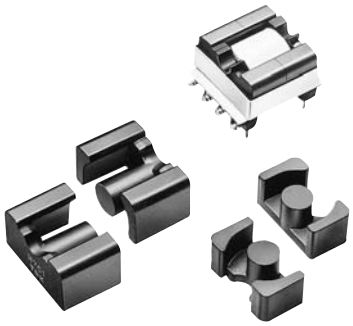
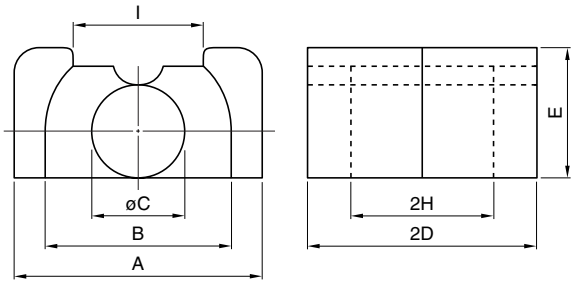
LP CORES



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

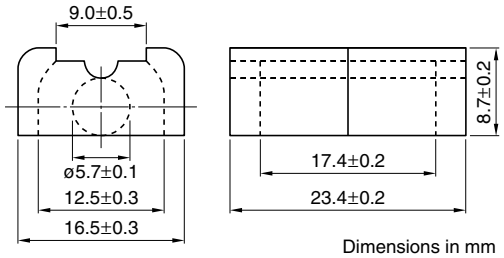


Part No.	Dimensions in mm						
	A	**B**	**øC**	**2D**	**E**	**2H**	**I**
PC47LP23/8Z-12	16.5±0.3	12.5±0.3	5.7±0.1	23.4±0.2	8.7±0.2	17.4±0.2	9.0±0.5
PC47LP22/13Z-12	25.0±0.4	19.0±0.3	8.6±0.2	22.4±0.2	12.9±0.3	16.4±0.3	13.5±0.5
PC47LP32/13Z-12	25.0±0.4	19.0±0.3	8.6±0.2	31.8±0.2	12.9±0.3	24.1±0.3	13.5±0.5

Part No.	Effective parameter				Electrical characteristics			
					AL-value (nH/N²)*		**Core loss (W) max.**	**Weight (g)**
	C1 (mm⁻¹)	**Ae (mm²)**	**ℓe (mm)**	**Ve (mm³)**	**Without air gap**	**With air gap**	**100kHz, 200mT, 100°C**	
PC47LP23/8Z-12	1.41	31.3	44.1	1380	1600±25%	63±5% 100±7% 250±13%	0.48	9.6
PC47LP22/13Z-12	0.721	67.9	49.0	3330	3310±25%	100±5% 200±7% 400±10%	1.22	21
PC47LP32/13Z-12	0.909	70.3	64.0	4500	2630±25%	100±5% 200±7% 400±10%	1.60	30

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

LP Series LP23/8 Cores



Dimensions in mm

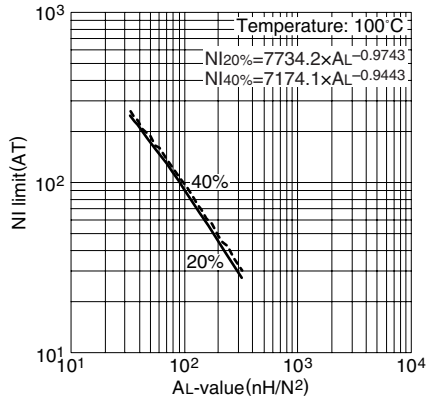
PARAMETER

Core factor	C1	mm^{-1}	1.41
Effective magnetic path length	ℓe	mm	44.1
Effective cross-sectional area	Ae	mm^2	31.3
Effective core volume	Ve	mm^3	1380
Cross-sectional center pole area	Acp	mm^2	25.5
Minimum cross-sectional center pole area	Acp min.	mm^2	24.6
Cross-sectional winding area of core	Acw	mm^2	59.2
Weight (approx.)		g	9.6

Part No.	AL-value (nH/N2)	Core loss (W) at 100°C 100kHz, 200mT	Calculated output power (forward converter mode)
PC47LP23/8Z-12	1600±25% (1kHz, 0.5mA)* 2230 min. (100kHz, 200mT)	0.48 max.	54W (100kHz)

