

LAMINATION CORES OF PERMALLOY

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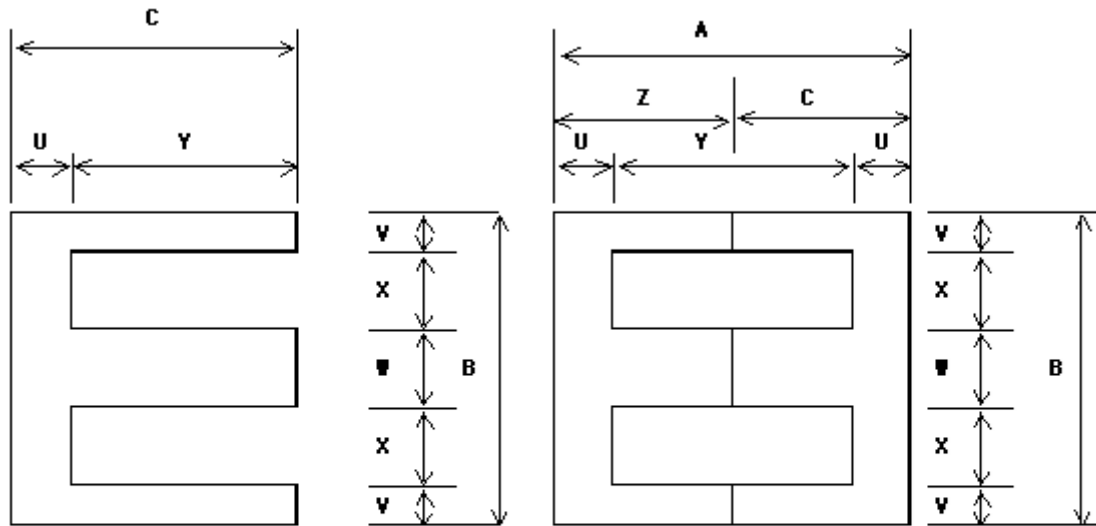


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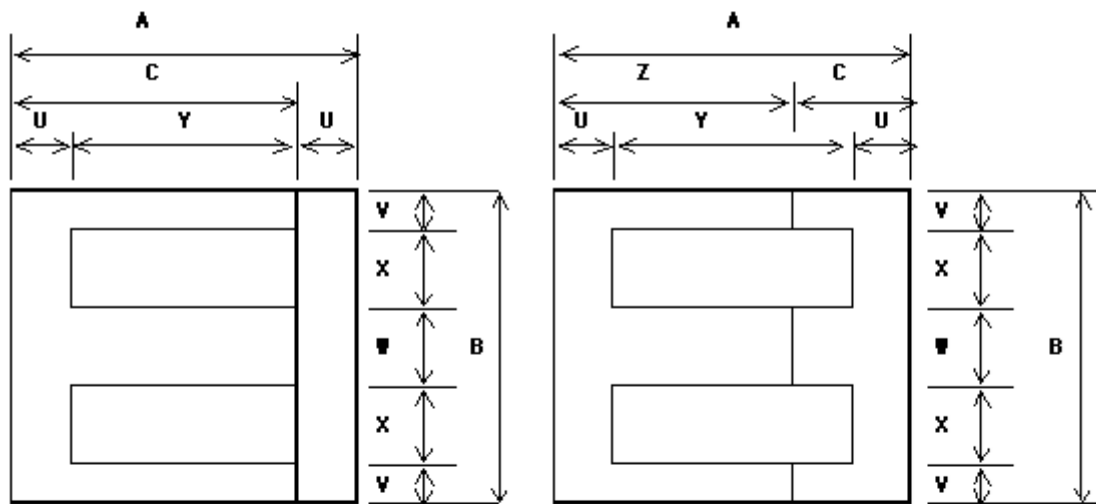
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1. SPECIFICATION OF LAMINATION CORES



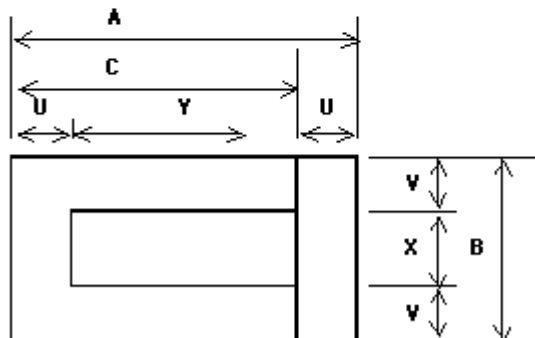
E-CORE

EE-CORE(A-TYPE)



EI-CORE

EE-CORE(B-TYPE)



UI-CORE

2.DIMENSION LIST OF LAMINATION CORES

TYPE	A	B	C	U	V	W	X	Y	Z
ED-8(8X11)	-	8	11.00	2.7	1.2	2.4	1.6	8.3	-
ED-8LE(8.1X13.65)	-	8.1	13.65	2.75	1.405	2.45	1.42	10.9	-
ED-8(8X13.6)	-	8	13.6	2.8	1.2	2.5	1.55	10.8	-
ED-8(8.26X13.59)	-	8.26	13.59	2.72	1.33	2.4	1.6	10.87	-
ED-8LE(8X14)	-	8	14	2.7	1.2	2.4	1.6	11.3	-
ED-8LE(8X16)	-	8	16	2.7	1.2	2.4	1.6	13.3	-
EE3031EL	-	9.525	9.525	1.19	1.19	2.385	2.38	8.335	-
10-9.5LE	-	10	9.5	2.0	1.35	2.5	2.4	7.5	-
ED-12.6	-	12.6	17	4.1	1.9	3.8	2.5	12.9	-
12.7LE	-	12.72	11.11	1.58	1.59	3.18	3.18	9.53	-
13.5LE	-	13.5	16	2.4	2.2	4.8	2.15	13.6	-
ED-16	-	16	21	4.9	2.4	4.8	3.2	16.1	-
ED-20	-	20	26	6	3	6	4	20	-
ED-25	-	25	33	7.8	3.8	7.6	4.9	25.2	-
14EI	10.5	14	8.75	1.75	1.75	3.5	3.5	7	-
14LE	-	14	10.5	1.75	1.75	3.5	3.5	8.75	-
14-12E	-	14	12	2.5	1.75	3.5	3.5	9.5	-
15.2E	-	15.24	10.795	1.905	1.905	3.81	3.81	8.89	-
16EI	14	16	12	2	2	4	4	10	-
16LE	-	16	14	2	2	4	4	12	-
16LE(LOSS TYPE)	-	16	16	2.4	2.4	4.8	3.2	13.6	-
16UI	18.1	16.6	15.3	2.8	2.8	-	11	12.5	-
16-11E	-	16	11	2.4	2.4	4.8	3.2	8.6	-
188EE	-	18.8	7.7	2.35	2.35	4.7	4.7	5.35	-
19EE(18.8)	42	18.8	21	5.2	3.3	6.8	2.7	31.6	21
19EI	15	19	12.5	2.5	2.375	4.75	4.75	10	-
19LE	-	19	15	2.5	2.375	4.75	4.75	12.5	-
185LE	-	19.05	13.49	2.38	2.38	4.76	4.76	11.11	-
185LE(GAP)	-	19.05	13.49	2.38	2.38	4.76	4.76	11.11	-
186EI	11.15	19.08	8.75	2.4	2.385	4.77	4.77	6.35	-
186LE	-	19.04	11.13	2.4	2.38	4.76	4.76	8.73	-

2.DIMENSION LIST OF LAMINATION CORES

TYPE	A	B	C	U	V	W	X	Y	Z	
187EI	15.91	19.08	13.51	2.4	2.385	4.77	4.77	11.11	-	
187LE	-	19.08	15.9	2.4	2.385	4.77	4.77	13.5	-	
19.51LE	-	19.51	14.7	3.7	3	4.5	4.505	11	-	
20EE	A TYPE	20.2	20	10.1	3.0	3.0	6.0	4.0	14.2	10.1
	B TYPE	20	20	6	3	3	6	4	14	14
22EE	24	22	12	3	3	6	5	18	12	
22LE	28	22	14	3	3	6	5	22	14	
24EI	18	24	15	3	3	6	6	12	-	
24LE	-	24	18	3	3	6	6	15	-	
25.4E	-	25.4	12.7	3.18	3.175	6.35	6.35	9.525	-	
24-25LE	-	25.4	19.05	3.175	3.175	6.35	6.35	15.875	-	
24-25EE	19.05	25.4	6.35	3.175	3.175	6.35	6.35	12.7	12.7	
24-25EE(GAP)	19.05	25.4	6.35	3.175	3.175	6.35	6.35	12.7	12.7	
26-27EE	27.01	31.75	9.45	4.77	4.76	9.53	6.35	17.47	17.47	
27E(GAP)	-	31.75	17.45	4.75	4.75	9.55	6.35	12.7	-	
28EI	25	28	21.5	3.5	3.5	7	7	18	-	
32EE	32.24	31.97	16.12	4.65	4.75	9.47	6.5	22.94	16.12	
375EI	28.55	34.93	23.8	4.75	4.78	9.53	7.92	19.05	-	
35EI	29.5	35	24.5	5	5	9.6	7.7	19.5	-	
41EI	33	41	27	6	6	13	8	21	-	

3. MAGNETIC CHARACTERISTICS OF PERMALLOY

MATERIAL TYPE	THICKNESS (mm)	MAGNETIC CHARACTERISTICS				
		INITIAL PERMEABILITY (μ i)	MAXIMUM PERMEABILITY (μ max)	COERCIVE FORCE (Oersteds)	SATURATION MAGNETIC FLUX DENSITY (B ₁₀)	AC PERMEABILITY (at 1KHz)
Ni78~81%	0.2	190,000MIN	300,000MIN	0.01MAX	7,200MIN	8,000MIN
	0.35	190,000MIN	300,000MIN	0.01MAX	7,200MIN	4,000MIN
Ni44~46%	0.35	6,200MIN	56,000MIN	0.07MAX	14,800MIN	2,600MIN
Ni47~49%	0.35	10,000MIN	100,000MIN	0.01MAX	15,000MIN	2,200MIN

4. HEAT TREATMENT

1. ATMOSPHERE : H₂ GAS (DEW POINT: -40°C ~ -60°C)
2. TYPE : BATCH FURNACE
3. TREATMENT CONDITION

ALLOY	TEMPERATURE	TIME	COOLING DETAILS
Ni 80%	1100°C	4Hr	1°C/MIN BETWEEN 600°C~300°C
NI 45~48%	1120°C	4Hr	COOL TO 300°C

5. THICKNESS,BURR,TOLERANCE

	THICKNESS(mm)			BURR
SPEC	0.15	0.2	0.35	MAX 0.02
TOLERANCE	+0 -0.01	+0 -0.01	+0 -0.02	-

6. ENGINEERING DATA

● TURNS:

$$N = \frac{E_{rms} \times 10^8}{4.44 \times f \times A \times B}$$

N= Turns required

E= RMS voltage applied to N

F= Frequency of E,Hz

A= CORE area ,Cm²

● INDUCTANCE:

$$L = \frac{0.4\pi N^2 A \mu}{\ell \times 10^8}$$

L= Inductance, Henries

N= number of turns on winding

A= Net core area ,Cm²

μ = CORE Permeability

ℓ = Magnetic path length , Cm

● MAGNETIC FORCE :

$$H = \frac{0.4\pi NI}{\ell}$$

H= Magnetizing force – Oersted

N= number of turns

I = Peak current , Amperes

ℓ = Magnetic path length , Cm

7. MAGNETIC DESIGN FORMULAE

B_{max} in Calculated using ℓ (path length in Cm) and A(Cross Sectional area for a square stack in square centimeters) and E_{rms} = 1.0 Volt at frequency 60 Hertz. N is the number of turns of the electrical winding.

H is calculated in oersted per milliamperes of D.C.

The inductance (L) is calculated for a square stack, N is the number of turns. μ ac is the permeability of the lamination size, grade and thickness.

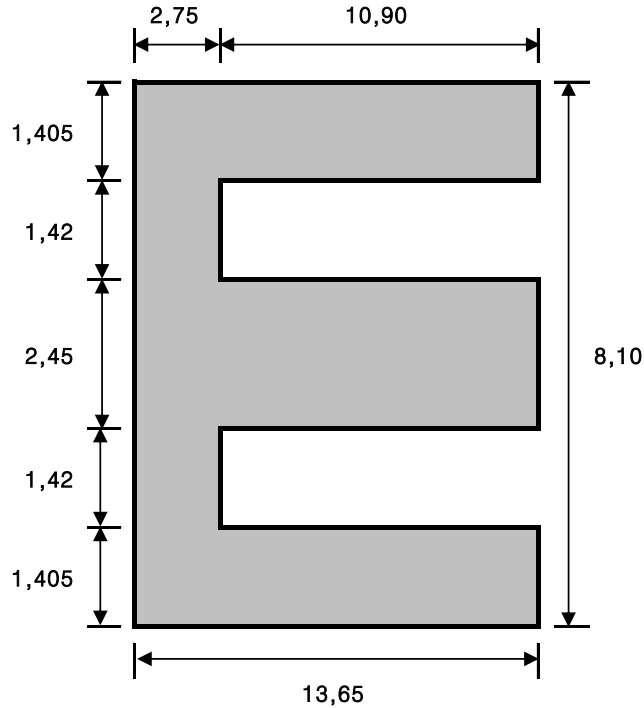
K₁ is the stacking factor given formulae.

