

Ferrites and accessories

E cores
General information

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E cores

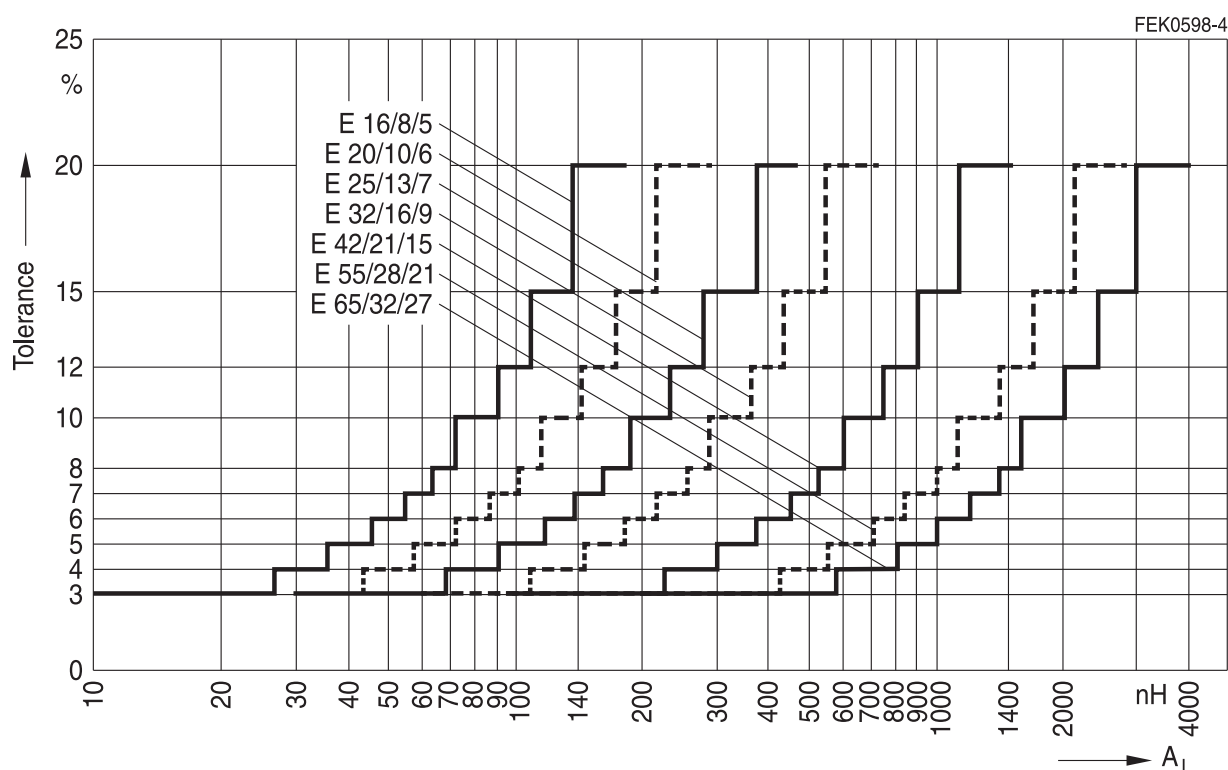
General information

1 Tolerances for E cores

The A_L value tolerances for E cores have consequently been defined with consideration of optimized process parameters for all materials with an initial permeability μ_i in the region of 2200 to 10000 as a step function (see figure below).

The quantized A_L step values should preferably be used. They are still available in their respective lower tolerance ranges. Thus a tolerance of $\pm 15\%$ can be determined for an E 42/21/15 made of N87 material for an A_L value of 1190 nH.

With this type of tolerance definition, EPCOS has defined standard A_L values and the associated tolerance for the first time. Based on the initial permeability the tolerance can be slightly lower or higher.



E cores

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2 Core shapes and materials

The preferred materials for manufacture of E cores are the SIFERRIT materials N27, N87, N97, N88, N95, N96, N92, T46 and N30. N27 is recommended for power applications in the frequency range up to about 100 kHz and N87, N97, N88, N95, N96 and N92 for the frequency range up to 500 kHz; EFD cores made of N49 are particularly suitable for frequencies up to 1 MHz (PC200 up to 4 MHz). These materials feature a high saturation flux density and low power loss.

Material N30 is particularly suitable for broadband small-signal applications and also for interference suppression chokes.

The E core spectrum contained in this data book comprises five basic core shapes, which can be used not only for transformers but also for chokes with a power capacity of up to 10 kW.

a) Types with round center leg

We offer the following types:

- ER cores
- EQ cores
- ETD cores to IEC 62317-6 (Economic Transformer Design)

E cores with round center leg offer the advantage of easy winding, particularly when thick winding wires are used, compact mounting dimensions and wide openings on each side. ETD cores have the additional benefit of an almost constant cross section along the magnetic path. A wide variety of optimized accessories is available. ER cores in sizes 9.5 and 11/5 are particularly suitable for designing transformers with low overall height and high inductance. They come in material T38 for broadband applications plus in N87, N97, N88, N95, N96, N92 and N49 for power transformers for frequencies up to and over 500 kHz (PC200 up to 4 MHz).

b) Types with rectangular center leg

- E cores
- EFD cores (Economic Flat Transformer Design); EV cores

The conventional E cores with rectangular center leg are available in a wide variety of sizes.

