



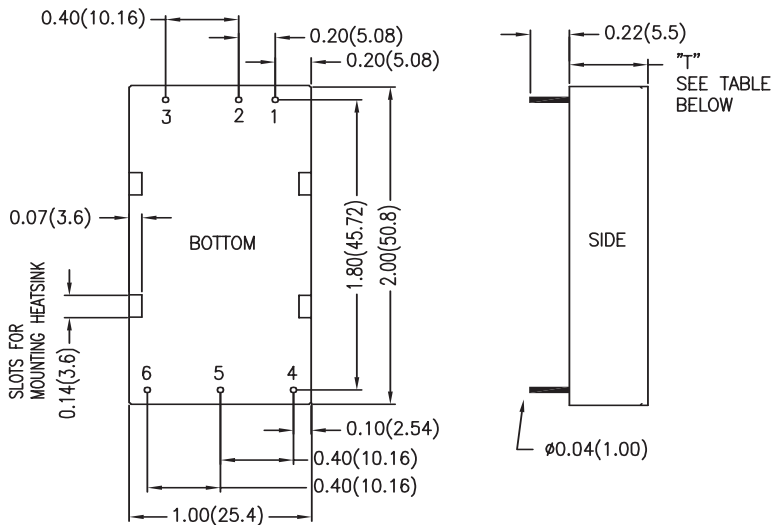
40 Watt TMF Single and Dual Series



- Efficiency up to 91%
- 1500VDC Isolation
- MTBF > 328,000 Hours
- 4:1 Wide Input
- Over Voltage Protection
- Short Circuit Protection
- Six Sided Shielding
- Remote On/Off Control
- RoHS Compliant
- CSA/UL Approved



Model Number	Voltage			Current				Reflected Ripple Current	Over Voltage Protection	Input Overvoltage (100ms)	Efficiency	Capacitive Load
	Input		Output	Input		Output						
	Nom. (VDC)	Range (VDC)	(VDC)	@ No Load (mA)	@ Max Load (mA)	Min (mA)	Max (mA)	Typ (mA)	(VDC)	Max (VDC)	@ Max Load (% Typ)	Max (Dual each output)
TMF26H24S3	24	9-36	3.3	90	1240	0	8000	30	3.9	50	89	21000µF
TMF40H24S5	24	9-36	5	90	1850	0	8000	30	6.2	50	90	13600µF
TMF40H24S12	24	9-36	12	95	1870	0	3330	30	15	50	89	2400µF
TMF40H24S15	24	9-36	15	105	1870	0	2670	30	18	50	89	1500µF
TMF40H24S24	24	9-36	24	115	1835	0	1670	30	30	50	91	600µF
TMF40H24D12	24	9-36	±12	65	1890	±145	±1670	30	±15	50	88	1200µF
TMF40H24D15	24	9-36	±15	65	1890	±110	±1330	30	±18	50	88	750µF
TMF26H48S3	48	18-75	3.3	55	620	0	8000	20	3.9	100	89	21000µF
TMF40H48S5	48	18-75	5	55	930	0	8000	20	6.2	100	90	13600µF
TMF40H48S12	48	18-75	12	60	930	0	3330	20	15	100	90	2400µF
TMF40H48S15	48	18-75	15	65	930	0	2670	20	18	100	90	1500µF
TMF40H48S24	48	18-75	24	75	918	0	1670	20	30	100	91	600µF
TMF40H48D12	48	18-75	±12	45	950	±145	±1670	20	±15	100	88	1200µF
TMF40H48D15	48	18-75	±15	45	950	±110	±1330	20	±18	100	88	750µF



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		
Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	Remote On/Off	Remote On/Off
4	+ Vout	+Vout
5	-Vout	Common
6	Trim	-Vout

