

DATA SHEET

E40/27/12

EI cores

Supersedes data of September 2004

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FERROXCUBE
A YAGEO COMPANY

EI cores

E40/27/12

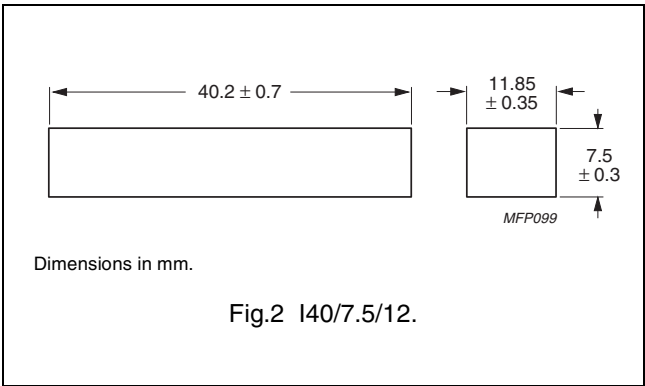
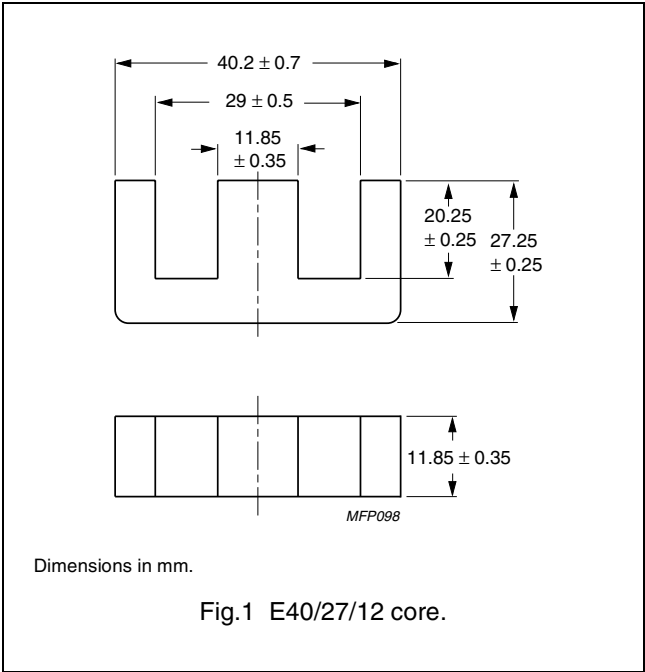
CORES

Effective core parameters of an E / I combination

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.542	mm ⁻¹
V_e	effective volume	11100	mm ³
l_e	effective length	77.5	mm
A_e	effective area	143	mm ²
A_{min}	minimum area	133	mm ²
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 ± 20 N;

GRADE	A_L (nH)	μ_e	AIR GAP (μ 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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