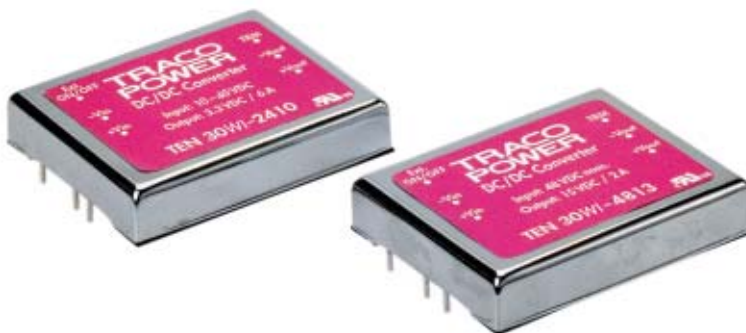


Features

- Ultra wide 4 : 1 Input Range
- High Power Density
- Indefinite Short-Circuit Protection
- I/O-Isolation 1500 VDC
- Input Filter meets EN 55022, Class A and FCC, Level A without external Components
- Remote on/off
- Adjustable Output
- Industry Standard Pinout
- Shielded Metal Case with insulated Baseplate
- 3 Year Product Warranty



**New
Dual Output Models**

The TEN 30WI is a new high efficiency isolated 30 Watt converter series with industry standard footprint. They feature a very wide input voltage ranges of 10 – 40 VDC and 18 – 75 VDC. Overload and overvoltage protection as well as remote of/off are included as standard. Built-in filters for both input and output minimizes the need of external filtering. The TEN 30WI series is targeted specially at mobile systems, telecommunication, industrial and distributed power applications where a 4:1 input voltage range is required.

| Models | | | | |
|---------------|---------------------|----------------|---------------------|-----------------|
| Ordercode | Input voltage range | Output voltage | Output current max. | Efficiency typ. |
| TEN 30-2408WI | 10 – 40 VDC | 1.8VDC | 8'000 mA | 80 % |
| TEN 30-2409WI | | 2.5VDC | 8'000 mA | 85 % |
| TEN 30-2410WI | | 3.3VDC | 6'000 mA | 87 % |
| TEN 30-2411WI | | 5 VDC | 6'000 mA | 87 % |
| TEN 30-2412WI | | 12 VDC | 2'500 mA | 87 % |
| TEN 30-2413WI | | 15 VDC | 2'000 mA | 88 % |
| TEN 30-2422WI | | ±12 VDC | ±1'250 mA | 85 % |
| TEN 30-2423WI | | ±15 VDC | ±1'000 mA | 86 % |
| TEN 30-4808WI | | 18 – 75 VDC | 1.8VDC | 8'000 mA |
| TEN 30-4809WI | 2.5VDC | | 8'000 mA | 86 % |
| TEN 30-4810WI | 3.3VDC | | 6'000 mA | 87 % |
| TEN 30-4811WI | 5 VDC | | 6'000 mA | 88 % |
| TEN 30-4812WI | 12 VDC | | 2'500 mA | 87 % |
| TEN 30-4813WI | 15 VDC | | 2'000 mA | 88 % |
| TEN 30-4822WI | ±12 VDC | | ±1'250 mA | 86 % |
| TEN 30-4823WI | ±15 VDC | | ±1'000 mA | 87 % |

Input Specifications

| | | | |
|--|----------------|------------------------|--|
| Input current (no load) | 24 Vin: | 1.8 Vout models: | 45 mA typ. |
| | | 2.5/3.3 Vout models: | 60 mA typ. |
| | | other models: | 80 mA typ. |
| | 48 Vin: | 1.8 Vout models: | 25 mA typ. |
| | | 2.5/3.3 Vout models: | 40 mA typ. |
| | | other models: | 55 mA typ. |
| Input current (full load) | 24 Vin: | 1.8 Vout models: | 760 mA typ. |
| | | 2.5/3.3 Vout models: | 1000 mA typ. |
| | | other models: | 1500 mA typ. |
| | 48 Vin: | 1.8 Vout models: | 390 mA typ. |
| | | 2.5 / 3.3 Vout models: | 500 mA typ. |
| | | other models: | 750 mA typ. |
| Surge voltage (100 msec. max.) | 24 Vin models: | 50 V max.. | |
| | 48 Vin models: | 100 V max. | |
| Start up time (nominal Vin and constant resistor load) | | | 10 ms |
| Conducted noise (input) | | | EN 55022 level A, FCC part 15, level A |

Output Specifications

| | | |
|--------------------------------------|---|---------------------------------|
| Voltage set accuracy | ± 1 % | |
| Output voltage adjustment | ± 10 % | |
| Regulation | – Input variation Vin min. to Vin max. | ± 0.5 % max. |
| | – Load variation 10 – 100%: | |
| | – single output models | ± 0.5 % max. |
| | – dual output models balanced / unbalanced load | ± 1.0 % max. / ± 3.0 % max. |
| Ripple and noise (20 MHz Bandwidth): | 75 mVpk-pk max. | |
| Temperature coefficient | ± 0.02 % / °C | |
| Output current limitation | 150% of Iout max., foldback | |
| Short circuit protection | Indefinite (automatic recovery) | |
| Over voltage protection | 1.8/2.5 Vout models: | 3.0/3.6 V |
| | 3.3/5.0 Vout models: | 3.9/6.2 V |
| | 12/15 Vout models: | 15/18 V |
| Capacitive load | 1.8/2.5 Vout models: | 65'000 µF max. / 33'000 µF max. |
| | 3.3/5.0 Vout models: | 19'500 µF max./ 10'200 µF max. |
| | 12/15 Vout models: | 3'300 µF max. / 1'100 µF max. |
| | ±12/±15 Vout models: | ±1'000 µF max. / ±680 µF max. |

