

# Toroidal - Twin Primary Transformers

115V/230V ac

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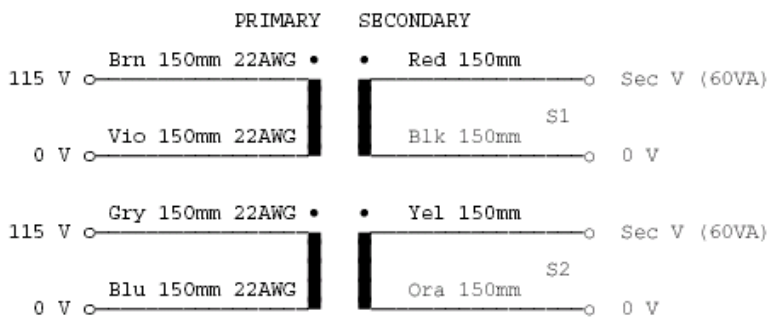


A high quality range of open style toroidal transformers with flying leads. Featuring a dual 115V 50/60Hz primary winding for series (230V) or parallel (115V) connection only. Secondary windings can be connected in series or parallel or used independently.

## 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	TA120/12
15	4.00	16.4	20 AWG	0.19	TA120/15
18	3 .33	19.6		0.29	TA120/18
25	2.40	27.3		0.55	TA120/25
55	1.09	59.5		2.18	TA120/55

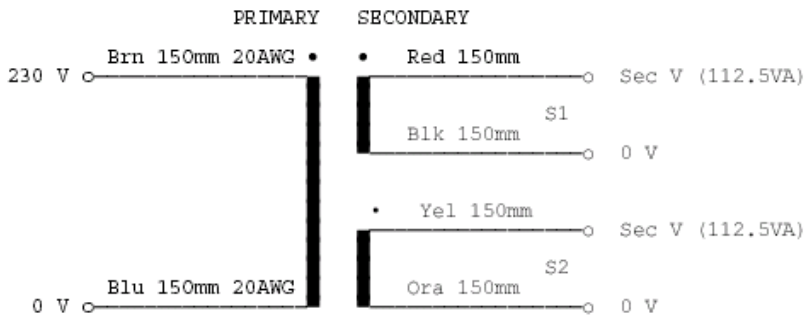


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## Schematic TI Range General Purpose Toroidal Transformers



### 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  $\pm$ 5mm 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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## Specifications

On Load Sec V	Rated amps per Sec	Off load Sec V	Sec Flex Gauge	Sec Ohms at 20°C	Part Number
12	9.38	12.7	16 AWG	0.05	TI-027275
15	7.50	16.1		0.08	TI-027276
18	6.25	19.2	18 AWG	0.12	TI-027277
25	4.50	26.7		0.21	TI-027278
30	3.75	32.2	20 AWG	0.32	TI-027279
55	2.05	58.7		1.00	TI-027280

## 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	TA015/06
	0-9V, 0-9V @ 0.83A	TA015/09
	0-12V, 0-12V @ 0.63A	TA015/12
	0-15V, 0-15V @ 0.5A	TA015/15
	0-18V, 0-18V @ 0.42A	TA015/18
30	0-6V, 0-6V @ 2.5A	TA030/06
	0-9V, 0-9V @ 1.67A	TA030/09
	0-12V, 0-12V @ 1.25A	TA030/12
	0-15V, 0-15V @ 1A	TA030/15
	0-18V, 0-18V @ 0.83A	TA030/18
	0-25V, 0-25V @ 0.6A	TA030/25
50	0-6V, 0-6V @ 4.17A	TA050/06
	0-9V, 0-9V @ 2.78A	TA050/09
	0-12V, 0-12V @ 2.08A	TA050/12
	0-15V, 0-15V @ 1.67A	TA050/15
	0-18V, 0-18V @ 1.39A	TA050/18
	0-25V, 0-25V @ 1A	TA050/25
	0-55V, 0-55V @ 0.45A	TA050/55
60	0-9V, 0-9V @ 3.33A	TA060/09
	0-12V, 0-12V @ 2.5A	TA060/12
	0-15V, 0-15V @ 2A	TA060/15
	0-18V, 0-18V @ 1.67A	TA060/18
	0-25V, 0-25V @ 1.2A	TA060/25
100	0-12V, 0-12V @ 4.17A	TA100/12
	0-15V, 0-15V @ 3.33A	TA100/15
	0-18V, 0-18V @ 2.78A	TA100/18
	0-25V, 0-25V @ 2A	TA100/25
120	0-12V, 0-12V @ 5A	TA120/12
	0-15V, 0-15V @ 4A	TA120/15
	0-18V, 0-18V @ 3.33A	TA120/18
	0-25V, 0-25V @ 2.4A	TA120/25
	0-55V, 0-55V @ 1.09A	TA120/55
160	0-12V, 0-12V @ 6.67A	TA160/12
	0-15V, 0-15V @ 5.33A	TA160/15



