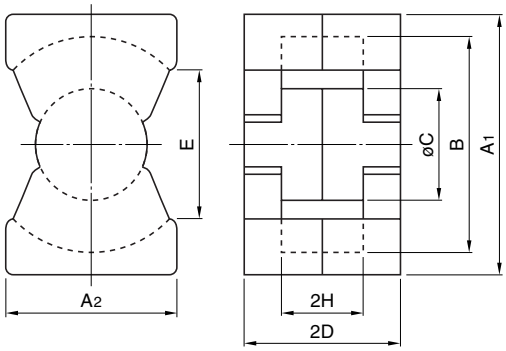
PQ CORES

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**
PC47PQ20/16Z-12 **PC90PQ20/16Z-12** **PC95PQ20/16Z-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
PC47PQ20/20Z-12 **PC90PQ20/20Z-12** **PC95PQ20/20Z-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
PC47PQ26/20Z-12 **PC90PQ26/20Z-12** **PC95PQ26/20Z-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
PC47PQ26/25Z-12 **PC90PQ26/25Z-12** **PC95PQ26/25Z-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
PC47PQ32/20Z-12 **PC90PQ32/20Z-12** **PC95PQ32/20Z-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

Part No.	Effective parameter				Electrical characteristics			
					A_L-value (nH/N²)*		**Core loss (W) max.**	**Weight (g)**
	C_1 (mm^{-1})	**Ae (mm^2)**	**ℓe (mm)**	**Ve (mm^3)**	**Without air gap**	**With air gap**	**100kHz, 200mT, 100°C**	
PC47PQ20/16Z-12					3880±25%	100±5%	0.98	
PC90PQ20/16Z-12	0.605	62	37.4	2310	3100±25%	250±7%	1.10	13
PC95PQ20/16Z-12					4480±25%	400±10%	1.14/0.96/1.14**	
PC47PQ20/20Z-12					3150±25%	100±5%	1.19	
PC90PQ20/20Z-12	0.738	62	45.4	2790	2700±25%	160±5%	1.35	15
PC95PQ20/20Z-12					4000±25%	250±7%	1.38/1.16/1.38**	
PC47PQ26/20Z-12					6170±25%	160±5%	1.83	
PC90PQ26/20Z-12	0.391	119	46.3	5490	5550±25%	315±5%	2.45	31
PC95PQ26/20Z-12					7470±25%	630±10%	2.62/2.20/2.62**	
PC47PQ26/25Z-12					5250±25%	160±5%	2.2	
PC90PQ26/25Z-12	0.472	118	55.5	6530	4500±25%	315±5%	2.9	36
PC95PQ26/25Z-12					6520±25%	630±10%	3.14/2.63/3.14**	
PC47PQ32/20Z-12					7310±25%	160±5%	2.76	
PC90PQ32/20Z-12	0.326	170	55.5	9420	6400±25%	315±5%	3.7	42
PC95PQ32/20Z-12					9120±25%	630±7%	3.94/3.31/3.94**	

* A_L-value: 1kHz, 0.5mA, 100Ts
** Core loss: 100kHz, 200mT, 25°C/80°C/120°C

PQ CORES

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JP. DES. 580,081
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KR. U. M 23,487
NL. PAT. 178,826
NL. DES. 5,777
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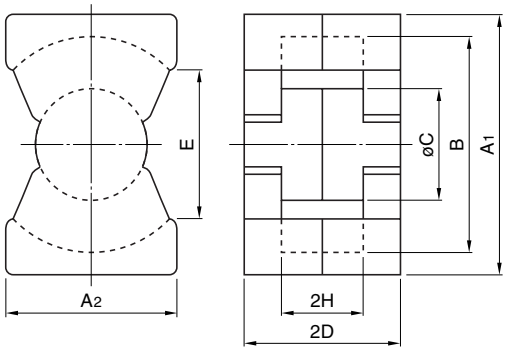
US. DES. 264,959

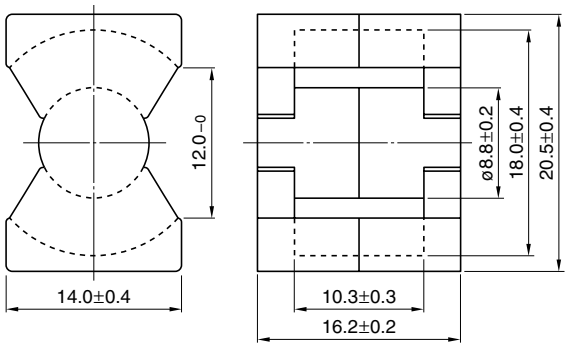


Part No.	Dimensions in mm						
	A1	**A2**	**B**	**øC**	**2D**	**E min.**	**2H**
PC47PQ32/30Z-12							
PC90PQ32/30Z-12	32.0±0.5	22.0±0.5	27.5±0.5	13.45±0.25	30.35±0.25	19.0	21.3±0.3
PC95PQ32/30Z-12							
PC47PQ35/35Z-12							
PC90PQ35/35Z-12	35.1±0.6	26.0±0.5	32.0±0.5	14.35±0.25	34.75±0.25	23.5	25.0±0.3
PC95PQ35/35Z-12							
PC47PQ40/40Z-12							
PC90PQ40/40Z-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
PC95PQ40/40Z-12							
PC47PQ50/50Z-12							
PC90PQ50/50Z-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
PC95PQ50/50Z-12							

Part No.	Effective parameter				Electrical characteristics			Weight (g)
	C1 (mm^{-1})	**Ae (mm^2)**	**ℓe (mm)**	**Ve (mm^3)**	**AL-value (nH/N^2)***		**Core loss (W) max.**	
					Without air gap	**With air gap**	**100kHz, 200mT, 100°C**	
PC47PQ32/30Z-12					5140±25%	160±5%	3.71	
PC90PQ32/30Z-12	0.464	161	74.6	12000	4900±25%	315±5%	4.90	55
PC95PQ32/30Z-12					7000±25%	630±7%	5.30/4.45/5.30**	
PC47PQ35/35Z-12					4860±25%	160±5%	4.98	
PC90PQ35/35Z-12	0.448	196	87.9	17300	4700±25%	315±5%	6.6	73
PC95PQ35/35Z-12					7320±25%	630±7%	7.12/5.98/7.12**	
PC47PQ40/40Z-12					4300±25%	160±5%	6.21	
PC90PQ40/40Z-12	0.508	201	102	20500	4300±25%	315±5%	8.2	95
PC95PQ40/40Z-12					6400±25%	630±7%	8.87/7.45/8.87**	
PC47PQ50/50Z-12					6720±25%	250±5%	15.26	
PC90PQ50/50Z-12	0.346	328	113	37200	6250±25%	400±5%	8.4***	195
PC95PQ50/50Z-12					9700±25%	630±5%	9.00/7.50/9.00****	

* AL-value: 1kHz, 0.5mA, 100Ts
** Core loss: 100kHz, 200mT, 25°C/80°C/120°C
*** Core loss: 100kHz, 150mT, 100°C
**** Core loss: 100kHz, 150mT, 25°C/80°C/120°C

PQ Series PQ20/16 Cores



Dimensions in mm

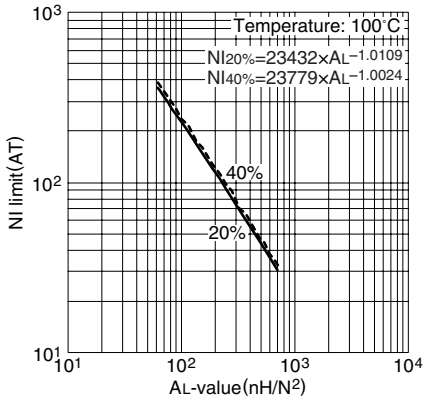
PARAMETER

Core factor	C1	mm^{-1}	0.605
Effective magnetic path length	ℓe	mm	37.4
Effective cross-sectional area	Ae	mm^2	62
Effective core volume	Ve	mm^3	2310
Cross-sectional center pole area	Acp	mm^2	60.8
Minimum cross-sectional center pole area	Acp min.	mm^2	58.1
Cross-sectional winding area of core	Acw	mm^2	47.4
Weight (approx.)		g	13

Part No.	AL-value (nH/N^2)*	Core loss (W) max. 100kHz, 200mT	Calculated output power (forward converter mode)
PC47PQ20/16Z-12	3880±25% (1kHz, 0.5mA)	0.98(100°C)	77W (100kHz)
PC90PQ20/16Z-12	3100±25% (1kHz, 0.5mA)	1.10(100°C)	70W
PC95PQ20/16Z-12	4480±25% (1kHz, 0.5mA)	1.14/0.96/1.14(25°C/80°C/120°C)	74W