CASE HEIGHT "T"	
0.43" (11.0mm)	TMF40H24S24 AND TMF40H48S24
0.40" (10.2mm)	ALL OTHER MODELS

See Model Selection Table for Model Specific Parameters

Input Parameters	Min	Typ	Max	Units
Start Voltage 24 Vin 48 Vin			9 18	VDC
Under Voltage Shutdown 24Vin 48 Vin		8.3 16.5		VDC
Switching Frequency 24Vo All other Models		285 320		kHz
Input Filter	LC Filter			
Output Parameters	Min	Typ	Max	Units
Output Voltage Accuracy			±1.0	%
Output Voltage Balance Dual Output, Balanced Loads			±2.0	%
Load Regulation Min. Load to Full Load	Single		±0.5	%
	Dual		±1.0	%
Load Cross Regulation (Dual Output) Asymmetrical Load 25% / 100% Full Load.			±5.0	%
Line Regulation Vin=Min. to Max.			±0.5	%
Ripple & Noise (20MHz) 3.3V & 5 V Models		100		mV P-P
Ripple & Noise (20 MHz) 12V, 15V & 24V Models		150		mV P-P
Ripple & Noise Dual Outputs Models		150		mV P-P
Over Load Protection Current Limitation of Iout max.		150		%
Transient Recovery Time 25% Load Step Change		250		µs
Temperature Coefficient			±0.02	% / °C
Short Circuit Protection	Hiccup Automatic Recovery			
General Specifications	Min	Typ	Max	Units
Isolation Voltage, 60 seconds	1500			VDC
Isolation Resistance 500VDC	1000			Mohms
Isolation Capacitance, 100kHz, 1V			1500	pF
Operating Temperature (Ambient)	-40		+80	°C
Operating Temperature (Case)			+105	°C
Storage Temperature	-50		+125	°C
Thermal Protection Shutdown Temperature		+110		°C
Thermal Impedance Natural Convection Natural Convection with heatsink	12.0			°C/W
	10.0			
Humidity			95	%
MTBF MIL-HDBK-217F @25°C, Ground Benign	328			K Hours
Cooling	Free-Air Convection			

Case Size TMF40H24S24 TMF40H48S24	2.0 x 1.0 x 0.43 inches 50.8 x 25.4 x 11.0 mm
All Other Models	2.0 x 1.0 x 0.43 inches 50.8 x 25.4 x 11.0 mm
Case Material	Six Sided Shielding Metal Case (UL94V-0)
Weight	30g
Agency Approval	CSA/UL 60950-1 Approved