EFD cores have an optimized cross section and enable the design of very flat and compact transformers, even for high-frequency applications.

c) ELP cores (E Low Profile)

ELP cores enable the design of very flat transformers and feature excellent thermal performance due to the large core surface. ELP cores are now specified in IEC 62317-9.

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3 Ordering, marking, delivery

E cores are supplied as single units (except ER 9.5, ER 11 and ER 14.5/6: in sets), with each packing unit (PU) exclusively containing cores with or without shortened center leg (air gap dimension „g“).

Gapped EFD cores are supplied with toleranced A_L value as specified in the data sheets. All other E cores are available with toleranced A_L value on request.

There are two possibilities of air gap distribution, either symmetrical (each core of a set has the same air gap size) or unsymmetrical (a gapped core is combined with an ungapped core).

E and U cores are marked using the same system. Hence, the following description applies to both core shapes.

- **E 5, E 6.3, E 8.8, EFD 10 and I cores** are not marked.
- **E cores** are marked by an ink-jet printer on the outside of the legs (figure 1).

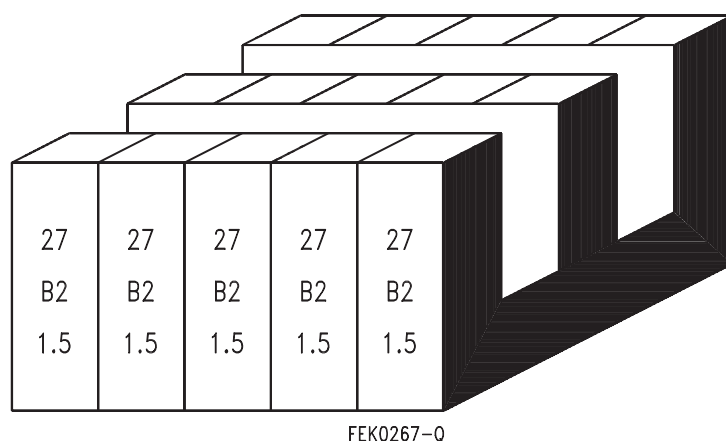


Fig. 1 Marking by ink-jet printer

Gapped cores:

with toleranced air gap: material, date code and size of air gap,
e.g.: 27 B2 1.5

with toleranced A_L value:

symmetrical version: material, date code, A_L value and code for A_L value tolerance, e.g.: 27 B230A

unsymmetrical version: material, date code and size of air gap,
e.g.: 27 B2 1.5

Ungapped cores are marked with material and date code, e.g.: 27 B2.

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Depending on their height and width, there is not enough space on all cores for complete marking, meaning that simplification is necessary. So only the material and the date code will be stated. This ensures that there is space for at least one complete marking (two characters per line) on the core. To avoid confusion of names like N27 and N72, the beginning of the material designation coincides with the position of the letter in the date code.

Example:

↓
727272
2B2B2B

means N27 (not N72)

Remark: in some exception cases parts are stamped with rolls on the back (gapped EFD 15 for example).

Date code:

Date coding is based on a two-week period (see tables, counting by calendar weeks CW).

In the following year lines 1 and 2 will be swapped (material and date code). The position of letters and digits will not be swapped. Counting started in 1996.

Coding of two-week production periods

CW	Code	CW	Code	CW	Code
1 and 2	A	19 and 20	J	37 and 38	S
3 and 4	B	21 and 22	K	39 and 40	T
5 and 6	C	23 and 24	L	41 and 42	U
7 and 8	D	25 and 26	M	43 and 44	V
9 and 10	E	27 and 28	N	45 and 46	W
11 and 12	F	29 and 30	O	47 and 48	X
13 and 14	G	31 and 32	P	49 and 50	Y
15 and 16	H	33 and 34	Q	51 and 52	Z
17 and 18	I	35 and 36	R	53	AA

Coding of week day

	Day	Code		Day	Code
CW _n	Monday	1	CW _{n+1}	Monday	6
	Tuesday	2		Tuesday	7
	Wednesday	3		Wednesday	8
	Thursday	4		Thursday	9
	Friday	5		Friday	0
	Saturday	5		Saturday	0
	Sunday	+		Sunday	—

The black ink is insoluble in water, but it will dissolve in fluids based on ketones. It will also dissolve if left for a long time in an ultrasonic bath. Different colored markings are not feasible.

