

# DC-DC Converters

**POWER  
SOLVE**

## TEN30 Series, 30 Watt

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### Features

- Smallest encapsulated 30W converter
- 50.8 x 25.4 x 10mm metal package
- Wide 2:1 input range
- Very high efficiency up to 90%
- Adjustable output voltage & remote On/Off
- Short circuit protection



### Electrical Specification

|                             |                                                                   |
|-----------------------------|-------------------------------------------------------------------|
| Output Voltage Adjustment   | ±10% by external resistor (single output models only)             |
| Conducted EMI               | EN 55022 class A, FCC level A (with external capacitor)           |
| Short Circuit Protection    | continuous, automatic recovery                                    |
| Operating Temperature Range | -40°C to +85°C (derate at 3.3%/°C above 60°C)                     |
| I/O Isolation test voltage  | 1500VDC                                                           |
| Safety Approvals            | cUL/UL 60950-1, IEC/EN 60950-1                                    |
| Casing                      | metal with insulated baseplate                                    |
| Remote On/Off               | shutdown input for low input current (2.5mA) in standby operation |

### Output Voltage and Current Ratings

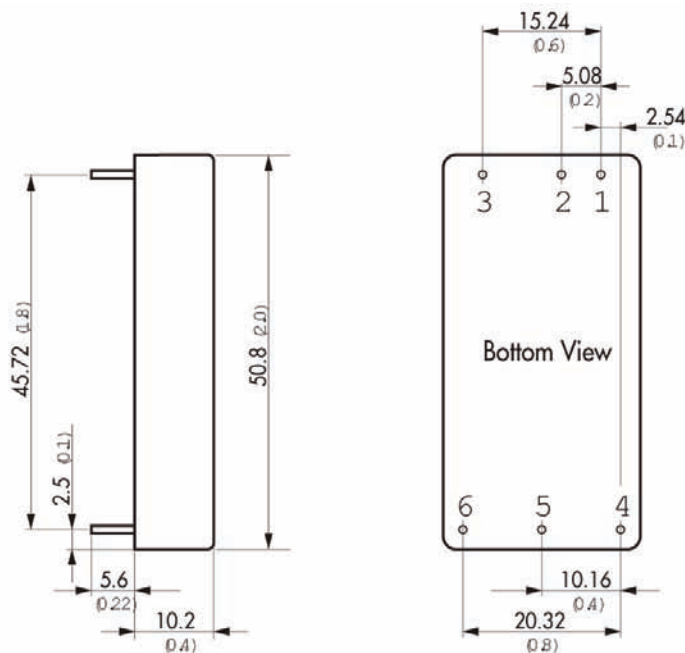
| MODEL      | INPUT V  | OUTPUT V | OUTPUT I | RIPPLE & NOISE   | LINE REG. | LOAD REG. | EFF. |
|------------|----------|----------|----------|------------------|-----------|-----------|------|
| TEN30-1207 | 9 - 18V  | 1.5VDC   | 8000mA   | 75mV pk-pk max.  | 0.2%      | 0.5%      | 79%  |
| TEN30-1209 |          | 2.5VDC   | 8000mA   | 75mV pk-pk max.  | 0.2%      | 0.5%      | 84%  |
| TEN30-1210 |          | 3.3VDC   | 8000mA   | 75mV pk-pk max.  | 0.2%      | 0.5%      | 85%  |
| TEN30-1211 |          | 5VDC     | 6000mA   | 75mV pk-pk max.  | 0.2%      | 0.5%      | 87%  |
| TEN30-1212 |          | 12VDC    | 2500mA   | 75mV pk-pk max.  | 0.2%      | 0.5%      | 89%  |
| TEN30-1213 |          | 15VDC    | 2000mA   | 75mV pk-pk max.  | 0.2%      | 0.5%      | 89%  |
| TEN30-1221 | 18 - 36V | ±5VDC    | ±3000mA  | 100mV pk-pk max. | 0.2%      | 1.0%      | 87%  |
| TEN30-1222 |          | ±12VDC   | ±1250mA  | 100mV pk-pk max. | 0.2%      | 1.0%      | 87%  |
