

# DC-DC Converters

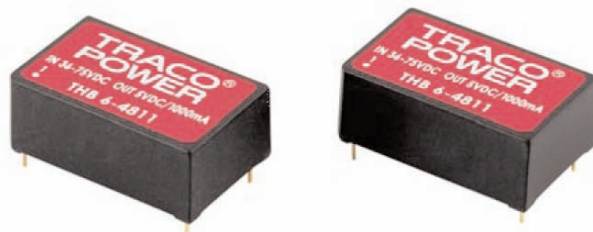
**POWER  
SOLVE**

## THB6 Series, 6 Watt

[www.powersolve.co.uk](http://www.powersolve.co.uk)

### Features

- Ultra compact DIP 24 package
- Wide 2:1 input voltage range
- Industrial and medical safety approval
- Short circuit protection
- Input filter to meet EN 55022 class A
- Reinforced insulation rated for working voltage up to 300VAC



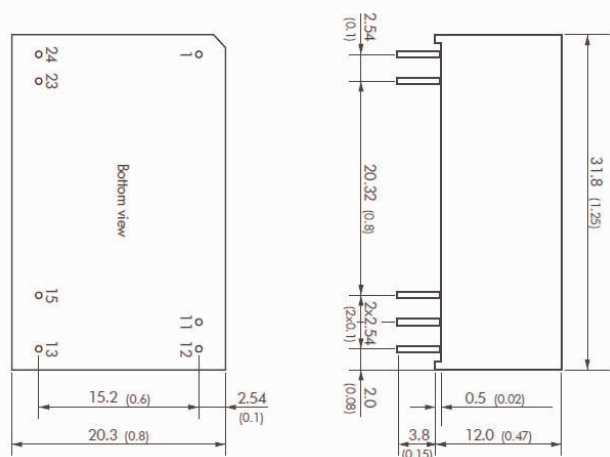
### Electrical Specification

|                             |                                                                       |
|-----------------------------|-----------------------------------------------------------------------|
| Conducted EMI               | EN 55022 class A (internal filter)                                    |
| Short Circuit Protection    | continuous, automatic recovery                                        |
| Operating Temperature Range | -40°C to +71°C (derate at 3%/°C above 60°C)                           |
| I/O isolation voltage       | 4000Vac rms, rated for 300Vac working voltage                         |
| I/O Isolation test voltage  | 6000Vpk (1 sec.)                                                      |
| Safety Approvals            | cUL/UL 60950-1, IEC/EN 60950-1, UL 60601-1, IEC/EN 60601-1, CB report |
| Casing                      | plastic (UL94V-0 rated)                                               |

### Output Voltage and Current Ratings

| MODEL     | INPUT VOLTAGE | OUTPUT VOLTAGE | OUTPUT CURRENT | RIPPLE & NOISE   | LINE REG. | LOAD REG. | EFFICIENCY |
|-----------|---------------|----------------|----------------|------------------|-----------|-----------|------------|
| THB6-1211 | 9 - 18V       | 5VDC           | 1000mA         | 100mV pk-pk max. | 1.0%      | 1.0%      | 75%        |
| THB6-1212 |               | 12VDC          | 500mA          | 150mV pk-pk max. | 1.0%      | 1.0%      | 78%        |
| THB6-1222 |               | ±12VDC         | ±250mA         | 150mV pk-pk max. | 1.0%      | 2.0%      | 78%        |
| THB6-1223 |               | ±15VDC         | ±200mA         | 150mV pk-pk max. | 1.0%      | 2.0%      | 78%        |
| THB6-2411 | 18 - 36V      | 5VDC           | 1000mA         | 100mV pk-pk max. | 1.0%      | 1.0%      | 77%        |
| THB6-2412 |               | 12VDC          | 500mA          | 150mV pk-pk max. | 1.0%      | 1.0%      | 80%        |
| THB6-2422 |               | ±12VDC         | ±250mA         | 150mV pk-pk max. | 1.0%      | 2.0%      | 80%        |
| THB6-2423 |               | ±15VDC         | ±200mA         | 150mV pk-pk max. | 1.0%      | 2.0%      | 80%        |
| THB6-4811 | 36 - 75V      | 5VDC           | 1000mA         | 100mV pk-pk max. | 1.0%      | 1.0%      | 77%        |
| THB6-4812 |               | 12VDC          | 500mA          | 150mV pk-pk max. | 1.0%      | 1.0%      | 80%        |
| THB6-4822 |               | ±12VDC         | ±250mA         | 150mV pk-pk max. | 1.0%      | 2.0%      | 80%        |
| THB6-4823 |               | ±15VDC         | ±200mA         | 150mV pk-pk max. | 1.0%      | 2.0%      | 80%        |

### Mechanical and Connection Details



| Pin | Single Output | Dual Output |
|-----|---------------|-------------|
| 1   | +Vin (Vcc)    | +Vin (Vcc)  |
| 11  | No pin        | Common      |
| 12  | -Vout         | No pin      |
| 13  | +Vout         | -Vout       |
| 15  | No pin        | +Vout       |
| 23  | -Vin (GND)    | -Vin (GND)  |
| 24  | -Vin (GND)    | -Vin (GND)  |