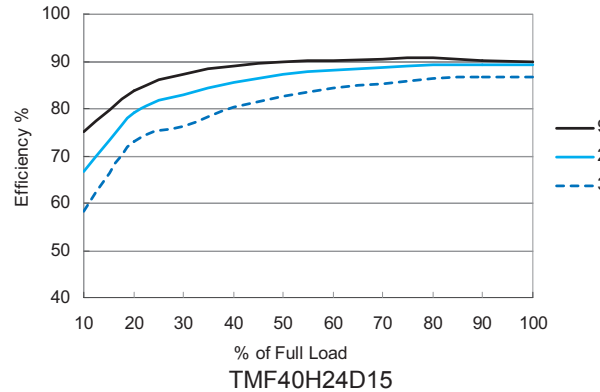
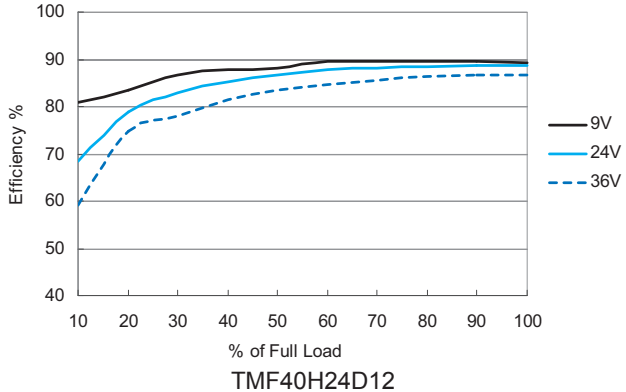
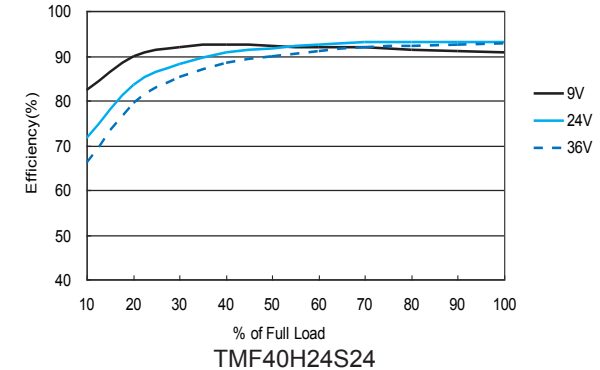
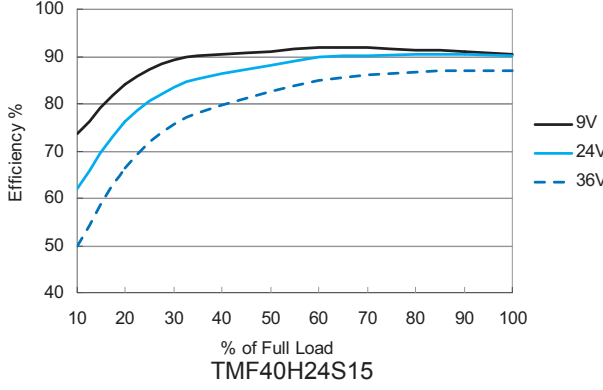
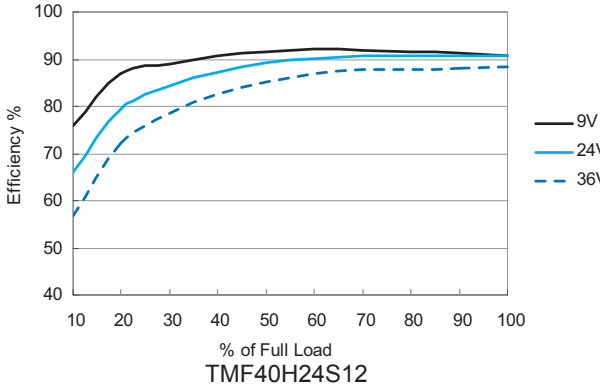
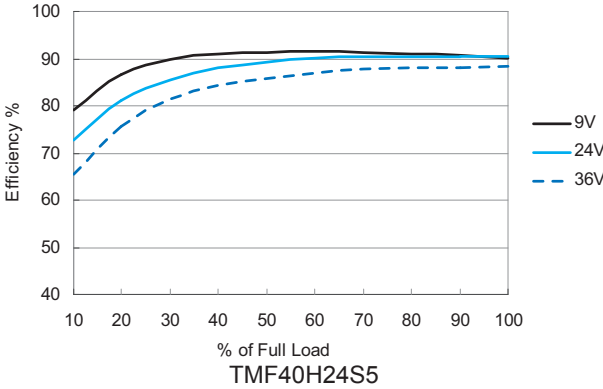
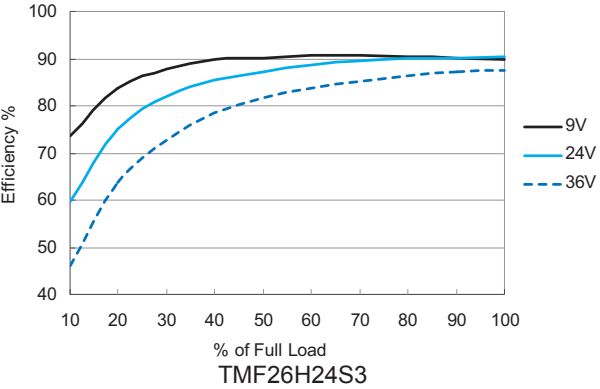
Remote On/Off Control	Min	Typ	Max	Units
DC/DC On	3.5V - 12V or Open Circuit			
DC/DC Off	0V - 1.2V or Short Circuit			
Control Input Current (on) Vctrl = 5.0V		0.5		mA
Control Input Current (off) Vctrl = 0 V		-0.5		mA
Control Common	Referenced to Negative Input			
Standby Input Current Nominal Vin		2.5		mA
Output Voltage Trim (8)	Min	Typ	Max	Units
Trim Up / Down Range % of nominal output voltage 24Vout Models All Other Models	+20 / -10 ±10			%

