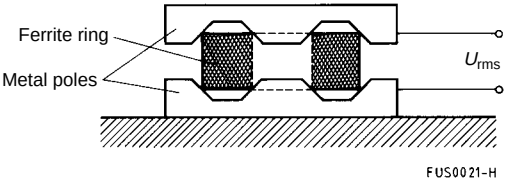
- Our product line includes a wide range of ring cores with finely graded diameters ranging from 2,5 to 200 mm (see overview of available types). Other core heights can be supplied on request. All cores are available in the usual materials.

  Ring cores are available in different coating versions, thus offering the appropriate solution for every application. The coating not only offers protection for the edges but also provides an insulation function.

  The following test setup is used to test the dielectric strength of the insulating coating: A copper ring is pressed to the top edge of the ring. It touches the ferrite ring at the edges (see diagram). The test duration is 2 seconds; the test voltages specified in the table are minimum values for epoxy- and Rilsan-coated cores:



Core size	U_{rms}
R 4 thru R 10	1,0 kV
R 12,5 thru R 20	1,5 kV
> R 20	2,0 kV

For cores with high permeability, increased spread of the A_L values of several percent must be expected according to the specifications due to the Polyamid coating process. This effect can be avoided by using an epoxy resin coating (L version).

For small ring cores, we have introduced a parylene coating (Galxyl) which features a low coating thickness and high dielectric strength.

- Ring cores are used primarily for pulse and broadband transformers, baluns and chokes. Owing to the magnetically closed circuit, high flux densities can be achieved at small volume. Magnetic leakage is negligible.
- Ring cores are also increasingly used for power applications. Here, the typical values for amplitude permeability and power loss, as summarized in the section on SIFERRIT materials (page 33), are applicable to the special power materials.
- Characteristic data for cores not included among the preferred types are available on request.

Coatings of ring cores

Version	Rilsan (Polyamid11)	Epoxy (blue)	Galxyl (Parylene)
Layer thickness	< 0,4 mm	< 0,4 mm	0,012 or 0,025 mm
Breakdown voltage	> 2 kV (> R20)	> 2 kV (> R20)	> 1 kV (standard value)
Mechanical quality	Rough surface	High firmness	Smooth surface
Maximum temperature (short-time)	approx. 115 °C	approx. 200 °C	approx. 115 °C
Advantage	Low cost for small and medium sizes	No influence on A_L value	Very low thickness
Main application	Medium sizes (> R6,3 and < R29)	Big sizes (≥ R29) and high-perm. materials	Small sizes (≤ R10)
UL rating	UL 94V-2	UL 94V-0	UL 94V-0
Ordering code	B64290-**K**…	B64290-**L**…	B64290-**P**…

Application: Ring cores to suppress line interference

With the ever-increasing use of electrical and electronic equipment, it becomes increasingly important to be able to ensure that all facilities will operate simultaneously in the context of electromagnetic compatibility (EMC) without interfering with each others' respective functions. The EMC legislation which came into force at the beginning of 1996 applies to all electrical and electronic products marketed in the EU, both new and existing ones. So the latter may have to be modified so that they are neither susceptible to electromagnetic interference, nor emit spurious radiation. Ferrite cores are ideally suited for this purpose since they are able to suppress interference over a wide frequency range.

At frequencies above 1 MHz, ferrite rings slipped over a conductor lead to an increase in the impedance of this conductor. The real component of this impedance absorbs the interference energy.

A ferrite material´s suitability for suppressing interference within a specific frequency spectrum depends on its magnetic properties, which vary with frequency. Before the right material can be selected, the impedance |Z| must be known as a function of frequency.

The curve of impedance as a function of frequency is characterized by the sharp increase in loss at resonance frequency.

Measurement results:

The measurements shown here were made at room temperature (25 ± 3 ˚C) using an HP 4191A RF impedance analyzer with a flux density of B ≤ 1 mT.

The maximum of the impedance curve shifts to lower frequencies as the number of turns increases; this is due to the capacitive effect of the turns (figure 1, using R25/15 as an example).

