

Ferrite for Switching Power Supplies Original Cores

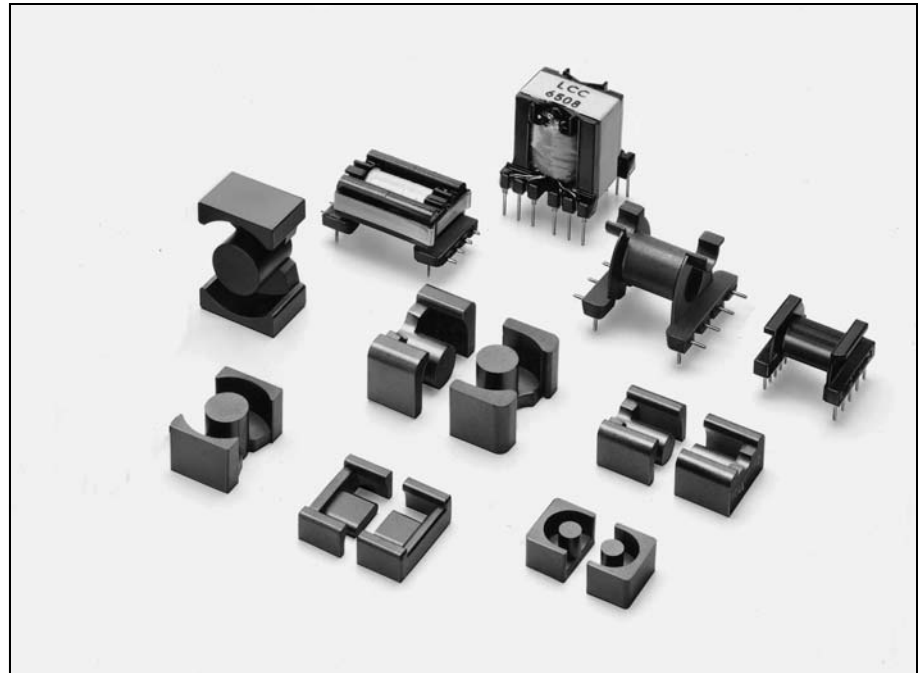
Cores

PQ20/16 to PQ50/50
LP23/8 to LP32/13
EPC10 to EPC30
EP7 to EP20

Bobbins

BPQ20/16 to BPQ50/50
BLP23/8 to BLP32/13
BEPC10 to BEPC30
BEP7 to BEP20

Accessories



Ordering Code System

Cores

PC44 PQ 26/25 A400 - 2 2

Material _____
 Size of PQ core _____
 AL-value(Z: without air gap) _____

Number of Lead Slot _____
 Type _____
 1: Without air gap
 2: With air gap

Bobbins

B PQ 26/25 - 1112CPFR

Symbol of Bobbin _____
 Size of PQ core _____
 Code of Bobbin Material _____

Type of Terminal Pin _____
 Number of Terminal Pin _____
 Number of Section _____

Accessories

F PQ 26/25 - A

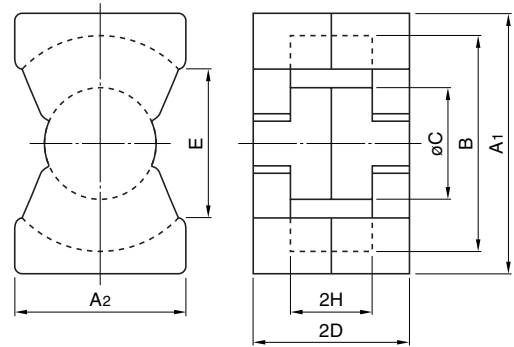
Symbol of Accessory _____

Type of Accessory _____
 Size of PQ core _____

PQ CORES



DE. PAT. 2,944,583
 DE. DES. 15,655
 EP. PAT. 26,104(DE, FR, GB, NL)
 GB. PAT. 2,035,706
 GB. DES. 990,685
 JP. U. M 1,589,580
 JP. U. M 1,621,895
 JP. U. M PUB.
 85(60)-3556 1,647,781
 JP. U. M PUB.
 86(61)-5779 1655608
 JP. DES. 580,081
 JP. DES. 649,618
 KR. U. M 23,487
 NL. PAT. 178,826
 NL. DES. 5,777
 US. PAT. 4,352,080
 US. DES. 264,959



Part No.	Dimensions in mm						
	A ₁	A ₂	B	øC	2D	E min.	2H
PC44PQ20/16Z-12	20.5±0.4	14.0±0.4	18.0±0.4	8.8±0.2	16.2±0.2	12.0	10.3±0.3
PC44PQ20/20Z-12	20.5±0.4	14.0±0.4	18.0±0.4	8.8±0.2	20.2±0.2	12.0	14.3±0.3
PC50PQ20/20Z-12	20.5±0.4	14.0±0.4	18.0±0.4	8.8±0.2	20.2±0.2	12.0	14.3±0.3
PC44PQ26/20Z-12	26.5±0.45	19.0±0.45	22.5±0.45	12.0±0.2	20.15±0.25	15.5	11.5±0.3
PC44PQ26/25Z-12	26.5±0.45	19.0±0.45	22.5±0.45	12.0±0.2	24.75±0.25	15.5	16.1±0.3
PC50PQ26/25Z-12	26.5±0.45	19.0±0.45	22.5±0.45	12.0±0.2	24.75±0.25	15.5	16.1±0.3
PC44PQ32/20Z-12	32.0±0.5	22.0±0.5	27.5±0.5	13.45±0.25	20.55±0.25	19.0	11.5±0.3
PC44PQ32/30Z-12	32.0±0.5	22.0±0.5	27.5±0.5	13.45±0.25	30.35±0.25	19.0	21.3±0.3
PC44PQ35/35Z-12	35.1±0.6	26.0±0.5	32.0±0.5	14.35±0.25	34.75±0.25	23.5	25.0±0.3
PC44PQ40/40Z-12	40.5±0.9	28.0±0.6	37.0±0.6	14.9±0.3	39.75±0.25	28.0	29.5±0.3
PC44PQ50/50Z-12	50.0±0.7	32.0±0.5	44.0±0.7	20.0±0.35	49.95±0.25	31.5	36.1±0.3

Part No.	Effective parameter				Electrical characteristics			Wt (g)	Bobbin item
	C ₁ (mm ⁻¹)	A _e (mm ²)	l _e (mm)	V _e (mm ³)	Al-value (nH/N ²)*		Core loss (W) max. 100kHz, 200mT, 100°C		
					Without air gap	With air gap			
PC44PQ20/16Z-12	0.605	62	37.4	2310	3880±25%	100±5% 250±7% 400±10%	0.84	13	BPQ20/16-1114CPFR
PC44PQ20/20Z-12	0.738	62	45.4	2790	3150±25%	100±5% 250±7% 400±10%	1.02	15	BPQ20/20-1114CPFR
PC50PQ20/20Z-12	0.738	62	45.4	2790	2000±25%	100±5% 160±5% 250±7%	0.33***	15	BPQ20/20-1114CPFR
PC44PQ26/20Z-12	0.391	119	46.3	5490	6170±25%	160±5% 315±5% 630±10%	1.94	31	BPQ26/20-1112CPFR
PC44PQ26/25Z-12	0.472	118	55.5	6530	5250±25%	160±5% 315±5% 630±10%	2.32	36	BPQ26/25-1112CPFR
PC50PQ26/25Z-12	0.472	118	55.5	6530	3200±25%	100±5% 250±5% 400±7%	0.76***	36	BPQ26/25-1112CPFR
PC44PQ32/20Z-12	0.326	170	55.5	9420	7310±25%	160±5% 315±5% 630±7%	2.92	42	BPQ32/20-1112CPFR
PC44PQ32/30Z-12	0.464	161	74.6	12000	5140±25%	160±5% 315±5% 630±7%	3.92	55	BPQ32/30-1112CPFR
PC44PQ35/35Z-12	0.448	196	87.9	17300	4860±25%	160±5% 315±5% 630±7%	5.27	73	BPQ35/35-1112CPFR
PC44PQ40/40Z-12	0.508	201	102	20500	4300±25%	160±5% 315±5% 630±7%	6.56	95	BPQ40/40-1112CPFR
PC44PQ50/50Z-12	0.346	328	113	37200	6720±25%	250±5% 400±5% 630±5%	6.10**	195	BPQ50/50-1112CPFR

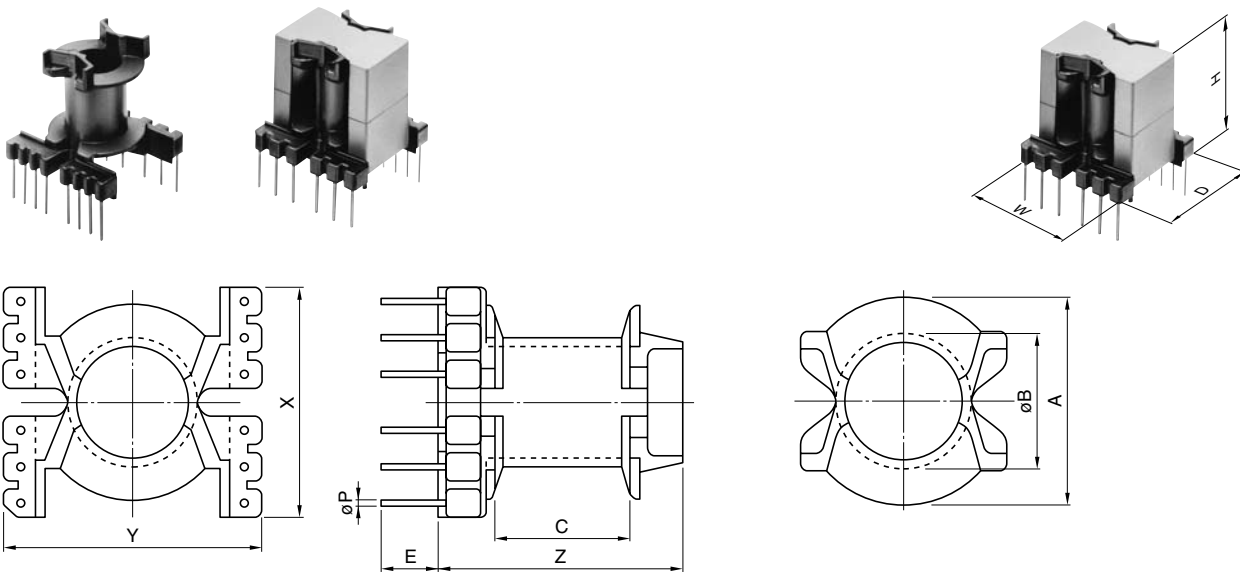
* Al-value: 1kHz, 0.5mA, 100Ts

** Core loss: 100kHz, 150mT, 100°C

*** Core loss: 500kHz, 50mT, 100°C

• All specifications are subject to change without notice.

PQ BOBBINS



Part No.	Dimensions in mm							
	A	øB	C	E	X	Y	Z	t*
BPQ20/16-1114CPFR	17.2	10.95	8.0	6.5	23.0	23.0	18.3	0.8
BPQ20/20-1114CPFR	17.2	10.95	12.0	6.5	23.0	23.0	21.30	0.8
BPQ26/20-1112CPFR	21.6	14.3	9.2	6.5	26.5	29.3	21.5	0.8
BPQ26/25-1112CPFR	21.6	14.3	13.80	3.5	26.5	29.3	25.1	0.8
BPQ32/20-1112CPFR	26.6	16.0	8.98	7.0	32.0	34.0	22.48	0.9
BPQ32/30-1112CPFR	26.6	16.0	18.6	7.0	32.0	34.0	32.1	0.9
BPQ35/35-1112CPFR	31.1	16.9	22.50	7.5	35.0	39.0	37.4	0.9
BPQ40/40-1112CPFR	36.0	17.5	26.8	6.5	40.0	42.0	44.8	0.9
BPQ50/50-1112CPFR	42.9	23.2	30.40	10.0	51.0	51.0	52.0	1.0

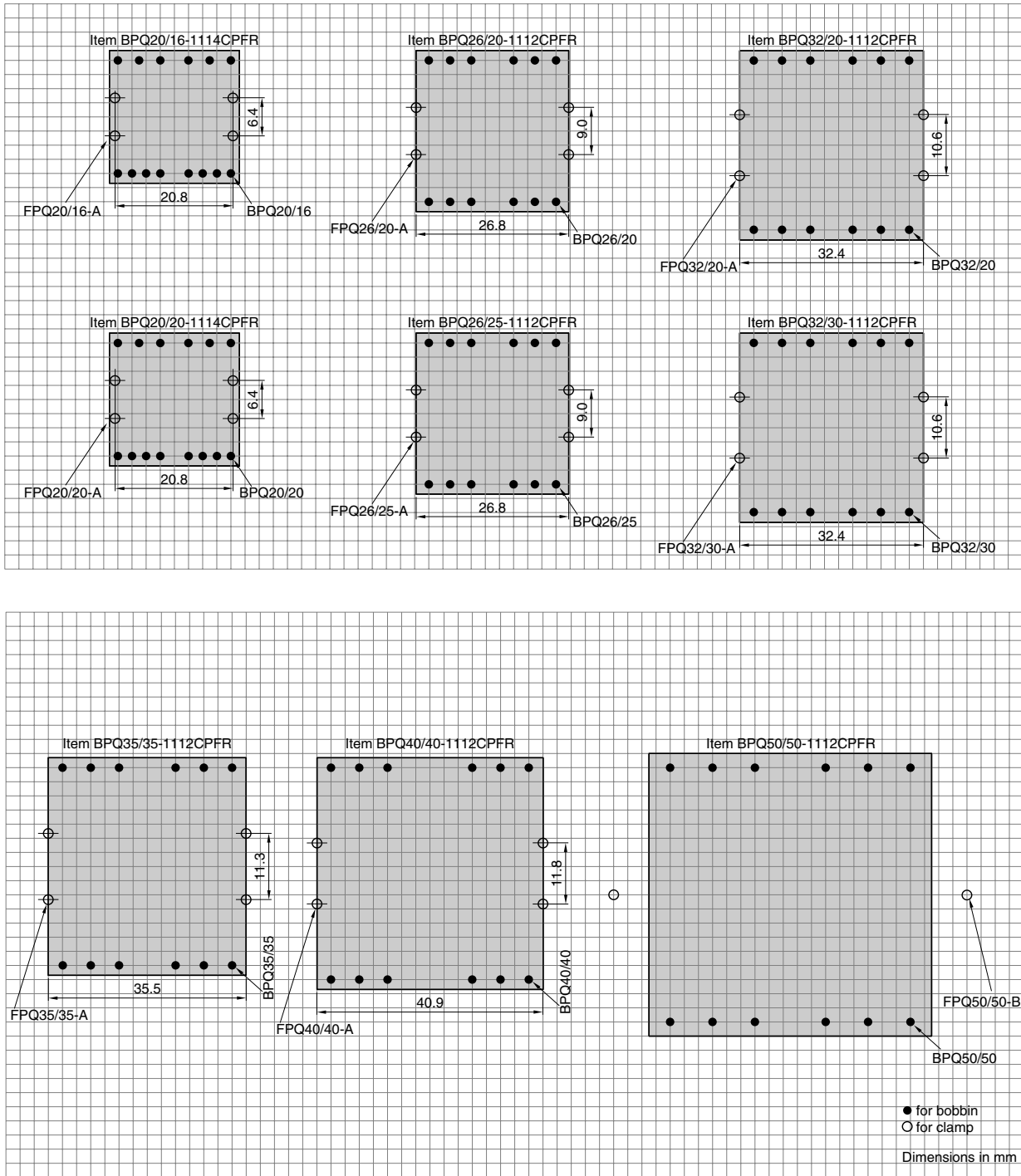
Part No.	Dimensions in mm			Parameter		Wt (g)	Accessory item
	øP (mm)	Terminal pins	W D H (mm)	Aw (mm ²)	ℓ w (mm)		
BPQ20/16-1114CPFR	0.6	14	23.0 23.0 18.3	23.4	44	2.7	FPQ20/16-A
BPQ20/20-1114CPFR	0.6	14	23.0 23.0 22.3	36.2	44	2.8	FPQ20/20-A
BPQ26/20-1112CPFR	0.8	12	26.5 29.3 21.5	30.7	56.2	4.3	FPQ26/20-A
BPQ26/25-1112CPFR	0.8	12	26.5 29.3 29.1	47.7	56.2	4.9	FPQ26/25-A
BPQ32/20-1112CPFR	1.0	12	32.0 34.0 22.5	42.9	67.1	6.6	FPQ32/20-A
BPQ32/30-1112CPFR	1.0	12	32.0 34.0 32.1	95.3	67.1	7.4	FPQ32/30-A
BPQ35/35-1112CPFR	1.0	12	35.0 39.0 37.4	154.2	75.2	11	FPQ35/35-A
BPQ40/40-1112CPFR	1.0	12	40.0 42.0 44.8	240.0	83.9	14	FPQ40/40-A
BPQ50/50-1112CPFR	1.2	12	51.0 51.0 52.0	313.0	104	22	FPQ50/50-B

UL Grade: 94V-0, Material: FR phenol, Pin material: Steel wire (Solder plated)

Maximum number of turns N that can be wound on bobbins, see section of "Maximum number of Turns on Bobbins".