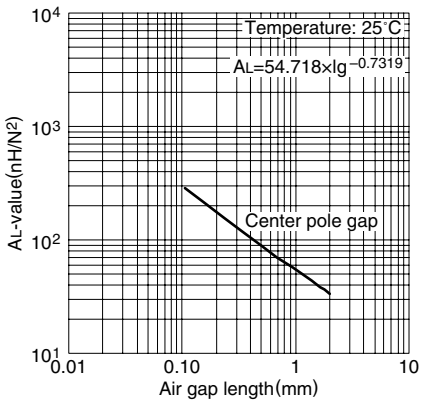
* Coil: ø0.3 2UEW 100Ts

NI limit vs. AL-value for PC47LP23/8 gapped core (Typical)



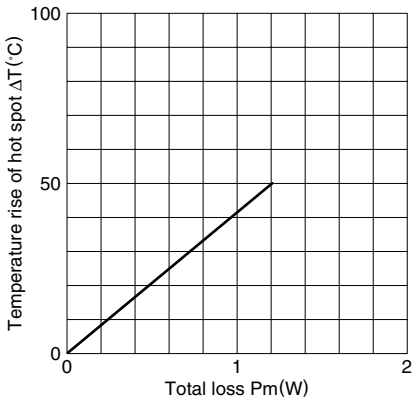
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

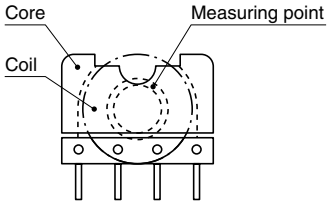
AL-value vs. Air gap length for PC47LP23/8 core (Typical)



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

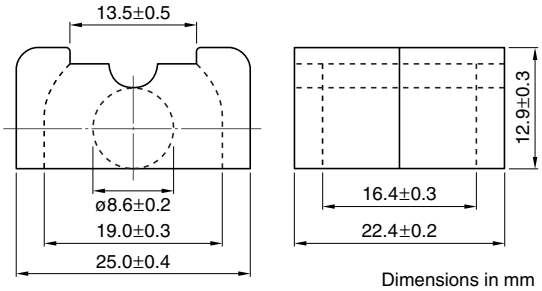
Temperature rise vs. Total loss for LP23/8 core (Typical) (Ambient temperature: 25°C)





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

LP Series LP22/13 Cores



Dimensions in mm

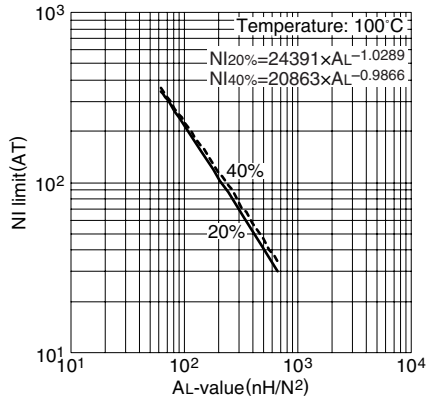
PARAMETER

Core factor	C1	mm^{-1}	0.721
Effective magnetic path length	ℓe	mm	49.0
Effective cross-sectional area	Ae	mm^2	67.9
Effective core volume	Ve	mm^3	3330
Cross-sectional center pole area	Acp	mm^2	58.1
Minimum cross-sectional center pole area	Acp min.	mm^2	55.4
Cross-sectional winding area of core	Acw	mm^2	84.2
Weight (approx.)		g	21

Part No.	AL-value (nH/N2)	Core loss (W) at 100°C 100kHz, 200mT	Calculated output power (forward converter mode)
PC47LP22/13Z-12	3310±25% (1kHz, 0.5mA)* 4700 min. (100kHz, 200mT)	1.22 max.	135W (100kHz)

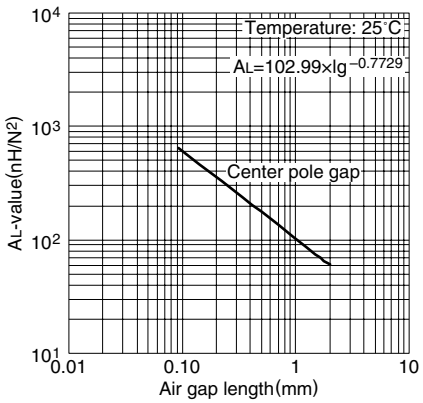
* Coil: ø0.35 2UEW 100Ts

NI limit vs. AL-value for PC47LP22/13 gapped core (Typical)



