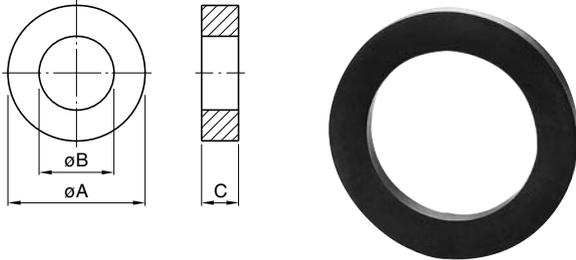


Large Size Ferrite Cores for High Power

T Series

T CORE

CORE SHAPES AND DIMENSIONS/CHARACTERISTICS



PRODUCT IDENTIFICATION

PE22 T 51 × 13 × 31
 (1) (2) (3) (4) (5)

- (1) Material name
 (2) Shape
 (3) Dimension A
 (4) Dimension C
 (5) Dimension B

Part No.	AL ^{*1} (nH/N ²) ±25%	Dimensions (mm)			Core factor		A _e (mm ²)	ℓ _e (mm)	V _e (mm ³)	Weight (g)
		øA	øB	C	C ₁ (mm ⁻¹)	C ₂ ×10 ⁻² (mm ⁻³)				
PE22 T51×13×31	2330	51.0±1.0	31.0±0.6	13.0±0.5	0.97084	0.76235	127	124	15740	80
PC40 T51×13×31	2980									
PE22 T62×13×39	2290	62.5±1.2	39.0±0.8	13.5±0.5	0.98689	0.63377	156	154	23930	121
PC40 T62×13×39	2930									
PE22 T72×20×48	2920	72.0±1.5	48.0±0.9	20.0±0.5	0.77481	0.32729	237	183	43420	217
PC40 T72×20×48	3730									
PE22 T80×20×50	3380	80.0±1.6	50.0±1.0	20.0±0.5	0.66842	0.22694	295	197	57990	294
PC40 T80×20×50	4320									
PE22 T96×20×70	2270	96.0±1.9	70.0±1.4	20.0±0.5	0.99464	0.38574	258	256	66130	325
PC40 T96×20×70	2910									
PE22 T104×20×80	1890	104.0±2.1	80.0±1.6	20.0±0.5	1.19742	0.50179	239	286	68180	333
PC40 T104×20×80	2410									
PE22 T127×20×89	2560	127.0±2.5	89.0±2.0	20.0±0.5	0.88358	0.23498	376	332	124930	619
PC40 T127×20×89	3270									
PE22 T151×20×91 ^{*2}	3610	151.0±3.0	91.5±1.4	20.0±0.5	0.62714	0.10762	583	365	212950	1088
PC40 T151×20×91 ^{*2}	4610									
PE22 T202×20×70 ^{*2}	7630	202.0±4.0	70.0±1.5	20.0±0.5	0.29644	0.02464	1203	357	429080	2710
PC40 T202×20×70 ^{*2}	9750									
PE22 T305×30×207 ^{*2}	3720	305.0±6.1	207.0±4.1	30.0±0.5	0.54036	0.03722	1452	785	1138825	5640
PC40 T305×30×207 ^{*2}	4883									

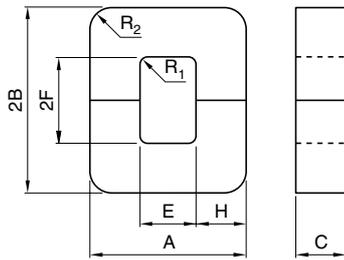
*1 Measuring condition: T=23°C, f=1kHz, H_m=0.4A/m

*2 T151×20×91, T202×20×70 and 305×30×207 are both sides grinding machined products.

UU Series

UU CORE

CORE SHAPES AND DIMENSIONS/CHARACTERISTICS



PRODUCT IDENTIFICATION

PE22 UU 79 × 129 × 31
(1) (2) (3) (4) (5)

- (1) Material name
(2) Shape
(3) Dimension A
(4) Dimension 2B
(5) Dimension C

Part No.	Al*1(nH/N ²) ±25%	Dimensions (mm)								
		A	2B	C	E	2F	H	R1	R2	Ex2F(mm ²)
PE22 UU79×129×31	4790	79.0±2.5	129.0±2.5	31.5±1.0	34.0min.	85.0±1.5	22.0±1.0	5	22	2980
PC40 UU79×129×31	6030									
PE22 UU100×151×30	5540	100.0±3.0	151.0±2.5	30.0±1.0	39.0min.	90.0±1.5	30.0±1.5	5	30	3600
PC40 UU100×151×30	6990									
PE22 UU100×160×20	3460	100.0±3.0	160.0±2.5	20.0±1.0	39.0min.	100.0±1.5	30.0±1.5	5	35	4000
PC40 UU100×160×20	4360									
PE22 UU101×115×25	4480	101.0±3.0	115.0±2.5	25.4±1.0	50.0min.	64.0±1.5	25.0±1.0	5	25	3260
PC40 UU101×115×25	5640									
PE22 UU120×160×20	3140	120.0±3.0	160.0±2.5	20.0±1.0	59.0min.	100.0±1.5	30.0±1.5	5	35	6000
PC40 UU120×160×20	3960									
PE22 UU120×310×20*2	—	120.0±3.0	310.0±2.5	20.0±1.0	59.0min.	250.0±1.5	30.0±1.5	5	35	15000
PC40 UU120×310×20*2	—									
PE22 UU80×150×30N	3570	80.0±2.5	150.0±2.5	30.0±1.0	39.0min.	110.0±1.5	20.0±1.0	1	0	4400
PC40 UU80×150×30N	4500									
PE22 UU100×151×30N	5470	100.0±3.0	151.0±2.5	30.0±1.0	39.0min.	90.0±1.5	30.0±1.5	1	1	3600
PC40 UU100×151×30N	6900									
PE22 UU101×114×25N	4425	101.2±3.0	114.0±2.5	25.4±1.0	49.5min.	63.8±1.5	25.1±1.0	0	0	3254
PC40 UU101×114×25N	5570									

*1 Measuring condition: T=23°C, f=1kHz, H_m=0.4A/m

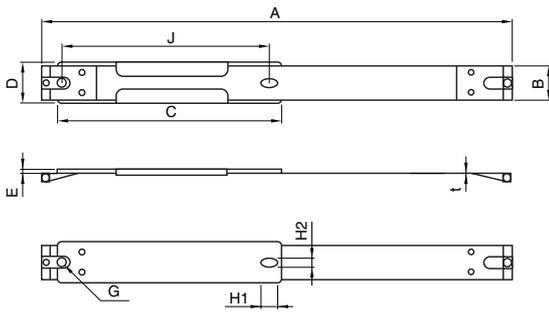
*2 UU120X310X20 is a bonded product.

Part No.	Core factor					Weight(g)
	C ₁ (mm ⁻¹)	C ₂ ×10 ⁻² (mm ⁻³)	A _e (mm ²)	ℓ _e (mm)	V _e (mm ³)	
PE22 UU79×129×31	0.44605	0.06437	693	309	214220	1080
PC40 UU79×129×31						
PE22 UU100×151×30	0.38801	0.04241	915	355	324860	1630
PC40 UU100×151×30						
PE22 UU100×160×20	0.62375	0.10396	600	374	224550	1130
PC40 UU100×160×20						
PE22 UU101×115×25	0.47757	0.07373	648	309	200350	1000
PC40 UU101×115×25						
PE22 UU120×160×20	0.69041	0.11507	600	414	248550	1240
PC40 UU120×160×20						
PE22 UU120×310×20	1.19041	0.19840	600	714	428550	2110
PC40 UU120×310×20						
PE22 UU80×150×30N	0.60472	0.00101	600	363	217700	1095
PC40 UU80×150×30N						
PE22 UU100×151×30N	0.39361	0.04373	900	354	318820	1642
PC40 UU100×151×30N						
PE22 UU101×114×25N	0.48382	0.07589	638	308	196650	1013
PC40 UU101×114×25N						

UU CORE BAND

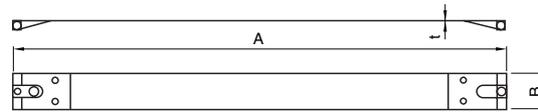
BAND SHAPES AND DIMENSIONS/CHARACTERISTICS

AH-type band



Band is optional parts.
AH-type is the band with a board.

B-type band



Band is optional parts.
B-type is the band without a board.



AH type



B type

Part No.	Dimensions (mm)									
	A	B	C	D	E	G	H1	H2	J	t
FHH 79×129AH	370	27	180	31.5	1.5	7	14	7	160	0.2
FHH 79×129B	370	27	—	—	—	—	—	—	—	0.3
FHH 100×151AH	435	27	190	31.5	1.5	7	14	7	170	0.3
FHH 100×151B	435	30	—	—	—	—	—	—	—	0.3
FHH 100×160AH	447	18	206	23.0	1.5	7	14	7	186	0.3
FHH 100×160B	447	18	—	—	—	—	—	—	—	0.3
FHH 101×115AH	380	23.4	160	28.0	1.5	7	14	7	140	0.3
FHH 101×115B	378	23.4	—	—	—	—	—	—	—	0.3
FHH 120×160AH	482	18	206	23.0	1.5	7	14	7	186	0.3
FHH 120×160B	482	18	—	—	—	—	—	—	—	0.3
FHH 120×310B	782	18	—	—	—	—	—	—	—	0.3

HANDLING INSTRUCTIONS OF UU CORE BAND

When using this product, read and follow the handling instructions below carefully to ensure the safety of the products that you design.

ASSEMBLING

- Certain parts of the ferrite core tightening band (hereinafter referred to as the "band") can be sharp. Be careful when handling these parts.
Use protective equipment such as gloves if necessary.
- When putting a band and ferrite core together, make sure that the ferrite core matches the band's size, and set the ferrite core in the correct position.
- To tighten the band, use a cross point screwdriver of the correct size equipped with a torque reading mechanism.
- The torque for tightening the band must be determined and controlled according to the band's strength, the ferrite core's size, and the usage environment.
- Take special care not to overtighten the band as this could damage the ferrite core and/or the band.
- Conversely, if the tightening torque is too low, you will not be able to secure the ferrite core properly. Take special care to avoid this as this can cause the ferrite core to become displaced, fall off, drop, or affect the ferrite core's characteristics.

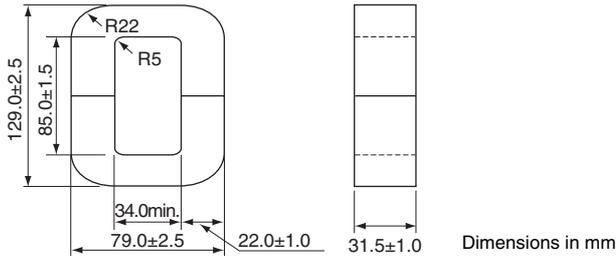
USAGE ENVIRONMENT

- Depending on the usage environment, the band may become damaged or its strength may be compromised, reducing the strength at which it can secure the ferrite core.
When using the band, make sure that it is resistant to the intended usage environment.
- The band is constructed in such a way that it can become extended or damaged when subjected to shocks, excessive loads, vibrations, temperature variations, or high and low temperatures, causing the ferrite core to become displaced, fall off, or drop.
Make sure that the strength of the band itself and the strength at which it secures the ferrite core can be maintained in the intended usage environment.
- The band is made of metal, which means it can be affected by water, chemicals and other elements, which may in turn lead to corrosion.
When using the band, make sure that it is resistant to the intended usage environment.

OTHER PRECAUTIONS

- The band is essentially a thin metal plate. Take special care to avoid accidents because its ends can behave like the tip of a whip.
Persons handling the band must take special care to protect themselves as well as others from getting injured.
- Never re-work the band or replace any parts because such actions can compromise the band's strength and lead to problems.
- Do not reuse a band that you have used once before as it may not have sufficient strength.
- Do not use the bands for purposes other than to secure ferrite cores.
The bands are not edible. Keep them out of the reach of children.

UU79X129X31



Parameter

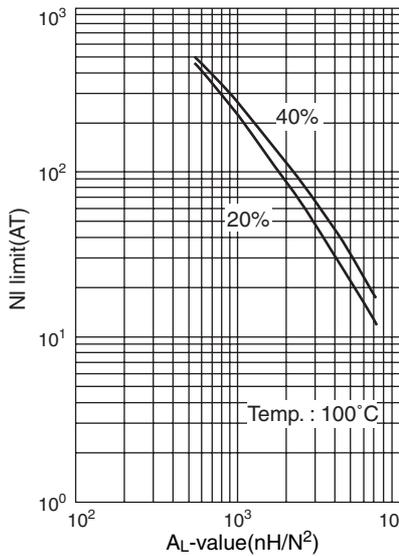
Core constant	C1	mm ⁻¹	0.44605
	C2×10 ⁻²	mm ⁻³	0.06437
Effective magnetic path length	ℓ _e	mm	309
Effective cross-sectional area	A _e	mm ²	693
Effective core volume	V _e	mm ³	214220
Minimum cross-sectional area	A _{min.*}	mm ²	693LB*
Winding cross-sectional area	A _{cw}	mm ²	2980
Weight(approx.)		g	1080

* The symbol followed A min. value shows minimum cross-sectional area part. L is outer pole part, B is the back part.

