

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

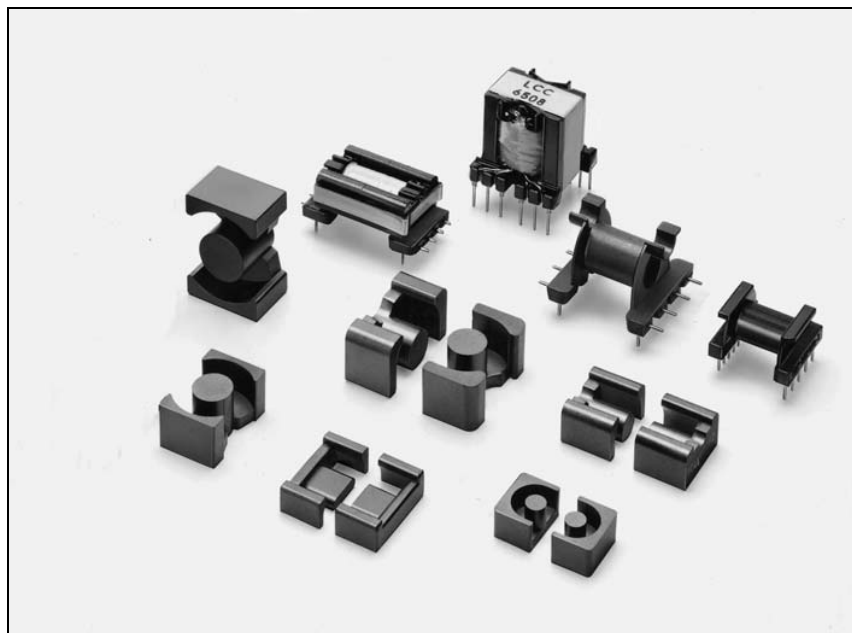
BPQ20/16 to BPQ50/50

BLP23/8 to BLP32/13

BEPC10 to BEPC30

BEP7 to BEP20

Accessories



Ordering Code System

Cores

Material PC44 Size of PQ core PQ 26/25 AL-value(Z: without air gap) A400 Number of Lead Slot 2 Type 2

1: Without air gap
2: With air gap

Bobbins

Symbol of Bobbin B Size of PQ core PQ 26/25 Code of Bobbin Material 1112 Type of Terminal Pin CP Number of Terminal Pin FR Number of Section R

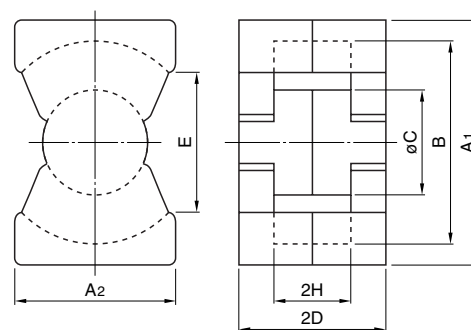
Accessories

Symbol of Accessory F Size of PQ core PQ 26/25 Type of Accessory A

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 | | | | | | |
|-----------------|------------------|-----------|-----------|------------|------------|--------|----------|
| | A1 | A2 | 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 |

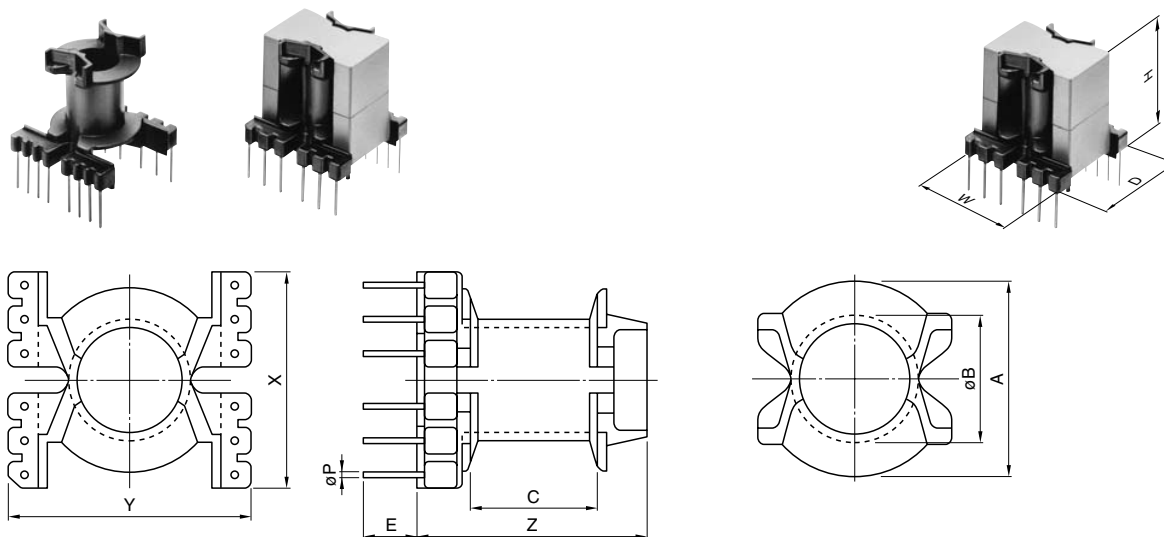
* AL-value: 1kHz, 0.5mA, 100T

** 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 |

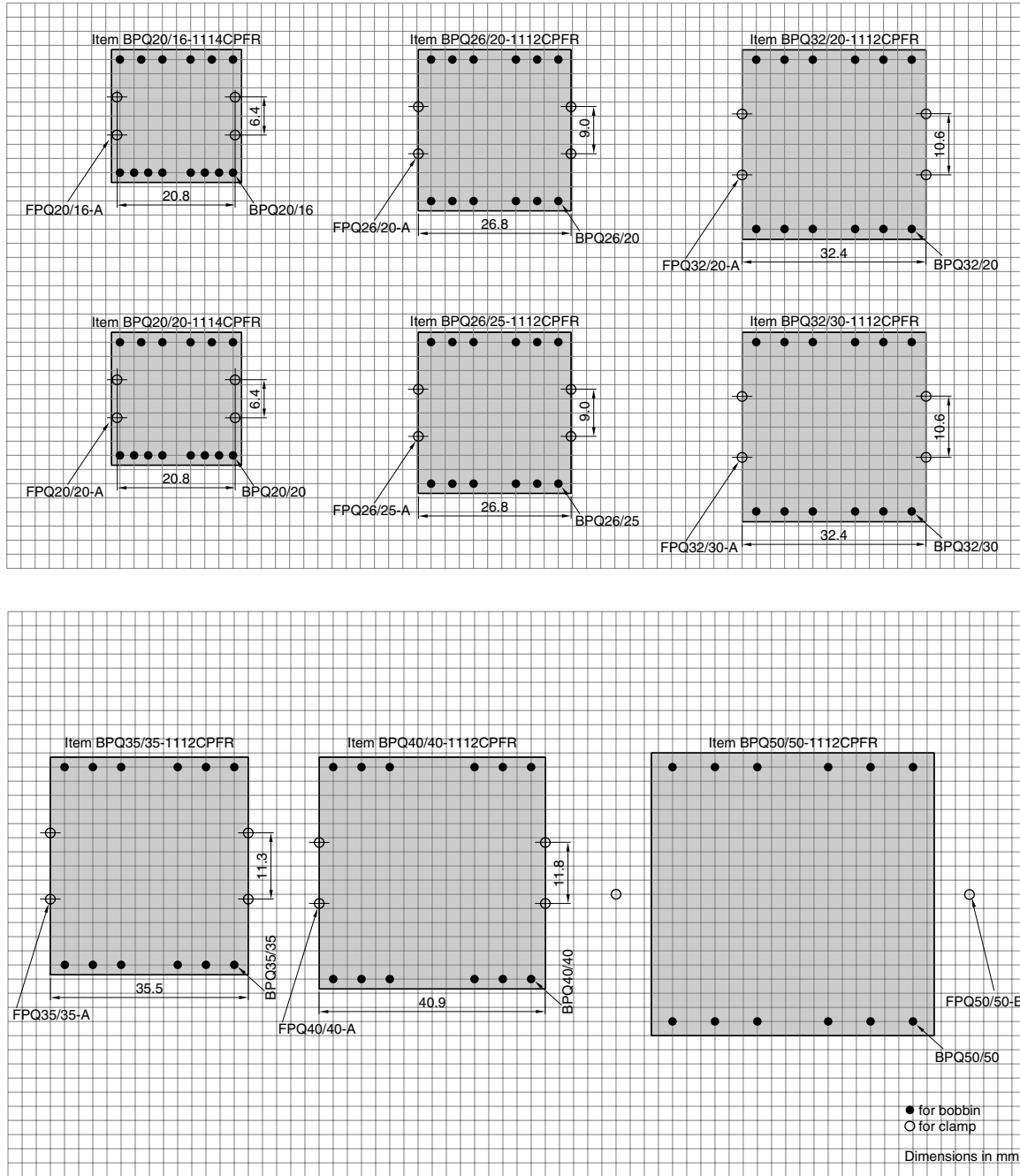
| Part No. | Dimensions in mm | | | Parameter | | Wt (g) | Accessory item |
|-------------------|------------------|---------------|----------------------|-----------------------|---------|--------|----------------|
| | øP (mm) | Terminal pins | W D (mm) H | Aw (mm ²) | øw (mm) | | |
| BPQ20/16-1114CPFR | 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".

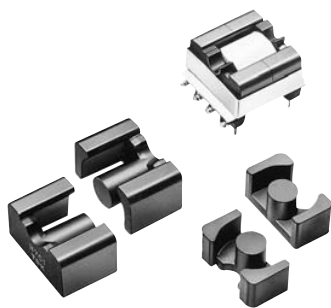
* Minimum thickness of bobbin inside which core is placed, including flanges.

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

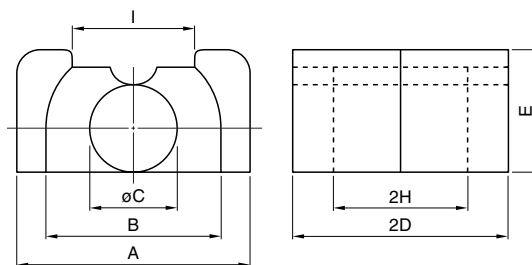


• All specifications are subject to change without notice.

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

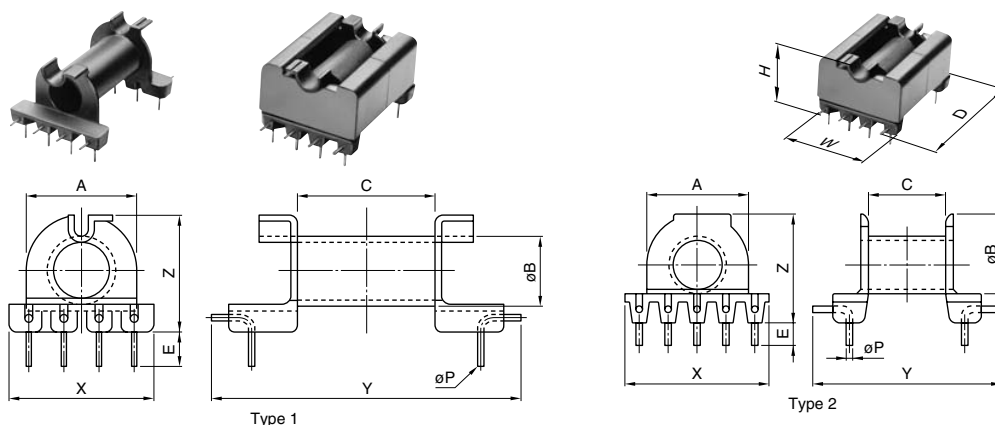


| Part No. | Dimensions in mm | | | | | | |
|-----------------|------------------|----------|---------|----------|----------|----------|----------|
| | A | B | øC | 2D | E | 2H | I |
| PC44LP23/8Z-12 | 16.5±0.3 | 12.5±0.3 | 5.7±0.1 | 23.4±0.2 | 8.7±0.2 | 17.4±0.2 | 9.0±0.5 |
| PC44LP22/13Z-12 | 25.0±0.4 | 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 |

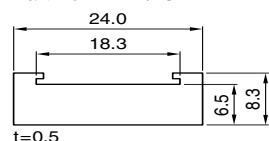
| Part No. | Dimensions in mm | | | Parameter | | Wt (g) | Material | Clamp item |
|---------------------|------------------|---------------|----------------------|-----------------------|----------|--------|-----------|------------|
| | øP (mm) | Terminal pins | W D (mm) H | Aw (mm ²) | ∅ w (mm) | | | |
| 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 17.9 | 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.

