

- 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)

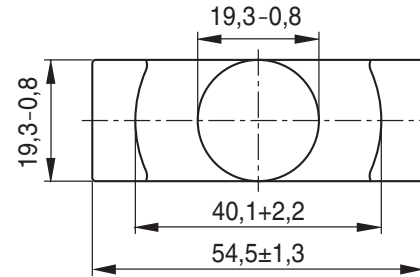
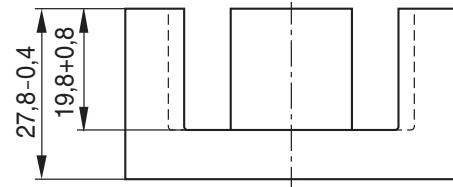
$$\Sigma/A = 0,45 \text{ mm}^{-1}$$

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

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

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

$$V_e = 35\,600 \text{ mm}^3$$

Approx. weight 180 g/set


FEK0065-W

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

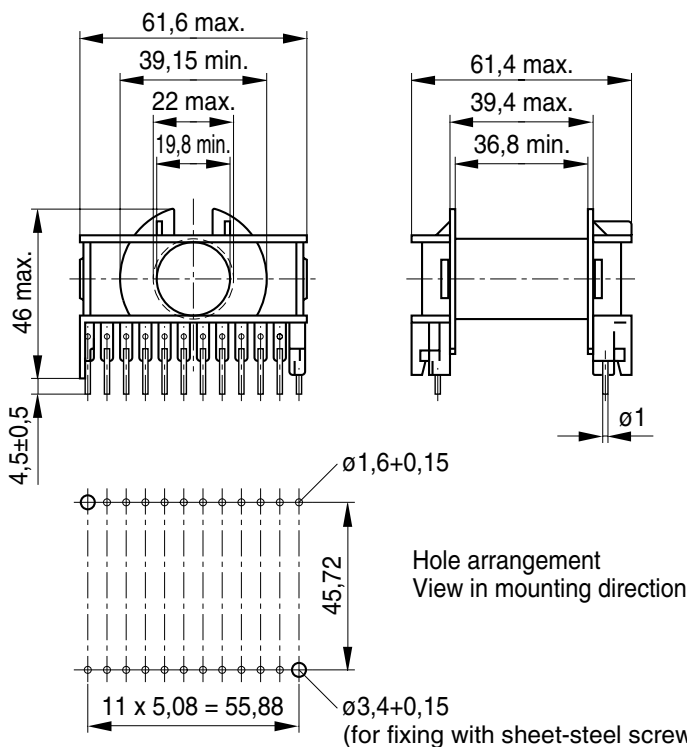
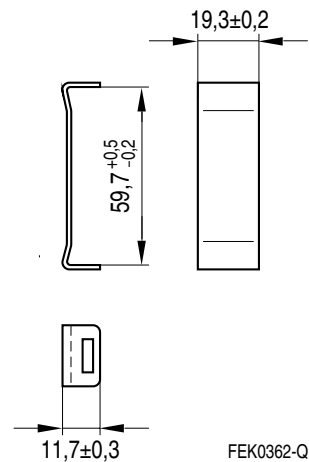
Validity range: $K1, K2: 0,10 \text{ mm} < s < 3,50 \text{ mm}$
 $K3, K4: 140 \text{ nH} < A_L < 1390 \text{ nH}$

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 $\mu\Omega$	Pins	Ordering code
1	315.6	96	10.5	22	B66396A1022T001 B66396W1022T001
Yoke (ordering code per piece, 2 are required)					B66396A2000

Coil former

Yoke


FEK0362-Q

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Published by EPCOS AG

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