

TRANSFORMERS & INDUCTORS

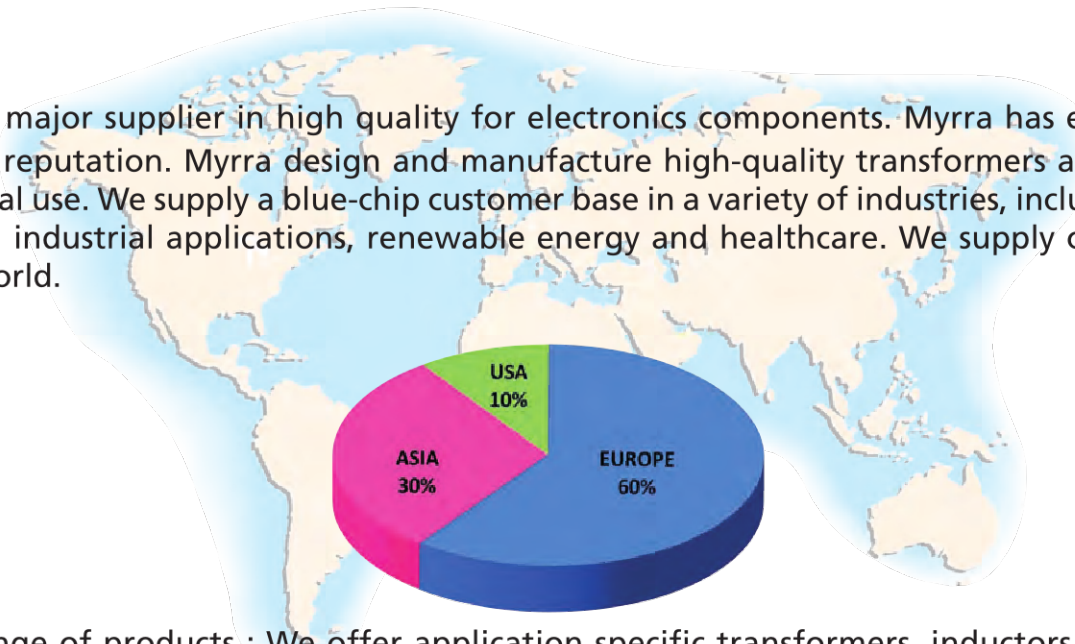


MYRRA

*...Of course !*

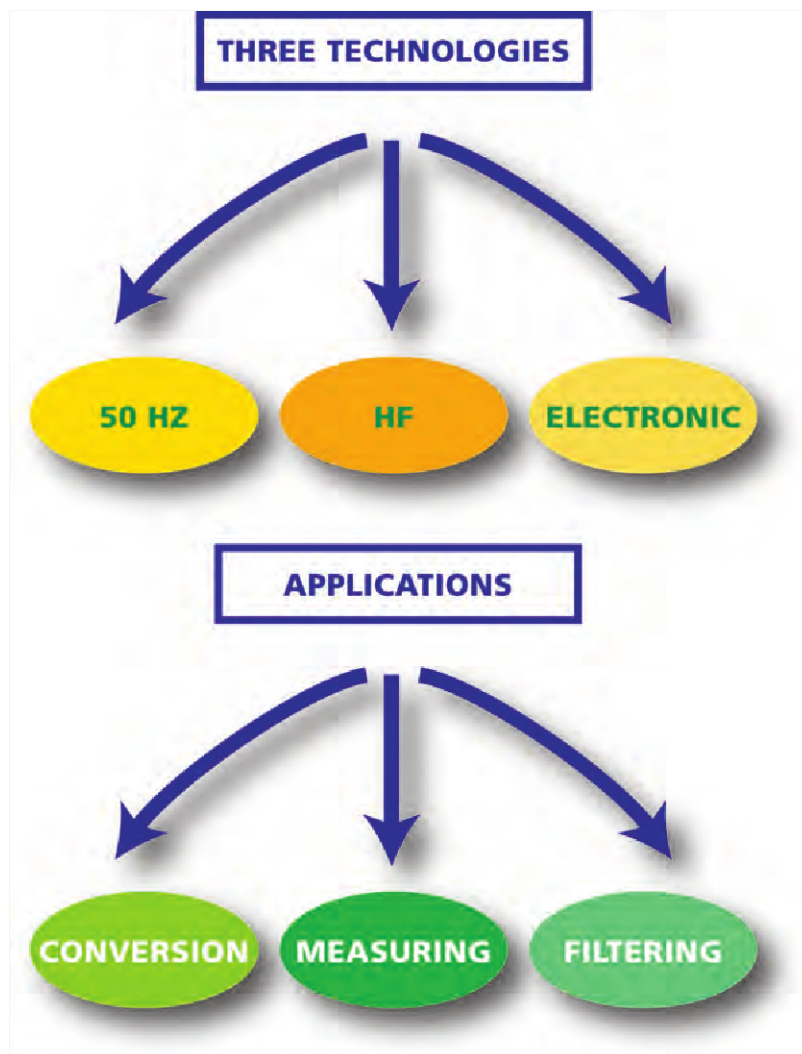
## COMPANY PROFILE

**M**yrra is a major supplier in high quality for electronics components. Myrra has established a worldwide reputation. Myrra design and manufacture high-quality transformers and inductors for industrial use. We supply a blue-chip customer base in a variety of industries, including energy conversion, industrial applications, renewable energy and healthcare. We supply customers all over the world.



**A** wide range of products : We offer application specific transformers, inductors, chokes and coils, in three technologies: high frequency, 50Hz technology and electronic, enabling us to serve a number of major markets.

## MAGNETICS PRODUCTS







# PRODUCT LINES



## PCB MAGNETIC COMPONENTS

### Encapsulated 50Hz transformers (44 & 45 series)

- \* Full range of standard references
- \* Isolating safety application
- \* UL, VDE, EN61558 certification
- \* Automated - 100% tested production



### Ferrites core transformers & inductors (74 series)

- \* Large application range : flyback transformers, CM chokes etc.
- \* International standards compliant
- \* Standard products and customized design



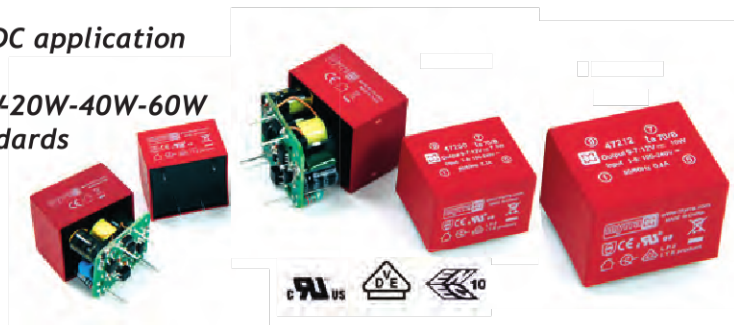
Conform to IEC950 IEC335 IEC61558

### IT application inductors -THC- SMD type (75-79 series)



## Encapsulated POWER SUPPLY (47 series)

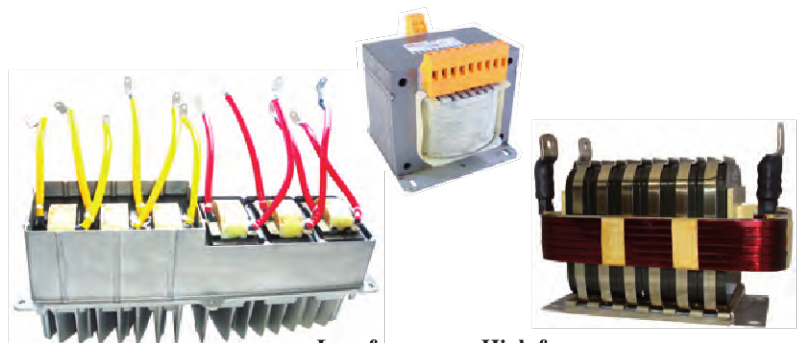
- \* Pioneering alternative to linear transformers in AC/DC application
- \* EI30 to EI48 size - Input range : 85V-265VAC
- \* Regulated output: 3.3VDC-24VDC/ 2.5W-5W-7W-10W-20W-40W-60W
- \* Full compliance with Safety, EMC and Immunity standards



## POWER RANGE Transformers and Chokes for specific applications

### Lamination and ferrite core

- \* Customized design on specification
- \* Up to 50kVA for 1000V input range
- \* Insulation systems : B, F, H classes
- \* UL, IEC, CSA Compliant



Low frequency, High frequency



ISO 9001 2008  
ISO 14000



EN60950

EN61558-2-6

***MYRRA FRANCE (HQ)***

***MYRRA DEUTSCHLAND***

***MYRRA POLAND***

***MYRRA TURKEY***

***MYRRA HISPANIA - Comtrafo***

***MYRRA HONG-KONG***

***MYRRA ZHONGSHAN (China)***

YOUR CONTACT :

Name

Phone

Email



# PRODUCT INDEX



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## ■ ENCAPSULATED TRANSFORMERS 5 to 25

### 44000 SERIES

|                                     |          |
|-------------------------------------|----------|
| 0.6 VA to 2.8VA / EI30-5 to EI30-18 | 5 to 13  |
| 3.2VA to 30 VA / EI38 to EI66       | 14 to 19 |
| WITH OTHER BOXES                    | 20       |

### 45000 SERIES

|               |          |
|---------------|----------|
| 1 VA to 60 VA | 21 to 24 |
|---------------|----------|

### FLF / FLC SERIES

|                  |    |
|------------------|----|
| 3.2 VA to 240 VA | 25 |
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| 10 W to 30 W EL19 EF20 EE25 | 39 to 42 |
|-----------------------------|----------|

|                                    |          |
|------------------------------------|----------|
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## TECHNICAL INFORMATION

### RATED PRIMARY VOLTAGE (V)

This is the supply voltage assigned to the transformer by the manufacturer.

### RATED SECONDARY VOLTAGE (V)

This is the secondary output voltage assigned to the transformer when supplied with the rated primary voltage, frequency range, rated secondary current, all assigned by the manufacturer for the specified operating conditions of the transformer.

### RATED POWER (VA)

The specified power levels in this catalogue are the secondary power levels, in other words, those available when the transformer is loaded. It is the product of the RMS rated secondary voltage by the RMS rated current. If the transformer has more than one output winding, the rated power denotes the maximum sum of the products of RMS rated secondary voltage by the RMS rated secondary current, respectively. This rated power is defined for rated ambient temperature conditions.

example :  $P = 3,2 \text{ VA ta } 70/B$

The transformer can deliver 3.2VA at maximum ambient (70°C), the load consisting of a resistor load defined by  $R(\text{load}) = U(\text{sec})^2/P$  (assigned U sec & P values), heating does not exceed the relevant limit for Class B components used in this construction.

**NOTE :** When the transformer is intended to supply DC voltage and current in conjunction with rectifiers and smoothing capacitors, the VA power required from the transformer is far higher than the  $U(\text{DC})$  and  $I(\text{DC})$  product. To help you to determine the true transformer power, our Technical Department is at your disposal.

### AMBIENT TEMPERATURE (ta)

The maximum temperature at which the transformer may be operated continuously under nominal conditions of use. It is the air temperature measured close to the transformer after thermal stabilization when operating at rated conditions.

### HEATING

The increase of the winding temperature when operating at rated conditions and maximum ambient temperature. The heating must be determined by the resistance method.

### TEMPERATURE CLASS

The international classification of temperature classes is as follows :

|   |       |     |        |
|---|-------|-----|--------|
| A | 105°C | H   | 180 °C |
| E | 120°C | 200 | 200 °C |
| B | 130°C | 220 | 220 °C |
| F | 155°C | 250 | 250 °C |

It defines the maximum temperature the transformer components must withstand in continuous operation, in compliance with the N° 85 IEC publication classification. There insulating materials are therefore certificated for the thermal index corresponding to the declared class in accordance with N° 216 IEC standard.

### PARTICULAR POINTS OF EN 61558-2-6 STANDARD FOR SAFETY TRANSFORMERS

On-load secondary voltage tolerance.

This should not differ from the rated value by more than :

10% for transformers with build-in resistance to short-circuits (a supplement of 5% is granted on the 2<sup>nd</sup> secondary for transformers with 2 secondaries).

5% for other transformers whatever the secondaries number.

Off-load secondary voltage.

The values given in this catalogue are maximum theoretical values.

**NOTE :** For safety transformers, this should never exceed 50 V rms. In the case of a transformer with several secondaries, the sum of the secondary voltages should be less than 50 V rms.

### ADAPTED TRANSFORMERS FROM THE STANDARDS SERIES

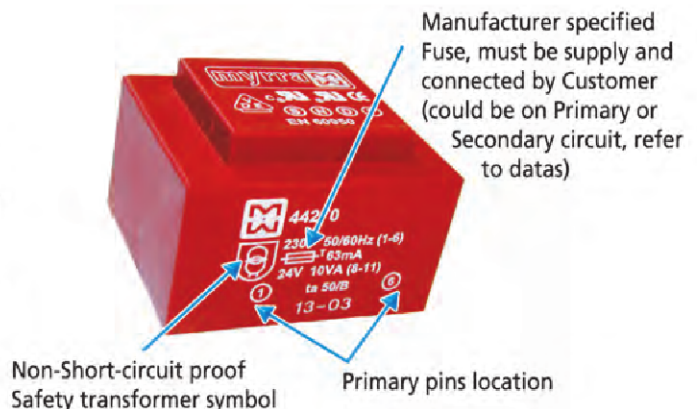
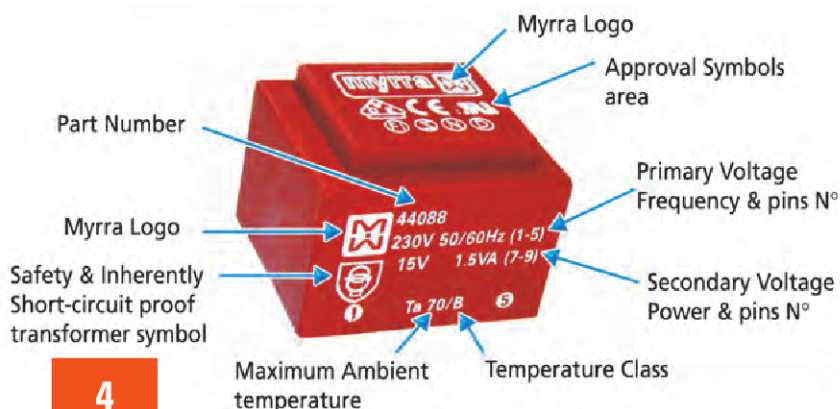
Any transformer whose requires Power and Ambient corresponding to those of our 44000 & 45000 range, and whose secondary voltage can fit in our minimum to maximum secondary range will be covered by EN61558-2-6, EN60950, or UL506 approvals, depending on the effective choice .

### SPECIAL TRANSFORMERS

MYRRA can use the 44000, 45000 or 46000 standard ranges to examine any transformer for compliance with your specifications and with international standards.

On request, we can add thermal protection, thermal fuse, thermal switch-CTP.

In certain cases, the addition of thermal protection enables the ambient temperature to be increased, while still complying with EN 61558.







- Vacuum filling
- Two compartments bobbins
- Self-extinguishing plastics UL 94 V0
- Degree of protection IP 00
- 40 grams weight
- Resin class B CEI 85 (20 000 h testing to CEI 126)
- Inherently short-circuits proof
- Insulation voltage 4 KV
- 100 % tested production
- Certification : CCA procedure on request

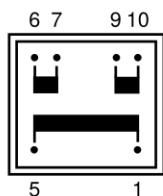
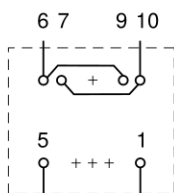
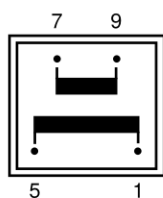
## QUALITY IN SERIES

### PRIMARY VOLTAGE 117 V

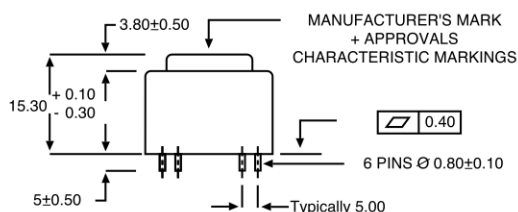
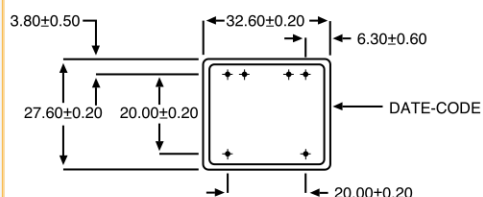
| Protection | Reference | Secondary voltage V | Secondary current mA | No-load voltage V | Ambient Temperature °C | Rating VA |
|------------|-----------|---------------------|----------------------|-------------------|------------------------|-----------|
|            | 44025     | 6                   | 100                  | 9,94              | T 70 B                 | 0,6       |
|            | 44026     | 9                   | 66                   | 14,95             | T 70 B                 | 0,6       |
|            | 44027     | 12                  | 50                   | 19,9              | T 70 B                 | 0,6       |
|            | 44028     | 15                  | 40                   | 24,9              | T 70 B                 | 0,6       |
|            | 44029     | 18                  | 33                   | 29,9              | T 70 B                 | 0,6       |
|            | 44030     | 24                  | 25                   | 39,8              | T 70 B                 | 0,6       |
|            | 44031     | 2 x 6               | 2 x 50               | 2 x 9,94          | T 70 B                 | 0,6       |
|            | 44032     | 2 x 9               | 2 x 33               | 2 x 14,95         | T 70 B                 | 0,6       |
|            | 44033     | 2 x 12              | 2 x 25               | 2 x 19,9          | T 70 B                 | 0,6       |
|            | 44034     | 2 x 15              | 2 x 20               | 2 x 24,9          | T 70 B                 | 0,6       |
|            | 44035     | 2 x 18              | 2 x 17               | 2 x 29,9          | T 70 B                 | 0,6       |
|            | 44036     | 2 x 24              | 2 x 12               | 2 x 39,8          | T 70 B                 | 0,6       |

### PRIMARY VOLTAGE 230 V

| Protection | Reference | Secondary voltage V | Secondary current mA | No-load voltage V | Ambient Temperature °C | Rating VA |
|------------|-----------|---------------------|----------------------|-------------------|------------------------|-----------|
|            | 44013     | 6                   | 100                  | 9,94              | T 70 B                 | 0,6       |
|            | 44014     | 9                   | 66                   | 14,95             | T 70 B                 | 0,6       |
|            | 44015     | 12                  | 50                   | 19,9              | T 70 B                 | 0,6       |
|            | 44016     | 15                  | 40                   | 24,9              | T 70 B                 | 0,6       |
|            | 44017     | 18                  | 33                   | 29,9              | T 70 B                 | 0,6       |
|            | 44018     | 24                  | 25                   | 39,8              | T 70 B                 | 0,6       |
|            | 44019     | 2 x 6               | 2 x 50               | 2 x 9,94          | T 70 B                 | 0,6       |
|            | 44020     | 2 x 9               | 2 x 33               | 2 x 14,95         | T 70 B                 | 0,6       |
|            | 44021     | 2 x 12              | 2 x 25               | 2 x 19,9          | T 70 B                 | 0,6       |
|            | 44022*    | 2 x 15              | 2 x 20               | 2 x 24,9          | T 70 B                 | 0,6       |
|            | 44023*    | 2 x 18              | 2 x 17               | 2 x 29,9          | T 70 B                 | 0,6       |
|            | 44024*    | 2 x 24              | 2 x 12               | 2 x 39,8          | T 70 B                 | 0,6       |



Recommended layout for transformers with 1 secondary winding  
(Allows the use of a transformer with 2 secondary windings)



\*\* RECOMMENDED DRILL-HOLE DIAMETER FOR 1,3 mm PINS



## PRIMARY VOLTAGE 117 V

| Protection | Reference | Secondary voltage V | Secondary current mA | No-load voltage V | Ambient Temperature °C | Rating VA |
|------------|-----------|---------------------|----------------------|-------------------|------------------------|-----------|
|            | 44061     | 6                   | 167                  | 8,6               | T 70 B                 | 1         |
|            | 44062     | 9                   | 111                  | 12,9              | T 70 B                 | 1         |
|            | 44063     | 12                  | 83                   | 17,2              | T 70 B                 | 1         |
|            | 44064     | 15                  | 67                   | 21,6              | T 70 B                 | 1         |
|            | 44065     | 18                  | 56                   | 25,9              | T 70 B                 | 1         |
|            | 44066     | 24                  | 42                   | 37,9              | T 70 B                 | 1         |
|            | 44067     | 2 X 6               | 2 x 83               | 2 x 8,6           | T 70 B                 | 1         |
|            | 44068     | 2 x 9               | 2 x 56               | 2 x 12,9          | T 70 B                 | 1         |
|            | 44069     | 2 x 12              | 2 x 42               | 2 x 19            | T 70 B                 | 1         |
|            | 44070     | 2 x 15              | 2 x 33               | 2 x 23,6          | T 70 B                 | 1         |
|            | 44071     | 2 x 18              | 2 x 28               | 2 x 24,9          | T 70 B                 | 1         |
|            | 44072     | 2 x 24              | 2 x 21               | 2 x 37,9          | T 70 B                 | 1         |

|  |        |        |     |          |         |     |
|--|--------|--------|-----|----------|---------|-----|
|  | 44338  | 6      | 250 | 10,1     | ta 70/B | 1,5 |
|  | 44339  | 9      | 167 | 15,3     | ta 70/B | 1,5 |
|  | 44340  | 12     | 125 | 20,2     | ta 70/B | 1,5 |
|  | 44341  | 15     | 100 | 25,3     | ta 70/B | 1,5 |
|  | 44342  | 18     | 83  | 31,2     | ta 70/B | 1,5 |
|  | 44343  | 24     | 63  | 43,3     | ta 70/B | 1,5 |
|  | 44344  | 2 x 6  | 125 | 2 x 10,1 | ta 70/B | 1,5 |
|  | 44345  | 2 x 9  | 83  | 2 x 15,3 | ta 70/B | 1,5 |
|  | 44346  | 2 x 12 | 63  | 2 x 20,2 | ta 70/B | 1,5 |
|  | 44347  | 2 x 15 | 50  | 2 x 25,0 | ta 70/B | 1,5 |
|  | 44348* | 2 x 18 | 42  | 2 x 31   | ta 70/B | 1,5 |
|  | 44349* | 2 x 24 | 31  | 2 x 43   | ta 70/B | 1,5 |

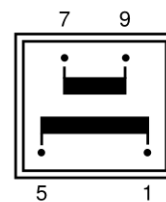
|  |       |        |         |          |         |     |
|--|-------|--------|---------|----------|---------|-----|
|  | 44840 | 6      | 300     | 10,1     | ta 70/B | 1,8 |
|  | 44841 | 9      | 200     | 15,2     | ta 70/B | 1,8 |
|  | 44842 | 12     | 150     | 20,3     | ta 70/B | 1,8 |
|  | 44843 | 15     | 120     | 27,3     | ta 70/B | 1,8 |
|  | 44844 | 18     | 100     | 30,4     | ta 70/B | 1,8 |
|  | 44845 | 24     | 75      | 40,6     | ta 70/B | 1,8 |
|  | 44846 | 2 x 6  | 2 x 150 | 2 x 10,1 | ta 70/B | 1,8 |
|  | 44847 | 2 x 9  | 2 x 100 | 2 x 15,2 | ta 70/B | 1,8 |
|  | 44848 | 2 x 12 | 2 x 75  | 2 x 20,3 | ta 70/B | 1,8 |
|  | 44849 | 2 x 15 | 2 x 60  | 2 x 27,3 | ta 70/B | 1,8 |



EN 61558-2-6

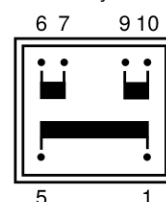
- Vacuum filling
- Two compartments bobbins
- Self-extinguishing plastics UL 94 V0
- Degree of protection IP 00
- 70 grams weight
- Resin class B CEI 85 (20 000 h testing to CEI 126)
- Inherently short-circuits proof
- 30 V and 36 V models are VDE EN 61558-2-6 certified (production on request)

1 Secondary winding



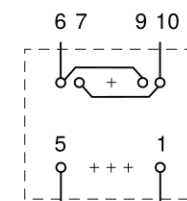
Primary winding

2 Secondary windings



Primary winding

Recommended layout for transformers  
with 1 secondary winding



(Allows the use of a transformer  
with 2 secondary windings)

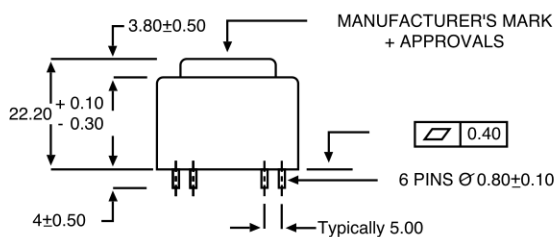
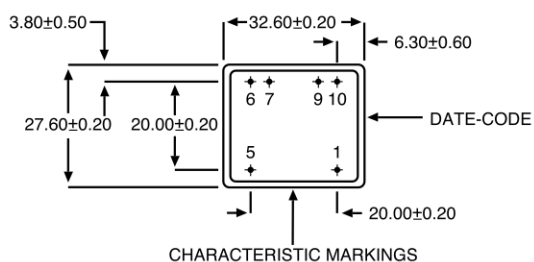
EN 60950 UL 5085



- Insulation voltage 4 KV
- 100 % tested production
- Certification : CCA procedure on request

\*To be noted 2 x 15 V and 2 x 24 V models are non-approved.

Those transformers meet all requirement of EN 61558-2-4



\*\* RECOMMENDED DRILL-HOLE DIAMETER FOR 1,3 mm PINS

## PRIMARY VOLTAGE 230 V

| Protection | Reference | Secondary voltage V | Secondary current mA | No-load voltage V | Ambient Temperature °C | Rating VA |
|------------|-----------|---------------------|----------------------|-------------------|------------------------|-----------|
|            | 44049*    | 6                   | 167                  | 8,6               | T 70 B                 | 1         |
|            | 44050*    | 9                   | 111                  | 12,9              | T 70 B                 | 1         |
|            | 44051*    | 12                  | 83                   | 17,2              | T 70 B                 | 1         |
|            | 44052*    | 15                  | 67                   | 21,6              | T 70 B                 | 1         |
|            | 44053*    | 18                  | 56                   | 25,9              | T 70 B                 | 1         |
|            | 44054*    | 24                  | 42                   | 37,9              | T 70 B                 | 1         |
|            | 44055*    | 2 x 6               | 2 x 83               | 2 x 8,6           | T 70 B                 | 1         |
|            | 44056*    | 2 x 9               | 2 x 56               | 2 x 12,9          | T 70 B                 | 1         |
|            | 44057*    | 2 x 12              | 2 x 42               | 2 x 19            | T 70 B                 | 1         |
|            | 44058*    | 2 x 15              | 2 x 33               | 2 x 23,6          | T 70 B                 | 1         |
|            | 44059*    | 2 x 18              | 2 x 28               | 2 x 24,9          | T 70 B                 | 1         |
|            | 44060**   | 2 x 24              | 2 x 21               | 2 x 37,9          | T 70 B                 | 1         |

\* Items usually available on stock

|  |        |        |     |          |         |     |
|--|--------|--------|-----|----------|---------|-----|
|  | 44326  | 6      | 250 | 10,1     | ta 70/B | 1,5 |
|  | 44327  | 9      | 167 | 15,3     | ta 70/B | 1,5 |
|  | 44328  | 12     | 125 | 20,2     | ta 70/B | 1,5 |
|  | 44329  | 15     | 100 | 25,3     | ta 70/B | 1,5 |
|  | 44330  | 18     | 83  | 31,2     | ta 70/B | 1,5 |
|  | 44331  | 24     | 63  | 43,3     | ta 70/B | 1,5 |
|  | 44332  | 2 x 6  | 125 | 2 x 10,1 | ta 70/B | 1,5 |
|  | 44333  | 2 x 9  | 83  | 2 x 15,3 | ta 70/B | 1,5 |
|  | 44334  | 2 x 12 | 63  | 2 x 20,2 | ta 70/B | 1,5 |
|  | 44335  | 2 x 15 | 50  | 2 x 25,0 | ta 70/B | 1,5 |
|  | 44336* | 2 x 18 | 42  | 2 x 31   | ta 70/B | 1,5 |
|  | 44337* | 2 x 24 | 31  | 2 x 43   | ta 70/B | 1,5 |

|  |        |        |         |          |         |     |
|--|--------|--------|---------|----------|---------|-----|
|  | 44830  | 6      | 300     | 10,1     | ta 70/B | 1,8 |
|  | 44831  | 9      | 200     | 15,2     | ta 70/B | 1,8 |
|  | 44832  | 12     | 150     | 20,3     | ta 70/B | 1,8 |
|  | 44833  | 15     | 120     | 27,3     | ta 70/B | 1,8 |
|  | 44834  | 18     | 100     | 30,4     | ta 70/B | 1,8 |
|  | 44835  | 24     | 75      | 40,6     | ta 70/B | 1,8 |
|  | 44836  | 2 x 6  | 2 x 150 | 2 x 10,1 | ta 70/B | 1,8 |
|  | 44837  | 2 x 9  | 2 x 100 | 2 x 15,2 | ta 70/B | 1,8 |
|  | 44838  | 2 x 12 | 2 x 75  | 2 x 20,3 | ta 70/B | 1,8 |
|  | 44839* | 2 x 15 | 2 x 60  | 2 x 27,3 | ta 70/B | 1,8 |



## PRIMARY VOLTAGE 117 V

| Protection | Reference | Secondary voltage V | Secondary current mA | No-load voltage V | Ambient Temperature °C | Rating VA |
|------------|-----------|---------------------|----------------------|-------------------|------------------------|-----------|
|            | 44097     | 6                   | 250                  | 9,7               | T 70 B                 | 1,5       |
|            | 44098     | 9                   | 167                  | 14,5              | T 70 B                 | 1,5       |
|            | 44099     | 12                  | 125                  | 19,3              | T 70 B                 | 1,5       |
|            | 44100     | 15                  | 100                  | 24,2              | T 70 B                 | 1,5       |
|            | 44101     | 18                  | 83                   | 29,8              | T 70 B                 | 1,5       |
|            | 44102     | 24                  | 63                   | 38,6              | T 70 B                 | 1,5       |
|            | 44103     | 2 X 6               | 2 x 125              | 2 x 9,7           | T 70 B                 | 1,5       |
|            | 44104     | 2 x 9               | 2 x 83               | 2 x 15            | T 70 B                 | 1,5       |
|            | 44105     | 2 x 12              | 2 x 63               | 2 x 19,3          | T 70 B                 | 1,5       |
|            | 44106     | 2 x 15              | 2 x 50               | 2 x 24,2          | T 70 B                 | 1,5       |
|            | 44107     | 2 x 18              | 2 x 42               | 2 x 29            | T 70 B                 | 1,5       |
|            | 44108     | 2 x 24              | 2 x 31               | 2 x 38,6          | T 70 B                 | 1,5       |

|  |       |        |         |          |        |     |
|--|-------|--------|---------|----------|--------|-----|
|  | 44726 | 6      | 283     | 9,8      | T 50 B | 1,7 |
|  | 44727 | 9      | 189     | 14,8     | T 50 B | 1,7 |
|  | 44728 | 12     | 142     | 19,7     | T 50 B | 1,7 |
|  | 44729 | 15     | 113     | 24,6     | T 50 B | 1,7 |
|  | 44730 | 18     | 94      | 30,3     | T 50 B | 1,7 |
|  | 44731 | 24     | 71      | 39,3     | T 50 B | 1,7 |
|  | 44732 | 2 x 6  | 2 x 142 | 2 x 9,8  | T 50 B | 1,7 |
|  | 44733 | 2 x 9  | 2 x 94  | 2 x 15,2 | T 50 B | 1,7 |
|  | 44734 | 2 x 12 | 2 x 71  | 2 x 19,7 | T 50 B | 1,7 |
|  | 44735 | 2 x 15 | 2 x 57  | 2 x 24,6 | T 50 B | 1,7 |
|  | 44736 | 2 x 18 | 2 x 47  | 2 x 29,5 | T 50 B | 1,7 |
|  | 44737 | 2 x 24 | 2 x 35  | 2 x 39,3 | T 50 B | 1,7 |

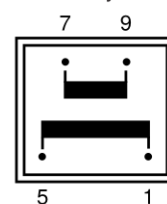
|  |       |        |         |          |        |     |
|--|-------|--------|---------|----------|--------|-----|
|  | 44738 | 6      | 300     | 9,8      | T 40 B | 1,8 |
|  | 44739 | 9      | 200     | 14,8     | T 40 B | 1,8 |
|  | 44740 | 12     | 150     | 19,7     | T 40 B | 1,8 |
|  | 44741 | 15     | 120     | 24,6     | T 40 B | 1,8 |
|  | 44742 | 18     | 100     | 30,3     | T 40 B | 1,8 |
|  | 44743 | 24     | 75      | 39,3     | T 40 B | 1,8 |
|  | 44744 | 2 x 6  | 2 x 150 | 2 x 9,8  | T 40 B | 1,8 |
|  | 44745 | 2 x 9  | 2 x 100 | 2 x 15,2 | T 40 B | 1,8 |
|  | 44746 | 2 x 12 | 2 x 75  | 2 x 19,7 | T 40 B | 1,8 |
|  | 44747 | 2 x 15 | 2 x 60  | 2 x 24,6 | T 40 B | 1,8 |
|  | 44748 | 2 x 18 | 2 x 50  | 2 x 29,5 | T 40 B | 1,8 |
|  | 44749 | 2 x 24 | 2 x 38  | 2 x 39,3 | T 40 B | 1,8 |



EN 61558-2-6

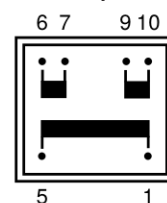
- Vacuum filling
- Two compartments bobbins
- Self-extinguishing plastics UL 94 V0
- Degree of protection IP 00
- 80 grams weight
- Resin class B CEI 85 (20 000 h testing to CEI 126)
- Inherently short-circuits proof
- 30 V model is VDE EN 61558-2-6 certified (production on request)

1 Secondary winding



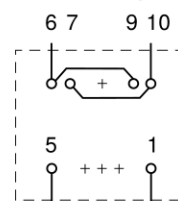
Primary winding

2 Secondary windings



Primary winding

Recommended layout for transformers with 1 secondary winding



(Allows the use of a transformer with 2 secondary windings)

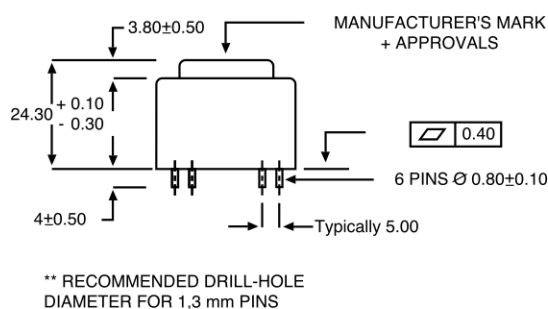
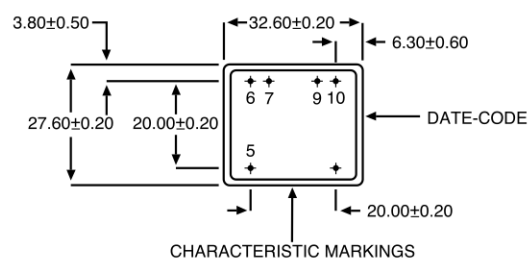
## QUALITY IN SERIES



EN 60950 UL 5085 

- Insulation voltage 4 KV
- 100 % tested production
- Certification : CCA procedure on request

\*To be noted : 2 x 18 V and 2 x 24 V models are non-approved.  
Those transformers meet all requirement of EN 61558-2-4



## PRIMARY VOLTAGE 230 V

| Protection                                                                        | Reference | Secondary voltage V | Secondary current mA | No-load voltage V | Ambient Temperature °C | Rating VA |
|-----------------------------------------------------------------------------------|-----------|---------------------|----------------------|-------------------|------------------------|-----------|
|  | 44085*    | 6                   | 250                  | 9,7               | T 70 B                 | 1,5       |
|                                                                                   | 44086*    | 9                   | 167                  | 14,5              | T 70 B                 | 1,5       |
|                                                                                   | 44087*    | 12                  | 125                  | 19,3              | T 70 B                 | 1,5       |
|                                                                                   | 44088*    | 15                  | 100                  | 24,2              | T 70 B                 | 1,5       |
|                                                                                   | 44089*    | 18                  | 83                   | 29,8              | T 70 B                 | 1,5       |
|                                                                                   | 44090*    | 24                  | 63                   | 38,6              | T 70 B                 | 1,5       |
|                                                                                   | 44091*    | 2 X 6               | 2 x 125              | 2 x 9,7           | T 70 B                 | 1,5       |
|                                                                                   | 44092*    | 2 x 9               | 2 x 83               | 2 x 15            | T 70 B                 | 1,5       |
|                                                                                   | 44093*    | 2 x 12              | 2 x 63               | 2 x 19,3          | T 70 B                 | 1,5       |
|                                                                                   | 44094*    | 2 x 15              | 2 x 50               | 2 x 24,2          | T 70 B                 | 1,5       |
|                                                                                   | 44095**   | 2 x 18              | 2 x 42               | 2 x 29            | T 70 B                 | 1,5       |
|                                                                                   | 44096**   | 2 x 24              | 2 x 31               | 2 x 38,6          | T 70 B                 | 1,5       |

\* Items usually available on stock

|                                                                                     |        |        |         |          |        |     |
|-------------------------------------------------------------------------------------|--------|--------|---------|----------|--------|-----|
|  | 44647  | 6      | 283     | 9,8      | T 50 B | 1,7 |
|                                                                                     | 44648  | 9      | 189     | 14,8     | T 50 B | 1,7 |
|                                                                                     | 44649  | 12     | 142     | 19,7     | T 50 B | 1,7 |
|                                                                                     | 44650  | 15     | 113     | 24,6     | T 50 B | 1,7 |
|                                                                                     | 44651  | 18     | 94      | 30,3     | T 50 B | 1,7 |
|                                                                                     | 44652  | 24     | 71      | 39,3     | T 50 B | 1,7 |
|                                                                                     | 44653  | 2 x 6  | 2 x 142 | 2 x 9,8  | T 50 B | 1,7 |
|                                                                                     | 44654  | 2 x 9  | 2 x 94  | 2 x 15,2 | T 50 B | 1,7 |
|                                                                                     | 44655  | 2 x 12 | 2 x 71  | 2 x 19,7 | T 50 B | 1,7 |
|                                                                                     | 44656  | 2 x 15 | 2 x 57  | 2 x 24,6 | T 50 B | 1,7 |
|                                                                                     | 44483* | 2 x 18 | 2 x 47  | 2 x 29,5 | T 50 B | 1,7 |
|                                                                                     | 44484* | 2 x 24 | 2 x 35  | 2 x 39,3 | T 50 B | 1,7 |

|                                                                                     |        |        |         |          |        |     |
|-------------------------------------------------------------------------------------|--------|--------|---------|----------|--------|-----|
|  | 44657  | 6      | 300     | 9,8      | T 40 B | 1,8 |
|                                                                                     | 44658  | 9      | 200     | 14,8     | T 40 B | 1,8 |
|                                                                                     | 44659  | 12     | 150     | 19,7     | T 40 B | 1,8 |
|                                                                                     | 44660  | 15     | 120     | 24,6     | T 40 B | 1,8 |
|                                                                                     | 44661  | 18     | 100     | 30,3     | T 40 B | 1,8 |
|                                                                                     | 44662  | 24     | 75      | 39,3     | T 40 B | 1,8 |
|                                                                                     | 44663  | 2 x 6  | 2 x 150 | 2 x 9,8  | T 40 B | 1,8 |
|                                                                                     | 44664  | 2 x 9  | 2 x 100 | 2 x 15,2 | T 40 B | 1,8 |
|                                                                                     | 44665  | 2 x 12 | 2 x 75  | 2 x 19,7 | T 40 B | 1,8 |
|                                                                                     | 44666  | 2 x 15 | 2 x 60  | 2 x 24,6 | T 40 B | 1,8 |
|                                                                                     | 44485* | 2 x 18 | 2 x 50  | 2 x 29,5 | T 40 B | 1,8 |
|                                                                                     | 44486* | 2 x 24 | 2 x 38  | 2 x 39,3 | T 40 B | 1,8 |



## PRIMARY VOLTAGE 117 V

| Protection | Reference | Secondary voltage V | Secondary current mA | No-load voltage V | Ambient Temperature °C | Rating VA |
|------------|-----------|---------------------|----------------------|-------------------|------------------------|-----------|
|            | 44133     | 6                   | 333                  | 10,4              | T 70 B                 | 2         |
|            | 44134     | 9                   | 222                  | 15,5              | T 70 B                 | 2         |
|            | 44135     | 12                  | 167                  | 20,7              | T 70 B                 | 2         |
|            | 44136     | 15                  | 133                  | 25,8              | T 70 B                 | 2         |
|            | 44137     | 18                  | 111                  | 30,8              | T 70 B                 | 2         |
|            | 44138     | 24                  | 83                   | 41,4              | T 70 B                 | 2         |
|            | 44139     | 2 X 6               | 2 x 167              | 2 x 10,4          | T 70 B                 | 2         |
|            | 44140     | 2 x 9               | 2 x 111              | 2 x 15,4          | T 70 B                 | 2         |
|            | 44141     | 2 x 12              | 2 x 83               | 2 x 20,7          | T 70 B                 | 2         |
|            | 44142     | 2 x 15              | 2 x 67               | 2 x 25,8          | T 70 B                 | 2         |
|            | 44143     | 2 x 18              | 2 x 56               | 2 x 30,8          | T 70 B                 | 2         |
|            | 44144     | 2 x 24              | 2 x 42               | 2 x 41,4          | T 70 B                 | 2         |

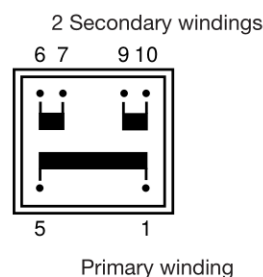
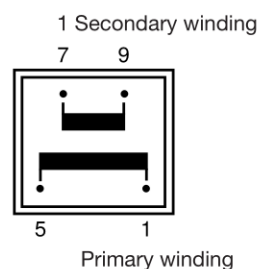


