

# Apéndice D

## Hoja técnica del núcleo RM/14I

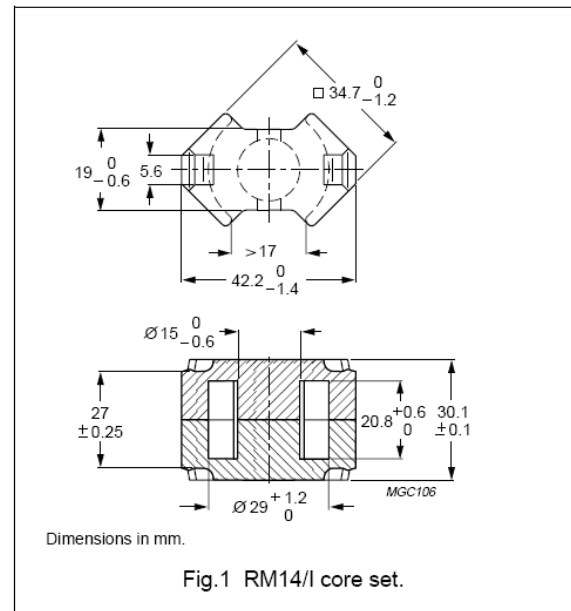
RM cores and accessories

RM14/I

### CORE SETS

#### Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.353	mm <sup>-1</sup>
$V_e$	effective volume	13900	mm <sup>3</sup>
$l_e$	effective length	70.0	mm
$A_e$	effective area	198	mm <sup>2</sup>
$A_{min}$	minimum area	168	mm <sup>2</sup>
$m$	mass of set	≈ 69	g



**Core sets for general purpose transformers and power applications**

Clamping force for  $A_L$  measurements,  $80 \pm 20$  N.

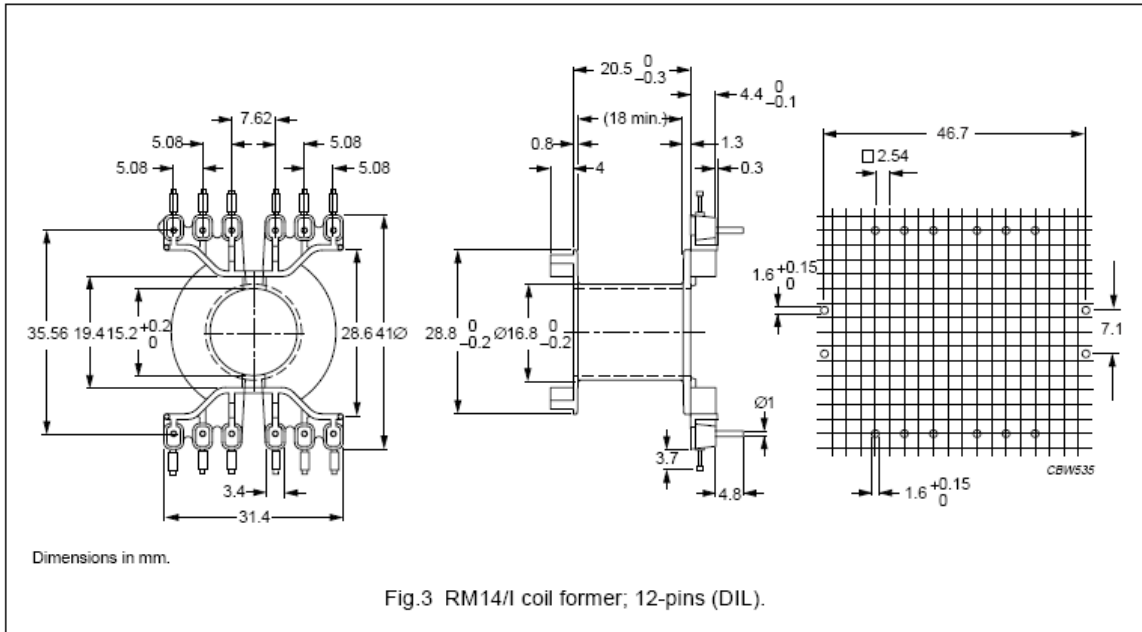
GRADE	$A_L$ (nH)	$\mu_e$	AIR GAP ( $\mu\text{m}$ )	TYPE NUMBER
3C90	250 $\pm 3\%$	$\approx 70$	$\approx 1270$	RM14/I-3C90-A250
	315 $\pm 3\%$	$\approx 89$	$\approx 950$	RM14/I-3C90-A315
	400 $\pm 3\%$	$\approx 113$	$\approx 710$	RM14/I-3C90-A400
	630 $\pm 5\%$	$\approx 177$	$\approx 410$	RM14/I-3C90-A630
	1000 $\pm 5\%$	$\approx 281$	$\approx 240$	RM14/I-3C90-A1000
	6600 $\pm 25\%$	$\approx 1850$	$\approx 0$	RM14/I-3C90
3C94	250 $\pm 3\%$	$\approx 70$	$\approx 1270$	RM14/I-3C94-A250
	315 $\pm 3\%$	$\approx 89$	$\approx 950$	RM14/I-3C94-A315
	400 $\pm 3\%$	$\approx 113$	$\approx 710$	RM14/I-3C94-A400
	630 $\pm 5\%$	$\approx 177$	$\approx 410$	RM14/I-3C94-A630
	1000 $\pm 5\%$	$\approx 281$	$\approx 240$	RM14/I-3C94-A1000
	6600 $\pm 25\%$	$\approx 1850$	$\approx 0$	RM14/I-3C94
3C96 <b>des</b>	5700 $\pm 25\%$	$\approx 1600$	$\approx 0$	RM14/I-3C96
3F3	250 $\pm 3\%$	$\approx 70$	$\approx 1270$	RM14/I-3F3-A250
	315 $\pm 3\%$	$\approx 89$	$\approx 950$	RM14/I-3F3-A315
	400 $\pm 3\%$	$\approx 113$	$\approx 710$	RM14/I-3F3-A400
	630 $\pm 5\%$	$\approx 177$	$\approx 410$	RM14/I-3F3-A630
	1000 $\pm 5\%$	$\approx 281$	$\approx 240$	RM14/I-3F3-A1000
	5700 $\pm 25\%$	$\approx 1600$	$\approx 0$	RM14/I-3F3

**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	$\geq 315$	$\leq 1.67$	$\leq 1.76$	–	–
3C94	$\geq 315$	–	$\leq 1.4$	$\leq 7.4$	–
3C96	$\geq 340$	–	$\leq 1.1$	$\leq 5.6$	$\leq 2.6$
3F3	$\geq 315$	–	$\leq 1.55$	–	$\leq 2.65$

**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; $\hat{B} = 50$ mT; T = 100 °C	f = 500 kHz; $\hat{B} = 100$ mT; T = 100 °C	f = 1 MHz; $\hat{B} = 30$ mT; T = 100 °C	f = 3 MHz; $\hat{B} = 10$ mT; T = 100 °C
3C90	$\geq 320$	–	–	–	–
3C94	$\geq 320$	–	–	–	–
3C96	$\geq 340$	$\leq 5.2$	–	–	–
3F3	$\geq 315$	–	–	–	–



**Winding data for 12-pins RM14/I coil former (DIL)**

NUMBER OF SECTIONS	AVERAGE LENGTH OF TURN (mm)	WINDING AREA (mm <sup>2</sup> )	WINDING WIDTH (mm)	TYPE NUMBER
1	71	111	18.0	CPV-RM14/I-1S-12PD