Toroidal - Twin Primary Transformers

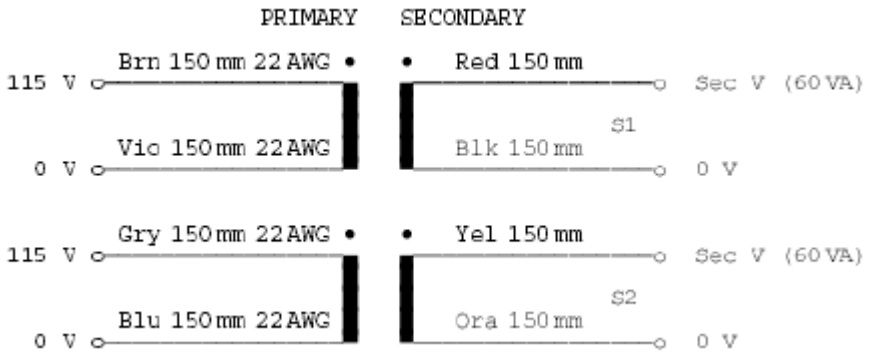
115V/230V ac

Features:

- Very high quality construction
- High efficiency and smaller size compared to conventional EI transformers
- Extremely low radiated magnetic field, suitable for sensitive electronics
- Double insulated primary leadouts
- Flexible leadouts can be trimmed to any length without the need of removal of enamel
- Design, manufactured and tested in accordance with EN60742, EN60065 and EN60950
- 100% electrical and flash tested
- Supplied with mounting dish, bolt and 2 foam pads
- Pri / Seconds leads 0°

A high quality range of open style toroidal transformers with flying leads. Featuring a dual 115V 50 / 60 Hz primary winding for series (230 V) or parallel (115 V) connection only. Secondary windings can be connected in series or parallel or used independently

Schematic TA Range General Purpose Toroidal Transformers



Primary

Dual primary winding for connection in series or parallel only

Input Voltage	: 115 or 230 V ± 10% 50 / 60 Hz
DC Resistance	: 2 × 7.3 Ω ±15% at 20°C
Magnetising current	: 9 mA approximate at 230 V 50 Hz (18 mA approximate at 115 V 50 Hz)

Termination

Primary leads double insulated with PVC sleeving for a minimum of 2 mm
Lead lengths ±5 mm approximate. All leads ends tinned to 6 mm

Losses

Iron Loss	: 0.98 watts approximate
Copper Loss	: 11.4 watts approximate
Efficiency	: 91% typical
Temperature Rise	: 54°C approximate
Ambient Rated	: 40°C

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Temperature Class

Winding Wire	: Class H (180°C)
Insulation System	: Class B (130°C)
Leadout Insulation	: Class A (105°C)
Overall	: Class A (105°C)

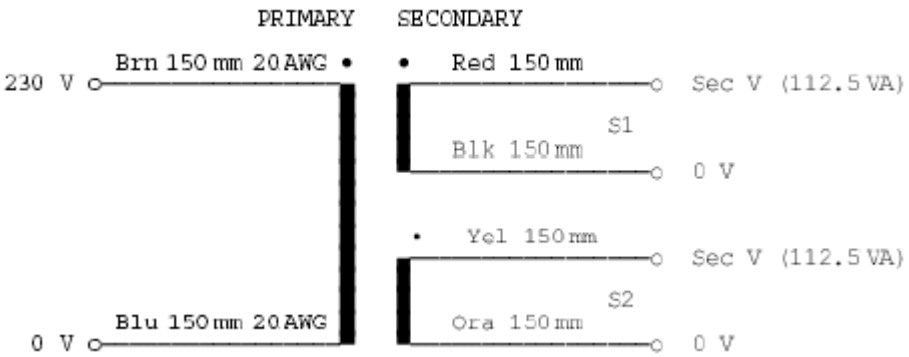
Supplied With

1 × 70 mm dished mounting plate
2 × 70 mm neoprene mounting pads
1 × M6 × 50 mm screw, nut and washer

Specification Table

On Load Seconds V	Rated Amperes per Seconds	Off Load Seconds V	Seconds Flex Gauge	Seconds Ω at 20°C	Part Number
12	5	13 .2	18 AWG	0.12	MCTA120/12
15	4	16.4	20 AWG	0.19	MCTA120/15
18	3 .33	19.6		0.29	MCTA120/18
25	2.4	27.3		0.55	MCTA120/25
55	1.09	59.5		2.18	MCTA120/55