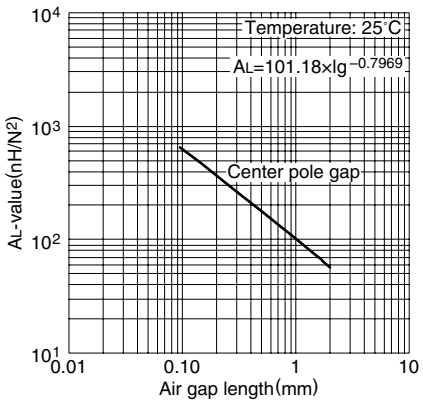
* Coil: ø0.35 2UEW 100Ts

NI limit vs. AL-value for PC47PQ20/16 gapped core (Typical)



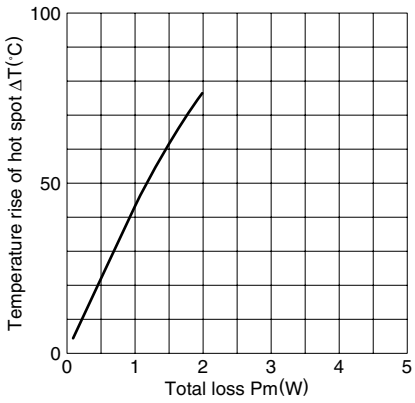
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

AL-value vs. Air gap length for PC47PQ20/16 core (Typical)

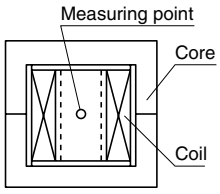


Measuring conditions
- Coil: ø0.35 2UEW 100Ts
- Frequency: 1kHz
- Level: 0.5mA

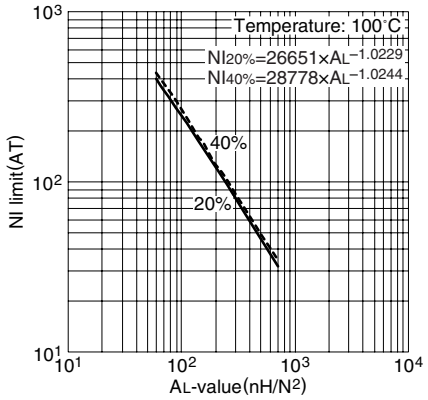
Temperature rise vs. Total loss for PQ20/16 core (Typical) (Ambient temperature: 25°C)



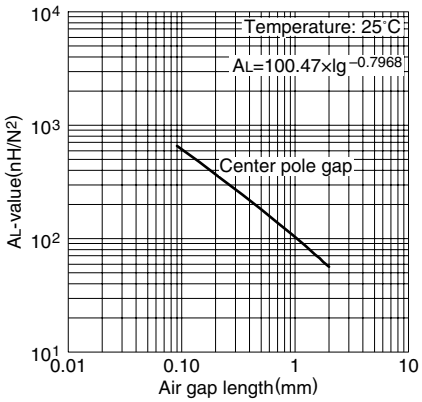
Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45(%)RH. respectively. (approx. 400×300×300cm)



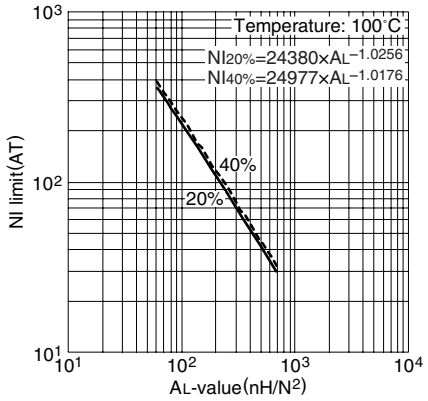
NI limit vs. AL-value for PC90PQ20/16 gapped core (Typical)



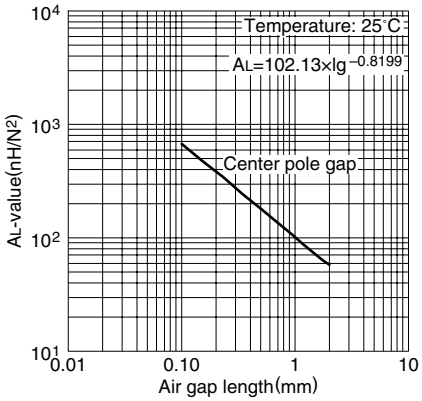
AL-value vs. Air gap length for PC90PQ20/16 core (Typical)



NI limit vs. AL-value for PC95PQ20/16 gapped core (Typical)



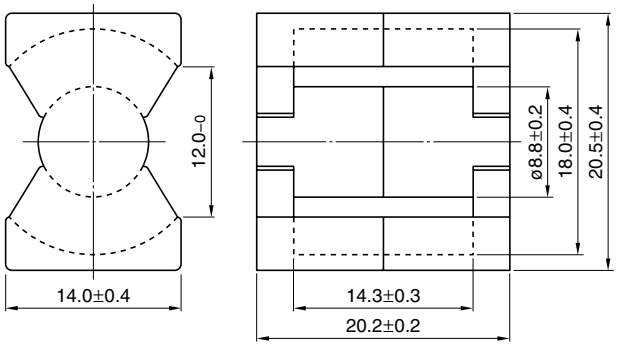
AL-value vs. Air gap length for PC95PQ20/16 core (Typical)



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

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

PQ Series PQ20/20 Cores



Dimensions in mm

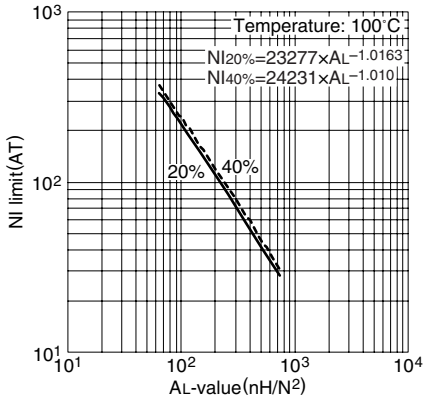
PARAMETER

Core factor	C1	mm^{-1}	0.738
Effective magnetic path length	ℓe	mm	45.4
Effective cross-sectional area	Ae	mm^2	62
Effective core volume	Ve	mm^3	2790
Cross-sectional center pole area	Acp	mm^2	60.8
Minimum cross-sectional center pole area	Acp min.	mm^2	58.1
Cross-sectional winding area of core	Acw	mm^2	65.8
Weight (approx.)		g	15

Part No.	AL-value (nH/N^2)*	Core loss (W) max. 100kHz, 200mT	Calculated output power (forward converter mode)
PC47PQ20/20Z-12	3150±25% (1kHz, 0.5mA)	1.19(100°C)	99W (100kHz)
PC90PQ20/20Z-12	2700±25% (1kHz, 0.5mA)	1.35(100°C)	92W
PC95PQ20/20Z-12	4000±25% (1kHz, 0.5mA)	1.38/1.16/1.38(25°C/80°C/120°C)	96W

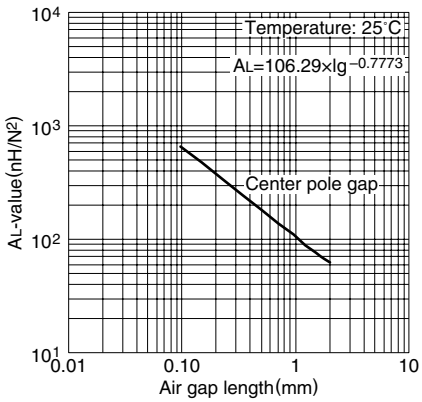
* Coil: ø0.35 2UEW 100Ts

NI limit vs. AL-value for PC47PQ20/20 gapped core (Typical)



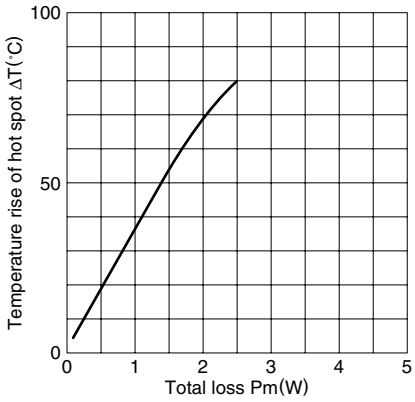
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

AL-value vs. Air gap length for PC47PQ20/20 core (Typical)