8. LAMINATION INDEX

PART NO	PAGE	PART NO	PAGE
ED-8(8X11)	9	185LE	36
ED-8LE(8.1X13.65)	10	185LE(GAP)	37
ED-8(8X13.6)	11	186EI	38
ED-8(8.26X13.59)	12	186LE	39
ED-8LE(8X14)	13	187EI	40
ED-8LE(8X16)	14	187LE	41
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ED-25	22	25.4E	49
14EI	23	24-25LE	50
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15.2E	26	26-27EE	53
16EI	27	27E(GAP)	54
16LE	28	28EI	55
16LE(LOSS TYPE)	29	32EE	56
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16-11E	31	35EI	58
188EE	32	41EI	59
19EE(18.8)	33	46.83EI	60
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ED-8LE(8.1X13.65)

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{6256 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.433 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0259 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 2,90 \text{ cm}$$

$$A = 0,06 \text{ cm}^2$$

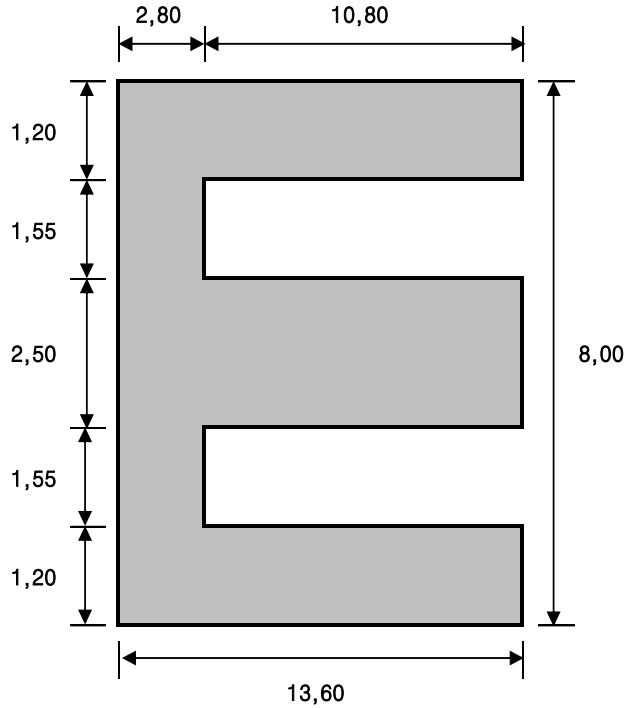
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.15T	0,1040	9.615
	0.2T	0,1360	7.353

ED-8(8X13.6)

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK (10EA)

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{7507 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.437 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0218 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 2.87 \text{ cm}$$

$$A = 0.05 \text{ cm}^2$$

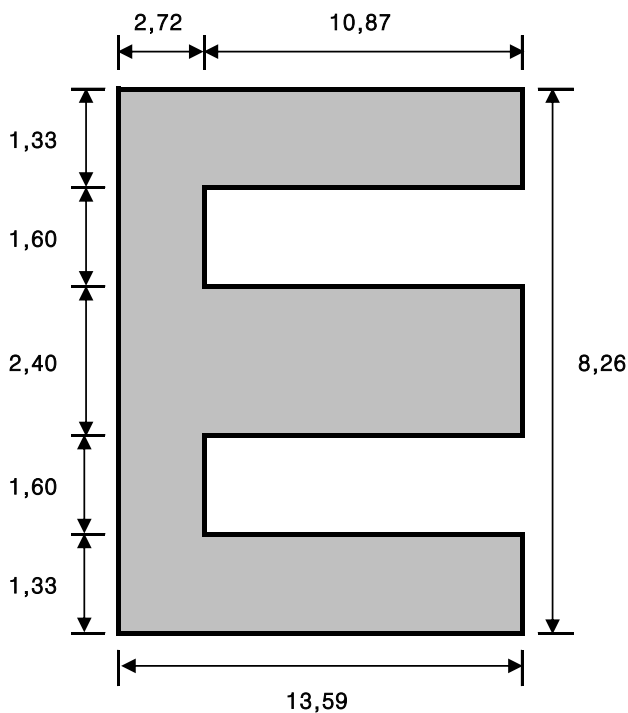
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.2T		

ED-8(8.26X13.59)

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK (12EA)

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{8729 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.431 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0185 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 2,91 \text{ cm}$$

$$A = 0,043 \text{ cm}^2$$

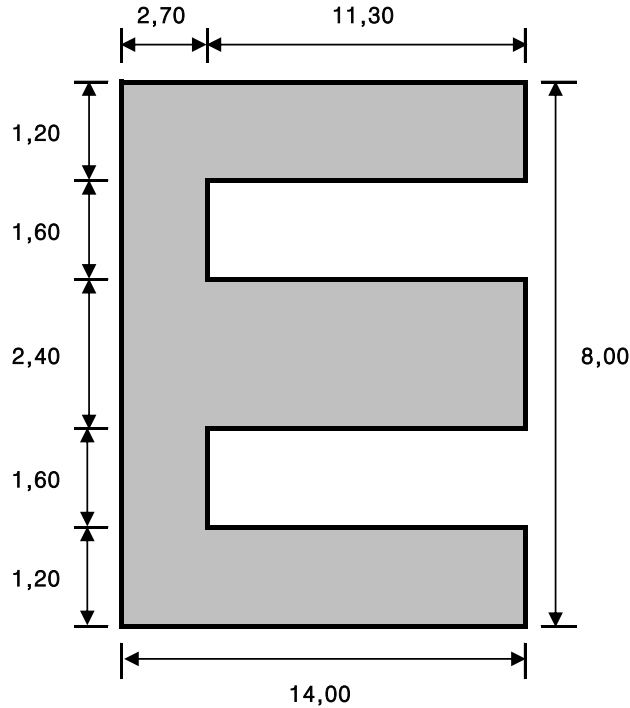
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.15T		

ED-8LE(8X14)

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{6471 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.422 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0245 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 2,97 \text{ cm}$$

$$A = 0,058 \text{ cm}^2$$

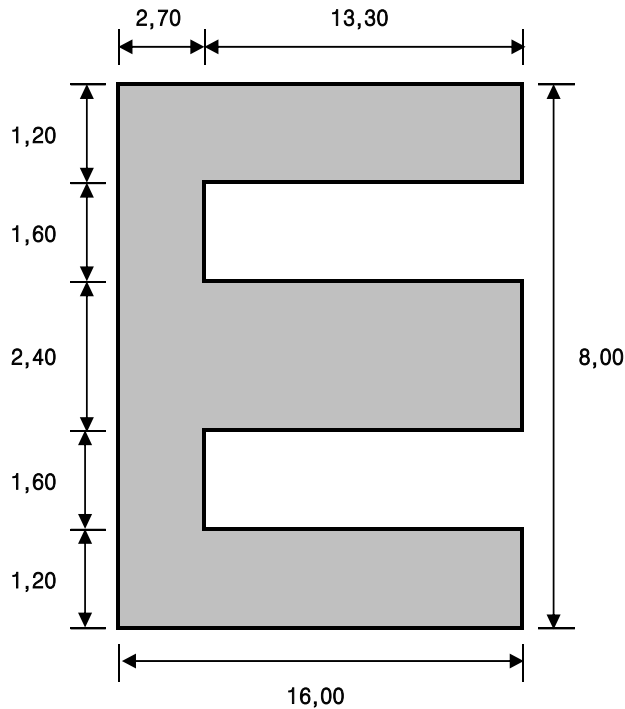
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.2T	0,1330	7.518

ED-8LE(8X16)

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{6471 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.372 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0216 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 3.37 \text{ cm}$$

$$A = 0.058 \text{ cm}^2$$

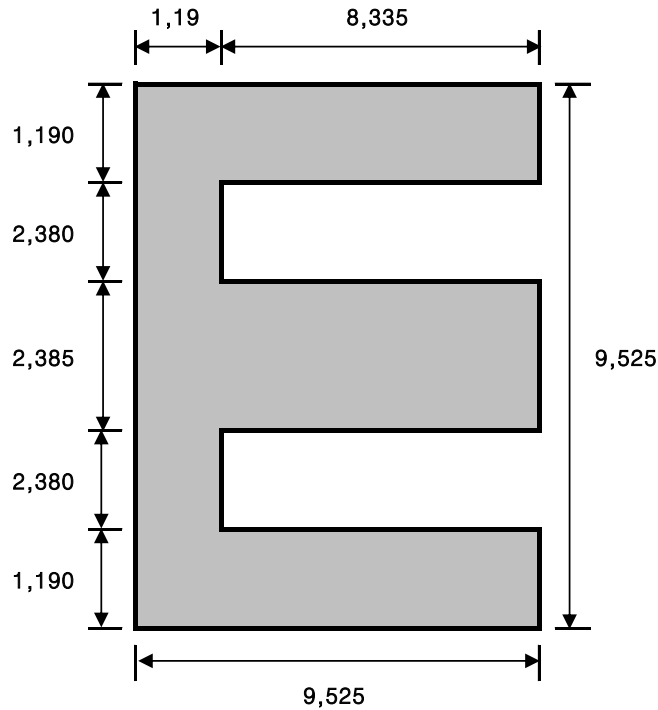
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.2T	0,1460	6.849

EE3031EL

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK (10EA)

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{7986 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.527 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0248 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 2,38 \text{ cm}$$

$$A = 0,047 \text{ cm}^2$$

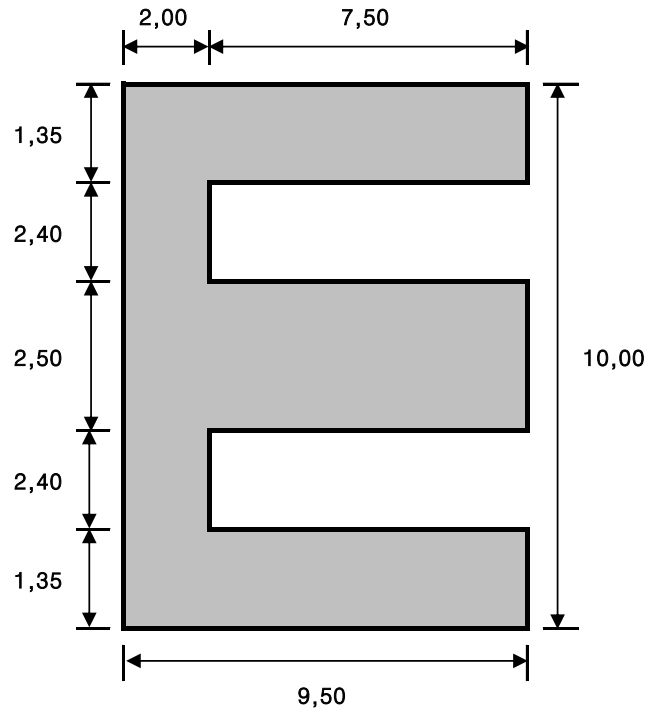
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.2T	0,0871	11.481

10-9.5LE

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK (15EA)

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{6054 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.539 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0334 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 2,33 \text{ cm}$$

$$A = 0,062 \text{ cm}^2$$

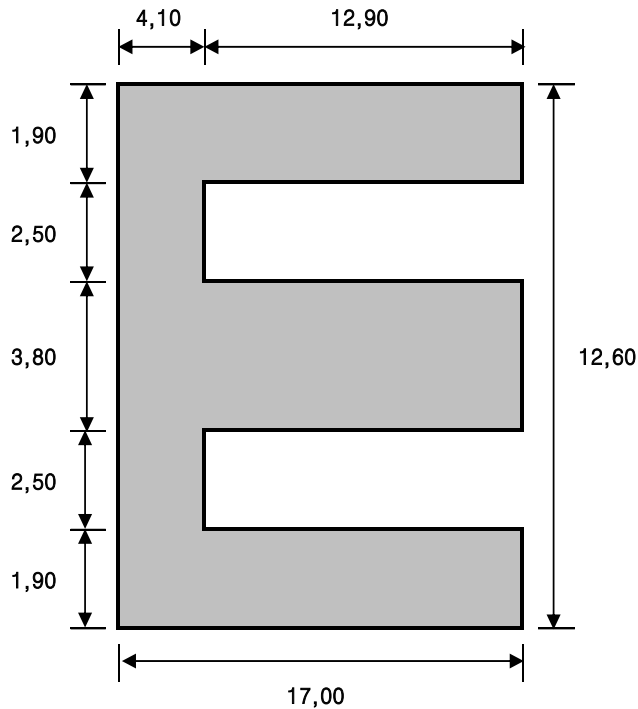
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.15T	0,0748	13.369
	0.2T	0,1006	9.940

ED-12.6

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK (10EA)