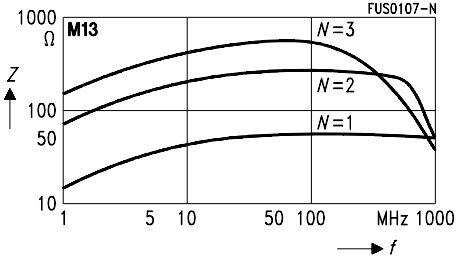


Figure 1

For direct comparison of the typical suppression characteristics of differenct ferrite materials, the impedance curves were normalized using the equation $|Z|_n = |Z| / N^2 \times \Sigma (l_e / A_e)$; the geometry factor was calculated on the basis of the core dimensions (figure 2).

These normalized impedance curves are guide values, mostly measured using ring core R 10 with a number of turns N = 1 (wire diameter 0,7 mm); they may vary slightly, depending on the geometry.

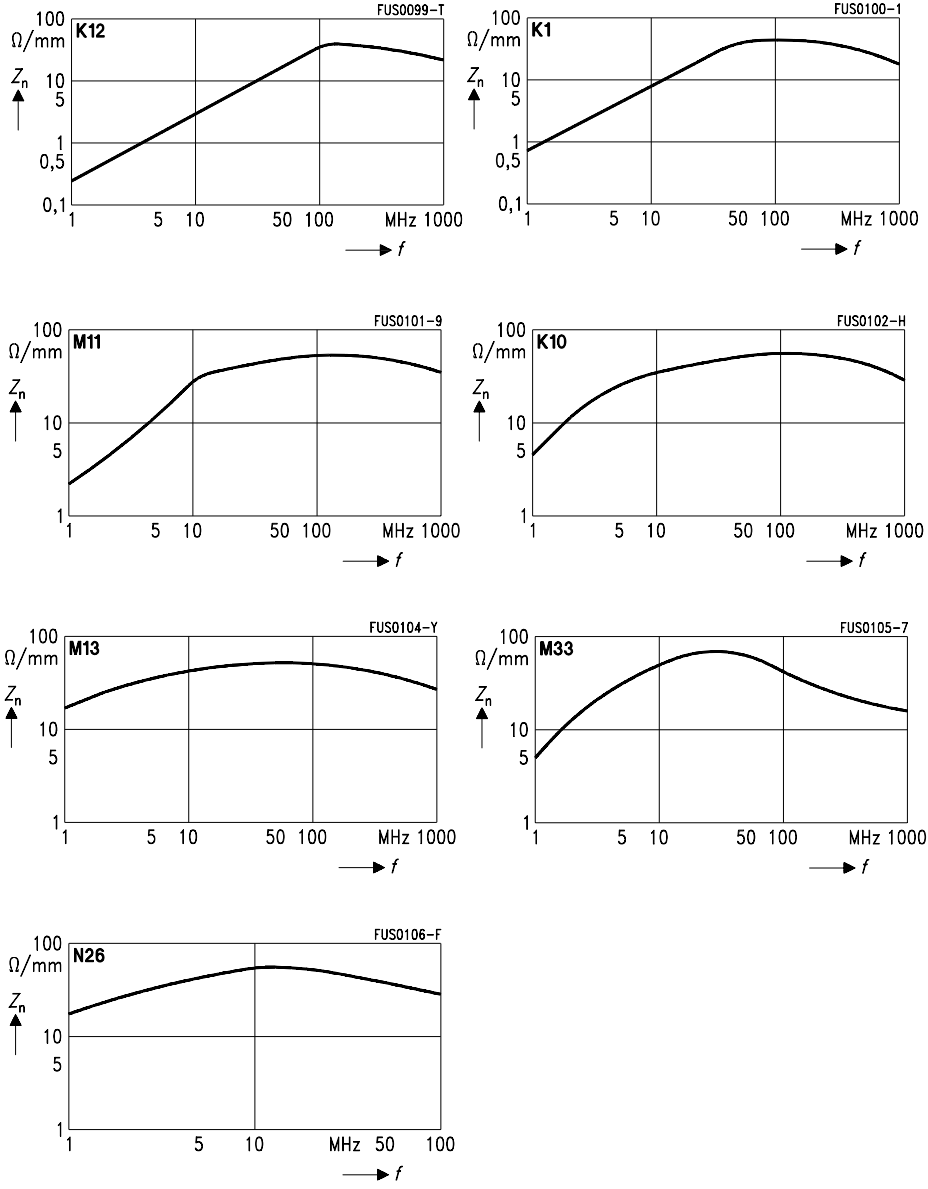
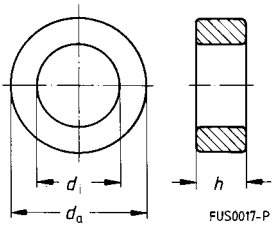

