

# DATA SHEET

**ER28/17/11**

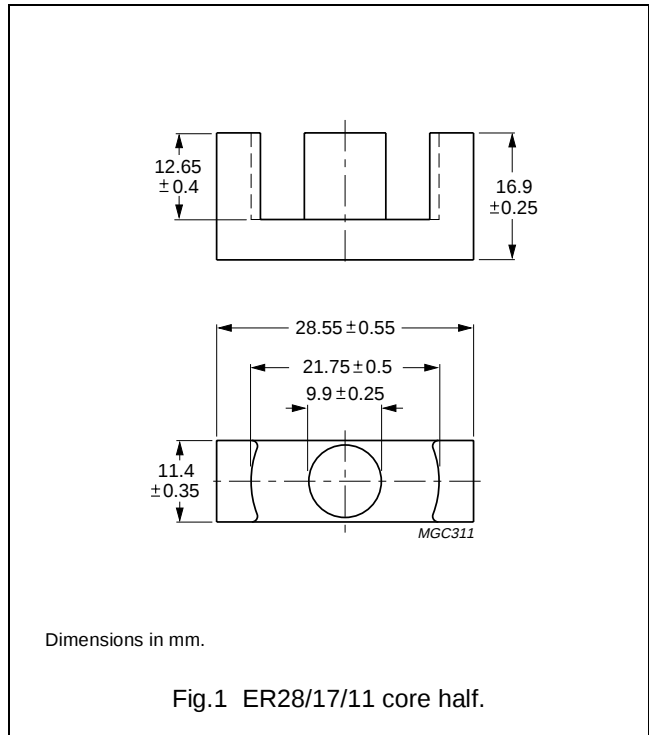
**ER cores and accessories**

Supersedes data of February 2002

2004 Sep 01

**CORE SETS****Effective core parameters**

| SYMBOL        | PARAMETER         | VALUE | UNIT             |
|---------------|-------------------|-------|------------------|
| $\Sigma(l/A)$ | core factor (C1)  | 0.928 | mm <sup>-1</sup> |
| $V_e$         | effective volume  | 6140  | mm <sup>3</sup>  |
| $l_e$         | effective length  | 75.5  | mm               |
| $A_e$         | effective area    | 81.4  | mm <sup>2</sup>  |
| $A_{min}$     | minimum area      | 77.0  | mm <sup>2</sup>  |
| $m$           | mass of core half | ≈ 16  | g                |

**Core halves**

Clamping force for  $A_L$  measurements,  $40 \pm 20$  N. Gapped cores are available on request.

| GRADE | $A_L$<br>(nH)   | $\mu_e$ | AIR GAP<br>( $\mu$ m) | TYPE NUMBER     |
|-------|-----------------|---------|-----------------------|-----------------|
| 3C90  | $2500 \pm 25\%$ | ≈ 1900  | ≈ 0                   | ER28/17/11-3C90 |
| 3C94  | $2500 \pm 25\%$ | ≈ 1900  | ≈ 0                   | ER28/17/11-3C94 |

**Properties of core sets under power conditions**

| GRADE | B (mT) at                                 | CORE LOSS (W) at                          |                                            |                                            |
|-------|-------------------------------------------|-------------------------------------------|--------------------------------------------|--------------------------------------------|
|       | H = 250 A/m;<br>f = 25 kHz;<br>T = 100 °C | f = 25 kHz;<br>B̂ = 200 mT;<br>T = 100 °C | f = 100 kHz;<br>B̂ = 100 mT;<br>T = 100 °C | f = 100 kHz;<br>B̂ = 200 mT;<br>T = 100 °C |
| 3C90  | ≥ 320                                     | ≤ 0.74                                    | ≤ 0.77                                     | —                                          |
| 3C94  | ≥ 320                                     | —                                         | ≤ 0.58                                     | ≤ 3.7                                      |

## ER cores and accessories

ER28/17/11

## 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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