

- In accordance with IEC 61185
- Quality assurance per UTE 83313-001/ CECC 25 301-001 (material N27)
- For SMPS transformers with optimum weight/performance ratio at small volume
- ETD cores are supplied as single units

Magnetic characteristics (per set)

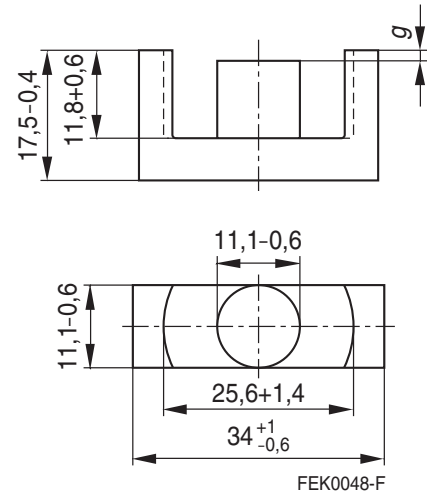
$$\Sigma/A = 0,81 \text{ mm}^{-1}$$

$$l_e = 78,6 \text{ mm}$$

$$A_e = 97,1 \text{ mm}^2$$

$$A_{\min} = 91,6 \text{ mm}^2$$

$$V_e = 7\,630 \text{ mm}^3$$

Approx. weight 40 g/set

Ungapped

Material	A_L value nH	μ_e	$A_{L1\min}$ nH	P_V W/set	Ordering code
N27	2400 + 30/- 20 %	1540	1940	< 1,48 (200 mT, 25 kHz, 100 °C)	B66361-G-X127
N87	2600 + 30/- 20 %	1670	1940	< 4,00 (200 mT, 100 kHz, 100 °C)	B66361-G-X187
N97 ¹⁾	2650 + 30/- 20 %	1710	1940	< 3,40 (200 mT, 100 kHz, 100 °C)	B66361-G-X197

Gapped

Material	g mm	A_L value approx. nH	μ_e	Ordering code ** = 27 (N27) = 87 (N87)
N27,	0,10 ± 0,02	790	508	B66361-G100-X1**
N87	0,20 ± 0,02	482	310	B66361-G200-X1**
	0,50 ± 0,05	251	161	B66361-G500-X1**
	1,00 ± 0,05	153	98	B66361-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	153	– 0,713	245	– 0,847	227	– 0,865
N87	153	– 0,713	240	– 0,796	222	– 0,873

Validity range: $K1, K2: 0,10 \text{ mm} < s < 2,50 \text{ mm}$
 $K3, K4: 80 \text{ nH} < A_L < 780 \text{ nH}$

Coil former (magnetic axis horizontal)

Material: GFR polyterephthalate, UL 94 V-0, insulation class to IEC 60085:
 B66362B: F = max. operating temperature 155 °C, color code black (Valox 420SE0; [E 45329 (M)]; General Electric Plastics)
 B66362W: H = max. operating temperature 180 °C, color code black (Rynite FR530; [E 69578 (M)]; E I DUPONT DE NEMOURS & CO INC)

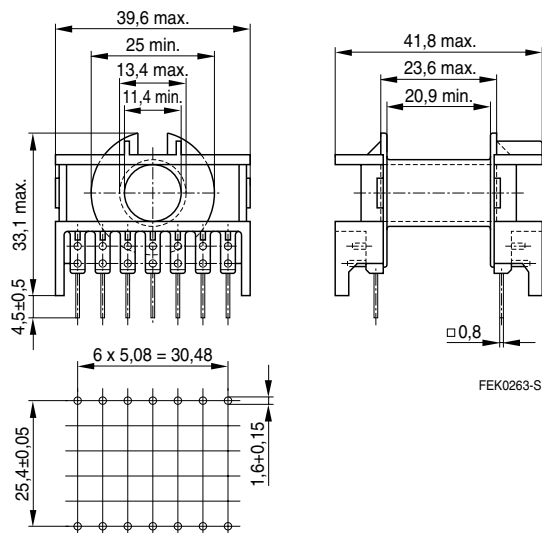
Solderability: to IEC 60068-2-20, test Ta, method 1 (aging 3): 235 °C, 2 s

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

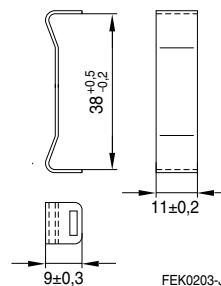
Winding: see databook 2001, chapter *Processing Notes*, page 158

Yoke Material: Stainless spring steel (0.4 mm)

Sections	A_N (mm ²)	l_N (mm)	A_R value ($\mu\Omega$)	Pins	Ordering code
1	122	60.5	17	14	B66362B1014T001 B66362W1014T001
Yoke (ordering code per piece, 2 are required)					B66362A2000

Coil former


Hole arrangement
View in mounting direction

Yoke


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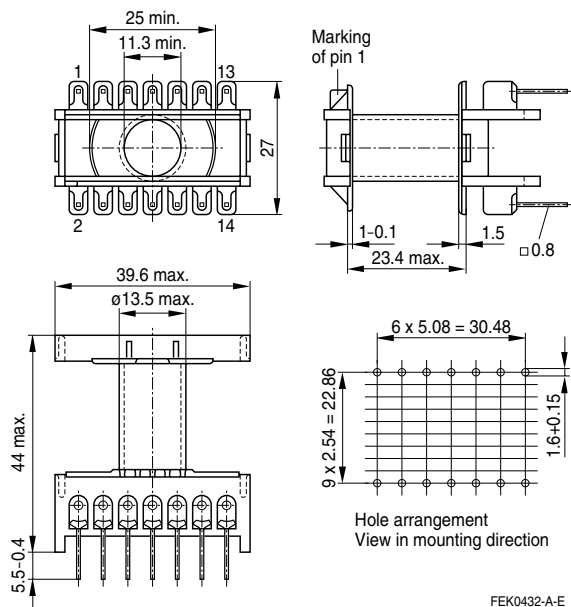
Coil former (magnetic axis vertical, squared pins)

Material: GFR polyterephthalate, UL 94 V-0, insulation class to IEC 60085:
 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

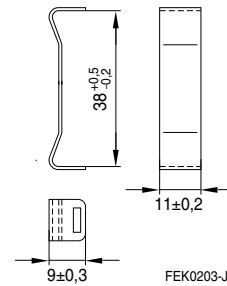
Yoke Material: Stainless spring steel (0.4 mm)

Sections	A _N (mm ²)	l _N (mm)	A _R value (μΩ)	Pins	Ordering code
1	122	60.5	17	14	B66362X1014T001
Yoke (ordering code per piece, 2 are required)					B66362A2000

Coil former



Yoke



Coil former (magnetic axis vertical, molded-in pins)

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

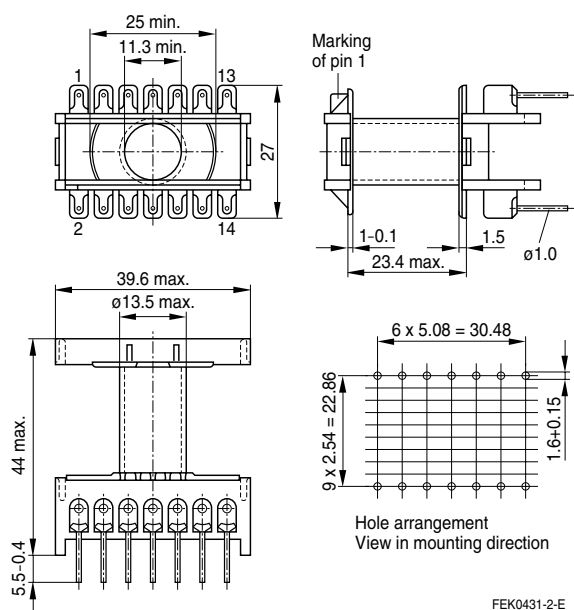
Solderability: to IEC 60068-2-20, test Ta, method 1 (aging 3): 235 °C, 2 s

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

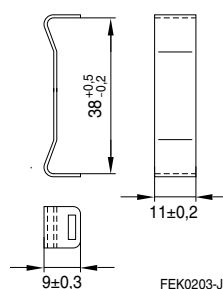
Winding: see databook 2001, chapter *Processing Notes*, page 158

Yoke Material: Stainless spring steel (0.4 mm)

Sections	A_N (mm ²)	l_N (mm)	A_R value ($\mu\Omega$)	Pins	Ordering code
1	122	60.5	17	14	B66362L1014T001
Yoke (ordering code per piece, 2 are required)					B66362A2000

Coil former


FEK0431-2-E

Yoke


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