FUS0099-T
K12
100
Ω/mm
Z_n
10
5
1
0,5
0,1
1
5
10
50
100
MHz
1000
f
FUS0100-1
K1
FUS0101-9
M11
FUS0102-H
K10
FUS0104-Y
M13
FUS0105-7
M33
FUS0106-F
N26

Figure 2



Overview of available types

Type	Dimensions					
	d_a[1)] mm	d_i[1)] mm	h[1)] mm	d_a inch	d_i inch	h inch
R 2,5	2,5 ± 0,12	1,5 ± 0,1	1,0 ± 0,1	0,098 ± 0,005	0,059 ± 0,004	0,039 ± 0,004
R 3,0	3,05 ± 0,2	1,27 ± 0,2	1,27 ± 0,2	0,120 ± 0,008	0,050 ± 0,008	0,050 ± 0,008
R 3,4	3,43 ± 0,20	1,78 ± 0,20	2,08 ± 0,20	0,135 ± 0,008	0,070 ± 0,008	0,082 ± 0,008
R 3,9	3,94 ± 0,12	2,24 ± 0,12	1,3 ± 0,12	0,155 ± 0,005	0,088 ± 0,005	0,051 ± 0,005
R 4,0	4,0 ± 0,12 (4,5 max)	2,4 ± 0,12 (1,9 min)	1,6 ± 0,1 (2,1 max)	0,157 ± 0,005 (0,177 max)	0,094 ± 0,005 (0,075 max)	0,063 ± 0,004 (0,083 max)
R 5,8/3	5,84 ± 0,12 (6,36 max)	3,05 ±0,12 (2,53 min)	3,0 ± 0,12 (3,55 max)	0,230 ± 0,005 (0,250 max)	0,120 ± 0,005 (0,100 max)	0,118 ± 0,005 (0,140 max)
R 6,3	6,3 ± 0,15 (7,25 max)	3,8 ± 0,12 (2,85 min)	2,5 ± 0,12 (3,4 max)	0,248 ± 0,006 (0,285 max)	0,150 ± 0,005 (0,112 max)	0,098 ± 0,005 (0,134 max)
R 9,5	9,53 ± 0,19 (10,5 max)	4,75 ±0,12 (3,8 min)	3,17 ±0,15 (4,1 max)	0,375 ± 0,007 (0,413 max)	0,187 ± 0,005 (0,130 max)	0,125 ± 0,006 (0,161 max)
R 10	10,0 ± 0,2 (11,0 max)	6,0 ± 0,15 (5,05 min)	4,0 ± 0,15 (4,95 max)	0,394 ± 0,008 (0,433 max)	0,236 ± 0,006 (0,199 max)	0,157 ± 0,006 (0,195 max)
R 12,5	12,5 ± 0,3 (13,6 max)	7,5 ± 0,2 (6,5 min)	5,0 ± 0,15 (5,95 max)	0,492 ± 0,012 (0,535 max)	0,295 ± 0,008 (0,256 max)	0,197 ± 0,005 (0,234 max)
R 13,3	13,3 ± 0,3 (14,4 max)	8,3 ± 0,3 (7,2 min)	5,0 ± 0,15 (5,95 max)	0,524 ± 0,012 (0,567 max)	0,327 ± 0,012 (0,283 max)	0,197 ± 0,005 (0,234 max)
R 14	14,0 ± 0,3 (15,1 max)	9,0 ± 0,25 (7,95 min)	5,0 ± 0,2 (6,0 max)	0,551 ± 0,012 (0,594 max)	0,354 ± 0,012 (0,313 max)	0,197 ± 0,008 (0,236 max)
R 15	15,0 ± 0,5 (16,3 max)	10,4 ± 0,4 (9,2 min)	5,3 ± 0,3 (6,4 max)	0,591 ± 0,020 (0,642 max)	0,409 ± 0,016 (0,362 max)	0,209 ± 0,012 (0,252 max)
R 16	16,0 ± 0,4 (17,2 max)	9,6 ± 0,3 (8,5 min)	6,3 ± 0,2 (7,3 max)	0,630 ± 0,016 (0,677 max)	0,378 ± 0,012 (0,335 max)	0,248 ± 0,008 (0,287 max)
R 17	17,0 ± 0,4 (18,2 max)	10,7 ± 0,3 (9,6 min)	6,8 ± 0,2 (7,8 max)	0,669 ± 0,016 (0,717 max)	0,421 ± 0,012 (0,378 max)	0,268 ± 0,008 (0,307 max)
R 20/7	20,0 ± 0,4 (21,2 max)	10,0 ±0,25 (8,75 min)	7,0 ± 0,4 (8,1 max)	0,787 ± 0,016 (0,835 max)	0,394 ± 0,010 (0,344 max)	0,276 ± 0,016 (0,319 max)

