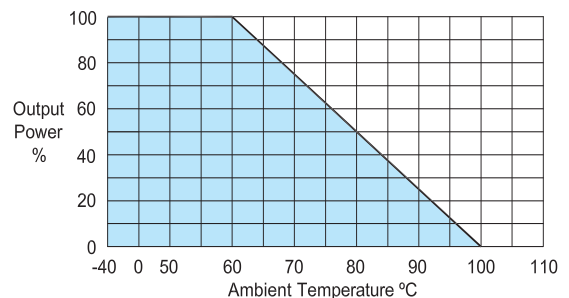
See Model Selection Table for Model Specific Parameters

Input Parameters	Min	Typ	Max	Units
Start Voltage 24V 48V	4.5 8.5	6 12	8.5 17	VDC
Under Voltage Shutdown 24V 48V			8 16	VDC
Reverse Polarity Input Current			1	A
Short Circuit Input Power			2000	mW
Switching Frequency		350		kHz
Input Filter	Pi Filter			
Output Parameters	Min	Typ	Max	Units
Output Voltage Accuracy		±1.0	±2.0	%
Output Voltage Balance Dual Output, Balanced Loads		±1.0	±2.0	%
Load Regulation I _o = 15% to 100%		±0.5	±1.2	%
Line Regulation V _{in} =Min. to Max.		±0.5	±1.0	%
Ripple & Noise (20MHz)		60	100	mV P-P
Ripple & Noise (20 MHz) Over Line, Load & Temp			150	mV P-P
Over Power Protection	110			%
Transient Recovery Time 25% Load Step Change		300	600	µS
Transient Response Deviation		±3		%
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		350	500	pF
Operating Temperature (Ambient)	-40		+60	°C
Operating Temperature (Case)	-40		+105	°C
Storage Temperature	-40		+125	°C
Humidity			95	%
MTBF MIL-HDBK-217F @25°C, Ground Benign	300			K Hours
Cooling	Free-Air Convection			
Case Size	0.94 x 0.54 x 0.31 inches 24.0 x 13.7 x 8.0 mm			
Case Material	Non Conductive Black Plastic (UL94V-0)			
Weight	4.2g			

Remote On/Off	Min	Typ	Max	Units
DC/DC On	2.5 - 5.5 VDC or Open Circuit			
DC/DC Off	-0.7 - 0.8 VDC			
Standby Input Current			5	mA
Control Input Current (on) V _{ctrl} = Min. to Max.			-400	µA
Control Input Current (off) V _{ctrl} = Min. to Max.			-400	µA
Control Common	Referenced to Negative Logic			

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.

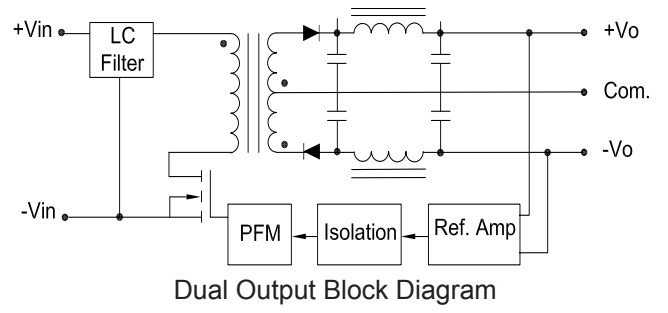
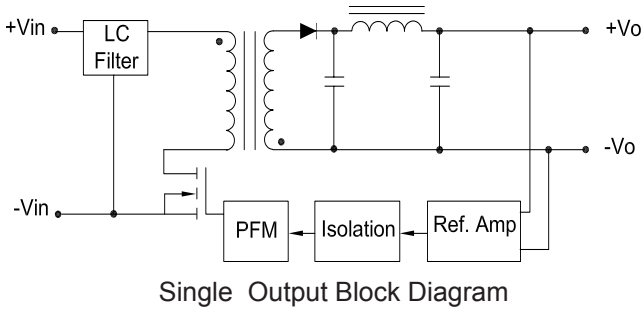


Derating Curve

To avoid exceeding the maximum temperature rating of the components inside the power module, the case temperature must be kept below 100°C.

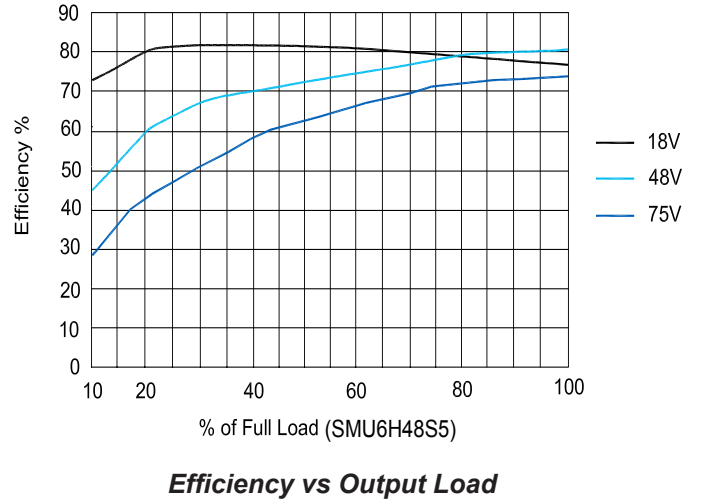
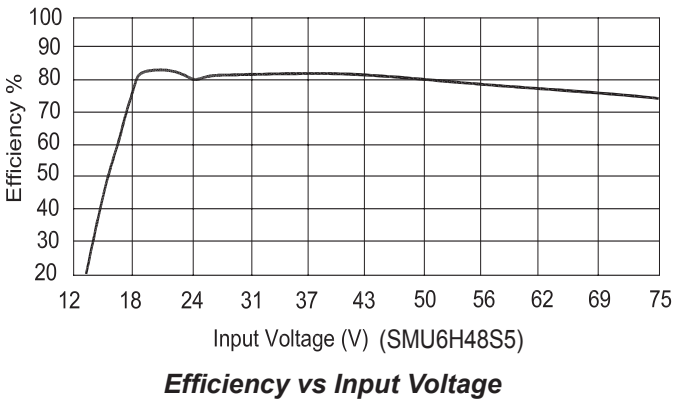


Block Diagrams



Efficiency Curves

Single Output



Dual Output

