

E 42/21/20

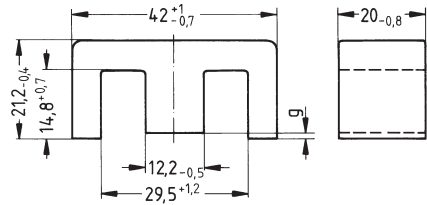
Core

B66329

- In accordance with IEC 61246
- E cores are supplied as single units

**Magnetic characteristics** (per set)

$\Sigma l/A = 0,41 \text{ mm}^{-1}$   
 $l_e = 97 \text{ mm}$   
 $A_e = 234 \text{ mm}^2$   
 $A_{\min} = 229 \text{ mm}^2$   
 $V_e = 22\,700 \text{ mm}^3$



FEK0137-X

**Approx. weight** 116 g/set

**Ungapped**

| Material | $A_L$ value<br>nH | $\mu_e$ | $A_{L1\min}$<br>nH | $P_V$<br>W/set                    | Ordering code |
|----------|-------------------|---------|--------------------|-----------------------------------|---------------|
| N27      | 4750 + 30/- 20 %  | 1560    | 3800               | < 4,40 (200 mT, 25 kHz, 100 °C)   | B66329-G-X127 |
| N87      | 5200 + 30/- 20 %  | 1690    | 3800               | < 12,00 (200 mT, 100 kHz, 100 °C) | B66329-G-X187 |

**Gapped**

| Material | $g$<br>mm   | $A_L$ value approx.<br>nH | $\mu_e$ | Ordering code     |
|----------|-------------|---------------------------|---------|-------------------|
| N27      | 0,25 ± 0,02 | 1029                      | 338     | B66329-G250-X127  |
|          | 0,50 ± 0,05 | 603                       | 198     | B66329-G500-X127  |
|          | 1,00 ± 0,05 | 354                       | 116     | B66329-G1000-X127 |
|          | 1,50 ± 0,05 | 259                       | 85      | B66329-G1500-X127 |

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<br>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) |
| N27      | 354   | - 0,770      | 574                               | - 0,847      | 534           | - 0,865       |
| N87      | 354   | - 0,770      | 555                               | - 0,796      | 521           | - 0,873       |

Validity range:  $K1, K2: 0,10 \text{ mm} < s < 3,00 \text{ mm}$   
 $K3, K4: 160 \text{ nH} < A_L < 1500 \text{ nH}$

**Coil former**

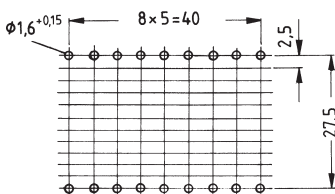
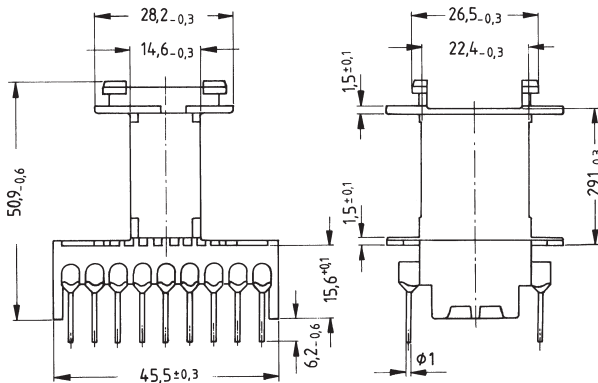
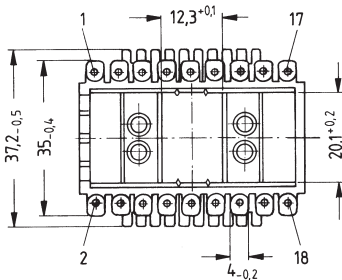
Material: GFR polyterephthalate (UL 94 V-0, insulation class to IEC 60085: F  $\geq$  max. operating temperature 155 °C), color code black

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 159

| Sections | $A_N$<br>mm <sup>2</sup> | $l_N$<br>mm | $A_R$ value<br>$\mu\Omega$ | Pins | Ordering code   |
|----------|--------------------------|-------------|----------------------------|------|-----------------|
| 1        | 172                      | 100         | 20                         | 18   | B66243-A1018-T1 |



Hole arrangement  
View in mounting direction

**Herausgegeben von EPCOS AG**

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