EN 61558-2-6

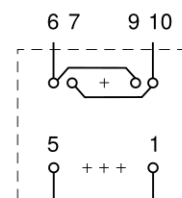
- Vacuum filling
- Two compartments bobbins
- Self-extinguishing plastics UL 94 V0
- Degree of protection IP 00
- 100 grams weight
- Resin class B CEI 85 (20 000 h testing to CEI 126)
- Inherently short-circuits proof
- 30 V model is VDE EN 61558-2-6 certified (production on request)
- Insulation voltage 4 KV

|  |       |        |         |          |        |     |
|--|-------|--------|---------|----------|--------|-----|
|  | 44750 | 6      | 383     | 10,5     | T 50 B | 2,3 |
|  | 44751 | 9      | 256     | 15,5     | T 50 B | 2,3 |
|  | 44752 | 12     | 192     | 21       | T 50 B | 2,3 |
|  | 44753 | 15     | 153     | 25,3     | T 50 B | 2,3 |
|  | 44754 | 18     | 128     | 31       | T 50 B | 2,3 |
|  | 44755 | 24     | 96      | 42       | T 50 B | 2,3 |
|  | 44756 | 2 x 6  | 2 x 192 | 2 x 10,5 | T 50 B | 2,3 |
|  | 44757 | 2 x 9  | 2 x 128 | 2 x 15,5 | T 50 B | 2,3 |
|  | 44758 | 2 x 12 | 2 x 96  | 2 x 21   | T 50 B | 2,3 |
|  | 44759 | 2 x 15 | 2 x 77  | 2 x 24,5 | T 50 B | 2,3 |
|  | 44760 | 2 x 18 | 2 x 64  | 2 x 31   | T 50 B | 2,3 |
|  | 44761 | 2 x 24 | 2 x 48  | 2 x 42   | T 50 B | 2,3 |

|  |       |        |         |          |        |     |
|--|-------|--------|---------|----------|--------|-----|
|  | 44762 | 6      | 400     | 10,5     | T 40 B | 2,4 |
|  | 44763 | 9      | 267     | 15,5     | T 40 B | 2,4 |
|  | 44764 | 12     | 200     | 21       | T 40 B | 2,4 |
|  | 44765 | 15     | 160     | 25,3     | T 40 B | 2,4 |
|  | 44766 | 18     | 133     | 31       | T 40 B | 2,4 |
|  | 44767 | 24     | 100     | 42       | T 40 B | 2,4 |
|  | 44768 | 2 x 6  | 2 x 200 | 2 x 10,5 | T 40 B | 2,4 |
|  | 44769 | 2 x 9  | 2 x 133 | 2 x 15,5 | T 40 B | 2,4 |
|  | 44770 | 2 x 12 | 2 x 100 | 2 x 21   | T 40 B | 2,4 |
|  | 44771 | 2 x 15 | 2 x 80  | 2 x 24,5 | T 40 B | 2,4 |
|  | 44772 | 2 x 18 | 2 x 67  | 2 x 31   | T 40 B | 2,4 |
|  | 44773 | 2 x 24 | 2 x 50  | 2 x 42   | T 40 B | 2,4 |



Recommended layout for transformers  
with 1 secondary winding

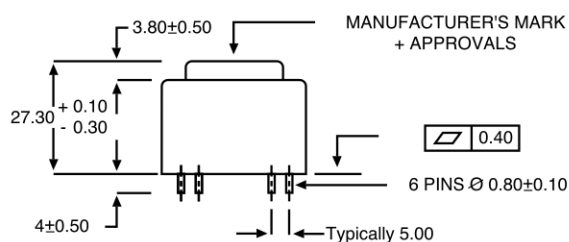
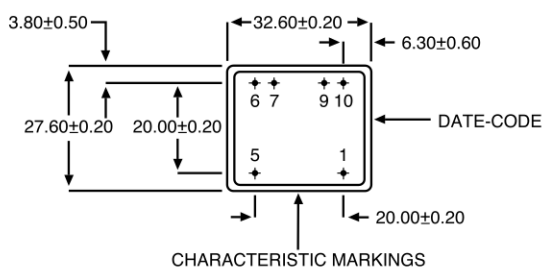


(Allows the use of a transformer  
with 2 secondary windings)

EN 60950 UL 5085 

- 100 % tested production
- Certification : CCA procedure on request

\*To be noted : 2 x 18 V and 2 x 24 V models are non-approved.  
Those transformers meet all requirement of EN 61558-2-4



\*\* RECOMMENDED DRILL-HOLE  
DIAMETER FOR 1.3 mm PINS

## PRIMARY VOLTAGE 230 V

| Protection                                                                        | Reference | Secondary voltage V | Secondary current mA | No-load voltage V | Ambient Temperature °C | Rating VA |
|-----------------------------------------------------------------------------------|-----------|---------------------|----------------------|-------------------|------------------------|-----------|
|  | 44121*    | 6                   | 333                  | 10,4              | T 70 B                 | 2         |
|                                                                                   | 44122*    | 9                   | 222                  | 15,5              | T 70 B                 | 2         |
|                                                                                   | 44123*    | 12                  | 167                  | 20,7              | T 70 B                 | 2         |
|                                                                                   | 44124*    | 15                  | 133                  | 25,8              | T 70 B                 | 2         |
|                                                                                   | 44125*    | 18                  | 111                  | 30,8              | T 70 B                 | 2         |
|                                                                                   | 44126*    | 24                  | 83                   | 41,4              | T 70 B                 | 2         |
|                                                                                   | 44127*    | 2 X 6               | 2 x 167              | 2 x 10,4          | T 70 B                 | 2         |
|                                                                                   | 44128*    | 2 x 9               | 2 x 111              | 2 x 15,4          | T 70 B                 | 2         |
|                                                                                   | 44129*    | 2 x 12              | 2 x 83               | 2 x 20,7          | T 70 B                 | 2         |
|                                                                                   | 44130*    | 2 x 15              | 2 x 67               | 2 x 25,8          | T 70 B                 | 2         |
|                                                                                   | 44131**   | 2 x 18              | 2 x 56               | 2 x 30,8          | T 70 B                 | 2         |
|                                                                                   | 44132**   | 2 x 24              | 2 x 42               | 2 x 41,4          | T 70 B                 | 2         |

\* Items usually available on stock

|                                                                                     |        |        |         |          |        |     |
|-------------------------------------------------------------------------------------|--------|--------|---------|----------|--------|-----|
|  | 44667  | 6      | 383     | 10,5     | T 50 B | 2,3 |
|                                                                                     | 44668  | 9      | 256     | 15,5     | T 50 B | 2,3 |
|                                                                                     | 44669  | 12     | 192     | 21       | T 50 B | 2,3 |
|                                                                                     | 44670  | 15     | 153     | 25,3     | T 50 B | 2,3 |
|                                                                                     | 44671  | 18     | 128     | 31       | T 50 B | 2,3 |
|                                                                                     | 44672  | 24     | 96      | 42       | T 50 B | 2,3 |
|                                                                                     | 44673  | 2 x 6  | 2 x 192 | 2 x 10,5 | T 50 B | 2,3 |
|                                                                                     | 44674  | 2 x 9  | 2 x 128 | 2 x 15,5 | T 50 B | 2,3 |
|                                                                                     | 44675  | 2 x 12 | 2 x 96  | 2 x 21   | T 50 B | 2,3 |
|                                                                                     | 44676  | 2 x 15 | 2 x 77  | 2 x 24,5 | T 50 B | 2,3 |
|                                                                                     | 44487* | 2 x 18 | 2 x 64  | 2 x 31   | T 50 B | 2,3 |
|                                                                                     | 44488* | 2 x 24 | 2 x 48  | 2 x 42   | T 50 B | 2,3 |

|                                                                                     |        |        |         |          |        |     |
|-------------------------------------------------------------------------------------|--------|--------|---------|----------|--------|-----|
|  | 44677  | 6      | 400     | 10,5     | T 40 B | 2,4 |
|                                                                                     | 44678  | 9      | 267     | 15,5     | T 40 B | 2,4 |
|                                                                                     | 44679  | 12     | 200     | 21       | T 40 B | 2,4 |
|                                                                                     | 44680  | 15     | 160     | 25,3     | T 40 B | 2,4 |
|                                                                                     | 44681  | 18     | 133     | 31       | T 40 B | 2,4 |
|                                                                                     | 44682  | 24     | 100     | 42       | T 40 B | 2,4 |
|                                                                                     | 44683  | 2 x 6  | 2 x 200 | 2 x 10,5 | T 40 B | 2,4 |
|                                                                                     | 44684  | 2 x 9  | 2 x 133 | 2 x 15,5 | T 40 B | 2,4 |
|                                                                                     | 44685  | 2 x 12 | 2 x 100 | 2 x 21   | T 40 B | 2,4 |
|                                                                                     | 44686  | 2 x 15 | 2 x 80  | 2 x 24,5 | T 40 B | 2,4 |
|                                                                                     | 44489* | 2 x 18 | 2 x 67  | 2 x 31   | T 40 B | 2,4 |
|                                                                                     | 44490* | 2 x 24 | 2 x 50  | 2 x 42   | T 40 B | 2,4 |



## PRIMARY VOLTAGE 117 V

| Protection | Reference | Secondary voltage V | Secondary current mA | No-load voltage V | Ambient temperature °C | Rating VA |
|------------|-----------|---------------------|----------------------|-------------------|------------------------|-----------|
|            | 44169     | 6                   | 383                  | 10,5              | T 70 B                 | 2,3       |
|            | 44170     | 9                   | 256                  | 15,7              | T 70 B                 | 2,3       |
|            | 44171     | 12                  | 192                  | 21                | T 70 B                 | 2,3       |
|            | 44172     | 15                  | 153                  | 25,9              | T 70 B                 | 2,3       |
|            | 44173     | 18                  | 128                  | 31,4              | T 70 B                 | 2,3       |
|            | 44174     | 24                  | 96                   | 41,9              | T 70 B                 | 2,3       |
|            | 44175     | 2 X 6               | 2 x 192              | 2 x 10,5          | T 70 B                 | 2,3       |
|            | 44176     | 2 x 9               | 2 x 128              | 2 x 15,7          | T 70 B                 | 2,3       |
|            | 44177     | 2 x 12              | 2 x 96               | 2 x 21            | T 70 B                 | 2,3       |
|            | 44178     | 2 x 15              | 2 x 77               | 2 x 25,9          | T 70 B                 | 2,3       |
|            | 44179     | 2 x 18              | 2 x 64               | 2 x 31,4          | T 70 B                 | 2,3       |
|            | 44180     | 2 x 24              | 2 x 48               | 2 x 41,9          | T 70 B                 | 2,3       |

|  |       |        |         |          |        |     |
|--|-------|--------|---------|----------|--------|-----|
|  | 44774 | 6      | 450     | 10,5     | T 50 B | 2,7 |
|  | 44775 | 9      | 300     | 15,4     | T 50 B | 2,7 |
|  | 44776 | 12     | 225     | 21,1     | T 50 B | 2,7 |
|  | 44777 | 15     | 180     | 26,3     | T 50 B | 2,7 |
|  | 44778 | 18     | 150     | 30,9     | T 50 B | 2,7 |
|  | 44779 | 24     | 113     | 42       | T 50 B | 2,7 |
|  | 44780 | 2 x 6  | 2 x 225 | 2 x 10,5 | T 50 B | 2,7 |
|  | 44781 | 2 x 9  | 2 x 150 | 2 x 15,4 | T 50 B | 2,7 |
|  | 44782 | 2 x 12 | 2 x 113 | 2 x 21,1 | T 50 B | 2,7 |
|  | 44783 | 2 x 15 | 2 x 90  | 2 x 26,3 | T 50 B | 2,7 |
|  | 44784 | 2 x 18 | 2 x 75  | 2 x 31,5 | T 50 B | 2,7 |
|  | 44785 | 2 x 24 | 2 x 56  | 2 x 42,1 | T 50 B | 2,7 |

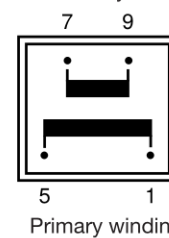
|  |       |        |         |          |        |     |
|--|-------|--------|---------|----------|--------|-----|
|  | 44786 | 6      | 467     | 10,5     | T 40 B | 2,8 |
|  | 44787 | 9      | 311     | 15,4     | T 40 B | 2,8 |
|  | 44788 | 12     | 233     | 21,1     | T 40 B | 2,8 |
|  | 44789 | 15     | 187     | 26,3     | T 40 B | 2,8 |
|  | 44790 | 18     | 156     | 30,9     | T 40 B | 2,8 |
|  | 44791 | 24     | 117     | 42,1     | T 40 B | 2,8 |
|  | 44792 | 2 x 6  | 2 x 233 | 2 x 10,5 | T 40 B | 2,8 |
|  | 44793 | 2 x 9  | 2 x 156 | 2 x 15,4 | T 40 B | 2,8 |
|  | 44794 | 2 x 12 | 2 x 117 | 2 x 21,1 | T 40 B | 2,8 |
|  | 44795 | 2 x 15 | 2 x 93  | 2 x 26,3 | T 40 B | 2,8 |
|  | 44796 | 2 x 18 | 2 x 77  | 2 x 31,5 | T 40 B | 2,8 |
|  | 44797 | 2 x 24 | 2 x 58  | 2 x 42,1 | T 40 B | 2,8 |



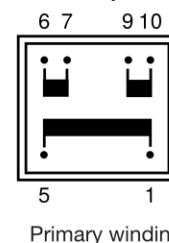
EN 61558-2-6

- Vacuum filling
- Two compartments bobbins
- Self-extinguishing plastics UL 94 V0
- Degree of protection IP 00
- 70 grams weight
- Resin class B CEI 85 (20 000 h testing to CEI 126)
- Inherently short-circuits proof
- 30 V model is VDE EN 61558-2-6 certified (production on request)

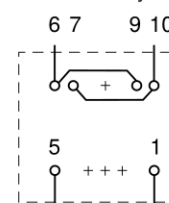
1 Secondary winding



2 Secondary windings



Recommended layout for transformers with 1 secondary winding



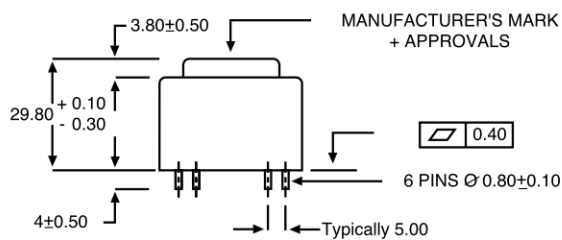
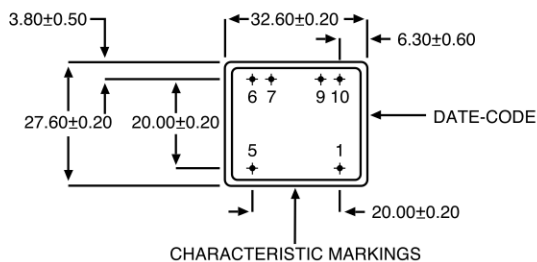
(Allows the use of a transformer with 2 secondary windings)



EN 60950 UL 5085 

- Insulation voltage 4 KV
- 100 % tested production
- Certification : CCA procedure on request

\*To be noted : 2 x 18 V and 2 x 24 V models are non-approved.  
Those transformers meet all requirement of EN 61558-2-4



\*\* RECOMMENDED DRILL-HOLE  
DIAMETER FOR 1.3 mm PINS

## PRIMARY VOLTAGE 230 V

| Protection                                                                        | Reference | Secondary voltage V | Secondary current mA | No-load voltage V | Ambient Temperature °C | Rating VA |
|-----------------------------------------------------------------------------------|-----------|---------------------|----------------------|-------------------|------------------------|-----------|
|  | 44157*    | 6                   | 383                  | 10,5              | T 70 B                 | 2,3       |
|                                                                                   | 44158*    | 9                   | 256                  | 15,7              | T 70 B                 | 2,3       |
|                                                                                   | 44159*    | 12                  | 192                  | 21                | T 70 B                 | 2,3       |
|                                                                                   | 44160*    | 15                  | 153                  | 25,9              | T 70 B                 | 2,3       |
|                                                                                   | 44161*    | 18                  | 128                  | 31,4              | T 70 B                 | 2,3       |
|                                                                                   | 44162*    | 24                  | 96                   | 41,9              | T 70 B                 | 2,3       |
|                                                                                   | 44163*    | 2 X 6               | 2 x 192              | 2 x 10,5          | T 70 B                 | 2,3       |
|                                                                                   | 44164*    | 2 x 9               | 2 x 128              | 2 x 15,7          | T 70 B                 | 2,3       |
|                                                                                   | 44165*    | 2 x 12              | 2 x 96               | 2 x 21            | T 70 B                 | 2,3       |
|                                                                                   | 44166*    | 2 x 15              | 2 x 77               | 2 x 25,9          | T 70 B                 | 2,3       |
|                                                                                   | 44167**   | 2 x 18              | 2 x 64               | 2 x 31,4          | T 70 B                 | 2,3       |
|                                                                                   | 44168**   | 2 x 24              | 2 x 48               | 2 x 41,9          | T 70 B                 | 2,3       |

\* Items usually available on stock

|                                                                                     |        |        |         |          |        |     |
|-------------------------------------------------------------------------------------|--------|--------|---------|----------|--------|-----|
|  | 44687  | 6      | 450     | 10,5     | T 50 B | 2,7 |
|                                                                                     | 44688  | 9      | 300     | 15,4     | T 50 B | 2,7 |
|                                                                                     | 44689  | 12     | 225     | 21,1     | T 50 B | 2,7 |
|                                                                                     | 44690  | 15     | 180     | 26,3     | T 50 B | 2,7 |
|                                                                                     | 44691  | 18     | 150     | 30,9     | T 50 B | 2,7 |
|                                                                                     | 44692  | 24     | 113     | 42       | T 50 B | 2,7 |
|                                                                                     | 44693  | 2 x 6  | 2 x 225 | 2 x 10,5 | T 50 B | 2,7 |
|                                                                                     | 44694  | 2 x 9  | 2 x 150 | 2 x 15,4 | T 50 B | 2,7 |
|                                                                                     | 44695  | 2 x 12 | 2 x 113 | 2 x 21,1 | T 50 B | 2,7 |
|                                                                                     | 44696  | 2 x 15 | 2 x 90  | 2 x 26,3 | T 50 B | 2,7 |
|                                                                                     | 44491* | 2 x 18 | 2 x 75  | 2 x 31,5 | T 50 B | 2,7 |
|                                                                                     | 44492* | 2 x 24 | 2 x 56  | 2 x 42,1 | T 50 B | 2,7 |

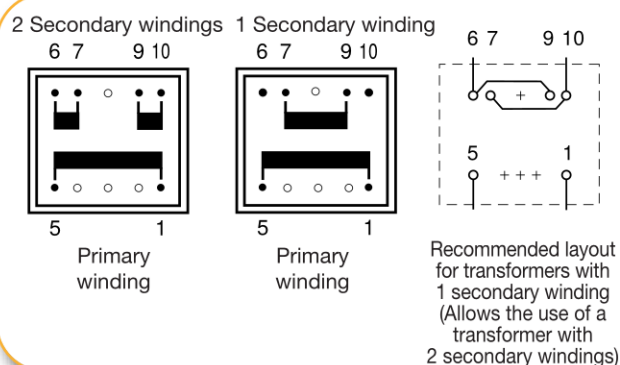
|                                                                                     |        |        |         |          |        |     |
|-------------------------------------------------------------------------------------|--------|--------|---------|----------|--------|-----|
|  | 44697  | 6      | 467     | 10,5     | T 40 B | 2,8 |
|                                                                                     | 44698  | 9      | 311     | 15,4     | T 40 B | 2,8 |
|                                                                                     | 44699  | 12     | 233     | 21,1     | T 40 B | 2,8 |
|                                                                                     | 44700  | 15     | 187     | 26,3     | T 40 B | 2,8 |
|                                                                                     | 44701  | 18     | 156     | 30,9     | T 40 B | 2,8 |
|                                                                                     | 44702  | 24     | 117     | 42,1     | T 40 B | 2,8 |
|                                                                                     | 44703  | 2 x 6  | 2 x 233 | 2 x 10,5 | T 40 B | 2,8 |
|                                                                                     | 44704  | 2 x 9  | 2 x 156 | 2 x 15,4 | T 40 B | 2,8 |
|                                                                                     | 44705  | 2 x 12 | 2 x 117 | 2 x 21,1 | T 40 B | 2,8 |
|                                                                                     | 44706  | 2 x 15 | 2 x 93  | 2 x 26,3 | T 40 B | 2,8 |
|                                                                                     | 44493* | 2 x 18 | 2 x 70  | 2 x 31,5 | T 40 B | 2,8 |
|                                                                                     | 44494* | 2 x 24 | 2 x 58  | 2 x 42,1 | T 40 B | 2,8 |

**PRIMARY VOLTAGE  
117 V**

| Secondary protection mA | Reference | Secondary voltage V | Secondary current mA | No-load voltage V | Ambient Temperature °C | Rating VA |
|-------------------------|-----------|---------------------|----------------------|-------------------|------------------------|-----------|
| 630                     | 44205     | 6                   | 533                  | 8                 | T 70 B                 | 3,2       |
| 400                     | 44206     | 9                   | 356                  | 12                | T 70 B                 | 3,2       |
| 315                     | 44207     | 12                  | 267                  | 16                | T 70 B                 | 3,2       |
| 250                     | 44208     | 15                  | 213                  | 20                | T 70 B                 | 3,2       |
| 200                     | 44209     | 18                  | 178                  | 24,1              | T 70 B                 | 3,2       |
| 160                     | 44210     | 24                  | 133                  | 32,1              | T 70 B                 | 3,2       |
| 315                     | 44211     | 2 x 6               | 2 x 267              | 2 x 8             | T 70 B                 | 3,2       |
| 200                     | 44212     | 2 x 9               | 2 x 178              | 2 x 12            | T 70 B                 | 3,2       |
| 160                     | 44213     | 2 x 12              | 2 x 133              | 2 x 16            | T 70 B                 | 3,2       |
| 125                     | 44214     | 2 x 15              | 2 x 107              | 2 x 20            | T 70 B                 | 3,2       |
| 100                     | 44215     | 2 x 18              | 2 x 89               | 2 x 24            | T 70 B                 | 3,2       |
| 80                      | 44216     | 2 x 24              | 2 x 67               | 2 x 32,1          | T 70 B                 | 3,2       |



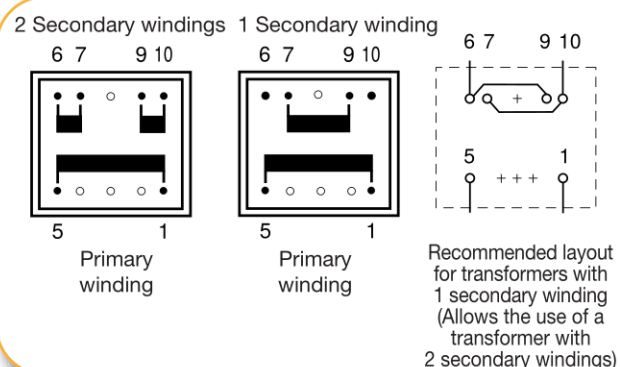
- Vacuum filling
- Two compartments bobbins
- Self-extinguishing plastics UL 94 V0
- Degree of protection IP 00
- 150 grams weight
- Resin class B CEI 85 (20 000 h testing to CEI 126)
- Fuse protection on secondary side (see diagram) to be assumed by customer

**PRIMARY VOLTAGE  
117 V**

| Secondary protection mA | Reference | Secondary voltage V | Secondary current mA | No-load voltage V | Ambient Temperature °C | Rating VA |
|-------------------------|-----------|---------------------|----------------------|-------------------|------------------------|-----------|
| 800                     | 44241     | 6                   | 833                  | 8,4               | T 50 B                 | 5         |
| 630                     | 44242     | 9                   | 556                  | 12,6              | T 50 B                 | 5         |
| 400                     | 44243     | 12                  | 417                  | 16,9              | T 50 B                 | 5         |
| 315                     | 44244     | 15                  | 333                  | 21                | T 50 B                 | 5         |
| 315                     | 44245     | 18                  | 278                  | 25,3              | T 50 B                 | 5         |
| 200                     | 44246     | 24                  | 208                  | 33,7              | T 50 B                 | 5         |
| 400                     | 44247     | 2 x 6               | 2 x 417              | 2 x 8,4           | T 50 B                 | 5         |
| 315                     | 44248     | 2 x 9               | 2 x 278              | 2 x 12,6          | T 50 B                 | 5         |
| 200                     | 44249     | 2 x 12              | 2 x 208              | 2 x 16,9          | T 50 B                 | 5         |
| 160                     | 44250     | 2 x 15              | 2 x 167              | 2 x 21            | T 50 B                 | 5         |
| 160                     | 44251     | 2 x 18              | 2 x 139              | 2 x 25,3          | T 50 B                 | 5         |
| 100                     | 44252     | 2 x 24              | 2 x 104              | 2 x 33,7          | T 50 B                 | 5         |



- Vacuum filling
- Two compartments bobbins
- Self-extinguishing plastics UL 94 V0
- Degree of protection IP 00
- 200 grams weight
- Resin class B CEI 85 (20 000 h testing to CEI 126)
- Fuse protection on secondary side (see diagram) to be assumed by customer



3,2 VA



EI 38-13,6



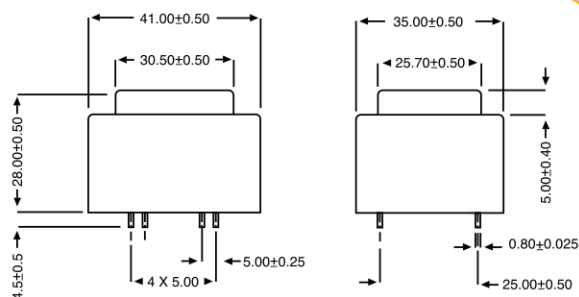
SERIE 44000

EN 60950 UL 5085 

- 30 V and 36 V models are VDE EN 61558-2-6 certified (production on request)
- Insulation voltage 4 KV
- 100 % tested production
- Certification : CCA procedure on request

\*To be noted : 2 x 24 V model is non-approved.

Those transformers meet all requirement of EN 61558-2-4



\*\* RECOMMENDED DRILL-HOLE DIAMETER FOR 1,3 mm PINS

## PRIMARY VOLTAGE 230 V

| Secondary protection mA | Reference | Secondary voltage V | Secondary current mA | No-load voltage V | Ambient Temperature °C | Rating VA |
|-------------------------|-----------|---------------------|----------------------|-------------------|------------------------|-----------|
| 630                     | 44193     | 6                   | 533                  | 8                 | T 70 B                 | 3,2       |
| 400                     | 44194     | 9                   | 356                  | 12                | T 70 B                 | 3,2       |
| 315                     | 44195     | 12                  | 267                  | 16                | T 70 B                 | 3,2       |
| 250                     | 44196     | 15                  | 213                  | 20                | T 70 B                 | 3,2       |
| 200                     | 44197     | 18                  | 178                  | 24,1              | T 70 B                 | 3,2       |
| 160                     | 44198     | 24                  | 133                  | 32,1              | T 70 B                 | 3,2       |
| 315                     | 44199     | 2 x 6               | 2 x 267              | 2 x 8             | T 70 B                 | 3,2       |
| 200                     | 44200     | 2 x 9               | 2 x 178              | 2 x 12            | T 70 B                 | 3,2       |
| 160                     | 44201     | 2 x 12              | 2 x 133              | 2 x 16            | T 70 B                 | 3,2       |
| 125                     | 44202     | 2 x 15              | 2 x 107              | 2 x 20            | T 70 B                 | 3,2       |
| 100                     | 44203     | 2 x 18              | 2 x 89               | 2 x 24            | T 70 B                 | 3,2       |
| 80                      | 44204*    | 2 x 24              | 2 x 67               | 2 x 32,1          | T 70 B                 | 3,2       |

5 VA



EI 42-14,8



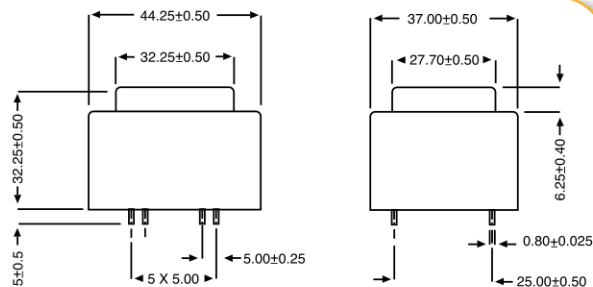
SERIE 44000

EN 60950 UL 5085 

- 30 V and 36 V models are VDE EN 61558-2-6 certified (production on request)
- Insulation voltage 4 KV
- 100 % tested production
- Certification : CCA procedure on request

\*To be noted : 2 x 24 V model is non-approved.

Those transformers meet all requirement of EN 61558-2-4



\*\* RECOMMENDED DRILL-HOLE DIAMETER FOR 1,3 mm PINS

## PRIMARY VOLTAGE 230 V

| Secondary protection mA | Reference | Secondary voltage V | Secondary current mA | No-load voltage V | Ambient Temperature °C | Rating VA |
|-------------------------|-----------|---------------------|----------------------|-------------------|------------------------|-----------|
| 800                     | 44229     | 6                   | 833                  | 8,4               | T 50 B                 | 5         |
| 630                     | 44230     | 9                   | 556                  | 12,6              | T 50 B                 | 5         |
| 400                     | 44231     | 12                  | 417                  | 16,9              | T 50 B                 | 5         |
| 315                     | 44232     | 15                  | 333                  | 21                | T 50 B                 | 5         |
| 315                     | 44233     | 18                  | 278                  | 25,3              | T 50 B                 | 5         |
| 200                     | 44234     | 24                  | 208                  | 33,7              | T 50 B                 | 5         |
| 400                     | 44235     | 2 x 6               | 2 x 417              | 2 x 8,4           | T 50 B                 | 5         |
| 315                     | 44236     | 2 x 9               | 2 x 278              | 2 x 12,6          | T 50 B                 | 5         |
| 200                     | 44237     | 2 x 12              | 2 x 208              | 2 x 16,9          | T 50 B                 | 5         |
| 160                     | 44238     | 2 x 15              | 2 x 167              | 2 x 21            | T 50 B                 | 5         |
| 160                     | 44239     | 2 x 18              | 2 x 139              | 2 x 25,3          | T 50 B                 | 5         |
| 100                     | 44240*    | 2 x 24              | 2 x 104              | 2 x 33,7          | T 50 B                 | 5         |

ENCAPSULATED TRANSFORMERS

44000 SERIES



## PRIMARY VOLTAGE 117 V

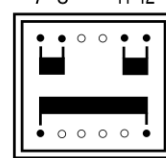
| Primary protection mA | Reference | Secondary voltage V | Secondary current mA | No-load voltage V | Ambient Temperature °C | Rating VA |
|-----------------------|-----------|---------------------|----------------------|-------------------|------------------------|-----------|
| 125                   | 44277     | 6                   | 1667                 | 7,2               | T 50 B                 | 10        |
| 125                   | 44278     | 9                   | 1111                 | 10,8              | T 50 B                 | 10        |
| 125                   | 44279     | 12                  | 833                  | 14,4              | T 50 B                 | 10        |
| 125                   | 44280     | 15                  | 667                  | 18,1              | T 50 B                 | 10        |
| 125                   | 44281     | 18                  | 556                  | 21,6              | T 50 B                 | 10        |
| 125                   | 44282     | 24                  | 417                  | 28,9              | T 50 B                 | 10        |
| 125                   | 44283     | 2 x 6               | 2 x 833              | 2 x 7,2           | T 50 B                 | 10        |
| 125                   | 44284     | 2 x 9               | 2 x 556              | 2 x 10,8          | T 50 B                 | 10        |
| 125                   | 44285     | 2 x 12              | 2 x 417              | 2 x 14,4          | T 50 B                 | 10        |
| 125                   | 44286     | 2 x 15              | 2 x 333              | 2 x 18,1          | T 50 B                 | 10        |
| 125                   | 44287     | 2 x 18              | 2 x 278              | 2 x 21,6          | T 50 B                 | 10        |
| 125                   | 44288     | 2 x 24              | 2 x 208              | 2 x 28,9          | T 50 B                 | 10        |



EN 61558-2-6

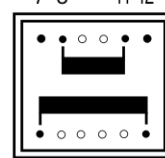
- Vacuum filling
- Two compartments bobbins
- Self-extinguishing plastics UL 94 V0
- Degree of protection IP 00
- 300 grams weight
- Resin class B CEI 85 (20 000 h testing to CEI 126)
- Fuse protection on primary side (see diagram) to be assumed by customer

2 Secondary windings  
7 8 11 12

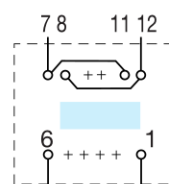


Primary winding

1 Secondary winding  
7 8 11 12



Primary winding



Recommended layout for transformers with 1 secondary winding (Allows the use of a transformer with 2 secondary windings)



## PRIMARY VOLTAGE 117 V

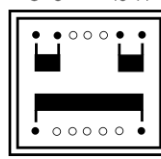
| Secondary protection mA | Reference | Secondary voltage V | Secondary current mA | No-load voltage V | Ambient Temperature °C | Rating VA |
|-------------------------|-----------|---------------------|----------------------|-------------------|------------------------|-----------|
| 2,5                     | 44313     | 6                   | 2667                 | 7,4               | T 50 B                 | 16        |
| 2,0                     | 44314     | 9                   | 1778                 | 11,1              | T 50 B                 | 16        |
| 1,25                    | 44315     | 12                  | 1333                 | 14,7              | T 50 B                 | 16        |
| 1                       | 44316     | 15                  | 1067                 | 18,4              | T 50 B                 | 16        |
| 1                       | 44317     | 18                  | 889                  | 22,1              | T 50 B                 | 16        |
| 0,63                    | 44318     | 24                  | 667                  | 29,3              | T 50 B                 | 16        |
| 1,25                    | 44319     | 2 x 6               | 2 x 1333             | 2 x 7,4           | T 50 B                 | 16        |
| 1                       | 44320     | 2 x 9               | 2 x 889              | 2 x 11,1          | T 50 B                 | 16        |
| 0,63                    | 44321     | 2 x 12              | 2 x 667              | 2 x 14,7          | T 50 B                 | 16        |
| 0,5                     | 44322     | 2 x 15              | 2 x 533              | 2 x 18,4          | T 50 B                 | 16        |
| 0,5                     | 44323     | 2 x 18              | 2 x 444              | 2 x 22            | T 50 B                 | 16        |
| 0,315                   | 44324     | 2 x 24              | 2 x 333              | 2 x 29,3          | T 50 B                 | 16        |



EN 61558-2-6

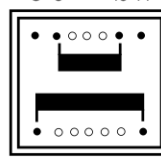
- Vacuum filling
- Two compartments bobbins
- Self-extinguishing plastics UL 94 V0
- Degree of protection IP 00
- 400 grams weight
- Resin class B CEI 85 (20 000 h testing to CEI 126)
- Fuse protection on secondary side (see diagram) to be assumed by customer

2 Secondary windings  
8 9 13 14

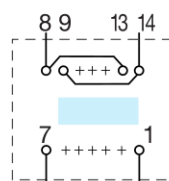


Primary winding

1 Secondary winding  
8 9 13 14



Primary winding



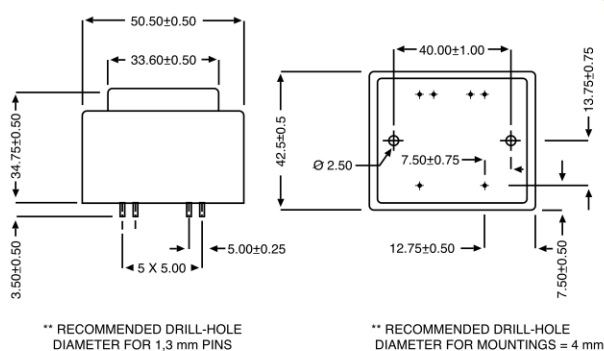
Recommended layout for transformers with 1 secondary winding (Allows the use of a transformer with 2 secondary windings)

EN 60950 UL 5085



- 30 V and 36 V models are VDE EN 61558-2-6 certified (production on request)
- Insulation voltage 4 KV
- 100 % tested production
- Certification : CCA procedure on request

\*To be noted : 2 x 24 V model is non-approved.  
Those transformers meet all requirement of EN 61558-2-4



## PRIMARY VOLTAGE 230 V

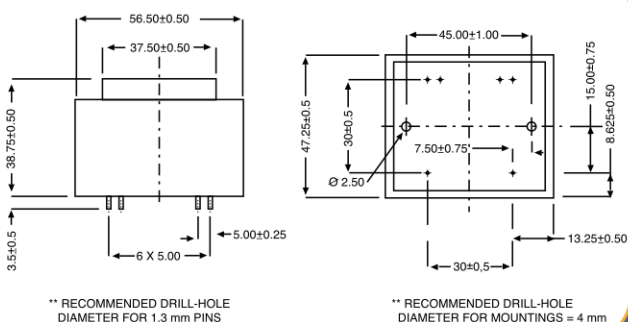
| Primary protection mA | Reference | Secondary voltage V | Secondary current mA | No-load voltage V | Ambient Temperature °C | Rating VA |
|-----------------------|-----------|---------------------|----------------------|-------------------|------------------------|-----------|
| 63                    | 44265     | 6                   | 1667                 | 7,2               | T 50 B                 | 10        |
| 63                    | 44266     | 9                   | 1111                 | 10,8              | T 50 B                 | 10        |
| 63                    | 44267     | 12                  | 833                  | 14,4              | T 50 B                 | 10        |
| 63                    | 44268     | 15                  | 667                  | 18,1              | T 50 B                 | 10        |
| 63                    | 44269     | 18                  | 556                  | 21,6              | T 50 B                 | 10        |
| 63                    | 44270     | 24                  | 417                  | 28,9              | T 50 B                 | 10        |
| 63                    | 44271     | 2 x 6               | 2 x 833              | 2 x 7,2           | T 50 B                 | 10        |
| 63                    | 44272     | 2 x 9               | 2 x 556              | 2 x 10,8          | T 50 B                 | 10        |
| 63                    | 44273     | 2 x 12              | 2 x 417              | 2 x 14,4          | T 50 B                 | 10        |
| 63                    | 44274     | 2 x 15              | 2 x 333              | 2 x 18,1          | T 50 B                 | 10        |
| 63                    | 44275     | 2 x 18              | 2 x 278              | 2 x 21,6          | T 50 B                 | 10        |
| 63                    | 44276*    | 2 x 24              | 2 x 208              | 2 x 28,9          | T 50 B                 | 10        |

EN 60950 UL 5085



- 30 V and 36 V models are VDE EN 61558-2-6 certified (production on request)
- Insulation voltage 4 KV
- 100 % tested production
- Certification : CCA procedure on request

\*To be noted : 2 x 24 V model is non-approved.  
Those transformers meet all requirement of EN 61558-2-4



## PRIMARY VOLTAGE 230 V

| Secondary protection mA | Reference | Secondary voltage V | Secondary current mA | No-load voltage V | Ambient Temperature °C | Rating VA |
|-------------------------|-----------|---------------------|----------------------|-------------------|------------------------|-----------|
| 2,500                   | 44301     | 6                   | 2667                 | 7,4               | T 50 B                 | 16        |
| 2,000                   | 44302     | 9                   | 1778                 | 11,1              | T 50 B                 | 16        |
| 1,25                    | 44303     | 12                  | 1333                 | 14,7              | T 50 B                 | 16        |
| 1                       | 44304     | 15                  | 1067                 | 18,4              | T 50 B                 | 16        |
| 1                       | 44305     | 18                  | 889                  | 22,1              | T 50 B                 | 16        |
| 0,63                    | 44306     | 24                  | 667                  | 29,3              | T 50 B                 | 16        |
| 1,25                    | 44307     | 2 x 6               | 2 x 1333             | 2 x 7,4           | T 50 B                 | 16        |
| 1                       | 44308     | 2 x 9               | 2 x 889              | 2 x 11,1          | T 50 B                 | 16        |
| 0,63                    | 44309     | 2 x 12              | 2 x 667              | 2 x 14,7          | T 50 B                 | 16        |
| 0,5                     | 44310     | 2 x 15              | 2 x 533              | 2 x 18,4          | T 50 B                 | 16        |
| 0,5                     | 44311     | 2 x 18              | 2 x 444              | 2 x 22            | T 50 B                 | 16        |
| 0,315                   | 44312*    | 2 x 24              | 2 x 333              | 2 x 29,3          | T 50 B                 | 16        |





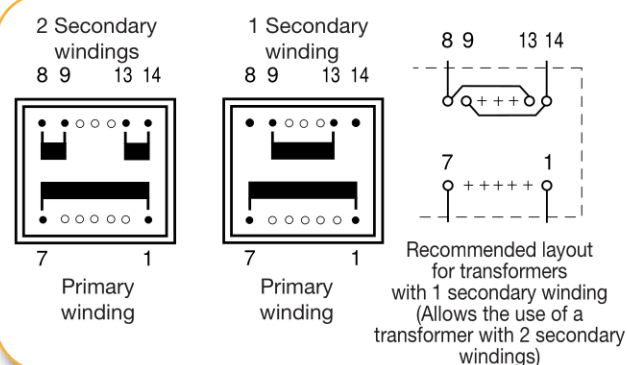
## PRIMARY VOLTAGE 117 V

| Primary protection mA | Reference | Secondary voltage V | Secondary current mA | No-load voltage V | Ambient Temperature °C | Rating VA |
|-----------------------|-----------|---------------------|----------------------|-------------------|------------------------|-----------|
| 250                   | 44444     | 6                   | 3667                 | 6,8               | T 50 B                 | 22        |
| 250                   | 44445     | 9                   | 2444                 | 10,3              | T 50 B                 | 22        |
| 250                   | 44446     | 12                  | 1833                 | 13,7              | T 50 B                 | 22        |
| 250                   | 44447     | 15                  | 1467                 | 17,1              | T 50 B                 | 22        |
| 250                   | 44448     | 18                  | 1222                 | 20,5              | T 50 B                 | 22        |
| 250                   | 44449     | 24                  | 917                  | 27,3              | T 50 B                 | 22        |
| 250                   | 44450     | 2 x 6               | 2 x 1833             | 2 x 6,8           | T 50 B                 | 22        |
| 250                   | 44451     | 2 x 9               | 2 x 1222             | 2 x 10,3          | T 50 B                 | 22        |
| 250                   | 44452     | 2 x 12              | 2 x 917              | 2 x 13,7          | T 50 B                 | 22        |
| 250                   | 44453     | 2 x 15              | 2 x 733              | 2 x 17,1          | T 50 B                 | 22        |
| 250                   | 44454     | 2 x 18              | 2 x 611              | 2 x 20,5          | T 50 B                 | 22        |
| 250                   | 44455     | 2 x 24              | 2 x 458              | 2 x 27,3          | T 50 B                 | 22        |



EN 61558-2-6

- Vacuum filling
- Two compartments bobbins
- Self-extinguishing plastics UL 94 V0
- Degree of protection IP 00
- 550 grams weight
- Resin class B CEI 85 (20 000 h testing to CEI 126)
- Fuse protection on primary side (see diagram) to be assumed by customer



