

# FE Series - (Encapsulated) Single Primary-Toroidal Transformers



## 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 leads
- Flexible leadouts can be trimmed to any length without the need of enamel removal
- Fully resin encapsulated in case
- Designed, tested and manufactured in accordance with EN60742, EN60065 and EN60950
- 100% electrical and flash tested

## Specifications

VA	Regulation % typical	Iron Loss Watts	Copper Loss Watts	Temperature rise (°C)	Efficiency % typical	Diameter	Height	Weight (kg)	Fixing Hole Diameter
15	16	0.24	2.9	2.9	83%	62.4	34.5	0.34	5.1
30	12	0.39	4.5	4.5	86%	81.5	39.1	0.62	
50	11	0.52	6.1	6.1	88%	87.3	42	0.84	
80	10	0.64	8.7	8.7	90%	96.7	44	1.12	6.1
120	7	0.89	9.6	9.6	92%	104.2	52.1	1.62	
160		1.23	11.9	11.9		115	53.2	2.05	
225	6	1.51	14.9	14.9	93%	25.4	52.4	2.5	
300	5	1.89	17	17	94%	-	65.3	3.19	8.2
500		2.76	24.6	24.6	95%	147.1	64.7	4.57	

Dimensions : Millimetres

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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 150 mm long, stripped and tinned for last 6 mm  
 No mounting screw supplied

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 frame work. This would constitute a shorted turn and would cause irreparable damage

### Specification Table

Specifications	Load (VA)	Specifications	Load (VA)
0-6 V, 0-6 V @ 1.25 A	15	0-18V, 0-18V @ 4.44A	160
0-9 V, 0-9 V @ 0.83 A		0-25V, 0-25V @ 3.2A	
0-12 V, 0-12 V @ 0.63 A		0-30V, 0-30V @ 2.67A	
0-15 V, 0-15 V @ 0.5 A		0-12V, 0-12V @ 9.38A	
0-18 V, 0-18 V @ 0.42 A		225	0-15V, 0-15V @ 7.5A
0-25 V, 0-25 V @ 0.3 A	0-18V, 0-18V @ 6.25A		
0-6 V, 0-6 V @ 2.5 A	0-25V, 0-25V @ 4.5A		
0-9 V, 0-9 V @ 1.67A	30	0-30V, 0-30V @ 3.75A	300
0-15 V, 0-15 V @ 1 A		0-25V, 0-25V @ 6A	
0-18 V, 0-18 V @ 0.83 A		0-30V, 0-30V @ 5A	
0-25 V, 0-25 V @ 0.6 A	50	0-35V, 0-35V @ 4.29A	500
0-9 V, 0-9 V @ 2.78 A		0-25V, 0-25V @ 10A	
0-12 V, 0-12 V @ 2.08 A		0-35V, 0-35V @ 7.14A	
0-15 V, 0-15 V @ 1.67 A		0-40V, 0-40V @ 6.25A	
0-18 V, 0-18 V @ 1.39 A			
0-25 V, 0-25 V @ 1 A	80		
0-9 V, 0-9 V @ 4.44 A			
0-12 V, 0-12 V @ 3.33 A			
0-18 V, 0-18 V @ 2.22 A			
0-25 V, 0-25 V @ 1.6 A	120		
0-12 V, 0-12 V @ 5 A			
0-15 V, 0-15 V @ 4 A			
0-18 V, 0-18 V @ 3.33 A			
0-25 V, 0-25 V @ 2.4 A			

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### Part Number Table

Description	Part Number
TRANSFORMER, 50 VA, 2 x 25 V	MCFE050/25
TRANSFORMER, 80 VA, 2 x 9 V	MCFE080/09
TRANSFORMER, 80 VA, 2 x 12 V	MCFE080/12
TRANSFORMER, 80 VA, 2 x 18 V	MCFE080/18
TRANSFORMER, 80 VA, 2 x 25 V	MCFE080/25
TRANSFORMER, 120 VA, 2 x 12 V	MCFE120/12
TRANSFORMER, 120 VA, 2 x 15 V	MCFE120/15
TRANSFORMER, 120 VA, 2 x 18 V	MCFE120/18
TRANSFORMER, 120 VA, 2 x 25 V	MCFE120/25
TRANSFORMER, 160 VA, 2 x 18 V	MCFE160/18
TRANSFORMER, 160 VA, 2 x 25 V	MCFE160/25
TRANSFORMER, 160 VA, 2 x 30 V	MCFE160/30
TRANSFORMER, 225 VA, 2 x 12 V	MCFE225/12
TRANSFORMER, 225 VA, 2 x 15 V	MCFE225/15
TRANSFORMER, 225 VA, 2 x 18 V	MCFE225/18
TRANSFORMER, 225 VA, 2 x 25 V	MCFE225/25
TRANSFORMER, 225 VA, 2 x 30 V	MCFE225/30
TRANSFORMER, 300 VA, 2 x 25 V	MCFE300/25
TRANSFORMER, 300 VA, 2 x 30 V	MCFE300/30
TRANSFORMER, 300 VA, 2 x 35 V	MCFE300/35
TRANSFORMER, 500 VA, 2 x 25 V	MCFE500/25
TRANSFORMER, 500 VA, 2 x 35 V	MCFE500/35
TRANSFORMER, 500 VA, 2 x 40 V	MCFE500/40

Description	Part Number
TRANSFORMER, 15VA, 2 x 6V	MCFE015/06
TRANSFORMER, 15VA, 2 x 9V	MCFE015/09
TRANSFORMER, 15VA, 2 x 12V	MCFE015/12
TRANSFORMER, 15VA, 2 x 15V	MCFE015/15
TRANSFORMER, 15VA, 2 x 18V	MCFE015/18
TRANSFORMER, 15VA, 2 x 25V	MCFE015/25
TRANSFORMER, 30VA, 2 x 6V	MCFE030/06
TRANSFORMER, 30VA, 2 x 9V	MCFE030/09
TRANSFORMER, 30VA, 2 x 15V	MCFE030/15
TRANSFORMER, 30VA, 2 x 18V	MCFE030/18
TRANSFORMER, 30VA, 2 x 25V	MCFE030/25
TRANSFORMER, 50VA, 2 x 9V	MCFE050/09
TRANSFORMER, 50VA, 2 x 12V	MCFE050/12
TRANSFORMER, 50VA, 2 x 15V	MCFE050/15
TRANSFORMER, 50VA, 2 x 18V	MCFE050/18

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