

**MYRRA encapsulated electronic transformers are Switched Mode Power Supplies based on Flyback topology.**

**They constitute an interesting alternative to the traditional supply in the most common applications of power lower than 5W.**

**ENERGY SAVING due to high efficiency and low standby power**

The applications for the Electronic serie are:

- Alternative to the linear transformers in all AC/DC applications of power up to than 5W
- Alternative to DC/DC converters for application in D.C.current (Telecom supplies, electric substations etc.)
- Industrial, domestic and consumer electronics applications
- Standby devices and others DC or AC auxiliary supplies

With the same footprint as a EI30 transformer, they will replace:

- 50 Hz Transformer
- Fuse
- Bridge Rectifier
- Filtering Capacitor

Regulated types will also replace linear regulator and heatsink

## MAIN FEATURES

- **Wide input voltage range**
- **Increased power. 3 x compared to standard EI30 transformer**
- **Better energetic efficiency: 70% typical compared to 40% for the conventional supply**
- **Very low Standby Power consumption: meets requirements of Energy Star or EC Code of Conduct**
- **Same footprint as EI30 transformer : Upgrade your application without redesign of PCB**

## SAFETY STANDARDS

Meets all requirements of:

- EN 60950
- EN 60335
- EN 61558-2-17
- Uses UL listed components
- Uses UL 94-V0 plastic and resin

## EMC STANDARDS

Conducted and radiated emissions conform to

- EN 55014-1
- EN 55022 class B

Immunity conform to

- EN 55014-2
- EN 61000-4-x

## ONE OUTPUT 2.5 & 5W - Regulated

### ELECTRICAL SPECIFICATIONS

Input voltage range

85 to 265 Volts AC

85 to 370 Volts DC

Input Frequency 47 to 440 Hz

Output voltage accuracy (full load)  $\pm 2\%$

Line output voltage variation  $\pm 0.3\%$

Load output voltage variation  $\pm 0.5\%$

No load input power < 200mW

Energy consumption and efficiency :

Meets requirements of Energy Star and

EC Code of Conduct

### SAFETY

Prepared for Class II – reinforced insulation

Input / Output Isolation test voltage: 4000 Vac

Operating ambient temperature:

- 25°C / + Ta (See table)

Storage temperature: - 40°C / + 85°C

Input protection by integrated fusible resistor

Output short circuit protection: automatic restarts when fault condition is removed

Thermal shutdown with automatic recovery if internal temperature exceeds allowable value

Reference	Output voltage (DC Volts)	Output current (DC mA)	Output Power (W)	Efficiency (%)	Ta (°C)
47121	3.3	750	2.5	65	+70
47122	5	550	2.75	68	+70
47123	9	270	2.5	72	+70
47124	12	210	2.5	74	+70
47125	15	170	2.5	75	+70
47126	24	110	2.5	77	+70
47151	3.3	1350	4.2	65	+50
47152	5	900	4.5	68	+50
47153	9	550	5	72	+50
47154	12	420	5	75	+50
47155	15	320	5	76	+50
47156	24	220	5	79	+50

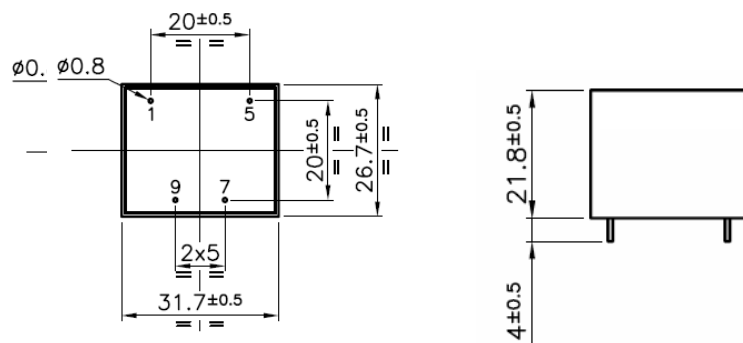
### DIMENSIONS and PINOUT

4 pins

pins 1 & 5 : AC or DC Input

pin 7: DC output +V

pin 9: DC output 0V



(view from pins side):