Schematic TI Range General Purpose Toroidal Transformers



Primary

Input Voltage	: 230 V ±10% 50 / 60 Hz
DC Resistance	: 6.3 Ω ±15% at 20°C
Magnetising Current	: 14.5 mA approximate 230 V 50 Hz

Termination

Primary leads double insulated with PVC sleeving for a minimum of 20 mm
Lead lengths ±5 mm approximate. All leads ends tinned to 6 mm

Losses

Iron Loss	: 1.49 watts approximate
Copper Loss	: 16.9 watts approximate
Efficiency	: 92% typical
Temperature Rise	: 56°C approximate
Ambient Rated	: 40°C

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Temperature Class

Winding Eire	: Class H (180°C)
Insulation System	: Class B (130°C)
Leadout Insulation	: Class A (105°C)
Overall	: Class A (105°C)

Approximate Dimensions / Weight (Mounting Excluded)

Diameter	: 110 mm*
Height	: 51 mm*
Weight	: 2.2 kg

* allow extra 5mm over leadout area

Supplied with

1 × 90 mm dished mounting plate
2 × 90 mm neoprene mounting pads
1 × M6 × 60 mm screw, nut and washer

Specification Table

VA	Regulation % Typical	Temperature Rise (°C)	Diameter	Height	Weight (Kg)	Fixing Bolt
15	14	27	64.5	30.5	0.3	M5 × 40
30		42	73	31	0.5	
50	13	50	81	34.5	0.6	
60	12	47	91.5	39	0.8	M6 × 50
80	11	52	87.5		1	
100	10		91	46	1.1	
120	9	54	95	47	1.3	
160	8		105		1.6	M6 × 60
225	7	56	110	51	2.2	
250		55	119.5	53.5	2.4	
300	6	56	125	54	2.8	
500	5	53	136	59	4.3	M8 × 75
625		59	139	71	5.2	M8 × 80
800	4		163	59	6.3	
1,000		60	167	70.5	7.5	

Dimensions : Millimetres

Maximum ambient temperature 40°C
Overall temperature rating Class A (105°C)
Secondary voltage tolerance ±1% at nominal input and full resistive load
All leads 150 mm long, stripped and tinned for last 6 mm

Note: Under no circumstances should both ends of any fixing bolt be allowed to come simultaneously in contact with metal chassis or framework so that an electrical path is formed through the bolt in the centre of the transformer via the external framework. This would constitute a shorted turn and would cause irreparable damage

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Specification Table

Load (VA)	Description	Part Number
30	0-6 V, 0-6 V At 2.5 A	MCTA030/06
	0-12 V, 0-12 V At 1.25 A	MCTA030/12
	0-15 V, 0-15 V At 1 A	MCTA030/15
	0-18 V, 0-18 V At 0.83 A	MCTA030/18
	0-25 V, 0-25 V At 0.6 A	MCTA030/25
50	0-6 V, 0-6 V At 4.17 A	MCTA050/06
	0-9 V, 0-9 V At 2.78 A	MCTA050/09
	0-15 V, 0-15 V At 1.67 A	MCTA050/15
	0-18 V, 0-18 V At 1.39 A	MCTA050/18
	0-25 V, 0-25 V At 1 A	MCTA050/25
60	0-9 V, 0-9 V At 3.33 A	MCTA060/09
	0-15 V, 0-15 V At 2 A	MCTA060/15
	0-18 V, 0-18 V At 1.67 A	MCTA060/18
	0-25 V, 0-25 V At 1.2 A	MCTA060/25
100	0-18 V, 0-18 V At 2.78 A	MCTA100/18
	0-25 V, 0-25 V At 2 A	MCTA100/25
80	0-9 V, 0-9 V at 4.44 A	MCTA080/09
	0-12 V, 0-12 V at 3.33 A	MCTA080/12
	0-15 V, 0-15 V at 2.67 A	MCTA080/15
	0-18 V, 0-18 V at 2.22 A	MCTA080/18
625	0-40 V, 0-40 V At 7.81 A	MCTA625/40
1,000	0-40 V, 0-40 V At 12.5 A	MCTA1000/40
	0-55 V, 0-55 V At 9.09 A	MCTA1000/55