1) Values in parentheses apply to coated cores, ring cores made of NiZn ferrite may exceed the specified dimensions by up to 5 %

Type	Dimensions					
	d_a[1)] mm	d_i[1)] mm	h[1)] mm	d_a inch	d_i inch	h inch
R 22	22,1 ± 0,4 (23,3 max)	13,7 ± 0,3 (12,6 min)	6,35 ±0,3 (7,4 max)	0,870 ± 0,016 (0,917 max)	0,539 ± 0,012 (0,496 max)	0,250 ± 0,012 (0,291 max)
R23/9	22,6 ± 0,4 (23,8 max)	14,7 ± 0,2 (13,7 min)	9,2 ± 0,2 (10,2 max)	0,890 ± 0,016 (0,937 max)	0,579 ± 0,008 (0,539 max)	0,362 ± 0,008 (0,402 max)
R 25/10	25,3 ± 0,7 (26,8 max)	14,8 ± 0,5 (13,5 min)	10,0 ± 0,2 (11,0 max)	0.996 ± 0,028 (1,043 max)	0,583 ± 0,020 (0,531 max)	0,394 ± 0,008 (0,433 max)
R 25/20	25,3 ± 0,7 (26,8 max)	14,8 ± 0,5 (13,5 min)	20,0 ± 0,5 (21,3 max)	0.996 ± 0,028 (1,043 max)	0,583 ± 0,020 (0,531 max)	0,787 ± 0,020 (0,839 max)
R 29	29,5 ± 0,7 (31,0 max)	19,0 ± 0,5 17,7 min	14,9 ± 0,4 (16,1 max)	1,142 ± 0,028 (1,220 max)	0,748 ± 0,020 (0,697 max)	0,587 ± 0,016 (0,634 max)
R 30	30,5 ± 1,0 (32,3 max)	20,0 ± 0,6 (18,2 min)	12,5 ± 0,4 (13,7 max)	1,201 ± 0,039 (1,272 max)	0,787 ± 0,024 (0,717 max)	0,492 ± 0,016 (0,539 max)
R 34/10	34,0 ± 0,7 (35,5 max)	20,5 ± 0,5 (19,2 min)	10,0 ± 0,3 (11,1 max)	1,339 ± 0,028 (1,398 max)	0,807 ± 0,020 (0,756 max)	0,394 ± 0,012 (0,437 max)
R 34/12,5	34,0 ± 0,7 (35,5 max)	20,5 ± 0,5 (19,2 min)	12,5 ± 0,3 (13,6 max)	1,339 ± 0,028 (1,398 max)	0,807 ± 0,020 (0,756 max)	0,492 ± 0,012 (0,535 max)
R 36	36,0 ± 0,7 (37,5 max)	23,0 ± 0,5 (21,7 min)	15,0 ± 0,4 (16,2 max)	1,417 ± 0,028 (1,476 max)	0,906 ± 0,020 (0,854 max)	0,591 ± 0,016 (0,638 max)
R 40	40,0 ± 1,0 (41,8 max)	24,0 ± 0,7 (22,5 min)	16,0 ± 0,4 (17,2 max)	1,575 ± 0,039 (1,646 max)	0,945 ± 0,028 (0,886 max)	0,630 ± 0,016 (0,677 max)
R 42	41,8 ± 1,0 (43,6 max)	26,2 ± 0,6 (24,8 min)	12,5 ± 0,3 (13,6 max)	1,646 ± 0,039 (1,717 max)	1,031 ± 0,024 (0,976 max)	0,492 ± 0,012 (0,535 max)
R 50	50,0 ± 1,0 (51,8 max)	30,0 ± 0,7 (28,5 min)	20,0 ± 0,5 (21,3 max)	1,969 ± 0,039 (2,039 max)	1,181 ± 0,028 (1,122 max)	0,787 ± 0,020 (0,839 max)
R 58	58,3 ± 1,0 (60,1 max)	40,8 ± 0,8 (39,2 min)	17,6 ± 0,4 (18,8 max)	2,283 ± 0,039 (2,366 max)	1,606 ± 0,031 (1,543 max)	0,693 ± 0,016 (0,740 max)
R 63	63,0 ± 1,5 (65,3 max)	38,0 ± 1,2 (36,0 min)	25,0 ± 0,8 (26,6 max)	2,480 ± 0,059 (2,571 max)	1,496 ± 0,047 (1,417 max)	0,984 ± 0,031 (1,047 max)
R 68	68,0 ± 1,2 (60,1 max)	48,0 ± 1,0 (46,2 min)	13,0 ± 0,4 (14,2 max)	2,677 ± 0,047 (2,756 max)	1,890 ± 0,039 (1,819 max)	0,512 ± 0,015 (0,559 max)
R 100	102,0 ± 2,0 (104,8 max)	65,8 ± 1,3 (63,7 min)	15,0 ± 0,5 (16,3 max)	4,016 ± 0,079 (4,126 max)	2,591 ± 0,051 (2,508 max)	0,591 ± 0,020 (0,642 max)
R 140	140,0 ± 3,0 (143,8 max)	103,0 ± 2,0 (100,2 min)	25,0 ± 1,0 (26,8 max)	5,512 ± 0,118 (5,661 max)	4,055 ± 0,079 (3,945 max)	0,984 ± 0,039 (1,055 max)
R 200	202,0 ± 4,0 (206,8 max)	153,0 ± 3,0 (149,2 min)	25,0 ± 1,0 (26,8 max)	7,953 ± 0,157 (8,142 max)	6,024 ± 0,118 (5,874 max)	0,984 ± 0,039 (1,055 max)

