Application Note
THN 30 Series

detailed application note in process

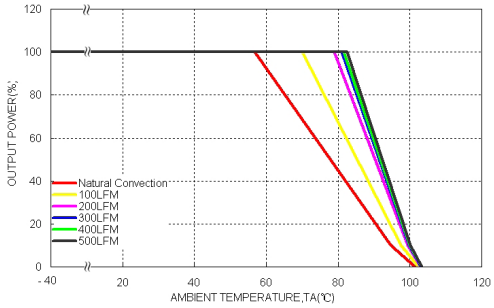
30W, Wide Input Range, Single & Dual Output DC/DC Converters

Features

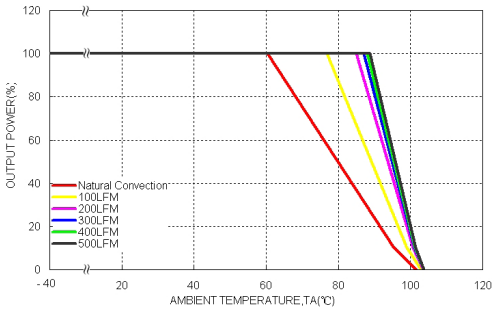
- Highest power density 30W converter! Ultra compact size: 1.0" x 1.0" x 0.4"
- Shielded metal case with isolated baseplate
- Wide 2:1 input voltage range
- Very high efficiency across full load range up to 92%
- No minimum load required
- Remote On/Off control
- Operating temp. range –40°C to +80°C 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

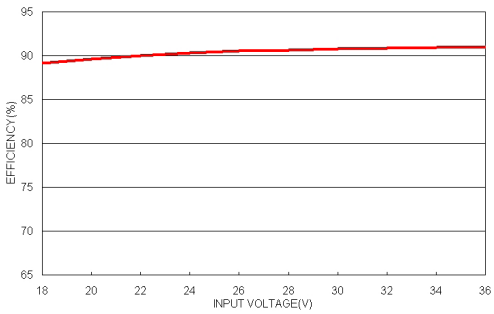


THN 30-2411 Derating Curve With Heat-sink

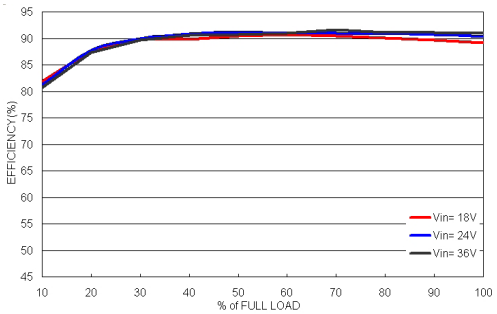


Efficiency

THN 30-2411 Efficiency VS Input Voltage

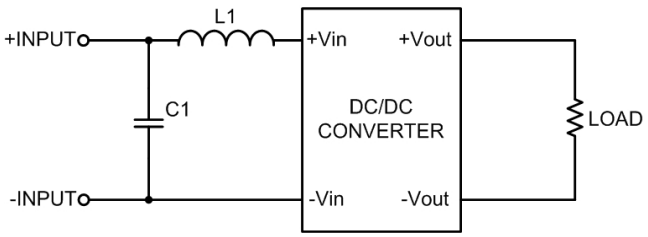


THN 30-2411 Efficiency VS Output Current



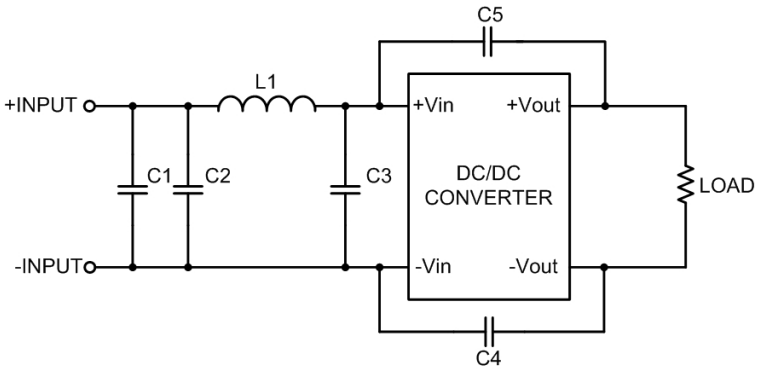
Electromagnetic Emission

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

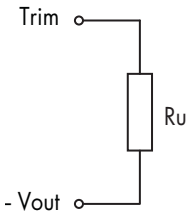
Conducted and radiated emissions EN55022 Class B



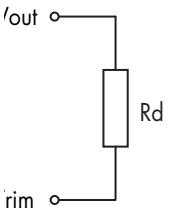
	C1	C2	C3	C4 & C5	L1
THN 30-12xx	4.7µF/25V 1812 MLCC	4.7µF/25V 1812 MLCC	4.7µF/25V 1812 MLCC	1000pF/2KV 1206 MLCC	2.2µH
THN 30-24xx	4.7µF/50V 1812 MLCC	4.7µF/50V 1812 MLCC	4.7µF/50V 1812 MLCC	1000pF/2KV 1206 MLCC	2.2µH
THN 30-48xx	4.7µF/100V 1812 MLCC	4.7µF/100V 1812 MLCC	4.7µF/100V 1812 MLCC	2200pF/2KV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