



Elettronica Rossoni

INDUSTRIAL
ELECTRONICS

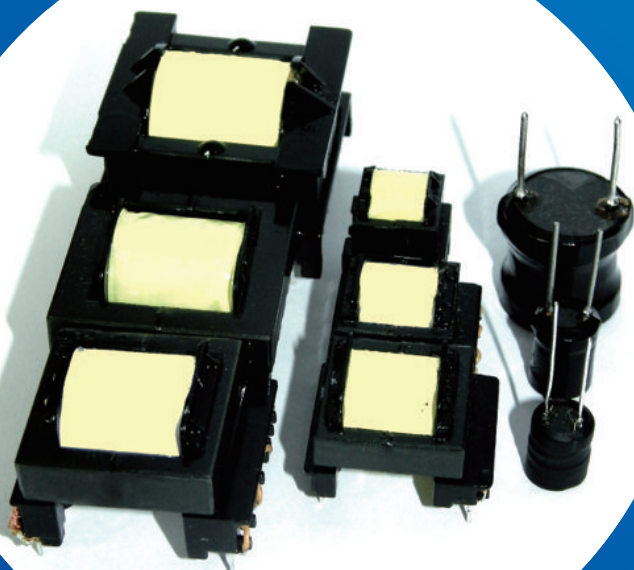
CONSUMER
ELECTRONICS

AUTOMATION
TECHNOLOGY

COMMUNICATION
& ENTERTAINMENT
ELECTRONICS

Switch Power Safety Transformers Series
Designed for
SmartPower controller family

LIGHTING
TECHNOLOGY



Eletronica Rossoni

Eletronica Rossoni Switch Power Safety Transformers Series Smart Power Series

Plug & Play

With over 40 years of experience we have created a standard transformer solutions for Switching-Mode Power Supply control IC's. All of our designs meet following safety and performance criteria and are in active production fulfilling many applications.

Safety Standards EN 60065

EN 60950

EN 60335

EN 61558

Important notes for any design

Performance

Because a poorly designed transformer will produce an inefficient and low performing power supply even with the best switching technology.

Transformer is one of the most complex part of Switching-Mode Power Supply.

Switch Power Safety Transformers Series have been develop for support you.

Safety

Because the transformer provides the main

safety isolation barrier between lethal voltage and the end user. Having the correct and safe construction of an isolating transformer is vital.

EN safety standards require great detail on the specification of wound components. The qualification and design of safety rated parts are often difficult and time consuming.

Switch Power Safety Transformers Series have been develop for support you.

Reliability

Because variations in tolerance or quality can lead to expensive over design and field failure. Using standard product is vital.

Switch Power Safety Transformers Series have been develop for support you



Providing SOLUTION is our APTITUDE

Safety

- Integrated Safety Margin
- 3.75kV Primary to Secondary Isolation as Standard
- All parts use UL listed Materials
- Using TIW (UL E332887; VDE 40032774)
- Complies with EN Safety Standards

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Performance

- Low Loss Ferrite Material
- Low Leakage Inductance
- Low Inter-winding capacitance
- Improved EMC performance

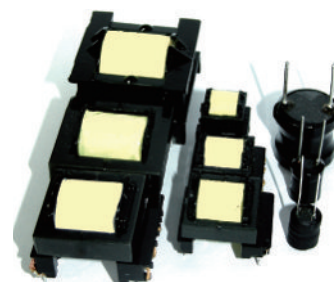
Switch Power Safety Transformers Series have been develop for support you.



Reliability

- 100% Test
- Triple Insulated Wire On All Parts
- Automated Production Process

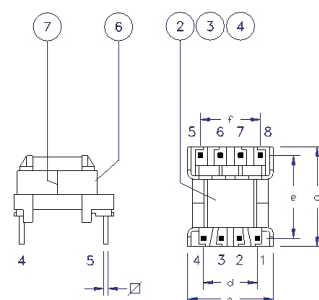
Switch Power Safety Transformers Series have been develop for support you.



Simple To Design With

- Samples always available
- Clear and complete specification
- 50 piece pack sizes for prototyping
- Technical support

Switch Power Safety Transformers Series have been develop for support you.



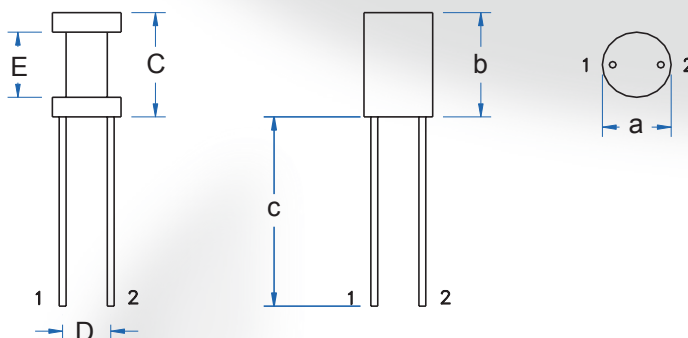
Inductor Non Isolated AC-DC from 2W to 4W

