

- In accordance with IEC 61185
- For SMPS transformers with optimum weight/performance ratio at small volume
- ETD cores are supplied as single units

Magnetic characteristics (per set)

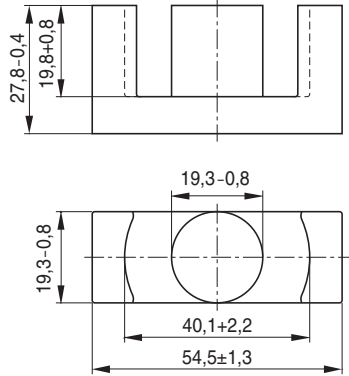
$$\Sigma/A = 0,45 \text{ mm}^{-1}$$

$$l_e = 127 \text{ mm}$$

$$A_e = 280 \text{ mm}^2$$

$$A_{\min} = 280 \text{ mm}^2$$

$$V_e = 35600 \text{ mm}^3$$

Approx. weight 180 g/set

Ungapped

| Material | A_L value nH | μ_e | $A_{L1\min}$ nH | P_V W/set | Ordering code |
|-------------------|-------------------|---------|--------------------|--------------------------------------|---------------|
| N27 | 4200 + 30/- 20 % | 1510 | 3470 | < 6,66 (200 mT, 25 kHz, 100 °C) | B66395-G-X127 |
| N87 | 4450 + 30/- 20 % | 1600 | 3470 | < 21,00 (200 mT, 100 kHz, 100 °C) | B66395-G-X187 |
| N97 ¹⁾ | 4600 + 30/- 20 % | 1650 | 3470 | < 18,00 (200 mT, 100 kHz, 100 °C) | B66395-G-X197 |

Gapped

| Material | g mm | A_L value approx. nH | μ_e | Ordering code ** = 27 (N27) = 87 (N87) |
|----------|-------------|------------------------------|---------|--|
| N27, | 0,20 ± 0,02 | 1377 | 496 | B66395-G200-X1** |
| N87 | 1,00 ± 0,05 | 393 | 141 | B66395-G1000-X1** |
| | 1,50 ± 0,05 | 287 | 103 | B66395-G1500-X1** |
| | 2,00 ± 0,05 | 229 | 82 | B66395-G2000-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 | 393 | – 0,779 | 658 | – 0,847 | 615 | – 0,865 |
| N87 | 393 | – 0,779 | 630 | – 0,796 | 603 | – 0,873 |

Validity range: $K1, K2$: 0,10 mm < s < 3,50 mm
 $K3, K4$: 140 nH < A_L < 1390 nH

Coil former

Material: GFR polyterephthalate, UL 94 V-0, insulation class to IEC 60085:
 B66396A: F \triangleq max. operating temperature 155 °C, color code black
 (Pocan B4235; [E 41613 (M)]; Bayer)
 B66396W: H \triangleq max. operating temperature 180 °C, color code black
 (Rynite FR530; [E 69578 (M)]; E I DUPONT DE NEMOURS & CO INC)

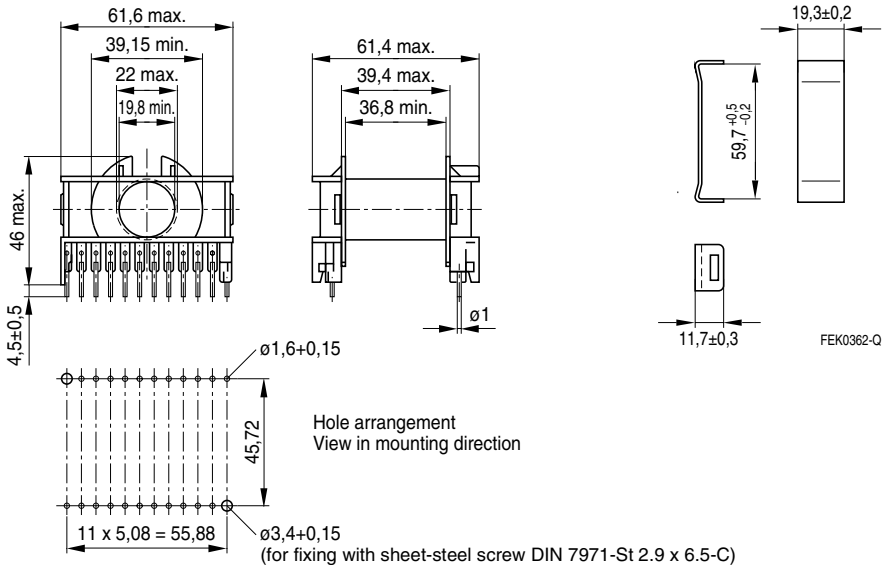
Solderability: to IEC 60068-2-20, test Ta, method 1 (aging 3): 235 °C, 2 s
Resistance to soldering heat: to IEC 60068-2-20, test Tb, method 1B: 350 °C, 3.5 s
Winding: see data book 2001, *Processing Notes*, page 158

Yoke Material: Stainless spring steel (0.4 mm)

| Sections | A _N mm ² | l _N mm | A _R value μΩ | Pins | Ordering code |
|--|-----------------------------------|----------------------|----------------------------|------|------------------------------------|
| 1 | 315.6 | 96 | 10.5 | 22 | B66396A1022T001 B66396W1022T001 |
| Yoke (ordering code per piece, 2 are required) | | | | | B66396A2000 |

Coil former

Yoke



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