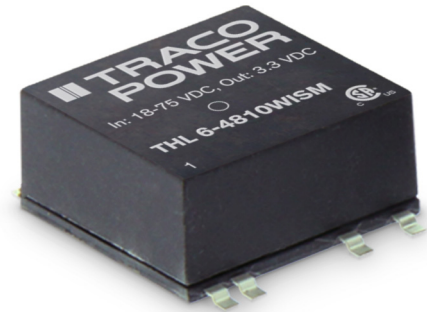


Features

- ◆ Compact design in SMD package
- ◆ Ultra wide 4:1 input voltage range
- ◆ Fully regulated outputs
- ◆ I/O isolation 1500 VDC
- ◆ Operating temp. range -40°C to $+75^{\circ}\text{C}$
- ◆ Short circuit protection
- ◆ Input filter to meet EN 55022, class A
- ◆ Qualified for leadfree reflow solder process
- ◆ 3-year product warranty



The THL 6WISM series is a family of compact 6 W dc/dc-converters with 4:1 input voltage ranges. The product is available in SMD-package which is 31% smaller than a standard DIP-24 package. The internal filter to meet EN55022 Class A without external components makes these converters easy to design in.

They come with remote On/Off and short circuit protection. THL 6WISM converter is an excellent solution for data- and telecom applications and for instrumentation and industrial electronics.

Models

| Order code | Input voltage range | Output voltage | Output current max. | Efficiency typ. |
|----------------|---------------------------------|----------------|---------------------|-----------------|
| THL 6-2410WISM | 9 – 36 VDC (nominal 24 VDC) | 3.3 VDC | 1450 mA | 76 % |
| THL 6-2411WISM | | 5.0 VDC | 1200 mA | 79 % |
| THL 6-2412WISM | | 12 VDC | 500 mA | 83 % |
| THL 6-2413WISM | | 15 VDC | 400 mA | 83 % |
| THL 6-2415WISM | | 24 VDC | 250 mA | 83 % |
| THL 6-2421WISM | | ± 5 VDC | ± 600 mA | 82 % |
| THL 6-2422WISM | | ± 12 VDC | ± 250 mA | 83 % |
| THL 6-2423WISM | | ± 15 VDC | ± 200 mA | 83 % |
| THL 6-4810WISM | 18 – 75 VDC (nominal 48 VDC) | 3.3 VDC | 1450 mA | 76 % |
| THL 6-4811WISM | | 5.0 VDC | 1200 mA | 79 % |
| THL 6-4812WISM | | 12 VDC | 500 mA | 83 % |
| THL 6-4813WISM | | 15 VDC | 400 mA | 83 % |
| THL 6-4815WISM | | 24 VDC | 250 mA | 83 % |
| THL 6-4821WISM | | ± 5 VDC | ± 600 mA | 82 % |
| THL 6-4822WISM | | ± 12 VDC | ± 250 mA | 83 % |
| THL 6-4823WISM | | ± 15 VDC | ± 200 mA | 83 % |

Input Specifications

| | |
|--|--|
| Input current at no load (nominal input voltage) | 24 Vin models: 30 mA typ. 48 Vin models: 20 mA typ. |
| Input current at full load (nominal input voltage) | 24 Vin; 3.3 VDC model: 260 mA typ. 24 Vin other models: 300 mA typ. 48 Vin; 3.3 VDC model: 130 mA typ. 48 Vin other models: 150 mA typ. |
| Surge voltage (100 msec. max.) | 24 Vin models: 50 V max. 48 Vin models: 100 V max. |
| Conducted noise | EN 55022 level A, FCC part 15, level A without external components |
| Recommended input fuse (slow blow) | 24 V models: 1500 mA 48 V models: 750 mA |

Output Specifications

| | |
|--|--|
| Voltage set accuracy | ±2 % max |
| Regulation | - Input variation Vin min. to Vin max. 1.0 % max. - Load variation 15 – 100 % 1.2 % max. |
| Minimum load | 15 % of rated max current (operation at lower load condition is safe but a higher output ripple will be experienced) |
| Temperature coefficient | ±0.02 %/K |
| Ripple and noise (20 MHz bandwidth) | 100 mVp-p max. |
| Transient response (25 % load step change) | - Recovery time 300 µs typ. - Deviation ± 3 % typ. |
| Short circuit protection | continuous, automatic recovery |
| Maximum capacitive load | 3.3 & 5 VDC models: 330 µF 12, 15 & 24 VDC models: 100 µF ±5,±12 & ±15 VDC models: 100 µF (each output) |