Part No.	AL-value*(nH/N ²)
PE22 UU79X129X31	4790±25%
PC40 UU79X129X31	6030±25%

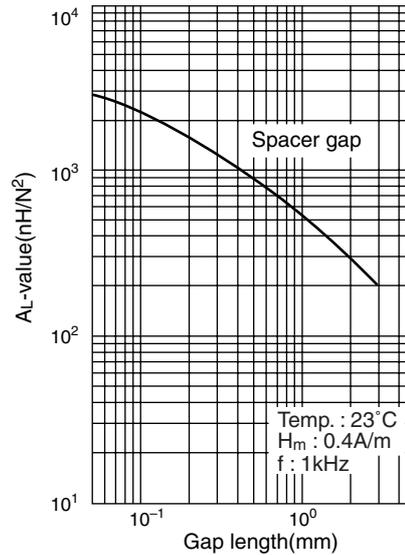
* AL-value: T=23°C, f=1kHz, H_m=0.4A/m

NI limit vs. AL-value for PE22 UU79X129X31

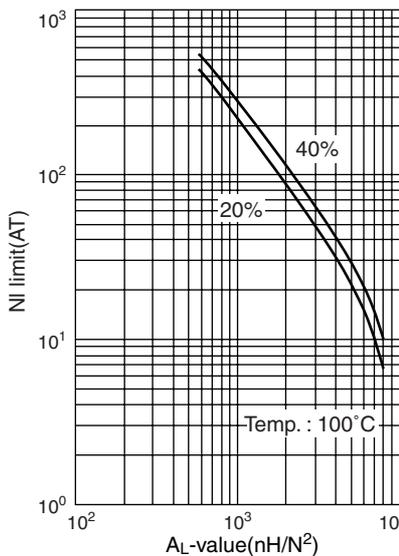


When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

AL-value vs. Air gap length for PE22 UU79X129X31

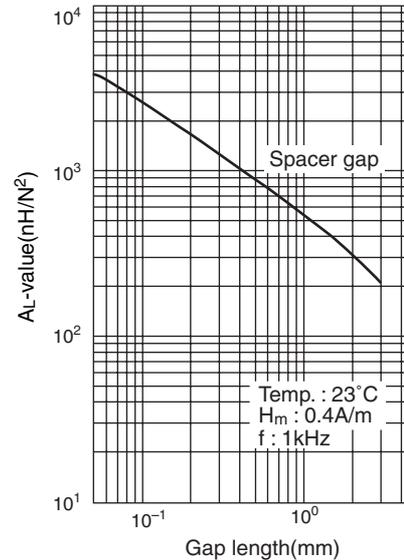


NI limit vs. AL-value for PC40 UU79X129X31

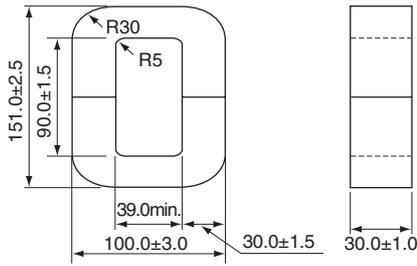


When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

AL-value vs. Air gap length for PC40 UU79X129X31



UU100X151X30



Parameter

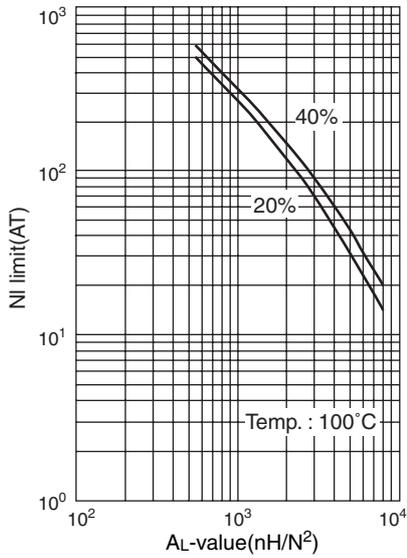
Core constant	C1	mm ⁻¹	0.38801
	C2×10 ⁻²	mm ⁻³	0.04241
Effective magnetic path length	ℓ _e	mm	355
Effective cross-sectional area	A _e	mm ²	915
Effective core volume	V _e	mm ³	324860
Minimum cross-sectional area	A _{min.*}	mm ²	900L*
Winding cross-sectional area	A _{cw}	mm ²	3600
Weight(approx.)		g	1630

* The symbol followed A min. value shows minimum cross-sectional area part.
L is outer pole part, B is the back part.

Part No.	AL-value*(nH/N ²)
PE22 UU100X151X30	5540±25%
PC40 UU100X151X30	6990±25%

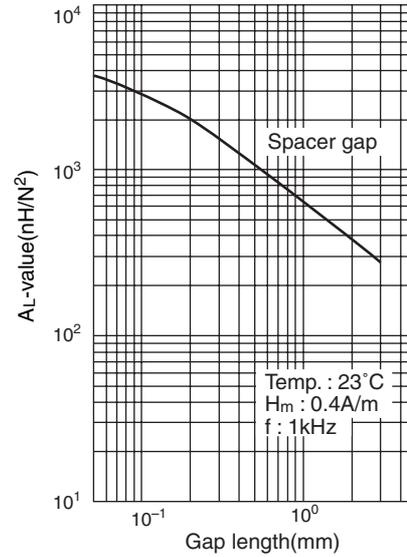
* AL-value: T=23°C, f=1kHz, H_m=0.4A/m

NI limit vs. AL-value for PE22 UU100X151X30

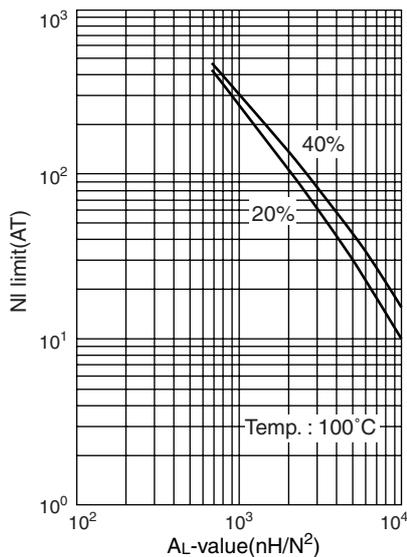


When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

AL-value vs. Air gap length for PE22 UU100X151X30

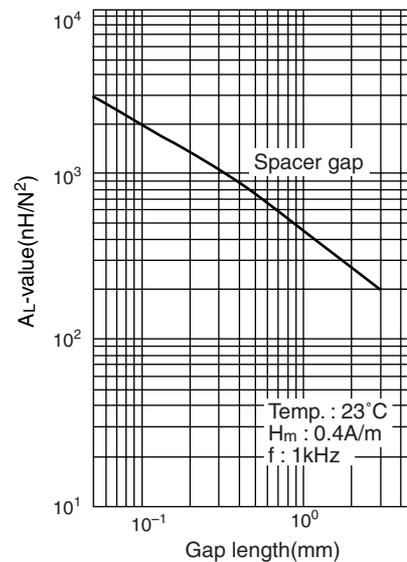


NI limit vs. AL-value for PC40 UU100X151X30

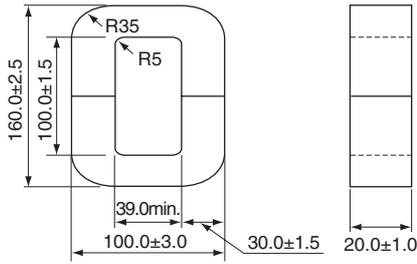


When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

AL-value vs. Air gap length for PC40 UU100X151X30



UU100X160X20



Parameter

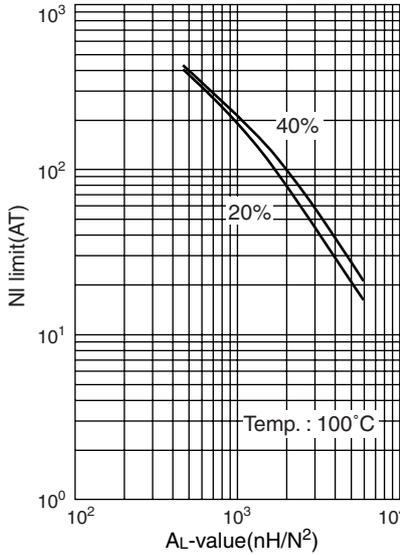
Core constant	C1	mm ⁻¹	0.62375
	C2×10 ⁻²	mm ⁻³	0.10396
Effective magnetic path length	ℓ _e	mm	374
Effective cross-sectional area	A _e	mm ²	600
Effective core volume	V _e	mm ³	224550
Minimum cross-sectional area	A _{min.*}	mm ²	600LB*
Cross-sectional winding area of core	A _{cw}	mm ²	4000
Weight(approx.)		g	1130

* The symbol followed A min. value shows minimum cross-sectional area part.
L is outer pole part, B is the back part.

Part No.	AL-value*(nH/N ²)
PE22 UU100X160X20	3460±25%
PC40 UU100X160X20	4360±25%

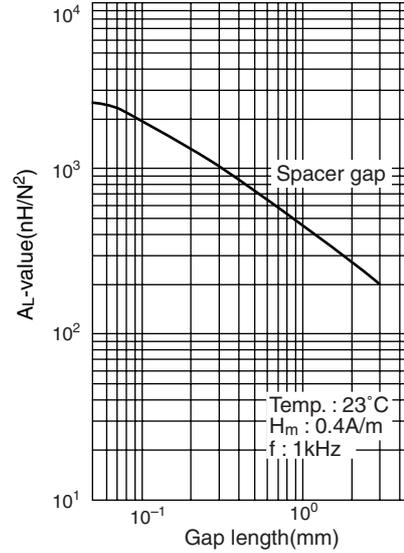
* AL-value: T=23°C, f=1kHz, H_m=0.4A/m

NI limit vs. AL-value for PE22 UU100X160X20



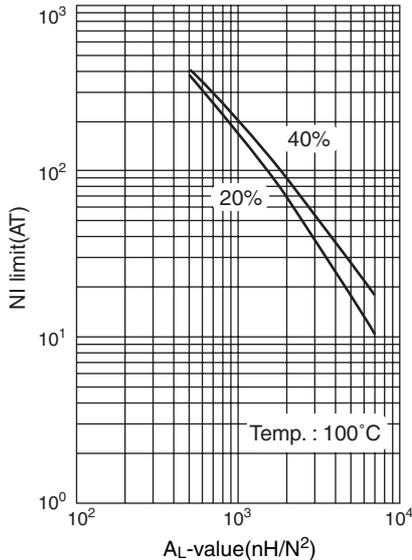
When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

AL-value vs. Air gap length for PE22 UU100X160X20



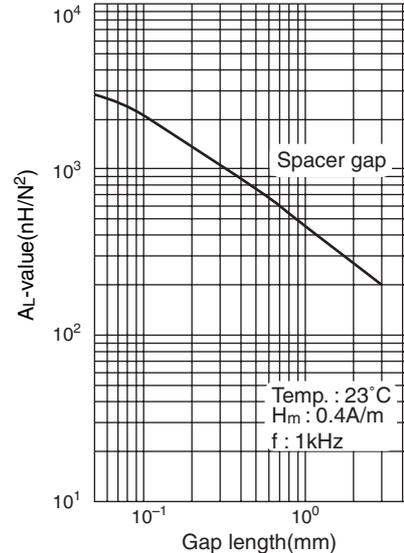
Temp. : 23°C
H_m : 0.4A/m
f : 1kHz

NI limit vs. AL-value for PC40 UU100X160X20



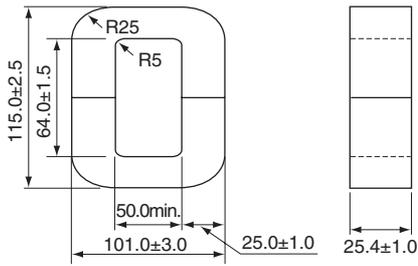
When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

AL-value vs. Air gap length for PC40 UU100X160X20



Temp. : 23°C
H_m : 0.4A/m
f : 1kHz

UU101X115X25



Parameter

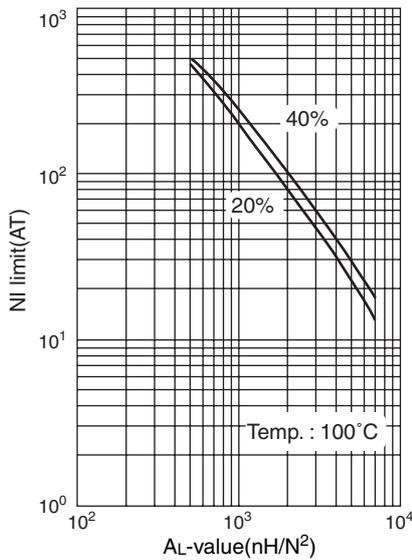
Core constant	C1	mm ⁻¹	0.47757
	C2×10 ⁻²	mm ⁻³	0.07373
Effective magnetic path length	ℓ _e	mm	309
Effective cross-sectional area	A _e	mm ²	648
Effective core volume	V _e	mm ³	200350
Minimum cross-sectional area	A _{min.*}	mm ²	635L*
Cross-sectional winding area of core	A _{cw}	mm ²	3260
Weight(approx.)	g		1000

* The symbol followed A min. value shows minimum cross-sectional area part.
L is outer pole part, B is the back part.

