

- E core with flattened, lower center leg for especially flat transformer design
- For DC/DC converters
- EFD cores are supplied as single units

**Magnetic characteristics** (per set)

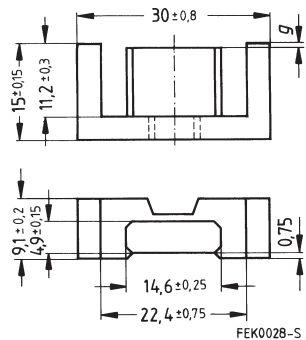
$$\Sigma l/A = 0,99 \text{ mm}^{-1}$$

$$l_e = 68 \text{ mm}$$

$$A_e = 69 \text{ mm}^2$$

$$A_{\min} = 69 \text{ mm}^2$$

$$V_e = 4\,690 \text{ mm}^3$$

**Approx. weight** 24 g/set

**Ungapped**

Material	$A_L$ value nH	$\mu_e$	$A_{L1\min}$ nH	$P_V$ W/set	Ordering code
N87	2050 + 30/- 20 %	1610	1280	< 2,60 (200 mT, 100 kHz, 100 °C)	B66423-G-X187

**Gapped**

Material	$A_L$ value nH	$\mu_e$	$g$ approx. mm	Ordering code
N87	160 ± 10 %	125	0,71	B66423-U160-K187
	250 ± 10 %	196	0,38	B66423-U250-K187
	315 ± 10 %	246	0,27	B66423-U315-K187

The  $A_L$  value in the table applies to a core set comprising one ungapped core (dimension  $g = 0$ ) and one gapped core (dimension  $g > 0$ ).

**Calculation factors** (for formulas, see “E cores: general information”, page 382)

Material	Relationship between air gap – $A_L$ value		Calculation of saturation current			
	$K1$ (25 °C)	$K2$ (25 °C)	$K3$ (25 °C)	$K4$ (25 °C)	$K3$ (100 °C)	$K4$ (100 °C)
N87	125	- 0,712	176	- 0,796	161	- 0,873

Validity range:  $K1, K2: 0,10 \text{ mm} < s < 2,00 \text{ mm}$   
 $K3, K4: 70 \text{ nH} < A_L < 630 \text{ nH}$

**Coil former**

Material: GFR thermosetting plastic; UL 94 V-0, insulation class to IEC 60085:  
 B66424-B:  $F \triangleq$  max. operating temperature 155 °C; color code green  
 B66424-W:  $H \triangleq$  max. operating temperature 180 °C; color code black

Solderability: to IEC 60068-2-20, test Ta, method 1 (aging 3): 235 °C, 2 s

Resistance to soldering heat: to IEC 60068-2-20, test Tb, method 1B: 350 °C, 3,5 s

Winding: see "Processing Notes", page 157

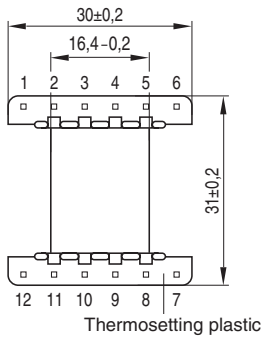
Squared pins

**Yoke**

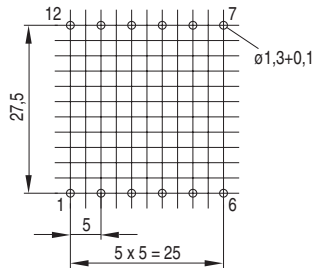
Material: Stainless spring steel (0,45 mm)

Coil former					Ordering code
Sections	$A_N$ mm <sup>2</sup>	$l_N$ mm	$A_R$ value $\mu\Omega$	Pins	
1	52,3	56,7	37,3	12	B66424-B1012-D1 B66424-W1012-D1
Yoke (ordering code per piece, 2 are required)					B66424-B2000

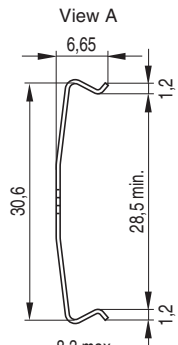
**Coil former**



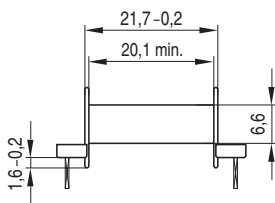
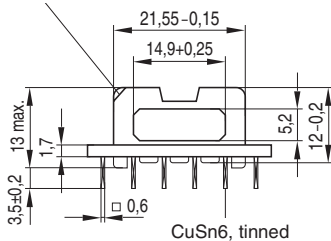
**Mounting holes**



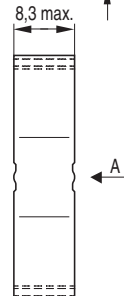
**Yoke**



**Marking of pin 1**



FEK0212-1



FEK0272-R

**Herausgegeben von EPCOS AG**

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