

- In accordance with IEC 61185
- Quality assurance per UTE 83313-002/CECC 25 301-002 (material N27)
- For SMPS transformers with optimum weight/performance ratio at small volume
- ETD cores are supplied as single units

Magnetic characteristics (per set)

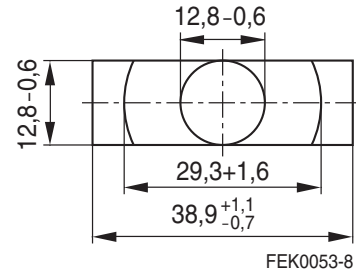
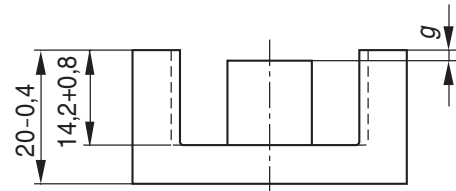
$$\Sigma/A = 0,74 \text{ mm}^{-1}$$

$$l_e = 92,2 \text{ mm}$$

$$A_e = 125 \text{ mm}^2$$

$$A_{\min} = 123 \text{ mm}^2$$

$$V_e = 11\,500 \text{ mm}^3$$

Approx. weight 60 g/set

Ungapped

| Material | A_L value nH | μ_e | $A_{L1\min}$ nH | P_V W/set | Ordering code |
|-------------------|-------------------|---------|--------------------|-------------------------------------|---------------|
| N27 | 2550 + 30/- 20 % | 1500 | 2140 | < 2,22 (200 mT, 25 kHz, 100 °C) | B66363-G-X127 |
| N87 | 2700 + 30/- 20 % | 1600 | 2140 | < 6,00 (200 mT, 100 kHz, 100 °C) | B66363-G-X187 |
| N97 ¹⁾ | 2800 + 30/- 20 % | 1650 | 2140 | < 5,10 (200 mT, 100 kHz, 100 °C) | B66363-G-X197 |

Gapped

| Material | g mm | A_L value approx. nH | μ_e | Ordering code ** = 27 (N27) = 87 (N87) |
|----------|-------------|------------------------------|---------|--|
| N27, | 0,10 ± 0,02 | 1062 | 622 | B66363-G100-X1** |
| N87 | 0,20 ± 0,02 | 639 | 374 | B66363-G200-X1** |
| | 0,50 ± 0,05 | 326 | 191 | B66363-G500-X1** |
| | 1,00 ± 0,05 | 196 | 115 | B66363-G1000-X1** |

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

1) Preliminary data

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) |
| N27 | 196 | – 0,734 | 308 | – 0,847 | 287 | – 0,865 |
| N87 | 196 | – 0,734 | 300 | – 0,796 | 280 | – 0,873 |

Validity range: $K1, K2: 0,10 \text{ mm} < s < 3,00 \text{ mm}$
 $K3, K4: 90 \text{ nH} < A_L < 850 \text{ nH}$

Coil former (magnetic axis horizontal)

Material: GFR polyterephthalate, UL 94 V-0, insulation class to IEC 60085:
 B66364B: F = max. operating temperature 155 °C, color code black (Valox 420SE0; [E 45329 (M)]; General Electric Plastics)
 B66364W: H = max. operating temperature 180 °C, color code black (Rynite FR530; [E 69578 (M)]; E I DUPONT DE NEMOURS & CO INC)

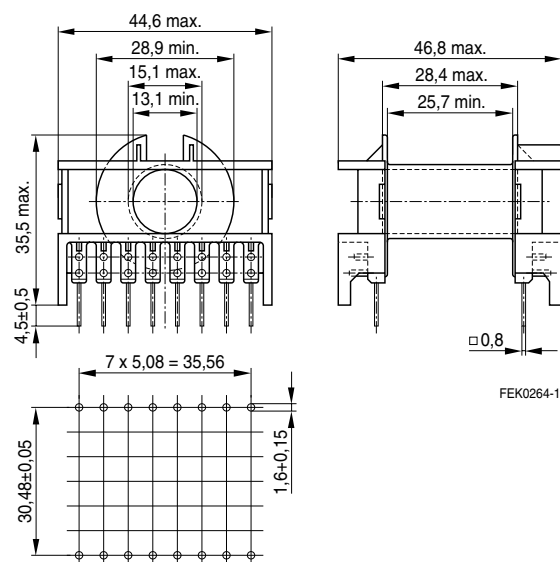
Solderability: to IEC 60068-2-20, test Ta, method 1 (aging 3): 235 °C, 2 s

Resistance to soldering heat: to IEC 60068-2-20, test Tb, method 1B: 350 °C, 3.5 s

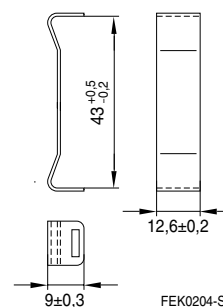
Winding: see databook 2001, chapter *Processing Notes*, page 158

Yoke Material: Stainless spring steel (0.4 mm)

| Sections | A _N (mm ²) | I _N (mm) | A _R value (μΩ) | Pins | Ordering code |
|--|-----------------------------------|---------------------|---------------------------|------|------------------------------------|
| 1 | 178 | 69 | 13.3 | 16 | B66364B1016T001 B66364W1016T001 |
| Yoke (ordering code per piece, 2 are required) | | | | | B66364A2000 |

Coil former


Hole arrangement
View in mounting direction

Yoke


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Published by EPCOS AG

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