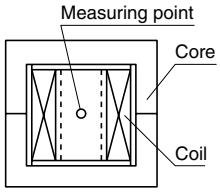


Measuring conditions
- Coil: ø0.35 2UEW 100Ts
- Frequency: 1kHz
- Level: 0.5mA

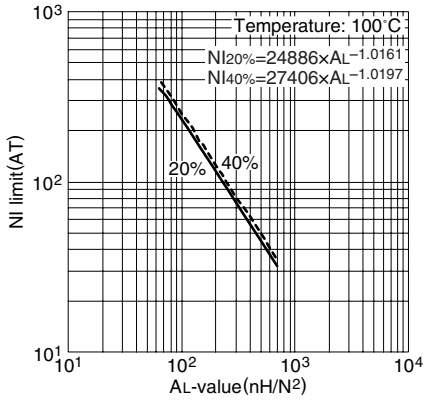
Temperature rise vs. Total loss for PQ20/20 core (Typical) (Ambient temperature: 25°C)



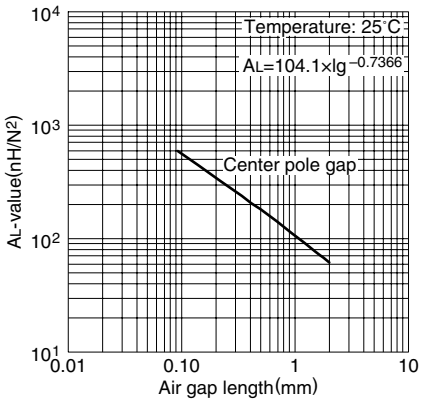
Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45(%)RH. respectively. (approx. 400×300×300cm)



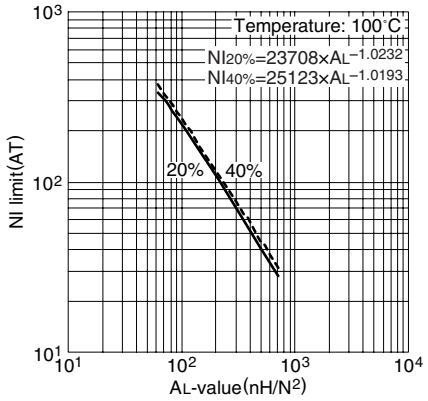
NI limit vs. AL-value for PC90PQ20/20 gapped core (Typical)



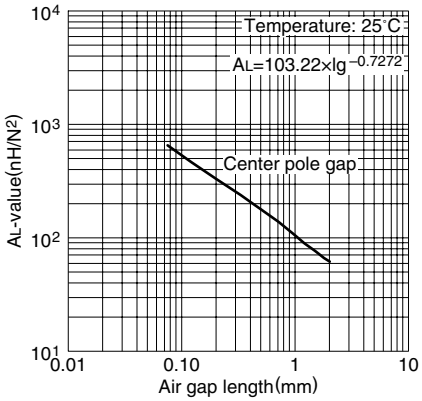
AL-value vs. Air gap length for PC90PQ20/20 core (Typical)



NI limit vs. AL-value for PC95PQ20/20 gapped core (Typical)



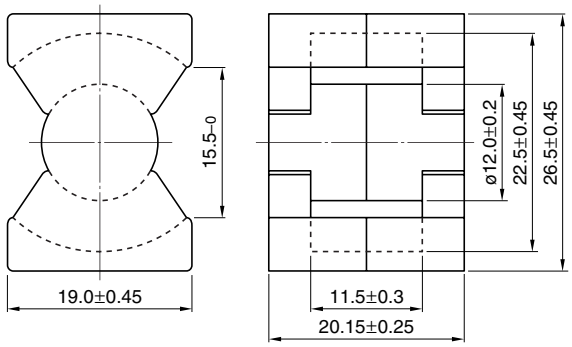
AL-value vs. Air gap length for PC95PQ20/20 core (Typical)



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

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

PQ Series PQ26/20 Cores



Dimensions in mm

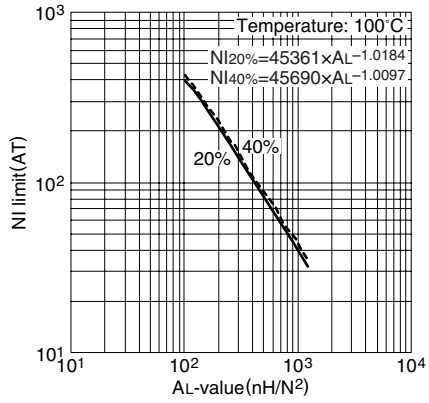
PARAMETER

Core factor	C1	mm^{-1}	0.391
Effective magnetic path length	ℓe	mm	46.3
Effective cross-sectional area	Ae	mm^2	119
Effective core volume	Ve	mm^3	5490
Cross-sectional center pole area	Acp	mm^2	113
Minimum cross-sectional center pole area	Acp min.	mm^2	109
Cross-sectional winding area of core	Acw	mm^2	60.4
Weight (approx.)		g	31

Part No.	AL-value (nH/N^2)*	Core loss (W) max. 100kHz, 200mT	Calculated output power (forward converter mode)
PC47PQ26/20Z-12	6170±25% (1kHz, 0.5mA)	1.83(100°C)	170W (100kHz)
PC90PQ26/20Z-12	5500±25% (1kHz, 0.5mA)	2.45(100°C)	145W
PC95PQ26/20Z-12	7470±25% (1kHz, 0.5mA)	2.62/2.20/2.62(25°C/80°C/120°C)	160W

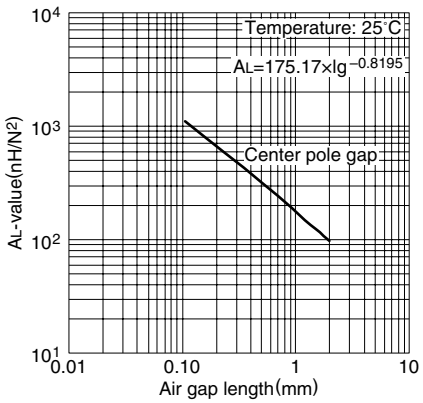
* Coil: ø0.35 2UEW 100Ts

NI limit vs. AL-value for PC47PQ26/20 gapped core (Typical)



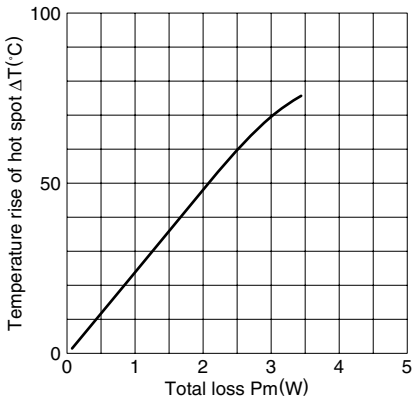
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

AL-value vs. Air gap length for PC47PQ26/20 core (Typical)

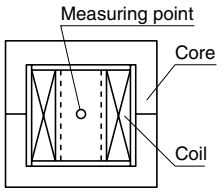


Measuring conditions
- Coil: ø0.35 2UEW 100Ts
- Frequency: 1kHz
- Level: 0.5mA

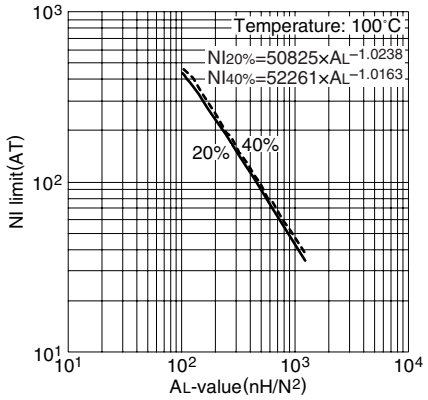
Temperature rise vs. Total loss for PQ26/20 core (Typical) (Ambient temperature: 25°C)



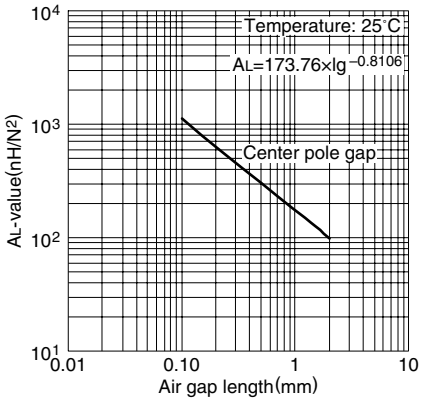
Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45(%)RH. respectively. (approx. 400×300×300cm)