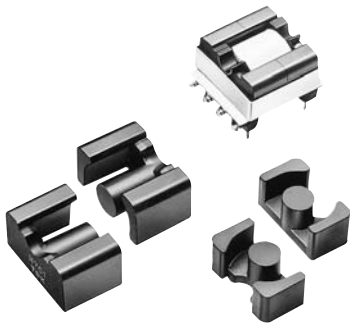
* Minimum thickness of bobbin inside which core is placed, including flanges.

Connecting Pin Patterns (2.54mm/0.1 inch grids) View in mounting direction

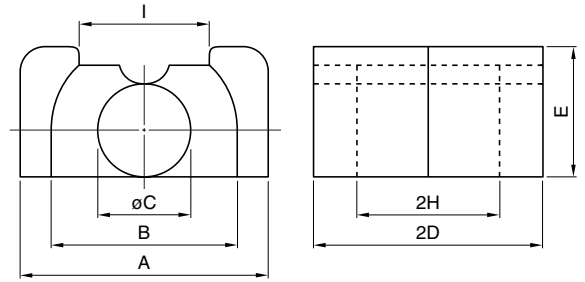


• All specifications are subject to change without notice.

LP CORES



DE. DES. 19,581
 EP. PAT. 68,745(DE, FR, GB, NL)
 FR. DES. 201,586
 GB. DES. 1,007,200
 JP. U. M PRO. PUB. 82(57)-201,824
 JP. DES. 630,754
 NL. DES. 9,767
 US. PAT. 4,424,504
 US. DES. 280,810

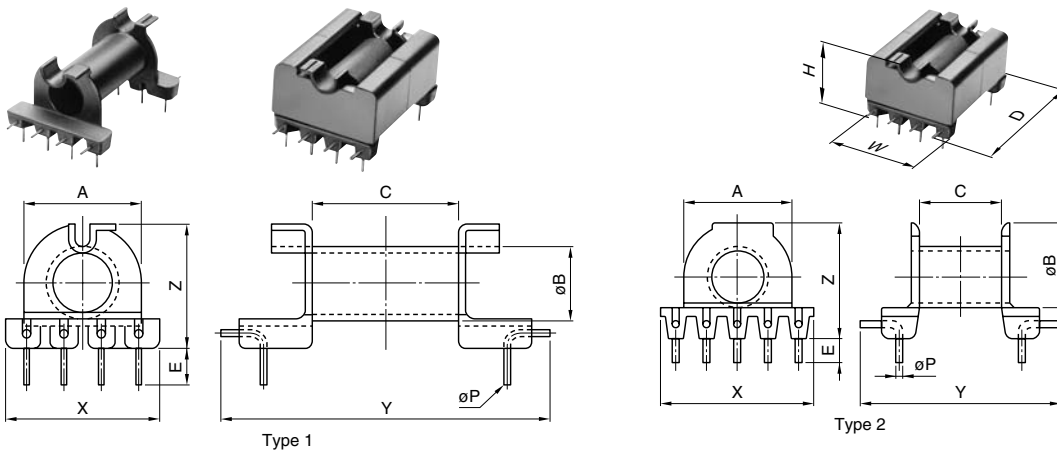


Part No.	Dimensions in mm						
	A	B	øC	2D	E	2H	I
PC44LP23/8Z-12	16.5±0.3	12.5±0.3	5.7±0.1	23.4±0.2	8.7±0.2	17.4±0.2	9.0±0.5
PC44LP22/13Z-12	25.0±0.4	19.0±0.3	8.6±0.2	22.4±0.2	12.9±0.3	16.4±0.3	13.5±0.5
PC44LP32/13Z-12	25.0±0.4	19.0±0.3	8.6±0.2	31.8±0.2	12.9±0.3	24.1±0.3	13.5±0.5

Part No.	Effective parameter				Electrical characteristics			Wt (g)	Bobbin item
	C ₁ (mm ⁻¹)	A _e (mm ²)	l _e (mm)	V _e (mm ³)	AL-value (nH/N ²)*		Core loss (W) max. 100kHz, 200mT, 100°C		
					Without air gap	With air gap			
PC44LP23/8Z-12	1.41	31.3	44.1	1380	1600±25%	63±5% 100±7% 250±13%	0.42	9.6	BLP23/8-018PFR
PC44LP22/13Z-12	0.721	67.9	49.0	3330	3310±25%	100±5% 200±7% 400±10%	1.05	21	BLP22/13-1110CPLFR
PC44LP32/13Z-12	0.909	70.3	64.0	4500	2630±25%	100±5% 200±7% 400±10%	1.38	30	BLP32/13-1110CPLFR

* AL-value: 1kHz, 0.5mA, 100Ts

LP BOBBINS



Part No.	Type	Dimensions in mm							
		A	B	C	E	X	Y	Z	t**
BLP23/8-018CPLFR	1	12.0	7.7	15.2	4.0	16.5	34.0	12.5	0.75
BLP22/13-018CPLFR	1	17.6	10.7	14.1	4.0	25.0	31.5	17.6	0.75
BLP22/13-1110CPLFR*	2	17.6	10.78	13.4	4.0	25.0	32.3	19.1	0.8
BLP32/13-018CPLFR	1	17.6	10.7	21.8	4.0	25.0	40.6	17.6	0.75
BLP32/13-1110CPLFR*	2	17.6	10.78	21.1	4.0	25.0	40.6	19.1	0.8

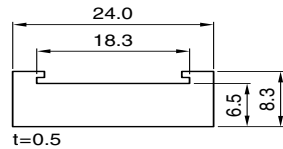
Part No.	Dimensions in mm			Parameter		Wt (g)	Material	Clamp item
	ØP (mm)	Terminal pins	w D (mm) H	Aw (mm ²)	ℓ w (mm)			
BLP23/8-018CPLFR	0.6	8	17.2 34.2 12.5	31.9	30.9	1.9	PPS	FLP23/8-A
BLP22/13-018CPLFR	0.8	8	27 32 17.8	51.5	45.8	3.2	PPS	FLP22/13-A
BLP22/13-1110CPLFR*	0.8	10	25.9 32.3 19.2	45.7	44.5	3.1	FR Phenol	FLP22/13-A
BLP32/13-018CPLFR	0.8	8	27 41 17.8	79.6	45.8	3.7	PPS	FLP32/13-A
BLP32/13-1110CPLFR*	0.8	10	25.9 40.6 19.2	72.0	44.5	3.7	FR Phenol	FLP32/13-A

UL Grade: 94V-0, Pin material: Phosphor bronze wire/Steel wire for “-1110-CPLFR” (Solder plated), Insulating divider’s material: NOMEX®
 Maximum number of turns N that can be wound on bobbins, see section of “Maximum number of Turns on Bobbins”.

* Include 2 pieces of insulating dividers.

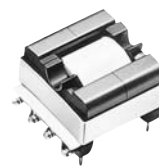
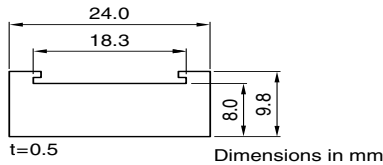
Insulating divider for BLP22/13-1110CPLFR

Part No.: ILP22/13



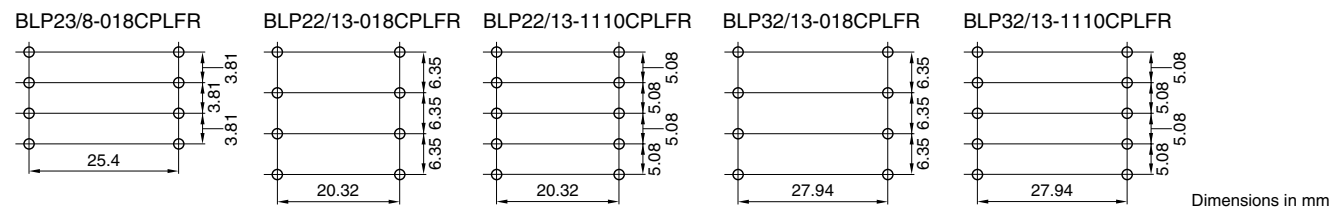
Insulating divider for BLP32/13-1110CPLFR

Part No.: ILP32/13



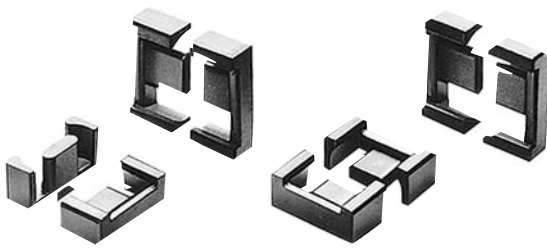
** Minimum thickness of bobbin inside which core is placed, including flanges.

PIN LAYOUT

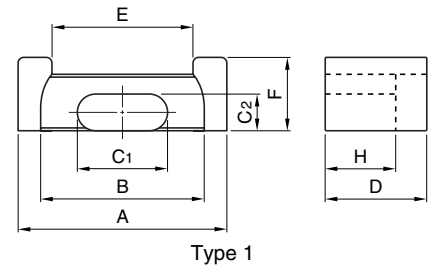


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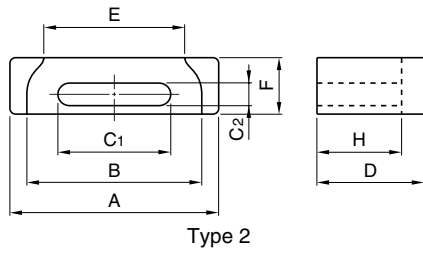
EPC CORES



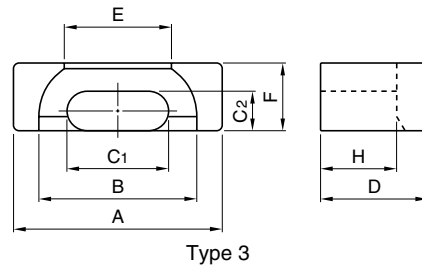
US. PAT. 4,760,366
EP. PAT. 245,083(DE, FR, GB, NL)
KS. UM 50,836
TW. UM 39,406
JP. PENDING



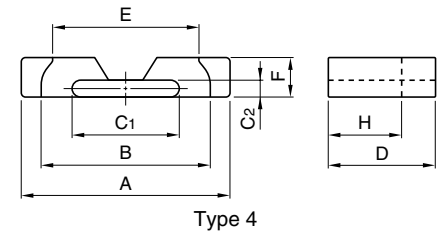
Type 1



Type 2



Type 3



Type 4

Part No.	Type	Dimensions in mm							
		A	B min.	C ₁	C ₂	D	E min.	F	H
PC44EPC10-Z PC50EPC10-Z	3	10.2±0.2	7.6	5.0±0.1	1.9±0.1	4.05±0.10	5.3	3.4±0.1	2.65±0.10
PC44EPC13-Z PC50EPC13-Z	1	13.25±0.3	10.5	5.60±0.15	2.05±0.10	6.6±0.2	8.3	4.60±0.15	4.5±0.2
PC44EPC17-Z PC50EPC17-Z	1	17.6±0.4	14.3	7.70±0.15	2.8±0.1	8.55±0.20	11.5	6.00±0.15	6.05±0.20
PC44EPC19-Z PC50EPC19-Z	1	19.1±0.4	15.8	8.50±0.15	2.5±0.1	9.75±0.20	13.1	6.00±0.15	7.25±0.20
PC44EPC25-Z PC50EPC25-Z	1	25.1±0.5	20.65	11.5±0.2	4.0±0.1	12.5±0.2	17.1	8.0±0.2	9.0±0.3
PC44EPC25B-Z PC50EPC25B-Z	2	25.1±0.5	20.4	13.8±0.2	2.50±0.15	11.43±0.15	16.5	6.5±0.2	8.78±0.15
PC44EPC27-Z PC50EPC27-Z	1	27.1±0.5	21.6	13.0±0.3	4.0±0.1	16.0±0.2	18.5	8.0±0.2	12.0±0.3
PC44EPC27N-Z	4	27.0±0.4	20.8	13.85±0.15	2.2±0.1	13.0±0.1	19.0	5.1±0.1	8.5±0.1
PC44EPC30-Z PC50EPC30-Z	1	30.1±0.5	23.6	15.0±0.3	4.0±0.1	17.5±0.2	20.0	8.0±0.2	13.0±0.3

Part No.	Effective parameter				Electrical characteristics			Wt (g)	Bobbin item
	C ₁ (mm ⁻¹)	A _e (mm ²)	ℓ _e (mm)	V _e (mm ³)	AL-value (nH/N ²) [*]		Core loss (W) max. 100kHz, 200mT, 100°C		
					Without air gap	With air gap			
PC44EPC10-Z PC50EPC10-Z	1.89	9.39	17.8	167	1000±25% 660±25%	40±7% 63±10%	0.072 0.025**	1.1	BEPC10-118GAFR
PC44EPC13-Z PC50EPC13-Z	2.45	12.5	30.6	382	870±25% 560±25%	40±4% 63±5%	0.14 0.039**	2.1	BEPC13-1110CPHFR BEPC13-1110GAFR
PC44EPC17-Z PC50EPC17-Z	1.76	22.8	40.2	917	1150±25% 740±25%	80±4% 125±5%	0.35 0.1**	4.5	BEPC17-1110CPHFR BEPC17-1119GAFR
PC44EPC19-Z PC50EPC19-Z	2.03	22.7	46.1	1050	940±25% 680±25%	80±4% 125±5%	0.4 0.12**	5.3	BEPC19-1111CPHFR BEPC19-1110GAFR
PC44EPC25-Z PC50EPC25-Z	1.28	46.4	59.2	2750	1560±25% 1080±25%	125±5% 200±7%	1.11 0.32**	13	BEPC25-1111CPHFR
PC44EPC25B-Z PC50EPC25B-Z	1.39	33.3	46.2	1540	1560±25% 1080±25%	80±5% 125±7%	0.65 0.22**	11	BEPC25B-1111GAFR
PC44EPC27-Z PC50EPC27-Z	1.34	54.6	73.1	4000	1540±25% 1030±25%	125±5% 200±7%	1.56 0.46**	18	BEPC27-1111CPHFR
PC44EPC27N-Z	1.70	33.0	55.9	1840	1400±25%	80±5% 125±7%	0.73	10	BEPC27N-1114CPHFR
PC44EPC30-Z PC50EPC30-Z	1.34	61.0	81.6	4980	1570±25% 1060±25%	125±5% 200±7%	2.03 0.58**	23	BEPC30-1112CPHFR

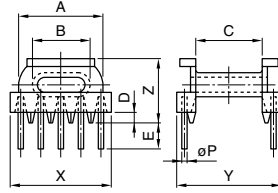
* AL-value: 1kHz, 0.5mA, 100Ts

** Core loss: 500kHz, 50mT, 100°C

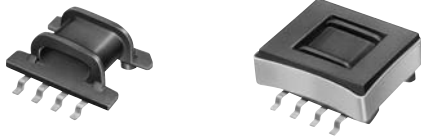
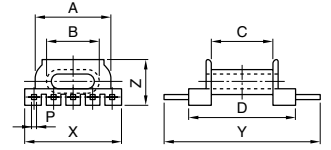
EPC BOBBINS



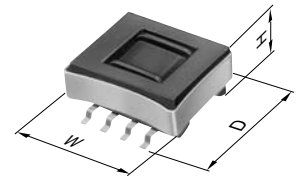
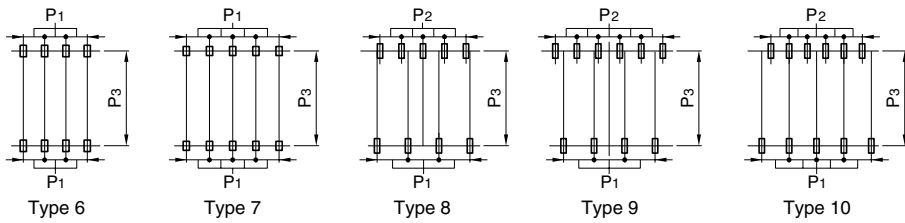
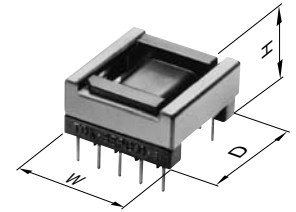
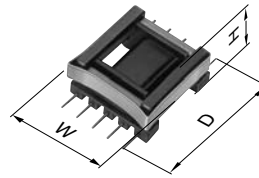
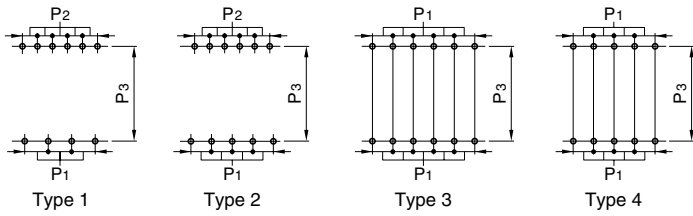
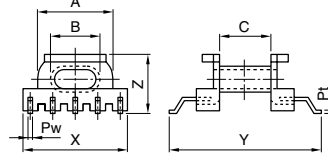
Lead through type



Drop in type



SMD type



• All specifications are subject to change without notice.