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{4939 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.341 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0259 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 3,68 \text{ cm}$$

$$A = 0,076 \text{ cm}^2$$

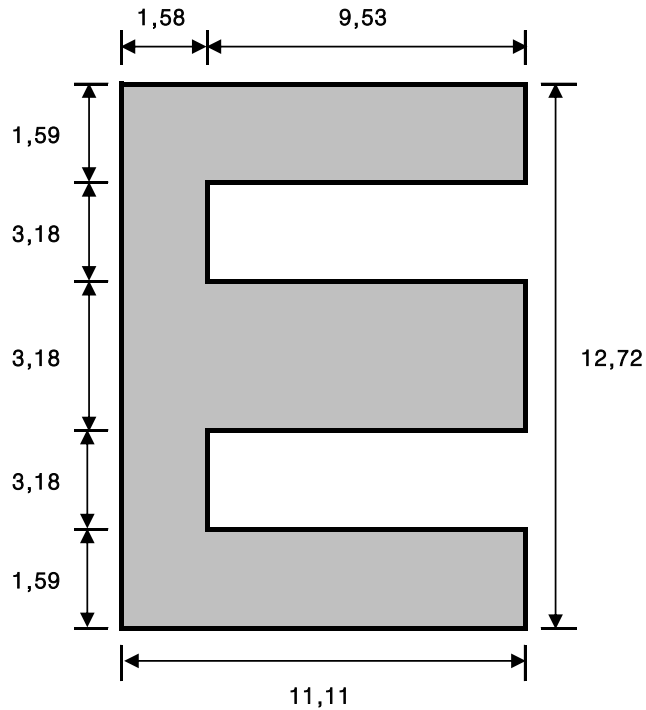
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.2T	0,2554	3.915

12.7LE

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{3753 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.439 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0439 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 2,86 \text{ cm}$$

$$A = 0,1 \text{ cm}^2$$

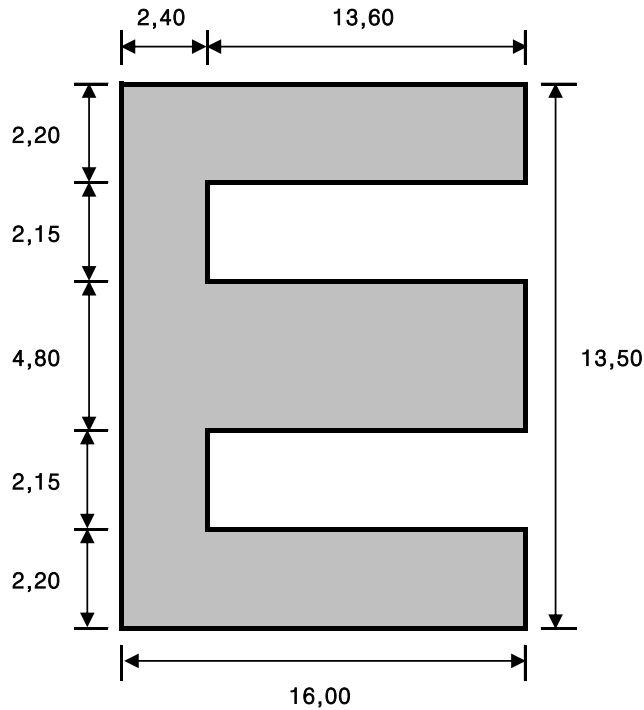
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.15T	0,1060	9.434
	0.2T	0,1410	7.092
	0.35T	0,2470	4.049
NI 45~48%	0.35T	0,2330	4.292

13.5LE

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{1632 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.350 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.080 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 3,59 \text{ cm}$$

$$A = 0,23 \text{ cm}^2$$

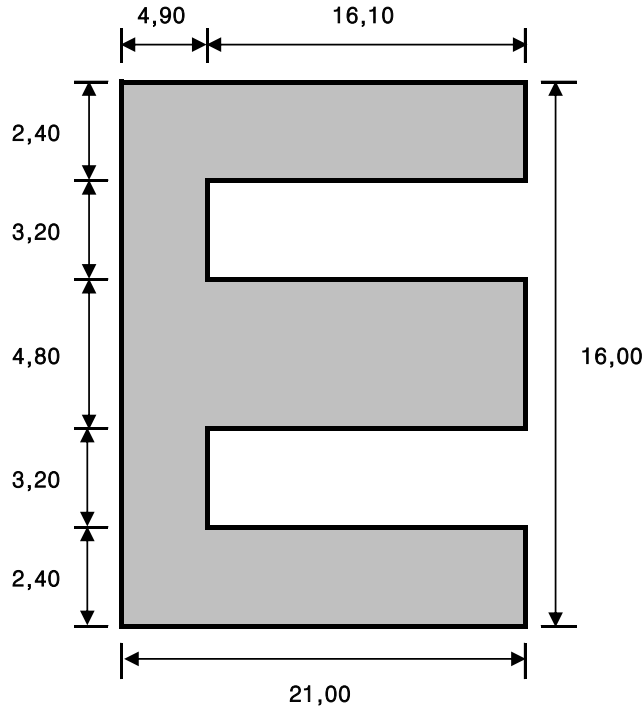
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.15T	0,2070	4.831

ED-16

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK (15EA)

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{2681 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.273 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0383 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 4,59 \text{ cm}$$

$$A = 0,14 \text{ cm}^2$$

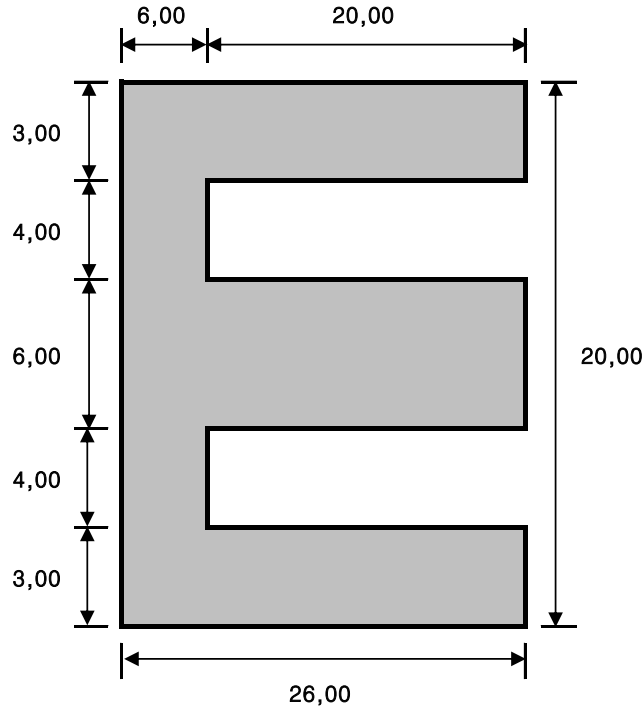
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.2T		

ED-20

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK (10EA)

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{3128 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.220 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0264 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 5,70 \text{ cm}$$

$$A = 0,12 \text{ cm}^2$$

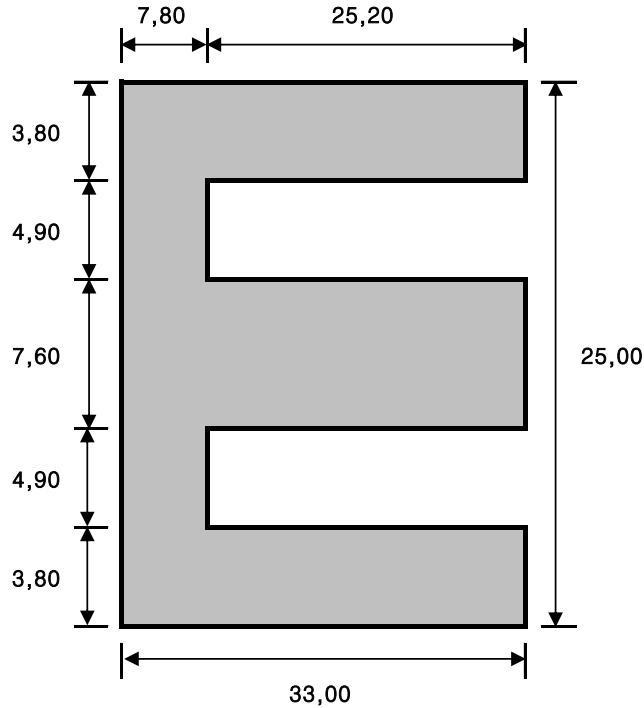
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.2T		

ED-25

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK (10EA)

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{2502 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.174 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0262 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 7,18 \text{ cm}$$

$$A = 0,15 \text{ cm}^2$$

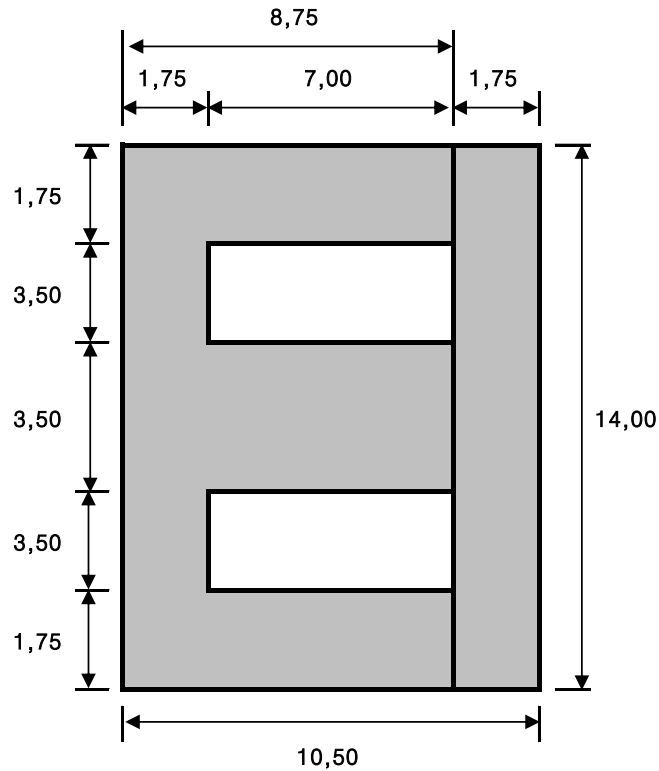
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.2T		

14EI

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{3051 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.448 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.055 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 2,80 \text{ cm}$$

$$A = 0,123 \text{ cm}^2$$

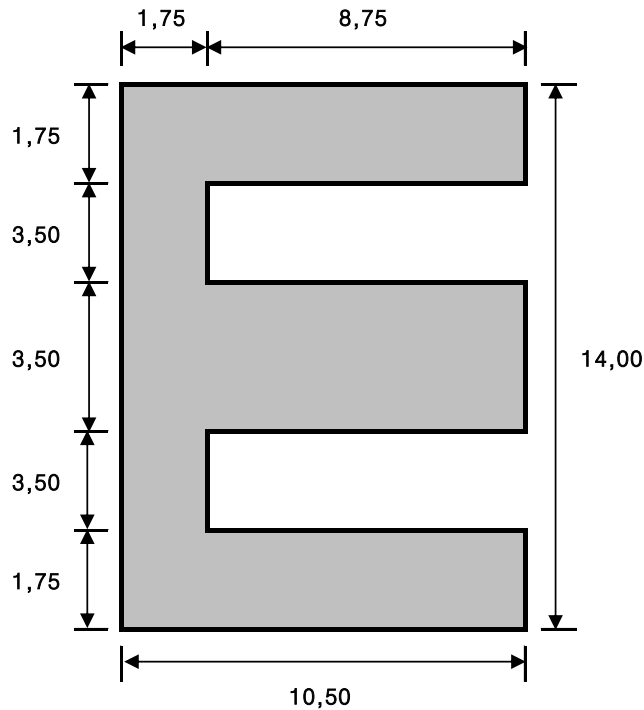
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.2T	0,1710	5.848
	0.35T	0,3000	3.333
NI 45~48%	0.35T	0,2830	3.534

I 4LC

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{\max} = \frac{3051 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.449 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.055 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 2,80 \text{ cm}$$

$$A = 0,123 \text{ cm}^2$$

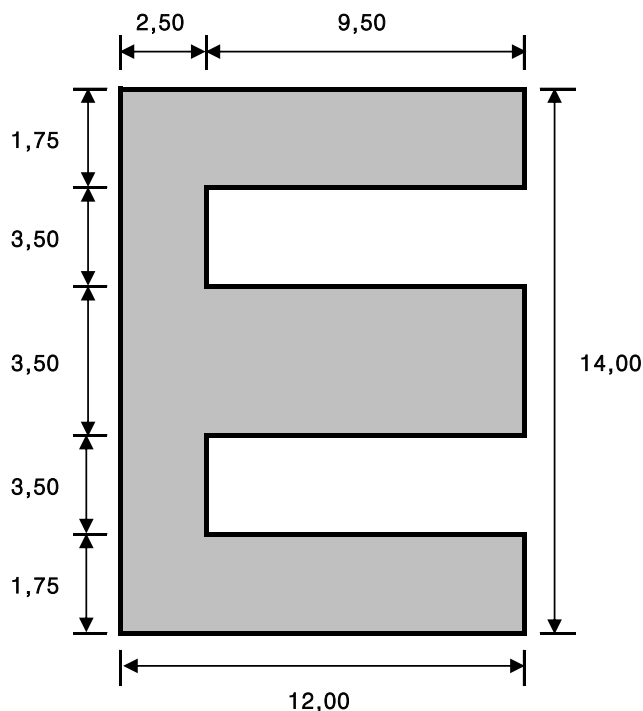
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
PC (NI 80%)	0.2T	0,1500	6.667
	0.35T	0,2620	3.817
NI 45~48%	0.35T	0,2470	4.049

