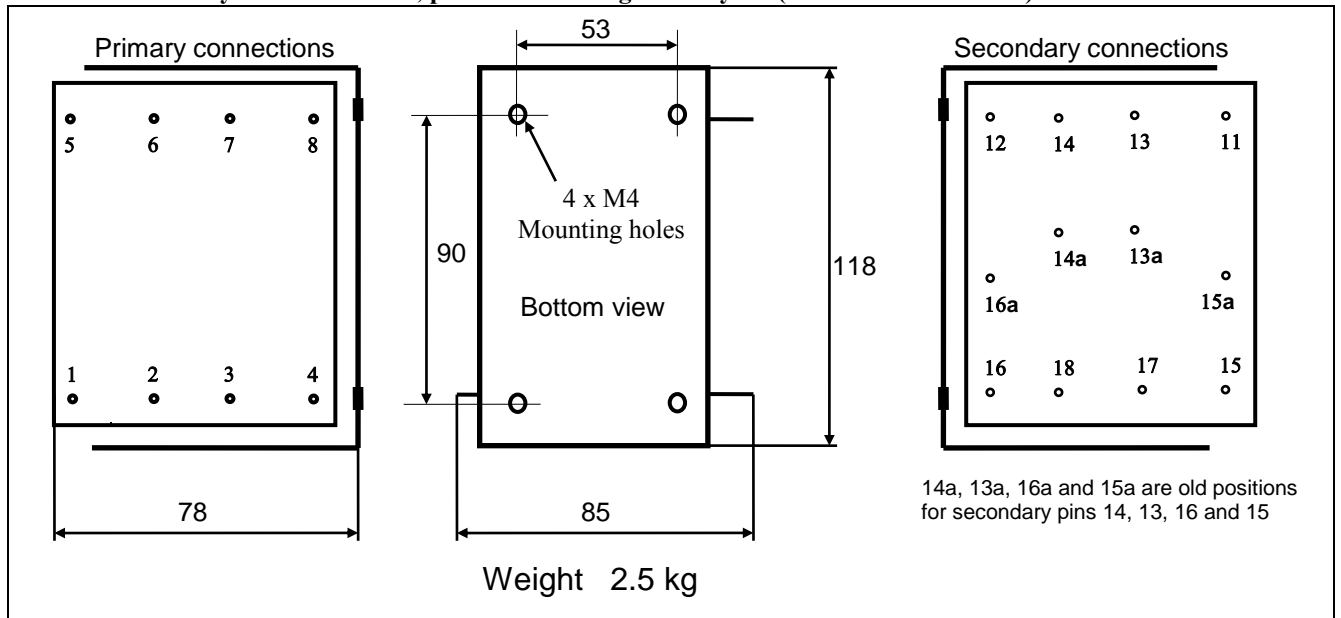


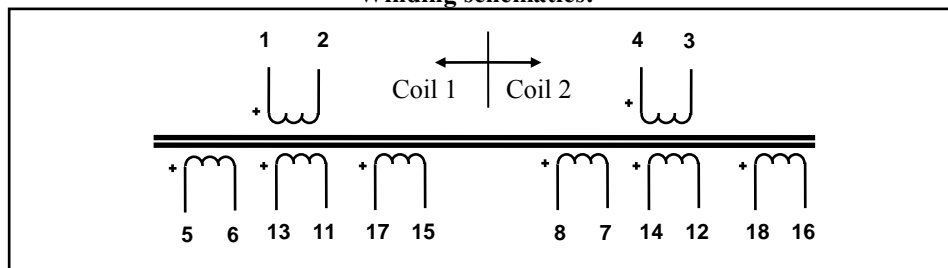
Mains Transformers for Tube Amplifiers LL1648, LL1649, LL1650, LL1651

C-core mains transformers. The core is assembled with a small air-gap to compensate for any mains DC-unbalance. Estimated power rating 250 VA which can be increased with good cooling. Magnetic stray is extremely small if secondaries of the two coils are loaded identically.

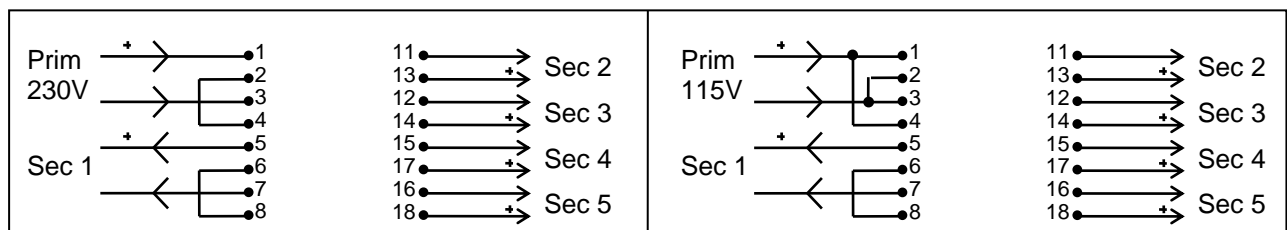
Physical dimensions, pin and mounting hole layout (all dimensions in mm)



Winding schematics:



Connection alternatives. Primary in series for 230V (left) and in parallel for 115V (right).



Copper resistance, no load output voltages and max recommended transformer current (rms) with primary connected to 230 V serial / 115V parallel and Sec 1 connected as above

Type	Primary res. Serial/parallel	Sec 1	Sec 2	Sec 3	Sec 4	Sec 5
LL1648	7.5 Ω / 1.9 Ω	20 Ω / 350 V 0.63A	0.1 Ω / 5.9 V 3.1A	0.1 Ω / 5.9 V 3.1A	0.1 Ω / 6.6 V 3.1A	0.1 Ω / 6.6 V 3.1A
LL1649	7.5 Ω / 1.9 Ω	8.4 Ω / 230 V 1.0A	0.1 Ω / 6.6V 3.1A	0.1 Ω / 6.6V 3.1A	0.1 Ω / 6.6 V 3.1A	0.1 Ω / 6.6 V 3.1A
LL1650	7.5 Ω / 1.9 Ω	20 Ω / 350 V 0.63A	0.1 Ω / 6.6 V 3.1A	0.1 Ω / 6.6V 3.1A	0.1 Ω / 6.6 V 3.1A	0.1 Ω / 6.6 V 3.1A
LL1651	7.5 Ω / 1.9 Ω	42 Ω / 500V 0.43A	0.1 Ω / 6.6 V 3.1A	0.1 Ω / 6.6V 3.1A	0.1 Ω / 6.6 V 3.1A	0.1 Ω / 6.6 V 3.1A

Please note! Output current from rectifier: 63% of above with condensor input rectifier, 95% of above with choke input rectifier.