Part No.	AL-value*(nH/N ²)
PE22 UU101X115X25	4480±25%
PC40 UU101X115X25	5640±25%

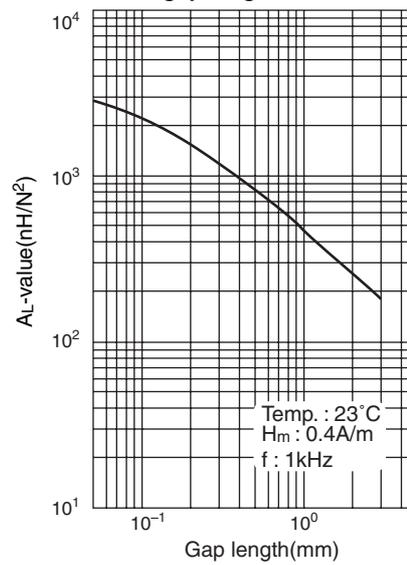
* AL-value: T=23°C, f=1kHz, H_m=0.4A/m

NI limit vs. AL-value for PE22 UU101X115X25

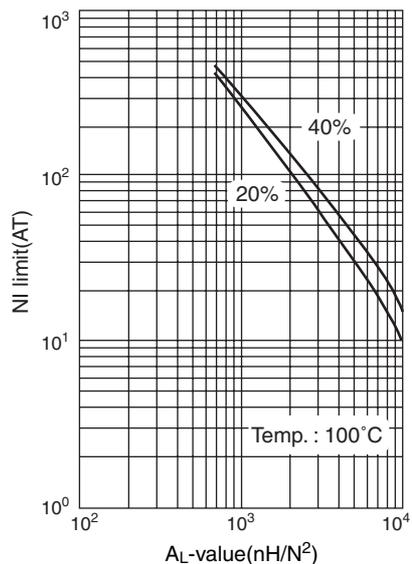


When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

AL-value vs. Air gap length for PE22 UU101X115X25

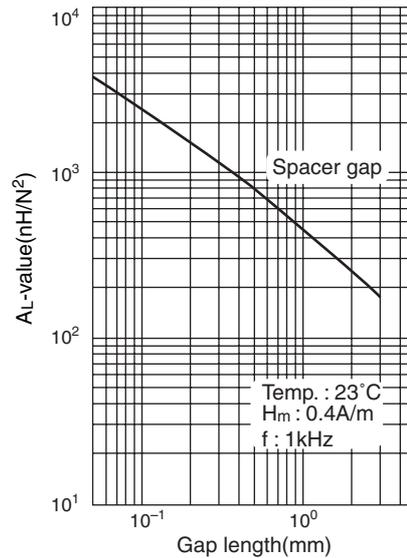


NI limit vs. AL-value for PC40 UU101X115X25

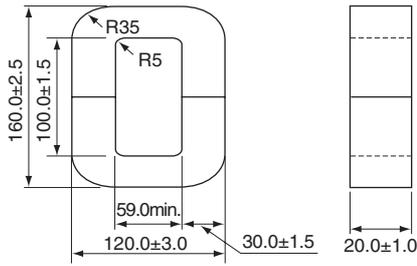


When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

AL-value vs. Air gap length for PC40 UU101X115X25



UU120X160X20



Parameter

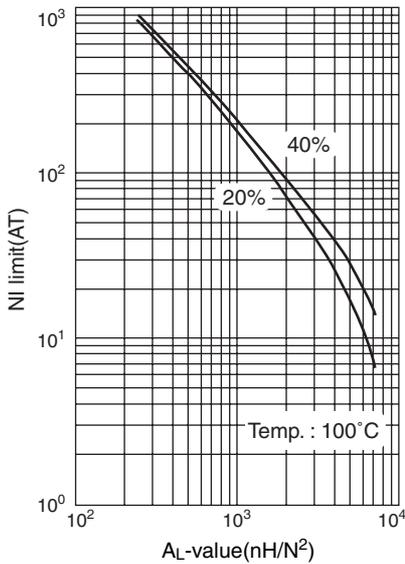
Core constant	C1	mm ⁻¹	0.69041
	C2×10 ⁻²	mm ⁻³	0.11507
Effective magnetic path length	ℓ _e	mm	414
Effective cross-sectional area	A _e	mm ²	600
Effective core volume	V _e	mm ³	248550
Minimum cross-sectional area	A _{min.*}	mm ²	600LB*
Cross-sectional winding area of core	A _{cw}	mm ²	6000
Weight(approx.)		g	1240

* The symbol followed A min. value shows minimum cross-sectional area part.
L is outer pole part, B is the back part.

Part No.	AL-value*(nH/N ²)
PE22 UU120X160X20	3140±25%
PC40 UU120X160X20	3960±25%

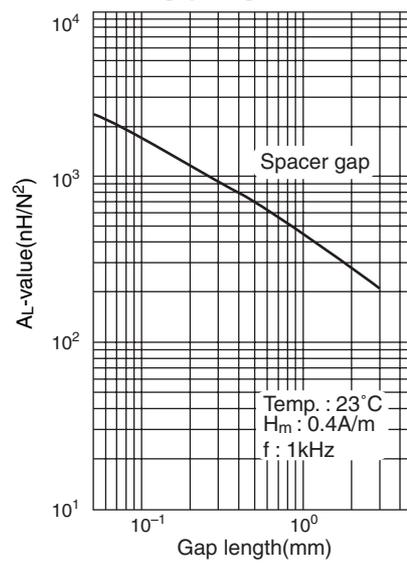
* AL-value: T=23°C, f=1kHz, H_m=0.4A/m

NI limit vs. AL-value for PE22 UU120X160X20

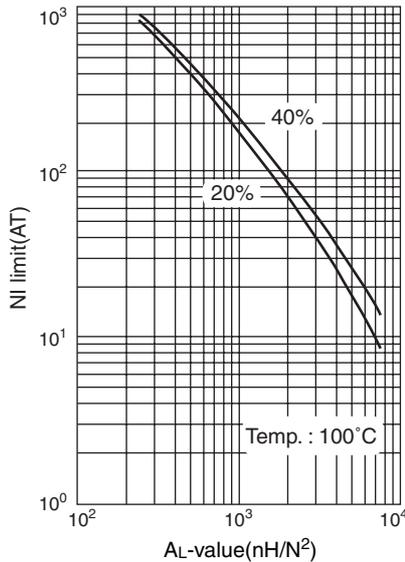


When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

AL-value vs. Air gap length for PE22 UU120X160X20

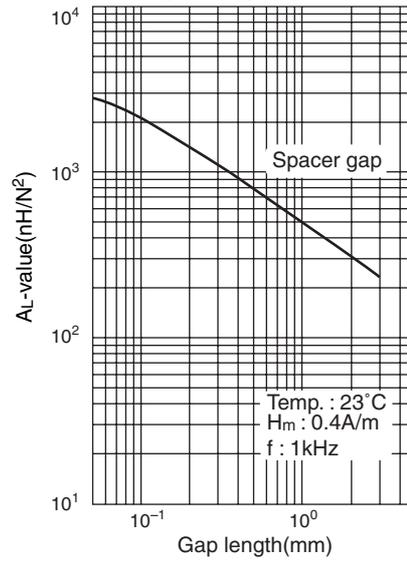


NI limit vs. AL-value for PC40 UU120X160X20

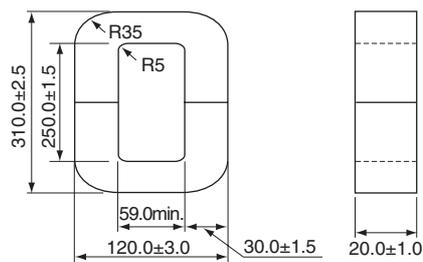


When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

AL-value vs. Air gap length for PC40 UU120X160X20



UU120X310X20



Parameter

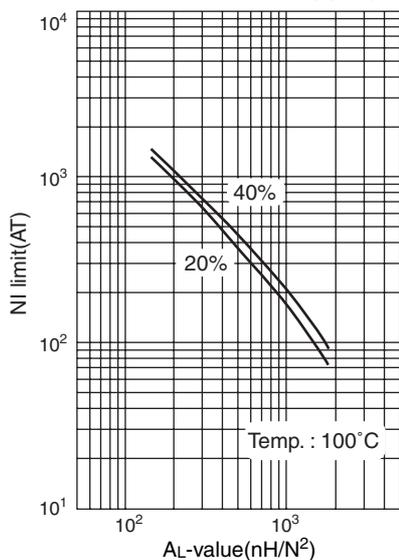
Core constant	C1	mm ⁻¹	1.19041
	C2×10 ⁻²	mm ⁻³	0.1984
Effective magnetic path length	ℓ _e	mm	714
Effective cross-sectional area	A _e	mm ²	600
Effective core volume	V _e	mm ³	428550
Minimum cross-sectional area	A _{min.*}	mm ²	600LB*
Winding cross-sectional area	A _{cw}	mm ²	15000
Weight(approx.)	g		2110

* The symbol followed A min. value shows minimum cross-sectional area part.
L is outer pole part, B is the back part.

Part No.	AL-value*(nH/N ²)
PE22 UU120X310X20	—
PC40 UU120X310X20	—

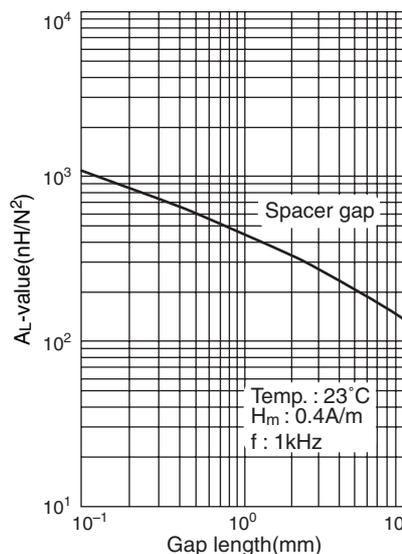
* AL-value: T=23°C, f=1kHz, H_m=0.4A/m

NI limit vs. AL-value for PE22 UU120X310X20

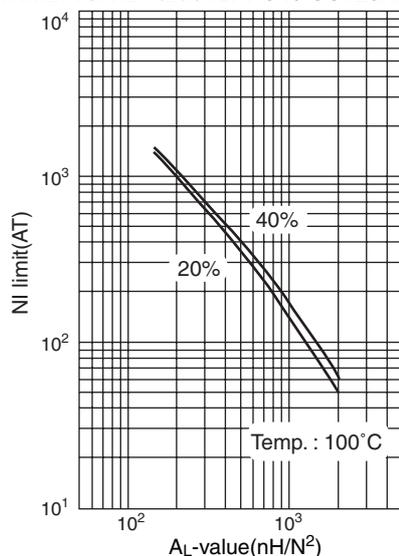


When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

AL-value vs. Air gap length for PE22 UU120X310X20

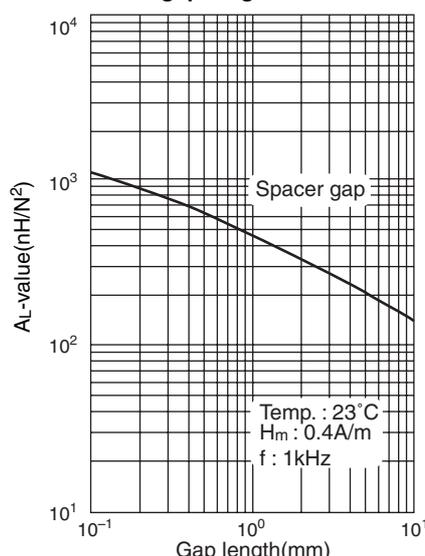


NI limit vs. AL-value for PC40 UU120X310X20



When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

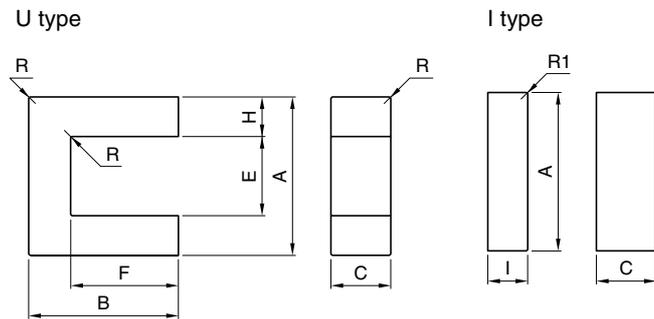
AL-value vs. Air gap length for PC40 UU120X310X20



UI Series

UI CORE

CORE SHAPES AND DIMENSIONS/CHARACTERISTICS



PRODUCT IDENTIFICATION

PE22 UI 80 × 95 × 30 N
 (1) (2) (3) (4) (5)

- (1) Material name
- (2) Shape
- (3) Dimension A
- (4) Dimension B+I
- (5) Dimension C

Part No.	AL*(nH/N ²) ±25%	Dimensions (mm)								
		A	B+I	C	E	F	H	I	R	
PE22 UI80×95×30N	5010	80.0±1.5	95.0±1.0	30.0±0.5	39.0min.	55.0±0.5	20.0±0.5	20.0±0.5	1.0max.	
PC40 UI80×95×30N	6280									
PE22 UI100×105×30N	7220	100.0±1.5	105.0±1.0	30.0±0.5	39.0min.	45.0±0.5	30.0±0.5	30.0±0.5	1.0max.	
PC40 UI100×105×30N	9065									

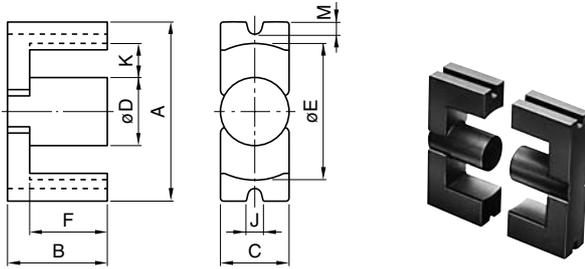
* Measuring condition: T=23°C, f=1kHz, H_m=0.4A/m

Part No.	Core factor						Weight (g)
	C ₁ (mm ⁻¹)	C ₂ ×10 ⁻² (mm ⁻³)	A _e (mm ²)	ℓ _e (mm)	V _e (mm ³)		
PE22 UI80×95×30N	0.42139	0.07023	600	253	151700	778	
PC40 UI80×95×30N							
PE22 UI100×105×30N	0.29361	0.03262	900	264	237820	1253	
PC40 UI100×105×30N							

EC Series

EC CORE

CORE SHAPES AND DIMENSIONS/CHARACTERISTICS



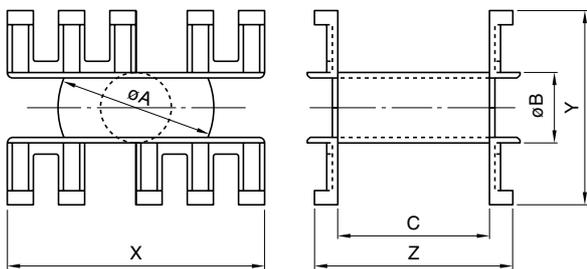
PRODUCT IDENTIFICATION

PE22 EC 90 × 90 × 30
(1) (2) (3) (4) (5)

- (1) Material name
- (2) Shape
- (3) Dimension A
- (4) Dimension B×2
- (5) Dimension C

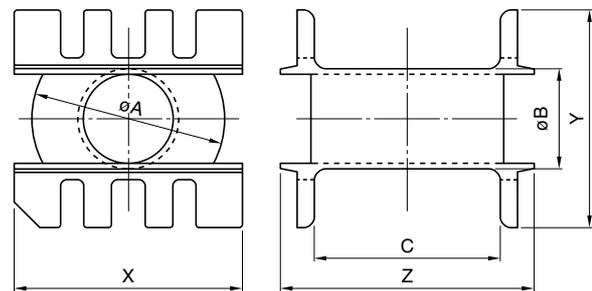
EC CORE BOBBIN

FOR EC70



Bobbin is optional parts.