14-12E

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK (10EA)

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{3076 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.414 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0505 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 3,03 \text{ cm}$$

$$A = 0,122 \text{ cm}^2$$

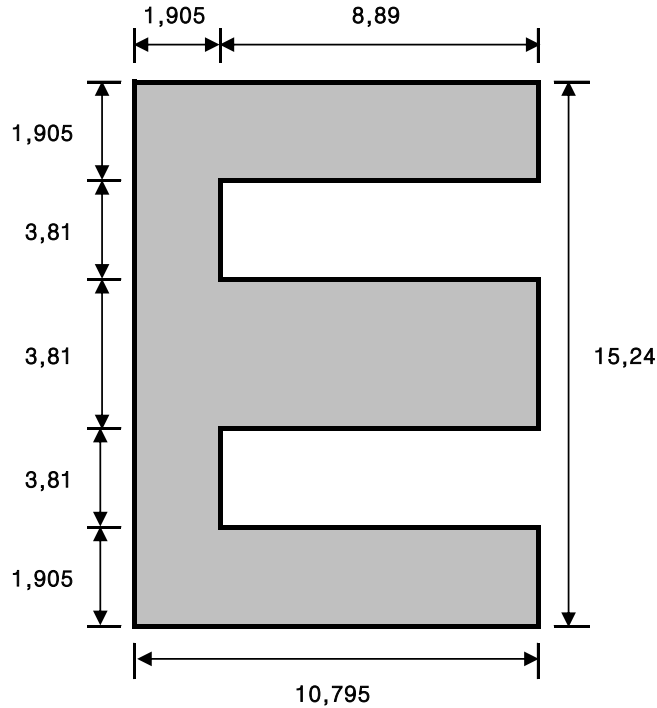
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.35T	0,3064	3.264
NI 45~48%	0.35T	0,2888	3.463

15.2E

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{2589 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.430 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0624 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 2,92 \text{ cm}$$

$$A = 0,145 \text{ cm}^2$$

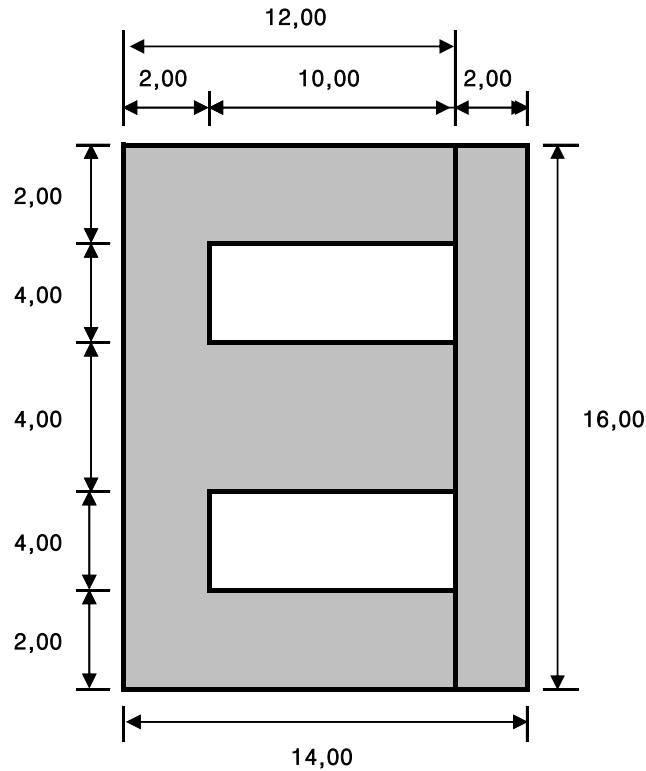
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.15T	0,1270	7.874

16EI

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{2346 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.349 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0588 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 3,60 \text{ cm}$$

$$A = 0,16 \text{ cm}^2$$

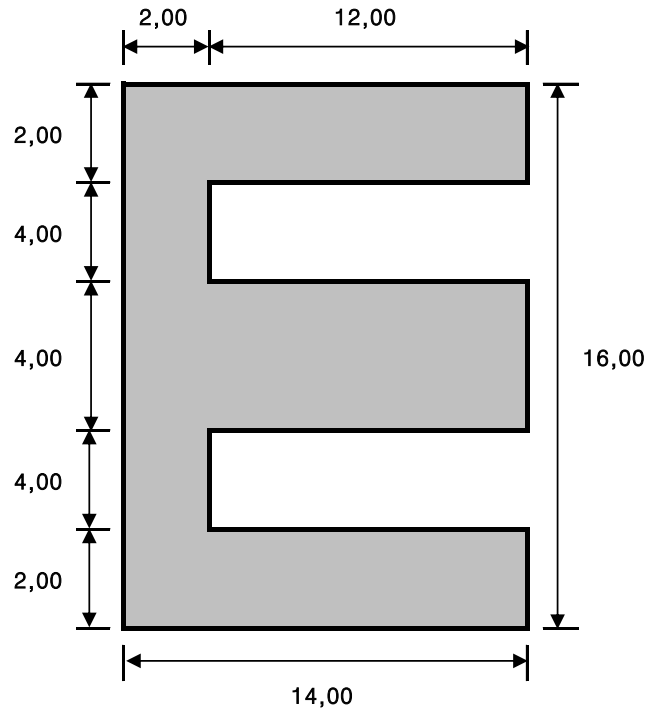
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.2T	0,2520	3.968
	0.35T	0,4410	2.268
NI 45~48%	0.35T	0,4160	2.404

16LE

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{2346 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.349 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0558 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 3,60 \text{ cm}$$

$$A = 0,16 \text{ cm}^2$$

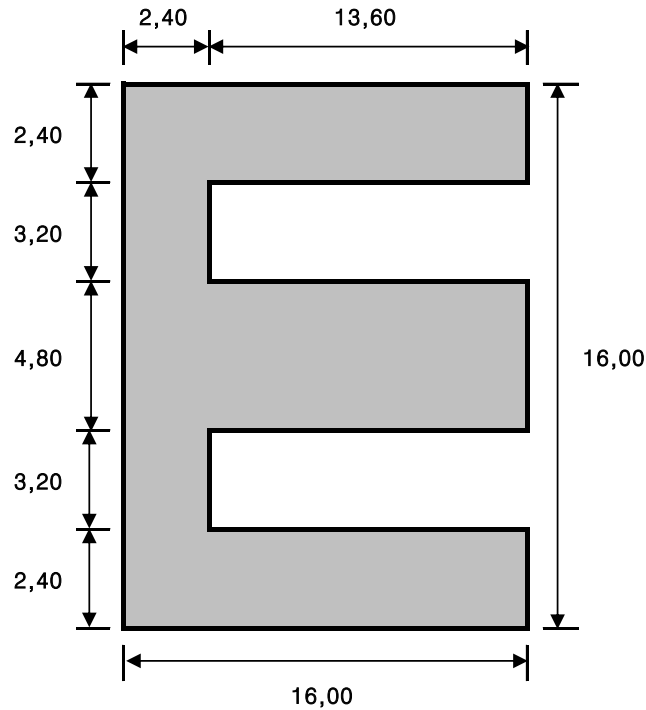
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.2T	0,2240	4.464
	0.35T	0,3920	2.551
NI 45~48%	0.35T	0,3700	2.703

16LE(LOSS TYPE)

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{1632 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.327 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0752 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 3,84 \text{ cm}$$

$$A = 0,23 \text{ cm}^2$$

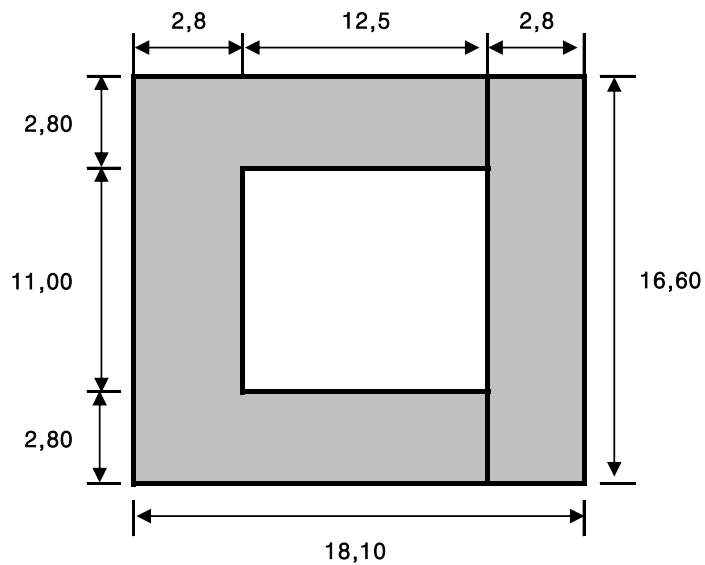
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.15T	0,2220	4.505
	0.2T	0,2960	3.378
	0.2T	0,5170	1.934
NI 45~48%	0.35T	0,4880	2.049

16UI

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{4692 \cdot 10^3 \text{ gauss per Volt at 60Hz}}{K_1 N} \quad (N \text{ is number of turns})$$

$$H_0 = (0.216 \cdot 10^{-3}) N \text{ Oersted per milliampere of direct current in winding}$$

$$L = (0.0173 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 5,82 \text{ cm}$$

$$A = 0,08 \text{ cm}^2$$

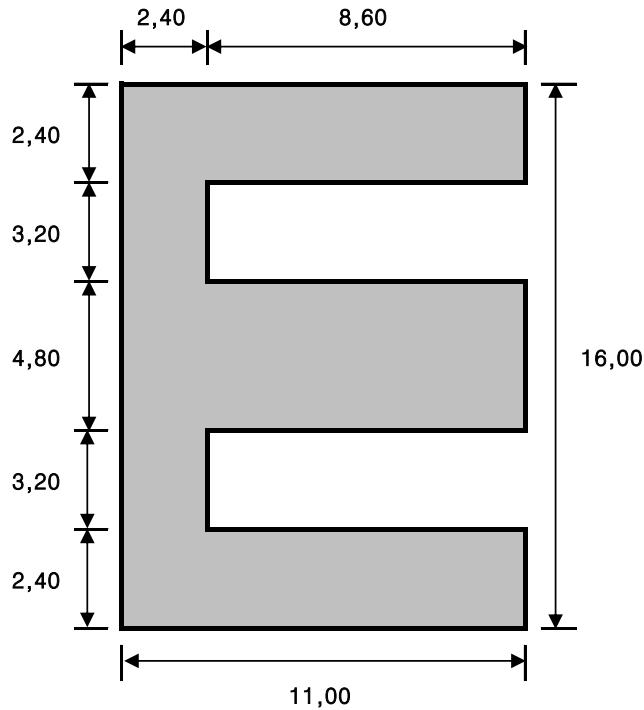
K_1 (STACKING FACTOR)

Thickness	K_1	
	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.35T	0,4990	2.004

16-11E

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK (10EA)

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{2346 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.442 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0707 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 2,84 \text{ cm}$$

$$A = 0,16 \text{ cm}^2$$

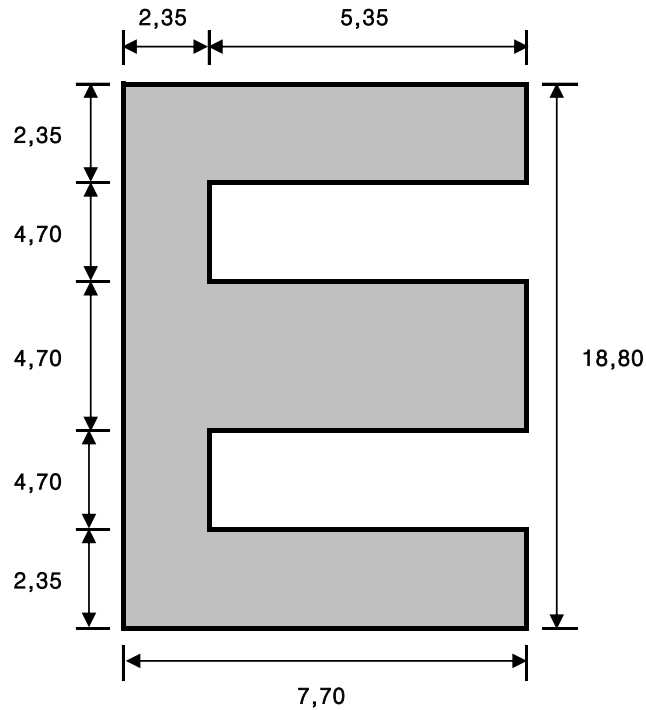
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.35T	0,3651	2.739

