

Gapped ferrite toroids

TN13/7.5/5

RING CORES (TOROIDS)

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(I/A)$	core factor (C1)	2.46	mm ⁻¹
V_e	effective volume	368	mm ³
l_e	effective length	30.1	mm
A_e	effective area	12.2	mm ²
m	mass of core	≈ 1.8	g

Coating

The cores are coated with polyamide 11 (PA11), flame retardant in accordance with "UL 94V-2"; UL file number E 45228 (M).

The colour is white.

Maximum operating temperature is 160 °C.

Isolation voltage

DC isolation voltage: 1500 V.

Contacts are applied on the edge of the ring core, which is also the critical point for the winding operation.

Ring core data

GRADE	$A_L^{(1)}$ (nH)	μ_e	TYPE NUMBER
3C20	40 ± 15%	≈ 90	TN13/5-3C20-A40
	56 ± 15%	≈ 125	TN13/5-3C20-A56
	67 ± 15%	≈ 147	TN13/5-3C20-A67
	72 ± 15%	≈ 160	TN13/5-3C20-A72
	79 ± 15%	≈ 173	TN13/5-3C20-A79

Note

1. Winding equally distributed over the circumference.

Properties of cores under power conditions

GRADE	B (mT) at	CORE LOSS (W) at	
	H = 1200 A/m; f = 10 kHz; T = 100 °C	f = 100 kHz; B = 100 mT; T = 100 °C	f = 100 kHz; B = 200 mT; T = 100 °C
3C20	~ 400	≤ 0.033	≤ 0.22

