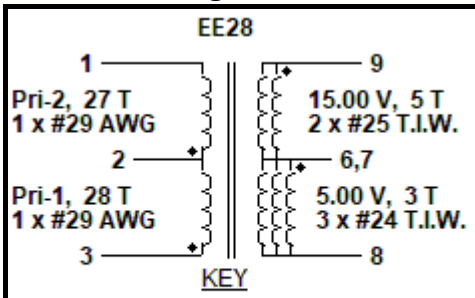
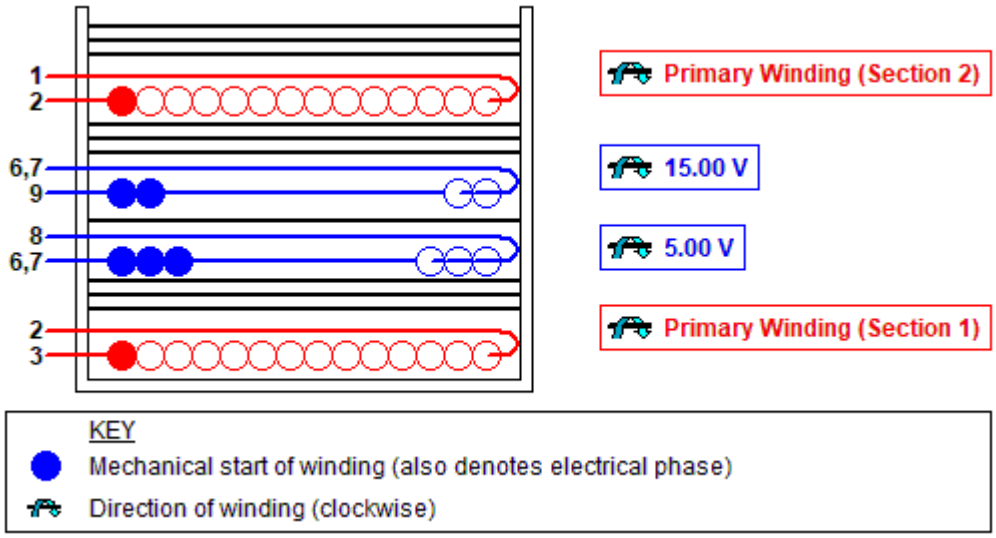
## Electrical Diagram




## Mechanical Diagram




## Winding Instruction

**Primary Winding (Section 1)**

Start on pin(s) 3 and wind 28 turns (x 1 filar) of item [5]. in 1 layer(s) from left to right. Winding direction is clockwise. On the final layer, spread the winding evenly across entire bobbin. Finish this winding on pin(s) 2.

Add 3 layers of tape, item [3], for insulation.

**Secondary Winding**

Start on pin(s) 6,7 and wind 3 turns (x 3 filar) of item [6]. Spread the winding evenly across entire bobbin. Winding direction is clockwise. Finish this winding on pin(s) 8.

Add 1 layer of tape, item [3], for insulation.

Start on pin(s) 9 and wind 5 turns (x 2 filar) of item [7]. Spread the winding evenly across entire bobbin. Winding direction is clockwise. Finish this winding on pin(s) 6,7.

Add 3 layers of tape, item [3], for insulation.

**Primary Winding (Section 2)**

Start on pin(s) 2 and wind 27 turns (x 1 filar) of item [5]. in 1 layer(s) from left to right. Winding direction is clockwise. On the final layer, spread the winding evenly across entire bobbin. Finish this winding on pin(s) 1.

Add 3 layers of tape, item [3], for insulation.

**Core Assembly**

Assemble and secure core halves. Item [1].

**Varnish**

Dip varnish uniformly in item [4]. Do not vacuum impregnate.

## Comments

**1. Pins 6 and 7 are electrically shorted to each other on the PCB via a copper trace.**

**2. Use of a grounded flux-band around the core may improve the EMI performance.**

**3. For non margin wound transformers use triple insulated wire for all secondary windings.**

## Materials

| *Item* | *Description* |
|---|---|
| [1] | Core: EE28, 3F3, gapped for ALG of 390 nH/T² |

| | |
|---|---|
| **[2]** | **Bobbin: Generic, 5 pri. + 5 sec.** |
| **[3]** | **Barrier Tape: Polyester film [1 mil (25 µm) base thickness], 9.60 mm wide** |
| **[4]** | **Varnish** |
| **[5]** | **Magnet Wire: 29 AWG, Solderable Double Coated** |
| **[6]** | **Triple Insulated Wire: 24 AWG** |
| **[7]** | **Triple Insulated Wire: 25 AWG** |

## Electrical Test Specifications

| *Parameter* | *Condition* | *Spec* |
|---|---|---|
| Electrical Strength, VAC | **60 Hz 1 second, from pins 1,2,3 to pins 6,7,8,9.** | **3000** |
| Nominal Primary Inductance, µH | **Measured at 1 V pk-pk, typical switching frequency, between pin 1 to pin 3, with all other Windings open.** | **1342** |
| Tolerance, ±% | **Tolerance of Primary Inductance** | **12.0** |
| Maximum Primary Leakage, µH | **Measured between Pin 1 to Pin 3, with all other Windings shorted.** | **33.55** |

**Although the design of the software considered safety guidelines, it is the user's responsibility to ensure that the user's power supply design meets all applicable safety requirements of user's product.**