188EE

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK (10EA)

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{2346 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.506 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.081 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 2,48 \text{ cm}$$

$$A = 0,16 \text{ cm}^2$$

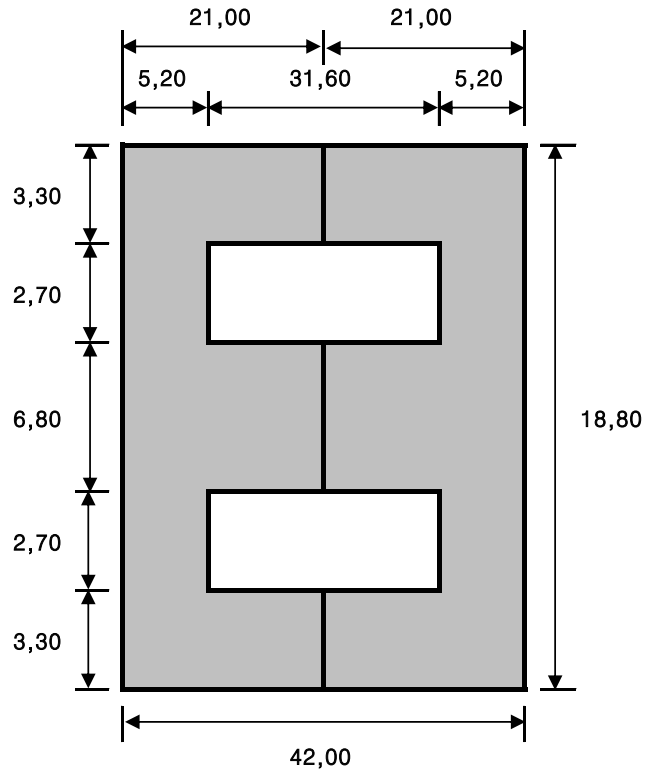
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 45~48%	0.35T	0,2688	3.720

19EE(18.8)

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{816 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.147 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.067 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 8,56 \text{ cm}$$

$$A = 0,46 \text{ cm}^2$$

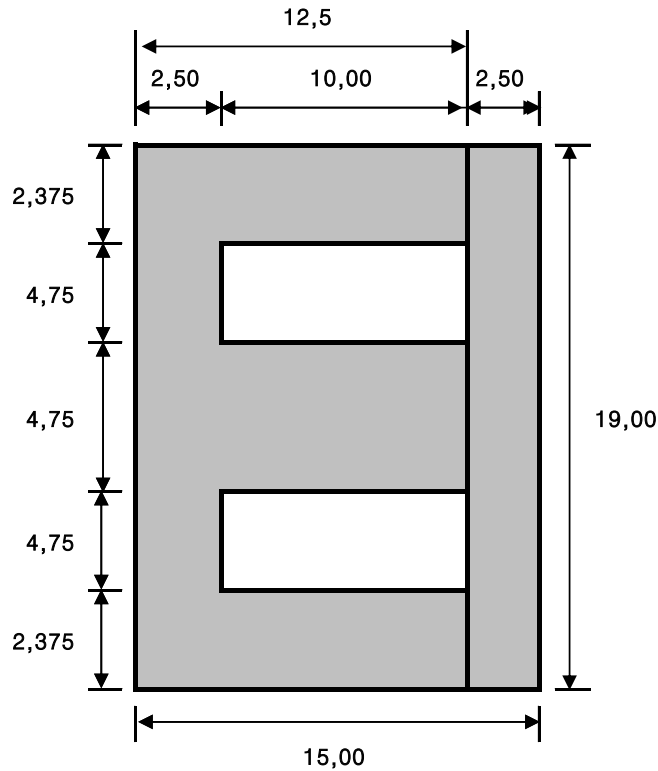
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 45~48%	0.35T	1,7700	565

19EI

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{1668 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.320 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.072 \cdot 10^{-4}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 3,92 \text{ cm}$$

$$A = 0,225 \text{ cm}^2$$

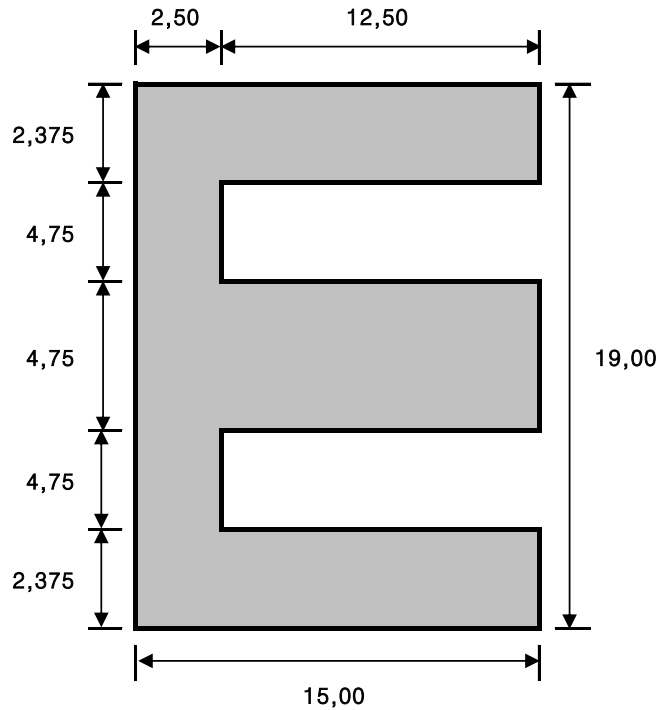
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.35T	0,5820	1.718
NI 45~48%	0.35T	0,5480	1.825

19LE

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{1668 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.320 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.072 \cdot 10^{-4}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 3,92 \text{ cm}$$

$$A = 0,225 \text{ cm}^2$$

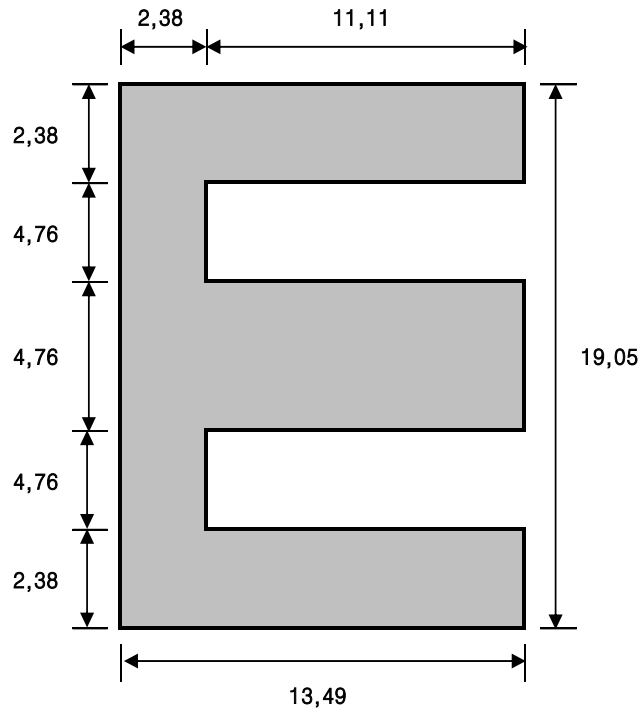
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.2T	0,2910	3.436
	0.35T	0,5090	1.965
NI 45~48%	0.35T	0,4800	2.083

185LE

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{1654 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.344 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0781 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 3,65 \text{ cm}$$

$$A = 0,227 \text{ cm}^2$$

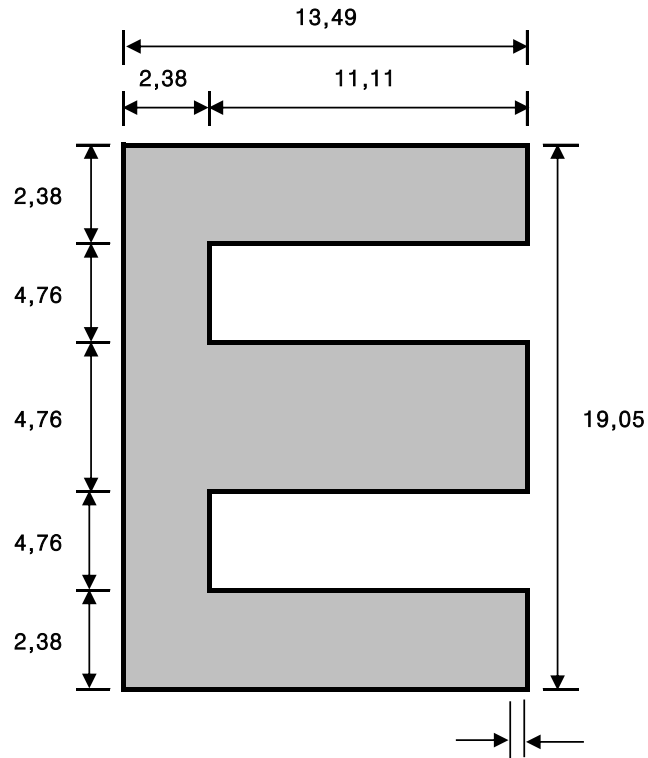
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.15T	0,1980	5.051

185LE(GAP)

CORE



GAP:0.254

TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{1654 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.344 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0781 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 3,65 \text{ cm}$$

$$A = 0,227 \text{ cm}^2$$

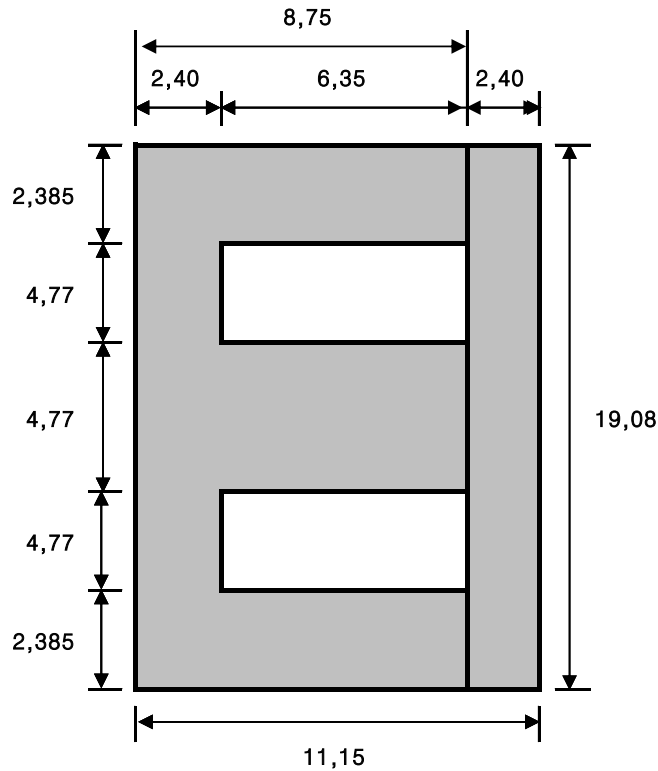
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.15T	0,1980	5.051

186EI

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{1654 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.395 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0897 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 3,18 \text{ cm}$$

$$A = 0,227 \text{ cm}^2$$

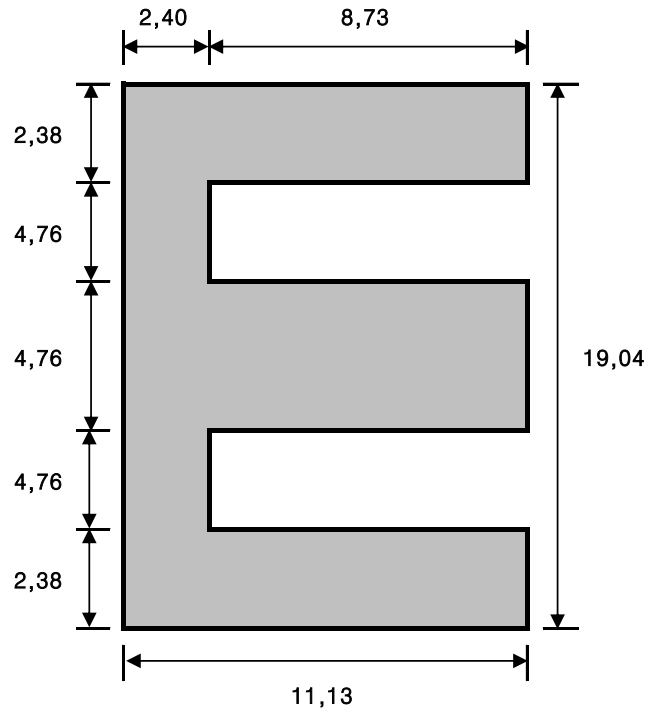
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.2T	0,2660	3.759
	0.35T	0,4660	2.146
NI 45~48%	0.35T	0,4400	2.273

