

# DATA SHEET

**E71/33/32**

**E cores and accessories**

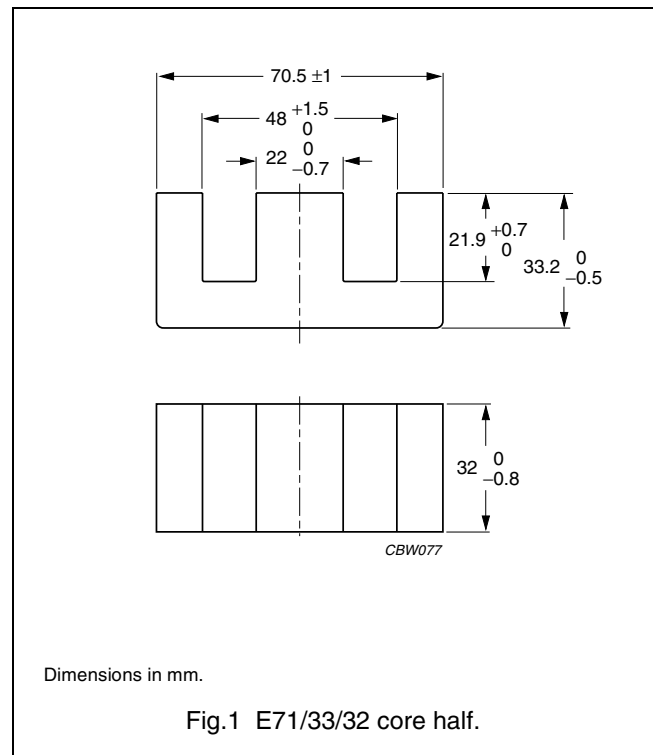
Supersedes data of September 2004

2008 Sep 01

**CORE SETS**

**Effective core parameters**

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.218	mm <sup>-1</sup>
$V_e$	effective volume	102000	mm <sup>3</sup>
$l_e$	effective length	149	mm
$A_e$	effective area	683	mm <sup>2</sup>
$A_{min}$	minimum area	676	mm <sup>2</sup>
m	mass of core half	≈ 260	g



**Core halves**

$A_L$  measured in combination with a non-gapped core half, clamping force for  $A_L$  measurements  $60 \pm 20$  N, unless stated otherwise.

GRADE	$A_L$ (nH)	$\mu_e$	TOTAL AIR GAP ( $\mu\text{m}$ )	TYPE NUMBER
3C90	100 ±5% <sup>(1)</sup>	≈ 17	≈ 17800	E71/33/32-3C90-E100
	160 ±5% <sup>(1)</sup>	≈ 28	≈ 9620	E71/33/32-3C90-E160
	250 ±5% <sup>(1)</sup>	≈ 43	≈ 5280	E71/33/32-3C90-E250
	315 ±5% <sup>(1)</sup>	≈ 55	≈ 3900	E71/33/32-3C90-E315
	400 ±8% <sup>(1)</sup>	≈ 69	≈ 2860	E71/33/32-3C90-E400
	630 ±10% <sup>(1)</sup>	≈ 109	≈ 1620	E71/33/32-3C90-E630
	10800 ±25%	≈ 1880	≈ 0	E71/33/32-3C90
3C92 <b>des</b>	8000 ±25%	≈ 1390	≈ 0	E71/33/32-3C92
3C94	10800 ±25%	≈ 1880	≈ 0	E71/33/32-3C94
3C95 <b>des</b>	13330 ±25%	≈ 2315	≈ 0	E71/33/32-3C95
3F3	100 ±5% <sup>(1)</sup>	≈ 17	≈ 17800	E71/33/32-3F3-E100
	160 ±5% <sup>(1)</sup>	≈ 28	≈ 9620	E71/33/32-3F3-E160
	250 ±5% <sup>(1)</sup>	≈ 43	≈ 5280	E71/33/32-3F3-E250
	315 ±5% <sup>(1)</sup>	≈ 55	≈ 3900	E71/33/32-3F3-E315
	400 ±8% <sup>(1)</sup>	≈ 69	≈ 2860	E71/33/32-3F3-E400
	630 ±10% <sup>(1)</sup>	≈ 109	≈ 1620	E71/33/32-3F3-E630
	10000 ±25%	≈ 1740	≈ 0	E71/33/32-3F3

**Note**

1. Measured in combination with an equal gapped core half.

## 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 = 100 kHz; $\hat{B}$ = 200 mT; T = 25 °C	f = 100 kHz; $\hat{B}$ = 200 mT; T = 100 °C	f = 400 kHz; $\hat{B}$ = 50 mT; T = 100 °C
3C90	≥320	≤ 12	≤ 16.5	–	–	–
3C92	≥370	–	≤ 11.5	–	≤ 60	–
3C94	≥320	–	≤ 11.5	–	≤ 60	–
3C95	≥320	–	–	≤ 73.4	≤ 69.4	–
3F3	≥320	–	≤ 14	–	–	≤ 29

**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
<b>Prototype</b>		These are products that have been made as development samples for the purposes of technical evaluation only. The data for these types is provisional and is subject to change.
<b>Design-in</b>		These products are recommended for new designs.
<b>Preferred</b>		These products are recommended for use in current designs and are available via our sales channels.
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