

- 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)**

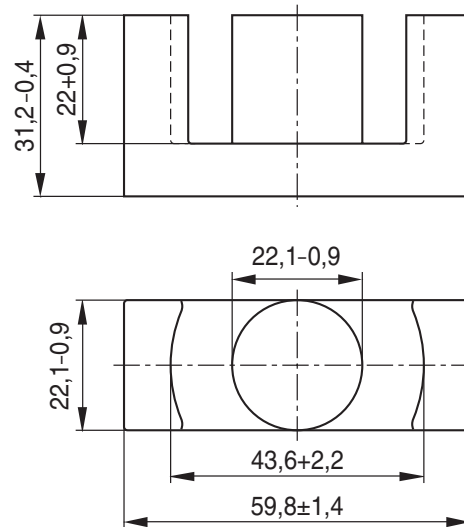
$$\Sigma/A = 0,38 \text{ mm}^{-1}$$

$$l_e = 139 \text{ mm}$$

$$A_e = 368 \text{ mm}^2$$

$$A_{\min} = 368 \text{ mm}^2$$

$$V_e = 51\,200 \text{ mm}^3$$

**Approx. weight 260 g/set**


FEK0066-5

**Ungapped**

Material	$A_L$ value nH	$\mu_e$	$A_{L1\min}$ nH	$P_V$ W/set	Ordering code
N27	5000 + 30/- 20 %	1500	4170	< 9,62 (200 mT, 25 kHz, 100 °C)	B66397-G-X127
N87	5300 + 30/- 20 %	1590	4170	< 5,20 (100 mT, 100 kHz, 100 °C)	B66397-G-X187
N97 <sup>1)</sup>	5500 + 30/- 20 %	1660	4170	< 4,50 (100 mT, 100 kHz, 100 °C)	B66397-G-X197

**Gapped**

Material	$g$ mm	$A_L$ value approx. nH	$\mu_e$	Ordering code ** = 27 (N27) = 87 (N87)
N27,	0,20 ± 0,02	1588	476	B66397-G200-X1**
N87	1,00 ± 0,05	508	152	B66397-G1000-X1**
	1,50 ± 0,05	381	114	B66397-G1500-X1**
	2,00 ± 0,05	311	93	B66397-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	508	– 0,708	853	– 0,847	799	– 0,865
N87	508	– 0,708	812	– 0,796	783	– 0,873

Validity range:      $K1, K2: 0,10 \text{ mm} < s < 3,50 \text{ mm}$   
                            $K3, K4: 170 \text{ nH} < A_L < 1660 \text{ nH}$

**Coil former**

Material: GFR polyterephthalate, UL 94 V-0, insulation class to IEC 60085:  
 B66398A: F  $\triangleq$  max. operating temperature 155 °C, color code black (Pocan B4235; [E 41613 (M)]; Bayer)  
 B66398W: 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

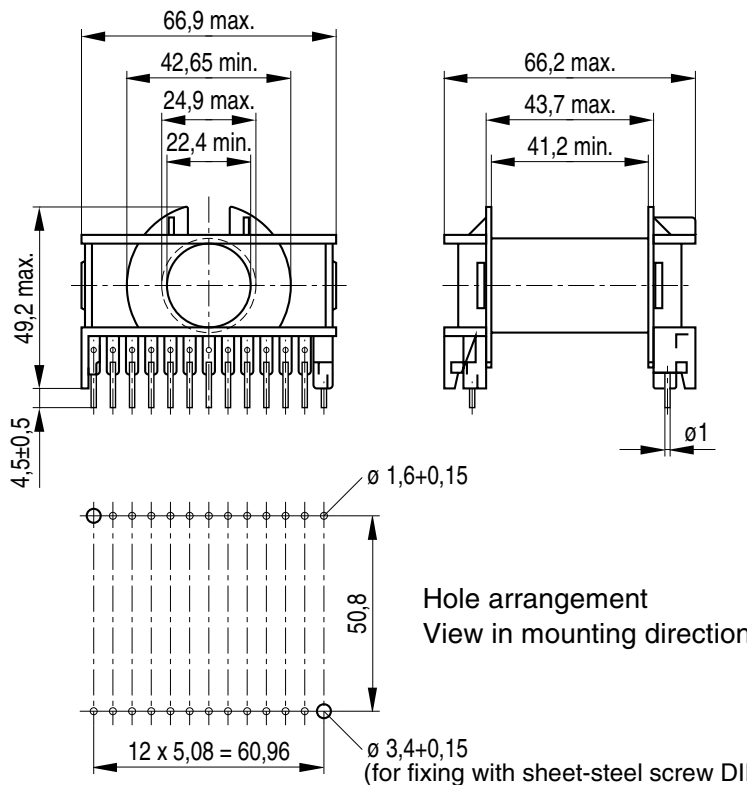
Resistance to soldering heat: to IEC 60068-2-20, test Tb, method 1B: 350 °C, 3.5 s

Winding: see data book 2001, chapter *Processing Notes*, page 158

**Yoke** Material: Stainless spring steel (0.4 mm)

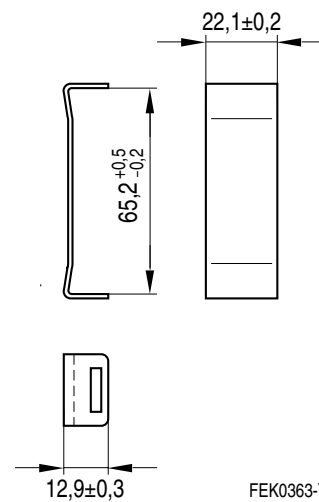
Coil former					Ordering code
Sections	$A_N$ mm <sup>2</sup>	$l_N$ mm	$A_R$ value $\mu\Omega$	Pins	
1	365.6	106.1	10	24	B66398A1024T001 B66398W1024T001
Yoke (ordering code per piece, 2 are required)					B66398A2000

**Coil former**



Hole arrangement  
View in mounting direction

**Yoke**



FEK0363-Y

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