For Use With LNK302/4/5/6

POWER	V _{in}	V _{out}	INDUCTANCE	IC	CORE SHAPE	STAMP CODE	PART NUMBER
2W	85-265VAC	5-15V/110mA	1mH	LNK302/4	Drum06	/	DR0610-102K
2W	85-265VAC	5-15V/90mA	1.5mH	LNK302/4	Drum06	/	DR0610-152K
2W	85-265VAC	5-15V/80mA	2.2mH	LNK302/4	Drum06	ER2778	DR0610-222K
2W	85-265VAC	5-15V/60mA	3.3mH	LNK302/4	Drum06	/	DR0610-332K
4W	85-265VAC	5-15V/380mA	0.68mH	LNK302/4/5/6	Drum08	/	DR0810-681K
4W	85-265VAC	5-15V/290mA	1mH	LNK302/4/5/6	Drum08	ER0318	DR0810-102K
4W	85-265VAC	5-15V/280mA	1.2mH	LNK302/4/5/6	Drum08	/	DR0810-122K
4W	85-265VAC	5-15V/150mA	1.5mH	LNK302/4/5/6	Drum08	/	DR0810-152K
4W	85-265VAC	5-15V/350mA	2.2mH	LNK302/4/5/6	Drum 10	/	DR1012-222K

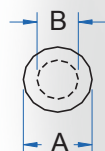
Drum06

a	= 7.0	MAX
b	= 9.5	MAX
c	= 10.0	min
A	= 6.0	±0,2
B	= 2.5	±0,15
C	= 8.3	±0,3
D	= 3.0	ref
E	= 4.0	±0,15



Drum08

a	= 9.0	MAX
b	= 11.5	MAX
c	= 15.0	min
A	= 8.0	±0,2
B	= 4.5	±0,5
C	= 10.0	±0,3
D	= 5.0	ref
E	= 5.50	±0,2



Drum10

a	= 13.0	MAX
b	= 18.0	MAX
c	= 15.0	min
A	= 10.0	±0,3
B	= 5.5	±0,2
C	= 16.0	±0,6
D	= 4.5	ref
E	= 10.0	±0,4

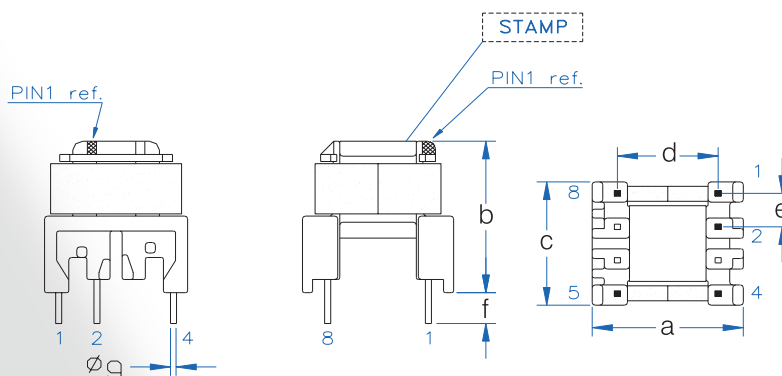
Transformers AC-DC from 2.8W to 4.5W

EE1312 CORE SHAPE

For Use With LNK363/500/501/520/562/563/564&TNY263/264

POWER	Vin	Vout1	Vout2	IC	CORE SHAPE	STAMP CODE	PART NUMBER	SUGGESTED COMMON MODE
2.8W	85-265VAC	5-7V/0.75A	/	LNK362	EE1312	/	ERFT17-01	E0808
2.8W	85-265VAC	9-12V/0.3A	/	LNK362	EE1312	/	ERFT17-02	E0808
2.8W	85-265VAC	13.7V/0.3A	/	LNK362	EE1312	/	ERFT17-03	E0808
2.8W	85-265VAC	15-18V/0.9A	/	LNK362	EE1312	/	ERFT17-04	E0808
3W	85-265VAC	5-6V/0.75A	/	LNK520	EE1312	/	ERFT17-00	E0808
3W	85-265VAC	12V/0.25A	/	TNY263	EE1312	/	ERFT17-14	E0808
3W	85-265VAC	24V/0.125A	/	TNY263	EE1312	/	ERFT17-15	E0808
3W	85-265VAC	24V/0.125A	/	LNK520	EE1312	/	ERFT17-22	E0808
3W	85-265VAC	5-7V/0.75A	/	LNK562/3/4	EE1312	/	ERFT17-23	E0808
3W	85-265VAC	12-14V/0.2A	/	LNK562/3/4	EE1312	/	ERFT17-24	E0808
4W	85-265VAC	3-4V/1A	/	LNK500/1	EE1312	ER2863	ERFT17-05	E0808
4W	85-265VAC	5-6V/0.75A	/	LNK500/1	EE1312	ER2815	ERFT17-06	E0808
4W	85-265VAC	11-12V/0.3A	/	LNK500/1	EE1312	ER2855	ERFT17-07	E0808
4W	85-265VAC	14-15V/0.2A	/	LNK500/1	EE1312	ER2864	ERFT17-08	E0808
4W	85-265VAC	24V/0.15A	/	LNK500/1	EE1312	ER2866	ERFT17-09	E0808
4W	85-265VAC	12V/0.3A	24V/0.15A	LNK500/1	EE1312	/	ERFT17-10	E0808
4W	195-265VAC	15V/0.13A	24V/0.1A	TNY263/4	EE1312	/	ERFT17-11	E0808
4W	195-265VAC	18V/0.3A	/	TNY263/4	EE1312	/	ERFT17-12	E0808
4W	195-265VAC	5V-6V/0.6A	/	TNY263/4	EE1312	/	ERFT17-13	E0808
4W	85-265VAC	5-6V/0.75A	/	LNK520	EE1312	/	ERFT17-20	E0808
4W	85-265VAC	10-12V/0.3A	/	LNK520	EE1312	/	ERFT17-21	E0808
4.5W	85-265VAC	5-7V/0.4A	/	LNK363	EE1312	/	ERFT17-16	E0808
4.5W	85-265VAC	9-12V/0.7A	/	LNK363	EE1312	/	ERFT17-17	E0808
4.5W	85-265VAC	13.7V/0.7A	/	LNK363	EE1312	/	ERFT17-18	E0808
4.5W	85-265VAC	15-18V/0.25A	/	LNK363	EE1312	/	ERFT17-19	E0808