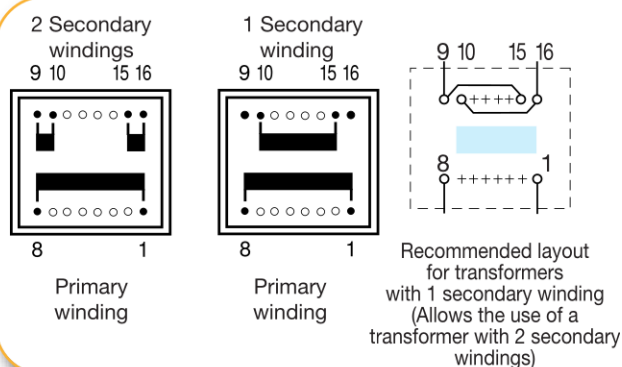
## PRIMARY VOLTAGE 117 V

| Primary protection mA | Reference | Secondary voltage V | Secondary current mA | No-load voltage V | Ambient Temperature °C | Rating VA |
|-----------------------|-----------|---------------------|----------------------|-------------------|------------------------|-----------|
| 315                   | 44385     | 6                   | 5000                 | 6,9               | T 50 B                 | 30        |
| 315                   | 44386     | 9                   | 3333                 | 10,3              | T 50 B                 | 30        |
| 315                   | 44387     | 12                  | 2500                 | 13,8              | T 50 B                 | 30        |
| 315                   | 44388     | 15                  | 2000                 | 17,2              | T 50 B                 | 30        |
| 315                   | 44389     | 18                  | 1667                 | 20,8              | T 50 B                 | 30        |
| 315                   | 44390     | 24                  | 1250                 | 27,7              | T 50 B                 | 30        |
| 315                   | 44391     | 2 x 6               | 2 x 2500             | 2 x 6,9           | T 50 B                 | 30        |
| 315                   | 44392     | 2 x 9               | 2 x 1667             | 2 x 10,3          | T 50 B                 | 30        |
| 315                   | 44393     | 2 x 12              | 2 x 1250             | 2 x 13,8          | T 50 B                 | 30        |
| 315                   | 44394     | 2 x 15              | 2 x 1000             | 2 x 17,2          | T 50 B                 | 30        |
| 315                   | 44395     | 2 x 18              | 2 x 833              | 2 x 20,8          | T 50 B                 | 30        |
| 315                   | 44396     | 2 x 24              | 2 x 625              | 2 x 27,7          | T 50 B                 | 30        |



EN 61558-2-6

- Vacuum filling
- Two compartments bobbins
- Self-extinguishing plastics UL 94 V0
- Degree of protection IP 00
- 700 grams weight
- Resin class B CEI 85 (20 000 h testing to CEI 126)
- Fuse protection on primary side (see diagram) to be assumed by customer

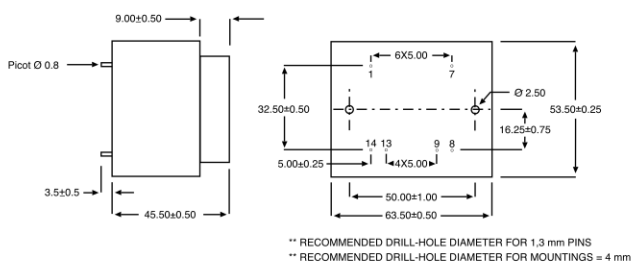


EN 60950 UL 5085



- 30 V and 36 V models are VDE EN 61558-2-6 certified (production on request)
- Insulation voltage 4 KV
- 100 % tested production
- Certification : CCA procedure on request

\*To be noted : 2 x 24 V model is non-approved.  
Those transformers meet all requirement of EN 61558-2-4



## PRIMARY VOLTAGE 230 V

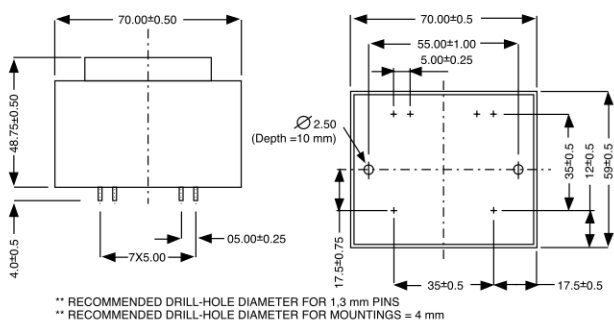
| Primary protection mA | Reference | Secondary voltage V | Secondary current mA | No-load voltage V | Ambient Temperature °C | Rating VA |
|-----------------------|-----------|---------------------|----------------------|-------------------|------------------------|-----------|
| 125                   | 44432     | 6                   | 3667                 | 6,8               | T 50 B                 | 22        |
| 125                   | 44433     | 9                   | 2444                 | 10,3              | T 50 B                 | 22        |
| 125                   | 44434     | 12                  | 1833                 | 13,7              | T 50 B                 | 22        |
| 125                   | 44435     | 15                  | 1467                 | 17,1              | T 50 B                 | 22        |
| 125                   | 44436     | 18                  | 1222                 | 20,5              | T 50 B                 | 22        |
| 125                   | 44437     | 24                  | 917                  | 27,3              | T 50 B                 | 22        |
| 125                   | 44438     | 2 x 6               | 2 x 1833             | 2 x 6,8           | T 50 B                 | 22        |
| 125                   | 44439     | 2 x 9               | 2 x 1222             | 2 x 10,3          | T 50 B                 | 22        |
| 125                   | 44440     | 2 x 12              | 2 x 917              | 2 x 13,7          | T 50 B                 | 22        |
| 125                   | 44441     | 2 x 15              | 2 x 733              | 2 x 17,1          | T 50 B                 | 22        |
| 125                   | 44442     | 2 x 18              | 2 x 611              | 2 x 20,5          | T 50 B                 | 22        |
| 125                   | 44443*    | 2 x 24              | 2 x 458              | 2 x 27,3          | T 50 B                 | 22        |

EN 60950 UL 5085



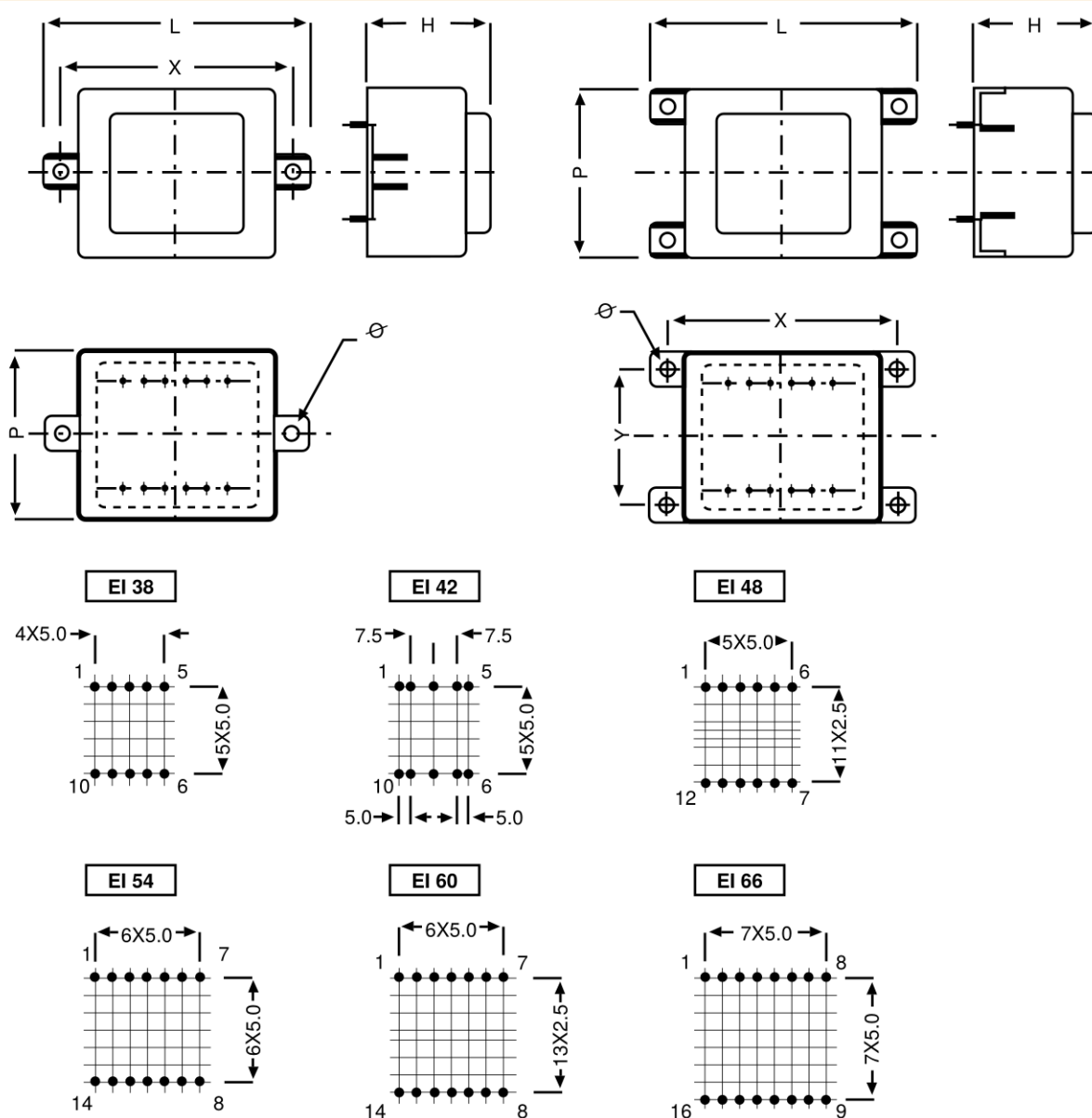
- 30 V and 36 V models are VDE EN 61558-2-6 certified (production on request)
- Insulation voltage 4 KV
- 100 % tested production
- Certification : CCA procedure on request

\*To be noted : 2 x 24 V model is non-approved.  
Those transformers meet all requirement of EN 61558-2-4



## PRIMARY VOLTAGE 230 V

| Primary protection mA | Reference | Secondary voltage V | Secondary current mA | No-load voltage V | Ambient Temperature °C | Rating VA |
|-----------------------|-----------|---------------------|----------------------|-------------------|------------------------|-----------|
| 160                   | 44373     | 6                   | 5000                 | 6,9               | T 50 B                 | 30        |
| 160                   | 44374     | 9                   | 3333                 | 10,3              | T 50 B                 | 30        |
| 160                   | 44375     | 12                  | 2500                 | 13,8              | T 50 B                 | 30        |
| 160                   | 44376     | 15                  | 2000                 | 17,2              | T 50 B                 | 30        |
| 160                   | 44377     | 18                  | 1667                 | 20,8              | T 50 B                 | 30        |
| 160                   | 44378     | 24                  | 1250                 | 27,7              | T 50 B                 | 30        |
| 160                   | 44379     | 2 x 6               | 2 x 2500             | 2 x 6,9           | T 50 B                 | 30        |
| 160                   | 44380     | 2 x 9               | 2 x 1667             | 2 x 10,3          | T 50 B                 | 30        |
| 160                   | 44381     | 2 x 12              | 2 x 1250             | 2 x 13,8          | T 50 B                 | 30        |
| 160                   | 44382     | 2 x 15              | 2 x 1000             | 2 x 17,2          | T 50 B                 | 30        |
| 160                   | 44383     | 2 x 18              | 2 x 833              | 2 x 20,8          | T 50 B                 | 30        |
| 160                   | 44384*    | 2 x 24              | 2 x 625              | 2 x 27,7          | T 50 B                 | 30        |



| CIRCUIT             | L<br>± 0,50 | P<br>± 0,40 | H<br>± 0,40 | X<br>± 0,50 | Y<br>± 0,50 | Ø<br>± 0,3 |
|---------------------|-------------|-------------|-------------|-------------|-------------|------------|
| <b>EI 38 X 13,6</b> | 55,6        | 34,9        | 28,1        | 47,5        |             | 3,2        |
| <b>EI 42 X 14,8</b> | 64          | 37          | 32,3        | 55,0        |             | 4,2        |
| <b>EI 48 X 16,8</b> | 69          | 42,3        | 34,6        | 60          |             | 4,2        |
| <b>EI 54 X 18,8</b> | 74          | 47,3        | 38,8        | 65          |             | 4,2        |
| <b>EI 60 X 21</b>   | 81,5        | 53,3        | 44,7        | 72,5        | 43,5        | 4,2        |
| <b>EI 66 X 23</b>   | 87,2        | 58,6        | 48,5        | 77,5        | 47,5        | 4,2        |

Series 44000 transformers can be equipped with boxes with lugs and also 2,8 «faston» terminal tags while still conforming to the specifications in the standard references.

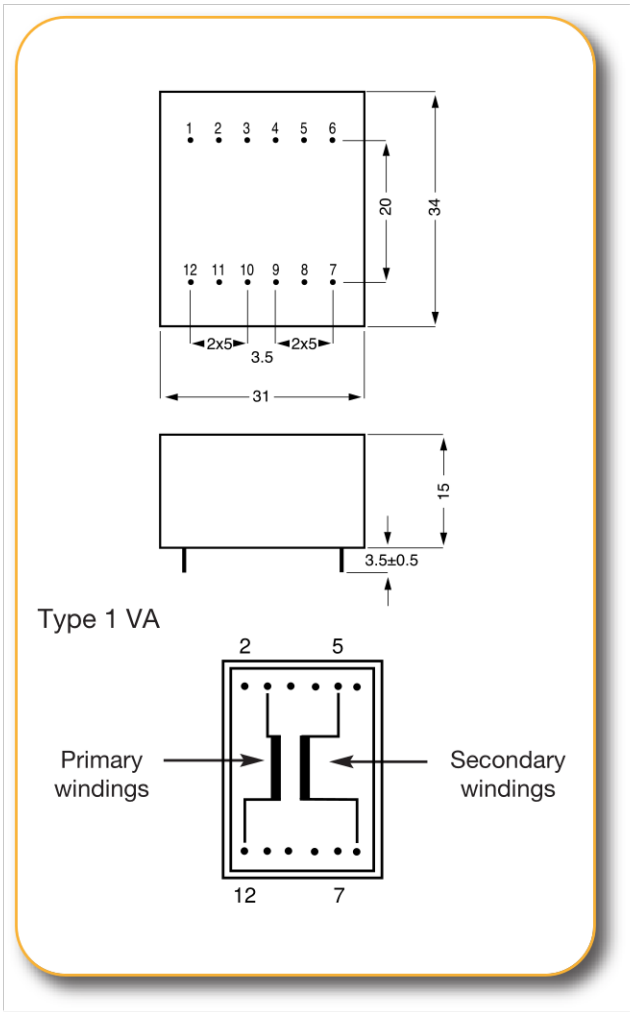
- For boxes with 2 lugs and pin type output, add suffix 1 to the reference of the standard transformer (example : 44198-1)
- For boxes with 2 lugs and 2,8 «faston» output, add suffix 2 to the reference of the standard transformer (example : 44199-2)
- For boxes with 4 lugs and pin type output, add suffix 3 to the reference of the standard transformer (example : 44200-3)
- For boxes with 4 lugs and 2,8 «faston» output, add suffix 4 to the reference of the standard transformer (example : 44201-4)

These models are not available on stock.

- 1 VA
- 230 V supply voltage by series/parallel connection
  - Vacuum filling
  - One compartment housing
  - Two compartments bobbins 0,8 VA
  - Degree of protection IP 00
  - 50 grams weight

- Resin UL 94 V0
- Design protection against short-circuits
- Insulation voltage 4 KV
- 100 % tested production

Conform to EN 61558 - UL 5085



| PRIMARY VOLTAGE<br>230 V                                                            |           |                        |                          |                      |                           |
|-------------------------------------------------------------------------------------|-----------|------------------------|--------------------------|----------------------|---------------------------|
| Protection                                                                          | Reference | Secondary voltage<br>V | Secondary current<br>m A | No-load voltage<br>V | Ambient Temperature<br>°C |
| UI 21                                                                               |           | 230 V                  |                          | 1 VA                 |                           |
|  | 45001     | 6                      | 167                      | 11,4                 | T 70 B                    |
|                                                                                     | 45002     | 9                      | 111                      | 17                   | T 70 B                    |
|                                                                                     | 45003     | 12                     | 83                       | 22,8                 | T 70 B                    |
|                                                                                     | 45004     | 15                     | 67                       | 28,5                 | T 70 B                    |
|                                                                                     | 45005     | 18                     | 56                       | 34,2                 | T 70 B                    |
|                                                                                     | 45006     | 24                     | 42                       | 45,6                 | T 70 B                    |

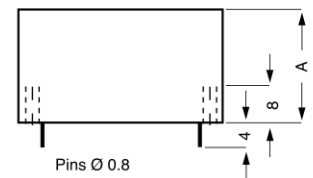
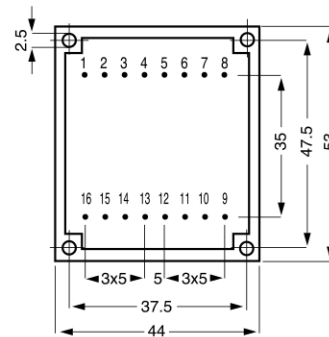
QUALITY IN SERIES



## PRIMARY VOLTAGE 115 V - 230 V

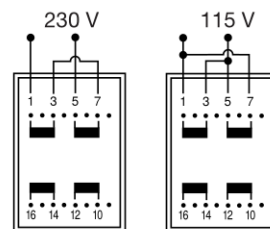
| Protection          | Reference | Secondary voltage V            | Secondary current mA | No-load voltage V | Ambient Temperature °C |
|---------------------|-----------|--------------------------------|----------------------|-------------------|------------------------|
| <b>UI 30 x 5,5</b>  |           | <b>2 VA</b>                    |                      |                   |                        |
|                     | 45292     | 2 x 6                          | 2 x 167              | 2 x 10,2          | T 70 B                 |
|                     | 45293     | 2 x 9                          | 2 x 111              | 2 x 15,9          | T 70 B                 |
|                     | 45294     | 2 x 12                         | 2 x 83               | 2 x 20,4          | T 70 B                 |
|                     | 45295     | 2 x 15                         | 2 x 67               | 2 x 25,5          | T 70 B                 |
|                     | 45296     | 2 x 18                         | 2 x 56               | 2 x 30,6          | T 70 B                 |
|                     | 45297     | 2 x 24                         | 2 x 42               | 2 x 40,8          | T 70 B                 |
| <b>UI 30 x 5,5</b>  |           | <b>Secondary protection mA</b> |                      | <b>3 VA</b>       |                        |
| 250                 | 45013     | 2 x 6                          | 2 x 250              | 2 x 9,8           | T 70 B                 |
| 160                 | 45014     | 2 x 9                          | 2 x 167              | 2 x 14,7          | T 70 B                 |
| 125                 | 45015     | 2 x 12                         | 2 x 125              | 2 x 19,6          | T 70 B                 |
| 100                 | 45016     | 2 x 15                         | 2 x 100              | 2 x 24,5          | T 70 B                 |
| 80                  | 45017     | 2 x 18                         | 2 x 83               | 2 x 29,5          | T 70 B                 |
| 63                  | 45018     | 2 x 24                         | 2 x 63               | 2 x 39,3          | T 70 B                 |
| <b>UI 30 x 7,5</b>  |           | <b>Secondary protection mA</b> |                      | <b>4 VA</b>       |                        |
| 315                 | 45019     | 2 x 6                          | 2 x 333              | 2 x 9,4           | T 70 B                 |
| 250                 | 45020     | 2 x 9                          | 2 x 222              | 2 x 14,0          | T 70 B                 |
| 160                 | 45021     | 2 x 12                         | 2 x 167              | 2 x 18,6          | T 70 B                 |
| 125                 | 45022     | 2 x 15                         | 2 x 133              | 2 x 23,3          | T 70 B                 |
| 125                 | 45023     | 2 x 18                         | 2 x 111              | 2 x 28,0          | T 70 B                 |
| 80                  | 45024     | 2 x 24                         | 2 x 83               | 2 x 37,4          | T 70 B                 |
| <b>UI 30 x 10,5</b> |           | <b>Secondary protection mA</b> |                      | <b>6 VA</b>       |                        |
| 500                 | 45025     | 2 x 6                          | 2 x 500              | 2 x 8,1           | T 70 B                 |
| 315                 | 45026     | 2 x 9                          | 2 x 333              | 2 x 12,1          | T 70 B                 |
| 250                 | 45027     | 2 x 12                         | 2 x 250              | 2 x 16,2          | T 70 B                 |
| 200                 | 45028     | 2 x 15                         | 2 x 200              | 2 x 20,2          | T 70 B                 |
| 160                 | 45029     | 2 x 18                         | 2 x 167              | 2 x 24,3          | T 70 B                 |
| 125                 | 45030     | 2 x 24                         | 2 x 125              | 2 x 32,3          | T 70 B                 |
| <b>UI 30 x 16,5</b> |           | <b>Primary protection mA</b>   |                      | <b>10 VA</b>      |                        |
| 125/63              | 45031     | 2 x 6                          | 2 x 833              | 2 x 7,9           | T 50 B                 |
| 125/63              | 45032     | 2 x 9                          | 2 x 556              | 2 x 11,9          | T 50 B                 |
| 125/63              | 45033     | 2 x 12                         | 2 x 417              | 2 x 15,9          | T 50 B                 |
| 125/63              | 45034     | 2 x 15                         | 2 x 333              | 2 x 19,8          | T 50 B                 |
| 125/63              | 45035     | 2 x 18                         | 2 x 278              | 2 x 23,7          | T 50 B                 |
| 125/63              | 45036     | 2 x 24                         | 2 x 208              | 2 x 31,7          | T 50 B                 |

- 115 V- 230 V supply voltage by series/parallel connection
- Vacuum filling
- Two compartments bobbins
- Degree of protection IP 00
- Resin class UL 94 V0

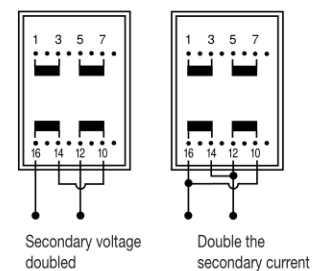


| CIRCUIT      | RATING    | DIMENSION A | WEIGHT |
|--------------|-----------|-------------|--------|
| UI 30 x 5,5  | 2 VA/3 VA | A = 17 mm   | 125 g  |
| UI 30 x 7,5  | 4 VA      | A = 19 mm   | 150 g  |
| UI 30 x 10,5 | 6 VA      | A = 22 mm   | 185 g  |
| UI 30 x 16,5 | 10 VA     | A = 28 mm   | 260 g  |

Possible primary connections



Possible secondary connections



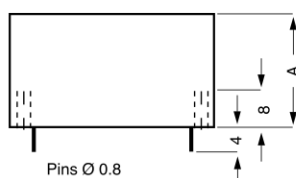
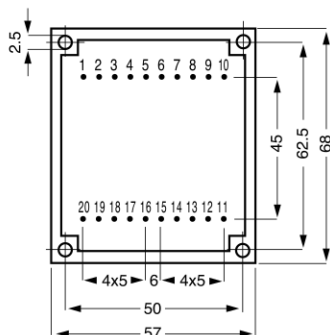
## QUALITY IN SERIES



EN 60950 UL 5085



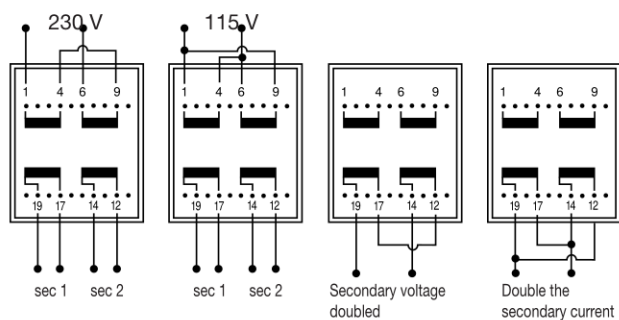
- Fuse protection in secondary winding (see diagram)
- Insulation voltage 4 KV
- 100 % tested production
- Conform to EN 61558 Approval under process
- UL 5085 approved



| CIRCUIT      | RATING | DIMENSION A | WEIGHT |
|--------------|--------|-------------|--------|
| UI 39 x 8    | 10 VA  | A = 22 mm   | 285 g  |
| UI 39 x 10,2 | 14 VA  | A = 24 mm   | 335 g  |
| UI 39 x 13,5 | 18 VA  | A = 27 mm   | 405 g  |
| UI 39 x 17   | 24 VA  | A = 31 mm   | 480 g  |
| UI 39 x 21   | 30 VA  | A = 35 mm   | 550 g  |

Possible primary connections

Possible secondary connections



## PRIMARY VOLTAGE 115 V - 230 V

| Primary protection<br>115 V/230 V<br>mA | Reference | Secondary voltage<br>V | Secondary current<br>mA | No-load voltage<br>V | Ambient Temperature<br>°C |
|-----------------------------------------|-----------|------------------------|-------------------------|----------------------|---------------------------|
| <b>UI 39 x 8</b>                        |           | <b>10 VA</b>           |                         |                      |                           |
| 125/63                                  | 45037     | 2 x 6                  | 2 x 833                 | 2 x 8,2              | T 50 B                    |
| 125/63                                  | 45038     | 2 x 9                  | 2 x 555                 | 2 x 12,3             | T 50 B                    |
| 125/63                                  | 45039     | 2 x 12                 | 2 x 416                 | 2 x 16,4             | T 50 B                    |
| 125/63                                  | 45040     | 2 x 15                 | 2 x 333                 | 2 x 20,5             | T 50 B                    |
| 125/63                                  | 45041     | 2 x 18                 | 2 x 277                 | 2 x 24,6             | T 50 B                    |
| 125/63                                  | 45042     | 2 x 24                 | 2 x 208                 | 2 x 32,8             | T 50 B                    |
| <b>UI 39 x 10,2</b>                     |           | <b>14 VA</b>           |                         |                      |                           |
| 160/80                                  | 45043     | 2 x 6                  | 2 x 1167                | 2 x 7,5              | T 50 B                    |
| 160/80                                  | 45044     | 2 x 9                  | 2 x 778                 | 2 x 10,9             | T 50 B                    |
| 160/80                                  | 45045     | 2 x 12                 | 2 x 583                 | 2 x 15,0             | T 50 B                    |
| 160/80                                  | 45046     | 2 x 15                 | 2 x 467                 | 2 x 18,7             | T 50 B                    |
| 160/80                                  | 45047     | 2 x 18                 | 2 x 389                 | 2 x 22,4             | T 50 B                    |
| 160/80                                  | 45048     | 2 x 24                 | 2 x 292                 | 2 x 30,2             | T 50 B                    |
| <b>UI 39 x 13,5</b>                     |           | <b>18 VA</b>           |                         |                      |                           |
| 200/100                                 | 45049     | 2 x 6                  | 2 x 1500                | 2 x 7,4              | T 50 B                    |
| 200/100                                 | 45050     | 2 x 9                  | 2 x 1000                | 2 x 11,0             | T 50 B                    |
| 200/100                                 | 45051     | 2 x 12                 | 2 x 750                 | 2 x 14,7             | T 50 B                    |
| 200/100                                 | 45052     | 2 x 15                 | 2 x 600                 | 2 x 18,3             | T 50 B                    |
| 200/100                                 | 45053     | 2 x 18                 | 2 x 500                 | 2 x 22,0             | T 50 B                    |
| 200/100                                 | 45054     | 2 x 24                 | 2 x 375                 | 2 x 29,4             | T 50 B                    |
| <b>UI 39 x 17</b>                       |           | <b>24 VA</b>           |                         |                      |                           |
| 250/125                                 | 45055     | 2 x 6                  | 2 x 2000                | 2 x 7,1              | T 50 B                    |
| 250/125                                 | 45056     | 2 x 9                  | 2 x 1333                | 2 x 10,6             | T 50 B                    |
| 250/125                                 | 45057     | 2 x 12                 | 2 x 1000                | 2 x 14,1             | T 50 B                    |
| 250/125                                 | 45058     | 2 x 15                 | 2 x 800                 | 2 x 17,6             | T 50 B                    |
| 250/125                                 | 45059     | 2 x 18                 | 2 x 667                 | 2 x 21,2             | T 50 B                    |
| 250/125                                 | 45060     | 2 x 24                 | 2 x 500                 | 2 x 28,3             | T 50 B                    |
| <b>UI 39 x 21</b>                       |           | <b>30 VA</b>           |                         |                      |                           |
| 315/160                                 | 45061     | 2 x 6                  | 2 x 2500                | 2 x 6,7              | T 50 B                    |
| 315/160                                 | 45062     | 2 x 9                  | 2 x 1667                | 2 x 10,15            | T 50 B                    |
| 315/160                                 | 45063     | 2 x 12                 | 2 x 1250                | 2 x 13,5             | T 50 B                    |
| 315/160                                 | 45064     | 2 x 15                 | 2 x 1000                | 2 x 16,8             | T 50 B                    |
| 315/160                                 | 45065     | 2 x 18                 | 2 x 833                 | 2 x 20,2             | T 50 B                    |
| 315/160                                 | 45066     | 2 x 24                 | 2 x 625                 | 2 x 27,0             | T 50 B                    |



EN 61558-2-6

EN 60950

UL 5085

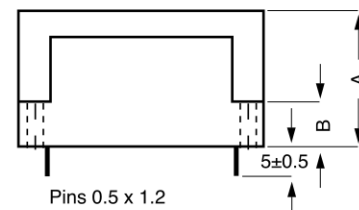
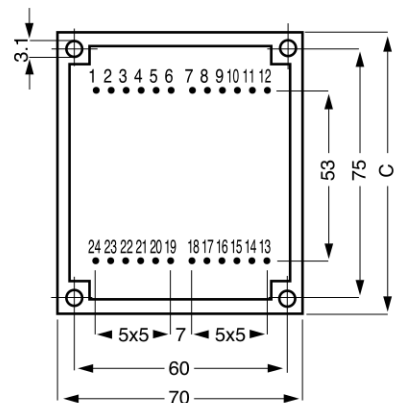


- 115 V- 230 V supply voltage by series/parallel connection
- Vacuum filling
- Two compartments bobbins
- Degree of protection IP 00
- Resin class UL 94 V0

- Fuse protection in secondary winding (see diagram)
- Insulation voltage 4 KV
- 100 % tested production
- Conform to EN 61558
- Approval under process
- UL 5085 approved

## PRIMARY VOLTAGE 115 V - 230 V

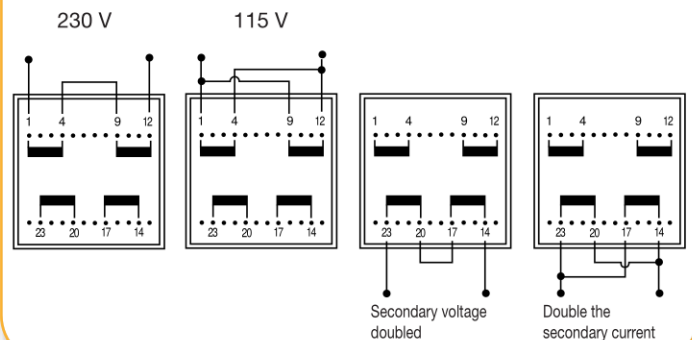
| Primary protection<br>115/230 V<br>mA | Reference | Secondary voltage<br>V | Secondary current<br>mA | No-load voltage<br>V | Ambient Temperature<br>°C |
|---------------------------------------|-----------|------------------------|-------------------------|----------------------|---------------------------|
| <b>UI 48 x 17</b>                     |           | <b>40 VA</b>           |                         |                      |                           |
| 400/200                               | 45067     | 2 x 6                  | 2 x 3333                | 2 x 6,7              | T 50 B                    |
| 400/200                               | 45068     | 2 x 9                  | 2 x 2222                | 2 x 10,0             | T 50 B                    |
| 400/200                               | 45069     | 2 x 12                 | 2 x 1667                | 2 x 13,4             | T 50 B                    |
| 400/200                               | 45070     | 2 x 15                 | 2 x 1333                | 2 x 16,7             | T 50 B                    |
| 400/200                               | 45071     | 2 x 18                 | 2 x 1111                | 2 x 20,1             | T 50 B                    |
| 400/200                               | 45072     | 2 x 24                 | 2 x 833                 | 2 x 26,8             | T 50 B                    |
| <b>UI 48 x 26</b>                     |           | <b>60 VA</b>           |                         |                      |                           |
| 630/315                               | 45073     | 2 x 6                  | 2 x 5000                | 2 x 6,6              | T 50 B                    |
| 630/315                               | 45074     | 2 x 9                  | 2 x 3333                | 2 x 9,9              | T 50 B                    |
| 630/315                               | 45075     | 2 x 12                 | 2 x 2500                | 2 x 13,1             | T 50 B                    |
| 630/315                               | 45076     | 2 x 15                 | 2 x 2000                | 2 x 16,4             | T 50 B                    |
| 630/315                               | 45077     | 2 x 18                 | 2 x 1667                | 2 x 19,7             | T 50 B                    |
| 630/315                               | 45078     | 2 x 24                 | 2 x 1250                | 2 x 26,3             | T 50 B                    |



| CIRCUIT    | RATING | A    | B    | C  | WEIGHT |
|------------|--------|------|------|----|--------|
| UI 48 x 17 | 40 VA  | 38,5 | 13,5 | 83 | 760 g  |
| UI 48 x 26 | 60 VA  | 48,5 | 14,5 | 86 | 1060 g |

Possible primary connections

Possible secondary connections



## QUALITY IN SERIES



## SIDE-MOUNTING TRANSFORMERS

### • FLF / FLC SERIES

- Primary voltage : 230 V 50/60 Hz
- Secondary voltage : 12 V ou 24 V
- Maximum ambient temperature : + 40 °C
- Insulation class : B
- Insulation voltage : 4 kV
- Standards applicable : VDE 0570 - EN 61558 - UL 5085
- Degree of protection IP 00

- Prepared for protection class II

- Options : 00 Standard

01 Addition of a thermal fuse  
(non-resettable)

02 Addition of a resettable thermal  
protection system

- On request : all primary and secondary voltages up to 500 V (consult us for details)

### • FLF SERIES : connection by UL-approved flexible

cables (600 V/105°C)

AWG 18 up to 6 A

AWG 16 up to 10 A

AWG 14 up to 20 A

standard length :  
250 mm

### • FLC SERIES : connection by «faston» connectors

Rating

primary

secondary

3,2 VA-5 VA

2,8 x 0,8

4,8 x 0,8

10 VA-22 VA

4,8 x 0,8

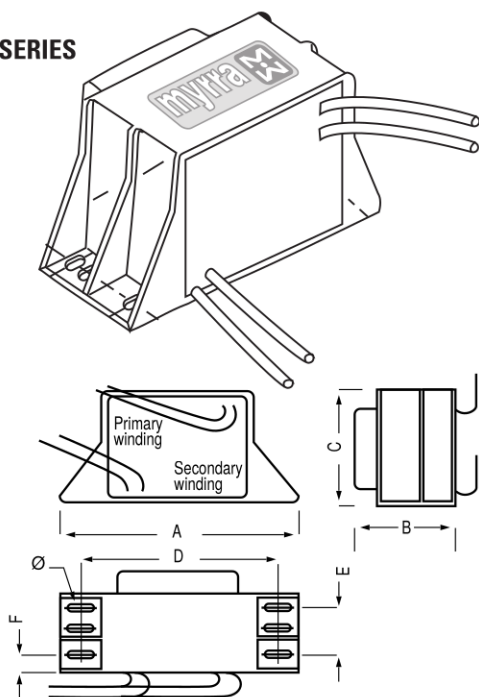
4,8 x 0,8

30 VA-240 VA

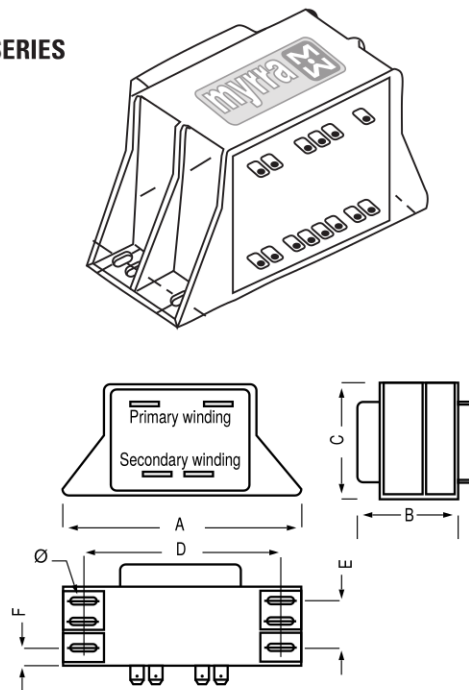
6,3 x 0,8

6,3 x 0,8

### FLF SERIES



### FLC SERIES



| Rating<br>in VA | References |       |       |       | Drop<br>% | Vs-c<br>% | Effic.<br>% | Fuse   | Format       | A     | B    | C    | D     | E    | F    | Ø   |
|-----------------|------------|-------|-------|-------|-----------|-----------|-------------|--------|--------------|-------|------|------|-------|------|------|-----|
|                 | FLF        |       | FLC   |       |           |           |             |        |              |       |      |      |       |      |      |     |
|                 | 12 V       | 24 V  | 12 V  | 24 V  |           |           |             |        |              |       |      |      |       |      |      |     |
| 3,2             | 30081      | 30094 | 30107 | 30120 | 30        | 28        | 61          | 32 mA  | EI 38 x 13,6 | 61    | 33   | 35   | 51    | -    | 19,5 | 3,5 |
| 5               | 30082      | 30095 | 30108 | 30121 | 32        | 30        | 62          | 32 mA  | EI 42 x 14,8 | 65    | 33   | 38   | 55    | -    | 17,8 | 3,5 |
| 10              | 30083      | 30096 | 30109 | 30122 | 25        | 25        | 69          | 63 mA  | EI 48 x 16,8 | 75    | 39   | 43   | 62    | 12   | 9    | 3,5 |
| 16              | 30084      | 30097 | 30110 | 30123 | 24        | 23        | 71,5        | 80 mA  | EI 54 x 18,4 | 82,5  | 43   | 48,5 | 68    | 11   | 11   | 3,5 |
| 22              | 30085      | 30098 | 30111 | 30124 | 19        | 19        | 76,5        | 125 mA | EI 60 x 21   | 88    | 48   | 53,5 | 75    | 13,5 | 12,2 | 4,8 |
| 30              | 30086      | 30099 | 30112 | 30125 | 16        | 16        | 79,5        | 160 mA | EI 66 x 23   | 94    | 49,5 | 58,5 | 82    | 13   | 13,3 | 4,8 |
| 45              | 30087      | 30100 | 30113 | 30126 | 11        | 11        | 83          | 250 mA | EI 66 x 34,7 | 94    | 61   | 58,5 | 82    | 37,5 | 7,4  | 4,8 |
| 63              | 30088      | 30101 | 30114 | 30127 | 12        | 13        | 83,5        | 315 mA | EI 78 x 27,5 | 112,5 | 59   | 71,5 | 97,5  | 32,5 | 7,6  | 5,2 |
| 100             | 30089      | 30102 | 30115 | 30128 | 13,5      | 15        | 84,5        | 500 mA | EI 84 x 29,5 | 120   | 64   | 75   | 102,5 | 32,5 | 10,2 | 5,5 |
| 160*            | 30090      | 30103 | 30116 | 30129 | 12        | 13,5      | 86          | 800 mA | EI 84 x 43,5 | 120   | 78   | 75   | 102,5 | 45   | 10,8 | 5,5 |
| 160             | 30091      | 30104 | 30117 | 30130 | 9,5       | 12        | 88,5        | 800 mA | EI 96 x 35,7 | 133   | 75   | 85   | 115   | 40   | 10,6 | 5,5 |
| 185             | 30092      | 30105 | 30118 | 30131 | 7,8       | 9,8       | 90          | 1,0 A  | EI 96 x 45,7 | 133   | 85   | 85   | 115   | 50   | 10,6 | 5,2 |
| 240             | 30093      | 30106 | 30119 | 30132 | 6,4       | 8         | 91          | 1,25 A | EI 96 x 59,7 | 133   | 98,5 | 85   | 115   | 64   | 10,2 | 5,5 |

\* Transformer not complying with the standard (for this, it must be equipped with a thermal fuse system)



| MYRRA<br>Part N° | CORE<br>SIZE | Max.<br>Output<br>Power | Outputs             |     |     |     |     |
|------------------|--------------|-------------------------|---------------------|-----|-----|-----|-----|
|                  |              | Watts                   | Vdc nominal voltage |     |     |     |     |
| <b>74000</b>     | E16          | 5w                      | 5v                  | 12v |     |     |     |
| <b>74001</b>     | E16          | 6w                      | 5v                  |     |     |     |     |
| <b>74002</b>     | E16          | 6w                      | 12v                 |     |     |     |     |
| <b>74003</b>     | E16          | 5w                      | 3.3v                | 5v  |     |     |     |
| <b>74010</b>     | E16          | 12w                     | 5v                  | 12v |     |     |     |
| <b>74014</b>     | E16          | 12w                     | 24v                 | 24v |     |     |     |
| <b>74015</b>     | E16          | 12w                     | 5v                  | 15v | 24v |     |     |
| <b>74020</b>     | EL19         | 18w                     | 5v                  | 12v |     |     |     |
| <b>74021</b>     | EL19         | 18w                     | 5v                  | 12v |     |     |     |
| <b>74023</b>     | EL19         | 16w                     | 3.3v                | 5v  | 12v | 18v | 30v |
| <b>74030</b>     | E25          | 30w                     | 5v                  | 12v | 12v |     |     |
| <b>74032</b>     | E25          | 35w                     | 24v                 |     |     |     |     |
| <b>74040</b>     | ETD29        | 60w                     | 5v                  | 12v | 5v  | 12v |     |
| <b>74043</b>     | ERL28        | 60w                     | 3.3v                | 5v  | 12v | 18v | 30v |
| <b>74050</b>     | ETD34        | 90w                     | 5v                  | 12v | 5v  | 12v |     |
| <b>74060</b>     | ETD39        | 140w                    | 5v                  | 12v | 5v  | 12v |     |
| <b>74070</b>     | ETD44        | 180w                    | 5v                  | 12v | 5v  | 12v |     |
| <b>74080</b>     | EF20         | 24w                     | 12v                 | 12v |     |     |     |
| <b>74081</b>     | EF20         | 20w                     | 3.3v                | 5v  | 12v |     |     |
| <b>74082</b>     | EF20         | 20w                     | 5v                  | 5v  |     |     |     |
| <b>74090</b>     | E16          | 1.5w                    | 5v                  |     |     |     |     |
| <b>74091</b>     | E16          | 1.5w                    | 12v                 |     |     |     |     |
| <b>74092</b>     | E16          | 3.1w                    | 5v                  |     |     |     |     |
| <b>74093</b>     | E16          | 3.1w                    | 12v                 |     |     |     |     |
| <b>74094</b>     | E16          | 9w                      | 5v                  |     |     |     |     |
| <b>74095</b>     | E16          | 9w                      | 12v                 |     |     |     |     |

Note : "5 volts" outputs can generally be used for 3.3 to 6volts; "12 volts" outputs can be used for 9 to 16volts.  
See detailed characteristics.

