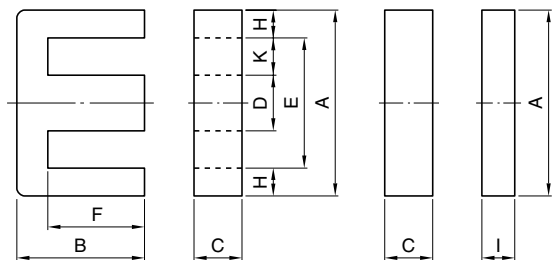


EI Series

EI CORE

CORE SHAPES AND DIMENSIONS/CHARACTERISTICS



PRODUCT IDENTIFICATION

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

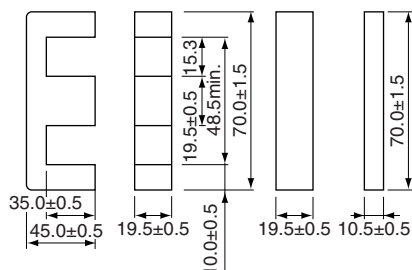
- (1) Material name
 (2) Shape
 (3) Dimension A
 (4) Dimension B+I
 (5) Dimension C

Part No.	AL*(nH/N ²) ±25%	Dimensions (mm)										
		A	B+I	C	D	E	F	H	I	R	K	K×F(mm ²)
PE22 EI70×55×19	5880											
PC40 EI70×55×19	7270	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
PE90 EI70×55×19	6954											
PE22 EI70×64×31N	9585											
PC40 EI70×64×31N	11885	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
PE90 EI70×64×31N	11368											

* 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						266
PC40 EI70×55×19	0.33894	0.08693	390	132	51520	266
PE90 EI70×55×19						272
PE22 EI70×64×31N						519
PC40 EI70×64×31N	0.20929	0.03010	695	146	101200	519
PE90 EI70×64×31N						530

EI70X55X19



Parameter

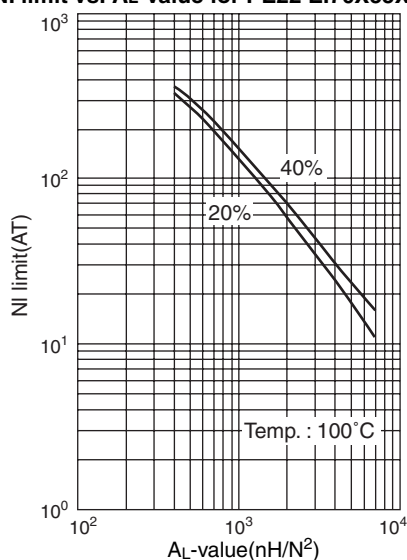
Core constant	C ₁	mm ⁻¹	0.33894
	C ₂ ×10 ⁻²	mm ⁻³	0.08693
Effective magnetic path length	ℓ _e	mm	132
Effective cross-sectional area	A _e	mm ²	390
Effective core volume	V _e	mm ³	51520
Cross-sectional center leg area	A _c	mm ²	380
Minimum cross-sectional area	A _{min.*}	mm ²	380C*
Winding cross-sectional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

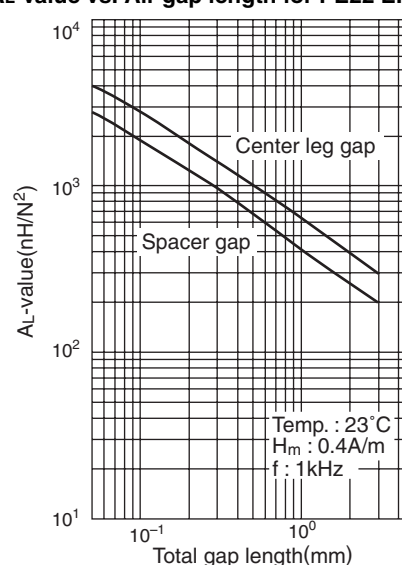
* AL-value: T=23°C, f=1kHz, H_m=0.4A/m

NI limit vs. AL-value for PE22 EI70X55X19

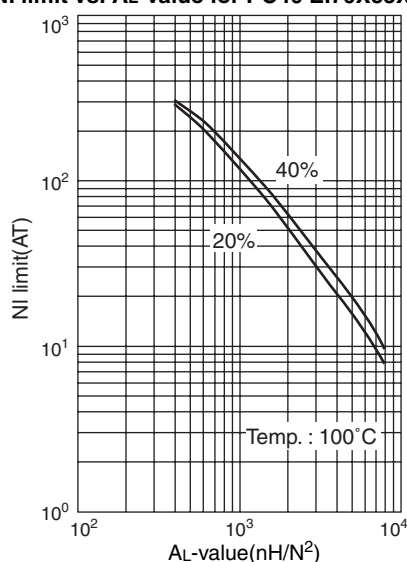


When applied magnetic field providing NI to a setting core for arbitrary AL-value, show each NI value when decreased 20% and 40% from initial AL-value.

AL-value vs. Air gap length for PE22 EI70X55X19



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