186LE

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{1654 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.395 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0897 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 3,18 \text{ cm}$$

$$A = 0,227 \text{ cm}^2$$

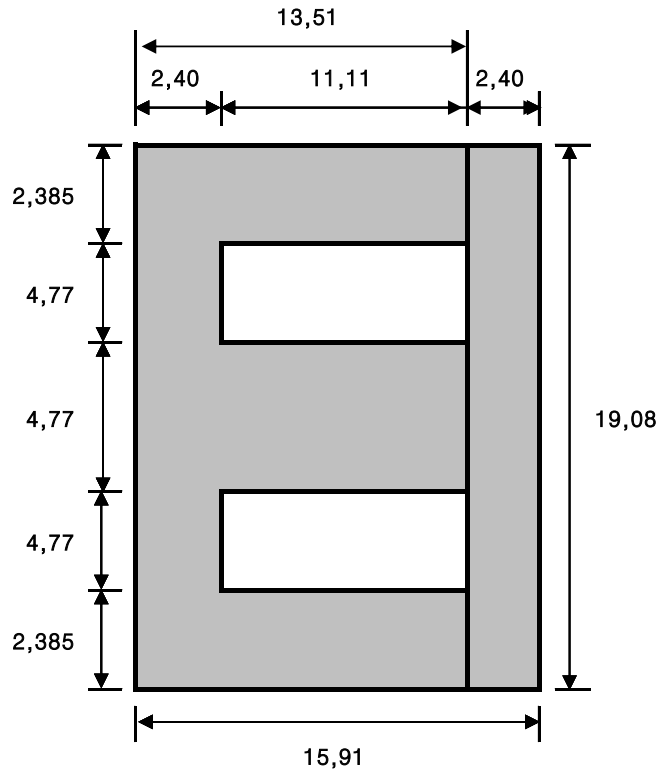
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.2T	0,2260	4.425
	0.35T	0,3960	2.525

187EI

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{1653 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.304 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0690 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 4,13 \text{ cm}$$

$$A = 0,227 \text{ cm}^2$$

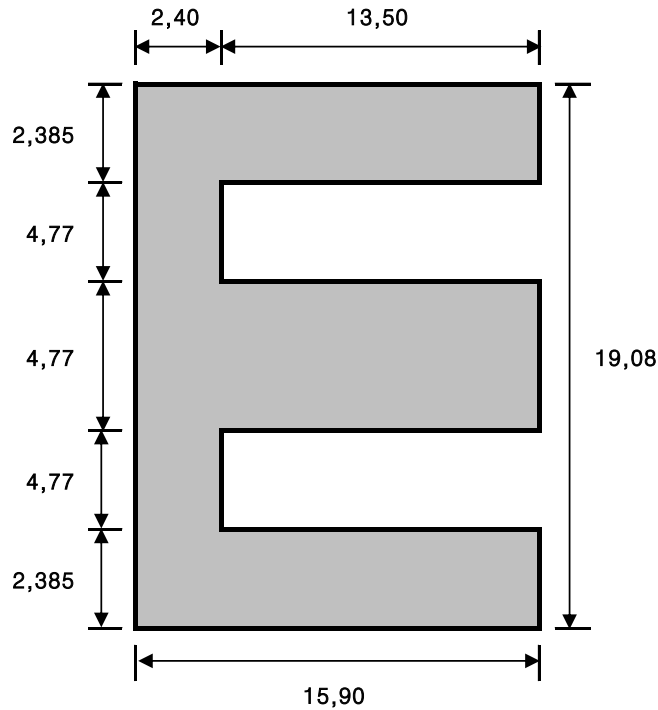
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.35T	0,6050	1.653

187LE

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{1652 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.304 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0690 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 4,13 \text{ cm}$$

$$A = 0,227 \text{ cm}^2$$

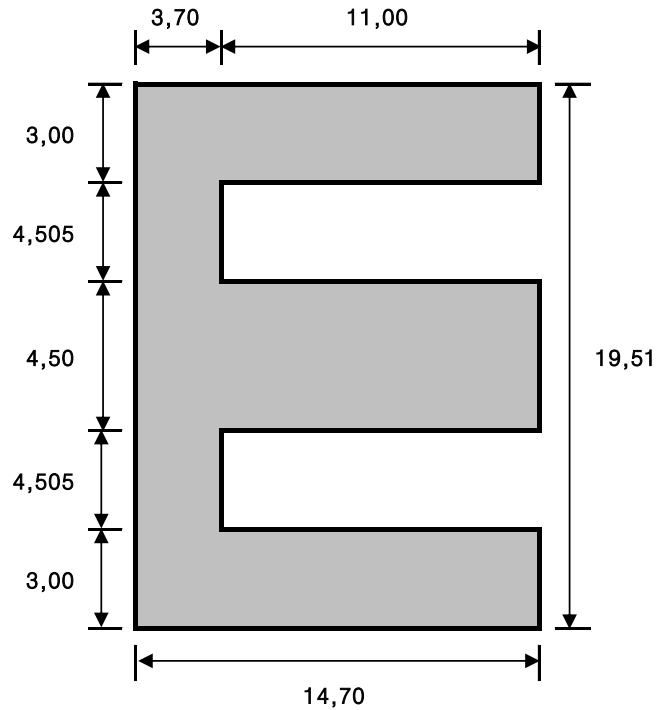
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.2T	0,3050	3.279
	0.35T	0,5350	1.869
NI 80%	0.35T	0,5040	1.984

19.51LE

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{1858 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.333 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0672 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 3,77 \text{ cm}$$

$$A = 0,202 \text{ cm}^2$$

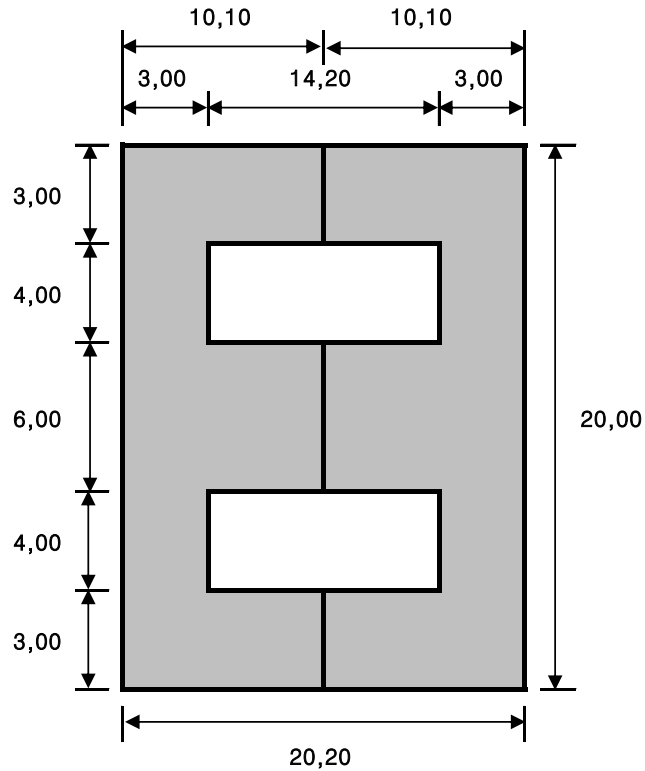
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.2T	0,3280	3.049

20EE(A TYPE)

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{1043 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.259 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0935 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 4.84 \text{ cm}$$

$$A = 0.36 \text{ cm}^2$$

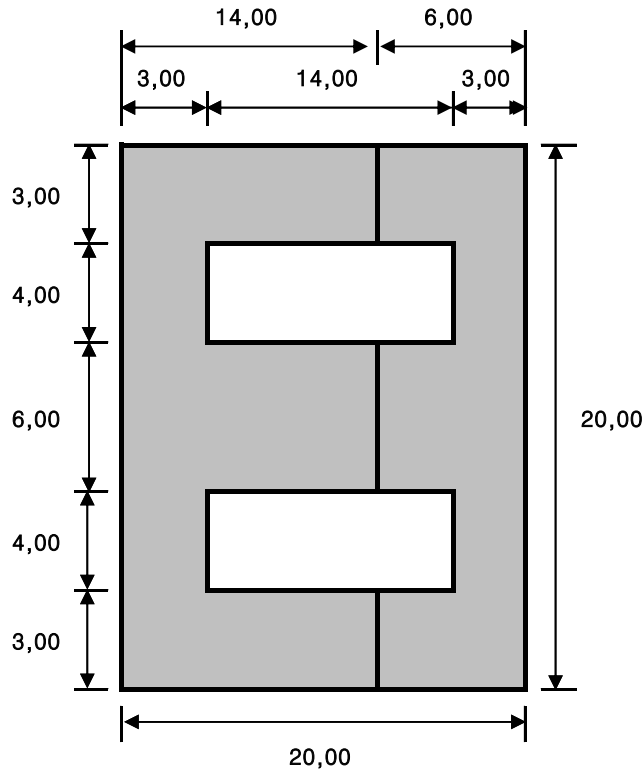
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.35T	0,8890	1.125

20EE(B TYPE)

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{1042 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.259 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0934 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 4,84 \text{ cm}$$

$$A = 0,36 \text{ cm}^2$$

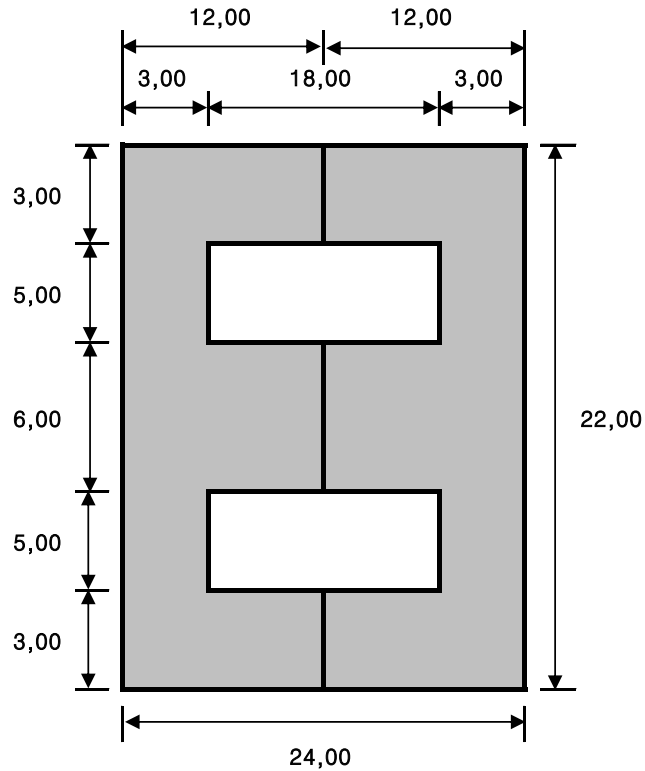
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.35T	L: 0,5796	1.725
		S: 0,2898	3.451

22EE

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{1042 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.217 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.080 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 5,80 \text{ cm}$$

$$A = 0,36 \text{ cm}^2$$

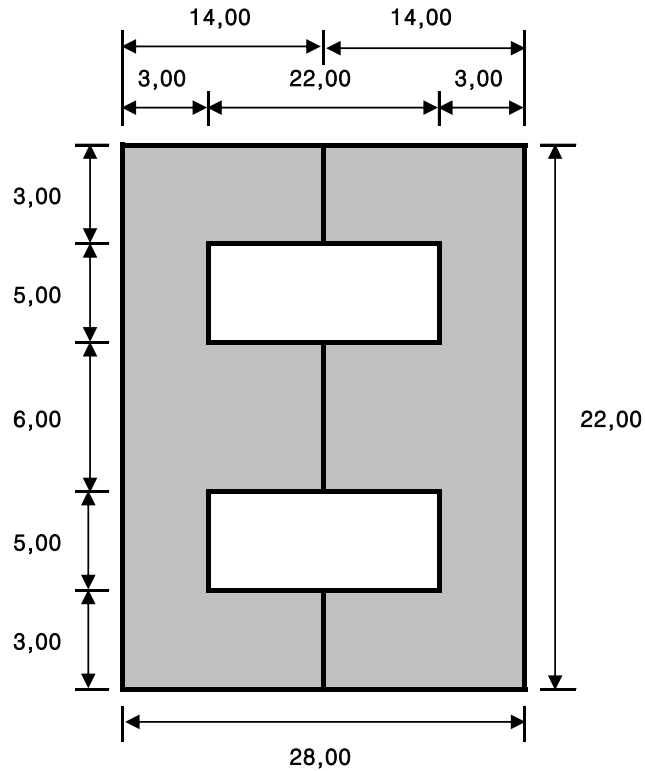
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 45~48%	0.35T	1,0050	995