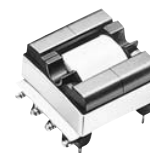
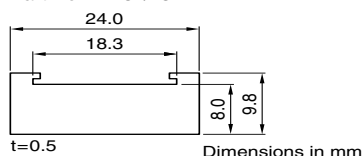
Insulating divider for BLP22/13-1110CPLFR

Part No.: ILP22/13



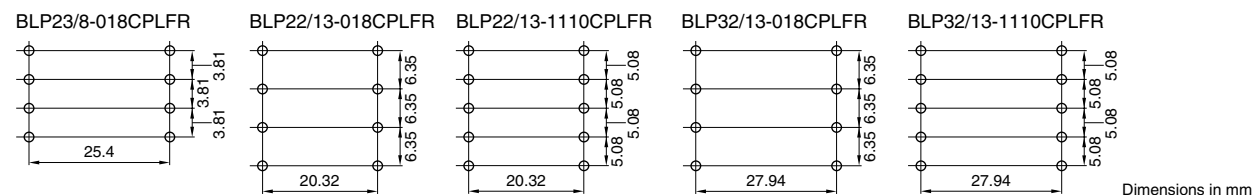
Insulating divider for BLP32/13-1110CPLFR

Part No.: ILP32/13



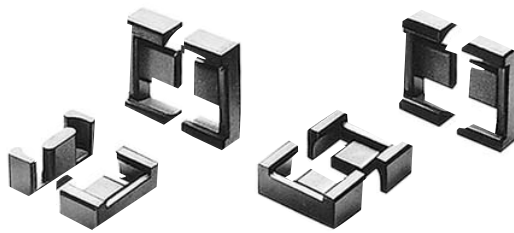
** Minimum thickness of bobbin inside which core is placed, including flanges.

PIN LAYOUT

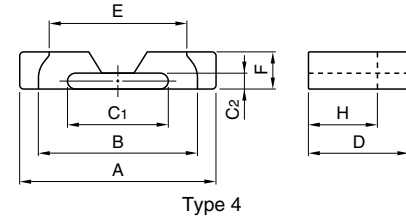
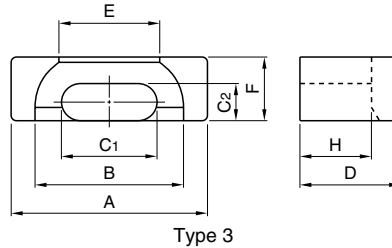
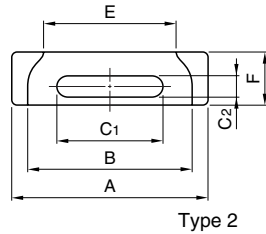
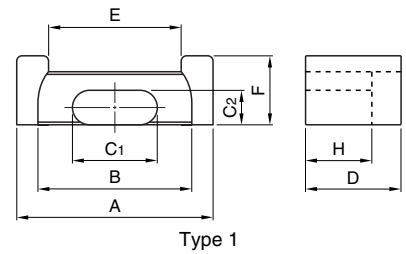


• All specifications are subject to change without notice.

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



| Part No. | Type | Dimensions in mm | | | | | | | |
|------------------------------|------|------------------|--------|------------|-----------|------------|--------|-----------|-----------|
| | | A | B min. | C1 | C2 | 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 |

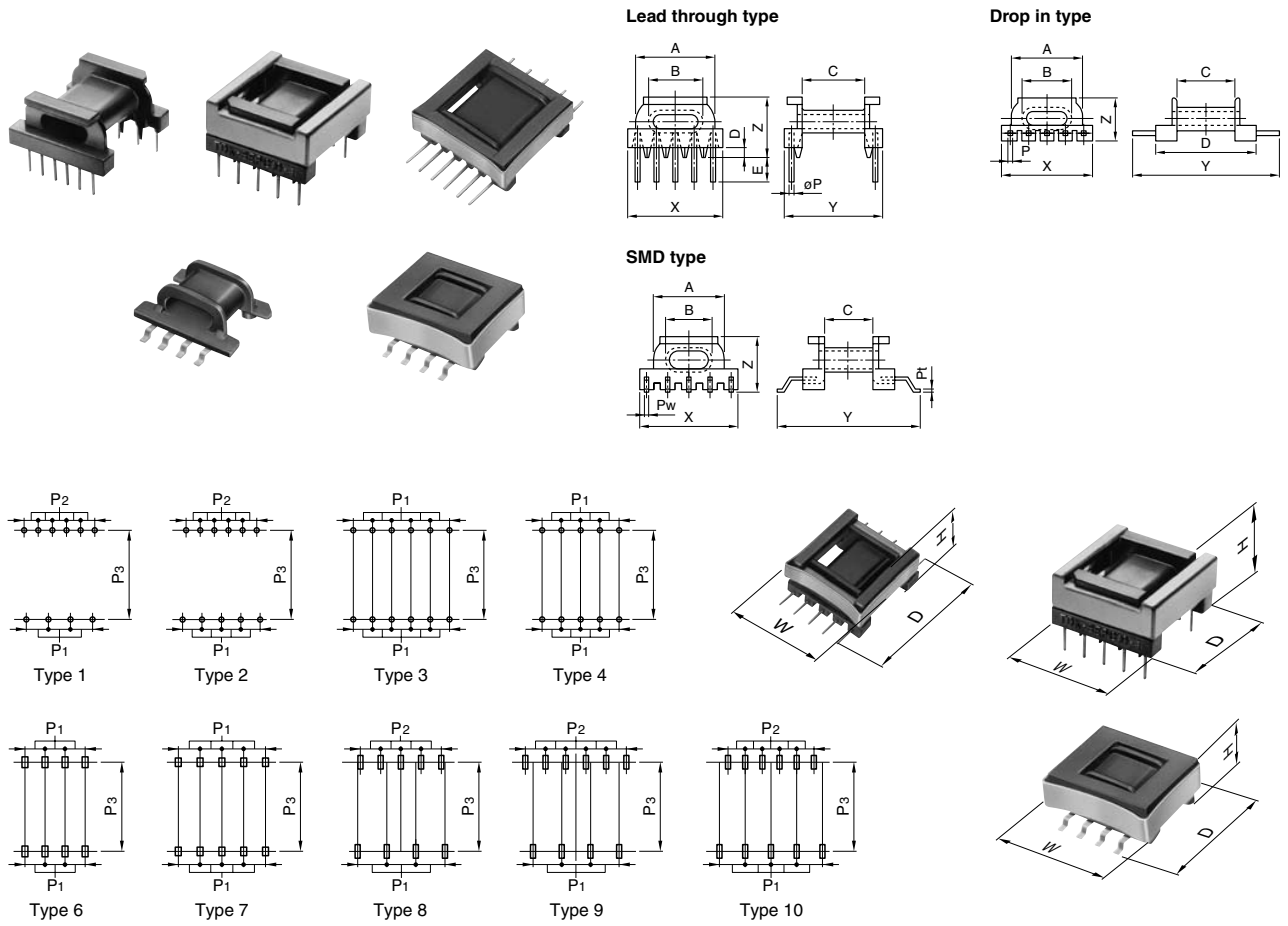
| Part No. | Effective parameter | | | | Electrical characteristics | | | Wt (g) | Bobbin item |
|------------------------------|------------------------|-----------------------|---------|-----------------------|--------------------------------|------------------|---|--------|-------------------------------------|
| | C1 (mm ⁻¹) | Ae (mm ²) | le (mm) | Ve (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 BEPC17-119GAFR |
| 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

• All specifications are subject to change without notice.

EPC BOBBINS



• 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 | | | | | | Parameter | | Wt (g) | Connecting pin pattern |
|-------------------|------------------|---------|---------|---------|---------------|----------------------|-----------------------|----------|--------|------------------------|
| | øP (mm) | P1 (mm) | P2 (mm) | P3 (mm) | Terminal pins | W D (mm) H | Aw (mm ²) | ø 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 | | | | | | Parameter | | Wt (g) | Connecting pin pattern |
|------------------|------------------|---------|---------|---------|---------------|---------------------|-----------------------|----------|--------|------------------------|
| | Pt x Pw (mm) | P1 (mm) | P2 (mm) | P3 (mm) | Terminal pins | W D (mm) H | Aw (mm ²) | ø w (mm) | | |
| BEPC10-118GAFR | 0.3x0.5 | 2.0 | — | 10.8 | 8 | 11.0 11.7 5.2 | 3.2 | 17.5 | 0.14 | Type 6 |
| BEPC13-1110GAFR | 0.4x0.7 | 3.0 | — | 18.5 | 10 | 14.2 20.6 7.3 | 11.6 | 23.1 | 0.6 | Type 7 |
| BEPC17-119GAFR | 0.4x0.7 | 5.0 | 3.5 | 21.8 | 9 | 18.2 23.2 9.9 | 20.1 | 32.1 | 1.1 | Type 8 |
| BEPC19-1110GAFR | 0.4x0.7 | 5.0 | 3.5 | 23.8 | 10 | 20.2 25.2 9.9 | 28.2 | 34.4 | 1.3 | Type 9 |
| BEPC25B-1111GAFR | 0.4x0.8 | 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 |

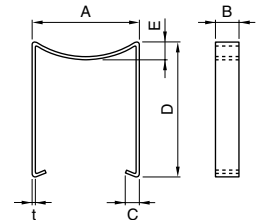
| Part No. | Dimensions in mm | | | | | Parameter | | | Wt (g) | Connecting pin pattern |
|-----------------|------------------|---------------------|---------------------|---------------------|---------------|---------------------|-----------------------|---------|--------|------------------------|
| | Pt×Pw (mm) | P ₁ (mm) | P ₂ (mm) | P ₃ (mm) | Terminal pins | W D (mm) H | Aw (mm ²) | ∅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".

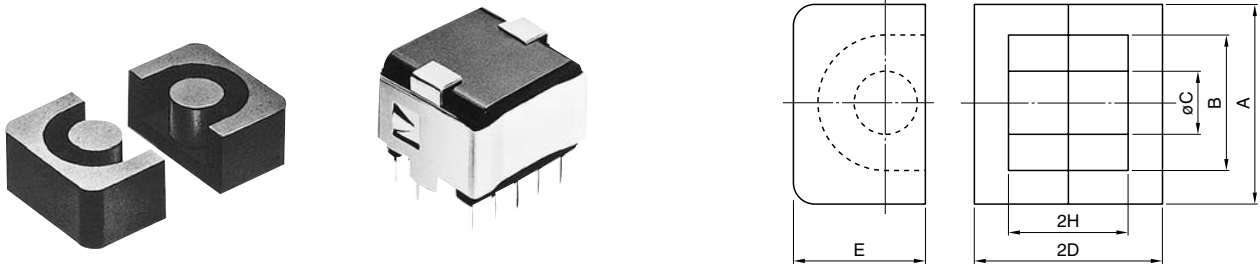
* Minimum thickness of bobbin inside which core is placed, including flanges.