EE1312		
a	= 16.0	MAX
b	= 18.0	MAX
c	= 14.5	MAX
d	= 10.0	±0,3
e	= 3,8	±0,3
f	= 3,5	min
g	= 0,60	±0,05



Transformers AC-DC from 1.5W to 9W

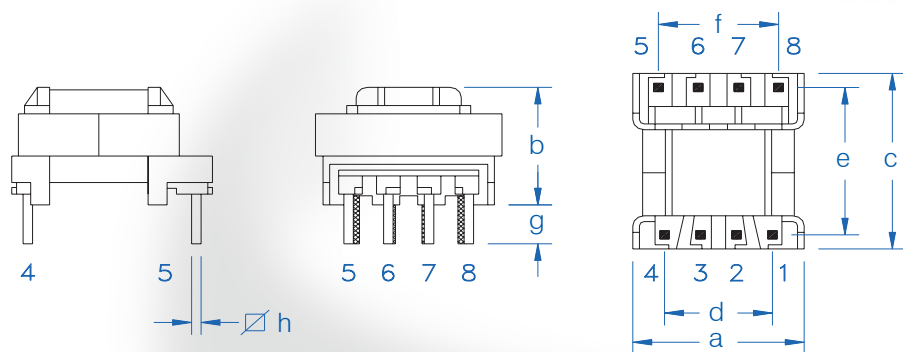
EE1616 CORE SHAPE

For Use With LNK364/500/501&TNY263/264/265/266/267/274/275/276/277

POWER	Vin	Vout1	Vout2	IC	CORE SHAPE	STAMP CODE	PART NUMBER	SUGGESTED COMMON MODE
1.5W	85-265VAC	6V/0.1A	6V/0.1A	TNY263	EE1616	/	ERFT24-12	EE0808
3W	85-265VAC	6V/0.5A	/	TNY263/4	EE1616	/	ERFT24-03	EE0808
3W	85-265VAC	15V/0.2A	/	TNY263	EE1616	/	ERFT24-06	EE0808
3W	85-265VAC	24V/0.12A	/	TNY263/4	EE1616	/	ERFT24-07	EE0808
3W	85-265VAC	6V/0.25A	6V/0.25A	TNY263/4	EE1616	ER2810	ERFT24-13	EE0808
4W	85-265VAC	3-4V/1A	/	LNK500/1	EE1616	/	ERFT24-01	EE0808
4W	85-265VAC	5-6V/0.75A	/	LNK500/1	EE1616	/	ERFT24-02	EE0808
4W	85-265VAC	10-12V/0.3A	/	LNK500/1	EE1616	/	ERFT24-04	EE0808
4W	85-265VAC	14-15V/0.2A	/	LNK500/1	EE1616	/	ERFT24-05	EE0808
6W	85-265VAC	5-7V/0.4A	/	LNK364	EE1616	/	ERFT24-08	EE0808
6W	85-265VAC	9-12V/0.7A	/	LNK364	EE1616	/	ERFT24-09	EE0808
6W	85-265VAC	13.7V/0.7A	/	LNK364	EE1616	/	ERFT24-10	EE0808
6W	85-265VAC	15-18V/0.33A	/	LNK364	EE1616	/	ERFT24-11	EE0808
6W	85-265VAC	12V/0.25A	12V/0.25A	TNY263/4	EE1616	ER2753	ERFT24-14	EE0808
6W	85-265VAC	6V/0.5A	6V/0.25A	TNY265/6/274	EE1616	ER2802	ERFT24-15	EE0808
6W	85-265VAC	12V/0.25A	12V/0.25A	TNY265	EE1616	ER2800	ERFT24-16	EE0808
8W	85-265VAC	5-7V/1.2A	/	TNY275/6/7	EE1616	/	ERFT24-19	EE1313
8W	85-265VAC	8-12V/0.8A	/	TNY275/6/7	EE1616	/	ERFT24-20	EE1313
8W	85-265VAC	12-15V/0.6A	/	TNY275/6/7	EE1616	/	ERFT24-21	EE1313
8W	85-265VAC	28V/0.28A	/	TNY275/6/7	EE1616	/	ERFT24-22	EE1313
9W	85-265VAC	6V/0.75A	6V/0.75A	TNY267	EE1616	ER2741	ERFT24-17	EE1313
9W	85-265VAC	12V/0.4A	5V/0.9A	TNY267	EE1616	/	ERFT24-00	EE1313
9W	85-265VAC	12V/0.36A	12V/0.36A	TNY267	EE1616	ER2752	ERFT24-18	EE1313

