

5 Watts WT Series



- 2:1 Input Range
- Optional 4:1 Input Range
- Isolated Outputs
- Efficiency to 82%
- Fully Regulated Outputs
- Optional 3 kVDC Isolation
- UL Approved Versions

Specification

Input

Input Voltage Range	• 12 V (9-18 or 9-36 VDC - A version) • 24 V (18-36 or 18-72 VDC - A version) • 48 V (36-72 VDC)
Input Current (no load)	• See table
Input Filter	• Pi network
Undervoltage Lockout	• Turn On > 65% nominal input • Turn Off < 63% nominal input

Output

Output Voltage	• see tables
Output Voltage Balance	• $\pm 1\%$ max, dual output models
Initial Set Accuracy	• $\pm 2\%$ max
Start Up Rise Time	• 3 ms max
Line Regulation	• $\pm 0.5\%$ max from high line to low line
Load Regulation	• $\pm 0.5\%$ max for 10-100% load change for single output models, • $\pm 1.0\%$ max for 25-100% load change for dual output models
Cross Regulation	• $\pm 2.2\%$ on dual output models
Transient Response	• <1.0% max deviation, recovering within 200 μs for a 50% load change
Ripple & Noise	• 100 or 1.0% pk-pk, whichever is greater, 20MHz BW
Short Circuit Protection	• Continuous with auto recovery
Temperature Coefficient	• ± 0.05 /°C max

General

Efficiency	• See table
Isolation	• 500 VDC Input to Output (1000 M /80 pF) • Optional high isolation version, 3000 VDC Input to Output, add suffix 'X'
Switching Frequency	• 100 kHz typical
MTBF	• 1,000 kHrs to MIL-HDBK-217F

Environmental

Operating Temperature	• -25 $^{\circ}$C to +70 $^{\circ}$C (see derating curve)
Case Temperature	• +95 $^{\circ}$C max
Storage Temperature	• -40 $^{\circ}$C to +100 $^{\circ}$C

EMC & Safety

Emissions	• EN55022, level A conducted • EN55022, level A radiated
ESD Immunity	• EN61000-4-2, level 2 • Perf Criteria A
Radiated Immunity	• EN61000-4-3 3 V/m • Perf Criteria A
Conducted Immunity	• EN61000-4-6 3 V rms • Perf Criteria A
Safety	• UL1950 (for XU versions only)

Models and Ratings

Input Voltage ^(1,2,4)	Output Voltage	Output Current	Input Current ⁽⁶⁾		Efficiency	Model Number ⁽³⁾
			No Load	Full Load		
9-18 VDC	3.3 VDC	1000 mA	7.5 mA	393 mA	70%	WT200
	5.0 VDC	1000 mA	7.5 mA	545 mA	76%	WT201
	12.0 VDC	470 mA	7.5 mA	585 mA	80%	WT202
	15.0 VDC	400 mA	7.5 mA	625 mA	80%	WT203
	±5.0 VDC	±500 mA	12.0 mA	545 mA	76%	WT204
	±12.0 VDC	±230 mA	12.0 mA	575 mA	80%	WT205
	±15.0 VDC	±190 mA	12.0 mA	590 mA	80%	WT206
18-36 VDC	3.3 VDC	1000 mA	5.0 mA	197 mA	70%	WT300
	5.0 VDC	1000 mA	5.0 mA	265 mA	78%	WT301
	12.0 VDC	470 mA	5.0 mA	285 mA	82%	WT302
	15.0 VDC	400 mA	5.0 mA	305 mA	82%	WT303
	±5.0 VDC	±500 mA	7.5 mA	265 mA	78%	WT304
	±12.0 VDC	±230 mA	7.5 mA	285 mA	81%	WT305
	±15.0 VDC	±190 mA	7.5 mA	295 mA	81%	WT306
36-72 VDC	3.3 VDC	1000 mA	2.0 mA	98 mA	70%	WT400
	5.0 VDC	1000 mA	2.0 mA	133 mA	78%	WT401
	12.0 VDC	470 mA	2.0 mA	145 mA	81%	WT402
	15.0 VDC	400 mA	2.0 mA	154 mA	81%	WT403
	±5.0 VDC	±500 mA	3.0 mA	133 mA	78%	WT404
	±12.0 VDC	±230 mA	3.0 mA	142 mA	81%	WT405
	±15.0 VDC	±190 mA	3.0 mA	147 mA	81%	WT406

Notes

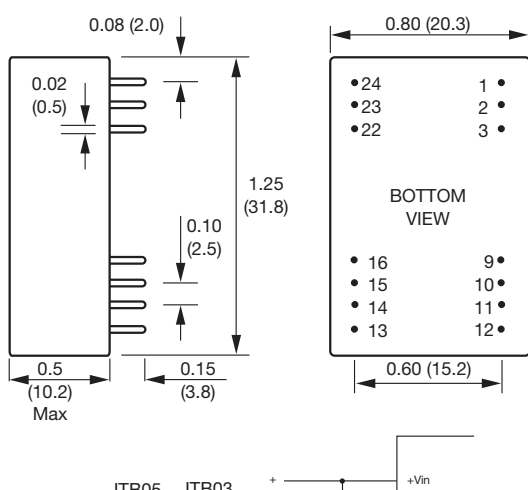
1. Nominal input voltage 12, 24 or 48 VDC.
2. For optional 4:1 input range: 9-36 VDC: Add suffix 'A' to WT2xx model number, 18-72 VDC: Add suffix 'A' to WT3xx model number.
3. For 3000 VDC isolation add suffix 'X' to model number.

4. For UL1950 approval, add suffix 'XU' to model number. UL approved product is only available with 3000 VDC isolation and option 'X' pinout.
5. 'X' or 'XU' versions are not available with optional 4:1 input range.
6. Input current is at nominal input voltage.

Mechanical Details

All dimensions are in inches (mm)

Weight: 0.06 lbs (25 g) approx.



PIN CONNECTIONS		
Pin	Single Output	Dual Output
1	+V input	+V input
2	N/C	-V output
3	N/C	Common
9	No pin	No pin
10	-V output	Common
11	+V output	+V output
12	-V input	-V input
13	-V input	-V input
14	+V output	+V output
15	-V output	Common
16	No pin	No pin
22	N/C	Common
23	N/C	-V output
24	+V input	+V input

OPTION 'X' / 'XU' PIN CONNECTIONS		
Pin	Single Output	Dual Output
1	No pin	No pin
2	-V input	-V input
3	-V input	-V input
9	N/C	Common
10	N/C	N/C
11	N/C	-V output
12	No pin	No pin
13	No pin	No pin
14	+V output	+V output
15	N/C	N/C
16	-V output	Common
22	+V input	+V input
23	+V input	+V input
24	No pin	No pin

Derating Curve