FOR EC90, 120



Bobbin is optional parts.

Part No.	AL*(nH/N ²) ±25%	Dimensions (mm)										
		A	B×2	C	øD	øE	F×2	M	J	R	K	K×2F(mm ²)
PE22 EC70×69×16	3910	70.0±1.7	69.0±1.0	16.4±0.5	16.4±0.5	43.3min.	45.5±1.0	5.2	4.75	1max.	14.1	639
PC40 EC70×69×16	4845											
PE22 EC90×90×30	5925	90.0±1.8	90.0±1.3	30.0±1.0	30.0±1.0	68.5min.	71.0±1.0	5.5	6.0	1max.	20.0	1420
PC40 EC90×90×30	7415											
PE22 EC120×101×30	6395	120.0±2.0	101.0±1.3	30.0±1.0	30.0±1.0	93.3min.	71.0±1.0	5.5	6.0	1.5max.	32.5	2307
PC40 EC120×101×30	8025											

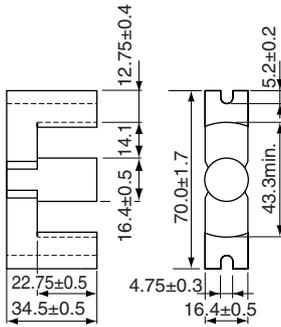
* Measuring condition: T=23°C, f=1kHz, H_m=0.4A/m

Part No.	Core factor					Weight (g)
	C ₁ (mm ⁻¹)	C ₂ ×10 ⁻² (mm ⁻³)	A _e (mm ²)	ℓ _e (mm)	V _e (mm ³)	
PE22 EC70×69×16	0.5138891	0.18322	280	144	40420	250
PC40 EC70×69×16						
PE22 EC90×90×30	0.3533380	0.05648	626	221	138270	635
PC40 EC90×90×30						
PE22 EC120×101×30	0.3300745	0.04278	772	255	196490	986
PC40 EC120×101×30						

EC CORE BOBBIN

Part No.	Dimensions (mm)							Cross-sectional winding area A _w (mm ²)	Average winding length ℓ _w (mm)	Weight (g)	Material
	øA	øB	C	X	Y	Z	t*				
BEC70	42.5±0.5	19.3±0.3	41.5±2.5	70.0±1.5	56.0±1.5	57.0±2.0	1.13	471.4	98	19.0	PBT
BEC90	67.0±0.7	35.0±0.5	65.0±3.0	79.5±0.5	76.0±1.0	89.0±2.5	1.9	1047	162	82.0	PBT

* Bobbin minimum thickness

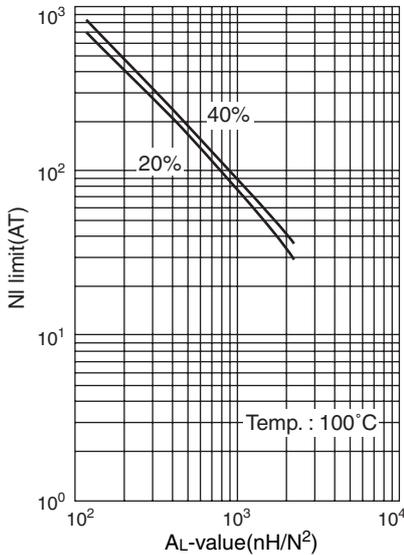
EC70X69X16

Parameter

Core constant	C ₁	mm ⁻¹	0.5138891
	C ₂ × 10 ⁻²	mm ⁻³	0.18322
Effective magnetic path length	ℓ _e	mm	144
Effective cross-sectional area	A _e	mm ²	280
Effective core volume	V _e	mm ³	40420
Cross-sectional center leg area	A _c	mm ²	211
Minimum cross-sectional area	A _{min.*}	mm ²	211C*
Winding cross-sectional area	A _{cw}	mm ²	642
Weight(approx.)		g	250

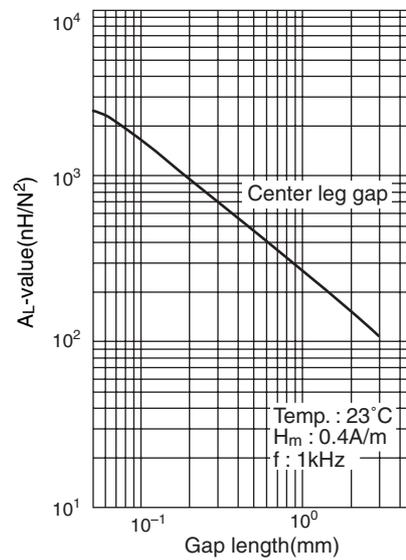
* The symbol followed A min. value shows minimum cross-sectional area part.
C is center pole part, L is outer pole part, B is the back part.

Part No.	AL-value*(nH/N ²)	Calculated output power(kW) (forward converter mode)
PE22 EC70X69X16	3910±25%	1.1(100kHz)
PC40 EC70X69X16	4845±25%	1.2(100kHz)

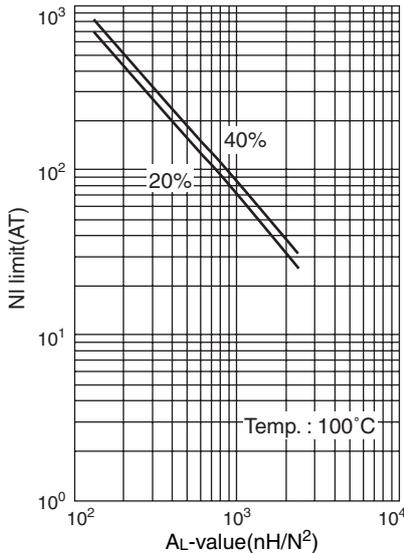
* AL-value: T=23°C, f=1kHz, H_m=0.4A/m

NI limit vs. AL-value for PE22 EC70X69X16


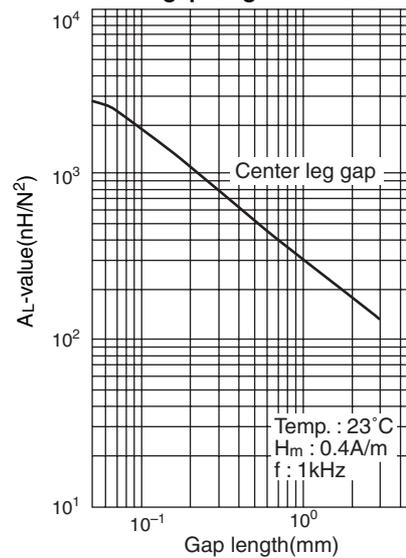
When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

AL-value vs. Air gap length for PE22 EC70X69X16


Temp. : 23°C
H_m : 0.4A/m
f : 1kHz

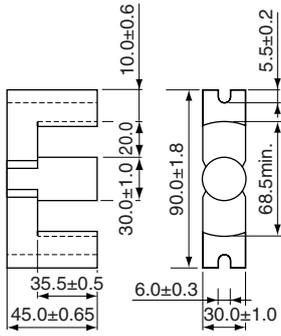
NI limit vs. AL-value for PC40 EC70X69X16


When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

AL-value vs. Air gap length for PC40 EC70X69X16


Temp. : 23°C
H_m : 0.4A/m
f : 1kHz

EC90X90X30



Parameter

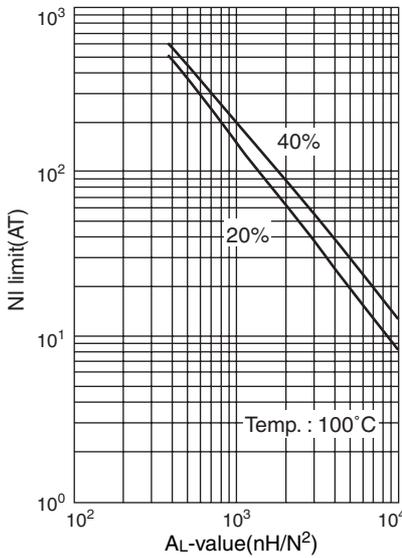
Core constant	C1	mm ⁻¹	0.3533380
	C2×10 ⁻²	mm ⁻³	0.05648
Effective magnetic path length	ℓ _e	mm	221
Effective cross-sectional area	A _e	mm ²	626
Effective core volume	V _e	mm ³	138270
Cross-sectional center leg area	A _c	mm ²	707
Minimum cross-sectional area	A _{min.*}	mm ²	570B*
Winding cross-sectional area	A _{cw}	mm ²	1420
Weight(approx.)		g	635

* The symbol followed A min. value shows minimum cross-sectional area part.
C is center pole part, L is outer pole part, B is the back part.

Part No.	AL-value*(nH/N ²)	Calculated output power(kW) (forward converter mode)
PE22 EC90X90X30	5925±25%	3.2(100kHz)
PC40 EC90X90X30	7415±25%	3.4(100kHz)

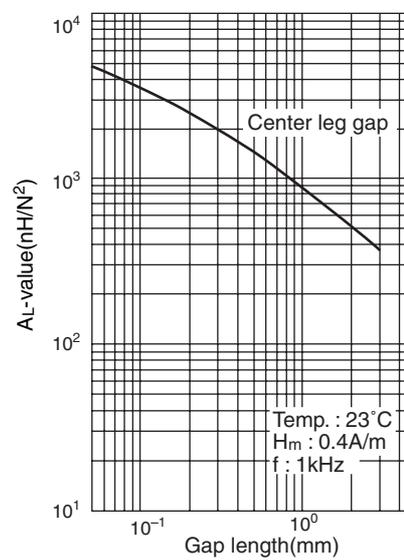
* AL-value: T=23°C, f=1kHz, H_m=0.4A/m

NI limit vs. AL-value for PE22 EC90X90X30

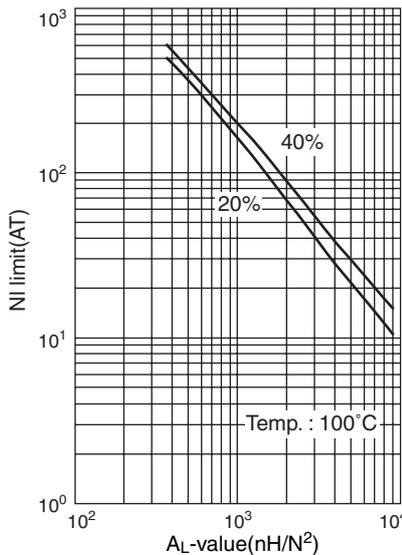


When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

AL-value vs. Air gap length for PE22 EC90X90X30

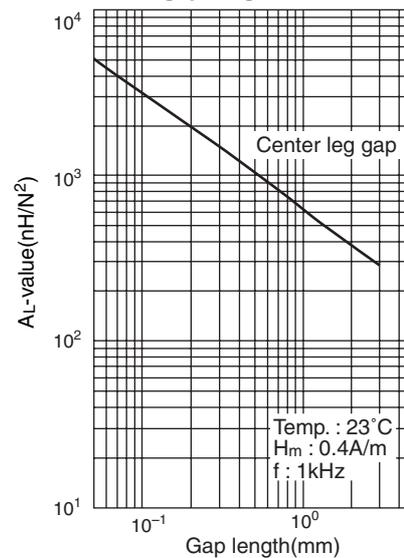


NI limit vs. AL-value for PC40 EC90X90X30

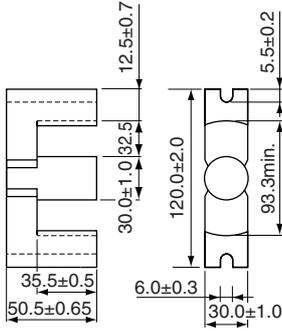


When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

AL-value vs. Air gap length for PC40 EC90X90X30



EC120X101X30



Parameter

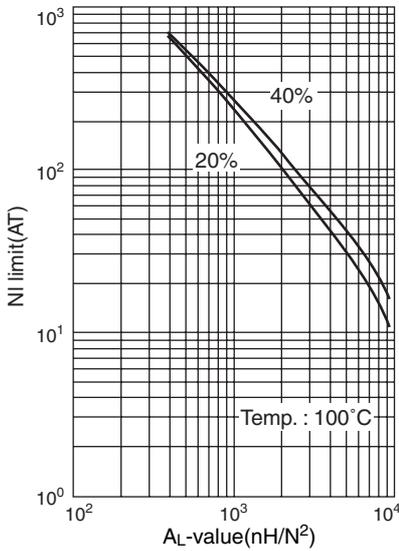
Core constant	C1	mm ⁻¹	0.3300745
	C2×10 ⁻²	mm ⁻³	0.04278
Effective magnetic path length	ℓ _e	mm	255
Effective cross-sectional area	A _e	mm ²	773
Effective core volume	V _e	mm ³	196490
Cross-sectional center leg area	A _c	mm ²	707
Minimum cross-sectional area	A _{min.*}	mm ²	707C*
Winding cross-sectional area	A _{cw}	mm ²	2307
Weight(approx.)		g	986

* The symbol followed A min. value shows minimum cross-sectional area part.
C is center pole part, L is outer pole part, B is the back part.