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



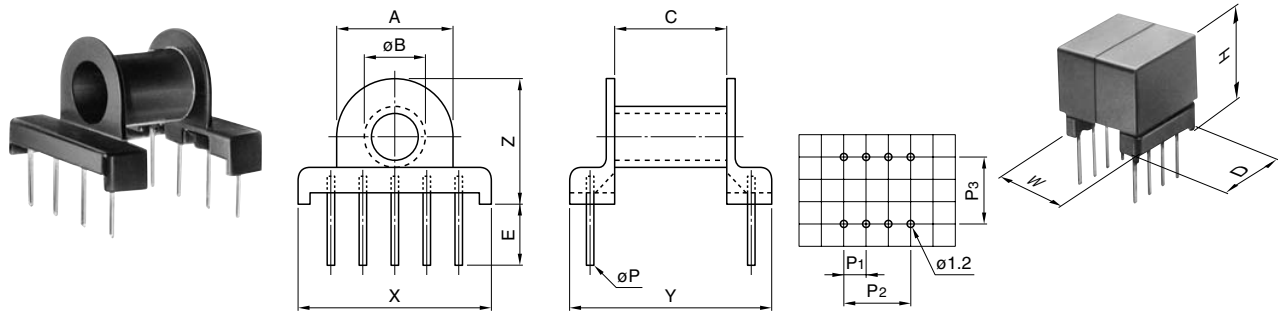
| Part No. | Dimensions in mm | | | | | |
|--------------------------|------------------|----------|-----------|------------|------------|----------|
| | A | B | øC | 2D | E | 2H |
| PC40EP7-Z | 9.2±0.2 | 7.4±0.2 | 3.3±0.1 | 7.4±0.1 | 6.35±0.15 | 5.2±0.2 |
| PC40EP10-Z PC50EP10-Z | 11.5±0.3 | 9.4±0.2 | 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 | | | | | | | t* |
|---------------|------------------|------|------|------|------|------|------|------|
| | A | øB | C | E | X | Y | Z | |
| 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 |

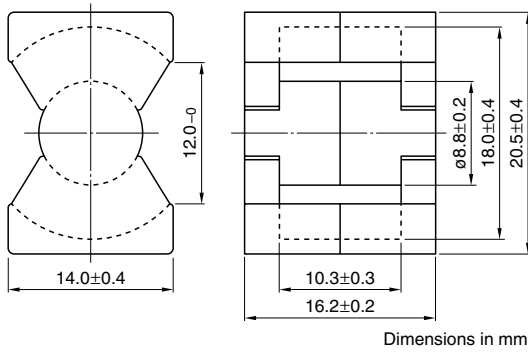
| Part No. | Dimensions in mm | | | | Terminal pins | W D (mm) H | Parameter | | Wt (g) | Accessory item |
|---------------|------------------|---------|---------|---------|---------------|------------------------|-----------------------|---------|--------|----------------|
| | øP (mm) | P1 (mm) | P2 (mm) | P3 (mm) | | | Aw (mm ²) | ∅w (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



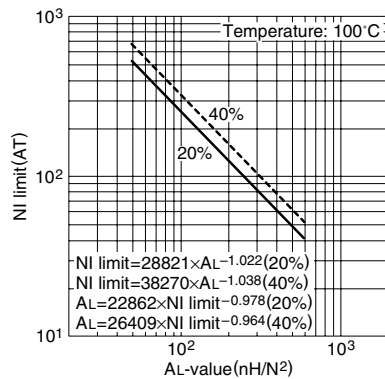
Parameter

| | | | |
|--|----------------------|------------------|-------|
| 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) |

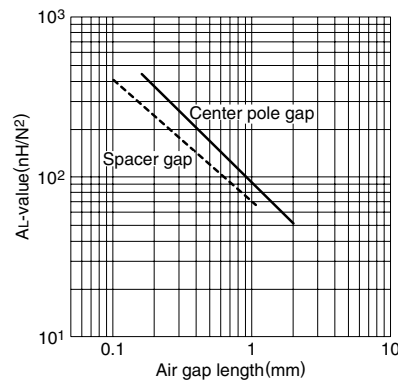
* Coil: ø0.35 2UEW 100Ts

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



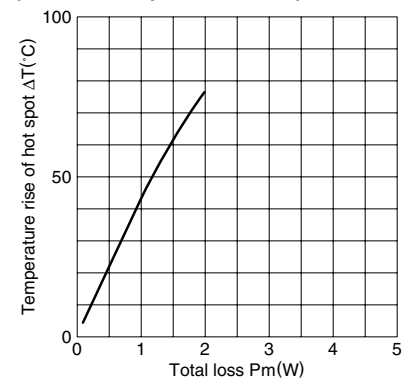
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

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

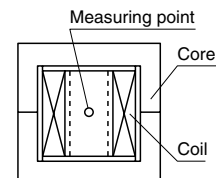


Measuring conditions • Coil: ø0.35 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA

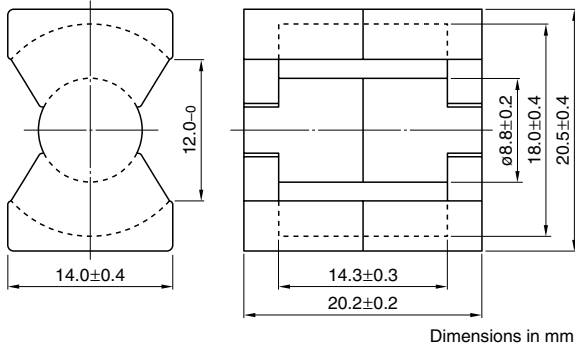
Temperature rise vs. Total loss for PQ20/16 core (Typical) (Ambient temperature: 25°C)



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



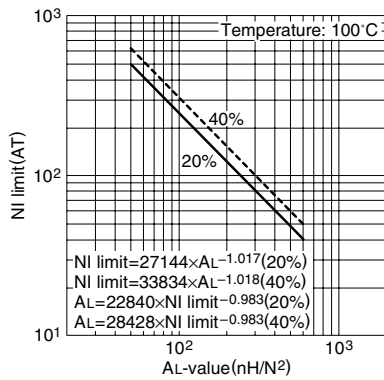
Parameter

| | | | |
|---|----------------------|------------------|-------|
| 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 |

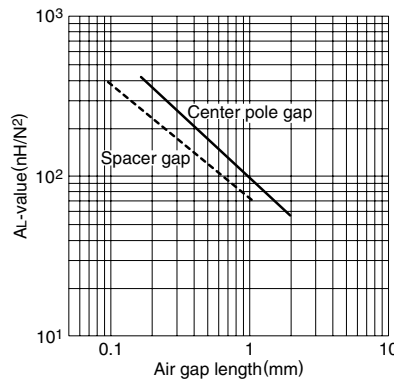
| Part No. | AL-value (nH/N ²) | Core loss (W) at 100°C | | Calculated output power (forward converter mode) |
|------------------------|--|------------------------|--------------|--|
| | | 100kHz, 200mT | 500kHz, 50mT | |
| PC44PQ20/20Z-12 | 3150±25% (1kHz, 0.5mA)* 4290 min. (100kHz, 200mT) | 1.02 max.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

* Coil: ø0.35 2UEW 100Ts

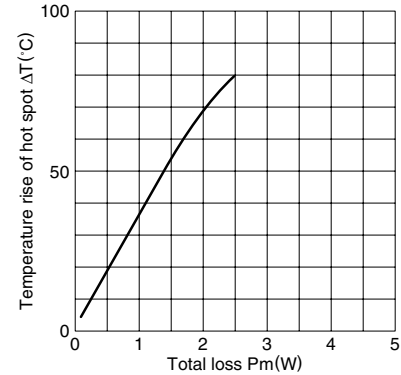
NI limit vs. AL-value for PC44PQ20/20 gapped core (Typical)



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

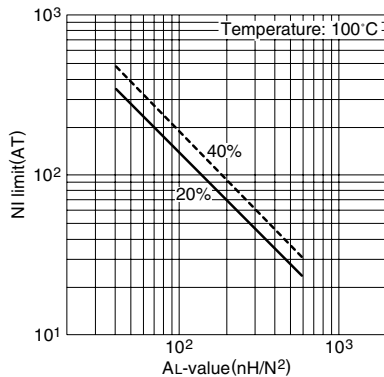


Temperature rise vs. Total loss for PQ20/20 core (Typical) (Ambient temperature: 25°C)



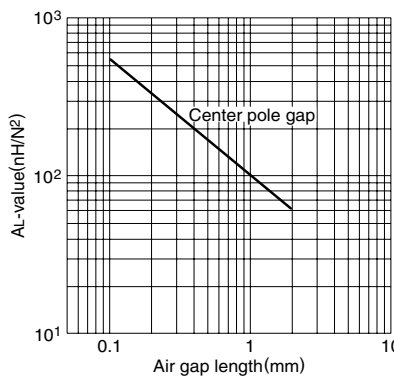
Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%RH, respectively. (approx. 400×300×300cm)

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

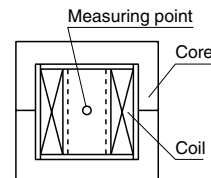


Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

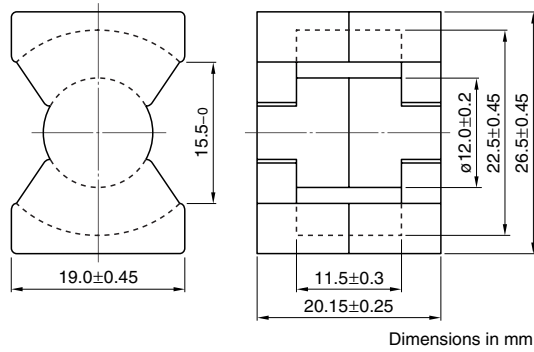
AL-value vs. Air gap length for PC50PQ20/20 core (Typical)



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



PQ Series PQ26/20 Cores



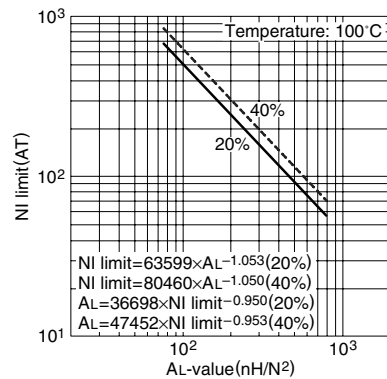
Parameter

| | | | |
|--|-----------------------|------------------|-------|
| 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 | $A_{cp \text{ min.}}$ | 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) |

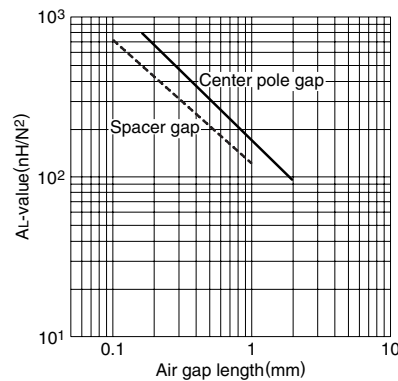
* Coil: $\phi 0.35$ 2UEW 100Ts

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



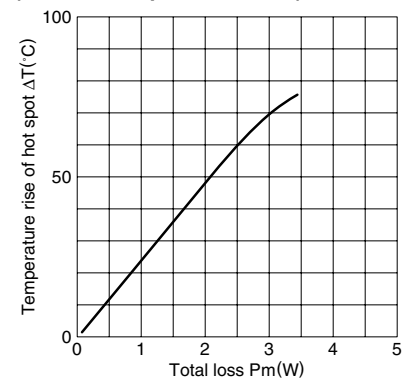
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