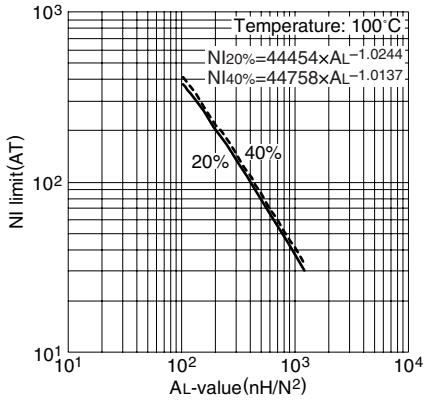
NI limit vs. AL-value for PC90PQ26/20 gapped core (Typical)



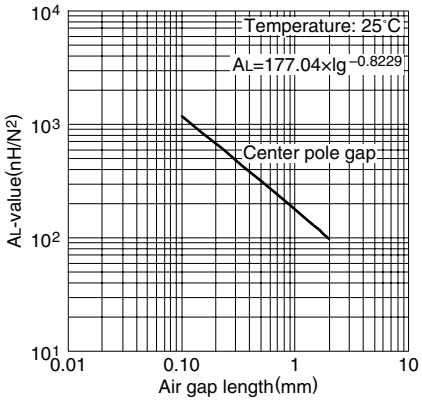
AL-value vs. Air gap length for PC90PQ26/20 core (Typical)



NI limit vs. AL-value for PC95PQ26/20 gapped core (Typical)



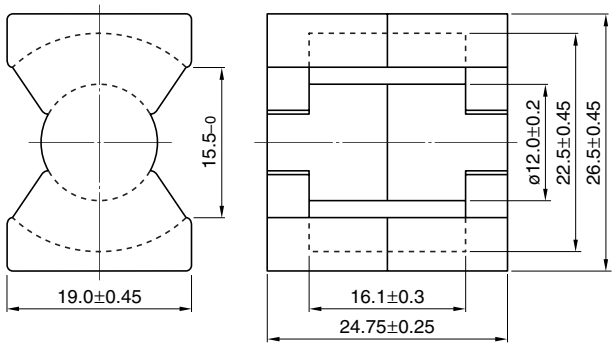
AL-value vs. Air gap length for PC95PQ26/20 core (Typical)



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

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

PQ Series PQ26/25 Cores



Dimensions in mm

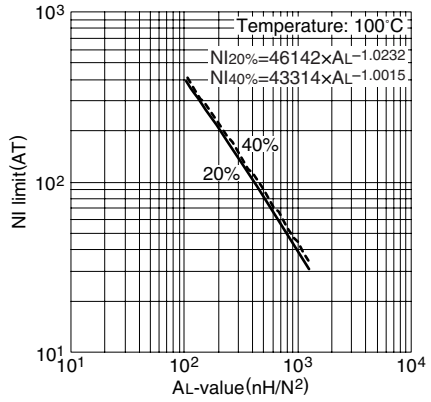
PARAMETER

Core factor	C1	mm^{-1}	0.472
Effective magnetic path length	ℓe	mm	55.5
Effective cross-sectional area	Ae	mm^2	118
Effective core volume	Ve	mm^3	6530
Cross-sectional center pole area	Acp	mm^2	113
Minimum cross-sectional center pole area	Acp min.	mm^2	109
Cross-sectional winding area of core	Acw	mm^2	84.5
Weight (approx.)		g	36

Part No.	AL-value (nH/N^2)*	Core loss (W) max. 100kHz, 200mT	Calculated output power (forward converter mode)
PC47PQ26/25Z-12	5250±25% (1kHz, 0.5mA)	2.2(100°C)	221W (100kHz)
PC90PQ26/25Z-12	4500±25% (1kHz, 0.5mA)	2.9(100°C)	195W
PC95PQ26/25Z-12	6520±25% (1kHz, 0.5mA)	3.14/2.63/3.14(25°C/80°C/120°C)	206W

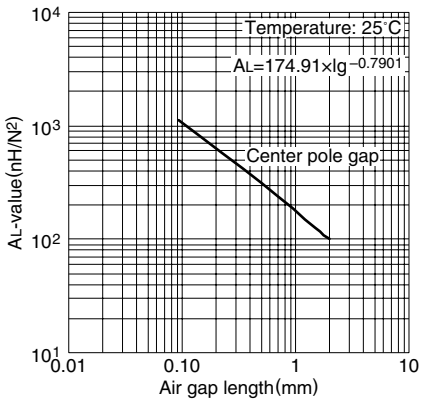
* Coil: ø0.35 2UEW 100Ts

NI limit vs. AL-value for PC47PQ26/25 gapped core (Typical)



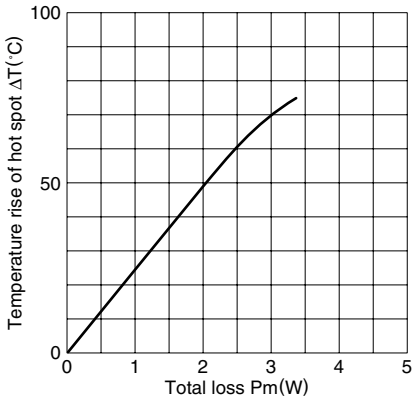
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

AL-value vs. Air gap length for PC47PQ26/25 core (Typical)

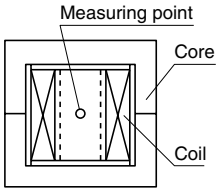


Measuring conditions
- Coil: ø0.35 2UEW 100Ts
- Frequency: 1kHz
- Level: 0.5mA

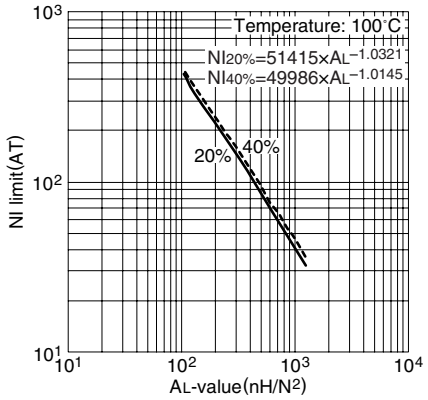
Temperature rise vs. Total loss for PQ26/25 core (Typical) (Ambient temperature: 25°C)



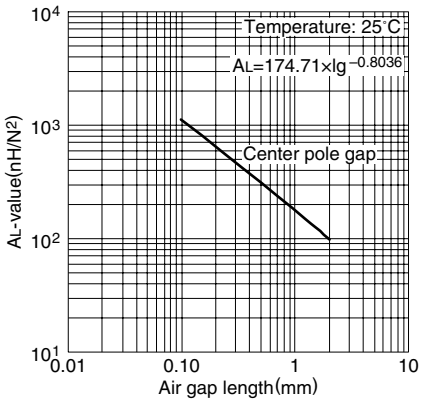
Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45(%)RH. respectively. (approx. 400×300×300cm)



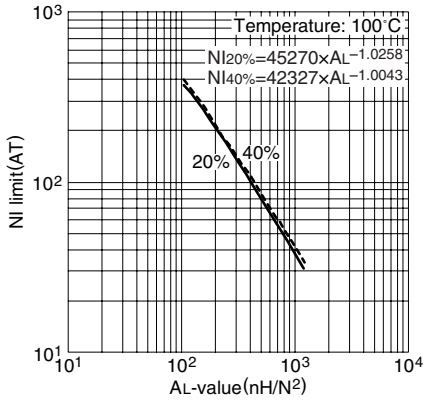
NI limit vs. AL-value for PC90PQ26/25 gapped core (Typical)



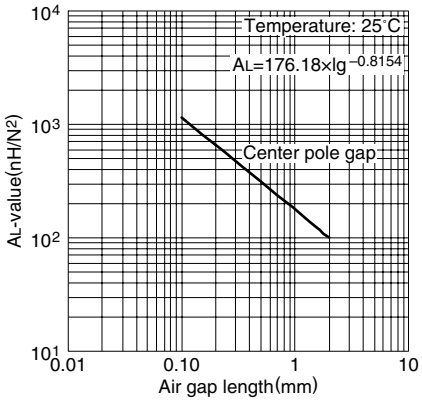
AL-value vs. Air gap length for PC90PQ26/25 core (Typical)



NI limit vs. AL-value for PC95PQ26/25 gapped core (Typical)



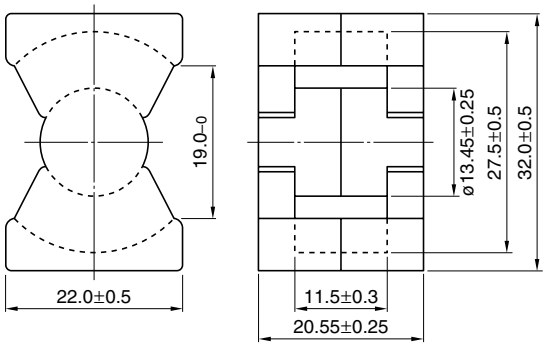
AL-value vs. Air gap length for PC95PQ26/25 core (Typical)