EPC BOBBINS

Lead through type

Part No.	Dimensions in mm								
	A	B	C	D	E	X	Y	Z	t*
BEPC13-1110CPHFR	10.23	6.93	6.88	0.9	2.5	13.2	13.2	7.5	0.5
BEPC17-1110CPHFR	14.07	9.88	9.55	2.5	4.5	17.2	17.5	11.9	0.9
BEPC19-1111CPHFR	15.58	10.68	12.04	2.5	4.5	18.7	19.0	11.9	0.9
BEPC25-1111CPHFR	20.39	13.73	14.7	3.0	4.5	25.0	25.0	16.0	0.9
BEPC27-1111CPHFR	21.33	15.33	20.7	3.0	4.5	27.0	32.0	16.0	0.9
BEPC27N-1114CPHFR	20.5	15.9	14.10	0.3	3.5	28.2	29.8	8.7	0.8
BEPC30-1112CPHFR	23.33	17.33	22.7	3.0	4.5	30.0	35.0	16.0	0.9

Part No.	Dimensions in mm					Terminal pins	Parameter		Wt (g)	Connecting pin pattern
	∅P (mm)	P ₁ (mm)	P ₂ (mm)	P ₃ (mm)	W _D (mm) H		Aw (mm ²)	ℓ w (mm)		
BEPC13-1110CPHFR	∅0.49	2.5	—	10.5	10	13.9 14.8 7.7	11.2	23.0	0.57	Type 4
BEPC17-1110CPHFR	∅0.49	3.75	2.5	15.0	10	18.2 19.1 12.1	20.1	32.1	1.5	Type 1
BEPC19-1111CPHFR	∅0.49	3.75	2.5	16.25	11	20.0 21.5 12.1	29.3	34.4	1.6	Type 2
BEPC25-1111CPHFR	0.8	5.0	3.75	20.0	11	26.1 27.0 16.2	54.4	45.0	3.9	Type 2
BEPC27-1111CPHFR	0.8	5.0	3.75	27.5	11	28.1 34.0 16.2	62.1	47.2	4.7	Type 2
BEPC27N-1114CPHFR	0.8	3.75	—	25.0	14	29.0 36.5 9.0	32.4	43.7	3.1	Type 3
BEPC30-1112CPHFR	1.0	5.1	—	30.0	12	31.1 37.0 16.2	68.1	51.1	6.0	Type 3

UL Grade: 94V-0, Material: FR phenol, Pin material: Steel wire (Solder plated), Phosphor bronze (Solder plated) for BEPC25B-1111GAFR only. Maximum number of turns N that can be wound on bobbins, see section of "Maximum number of Turns on Bobbins".

* Minimum thickness of bobbin inside which core is placed, including flanges.

SMD type

Part No.	Dimensions in mm								
	A	B	C	D	E	X	Y	Z	t*
BEPC10-118GAFR	7.5	5.95	3.9	—	—	10.8	11.5	4.85	0.35
BEPC13-1110GAFR	10.3	6.93	6.9	—	—	14.0	20.4	7.02	0.5
BEPC17-119GAFR	14.1	9.9	9.6	—	—	17.5	23.0	9.8	0.8
BEPC19-1110GAFR	15.4	10.7	12.0	—	—	20.0	25.0	9.75	0.8
BEPC25B-1111GAFR	20.1	15.7	14.7	—	—	25.0	28.7	9.8	0.8

Part No.	Dimensions in mm					Terminal pins	Parameter		Wt (g)	Connecting pin pattern
	Pt×Pw (mm)	P ₁ (mm)	P ₂ (mm)	P ₃ (mm)	W _D (mm) H		Aw (mm ²)	ℓ w (mm)		
BEPC10-118GAFR	0.3×0.5	2.0	—	10.8	8	11.0 11.7 5.2	3.2	17.5	0.14	Type 6
BEPC13-1110GAFR	0.4×0.7	3.0	—	18.5	10	14.2 20.6 7.3	11.6	23.1	0.6	Type 7
BEPC17-119GAFR	0.4×0.7	5.0	3.5	21.8	9	18.2 23.2 9.9	20.1	32.1	1.1	Type 8
BEPC19-1110GAFR	0.4×0.7	5.0	3.5	23.8	10	20.2 25.2 9.9	28.2	34.4	1.3	Type 9
BEPC25B-1111GAFR	0.4×0.8	5.0	3.5	27.5	11	26.1 28.9 9.9	32.3	44.3	1.9	Type 10

UL Grade: 94V-0, Material: FR phenol, Pin material: Steel wire (Solder plated), Phosphor bronze (Solder plated) for BEPC25B-1111GAFR only. Maximum number of turns N that can be wound on bobbins, see section of "Maximum number of Turns on Bobbins".

* Minimum thickness of bobbin inside which core is placed, including flanges.

• All specifications are subject to change without notice.

EPC BOBBINS

Drop in type

Part No.	Dimensions in mm								
	A	B	C	D	E	X	Y	Z	t*
BEPC19-1110SAFR	15.6	10.7	12.0	18.6	—	20.0	26.0	9.55	0.8
BEPC25B-1111SFR	20.1	15.7	14.7	21.7	—	25.0	37.7	9.60	0.8

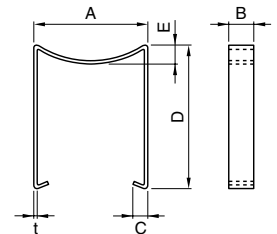
Part No.	Dimensions in mm					Terminal pins	W D (mm) H	Parameter		Wt (g)	Connecting pin pattern
	Pt×Pw (mm)	P ₁ (mm)	P ₂ (mm)	P ₃ (mm)	Aw (mm ²)			ℓ w (mm)			
BEPC19-1110SAFR	0.4×0.7	5.0	3.5	22.3	10	20.2 26.2 9.8	28.2	34.4	1.3	Type 9	
BEPC25B-1111SFR	0.4×0.7	5.0	3.5	29.7	11	26.0 37.9 9.5	30.9	50.5	2.1	Type 10	

UL Grade: 94V-0, Material: FR phenol, Pin material: Steel wire (Solder plated), Phosphor bronze (Solder plated) for BEPC25B-1111GAFR only.
Maximum number of turns N that can be wound on bobbins, see section of "Maximum number of Turns on Bobbins".

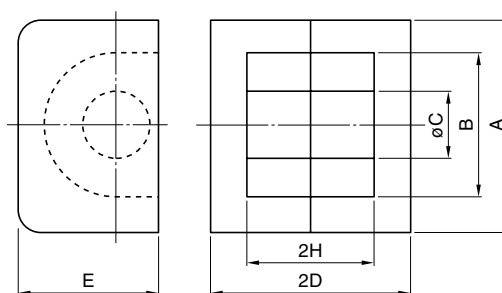
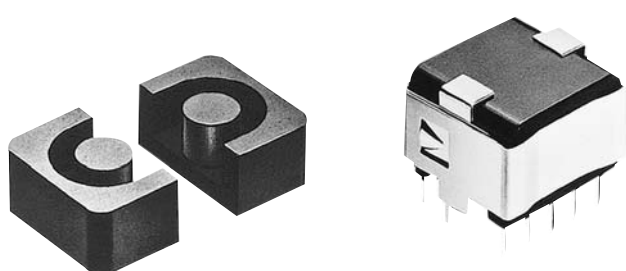
* Minimum thickness of bobbin inside which core is placed, including flanges.

EPC ACCESSORIES

Part No.	Dimensions in mm							Material
	A	B	C	D	E	t		
FEPC-10-A	10.8	2.8	1.5	8.0	0.8	0.2	Stainless steel	
FEPC-13-A	13.75	2.8	2.9	14.75	2.65	0.25	Stainless steel	
FEPC-17-A	18.1	3.8	2.9	19.1	3.0	0.3	Stainless steel	
FEPC-19-A	19.9	3.8	2.9	21.5	3.0	0.3	Stainless steel	
FEPC-25-A	26.0	5.6	2.9	27.0	3.0	0.3	Stainless steel	
FEPC-25B-A	26.0	5.0	2.9	24.5	3.0	0.3	Stainless steel	
FEPC-27-A	28.0	5.6	2.9	34.0	3.0	0.3	Stainless steel	
FEPC-30-A	31.0	5.6	2.9	37.0	3.0	0.3	Stainless steel	



EP CORES



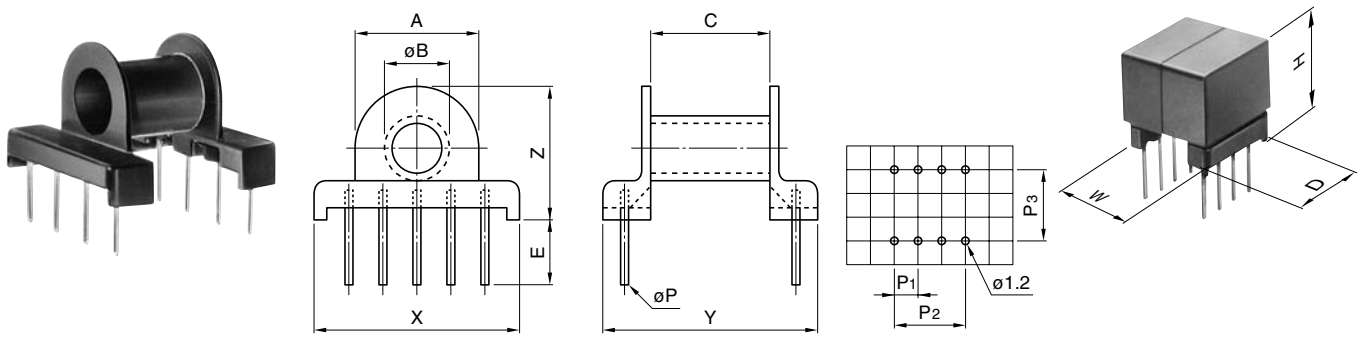
Part No.	Dimensions in mm					
	A	B	øC	2D	E	2H
PC40EP7-Z	9.2±0.2	7.4±0.2	3.3±0.1	7.4±0.1	6.35±0.15	5.2±0.2
PC40EP10-Z PC50EP10-Z	11.5±0.3	9.4±0.2	3.3±0.15	10.2±0.2	7.65±0.2	7.4±0.2
PC40EP13-Z PC50EP13-Z	12.5±0.3	10.0±0.3	4.35±0.15	12.85±0.15	8.8±0.2	9.2±0.2
PC40EP17-Z	18.0±0.4	12.0±0.4	5.68±0.18	16.8±0.2	11.0±0.25	11.3±0.3
PC40EP20-Z	24.0±0.5	16.5±0.4	8.75±0.25	21.4±0.2	14.95±0.35	14.3±0.3

Part No.	Effective parameter				Electrical characteristics			Wt (g)	Bobbin item
	C ₁ (mm ⁻¹)	A _e (mm ²)	ℓ _e (mm)	V _e (mm ³)	AL-value (nH/N ²)*		Core loss (W) max. 100kHz, 200mT, 100°C		
					Without air gap	With air gap			
PC40EP7-Z	1.52	10.3	15.7	162	830 min.	63±3% 100±4%	0.065	1.4	BEP7-316DFR
PC40EP10-Z PC50EP10-Z	1.70	11.3	19.2	217	800 min. 800±25%	63±3% 100±4%	0.08 0.02**	2.8	BEP10-318DFR
PC40EP13-Z PC50EP13-Z	1.24	19.5	24.2	472	1170 min. 1100±25%	100±3% 160±3%	0.17 0.044**	5.1	BEP13-3110DFR
PC40EP17-Z	0.84	33.9	28.5	966	1840 min.	100±5% 250±7%	0.33	12	BEP17-318DFR
PC40EP20-Z	0.508	78	39.8	3120	3200 min.	100±5% 250±7%	1.1	28	BEP20-8110DFR

* AL-value: 1kHz, 0.5mA, 100Ts

** Core loss: 500kHz, 50mT, 100°C

EP BOBBINS



Part No.	Dimensions in mm							
	A	øB	C	E	X	Y	Z	t*
BEP7-316DFR	7.0	4.5	3.1	3.25	9.2	7.4	8.25	0.25
BEP10-318DFR	8.8	4.8	5.6	5.2	11.0	11.0	10.2	0.40
BEP13-3110DFR	9.6	5.7	7.7	5.3	13.2	13.5	10.8	0.38
BEP17-318DFR	11.4	7.2	9.4	5.0	19.0	19.0	13.2	0.35
BEP20-8110DFR	15.9	10.2	12.4	5.0	24.7	21.5	16.6	0.43

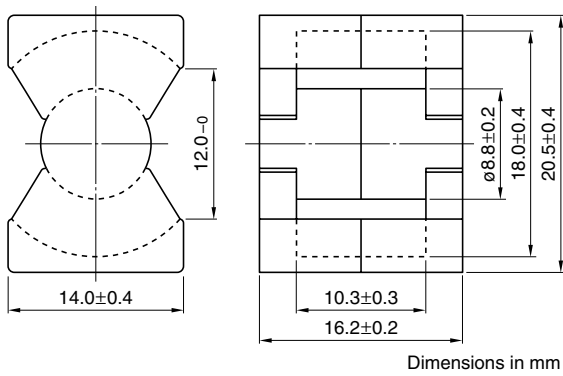
Part No.	Dimensions in mm					Terminal pins	Parameter		Wt (g)	Accessory item
	øP (mm)	P ₁ (mm)	P ₂ (mm)	P ₃ (mm)	Aw (mm ²)		øw (mm)			
BEP7-316DFR	0.6	2.5	5.0	5.0	6	9.4 7.5 9.6	3.85	18.1	0.3	FEP-7-C
BEP10-318DFR	0.6	2.5	7.5	7.5	8	11.8 11.2 11.8	11.7	21.7	0.65	FEP-10-C
BEP13-3110DFR	0.6	2.5	10.0	10.0	10	13.4 13.7 12.7	16.6	23.9	0.74	FEP-13-C
BEP17-318DFR	0.6	5.0	15.0	15.0	8	19.25 19.25 15.7	19.0	29.1	1.3	FEP-17-C
BEP20-8110DFR	0.6	5.0	20.0	17.5	10	25.0 21.8 19.6	33.2	40.8	1.8	FEP-20-C

UL Grade: 94V-0, Material: FR phenol, Pin material: Phosphor bronze (Solder plated)

Maximum number of turns N that can be wound on bobbins, see section of "Maximum number of Turns on Bobbins".

* Minimum thickness of bobbin inside which core is placed, including flanges

PQ Series PQ20/16 Cores



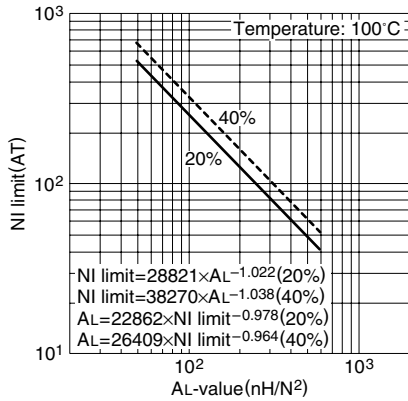
Parameter

Core factor	C1	mm ⁻¹	0.605
Effective magnetic path length	ℓ _e	mm	37.4
Effective cross-sectional area	A _e	mm ²	62
Effective core volume	V _e	mm ³	2310
Cross-sectional center pole area	A _{cp}	mm ²	60.8
Minimum cross-sectional center pole area	A _{cp min.}	mm ²	58.1
Cross-sectional winding area of core	A _{cw}	mm ²	47.4
Weight (approx.)	g		13

Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C 100kHz, 200mT	Calculated output power (forward converter mode)
PC44PQ20/16Z-12	3880±25% (1kHz, 0.5mA)* 5210 min. (100kHz, 200mT)	0.84 max.	70W (100kHz)

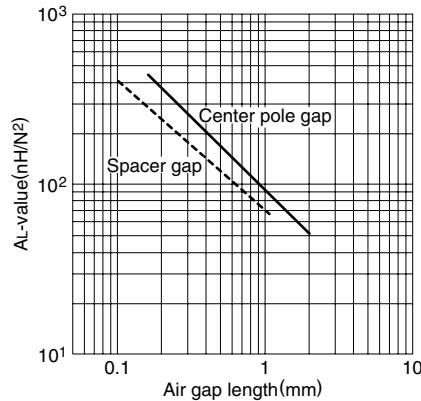
* Coil: ø0.35 2UEW 100Ts

NI limit vs. AL-value for PC44PQ20/16 gapped core (Typical)



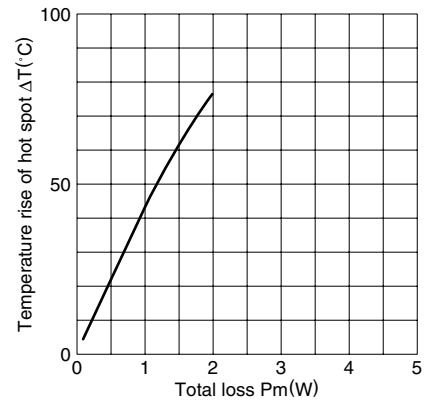
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

AL-value vs. Air gap length for PC44PQ20/16 core (Typical)

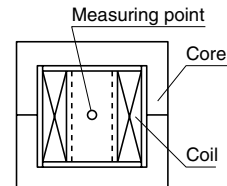


Measuring conditions • Coil: ø0.35 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA

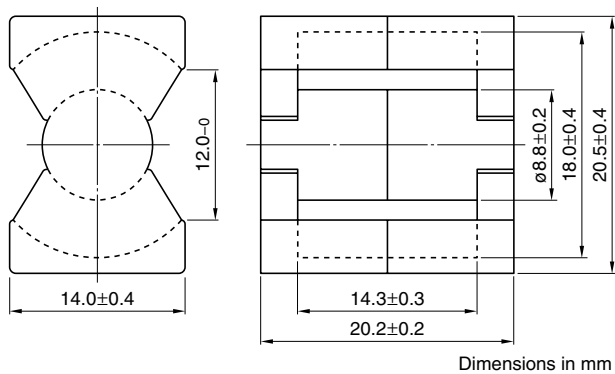
Temperature rise vs. Total loss for PQ20/16 core (Typical) (Ambient temperature: 25°C)



Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%RH, respectively. (approx. 400×300×300cm)



PQ Series PQ20/20 Cores



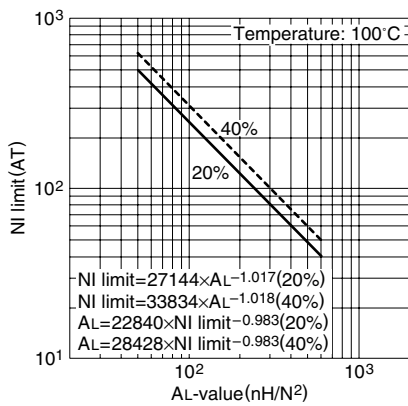
Parameter

Core factor	C1	mm ⁻¹	0.738
Effective magnetic path length	ℓ _e	mm	45.4
Effective cross-sectional area	A _e	mm ²	62
Effective core volume	V _e	mm ³	2790
Cross-sectional center pole area	A _{cp}	mm ²	60.8
Minimum cross-sectional center pole area	A _{cp min.}	mm ²	58.1
Cross-sectional winding area of core	A _{cw}	mm ²	65.8
Weight (approx.)		g	15

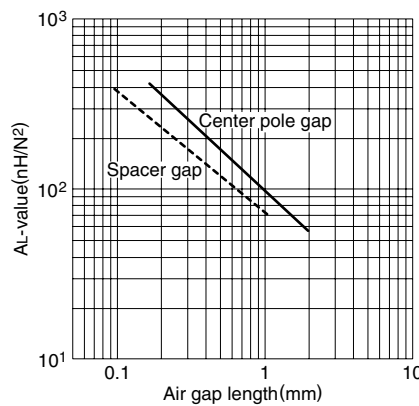
Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C		Calculated output power (forward converter mode)
		100kHz, 200mT	500kHz, 50mT	
PC44PQ20/20Z-12	3150±25% (1kHz, 0.5mA)* 4290 min. (100kHz, 200mT)	1.02 max.		92W (100kHz)
PC50PQ20/20Z-12	2000±25% (1kHz, 0.5mA)*	0.33 max.		187W (500kHz)

* Coil: ø0.35 2UEW 100Ts

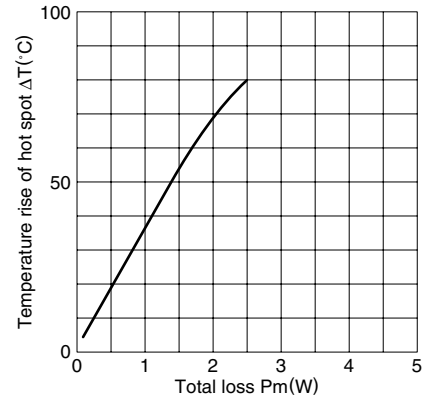
NI limit vs. AL-value for PC44PQ20/20 gapped core (Typical)



AL-value vs. Air gap length for PC44PQ20/20 core (Typical)

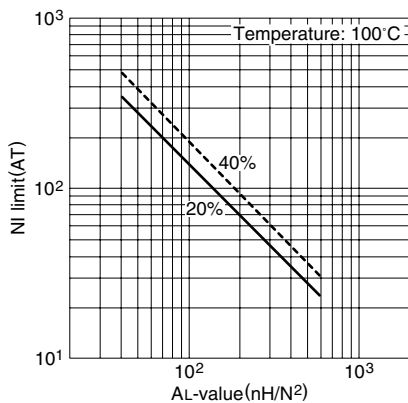


Temperature rise vs. Total loss for PQ20/20 core (Typical) (Ambient temperature: 25°C)



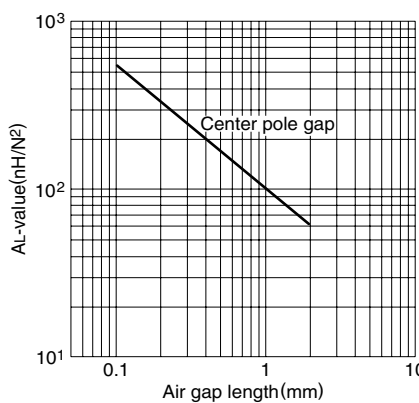
Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%RH, respectively. (approx. 400×300×300cm)

NI limit vs. AL-value for PC50PQ20/20 gapped core (Typical)

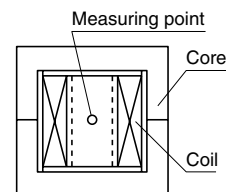


Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

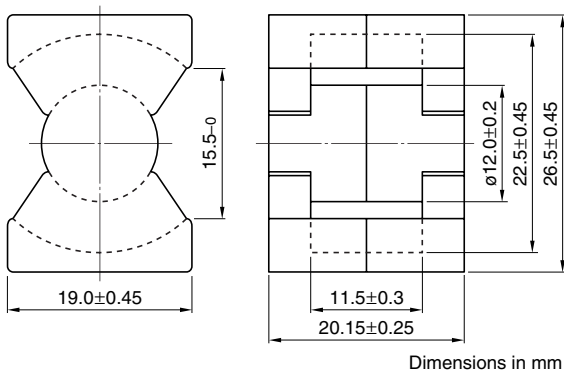
AL-value vs. Air gap length for PC50PQ20/20 core (Typical)



Measuring conditions • Coil: ø0.35 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA



PQ Series PQ26/20 Cores



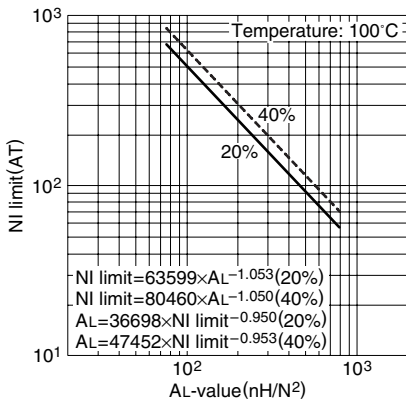
Parameter

Core factor	C1	mm ⁻¹	0.391
Effective magnetic path length	ℓ _e	mm	46.3
Effective cross-sectional area	A _e	mm ²	119
Effective core volume	V _e	mm ³	5490
Cross-sectional center pole area	A _{cp}	mm ²	113
Minimum cross-sectional center pole area	A _{cp min.}	mm ²	109
Cross-sectional winding area of core	A _{cw}	mm ²	60.4
Weight (approx.)		g	31

Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C 100kHz, 200mT	Calculated output power (forward converter mode)
PC44PQ26/20Z-12	6170±25% (1kHz, 0.5mA)* 8060 min. (100kHz, 200mT)	1.94 max.	170W (100kHz)

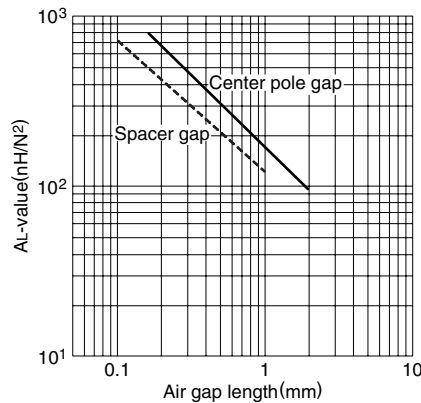
* Coil: ø0.35 2UEW 100Ts

NI limit vs. AL-value for PC44PQ26/20 gapped core (Typical)



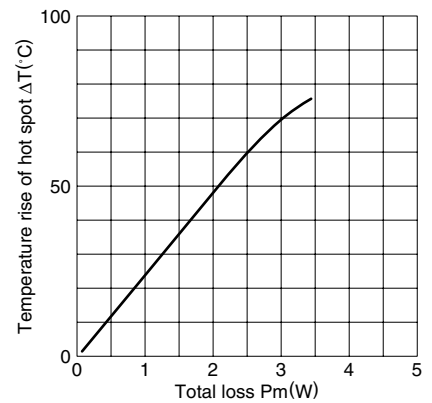
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

AL-value vs. Air gap length for PC44PQ26/20 core (Typical)

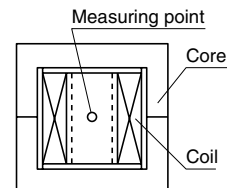


Measuring conditions • Coil: ø0.35 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA

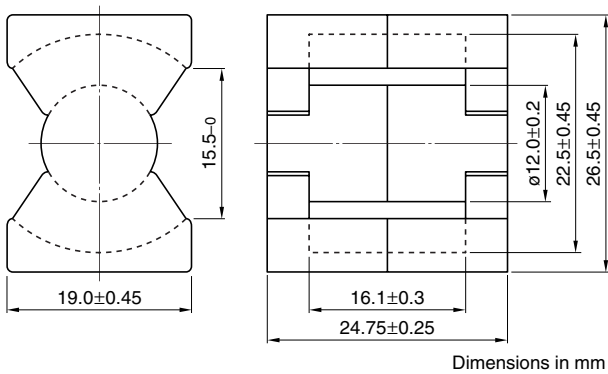
Temperature rise vs. Total loss for PQ26/20 core (Typical) (Ambient temperature: 25°C)



Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%RH, respectively. (approx. 400×300×300cm)



PQ Series PQ26/25 Cores



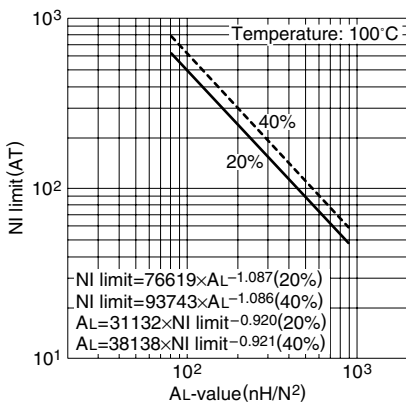
Parameter

Core factor	C1	mm ⁻¹	0.472
Effective magnetic path length	ℓ _e	mm	55.5
Effective cross-sectional area	A _e	mm ²	118
Effective core volume	V _e	mm ³	6530
Cross-sectional center pole area	A _{cp}	mm ²	113
Minimum cross-sectional center pole area	A _{cp min.}	mm ²	109
Cross-sectional winding area of core	A _{cw}	mm ²	84.5
Weight (approx.)		g	36

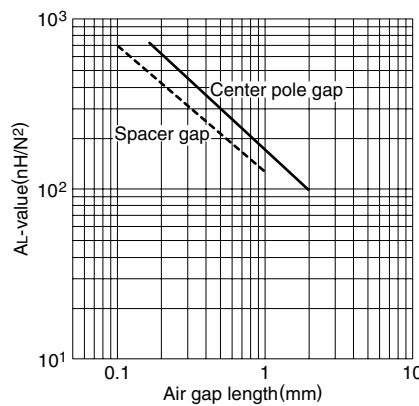
Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C		Calculated output power (forward converter mode)
		100kHz, 200mT	500kHz, 50mT	
PC44PQ26/25Z-12	5250±25% (1kHz, 0.5mA)* 6680 min. (100kHz, 200mT)	2.32 max.		195W (100kHz)
PC50PQ26/25Z-12	3200±25% (1kHz, 0.5mA)*	0.76 max.		366W (500kHz)

* Coil: ø0.35 2UEW 100Ts

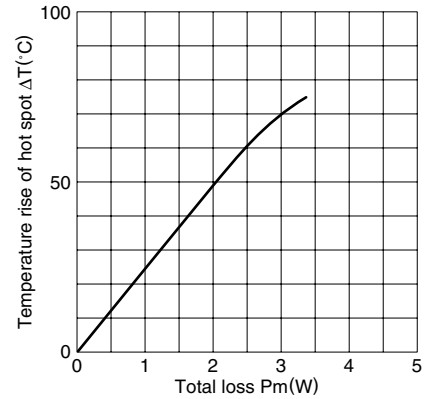
NI limit vs. AL-value for PC44PQ26/25 gapped core (Typical)



AL-value vs. Air gap length for PC44PQ26/25 core (Typical)

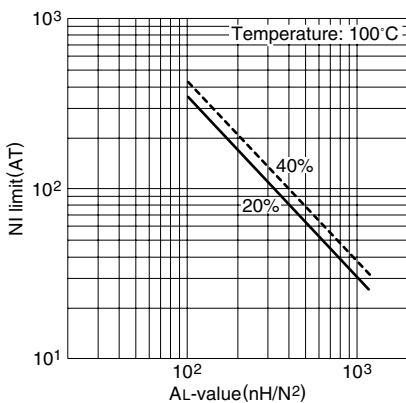


Temperature rise vs. Total loss for PQ26/25 core (Typical) (Ambient temperature: 25°C)



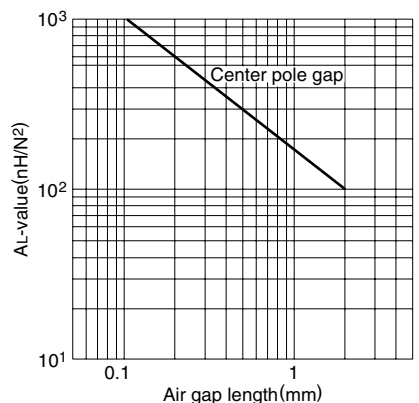
Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%RH, respectively. (approx. 400×300×300cm)

NI limit vs. AL-value for PC50PQ26/25 gapped core (Typical)

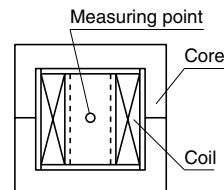


Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

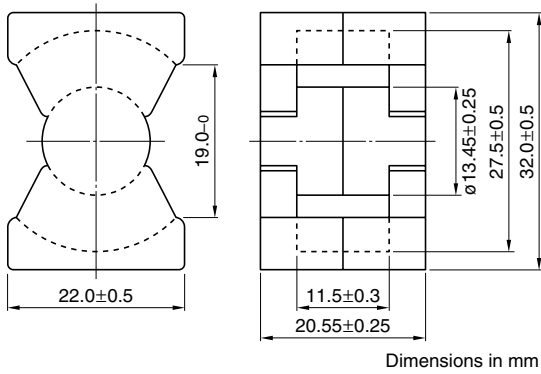
AL-value vs. Air gap length for PC50PQ26/25 core (Typical)



Measuring conditions • Coil: ø0.35 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA



PQ Series PQ32/20 Cores



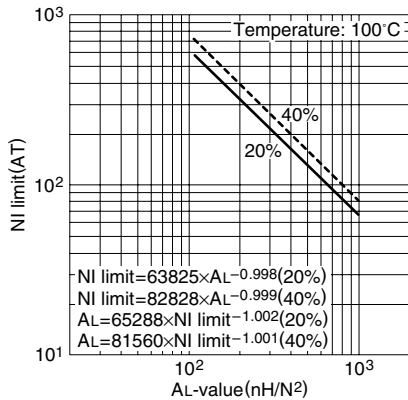
Parameter

Core factor	C1	mm ⁻¹	0.326
Effective magnetic path length	ℓ _e	mm	55.5
Effective cross-sectional area	A _e	mm ²	170
Effective core volume	V _e	mm ³	9420
Cross-sectional center pole area	A _{cp}	mm ²	142
Minimum cross-sectional center pole area	A _{cp min.}	mm ²	137
Cross-sectional winding area of core	A _{cw}	mm ²	80.8
Weight (approx.)	g		42

Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C 100kHz, 200mT	Calculated output power (forward converter mode)
PC44PQ32/20Z-12	7310±25% (1kHz, 0.5mA)* 9640 min. (100kHz, 200mT)	2.92 max.	232W (100kHz)

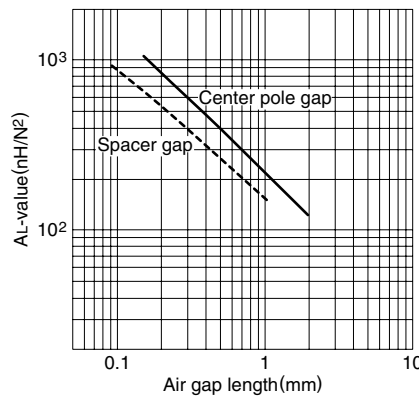
* Coil: ø0.35 2UEW 100Ts

NI limit vs. AL-value for PC44PQ32/20 gapped core (Typical)



