

'E64' Range: 1kW – 9kW

ADVANTAGES

Himag Solutions' 'E64' range of planar power transformers is ideal for use in any high-frequency SMPS or Inverter. The advantages of planar transformers include:

- high power density
- low profile
- improved efficiency, up to 99.5%
- excellent thermal conductivity
- low leakage inductance
- high reliability
- multiple topologies
- customised terminations



Typical E64 Planar Transformer
(length max. 118mm, width max. 64mm, height max. 30mm)

CUSTOM DESIGN

It is not always possible to incorporate an off-the-shelf transformer into a new design. So in addition to our standard range of E64 sized planar transformers (shown overleaf), Himag Solutions also provides a custom E64 design service, at no additional cost. New design requests can be submitted via the online request form at www.himag.co.uk.

THERMAL PERFORMANCE

The Himag Solutions' construction technique provides minimal thermal interfaces, resulting in excellent thermal conductivity. To compliment this, Himag Solutions also offer a range of heatsinks that can be used in conjunction with these transformers.

MECHANICAL

All Himag Solutions' transformers are available with a range of different termination styles and mounting methods, these include:

- Bolted
- PCB-mount
- Fly-leads

For a list of available styles, please see our brochure.

APPLICATIONS

Typical applications include:

- battery charging
- high voltage PSU's
- telecom rectifiers
- renewables
- hybrid/electric vehicles
- aerospace
- defence
- medical applications
- inverter welders
- induction heating

TOPOLOGIES

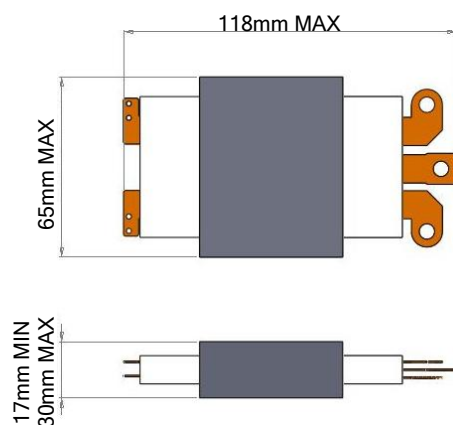
Typical topologies that suit planar transformers are:

- Full Bridge
- Half-Bridge
- Flyback
- Forward
- Resonant

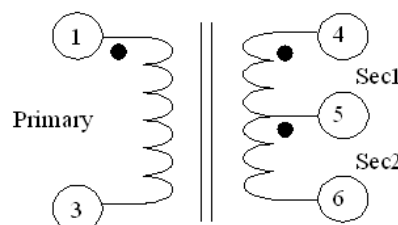
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OUTPUT POWER	INPUT VOLTAGE	FREQUENCY	OUTPUT VOLTAGE	OUTPUT CURRENT	TURNS RATIO	PRIMARY INDUCTANCE	HIMAG SOLUTIONS PART NO.
CUSTOM	up to 800V	up to 1MHz	up to 400V	up to 250A	CUSTOM	CUSTOM	CUSTOM
2kW	350V - 400V	50kHz	240V	8.3A	14:12	2.25mH	134403
3kW	350V - 450V	100kHz	30V	100A	10:1+1	1.15mH	116201
3.5kW	420V - 622V	100kHz	29V	120A	12:1+1	1.66mH	130101
5kW	60V - 100V	40kHz	210V	23.8A	3:12	0.11mH	127201
5.4kW	350V - 375V	75kHz	120V	45A	10:4	1.15mH	124402
6kW	650V - 715V	75kHz	60V	100A	16:4	2.94mH	149402
7.8kW	420V - 622V	100kHz	60V	130A	12:2+2	1.66mH	132202
9kW	780V - 800V	130kHz	350V	25A	16:8	2.94mH	163303

DIMENSIONS



CIRCUIT DIAGRAM



ADDITIONAL TECHNICAL INFORMATION

- Isolation Voltage:
 - Pri - Sec = 4000Vrms
 - Pri - Core, Sec - Core = 2500Vrms
- Insulation Class = Class F (155°C)
- Leakage Inductance = 1μH - 4μH (typ)
- Efficiency = up to 99.5%
- Weight = 350g (typ)
- Low DC winding resistance