

ETD 59/31/22

Core

B66397

- 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)

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

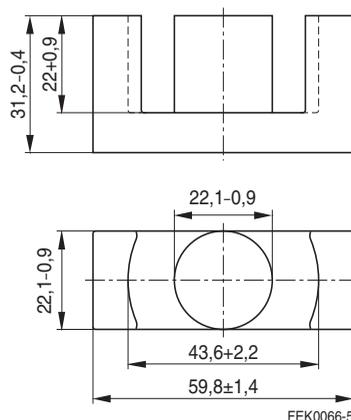
$$l_e = 139 \text{ mm}$$

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

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

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

Approx. weight 260 g/set



Ungapped

Material	A_L value nH	μ_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 ¹⁾	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	μ_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 mm < s < 3,50 mm
 $K3, K4$: 170 nH < A_L < 1660 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

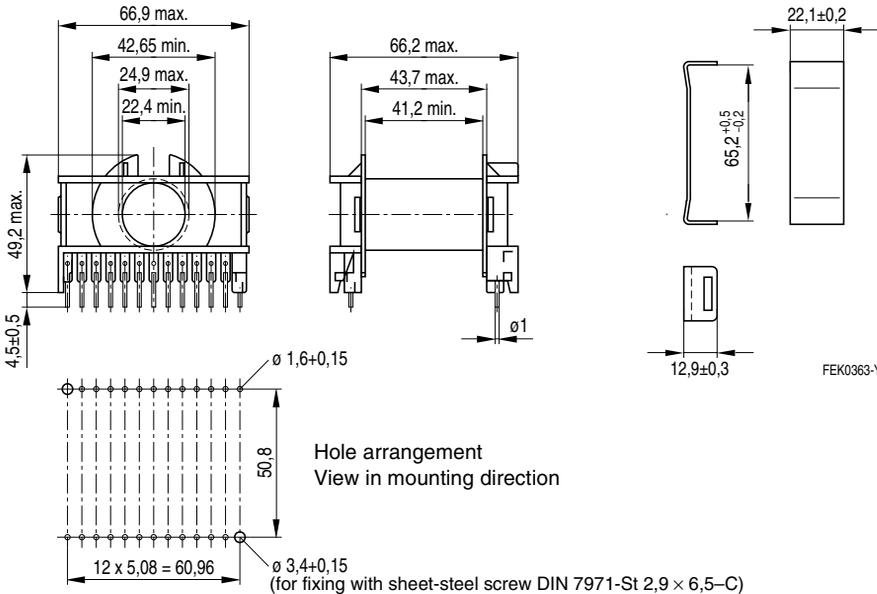
Winding: see data book 2001, chapter *Processing Notes*, page 158

Yoke Material: Stainless spring steel (0.4 mm)

Coil former					Ordering code
Sections	A_N mm ²	I_N mm	A_F value $\mu\Omega$	Pins	
1	365.6	106.1	10	24	B66398A1024T001 B66398W1024T001
Yoke (ordering code per piece, 2 are required)					B66398A2000

Coil former

Yoke



© EPCOS AG 2001. Reproduction, publication and dissemination of this brochure and the information contained therein without EPCOS' prior express consent is prohibited. Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.

Herausgegeben von EPCOS AG

Marketing Kommunikation, Postfach 80 17 09, 81617 München, DEUTSCHLAND

© EPCOS AG 2000. Alle Rechte vorbehalten. Vervielfältigung, Veröffentlichung, Verbreitung und Verwertung dieser Broschüre und ihres Inhalts ohne ausdrückliche Genehmigung der EPCOS AG nicht gestattet.

Mit den Angaben in dieser Broschüre werden die Bauelemente spezifiziert, keine Eigenschaften zugesichert. Bestellungen unterliegen den vom ZVEI empfohlenen Allgemeinen Lieferbedingungen für Erzeugnisse und Leistungen der Elektroindustrie, soweit nichts anderes vereinbart wird.

Diese Broschüre ersetzt die vorige Ausgabe.

Fragen über Technik, Preise und Liefermöglichkeiten richten Sie bitte an den Ihnen nächstgelegenen Vertrieb der EPCOS AG oder an unsere Vertriebsgesellschaften im Ausland.

Bauelemente können aufgrund technischer Erfordernisse Gefahrstoffe enthalten. Auskünfte darüber bitten wir unter Angabe des betreffenden Typs ebenfalls über die zuständige Vertriebsgesellschaft einzuholen.

Published by EPCOS AG

Marketing Communications, P.O. Box 80 17 09, 81617 Munich, GERMANY

© EPCOS AG 2000. All Rights Reserved. Reproduction, publication and dissemination of this brochure and the information contained therein without EPCOS' prior express consent is prohibited.

The information contained in this brochure describes the type of component and shall not be considered as guaranteed characteristics. Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.

This brochure replaces the previous edition.

For questions on technology, prices and delivery please contact the Sales Offices of EPCOS AG or the international Representatives.

Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our Sales Offices.