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

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

PQ Series PQ32/20 Cores



Dimensions in mm

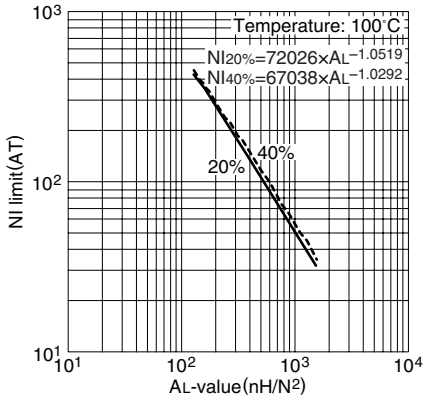
PARAMETER

Core factor	C1	mm^{-1}	0.326
Effective magnetic path length	ℓe	mm	55.5
Effective cross-sectional area	Ae	mm^2	170
Effective core volume	Ve	mm^3	9420
Cross-sectional center pole area	Acp	mm^2	142
Minimum cross-sectional center pole area	Acp min.	mm^2	137
Cross-sectional winding area of core	Acw	mm^2	80.8
Weight (approx.)		g	42

Part No.	AL-value (nH/N^2)*	Core loss (W) max. 100kHz, 200mT	Calculated output power (forward converter mode)
PC47PQ32/20Z-12	7310±25% (1kHz, 0.5mA)	2.76(100°C)	245W (100kHz)
PC90PQ32/20Z-12	6400±25% (1kHz, 0.5mA)	3.7(100°C)	224W
PC95PQ32/20Z-12	9120±25% (1kHz, 0.5mA)	3.94/3.31/3.94(25°C/80°C/120°C)	237W

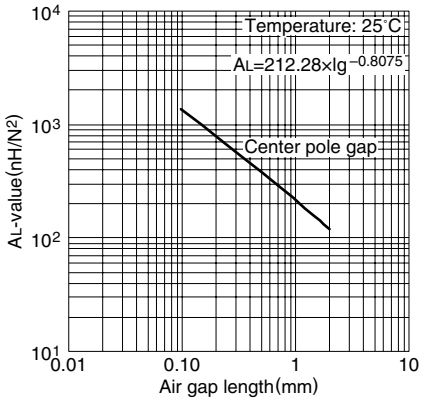
* Coil: ø0.35 2UEW 100Ts

NI limit vs. AL-value for PC47PQ32/20 gapped core (Typical)



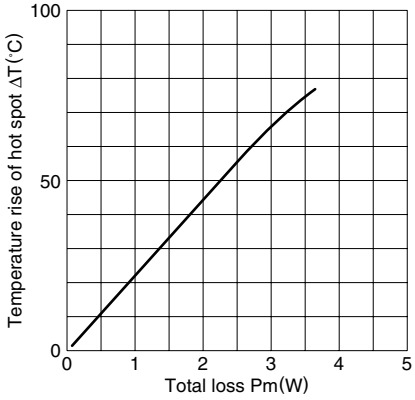
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

AL-value vs. Air gap length for PC47PQ32/20 core (Typical)

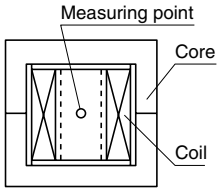


Measuring conditions
- Coil: ø0.35 2UEW 100Ts
- Frequency: 1kHz
- Level: 0.5mA

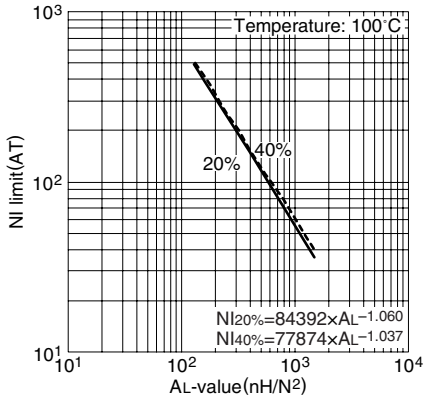
Temperature rise vs. Total loss for PQ32/20 core (Typical) (Ambient temperature: 25°C)



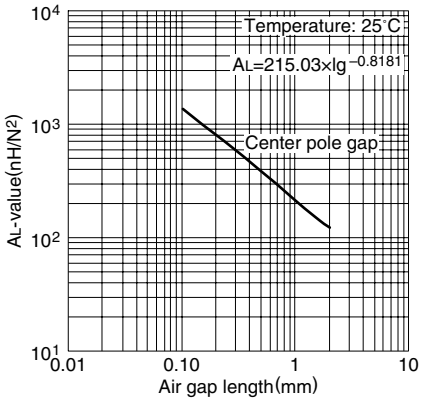
Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45(%)RH. respectively. (approx. 400×300×300cm)



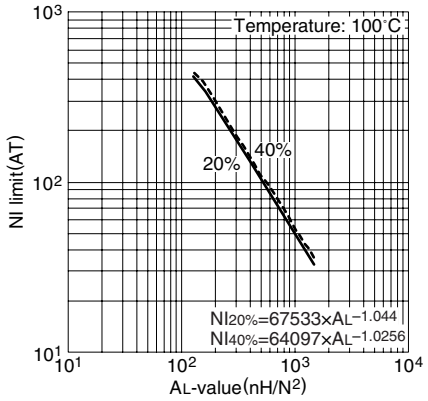
NI limit vs. AL-value for PC90PQ32/20 gapped core (Typical)



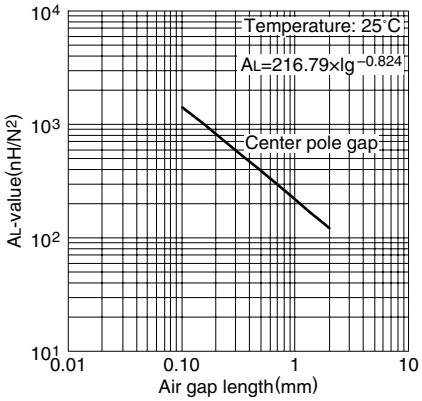
AL-value vs. Air gap length for PC90PQ32/20 core (Typical)



NI limit vs. AL-value for PC95PQ32/20 gapped core (Typical)



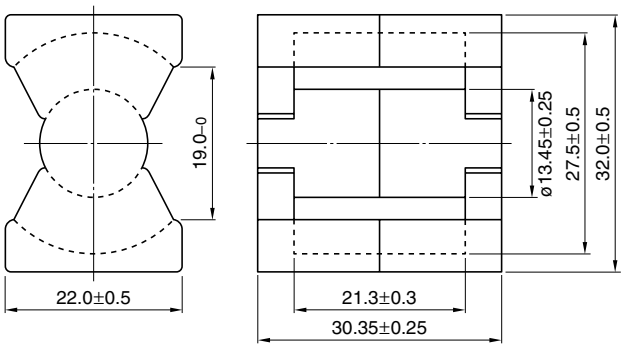
AL-value vs. Air gap length for PC95PQ32/20 core (Typical)



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

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

PQ Series PQ32/30 Cores



Dimensions in mm

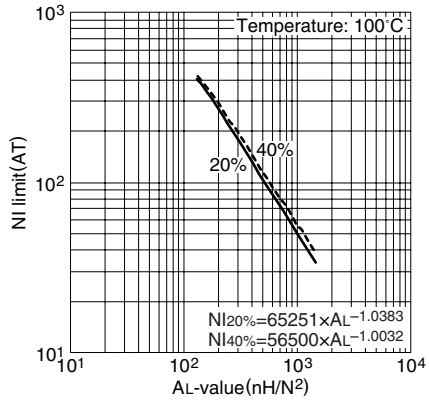
PARAMETER

Core factor	C1	mm^{-1}	0.464
Effective magnetic path length	ℓe	mm	74.6
Effective cross-sectional area	Ae	mm^2	161
Effective core volume	Ve	mm^3	12000
Cross-sectional center pole area	Acp	mm^2	142
Minimum cross-sectional center pole area	Acp min.	mm^2	137
Cross-sectional winding area of core	Acw	mm^2	149.6
Weight (approx.)		g	55

Part No.	AL-value (nH/N2)*	Core loss (W) max. 100kHz, 200mT	Calculated output power (forward converter mode)
PC47PQ32/30Z-12	5140±25% (1kHz, 0.5mA)	3.71(100°C)	374W (100kHz)
PC90PQ32/30Z-12	4900±25% (1kHz, 0.5mA)	4.90(100°C)	348W
PC95PQ32/30Z-12	7000±25% (1kHz, 0.5mA)	5.30/4.45/5.30(25°C/80°C/120°C)	365W