EE1616

a	= 19.0	MAX
b	= 14.5	MAX
c	= 22.5	MAX
d	= 11.4	±0,5
e	= 17,8	±0,5
f	= 12,7	±0,1
g	= 3,5	±0,5
h	= 0.5	±0,05



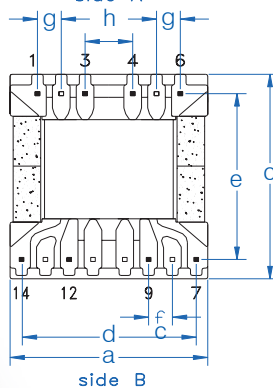
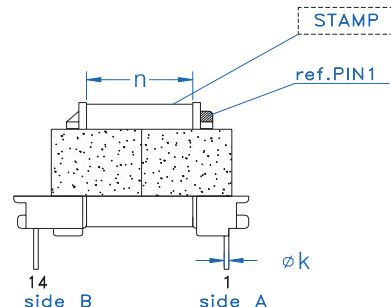
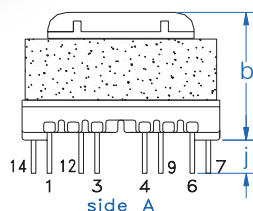
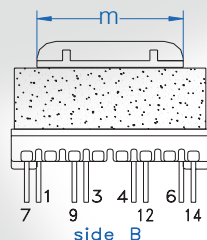
Transformers AC-DC from 14W to 22W

EE2020 CORE SHAPE

For Use With LNK364/500/501&TNY263/264/265/266/267/274/275/276/277

POWER	Vin	Vout1	Vout2	IC	CORE SHAPE	STAMP CODE	PART NUMBER	SUGGESTED COMMON MODE
14W	85-265VAC	5V/0.8A	24V/0.4A	TNY267	EE2020	ER2793	ERFT14-09	EE1313
18W	85-265VAC	6V/1.5A	6V/1.5A	TNY279	EE2020	/	ERFT14-00	EE1313
18W	85-265VAC	6V/1.25A	6V/1.25A	TNY279	EE2020	/	ERFT14-02	EE1313
18W	195-265VAC	6V/1.5A	6V/1.5A	TNY268	EE2020	ER2742	ERFT14-05	EE1313
18W	195-265VAC	12V/0.75A	12V/0.75A	TNY268	EE2020	ER2758	ERFT14-06	EE1313
18W	195-265VAC	24V/0.5A	6V/1A	TNY268	EE2020	/	ERFT14-07	EE1313
18W	195-265VAC	18V/0.5A	18V/0.5A	TNY268	EE2020	ER2867	ERFT14-08	EE1313
22W	195-265VAC	5V/0.8A	24V/0.8A	TOP242/3	EE2020	ER2820	ERFT14-01	EE1616
22W	195-265VAC	5-6V/3.6A	12V/1.8A	TOP242/3	EE2020	ER2819	ERFT14-03	EE1616
22W	195-265VAC	5V/0.25A	12V/1.2A	TOP242/3	EE2020	/	ERFT14-04	EE1616
22W	195-265VAC	12V/0.9A	12V/0.9A	TOP242/3	EE2020	ER2821	ERFT14-10	EE1616

EE2020	
a	= 21.5 MAX
b	= 15.4 ±0,2
c	= 25,1 MAX
d	= 17.5 ±0,3
e	= 20,0 ±0,3
f	= 2,5 ±0,1
g	= 2,5 ±0,1
h	= 5,0 ±0,2
i	= 4,0 min
l	= 0,6x0,6 ±0,05
m	= 15,5 ±0,2
n	= 12,0 ±0,2