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4 Cores with toleranced air gap

The following tolerances for dimension „g“ apply to all E cores:

Dimension g mm	Tolerance mm
$g < 0.10$	± 0.01
$0.10 \leq g < 0.5$	± 0.02
$g \geq 0.5$	± 0.05

As is the case with ungapped cores, a certain degree of roughness cannot be avoided on the ground surfaces of the outer legs.

5 Cores with toleranced A_L value

The tolerance of the A_L value depends on the magnitude of the A_L value and the core shape. Tolerance figures are therefore given only on a core-type-specific basis.

6 Calculation formulae

Calculation formulae a) and b) apply to the A_L value under the following measuring conditions:

Measuring flux density $\hat{B} \leq 0.25$ mT, measuring frequency $f = 10$ kHz,
measuring temperature $T = 25 \pm 3$ °C, measuring coil: $N = 100$ turns, fully wound

a) Air gap and A_L value

The typical A_L value tabulated in the individual data sheets refers to a core set comprising a gapped core with dimension „g“ and an ungapped core with „g“ approx. 0.

By inserting the core-specific constants $K1$ and $K2$, a nominal A_L value can be calculated for the materials N27 and N87 within the relevant quoted air-gap validity range:

$$s = \left(\frac{A_L}{K1} \right)^{\frac{1}{K2}} \quad \begin{array}{l} s = [\text{mm}] \\ A_L = [\text{nH}] \end{array}$$

Production variations with regard to μ_i and grinding quality should be taken into account additionally.

b) DC magnetic bias I_{DC}

By using the core-shape-related factors $K3$ and $K4$, nominal values can be determined for the DC magnetic biasing characteristic of E, ETD and EFD cores made of N27 and N87 and ELP cores made of N87 at temperature 25 °C and 100 °C.

The direct current I_{DC} at which the A_L value drops by 10% compared to the A_L value without magnetic biasing ($I_{DC} = 0$ A) is determined for a coil with 100 turns.

Calculation of I_{DC} at $T = 25$ °C:

The factors $K3$ and $K4$ for $T = 25$ °C and the A_L value without magnetic biasing are inserted into the equation for the calculation.

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Calculation of I_{DC} at $T = 100\text{ °C}$:

The factors $K3$ and $K4$ for $T = 100\text{ °C}$ are inserted into the equation for the calculation. The value for $T = 25\text{ °C}$ without magnetic biasing should be used here as the A_L value.

$$I_{DC} = \left(\frac{0.9 \cdot A_L}{K3} \right)^{\frac{1}{K4}} \quad \begin{array}{l} I_{DC} = [A] \\ A_L = [nH] \end{array} \quad (\text{without magnetic biasing})$$

7 Magnetic characteristics

The set characteristics $\Sigma l/A$, l_e , A_e , A_{min} and V_e required for the calculation of field strength, flux density and hysteresis losses have been determined to IEC 60205 (A_{min} = minimum cross section relative to the nominal dimensions).

8 Core losses

The maximum power loss for each core type is specified in W/set together with the measurement parameters. The flux density has been calculated on the basis of a sinusoidal voltage and is referred to the minimum cross-sectional area A_{min} .

9 Accessories

The coil formers for all ETD, EFD and ER cores and most of the E cores are designed so that they can be wound fully automatically.

With the ETD cores and most E cores, each core half and its mounting assembly can be fitted to the coil former from the same side, thus permitting simple fully automatic assembly.

If coil formers are used for cores with a rectangular cross section (E cores), the indication of the winding height represents only a theoretical value. The use of thicker wires or litz wires results in a gradual rounding of the winding from layer to layer. In such cases the planned winding design should be verified by means of a winding test.

SMD coil formers are available as accessory.

Important notes

The following applies to all products named in this publication:

1. Some parts of this publication contain **statements about the suitability of our products for certain areas of application**. These statements are based on our knowledge of typical requirements that are often placed on our products in the areas of application concerned. We nevertheless expressly point out **that such statements cannot be regarded as binding statements about the suitability of our products for a particular customer application**. As a rule, EPCOS is either unfamiliar with individual customer applications or less familiar with them than the customers themselves. For these reasons, it is always ultimately incumbent on the customer to check and decide whether an EPCOS product with the properties described in the product specification is suitable for use in a particular customer application.
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Selector guide






