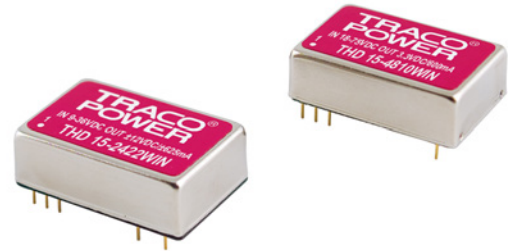


#### Features

- ◆ Highest power density in DIP 24 package
- ◆ Shielded metal case with isolated baseplate
- ◆ Very high efficiency up to 90%
- ◆ Ultra wide 4:1 input ranges
- ◆ No minimum load required
- ◆ Input filter meets EN 55022 class A without external components
- ◆ I/O isolation voltage 1500 VDC
- ◆ Operating temp. range : -40°C to +85°C
- ◆ Remote On/Off control
- ◆ Industry standard pinout
- ◆ 3-year product warranty



The THD-15WIN series models provide 15 Watt output power out of a very compact shielded metal case that occupies only 1 inch<sup>2</sup> of board space. The converters work with a high efficiency over the full load range and draw a very low input current at no load conditions. All models have a wide 4:1 input voltage range and a precisely regulated output voltage.

Typical applications for these converters are mobile equipment, instrumentation, distributed power architectures in communication and industrial electronics and everywhere where space on PCB is critical.

#### Models

Order code	Input voltage range	Output voltage	Output current max.	Efficiency typ.
THD 15-2410WIN	9 – 36 VDC	3.3 VDC	4'000 mA	88 %
THD 15-2411WIN		5.1 VDC	3'000 mA	90 %
THD 15-2412WIN		12 VDC	1'250 mA	90 %
THD 15-2413WIN		15 VDC	1'000 mA	90 %
THD 15-2421WIN		±5 VDC	±1'500 mA	86 %
THD 15-2422WIN		±12 VDC	±625 mA	89 %
THD 15-2423WIN		±15 VDC	±500 mA	90 %
THD 15-4810WIN	18 – 75 VDC	3.3 VDC	4'000 mA	89 %
THD 15-4811WIN		5.1 VDC	3'000 mA	89 %
THD 15-4812WIN		12 VDC	1'250 mA	90 %
THD 15-4813WIN		15 VDC	1'000 mA	90 %
THD 15-4821WIN		±5 VDC	±1'500 mA	86 %
THD 15-4822WIN		±12 VDC	±625 mA	89 %
THD 15-4823WIN		±15 VDC	±500 mA	90 %



**General Specifications**

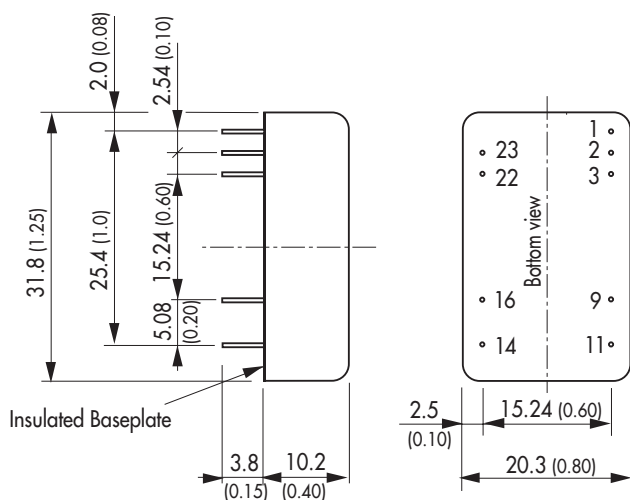
Temperature ranges	- Operating - Case temperature - Storage	-40°C to +85°C (with derating) +105°C max. -55°C to +125°C
Power derating		±5 VDC models: 2.5 %/K above 60°C other models: 3.3 %/K above 70°C
Thermal inpedance	- Natural convection	20°K/W
Humidity (non condensing)		5 % to 95 % rel H max.
Reliability, calculated MTBF (MIL-HDBK-217F, at +25°C, ground benign)		>1'600'000 h
Isolation voltage (60sec.)	- Input/Output	1'500 VDC
Isolation capacitance	- Input/Output	2'000 pF typ.
Isolation resistance	- Input/Output (500 VDC)	>1'000 MOhm
Remote On/Off	- On: - Off: - Off idle current:	3.0 ... 12 VDC or open circuit 0 ... 1.2 VDC or short circuit pin 1 and pin 2 2.5 mA
Switching frequency		330 kHz typ. (pulse width modulation PWM)
Thermal shock, mechanical shock & vibration	- Test conditions	EN 61373, MIL-STD-810F <a href="http://www.tracopower.com/products/mil810.pdf">www.tracopower.com/products/mil810.pdf</a>
Safety standards		UL/cUL 60950-1, IEC/EN 60950-1
Safety approvals	- UL/cUL	<a href="http://www.ul.com">www.ul.com</a> -> certifications -> File e188913
Environmental compliance	- Reach - RoHS	<a href="http://www.tracopower.com/products/thd15win-reach.pdf">www.tracopower.com/products/thd15win-reach.pdf</a> RoHS directive 2011/65/EU

**Application note:** [www.tracopower.com/products/thd15win-application.pdf](http://www.tracopower.com/products/thd15win-application.pdf)

**Physical Specifications**

Casing material	nickel coated copper
Baseplate	non conductive FR4
Potting material	silicon (UL 94V-0 rated)
Weight	14.4 g (0.51oz)
Soldering temperature	max. 265°C / 10sec.

**Outline Dimensions**



Pin-Out		
Pin	Single	Dual
1	Remote On/Off	Remote On/Off
2	-Vin (GND)	-Vin (GND)
3	-Vin (GND)	-Vin (GND)
9	NC	Common
11	NC.	-Vout
14	+Vout	+Vout
16	-Vout	Common
22	+Vin (Vcc)	+Vin (Vcc)
23	+Vin (Vcc)	+Vin (Vcc)

Dimensions in [mm], ( ) = Inch  
Pin diameter  $\varnothing$  0.5 (0.02)  
Pin pitch tolerances:  $\pm 0.35$  ( $\pm 0.014$ )  
Tolerances:  $\pm 0.5$  ( $\pm 0.02$ )

Specifications can be changed without notice! Make sure you are using the latest documentation, downloadable at [www.tracopower.com](http://www.tracopower.com)