Part No.	AL-value*(nH/N ²)	Calculated output power(kW) (forward converter mode)
PE22 EC120X101X30	6395±25%	4.3(100kHz)
PC40 EC120X101X30	8025±25%	4.5(100kHz)

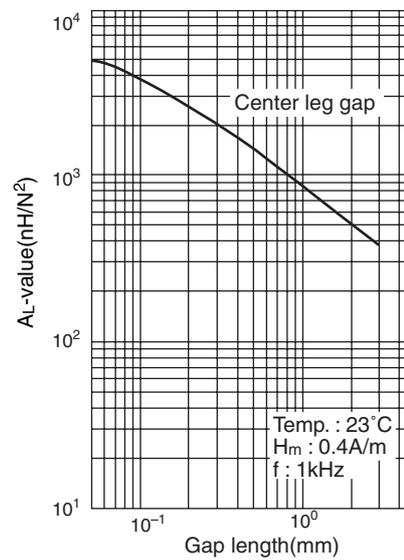
* AL-value: T=23°C, f=1kHz, H_m=0.4A/m

NI limit vs. AL-value for PE22 EC120X101X30

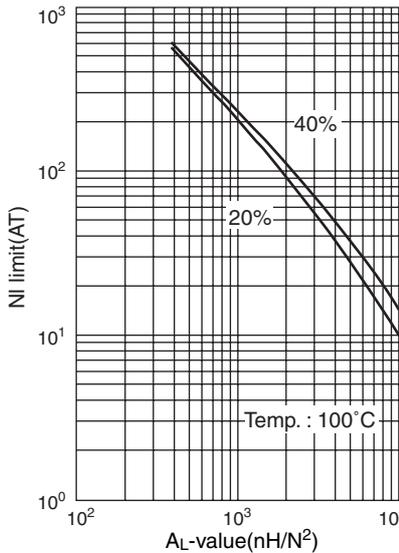


When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

AL-value vs. Air gap length for PE22 EC120X101X30

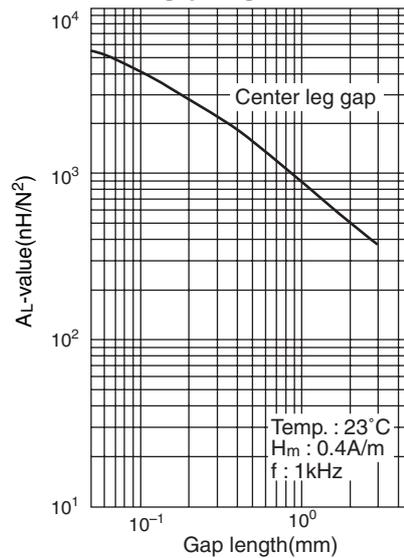


NI limit vs. AL-value for PC40 EC120X101X30



When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

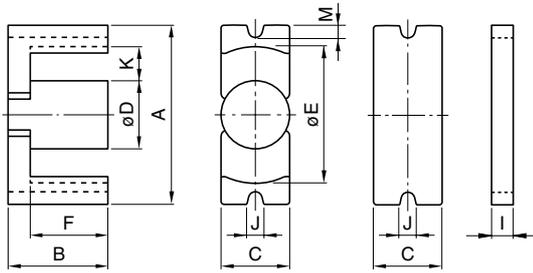
AL-value vs. Air gap length for PC40 EC120X101X30



EIC Series

EIC CORE

CORE SHAPES AND DIMENSIONS/CHARACTERISTICS



PRODUCT IDENTIFICATION

PE22 EIC 90 × 55 × 30
(1) (2) (3) (4) (5)

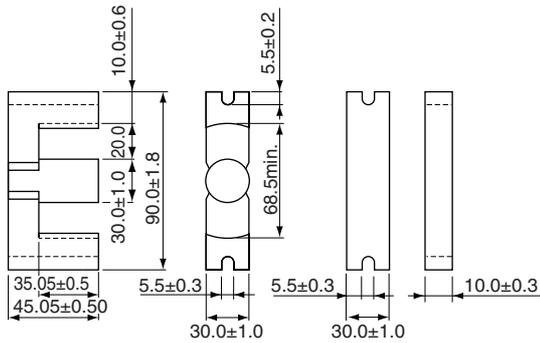
- (1) Material name
- (2) Shape
- (3) Dimension A
- (4) Dimension B+l
- (5) Dimension C

Part No.	AL* (nH/N ²) ±25%	Dimensions (mm)									
		A	B+l	C	øD	øE	F	I	M	J	K
PE22 EIC70×46×16	5550	70.0±1.7	46.25±1.0	16.4±0.5	16.4±0.5	43.3min.	22.75±0.5	11.75±0.5	5.2	4.75	14.1
PC40 EIC70×46×16	6810										
PE22 EIC90×55×30	8350	90.0±1.8	55.0±1.0	30.0±1.0	30.0±1.0	68.5min.	35.5±0.5	10.0±0.35	5.5	6.0	20.0
PC40 EIC90×55×30	10365										
PE22 EIC120×65×30	8890	120.0±2.0	65.5±1.3	30.0±1.0	30.0±1.0	93.3min.	35.5±0.5	15.0±0.65	5.5	6.0	32.5
PC40 EIC120×65×30	11085										

*Measuring condition: T=23°C, f=1kHz, H_m=0.4A/m

Part No.	Core factor					Weight (g)
	C ₁ (mm ⁻¹)	C ₂ ×10 ⁻² (mm ⁻³)	A _e (mm ²)	l _e (mm)	V _e (mm ³)	
PE22 EIC70×46×16	0.3479	0.1173	297	103	30601	188
PC40 EIC70×46×16						
PE22 EIC90×55×30	0.2422	0.0388	624	151	94432	469
PC40 EIC90×55×30						
PE22 EIC120×65×30	0.2319	0.0292	794	184	146310	747
PC40 EIC120×65×30						

EIC90X55X30



Parameter

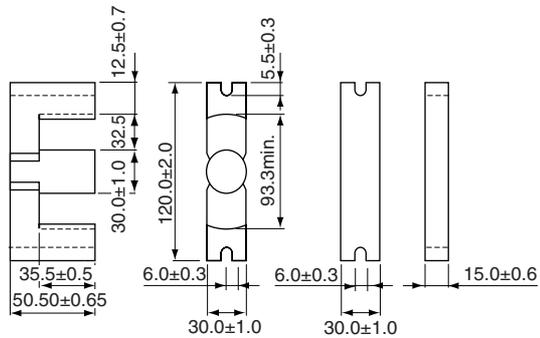
Core constant	C ₁	mm ⁻¹	0.2422
	C ₂ × 10 ⁻²	mm ⁻³	0.0388
Effective magnetic path length	ℓ _e	mm	151
Effective cross-sectional area	A _e	mm ²	624
Effective core volume	V _e	mm ³	94432
Cross-sectional center leg area	A _c	mm ²	707
Minimum cross-sectional area	A _{min.*}	mm ²	586B*
Winding cross-sectional area	A _{cw}	mm ²	710
Weight(approx.)	g		469

* The symbol followed A min. value shows minimum cross-sectional area part.
C is center pole part, L is outer pole part, B is the back part.

Part No.	AL-value*(nH/N ²)	Calculated output power(kW) (forward converter mode)
PE22 EIC90X55X30	8350±25%	1.8(100kHz)
PC40 EIC90X55X30	10365±25%	1.9(100kHz)

* AL-value: T=23°C, f=1kHz, H_m=0.4A/m

EIC120X65X30



Parameter

Core constant	C ₁	mm ⁻¹	0.2319
	C ₂ × 10 ⁻²	mm ⁻³	0.0292
Effective magnetic path length	ℓ _e	mm	184
Effective cross-sectional area	A _e	mm ²	794
Effective core volume	V _e	mm ³	146310
Cross-sectional center leg area	A _c	mm ²	707
Minimum cross-sectional area	A _{min.*}	mm ²	707C*
Cross-sectional winding area of core	A _{cw}	mm ²	1154
Weight(approx.)	g		747

* The symbol followed A min. value shows minimum cross-sectional area part.
C is center pole part, L is outer pole part, B is the back part.

Part No.	AL-value*(nH/N ²)	Calculated output power(kW) (forward converter mode)
PE22 EIC120X65X30	8890±25%	2.8(100kHz)
PC40 EIC120X65X30	11085±25%	2.9(100kHz)

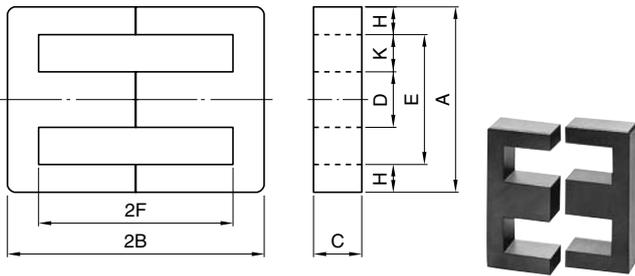
* AL-value: T=23°C, f=1kHz, H_m=0.4A/m

• Available customize core like this. Please specify when ordering.

EE Series

EE CORE

CORE SHAPES AND DIMENSIONS/CHARACTERISTICS

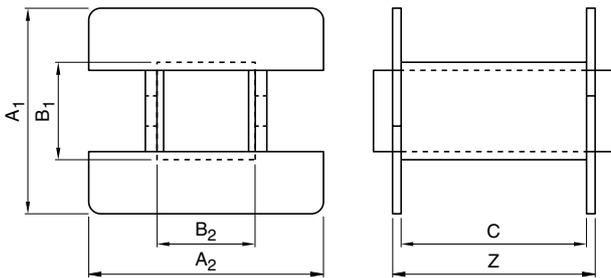


PRODUCT IDENTIFICATION

PE22 EE 320×250×20
(1) (2) (3) (4) (5)

- (1) Material name
- (2) Shape
- (3) Dimension A
- (4) Dimension 2B
- (5) Dimension C

EE CORE BOBBIN



Bobbin is optional parts.

Part No.		AL*1(nH/N ²) ±25%	Dimensions (mm)									
			A	2B	C	D	E	2F	H	R	K	K×2F(mm ²)
PE22	EE70×91×19	3930	70.0±1.5	91.0±1.0	19.5±0.5	19.5±0.5	48.5min.	71.0±1.0	10.0±0.5	0	15.3	1086
PC40	EE70×91×19	4910										
PE22	EE80×76×20	4590	80.0±1.5	76.0±1.0	20.0±0.5	20.0±0.5	58.5min.	55.0±0.8	10.0±0.5	0.5max.	20.0	1100
PC40	EE80×76×20	5720										
PE22	EE90×56×16	5960	90.0±2.0	56.4±1.0	16.5±0.5	25.0±1.0	63.0min.	30.4±1.0	12.5±0.5	0.5max.	20.0	608
PC40	EE90×56×16	7380										
PE22	EE320×250×20*2	—	320.0±5.0	250.0±1.0	20.0±1.0	100.0±2.4	217.0min.	150.0±3.0	50.0±1.0	0	60.0	7950
PC40	EE320×250×20*2	—										
PE22	EE70×108×31N	6360	70.0±1.5	108.0±1.0	31.6±0.5	22.2±0.5	46.3min.	85.6±1.0	11.1±0.5	2.0max.	12.8	1096
PC40	EE70×108×31N	7970										

**1 Measuring condition: T=23°C, f=1kHz, H_m=0.4A/m

*2 EE320x250x20-Z is a bonded product.

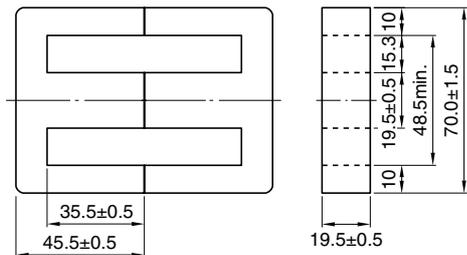
Part No.		Core factor					Weight (g)
		C ₁ (mm ⁻¹)	C ₂ ×10 ⁻² (mm ⁻³)	A _e (mm ²)	ℓ _e (mm)	V _e (mm ³)	
PE22	EE70×91×19	0.52779	0.13669	386	204	78690	394
PC40	EE70×91×19						
PE22	EE80×76×20	0.44878	0.11058	406	182	73910	372
PC40	EE80×76×20						
PE22	EE90×56×16	0.33583	0.08009	419	141	59050	306
PC40	EE90×56×16						
PE22	EE320×250×20	0.28854	0.01443	2000	577	1154160	6150
PC40	EE320×250×20						
PE22	EE70×108×31N	0.32992	0.04695	703	232	162900	815
PC40	EE70×108×31N						

EE CORE BOBBIN

Part No.	Dimensions (mm)						Cross-sectional winding area A _w (mm ²)	Average winding length ℓ _w (mm)	Weight (g)	Material
	A ₁	A ₂	B ₁	B ₂	C	Z				
BE-80-S	56.5±0.5	61.0±0.5	25.2±0.5	25.2±0.5	47.5±2.5	51.5±2.5	747	168	32	PBT
BE-80-W	56.5±0.5	81.5±0.7	25.2±0.5	45.8±0.5	47.5±2.5	51.5±2.5	747	209	41	PBT

• All specifications are subject to change without notice.

EE70X91X19



Parameter

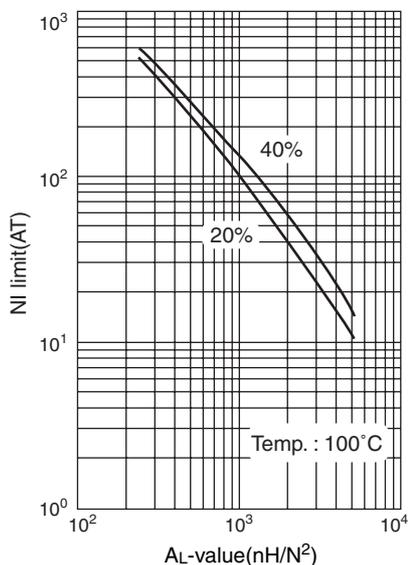
Core constant	C ₁	mm ⁻¹	0.5278
	C ₂ × 10 ⁻²	mm ⁻³	0.1367
Effective magnetic path length	ℓ _e	mm	204
Effective cross-sectional area	A _e	mm ²	386
Effective core volume	V _e	mm ³	78690
Cross-sectional center leg area	A _c	mm ²	380
Minimum cross-sectional area	A _{min.*}	mm ²	380C*
Winding cross-sectional area	A _{cw}	mm ²	1086
Weight(approx.)	g		394

* The symbol followed A min. value shows minimum cross-sectional area part.
C is center pole part, L is outer pole part, B is the back part.

Part No.	AL-value*(nH/N ²)	Calculated output power(kW) (forward converter mode)
PE22 EE70X91X19	3930±25%	1.4(100kHz)
PC40 EE70X91X19	4910±25%	1.6(100kHz)

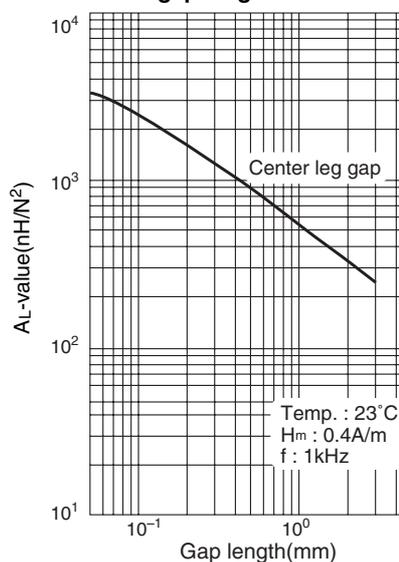
* AL-value: T=23°C, f=1kHz, H_m=0.4A/m

NI limit vs. AL-value for PE22 EE70X91X19

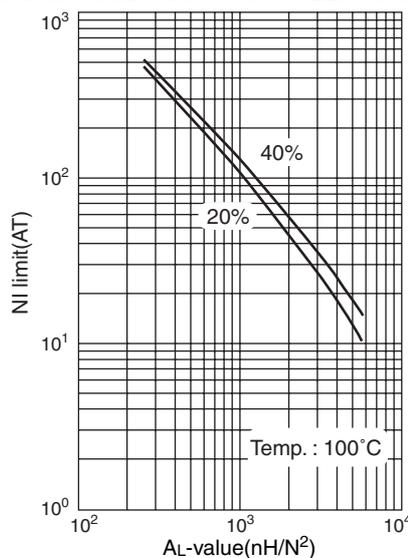


When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

AL-value vs. Air gap length for PE22 EE70X91X19

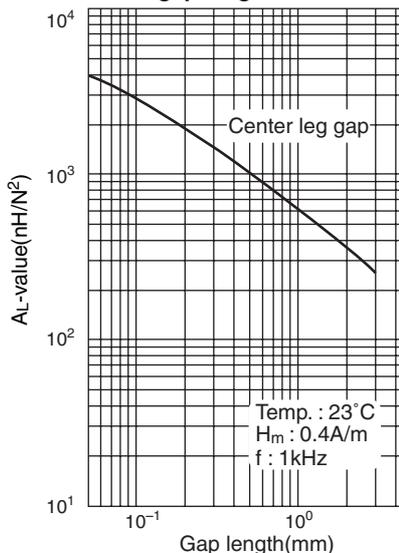


NI limit vs. AL-value for PC40 EE70X91X19

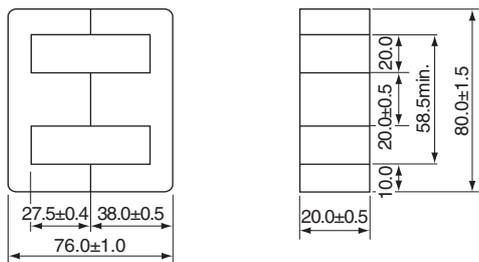


When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

AL-value vs. Air gap length for PC40 EE70X91X19



EE80X76X20



Parameter

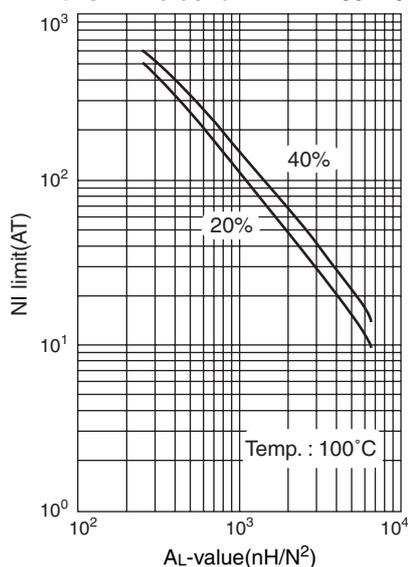
Core constant	C ₁	mm ⁻¹	0.44878
	C ₂ × 10 ⁻²	mm ⁻³	0.1106
Effective magnetic path length	ℓ _e	mm	182
Effective cross-sectional area	A _e	mm ²	406
Effective core volume	V _e	mm ³	73910
Cross-sectional center leg area	A _c	mm ²	400
Minimum cross-sectional area	A _{min.*}	mm ²	400LC*
Winding cross-sectional area	A _{cw}	mm ²	1100
Weight(approx.)	g		372

* The symbol followed A min. value shows minimum cross-sectional area part. C is center pole part, L is outer pole part, B is the back part.

Part No.	AL-value*(nH/N ²)	Calculated output power(kW) (forward converter mode)
PE22 EE80X76X20	4590±25%	1.4(100kHz)
PC40 EE80X76X20	5720±25%	1.5(100kHz)

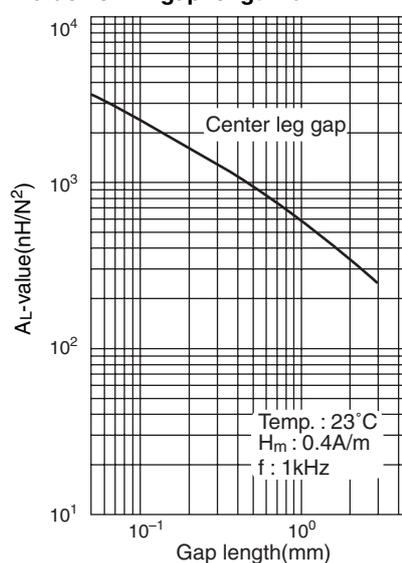
* AL-value: T=23°C, f=1kHz, H_m=0.4A/m

NI limit vs. AL-value for PE22 EE80X76X20

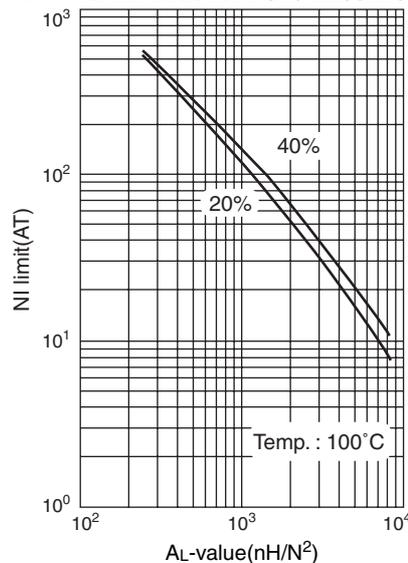


When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

AL-value vs. Air gap length for PE22 EE80X76X20

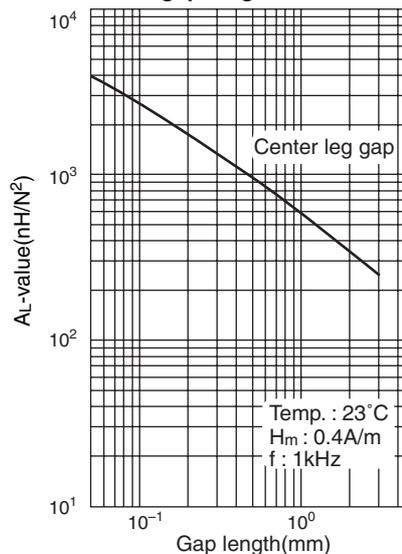


NI limit vs. AL-value for PC40 EE80X76X20

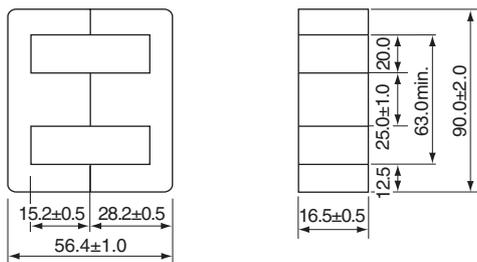


When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

AL-value vs. Air gap length for PC40 EE80X76X20



EE90X56X16



Parameter

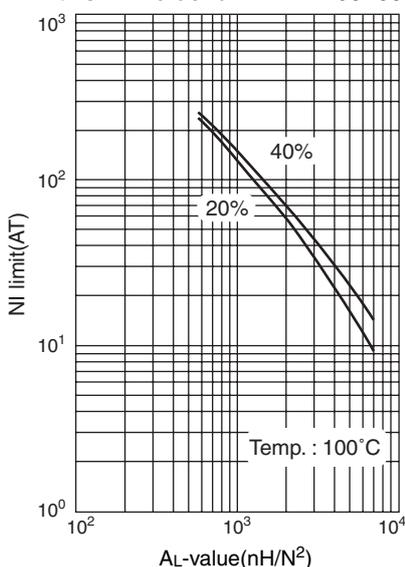
Core constant	C ₁	mm ⁻¹	0.33583
	C ₂ × 10 ⁻²	mm ⁻³	0.0801
Effective magnetic path length	ℓ _e	mm	141
Effective cross-sectional area	A _e	mm ²	419
Effective core volume	V _e	mm ³	59050
Cross-sectional center leg area	A _c	mm ²	413
Minimum cross-sectional area	A _{min.*}	mm ²	413LC*
Winding cross-sectional area	A _{cw}	mm ²	608
Weight(approx.)	g		306

* The symbol followed A min. value shows minimum cross-sectional area part. C is center pole part, L is outer pole part, B is the back part.

Part No.	AL-value*(nH/N ²)	Calculated output power(kW) (forward converter mode)
PE22 EE90X56X16	5960±25%	1.2(100kHz)
PC40 EE90X56X16	7380±25%	1.3(100kHz)

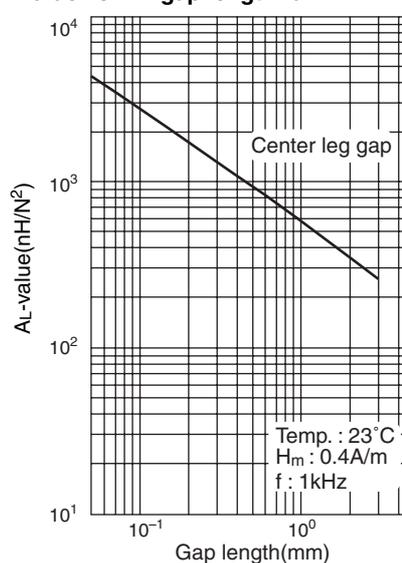
* AL-value: T=23°C, f=1kHz, H_m=0.4A/m

NI limit vs. AL-value for PE22 EE90X56X16

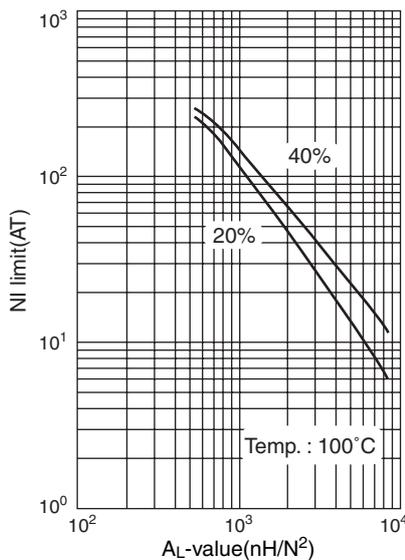


When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

AL-value vs. Air gap length for PE22 EE90X56X16

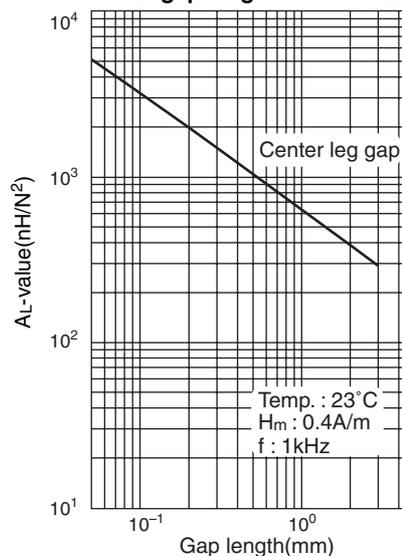


NI limit vs. AL-value for PC40 EE90X56X16

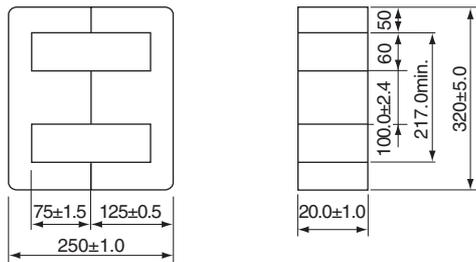


When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

AL-value vs. Air gap length for PC40 EE90X56X16



EE320X250X20



Parameter

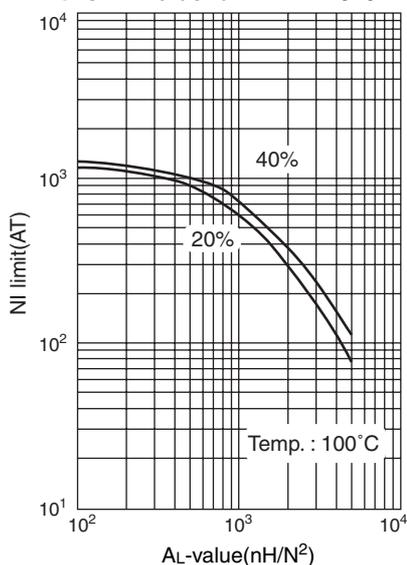
Core constant	C ₁	mm ⁻¹	0.28854
	C ₂ × 10 ⁻²	mm ⁻³	0.01443
Effective magnetic path length	ℓ _e	mm	577
Effective cross-sectional area	A _e	mm ²	2000
Effective core volume	V _e	mm ³	1154160
Cross-sectional center leg area	A _c	mm ²	2000
Minimum cross-sectional area	A _{min.*}	mm ²	2000BCL*
Winding cross-sectional area	A _{cw}	mm ²	9000
Weight(approx.)		g	6150

* The symbol followed A min. value shows minimum cross-sectional area part. C is center pole part, L is outer pole part, B is the back part.