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RM cores

Core type	Standards	Mounting dimensions (mm) of assembly set Base area × H ¹⁾	Individual parts of assembly set	Part number	Page (Data book)
RM 4	IEC 62317-4	10.16 ² × 10.8	Core	B65803	216
			Coil former	B65804	218
			Clamp	B65806	219
			Insulating washers	B65804	219
			Adjusting screws	B65539/ B65806	220
RM 4 LP	IEC 62317-4	14 × 17.5 × 8.1	Core	B65803	221
			Coil former	B65804	222
			Insulating washers	B65804	224
			Coil former/Clamp 	B65804	223, 224
RM 5	IEC 62317-4	12.7 ² × 10.8	Core	B65805	226
			Coil former	B65806	228
			Clamp	B65806	229
		16.5 × 19 × 10.6	Insulating washers	B65806	229
			Coil former 	B65822	230, 231
			Clamp 	B65806	230, 231
			Adjusting screws	B65539/ B65806/ B65518	232
RM 5 LP	IEC 62317-4	20 × 16 × 8	Core	B65805	233
RM 6	IEC 62317-4	15.24 ² × 12.8	Core	B65807	235
			Coil former	B65808	237
			Coil former for SMPS transf.	B65808	238
		19.5 × 25 × 12.8	Coil former for power appl.	B65808	239
			Clamp/Insulating washers	B65808	240
		19.6 × 22.2 × 13	Coil former 	B65821	241
			Clamp 	B65808	241
			Adjusting screws	B65659	242
RM 6 LP	IEC 62317-4		Core	B65807	243

¹⁾ Height above mounting plane

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RM cores (continued)

Core type	Standards	Mounting dimensions (mm) of assembly set Base area × H ¹⁾	Individual parts of assembly set	Part number	Page (Data book)
RM 7	IEC 62317-4	$17.78^2 \times 13.8$	Core	B65819	245
			Coil former	B65820	247
			Clamp/Insulating washers	B65820	248
			Adjusting screws	B65659	249
RM 7 LP	IEC 62317-4		Core	B65819	250
RM 8	IEC 62317-4	$20.32^2 \times 16.8$	Core	B65811	252
			Coil former	B65812	254
		$26 \times 30 \times 16.8$	Coil former for SMPS transf.	B65812	255
			Coil former for power appl.	B65812	256
			Clamp/Insulating washers	B65812	257
RM 8 LP	IEC 62317-4		Adjusting screw	B65812	258
			Core	B65811	259
RM 10	IEC 62317-4	$25.4^2 \times 19$ $31 \times 40 \times 19$	Clamp/Insulating washers	B65812	260
			Core	B65813	262
			Coil former	B65814	264
			Coil former for power appl.	B65814	265
			Clamp/Insulating washers	B65814	266
RM 10 LP	IEC 62317-4		Adjusting screws	B65679	267
			Core	B65813	268
RM 12	IEC 62317-4	$30.48^2 \times 24.9$ $32 \times 45.7 \times 24.9$	Core	B65815	270
			Coil former	B65816	271
			Coil former for power appl.	B65816	272
			Clamp	B65816	273
RM 12 LP	IEC 62317-4		Core	B65815	274
RM 14	IEC 62317-4	$35.56^2 \times 30.5$ $44 \times 29 \times 30.5$	Core	B65887	276
			Coil former	B65888	277
			Coil former for power appl.	B65888	278
			Clamp/Insulating washer	B65888	279
RM 14 LP	IEC 62317-4		Core	B65887	280

1) Height above mounting plane

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PQ cores

Core type	Standards	Mounting dimensions (mm) of assembly set Base area × H ¹⁾	Individual parts of assembly set	Part number	Page (Data book)
PQ 16/11.6	IEC 62317-13		Core	B65885A	282
PQ 20/16	IEC 62317-13		Core	B65875B	283
PQ 20/20	IEC 62317-13		Core	B65875A	284
PQ 26/20	IEC 62317-13	27 × 30 × 25.2	Core Coil former	B65877B B65878E	285 286
PQ 26/25	IEC 62317-13	27 × 30 × 29.3	Core Coil former	B65877A B65878E	287 288
PQ 32/20	IEC 62317-13	32.3 × 34.3 × 20.2	Core Coil former	B65879A B65880E	289 290
PQ 32/30	IEC 62317-13	33.2 × 34.7 × 33.1	Core Coil former	B65879B B65880E	291 292
PQ 35/35	IEC 62317-13		Core	B65881A	293
PQ 40/30	IEC 62317-13		Core	B65883B	294
PQ 40/40	IEC 62317-13	40.3 × 42.3 × 45.3	Core Coil former	B65883A B65884E	295 296
PQ 50/40	IEC 62317-13		Core	B65981B	297
PQ 50/50	IEC 62317-13	51.3 × 51.9 × 52.5	Core Coil former	B65981A B65982E	298 299

¹⁾ Height above mounting plane

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PM cores

Core type	Standards	Mounting dimensions (mm) of assembly set Base area × H ¹⁾	Individual parts of assembly set	Part number	Page (Data book)
PM 50/39	IEC 61247	65 × 52 × 45	Core	B65646	302
			Coil former	B65647	303
			Mounting assembly	B65647	304
PM 62/49	IEC 61247	76 × 64 × 55	Core	B65684	305
			Coil former	B65685	306
			Mounting assembly	B65685	307
PM 74/59	IEC 61247	85.5 × 75 × 65	Core	B65686	308
			Coil former	B65687	309
			Mounting assembly	B65687	310
PM 87/70	IEC 61247	101 × 87 × 72	Core	B65713	311
			Coil former	B65714	312
PM 114/93	IEC 61247	114 × 92 × 93	Core	B65733	313
			Coil former	B65734	314