## ONE OUTPUT 3.2 & 5W Non Regulated

### ELECTRICAL SPECIFICATIONS

Input voltage range

85 to 265 Volts AC

85 to 370 Volts DC

Input Frequency 47 to 440 Hz

Output voltage accuracy (full load)  $\pm 5\%$

Line output voltage variation  $\pm 3\%$

Load output voltage variation 0/ +30%

No load input power < 300mW

### SAFETY

Prepared for Class II – reinforced insulation

Input / Output Isolation test voltage: 4000 Vac

Operating ambient temperature:

- 25°C / + Ta (See table)

Storage temperature: - 40°C / + 85°C

Input protection by integrated fusible resistor

Output short circuit protection: automatic restarts when fault condition is removed

Thermal shutdown with automatic recovery if internal temperature exceeds allowable value

Reference	(DC Volts)	Output current (DC mA)	Output Power (W)	Efficiency (%)	Ta (°C)
47114	12	200	2.4	74	+70
47133	9	360	3.2	73	+70
47134	12	270	3.2	75	+70
47136	24	130	3.2	80	+70
47163	9	560	5 *	73	+50
47164	12	420	5 *	75	+50
47166	24	210	5 *	80	+50

\* Nota: Power up to 5.4W is possible with input voltage  $\geq 97$  Vac

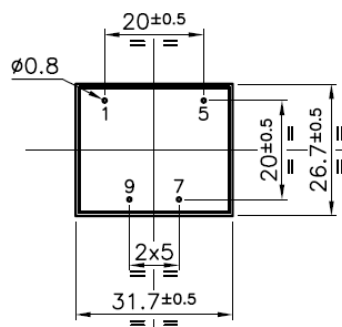
### DIMENSIONS and PINOUT

4 pins

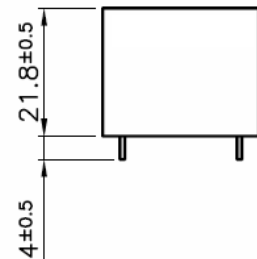
pins 1 & 5 : AC or DC Input

pin 7: DC output +V

pin 9: DC output 0V



(view from pins side):



## TWO COMMON OUTPUTS 3 to 5W - Regulated

### ELECTRICAL SPECIFICATIONS

Input voltage range  
85 to 265Volts AC  
85 to 370V DC

Input Frequency 47 to 440 Hz

Output voltage accuracy : see table for 10 to 100% rated load of each output (includes line and load variations)

No load input power < 200mW  
Energy consumption and efficiency : Meets requirements of Energy Star or EC Code of Conduct

The 2 outputs share a common 0v reference.  
This enables closer coupling and a better cross-regulation of the outputs

### SAFETY

Prepared for Class II – reinforced insulation  
Input / Output Isolation test voltage: 4000 Vac

Operating ambient temperature:  
- 25°C / + Ta (See table)

Storage temperature: - 40°C / + 85°C

Input protection by integrated fusible resistor

Output short circuit protection: automatic restarts when fault condition is removed

Thermal shutdown with automatic recovery if internal temperature exceeds allowable value

