

detailed application note in process

30W, Wide Input Range, Single & Dual Output DC/DC Converters

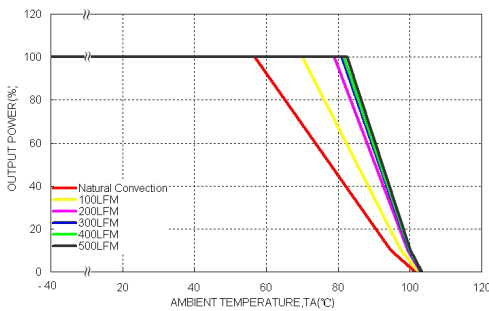
Features

- ◆ Highest power density 30W converter!
Ultra compact size: 1.0" x 1.0" x 0.4"
- ◆ Shielded metal case with isolated baseplate
- ◆ Wide 2:1 input voltage range
- ◆ Very high efficiency across full load range up to 92%
- ◆ No minimum load required
- ◆ Remote On/Off control
- ◆ Operating temp. range -40°C to $+80^{\circ}\text{C}$ and up to 85°C with heat-sink
- ◆ Over temperature protection
- ◆ Output voltage adjustable
- ◆ I/O isolation voltage 1500 VDC

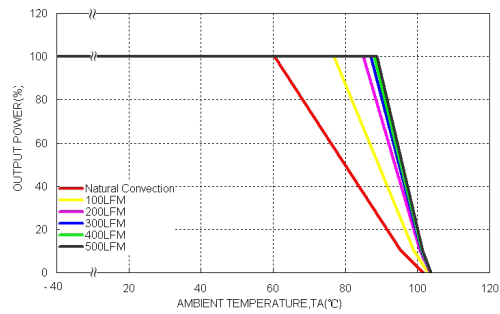


Temperature Derating

THN 30-2411 Derating Curve

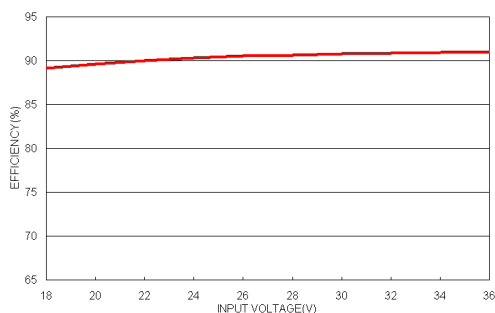


THN 30-2411 Derating Curve With Heat-sink

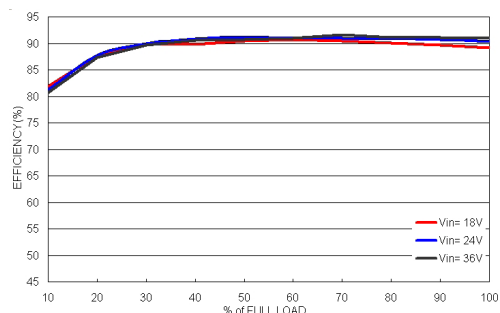


Efficiency

THN 30-2411 Efficiency VS Input Voltage

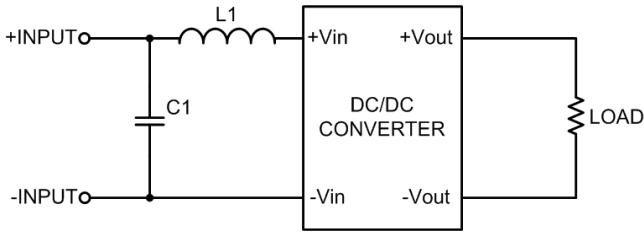


THN 30-2411 Efficiency VS Output Current



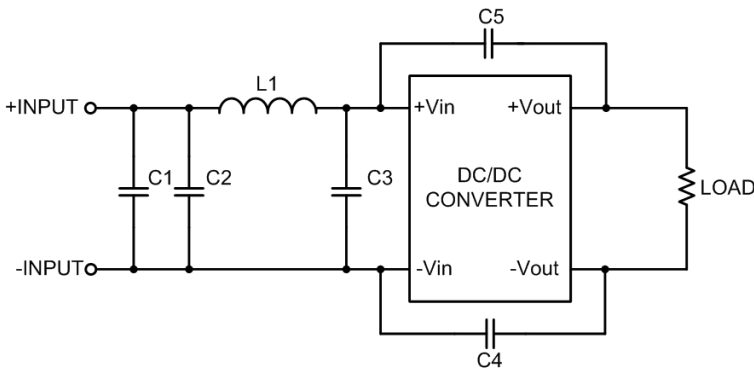
Electromagnetic Emission

Conducted and radiated emissions EN55022 Class A



	C1	L1
THN 30-12xx	4.7µF/25V 1812 MLCC	2.2µH
THN 30-24xx	4.7µF/50V 1812 MLCC	2.2µH
THN 30-48xx	4.7µF/100V 1812 MLCC	10µH

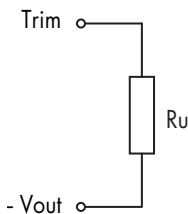
Conducted and radiated emissions EN55022 Class B



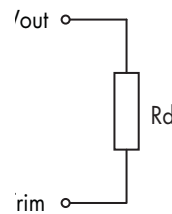
	C1	C2	C3	C4 & C5	L1
THN 30-12xx	4.7µF/25V 1812 MLCC	4.7µF/25V 1812 MLCC	4.7µF/25V 1812 MLCC	1000pF/2KV 1206 MLCC	2.2µH
THN 30-24xx	4.7µF/50V 1812 MLCC	4.7µF/50V 1812 MLCC	4.7µF/50V 1812 MLCC	1000pF/2KV 1206 MLCC	2.2µH
THN 30-48xx	4.7µF/100V 1812 MLCC	4.7µF/100V 1812 MLCC	4.7µF/100V 1812 MLCC	2200pF/2KV 1206MLCC	10µH

Output Voltage Adjustment (for single output models only)

Trim up



Trim down



Nominal output voltage at open Trim input
Ru, Rd for adjustment to be advised

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