

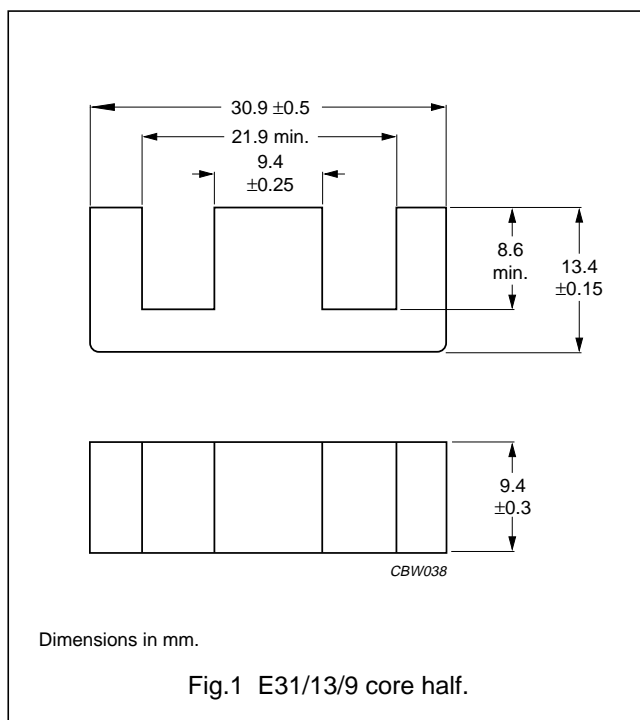
E cores and accessories

E31/13/9

CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(I/A)$	core factor (C1)	0.740	mm ⁻¹
V_e	effective volume	5150	mm ³
l_e	effective length	61.9	mm
A_e	effective area	83.2	mm ²
m	mass of core half	≈13	g



Core halves

A_L measured in combination with a non-gapped core half, clamping force 40 ± 20 N.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C81	250 ± 3%	≈150	≈470	E31/13/9-3C81-A250
	315 ± 3%	≈190	≈350	E31/13/9-3C81-A315
	400 ± 3%	≈235	≈260	E31/13/9-3C81-A400
	630 ± 3%	≈375	≈150	E31/13/9-3C81-A630
	1000 ± 5%	≈590	≈80	E31/13/9-3C81-A1000
	3735 ± 25%	≈2200	≈0	E31/13/9-3C81
3C85	250 ± 3%	≈150	≈470	E31/13/9-3C85-A250
	315 ± 3%	≈190	≈350	E31/13/9-3C85-A315
	400 ± 3%	≈235	≈260	E31/13/9-3C85-A400
	630 ± 3%	≈375	≈150	E31/13/9-3C85-A630
	1000 ± 5%	≈590	≈80	E31/13/9-3C85-A1000
	2970 ± 25%	≈1750	≈0	E31/13/9-3C85
3C90	2970 ± 25%	≈1750	≈0	E31/13/9-3C90
3F3 <small>des</small>	250 ± 3%	≈150	≈470	E31/13/9-3F3-A250
	315 ± 3%	≈190	≈350	E31/13/9-3F3-A315
	400 ± 3%	≈235	≈260	E31/13/9-3F3-A400
	630 ± 3%	≈375	≈150	E31/13/9-3F3-A630
	1000 ± 5%	≈590	≈80	E31/13/9-3F3-A1000
	2650 ± 25%	≈1560	≈0	E31/13/9-3F3

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Core halves of high permeability grades

Clamping force 40 ± 20 N.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3E25 ^{sup}	$6790 \pm 25\%$	≈ 4000	≈ 0	E31/13/9-3E25
3E27	$6790 \pm 25\%$	≈ 4000	≈ 0	E31/13/9-3E27

Properties of core sets 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
3C81	≥ 320	≤ 1.1	\leq	–
3C85	≥ 320	≤ 0.80	≤ 0.93	–
3C90	≥ 320	≤ 0.52	≤ 0.58	–
3F3	≥ 320	–	≤ 0.57	≤ 0.98