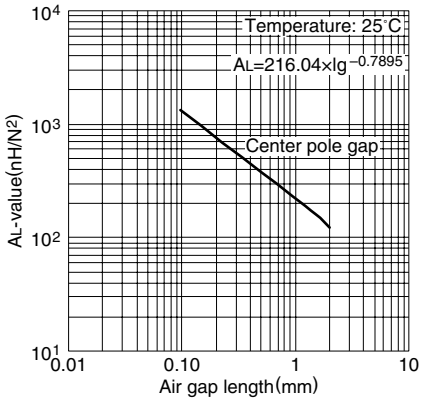
* Coil: ø0.4 2UEW 100Ts

NI limit vs. AL-value for PC47PQ32/30 gapped core (Typical)



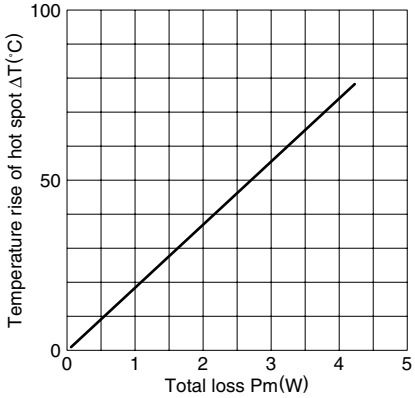
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

AL-value vs. Air gap length for PC47PQ32/30 core (Typical)

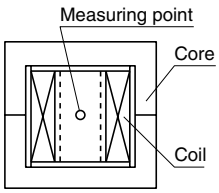


Measuring conditions
- Coil: ø0.4 2UEW 100Ts
- Frequency: 1kHz
- Level: 0.5mA

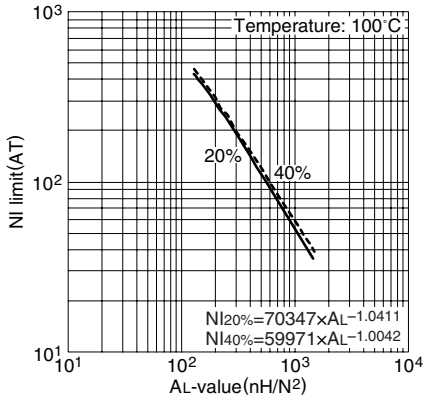
Temperature rise vs. Total loss for PQ32/30 core (Typical) (Ambient temperature: 25°C)



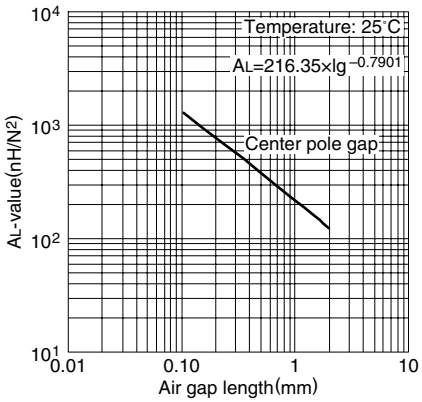
Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45(%)RH. respectively. (approx. 400×300×300cm)



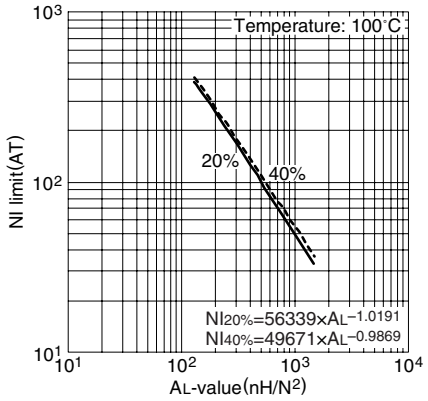
NI limit vs. AL-value for PC90PQ32/30 gapped core (Typical)



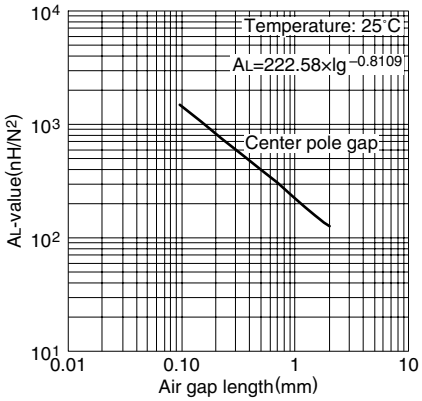
AL-value vs. Air gap length for PC90PQ32/30 core (Typical)



NI limit vs. AL-value for PC95PQ32/30 gapped core (Typical)



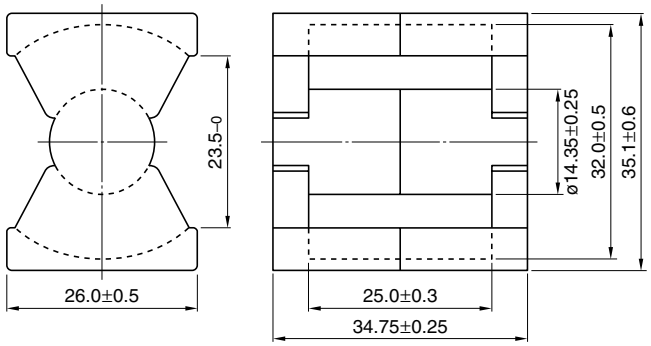
AL-value vs. Air gap length for PC95PQ32/30 core (Typical)



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

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

PQ Series PQ35/35 Cores



Dimensions in mm

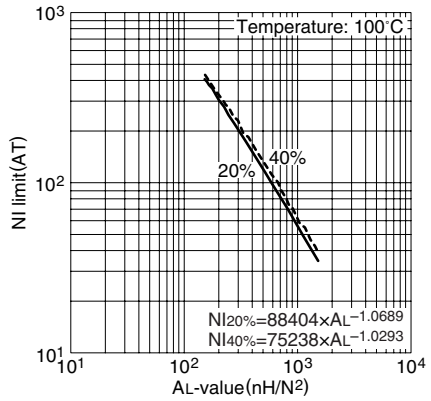
PARAMETER

Core factor	C_1	mm^{-1}	0.448
Effective magnetic path length	ℓe	mm	87.9
Effective cross-sectional area	Ae	mm^2	196
Effective core volume	Ve	mm^3	17300
Cross-sectional center pole area	Acp	mm^2	162
Minimum cross-sectional center pole area	Acp min.	mm^2	156
Cross-sectional winding area of core	Acw	mm^2	220.6
Weight (approx.)		g	73

Part No.	A_L-value (nH/N^2)*	Core loss (W) max. 100kHz, 200mT	Calculated output power (forward converter mode)
PC47PQ35/35Z-12	4860±25% (1kHz, 0.5mA)	4.98(100°C)	495W (100kHz)
PC90PQ35/35Z-12	4700±25% (1kHz, 0.5mA)	6.6(100°C)	476W
PC95PQ35/35Z-12	7320±25% (1kHz, 0.5mA)	7.12/5.98/7.12(25°C/80°C/120°C)	512W

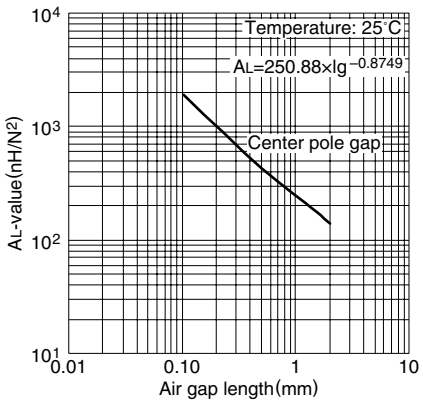
* Coil: ø0.4 2UEW 100Ts

NI limit vs. A_L-value for PC47PQ35/35 gapped core (Typical)



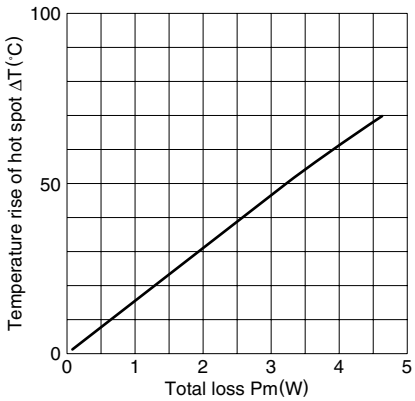
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

A_L-value vs. Air gap length for PC47PQ35/35 core (Typical)