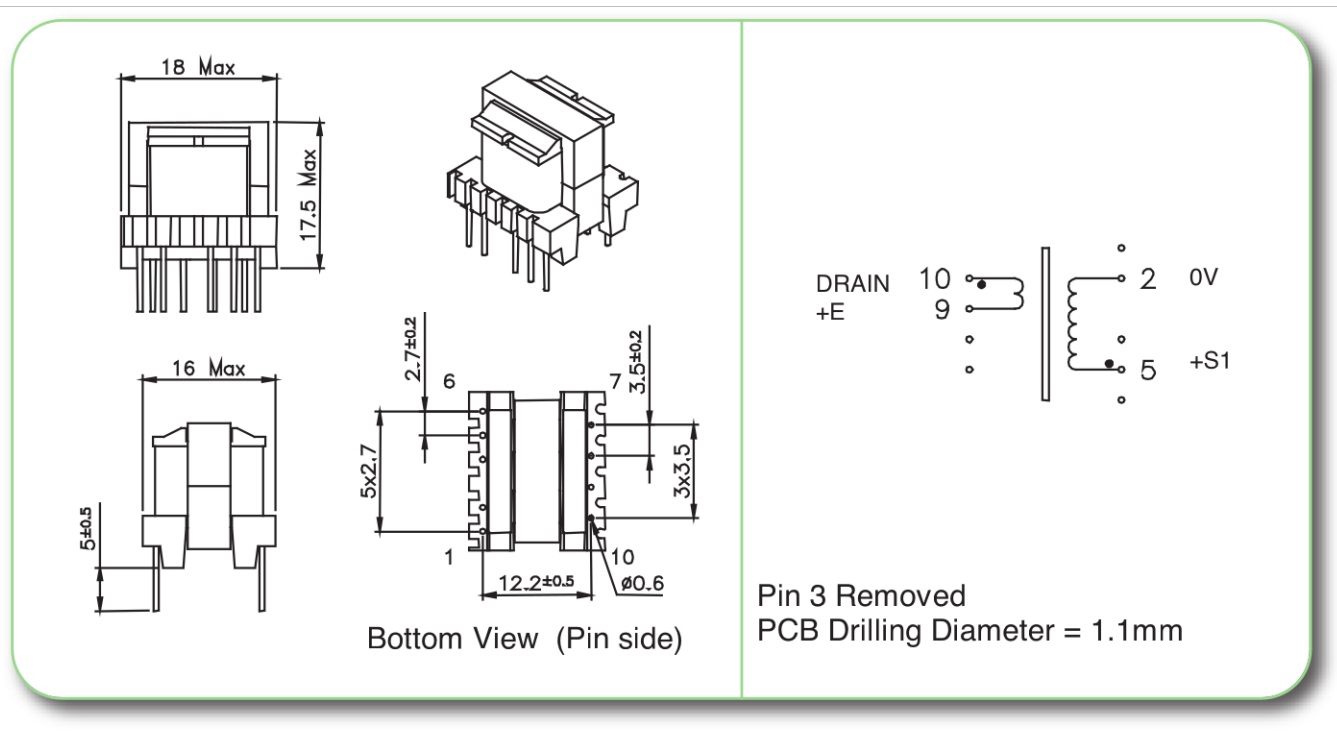


| Transformer Reference                              |                 | IC Manufacturer | Series & References         |
|----------------------------------------------------|-----------------|-----------------|-----------------------------|
| 74090<br>74091<br>74092<br>74093<br>74094<br>74095 | No aux. Winding | PI              | TNY Series<br>LNK XT Series |

|                                                                                                                                                                                                                               |                   |           |                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------|-------------------------------------------------|
| 74000<br>74001<br>74002<br>74003<br>74004<br>74005<br>74010<br>74014<br>74015<br>74020<br>74021<br>74023<br>74080<br>74081<br>74082<br>74087<br>74088<br>74089<br>74030<br>74032<br>74040<br>74043<br>74050<br>74060<br>74070 | With aux. Winding | ONSEMI    | NCP 1014<br>NCP 3065<br>etc.                    |
|                                                                                                                                                                                                                               |                   | PI        | TOP Series<br>LNK Series                        |
|                                                                                                                                                                                                                               |                   | NXP       | TEA1530<br>TEA1351<br>TEA3065<br>etc.           |
|                                                                                                                                                                                                                               |                   | ST        | Viper Series                                    |
|                                                                                                                                                                                                                               |                   | FAIRCHILD | FAN102<br>FAN400<br>FSEZ130<br>FSEZ1213<br>etc. |
|                                                                                                                                                                                                                               |                   | ON Bright | OB2535<br>OB2212<br>OB2361<br>etc.              |
|                                                                                                                                                                                                                               |                   |           |                                                 |
|                                                                                                                                                                                                                               |                   |           |                                                 |
|                                                                                                                                                                                                                               |                   |           |                                                 |
|                                                                                                                                                                                                                               |                   |           |                                                 |
|                                                                                                                                                                                                                               |                   |           |                                                 |
|                                                                                                                                                                                                                               |                   |           |                                                 |



- Primary / Secondary Insulation  $\geq 4000V$
- Creepage distance Primary / Secondary  $\geq 6mm$
- Ambient temperature  $< 85^{\circ}C$
- Construction conforms to IEC950, IEC335, IEC61558-2-16 for reinforced insulation
- Exclusively uses UL94-V0 listed materials



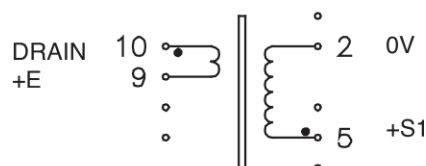
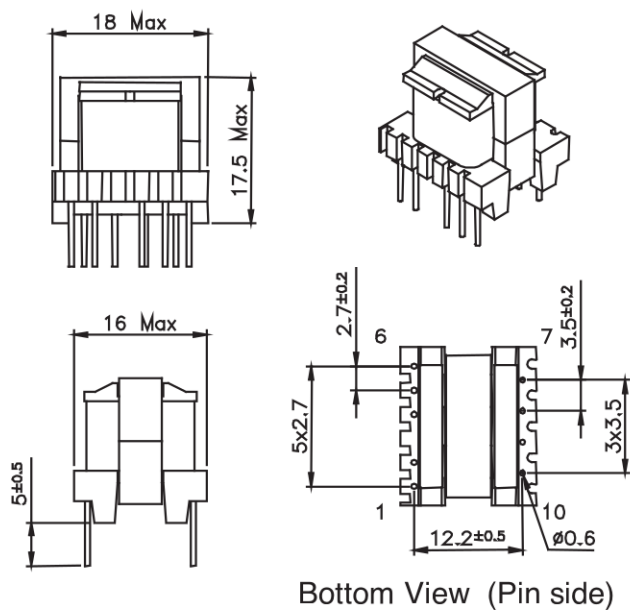
| MYRRA<br>P / N | Output<br>Power<br>maximum | Windings |        |       |              |                    |                        |
|----------------|----------------------------|----------|--------|-------|--------------|--------------------|------------------------|
|                |                            |          | Pins   | Turns | Voltage      | Current<br>maximum | Inductance<br>(+/-10%) |
| <b>74090</b>   | 1.5 w                      | Pri      | 10 – 9 | 228   | 85 - 265Vrms | 0.28 Apeak         | 6000µH                 |
|                |                            | S1       | 5 – 2  | 16    | 3.3 – 6 Vdc  | 0.4 Adc            |                        |
| <b>74091</b>   | 1.5 w                      | Pri      | 10 – 9 | 228   | 85 - 265Vrms | 0.28 Apeak         | 6000µH                 |
|                |                            | S1       | 5 – 2  | 28    | 7.5 – 15 Vdc | 0.2 Adc            |                        |

Examples of application with Integrated Circuits :

| MYRRA<br>P / N | Control IC<br>Manufacturer | Input voltage | Power | Frequency |
|----------------|----------------------------|---------------|-------|-----------|
| <b>74090</b>   | Power Integrations         | 85 - 265Vrms  | 1.5w  | 44kHz     |
| <b>74091</b>   | Power Integrations         | 85 - 265Vrms  | 1.5w  | 44kHz     |



- Primary / Secondary Insulation  $\geq 4000V$
- Creepage distance Primary / Secondary  $\geq 6mm$
- Ambient temperature  $< 70^{\circ}C$
- Construction conforms to IEC950, IEC335, IEC61558-2-16 for reinforced insulation
- Exclusively uses UL94-V0 listed materials



Pin 3 Removed  
PCB Drilling Diameter = 1.1mm

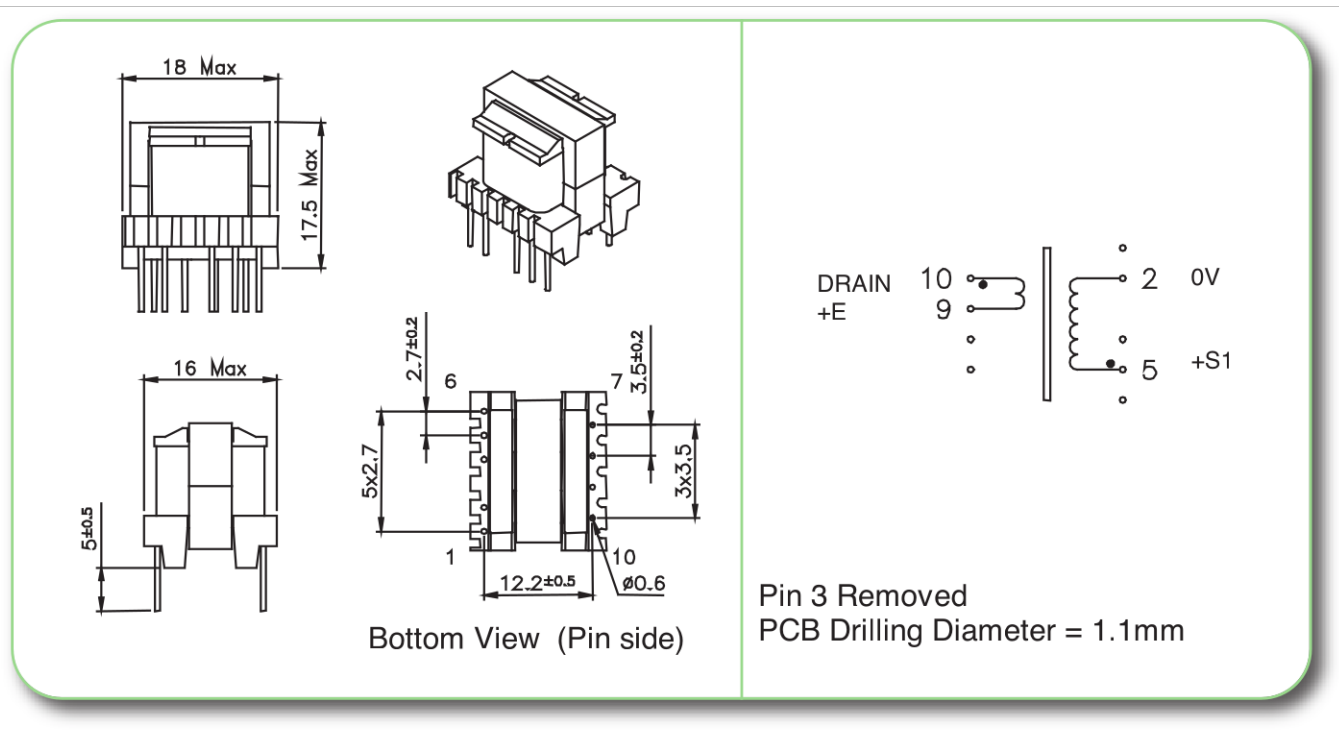
| MYRRA<br>P / N | Output<br>Power<br>maximum | Windings |        |       |              |                    |                        |
|----------------|----------------------------|----------|--------|-------|--------------|--------------------|------------------------|
|                |                            |          | Pins   | Turns | Voltage      | Current<br>maximum | Inductance<br>(+/-10%) |
| 74092          | 3.1 w                      | Pri      | 10 – 9 | 191   | 85 - 265Vrms | 0.34 Apeak         | 4200μH                 |
|                |                            | S1       | 5 – 2  | 13    | 3.3 – 6 Vdc  | 0.9 Adc            |                        |
| 74093          | 3.1 w                      | Pri      | 10 – 9 | 191   | 85 - 265Vrms | 0.34 Apeak         | 4200μH                 |
|                |                            | S1       | 5 – 2  | 24    | 7.5 – 15 Vdc | 0.4 Adc            |                        |

Examples of application with Integrated Circuits :

| MYRRA<br>P / N | Control IC<br>Manufacturer | Input voltage | Power | Frequency |
|----------------|----------------------------|---------------|-------|-----------|
| 74092          | Power Integrations         | 85 - 265Vrms  | 3.1w  | 44kHz     |
| 74093          | Power Integrations         | 85 - 265Vrms  | 3.1w  | 44kHz     |



- Primary / Secondary Insulation  $\geq 4000V$
- Creepage distance Primary / Secondary  $\geq 6mm$
- Ambient temperature  $< 60^{\circ}C$
- Construction conforms to IEC950, IEC335, IEC61558-2-16 for reinforced insulation
- Exclusively uses UL94-V0 listed materials

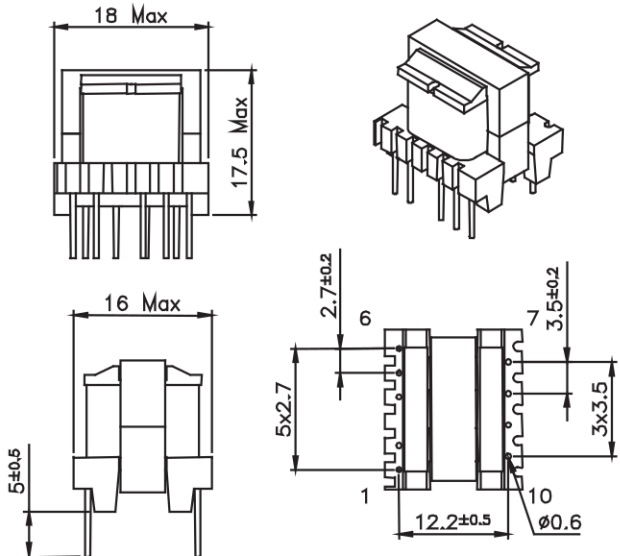


| MYRRA<br>P / N | Output<br>Power<br>maximum | Windings |        |       |              |                    |                        |
|----------------|----------------------------|----------|--------|-------|--------------|--------------------|------------------------|
|                |                            |          | Pins   | Turns | Voltage      | Current<br>maximum | Inductance<br>(+/-10%) |
| 74094          | 9 w                        | Pri      | 10 – 9 | 135   | 85 - 265Vrms | 0.48 Apeak         | 2100µH                 |
|                |                            | S1       | 5 – 2  | 9     | 3.3 – 6 Vdc  | 1.5 Adc            |                        |
| 74095          | 9 w                        | Pri      | 10 – 9 | 135   | 85 - 265Vrms | 0.48 Apeak         | 2100µH                 |
|                |                            | S1       | 5 – 2  | 17    | 7.5 – 15 Vdc | 0.9 Adc            |                        |

Examples of application with Integrated Circuits :

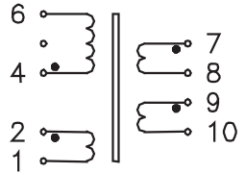
| MYRRA<br>P / N | Control IC<br>Manufacturer | Input voltage | Power | Frequency |
|----------------|----------------------------|---------------|-------|-----------|
| 74094          | Power Integrations         | 85 - 265Vrms  | 4.2w  | 44kHz     |
|                | Power Integrations         | 85 - 265Vrms  | 5w    | 132kHz    |
|                | Power Integrations         | 85 - 265Vrms  | 9w    | 132kHz    |
| 74095          | Power Integrations         | 85 - 265Vrms  | 5w    | 44kHz     |
|                | Power Integrations         | 85 - 265Vrms  | 5w    | 132kHz    |
|                | Power Integrations         | 85 - 265Vrms  | 9w    | 132kHz    |

- Primary / Secondary Insulation  $\geq 4000V$
- Primary / Auxiliary Insulation  $\geq 1500V$
- Creepage distance Primary / Secondary  $\geq 6mm$
- Ambient temperature  $< 70^{\circ}C$
- Construction conforms to IEC950, IEC335, IEC61558-2-16 for reinforced insulation
- Exclusively uses UL94-V0 listed materials



Bottom View (Pin side)

+E 6  
DRAIN 4  
+AUX 2  
0V 1



74000

+S2 7  
0V 8  
+S1 9  
0V 10

PIN 3 Removed  
PCB Drilling Diameter = 1.1mm

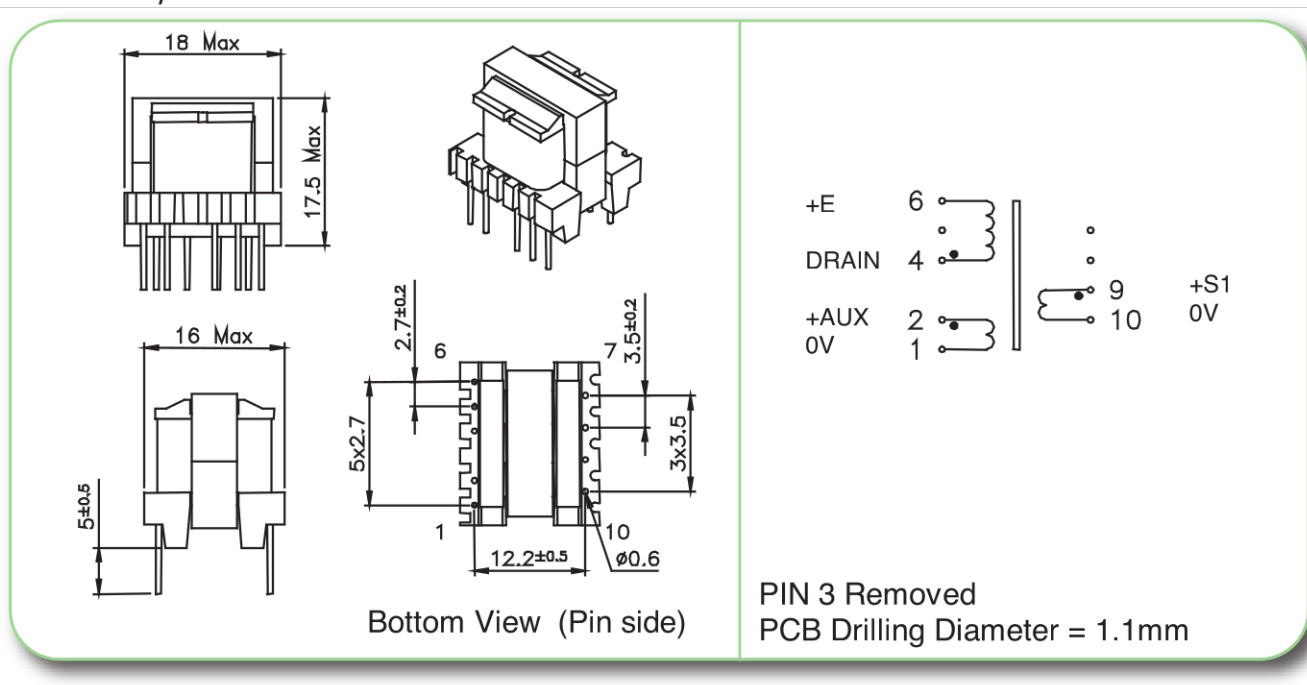
| MYRRA<br>P / N | Output<br>Power<br>maximum | Windings |        |       |              |                    |                        |
|----------------|----------------------------|----------|--------|-------|--------------|--------------------|------------------------|
|                |                            |          | Pins   | Turns | Voltage      | Current<br>maximum | Inductance<br>(+/-10%) |
| 74000          | 5 w                        | Pri      | 4 - 6  | 138   | 85 - 265Vrms | 0.27 Apeak         | 3900µH                 |
|                |                            | Aux      | 2 - 1  | 16    | 7 – 14 Vdc   | 0.1 Adc            |                        |
|                |                            | S1       | 9 - 10 | 8     | 3.3 – 7 Vdc  | 1.2 Adc            |                        |
|                |                            | S2       | 7 - 8  | 19    | 8 – 17 Vdc   | 0.4 Adc            |                        |

Examples of application with Integrated Circuits :

| MYRRA<br>P / N | Control IC<br>Manufacturer | Input voltage | Power | Frequency |
|----------------|----------------------------|---------------|-------|-----------|
| 74000          | Power Integrations         | 85 - 265Vrms  | 5w    | 132kHz    |
|                | ST Microelectronics        | 85 - 265Vrms  | 4w    | 70kHz     |



- Primary / Secondary Insulation  $\geq 4000V$
- Primary / Auxiliary Insulation  $\geq 1500V$
- Creepage distance Primary / Secondary  $\geq 6mm$
- Ambient temperature  $< 60^{\circ}C$
- Construction conforms to IEC950, IEC335, IEC61558-2-16 for reinforced insulation
- Exclusively uses UL94-V0 listed materials



| MYRRA<br>P / N | Output<br>Power<br>maximum | Windings |        |       |              |                    |                        |
|----------------|----------------------------|----------|--------|-------|--------------|--------------------|------------------------|
|                |                            |          | Pins   | Turns | Voltage      | Current<br>maximum | Inductance<br>(+/-10%) |
| 74001          | 6 w                        | Pri      | 4 - 6  | 138   | 85 - 265Vrms | 0.35 Apeak         | 3000μH                 |
|                |                            | Aux      | 2 - 1  | 20    | 8 - 16 Vdc   | 0.1 Adc            |                        |
|                |                            | S1       | 9 - 10 | 8     | 3 - 6 Vdc    | 1.2 Adc            |                        |
| 74002          | 6 w                        | Pri      | 4 - 6  | 150   | 85 - 265Vrms | 0.38 Apeak         | 3000μH                 |
|                |                            | Aux      | 2 - 1  | 22    | 8.5 - 17 Vdc | 0.1 Adc            |                        |
|                |                            | S1       | 9 - 10 | 24    | 9 - 18 Vdc   | 0.5 Adc            |                        |

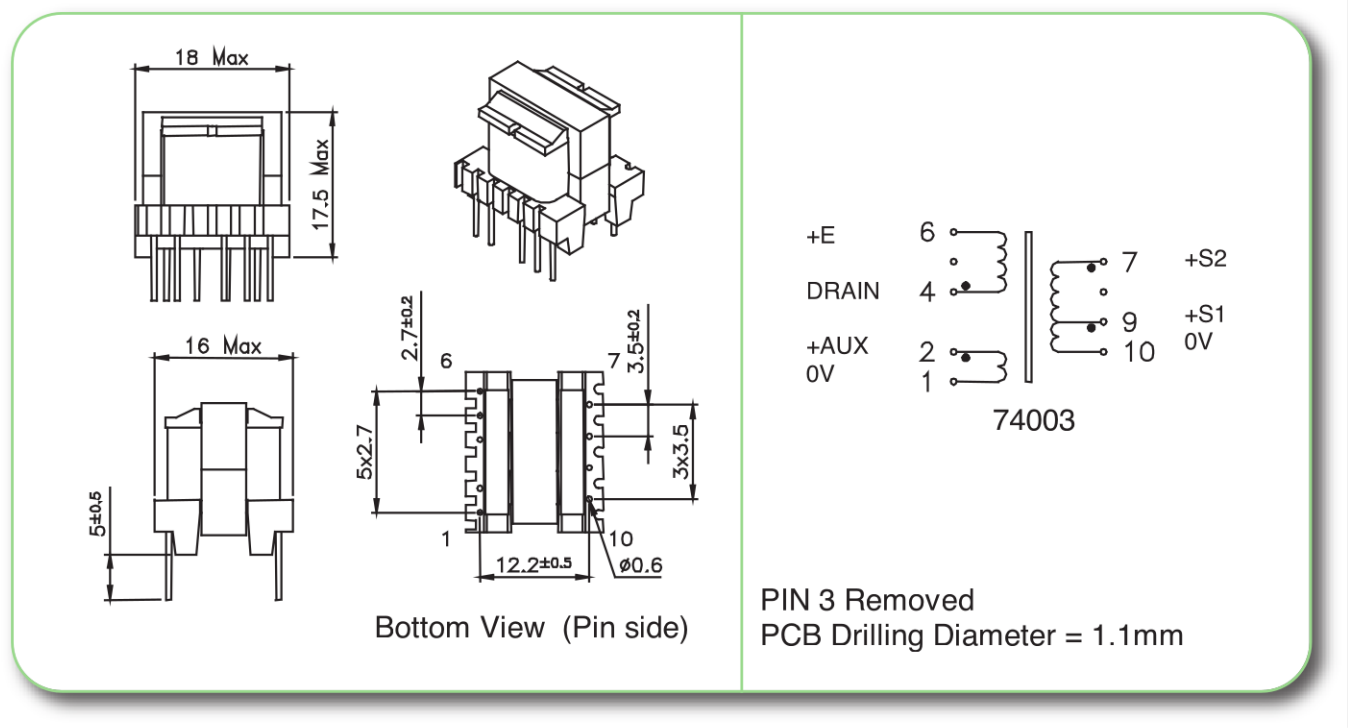
Examples of application with Integrated Circuits :

| MYRRA<br>P / N | Control IC<br>Manufacturer | Input voltage | Power | Frequency |
|----------------|----------------------------|---------------|-------|-----------|
| 74001          | Power Integrations         | 85 - 265Vrms  | 6w    | 132kHz    |
|                | ST Microelectronics        | 85 - 265Vrms  | 6w    | 70kHz     |
|                | ST Microelectronics        | 85 - 265Vrms  | 3w    | 40kHz     |
|                | Motorola                   | 85 - 265Vrms  | 6w    | 100kHz    |
|                | Infineon                   | 185 - 265Vrms | 6w    | 100kHz    |
| 74002          | Power Integrations         | 85 - 265Vrms  | 6w    | 132kHz    |
|                | ST Microelectronics        | 85 - 265Vrms  | 6w    | 70kHz     |
|                | ST Microelectronics        | 85 - 265Vrms  | 3w    | 40kHz     |
|                | Motorola                   | 85 - 265Vrms  | 6w    | 100kHz    |
|                | Infineon                   | 185 - 265Vrms | 6w    | 100kHz    |





- Primary / Secondary Insulation  $\geq 4000V$
- Primary / Auxiliary Insulation  $\geq 1500V$
- Creepage distance Primary / Secondary  $\geq 6mm$
- Ambient temperature  $< 60^{\circ}C$
- Construction conforms to IEC950, IEC335, IEC61558-2-16 for reinforced insulation
- Exclusively uses UL94-V0 listed materials



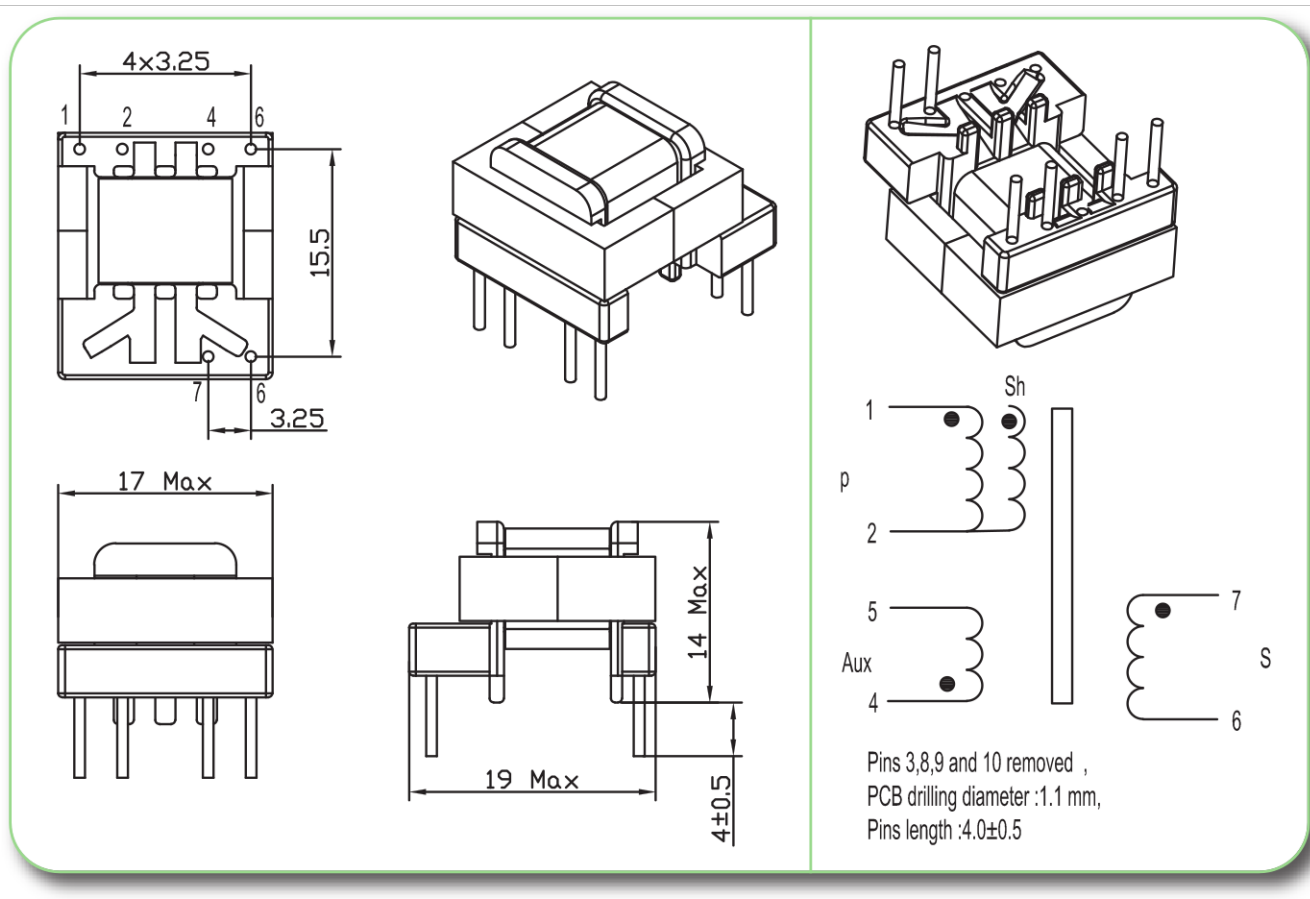
| MYRRA<br>P / N | Output<br>Power<br>maximum | Windings |        |       |              |                    |                        |
|----------------|----------------------------|----------|--------|-------|--------------|--------------------|------------------------|
|                |                            |          | Pins   | Turns | Voltage      | Current<br>maximum | Inductance<br>(+/-10%) |
| 74003          | 6 w                        | Pri      | 4 - 6  | 120   | 85 - 265Vrms | 0.3 Apeak          | 3000μH                 |
|                |                            | Aux      | 2 - 1  | 17    | 8 - 16 Vdc   | 0.1 Adc            |                        |
|                |                            | S1       | 9 - 10 | 5     | 2 - 4 Vdc    | 1.8 Adc            |                        |
|                |                            | S2       | 7 - 10 | 7     | 3 - 6 Vdc    | 1.2 Adc            |                        |

Examples of application with Integrated Circuits :

| MYRRA<br>P / N | Control IC<br>Manufacturer | Input voltage | Power | Frequency |
|----------------|----------------------------|---------------|-------|-----------|
| 74003          | Power Integrations         | 85 - 265Vrms  | 5w    | 132kHz    |
|                | ST Microelectronics        | 85 - 265Vrms  | 6w    | 70kHz     |
|                | ST Microelectronics        | 85 - 265Vrms  | 3w    | 40kHz     |
|                | Motorola                   | 85 - 265Vrms  | 6w    | 100kHz    |
|                | Infineon                   | 185 - 265Vrms | 6w    | 100kHz    |



- Primary / Secondary Insulation  $\geq 4000$  V
- Primary / Auxiliary Insulation  $\geq 1500$  V
- Creepage distance Primary / Secondary  $\geq 6$ mm
- Ambient temperature  $< 50^{\circ}\text{C}$
- Construction conforms to IEC950, IEC335, IEC61558-2-16 for reinforced insulation
- Exclusively uses UL94 V-0 listed materials



| MYRRA<br>P / N | Output<br>Power<br>maximum | Windings |        |       |              |                    |                        |
|----------------|----------------------------|----------|--------|-------|--------------|--------------------|------------------------|
|                |                            |          | Pins   | Turns | Voltage      | Current<br>maximum | Inductance<br>(+/-10%) |
| <b>74004</b>   | 1.7 w                      | Pri      | 1 - 2  | 108   | 85 - 265Vrms | 0.28 Apeak         | 2700 $\mu\text{H}$     |
|                |                            | Aux      | 5 - 4  | 25    | 22 Vdc       | 0.1 Adc            |                        |
|                |                            | S        | 7 - 6  | 8     | 6 Vdc        | 0.5 Adc            |                        |
|                |                            | Shield   | NC - 2 | 8     |              |                    |                        |

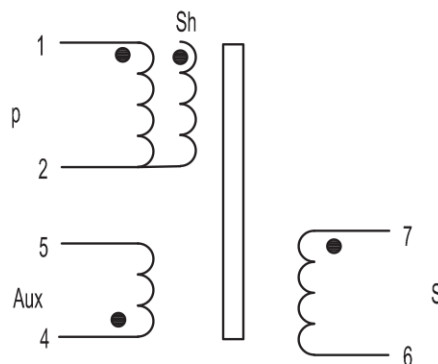
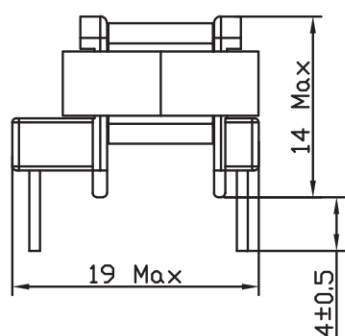
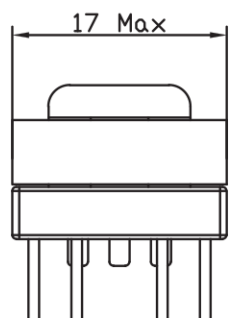
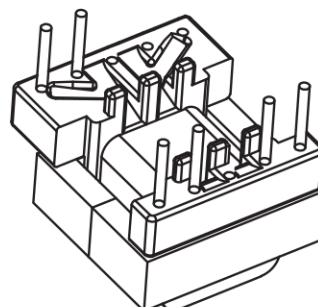
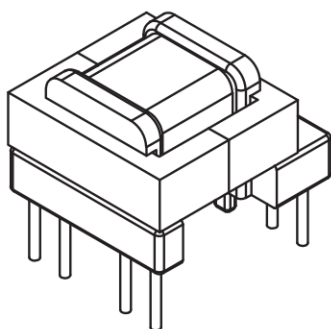
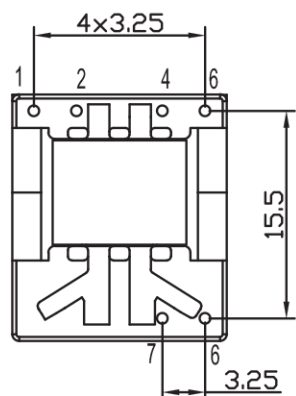
Examples of application with Integrated Circuits :

| MYRRA<br>P / N | Control IC<br>Manufacturer | Control IC<br>P / N | Input voltage  | Power | Frequency |
|----------------|----------------------------|---------------------|----------------|-------|-----------|
| <b>74004</b>   | Power Integrations         | LNK562              | 185 - 265 Vrms | 1.3 W | 66 kHz    |
|                | Power integrations         | LNK562              | 85 - 265 Vrms  | 1.3 W | 66 kHz    |
|                | Power Integrations         | LNK563              | 185 - 265 Vrms | 1.7 W | 83 kHz    |
|                | Power Integrations         | LNK563              | 85 - 265 Vrms  | 1.7 W | 83 kHz    |
|                | Power Integrations         | LNK564              | 185 - 265 Vrms | 2.0 W | 100 kHz   |
|                | Power Integrations         | LNK564              | 85 - 265 Vrms  | 2.0 W | 100 kHz   |

**Remarks :** This transformer perfectly fulfils the specification of Power Integrations AN-39 Appendix - A.



- Primary / Secondary Insulation  $\geq 4000$  V
- Primary / Auxiliary Insulation  $\geq 1500$  V
- Creepage distance Primary / Secondary  $\geq 6$ mm
- Ambient temperature  $< 50^{\circ}\text{C}$
- Construction conforms to IEC950, IEC335, IEC61558-2-16 for reinforced insulation
- Exclusively uses UL94 V-0 listed materials



Pins 3,8,9 and 10 removed ,  
PCB drilling diameter :1.1 mm,  
Pins length :4.0±0.5

| MYRRA<br>P / N | Output<br>Power<br>maximum | Windings |       |        |              |                    |                        |
|----------------|----------------------------|----------|-------|--------|--------------|--------------------|------------------------|
|                |                            |          | Pins  | Turns  | Voltage      | Current<br>maximum | Inductance<br>(+/-10%) |
| <b>74005</b>   | 1.7 w                      | Pri      | 1 - 2 | 108    | 85 - 265Vrms | 0.28 Apeak         | 2700 $\mu\text{H}$     |
|                | Aux                        | 5 - 4    | 25    | 22 Vdc | 0.1 Adc      |                    |                        |
|                | S                          | 7 - 6    | 12    | 10 Vdc | 0.2 Adc      |                    |                        |
|                | Shield                     | NC - 2   | 8     |        |              |                    |                        |

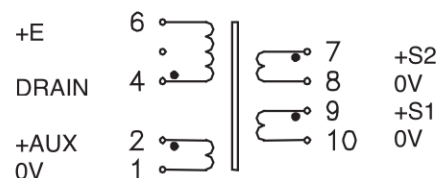
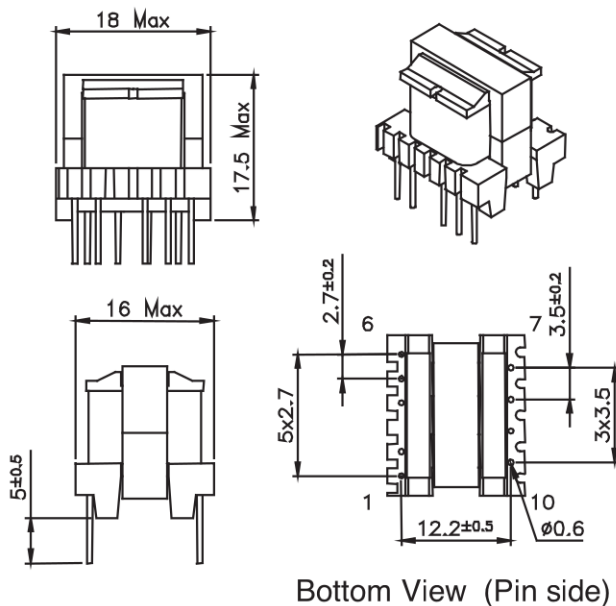
Examples of application with Integrated Circuits :

| MYRRA<br>P / N | Control IC<br>Manufacturer | Control IC<br>P / N | Input voltage  | Power | Frequency |
|----------------|----------------------------|---------------------|----------------|-------|-----------|
| <b>74005</b>   | Power Integrations         | LNK562              | 185 - 265 Vrms | 1.3 W | 66 kHz    |
|                | Power integrations         | LNK562              | 85 - 265 Vrms  | 1.3 W | 66 kHz    |
|                | Power Integrations         | LNK563              | 185 - 265 Vrms | 1.7 W | 83 kHz    |
|                | Power Integrations         | LNK563              | 85 - 265 Vrms  | 1.7 W | 83 kHz    |
|                | Power Integrations         | LNK564              | 185 - 265 Vrms | 2.0 W | 100 kHz   |
|                | Power Integrations         | LNK564              | 85 - 265 Vrms  | 2.0 W | 100 kHz   |

**Remarks :** This transformer perfectly fulfils the specification of Power Integrations AN-39 Appendix - B.



- Primary / Secondary Insulation  $\geq 4000V$
- Primary / Auxiliary Insulation  $\geq 1500V$
- Creepage distance Primary / Secondary  $\geq 6mm$
- Ambient temperature  $< 50^{\circ}C$
- Construction conforms to IEC950, IEC335, IEC61558-2-16 for reinforced insulation
- Exclusively uses UL94-V0 listed materials



74010

PIN 3 Removed  
PCB Drilling Diameter = 1.1mm

| MYRRA<br>P / N | Output<br>Power<br>maximum | Windings |        |       |              |                    |                        |
|----------------|----------------------------|----------|--------|-------|--------------|--------------------|------------------------|
|                |                            |          | Pins   | Turns | Voltage      | Current<br>maximum | Inductance<br>(+/-10%) |
| 74010          | 12 w                       | Pri      | 4 - 6  | 120   | 85 - 265Vrms | 0.55 Apeak         | 1660μH                 |
|                |                            | Aux      | 2 - 1  | 14    | 7 - 14 Vdc   | 0.1 Adc            |                        |
|                |                            | S1       | 9 - 10 | 7     | 3.3 - 7 Vdc  | 2 Adc              |                        |
|                |                            | S2       | 7 - 8  | 17    | 8 - 17 Vdc   | 1 Adc              |                        |

Examples of application with Integrated Circuits :

| MYRRA<br>P / N | Control IC<br>Manufacturer | Input voltage | Power | Frequency |
|----------------|----------------------------|---------------|-------|-----------|
| 74010          | Power Integrations         | 185 - 265Vrms | 12w   | 132kHz    |
|                | Power Integrations         | 85 - 265Vrms  | 10w   | 132kHz    |
|                | Power Integrations         | 185 - 265Vrms | 12w   | 132kHz    |
|                | Power Integrations         | 85 - 265Vrms  | 10w   | 132kHz    |
|                | Power Integrations         | 185 - 265Vrms | 12w   | 132kHz    |
|                | ST Microelectronics        | 85 - 265Vrms  | 8w    | 70kHz     |
|                | ST Microelectronics        | 185 - 265Vrms | 10w   | 70kHz     |
|                | Motorola                   | 85 - 265Vrms  | 8w    | 100kHz    |
|                | Motorola                   | 185 - 265Vrms | 10w   | 100kHz    |
|                | Infineon                   | 92 - 265Vrms  | 7,5w  | 100kHz    |
|                | Infineon                   | 185 - 265Vrms | 10w   | 100kHz    |
|                | Fairchild                  | 85 - 265Vrms  | 7w    | 50kHz     |
|                | Fairchild                  | 185 - 265Vrms | 10w   | 100kHz    |



- Primary / Secondary Insulation  $\geq 4000V$
- Primary / Auxiliary Insulation  $\geq 1500V$
- Creepage distance Primary / Secondary  $\geq 6mm$
- Ambient temperature  $< 50^{\circ}C$
- Construction conforms to IEC950, IEC335, IEC61558-2-16 for reinforced insulation
- Exclusively uses UL94-V0 listed materials

Bottom View (Pin side)

74014

PIN 3 Removed  
PCB Drilling Diameter = 1.1mm

| MYRRA<br>P / N | Output<br>Power<br>maximum | Windings |        |       |              |                    |                        |
|----------------|----------------------------|----------|--------|-------|--------------|--------------------|------------------------|
|                |                            |          | Pins   | Turns | Voltage      | Current<br>maximum | Inductance<br>(+/-10%) |
| 74014          | 12 w                       | Pri      | 4 - 6  | 120   | 85 - 265Vrms | 0.5 Apeak          | 1800µH                 |
|                |                            | Aux      | 2 - 1  | 17    | 9 – 18 Vdc   | 0.2 Adc            |                        |
|                |                            | S1       | 9 - 10 | 27    | 15 – 30 Vdc  | 0.4 Adc            |                        |
|                |                            | S2       | 7 - 8  | 27    | 15 – 30 Vdc  | 0.4 Adc            |                        |

