DATA SHEET

E55/28/25
E cores and accessories

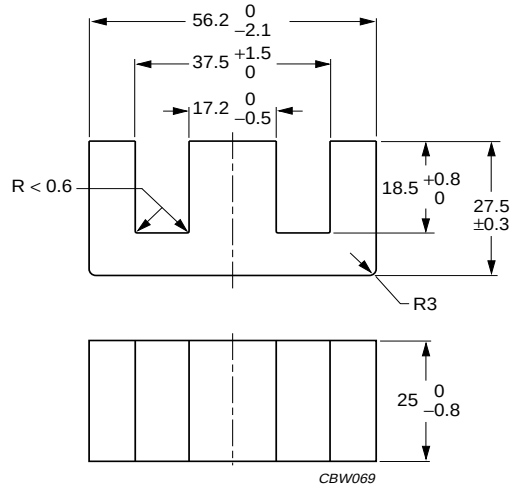
Supersedes data of February 2002 2004 Sep 01

FERROXCUBE
A YAGEO COMPANY

CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.239	mm^{-1}
V_e	effective volume	52000	mm^3
l_e	effective length	123	mm
A_e	effective area	420	mm^2
A_{min}	minimum area	411	mm^2
m	mass of core half	≈130	g



Dimensions in mm.

Fig.1 E55/28/25 core half.

Core halves

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

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C90	100 ±5%(1)	≈ 23	≈ 5220	E55/28/25-3C90-E100
	160 ±5%(1)	≈ 37	≈ 2760	E55/28/25-3C90-E160
	250 ±5%(1)	≈ 58	≈ 1520	E55/28/25-3C90-E250
	315 ±5%(1)	≈ 73	≈ 1120	E55/28/25-3C90-E315
	400 ±8%(1)	≈ 93	≈ 830	E55/28/25-3C90-E400
	630 ±10%(1)	≈ 147	≈ 470	E55/28/25-3C90-E630
	8000 ±25%	≈ 1860	≈ 0	E55/28/25-3C90
3C92 des	5800 ±25%	≈ 1100	≈ 0	E55/28/25-3C92
3C94	8000 ±25%	≈ 1860	≈ 0	E55/28/25-3C94
3F3	100 ±5%(1)	≈ 23	≈ 5220	E55/28/25-3F3-E100
	160 ±5%(1)	≈ 37	≈ 2760	E55/28/25-3F3-E160
	250 ±5%(1)	≈ 58	≈ 1520	E55/28/25-3F3-E250
	315 ±5%(1)	≈ 73	≈ 1120	E55/28/25-3F3-E315
	400 ±8%(1)	≈ 93	≈ 830	E55/28/25-3F3-E400
	630 ±10%(1)	≈ 147	≈ 470	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	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 = 100 °C	f = 400 kHz; $\hat{B}$ = 50 mT; T = 100 °C
3C90	≥330	≤ 5.7	≤ 7.3	–	–
3C92	≥370	–	≤ 4.8	≤ 31	–
3C94	≥330	–	≤ 4.8	≤ 31	–
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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Support	sup	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.