

Magnetic Details for PMP3661

Switching Power Transformer Magnetic details

Core Type	Core Material	Bobbin	Isolation Voltage	Quantity
EI-28	N87 / CF138	10Pin(Vertical)	1500V AC	1

Winding Details

Winding	No. of Turns	Wire Gauge	Start Pin	End Pin	Inductance
W1	28	31 SWG x 2	2	1	180 μ H \pm 10%
W2	6	36 SWG	4	3	~8 μ H
W3	28	28 SWG x 2	9	10	~180 μ H
W4	8	36 SWG	8	7	~15 μ H

Electrical requirements

- Leakage Inductance (Pin1-2) - 5 μ H (max) with all other windings/pins shorted
- Insulation Voltage - Between 1 - 5 pins shorted and to pins 9 & 10 shorted together
- 1500V AC for 1min

Transformer Construction -

Winding Procedure:

- ➔ Start with half primary (W1) starting at Pin 2 and end at pin 5 in one layer
- ➔ Basic insulation
- ➔ Wind bias (W2) in one layer spreading uniformly across bobbin width, start at 4, end at 3
- ➔ Reinforced Insulation
- ➔ Wind secondary (W3) in two layers, start at pin 9, end at 10.
- ➔ Reinforced Insulation
- ➔ Wind half primary (W1) continuing at pin 5 and ending at pin 1 in one layer
- ➔ Reinforced Insulation
- ➔ Wind secondary bias (W4) in one layer spreading uniformly across bobbin width, start at 8, end at 7
- ➔ Reinforced Insulation
- ➔ Gap core suitably (approximately 0.25mm on each side limbs) to get required primary inductance
- ➔ Bond the core to avoid audible noise
- ➔ Vacuum impregnate with varnish
- ➔ Cut-off pin 5 without damaging the termination on it.

Special requirements

- Use 0.5mm Triple Insulated Wire for secondary winding, if UL/EN safety isolation is required.