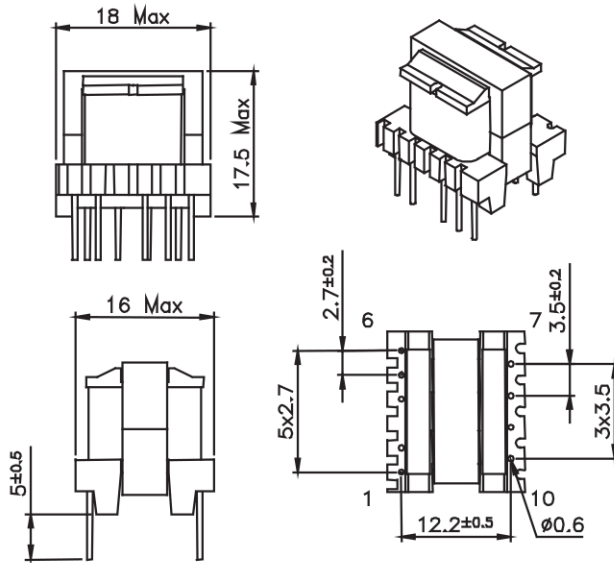
Typical outputs :  
+24V 0.5A with S1 – S2 in parallel  
+48V 0.25A with S1 – S2 in series (8-9 connected)  
+15V / -15V 0.4A with pins 8-9 connected to 0V

Examples of application with Integrated Circuits :

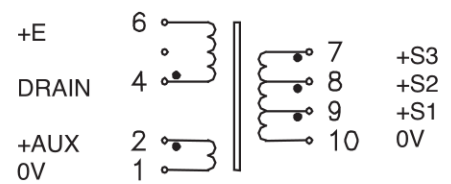
| MYRRA<br>P / N | Control IC<br>Manufacturer | Input voltage | Power | Frequency |
|----------------|----------------------------|---------------|-------|-----------|
| 74014          | Power Integrations         | 185 - 265Vrms | 12w   |           |
|                | Power Integrations         | 85 - 265Vrms  | 8w    |           |
|                | Power Integrations         | 185 - 265Vrms | 12w   | 132kHz    |
|                | Power Integrations         | 85 - 265Vrms  | 8w    | 132kHz    |



- Primary / Secondary Insulation  $\geq 4000V$
- Primary / Auxiliary Insulation  $\geq 1500V$
- Creepage distance Primary / Secondary  $\geq 6mm$
- Ambient temperature  $< 50^{\circ}C$
- Construction conforms to IEC950, IEC335, IEC61558-2-16 for reinforced insulation
- Exclusively uses UL94-V0 listed materials



Bottom View (Pin side)



74015

PIN 3 Removed  
PCB Drilling Diameter = 1.1mm

| MYRRA<br>P / N | Output<br>Power<br>maximum | Windings |        |       |              |                    |                        |
|----------------|----------------------------|----------|--------|-------|--------------|--------------------|------------------------|
|                |                            |          | Pins   | Turns | Voltage      | Current<br>maximum | Inductance<br>(+/-10%) |
| <b>74015</b>   | 12 w                       | Pri      | 4 - 6  | 120   | 85 - 265Vrms | 0.5 Apeak          | 1800μH                 |
|                |                            | Aux      | 2 - 1  | 14    | 12 Vdc       | 0.2 Adc            |                        |
|                |                            | S1       | 9 - 10 | 6     | 5 Vdc        | 1.5 Adc            |                        |
|                |                            | S2       | 8 - 10 | 17    | 15 Vdc       | 0.6 Adc            |                        |
|                |                            | S3       | 7 - 10 | 27    | 24 Vdc       | 0.4 Adc            |                        |

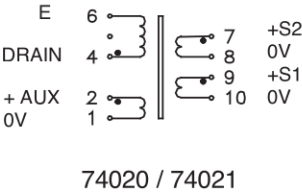
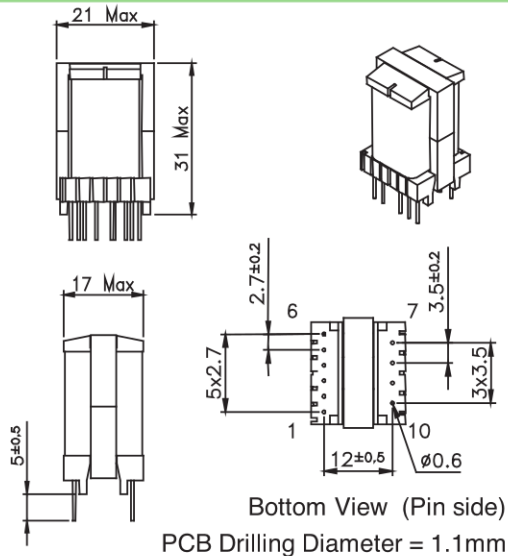
Examples of application with Integrated Circuits :

| MYRRA<br>P / N | Control IC<br>Manufacturer | Input voltage | Power | Frequency |
|----------------|----------------------------|---------------|-------|-----------|
| <b>74015</b>   | Power Integrations         | 185 - 265Vrms | 10w   |           |
|                | Power Integrations         | 85 - 265Vrms  | 8w    |           |
|                | Power Integrations         | 185 - 265Vrms | 12w   | 132kHz    |
|                | Power Integrations         | 85 - 265Vrms  | 9w    | 132kHz    |





- Primary / Secondary Insulation  $\geq 4000V$
- Primary / Auxiliary Insulation  $\geq 1500V$
- Creepage distance Primary / Secondary  $\geq 6mm$
- Ambient temperature  $< 50^{\circ}C$
- Construction conforms to IEC950, IEC335, IEC61558-2-16 for reinforced insulation
- Exclusively uses UL94-V0 listed materials



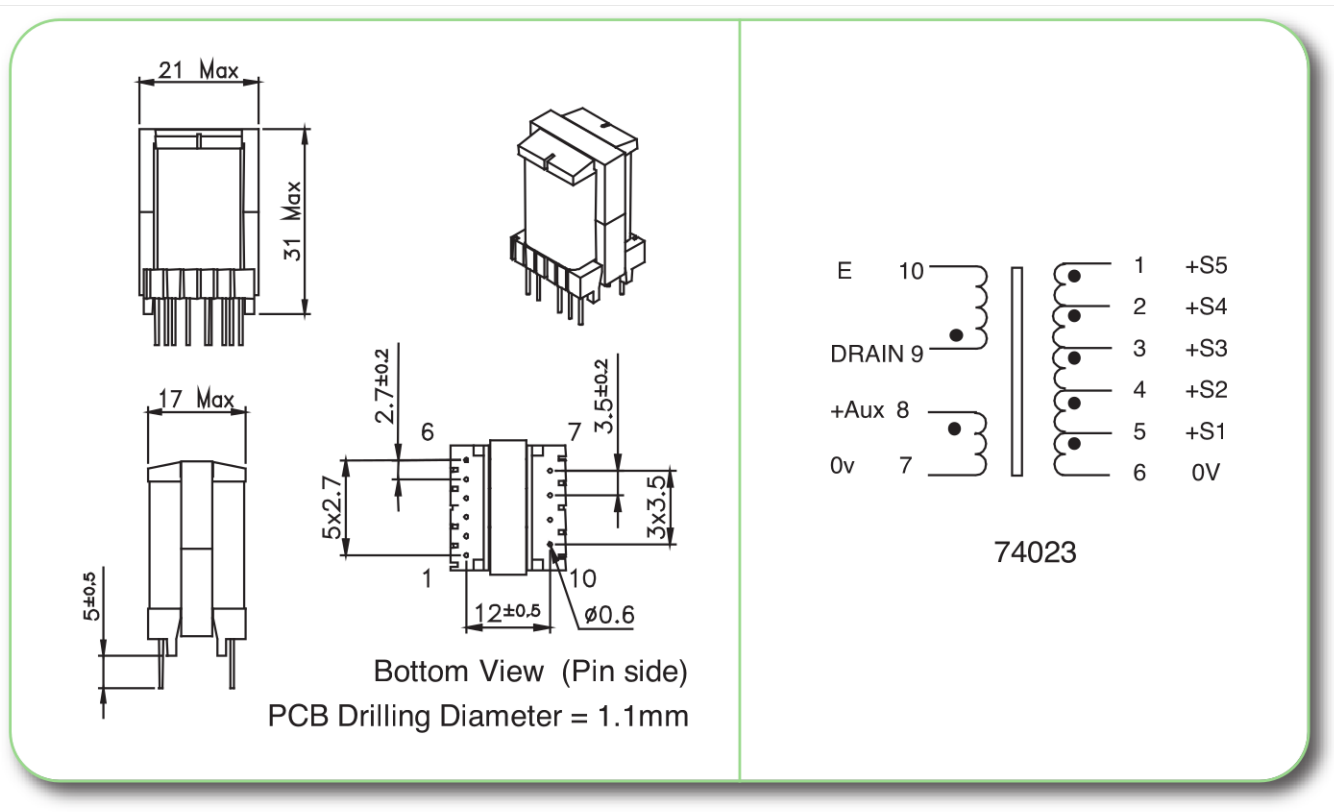
| MYRRA<br>P / N | Output<br>Power<br>maximum | Windings |        |       |              |                    |                        |
|----------------|----------------------------|----------|--------|-------|--------------|--------------------|------------------------|
|                |                            |          | Pins   | Turns | Voltage      | Current<br>maximum | Inductance<br>(+/-10%) |
| 74020          | 18 w                       | Pri      | 4 - 6  | 108   | 85 - 265Vrms | 0.8 Apeak          | 1250µH                 |
|                |                            | Aux      | 2 - 1  | 12    | 7 – 14 Vdc   | 0.1 Adc            |                        |
|                |                            | S1       | 9 - 10 | 6     | 3.3 – 7 Vdc  | 3 Adc              |                        |
|                |                            | S2       | 7 - 8  | 14    | 8 – 16.5 Vdc | 1.4 Adc            |                        |
| 74021          | 18 w                       | Pri      | 4 - 6  | 108   | 85 - 265Vrms | 1.1 Apeak          | 900µH                  |
|                |                            | Aux      | 2 - 1  | 12    | 7 – 14 Vdc   | 0.1 Adc            |                        |
|                |                            | S1       | 9 - 10 | 6     | 3.3 – 7 Vdc  | 3 Adc              |                        |
|                |                            | S2       | 7 - 8  | 14    | 8 – 16.5 Vdc | 1.4 Adc            |                        |

Examples of application with Integrated Circuits :

| MYRRA<br>P / N | Control IC<br>Manufacturer | Input voltage | Power | Frequency |
|----------------|----------------------------|---------------|-------|-----------|
| 74020          | Power Integrations         | 85 - 265Vrms  | 15w   | 132kHz    |
|                | Power Integrations         | 185 - 265Vrms | 18w   | 132kHz    |
|                | Power Integrations         | 85 - 265Vrms  | 12w   | 132kHz    |
|                | ST Microelectronics        | 85 - 265Vrms  | 10w   | 100kHz    |
|                | ST Microelectronics        | 185 - 265Vrms | 12w   | 100kHz    |
|                | ST Microelectronics        | 185 - 265Vrms | 16w   | 100kHz    |
|                | Motorola                   | 185 - 265Vrms | 16w   | 100kHz    |
|                | Infineon                   | 185 - 265Vrms | 16w   | 100kHz    |
| 74021          | ST Microelectronics        | 85 - 265Vrms  | 13w   | 70kHz     |
|                | Motorola                   | 85 - 265Vrms  | 13w   | 100kHz    |
|                | Infineon                   | 92 - 265Vrms  | 10w   | 100kHz    |



- Primary / Secondary Insulation  $\geq 4000V$
- Primary / Auxiliary Insulation  $\geq 1500V$
- Creepage distance Primary / Secondary  $\geq 6mm$
- Ambient temperature  $< 60^{\circ}C$
- Construction conforms to IEC950, IEC335, IEC61558-2-16 for reinforced insulation
- Exclusively uses UL94-V0 listed materials



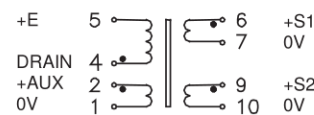
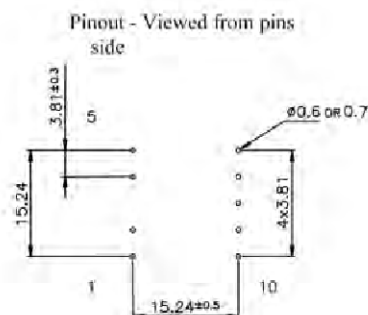
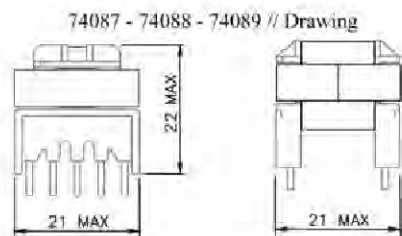
| MYRRA<br>P / N | Output<br>Power<br>maximum | Windings |        |       |              |                    |                        |
|----------------|----------------------------|----------|--------|-------|--------------|--------------------|------------------------|
|                |                            |          | Pins   | Turns | Voltage      | Current<br>maximum | Inductance<br>(+/-10%) |
| <b>74023</b>   | 16 w                       | Pri      | 9 – 10 | 120   | 85 - 265Vrms | 0.85 Apeak         | 1250µH                 |
|                |                            | Aux      | 8 – 7  | 17    | 15 Vdc       | 0.2 Adc            |                        |
|                |                            | S1       | 5 – 6  | 4     | 3.3 Vdc      | S1 + S2 : 7 Adc    |                        |
|                |                            | S2       | 4 – 6  | 6     | 5 Vdc        | S1 + S2 : 7 Adc    |                        |
|                |                            | S3       | 3 – 6  | 14    | 12 Vdc       | 0.8 Adc            |                        |
|                |                            | S4       | 2 – 6  | 20    | 18 Vdc       | 0.8 Adc            |                        |
|                |                            | S5       | 1 – 6  | 33    | 30 Vdc       | 0.2 Adc            |                        |

Examples of application with Integrated Circuits :

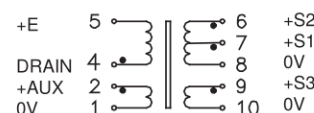
| MYRRA<br>P / N | Control IC<br>Manufacturer | Input voltage | Power | Frequency |
|----------------|----------------------------|---------------|-------|-----------|
| <b>74023</b>   | Power Integrations         | 185 - 265Vrms | 16w   | 132kHz    |
|                | Power Integrations         | 85 - 265Vrms  | 12w   | 132kHz    |



- Primary / Secondary Insulation  $\geq 4000V$  • Primary / Auxiliary Insulation  $\geq 1500V$
- Creepage distance Primary / Secondary  $\geq 8mm$
- Ambient temperature  $< 50^{\circ}C$
- Construction conforms to IEC950, IEC335, IEC61558-2-16 for reinforced insulation
- Exclusively uses UL94-V0 listed materials



74087 - 74089



74088

PIN 3 Removed  
PCB Drilling Diameter = 1.2mm

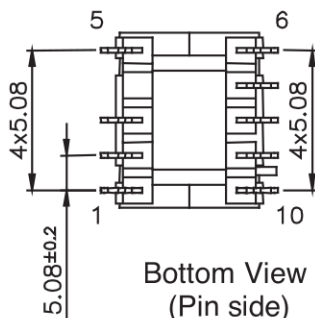
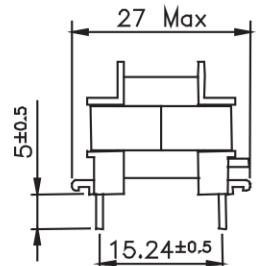
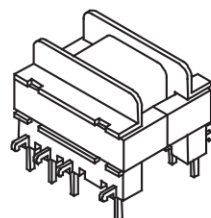
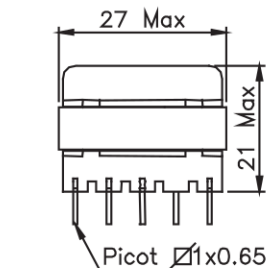
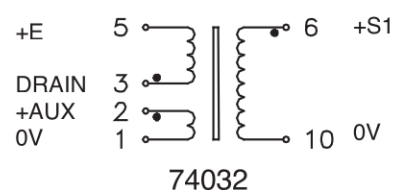
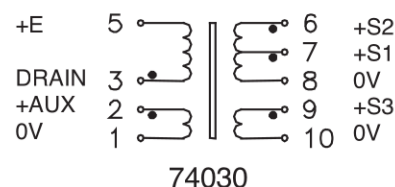
| MYRRA<br>P / N | Output<br>Power<br>maximum | Windings |        |       |              |                    |                        |
|----------------|----------------------------|----------|--------|-------|--------------|--------------------|------------------------|
|                |                            |          | Pins   | Turns | Voltage      | Current<br>maximum | Inductance<br>(+/-10%) |
| <b>74087</b>   | 24 w                       | Pri      | 4 – 5  | 86    | 85 - 265Vrms | 1.0 Apeak          | 1000μH                 |
|                |                            | Aux      | 2 – 1  | 12    | 11 - 18 Vdc  | 0.3 Adc            |                        |
|                |                            | S1       | 6 – 7  | 10    | 9 – 15 Vdc   | 1.5 Adc            |                        |
|                |                            | S2       | 9 – 10 | 10    | 9 – 15 Vdc   | 1.5 Adc            |                        |
| <b>74088</b>   | 20 w                       | Pri      | 4 – 5  | 80    | 85 - 265Vrms | 0.9 Apeak          | 1100μH                 |
|                |                            | Aux      | 2 – 1  | 17    | 15 Vdc       | 0.3 Adc            |                        |
|                |                            | S1       | 7 – 8  | 4     | 3.3 Vdc      | S1 + S2 : 7 Adc    |                        |
|                |                            | S2       | 6 – 8  | 6     | 5 Vdc        | S1 + S2 : 7 Adc    |                        |
|                |                            | S3       | 9 – 10 | 14    | 12 Vdc       | 1.3 Adc            |                        |
| <b>74089</b>   | 20 w                       | Pri      | 4 – 5  | 86    | 85 - 265Vrms | 0.85 Apeak         | 1300μH                 |
|                |                            | Aux      | 2 – 1  | 12    | 7 - 18 Vdc   | 0.3 Adc            |                        |
|                |                            | S1       | 6 – 7  | 5     | 3 – 7.5 Vdc  | 2.0 Adc            |                        |
|                |                            | S2       | 9 – 10 | 5     | 3 – 7.5 Vdc  | 2.0 Adc            |                        |

Examples of application with Integrated Circuits :

| MYRRA<br>P / N | Control IC<br>Manufacturer | Input voltage | Power | Frequency |
|----------------|----------------------------|---------------|-------|-----------|
| <b>74087</b>   | Power Integrations         | 185 - 265Vrms | 24w   | 132kHz    |
|                | Power Integrations         | 85 - 265Vrms  | 15w   | 132kHz    |
| <b>74088</b>   | Power Integrations         | 185 - 265Vrms | 20w   | 132kHz    |
|                | Power Integrations         | 85 – 265Vrms  | 12w   | 132kHz    |
| <b>74089</b>   | Power Integrations         | 185 - 265Vrms | 20w   | 132kHz    |
|                | Power Integrations         | 85 – 265Vrms  | 14w   | 132kHz    |
|                | Power Integrations         | 185 - 265Vrms | 17w   | < 120kHz  |



- Primary / Secondary Insulation  $\geq 4000V$
- Primary / Auxiliary Insulation  $\geq 1500V$
- Creepage distance Primary / Secondary  $\geq 6mm$
- Ambient temperature  $< 50^{\circ}C$
- Construction conforms to IEC950, IEC335, IEC61558-2-16 for reinforced insulation
- Exclusively uses UL94-V0 listed materials

Bottom View  
(Pin side)

PIN 4 Removed  
PCB Drilling Diameter = 1.4mm

| MYRRA<br>P / N | Output<br>Power<br>maximum | Windings |        |       |              |                    |                        |
|----------------|----------------------------|----------|--------|-------|--------------|--------------------|------------------------|
|                |                            |          | Pins   | Turns | Voltage      | Current<br>maximum | Inductance<br>(+/-10%) |
| 74030          | 30 w                       | Pri      | 3 – 5  | 70    | 85 - 265Vrms | 1.5 Apeak          | 750μH                  |
|                |                            | Aux      | 2 – 1  | 8     | 7 – 14.5 Vdc | 1 Adc              |                        |
|                |                            | S1       | 7 – 8  | 4     | 3.3 - 7      | 3 Adc              |                        |
|                |                            | S2       | 6 – 8  | 9     | 8 – 16 Vdc   | 1.5 Adc            |                        |
|                |                            | S3       | 9 – 10 | 9     | 8 – 16 Vdc   | 1.5 Adc            |                        |
| 74032          | 35 w                       | Pri      | 3 – 5  | 72    | 85 - 265Vrms | 1.1 Apeak          | 1100μH                 |
|                |                            | Aux      | 2 – 1  | 10    | 8 - 16 Vdc   | 1 Adc              |                        |
|                |                            | S1       | 6 – 10 | 18    | 15 - 30 Vdc  | 1.4 Adc            |                        |

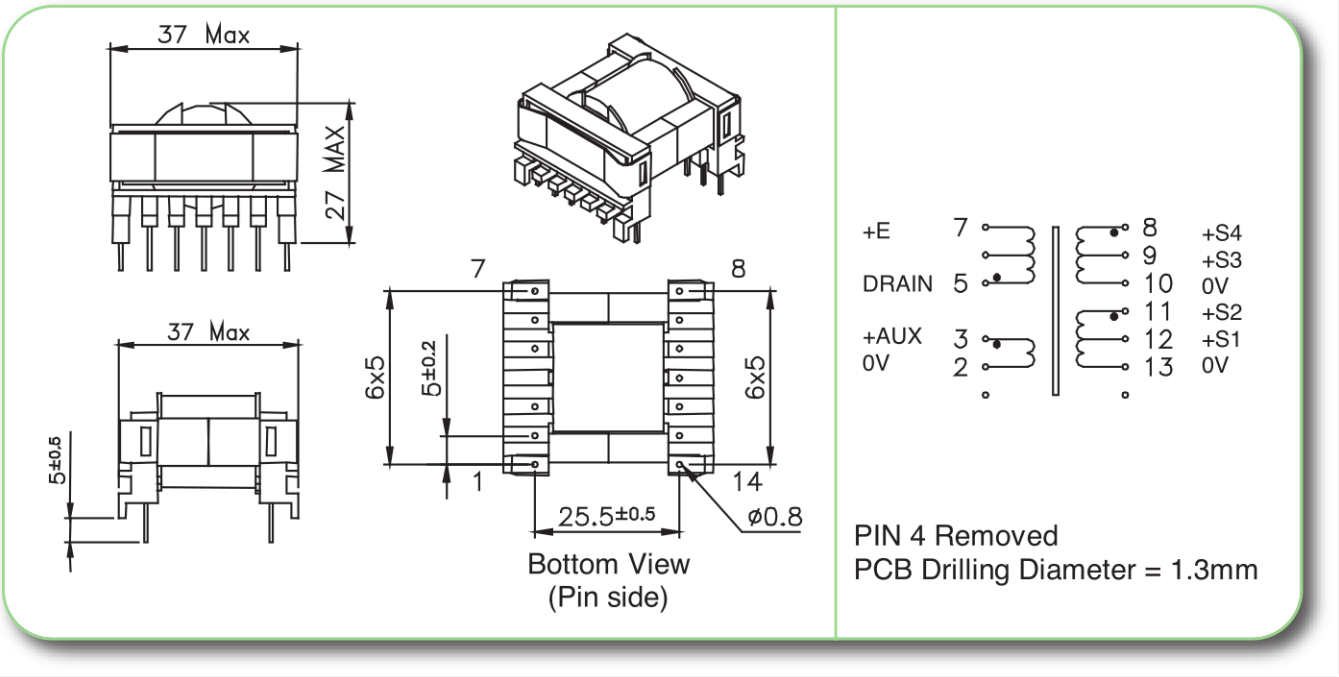
Note for 74030 : S2 and S3 can be connected in series or in parallel

Examples of application with Integrated Circuits :

| MYRRA<br>P / N | Control IC<br>Manufacturer | Input voltage | Power | Frequency    |
|----------------|----------------------------|---------------|-------|--------------|
| 74030          | Power Integrations         | 185 - 265Vrms | 30w   | 132kHz       |
|                | Power Integrations         | 85 - 265Vrms  | 25w   | 66 or 132kHz |
|                | ST Microelectronics        | 85 - 265Vrms  | 22w   | 70kHz        |
|                | ST Microelectronics        | 185 - 265Vrms | 30w   | 70kHz        |
|                | Motorola                   | 85 - 265Vrms  | 22w   | 100kHz       |
|                | Motorola                   | 185 - 265Vrms | 30w   | 100kHz       |
|                | Infineon                   | 185 - 265Vrms | 30w   | 100kHz       |
|                | Fairchild                  | 85 - 265Vrms  | 22w   | 100kHz       |
| 74032          | Power Integrations         | 185 - 265Vrms | 25w   | 132kHz       |



- Primary / Secondary Insulation  $\geq 4000V$
- Primary / Auxiliary Insulation  $\geq 1500V$
- Creepage distance Primary / Secondary  $\geq 8mm$
- Ambient temperature  $< 50^{\circ}C$
- Construction conforms to IEC950, IEC335, IEC61558-2-16 for reinforced insulation
- Exclusively uses UL94-V0 listed materials



| MYRRA<br>P / N | Output<br>Power<br>maximum | Windings |         |       |              |                    |                        |
|----------------|----------------------------|----------|---------|-------|--------------|--------------------|------------------------|
|                |                            |          | Pins    | Turns | Voltage      | Current<br>maximum | Inductance<br>(+/-10%) |
| 74040          | 60 w                       | Pri      | 5 – 7   | 50    | 85 - 265Vrms | 3.0 Apeak          | 500µH                  |
|                |                            | Aux      | 3 – 2   | 6     | 7 – 14.5 Vdc | 0.5 Adc            |                        |
|                |                            | S1       | 12 – 13 | 3     | 3.3 - 7      | 4 Adc              |                        |
|                |                            | S2       | 11 – 13 | 7     | 8 – 16.5 Vdc | 2.5 Adc            |                        |
|                |                            | S3       | 9 – 10  | 3     | 3.3 - 7      | 4 Adc              |                        |
|                |                            | S4       | 8 - 10  | 7     | 8 – 16.5 Vdc | 2.5 Adc            |                        |

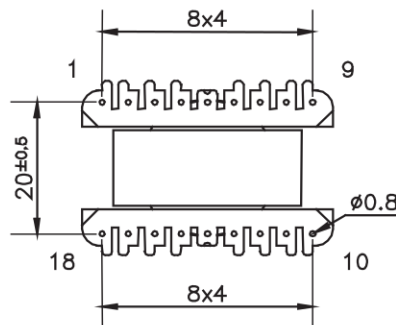
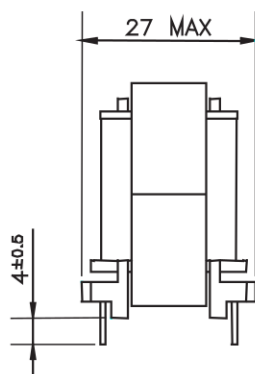
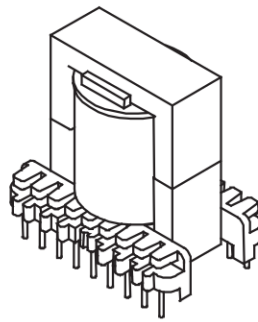
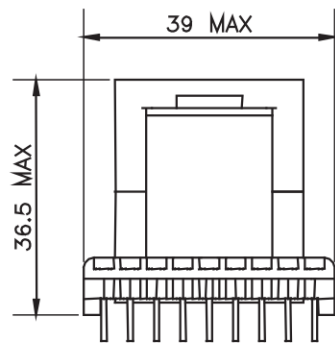
Note : S1 / S3 or S2 / S4 can be connected in series or in parallel

Examples of application with Integrated Circuits :

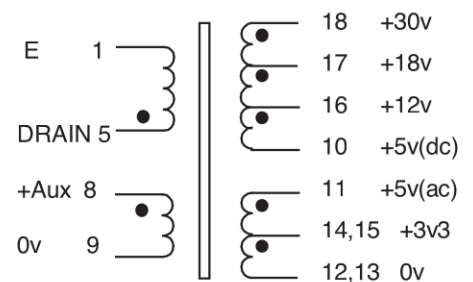
| MYRRA<br>P / N | Control IC<br>Manufacturer | Input voltage | Power | Frequency    |
|----------------|----------------------------|---------------|-------|--------------|
| 74040          | Power Integrations         | 185 - 265Vrms | 60w   | 66 or 132kHz |
|                | Power Integrations         | 85 - 265Vrms  | 45w   | 66 or 132kHz |
|                | ST Microelectronics        | 85 - 265Vrms  | 35w   | 100kHz       |
|                | ST Microelectronics        | 185 - 265Vrms | 45w   | 100kHz       |
|                | Motorola                   | 85 - 265Vrms  | 35w   | 100kHz       |
|                | Motorola                   | 185 - 265Vrms | 45w   | 100kHz       |
|                | Infineon                   | 92 - 265Vrms  | 35w   | 100kHz       |
|                | Infineon                   | 185 - 265Vrms | 45w   | 100kHz       |



- Primary / Secondary Insulation  $\geq 4000V$
- Primary / Auxiliary Insulation  $\geq 1500V$
- Creepage distance Primary / Secondary  $\geq 6mm$
- Ambient temperature  $< 50^{\circ}C$
- Construction conforms to IEC950, IEC335, IEC61558-2-16 for reinforced insulation
- Exclusively uses UL94-V0 listed materials



Bottom View (Pin side)



PCB Drilling Diameter = 1.3mm

| MYRRA<br>P / N | Output<br>Power<br>maximum | Windings |               |       |              |                    |                        |
|----------------|----------------------------|----------|---------------|-------|--------------|--------------------|------------------------|
|                |                            |          | Pins          | Turns | Voltage      | Current<br>maximum | Inductance<br>(+/-10%) |
| 74043          | 60w                        | Pri      | 5 – 1         | 45    | 85 - 265Vrms | 3 Apeak            | 500µH                  |
|                |                            | Aux      | 8 – 9         | 7     | 15 Vdc       | 0.5 Adc            |                        |
|                |                            | S1       | 14+15 / 12+13 | 2     | 3.3 Vdc      | S1+S2 : 7 Adc      |                        |
|                |                            | S2       | 11 / 12+13    | 3     | 5 Vdc        | S1+S2 : 7 Adc      |                        |
|                |                            | S3       | 16 – 10       | 4     | 12 Vdc       | 2 Adc              |                        |
|                |                            | S4       | 17 – 10       | 7     | 18 Vdc       | 2 Adc              |                        |
|                |                            | S5       | 18 – 10       | 13    | 30 Vdc       | 0.5 Adc            |                        |

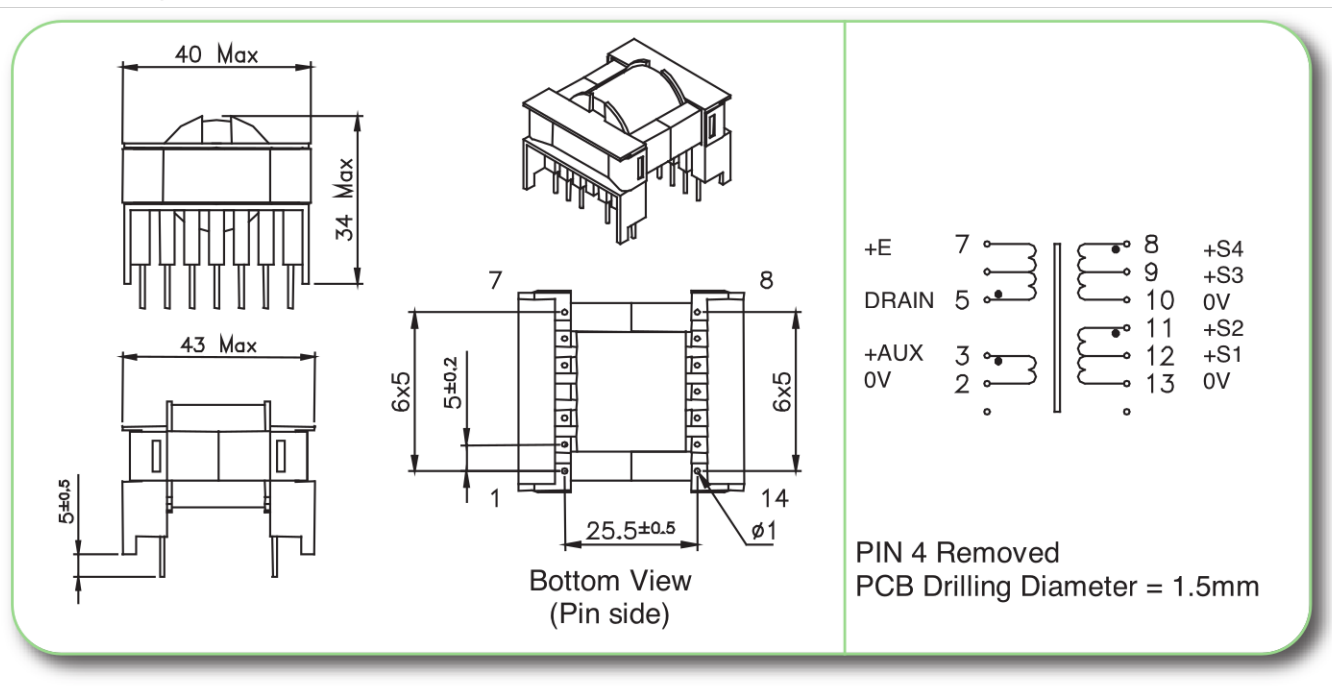
Examples of application with Integrated Circuits :

| MYRRA<br>P / N | Control IC<br>Manufacturer | Input voltage | Power | Frequency    |
|----------------|----------------------------|---------------|-------|--------------|
| 74043          | Power Integrations         | 185 - 265Vrms | 60w   | 66 or 132kHz |
|                | Power Integrations         | 85 - 265Vrms  | 45w   | 66 or 132kHz |





- Primary / Secondary Insulation  $\geq 4000V$
- Primary / Auxiliary Insulation  $\geq 1500V$
- Creepage distance Primary / Secondary  $\geq 8mm$
- Ambient temperature  $< 50^{\circ}C$
- Construction conforms to IEC950, IEC335, IEC61558-2-16 for reinforced insulation
- Exclusively uses UL94-V0 listed materials



| MYRRA<br>P / N | Output<br>Power<br>maximum | Windings |         |       |              |                    |                        |
|----------------|----------------------------|----------|---------|-------|--------------|--------------------|------------------------|
|                |                            |          | Pins    | Turns | Voltage      | Current<br>maximum | Inductance<br>(+/-10%) |
| <b>74050</b>   | 90 w                       | Pri      | 5 – 7   | 36    | 85 - 265Vrms | 2.8 Apeak          | 500µH                  |
|                |                            | Aux      | 3 – 2   | 4     | 7 – 14 Vdc   | 0.5 Adc            |                        |
|                |                            | S1       | 12 – 13 | 2     | 3.3 – 6.5    | 5 Adc              |                        |
|                |                            | S2       | 11 – 13 | 5     | 8.5 – 17 Vdc | 3 Adc              |                        |
|                |                            | S3       | 9 – 10  | 2     | 3.3 – 6.5    | 5 Adc              |                        |
|                |                            | S4       | 8 - 10  | 5     | 8.5 – 17 Vdc | 3 Adc              |                        |

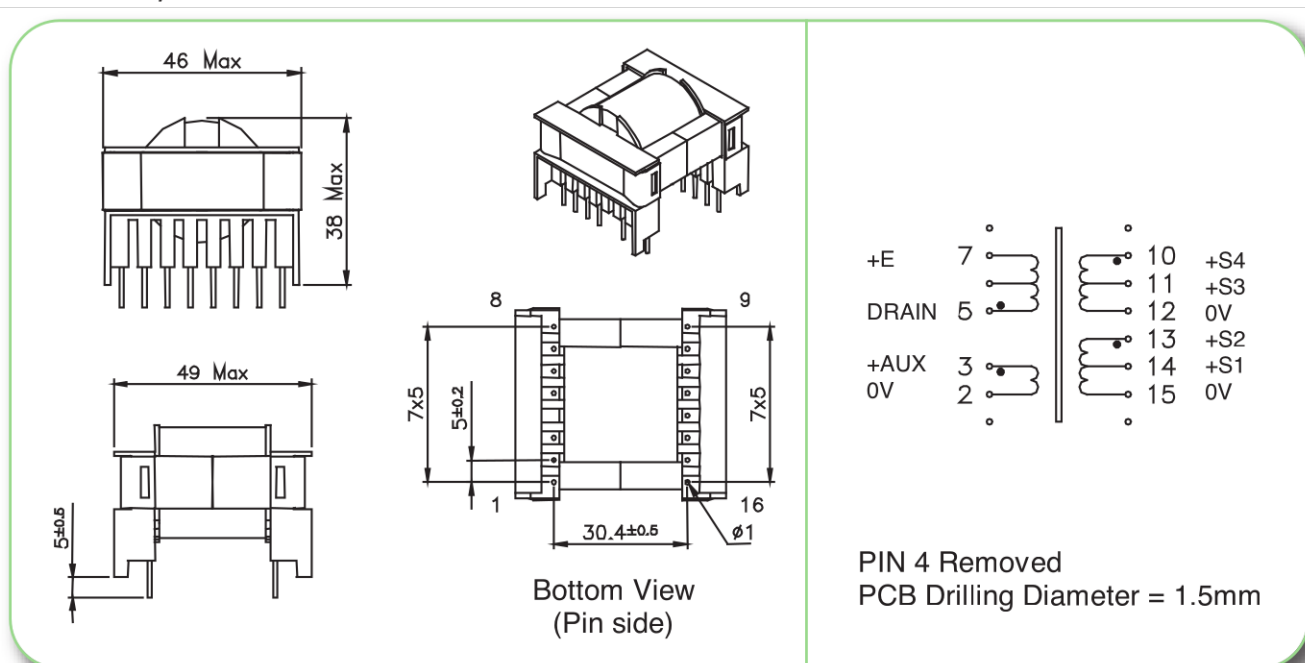
Note : S1 / S3 or S2 / S4 can be connected in series or in parallel

Examples of application with Integrated Circuits :

| MYRRA<br>P / N | Control IC<br>Manufacturer | Input voltage | Power | Frequency    |
|----------------|----------------------------|---------------|-------|--------------|
| <b>74050</b>   | Power Integrations         | 185 - 265Vrms | 90w   | 132kHz       |
|                | Power Integrations         | 85 - 265Vrms  | 60w   | 66 or 132kHz |
|                | ST Microelectronics        | 185 - 265Vrms | 80w   | 70kHz        |
|                | ST Microelectronics        | 85 - 265Vrms  | 60w   | 70kHz        |
|                | Motorola                   | 185 - 265Vrms | 80w   | 100kHz       |
|                | Motorola                   | 85 - 265Vrms  | 60w   | 100kHz       |
|                | Infineon                   | 185 - 265Vrms | 80w   | 100kHz       |
|                | Infineon                   | 85 - 265Vrms  | 60w   | 100kHz       |



- Primary / Secondary Insulation  $\geq 4000V$
- Primary / Auxiliary Insulation  $\geq 1500V$
- Creepage distance Primary / Secondary  $\geq 8mm$
- Ambient temperature  $< 50^{\circ}C$
- Construction conforms to IEC950, IEC335, IEC61558-2-16 for reinforced insulation
- Exclusively uses UL94-V0 listed materials



| MYRRA<br>P / N | Output<br>Power<br>maximum | Windings |         |       |              |                    |                        |
|----------------|----------------------------|----------|---------|-------|--------------|--------------------|------------------------|
|                |                            |          | Pins    | Turns | Voltage      | Current<br>maximum | Inductance<br>(+/-10%) |
| <b>74060</b>   | 140 w                      | Pri      | 5 – 7   | 36    | 85 - 265Vrms | 4 Apeak            | 440µH                  |
|                |                            | Aux      | 3 – 2   | 4     | 7 – 14 Vdc   | 0.5 Adc            |                        |
|                |                            | S1       | 14 – 15 | 2     | 3.3 – 6.5    | 5 Adc              |                        |
|                |                            | S2       | 13 – 15 | 5     | 8.5 – 17 Vdc | 5 Adc              |                        |
|                |                            | S3       | 11 – 12 | 2     | 3.3 – 6.5    | 5 Adc              |                        |
|                |                            | S4       | 10 – 12 | 5     | 8.5 – 17 Vdc | 5 Adc              |                        |

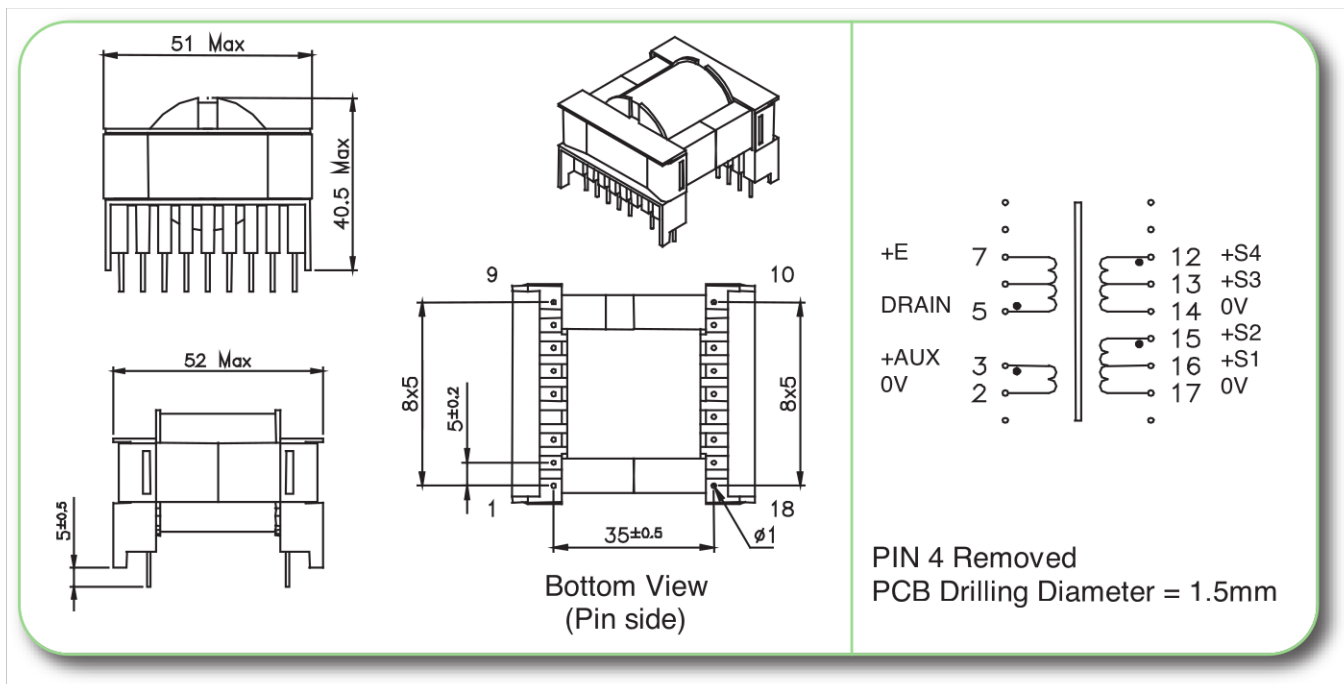
Note : S1 / S3 or S2 / S4 can be connected in series or in parallel

