

Toroidal - Twin Primary Transformers

115V/230V ac

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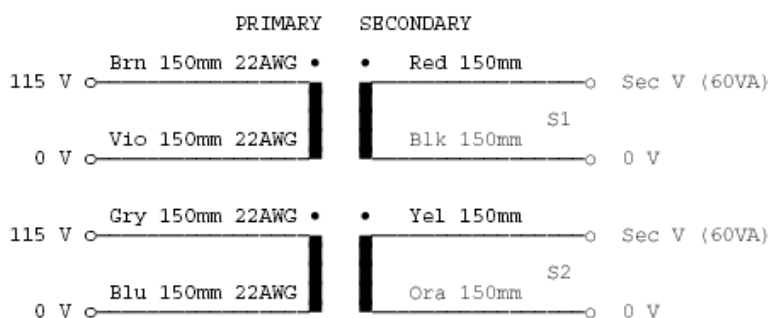


A high quality range of open style toroidal transformers with flying leads. Featuring a dual 115V 50/60Hz primary winding for series (230V) or parallel (115V) connection only. Secondary windings can be connected in series or parallel or used independently.

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/Sec leads 0°

Schematic TA Range General Purpose Toroidal Transformers



Primary

Dual primary winding for connection in series or parallel only

Input Voltage : 115 or 230V $\pm$ 10% 50/60Hz.

DC resistance : 2 x 7.3 Ohms $\pm$ 15% at 20°C

Magnetising current : 9.0mA approximate at 230V 50Hz (18mA approximate at 115v 50Hz)

Termination

Primary leads double insulated with PVC sleeving for a minimum of 2 0mm.

Lead lengths $\pm$ 5mm approximate. All leads ends tinned to 6 mm.

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Losses

Iron loss : 0.98 Watts approximate.
Copper loss : 11.4 Watts approximate.
Efficiency : 91.0% typical.
Temperature rise : 54°C approximate.
Ambient rated : 40°C.

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 x 70mm dished mounting plate.
2 x 70mm neoprene mounting pads.
1 x M6 x 50mm screw, nut & washer.

Specifications

On Load Sec V	Rated amps per Sec	Off load Sec V	Sec Flex Gauge	Sec Ohms at 20°C	Part Number
12	5.00	13 .2	18 AWG	0.12	MCTA120/12
15	4.00	16.4	20 AWG	0.19	MCTA120/15
18	3 .33	19.6		0.29	MCTA120/18
25	2.40	27.3		0.55	MCTA120/25
55	1.09	59.5		2.18	MCTA120/55

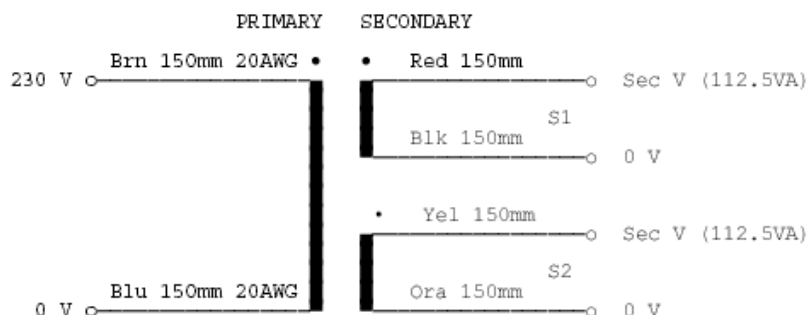
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Schematic TI Range General Purpose Toroidal Transformers



Primary

Input Voltage: 230V $\pm 10\%$ 50/60Hz.

DC resistance: 6.3 Ohms $\pm 15\%$ at 20°C

Magnetising current: 14.5mA approximate 230V 50Hz.

Termination

Primary leads double insulated with PVC sleeving for a minimum of 20mm.

Lead lengths ± 5 mm approximate. All leads ends tinned to 6mm.

Losses

Iron loss : 1.49 Watts approximate.

Copper loss : 16.9 Watts approximate.

Efficiency : 92.0% typical.

Temperature rise : 56°C approximate.

Ambient rated : 40°C.

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)

Approximate dimensions/weight (mounting excluded)

Diameter : 110.0 mm*

Height : 51.0 mm*

Weight : 2.20 kg

* allow extra 5mm over leadout area

Supplied with

1 x 90mm dished mounting plate

2 x 90mm neoprene mounting pads

1 x M6 x 60mm screw, nut & washer



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Specification Table

VA	Regulation % typical	Temperature rise (°C)	Diameter	Height	Weight (Kg)	Fixing bolt
15	14	27	64.5	30.5	0.3	M5 x 40
30		42	73	31	0.5	
50	13	50	81	34.5	0.6	
60	12	47	91.5	39	0.8	M6 x 50
80	11	52	87.5		1.0	
100	10		91	46	1.1	
120	9	54	95	47	1.3	
160	8		105		1.6	
225	7	56	110	51	2.2	M6 x 60
250		55	119.5	53.5	2.4	
300	6	56	125	54	2.8	
500	5	53	136	59	4.3	M8 x 75
625		59	139	71	5.2	M8 x 80
800	4		163	59	6.3	
1000		60	167	70.5	7.5	

Dimensions : Millimetres

Maximum ambient temperature 40°C.