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

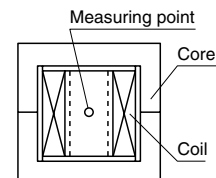


Measuring conditions • Coil: $\phi 0.35$ 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA

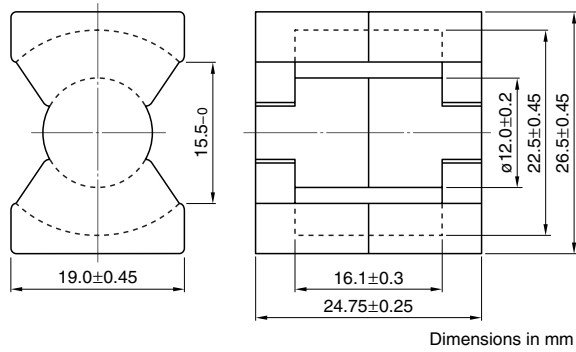
Temperature rise vs. Total loss for PQ26/20 core (Typical) (Ambient temperature: 25°C)



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



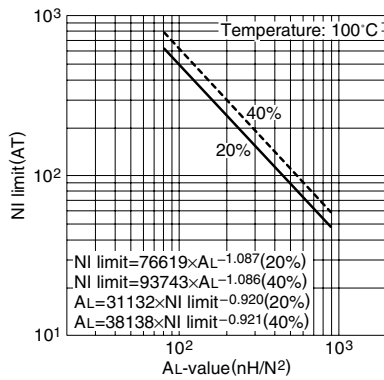
Parameter

| | | | |
|--|----------------------|------------------|-------|
| 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 |

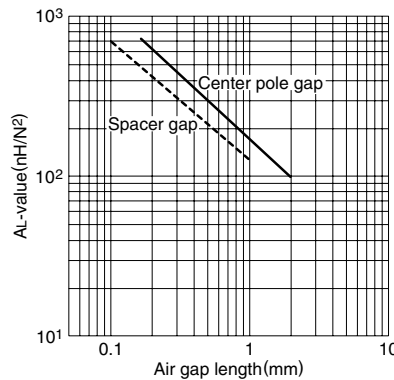
| Part No. | AL-value (nH/N ²) | Core loss (W) at 100°C | | Calculated output power (forward converter mode) |
|------------------------|--|------------------------|--------------|--|
| | | 100kHz, 200mT | 500kHz, 50mT | |
| PC44PQ26/25Z-12 | 5250±25% (1kHz, 0.5mA)* 6680 min. (100kHz, 200mT) | 2.32 max.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

* Coil: ø0.35 2UEW 100Ts

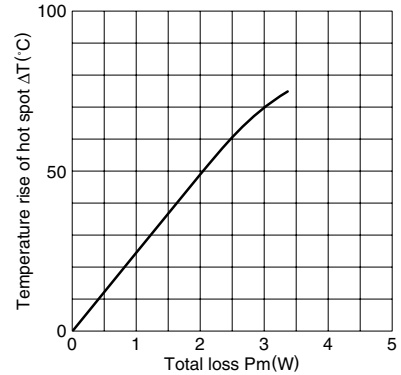
NI limit vs. AL-value for PC44PQ26/25 gapped core (Typical)



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

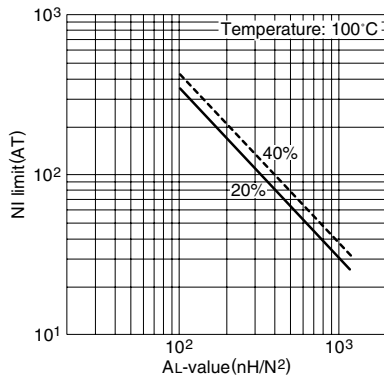


Temperature rise vs. Total loss for PQ26/25 core (Typical) (Ambient temperature: 25°C)



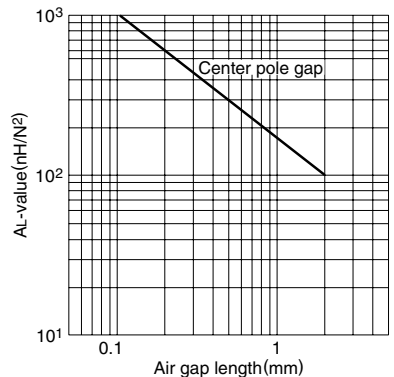
Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%RH, respectively. (approx. 400×300×300cm)

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

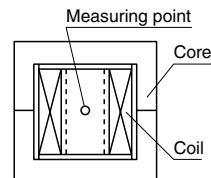


Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

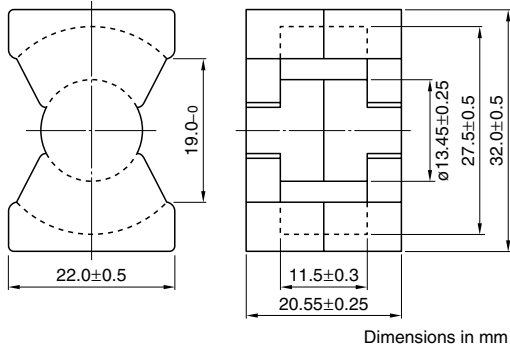
AL-value vs. Air gap length for PC50PQ26/25 core (Typical)



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



PQ Series PQ32/20 Cores



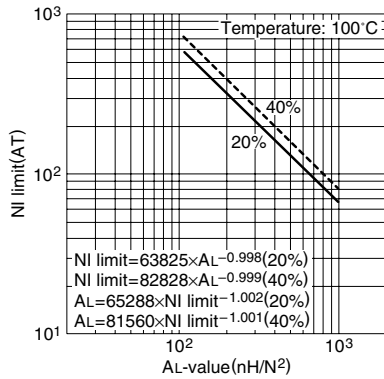
Parameter

| | | | |
|--|----------------------|------------------|-------|
| 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) |

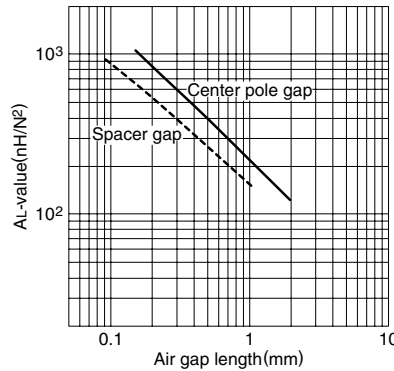
* Coil: ø0.35 2UEW 100Ts

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



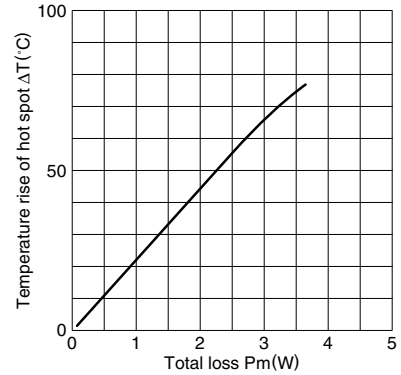
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

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

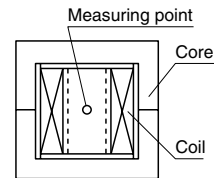


Measuring conditions • Coil: ø0.35 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA

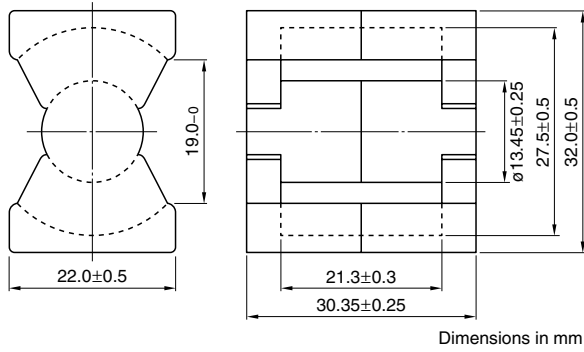
Temperature rise vs. Total loss for PQ32/20 core (Typical) (Ambient temperature: 25°C)



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



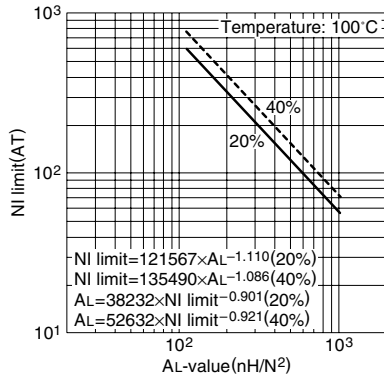
Parameter

| | | | |
|--|----------------------|------------------|-------|
| 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 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) |

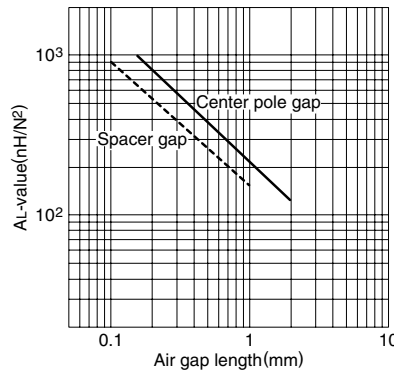
* Coil: ø0.4 2UEW 100Ts

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



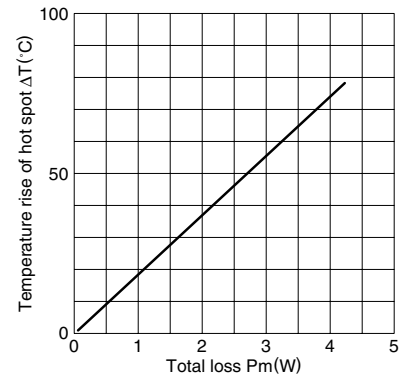
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

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

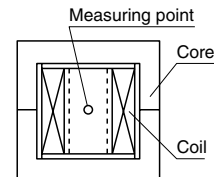


Measuring conditions • Coil: ø0.4 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA

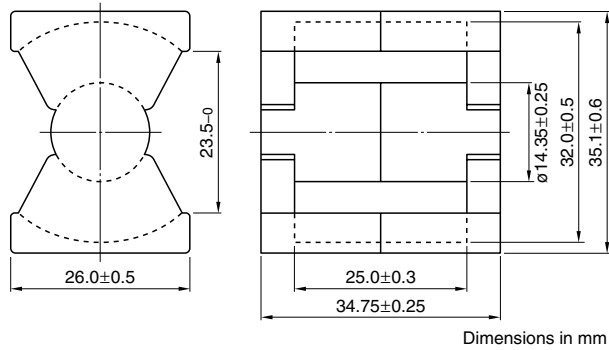
Temperature rise vs. Total loss for PQ32/30 core (Typical) (Ambient temperature: 25°C)



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



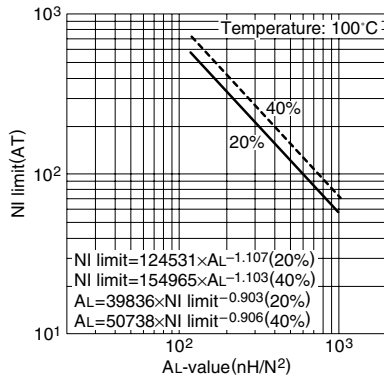
Parameter

| | | | |
|--|----------------------|------------------|-------|
| 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 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) |