1) Values in parentheses apply to coated cores, ring cores made of NiZn ferrite may exceed the specified dimensions by up to 5 %

Magnetic characteristics **R 2,5**

$\Sigma l/A$ = 12,30 mm^{-1}
l_e = 6,02 mm
A_e = 0,49 mm^2
V_e = 3,00 mm^3

Approx. weight 0,02 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	Ordering code
N30	440 ± 25 %	B64290-P35-X830
T38	1020 ± 30 %	B64290-A35-X38
T46	1530 + 30/– 40 %	B64290-P35-X46

Magnetic characteristics **R 3,0**

$\Sigma l/A$ = 5,65 mm^{-1}
l_e = 5,99 mm
A_e = 1,06 mm^2
V_e = 6,40 mm^3

Approx. weight 0,04 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	Ordering code[1)]
N30	960 ± 25 %	B64290-P683-X830
T38	2200 + 30/– 40 %	B64290-P683-X38
T46	3340 + 30/– 40 %	B64290-P683-X46

Magnetic characteristics **R 3,4**

$\Sigma l/A$ = 4,61 mm^{-1}
l_e = 7,63 mm
A_e = 1,66 mm^2
V_e = 12,6 mm^3

Approx. weight 0,07 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	Ordering code[1)]
N30	1170 ± 25 %	B64290-P709-X830
T38	2730 + 30/– 40 %	B64290-P709-X38
T46	4090 + 30/– 40 %	B64290-P709-X46

1) Uncoated cores are available on request.

