

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 | <ul style="list-style-type: none"> • 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) | <ul style="list-style-type: none"> • See table |
| Input Filter | <ul style="list-style-type: none"> • Pi network |
| Undervoltage Lockout | <ul style="list-style-type: none"> • Turn On > 65% nominal input • Turn Off < 63% nominal input |

Output

- | | |
|--------------------------|---|
| Output Voltage | <ul style="list-style-type: none"> • see tables |
| Output Voltage Balance | <ul style="list-style-type: none"> • $\pm 1\%$ max, dual output models |
| Initial Set Accuracy | <ul style="list-style-type: none"> • $\pm 2\%$ max |
| Start Up Rise Time | <ul style="list-style-type: none"> • 3 ms max |
| Line Regulation | <ul style="list-style-type: none"> • $\pm 0.5\%$ max from high line to low line |
| Load Regulation | <ul style="list-style-type: none"> • $\pm 0.5\%$ 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 | <ul style="list-style-type: none"> • $\pm 2.2\%$ on dual output models |
| Transient Response | <ul style="list-style-type: none"> • <1.0% max deviation, recovering within 200 μs for a 50% load change |
| Ripple & Noise | <ul style="list-style-type: none"> • 100 or 1.0% pk-pk, whichever is greater, 20MHz BW |
| Short Circuit Protection | <ul style="list-style-type: none"> • Continuous with auto recovery |
| Temperature Coefficient | <ul style="list-style-type: none"> • ± 0.05 /$^{\circ}$C max |

General

- | | |
|---------------------|--|
| Efficiency | <ul style="list-style-type: none"> • See table |
| Isolation | <ul style="list-style-type: none"> • 500 VDC Input to Output (1000 M /80 pF) • Optional high isolation version, 3000 VDC Input to Output, add suffix 'X' |
| Switching Frequency | <ul style="list-style-type: none"> • 100 kHz typical |
| MTBF | <ul style="list-style-type: none"> • 1,000 kHrs to MIL-HDBK-217F |

Environmental

- | | |
|-----------------------|---|
| Operating Temperature | <ul style="list-style-type: none"> • -25 $\text{^{\circ}}$C to +70 $\text{^{\circ}}$C (see derating curve) |
| Case Temperature | <ul style="list-style-type: none"> • +95 $\text{^{\circ}}$C max |
| Storage Temperature | <ul style="list-style-type: none"> • -40 $\text{^{\circ}}$C to +100 $\text{^{\circ}}$C |

EMC & Safety

- | | |
|--------------------|---|
| Emissions | <ul style="list-style-type: none"> • EN55022, level A conducted • EN55022, level A radiated |
| ESD Immunity | <ul style="list-style-type: none"> • EN61000-4-2, level 2 • Perf Criteria A |
| Radiated Immunity | <ul style="list-style-type: none"> • EN61000-4-3 3 V/m • Perf Criteria A |
| Conducted Immunity | <ul style="list-style-type: none"> • EN61000-4-6 3 V rms • Perf Criteria A |
| Safety | <ul style="list-style-type: none"> • 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

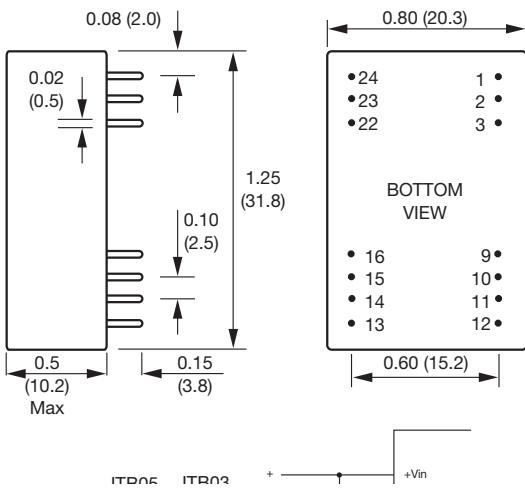
Notes

- Nominal input voltage 12, 24 or 48 VDC.
- 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.
- For 3000 VDC isolation add suffix ' X' to model number.
- For UL1950 approval, add suffix ' XU' to model number. UL approved product is only available with 3000 VDC isolation and option ' X' pinout.
- ' X' or ' XU' versions are not available with optional 4:1 input range.
- 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

