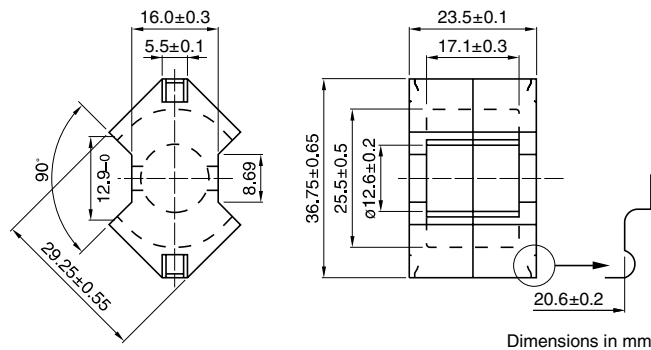


RM12 Cores

Based on JIS C 2516.



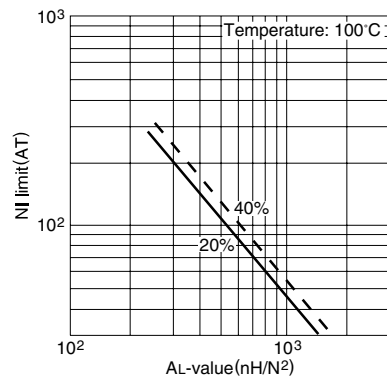
Parameter

Core factor	C ₁	mm ⁻¹	0.406
Effective magnetic path length	ℓ _e	mm	56.9
Effective cross-sectional area	A _e	mm ²	140
Effective core volume	V _e	mm ³	7960
Cross-sectional center pole area	A _{cp}	mm ²	125
Minimum cross-sectional center pole area	A _{cp min.}	mm ²	121
Cross-sectional winding area of core	A _{cw}	mm ²	110
Weight (approx.)		g	42

Part No.	AL-value (nH/N ²)	Core loss (W) at 100°C 100kHz, 200mT	Calculated output power (forward converter mode)
PC40RM12Z-12	4150 min. (1kHz, 0.5mA)* 9290 min. (100kHz, 200mT)	3.3 max.	344W (100kHz)

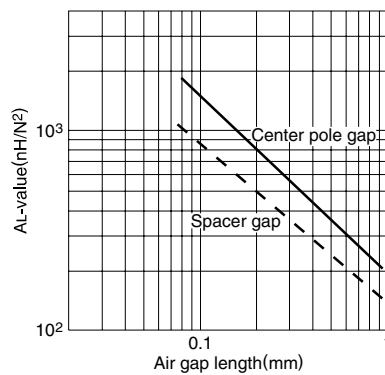
* Coil: ø0.4 2UEW 100Ts

NI limit vs. AL-value for PC40RM12 gapped core (Typical)



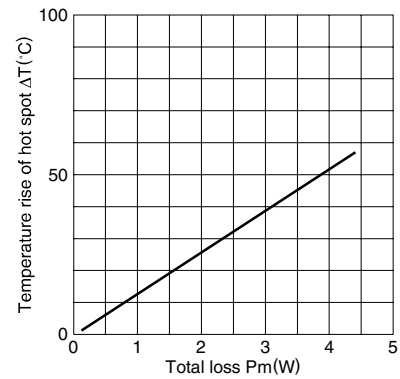
Note: NI limit shows the point where the exciting current is 20% and 40% away from its extended linear part.

AL-value vs. Air gap length for PC40RM12 core (Typical)



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

Temperature rise vs. Total loss for RM12 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)