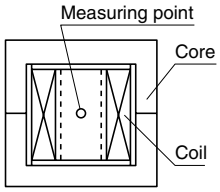


Measuring conditions
- Coil: ø0.4 2UEW 100Ts
- Frequency: 1kHz
- Level: 0.5mA

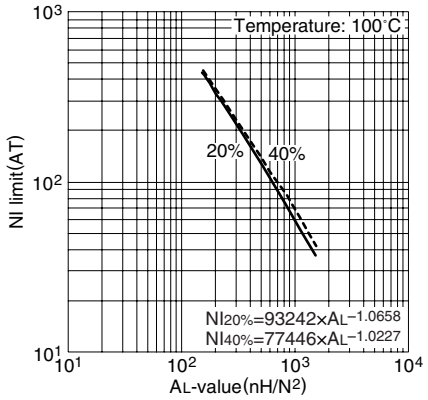
Temperature rise vs. Total loss for PQ35/35 core (Typical) (Ambient temperature: 25°C)



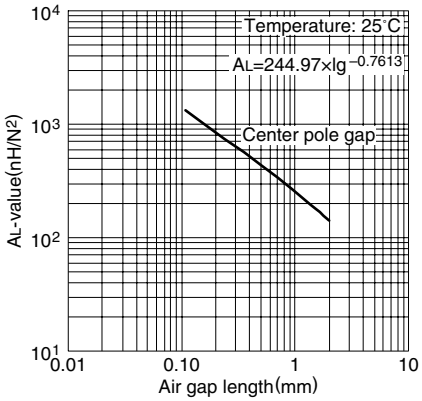
Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45(%)RH. respectively. (approx. 400×300×300cm)



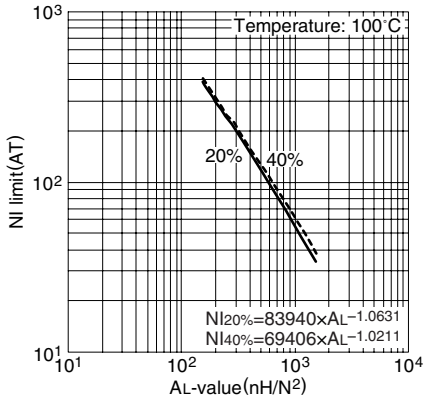
NI limit vs. AL-value for PC90PQ35/35 gapped core (Typical)



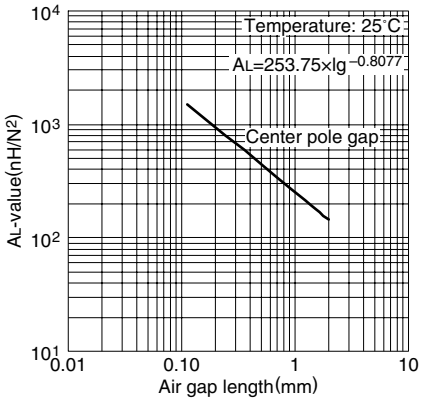
AL-value vs. Air gap length for PC90PQ35/35 core (Typical)



NI limit vs. AL-value for PC95PQ35/35 gapped core (Typical)



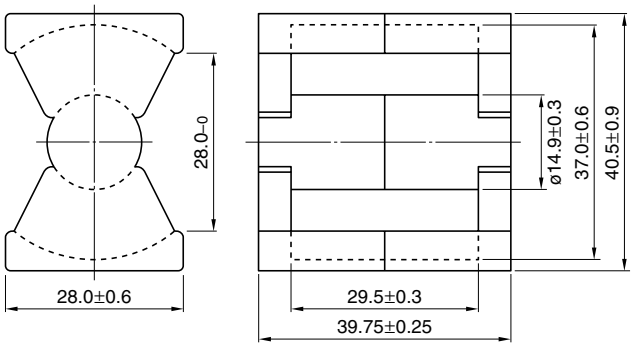
AL-value vs. Air gap length for PC95PQ35/35 core (Typical)



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

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

PQ Series PQ40/40 Cores



Dimensions in mm

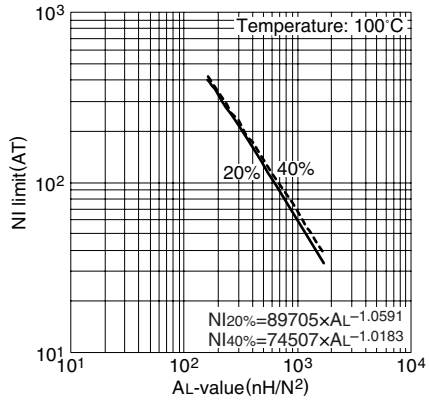
PARAMETER

Core factor	C_1	mm^{-1}	0.508
Effective magnetic path length	ℓe	mm	102
Effective cross-sectional area	Ae	mm^2	201
Effective core volume	Ve	mm^3	20500
Cross-sectional center pole area	Acp	mm^2	174
Minimum cross-sectional center pole area	Acp min.	mm^2	167
Cross-sectional winding area of core	Acw	mm^2	326
Weight (approx.)		g	95

Part No.	A_L-value (nH/N^2)*	Core loss (W) max. 100kHz, 200mT	Calculated output power (forward converter mode)
PC47PQ40/40Z-12	4300±25% (1kHz, 0.5mA)	6.21(100°C)	708W (100kHz)
PC90PQ40/40Z-12	4300±25% (1kHz, 0.5mA)	8.2(100°C)	692W
PC95PQ40/40Z-12	6400±25% (1kHz, 0.5mA)	8.87/7.45/8.87(25°C/80°C/120°C)	747W

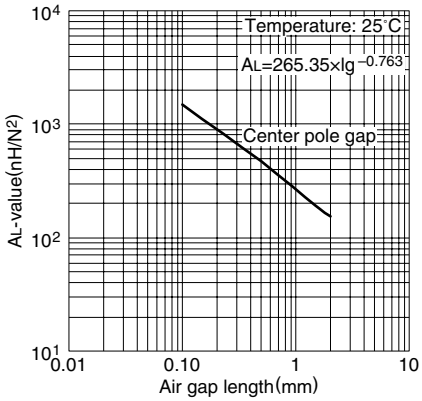
* Coil: ø0.4 2UEW 100Ts

NI limit vs. A_L-value for PC47PQ40/40 gapped core (Typical)



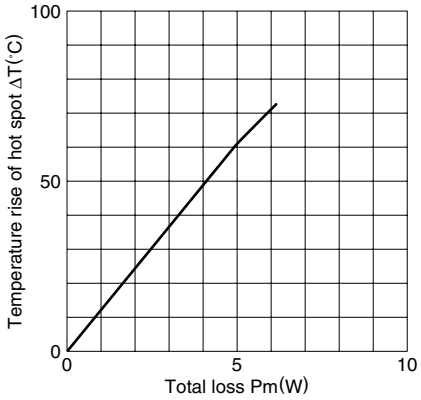
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

A_L-value vs. Air gap length for PC47PQ40/40 core (Typical)

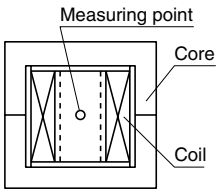


Measuring conditions
- Coil: ø0.4 2UEW 100Ts
- Frequency: 1kHz
- Level: 0.5mA

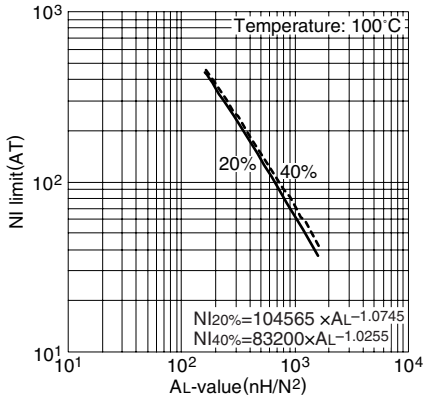
Temperature rise vs. Total loss for PQ40/40 core (Typical)



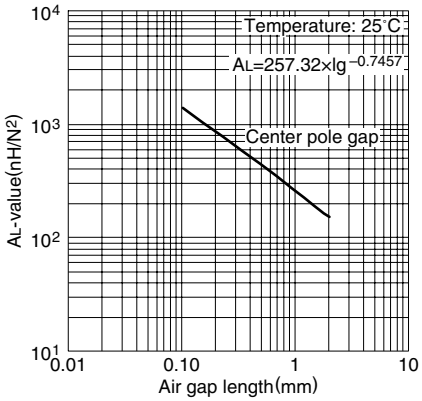
Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45(%)RH. respectively. (approx. 400×300×300cm)



