Ferrite ring cores (toroids) TN25/15/10

RING CORES (TOROIDS)

Effective core parameters

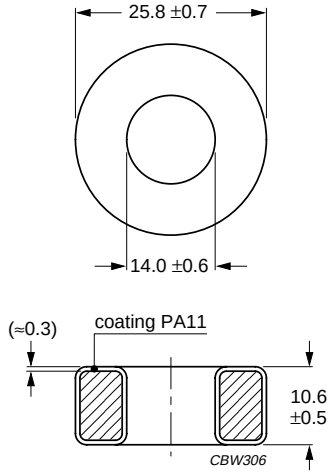
SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	1.23	mm^{-1}
V_e	effective volume	2944	mm^3
l_e	effective length	60.2	mm
A_e	effective area	48.9	mm^2
m	mass of core	≈15	g

Coating

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

Isolation voltage

DC isolation voltage: 2000 V.
Contacts are applied on the edge of the ring core, which is also the critical point for the winding operation.



Dimensions in mm.

Fig.1 TN25/15/10 ring core.

Ring core data

GRADE	A_L (nH)	μ_i	COLOUR CODE	TYPE NUMBER
3F3 sup	1840 ±25%	≈1800	blue	TN25/15/10-3F3
3C90 sup	2350 ±25%	≈2300	ultramarine	TN25/15/10-3C90
3C11 sup	4400 ±25%	≈4300	white	TN25/15/10-3C11
3E25	5620 ±25%	≈5500	orange	TN25/15/10-3E25
3E5(1)	8680 ±30%	≈8500	yellow/white	TL25/15/10-3E5
3E6(1) des	10200 ±30%	≈10000	purple/white	TL25/15/10-3E6

Note

1. Ring cores in 3E5 and 3E6 are lacquered (polyurethane) and have different dimensions: Outside diameter = 25.25 ±0.7 mm; Inside diameter = 14.75 ±0.6 mm; Height = 10.25 ±0.5 mm; flame retardant in accordance with *"UL 94V-2"*; UL file number E 192048.

Properties of cores under power conditions

GRADE	B (mT) at	CORE LOSS (W) at		
	H = 250 A/m; f = 25 kHz; T = 100 °C	f = 25 kHz; $\hat{B}$ = 200 mT; T = 100 °C	f = 100 kHz; $\hat{B}$ = 100 mT; T = 100 °C	f = 400 kHz; $\hat{B}$ = 50 mT; T = 100 °C
3C90	≥320	≤0.33	≤0.33	–
3F3	≥320	–	≤0.32	≤0.56