¹⁾ Height above mounting plane

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EP cores

Core type	Standards	Mounting dimensions (mm) of assembly set Base area × H ¹⁾	Individual parts of assembly set	Part number	Page (Data book)
EP 5			Core	B65855A	317
EP 6			Core	B65855B	318
EP 7	IEC 62317-5	7.5 × 10 × 10 13 × 9.2 × 8.8	Core Coil former Coil former 	B65839 B65840 B65840	319 321 322
EPX 7/9		12.6 × 9.4 × 12.4	Core	B65857A	324
EPX 9/9			Core	B65857C	326
EP 10	IEC 62317-5	12 × 14.2 × 12.5	Core Coil former Mounting assembly	B65841 B65842 B65842	328 330 331
EPX 10			Core	B65859	332
EP 13	IEC 62317-5	15 × 16 × 13.7 15 × 16 × 13.7	Core Coil former Coil former for high-voltage applications Mounting assembly	B65843A B65844 B65844 B65844	333 335 336 337
EPO 13	—	15 × 16 × 13.7 15 × 16 × 13.7	Core Coil former Coil former for high-voltage applications	B65843P B65844 B65844	338 340 340
EP 17	IEC 62317-5	20 × 21.6 × 16.2	Core Coil former Mounting assembly	B65845 B65846 B65846	342 343 344
EP 20	IEC 62317-5	23 × 27.5 × 20.5	Core Coil former Mounting assembly	B65847 B65848 B65848	345 346 347

¹⁾ Height above mounting plane

Selector guide

P cores (pot cores)

Core type	Standards	Mounting dimensions (mm) of assembly set Base area × H ¹⁾	Individual parts of assembly set	Part number	Page (Data book)
P 3.3 × 2.6	IEC 62317-2		Core	B65491	350
P 4.6 × 4.1			Core	B65495	351
P 5.8 × 3.3			Core	B65501	352
P 7 × 4		7.5 × 7.5 × 7.1	Core Coil former Mounting assembly	B65511 B65512 B65512	354 355 356
P 9 × 5	IEC 62317-2	9.9 × 9.9 × 8.3 (4 solder terminals) 9.9 × 12.3 × 8.3 (6 solder terminals) 12.2 × 17 × 6.0	Core Coil former Coil former  Mounting assembly	B65517 B65522 B65524 B65518	358 359 360 361
P 11 × 7	IEC 62317-2	12.3 × 12.3 × 9.5 (4 solder terminals) 12.3 × 14.6 × 9.5 (8 solder terminals)	Core Coil former Mounting assembly Adjusting screws	B65531 B65532 B65535 B65539 B65806	363 364 365 366
P 14 × 8	IEC 62317-2	16.8 × 15 × 11.3 (4 solder terminals) 16.8 × 19.6 × 11.3 (6 solder terminals)	Core Coil former Mounting assembly Adjusting screws	B65541 B65542 B65545 B65549	368 369 370 371
P 18 × 11	IEC 62317-2	19.9 × 20.7 × 13.5	Core Coil former Mounting assembly Adjusting screws	B65651 B65652 B65655 B65659	373 374 375 376

1) Height above mounting plane

Selector guide

P cores (pot cores) (continued)

Core type	Standards	Mounting dimensions (mm) of assembly set Base area × H ¹⁾	Individual parts of assembly set	Part number	Page (Data book)
P 22 × 13	IEC 62317-2	24.5 × 26 × 16.6	Core	B65661	378
			Coil former	B65662	379
			Mounting assembly	B65665	380
			Adjusting screw	B65812	381
P 26 × 16	IEC 62317-2	27.8 × 28.5 × 19	Core	B65671	383
			Coil former	B65672	385
			Mounting assembly	B65675	386
			Adjusting screws	B65679	387
P 30 × 19	IEC 62317-2	32.5 × 33.5 × 22.8	Core	B65701	389
			Coil former	B65702	390
			Mounting assembly	B65705	391
			Adjusting screws	B65679	392
P 36 × 22		40 × 41.8 × 27.5	Core	B65611	394
			Coil former	B65612	395
			Mounting assembly	B65615	396
			Adjusting screws	B65679	397
P 41 × 25			Core	B65621	399
			Mounting assembly	B65623	400
P 47 × 28			Core	B65631	401
P 59 × 36			Core	B65691	402