Magnetic characteristics — R 3,9

$\Sigma l/A$ = 8,56 mm^{-1}
l_e = 9,21 mm
A_e = 1,08 mm^2
V_e = 9,90 mm^3

Approx. weight 0,05 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	Ordering code[1)]
N30	630 ± 25 %	B64290-P61-X830
T38	1470 + 30/– 40 %	B64290-P61-X38
T46	2200 + 30/– 40 %	B64290-P61-X46

Magnetic characteristics — R 4,0

$\Sigma l/A$ = 7,69 mm^{-1}
l_e = 9,63 mm
A_e = 1,25 mm^2
V_e = 12,0 mm^3

Approx. weight 0,05 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	Ordering code
K1	13 ± 25 %	B64290-A36-X1
M33	125 ± 25 %	B64290-A36-X33
N30	700 ± 25 %	B64290-K36-X830
T38	1630 + 30/– 40 %	B64290-P36-X38
T46	2450 + 30/– 40 %	B64290-P36-X46

1) Uncoated cores are available on request.

Magnetic characteristics — R 5,8/3

$\Sigma l/A$ = 3,22 mm^{-1}
l_e = 13,03 mm
A_e = 4,04 mm^2
V_e = 52,60 mm^3

Approx. weight 0,3 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	Ordering code[1)]
N30	1680 ± 25 %	B64290-P687-X830
T38	3900 + 30/– 40 %	B64290-P687-X38
T46	5850 + 30/– 40 %	B64290-P687-X46

Magnetic characteristics — R 6,3

$\Sigma l/A$ = 4,97 mm^{-1}
l_e = 15,21 mm
A_e = 3,06 mm^2
V_e = 46,50 mm^3

Approx. weight 0,2 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	A_{L1min} nH (320 mT, 10 kHz, 100 ˚C)	Ordering code
K1	20 ± 25 %		B64290-A37-X1
M33	190 ± 25 %		B64290-K37-X33
N49	330 ± 25%	250	B64290-K37-X49
N30	1090 ± 25 %		B64290-P37-X830
T38	2530 + 30/– 40 %		B64290-P37-X38
T46	3600 + 30/– 40 %		B64290-P37-X46

1) Uncoated cores are available on request.

Magnetic characteristics **R 9,5**

$\Sigma l/A$ = 2,85 mm^{-1}
l_e = 20,72 mm
A_e = 7,28 mm^2
V_e = 151 mm^3

Approx. weight 0,8 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	Ordering code[1)]
N30	1900 ± 25 %	B64290-K62-X830
T35	2650 + 25/– 30 %	B64290-K62-X35
T38	4410 + 30/– 40 %	B64290-K62-X38

Magnetic characteristics **R 10**

$\Sigma l/A$ = 3,07 mm^{-1}
l_e = 24,07 mm
A_e = 7,83 mm^2
V_e = 188 mm^3

Approx. weight 0,9 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	A_{L1min} nH (320 mT, 10 kHz, 100 ˚C)	P_V W/core (Measuring conditions)	Ordering code
K1	33 ± 25 %			B64290-A38-X1
M33	308 ± 25 %			B64290-K38-X33
N49	530 ± 25%	410	< 36 mW (50 mT/500 kHz/100 ˚C)	B64290-K38-X49
N30	1760 ± 25 %			B64290-K38-X830
T37	2660 + 25/– 30 %			B64290-K38-X37
T38	4090 + 30/– 40 %			B64290-K38-X38

1) Uncoated cores are available on request.

Magnetic characteristics — R 12,5

$\Sigma l/A$ = 2,46 mm^{-1}
l_e = 30,09 mm
A_e = 12,23 mm^2
V_e = 368 mm^3

Approx. weight 1,8 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	A_{L1min} nH (320 mT, 10 kHz, 100 ˚C)	P_V W/core (Measuring conditions)	Ordering code
N49	660 ± 25%	510	< 72 mW (50 mT/500 kHz/100 ˚C)	B64290-K44-X49
N27	1020 ± 25%	460	< 70 mW (200 mT/25 kHz/100 ˚C)	B64290-K44-X27
N67	1070 ± 25%	460	< 280 mW (200 mT/100 kHz/100 ˚C)	B64290-K44-X67
N30	2200 ± 25 %			B64290-A44-X830
N30	2200 ± 25 %			B64290-K44-X830
T35	3060 + 25/– 30 %			B64290-K38-X35
T37	3320 + 25/– 30 %			B64290-K44-X37
T38	5110 + 30/– 40 %			B64290-K44-X38

