

DATA SHEET

E16/12/5
EI cores

New data

2004 Sep 01

El cores

E16/12/5

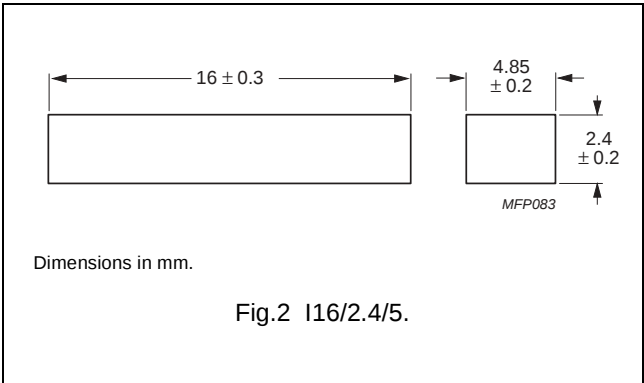
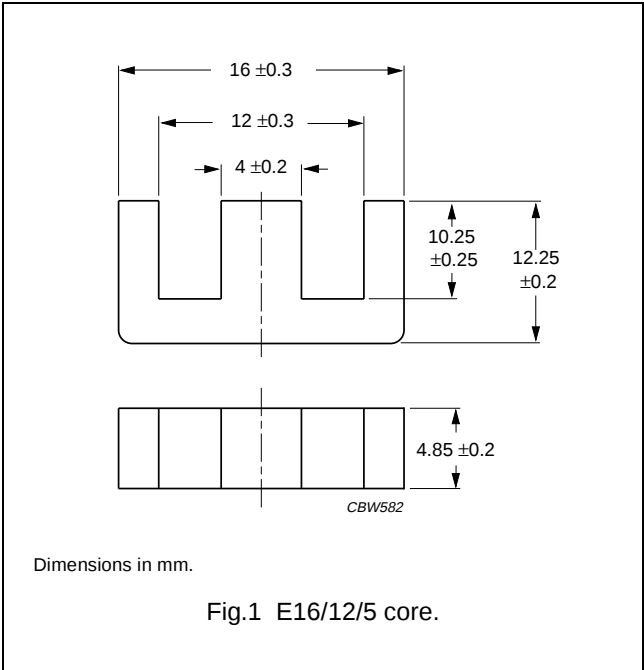
CORES

Effective core parameters of an E / I combination

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	1.85	mm^{-1}
V_e	effective volume	701	mm^3
l_e	effective length	35.8	mm
A_e	effective area	19.4	mm^2
$A_{\min}$	minimum area	19.4	mm^2
m	mass of E core	≈ 2.7	g
m	mass of I core	≈ 0.9	g

Ordering information for I cores

GRADE	TYPE NUMBER
3C90	I16/2.4/5-3C90



Core halves for use in combination with an I core

A_L measured in combination with an I core, clamping force for A_L measurements 20 ± 10 N;

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C90	$1000 \pm 25 \%$	≈ 1470	≈ 0	E16/12/5-3C90

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
E16/12/5+I16/2.4/5-3C90	≥ 320	≤ 0.08	≤ 0.08

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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Design-in		These products are recommended for new designs.
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.