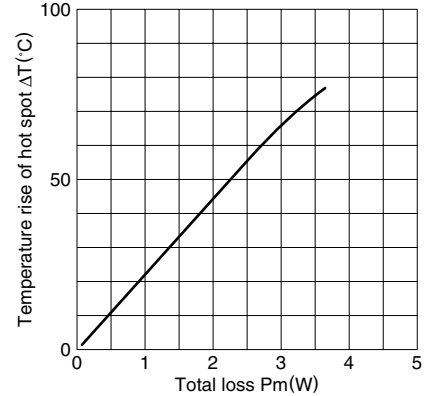
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

AL-value vs. Air gap length for PC44PQ32/20 core (Typical)

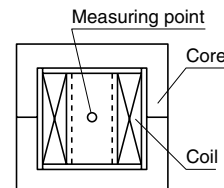


Measuring conditions • Coil: ø0.35 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA

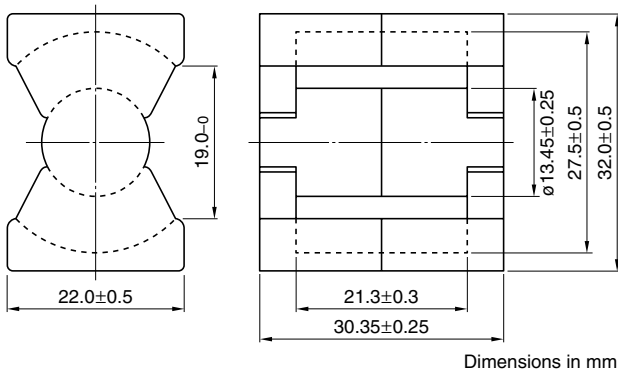
Temperature rise vs. Total loss for PQ32/20 core (Typical) (Ambient temperature: 25°C)



Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%RH, respectively. (approx. 400×300×300cm)



PQ Series PQ32/30 Cores



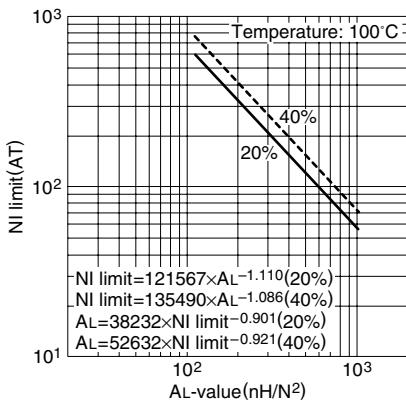
Parameter

Core factor	C1	mm ⁻¹	0.464
Effective magnetic path length	ℓ_e	mm	74.6
Effective cross-sectional area	A_e	mm ²	161
Effective core volume	V_e	mm ³	12000
Cross-sectional center pole area	A_{cp}	mm ²	142
Minimum cross-sectional center pole area	$A_{cp \text{ min.}}$	mm ²	137
Cross-sectional winding area of core	A_{cw}	mm ²	149.6
Weight (approx.)		g	55

Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C 100kHz, 200mT	Calculated output power (forward converter mode)
PC44PQ32/30Z-12	5140±25% (1kHz, 0.5mA)* 6790 min. (100kHz, 200mT)	3.92 max.	331W (100kHz)

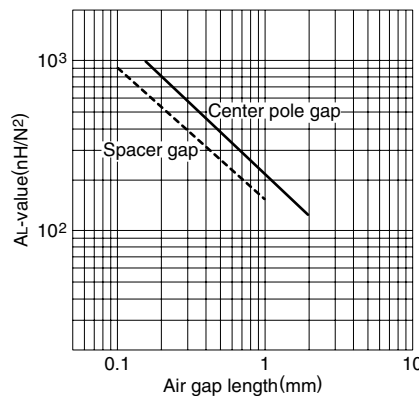
* Coil: ø0.4 2UEW 100Ts

NI limit vs. AL-value for PC44PQ32/30 gapped core (Typical)



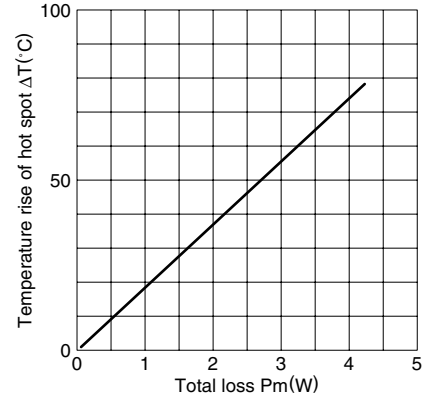
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

AL-value vs. Air gap length for PC44PQ32/30 core (Typical)

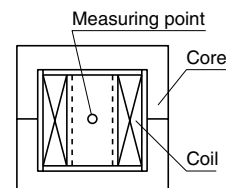


Measuring conditions • Coil: ø0.4 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA

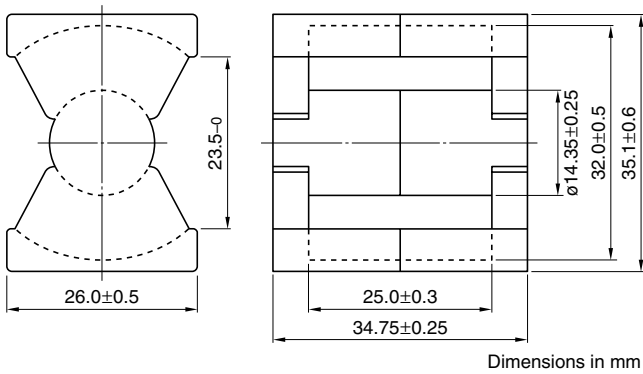
Temperature rise vs. Total loss for PQ32/30 core (Typical) (Ambient temperature: 25°C)



Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45(%)RH, respectively. (approx. 400×300×300cm)



PQ Series PQ35/35 Cores



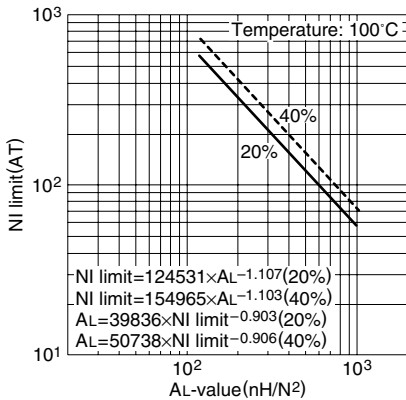
Parameter

Core factor	C1	mm ⁻¹	0.448
Effective magnetic path length	ℓ_e	mm	87.9
Effective cross-sectional area	A_e	mm ²	196
Effective core volume	V_e	mm ³	17300
Cross-sectional center pole area	A_{cp}	mm ²	162
Minimum cross-sectional center pole area	$A_{cp \text{ min.}}$	mm ²	156
Cross-sectional winding area of core	A_{cw}	mm ²	220.6
Weight (approx.)		g	73

Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C 100kHz, 200mT	Calculated output power (forward converter mode)
PC44PQ35/35Z-12	4860±25% (1kHz, 0.5mA)* 7010 min. (100kHz, 200mT)	5.27 max.	452W (100kHz)

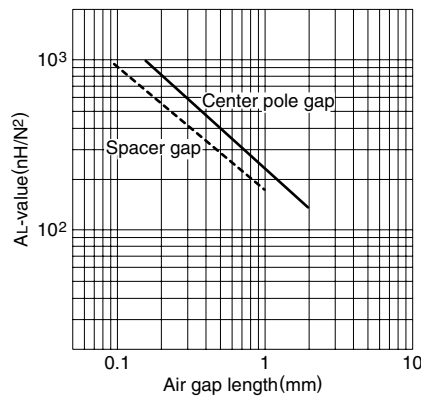
* Coil: $\phi 0.4$ 2UEW 100Ts

NI limit vs. AL-value for PC44PQ35/35 gapped core (Typical)



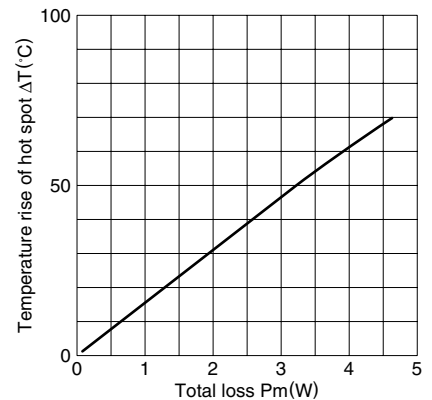
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

AL-value vs. Air gap length for PC44PQ35/35 core (Typical)

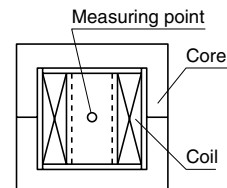


Measuring conditions • Coil: $\phi 0.4$ 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA

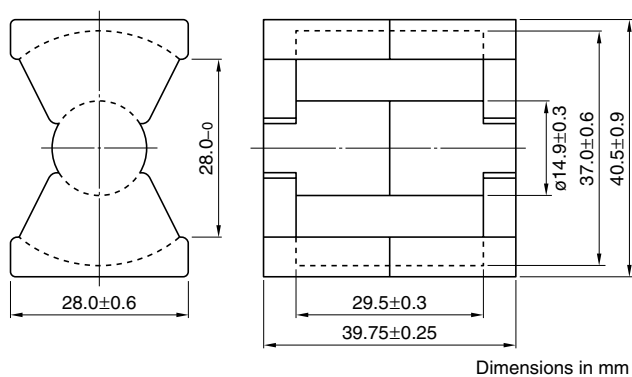
Temperature rise vs. Total loss for PQ35/35 core (Typical) (Ambient temperature: 25°C)



Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%RH, respectively. (approx. 400×300×300cm)



PQ Series PQ40/40 Cores



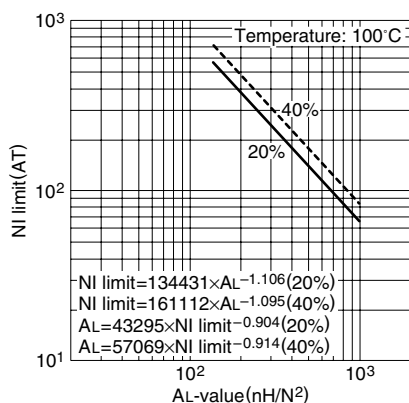
Parameter

Core factor	C1	mm ⁻¹	0.508
Effective magnetic path length	ℓ _e	mm	102
Effective cross-sectional area	A _e	mm ²	201
Effective core volume	V _e	mm ³	20500
Cross-sectional center pole area	A _{cp}	mm ²	174
Minimum cross-sectional center pole area	A _{cp min.}	mm ²	167
Cross-sectional winding area of core	A _{cw}	mm ²	326
Weight (approx.)		g	95

Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C 100kHz, 200mT	Calculated output power (forward converter mode)
PC44PQ40/40Z-12	4300±25% (1kHz, 0.5mA)* 6200 min. (100kHz, 200mT)	6.56 max.	596W (100kHz)

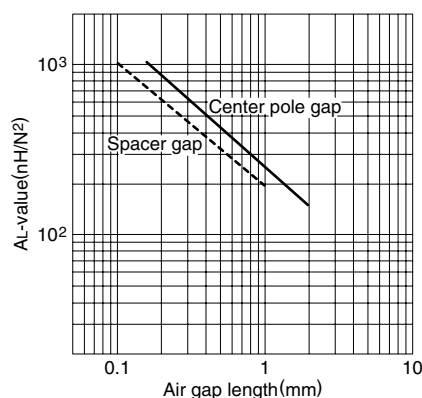
* Coil: ø0.4 2UEW 100Ts

NI limit vs. AL-value for PC44PQ40/40 gapped core (Typical)



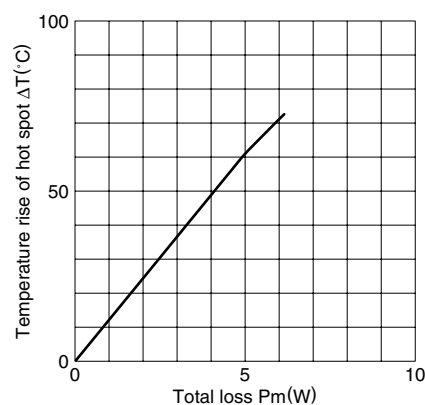
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

AL-value vs. Air gap length for PC44PQ40/40 core (Typical)

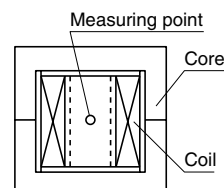


Measuring conditions • Coil: ø0.4 2UEW 100Ts
 • Frequency: 1kHz
 • Level: 0.5mA

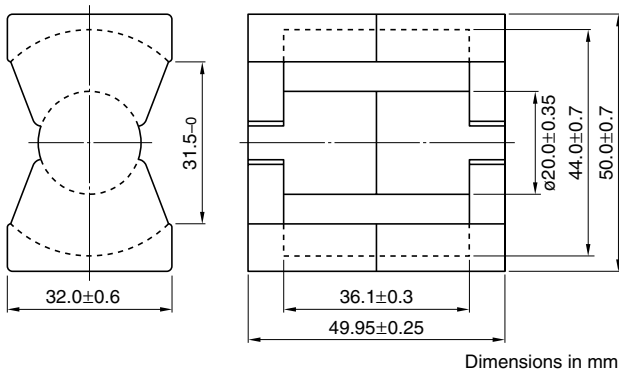
Temperature rise vs. Total loss for PQ40/40 core (Typical)



Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%RH, respectively. (approx. 400×300×300cm)



PQ Series PQ50/50 Cores



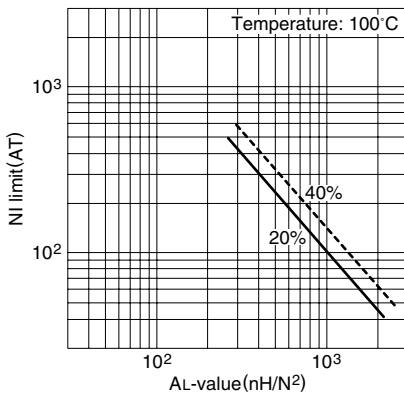
Parameter

Core factor	C1	mm ⁻¹	0.346
Effective magnetic path length	ℓ _e	mm	113
Effective cross-sectional area	A _e	mm ²	328
Effective core volume	V _e	mm ³	37200
Cross-sectional center pole area	A _{cp}	mm ²	314
Minimum cross-sectional center pole area	A _{cp min.}	mm ²	303
Cross-sectional winding area of core	A _{cw}	mm ²	433
Weight (approx.)		g	195

Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C 100kHz, 150mT	Calculated output power (forward converter mode)
PC44PQ50/50Z-12	6720±25% (1kHz, 0.5mA)* 9810 min. (100kHz, 150mT)	6.1 max.	1045W (100kHz)

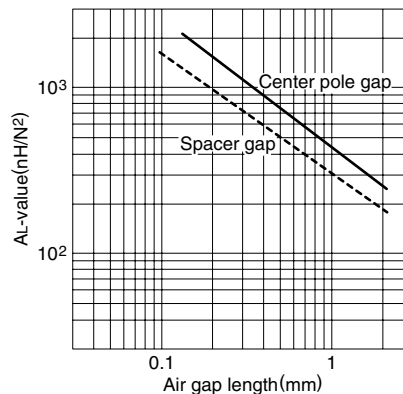
* Coil: ø0.4 2UEW 100Ts

NI limit vs. AL-value for PC44PQ50/50 gapped core (Typical)



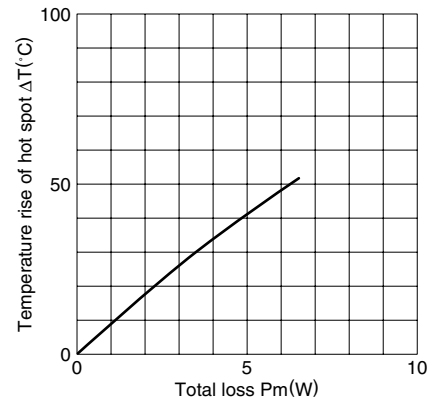
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

AL-value vs. Air gap length for PC44PQ50/50 core (Typical)

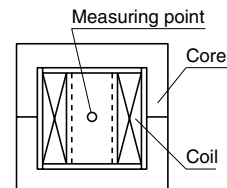


Measuring conditions • Coil: ø0.4 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA

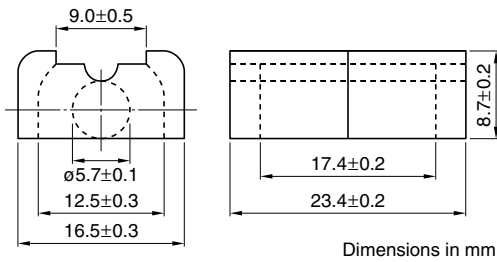
Temperature rise vs. Total loss for PQ50/50 core (Typical)
(Ambient temperature: 25°C)



Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%RH, respectively. (approx. 400×300×300cm)