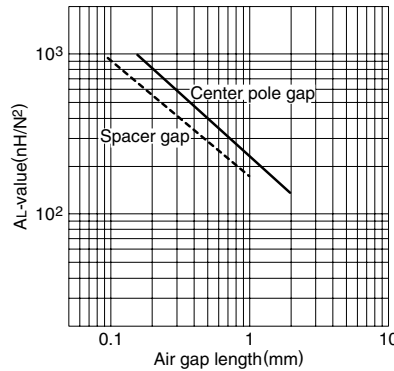
* Coil: ø0.4 2UEW 100Ts

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



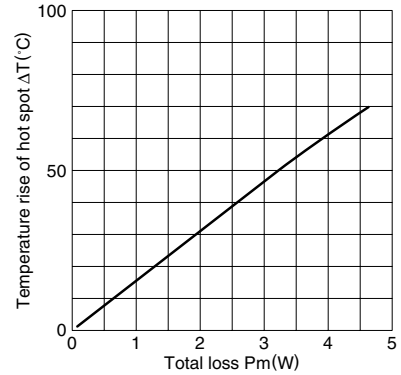
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

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

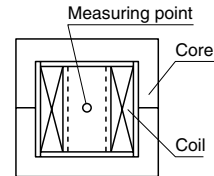


Measuring conditions • Coil: ø0.4 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA

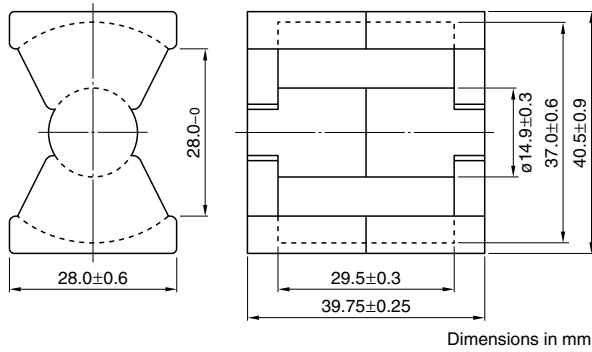
Temperature rise vs. Total loss for PQ35/35 core (Typical) (Ambient temperature: 25°C)



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



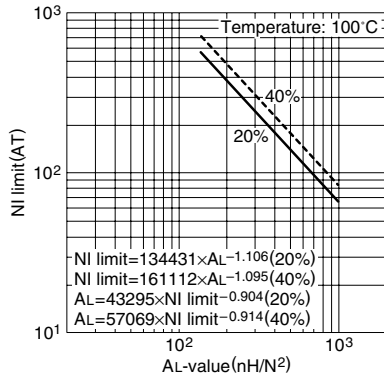
Parameter

| | | | |
|--|----------------------|------------------|-------|
| 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) |

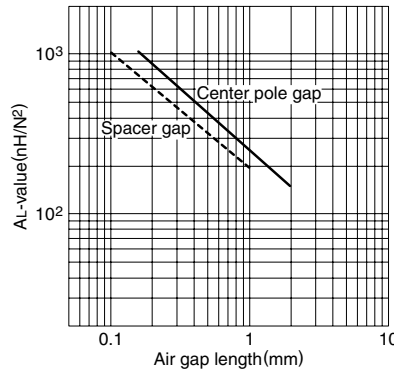
* Coil: ø0.4 2UEW 100Ts

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



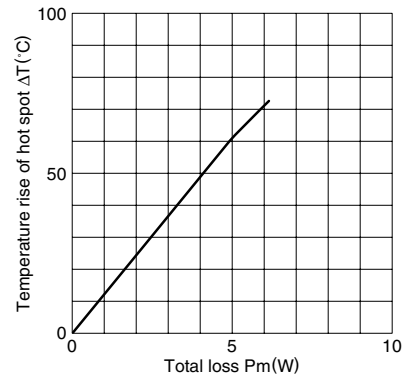
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

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

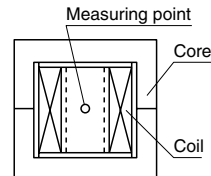


Measuring conditions • Coil: ø0.4 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA

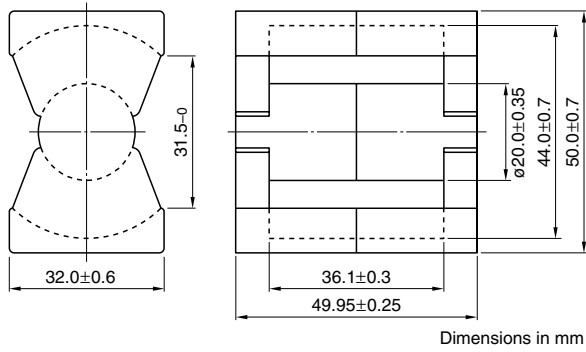
Temperature rise vs. Total loss for PQ40/40 core (Typical)



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



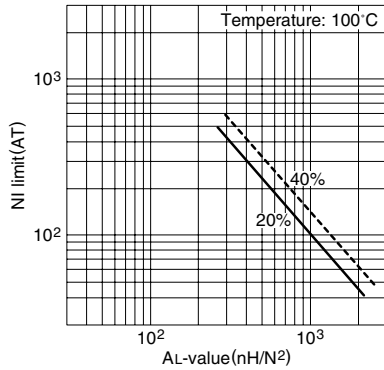
Parameter

| | | | |
|--|----------------------|------------------|-------|
| 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) |

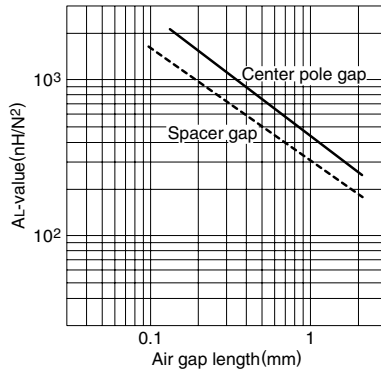
* Coil: ø0.4 2UEW 100Ts

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



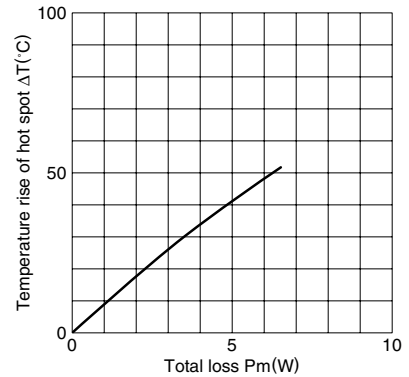
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

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

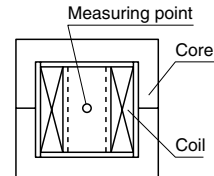


Measuring conditions • Coil: ø0.4 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA

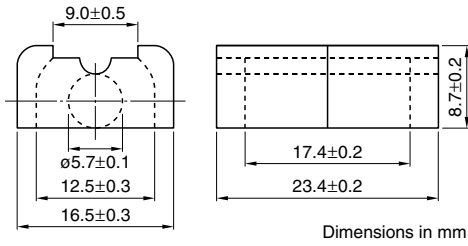
Temperature rise vs. Total loss for PQ50/50 core (Typical) (Ambient temperature: 25°C)



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



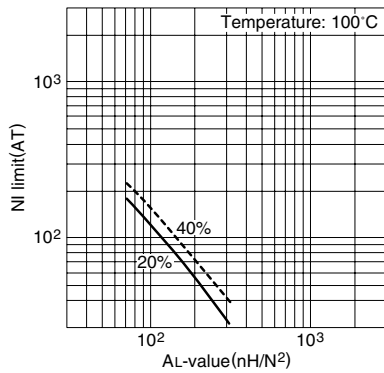
Parameter

| | | | |
|--|----------------------|------------------|------|
| 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 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) |

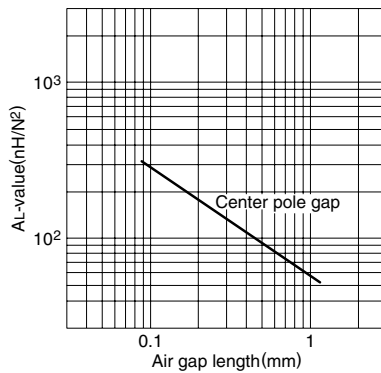
* Coil: ø0.3 2UEW 100Ts

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



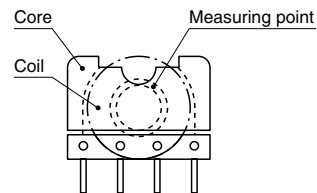
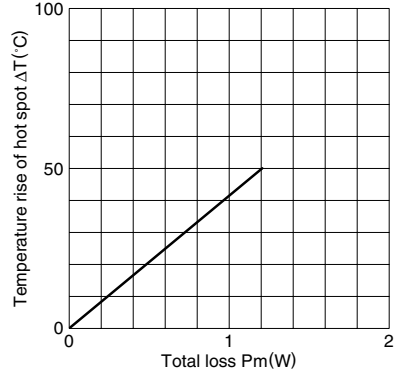
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

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



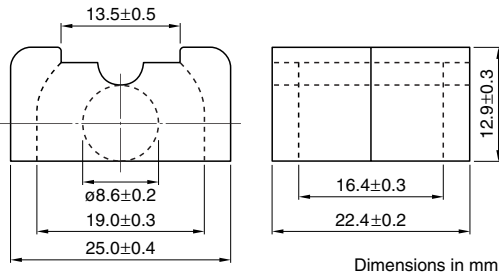
Measuring conditions • Coil: ø0.3 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA

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



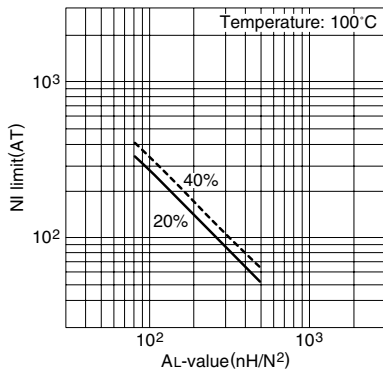
Parameter

| | | | |
|--|----------------------|------------------|-------|
| 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 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) |

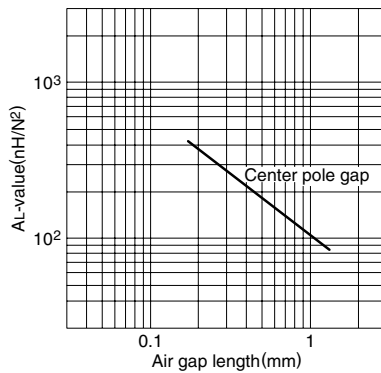
* Coil: ø0.35 2UEW 100Ts

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



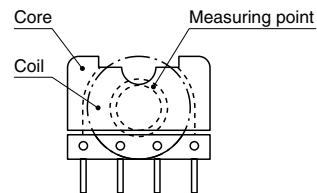
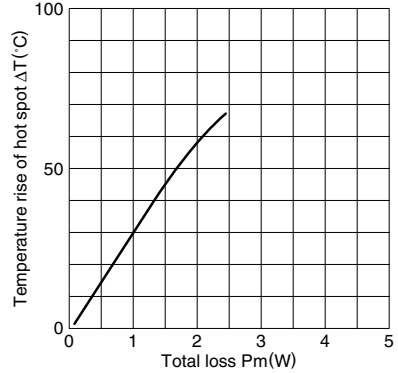
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

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



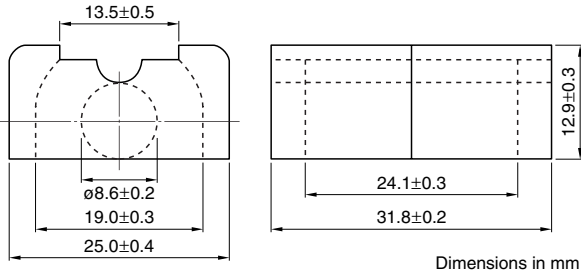
Measuring conditions • Coil: ø0.35 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA

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



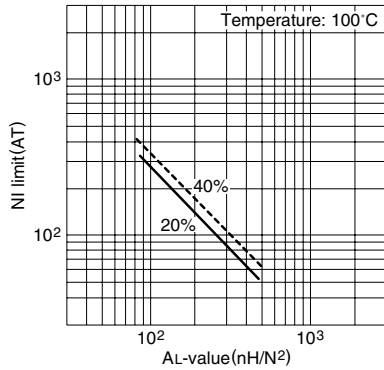
Parameter

| | | | |
|---|----------------------|------------------|-------|
| 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 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) |

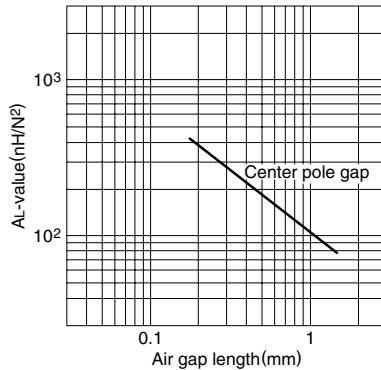
* Coil: ø0.35 2UEW 100Ts

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



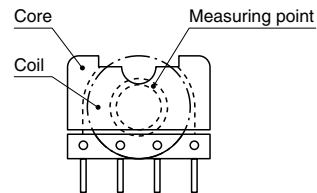
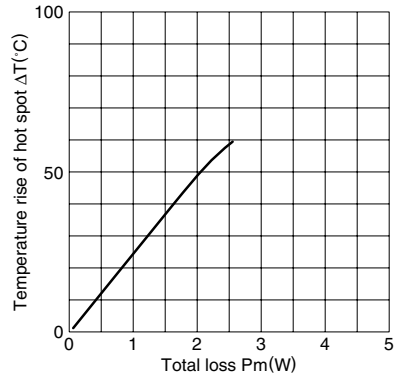
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

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



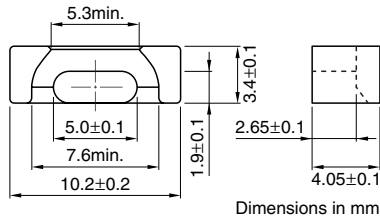
Measuring conditions • Coil: ø0.35 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA

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



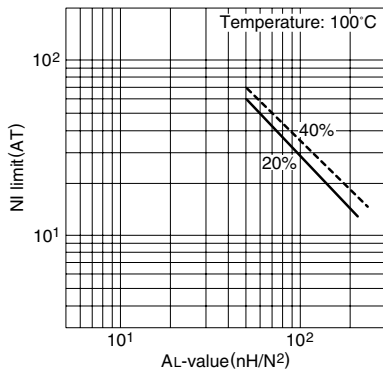
Parameter

| | | | |
|--------------------------------------|----------------------|------------------|------|
| 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 |

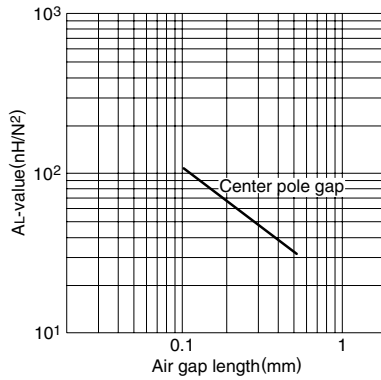
| Part No. | AL-value (nH/N ²) | Core loss (W) at 100°C | | Calculated output power (forward converter mode) |
|-------------|-------------------------------|------------------------|--------------|--|
| | | 100kHz, 200mT | 500kHz, 50mT | |
| PC44EPC10-Z | 1000±25% (1kHz, 0.5mA)* | 0.072 max. | | 5.4W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

* Coil: ø0.1 2UEW 100Ts

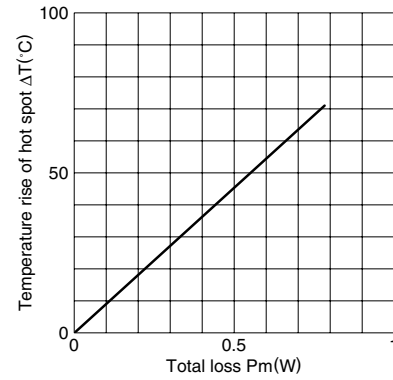
NI limit vs. AL-value for PC44EPC10 gapped core (Typical)



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

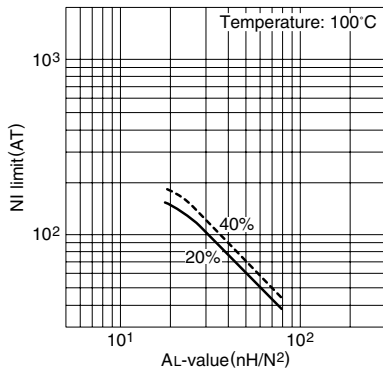


Temperature rise vs. Total loss for EPC10 core (Typical) (Ambient temperature: 25°C)



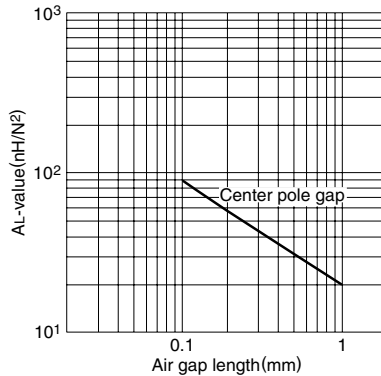
Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%RH, respectively. (approx. 400×300×300cm)

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

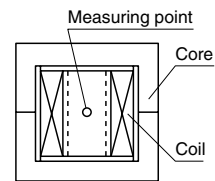


Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

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

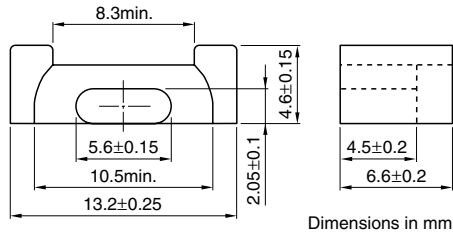


Measuring conditions • Coil: ø0.1 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA



• All specifications are subject to change without notice.

EPC Series EPC13 Cores



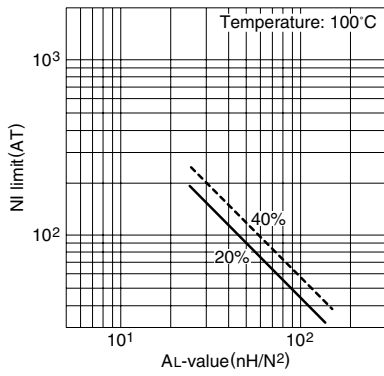
Parameter

| | | | |
|--------------------------------------|----------------------|------------------|------|
| 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 |

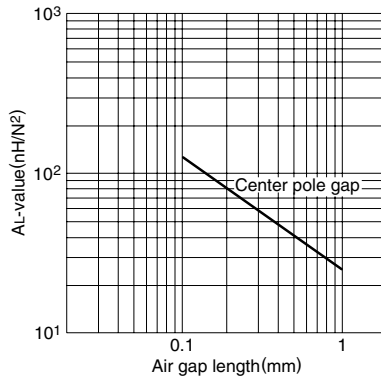
| Part No. | AL-value (nH/N ²) | Core loss (W) at 100°C | | Calculated output power (forward converter mode) |
|-------------|-------------------------------|------------------------|--------------|--|
| | | 100kHz, 200mT | 500kHz, 50mT | |
| PC44EPC13-Z | 870±25% (1kHz, 0.5mA)* | 0.14 max. | | 8W (100kHz)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

* Coil: ø0.2 2UEW 100Ts

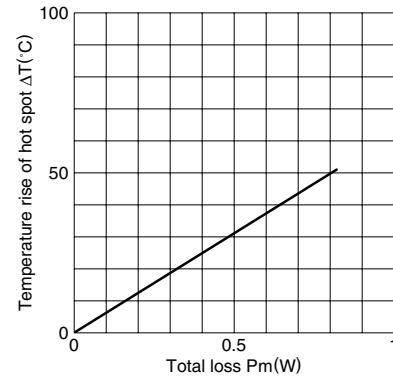
NI limit vs. AL-value for PC44EPC13 gapped core (Typical)



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

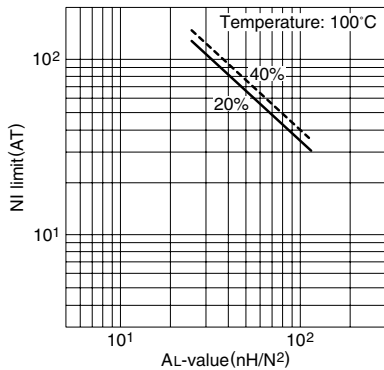


Temperature rise vs. Total loss for EPC13 core (Typical) (Ambient temperature: 25°C)



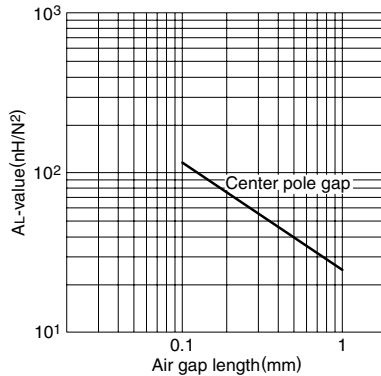
Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%RH, respectively. (approx. 400×300×300cm)

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

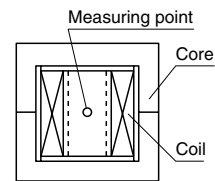


Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

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

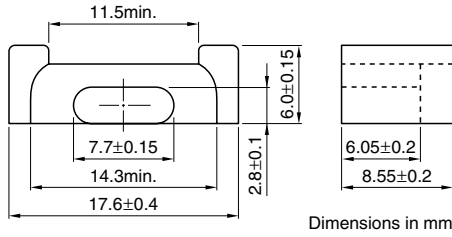


Measuring conditions • Coil: ø0.2 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA



• All specifications are subject to change without notice.

EPC Series EPC17 Cores



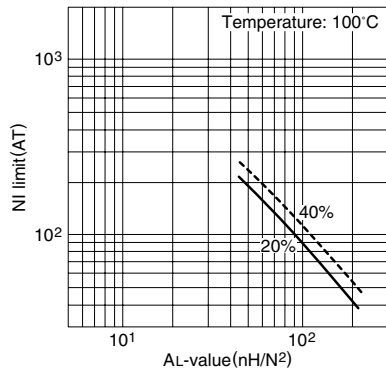
Parameter

| | | | |
|--------------------------------------|----------------------|------------------|------|
| 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 |

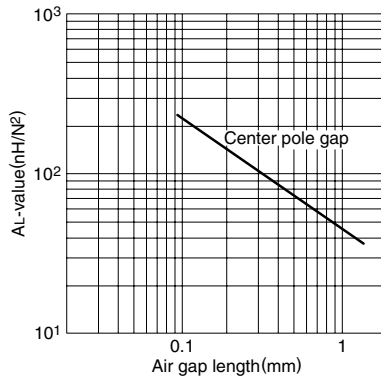
| Part No. | AL-value (nH/N ²) | Core loss (W) at 100°C | | Calculated output power (forward converter mode) |
|-------------|-------------------------------|------------------------|--------------|--|
| | | 100kHz, 200mT | 500kHz, 50mT | |
| PC44EPC17-Z | 1150±25% (1kHz, 0.5mA)* | 0.35 max. | | 20W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

* Coil: ø0.2 2UEW 100Ts

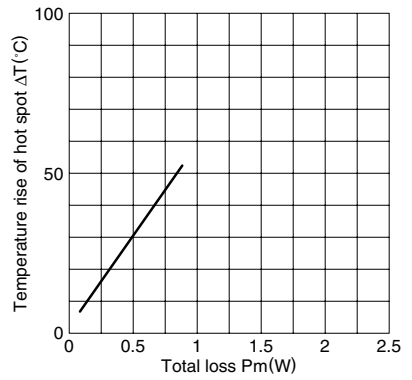
NI limit vs. AL-value for PC44EPC17 gapped core (Typical)



