

# DATA SHEET

**E40/27/12**

**EI cores**

Supersedes data of September 2004

2008 Sep 01

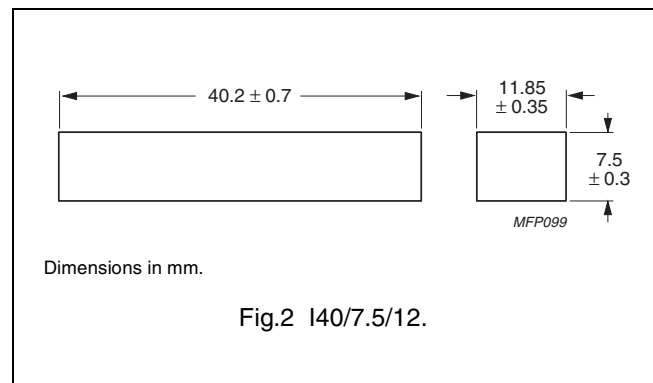
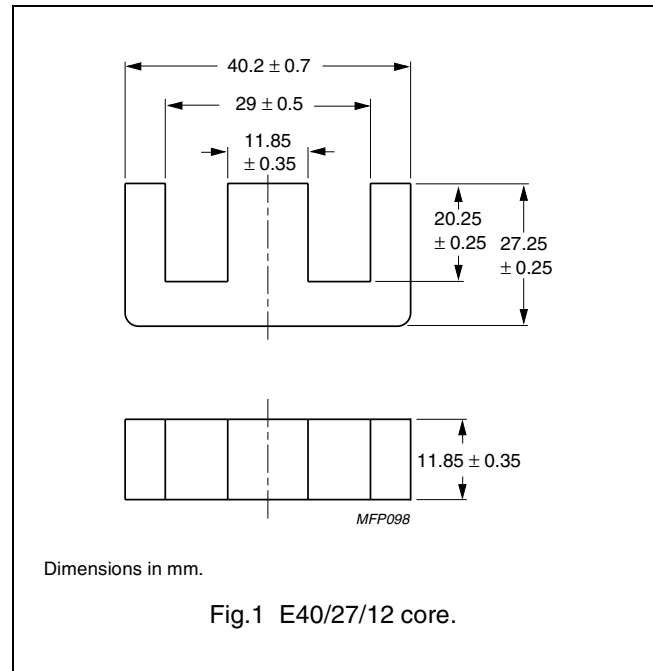
**CORES**

**Effective core parameters of an E / I combination**

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.542	mm <sup>-1</sup>
$V_e$	effective volume	11100	mm <sup>3</sup>
$l_e$	effective length	77.5	mm
$A_e$	effective area	143	mm <sup>2</sup>
$A_{min}$	minimum area	133	mm <sup>2</sup>
m	mass of E core	≈ 42	g
m	mass of I core	≈ 17	g

**Ordering information for I cores**

GRADE	TYPE NUMBER
3C90	I40/7.5/12-3C90



**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  $40 \pm 20$  N;

GRADE	$A_L$ (nH)	$\mu_e$	AIR GAP ( $\mu$ m)	TYPE NUMBER
3C90	$4110 \pm 25\%$	≈ 1770	≈ 0	E40/27/12-3C90

**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
E40/27/12+I40/7.5/12-3C90	≥ 330	≤ 1.3	≤ 1.3




**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**

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<b>Preferred</b>		These products are recommended for use in current designs and are available via our sales channels.
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