LP Series LP23/8 Cores



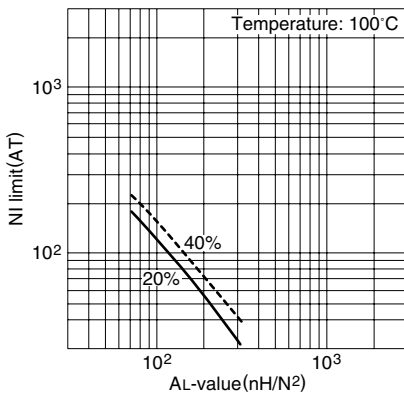
Parameter

Core factor	C1	mm ⁻¹	1.41
Effective magnetic path length	ℓ_e	mm	44.1
Effective cross-sectional area	A_e	mm ²	31.3
Effective core volume	V_e	mm ³	1380
Cross-sectional center pole area	A_{cp}	mm ²	25.5
Minimum cross-sectional center pole area	$A_{cp \text{ min.}}$	mm ²	24.6
Cross-sectional winding area of core	A_{cw}	mm ²	59.2
Weight (approx.)	g		9.6

Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C 100kHz, 200mT	Calculated output power (forward converter mode)
PC44LP23/8Z-12	1600±25% (1kHz, 0.5mA)* 2230 min. (100kHz, 200mT)	0.42 max.	50W (100kHz)

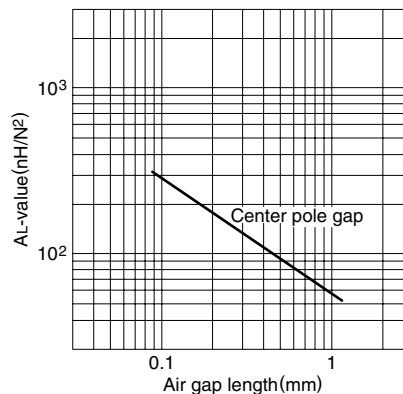
* Coil: $\phi 0.3$ 2UEW 100Ts

NI limit vs. AL-value for PC44LP23/8 gapped core (Typical)



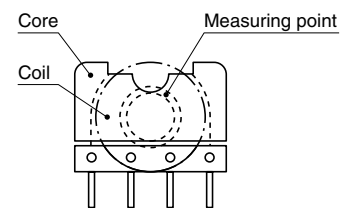
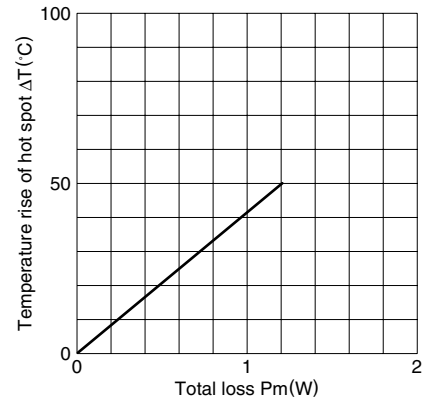
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

AL-value vs. Air gap length for PC44LP23/8 core (Typical)



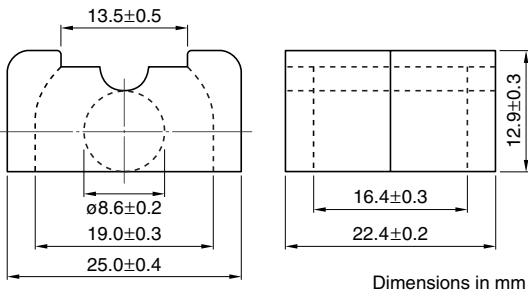
Measuring conditions • Coil: $\phi 0.3$ 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA

Temperature rise vs. Total loss for LP23/8 core (Typical) (Ambient temperature: 25°C)



Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%RH, respectively. (approx. 400×300×300cm)

LP Series LP22/13 Cores



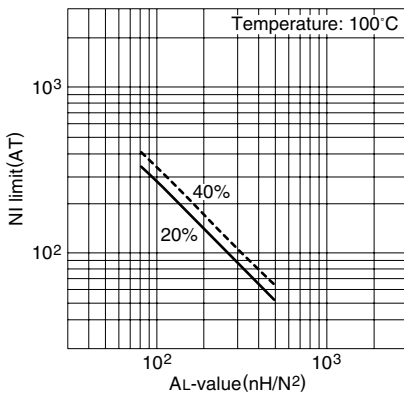
Parameter

Core factor	C1	mm ⁻¹	0.721
Effective magnetic path length	ℓ_e	mm	49.0
Effective cross-sectional area	A_e	mm ²	67.9
Effective core volume	V_e	mm ³	3330
Cross-sectional center pole area	A_{cp}	mm ²	58.1
Minimum cross-sectional center pole area	$A_{cp \text{ min.}}$	mm ²	55.4
Cross-sectional winding area of core	A_{cw}	mm ²	84.2
Weight (approx.)		g	21

Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C 100kHz, 200mT	Calculated output power (forward converter mode)
PC44LP22/13Z-12	3310±25% (1kHz, 0.5mA)* 4700 min. (100kHz, 200mT)	1.05 max.	121W (100kHz)

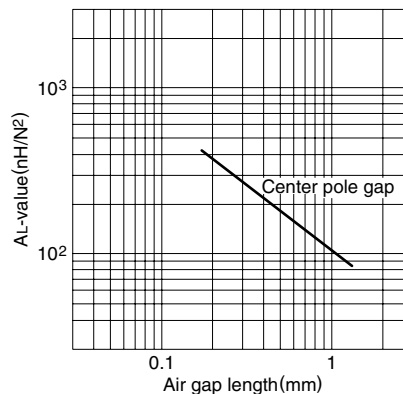
* Coil: $\phi 0.35$ 2UEW 100Ts

NI limit vs. AL-value for PC44LP22/13 gapped core (Typical)



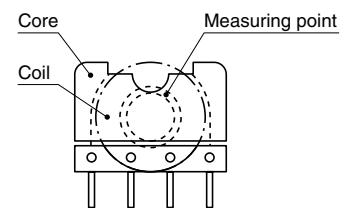
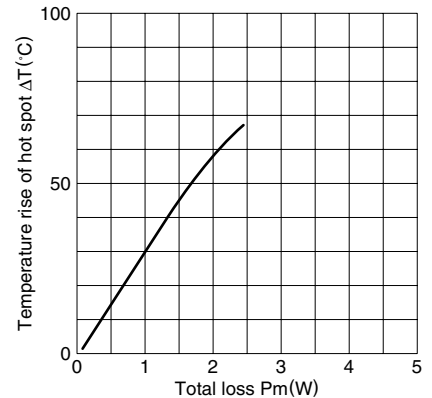
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

AL-value vs. Air gap length for PC44LP22/13 core (Typical)



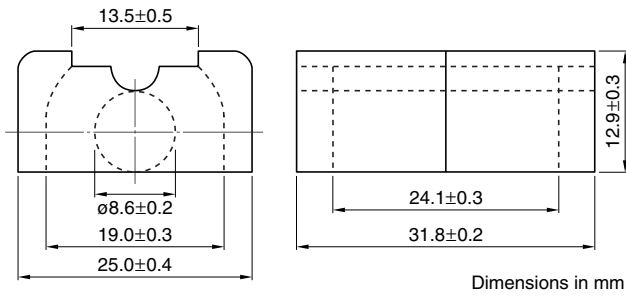
Measuring conditions • Coil: $\phi 0.35$ 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA

Temperature rise vs. Total loss for LP22/13 core (Typical) (Ambient temperature: 25°C)



Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%RH, respectively. (approx. 400×300×300cm)

LP Series LP32/13 Cores



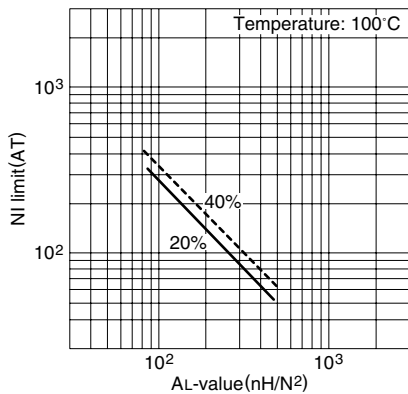
Parameter

Core factor	C1	mm ⁻¹	0.909
Effective magnetic path length	ℓ_e	mm	64.0
Effective cross-sectional area	A_e	mm ²	70.3
Effective core volume	V_e	mm ³	4500
Cross-sectional center pole area	A_{cp}	mm ²	58.1
Minimum cross-sectional center pole area	$A_{cp \text{ min.}}$	mm ²	55.4
Cross-sectional winding area of core	A_{cw}	mm ²	125.3
Weight (approx.)		g	30

Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C 100kHz, 200mT	Calculated output power (forward converter mode)
PC44LP32/13Z-12	2630±25% (1kHz, 0.5mA)* 3730 min. (100kHz, 200mT)	1.38 max.	164W (100kHz)

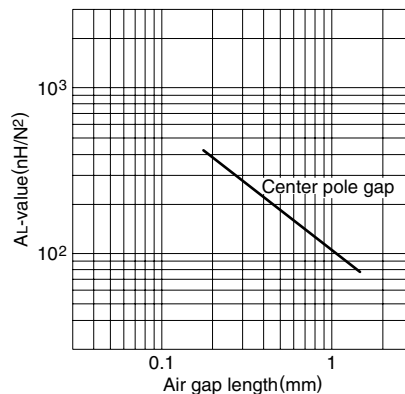
* Coil: ø0.35 2UEW 100Ts

NI limit vs. AL-value for PC44LP32/13 gapped core (Typical)



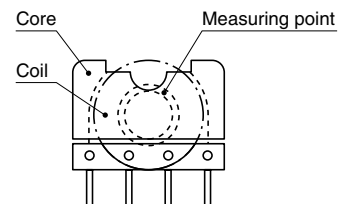
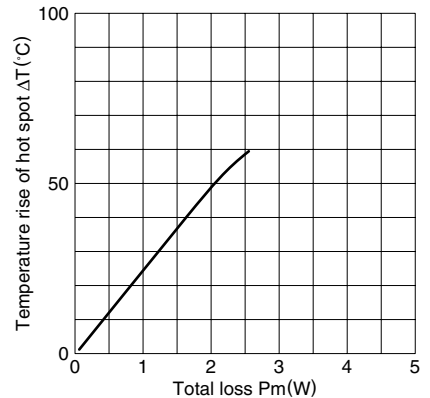
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

AL-value vs. Air gap length for PC44LP32/13core (Typical)



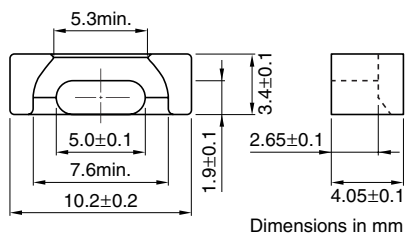
Measuring conditions • Coil: ø0.35 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA

Temperature rise vs. Total loss for LP32/13 core (Typical) (Ambient temperature: 25°C)



Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%(%)RH. respectively. (approx. 400×300×300cm)

EPC Series EPC10 Cores



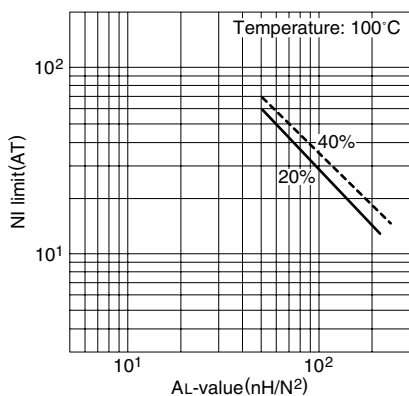
Parameter

Core factor	C1	mm ⁻¹	1.89
Effective magnetic path length	ℓ _e	mm	17.8
Effective cross-sectional area	A _e	mm ²	9.39
Effective core volume	V _e	mm ³	167
Cross-sectional center pole area	A _{cp}	mm ²	8.73
Minimum cross-sectional area	A _{cp min.}	mm ²	8.13
Cross-sectional winding area of core	A _{cw}	mm ²	7.69
Weight (approx.)		g	1.1

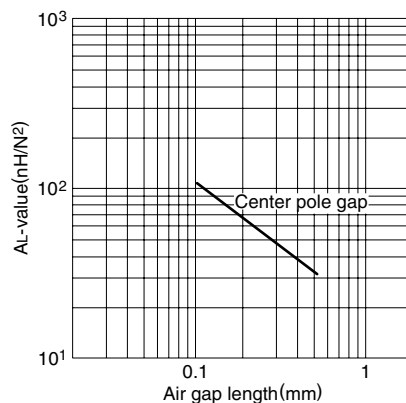
Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C		Calculated output power (forward converter mode)
		100kHz, 200mT	500kHz, 50mT	
PC44EPC10-Z	1000±25% (1kHz, 0.5mA)*	0.072 max.		5.4W (100kHz)
PC50EPC10-Z	660±25% (1kHz, 0.5mA)*		0.025 max.	13W (500kHz)

* Coil: ø0.1 2UEW 100Ts

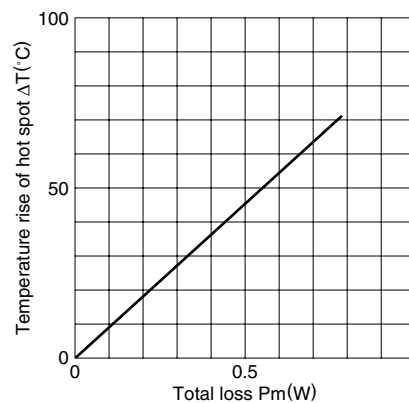
NI limit vs. AL-value for PC44EPC10 gapped core (Typical)



AL-value vs. Air gap length for PC44EPC10 core (Typical)

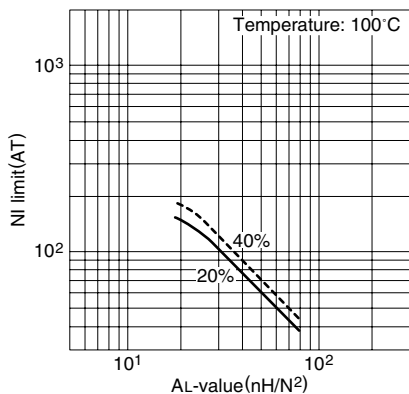


Temperature rise vs. Total loss for EPC10 core (Typical) (Ambient temperature: 25°C)



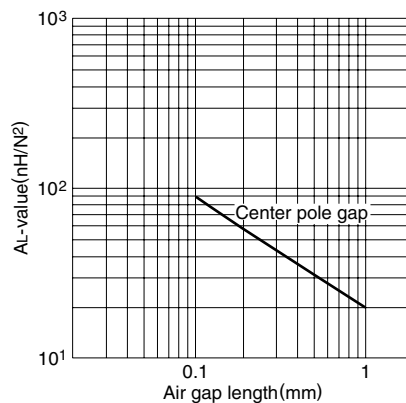
Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%RH, respectively. (approx. 400×300×300cm)

NI limit vs. AL-value for PC50EPC10 gapped core (Typical)

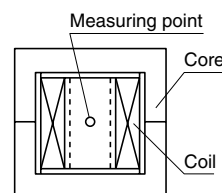


Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

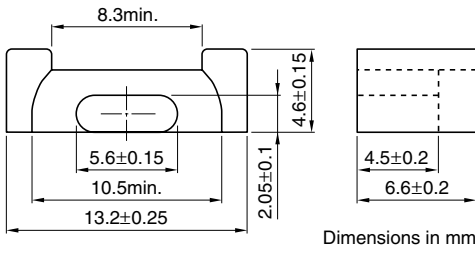
AL-value vs. Air gap length for PC50EPC10 core (Typical)



Measuring conditions • Coil: ø0.1 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA



EPC Series EPC13 Cores



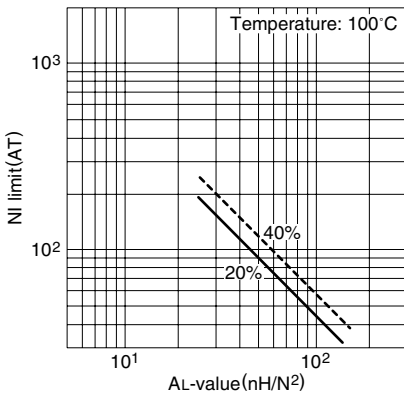
Parameter

Core factor	C1	mm ⁻¹	2.45
Effective magnetic path length	ℓ _e	mm	30.6
Effective cross-sectional area	A _e	mm ²	12.5
Effective core volume	V _e	mm ³	382
Cross-sectional center pole area	A _{cp}	mm ²	10.6
Minimum cross-sectional area	A _{cp min.}	mm ²	9.71
Cross-sectional winding area of core	A _{cw}	mm ²	23.0
Weight (approx.)		g	2.1

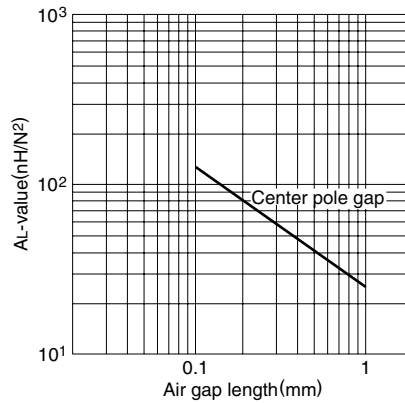
Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C		Calculated output power (forward converter mode)
		100kHz, 200mT	500kHz, 50mT	
PC44EPC13-Z	870±25% (1kHz, 0.5mA)*	0.14 max.		8W (100kHz)
PC50EPC13-Z	560±25% (1kHz, 0.5mA)*	0.039 max.		19W (500kHz)

