

CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(I/A)$	core factor (C1)	0.264	mm $^{-\$1}$
V_e	effective volume	10700	mm 3
l_e	effective length	53.2	mm
A_e	effective area	202	mm 2
A_{min}	minimum area	172	mm 2
m	mass of set	≈ 54	g

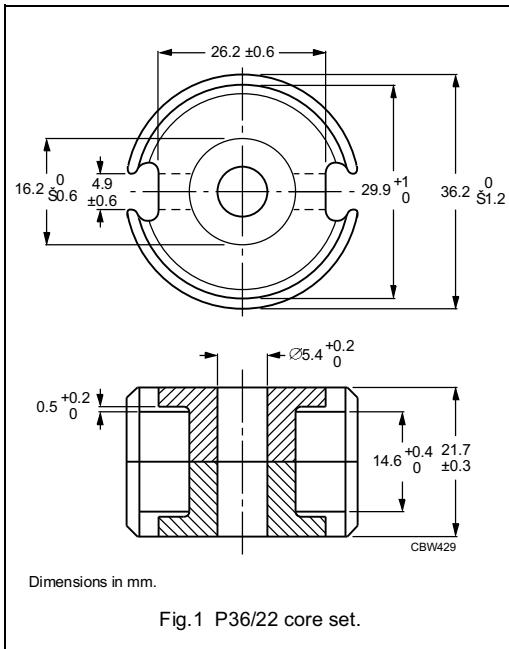


Fig.1 P36/22 core set.

Core sets for general purpose transformers and power applications

Clamping force for A_L measurements, 350 ± 50 N.

GRADE	A_L (nH)	μ_e	TOTAL AIR GAP (μm)	TYPE NUMBER
3C81	$315 \pm 3\%$	≈ 66	≈ 970	P36/22-3C81-E315
	$400 \pm 3\%$	≈ 84	≈ 730	P36/22-3C81-E400
	$630 \pm 3\%$	≈ 132	≈ 430	P36/22-3C81-A630
	$1000 \pm 3\%$	≈ 210	≈ 250	P36/22-3C81-A1000
	$1600 \pm 5\%$	≈ 335	≈ 150	P36/22-3C81-A1600
	$10800 \pm 25\%$	≈ 2260	≈ 0	P36/22-3C81
3C91 des	$10800 \pm 25\%$	≈ 2260	≈ 0	P36/22-3C91
3F3	$250 \pm 3\%$	≈ 52	≈ 1340	P36/22-3F3-E250
	$315 \pm 3\%$	≈ 66	≈ 970	P36/22-3F3-E315
	$400 \pm 3\%$	≈ 84	≈ 730	P36/22-3F3-E400
	$630 \pm 3\%$	≈ 132	≈ 430	P36/22-3F3-A630
	$1000 \pm 3\%$	≈ 210	≈ 250	P36/22-3F3-A1000
	$1600 \pm 5\%$	≈ 335	≈ 150	P36/22-3F3-A1600
	$7350 \pm 25\%$	≈ 1540	≈ 0	P36/22-3F3

Core sets of high permeability grades
Clamping force for A_L measurements, 350 ± 50 N.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3E27	$17500 \pm 25\%$	≈ 3670	≈ 0	P36/22-3E27

Properties of core sets under power conditions

GRADE	B (mT) at	CORE LOSS (W) at			
		$f = 25$ 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
3C81	≥ 320	≤ 2.5	\checkmark	\checkmark	\checkmark
3C91	≥ 315	—	$\leq 0.6^{(1)}$	$\leq 4.5^{(1)}$	\checkmark
3F3	≥ 315	—	≤ 1.2	—	≤ 2.0

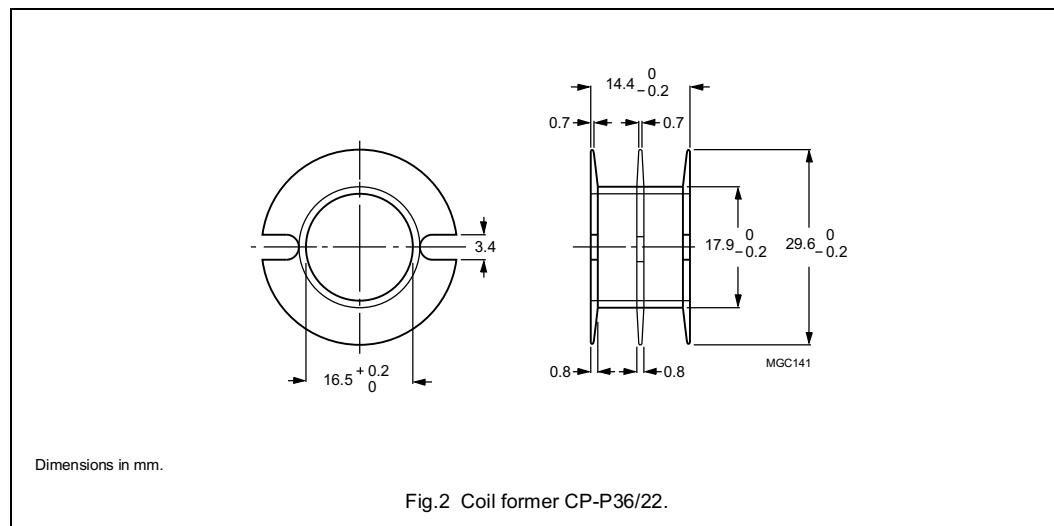
Note

1. Measured at 60 °C.

COIL FORMERS

General data for coil former CP-P36/22

PARAMETER	SPECIFICATION
Coil former material	polybutyleneterephthalate (PBT), glass reinforced, flame retardant in accordance with "UL 94V-0"; UL file number E45329 (R)
Maximum operating temperature	155 °C, "IEC 60 085", class F



Winding data and area product for coil former CP-P36/22

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	72.4	12.5	74.3	14600	CP-P36/22-1S
2	2 × 33.9	2 × 5.8	74.3	2 × 6850	CP-P36/22-2S
3	3 × 21.0	3 × 3.6	74.3	3 × 4240	CP-P36/22-3S

MOUNTING PARTS

General data and ordering information

ITEM	REMARKS	FIGURE	TYPE NUMBER
Tag plate	material: phenolformaldehyde (PF), glass reinforced	3	TGP-P36/22-C
	flame retardant: in accordance with "UL 94V-0"; UL file number E41429		
	maximum operating temperature: 180 °C, "IEC 60085", class H		
	pins: copper-tin alloy (CuSn), tin (Sn) plated		
	resistance to soldering heat in accordance with "IEC 60068-2-20", Part 2, Test Tb, method 1B: 350 °C, 3.5 s		
	solderability in accordance with "IEC 60068-2-20", Part 2, Test Ta, method 1: 235 °C, 2 s		
Container	copper-zinc alloy (CuZn), tin (Sn) plated	4	CON-P36/22
	earth pins: presoldered		
Spring	CrNi-steel	5	SPR-P36/22
	spring force: ≈350 N when mounted		