1) Height above mounting plane




Selector guide

P core halves and PS cores

Core type ($\varnothing \times$ height)	Standards	Material	Individual parts of assembly set	Part number	Page (Data book)
PS 7.35 \times 3.6	IEC 62323	N22, M33	Core	B65933	404
			Coil former	B65512	404
PS 9 \times 3.5	IEC 62323	N22, M33	Core	B65935	405
			Coil former	B65936	405
PCH 14 \times 7.5		N22	Core	B65937	406
			Coil former	B65542	406
PS 25 \times 8.9	IEC 62323	N22	Core	B65939	407
			Coil former	B65940	407
PS 30.5 \times 10.2	IEC 62323	N22	Core	B65941	408
			Coil former	B65942	408
PS 35 \times 10.8	IEC 62323	N22	Core	B65947	409
PS 47 \times 14.9	IEC 62323	N22	Core	B65943	410
PS 68 \times 14.5	IEC 62323	N22	Core	B65928	411
			Coil former	B65946	411
PCH 70 \times 14.5		N22	Core	B65945	412
			Coil former	B65946	412
PCH 150 \times 30		N27	Core	B65949	413

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E cores

Core type ¹⁾	Standards	Mounting dimensions (mm) of assembly set L × W × H ²⁾	Individual parts of assembly set	Part number	Page (Data book)
E 5	IEC 62317-8		Core	B66303	420
E 6.3	IEC 62317-8	9 × 8 × 5.7	Core Coil former/Cover cap 	B66300 B66301	421 422
E 8.8	IEC 62317-8	10 × 12.5 × 5.5	Core Coil former/Cover cap 	B66302 B66302	423 424
E 10/5.5/5			Core	B66322	425
E 12.7/6/6			Core	B66492	426
E 13/6.5/3.7			Core	B66543	433
E 13/6/6.15			Core	B66536	434
E 13/7/4 (EF 12.6)	IEC 62317-8	15 × 17 × 12 10 × 15 × 17 13.5 × 19.5 × 9.3	Core Coil former (horizontal) Coil former (vertical) Yoke Coil former  Cover plate	B66305 B66202 B66202 B66202 B66306 B66414	427 429 429 430 431 432
E 14/8/4			Core	B66219	435
E 16/6/5			Core	B66393	436
E 16/7/5			Core	B66500	437
E 16/8/5 (EF 16)	IEC 62317-8	18 × 20 × 14 11 × 18 × 20	Core Coil former (horizontal) Coil former (vertical) Yoke	B66307 B66308 B66308 B66308	438 440 441 441
E 16/8/8			Core	B66392	442
E 19/8/5			Core	B66379	443
E 20/9/6			Core	B66312	444
E 20/10/6 (EF 20)	IEC 62317-8	22 × 22 × 17 15 × 22 × 24 24 × 21.5 × 14 15 × 22 × 24	Core Coil former (horizontal) Coil former (vertical) Coil former (right-angle pins) Yoke Coil former for luminaires Yoke	B66311 B66206 B66206 B66206 B66206 B66206 B66206	445 447 447 447 448 450 450
E 20/10/11			Core	B66310	451
E 21/9/5			Core	B66314	452
E 22/15/6			Core	B66486	453

1) The E core designations have been brought into line with IEC; the previous designations are given in parentheses.

2) Height above mounting plane

Selector guide

E cores (continued)

Core type ¹⁾	Standards	Mounting dimensions (mm) of assembly set L × W × H ²⁾	Individual parts of assembly set	Part number	Page (Data book)
E 25/13/7 (EF 25)	IEC 62317-8	28 × 28 × 21 18 × 28 × 29 19 × 26 × 30	Core	B66317	454
			Coil former (horizontal)	B66208	456
			Coil former (vertical)	B66208	456
			Yoke	B66208	456
			Coil former for SMPS	B66208	458
			Yoke	B66208	458
E 25.4/10/7			Core	B66315	459
E 28/10/11			Core	B66489	461
E 30/15/7		36 × 36 × 12 19 × 36 × 36	Core	B66319	462
			Coil former (horizontal)	B66232	464
			Coil former (vertical)	B66232	465
			Yoke	B66232	464
E 32/16/9 (EF 32)	IEC 62317-8	35 × 37 × 24	Core	B66229	466
			Coil former	B66230	467
			Yoke	B66230	467
E 32/16/11			Core	B66233	468
E 34/14/9			Core	B66370	469
E 36/18/11		39 × 38 × 31	Core	B66389	470
			Coil former	B66390	471
E 40/16/12			Core	B66381	472
E 42/21/15	IEC 62317-8		Core	B66325	492
E 42/21/20	IEC 62317-8	38 × 46 × 52	Core	B66329	475
			Coil former	B66243	477, 478
E 47/20/16			Core	B66383	479
E 55/28/21	IEC 62317-8		Core	B66335	480
E 55/28/25			Core	B66344	482
E 56/24/19			Core	B66385	484
E 65/32/27		67 × 66 × 80	Core	B66387	485
			Coil former	B66388	486
E 70/33/32		72 × 66 × 90	Core	B66371	487
			Coil former	B66372	489
E 80/38/20			Core	B66375	490
E 100/60/28			Core	B66894	491

1) The E core designations have been brought into line with IEC; the previous designations are given in parentheses.