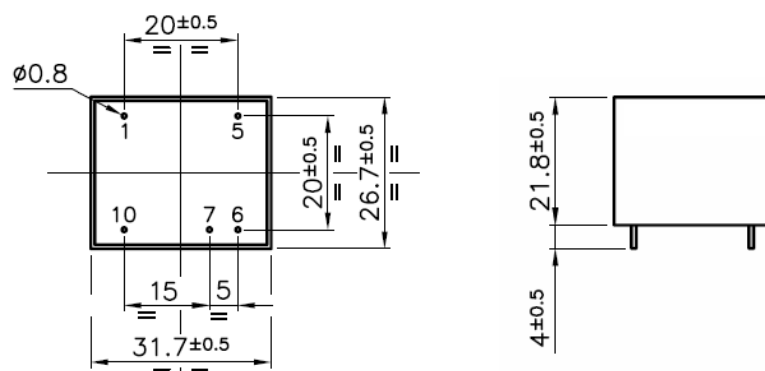
Reference	Output 1 Output 2 (DC Volts)	Output 1 Output 2 (DC mA)	Output Power (W)	Output 1 Output 2 accuracy	Efficiency (%)	Ta (°C)
47243	+10.5 +7	380 max 100 max	4 *	± 3% ± 15%	72	+60
47244	+15 +7	300 max 70 max	4 *	± 3% ± 15%	73	+60
47245	+12 +5.5	130 max 300 max	3.2	± 5% ± 10%	65	+70
47246	+5 +12	400 (600max) 170 max	4	± 3% ± 15%	65	+60
47247	+15 -15	130 max 130 max	4	± 8% ± 8%	73	+60

\* Nota: Power up to 5W is possible with input voltage ≥ 97 Vac and Ta ≤ 50°C

### DIMENSIONS and PINOUT

5 pins

pins 1 & 5 : AC or DC Input  
pin 6: Common output 0V  
pin 7: DC output 1  
pin 10: DC output 2



(view from pins side):

## TWO ISOLATED OUTPUTS 3 to 5W - Regulated

### ELECTRICAL SPECIFICATIONS

Input voltage range  
 85 to 265Volts AC  
 85 to 370V DC  
 Input Frequency 47 to 440 Hz

Output voltage accuracy : see table for 10 to 100%  
 rated load of each output (includes line and load  
 variations)

No load input power < 200mW  
 Energy consumption and efficiency :  
 Meets requirements of Energy Star or EC Code of  
 Conduct

2 isolated outputs - Output 1 only is regulated and  
 should provide the higher power

### SAFETY

Prepared for Class II – reinforced insulation  
 Input / Output Isolation test voltage: 4000 Vac  
 Output1 / Output 2 isolation : 4000Vac

Operating ambient temperature:  
 - 25°C / + Ta (See table)

Storage temperature: - 40°C / + 85°C

Input protection by integrated fusible resistor

Output short circuit protection: automatic restarts  
 when fault condition is removed

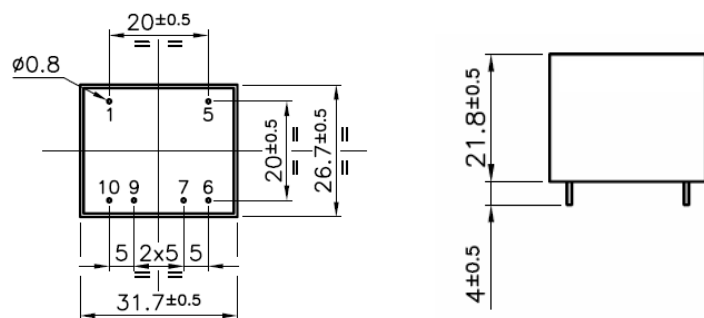
Thermal shutdown with automatic recovery if internal  
 temperature exceeds allowable value

Reference	Output 1 Output 2 (DC Volts)	Output 1 Output 2 (DC mA)	Output Power (max W)	Output 1 Output 2 accuracy	Efficiency (%)	Ta (°C)
47252	5 5	350 (600max) 350 max	3.5	± 3% ± 15%	66	+60
47254	12 12	165 (300max) 165 max	4	± 5% ± 15%	72	+60
47255	15 15	135 (200max) 135 max	4	± 5% ± 15%	73	+60
47257	5 12	400 (600max) 170 max	4	± 3% ± 15%	68	+60
47258	18 8	150 (200max) 150 max	4	± 5% ± 15%	72	+60

### DIMENSIONS and PINOUT

6 pins

pins 1 & 5 : AC or DC Input  
 pin 6: DC output1 0V  
 pin 7: DC output1 +V  
 pin 9: DC output2 0V  
 pin 10: DC output2 +V



(view from pins side):