

DATA SHEET

E36/21/12

E cores and accessories

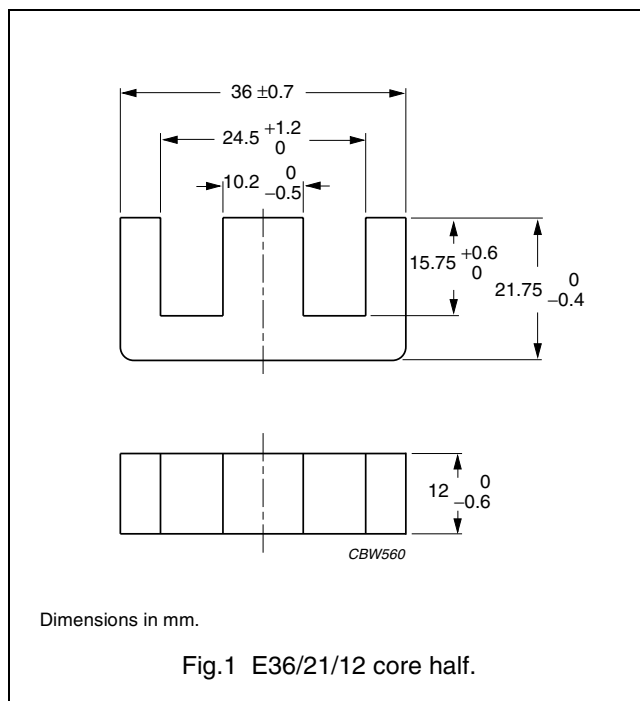
Supersedes data of September 2004

2008 Sep 01

CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.762	mm ⁻¹
V_e	effective volume	12 160	mm ³
l_e	effective length	96	mm
A_e	effective area	126	mm ²
A_{min}	minimum area	121	mm ²
m	mass of core half	≈ 31	g



Core halves

A_L measured in combination with a non-gapped core half, clamping force for A_L measurements, 40 ± 20 N, unless stated otherwise.

GRADE	A_L (nH)	μ_e	TOTAL AIR GAP (μ m)	TYPE NUMBER
3C90	100 $\pm 5\%$ ⁽¹⁾	≈ 61	≈ 2720	E36/21/12-3C90-E100
	160 $\pm 5\%$ ⁽¹⁾	≈ 97	≈ 1400	E36/21/12-3C90-E160
	250 $\pm 5\%$	≈ 152	≈ 770	E36/21/12-3C90-A250
	315 $\pm 5\%$	≈ 191	≈ 570	E36/21/12-3C90-A315
	400 $\pm 8\%$	≈ 243	≈ 420	E36/21/12-3C90-A400
	630 $\pm 15\%$	≈ 382	≈ 230	E36/21/12-3C90-A630
	2650 $\pm 25\%$	≈ 1610	≈ 0	E36/21/12-3C90

Note

1. Measured in combination with an equal gapped core half, clamping force for A_L measurements, 40 ± 20 N.

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; B = 200 mT; T = 100 °C	f = 100 kHz; B = 100 mT; T = 100 °C	f = 100 kHz; B = 200 mT; T = 25 °C	f = 100 kHz; B = 200 mT; T = 100 °C
3C90	≥ 330	≤ 1.4	≤ 1.5	–	–

DATA SHEET STATUS DEFINITIONS

DATA SHEET STATUS	PRODUCT STATUS	DEFINITIONS
Preliminary specification	Development	This data sheet contains preliminary data. Ferroxcube reserves the right to make changes at any time without notice in order to improve design and supply the best possible product.
Product specification	Production	This data sheet contains final specifications. Ferroxcube reserves the right to make changes at any time without notice in order to improve design and supply the best possible product.

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PRODUCT STATUS DEFINITIONS

STATUS	INDICATION	DEFINITION
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Preferred		These products are recommended for use in current designs and are available via our sales channels.
Support		These products are not recommended for new designs and may not be available through all of our sales channels. Customers are advised to check for availability.