2) Height above mounting plane

Selector guide

E cores with distributed air gap

Core type	Standards	Mounting dimensions (mm) of assembly set L × W × H	Individual parts of assembly set	Part number	Page (Data book)
E 42/21/15DG			Core	B66325DG	492
E 42/21/20DG			Core	B66329DG	493
E 47/20/16DG			Core	B66383DG	494
E 55/28/21DG			Core	B66335DG	495
E 55/28/25DG			Core	B66344DG	496
E 65/32/27DG			Core	B66387DG	497
E 70/33/32DG			Core	B66371DG	498
E 80/38/20DG			Core	B66375DG	499

Selector guide

ELP cores

Core set	Standards	Core types	Individual parts of assembly set	Part number		Page (Data book)
				with clamp recess	w/o clamp recess	
EELP 14	IEC 62317-9	ELP 14/3.5/5	ELP core		B66281G	502
EILP 14	IEC 62317-9	I 14/1.5/5 (+ ELP 14/3.5/5)	I core		B66281K	503
EELP 18	IEC 62317-9	ELP 18/4/10	ELP core	B66283G	B66453G	504, 505, 507, 508
EILP 18	IEC 62317-9	I 18/2/10 (+ ELP 18/4/10)	Clamp	B65804		504
			I core	B66283K	B66453K	505, 508
			Clamp	B66284		506
EELP 22	IEC 62317-9	ELP 22/6/16	ELP core	B66285G	B66455G	509, 511, 513, 514
EILP 22	IEC 62317-9	I 22/2.5/16 (+ ELP 22/6/16)	I core	B66285K	B66455K	511, 514
			Clamp	B65804		512
EELP 32	IEC 62317-9	ELP 32/6/20	ELP core	B66287G	B66457G	515, 516
EILP 32	IEC 62317-9	I 32/3/20 (+ ELP 32/6/20)	Clamp	B65808		516
			I core	B66287K	B66457K	517
			Clamp	B66288		517
EELP 38	IEC 62317-9	ELP 38/8/25	ELP core	B66289G	B66459G	521, 523
EILP 38	IEC 62317-9	I 38/4/25 (+ ELP 38/8/25)	I core	B66289K	B66459K	522, 524
EELP 43	IEC 62317-9	ELP 43/10/28	ELP core	B66291G	B66461G	525, 527
EILP 43	IEC 62317-9	I 43/4/28 (+ ELP 43/10/28)	I core	B66291K	B66461K	526, 528
EELP 58	IEC 62317-9	ELP 58/11/38	ELP core		B66293G	529
EILP 58	IEC 62317-9	I 58/4/38 (+ ELP 58/11/38)	I core		B66293K	530
EELP 64	IEC 62317-9	ELP 64/10/50	ELP core		B66295G	531
EILP 64	IEC 62317-9	I 64/5/50 (+ ELP 64/10/50)	I core		B66295K	532
EELP 102	IEC 62317-9	ELP 102/20/38	ELP core		B66297G	533, 534
EILP 102	IEC 62317-9	I 102/20/38 (+ ELP 102/20/38)	I core		B66297K	534



Selector guide

EQ cores

Core set	Standards	Core types	Individual parts of assembly set	Part number	Page (Data book)
EEQ 13	IEC 62317-9	EQ 13/2.85/9	Core	B66479	536
EQ 13	IEC 62317-9	EQ 13/2.85/9 + I 13/1/8.7	EQ core I core	B66479G B66479K	537 537
EEQ 20	IEC 62317-9	EQ 20/6.3/14	Core	B66483	538
EQ 20	IEC 62317-9	EQ 20/6.3/14 + I 20/2.3/14	EQ core I core	B66483G B66483K	539 539
EEQ 25	IEC 62317-9	EQ 25/5.6/18	Core	B66481	540
EQ 25	IEC 62317-9	EQ 25/5.6/18 + I 25/2.3/18	EQ core I core	B66481G B66481K	541 541
EEQ 30	IEC 62317-9	EQ 30/8/20	Core	B66506	542
EQ 30	IEC 62317-9	EQ 30/8/20 + I 30/2.7/20	EQ core I core	B66506G B66506K	543 543

Selector guide

ER planar cores

Core types	Standards	Mounting dimensions (mm) of assembly set L × W × H ¹⁾	Individual parts of assembly set	Part number	Page (Data book)
ER 9.5/5	IEC 62317-9	12 × 10 × 5.7	Core	B65523	546
			Coil former 	B65527	547
			Yoke	B65527	547
ER 11/5	IEC 62317-9	12.8 × 11.7 × 6	Core	B65525	548
			Coil former 	B65526	549
			Yoke	B65526	549
ER 14.5/6	IEC 62317-9		Core	B65513	550
ER 18/3/10	IEC 62317-9		Core	B66480	551
ER 23/5/13	IEC 62317-9		Core	B66482	552
ER 23/5/13 + I 23/2/13	IEC 62317-9		ER core	B66482G	553
			I core	B66482K	553
ER 25/6/15	IEC 62317-9		Core	B66484	554
ER 25/6/15 + I 25/3/15	IEC 62317-9		ER core	B66484G	555
			I core	B66484K	555
ER 32/5/21	IEC 62317-9		Core	B66501	556

ER cores

Core types	Standards	Mounting dimensions (mm) of assembly set L × W × H ¹⁾	Individual parts of assembly set	Part number	Page (Data book)
ER 28/17/11	IEC 62317-7		Core	B66433	558
ER 35/20/11	IEC 62317-7		Core	B66350	559
ER 42/22/15			Core	B66347	560
ER 46/17/18			Core	B66377	561
ER 49/27/17	IEC 62317-7		Core	B66391	562
ER 54/18/18			Core	B66357	563

1) Height above mounting plane

Selector guide

ETD cores

Core type	Standards	Mounting dimensions (mm) of assembly set L × W × H ¹⁾	Individual parts of assembly set	Part number	Page (Data book)
ETD 29/16/10	IEC 62317-6	35.5 × 35.5 × 25.5 24 × 35.5 × 41.2	Core	B66358	566
			Coil former (horizontal)	B66359	568
			Coil former (vertical)	B66359	569
			Yoke	B66359	568, 569
ETD 34/17/11	IEC 62317-6	43 × 40 × 35 27.5 × 40 × 46	Core	B66361	570
			Coil former (horizontal)	B66362	572
			Coil former (vertical)	B66362	573
			Yoke	B66362	572, 573
ETD 39/20/13	IEC 62317-6	48 × 45 × 38	Core	B66363	574
			Coil former/Yoke	B66364	576
ETD 44/22/15	IEC 62317-6	53 × 50 × 41	Core	B66365	577
			Coil former/Yoke	B66366	579
ETD 49/25/16	IEC 62317-6	58 × 55 × 43.5	Core	B66367	580
			Coil former/Yoke	B66368	582
ETD 54/28/19	IEC 62317-6	62 × 62 × 47	Core	B66395	583
			Coil former/Yoke	B66396	585
ETD 59/31/22	IEC 62317-6	67 × 71 × 50	Core	B66397	586
			Coil former/Yoke	B66398	588


1) Height above mounting plane

Selector guide

EFD, EV cores

Core type	Mounting dimensions (mm) of assembly set L × W × H ¹⁾	Individual parts of assembly set	Part number	Page (Data book)
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EFD cores

EFD 10/5/3		Core	B66411	591
EFD 15/8/5	19.3 × 17 × 8 21 × 16 × 8	Core	B66413	592
		Coil former/Yoke	B66414	593
		Coil former/Yoke 	B66414	594
		Cover plate	B66414	594
EFD 20/10/7	24.3 × 22 × 10	Core	B66417	595
		Coil former/Yoke	B66418	597
EFD 25/13/9	29.3 × 27.3 × 12.5	Core	B66421	598
		Coil former/Yoke	B66422	599
EFD 30/15/9	34.4 × 32.5 × 12.5	Core	B66423	600
		Coil former/Yoke	B66424	601

EV cores

EV 15/9/7		Core	B66434	602
EV 25/13/13		Core	B66408	603
EV 30/16/13		Core	B66432	604
EV 36/19/16		Core	B66567	605

¹⁾ Height above mounting plane

Selector guide

U, UI cores

Core set	Core types	Part number	Page (Data book)
UU 26/44/16	U 26/22/16	B67355	607
UU 30/52/26	U 30/26/26	B67362	608
UU 93/152/16 UI 93/104/16	U 93/76/16 I 93/28/16 (+ U 93/76/16)	B67345B0003 B67345B0004	609
UU 93/152/20 UI 93/104/20	U 93/76/20 I 93/28/20 (+ U 93/76/20)	B67345B0010 B67345B0011	610
UU 93/152/30 UI 93/104/30	U 93/76/30 I 93/28/30 (+ U 93/76/30)	B67345B0001 B67345B0002	611
UU 101/152/30	U 101/76/30	B67370	612
UU 126/182/20 UI 126/119/20	U 126/91/20 I 126/28/20 (+ U 126/91/20)	B67385G B67385P	613
UU 141/156/30	U 141/78/30	B67374	614
Ferrite blocks		B67345 B67410	615
Impeder cores			616

Toroids (ring cores)

Toroids R 2.5 ... R 202	Technical report IEC/TR 61604	B64290	624
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Double-aperture cores

Core height 2.0 ... 14.5 mm	6.2; 8.3 and 14.5: DIN 41279, shape G	B62152	668
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FPC film

Material	Part number	Page (Data book)
C 350, C 351	B68450, B68451	671

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