

DATA SHEET

E65/32/27

E cores and accessories

Supersedes data of September 2004

2008 Sep 01

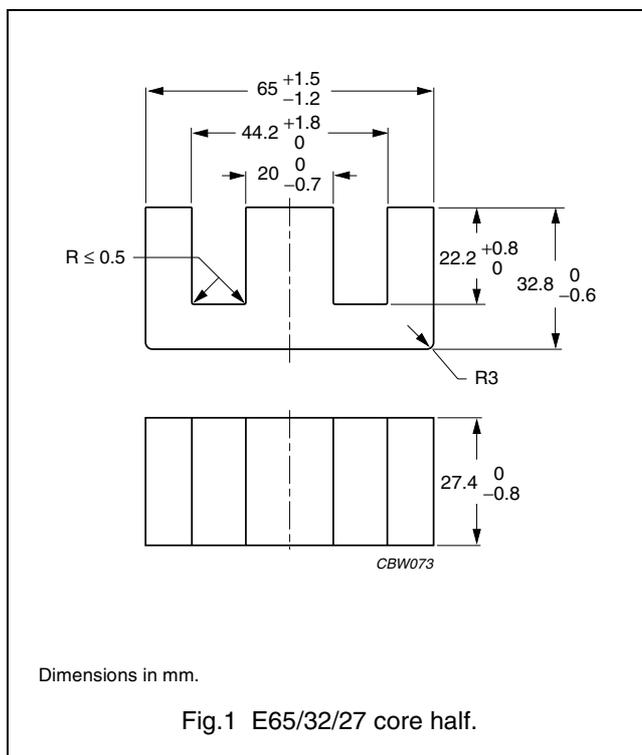


FERROXCUBE
A YAGEO COMPANY

CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.274	mm ⁻¹
V_e	effective volume	79000	mm ³
l_e	effective length	147	mm
A_e	effective area	540	mm ²
A_{min}	minimum area	530	mm ²
m	mass of core half	≈205	g



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	TOTAL AIR GAP (μm)	TYPE NUMBER
3C90	100 ±5% ⁽¹⁾	≈ 22	≈ 14380	E65/32/27-3C90-E100
	160 ±5% ⁽¹⁾	≈ 35	≈ 7560	E65/32/27-3C90-E160
	250 ±5% ⁽¹⁾	≈ 54	≈ 4100	E65/32/27-3C90-E250
	315 ±5% ⁽¹⁾	≈ 68	≈ 3020	E65/32/27-3C90-E315
	400 ±8% ⁽¹⁾	≈ 87	≈ 2200	E65/32/27-3C90-E400
	630 ±10% ⁽¹⁾	≈ 136	≈ 1240	E65/32/27-3C90-E630
	8600 ±25%	≈ 1860	≈ 0	E65/32/27-3C90
3C92 des	6000 ±25%	≈ 1310	≈ 0	E65/32/27-3C92
3C94	8600 ±25%	≈ 1860	≈ 0	E65/32/27-3C94
3C95 des	10600 ±25%	≈ 2300	≈ 0	E65/32/27-3C95
3F3	100 ±5% ⁽¹⁾	≈ 22	≈ 14380	E65/32/27-3F3-E100
	160 ±5% ⁽¹⁾	≈ 35	≈ 7560	E65/32/27-3F3-E160
	250 ±5% ⁽¹⁾	≈ 54	≈ 4100	E65/32/27-3F3-E250
	315 ±5% ⁽¹⁾	≈ 68	≈ 3020	E65/32/27-3F3-E315
	400 ±8% ⁽¹⁾	≈ 87	≈ 2200	E65/32/27-3F3-E400
	630 ±10% ⁽¹⁾	≈ 136	≈ 1240	E65/32/27-3F3-E630
	7300 ±25%	≈ 1580	≈ 0	E65/32/27-3F3

Note

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

E cores and accessories

E65/32/27

Core halves of high permeability gradesClamping force for A_L measurements, 60 ± 20 N.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C11	$16700 \pm 25\%$	≈ 3620	≈ 0	E65/32/27-3C11

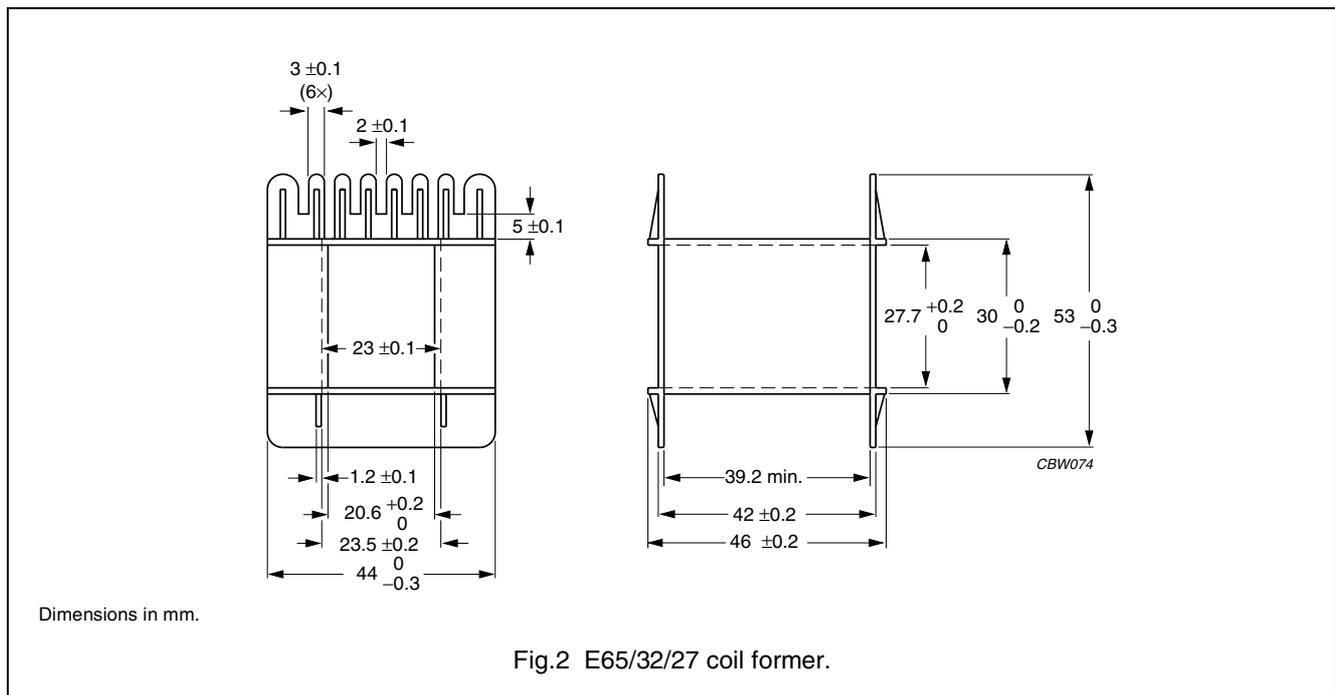
Properties of core sets under power conditions