Notes:

1. Specifications typical at Ta=+25°C, resistive load, nominal input voltage, full rated output current unless otherwise noted.
2. Transient recovery time is measured to within 1% error band for a step change in output load 75% to 100%.
3. 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.
4. 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.
5. Ripple & Noise measurement bandwidth is 20MHz, measured with a 1 µF M/C and a 10 µF T/C.
6. 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.
7. See ConTech website for Definition of Terms, Application Notes, and Test Setups and Parameters. www.ConTech-us.com/appnotes.html.
8. Output voltage trimming must use resistive components. Applying external voltages to trim pin can cause damage.
9. Specifications subject to change without notice.
10. See ConTech website www.ConTech-us.com/pdf/rohs.pdf for RoHS Statement.

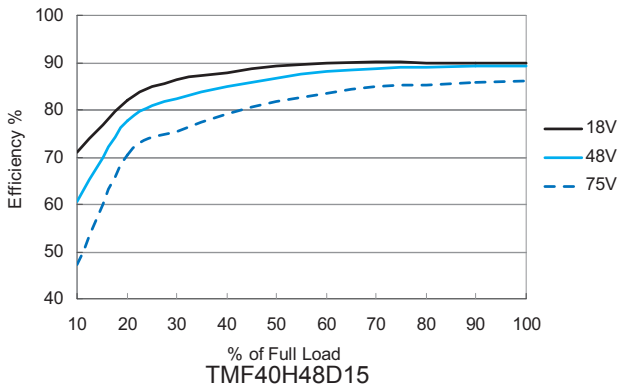
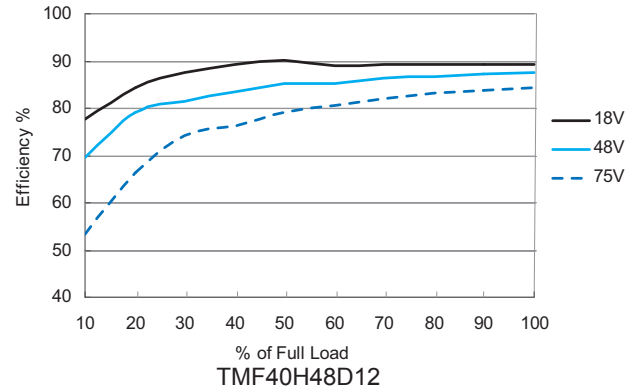
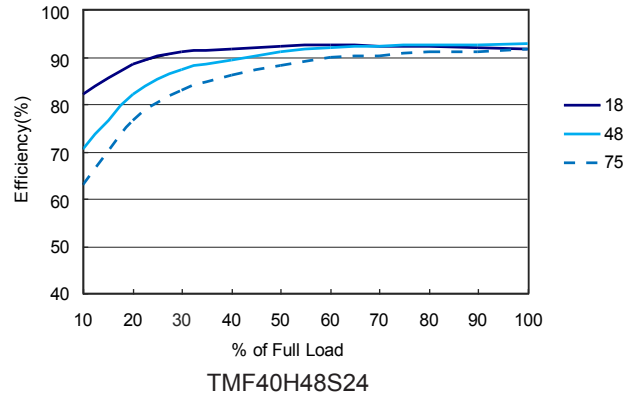
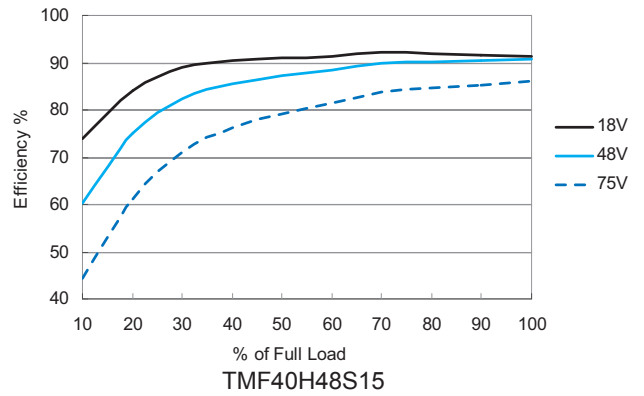
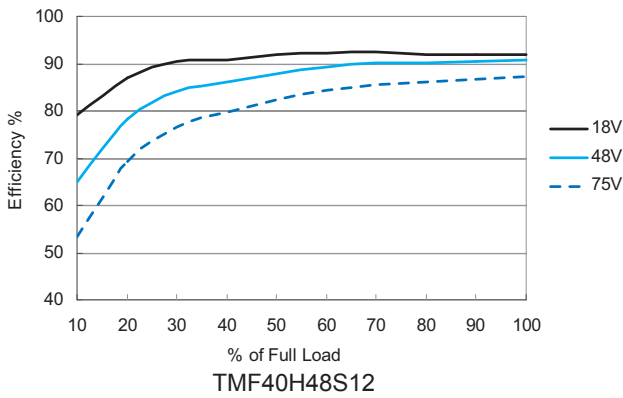
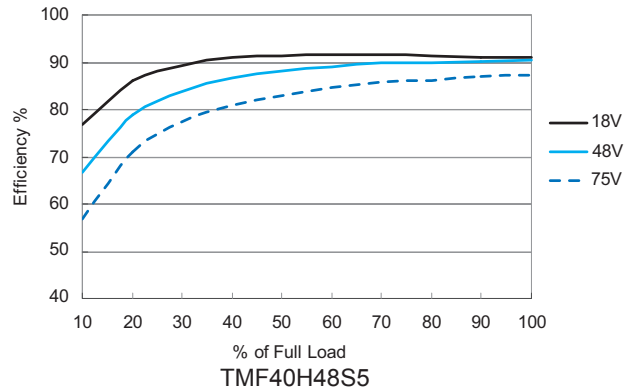
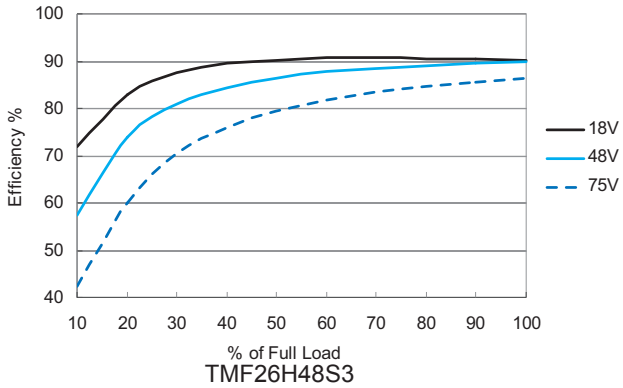
Efficiency Curves

