

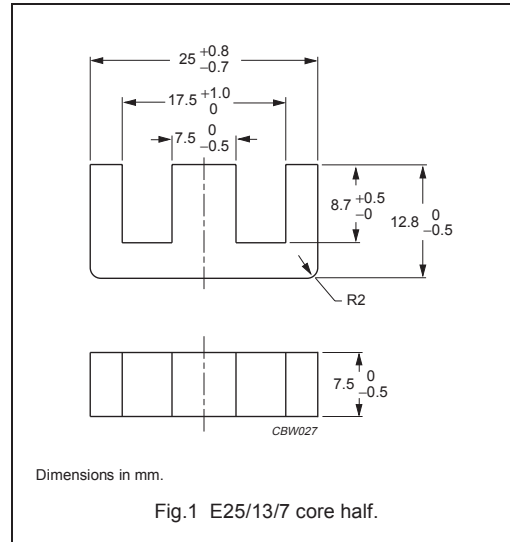
E cores and accessories

E25/13/7
(EF25)

CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	1.11	mm ⁻¹
V_e	effective volume	2990	mm ³
l_e	effective length	58.0	mm
A_e	effective area	52.0	mm ²
A_{min}	minimum area	52.0	mm ²
m	mass of core half	≈ 8	g



Core halves

A_L measured in combination with a non-gapped core half, clamping force for A_L measurements 20 ± 10 N unless otherwise stated.

GRADE	A_L (nH)	μ_e	TOTAL AIR GAP (μ m)	TYPE NUMBER
3C81	$63 \pm 5\%^{(1)}$	≈ 56	≈ 1740	E25/13/7-3C81-E63
	$100 \pm 8\%$	≈ 99	≈ 920	E25/13/7-3C81-A100
	$160 \pm 8\%$	≈ 143	≈ 500	E25/13/7-3C81-A160
	$250 \pm 15\%$	≈ 224	≈ 280	E25/13/7-3C81-A250
	$315 \pm 15\%$	≈ 282	≈ 210	E25/13/7-3C81-A315
	$2460 \pm 25\%$	≈ 2200	≈ 0	E25/13/7-3C81
3C90	$63 \pm 5\%^{(1)}$	≈ 56	≈ 1740	E25/13/7-3C90-E63
	$100 \pm 8\%$	≈ 99	≈ 920	E25/13/7-3C90-A100
	$160 \pm 8\%$	≈ 143	≈ 500	E25/13/7-3C90-A160
	$250 \pm 15\%$	≈ 224	≈ 280	E25/13/7-3C90-A250
	$315 \pm 15\%$	≈ 282	≈ 210	E25/13/7-3C90-A315
	$1900 \pm 25\%$	≈ 1700	≈ 0	E25/13/7-3C90
3C91 des	$2460 \pm 25\%$	≈ 2200	≈ 0	E25/13/7-3C91
3C92 des	$1450 \pm 25\%$	≈ 1280	≈ 0	E25/13/7-3C92
3C94	$1900 \pm 25\%$	≈ 1700	≈ 0	E25/13/7-3C94
3C96 des	$1650 \pm 25\%$	≈ 1480	≈ 0	E25/13/7-3C96

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GRADE	A _L (nH)	μ _e	TOTAL AIR GAP (μm)	TYPE NUMBER
3F3	63 ±5% ⁽¹⁾	≈ 56	≈ 1740	E25/13/7-3F3-E63
	100 ±8%	≈ 99	≈ 920	E25/13/7-3F3-A100
	160 ±8%	≈143	≈ 500	E25/13/7-3F3-A160
	250 ±15%	≈ 224	≈ 280	E25/13/7-3F3-A250
	315 ±15%	≈ 282	≈ 210	E25/13/7-3F3-A315
	1650 ±25%	≈ 1480	≈ 0	E25/13/7-3F3
3F35 	1250 ±25%	≈ 1120	≈ 0	E25/13/7-3F3

Note

1. Measured in combination with an equal gapped core half, clamping force for A_L measurements, 20 ±10 N.

Core halves of high permeability grades

Clamping force for A_L measurements 20 ±10 N.

GRADE	A _L (nH)	μ _e	AIR GAP (μm)	TYPE NUMBER
3E27	4000 ±25%	≈ 3580	≈ 0	E25/13/7-3E27

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
3C81	≥320	≤ 0.61	–	–	–
3C90	≥330	≤ 0.35	≤ 0.38	–	–
3C91	≥320	–	≤ 0.22 ⁽¹⁾	≤ 1.2 ⁽¹⁾	–
3C92	≥370	–	≤ 0.3	≤ 1.5	–
3C94	≥330	–	≤ 0.3	≤ 1.5	–
3C96	≥340	–	≤ 0.22	≤ 1.2	–
3F3	≥320	–	≤ 0.38	–	≤ 0.65
3F35	≥300	–	–	–	–

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
3C96	≥340	≤ 1.1	–	–	–
3F3	≥320	–	–	–	–
3F35	≥300	≤ 0.4	≤ 3.1	–	–