General Specifications

| | |
|---|--|
| Temperature | - Operating (convection cooling 50 LFM, 0.25 m/s) -40°C to +75°C - Storage -40°C to +125°C - Case +105°C max. |
| Load derating (convection cooling 50 LFM, 0.25 m/s) | 3.3 & 5.0 VDC models: 2.2 %/K above +55°C other output models: 2.5 %/K above +60°C |
| Humidity (non condensing) | 95 % |
| Reliability, calculated MTBF (MIL-HDBK-217F, at +25°C, ground benign) | >350'000 h |
| Isolation voltage (60 sec.) | - Input/Output 1'500 VDC |
| Isolation capacitance | - Input/Output 1500 pF max. |
| Isolation resistance | - Input/Output (500 VDC) >1 GOhm |
| Safety standard (designed to meet) | IEC 60950-1, UL 60950-1 - Certification documents www.tracopower.com/overview/thl6wism |
| Switching frequency | 330 kHz |
| Altitude during operation | 5'000 m max. (16400 ft) approved |
| Remote On/Off | - On: 2.5 to 50 VDC or open circuit - Off: -0.7 to +0.8 VDC - Off stand by input current 10 mA max. |
| Environmental compliance | - Reach www.tracopower.com/info/reach-declaration.pdf - RoHS RoHS directive 2011/65/EU |

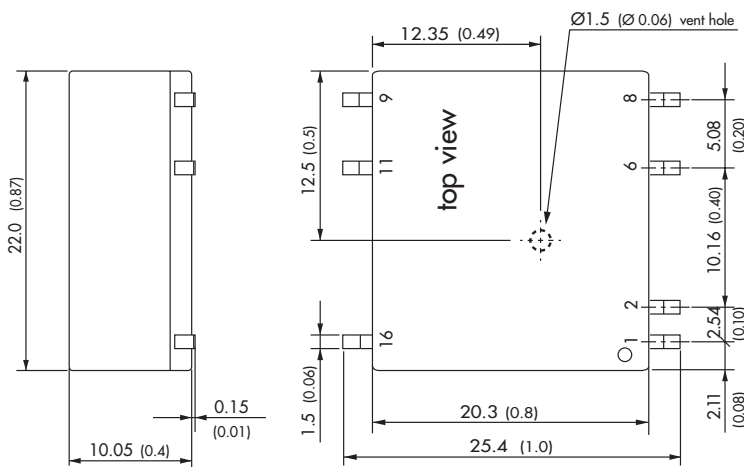
All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.

Physical Specifications

| | |
|---------------------------------|---|
| Casing material | non-conductive plastic (UL94V-0 rated) |
| Pin material | Phosphor bronze |
| Weight | 7.8 g (0.27oz) |
| Lead-free reflow solder process | as per J-STD-020D.01 (to find at: www.jedec.org - free registration required) |
| Moisture sensitivity level | level 2a as per J-STD-033B.01 (to find at: www.jedec.org - free registration required) |

Application note: www.tracopower.com/overview/thl6wism

Outline Dimensions



| Pin-Out | | |
|---------|---------------|---------------|
| Pin | Single | Dual |
| 1 | Remote On/Off | Remote On/Off |
| 2 | -Vin | -Vin |
| 6 | ntc. | Common |
| 8 | ntc. | -Vout |
| 9 | +Vout | +Vout |
| 11 | -Vout | Common |
| 16 | +Vin (Vcc) | +Vin (Vcc) |

ntc. = not to connect

Dimensions in [mm], () = Inch
Tolerances: ±0.25 (±0.01)
Pin pitch tolerances: ±0.13 (±0.005)

Specifications can be changed without notice! Make sure you are using the latest documentation, downloadable at www.tracopower.com



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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