Transformers AC-DC from 28W to 45W

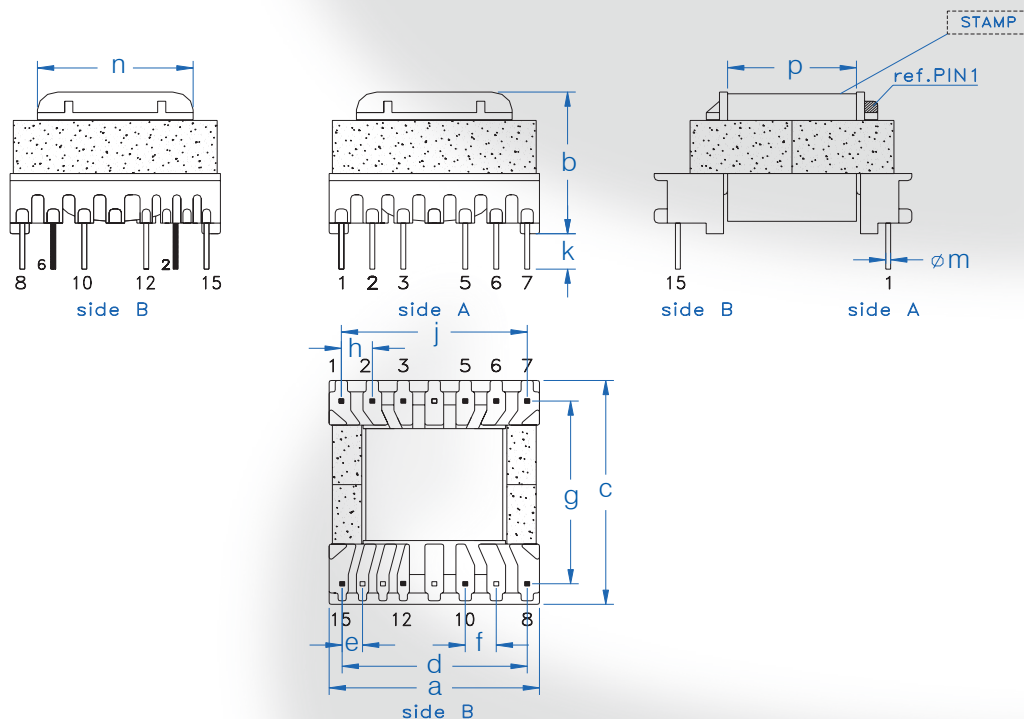
EE2525 CORE SHAPE

For Use With TOP244/245 & TNY280

POWER	Vin	Vout1	Vout2	IC	CORE SHAPE	STAMP CODE	PART NUMBER	SUGGESTED COMMON MODE
28W	85-265VAC	6V/2.1A	6V/2.1A	TNY280	EE2525	/	ERFT25-00	EE1616
28W	85-265VAC	13.8V/1A	13.8V/1A	TNY280	EE2525	ER2872	ERFT25-01	EE1616
28W	195-265VAC	12-14V/1A	12-14V/1A	TOP244	EE2525	ER2847	ERFT25-02	EE1616
34W	195-265VAC	24V/1.0A	5V/2.5A	TOP244	EE2525	/	ERFT25-03	EE1616
34W	195-265VAC	5V/2.5A	12V/1.8A	TOP244	EE2525	ER2875	ERFT25-04	EE1616
45W	195-265VAC	30V/0.75A	30V/0.75A	TOP245	EE2525	ER2887	ERFT25-05	EE1616
45W	195-265VAC	12V/1.9A	12V/1.9A	TOP245	EE2525	/	ERFT25-06	EE1616

EE2525

a	=	26.5	MAX
b	=	21.0	MAX
c	=	32.0	MAX
d	=	22.7	±0,3
e	=	3x2,5	±0,1
f	=	4x3,8	±0,3
g	=	25,8	±0,3
h	=	3,8	±0,1
i	=	22,8	±0,3
l	=	3,5	min
m	=	0,5x0,5	±0,05
n	=	17,1	±0,3
o	=	15,8	±0,2



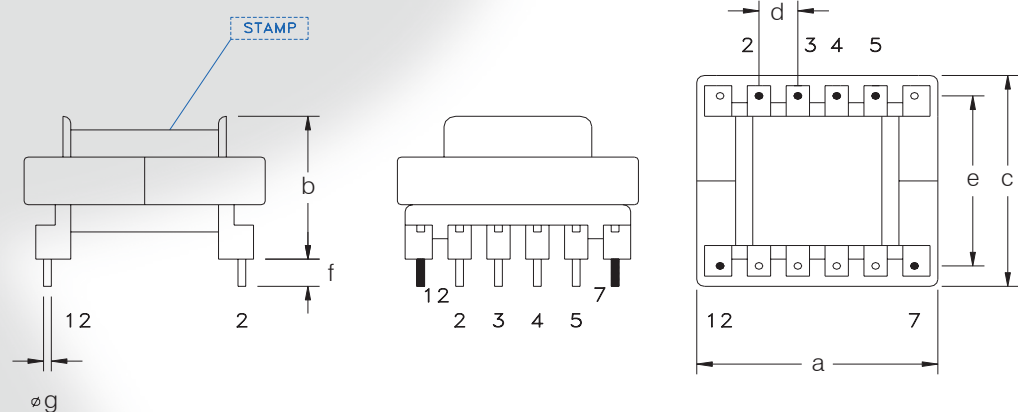
Transformers AC-DC from 50W to 56W

EE3030 CORE SHAPE

For Use With TOP246/247

POWER	V _{in}	V _{out1}	V _{out2}	IC	CORE SHAPE	STAMP CODE	PART NUMBER	SUGGESTED COMMON MODE
50W	195-265VAC	5V/2.5A	24V/1.5A	TOP246	EE3030	ER2848	ERFT16-00	EE2020
56W	195-265VAC	28V/2A	/	TOP247	EE3030	ER2849	ERFT16-01	EE2020
50W	195-265VAC	4V/3.5A	/	TOP247	EE3030	/	ERFT16-02	EE2020