General Specifications

| | | |
|---|----------------------|----------------------|
| Temperature ranges | – Operating | – 40 °C ... + 70°C |
| | – Case temperature | + 100 °C max. |
| | – Storage | – 55 °C ... + 105 °C |
| Derating | 3.3%/°C above 70°C | |
| Over temperature protection | typ. 115°C | |
| Humidity (non condensing) | 95 % rel H max. | |
| Reliability, calculated MTBF (MIL-HDBK-217 E) | > 350'000 h @ + 25°C | |

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

General Specifications

| | | |
|-----------------------------|----------------------------------|--|
| Isolation voltage | - Input/Output | 1'500 VDC |
| Isolation capacity | - Input/Output | 1000 pF max. |
| Isolation resistance | - Input/Output (500 VDC) | > 1'000 M Ohm |
| Switching frequency (fixed) | | 300 kHz typ. (Pulse width modulation PWM) |
| Remote on/off | ON: OFF: OFF idle current: | 3.5 ... 12 VDC or open circuit. 0 ... 1.2 VDC or short circuit pin 3 and pin 2 3 mA typ. |
| Vibration | | 10-55Hz, 2G, 30 minutes along X,Y,Z |
| Safety standards | | UL 60950, EN 60950, IEC 60950 Compliance up to 60 VDC input voltage(SELV limit) |
| Safety approvals | | UL /cUL File pending |

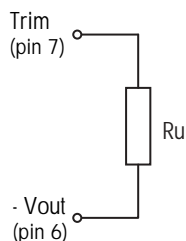
Physical Specifications

| | |
|-----------------------|-------------------------|
| Case material | Copper nickel plated |
| Baseplate | Plastic none conductive |
| Potting material | Epoxy (UL 94V-0 -rated) |
| Weight | 48 g (1.69 oz) |
| Soldering temperature | max. 250 °C / 10 sec. |

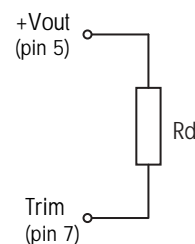
Output Voltage Adjustment

(only for single output models)

Trim up



Trim down



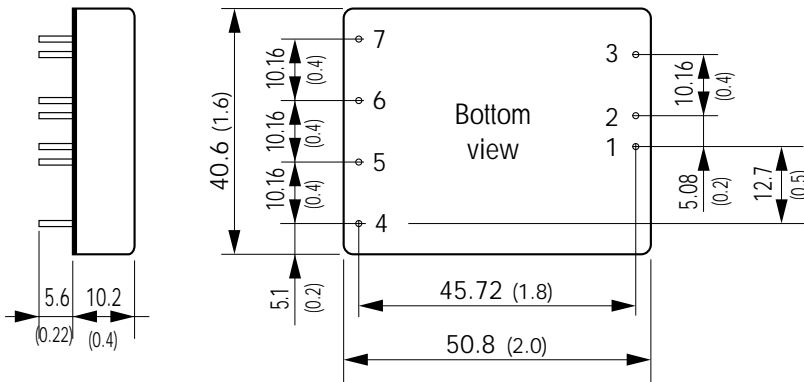
| output | Ru [kohm]* | | | | | |
|--------|------------|------|------|------|-----|-----|
| | 1.8V | 2.5V | 3.3V | 5V | 12V | 15V |
| +5% | 1.5 | 4.7 | 6.8 | 4.7 | 56 | 47 |
| +10% | 0.056 | 0.33 | 0.68 | 0.68 | 6.8 | 2.2 |

| output | Rd [kohm]* | | | | | |
|--------|------------|------|------|------|-----|-----|
| | 1.8V | 2.5V | 3.3V | 5V | 12V | 15V |
| -5% | 1.8 | 6.8 | 8.2 | 5.6 | 47 | 56 |
| -10% | 0.1 | 0.68 | 0.68 | 0.56 | 2.7 | 1.8 |

* approximate values

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

Outline Dimensions mm (inches)



Pin pitch tolerance ± 0.35 (0.014)
 other tolerances ± 0.5 (0.02)
 Pin diameter $\varnothing 1.0 \pm 0.05$ (0.039 ± 0.002)

| Pin-Out | | |
|---------|---------------|---------------|
| Pin | Single output | Dual output |
| 1 | +Vin (Vcc) | +Vin (Vcc) |
| 2 | -Vin (GND) | -Vin (GND) |
| 3 | Remote on/off | Remote on/off |
| 4 | No pin | +Vout |
| 5 | +Vout | Common |
| 6 | -Vout | -Vout |
| 7 | Trim | No con. |

Specifications can be changed without notice