Examples of application with Integrated Circuits :

| MYRRA<br>P / N | Control IC<br>Manufacturer | Input voltage | Power | Frequency    |
|----------------|----------------------------|---------------|-------|--------------|
| <b>74060</b>   | Power Integrations         | 185 - 265Vrms | 140w  | 132kHz       |
|                | Power Integrations         | 85 - 265Vrms  | 90w   | 66 or 132kHz |
|                | ST Microelectronics        | 85 - 265Vrms  | 70w   | 70kHz        |
|                | ST Microelectronics        | 185 - 265Vrms | 120w  | 100kHz       |
|                | Motorola                   | 85 - 265Vrms  | 70w   | 100kHz       |
|                | Motorola                   | 185 - 265Vrms | 120w  | 100kHz       |
|                | Infineon                   | 85 - 265Vrms  | 70w   | 100kHz       |
|                | Infineon                   | 185 - 265Vrms | 120w  | 100kHz       |
|                | Fairchild                  | 85 - 265Vrms  | 70w   | 100kHz       |
|                | Fairchild                  | 185 - 265Vrms | 120w  | 100kHz       |



- Primary / Secondary Insulation  $\geq 4000V$
- Primary / Auxiliary Insulation  $\geq 1500V$
- Creepage distance Primary / Secondary  $\geq 8mm$
- Ambient temperature  $< 50^{\circ}C$
- Construction conforms to IEC950, IEC335, IEC61558-2-16 for reinforced insulation
- Exclusively uses UL94-V0 listed materials



| MYRRA<br>P / N | Output<br>Power<br>maximum | Windings |         |       |              |                    |                        |
|----------------|----------------------------|----------|---------|-------|--------------|--------------------|------------------------|
|                |                            |          | Pins    | Turns | Voltage      | Current<br>maximum | Inductance<br>(+/-10%) |
| <b>74070</b>   | 180 w                      | Pri      | 5 – 7   | 38    | 85 - 265Vrms | 8 Apeak            | 300μH                  |
|                |                            | Aux      | 3 – 2   | 4     | 7 – 14 Vdc   | 0.5 Adc            |                        |
|                |                            | S1       | 16 – 17 | 2     | 3.3 – 6.5    | 6 Adc              |                        |
|                |                            | S2       | 15 – 17 | 5     | 8.5 – 17 Vdc | 5 Adc              |                        |
|                |                            | S3       | 13 – 14 | 2     | 3.3 – 6.5    | 6 Adc              |                        |
|                |                            | S4       | 12 – 14 | 5     | 8.5 – 17 Vdc | 5 Adc              |                        |

Note : S1 / S3 or S2 / S4 can be connected in series or in parallel

Examples of application with Integrated Circuits :

| MYRRA<br>P / N | Control IC<br>Manufacturer | Input voltage | Power | Frequency    |
|----------------|----------------------------|---------------|-------|--------------|
| <b>74070</b>   | Power Integrations         | 185 - 265Vrms | 180w  | 66 or 132kHz |
|                | Power Integrations         | 85 - 265Vrms  | 120w  | 66kHz        |
|                | Infineon                   | 185 - 265Vrms | 160w  | 100kHz       |
|                | Fairchild                  | 185 - 265Vrms | 160w  | 100kHz       |
|                | Philips                    | 185 - 265Vrms | 120w  | 50kHz        |



1W

2W

3W

4W

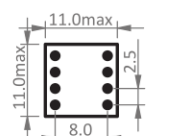
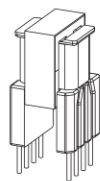
5W

10W

15W

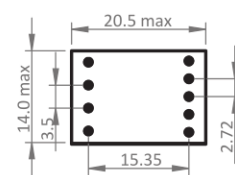
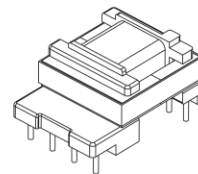
20W

25W



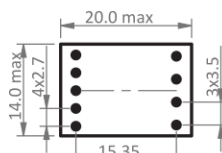
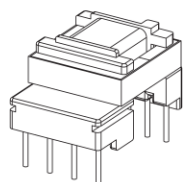
Height : 19.0mm max

**E 10**  
reinforced insulation  
creepage distances: 6mm



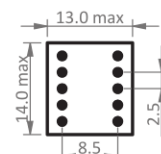
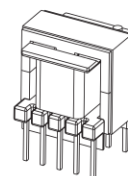
Height : 11mm max

**EF 12.6**  
reinforced insulation  
creepage distances: 6mm



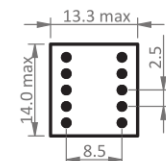
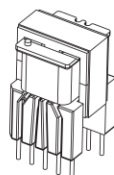
Height : 12.5mm max

**EF 12.6**  
reinforced insulation  
creepage distances: 6mm



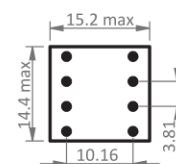
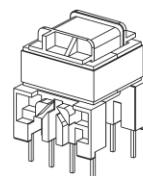
Height : 14.8mm max

**E 13**  
basic insulation



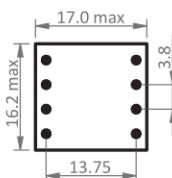
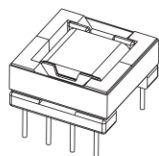
Height : 19.2mm max

**E 13**  
reinforced insulation  
creepage distances: 6mm



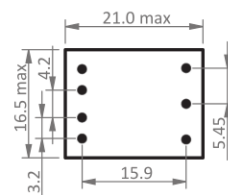
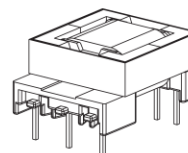
Height : 17.7mm max

**E 13**  
reinforced insulation  
creepage distances: 6mm



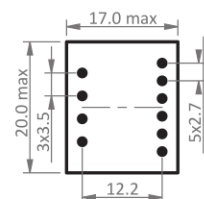
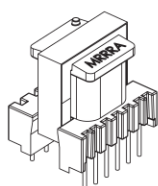
Height : 11mm max

**EFD 15**  
basic insulation



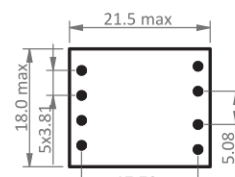
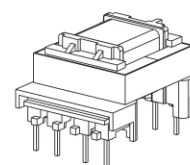
Height : 10.0mm max

**EFD 15**  
reinforced insulation  
creepage distances: 6mm



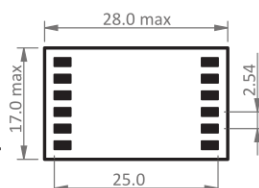
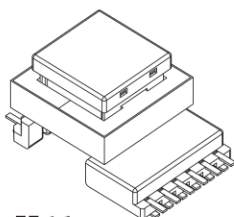
Height : 21.0 mm max

**E 16**  
reinforced insulation  
creepage distances: 6mm



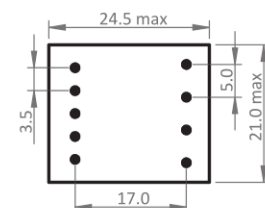
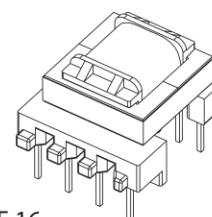
Height : 14.0mm max

**EF 16**  
reinforced insulation  
creepage distances: 6mm



Height : 14.7mm max

**EF 16**  
reinforced insulation  
creepage distances: 6mm



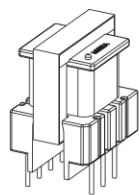
Height : 17mm max

**EF 16**  
reinforced insulation  
creepage distances: 6mm

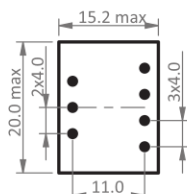
\*non-exhaustive list



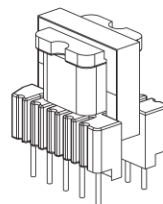
20W



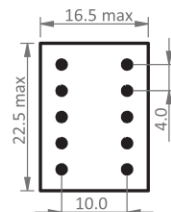
**E 19**  
reinforced insulation  
creepage distances: 6mm



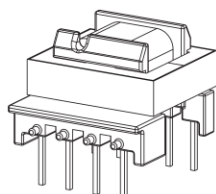
Height : 23.5mm max



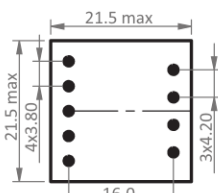
**E 19**  
reinforced insulation  
creepage distances: 6mm



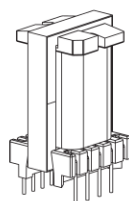
Height : 23.5mm max



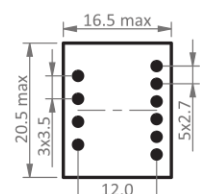
**E 19**  
reinforced insulation  
creepage distances: 6mm



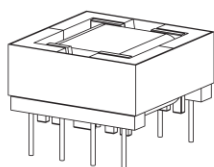
Height : 15.0mm max



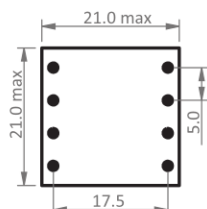
**EL 19**  
reinforced insulation  
creepage distances: 6mm



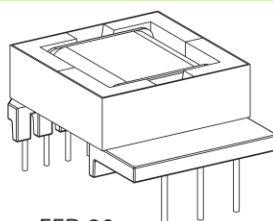
Height : 31.0mm max



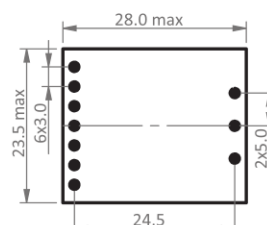
**EFD 20**  
basic insulation



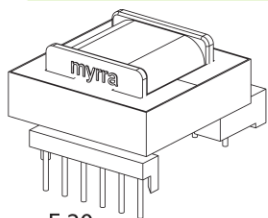
Height : 11.0mm max



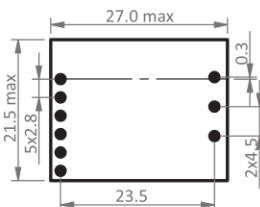
**EFD 20**  
reinforced insulation  
creepage distances: 6mm



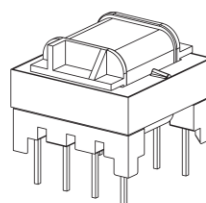
Height : 11.5mm max



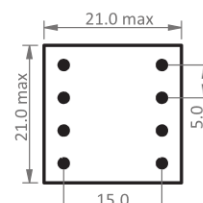
**E 20**  
reinforced insulation  
creepage distances: 6mm



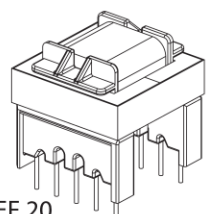
Height : 13.0mm max



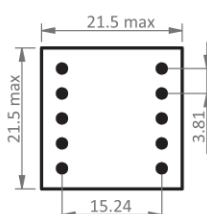
**EF 20**  
basic insulation



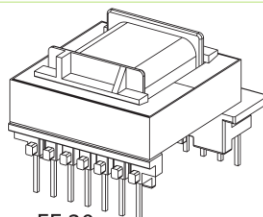
Height : 16.0mm max



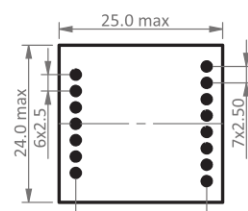
**EF 20**  
reinforced insulation  
creepage distances: 6mm



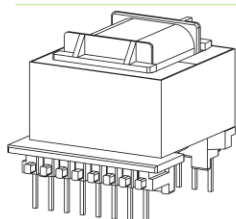
Height : 21.0mm max



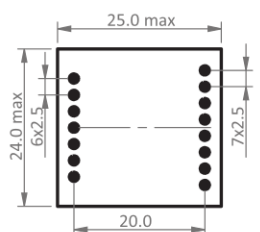
**EF 20**  
reinforced insulation  
creepage distances: 8mm



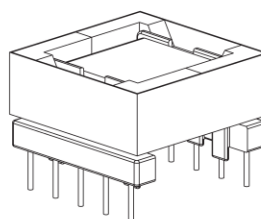
Height : 16.0mm max



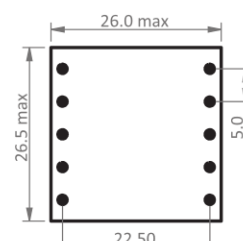
**EF 20/11**  
reinforced insulation  
creepage distances: 6mm



Height : 22.0mm max



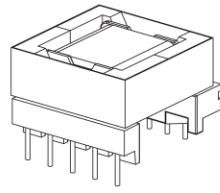
**EFD 25**  
basic insulation



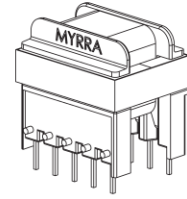
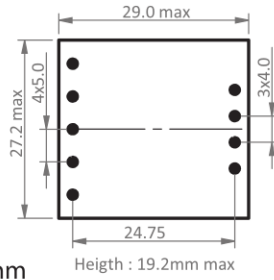
Height : 16.0mm max

\*non-exhaustive list

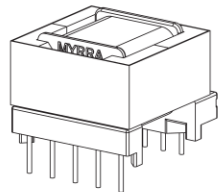
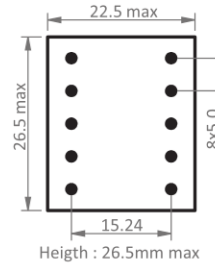




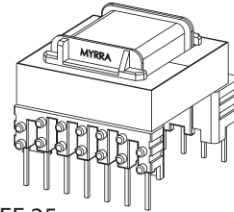
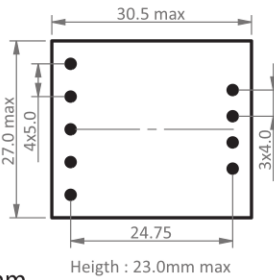
**EFD 25**  
reinforced insulation  
creepage distances: 6mm



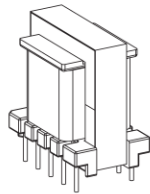
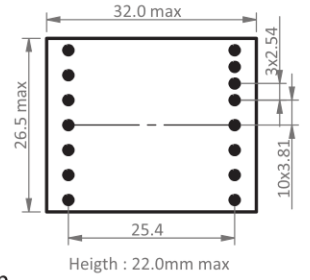
**E 25**  
reinforced insulation  
creepage distances: 8mm



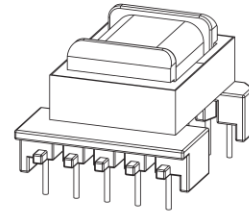
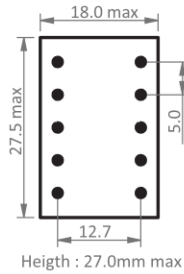
**EVD 25**  
reinforced insulation  
creepage distances: 6mm



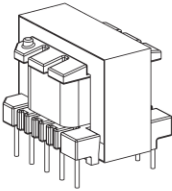
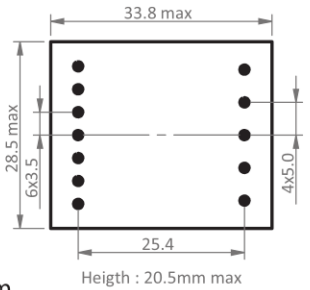
**EF 25**  
reinforced insulation  
creepage distances: 8mm



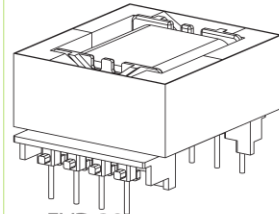
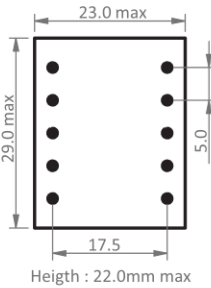
**EF 25**  
reinforced insulation  
creepage distances: 6mm



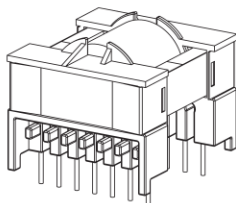
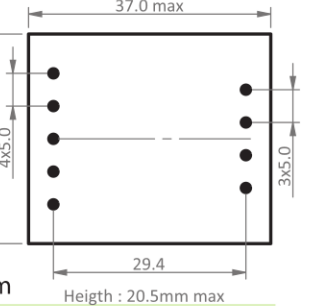
**EF 25**  
reinforced insulation  
creepage distances: 6mm



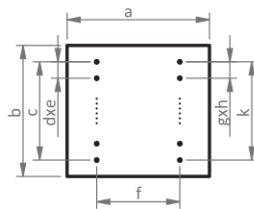
**EI 28**  
reinforced insulation  
creepage distances: 6mm



**EVD 30**  
reinforced insulation  
creepage distances: 6mm

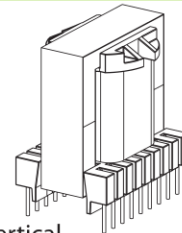


**ETD Horizontal**  
reinforced insulation  
creepage distances: 6mm

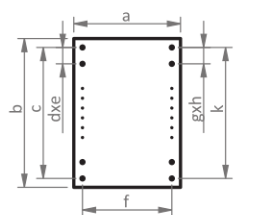


unit:mm

| Size  | Pin Qty. | a<br>(max) | b<br>(max) | c     | dxe    | f     | g      | h     | k    | height<br>(max) |
|-------|----------|------------|------------|-------|--------|-------|--------|-------|------|-----------------|
| ETD29 | 7+7      | 36.5       | 36.5       | 30.48 | 6x5.08 | 25.4  | 6x5.08 | 30.48 | 25.5 |                 |
| ETD34 | 7+7      | 43.0       | 41.0       | 30.0  | 6x5.0  | 25.5  | 6x5.0  | 30.0  | 34.5 |                 |
| ETD39 | 8+8      | 45.0       | 45.0       | 35.0  | 7x5.0  | 30.2  | 7x5.0  | 35.0  | 34.0 |                 |
| ETD44 | 9+9      | 52.5       | 50.0       | 40.0  | 8x5.0  | 35.56 | 8x5.0  | 40.0  | 40.0 |                 |
| ETD49 | 10+10    | 58.0       | 57.0       | 45.0  | 9x5.0  | 40.8  | 9x5.0  | 45.0  | 43.5 |                 |



**ETD Vertical**  
reinforced insulation  
creepage distances: 6mm

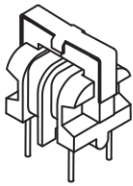


unit:mm

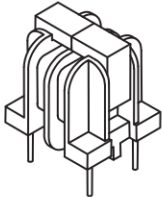
| Size  | Pin Qty. | a<br>(max) | b<br>(max) | c     | dxe     | f     | g       | h     | k    | height<br>(max) |
|-------|----------|------------|------------|-------|---------|-------|---------|-------|------|-----------------|
| ETD29 | 7+7      | 25.0       | 35.5       | 30.48 | 6x5.08  | 20.32 | 6x5.08  | 30.48 | 41.5 |                 |
| ETD34 | 7+7      | 28.0       | 35.5       | 30.48 | 6x5.08  | 22.85 | 6x5.08  | 30.48 | 35.5 |                 |
| ETD39 | 8+8      | 31.5       | 41.0       | 35.0  | 7x5.0   | 25.4  | 7x5.0   | 35.0  | 47.0 |                 |
| ETD44 | 9+9      | 33.5       | 46.0       | 40.0  | 8x5.0   | 27.5  | 8x5.0   | 40.0  | 51.0 |                 |
| ETD49 | 11+11    | 50.0       | 68.2       | 50.8  | 10x5.08 | 33.02 | 10x5.08 | 50.8  | 72.5 |                 |

\*non-exhaustive list

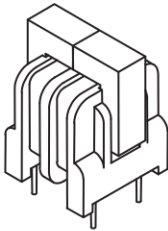




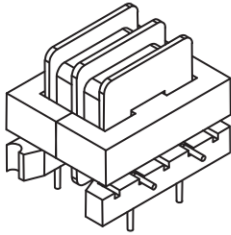
U9.8



U10.5



U16

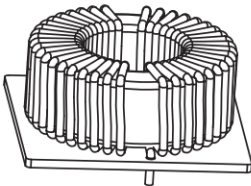
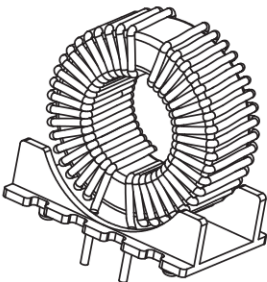


E25

- Mainly used to reduce noise conducted through power or signal lines.
- The common mode inductance filters symmetrical noise, associated with Y-type safety capacitors connected to ground.
- The differential mode inductance filters asymmetrical noise, associated with X-type capacitor connected between Line and Neutral.

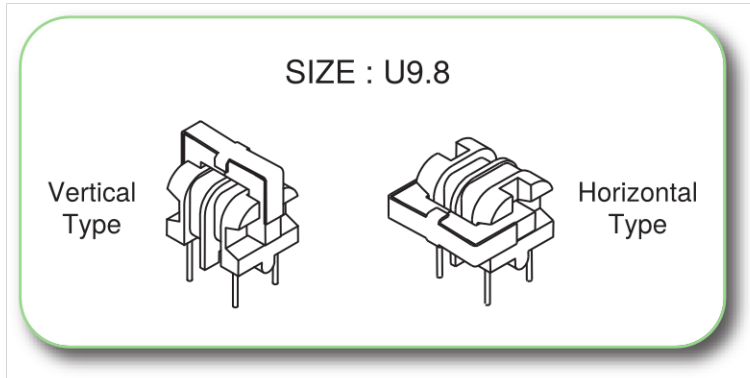
| MYRRA<br>Part N° | SIZE  | Inductance range | Current range |
|------------------|-------|------------------|---------------|
| 74330 - 74339    | U9.8  | 1.5 to 47mH      | 0.18 to 1.1A  |
| 74300 - 74306    | U10.5 | 1.5 to 68mH      | 0.30 to 1.9A  |
| 74310 - 74315    | U16   | 1.5 to 33mH      | 0.75 to 3.3A  |
| 74320 - 74325    | E25   | 1.5 to 33mH      | 0.90 to 4.0A  |

• Toroidal Common Mode Chokes - Custom design available upon request





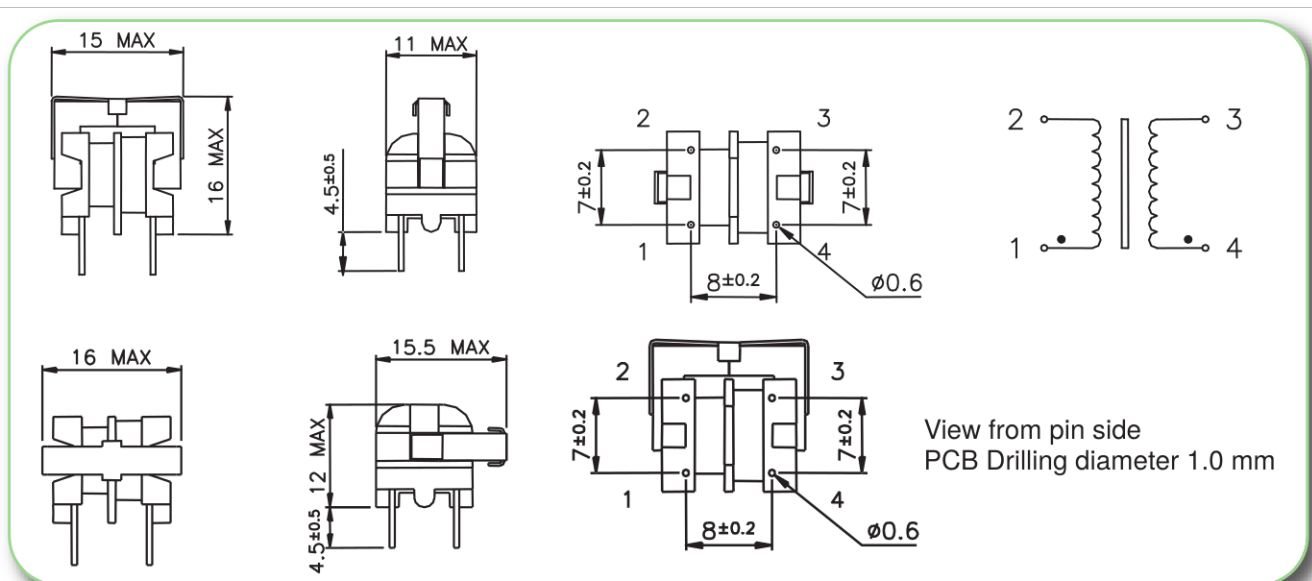
- Ambient Temperature  $\leq 50^{\circ}\text{C}$
- Dielectric Strength  $\geq 1.5 \text{ kV}$  between windings
- Electrical characteristics at  $25^{\circ}\text{C}$



### ELECTRICAL CHARACTERISTICS :

| MYRRA<br>Part N° |                 | Inductance<br>Common Mode<br>min - max (mH) | Rated<br>Current<br>Arms | Resistance<br>per winding<br>ohm max | Inductance<br>Differential Mode<br>$\mu\text{H}$ min | Resonant<br>Frequency<br>kHz min |
|------------------|-----------------|---------------------------------------------|--------------------------|--------------------------------------|------------------------------------------------------|----------------------------------|
| Vertical Type    | Horizontal Type |                                             |                          |                                      |                                                      |                                  |
| <b>74330</b>     | <b>74335</b>    | 33 - 56                                     | 0.18                     | 7                                    | 710                                                  | 210                              |
| <b>74331</b>     | <b>74336</b>    | 18 - 31                                     | 0.26                     | 3.5                                  | 360                                                  | 280                              |
| <b>74332</b>     | <b>74337</b>    | 10 - 17                                     | 0.35                     | 2.0                                  | 210                                                  | 400                              |
| <b>74333</b>     | <b>74338</b>    | 4.7 - 8                                     | 0.5                      | .95                                  | 100                                                  | 610                              |
| <b>74334</b>     | <b>74339</b>    | 2.2 - 3.7                                   | 0.8                      | .4                                   | 45                                                   | 910                              |

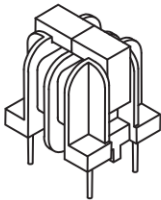
### MECHANICAL CHARACTERISTICS / PINOUT :





- Ambient Temperature  $\leq 50^{\circ}\text{C}$
- Dielectric Strength  $\geq 1.5\text{ kV}$  between windings
- Electrical characteristics at  $25^{\circ}\text{C}$

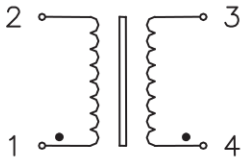
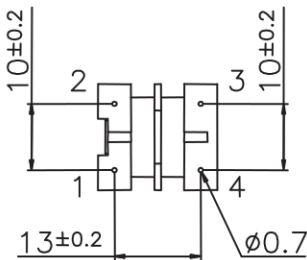
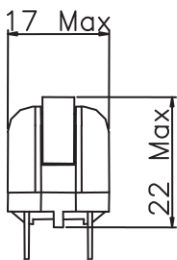
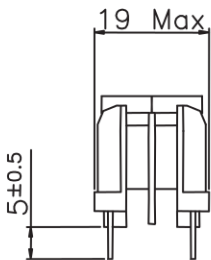
SIZE : U10.5



ELECTRICAL CHARACTERISTICS :

| MYRRA<br>Part N° | Inductance<br>Common Mode<br>min - max (mH) | Rated<br>Current<br>Arms | Resistance<br>per winding<br>ohm max | Inductance<br>Differential Mode<br>$\mu\text{H}$ min | Resonant<br>Frequency<br>kHz min |
|------------------|---------------------------------------------|--------------------------|--------------------------------------|------------------------------------------------------|----------------------------------|
| 74306            | 51 - 85                                     | 0.3                      | 4                                    | 530                                                  | 125                              |
| 74300            | 33 - 56                                     | 0,35                     | 3                                    | 400                                                  | 170                              |
| 74301            | 18 - 31                                     | 0,45                     | 1,7                                  | 240                                                  | 220                              |
| 74302            | 10 - 17                                     | 0,6                      | 1                                    | 140                                                  | 320                              |
| 74303            | 4.7 - 8                                     | 0,9                      | 0,43                                 | 65                                                   | 480                              |
| 74304            | 2.2 - 3.7                                   | 1,3                      | 0,23                                 | 32                                                   | 740                              |
| 74305            | 1 - 1.7                                     | 1,9                      | 0,1                                  | 14                                                   | 1000                             |

MECHANICAL CHARACTERISTICS / PINOUT :

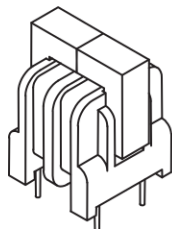


View from pin side  
PCB Drilling diameter 1.1 mm



- Ambient Temperature  $\leq 50^{\circ}\text{C}$
- Dielectric Strength  $\geq 1.5 \text{ kV}$  between windings
- Electrical characteristics at  $25^{\circ}\text{C}$

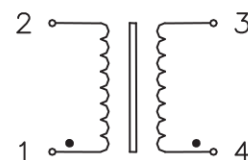
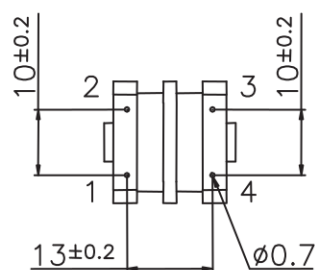
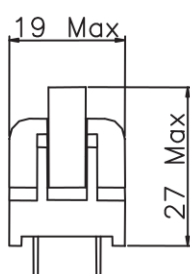
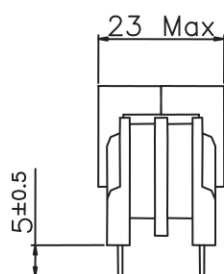
SIZE : U16



### ELECTRICAL CHARACTERISTICS :

| MYRRA<br>Part N° | Inductance<br>Common Mode<br>min - max (mH) | Rated<br>Current<br>Arms | Resistance<br>per winding<br>ohm max | Inductance<br>Differential Mode<br>$\mu\text{H}$ min | Resonant<br>Frequency<br>kHz min |
|------------------|---------------------------------------------|--------------------------|--------------------------------------|------------------------------------------------------|----------------------------------|
| 74310            | 22 – 37                                     | 0,75                     | 1                                    | 230                                                  | 170                              |
| 74311            | 15 – 25                                     | 0,9                      | 0,75                                 | 150                                                  | 210                              |
| 74312            | 10 - 17                                     | 1,1                      | 0,44                                 | 100                                                  | 280                              |
| 74313            | 4.7 - 8                                     | 1,5                      | 0,24                                 | 50                                                   | 440                              |
| 74314            | 2.2 - 3.7                                   | 2,3                      | 0,095                                | 20                                                   | 650                              |
| 74315            | 1 - 1.7                                     | 3,3                      | 0,046                                | 10                                                   | 1000                             |

### MECHANICAL CHARACTERISTICS / PINOUT :

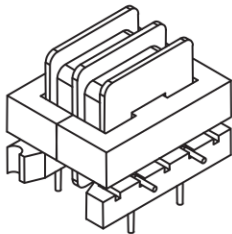


View from pin side  
PCB Drilling diameter 1.1 mm



- Ambient Temperature  $\leq 50^{\circ}\text{C}$
- Dielectric Strength  $\geq 1.5\text{ kV}$  between windings
- Electrical characteristics at  $25^{\circ}\text{C}$

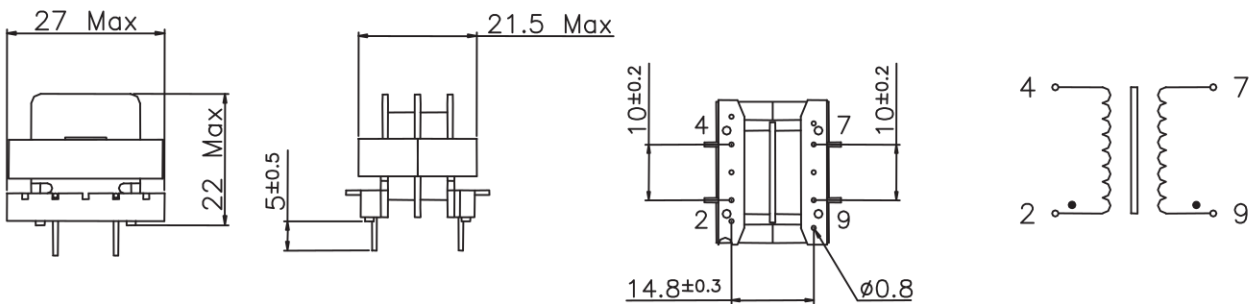
SIZE : E25



ELECTRICAL CHARACTERISTICS :

| MYRRA<br>Part N° | Inductance<br>Common Mode<br>min - max (mH) | Rated<br>Current<br>Arms | Resistance<br>per winding<br>ohm max | Inductance<br>Differential Mode<br>$\mu\text{H}$ min | Resonant<br>Frequency<br>kHz min |
|------------------|---------------------------------------------|--------------------------|--------------------------------------|------------------------------------------------------|----------------------------------|
| 74320            | 22 – 37                                     | 0,9                      | 0,54                                 | 130                                                  | 170                              |
| 74321            | 15 – 25                                     | 1,1                      | 0,35                                 | 90                                                   | 210                              |
| 74322            | 10 - 17                                     | 1,3                      | 0,22                                 | 50                                                   | 270                              |
| 74323            | 4.7 - 8                                     | 1,8                      | 0,105                                | 25                                                   | 400                              |
| 74324            | 2.2 - 3.7                                   | 2,7                      | 0,05                                 | 11                                                   | 630                              |
| 74325            | 1 - 1.7                                     | 4                        | 0,03                                 | 7                                                    | 950                              |

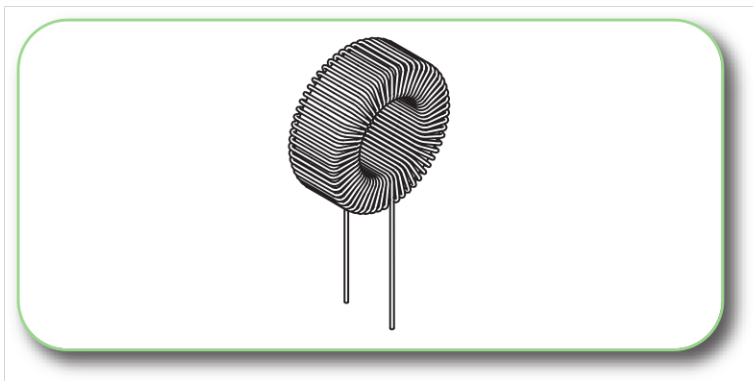
MECHANICAL CHARACTERISTICS / PINOUT :



View from pin side  
PCB Drilling diameter 1.2 mm



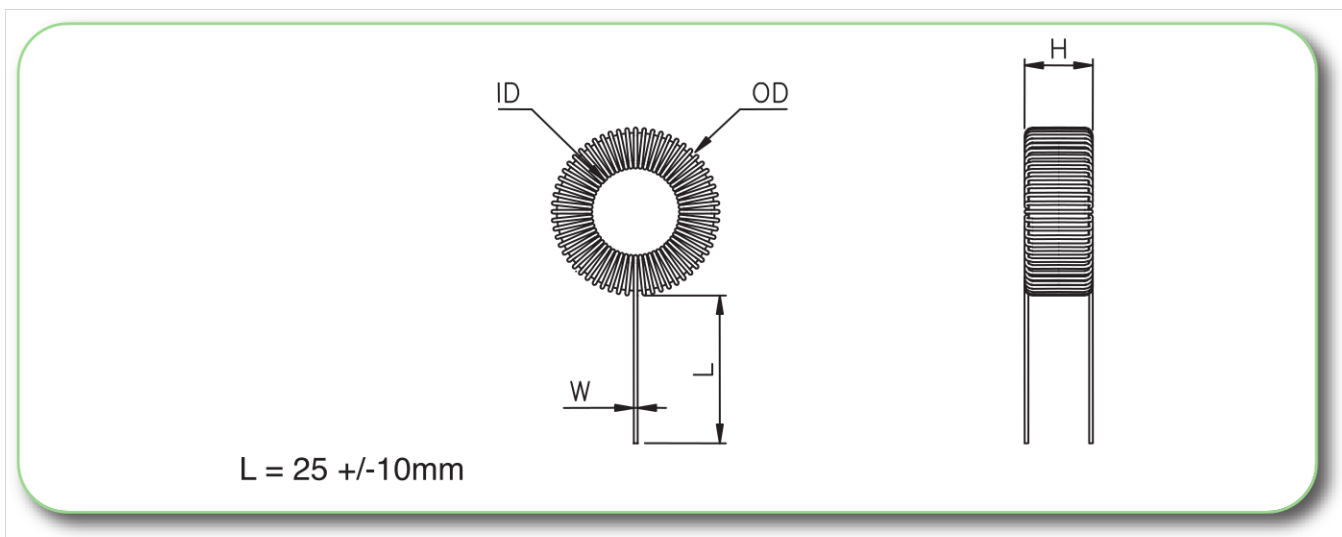
- For noise suppression in light dimmers
- Saturable chokes : provides a high impedance for Triac switching interferences, and a low impedance for 50Hz component.
- Electrical characteristics at 25 °



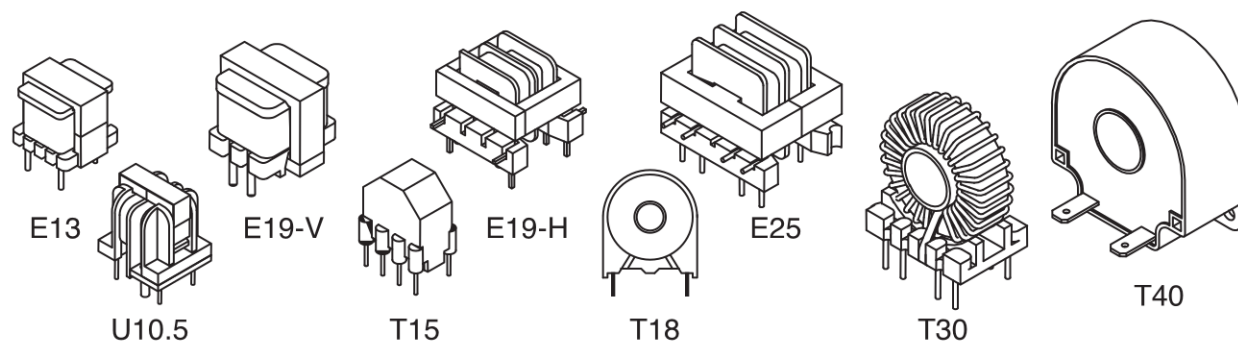
#### ELECTRICAL CHARACTERISTICS :

| MYRRA<br>Part N° | Power  | Inductance<br>+/- 15 % | Rated<br>Current | Resistance     | Associated<br>Capacitor | Dimensions (mm) |           |          |          | Approx.<br>Weight |
|------------------|--------|------------------------|------------------|----------------|-------------------------|-----------------|-----------|----------|----------|-------------------|
|                  |        |                        |                  |                |                         | OD<br>max       | ID<br>min | H<br>max | W<br>max |                   |
| <b>74190</b>     | 150 w  | 3.5 mH                 | 0.7 Arms         | 1.5 $\Omega$   | 22 nF                   | 24              | 9         | 9.5      | 0.5      | 13 g              |
| <b>74191</b>     | 300 w  | 2.8 mH                 | 1.3 Arms         | 0.73 $\Omega$  | 47 nF                   | 29              | 10        | 12       | 0.7      | 24 g              |
| <b>74192</b>     | 500 w  | 2.0 mH                 | 2.2 Arms         | 0.35 $\Omega$  | 82 nF                   | 32.5            | 9         | 16       | 0.9      | 47 g              |
| <b>74196</b>     | 500 w  | 1.8 mH                 | 2.2 Arms         | 0.37 $\Omega$  | 82 nF                   | 38              | 14        | 12       | 0.9      | 39 g              |
| <b>74193</b>     | 1000 w | 1.3 mH                 | 4.5 Arms         | 0.15 $\Omega$  | 220 nF                  | 44              | 14        | 16.5     | 1.2      | 80 g              |
| <b>74194</b>     | 2200 w | 450 $\mu$ H            | 10 Arms          | 0.04 $\Omega$  | 470 nF                  | 50              | 12        | 22.5     | 1.8      | 140 g             |
| <b>74195</b>     | 4500 w | 250 $\mu$ H            | 20 Arms          | 0.014 $\Omega$ | 1 $\mu$ F               | 58              | 10        | 28       | 2.5      | 250 g             |

#### MECHANICAL CHARACTERISTICS :







### • FOR MAINS AC CURRENT MEASUREMENT - 50 to 400 Hz

| MYRRA<br>Part N°                      | SIZE       | Ratio              | Current range         |
|---------------------------------------|------------|--------------------|-----------------------|
| <b>PIN PRIMARY - up to 25A</b>        |            |                    |                       |
| <b>74521</b>                          | Size E19-H | Ratio 1 / 1 / 750  | Current 10 A / 20 A   |
| <b>74523</b>                          | Size E19-V | Ratio 1 / 500      | Current 15 A          |
| <b>74531</b>                          | Size E25   | Ratio 1 / 1 / 1000 | Current 12.5 A / 25 A |
| <b>74533</b>                          | Size E25   | Ratio 1 / 1000     | Current 8 A           |
| <b>74534</b>                          | Size E25   | Ratio 1 / 350      | Current 4 A           |
| <b>74561</b>                          | Size U10.5 | Ratio 1 / 2000     | Current 8 A           |
| <b>THRU-HOLE PRIMARY - up to 250A</b> |            |                    |                       |
| <b>74503</b>                          | Size T18   | Ratio 1 / 1000     | Current 12 A          |
| <b>74504</b>                          | Size T18   | Ratio 1 / 750      | Current 10 A          |
| <b>74511</b>                          | Size T30   | Ratio 1 / 1000     | Current 60 A          |
| <b>74543, 74544, 74545</b>            | Size T40   | Ratio 1 / 500      | Current 100 A         |
| <b>74546, 74547, 74548</b>            | Size T40   | Ratio 1 / 1000     | Current 250 A         |

### • FOR SWITCH MODE POWER SUPPLIES - 20 to 150kHz

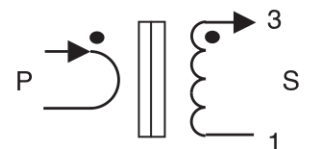
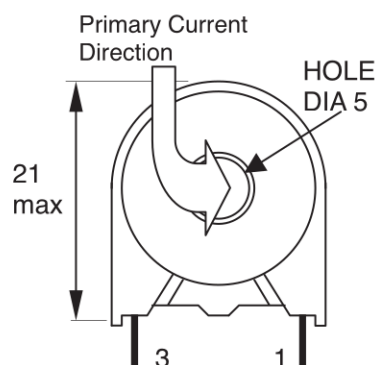
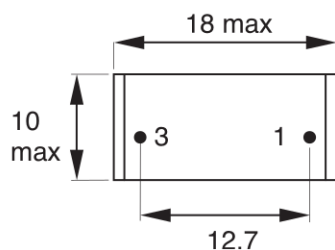
| MYRRA<br>Part N°                      | SIZE       | Ratio             | Current range         |
|---------------------------------------|------------|-------------------|-----------------------|
| <b>PIN PRIMARY - up to 25A</b>        |            |                   |                       |
| <b>74520</b>                          | Size E19-H | Ratio 1 / 1 / 100 | Current 10 A / 20 A   |
| <b>74530</b>                          | Size E25   | Ratio 1 / 1 / 100 | Current 12.5 A / 25 A |
| <b>74550</b>                          | Size E13   | Ratio 1 / 100     | Current 10 A          |
| <b>74560</b>                          | Size U10.5 | Ratio 1 / 100     | Current 10 A          |
| <b>74562</b>                          | Size U10.5 | Ratio 1 / 100     | Current 10 A          |
| <b>74570</b>                          | Size T15   | Ratio 1 / 1 / 50  | Current 10 A / 20 A   |
| <b>THRU-HOLE PRIMARY - up to 200A</b> |            |                   |                       |
| <b>74500</b>                          | Size T18   | Ratio 1 / 50      | Current 15 A          |
| <b>74501</b>                          | Size T18   | Ratio 1 / 100     | Current 25 A          |
| <b>74502</b>                          | Size T18   | Ratio 1 / 200     | Current 25 A          |
| <b>74510</b>                          | Size T30   | Ratio 1 / 100     | Current 150 A         |
| <b>74540, 74541, 74542</b>            | Size T40   | Ratio 1 / 100     | Current 200 A         |

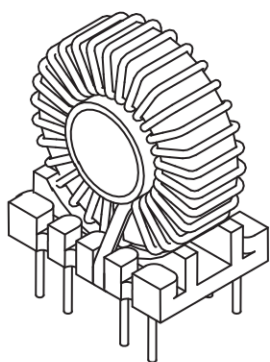


| MYRRA<br>Part N° | Sec.<br>Turns | Max Pri.<br>Current<br>A rms | Rsec.<br>$\Omega$<br>max | Lsec.<br>mH<br>min | Pulse<br>Vsec x t max<br>@ Frequency | Sine<br>Vsec max<br>@ Frequency      | Typical Load/<br>Accuracy/ Current                          |
|------------------|---------------|------------------------------|--------------------------|--------------------|--------------------------------------|--------------------------------------|-------------------------------------------------------------|
| <b>74500</b>     | 50            | 15 A                         | 0.6 $\Omega$             | 5                  | 175 V. $\mu$ S<br>20 – 200 kHz       | 15 V<br>20 – 200 kHz                 | 50 $\Omega$ / 1% / 15 A                                     |
| <b>74501</b>     | 100           | 25 A                         | 1.5 $\Omega$             | 20                 | 350 V. $\mu$ S<br>20 – 100 kHz       | 25 V<br>20 – 100 kHz                 | 100 $\Omega$ / 1% / 25 A                                    |
| <b>74502</b>     | 200           | 25 A                         | 5 $\Omega$               | 80                 | 700 V. $\mu$ S<br>20 – 100 kHz       | 50 V<br>20 – 100 kHz                 | 200 $\Omega$ / 1% / 25 A                                    |
| <b>74503</b>     | 1000          | 12 A                         | 45 $\Omega$              | 2000               | 2.5 V.ms<br>50 Hz                    | 0.15V/ 50 Hz/ 12A<br>0.6V/ 50 Hz/ 8A | $\leq 10 \Omega$ / 2% / 12 A<br>$\leq 40 \Omega$ / 2% / 8 A |
| <b>74504</b>     | 750           | 10 A                         | 35 $\Omega$              | 1100               | 2.0 V.ms<br>50 Hz                    | 0.13V/ 50 Hz/ 10A<br>0.3V/ 50 Hz/ 5A | $\leq 10 \Omega$ / 2% / 10 A<br>$\leq 40 \Omega$ / 2% / 5 A |

Data applies for one primary turn (single passage of primary wire through toroid hole).  
Sensitivity can be increased for lower currents by winding more than one turn.