EE3030	
a	= 31.5 MAX
b	= 21.0 MAX
c	= 31.0 MAX
d	= 5.0 ±0,3
e	= 25.0 ±0,5
f	= 4.0 min
g	= 0.60 ±0,05



Transformers AC-DC from 68W to 96W

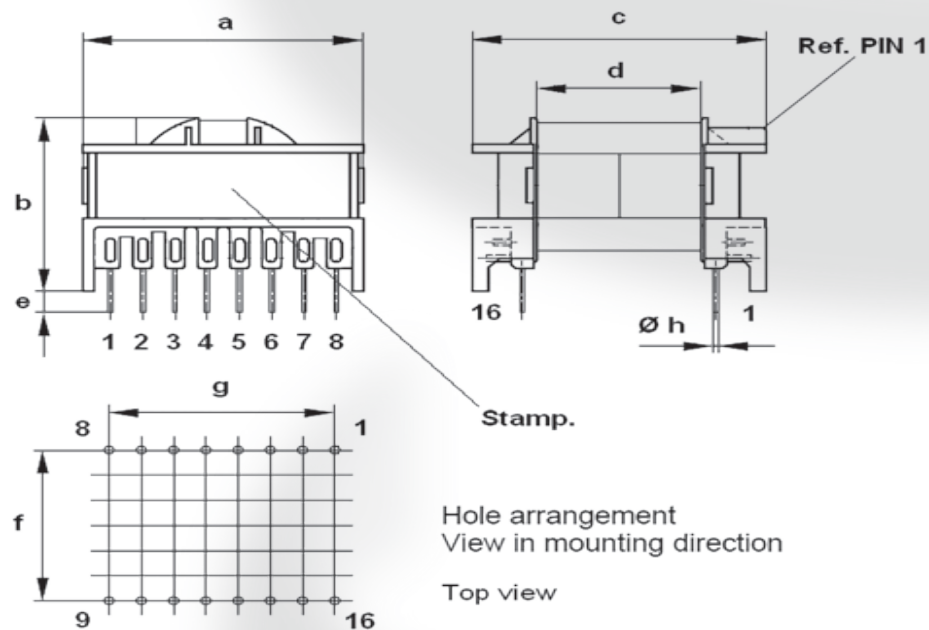
ETD3940 CORE SHAPE

For Use With TOP244/245 & TNY280

POWER	V _{in}	V _{out1}	V _{out2}	IC	CORE SHAPE	STAMP CODE	PART NUMBER	SUGGESTED COMMON MODE
96W	195-265VAC	27-30V/3.2A	/	TOP247	ETD3940	ER2890	ERFT39-00	EE2020
68W	195-265VAC	13-15V/4.5A	/	TOP247	ETD3940	/	ERFT39-01	EE2020
96W	195-265VAC	24V/4A	/	TOP247	ETD3940	/	ERFT39-02	EE2020

ETD3940

a	=	44.6	MAX
b	=	36.0	MAX
c	=	44.2	MAX
d	=	25.7	min
e	=	4.0	min
f	=	30.45	±0,05
g	=	7x4,95	±0,05
h	=	1.0	±0,03



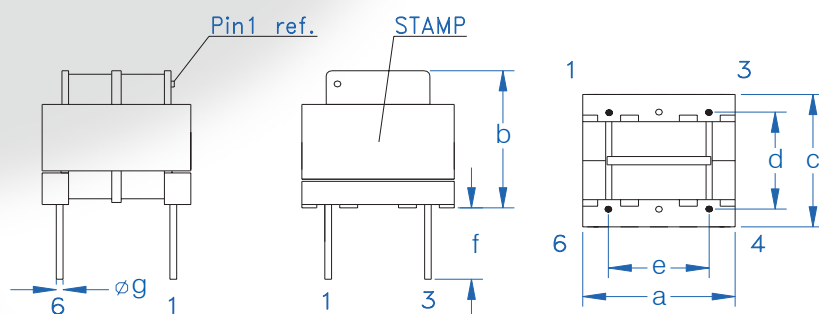
Common Mode from 0,25A to 0,4A

EE0808 CORE SHAPE

For Use With EE1313 & EE1616 Switch Power Safety Transformers Series

I	Inductance	Vin	Core Shape	STAMP CODE	PART NUMBER
0,40A	4,7mH	85-265VAC	EE0808	/	ERCD26-02
0,35A	7mH	85-265VAC	EE0808	/	ERCD26-01
0,25A	9mH	85-265VAC	EE0808	ER2416	ERCD26-00

EE0808		
a	=	10 MAX
b	=	8.7 MAX
c	=	9 MAX
d	=	6.7 ±0,2
e	=	5.0 ±0,2
f	=	3 ±0,5
g	=	0.5 ±0,05



