

- 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)

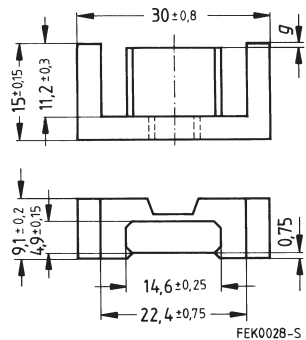
$$\Sigma/A = 0,99 \text{ mm}^{-1}$$

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

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

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

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

Approx. weight 24 g/set

Ungapped

| Material | A_L value nH | μ_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 | μ_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

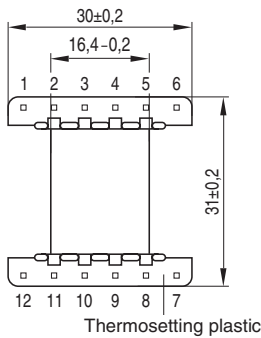
Squared pins

Yoke

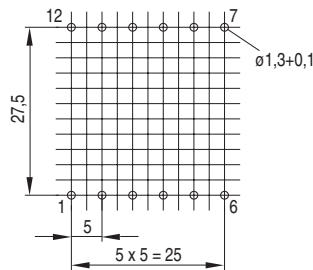
Material: Stainless spring steel (0,45 mm)

| Coil former | | | | | Ordering code |
|--|--------------------------|-------------|----------------------------|------|------------------------------------|
| Sections | A_N mm ² | 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 |

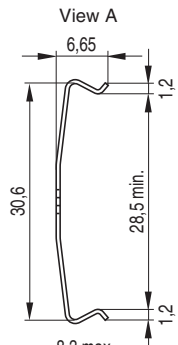
Coil former



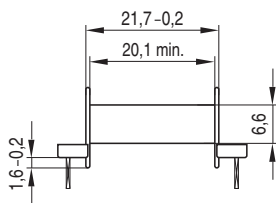
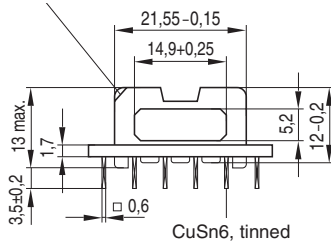
Mounting holes



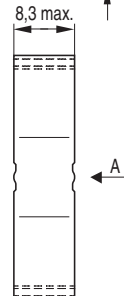
Yoke



Marking of pin 1



FEK0212-1



FEK0272-R

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