* Coil: ø0.2 2UEW 100Ts

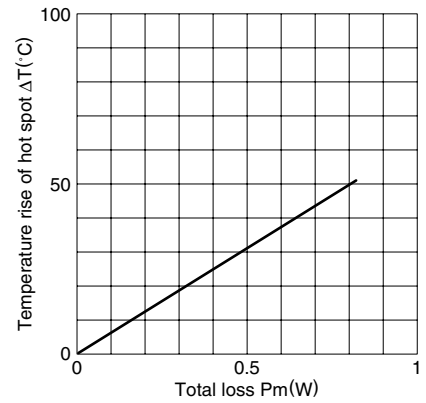
NI limit vs. AL-value for PC44EPC13 gapped core (Typical)



AL-value vs. Air gap length for PC44EPC13 core (Typical)

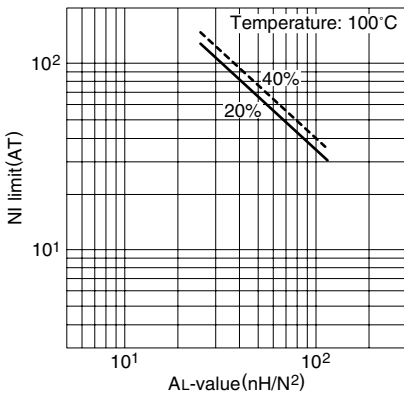


Temperature rise vs. Total loss for EPC13 core (Typical)
(Ambient temperature: 25°C)

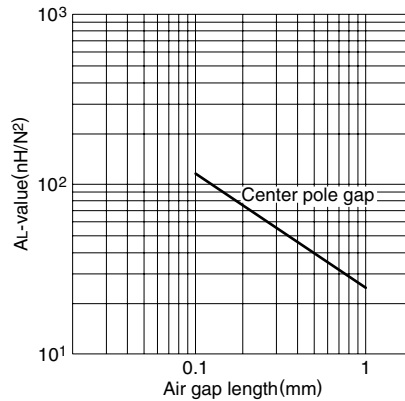


Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45(%RH), respectively. (approx. 400×300×300cm)

NI limit vs. AL-value for PC50EPC13 gapped core (Typical)

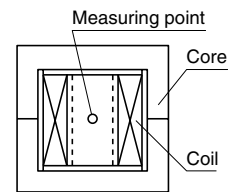


AL-value vs. Air gap length for PC50EPC13 core (Typical)

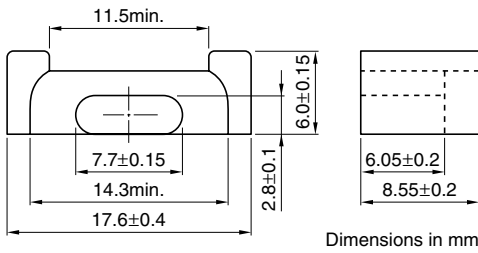


Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

Measuring conditions • Coil: ø0.2 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA



EPC Series EPC17 Cores



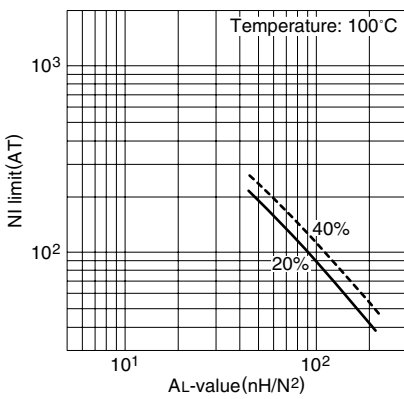
Parameter

Core factor	C1	mm ⁻¹	1.76
Effective magnetic path length	ℓ _e	mm	40.2
Effective cross-sectional area	A _e	mm ²	22.8
Effective core volume	V _e	mm ³	917
Cross-sectional center pole area	A _{cp}	mm ²	19.9
Minimum cross-sectional area	A _{cp min.}	mm ²	18.7
Cross-sectional winding area of core	A _{cw}	mm ²	41.1
Weight (approx.)		g	4.5

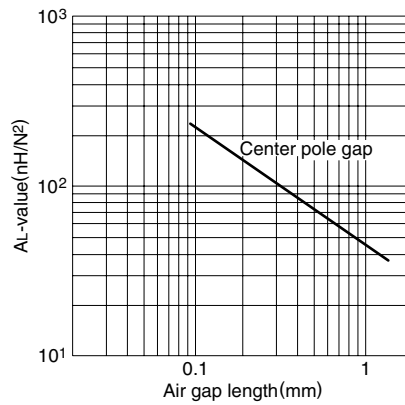
Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C		Calculated output power (forward converter mode)
		100kHz, 200mT	500kHz, 50mT	
PC44EPC17-Z	1150±25% (1kHz, 0.5mA)*	0.35 max.		20W (100kHz)
PC50EPC17-Z	740±25% (1kHz, 0.5mA)*		0.10 max.	35W (500kHz)

* Coil: ø0.2 2UEW 100Ts

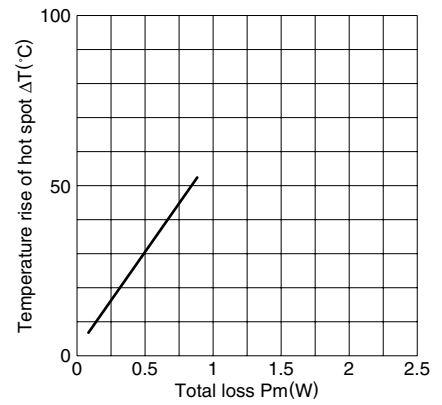
NI limit vs. AL-value for PC44EPC17 gapped core (Typical)



AL-value vs. Air gap length for PC44EPC17 core (Typical)

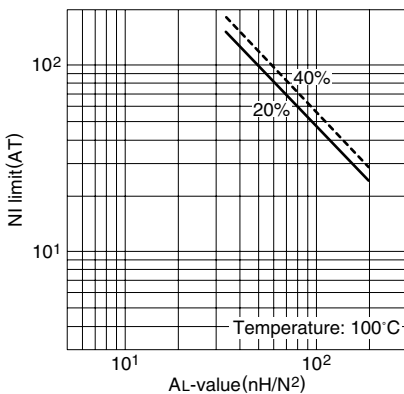


Temperature rise vs. Total loss for EPC17 core (Typical) (Ambient temperature: 25°C)

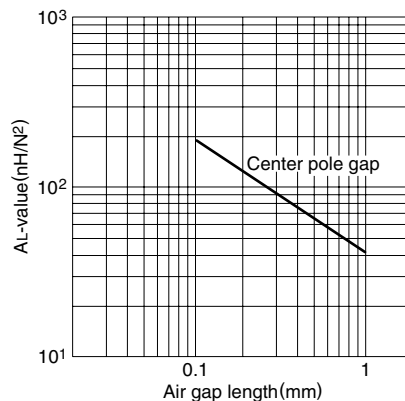


Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%RH, respectively. (approx. 400×300×300cm)

NI limit vs. AL-value for PC50EPC17 gapped core (Typical)

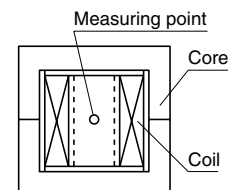


AL-value vs. Air gap length for PC50EPC17 core (Typical)

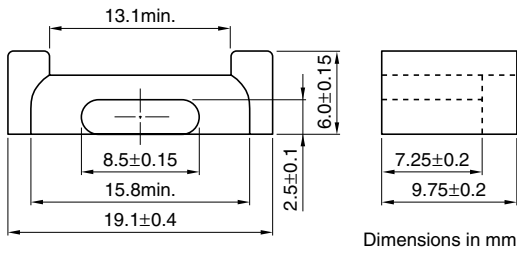


Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

Measuring conditions • Coil: ø0.2 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA



EPC Series EPC19 Cores



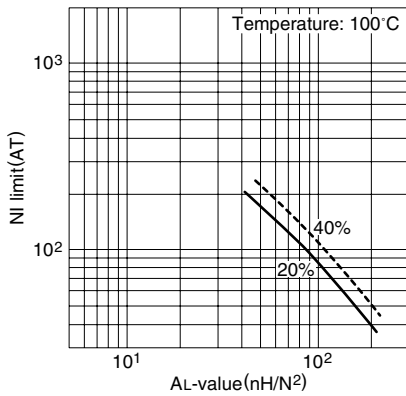
Parameter

Core factor	C1	mm ⁻¹	2.03
Effective magnetic path length	ℓ _e	mm	46.1
Effective cross-sectional area	A _e	mm ²	22.7
Effective core volume	V _e	mm ³	1050
Cross-sectional center pole area	A _{cp}	mm ²	19.9
Minimum cross-sectional area	A _{cp min.}	mm ²	18.7
Cross-sectional winding area of core	A _{cw}	mm ²	54.4
Weight (approx.)		g	5.3

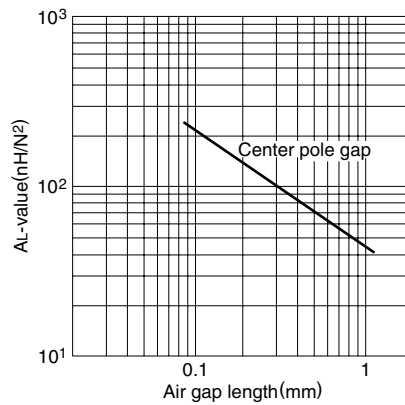
Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C		Calculated output power (forward converter mode)
		100kHz, 200mT	500kHz, 50mT	
PC44EPC19-Z	940±25% (1kHz, 0.5mA)*	0.4 max.		27W (100kHz)
PC50EPC19-Z	680±25% (1kHz, 0.5mA)*		0.12 max.	55W (500kHz)

* Coil: ø0.2 2UEW 100Ts

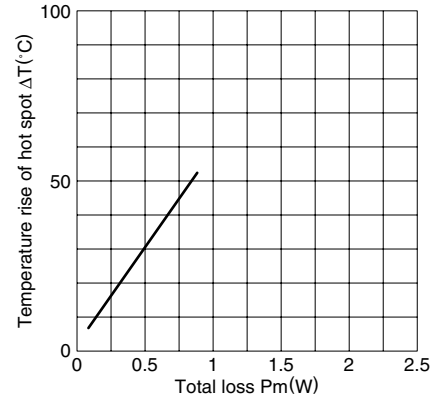
NI limit vs. AL-value for PC44EPC19 gapped core (Typical)



AL-value vs. Air gap length for PC44EPC19 core (Typical)

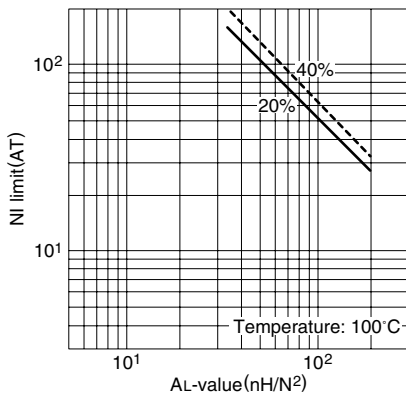


Temperature rise vs. Total loss for EPC19 core (Typical)
(Ambient temperature: 25°C)

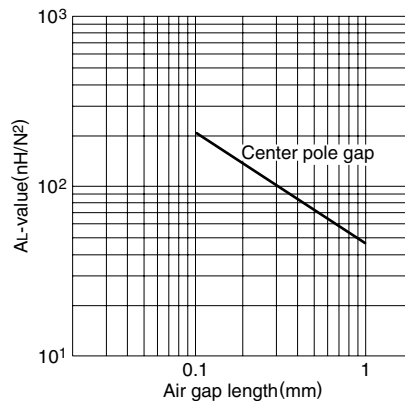


Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45(%RH), respectively. (approx. 400×300×300cm)

NI limit vs. AL-value for PC50EPC19 gapped core (Typical)

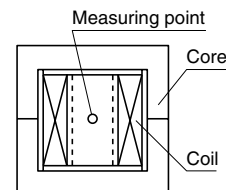


AL-value vs. Air gap length for PC50EPC19 core (Typical)

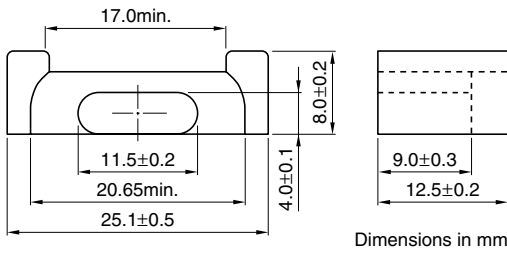


Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

Measuring conditions • Coil: ø0.2 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA



EPC Series EPC25 Cores



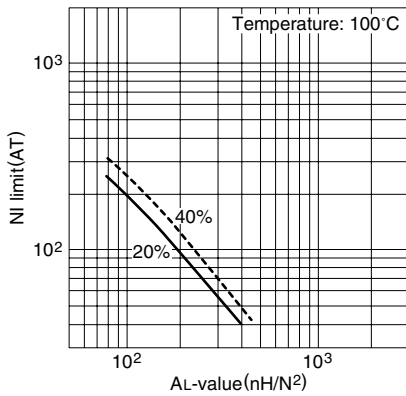
Parameter

Core factor	C1	mm ⁻¹	1.28
Effective magnetic path length	ℓ _e	mm	59.2
Effective cross-sectional area	A _e	mm ²	46.4
Effective core volume	V _e	mm ³	2750
Cross-sectional center pole area	A _{cp}	mm ²	42.6
Minimum cross-sectional area	A _{cp min.}	mm ²	40.6
Cross-sectional winding area of core	A _{cw}	mm ²	85.5
Weight (approx.)		g	13

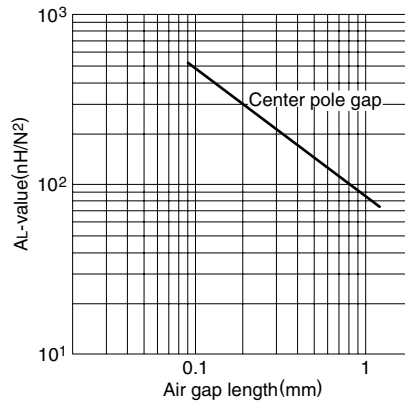
Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C		Calculated output power (forward converter mode)
		100kHz, 200mT	500kHz, 50mT	
PC44EPC25-Z	1560±25% (1kHz, 0.5mA)*	1.11 max.		63W (100kHz)
PC50EPC25-Z	1080±25% (1kHz, 0.5mA)*		0.32 max.	127W (500kHz)

* Coil: ø0.2 2UEW 100Ts

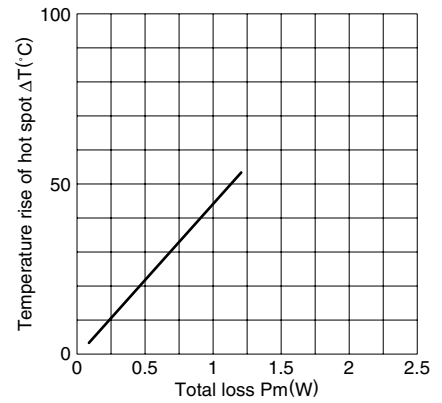
NI limit vs. AL-value for PC44EPC25 gapped core (Typical)



AL-value vs. Air gap length for PC44EPC25 core (Typical)

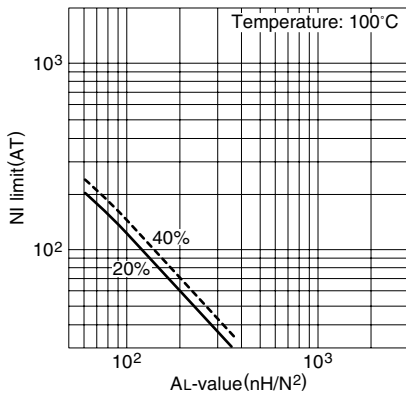


Temperature rise vs. Total loss for EPC25 core (Typical)
(Ambient temperature: 25°C)

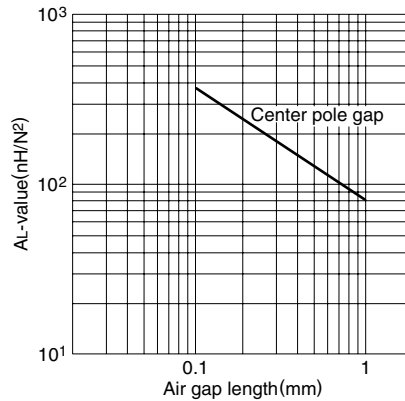


Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%RH, respectively. (approx. 400×300×300cm)

NI limit vs. AL-value for PC50EPC25 gapped core (Typical)

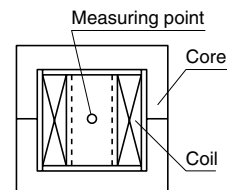


AL-value vs. Air gap length for PC50EPC25 core (Typical)

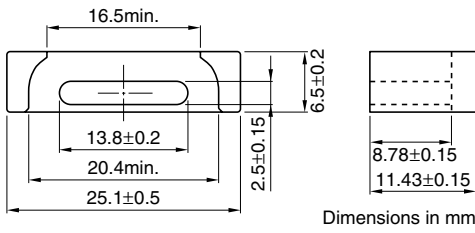


Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

Measuring conditions • Coil: ø0.2 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA



EPC Series EPC25B Cores



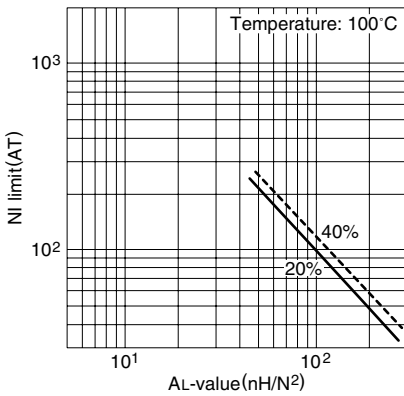
Parameter

Core factor	C1	mm ⁻¹	1.39
Effective magnetic path length	ℓ _e	mm	46.2
Effective cross-sectional area	A _e	mm ²	33.3
Effective core volume	V _e	mm ³	1540
Cross-sectional center pole area	A _{cp}	mm ²	32.4
Minimum cross-sectional area	A _{cp min.}	mm ²	30.3
Cross-sectional winding area of core	A _{cw}	mm ²	62.1
Weight (approx.)		g	11

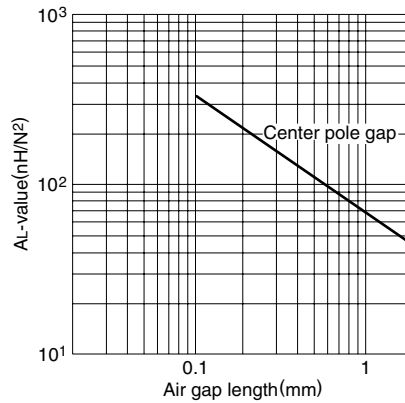
Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C		Calculated output power (forward converter mode)
		100kHz, 200mT	500kHz, 50mT	
PC44EPC25B-Z	1560±25% (1kHz, 0.5mA)*	0.65 max.		45W (100kHz)
PC50EPC25B-Z	1080±25% (1kHz, 0.5mA)*		0.22 max.	87W (500kHz)

* Coil: ø0.23 2UEW 100Ts

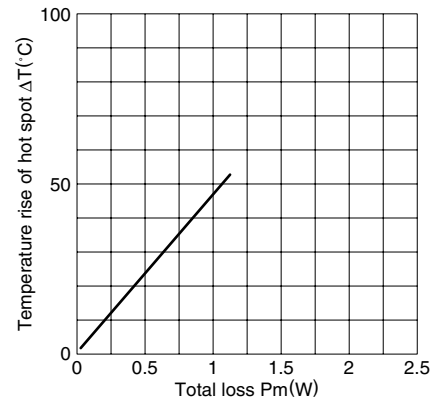
NI limit vs. AL-value for PC44EPC25B gapped core (Typical)



AL-value vs. Air gap length for PC44EPC25B core (Typical)

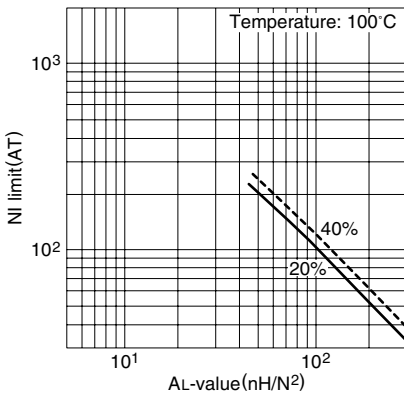


**Temperature rise vs. Total loss for EPC25B core (Typical)
(Ambient temperature: 25°C)**

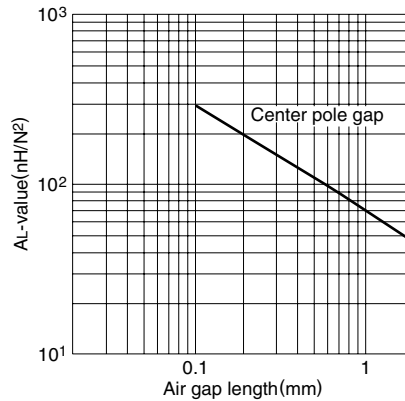


Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45(%RH), respectively. (approx. 400×300×300cm)

NI limit vs. AL-value for PC50EPC25B gapped core (Typical)

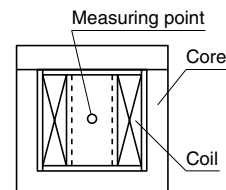


AL-value vs. Air gap length for PC50EPC25B core (Typical)

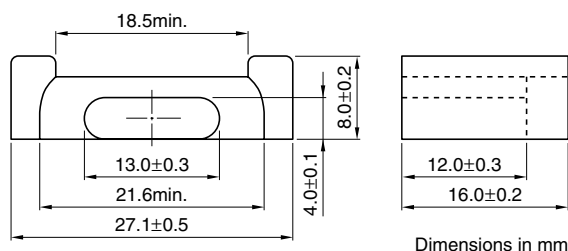


Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

Measuring conditions • Coil: ø0.23 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA



EPC Series EPC27 Cores



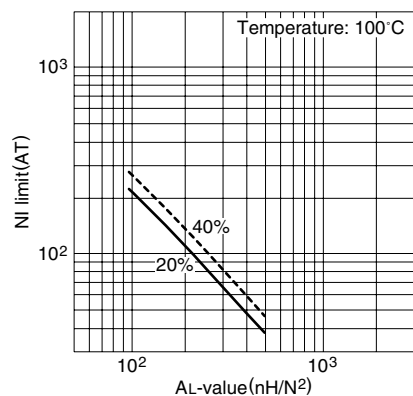
Parameter

Core factor	C1	mm ⁻¹	1.34
Effective magnetic path length	ℓ _e	mm	73.1
Effective cross-sectional area	A _e	mm ²	54.6
Effective core volume	V _e	mm ³	4000
Cross-sectional center pole area	A _{cp}	mm ²	48.6
Minimum cross-sectional area	A _{cp min.}	mm ²	46.5
Cross-sectional winding area of core	A _{cw}	mm ²	108
Weight (approx.)		g	18

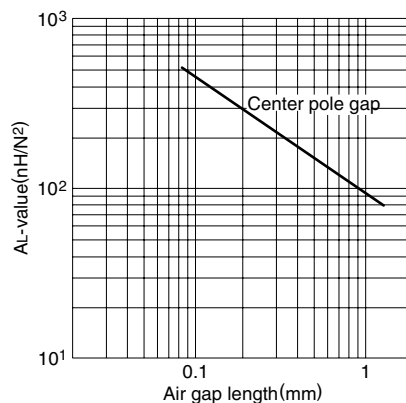
Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C		Calculated output power (forward converter mode)
		100kHz, 200mT	500kHz, 50mT	
PC44EPC27-Z	1540±25% (1kHz, 0.5mA)*	1.56 max.		80W (100kHz)
PC50EPC27-Z	1030±25% (1kHz, 0.5mA)*		0.46 max.	161W (500kHz)

* Coil: ø0.3 2UEW 100Ts

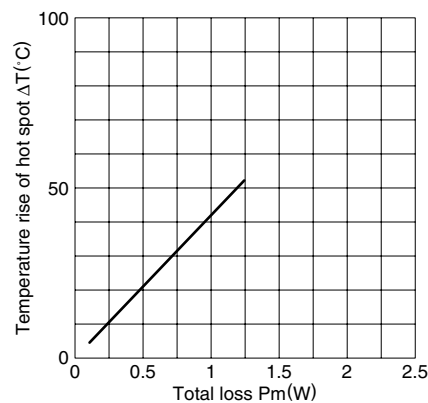
NI limit vs. AL-value for PC44EPC27 gapped core (Typical)



AL-value vs. Air gap length for PC44EPC27 core (Typical)

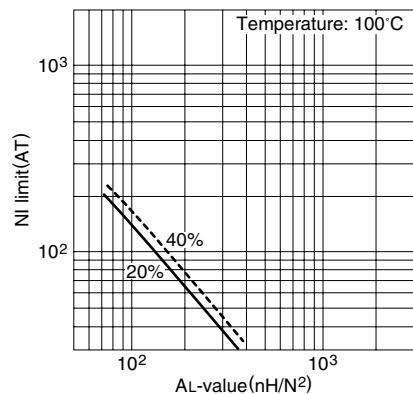


Temperature rise vs. Total loss for EPC27 core (Typical)
(Ambient temperature: 25°C)



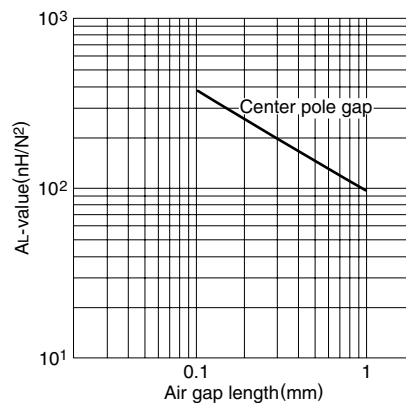
Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%RH, respectively. (approx. 400×300×300cm)

NI limit vs. AL-value for PC50EPC27 gapped core (Typical)

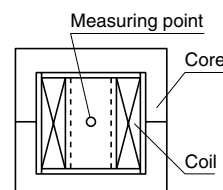


Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

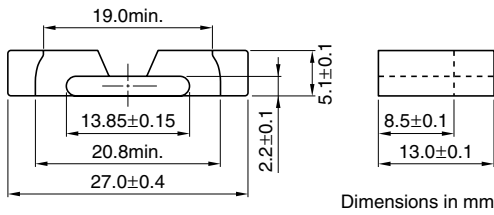
AL-value vs. Air gap length for PC50EPC27 core (Typical)



Measuring conditions • Coil: ø0.3 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA



EPC Series EPC27N Cores



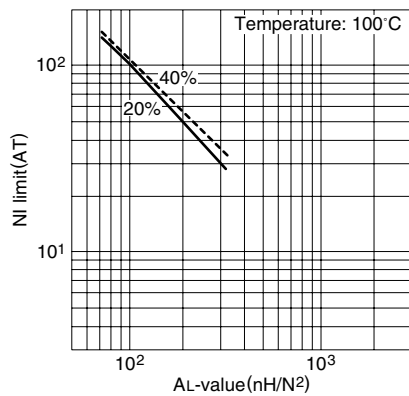
Parameter

Core factor	C1	mm ⁻¹	1.70
Effective magnetic path length	ℓ_e	mm	55.9
Effective cross-sectional area	A_e	mm ²	33.0
Effective core volume	V_e	mm ³	1840
Cross-sectional center pole area	A_{cp}	mm ²	29.7
Minimum cross-sectional center pole area	$A_{cp \text{ min.}}$	mm ²	29.7
Cross-sectional winding area of core	A_{cw}	mm ²	60.4
Weight (approx.)		g	10

Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C 100kHz, 200mT	Calculated output power (forward converter mode)
PC44EPC27N-Z	1400±25% (1kHz, 0.5mA)*	0.73 max.	43W (100kHz)

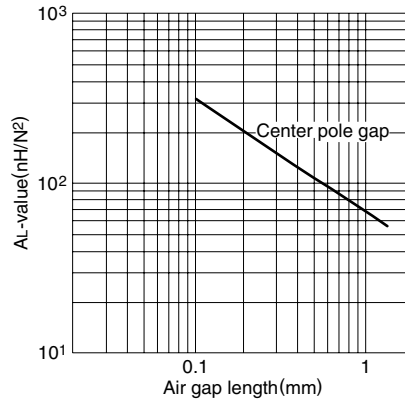
* Coil: $\phi 0.3$ 2UEW 100Ts

NI limit vs. AL-value for PC44EPC27N gapped core (Typical)



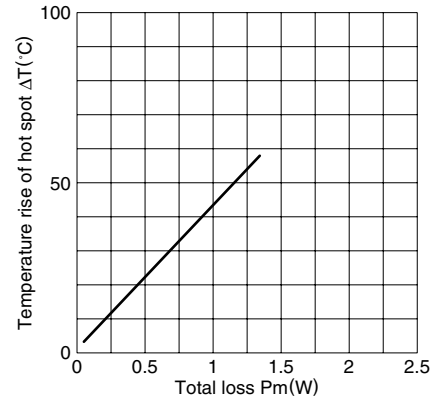
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

AL-value vs. Air gap length for PC44EPC27N core (Typical)

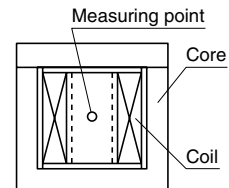


Measuring conditions • Coil: $\phi 0.3$ 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA

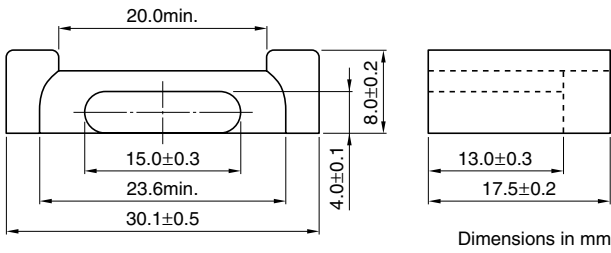
Temperature rise vs. Total loss for EPC27N core (Typical) (Ambient temperature: 25°C)



Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%RH, respectively. (approx. 400×300×300cm)



EPC Series EPC30 Cores



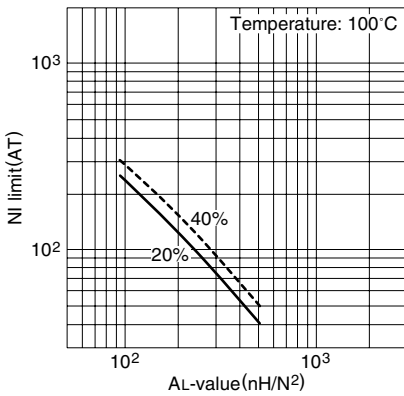
Parameter

Core factor	C1	mm ⁻¹	1.34
Effective magnetic path length	ℓ _e	mm	81.6
Effective cross-sectional area	A _e	mm ²	61.0
Effective core volume	V _e	mm ³	4980
Cross-sectional center pole area	A _{cp}	mm ²	56.6
Minimum cross-sectional area	A _{cp min.}	mm ²	54.3
Cross-sectional winding area of core	A _{cw}	mm ²	117
Weight (approx.)		g	23

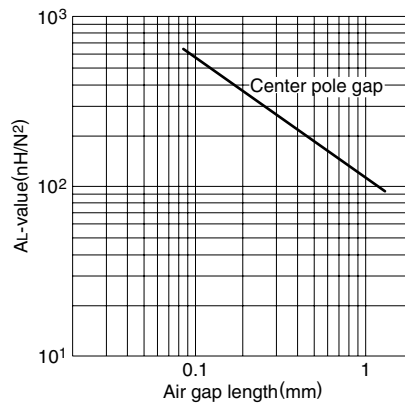
Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C		Calculated output power (forward converter mode)
		100kHz, 200mT	500kHz, 50mT	
PC44EPC30-Z	1570±25% (1kHz, 0.5mA)*	2.03 max.		85W (100kHz)
PC50EPC30-Z	1060±25% (1kHz, 0.5mA)*		0.58 max.	180W (500kHz)

* Coil: ø0.3 2UEW 100Ts

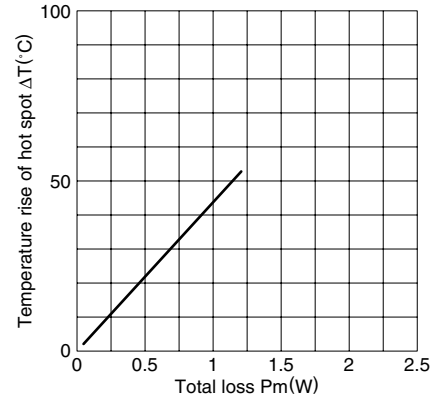
NI limit vs. AL-value for PC44EPC30 gapped core (Typical)



AL-value vs. Air gap length for PC44EPC30 core (Typical)

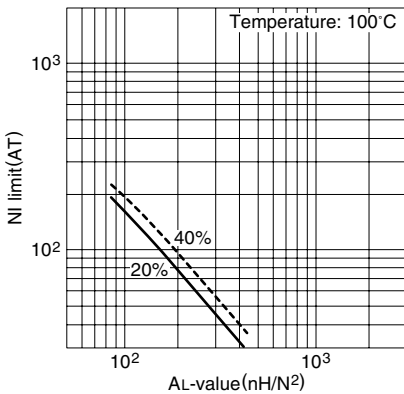


Temperature rise vs. Total loss for EPC30 core (Typical)
(Ambient temperature: 25°C)

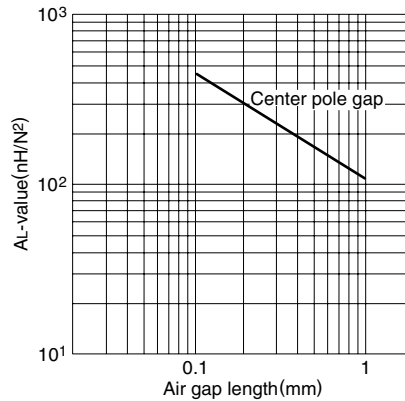


Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45(%RH), respectively. (approx. 400×300×300cm)

NI limit vs. AL-value for PC50EPC30 gapped core (Typical)



AL-value vs. Air gap length for PC50EPC30 core (Typical)



Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

Measuring conditions • Coil: ø0.3 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA