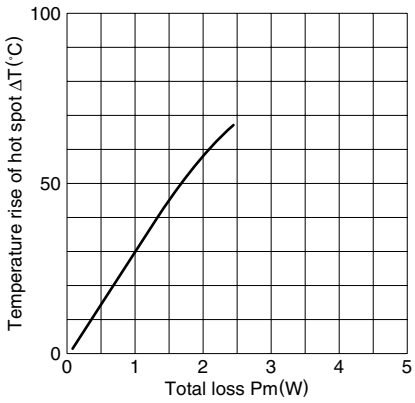
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

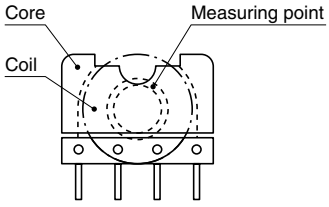
AL-value vs. Air gap length for PC47LP22/13 core (Typical)



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

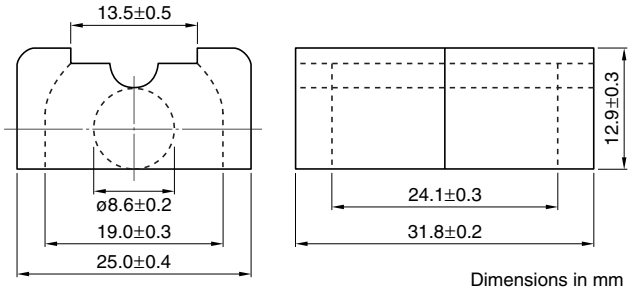
Temperature rise vs. Total loss for LP22/13 core (Typical) (Ambient temperature: 25°C)





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

LP Series LP32/13 Cores



Dimensions in mm

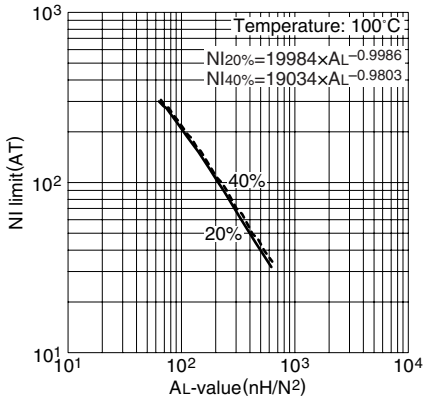
PARAMETER

Core factor	C_1	mm^{-1}	0.909
Effective magnetic path length	ℓe	mm	64.0
Effective cross-sectional area	Ae	mm^2	70.3
Effective core volume	Ve	mm^3	4500
Cross-sectional center pole area	Acp	mm^2	58.1
Minimum cross-sectional center pole area	Acp min.	mm^2	55.4
Cross-sectional winding area of core	Acw	mm^2	125.3
Weight (approx.)		g	30

Part No.	A_L-value (nH/N^2)	Core loss (W) at 100°C 100kHz, 200mT	Calculated output power (forward converter mode)
PC47LP32/13Z-12	2630±25% (1kHz, 0.5mA)* 3730 min. (100kHz, 200mT)	1.60 max.	182W (100kHz)

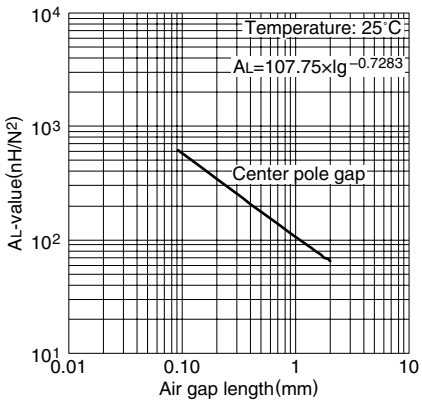
* Coil: ø0.35 2UEW 100Ts

NI limit vs. A_L-value for PC47LP32/13 gapped core (Typical)



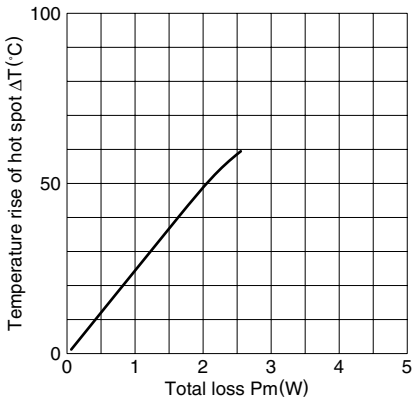
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

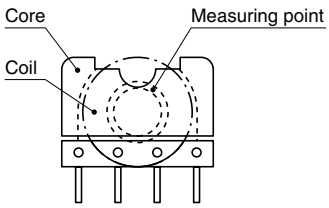
A_L-value vs. Air gap length for PC47LP32/13core (Typical)



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

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





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