

High-Current Flat Wire THT Power Inductor

Product Overview

The Trafopsu High-Current THT Power Inductor Series is engineered as a high-reliability, designed specifically for next-generation power converters requiring extreme mechanical stability and ultra-low losses, these inductors feature specialized metal alloy composite cores wound with heavy-gauge class-H flat copper wire. Supporting an inductance spectrum of $3\mu\text{H} - 47\mu\text{H}$ and rated currents from 25A up to 180A , this series represents the pinnacle of compact high-current magnetic component design.

5 – 47 μH

INDUCTANCE RANGE

25 – 180 A

CURRENT RANGE (I_{SAT})

100% Drop-In

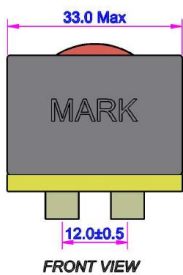
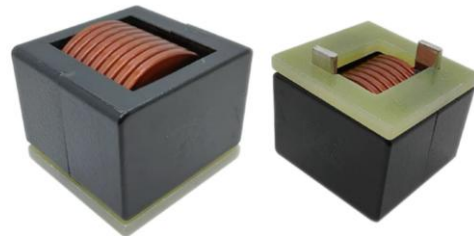
WE-HCFT COMPATIBLE

THT Mount

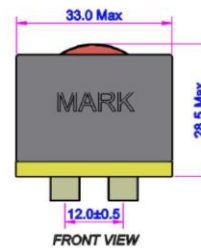
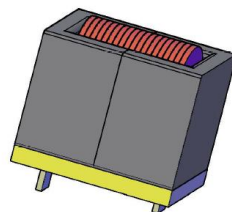
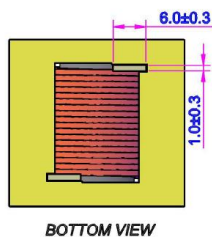
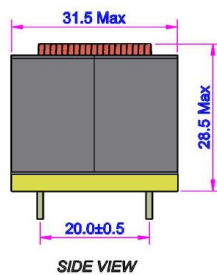
MECHANICAL STABILITY

Typical Applications

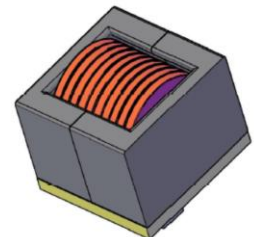
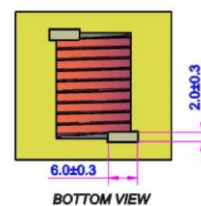
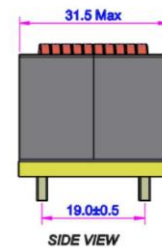
- **High-Efficiency DC/DC Converters:** Multi-phase buck, boost, or buck-boost topologies in computing and high-power telecom systems.
- **Industrial Power Solutions:** Switched-mode power supplies (SMPS), battery charger systems, and variable frequency drives.
- **Renewable Energy Systems:** Solar central and string inverters, energy storage system (ESS) bi-directional converters.
- **E-Mobility:** On-board chargers (OBC), fast-charging stations, and auxiliary power modules.



a



b



Electrical Characteristics Matrix

Except for minor variations in mechanical footprint outlines, all TrafoPSU cross-reference models maintain equivalent package dimensions, typical inductance values, and direct electrical rating to standard WE-HCFT components.

TrafoPSU Model no.	Drawing	Inductance	DC Resistance mΩ		Rated Current	Saturation Current Amps	
		uH ±20%	Typ.	Max.	Amps	20% drop	30% drop
TPEQ32-3R2M	a	3.2	0.5	0.8	65	130	180
TPEQ32-5R0M	a	5	0.9	1.5	75	130	180
TPEQ32-7R8M	a	7.8	0.9	1.5	75	70	100
TPEQ32-120M	a	12	0.9	1.5	75	40	60
TPEQ32-220M	b	22	3.0	4.5	40	60	90
TPEQ32-330M	b	33	3.0	4.5	40	32	42
TPEQ32-470M	b	47	3.0	4.5	40	17	25
●	● Inductance is tested at 100KHz/1V ● Operating Temperature: -55 °C up to +155°C ● Custom inductance and current ratings available						

Our Commitment to Your Power Performance

Professional · Flexible · Reliable
At HIPOWER, we believe that the stability of your power system relies on the absolute precision of every single winding. By combining 100% rigorous optical and electrical inspections with highly flexible custom engineering, we deliver magnetic components that consistently exceed catalog standards. We are not just a component vendor; we are your engineering partner dedicated to resolving your custom design constraints and securing your global supply chain.