

#### Features

- 10 Watt in 1" x 1" package
- Shielded metal case with isolated baseplate
- Ultrawide 4:1 input voltage ranges
- Remote On/ Off control
- Operating temp. range  $-40^{\circ}\text{C}$  to  $+75^{\circ}\text{C}$  and up to  $+85^{\circ}\text{C}$  with heat-sink
- I/ O isolation voltage 1500 VDC
- Input filter meets EN 55022 class A without external components
- Cost optimized design
- Industry standard pinout
- 3-year product warranty



The THL 10WI is a series of general purpose 10 Watt dc/dc-converters packed in the compact 1" x 1" case and is a pin to pin replacement for the popular 1" x 2" size products. The industrial standard pinout, the ultra wide 4:1 input voltage range and the input filter that meets EN 55022 Class A without external components make these converters easy to design in and suitable for to cost optimize many existing and new applications.

The models have a remote On/Off control, short circuit and overvoltage protection and are applicable in temperature ranges of up to  $+75^{\circ}\text{C}$  or  $+85^{\circ}\text{C}$  with optional mounted heat sink. Typical applications are instrumentation, distributed power architectures in communication and industrial electronics.

#### Models

Order code	Input voltage range	Output voltage	Output current max.	Efficiency typ.
THL 10-2410WI	9 – 36 VDC (24 VDC nominal)	3.3 VDC	2200 mA	86 %
THL 10-2411WI		5.1 VDC	2000 mA	84 %
THL 10-2412WI		12 VDC	830 mA	86 %
THL 10-2413WI		15 VDC	660 mA	87 %
THL 10-2415WI		24 VDC	410 mA	86 %
THL 10-2421WI		$\pm 5.0$ VDC	$\pm 1000$ mA	84 %
THL 10-2422WI		$\pm 12$ VDC	$\pm 410$ mA	86 %
THL 10-2423WI		$\pm 15$ VDC	$\pm 330$ mA	87 %
THL 10-4810WI	18 – 75 VDC (48 VDC nominal)	3.3 VDC	2200 mA	85 %
THL 10-4811WI		5.1 VDC	2000 mA	84 %
THL 10-4812WI		12 VDC	830 mA	86 %
THL 10-4813WI		15 VDC	660 mA	87 %
THL 10-4815WI		24 VDC	410 mA	86 %
THL 10-4821WI		$\pm 5.0$ VDC	$\pm 1000$ mA	84 %
THL 10-4822WI		$\pm 12$ VDC	$\pm 410$ mA	86 %
THL 10-4823WI		$\pm 15$ VDC	$\pm 330$ mA	87 %

**Input Specifications**

<b>Input current at no load</b> (at nominal input voltage)	24 V models: <b>30 mA typ.</b>
	48 V models: <b>20 mA typ.</b>
<b>Input current at full load</b> (at nominal input voltage)	24 V; 3.3 VDC models: <b>400 mA typ.</b>
	24 V; other models: <b>500 mA typ..</b>
	48 V; 3.3 VDC models: <b>200 mA typ.</b>
	48 V; other models: <b>250 mA typ.</b>
<b>Start-up voltage / under voltage lockout</b> (hysteresis for assertive on)	24 V models: <b>9 VDC / 8.5 VDC</b> (or lower)
	48 V models: <b>18 VDC / 17 VDC</b> (or lower)

**General Specifications**

<b>Temperature ranges</b>	- Operating without heat sink	-40°C to +75°C (with derating)
	- Operating with heat sink	-40°C to +85°C (with derating)
	- Case temperature	+100°C max.
	- Storage	-40°C to +125°C
<b>Power derating</b>	- Operating without heat sink	2.5 %/K above +60°C
	- Operating with heat sink	3.5 %/K above +70°C
<b>Thermal impedance</b>	- Natural convection	18.2 K/W
	- Natural convection with heat sink	15.8 K/W

All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.

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