

# DATA SHEET

**E55/28/25**

**E cores and accessories**

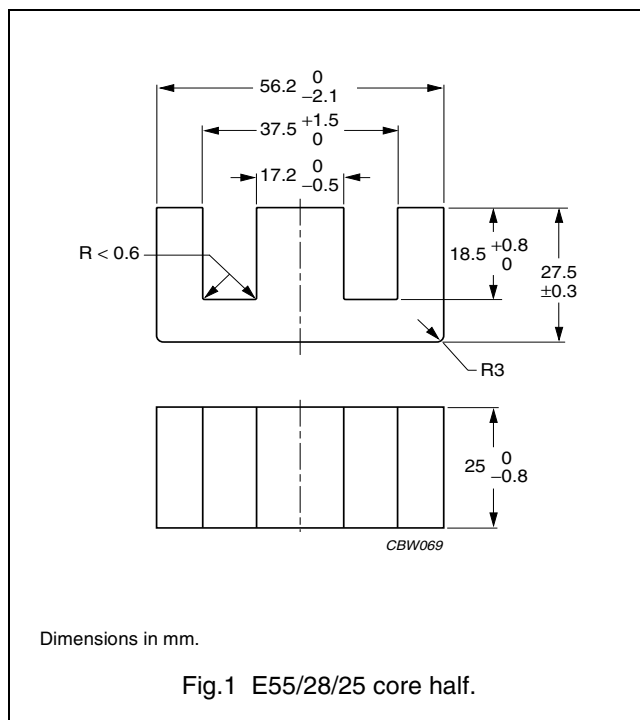
Supersedes data of September 2004

2008 Sep 01

**CORE SETS**

**Effective core parameters**

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.239	mm <sup>-1</sup>
$V_e$	effective volume	52000	mm <sup>3</sup>
$l_e$	effective length	123	mm
$A_e$	effective area	420	mm <sup>2</sup>
$A_{min}$	minimum area	411	mm <sup>2</sup>
m	mass of core half	≈130	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 ( $\mu$ m)	TYPE NUMBER
3C90	100 ±5% <sup>(1)</sup>	≈ 23	≈ 10440	E55/28/25-3C90-E100
	160 ±5% <sup>(1)</sup>	≈ 37	≈ 5520	E55/28/25-3C90-E160
	250 ±5% <sup>(1)</sup>	≈ 58	≈ 3040	E55/28/25-3C90-E250
	315 ±5% <sup>(1)</sup>	≈ 73	≈ 2240	E55/28/25-3C90-E315
	400 ±8% <sup>(1)</sup>	≈ 93	≈ 1660	E55/28/25-3C90-E400
	630 ±10% <sup>(1)</sup>	≈ 147	≈ 940	E55/28/25-3C90-E630
	8000 ±25%	≈ 1860	≈ 0	E55/28/25-3C90
3C92 <b>des</b>	5800 ±25%	≈ 1100	≈ 0	E55/28/25-3C92
3C94	8000 ±25%	≈ 1860	≈ 0	E55/28/25-3C94
3C95 <b>des</b>	9860 ±25%	≈ 2300	≈ 0	E55/28/25-3C95
3F3	100 ±5% <sup>(1)</sup>	≈ 23	≈ 10440	E55/28/25-3F3-E100
	160 ±5% <sup>(1)</sup>	≈ 37	≈ 5520	E55/28/25-3F3-E160
	250 ±5% <sup>(1)</sup>	≈ 58	≈ 3040	E55/28/25-3F3-E250
	315 ±5% <sup>(1)</sup>	≈ 73	≈ 2240	E55/28/25-3F3-E315
	400 ±8% <sup>(1)</sup>	≈ 93	≈ 1660	E55/28/25-3F3-E400
	630 ±10% <sup>(1)</sup>	≈ 147	≈ 940	E55/28/25-3F3-E630
	7400 ±25%	≈ 1730	≈ 0	E55/28/25-3F3

**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	f̂ = 25 kHz; B̂ = 200 mT; T = 100 °C	f̂ = 100 kHz; B̂ = 100 mT; T = 100 °C	f̂ = 100 kHz; B̂ = 200 mT; T = 25 °C	f̂ = 100 kHz; B̂ = 200 mT; T = 100 °C	f̂ = 400 kHz; B̂ = 50 mT; T = 100 °C
3C90	≥330	≤ 5.7	≤ 7.3	–	–	–
3C92	≥370	–	≤ 4.8	–	≤ 31	–
3C94	≥330	–	≤ 4.8	–	≤ 31	–
3C95	≥330	–	–	≤ 32.8	≤ 31.2	–
3F3	≥310	–	≤ 6.6	–	–	≤ 12.7




**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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