| TEN30-1223 |          | ±15VDC   | ±1000mA  | 100mV pk-pk max. | 0.2%      | 1.0%      | 87%  |
| TEN30-2407 |          | 1.5VDC   | 8000mA   | 75mV pk-pk max.  | 0.2%      | 0.5%      | 80%  |
| TEN30-2409 |          | 2.5VDC   | 8000mA   | 75mV pk-pk max.  | 0.2%      | 0.5%      | 85%  |
| TEN30-2410 |          | 3.3VDC   | 8000mA   | 75mV pk-pk max.  | 0.2%      | 0.5%      | 87%  |
| TEN30-2411 | 36 - 75V | 5VDC     | 6000mA   | 75mV pk-pk max.  | 0.2%      | 0.5%      | 90%  |
| TEN30-2412 |          | 12VDC    | 2500mA   | 75mV pk-pk max.  | 0.2%      | 0.5%      | 91%  |
| TEN30-2413 |          | 15VDC    | 2000mA   | 75mV pk-pk max.  | 0.2%      | 0.5%      | 91%  |
| TEN30-2421 |          | ±5VDC    | ±3000mA  | 100mV pk-pk max. | 0.2%      | 1.0%      | 90%  |
| TEN30-2422 |          | ±12VDC   | ±1250mA  | 100mV pk-pk max. | 0.2%      | 1.0%      | 89%  |
| TEN30-2423 |          | ±15VDC   | ±1000mA  | 100mV pk-pk max. | 0.2%      | 1.0%      | 90%  |
| TEN30-4807 | 36 - 75V | 1.5VDC   | 8000mA   | 75mV pk-pk max.  | 0.2%      | 0.5%      | 80%  |
| TEN30-4809 |          | 2.5VDC   | 8000mA   | 75mV pk-pk max.  | 0.2%      | 0.5%      | 85%  |
| TEN30-4810 |          | 3.3VDC   | 8000mA   | 75mV pk-pk max.  | 0.2%      | 0.5%      | 87%  |
| TEN30-4811 |          | 5VDC     | 6000mA   | 75mV pk-pk max.  | 0.2%      | 0.5%      | 89%  |
| TEN30-4812 |          | 12VDC    | 2500mA   | 75mV pk-pk max.  | 0.2%      | 0.5%      | 91%  |
| TEN30-4813 |          | 15VDC    | 2000mA   | 75mV pk-pk max.  | 0.2%      | 0.5%      | 91%  |
| TEN30-4821 | 36 - 75V | ±5VDC    | ±3000mA  | 100mV pk-pk max. | 0.2%      | 1.0%      | 90%  |
| TEN30-4822 |          | ±12VDC   | ±1250mA  | 100mV pk-pk max. | 0.2%      | 1.0%      | 88%  |
| TEN30-4823 |          | ±15VDC   | ±1000mA  | 100mV pk-pk max. | 0.2%      | 1.0%      | 89%  |

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## Mechanical and Connection Details



| Pin | Single Output | Dual Output   |
|-----|---------------|---------------|
| 1   | +Vin (Vcc)    | +Vin (Vcc)    |
| 2   | -Vin (GND)    | -Vin (GND)    |
| 3   | Remote On/Off | Remote On/Off |
| 4   | +Vout         | +Vout         |
| 5   | -Vout         | Common        |
| 6   | Trim          | -Vout         |

Dimensions in [mm], ( ) = Inch  
Pin diameter:  $1.0 \pm 0.1$  ( $0.04 \pm 0.004$ )  
Pin pitch tolerances:  $\pm 0.25$  ( $\pm 0.01$ )  
Case tolerances:  $\pm 0.5$  ( $\pm 0.02$ )