22LE

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{1042 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.190 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0685 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 6,60 \text{ cm}$$

$$A = 0,36 \text{ cm}^2$$

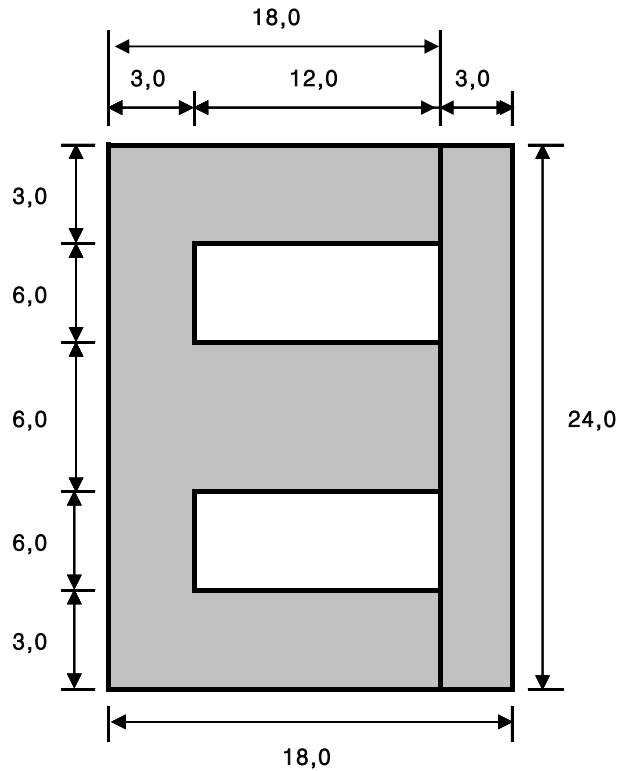
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.35T	1,2100	826

24EI

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{1042 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.261 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0942 \cdot 10^{-4}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 4.80 \text{ cm}$$

$$A = 0.36 \text{ cm}^2$$

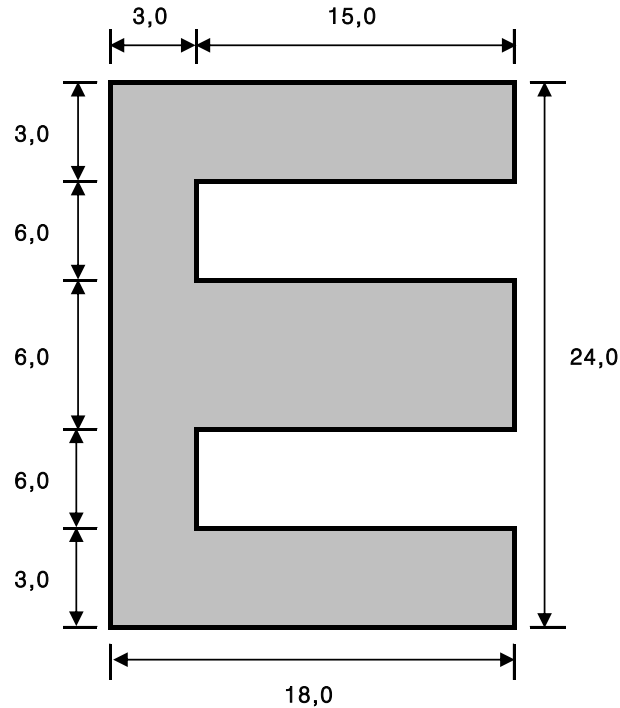
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.35T	0,8820	1.134
NI 45~48%	0.35T	0,8320	1.202

24LC

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{\max} = \frac{1042 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.261 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0942 \cdot 10^{-4}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 4.80 \text{ cm}$$

$$A = 0.36 \text{ cm}^2$$

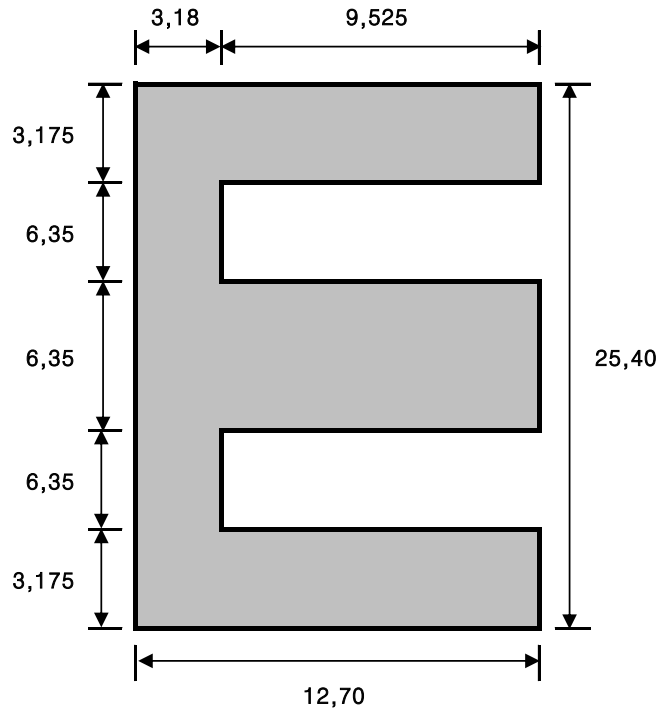
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.2T	0,4410	2.268
	0.35T	0,7720	1.295
NI 45~48%	0.35T	0,7280	1.374

25.4E

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{931 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.330 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.133 \cdot 10^{-6}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 3,81 \text{ cm}$$

$$A = 0,403 \text{ cm}^2$$

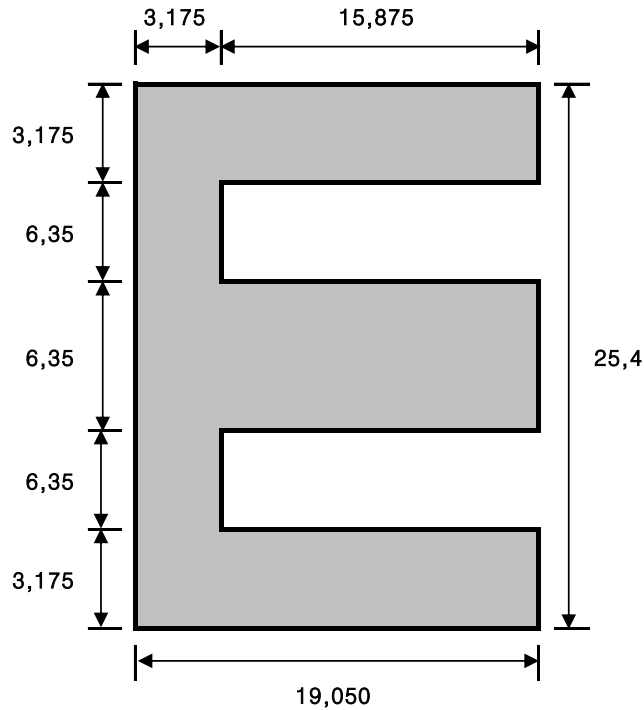
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.35T	0,6170	1.621

24-25LE

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{931 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.247 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0996 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 5,08 \text{ cm}$$

$$A = 0,403 \text{ cm}^2$$

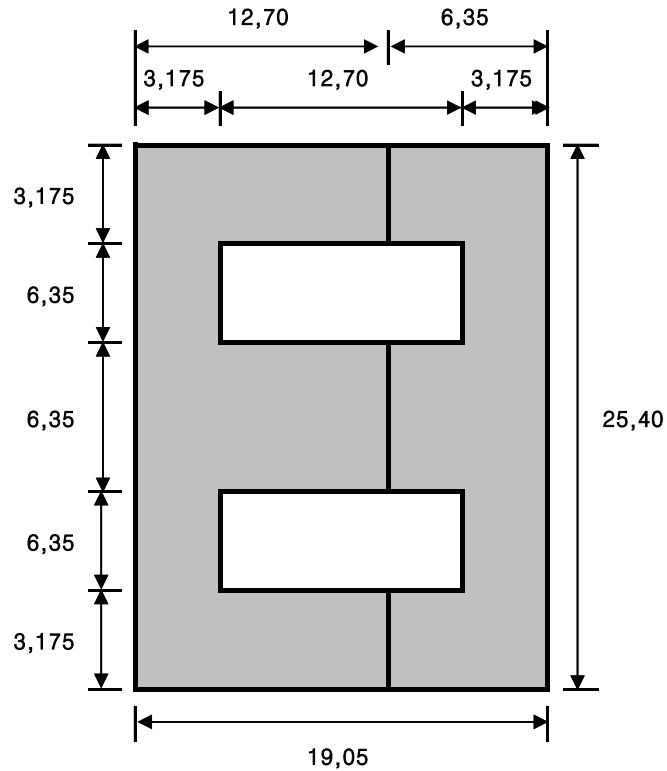
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.2T	0,4940	2.024
	0.35T	0,8640	1.157

24-25EE

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{931 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.247 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0996 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 5,08 \text{ cm}$$

$$A = 0,403 \text{ cm}^2$$

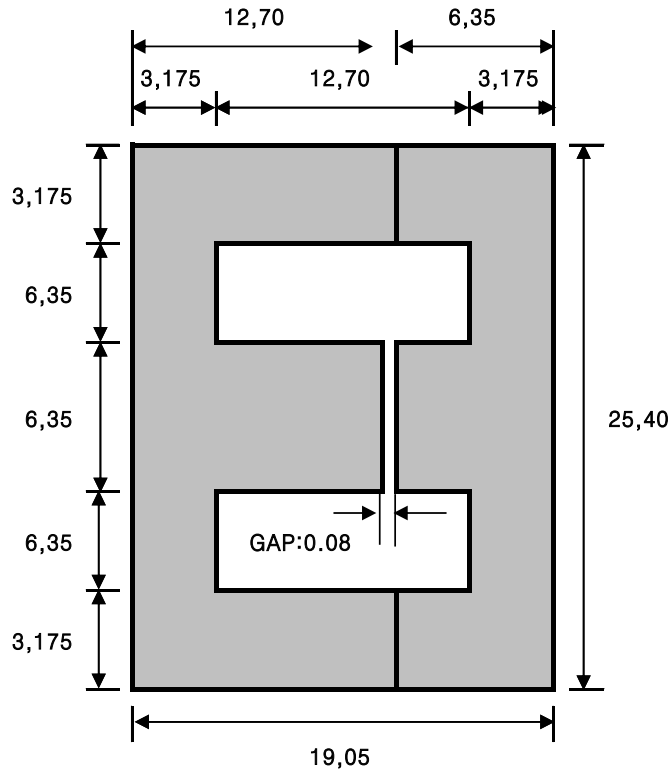
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.35T	0,9880	1.012
NI 45~48%	0.35T	0,9320	1.073

24-25EE(GAP)

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{931 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.247 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0996 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 5,08 \text{ cm}$$

$$A = 0,403 \text{ cm}^2$$

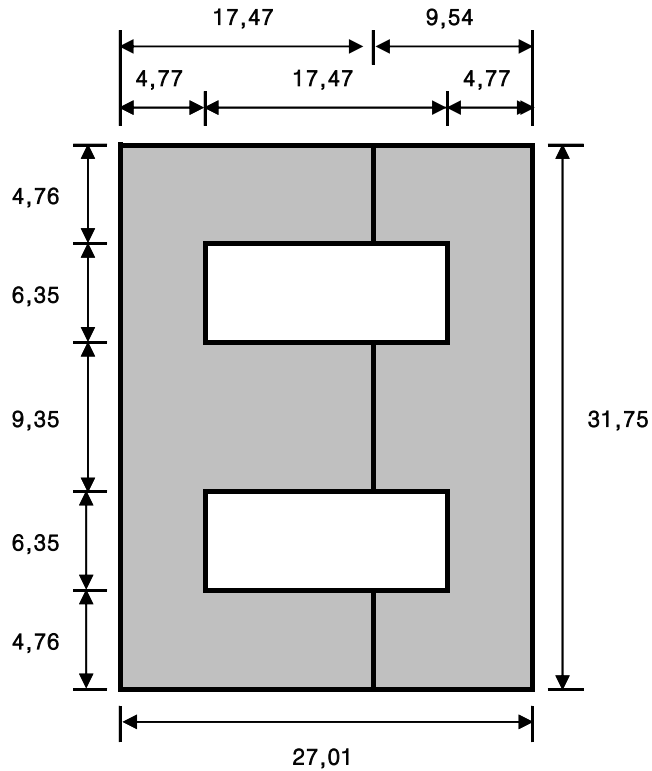
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 45~48%	0.35T	0,9320	1.073