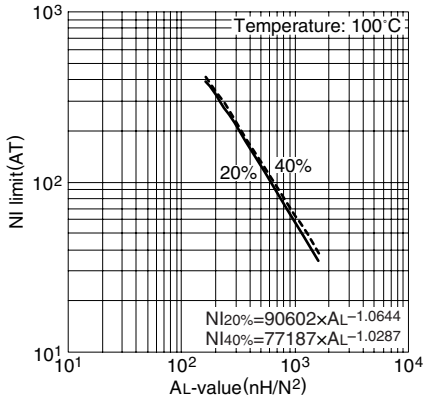
NI limit vs. AL-value for PC90PQ40/40 gapped core (Typical)



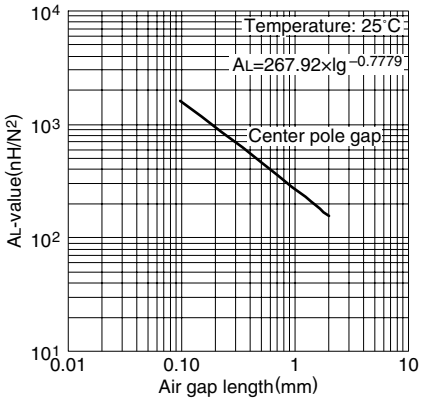
AL-value vs. Air gap length for PC90PQ40/40 core (Typical)



NI limit vs. AL-value for PC95PQ40/40 gapped core (Typical)



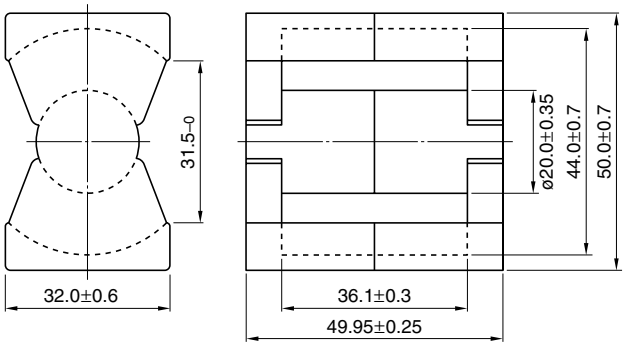
AL-value vs. Air gap length for PC95PQ40/40 core (Typical)



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

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

PQ Series PQ50/50 Cores



Dimensions in mm

PARAMETER

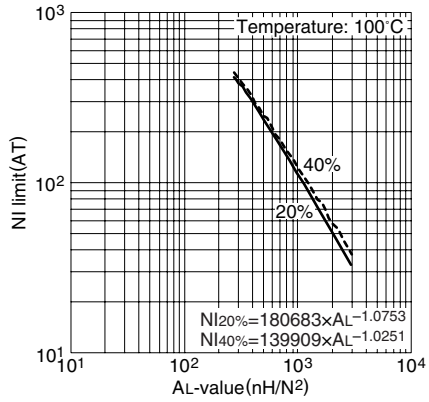
Core factor	C1	mm^{-1}	0.346
Effective magnetic path length	ℓe	mm	113
Effective cross-sectional area	Ae	mm^2	328
Effective core volume	Ve	mm^3	37200
Cross-sectional center pole area	Acp	mm^2	314
Minimum cross-sectional center pole area	Acp min.	mm^2	303
Cross-sectional winding area of core	Acw	mm^2	433
Weight (approx.)		g	195

Part No.	AL-value (nH/N^2)*	Core loss (W) max. 100kHz, 200mT	Calculated output power (forward converter mode)
PC47PQ50/50Z-12	6720±25% (1kHz, 0.5mA)	15.26(100°C)	1046W (100kHz)
PC90PQ50/50Z-12	6250±25% (1kHz, 0.5mA)	8.4(100°C)**	1045W
PC95PQ50/50Z-12	9700±25% (1kHz, 0.5mA)	9.00/7.50/9.00(25°C/80°C/120°C)**	1078W

* Coil: ø0.4 2UEW 100Ts

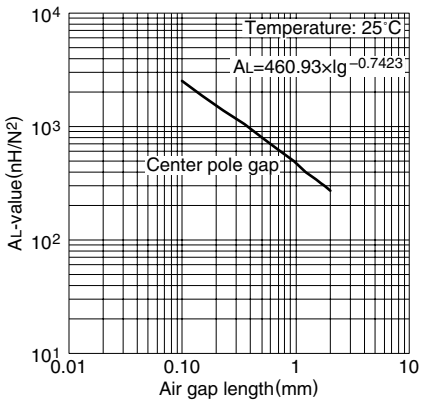
** Core loss: 100kHz, 150mT

NI limit vs. AL-value for PC47PQ50/50 gapped core (Typical)



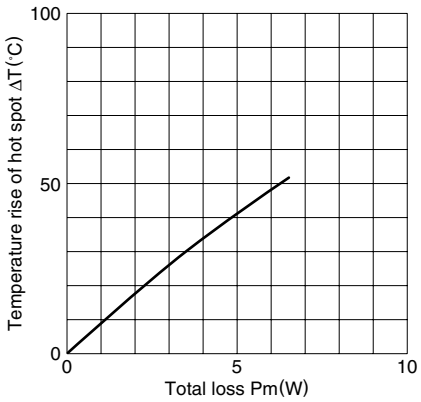
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

AL-value vs. Air gap length for PC47PQ50/50 core (Typical)

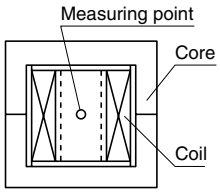


Measuring conditions
- Coil: ø0.4 2UEW 100Ts
- Frequency: 1kHz
- Level: 0.5mA

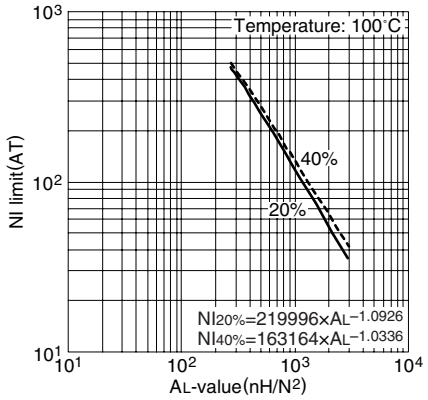
Temperature rise vs. Total loss for PQ50/50 core (Typical) (Ambient temperature: 25°C)



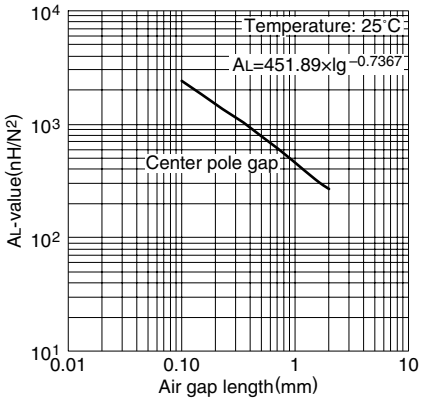
Note: The temperature rise is measured in the room whose temperature and humidity are fixed to 25°C and 45(%)RH. respectively. (approx. 400×300×300cm)



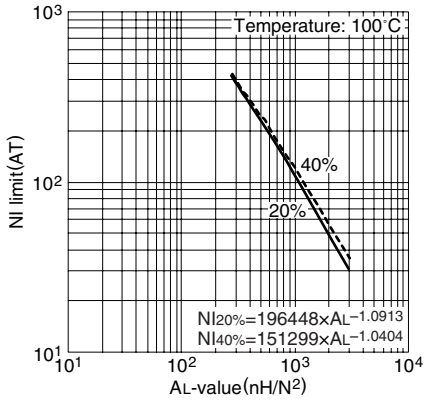
NI limit vs. AL-value for PC90PQ50/50 gapped core (Typical)



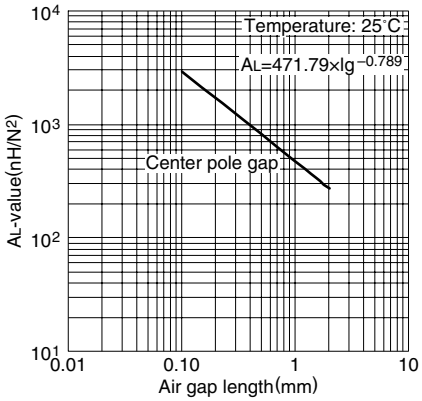
AL-value vs. Air gap length for PC90PQ50/50 core (Typical)



NI limit vs. AL-value for PC95PQ50/50 gapped core (Typical)



AL-value vs. Air gap length for PC95PQ50/50 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: ø0.4 2UEW 100Ts
- Frequency: 1kHz
- Level: 0.5mA