

APÉNDICE B

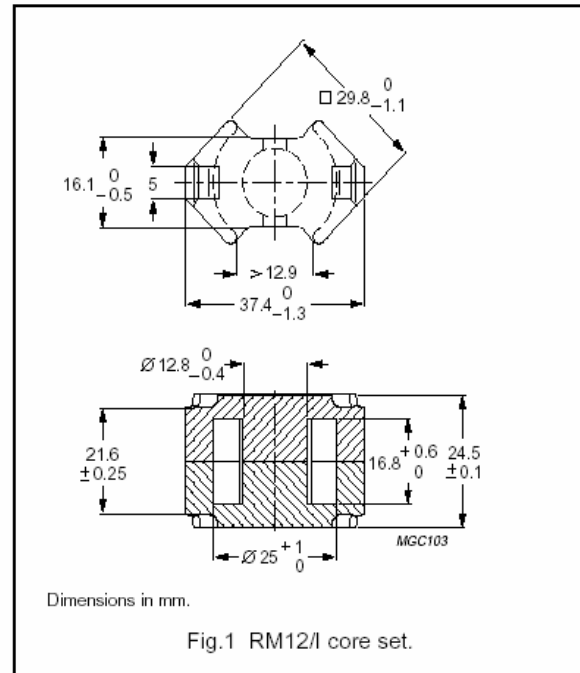
HOJA TÉCNICA DEL NÚCLEO RM12/I

RM cores and accessories



RM12/I

CORE SETS
Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.388	mm ⁻¹
V_e	effective volume	8340	mm ³
l_e	effective length	56.6	mm
A_e	effective area	146	mm ²
A_{min}	minimum area	125	mm ²
m	mass of set	≈45	g


Core sets for general purpose transformers and power applications

 Clamping force for A_L measurements, 70 ± 20 N.

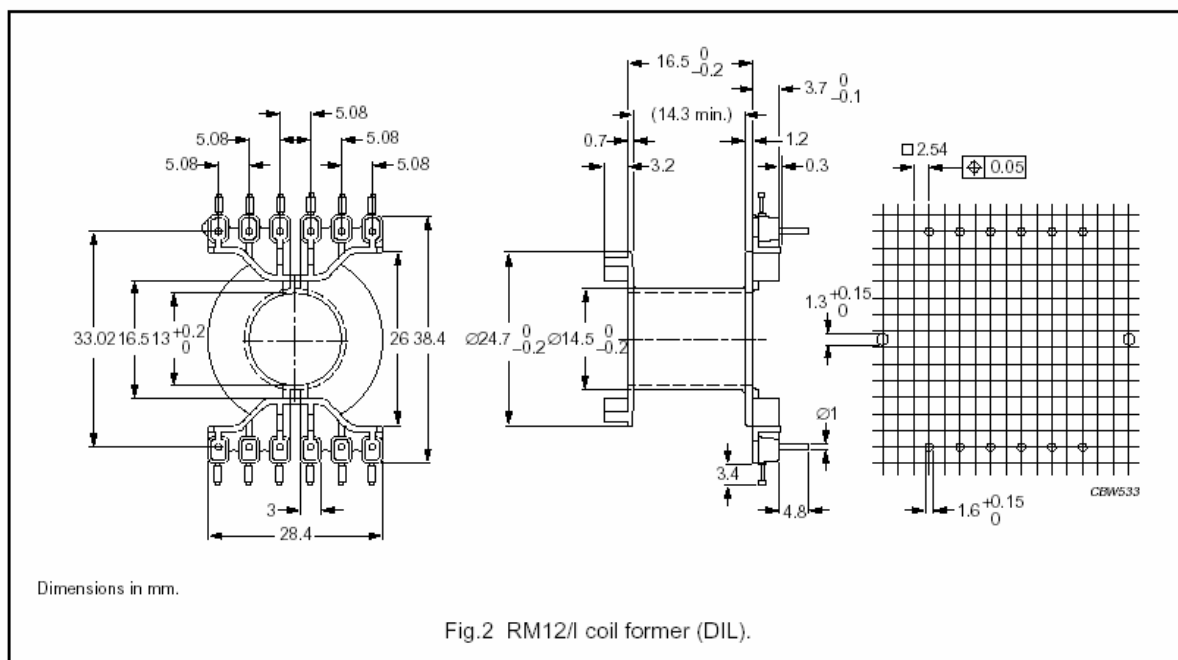
GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C90	160 ±3%	≈49	≈1400	RM12/I-3C90-A160
	250 ±3%	≈77	≈800	RM12/I-3C90-A250
	315 ±5%	≈97	≈550	RM12/I-3C90-A315
	400 ±5%	≈123	≈450	RM12/I-3C90-A400
	630 ±5%	≈196	≈300	RM12/I-3C90-A630
	6200 ±25%	≈1910	≈0	RM12/I-3C90
3C94 	160 ±3%	≈49	≈1400	RM12/I-3C94-A160
	250 ±3%	≈77	≈800	RM12/I-3C94-A250
	315 ±5%	≈97	≈550	RM12/I-3C94-A315
	400 ±5%	≈123	≈450	RM12/I-3C94-A400
	630 ±5%	≈196	≈300	RM12/I-3C94-A630
	6200 ±25%	≈1910	≈0	RM12/I-3C94
3C96 	5500 ±25%	≈1510	≈0	RM12/I-3C96

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COIL FORMER
General data

PARAMETER	SPECIFICATION
Coil former material	polybutyleneterephthalate (PBT), glass-reinforced, flame retardant in accordance with UL 94V-0; UL file number E45329(R)
Pin material	copper-tin alloy (CuSn), tin-lead alloy (SnPb) plated
Maximum operating temperature	155 °C, IEC 60085 class F
Resistance to soldering heat	"IEC 60068-2-20", Part 2, Test Tb, method 1B, 350 °C, 3.5 s
Solderability	"IEC 60068-2-20", Part 2, Test Ta, method 1


Winding data for RM12/I coil former (DIL)

NUMBER OF SECTIONS	AVERAGE LENGTH OF TURN (mm)	WINDING AREA (mm ²)	WINDING WIDTH (mm)	TYPE NUMBER
1	61	75.0	14.3	CPV-RM12/I-1S-12PD

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3F3	$160 \pm 3\%$	≈ 49	≈ 1400	RM12/I-3F3-A160
	$250 \pm 3\%$	≈ 77	≈ 800	RM12/I-3F3-A250
	$315 \pm 5\%$	≈ 97	≈ 550	RM12/I-3F3-A315
	$400 \pm 5\%$	≈ 123	≈ 450	RM12/I-3F3-A400
	$630 \pm 5\%$	≈ 196	≈ 300	RM12/I-3F3-A630
	$5050 \pm 25\%$	≈ 1560	≈ 0	RM12/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	≥ 315	≤ 1.00	≤ 1.06	–	–
3C94	≥ 315	–	≤ 0.8	≈ 3.5	≈ 1.8
3C96	≥ 320	–	≈ 0.55	≈ 2.5	≈ 1.3
3F3	≥ 315	–	≤ 0.92	–	≤ 1.60

MOUNTING PARTS
General data

ITEM	SPECIFICATION
Clamping force	≈ 35 N
Clip material	stainless steel
Clip plating	tin-lead alloy (SnPb)
Solderability	"IEC 60068-2-20", Part 2, Test Ta, method 1
Type number	CLI/P-RM12/I

