DATA SHEET

RM7/ILP
RM, RM/I, RM/ILP cores and accessories

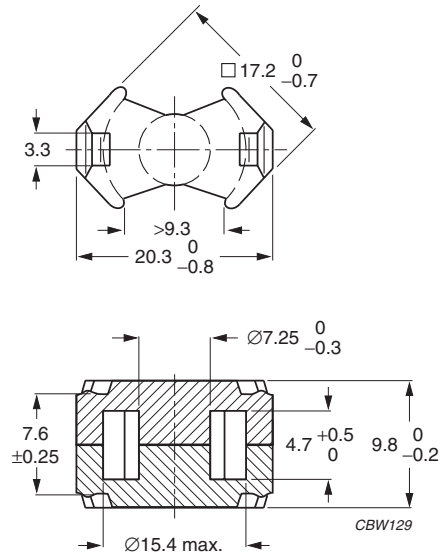
Supersedes data of September 2004 2008 Sep 01

FERROXCUBE
A YAGEO COMPANY

CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
Σ(l/A)	core factor (C1)	0.520	mm^{-1}
V_e	effective volume	1 060	mm^3
l_e	effective length	23.5	mm
A_e	effective area	45.3	mm^2
A_{min}	minimum area	39.6	mm^2
m	mass of set	≈ 6.0	g



Dimensions in mm.

Fig.1 RM7/ILP core set.

Core sets for general purpose transformers and power applications

Clamping force for A_L measurements 40 ±20 N.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C90 sup	3650 ±25%	≈ 1510	≈ 0	RM7/ILP-3C90
3F3 sup	3100 ±25%	≈ 1280	≈ 0	RM7/ILP-3F3
3F4 sup	1800 ±25%	≈ 740	≈ 0	RM7/ILP-3F4

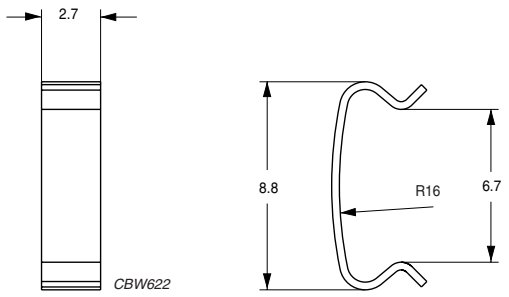
Properties of core sets under power conditions

GRADE	B (mT) at	CORE LOSS (W) at				
	H = 250 A/m; f = 25 kHz; T = 100 °C	$\hat{f}$ = 25 kHz; $\hat{B}$ = 200 mT; T = 100 °C	$\hat{f}$ = 100 kHz; $\hat{B}$ = 100 mT; T = 100 °C	$\hat{f}$ = 400 kHz; $\hat{B}$ = 50 mT; T = 100 °C	$\hat{f}$ = 1 MHz; $\hat{B}$ = 30 mT; T = 100 °C	$\hat{f}$ = 3 MHz; $\hat{B}$ = 10 mT; T = 100 °C
3C90	≥320	≤ 0.13	≤ 0.14	–	–	–
3F3	≥300	–	≤ 0.12	≤ 0.20	–	–
3F4	≥250	–	–	–	≤ 0.32	≤ 0.5

MOUNTING PARTS

General data

ITEM	SPECIFICATION
Clamping force	≈20 N
Clip material	stainless steel (CrNi)
Type number	CLI-RM7/ILP



Dimensions in mm.

Fig.2 Mounting clip for RM7/ILP.

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.

DISCLAIMER

Life support applications — These products are not designed for use in life support appliances, devices, or systems where malfunction of these products can reasonably be expected to result in personal injury. Ferroxcube customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Ferroxcube for any damages resulting from such application.

PRODUCT STATUS DEFINITIONS

STATUS	INDICATION	DEFINITION
Prototype	prot	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	des	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	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.