**74500 / 74501 / 74502  
74503 / 74504**





| MYRRA<br>Part N° | Sec.<br>Turns | Max Pri.<br>Current<br>A rms | Rsec.<br>$\Omega$<br>max | Lsec.<br>mH<br>min | Pulse<br>Vsec x t max<br>@ Frequency        | Sine<br>Vsec max<br>@ Frequency        | Typical Load/<br>Accuracy/ Current                           |
|------------------|---------------|------------------------------|--------------------------|--------------------|---------------------------------------------|----------------------------------------|--------------------------------------------------------------|
| <b>74510</b>     | 100           | 150 A                        | 0.25 $\Omega$            | 40                 | 1 V.ms/ 20 kHz<br>700 V $\mu$ s/<br>100 kHz | 50 V/ 20 kHz<br>80 V/ 100 kHz          | 1 - 20 $\Omega$ / 1%                                         |
| <b>74511</b>     | 1000          | 60 A                         | 32 $\Omega$              | 4000               | 10 V.ms/ 50 Hz                              | 0.6 V/ 50 Hz/ 60 A<br>1 V/ 50 Hz/ 40 A | $\leq 10 \Omega$ / 1% / 60 A<br>$\leq 20 \Omega$ / 1% / 40 A |

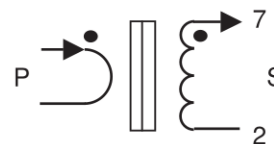
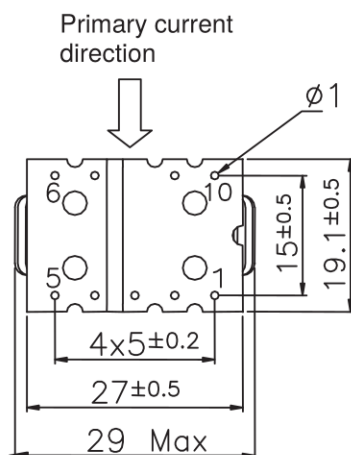
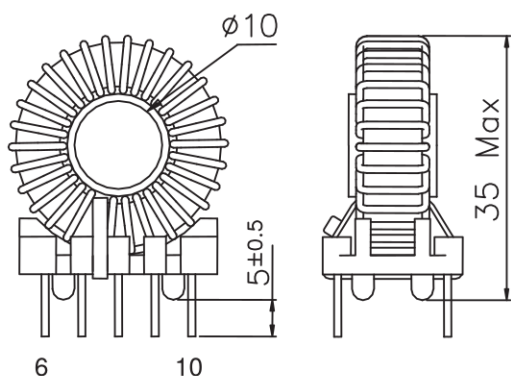
Data applies for one primary turn (single passage of primary wire through toroid hole).

Sensitivity can be increased for lower currents by winding more than one turn.

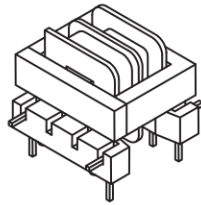
Models with 50, 100, 200 turns are designed for switch-mode power conversion (up to 200 kHz).

Models with 500 and 1000 turns are designed for Mains current measurement (50 to 400 Hz).

#### 74510/ 74511



Pin 8 removed  
for locating


**FOR SWITCH MODE POWER SUPPLIES - 20 to 150 kHz**

| MYRRA<br>Part N° | Ratio   | Max Pri.<br>Current<br>A rms | Rsec.<br>$\Omega$<br>max | Lsec.<br>mH<br>min | Pulse<br>Vsec x t<br>max | Sine<br>Vsec<br>rms max | Typical Load/<br>Accuracy/ Current | Insulation<br>Voltage<br>P/ S |
|------------------|---------|------------------------------|--------------------------|--------------------|--------------------------|-------------------------|------------------------------------|-------------------------------|
| <b>74520</b>     | 1/1/100 | 20 A parallel<br>10 A serie  | 1.5                      | 8                  | 400 V. $\mu$ s           | 50 Vrms                 | 10 – 100 $\Omega$ / 1% / 10 A      | 2500 V                        |

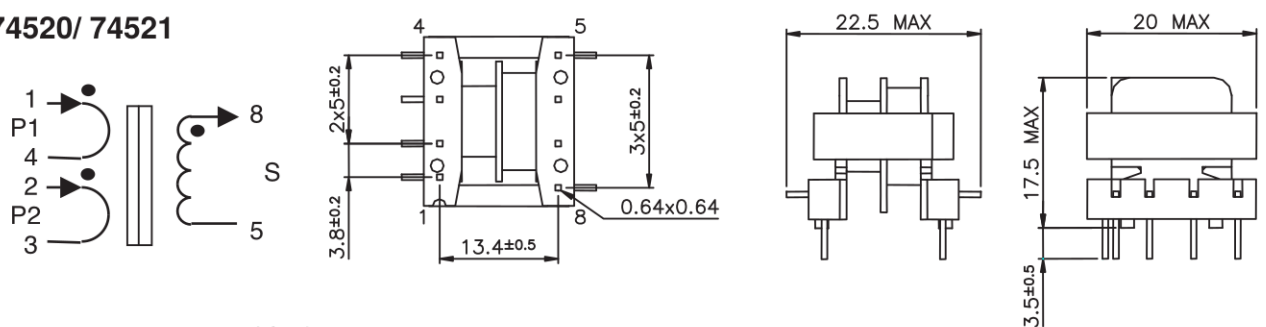
**FOR MAINS AC CURRENT MEASUREMENT - 50 to 400 Hz**

| MYRRA<br>Part N° | Ratio   | Max Pri.<br>Current<br>A rms | Rsec.<br>$\Omega$<br>max | Lsec.<br>mH<br>min | Pulse<br>Vsec x t<br>max | Sine<br>Vsec<br>rms max | Typical Load/<br>Accuracy/ Current | Insulation<br>Voltage<br>P/ S |
|------------------|---------|------------------------------|--------------------------|--------------------|--------------------------|-------------------------|------------------------------------|-------------------------------|
| <b>74521</b>     | 1/1/750 | 20 A parallel<br>10 A serie  | 57                       | 300                | 15 V.ms                  | 3 Vrms                  | $\leq 75 \Omega$ / 4% / 20 A       | 2500 V                        |

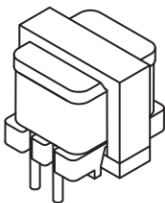
**SAFETY :**

These products are only composed of UL approved materials.

These products have a construction conform to CEI950, CEI335, CEI61558 for Basic insulation (3 mm creepage distance)

**74520/ 74521**


Pins 6 & 7 removed for locating  
PCB drill @ Ø 1.3 mm

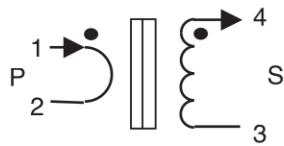


| FOR MAINS AC CURRENT MEASUREMENT - 50 to 400 Hz |        |                              |                   |                    |                          |                         |                                           |                               |
|-------------------------------------------------|--------|------------------------------|-------------------|--------------------|--------------------------|-------------------------|-------------------------------------------|-------------------------------|
| MYRRA<br>Part N°                                | Ratio  | Max Pri.<br>Current<br>A rms | Rsec.<br>Ω<br>max | Lsec.<br>mH<br>min | Pulse<br>Vsec x t<br>max | Sine<br>Vsec<br>rms max | Typical Load/<br>Accuracy/ Current        | Insulation<br>Voltage<br>P/ S |
| 74523                                           | 1/ 500 | 15 A                         | 155               | 670                | 30 V.ms                  | 6 Vrms                  | ≤ 50 Ω / 2% / 15 A<br>≤ 200 Ω / 5% / 10 A | 1500 V                        |

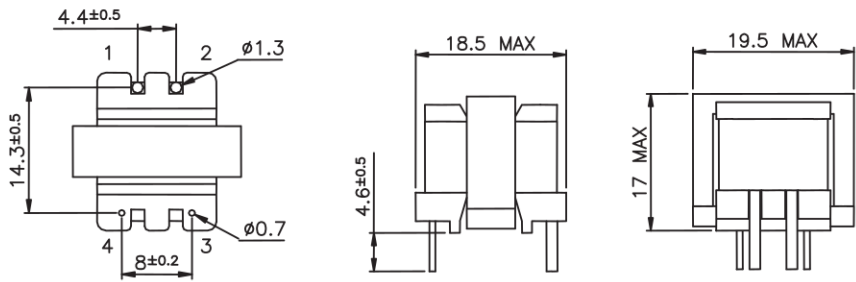
SAFETY :

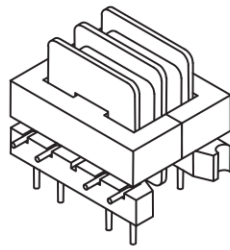
This product is only composed of UL approved materials.  
This product has a construction conform to CEI950, CEI335, CEI61558 for Functional insulation

74523



Pins 6 & 7 removed for locating  
PCB drill @ Ø 1.2 & 1.8 mm




**FOR SWITCH MODE POWER SUPPLIES - 20 to 150 kHz**

| MYRRA<br>Part N° | Ratio   | Max Pri.<br>Current<br>A rms  | Rsec.<br>$\Omega$<br>max | Lsec.<br>mH<br>min | Pulse<br>Vsec x t<br>max | Sine<br>Vsec<br>rms max | Typical Load/<br>Accuracy/ Current | Insulation<br>Voltage<br>P/ S |
|------------------|---------|-------------------------------|--------------------------|--------------------|--------------------------|-------------------------|------------------------------------|-------------------------------|
| <b>74530</b>     | 1/1/100 | 25 A parallel<br>12.5 A serie | 1                        | 10                 | 600 V.µs                 | 80 Vrms                 | 10 - 100 $\Omega$ / 1% / 25 A      | 2500 V                        |

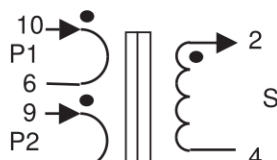
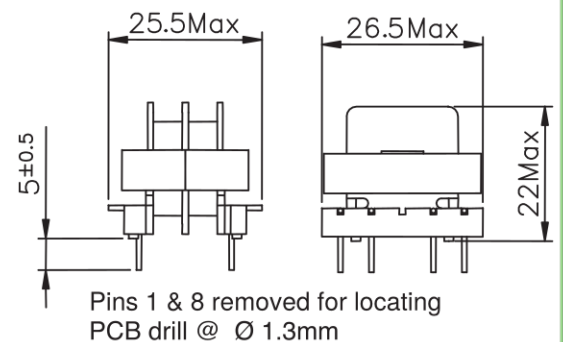
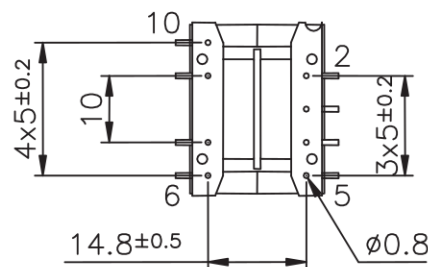
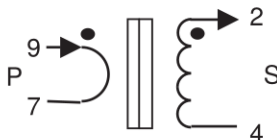
**FOR MAINS AC CURRENT MEASUREMENT - 50 to 400 Hz**

| MYRRA<br>Part N° | Ratio    | Max Pri.<br>Current<br>A rms  | Rsec.<br>$\Omega$<br>max | Lsec.<br>mH<br>min | Pulse<br>Vsec x t<br>max | Sine<br>Vsec<br>rms max | Typical Load/<br>Accuracy/ Current                             | Insulation<br>Voltage<br>P/ S |
|------------------|----------|-------------------------------|--------------------------|--------------------|--------------------------|-------------------------|----------------------------------------------------------------|-------------------------------|
| <b>74531</b>     | 1/1/1000 | 25 A parallel<br>12.5 A serie | 90                       | 4 H                | 8 V.ms                   | 1.6 Vrms                | $\leq 50 \Omega$ / 2% / 20 A                                   | 2500 V                        |
| <b>74533</b>     | 1/ 1000  | 8 A                           | 360                      | 17 H               | 15 V.ms                  | 3 Vrms                  | $\leq 200 \Omega$ / 1% / 8 A<br>$\leq 500 \Omega$ / 1.5% / 5 A | 2500 V                        |
| <b>74534</b>     | 1/ 350   | 4 A                           | 380                      | 19 H               | 15 V.ms                  | 3 Vrms                  | $\leq 100 \Omega$ / 1% / 4 A<br>$\leq 500 \Omega$ / 1% / 2 A   | 2500 V                        |

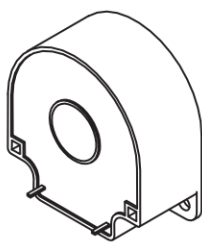
**SAFETY :**

These products are only composed of UL approved materials.

These products have a construction conform to CEI950, CEI335, CEI61558 for Basic insulation (3 mm creepage distance)

**74530/ 74531**

**74533/ 74534**


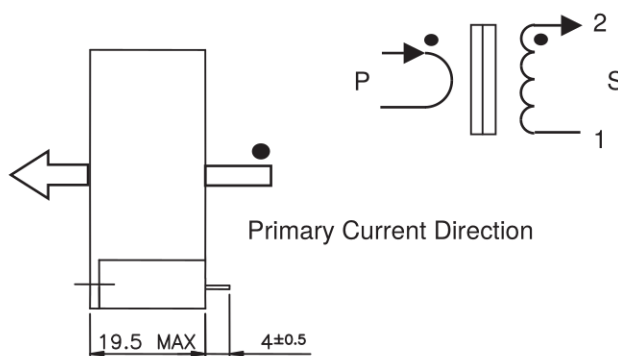
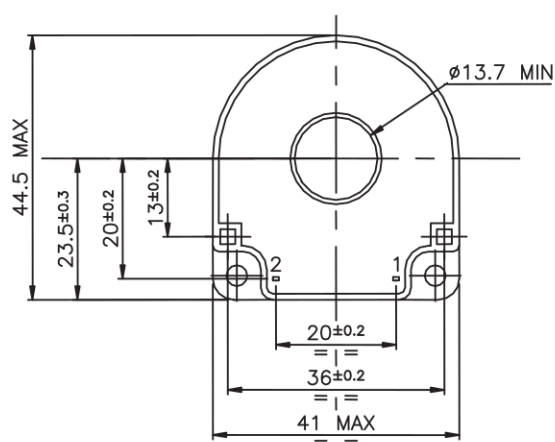


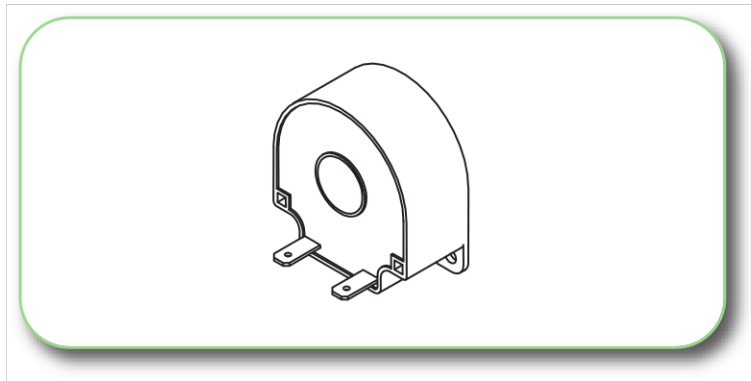


| MYRRA<br>Part N° | Sec.<br>Turns | Max Pri.<br>Current<br>A rms | Rsec.<br>$\Omega$<br>max | Lsec.<br>mH<br>min | Pulse<br>Vsec x t max<br>@ Frequency | Sine<br>Vsec max<br>@ Frequency         | Typical Load/<br>Accuracy/ Current                           |
|------------------|---------------|------------------------------|--------------------------|--------------------|--------------------------------------|-----------------------------------------|--------------------------------------------------------------|
| <b>74540</b>     | 100           | 200 A                        | 0.35 $\Omega$            | 50                 | 2 V.ms/ 20 kHz<br>1 V.ms/ 100 kHz    | 150 V/ 20 kHz<br>150 V/ 100 kHz         | 1..20 $\Omega$ / 1%                                          |
| <b>74543</b>     | 500           | 100 A                        | 6.5 $\Omega$             | 1250               | 10 V.ms/ 50 Hz                       | 0.7 V/ 50Hz/ 100 A<br>1.2 V/ 50Hz/ 60 A | $\leq 3 \Omega$ / 1% / 100 A<br>$\leq 10 \Omega$ / 1% / 60 A |
| <b>74546</b>     | 1000          | 250 A                        | 22 $\Omega$              | 8000               | 100 V.ms/ 50 Hz                      | 15 V/ 50 Hz/ 250 A                      | $\leq 50 \Omega$ / 1% / 250 A                                |

Data applies for one primary turn (single passage of primary wire through toroid hole).  
Sensitivity can be increased for lower currents by winding more than one turn.

#### 74540/ 74543/ 74546 Pin type (for PCB) $\square$ 0.6 x 0.95

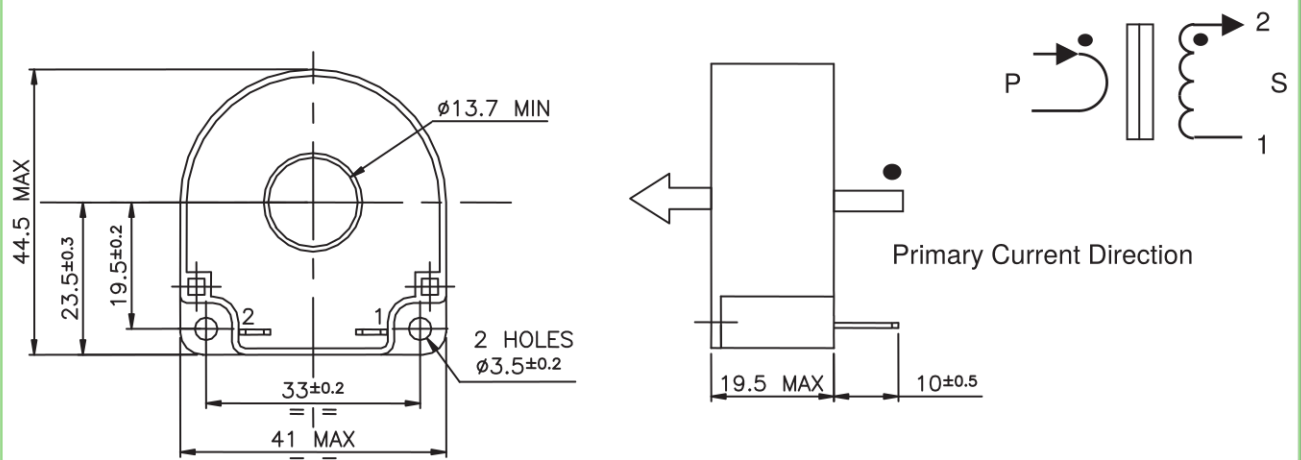




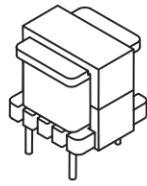
| MYRRA<br>Part N° | Sec.<br>Turns | Max Pri.<br>Current<br>A rms | Rsec.<br>$\Omega$<br>max | Lsec.<br>mH<br>min | Pulse<br>Vsec x t max<br>@ Frequency | Sine<br>Vsec max<br>@ Frequency         | Typical Load/<br>Accuracy/ Current                           |
|------------------|---------------|------------------------------|--------------------------|--------------------|--------------------------------------|-----------------------------------------|--------------------------------------------------------------|
| <b>74541</b>     | 100           | 200 A                        | 0.35 $\Omega$            | 50                 | 2 V.ms/ 20 kHz<br>1 V.ms/ 100 kHz    | 150 V/ 20 kHz<br>150 V/ 100 kHz         | 1..20 $\Omega$ / 1%                                          |
| <b>74544</b>     | 500           | 100 A                        | 6.5 $\Omega$             | 1250               | 10 V.ms/ 50 Hz                       | 0.7 V/ 50Hz/ 100 A<br>1.2 V/ 50Hz/ 60 A | $\leq 3 \Omega$ / 1% / 100 A<br>$\leq 10 \Omega$ / 1% / 60 A |
| <b>74547</b>     | 1000          | 250 A                        | 22 $\Omega$              | 8000               | 100 V.ms/ 50 Hz                      | 15 V/ 50 Hz/ 250 A                      | $\leq 50 \Omega$ / 1% / 250 A                                |

Data applies for one primary turn (single passage of primary wire through toroid hole).  
Sensitivity can be increased for lower currents by winding more than one turn.

#### 74541/ 74544/ 74547 FASTON Connectors (4.8 x 0.8)





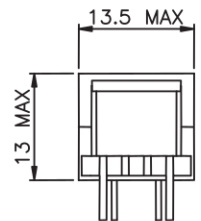
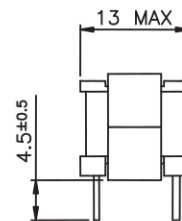
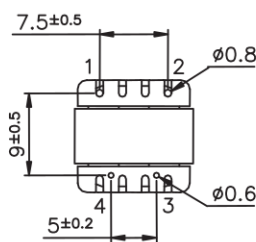
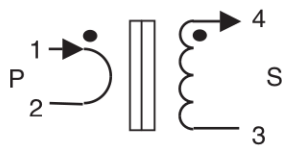

**FOR SWITCH MODE POWER SUPPLIES - 20 to 150 kHz**

| MYRRA<br>Part N° | Ratio  | Max Pri.<br>Current<br>A rms | Rsec.<br>$\Omega$<br>max | Lsec.<br>mH<br>min | Pulse<br>Vsec x t<br>max | Sine<br>Vsec<br>rms max | Typical Load/<br>Accuracy/ Current | Insulation<br>Voltage<br>P/ S |
|------------------|--------|------------------------------|--------------------------|--------------------|--------------------------|-------------------------|------------------------------------|-------------------------------|
| <b>74550</b>     | 1/ 100 | 10                           | 2.3                      | 6                  | 250 V.μs                 | 40 Vrms                 | 10 – 100 $\Omega$ / 1% / 10 A      | 1500 V                        |

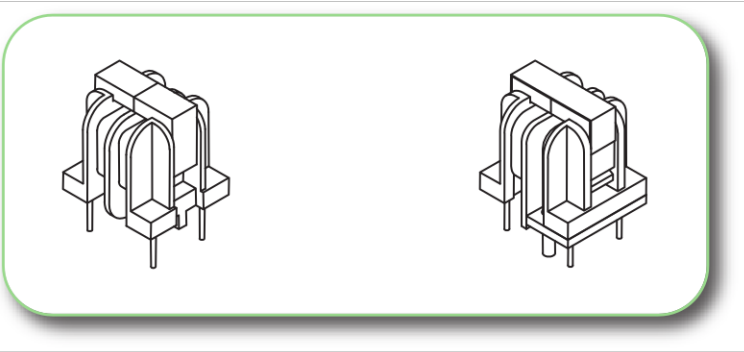
**SAFETY :**

This product is only composed of UL approved materials.

This product has a construction conform to CEI950, CEI335, CEI61558 for functional insulation

**74550**


PCB drill @ Ø 1 & 1.3 mm



| FOR SWITCH MODE POWER SUPPLIES - 20 to 150 kHz |        |                        |             |              |                    |                   |                                 |                         |
|------------------------------------------------|--------|------------------------|-------------|--------------|--------------------|-------------------|---------------------------------|-------------------------|
| MYRRA Part N°                                  | Ratio  | Max Pri. Current A rms | Rsec. Ω max | Lsec. mH min | Pulse Vsec x t max | Sine Vsec rms max | Typical Load/ Accuracy/ Current | Insulation Voltage P/ S |
| 74560                                          | 1/ 100 | 10                     | 1.1         | 12           | 300 V.µs           | 25 Vrms           | 5 – 50 Ω / 1% / 10 A            | 4000 V                  |
| 74562                                          | 1/ 100 | 25                     | 1.1         | 12           | 300 V.µs           | 25 Vrms           | 5 – 50 Ω / 1% / 25 A            | 4000 V                  |

| FOR MAINS AC CURRENT MEASUREMENT - 50 to 400 Hz |         |                        |             |              |                    |                   |                                 |                         |
|-------------------------------------------------|---------|------------------------|-------------|--------------|--------------------|-------------------|---------------------------------|-------------------------|
| MYRRA Part N°                                   | Ratio   | Max Pri. Current A rms | Rsec. Ω max | Lsec. mH min | Pulse Vsec x t max | Sine Vsec rms max | Typical Load/ Accuracy/ Current | Insulation Voltage P/ S |
| 74561                                           | 1/ 2000 | 8 A                    | 400         | 4.5 H        | 5 V.ms             | 1 Vrms            | ≤ 100 Ω / 2% / 6 A              | 4000 V                  |

**SAFETY :**

These products are only composed of UL approved materials.  
These products have a construction conform to CEI950, CEI335, CEI61558 for Reinforced insulation  
74560, 74561 : 8 mm creepage distance  
74562 : 6 mm creepage distance

**74560/ 74561**

PCB drill @ Ø 1.1 & 2.2 mm

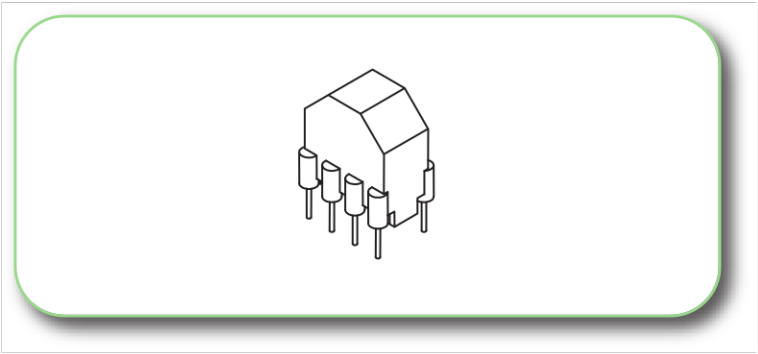
**74562**

PCB drill @ Ø 1.1 & 2.2 mm

HIGH FREQUENCY FERRITE  
CURRENT TRANSFORMERS RANGE

**myrra**  
a discoverIE group company

67

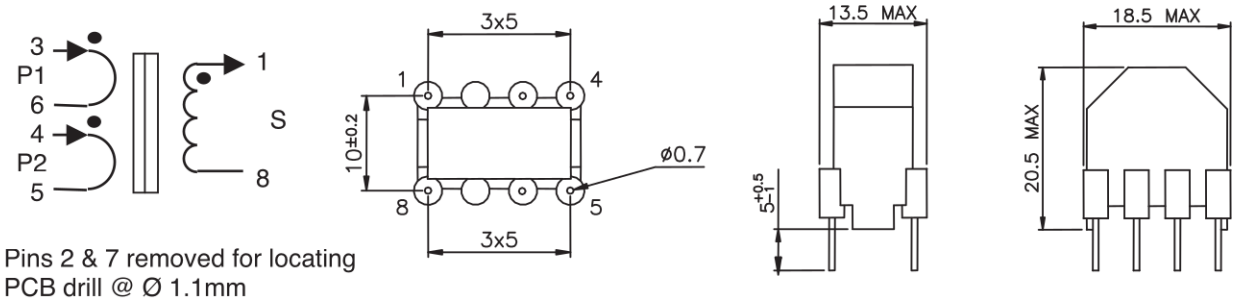


| FOR SWITCH MODE POWER SUPPLIES - 20 to 150 kHz |        |                              |                   |                    |                          |                         |                                    |                               |
|------------------------------------------------|--------|------------------------------|-------------------|--------------------|--------------------------|-------------------------|------------------------------------|-------------------------------|
| MYRRA<br>Part N°                               | Ratio  | Max Pri.<br>Current<br>A rms | Rsec.<br>Ω<br>max | Lsec.<br>mH<br>min | Pulse<br>Vsec x t<br>max | Sine<br>Vsec<br>rms max | Typical Load/<br>Accuracy/ Current | Insulation<br>Voltage<br>P/ S |
| 74570                                          | 1/1/50 | 20 A parallel<br>10 A serie  | 0.32              | 9                  | 150 V.µs                 | 12 Vrms                 | 5 – 25 Ω / 1% / 20 A               | 4000 V                        |

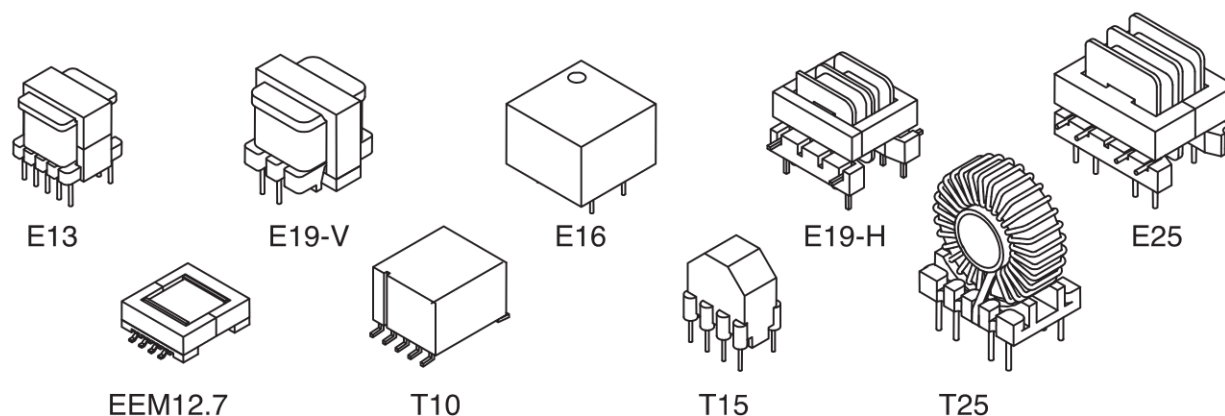
**SAFETY :**

This product is only composed of UL approved materials.  
This product has a construction conform to CEI950, CEI335, CEI61558 for Reinforced insulation (8 mm creepage distance)

**74570**

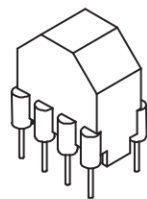
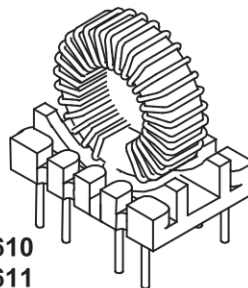






To be used for MOSFET or IGBT Drive, SCR triggering, DC/DC power conversion, Voltage isolation.

| MYRRA<br>Part N° | SIZE         | Ratio             |                           |
|------------------|--------------|-------------------|---------------------------|
| <b>74600</b>     | Size T15     | Ratio 1 / 1 / 1   | Low stray inductance      |
| <b>74610</b>     | Size T25     | Ratio 1 / 1 / 1   | Low stray inductance      |
| <b>74611</b>     | Size T25     | Ratio 1 / 1 / 1   | Low stray inductance      |
| <b>74620</b>     | Size E19-H   | Ratio 1 / 1 / 1   | Low coupling capacitance  |
| <b>74621</b>     | Size E19-H   | Ratio 3 / 1 / 1   | Low coupling capacitance  |
| <b>74630</b>     | Size E25     | Ratio 1 / 1 / 1   | Low coupling capacitance  |
| <b>74631</b>     | Size E25     | Ratio 3 / 1 / 1   | Low coupling capacitance  |
| <b>74640</b>     | Size E19-V   | Ratio 1 / 5       | For voltage step-up       |
| <b>74641</b>     | Size E19-V   | Ratio 1 / 10      | For voltage step-up       |
| <b>74650</b>     | Size E13     | Ratio 1 / 1 / 1   | Small size                |
| <b>74710</b>     | Size E16     | Ratio 1 / 1       | Low coupling capacitance  |
| <b>74660</b>     | Size EEM12.7 | Ratio 1CT / 1.3CT | SMD                       |
| <b>74661</b>     | Size EEM12.7 | Ratio 1CT / 1CT   | SMD, for DC/DC converter  |
| <b>74670</b>     | Size T10     | Ratio 1CT / 1.3   | SMD, Low stray inductance |

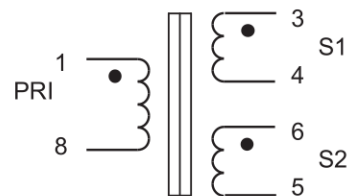
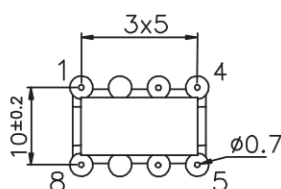
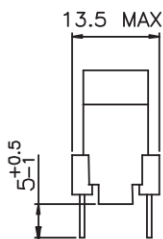
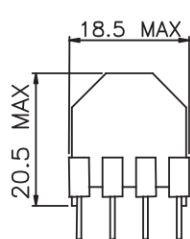
**74600****74610  
74611**

| MYRRA<br>Part N° | Ratio<br>P/S1/S2 | L pri.<br>+/-30% | Current<br>/ winding<br>Arms max | Resistance<br>/ winding<br>$\Omega$ max | Pulse<br>E x t<br>V, $\mu$ s max | square<br>V / kHz<br>max | C<br>P/S<br>pF max | Lleak<br>P/S<br>$\mu$ H max | Insulation<br>Voltage |       |
|------------------|------------------|------------------|----------------------------------|-----------------------------------------|----------------------------------|--------------------------|--------------------|-----------------------------|-----------------------|-------|
|                  |                  |                  |                                  |                                         |                                  |                          |                    |                             | P/S                   | S1/S2 |
| <b>74600</b>     | 1 / 1 / 1        | 4 – 8            | 0.6                              | 0.35                                    | 150 V, $\mu$ s                   | 0.4                      | 120 pF             | 1.0 $\mu$ H                 | 4 kV                  | 4 kV  |
| <b>74610</b>     | 1 / 1 / 1        | 0.6 – 1.2        | 1.7                              | 0.07                                    | 150 V, $\mu$ s                   | 0.4                      | 35 pF              | 0.6 $\mu$ H                 | 4 kV                  | 4 kV  |
| <b>74611</b>     | 1 / 1 / 1        | 2.5 - 5          | 1.2                              | 0.14                                    | 300 V, $\mu$ s                   | 0.8                      | 90 pF              | 1.2 $\mu$ H                 | 4 kV                  | 4 kV  |

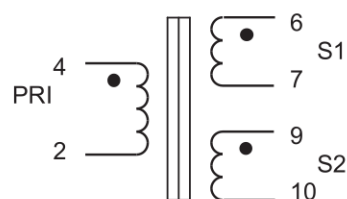
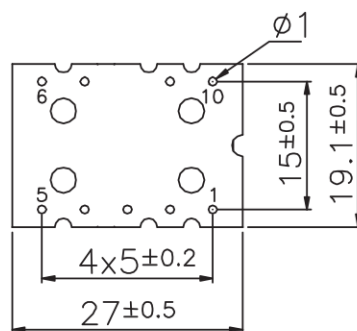
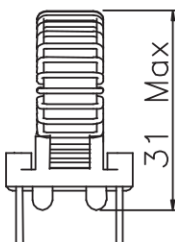
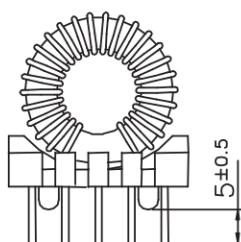
- Toroid core gives best coupling, lowest leakage inductance, fast rise time.
- Pulse (E.t rating) is given for bipolar (symmetrical) pulse. Value is reduced for unipolar pulse.

**SAFETY :**

- These products are only composed of UL-V0 approved materials.
- Insulation test voltage : 4000 Vrms
- This product has a construction conform to CEI950, CEI335, CEI61558 for Reinforced insulation (8 mm creepage distance)

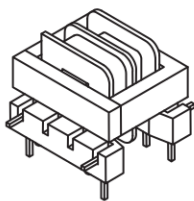
**74600 Size T15**

Pins 2 &amp; 7 removed for locating

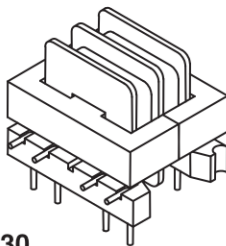
PCB drill @  $\varnothing$  1.1mmWeight  $\approx$  6 g**74610 - 74611 Size T25**

Pin 8 removed for locating

PCB drill @  $\varnothing$  1.3mmWeight  $\approx$  18 g



74620  
74621



74630  
74631

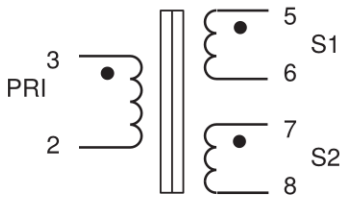
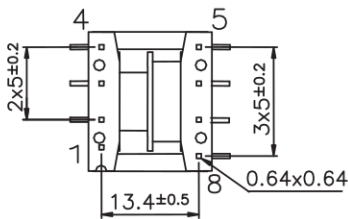
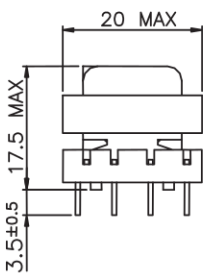
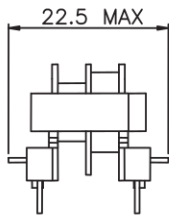
| MYRRA<br>Part N° | Ratio<br>P/S1/S2 | L pri.<br>+/-30% | Current<br>/ winding<br>Arms max | Resistance<br>/ winding<br>Ω max | Pulse<br>E x t<br>V,μs max | square<br>V / kHz<br>max | C<br>P/S<br>pF max | Lleak<br>P/S<br>μH max | Insulation<br>Voltage |        |
|------------------|------------------|------------------|----------------------------------|----------------------------------|----------------------------|--------------------------|--------------------|------------------------|-----------------------|--------|
|                  |                  |                  |                                  |                                  |                            |                          |                    |                        | P/ S                  | S1/S2  |
| 74620            | 1 / 1 / 1        | 3.2 mH           | 0.5                              | 1.0                              | 350 V,μs                   | 0.6                      | 5 pF               | 70 μH                  | 2.5 kV                | 1.5 kV |
| 74621            | 3 / 1 / 1        | 17 mH            | 0.3                              | 2.0                              | 800 V,μs                   | 1.5                      | 5 pF               | 400 μH                 | 2.5 kV                | 1.5 kV |
| 74630            | 1 / 1 / 1        | 2 mH             | 1                                | 0.4                              | 500 V,μs                   | 0.8                      | 7 pF               | 60 μH                  | 2.5 kV                | 1.5 kV |
| 74631            | 3 / 1 / 1        | 10 mH            | 0.45                             | 0.8                              | 1000 V,μs                  | 1.7                      | 7 pF               | 300 μH                 | 2.5 kV                | 1.5 kV |

- Principally dedicated to SCR triggering
- Designed for minimum coupling capacitance

**SAFETY :**

These products are only composed of UL-V0 approved materials.