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

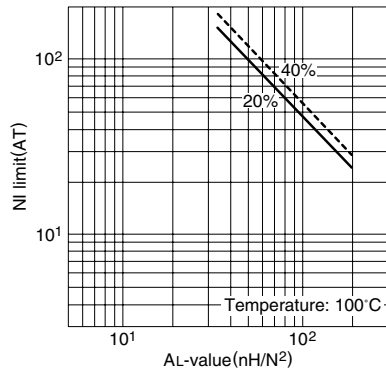


Temperature rise vs. Total loss for EPC17 core (Typical) (Ambient temperature: 25°C)

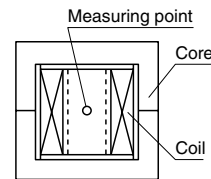
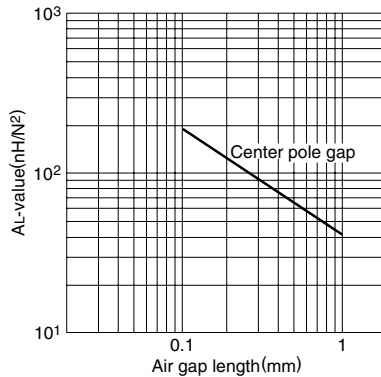


Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%RH, respectively. (approx. 400×300×300cm)

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



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

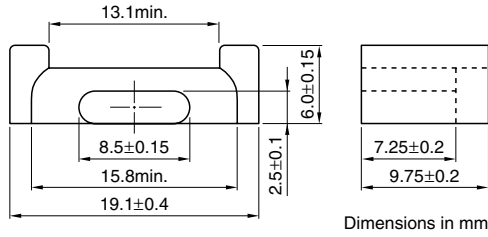


Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

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

• All specifications are subject to change without notice.

EPC Series EPC19 Cores



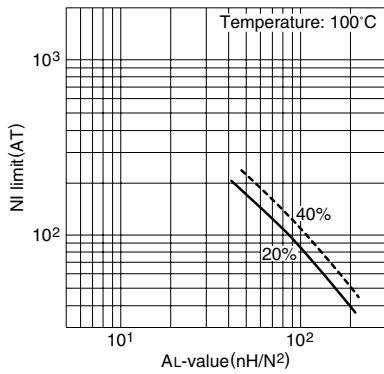
Parameter

| | | | |
|--------------------------------------|----------------------|------------------|------|
| 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 |

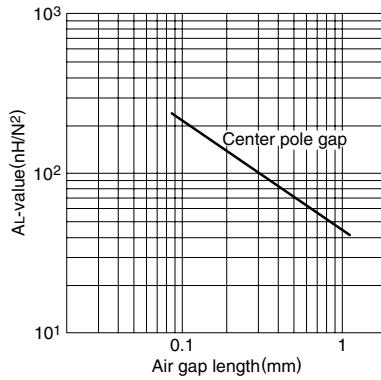
| Part No. | AL-value (nH/N ²) | Core loss (W) at 100°C | | Calculated output power (forward converter mode) |
|-------------|-------------------------------|------------------------|--------------|--|
| | | 100kHz, 200mT | 500kHz, 50mT | |
| PC44EPC19-Z | 940±25% (1kHz, 0.5mA)* | 0.4 max. | | 27W (100kHz)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

* Coil: ø0.2 2UEW 100Ts

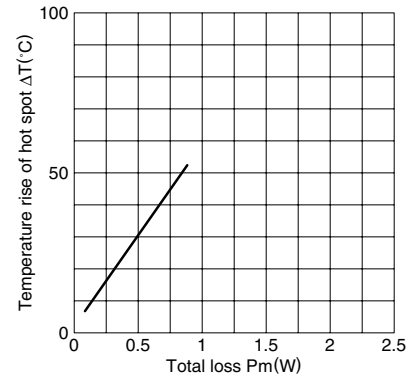
NI limit vs. AL-value for PC44EPC19 gapped core (Typical)



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

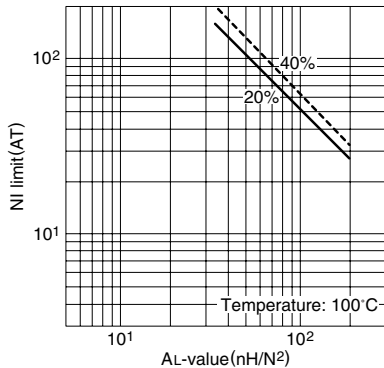


Temperature rise vs. Total loss for EPC19 core (Typical) (Ambient temperature: 25°C)



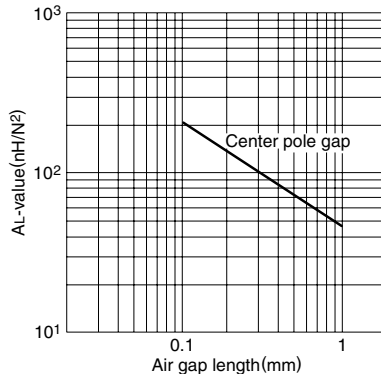
Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%RH, respectively. (approx. 400×300×300cm)

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

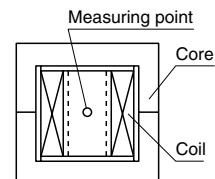


Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

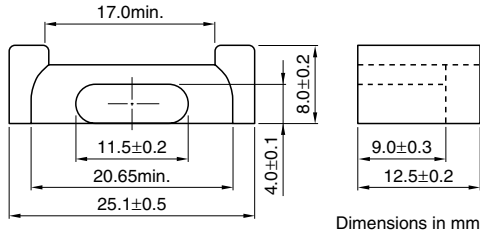
AL-value vs. Air gap length for PC50EPC19 core (Typical)



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



EPC Series EPC25 Cores



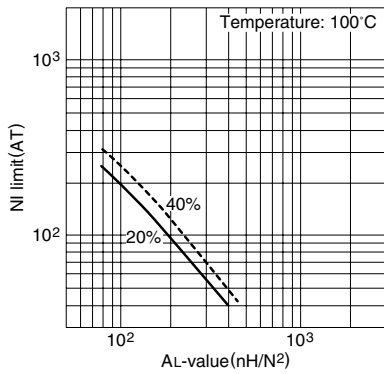
Parameter

| | | | |
|--------------------------------------|----------------------|------------------|------|
| 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 |

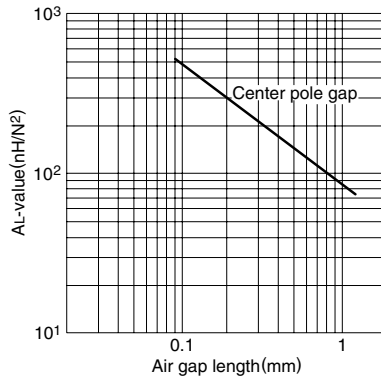
| Part No. | AL-value (nH/N ²) | Core loss (W) at 100°C | | Calculated output power (forward converter mode) |
|-------------|-------------------------------|------------------------|--------------|--|
| | | 100kHz, 200mT | 500kHz, 50mT | |
| PC44EPC25-Z | 1560±25% (1kHz, 0.5mA)* | 1.11 max. | | 63W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

* Coil: ø0.2 2UEW 100Ts

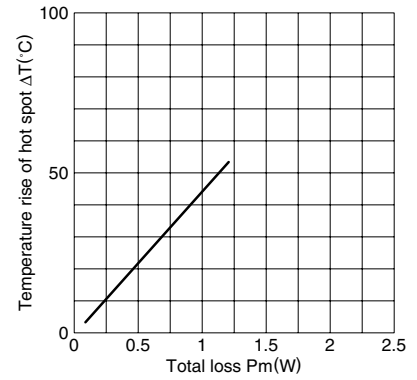
NI limit vs. AL-value for PC44EPC25 gapped core (Typical)



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

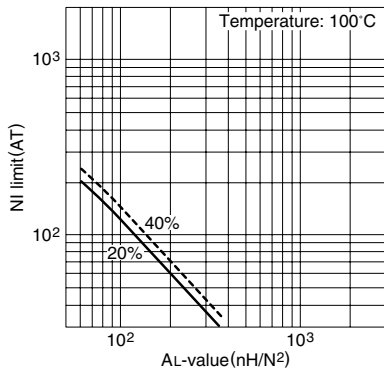


Temperature rise vs. Total loss for EPC25 core (Typical) (Ambient temperature: 25°C)



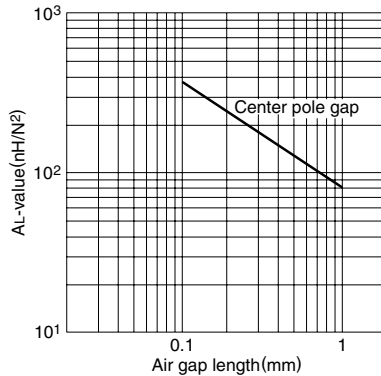
Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%RH, respectively. (approx. 400×300×300cm)

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

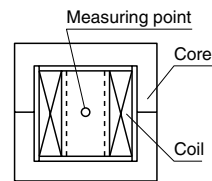


Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

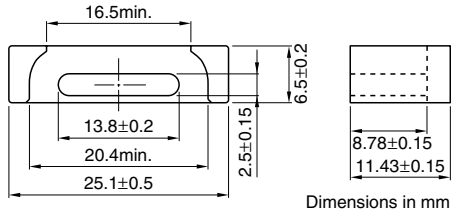
AL-value vs. Air gap length for PC50EPC25 core (Typical)



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



EPC Series EPC25B Cores



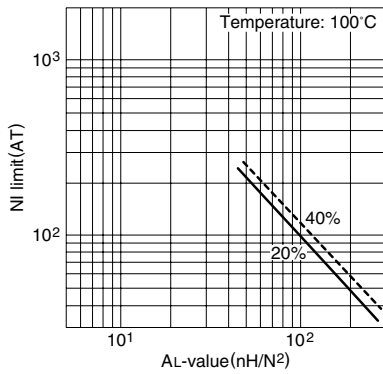
Parameter

| | | | |
|--------------------------------------|----------------------|------------------|------|
| 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 |

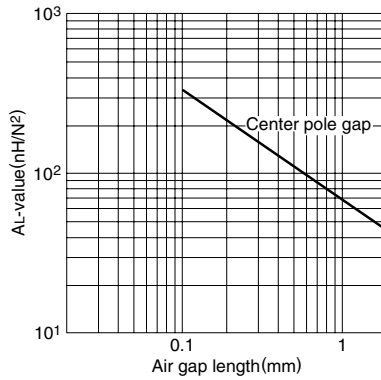
| Part No. | AL-value (nH/N ²) | Core loss (W) at 100°C | | Calculated output power (forward converter mode) |
|--------------|-------------------------------|------------------------|--------------|--|
| | | 100kHz, 200mT | 500kHz, 50mT | |
| PC44EPC25B-Z | 1560±25% (1kHz, 0.5mA)* | 0.65 max. | | 45W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

* Coil: ø0.23 2UEW 100Ts

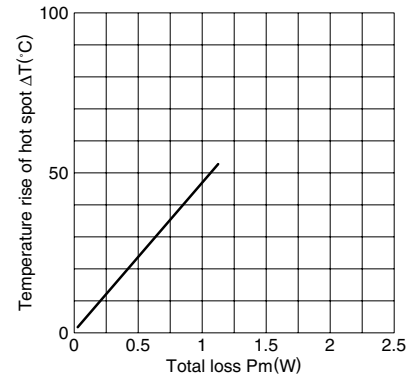
NI limit vs. AL-value for PC44EPC25B gapped core (Typical)