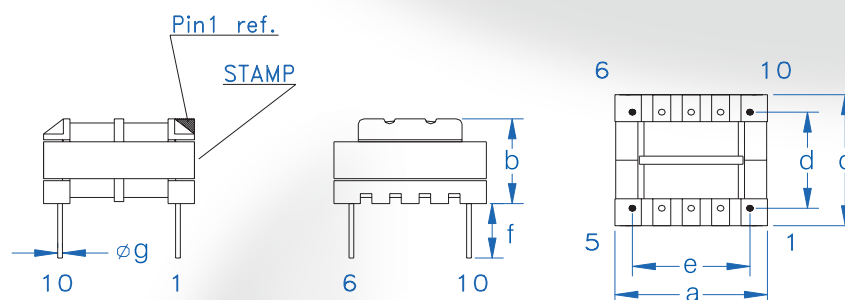
Common Mode from 0,24A to 0,54A

EE1313 CORE SHAPE

For Use With EE1616 & EE2020 Switch Power Safety Transformers Series

I	Inductance	Vin	Core Shape	STAMP CODE	PART NUMBER
0,54A	12mH	85-265VAC	EE1313	ER2756	ERCD18-00
0,28A	22mH	85-265VAC	EE1313	ER2755	ERCD18-01
0,26A	27mH	85-265VAC	EE1313	/	ERCD18-02
0,24A	33mH	85-265VAC	EE1313	ER2822	ERCD18-03

EE1313	
a	= 13,5 MAX
b	= 10,5 MAX
c	= 14,0 MAX
d	= 10,3 ±0,2
e	= 10,0 ±0,2
f	= 3,5 ±0,5
g	= 0,6 ±0,05



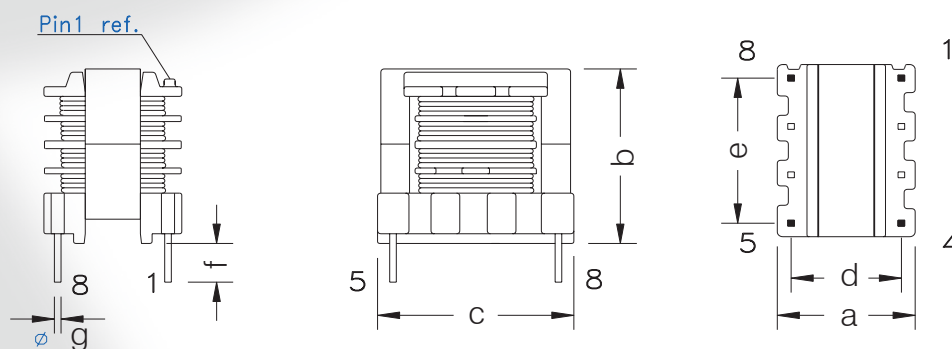
Common Mode from 0,5A to 0,6A

EE1616 CORE SHAPE

For Use With EE2020 & EEEE2525 Switch Power Safety Transformers Series

I	Inductance	Vin	Core Shape	STAMP CODE	PART NUMBER
0,6A	15mH	85-265VAC	EE1616V	/	ERCD24-00
0,5A	27mH	85-265VAC	EE1616V	ER2754	ERCD24-01

EE1616V	
a	= 13.0 MAX
b	= 18.5 MAX
c	= 18.0 MAX
d	= 10.0 ±0,3
e	= 15.0 ±0,3
f	= 3.0 min
g	= 0,6x0,6 ±0,05



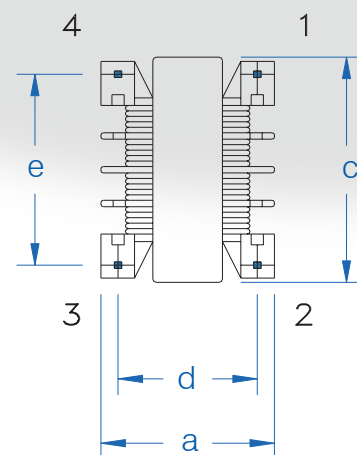
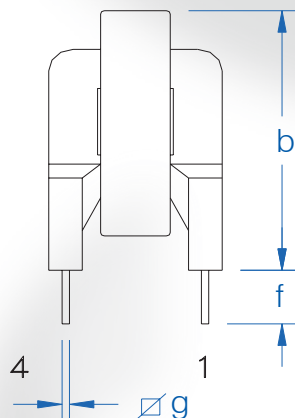
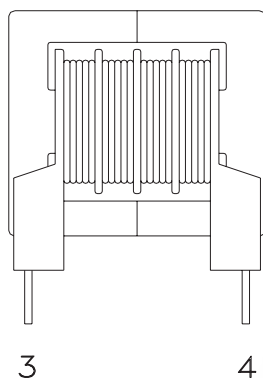
Common Mode from 0,25A to 1,5A

EE1616 CORE SHAPE

For Use With EE3030 & ETD3940 Switch Power Safety Transformers Series

I	Inductance	Vin	Core Shape	STAMP CODE	PART NUMBER
1,5A	5mH	85-265VAC	EE2020	/	ERCD24-00
0,8A	22mH	85-265VAC	EE2020	/	ERCD24-01
0,25A	100mH	85-265VAC	EE2020	ER1875-02	ERCD24-02