Magnetic characteristics — R 13,3

$\Sigma l/A$ = 2,67 mm^{-1}
l_e = 32,70 mm
A_e = 12,27 mm^2
V_e = 401 mm^3

Approx. weight 1,8 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	Ordering code[1)]
N30	2020 ± 25 %	B64290-K644-X830
T35	2830 + 25/– 30 %	B64290-K644-X35
T37	3060 + 25/– 30 %	B64290-K644-X37
T38	4700 + 30/– 40 %	B64290-K644-X38

1) Uncoated cores are available on request.

Magnetic characteristics **R 14**

$\Sigma l/A$ = 2,84 mm^{-1}
l_e = 34,98 mm
A_e = 12,30 mm^2
V_e = 430 mm^3

Approx. weight 2 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	Ordering code[1)]
N30	1900 ± 25 %	B64290-K658-X830
T35	2650 + 25/– 30 %	B64290-K658-X35
T37	2880 + 25/– 30 %	B64290-K658-X37
T38	4420 + 30/– 40 %	B64290-K658-X38

Magnetic characteristics **R 15**

$\Sigma l/A$ = 3,24 mm^{-1}
l_e = 39,02 mm
A_e = 12,05 mm^2
V_e = 470 mm^3

Approx. weight 2,4 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	Ordering code[1)]
N30	1670 ± 25 %	B64290-K623-X830
T35	2330 + 25/– 30 %	B64290-K623-X35
T37	2520 + 25/– 30 %	B64290-K623-X37
T38	3880 + 30/– 40 %	B64290-K623-X38

1) Uncoated cores are available on request.

Magnetic characteristics **R 16**

$\Sigma l/A$ = 1,95 mm^{-1}
l_e = 38,52 mm
A_e = 19,73 mm^2
V_e = 760 mm^3

Approx. weight 3,7 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	A_{L1min} nH (320 mT, 10 kHz, 100 ˚C)	P_V W/core (Measuring conditions)	Ordering code[1)]
N49	840 ± 25%	640	< 130 mW (50 mT/500 kHz/100 ˚C)	B64290-K45-X49
N27	1290 ± 25%	580	< 140 mW (200 mT/25 kHz/100 ˚C)	B64290-K45-X27
N67	1350 ± 25%	580	< 500 mW (200 mT/100 kHz/100 ˚C)	B64290-K45-X67
N30	2770 ± 25 %			B64290-K45-X830
T35	3870 + 25/– 30 %			B64290-K45-X35
T37	4190 + 25/– 30 %			B64290-K45-X37
T38	6440 + 30/– 40 %			B64290-K45-X38

Magnetic characteristics **R 17**

$\Sigma l/A$ = 2,00 mm^{-1}
l_e = 42,00 mm
A_e = 21,04 mm^2
V_e = 884 mm^3

Approx. weight 4,4 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	Ordering code[1)]
N30	2710 ± 25 %	B64290-K652-X830
T35	3770 + 25/– 30 %	B64290-K652-X35
T37	4080 + 25/– 30 %	B64290-K652-X37
T38	5700 + 30/– 40 %	B64290-K652-X38

1) Uncoated cores are available on request.

Magnetic characteristics — R 20/7

$\Sigma l/A$ = 1,30 mm^{-1}
l_e = 43,55 mm
A_e = 33,63 mm^2
V_e = 1465 mm^3

Approx. weight 7,6 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	Ordering code[1)]
N30	4160 ± 25 %	B64290-K632-X830
T35	5000 + 25/– 30 %	B64290-K632-X35
T37	6280 + 25/– 30 %	B64290-K632-X37
T38	8500 + 30/– 40 %	B64290-K632-X38

Magnetic characteristics — R 22

$\Sigma l/A$ = 2,07 mm^{-1}
l_e = 54,15 mm
A_e = 26,17 mm^2
V_e = 1417 mm^3

Approx. weight 6,8 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	A_{L1min} nH (320 mT, 10 kHz, 100 ˚C)	P_V W/core (Measuring conditions)	Ordering code[1)]
N27	1210 ± 25%	550	< 250 mW (200 mT/25 kHz/100 ˚C)	B64290-K638-X27
N30	2610 ± 25 %			B64290-K638-X830
T35	3200 + 25/– 30 %			B64290-K638-X35
T37	3950 + 25/– 30 %			B64290-K638-X37
T38	5400 + 30/– 40 %			B64290-K638-X38

1) Uncoated cores are available on request.