26-27EE

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{412 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.188 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.171 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 6,67 \text{ cm}$$

$$A = 0,91 \text{ cm}^2$$

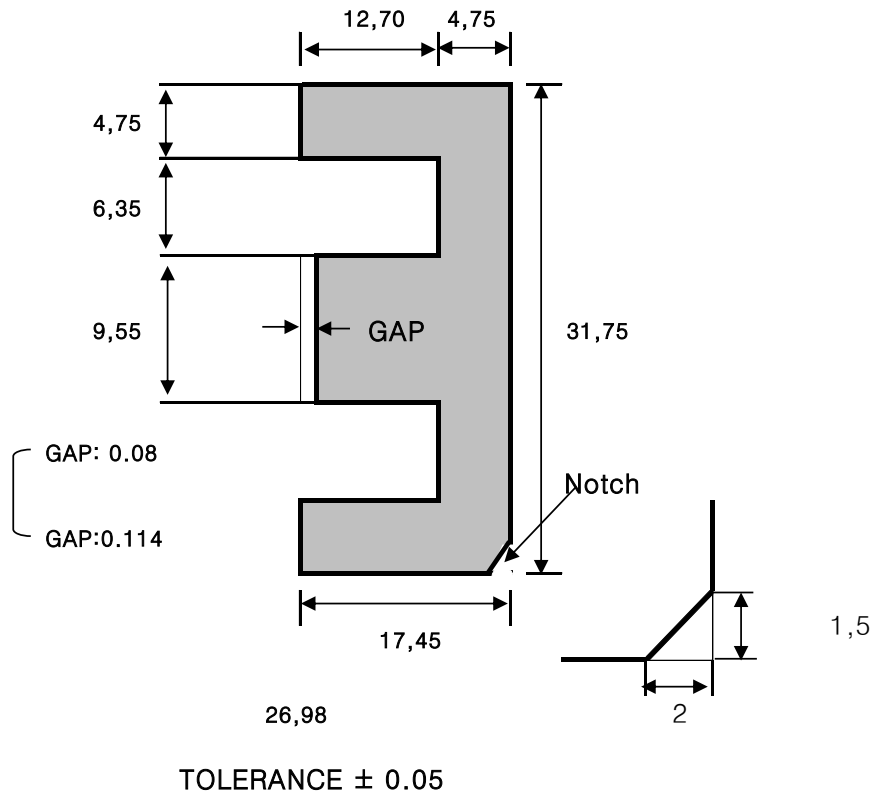
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.35T	L: 1,1856 S: 0,7312	843 1.368
NI 45~48%	0.35T	L: 1,1178 S: 0,6894	895 1.451

27EE(GAP)

CORE



PROPERTIES OF SQUARE STACK (10EA)

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{1137 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.263 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

$$L = (0.087 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 4,76 \text{ cm}$$

$$A = 0,3 \text{ cm}^2$$

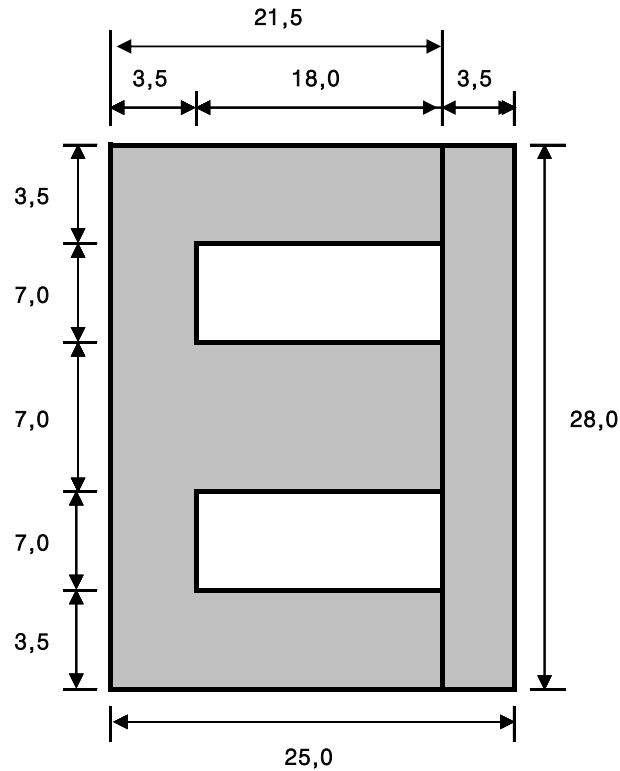
K_1 (STACKING FACTOR)

Thickness	Butt jointed		Interleaved one per layer
	0,1	0,2	
0,1	0,90	0,80	
0,2	0,90	0,85	
0,35	0,95	0,90	

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.35T	1,1787	848
NI 48%	0.35T	1,1114	900

28EI

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{766 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.196 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.0961 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 6.40 \text{ cm}$$

$$A = 0.49 \text{ cm}^2$$

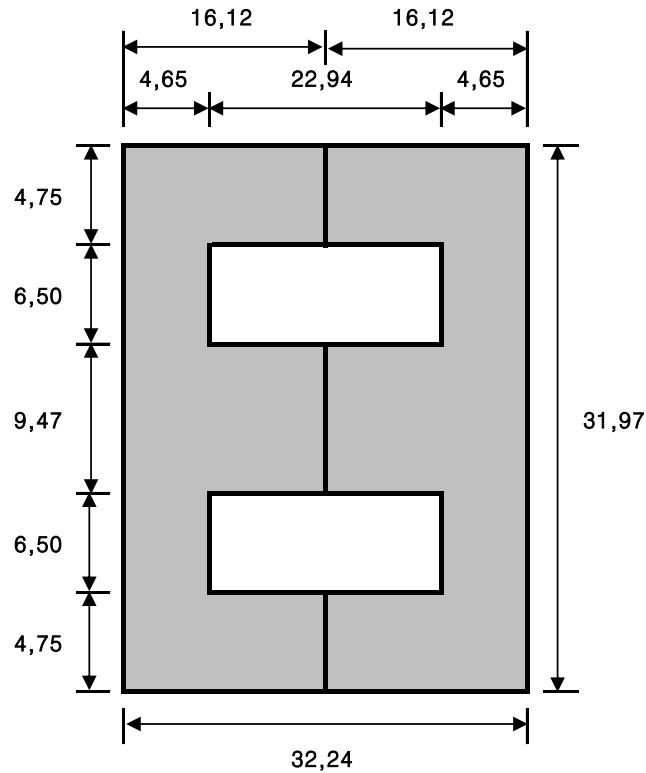
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.35T	1,3720	729

32EE

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{422 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.162 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.144 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 7.76 \text{ cm}$$

$$A = 0.89 \text{ cm}^2$$

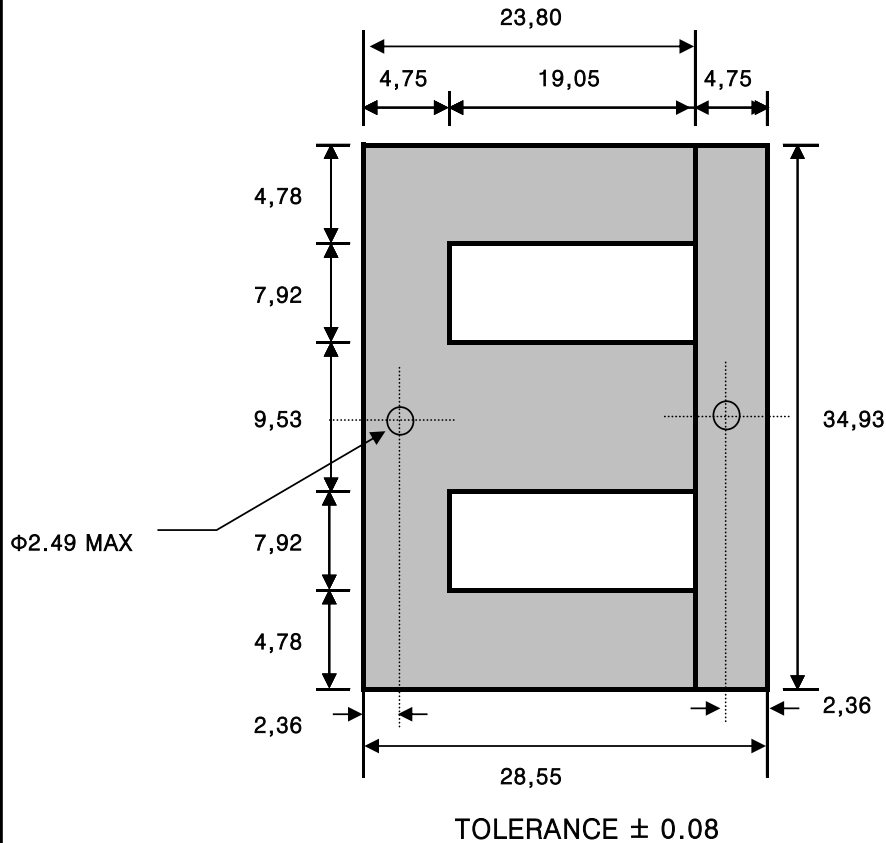
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 45~48%	0.35T	2,1200	472

375EI

CORE



PROPERTIES OF SQUARE STACK (10EA)

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{1137 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.172 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.056 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 7,30 \text{ cm}$$

$$A = 0,33 \text{ cm}^2$$

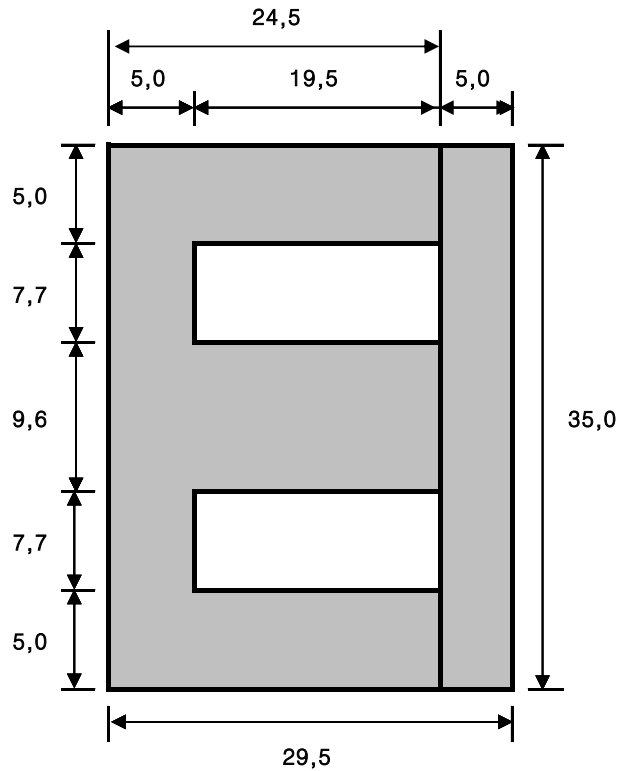
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 80%	0.35T	2,2430	446
NI 45~48%	0.35T	2,1140	473

35EI

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{407 \cdot 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.168 \cdot 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.155 \cdot 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 7.44 \text{ cm}$$

$$A = 0.922 \text{ cm}^2$$

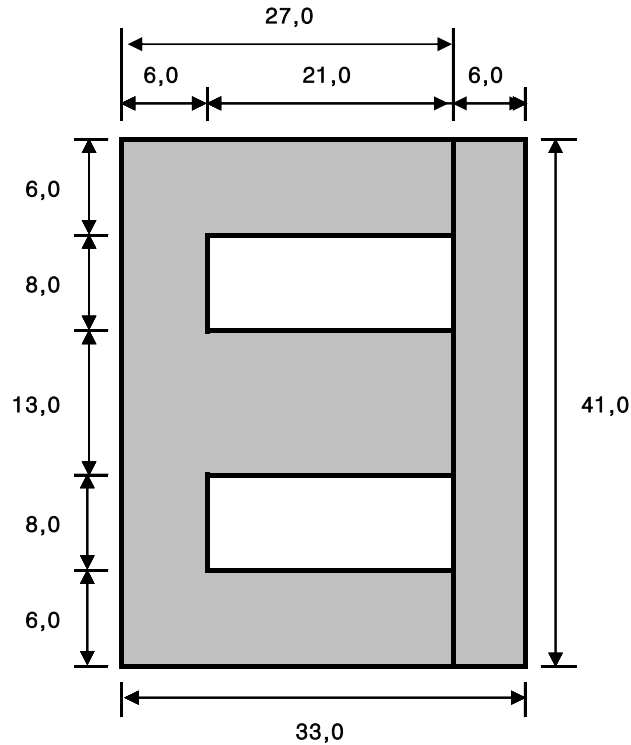
K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
PC (NI 80%)	0.35T	2,2430	446
PB (NI 45~48%)	0.35T	2,1140	473

41EI

CORE



TOLERANCE ± 0.08

PROPERTIES OF SQUARE STACK

MAGNETIC DESIGN FORMULAE

$$B_{max} = \frac{222 \times 10^3}{K_1 N} \text{ gauss per Volt at 60Hz}$$

(N is number of turns)

$$H_0 = (0.153 \times 10^{-3}) N \text{ Oersted per milliampere}$$

of direct current in winding

$$L = (0.259 \times 10^{-8}) K_1 N^2 \mu \text{ ac Henries}$$

MAGNETIC PATH DIMENSION

$$l = 8.20 \text{ cm}$$

$$A = 1.69 \text{ cm}^2$$

K_1 (STACKING FACTOR)

Thickness	Butt jointed	Interleaved one per layer
0,1	0,90	0,80
0,2	0,90	0,85
0,35	0,95	0,90

MATERIAL TYPE	THICKNESS(mm)	WEIGHT & NUMBERS	
		GRAMS/PCS	PCS/KG
NI 45~48%	0.35T	2,9360	341

Any other types are available on request. If no tooling is available we might be able to produce one. For smaller quantities it often makes more sense to cut those laminations via laser or via photo-etching.

Please feel free to send us your drawing and requirements. Furthermore, we are able to supply some types in 0.10mm Ni 80% material, too.