Part No.	AL-value*(nH/N ²)	Calculated output power(kW) (forward converter mode)
PE22 EE320X250X20	—	16.7(100kHz)
PC40 EE320X250X20	—	19.3(100kHz)

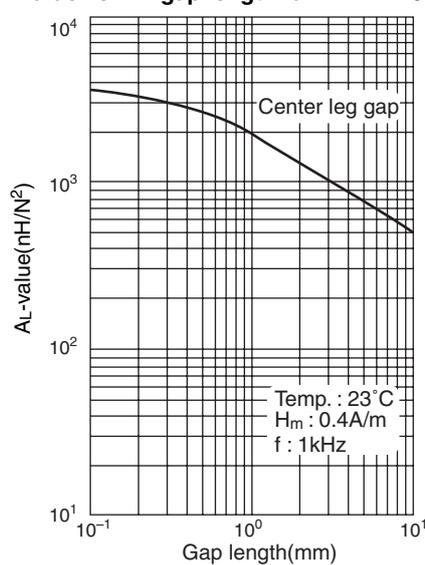
* AL-value: T=23°C, f=1kHz, H_m=0.4A/m

NI limit vs. AL-value for PE22 EE320X250X20

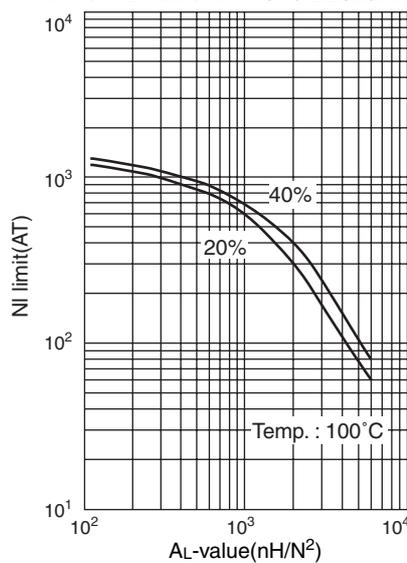


When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

AL-value vs. Air gap length for PE22 EE320X250X20

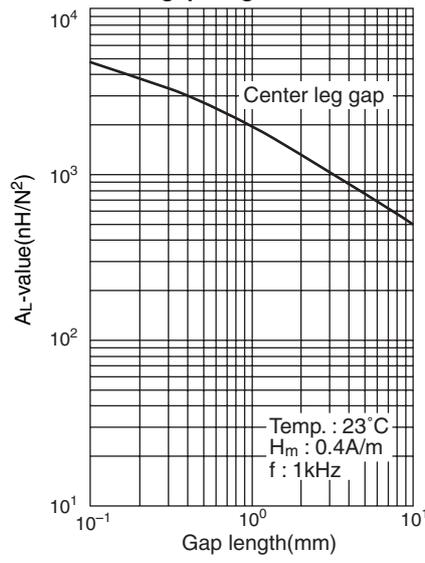


NI limit vs. AL-value for PC40 EE320X250X20



When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

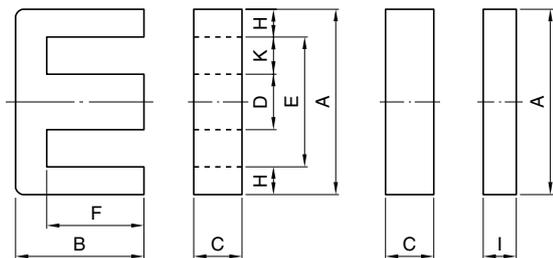
AL-value vs. Air gap length for PC40 EE320X250X20



EI Series

EI CORE

CORE SHAPES AND DIMENSIONS/CHARACTERISTICS



PRODUCT IDENTIFICATION

$\frac{PE22}{(1)}$
 $\frac{EI}{(2)}$
 $\frac{70 \times 55 \times 19}{(3) \quad (4) \quad (5)}$

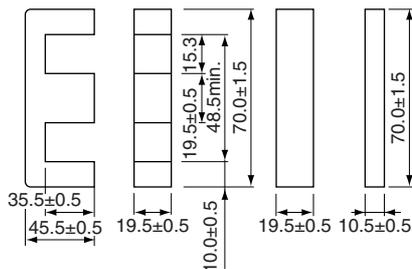
- (1) Material name
 (2) Shape
 (3) Dimension A
 (4) Dimension B+l
 (5) Dimension C

Part No.	AL*(nH/N ²) ±25%	Dimensions (mm)										
		A	B+l	C	D	E	F	H	I	R	K	K×F(mm ²)
PE22 EI70×55×19	5880	70.0±1.5	55.5±1.0	19.5±0.5	19.5±0.5	48.5min.	35.0±0.5	10.0±0.5	10.5±0.5	0.5max.	15.3	536
PC40 EI70×55×19	7270											
PE22 EI70×64×31N	9585	70.0±1.5	64.4±1.0	31.6±0.5	22.2±0.5	46.3min.	42.8±0.5	11.1±0.5	10.4±0.5	2.0max.	12.8	548
PC40 EI70×64×31N	11885											

* Measuring condition: T=23°C, f=1kHz, H_m=0.4A/m

Part No.	Core factor					Weight (g)
	C ₁ (mm ⁻¹)	C ₂ ×10 ⁻² (mm ⁻³)	A _e (mm ²)	ℓ _e (mm)	V _e (mm ³)	
PE22 EI70×55×19	0.33894	0.08693	390	132	51520	266
PC40 EI70×55×19						
PE22 EI70×64×31N	0.20929	0.03010	695	146	101200	519
PC40 EI70×64×31N						

EI70X55X19



Parameter

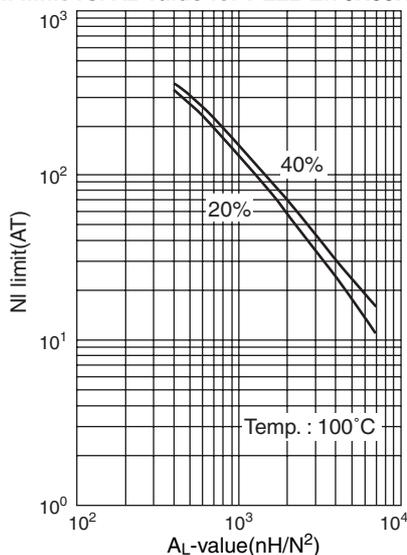
Core constant	C1	mm ⁻¹	0.33894
	C2×10 ⁻²	mm ⁻³	0.08693
Effective magnetic path length	ℓ _e	mm	132
Effective cross-sectional area	A _e	mm ²	390
Effective core volume	V _e	mm ³	51520
Cross-sectional center leg area	A _c	mm ²	380
Minimum cross-sectional area	A _{min.*}	mm ²	380C*
Winding cross-sectional area	A _{cw}	mm ²	543
Weight(approx.)	g		266

* The symbol followed A min. value shows minimum cross-sectional area part.
C is center pole part, L is outer pole part, B is the back part.

Part No.	AL-value*(nH/N ²)	Calculated output power(kW) (forward converter mode)
PE22 EI70X55X19	5880±25%	1.4(100kHz)
PC40 EI70X55X19	7270±25%	1.6(100kHz)

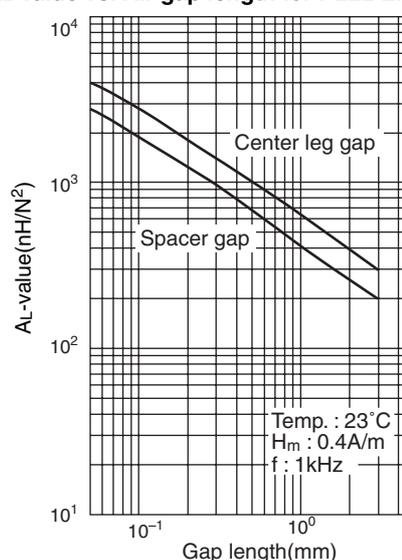
* AL-value: T=23°C, f=1kHz, H_m=0.4A/m

NI limit vs. AL-value for PE22 EI70X55X19



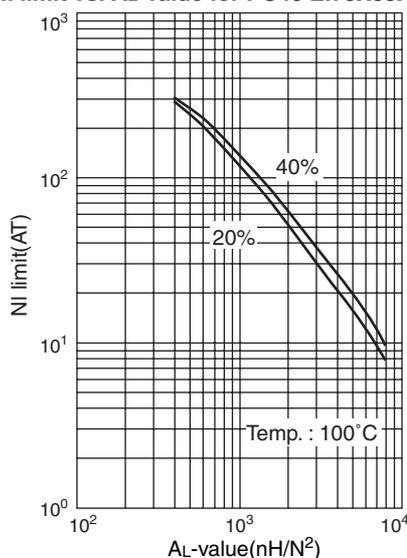
When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

AL-value vs. Air gap length for PE22 EI70X55X19



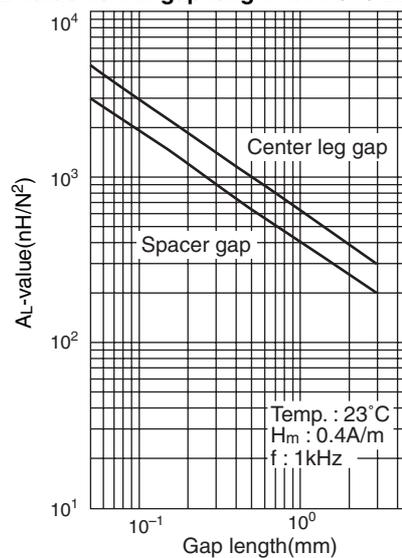
Temp. : 23°C
H_m : 0.4A/m
f : 1kHz

NI limit vs. AL-value for PC40 EI70X55X19



When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

AL-value vs. Air gap length for PC40 EI70X55X19

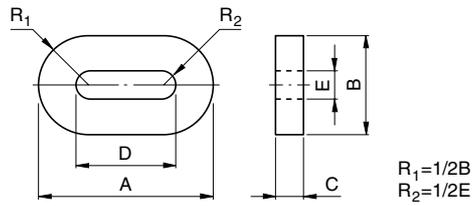


Temp. : 23°C
H_m : 0.4A/m
f : 1kHz

DT Series

DT CORE

CORE SHAPES AND DIMENSIONS/CHARACTERISTICS



PRODUCT IDENTIFICATION

PE22 DT 138 × 20 × 58
(1) (2) (3) (4) (5)

- (1) Material name
- (2) Shape
- (3) Dimension A
- (4) Dimension C
- (5) Dimension D

Part No.	AL ^{*1} (nH/N ²) ±25%	Dimensions (mm)				
		A	B	C	D	E
PE22 DT138×20×58 ^{*2}	6680	138.0±2.8	104.0±2.1	20.0±0.4	58.0±1.5	24.7±0.5
PC40 DT138×20×58 ^{*2}	8540					
PE22 DT200×20×102 ^{*2}	5630	200.0±5.0	130.0±3.0	20.0±0.4	102.0±2.5	31.5±1.0
PC40 DT200×20×102 ^{*2}	7200					

*1 Measuring condition: T=23°C, f=1kHz, H_m=0.4A/m

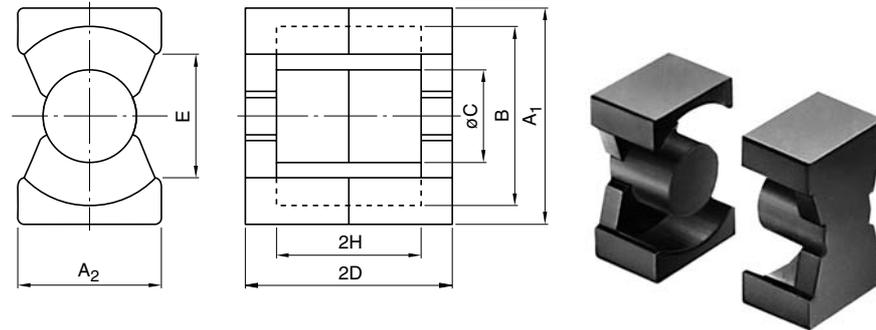
*2 DT138×20×58 and DT200×20×102 are both sides grinding machined products.

Part No.	Core factor					Weight (g)
	C ₁ (mm ⁻¹)	C ₂ ×10 ⁻² (mm ⁻³)	A _e (mm ²)	ℓ _e (mm)	V _e (mm ³)	
PE22 DT138×20×58	0.33806	0.04235	798	270	215000	1020
PC40 DT138×20×58						
PE22 DT200×20×102	0.40121	0.04087	982	394	387000	1870
PC40 DT200×20×102						

PQ Series

PQ CORE

CORE SHAPES AND DIMENSIONS/CHARACTERISTICS

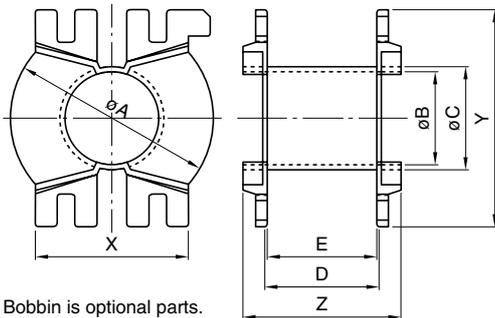


PRODUCT IDENTIFICATION

PE22	PQ	$\frac{78}{(3)}$	$\times \frac{39}{(4)}$	$\times \frac{42}{(5)}$
(1)	(2)	(3)	(4)	(5)

- (1) Material name
- (2) Shape
- (3) Dimension A₁
- (4) Dimension 2D
- (5) Dimension A₂

PQ CORE BOBBIN



Bobbin is optional parts.

Part No.	AL*(nH/N ²) ±25%	Dimensions (mm)							
		A ₁	A ₂	B	øC	2D	E	2H	
PE22 PQ78×39×42	7940	78.5±1.5	42.0±0.8	69.0min.	25.5±0.5	39.4±0.6	60.0min.	25.8±1.0	
PC40 PQ78×39×42	9790								
PE22 PQ107×87×70	14570	107.0±2.0	70.0±1.5	93.7min.	41.0±1.0	87.0±1.5	72.5min.	56.0±1.5	
PC40 PQ107×87×70	18210								

* Measuring condition: T=23°C, f=1kHz, H_m=0.4A/m

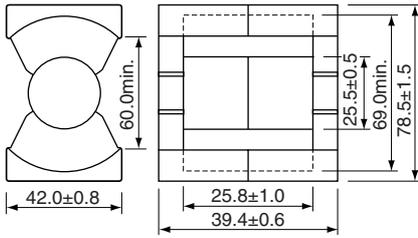
Part No.	Core factor						Weight(g)
	C ₁ (mm ⁻¹)	C ₂ ×10 ⁻² (mm ⁻³)	A _e (mm ²)	ℓ _e (mm)	V _e (mm ³)		
PE22 PQ78×39×42	0.24730	0.051530	480	119	56900	304	
PC40 PQ78×39×42							
PE22 PQ107×87×70	0.14260	0.009989	1428	204	290600	1560	
PC40 PQ107×87×70							

PQ CORE BOBBIN

Part No.	Dimensions (mm)								Cross-sectional winding area A _w (mm ²)	Average winding length ℓ _w (mm)	Material
	øA	øB	øC	D	E	X	Y	Z			
BPQ78	67.8±0.3	30.2±0.5	26.8±0.5	23.5±2.0	20.0±2.0	57.5±0.5	78.0±0.5	31.0±2.0	377	154	PBT
BPQ107	92.5±0.5	42.7±0.5	46.7±0.5	53.5±2.5	49.5±3.0	69.5±0.5	100.0±0.5	71.0±2.5	1140	218	PBT

• Soldering condition: 350°C max./2s

PQ78X39X42



Parameter

Core constant	C1	mm ⁻¹	0.2473
	C2×10 ⁻²	mm ⁻³	0.05153
Effective magnetic path length	ℓ _e	mm	119
Effective cross-sectional area	A _e	mm ²	480
Effective core volume	V _e	mm ³	56900
Cross-sectional center leg area	A _c	mm ²	510
Minimum cross-sectional area	A _{min.*}	mm ²	510C*
Winding cross-sectional area	A _{cw}	mm ²	570
Weight(approx.)		g	304

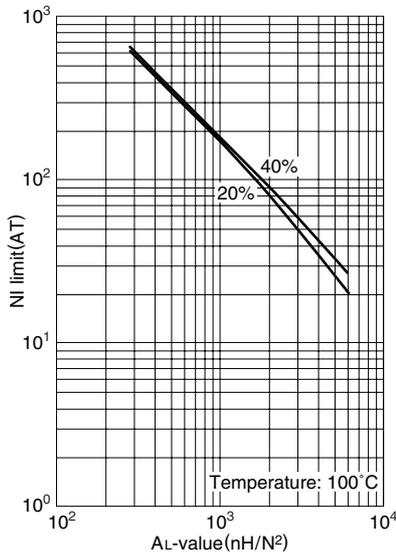
* The symbol followed A min. value shows minimum cross-sectional area part.
C is center pole part, L is outer pole part, B is the back part.

Part No.	AL-value*(nH/N ²)	Calculated output power(kW) (forward converter mode)
PE22 PQ78X39X42	7940±25%	1.6(100kHz)
PC40 PQ78X39X42	9790±25%	1.7(100kHz)

* AL-value: T=23°C, f=1kHz, H_m=0.4A/m

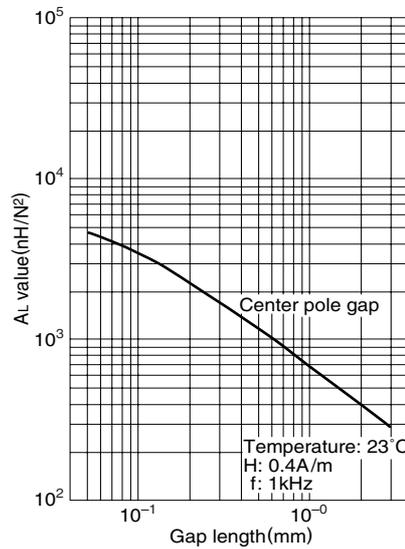
• Available customize core like this. Please specify when ordering.

NI limit vs. AL-value for PE22 PQ78X39X42

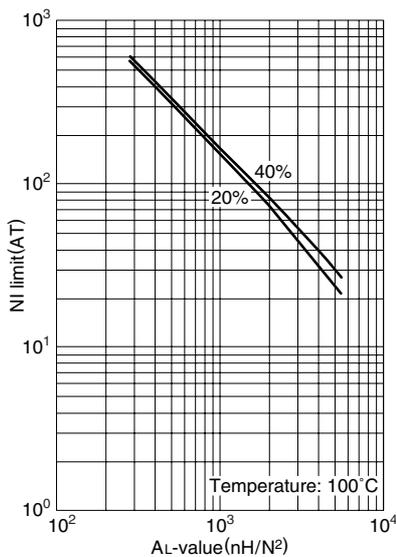


When applied mag field providing NI t setting core for art value, show each when decreased 20% and 40% from initial At

AL-value vs. Air gap length for PE22 PQ78X39X42

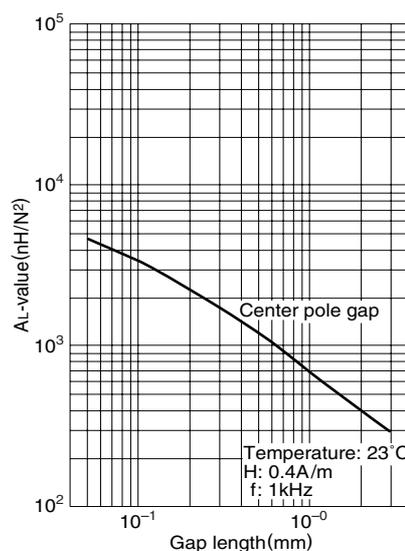


NI limit vs. AL-value for PC40 PQ78X39X42

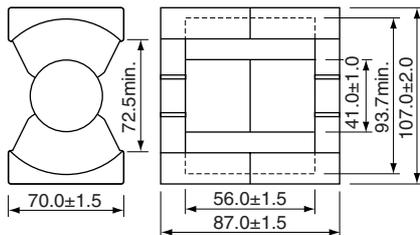


When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

AL-value vs. Air gap length for PC40 PQ78X39X42



PQ107X87X70



Parameter

Core constant	C1	mm ⁻¹	0.1426
	C2×10 ⁻²	mm ⁻³	0.009989
Effective magnetic path length	ℓ _e	mm	204
Effective cross-sectional area	A _e	mm ²	1428
Effective core volume	V _e	mm ³	290600
Cross-sectional center leg area	A _c	mm ²	1320
Minimum cross-sectional area	A _{min.*}	mm ²	1320C*
Winding cross-sectional area	A _{cw}	mm ²	1540
Weight(approx.)	g		1560

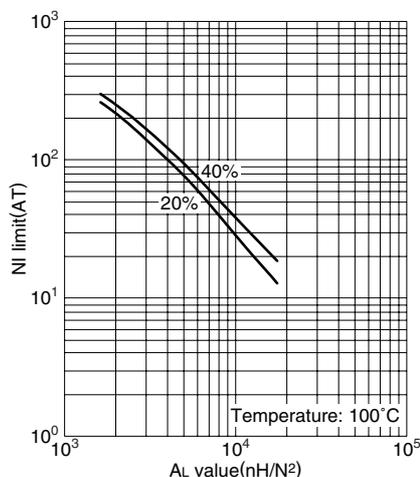
* The symbol followed A min. value shows minimum cross-sectional area part.
C is center pole part, L is outer pole part, B is the back part.

Part No.	AL-value*(nH/N ²)	Calculated output power(kW) (forward converter mode)
PE22 PQ107X87X70	14570±25%	8.3(100kHz)
PC40 PQ107X87X70	18210±25%	9.0(100kHz)

* AL-value: T=23°C, f=1kHz, H_m=0.4A/m

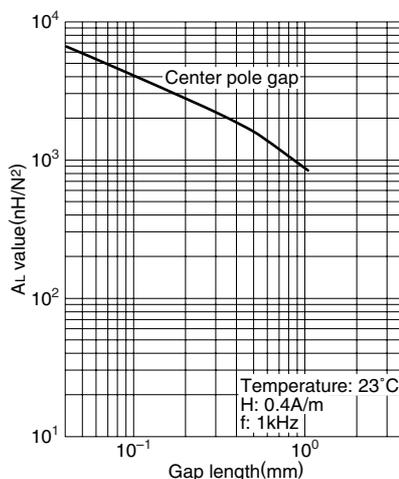
• Available customize core like this. Please specify when ordering.

NI limit vs. AL-value for PE22 PQ107X87X70

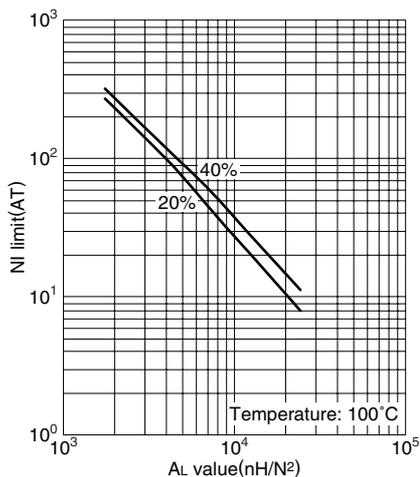


When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

AL-value vs. Air gap length for PE22 PQ107X87X70

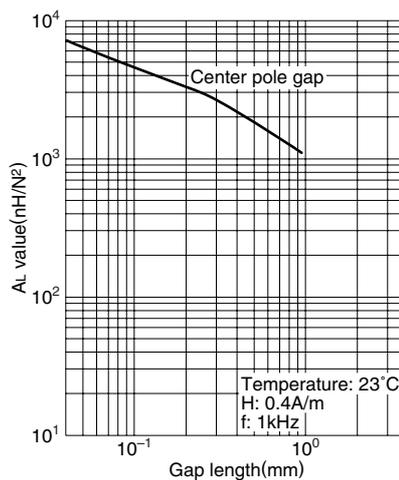


NI limit vs. AL-value for PC40 PQ107X87X70



When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

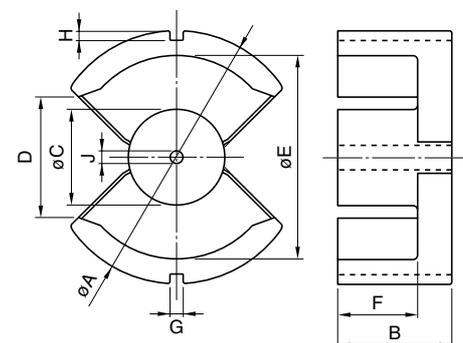
AL-value vs. Air gap length for PC40 PQ107X87X70



PM Series

PM CORE

CORE SHAPES AND DIMENSIONS/CHARACTERISTICS



PRODUCT IDENTIFICATION

PE22	PM	111	100
(1)	(2)	(3)	(4)

- (1) Material name
- (2) Shape
- (3) Dimension A
- (4) Dimension 2B

Part No.	Al*(nH/N ²) ±25%	Dimensions (mm)								
		øA	B×2	øC	D	øE	F×2	G	H	J
PE22 PM111×100	12590	111.0±2.2	100.0±1.0	41.5±0.7	53.0±1.0	89.0±1.8	70.0±1.0	5.8±0.5	4.2±0.2	5.6±0.2
PC40 PM111×100	13927									

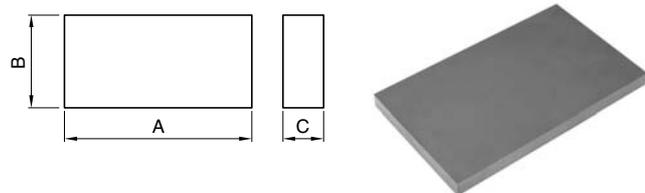
* Measuring condition: T=23°C, f=1kHz, H_m=0.4A/m

Part No.	Core factor					Weight(g)
	C ₁ (mm ⁻¹)	C ₂ ×10 ⁻² (mm ⁻³)	A _e (mm ²)	l _e (mm)	V _e (mm ³)	
PE22 PM111×100	0.12573	0.0000739	1702	214	364228	2200
PC40 PM111×100						

SP Series

SP CORE

CORE SHAPES AND DIMENSIONS/CHARACTERISTICS



PRODUCT IDENTIFICATION

PE22 SP 135 × 65 × 20
 (1) (2) (3) (4) (5)

- (1) Material name
- (2) Shape
- (3) Dimension A
- (4) Dimension B
- (5) Dimension C

Part No.	Dimensions (mm)		
	A	B	C
PE22 SP59×19×5	59.0±1.0	19.5±0.5	5.0±0.5
PC40 SP59×19×5			
PE22 SP65×10×5	65.0±1.5	10.0±0.5	5.0±0.5
PC40 SP65×10×5			
PE22 SP79×70×10	79.0±1.5	70.0±1.5	10.0±0.5
PC40 SP79×70×10			
PE22 SP135×65×20	135.0±2.5	65.0±1.5	20.0±0.5
PC40 SP135×65×20			
PE22 SP185×110×20*	185.0±4.5	110.0±2.0	20.0±0.5
PC40 SP185×110×20*			
PE22 SP255×152×20*	255.0±5.0	152.0±3.0	20.0±0.5
PC40 SP255×152×20*			

* SP185×110×20 and SP255×152×20 are both sides grinding machined products.