**74620 - 74621    Size E19-H**

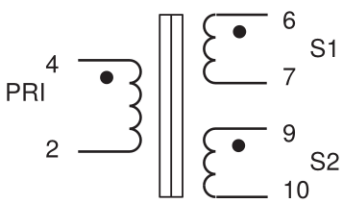
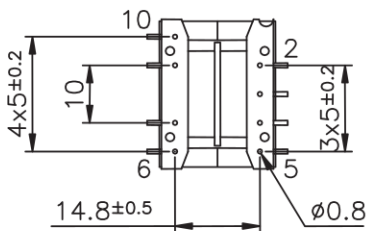
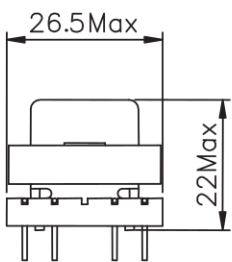
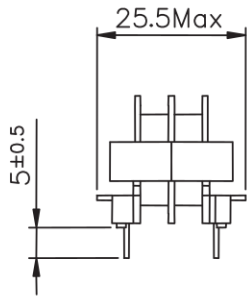


Pin 1 removed for locating

PCB drill @ Ø 1.3mm

Weight ≈ 12 g

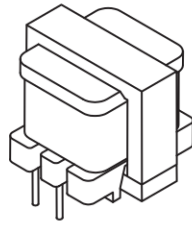
**74630 – 74631    Size E25**



Pins 1 & 8 removed for locating

PCB drill @ Ø 1.3mm

Weight ≈ 20 g

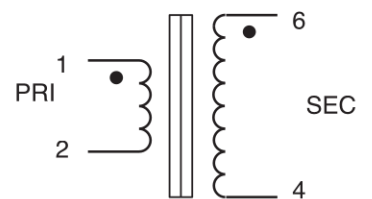
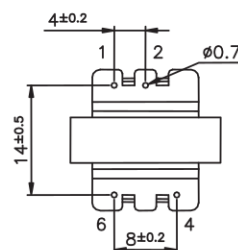
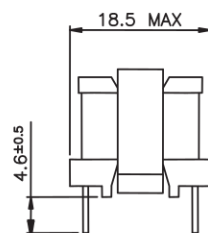
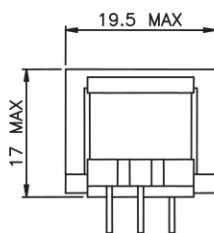


| MYRRA<br>Part N° | Ratio<br>P/S | L pri.<br>+/-30% | Current<br>Arms max     | Resistance<br>$\Omega$ max     | Pulse<br>Vsec . t<br>max | Sine<br>Vsec.<br>max               | Insulation<br>Voltage P/S |
|------------------|--------------|------------------|-------------------------|--------------------------------|--------------------------|------------------------------------|---------------------------|
| <b>74640</b>     | 1 / 5        | 11 mH            | Pri : 0.5<br>Sec : 0.1  | Pri : 1.0<br>Sec : 31          | 16 V.ms                  | 4 Vrms / 50 Hz<br>50 Vrms / 5 kHz  | 1500                      |
| <b>74641</b>     | 1 / 10       | 11 mH            | Pri : 0.4<br>Sec : 0.04 | Pri : 1.8<br>Sec : 80 $\Omega$ | 33 V.ms                  | 8 Vrms / 50 Hz<br>100 Vrms / 5 kHz | 1500                      |

### SAFETY :

- These products are only composed of UL-V0 approved materials.

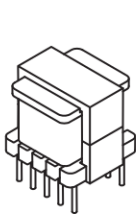
#### 74640-74641 Size E19-V



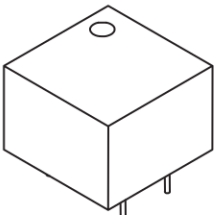
Pins 3 & 5 removed for locating

PCB drill @ Ø 1.1mm

Weight ≈ 14 g



74650



74710

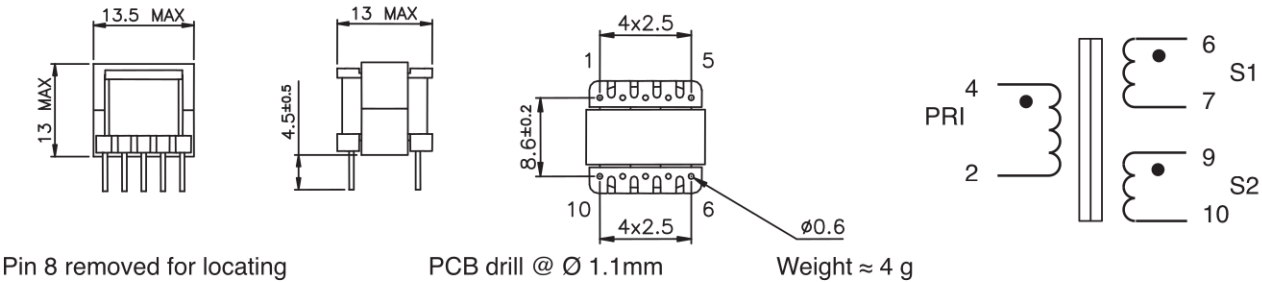
| MYRRA<br>Part N° | Ratio<br>P/S1/S2 | L pri.           | Current<br>/ winding<br>Arms max | Resistance<br>/ winding<br>Ω max | Pulse<br>Ext<br>V.µs max | square<br>V / kHz<br>max | C<br>P/S<br>pF max | Lleak<br>P/S<br>µH max | Insulation<br>Voltage |        |
|------------------|------------------|------------------|----------------------------------|----------------------------------|--------------------------|--------------------------|--------------------|------------------------|-----------------------|--------|
|                  |                  |                  |                                  |                                  |                          |                          |                    |                        | P/S                   | S1/S2  |
| 74650            | 1 / 1 / 1        | 500 µH<br>+/-30% | 0.6                              | 0.28                             | 120 V.µs                 | 20V/ 100kHz              | 12 pF              | 2 µH                   | 1.5 kV                | 1.5 kV |
| 74710            | 1 / 1            | 2 mH<br>+/-40%   | 0.6                              | 0.6                              | 300 V.µs                 | 50V/ 100kHz              | 6 pF               | 44 µH                  | 4 kV                  |        |

- 74650 is principally designed for Mosfet drive in SMPS (Forward or Bridge converters)
- 74710 is principally designed for SCR Triggering

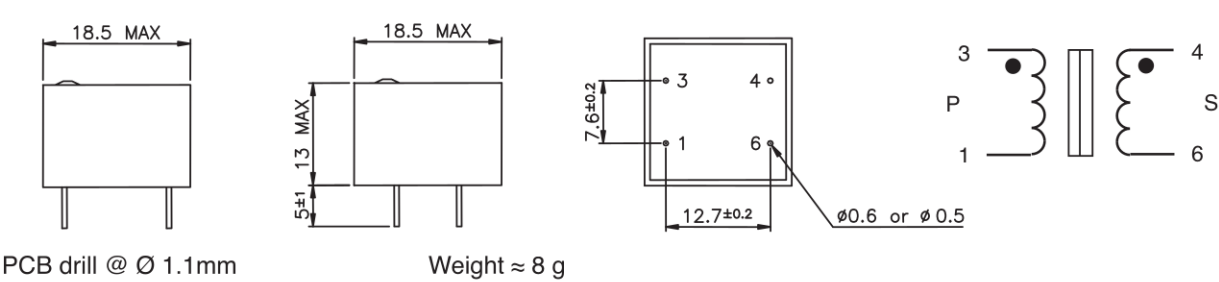
**SAFETY :**

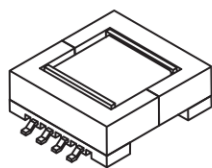
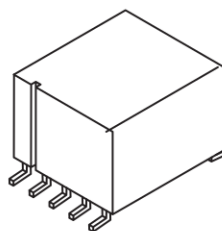
These products are only composed of UL-V0 approved materials.  
The product 74710 has a construction conform to CEI950, CEI335, CEI61558 for Reinforced insulation (8 mm creepage distance)

**74650    Size E13**



**74710    Size E16**



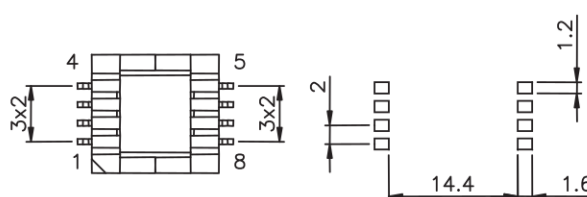
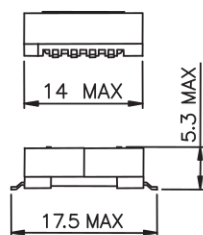
**74660 - 74661****74670**

| MYRRA<br>Part N° | Ratio<br>P/S     | L pri.           | Current<br>/ winding<br>max | Resistance<br>/ winding<br>Ω max | Pulse<br>Ex t max<br>P1 or P2 | square<br>V / kHz max<br>P1 or P2 | C<br>P/S<br>pF max | Lleak<br>P/S<br>max | Insulation<br>Voltage |
|------------------|------------------|------------------|-----------------------------|----------------------------------|-------------------------------|-----------------------------------|--------------------|---------------------|-----------------------|
|                  |                  |                  |                             |                                  |                               |                                   |                    |                     | P/ S                  |
| <b>74660</b>     | 1+1 /<br>1.3+1.3 | 240 μH<br>+/-30% | 0.2 Arms                    | 0.9                              | 50 V.μs                       | 15V<br>100 – 500kHz               | 20 pF              | 0.35 μH             | 0.5 kV                |
| <b>74661</b>     | 1+1 /<br>1+1     | 10 μH<br>+/-10%  | 3 Apeak<br>0.5 Arms         | 0.2                              | 30 V.μs                       | 0.05 V / kHz<br>100 – 400kHz      | 20 pF              | 0.2 μH              | 0.5 kV                |
| <b>74670</b>     | 1+1 /1.3         | 220 μH<br>+/-30% | 0.4 Arms                    | 0.25                             | 15 V.μs                       | 0.03 V / kHz<br>100 – 500kHz      | 12 pF              | 0.4 μH              | 4 kV                  |

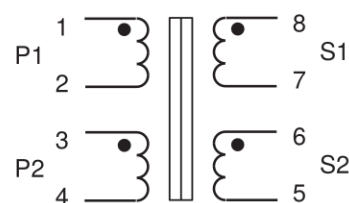
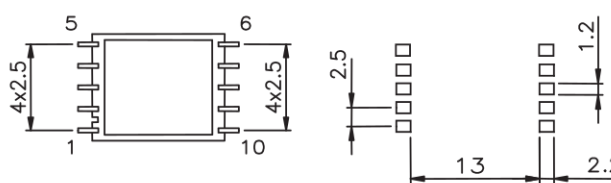
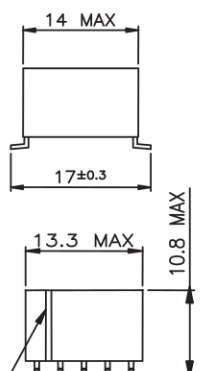
- 74660 can be used in association with MAXIM MAX250 or MAX253
- 74661 can be used in association with LINEAR TECHNOLOGY LT1424
- 74660 can be used in association with MAXIM MAX845

**SAFETY :**

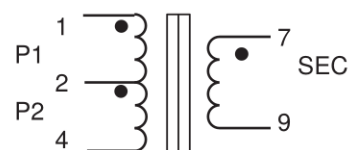
These products are only composed of UL-V0 approved materials.

**74660 – 74661 Size EEM12.7**

Weight ≈ 3 g

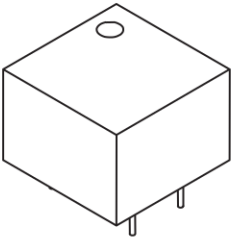
**74670 Size T10**

Weight ≈ 4 g

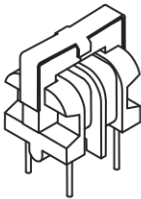


SLOT INDICATES PIN N°1

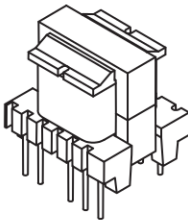




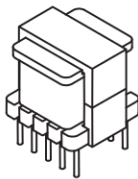
74710 - 74716 - 74717



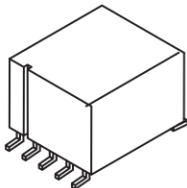
74711



74712



74713



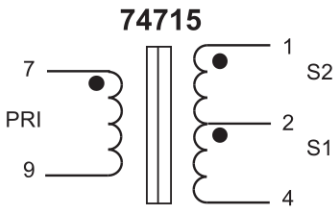
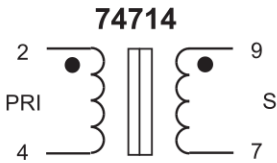
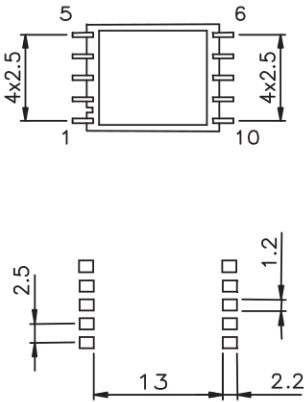
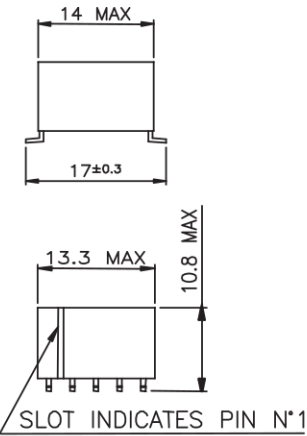
74714 - 74715

- Designed for coupling signals to power line
- Adapted for use with Modem Circuits : **ST7537, ST7538, TDA5051 or IC/SS**

| MYRRA<br>Part N° | Inductance<br>( $\mu$ H) | Leakage<br>Inductance<br>( $\mu$ H) | Resistance<br>per winding<br>P / S (max) | Frequency<br>range | Turns<br>ratio<br>P / S | Max Sec.<br>current<br>(mA rms)<br>(50 - 60 Hz) | Insulation<br>(Vrms) | Size    |
|------------------|--------------------------|-------------------------------------|------------------------------------------|--------------------|-------------------------|-------------------------------------------------|----------------------|---------|
| 74714            | 1300 +/-40 %<br>(2 - 4)  | < 0.5                               | 0.2 $\Omega$ / 0.2 $\Omega$              | 10 - 200kHz        | 1 / 1                   | 4                                               | 5500                 | T10-SMD |
| 74715            | 3.0 +/-25 %<br>(7 - 9)   | < 0.1                               | 0.06 $\Omega$ / 0.1 $\Omega$             | 1 - 20 MHz         | 2 / 1+1                 | 200                                             | 4000                 | T10-SMD |

74714 - 74715

Reinforced insulation, creepage distance > 8 mm



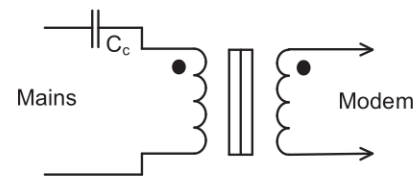


| MYRRA Part N° | Inductance (μH)        | Leakage Inductance (μH) | Resistance per winding P / S (max) | Frequency range | Turns ratio P / S | Max Sec. current (mA rms) (50 - 60 Hz) | Insulation (Vrms) | Size         |
|---------------|------------------------|-------------------------|------------------------------------|-----------------|-------------------|----------------------------------------|-------------------|--------------|
| <b>74710</b>  | 2000 +/-40 % (1 - 3)   | 44 +/-7%                | 0.6 Ω / 0.6 Ω                      | 10 – 450kHz     | 1 / 1             | 10                                     | 4000              | EF16-H-4P    |
| <b>74711</b>  | 2900 +/-40% (1 - 2)    | 44 +/-7%                | 1 Ω / 1 Ω                          | 10 – 200kHz     | 1 / 1             | 4                                      | 1500              | U9.8-4P      |
| <b>74716</b>  | 45000 +/- 40 % (3 - 1) | 1500 +/-10 %            | 12 Ω / 14 Ω                        | 10 - 200kHz     | 1/1.15            | 4                                      | 4000              | EF 16 H - 5P |
| <b>74717</b>  | 400 +/- 40 % (3 - 1)   | 14.4 +/- 10 %           | 0.3 Ω / 0.5 Ω                      | 20 - 450kHz     | 1/1.67            | 40                                     | 4000              | EF 16 H - 5P |

### • 74710 - 74711 - 74716 – 74717

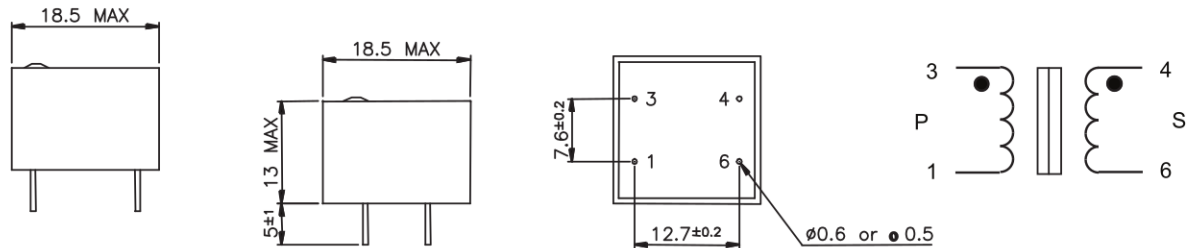
#### Typical application :

Designed for resonance of series coupling capacitor and the transformer leakage inductance.

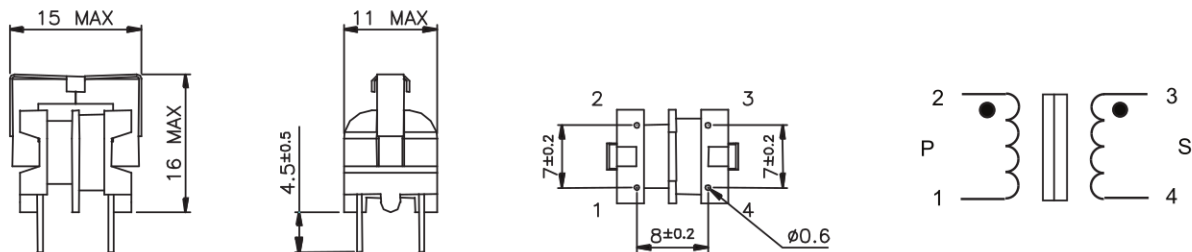


| MYRRA Part N° | Series Resonance Frequency (kHz) | Mains Coupling capacitance (nF) |
|---------------|----------------------------------|---------------------------------|
| <b>74710</b>  | 132.5                            | 33                              |
| <b>74711</b>  | 132.5                            | 33                              |
| <b>74716</b>  | 50                               | 6.8                             |
| <b>74717</b>  | 40 - 90                          | 470                             |

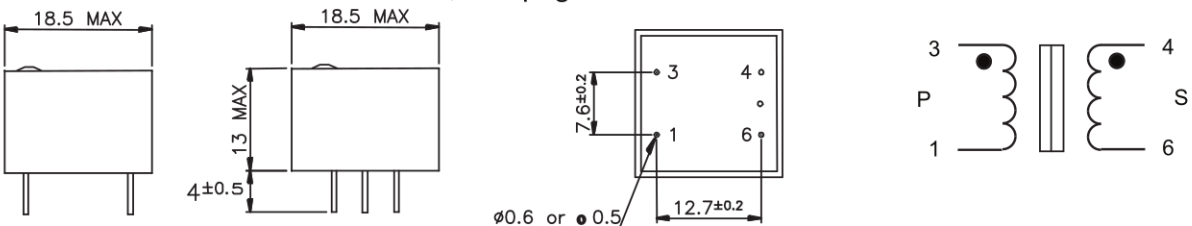
#### 74710 Reinforced insulation, creepage distance > 8 mm



#### 74711 Functional insulation



#### 74716 - 74717 Reinforced insulation, creepage distance > 8 mm

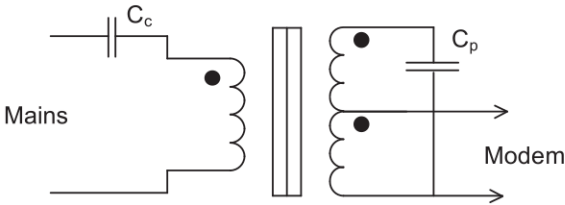




| MYRRA<br>Part N° | Inductance<br>( $\mu$ H) | Leakage<br>Inductance<br>( $\mu$ H) | Resistance<br>per winding<br>P / S (max) | Frequency<br>range | Turns<br>ratio<br>P / S | Max Sec.<br>current<br>(mA rms)<br>(50 - 60 Hz) | Insulation<br>(Vrms) | Size          |
|------------------|--------------------------|-------------------------------------|------------------------------------------|--------------------|-------------------------|-------------------------------------------------|----------------------|---------------|
| 74712            | 212 +/-10 %<br>(2 – 5)   | < 5<br>(2 – 5)                      | 0.8 $\Omega$ / 0.04 $\Omega$             | 10kHz – 1MHz       | 5+1 / 1                 | 500                                             | 4000                 | E16-V-<br>10P |
| 74713            | 144 +/-10 %<br>(2 – 5)   | < 5                                 | 0.5 $\Omega$ / 0.5 $\Omega$              | 10 – 450kHz        | 5+1 / 5+1               | 200                                             | 1500                 | E13-V-<br>10P |

• 74712 - 74713  
Typical application :

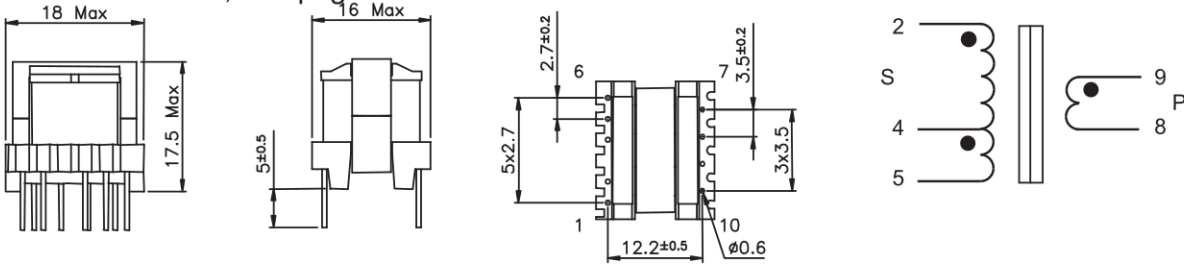
Designed for resonance of parallel capacitor with the primary magnetizing inductance.



| MYRRA<br>Part N° | Parallels Resonance Frequency ( kHz ) | Mains Coupling capacitor(nF) | Parallel capacitor ( nF ) |
|------------------|---------------------------------------|------------------------------|---------------------------|
| 74712            | 132.5                                 | 33                           | 6.8                       |
| 74713            | 132.5                                 | 33                           | 10                        |

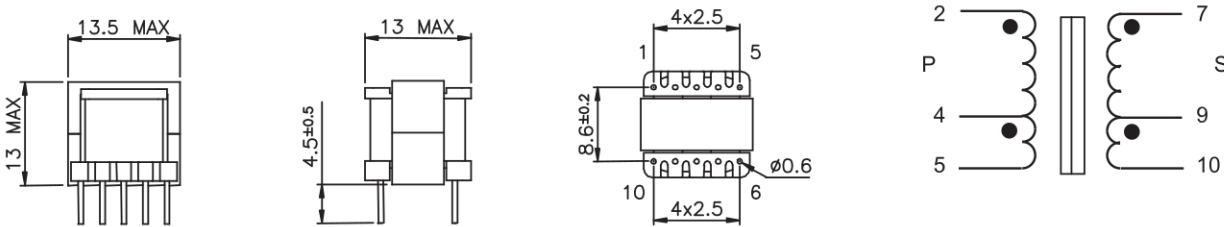
74712

Reinforced insulation, creepage distance > 6 mm



74713

Functional insulation



## THROUGH HOLES CHOKES

|                                                                                     | Available sizes                                                                                                                    | Values                                   | Applications                                       |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|----------------------------------------------------|
| <b>DC SERIES</b>                                                                    | <b>Drum Cores</b>                                                                                                                  |                                          |                                                    |
|    | ( $\varnothing \times H$ ) mm : 04x06 - 05x07<br>06 x07 - 07x08 - 07x10<br>08x09 - 09x12 - 10x13 - 11x12<br>-11x14 - 11x18 - 13x15 | 1 $\mu$ H to 150 mH -<br>9.3 to 0.03 ADC | DC-DC converters<br>ADSL-computers                 |
| <b>RC SERIES</b>                                                                    | <b>Rod Chokes</b>                                                                                                                  |                                          |                                                    |
|    | ( $\varnothing \times L$ ) : 02x06 - 03x10<br>04x15 - 05x20 - 06x30                                                                | 1 to 56 $\mu$ H -<br>0.56 to 1.57 ADC    | Power supply - Power amplifier                     |
| <b>CMT SERIES</b>                                                                   | <b>Common Mode Toroids</b>                                                                                                         |                                          |                                                    |
|  | on request                                                                                                                         | on request                               | Power supply<br>EMI suppression<br>Wideband chokes |

## SURFACE MOUNT CHOKES

|                                                                                     | Available sizes                               | Values                                   | Applications                                                    |
|-------------------------------------------------------------------------------------|-----------------------------------------------|------------------------------------------|-----------------------------------------------------------------|
| <b>PI SERIES</b>                                                                    | <b>Power inductors</b>                        |                                          |                                                                 |
|  | 32 - 42 - 43 - 53 - 54 - 73<br>75 - 104 - 105 | 1 to 820 $\mu$ H<br>0.24 to 6.8 A        | DC-DC converters<br>DC-AC inverters<br>Switching power supplies |
| <b>SPI SERIES</b>                                                                   | <b>Shielded Power inductors</b>               |                                          |                                                                 |
|  | 73 - 74 - 124 - 125 - 127                     | 1.2 to 1000 $\mu$ H<br>10.6 to 0.18 Arms | DC-DC converters<br>DC-AC inverters<br>Chargers                 |

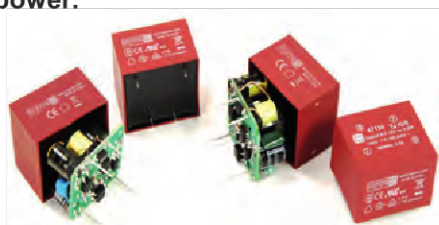
## POWER SUPPLIES 1W to 60W



MYRRA encapsulated Switched Mode Power Supplies is based on Flyback topology.

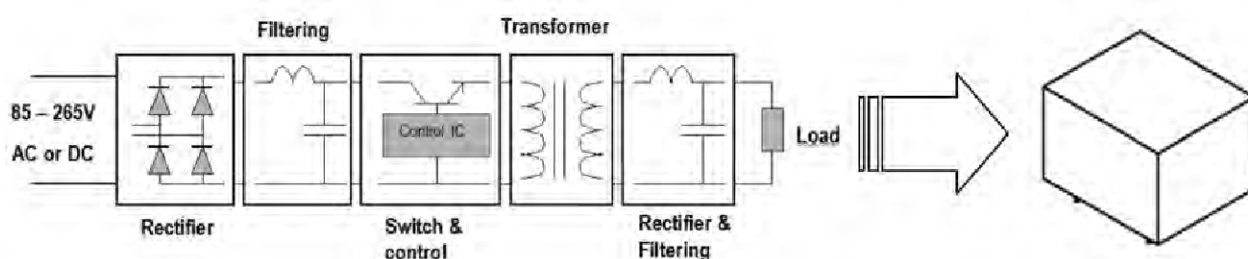
They constitute an interesting alternative to the traditional supply in the most common applications of power from 1W to 60W.

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



## MAIN FEATURES

- Wide input voltage range
- Increased power: 3 x compared to standard EE20-EI30-EI38 transformers
- 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 EE20-EI30-EI38-EI48 transformer: (1W~10W)  
Upgrade your application without redesign of PCB



## Application for our Power Supplies:

- Alternative to the linear transformers in all AC/DC applications of power up to 60W
- 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 an EI30 transformer, they will replace:

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

Regulated types will also replace linear regulator and heatsink

## SAFETY STANDARDS

Meets all requirements of:

- EN 60950
- EN 60335
- EN 61558-2-16
- EN 61558-1
- UL 60950-1
- CSA 22.2 N°60950-1
- UL 94-V0

## EMC STANDARDS

Conducted and radiated emissions conform to

- EN 55014-1
- EN 55032 class B

Immunity conform to

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





## 1W to 3W

3 Certified Power Ratings  
in  
1 Power Supply



## 2.5W to 5W



## 7.5W



## 10W



## 20W to 60W





**48000 Series**

Single Output 1W ~3W

**47000 Series**

Single Output 2.5W ~ 5W

Single Output 2.4W ~ 5W (relaxed regulation)

Dual Output 3W ~ 5W (common ground)

Dual Output 3W ~ 4W (isolated outputs)

Single Output 7.5W

Single Output 10W

Single Output 20W

Single Output 30W ~ 40W

Single Output 40W ~ 60W

**Modified and Custom Solutions****TECHNICAL SERVICES :**

- Alternative DC Output Voltages
- Single, Dual or Triple Output Voltages
- Addition of Signal Pins for AC OK, Remote on/off, sense etc.
- Alternative Power Rating
- Revised 'Hold-up' timing to suit System needs
- Customer specific product 'Branding/Labelling'
- Specific Power Supply Manufacturing Functional Test Profile
- Integrating the Power Supply on the System PCB
- Alternative Power Supply Housing
- Revised DC Output Filtering

**CUSTOMER SERVICES :**

- Existing Designs for Modified Standards
- Flexible Manufacturing Batch Sizes
- European Stock-holding locations
- European Engineering and Logistics Support
- Country Specific Distribution Partners
- Manufacturing dynamics for Volume Fluctuations
- Myrra Quality Controlled Design and Manufacturing
- Fast Sample Service

Dedicated Power Supplies Catalogue available  
Encapsulated Solutions 1W to 60W

hard copy or online at [Myrra.com](http://Myrra.com)

## POWER PRODUCTS TECHNOLOGIES

*One of Myrra core competence is to provide customers with a high level of production technology combining know-how and experience over 40 years.*

High-frequency transformers and chokes up to 100KW  
Lamination 50Hz transformers and chokes up to 20KVA

- **Core** : Laminated steel for 50Hz  
Amorphous Core  
Nanocrystalin Cores  
Powder Core / Sendust / Megaflux / High Flux  
Ferrites Core
- **Winding mono or multi-spindle**  
*Copper or Aluminum*
  - Round emailed wire / Litz Wire / TIW
  - Flat wire (rectangular)
  - Foil : up to 400 mm width up to 10 layers simultaneously
- **Automatic or Manual soldering machine** ( standard and ultrasonic)
- **Automatic welding machine** up to EI180
- **Varnish** Automatic under vacuum, until 1m3 volume
- **Potting** under vacuum / UL94V0 / EN45545
- **Automatic test system** No Load Test / Full Load Test / Computer controlled
- **Traceability**
  - Parts : Serial Numbers / Barcode
  - Materials : Manufacturer Program / C.O.C.
- **Insulation systems** : B, F, H classes  
UL , IEC , CSA compliant

## POWER PRODUCTS CONTROL WORKING STATION

***A high level of control at all stages of production***  
***100% of parts are tested***

Labview software implementation on control station

- With automatic multiplexer MUX

All our test equipments are under calibration :

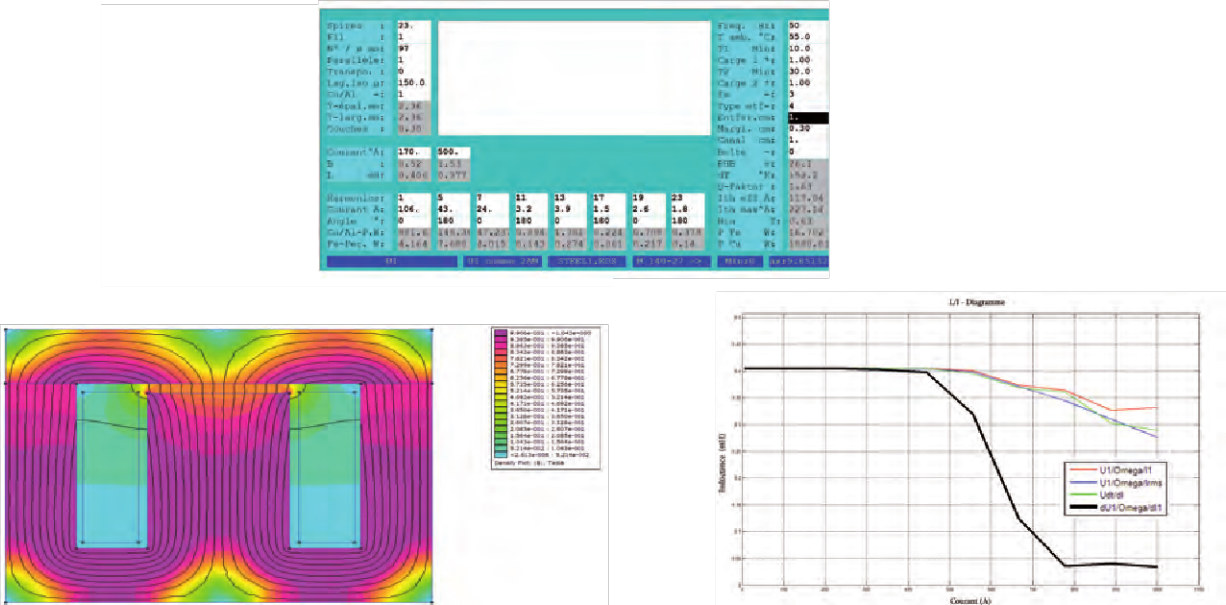
- Precision multimeters
- Micro-ohmmeters
- Oscilloscopes and Functions Generators
- Impulse Winding Tester 5kV
- Surge Test 12 kV
- HiPot Tester 12 kV
- RLC Impedance Meters, & 75 A DC Bias
- Power HiTester
- Pulse Generator / Saturation Tester

All products are controlled at 100 % during process (1 to 3 times)  
and once again at 100% before packaging (final control).

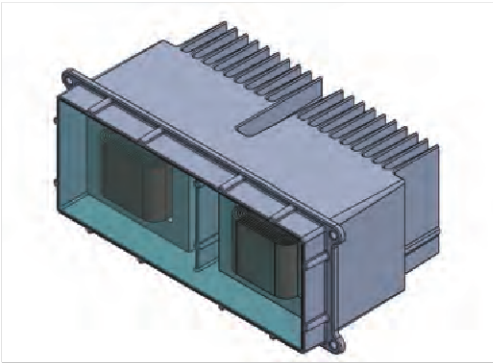
POWER PRODUCTS TESTS and SIMULATION

Myrra has the best software to make electrical, mechanical and thermal simulations from the conception products. This allows us to be at the forefront of technology.

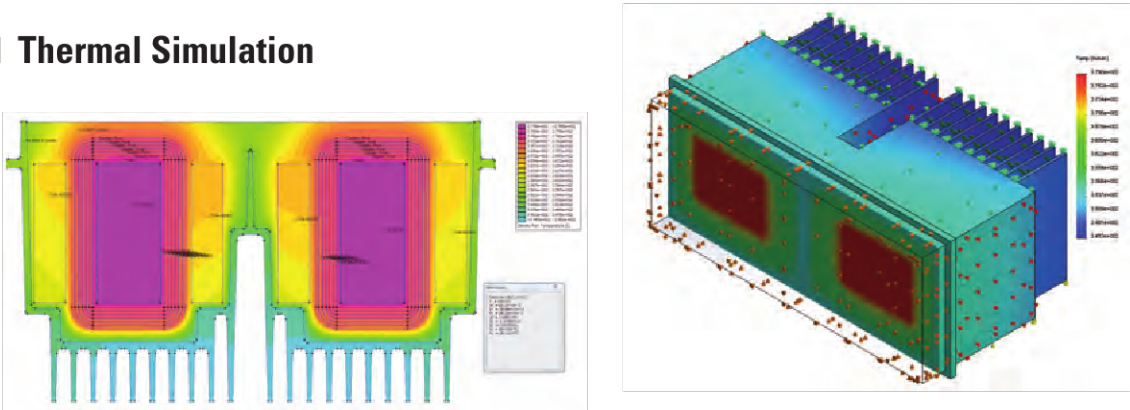
■ Electrical Simulation



■ Mechanical Simulation



■ Thermal Simulation

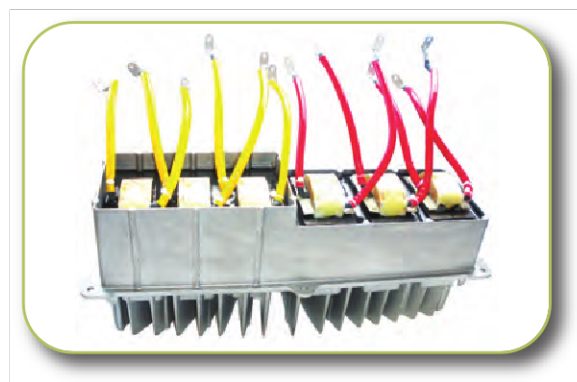
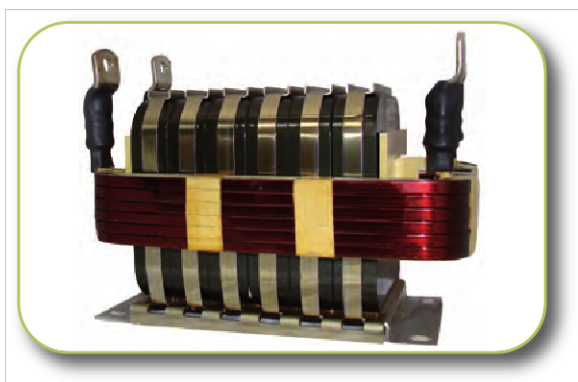


CUSTOM POWER PRODUCTS  
TEST & MEASURES

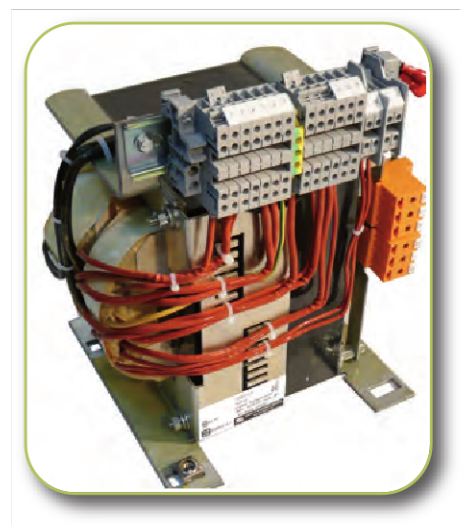
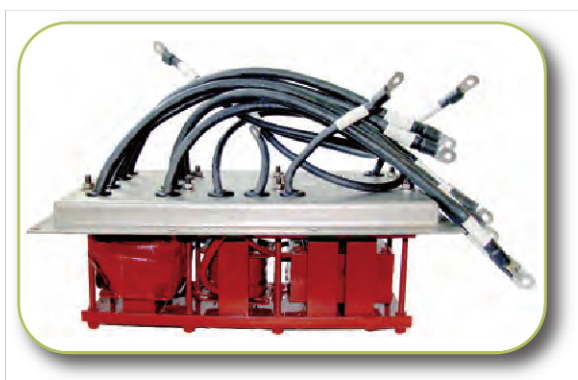
## POWER PRODUCTS APPLICATIONS

*Myrra is able to demonstrate a great adaptability to the needs and the requirements of the customers with a very high level of competence internationally recognized.*

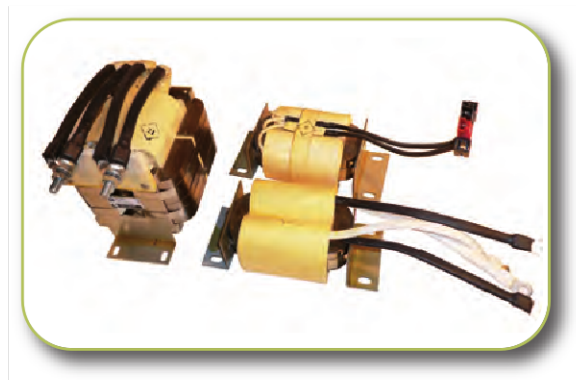
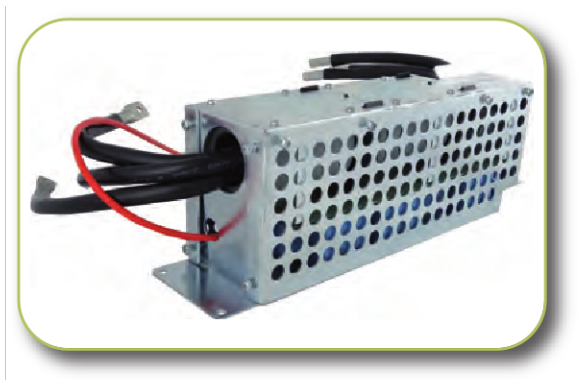
### ■ SOLAR



### ■ MACHINERY



### ■ MOTORDRIVE







# Save valuable time for your specific request for non-standard products



## Reminder of the data needed to easily validate your request

### Technical:

#### For all Request:

|                              |                      |
|------------------------------|----------------------|
| Ambient                      | <input type="text"/> |
| Max dimensions               | <input type="text"/> |
| Required standards approvals | <input type="text"/> |

#### Encapsulated Transformers

|                       |                      |
|-----------------------|----------------------|
| Transfo // Autotr.    | <input type="text"/> |
| Power (VA)            | <input type="text"/> |
| Input voltage (V)     | <input type="text"/> |
| Output voltage(s) (V) | <input type="text"/> |
| Output current(s) (A) | <input type="text"/> |
| Frequency (Hz)        | <input type="text"/> |

#### Chokes (power and 50 Hz)

|                                     |                      |
|-------------------------------------|----------------------|
| Type (AC // DC // PFC...)           | <input type="text"/> |
| Inductance value (mH)               | <input type="text"/> |
| Current (Arms)                      | <input type="text"/> |
| Ripple freq. (kHz)                  | <input type="text"/> |
| Ripple current (A <sub>pkpk</sub> ) | <input type="text"/> |
| Derating curve (L Vs I)             | <input type="text"/> |

#### Common Mode Chokes

|                       |                      |
|-----------------------|----------------------|
| Inductance value (mH) | <input type="text"/> |
| Current (A)           | <input type="text"/> |
| Phases number         | <input type="text"/> |

#### HF transformers

|                                               |                      |
|-----------------------------------------------|----------------------|
| Power (W)                                     | <input type="text"/> |
| Topology (Flyback // forward ...)             | <input type="text"/> |
| Input voltage range (V) Output voltage(s) (V) | <input type="text"/> |
| Output current(s) (A) Frequency (kHz)         | <input type="text"/> |
| Controller (*)                                | <input type="text"/> |
| Level of insulation                           | <input type="text"/> |
| Pollution degree                              | <input type="text"/> |

#### Current transformers

|                             |                      |
|-----------------------------|----------------------|
| Primary current (Arms)      | <input type="text"/> |
| Ratio                       | <input type="text"/> |
| Load ( $\Omega$ )           | <input type="text"/> |
| Frequency (Hz)              | <input type="text"/> |
| Accuracy                    | <input type="text"/> |
| Through hole // Primary pin | <input type="text"/> |
| Insulation level            | <input type="text"/> |

### Commercial:

|                       |                      |
|-----------------------|----------------------|
| Quantity / year       | <input type="text"/> |
| Application           | <input type="text"/> |
| Project               | <input type="text"/> |
| Production start date | <input type="text"/> |
| Contact details       | <input type="text"/> |

*Go to Design on Request online:*  
***myrra.com***



[www.myrra.com](http://www.myrra.com)

**\*\***

**MYRRA SAS**  
**2 Bd de la Haye**  
**Parc Gustave Eiffel**  
**77600 Bussy St Georges**  
**France**

**MYRRA Deutschland GmbH**  
**Marie-Curie-Straße 4/1**  
**71083 Herrenberg**  
**Germany**