EE1616	
a	= 14.3 MAX
b	= 15.3 MAX
c	= 16.3 MAX
d	= 17.3 ±0,3
e	= 18.3 ±0,3
f	= 19.3 min
g	= 20.3 ±0,05



Differential Mode from 0,66A to 1,5A

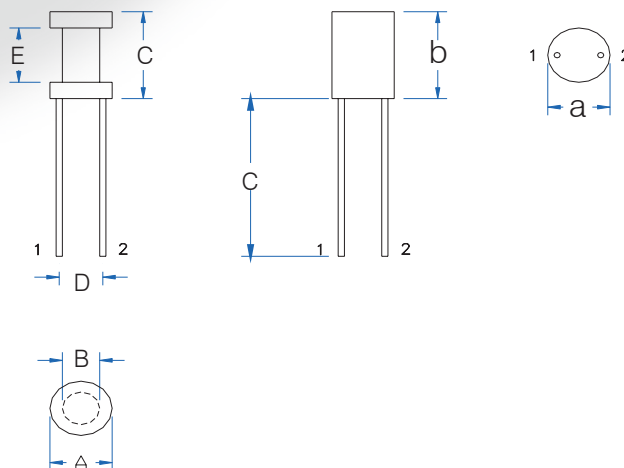
Drum8 & DRUM9 CORE SHAPE

For Use With Switch Power Safety Transformers Series

I	Inductance	Vin	Core Shape	STAMP CODE	PART NUMBER
0,66A	330 μ H	85-265VAC	Drum08	/	DR0810-332K
0,78A	220 μ H	85-265VAC	Drum08	/	DR0810-222K
1,1A	100 μ H	85-265VAC	Drum08	/	DR0810-101K
1,5A	56 μ H	85-265VAC	Drum09	/	DR0810-561K

Drum 8	
a	= 9.0 MAX
b	= 11.5 MAX
c	= 15.0 min
A	= 8.0 $\pm 0,2$
B	= 4.5 $\pm 0,5$
C	= 10.0 $\pm 0,3$
D	= 5.0 ref
E	= 5.50 $\pm 0,2$

Drum 9	
a	= 11.5 MAX
b	= 14.5 MAX
c	= 5.0 $+1/-0$
A	= 9 $+0.1/-0.3$
B	= 3.9 $\pm 0,1$
C	= 12.0 $\pm 0,4$
D	= 5.0 $\pm 0,5$
E	= 7.0 $\pm 0,15$



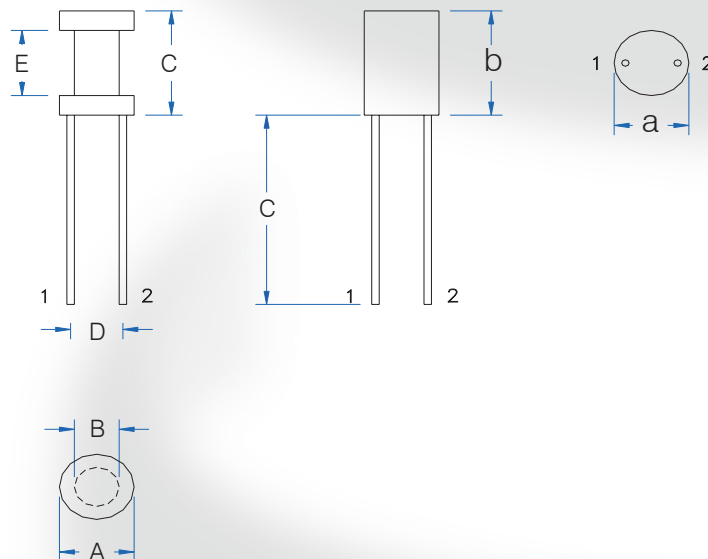
Output Inductors from Drum8 & Drum10 CORE SHAPE

For Use With Switch Power Safety Transformers Series

I	Inductance	Vin	Core Shape	STAMP CODE	PART NUMBER
3,8A	10 μ H	0-60VDC	Drum08	/	DR0810-100K
4,3A	6.8 μ H	0-60VDC	Drum08	ER2777	DR0810-6R8M
5.1	4.7 μ H	0-60VDC	Drum08	/	DR0810-4R7M
5.8	3.3 μ H	0-60VDC	Drum08	/	DR0810-3R3M
8,3A	4.7 μ H	0-60VDC	Drum10	/	DR1012-4R7M

Drum 8	
a	= 9.0 MAX
b	= 11.5 MAX
c	= 15.0 min
A	= 8.0 $\pm 0,2$
B	= 4.5 $\pm 0,5$
C	= 10.0 $\pm 0,3$
D	= 5.0 ref
E	= 5.50 $\pm 0,2$

Drum 10	
a	= 13.0 MAX
b	= 18.0 MAX
c	= 15.0 min
A	= 10.0 $\pm 0,3$
B	= 5.5 $\pm 0,2$
C	= 16.0 $\pm 0,6$
D	= 4.5 ref
E	= 10.0 $\pm 0,4$





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