Overall temperature rating Class A (105°C).

Secondary voltage tolerance $\pm 1\%$ at nominal input and full resistive load.

All leads 150mm long, stripped and tinned for last 6.0mm.

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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Part Numbers

Load (VA)	Specification	Part Number
15	0-6V, 0-6V @ 1.25A	MCTA015/06
	0-9V, 0-9V @ 0.83A	MCTA015/09
	0-12V, 0-12V @ 0.63A	MCTA015/12
	0-15V, 0-15V @ 0.5A	MCTA015/15
	0-18V, 0-18V @ 0.42A	MCTA015/18
30	0-6V, 0-6V @ 2.5A	MCTA030/06
	0-12V, 0-12V @ 1.25A	MCTA030/12
	0-15V, 0-15V @ 1A	MCTA030/15
	0-18V, 0-18V @ 0.83A	MCTA030/18
	0-25V, 0-25V @ 0.6A	MCTA030/25
50	0-6V, 0-6V @ 4.17A	MCTA050/06
	0-9V, 0-9V @ 2.78A	MCTA050/09
	0-12V, 0-12V @ 2.08A	MCTA050/12
	0-15V, 0-15V @ 1.67A	MCTA050/15
	0-18V, 0-18V @ 1.39A	MCTA050/18
	0-25V, 0-25V @ 1A	MCTA050/25
60	0-9V, 0-9V @ 3.33A	MCTA060/09
	0-15V, 0-15V @ 2A	MCTA060/15
	0-18V, 0-18V @ 1.67A	MCTA060/18
	0-25V, 0-25V @ 1.2A	MCTA060/25
100	0-12V, 0-12V @ 4.17A	MCTA100/12
	0-15V, 0-15V @ 3.33A	MCTA100/15
	0-18V, 0-18V @ 2.78A	MCTA100/18
	0-25V, 0-25V @ 2A	MCTA100/25
120	0-12V, 0-12V @ 5A	MCTA120/12
	0-15V, 0-15V @ 4A	MCTA120/15
	0-18V, 0-18V @ 3.33A	MCTA120/18
	0-25V, 0-25V @ 2.4A	MCTA120/25
	0-55V, 0-55V @ 1.09A	MCTA120/55
160	0-12V, 0-12V @ 6.67A	MCTA160/12
	0-15V, 0-15V @ 5.33A	MCTA160/15

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Part Numbers

Load (VA)	Specification	Part Number
160	0-18V, 0-18V @ 4.44A	MCTA160/18
	0-25V, 0-25V @ 3.2A	MCTA160/25
	0-30V, 0-30V @ 2.67A	MCTA160/30
	0-55V, 0-55V @ 1.45A	MCTA160/55
250	0-12V, 0-12V @ 10.42A	MCTA250/12
	0-18V, 0-18V @ 6.94A	MCTA250/18
	0-25V, 0-25V @ 5A	MCTA250/25
	0-30V, 0-30V @ 4.17A	MCTA250/30
	0-35V, 0-35V @ 3.57A	MCTA250/35
	0-40V, 0-40V @ 3.13A	MCTA250/40
	0-45V, 0-45V @ 2.78A	MCTA250/45
	0-50V, 0-50V @ 2.5A	MCTA250/50
300	0-25V, 0-25V @ 6A	MCTA300/25
	0-30V, 0-30V @ 5A	MCTA300/30
	0-35V, 0-35V @ 4.28A	MCTA300/35
	0-55V, 0-55V @ 2.73A	MCTA300/55
80	0-9V, 0-9V @ 4.44A	MCTA080/09
	0-12V, 0-12V @ 3.33A	MCTA080/12
	0-15V, 0-15V @ 2.67A	MCTA080/15
	0-18V, 0-18V @ 2.22A	MCTA080/18
	0-25V, 0-25V @ 1.6A	MCTA080/25
	0-55V, 0-55V @ 0.73A	MCTA080/55
225	0-12V, 0-12V @ 9.38A	MCTA225/12
	0-15V, 0-15V @ 7.5A	MCTA225/15
	0-18V, 0-18V @ 6.25A	MCTA225/18
	0-25V, 0-25V @ 4.5A	MCTA225/25
	0-30V, 0-30V @ 3.75A	MCTA225/30
	0-55V, 0-55V @ 2.05A	MCTA225/55
500	0-25V, 0-25V @ 10A	MCTA500/25
	0-30V, 0-30V @ 8.33A	MCTA500/30
	0-35V, 0-35V @ 7.14A	MCTA500/35
	0-45V, 0-45V @ 5.56A	MCTA500/45
	0-50V, 0-50V @ 5A	MCTA500/50
	0-55V, 0-55V @ 4.55A	MCTA500/55

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Part Numbers

Load (VA)	Specification	Part Number
625	0-40V, 0-40V @ 7.81A	MCTA625/40
	0-50V, 0-50V @ 6.25A	MCTA625/50
	0-55V, 0-55V @ 5.68A	MCTA625/55
800	0-55V, 0-55V @ 7.27A	MCTA800/55
1000	0-40V, 0-40V @ 12.5A	MCTA1000/40
	0-50V, 0-50V @ 10A	MCTA1000/50
	0-55V, 0-55V @ 9.09A	MCTA1000/55

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