24 Volt Input @ 25°C



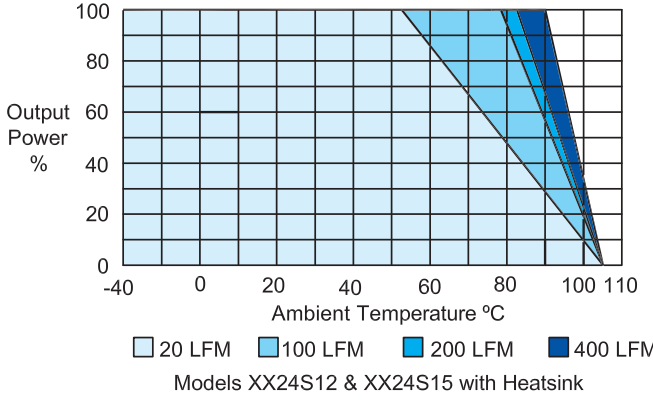
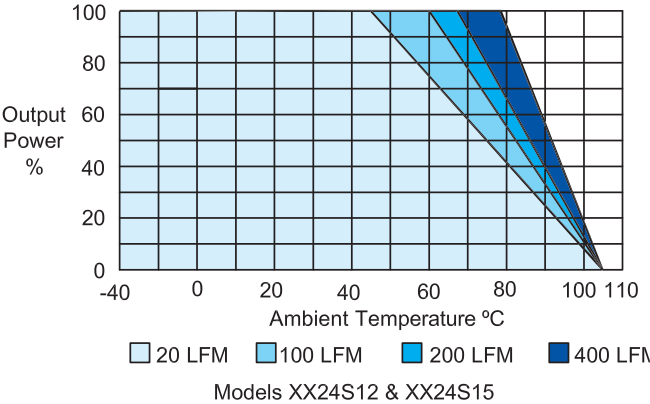
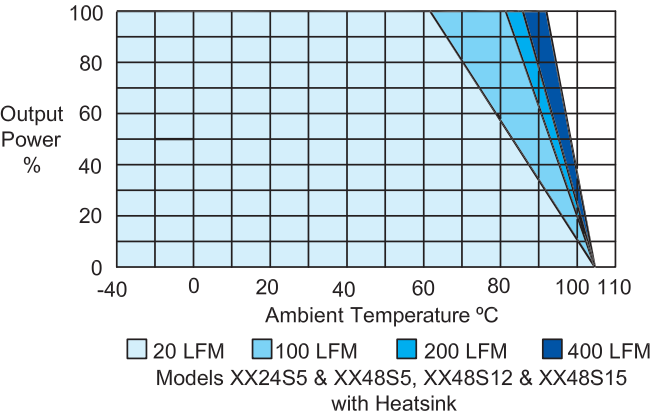
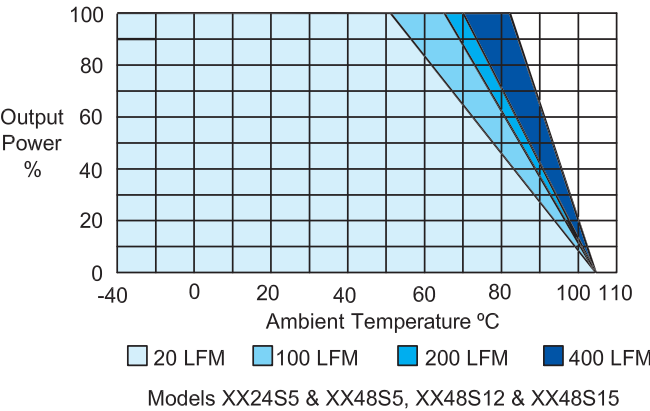
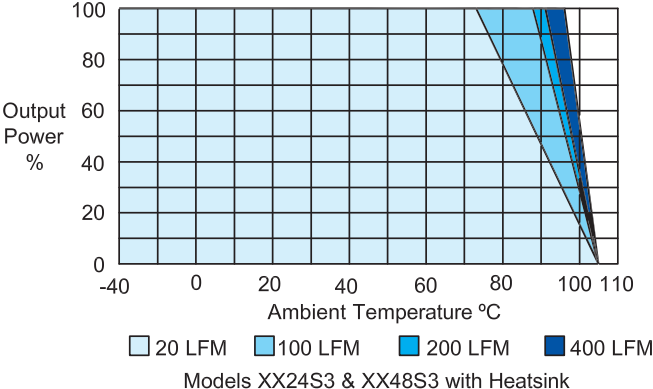
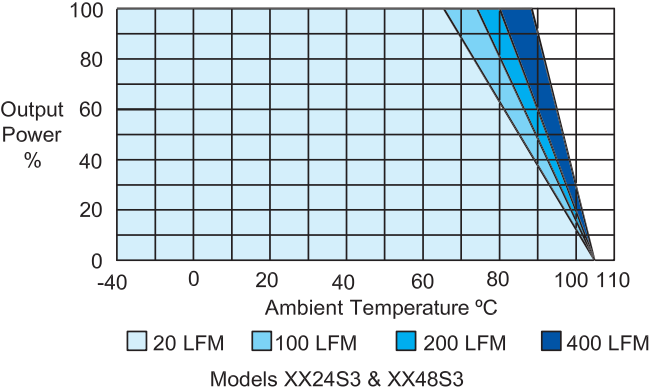
Efficiency Curves

48 Volt Input @ 25°C



Derating Curves

To avoid exceeding the maximum temperature rating of the components inside the power module, the case temperature must be kept below 105°C.



40 Watt TMF