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## Part Numbers

Load (VA)	Specification	Part Number
160	0-18V, 0-18V @ 4.44A	TA160/18
	0-25V, 0-25V @ 3.2A	TA160/25
	0-30V, 0-30V @ 2.67A	TA160/30
	0-55V, 0-55V @ 1.45A	TA160/55
250	0-12V, 0-12V @ 10.42A	TA250/12
	0-18V, 0-18V @ 6.94A	TA250/18
	0-25V, 0-25V @ 5A	TA250/25
	0-30V, 0-30V @ 4.17A	TA250/30
	-	TA250/35
	0-40V, 0-40V @ 3.13A	TA250/40
	0-45V, 0-45V @ 2.78A	TA250/45
	0-50V, 0-50V @ 2.5A	TA250/50
300	0-25V, 0-25V @ 6A	TA300/25
	0-30V, 0-30V @ 5A	TA300/30
	0-35V, 0-35V @ 4.28A	TA300/35
	0-55V, 0-55V @ 2.73A	TA300/55
80	0-9V, 0-9V @ 4.44A	TI-69121
	0-12V, 0-12V @ 3.33A	TI-69122
	0-15V, 0-15V @ 2.67A	TI-69123
	0-18V, 0-18V @ 2.22A	TI-69124
	0-25V, 0-25V @ 1.6A	TI-69125
	0-55V, 0-55V @ 0.73A	TI-69131
225	0-12V, 0-12V @ 9.38A	TI-69202
	0-15V, 0-15V @ 7.5A	TI-69203
	0-18V, 0-18V @ 6.25A	TI-69204
	0-25V, 0-25V @ 4.5A	TI-69205
	0-30V, 0-30V @ 3.75A	TI-69206
	0-55V, 0-55V @ 2.05A	TI-69211
500	0-25V, 0-25V @ 10A	TI-69305
	0-30V, 0-30V @ 8.33A	TI-69306
	0-35V, 0-35V @ 7.14A	TI-69307
	0-40V, 0-40V @ 6.25A	TI-69308
	0-45V, 0-45V @ 5.56A	TI-69309
	0-50V, 0-50V @ 5A	TI-69310
	0-55V, 0-55V @ 4.55A	TI-69311



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## Part Numbers

Load (VA)	Specification	Part Number
625	0-40V, 0-40V @ 7.81A	TI-69328
	0-45V, 0-45V @ 6.94A	TI-69329
	0-50V, 0-50V @ 6.25A	TI-69330
	0-55V, 0-55V @ 5.68A	TI-69331
800	0-40V, 0-40V @ 10A	TI-69348
	0-45V, 0-45V @ 8.89A	TI-69349
	0-50V, 0-50V @ 8A	TI-69350
	0-55V, 0-55V @ 7.27A	TI-69351
1000	0-40V, 0-40V @ 12.5A	TI-69368
	0-45V, 0-45V @ 11.11A	TI-69369
	0-50V, 0-50V @ 10A	TI-69370
	0-55V, 0-55V @ 9.09A	TI-69371

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