Note

1. Measured at 60 °C.

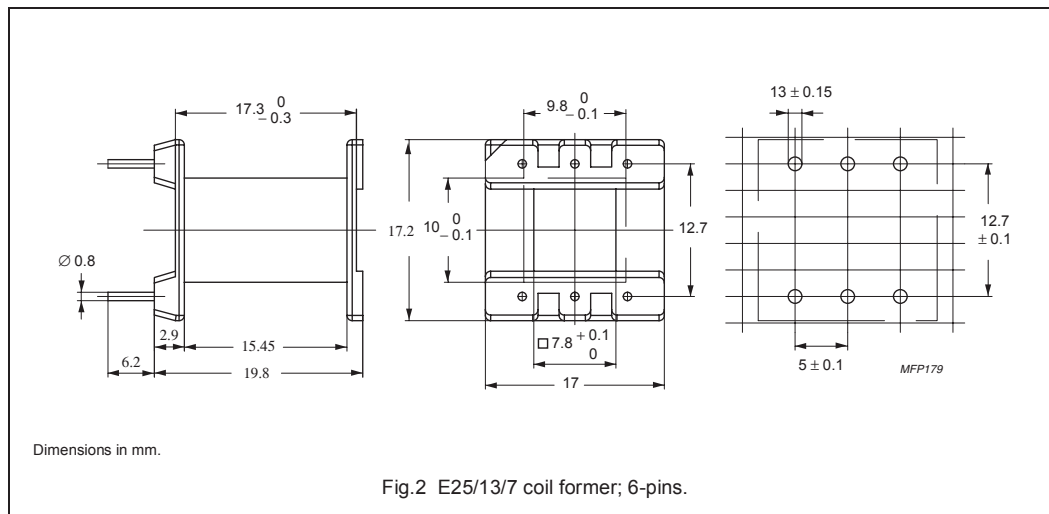
E cores and accessories

E25/13/7
(EF25)

COIL FORMERS

General data for 6-pins E25/13/7 coil former

PARAMETER	SPECIFICATION
Coil former material	phenolformaldehyde (PF), glass reinforced, flame retardant in accordance with "UL 94V-0"; UL file number E59481(M)
Pin material	copper-tin alloy (CuSn), tin (Sn) plated
Maximum operating temperature	180 °C, "IEC 60085", class H
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, 235 °C, 2 s



Winding data and area product for 6-pins E25/13/7 coil former

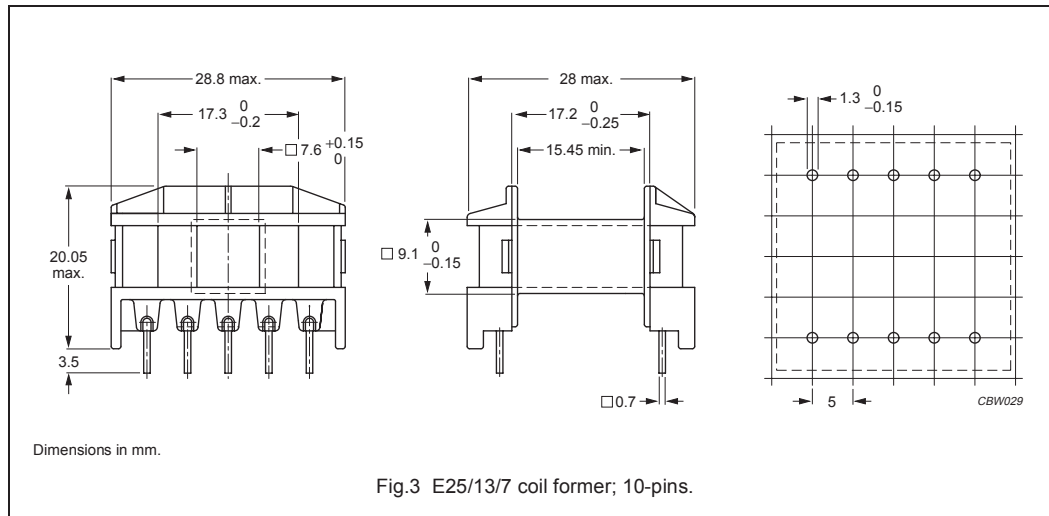
NUMBER OF SECTIONS	WINDING AREA (mm ²)	MINIMUM WINDING WIDTH (mm)	AVERAGE LENGTH OF TURN (mm)	AREA PRODUCT Ae x Aw (mm ⁴)	TYPE NUMBER
1	56	15.45	49	2910	CSV-E25/13/7-1S-6P-C

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General data for 10-pins E25/13/7 coil former

PARAMETER	SPECIFICATION
Coil former material	polybutyleneterephthalate (PBT), glass reinforced, flame retardant in accordance with "UL 94V-0"; UL file number E41871(M)
Pin material	copper-tin alloy (CuSn), tin (Sn) 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, 235 °C, 2 s



Winding data and area product for 10-pins E25/13/7 coil former

NUMBER OF SECTIONS	WINDING AREA (mm ²)	MINIMUM WINDING WIDTH (mm)	AVERAGE LENGTH OF TURN (mm)	AREA PRODUCT Ae x Aw (mm ⁴)	TYPE NUMBER
1	63.3	15.45	52.8	3290	CPH-E25/13/7-1S-10P

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MOUNTING PARTS

General data for mounting parts

ITEM	REMARKS	FIGURE	TYPE NUMBER
Clip	stainless steel (CrNi)	4	CLI-E25/13/7