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

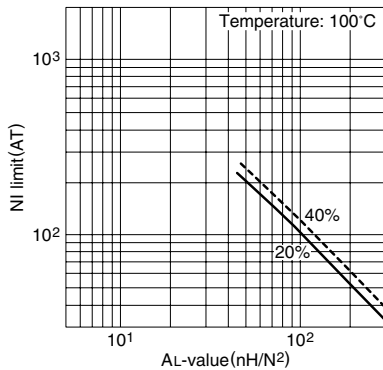


Temperature rise vs. Total loss for EPC25B core (Typical)
(Ambient temperature: 25°C)



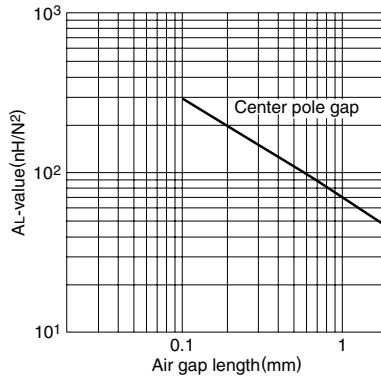
Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%RH, respectively. (approx. 400×300×300cm)

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

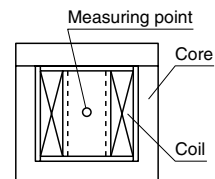


Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

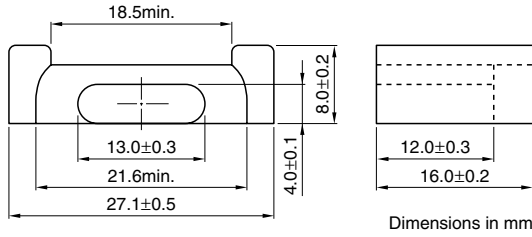
AL-value vs. Air gap length for PC50EPC25B core (Typical)



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



EPC Series EPC27 Cores



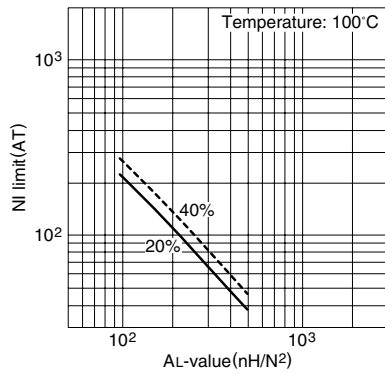
Parameter

| | | | |
|---|----------------------|------------------|------|
| 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 |

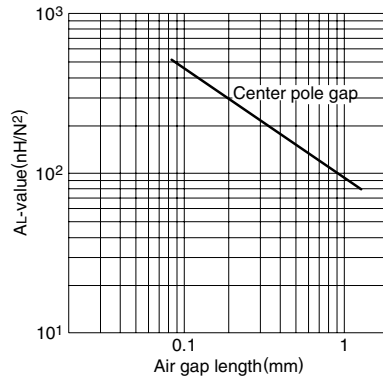
| Part No. | AL-value (nH/N ²) | Core loss (W) at 100°C | | Calculated output power (forward converter mode) |
|--------------------|-------------------------------|------------------------|--------------|---|
| | | 100kHz, 200mT | 500kHz, 50mT | |
| PC44EPC27-Z | 1540±25% (1kHz, 0.5mA)* | 1.56 max.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

* Coil: ø0.3 2UEW 100Ts

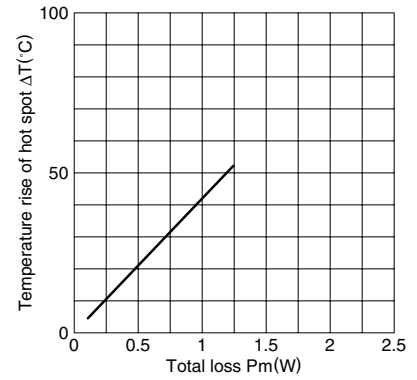
NI limit vs. AL-value for PC44EPC27 gapped core (Typical)



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

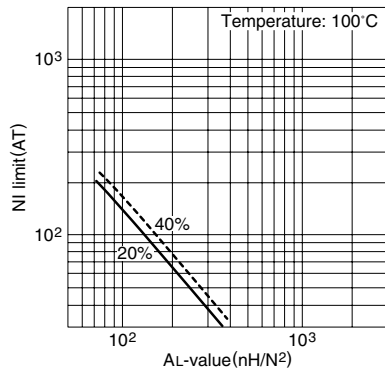


Temperature rise vs. Total loss for EPC27 core (Typical)
(Ambient temperature: 25°C)



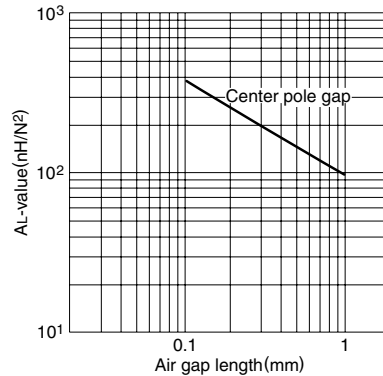
Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%RH, respectively. (approx. 400×300×300cm)

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

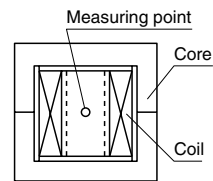


Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

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

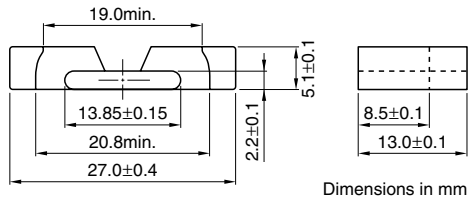


Measuring conditions • Coil: ø0.3 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA



• All specifications are subject to change without notice.

EPC Series EPC27N Cores



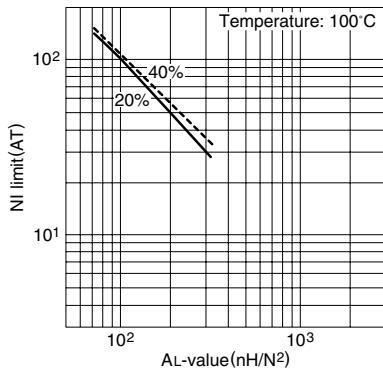
Parameter

| | | | |
|--|----------------------|------------------|------|
| 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 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) |

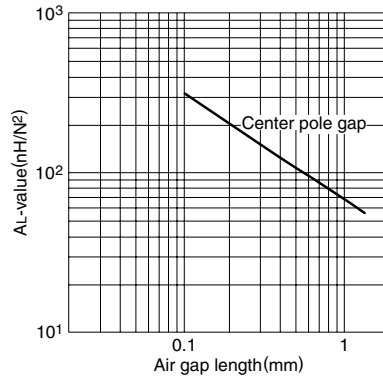
* Coil: ø0.3 2UEW 100Ts

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.

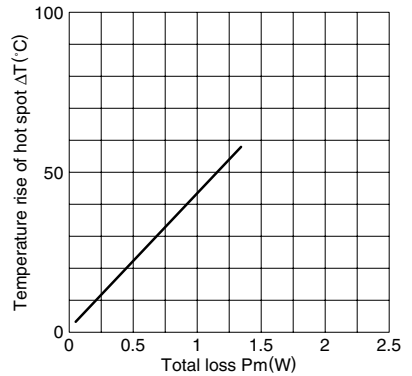
AL-value vs. Air gap length for PC44EPC27N core (Typical)



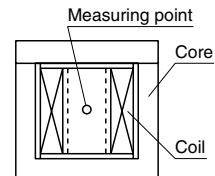
Measuring conditions • Coil: ø0.3 2UEW 100Ts
• Frequency: 1kHz
• Level: 0.5mA

Temperature rise vs. Total loss for EPC27N core (Typical)

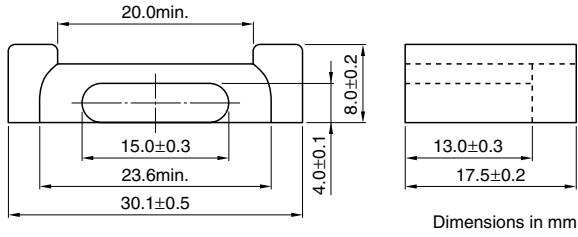
(Ambient temperature: 25°C)



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



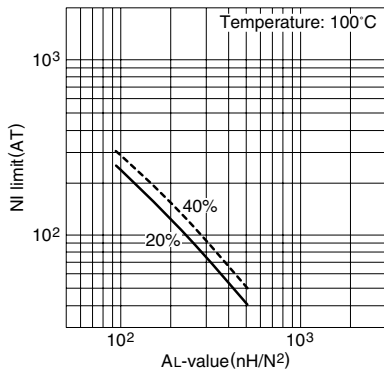
Parameter

| | | | |
|--------------------------------------|----------------------|------------------|------|
| 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 |

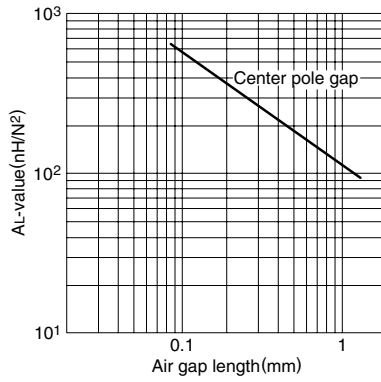
| Part No. | AL-value (nH/N ²) | Core loss (W) at 100°C | | Calculated output power (forward converter mode) |
|-------------|-------------------------------|------------------------|--------------|---|
| | | 100kHz, 200mT | 500kHz, 50mT | |
| PC44EPC30-Z | 1570±25% (1kHz, 0.5mA)* | 2.03 max. | | 85W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

* Coil: ø0.3 2UEW 100Ts

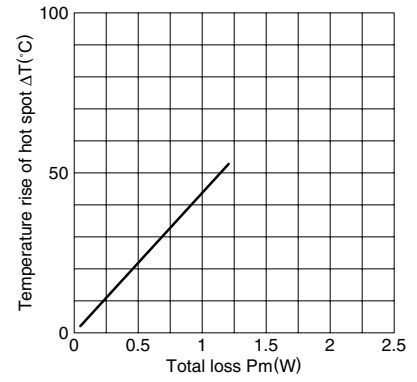
NI limit vs. AL-value for PC44EPC30 gapped core (Typical)



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

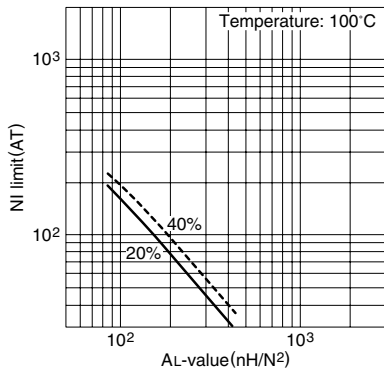


Temperature rise vs. Total loss for EPC30 core (Typical) (Ambient temperature: 25°C)



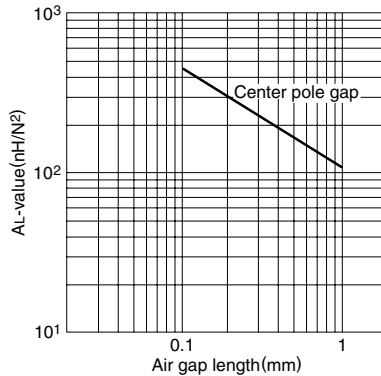
Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45%RH, respectively. (approx. 400×300×300cm)

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



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 PC50EPC30 core (Typical)



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