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	≤ 9.1	≤ 12	–	–	–
3C92	≥ 370	–	≤ 8.5	–	≤ 47	–
3C94	≥ 320	–	≤ 8.5	–	≤ 47	–
3C95	≥ 320	–	–	≤ 49.8	≤ 47.4	–
3F3	≥ 320	–	≤ 10.5	–	–	≤ 21

COIL FORMER

General data for E65/32/27 coil former without pins

PARAMETER	SPECIFICATION
Coil former material	polyethylene terephthalate (PET), glass reinforced, flame retardant in accordance with "UL 94V-0"; UL file number E107536
Maximum operating temperature	130 °C, "IEC 60085", class B



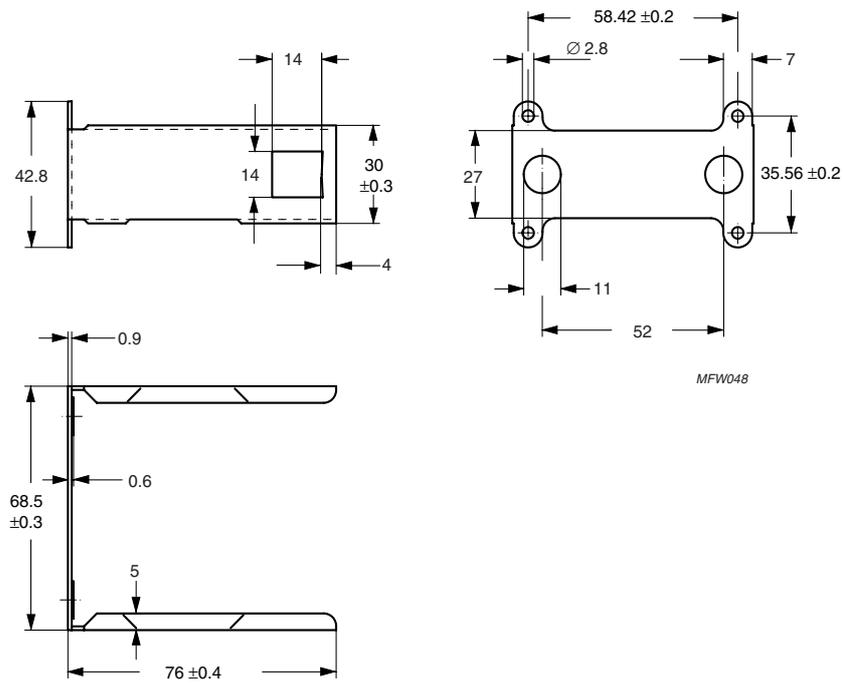
Winding data and area product for E65/32/27 coil former without pins (E)

NUMBER OF SECTIONS	MINIMUM WINDING AREA (mm ²)	NOMINAL WINDING WIDTH (mm)	AVERAGE LENGTH OF TURN (mm)	AREA PRODUCT Ae x Aw (mm ⁴)	TYPE NUMBER
1	394	39.2	150	213000	CP-E65-1S-T

MOUNTING PARTS

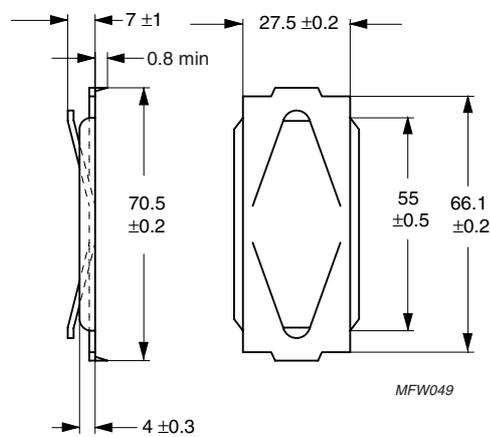
General data for mounting parts

ITEM	REMARKS	FIGURE	TYPE NUMBER
Clasp	steel, zinc (Zn) plated	3	CLA-E65/32/27
Spring	steel, zinc (Zn) plated	4	SPR-E65/32/27



Dimensions in mm.

Fig.3 E65/32/27 clasp.



Dimensions in mm.

Fig.4 E65/32/27 spring.

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
Prototype		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.
Design-in		These products are recommended for new designs.
Preferred		These products are recommended for use in current designs and are available via our sales channels.
Support		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.