

Warpinverter Transformer Specifications; total magnetising power loss = 19.95W

Transformer #1 (large):

Core area: $2 \times 3195 \text{ mm sq} = 6390 \text{ mm sq}$ total, hole diameter = 100mm, mass = 22kg

Secondary $V = 225 \text{ Vrms} = 160$ turns of $3 \times 1.7 \text{ mm}$ wire (6.81mm sq), 1.41V/turn

Primary $V = 45 \text{ V} = 32$ turns of $21 \times 1.5 \text{ mm}$ wire (37.1mm sq)

Flux = 0.9913T magnetising power 10W total copper 8.7kg

turns ratio = 5.000

Transformer #2 (medium):

Core area: 3036 mm sq, hole diameter = 96mm, mass = 10kg

Secondary $V = 75 \text{ Vrms} = 112$ turns of $3 \times 1.7 \text{ mm}$ wire (6.81 mm sq) 0.67V/turn

Primary $V = 45 \text{ V} = 67$ turns of $7 \times 1.5 \text{ mm}$ wire (12.4mm sq)

Flux = 0.9935T magnetising power 4.3W total copper 3.9kg

turns ratio = 1.666

Transformer #3 (small):

Core area: 2205 mm sq, hole diameter = 95mm, mass = 7.5kg

Secondary $V = 25 \text{ Vrms} = 51$ turns of $3 \times 1.7 \text{ mm}$ wire (6.81mm sq) 0.49V/turn

Primary $V = 45 \text{ V} = 92$ turns of $7 \times 1 \text{ mm}$ wire (5.5mm sq)

Flux = 1.0014T magnetising power 2.8W total copper 1.8kg

turns ratio = 0.555

Transformer #4 (tiny):

Core area: 1683 mm sq, hole diameter = 80mm, mass = 4.3kg

Secondary $V = 8.33 \text{ Vrms} = 22$ turns of $3 \times 1.7 \text{ mm}$ wire (6.81mm sq) 0.38V/turn

Primary $V = 45 \text{ V} = 120$ turns of 1.5 mm wire (1.77mm sq)

Flux = 1.0036T magnetising power 2.85W total copper 0.9kg

Turns ratio = 0.185