

DATA SHEET

RM14/ILP

RM cores and accessories

Supersedes data of February 2002

2004 Sep 01

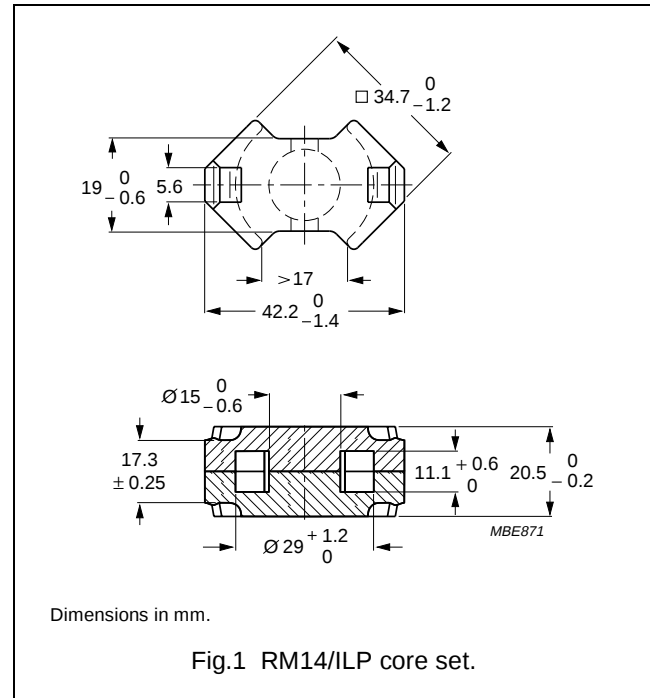
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CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.250	mm ⁻¹
V_e	effective volume	10230	mm ³
l_e	effective length	50.9	mm
A_e	effective area	201	mm ²
A_{min}	minimum area	168	mm ²
m	mass of set	≈ 55	g



Core sets for general purpose transformers and power applications

Clamping force for A_L measurements, 80 ± 20 N.

GRADE	A_L (nH)	μ_e	AIR GAP (μ m)	TYPE NUMBER
3C90	$8400 \pm 25\%$	≈ 1690	≈ 0	RM14/ILP-3C90
3C94	$8400 \pm 25\%$	≈ 1690	≈ 0	RM14/ILP-3C94
3C96 des	$7700 \pm 25\%$	≈ 1550	≈ 0	RM14/ILP-3C96
3F3	$7700 \pm 25\%$	≈ 1550	≈ 0	RM14/ILP-3F3
3F35 prot	$5800 \pm 25\%$	≈ 1150	≈ 0	RM14/ILP-3F35
3F4 des	$4200 \pm 25\%$	≈ 850	≈ 0	RM14/ILP-3F4

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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; B̂ = 200 mT; T = 100 °C	f = 100 kHz; B̂ = 100 mT; T = 100 °C	f = 100 kHz; B̂ = 200 mT; T = 100 °C	f = 400 kHz; B̂ = 50 mT; T = 100 °C
3C90	≥315	≤ 1.3	≤ 1.4	–	–
3C94	≥315	–	≤ 1.1	≤ 5.5	–
3C96	≥340	–	≤ 0.82	≤ 4.4	≤ 1.9
3F3	≥300	–	≤ 1.2	–	≤ 2.0
3F35	≥300	–	–	–	–
3F4	≥250	–	–	–	–

Properties of core sets under power conditions (continued)

GRADE	B (mT) at	CORE LOSS (W) at			
	H = 250 A/m; f = 25 kHz; T = 100 °C	f = 500 kHz; B̂ = 50 mT; T = 100 °C	f = 500 kHz; B̂ = 100 mT; T = 100 °C	f = 1 MHz; B̂ = 30 mT; T = 100 °C	f = 3 MHz; B̂ = 10 mT; T = 100 °C
3C90	≥315	–	–	–	–
3C94	≥315	–	–	–	–
3C96	≥340	≤ 3.8	–	–	–
3F3	≥300	–	–	–	–
3F35	≥300	≤ 1.4	≤ 11	–	–
3F4	≥250	–	–	≤ 3.0	≤ 4.9

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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.