Magnetic characteristics — R 23/9

$\Sigma l/A$ = 1,59 mm^{-1}
l_e = 56,82 mm
A_e = 35,78 mm^2
V_e = 2033 mm^3

Approx. weight 9,8 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	Ordering code[1)]
N30	3420 ± 25 %	B64290-K626-X830
T35	4200 + 25/– 30 %	B64290-K626-X35
T37	5170 + 25/– 30 %	B64290-K626-X37
T38[2)]	6700 + 30/– 40 %	B64290-K626-X38

Magnetic characteristics — R 25/10

$\Sigma l/A$ = 1,17 mm^{-1}
l_e = 60,07 mm
A_e = 51,26 mm^2
V_e = 3079 mm^3

Approx. weight 16 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	A_{L1min} nH (320 mT, 10 kHz, 100 ˚C)	P_V W/core (Measuring conditions)	Ordering code[1)]
N27	2150 ± 25%	970	< 580 mW (200 mT/25 kHz/100 ˚C)	B64290-K618-X27
N30	4620 ± 25 %			B64290-K618-X830
T35	5400 + 25/– 30 %			B64290-K618-X35
T37	6970 + 25/– 30 %			B64290-K618-X37
T38	9100 + 30/– 40 %			B64290-K618-X38

1) Uncoated cores are available on request.
2) Preliminary data

Magnetic characteristics — R 25/20

$\Sigma l/A$ = 0,59 mm^{-1}
l_e = 60,07 mm
A_e = 102,5 mm^2
V_e = 6157 mm^3

Approx. weight 33 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	Ordering code[1)]
N30	9160 ± 25 %	B64290-K616-X830
T35	11700 + 25/– 30 %	B64290-K616-X35
T65	11000 + 30/– 40 %	B64290-K616-X65
T37[2)]	13800 + 25/– 30 %	B64290-K616-X37
T38[2)]	18000 + 30/– 40 %	B64290-K616-X38

Magnetic characteristics — R 29

$\Sigma l/A$ = 0,96 mm^{-1}
l_e = 73,78 mm
A_e = 76,98 mm^2
V_e = 5680 mm^3

Approx. weight 27 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	Ordering code[1)]
N30	5630 ± 25 %	B64290-L647-X830
T65[2)]	6800 ± 30 %	B64290-L647-X65
T37[2)]	8500 ± 25 %	B64290-L647-X37

1) Uncoated cores are available on request.
2) Preliminary data

Magnetic characteristics — R 30

$\Sigma l/A$ = 1,19 mm^{-1}
l_e = 77,02 mm
A_e = 64,66 mm^2
V_e = 4980 mm^3

Approx. weight 25 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	Ordering code[1)]
N30	4540 ± 25 %	B64290-L657-X830
T65	5400 ± 30 %	B64290-L657-X65
T37[2)]	6400 ± 25 %	B64290-L657-X37

Magnetic characteristics — R 34/10

$\Sigma l/A$ = 1,24 mm^{-1}
l_e = 82,06 mm
A_e = 66,08 mm^2
V_e = 5423 mm^3

Approx. weight 27 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	Ordering code[1)]
N30	4360 ± 25 %	B64290-L58-X830
T65[2)]	5100 ± 30 %	B64290-L58-X65
T37[2)]	6100 ± 25 %	B64290-L58-X37

Magnetic characteristics — R 34/12,5

$\Sigma l/A$ = 0,99 mm^{-1}
l_e = 82,06 mm
A_e = 82,60 mm^2
V_e = 6778 mm^3

Approx. weight 33 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	Ordering code[1)]
N30	5460 ± 25 %	B64290-L48-X830
T65[2)]	6400 ± 30 %	B64290-L48-X65
T37[2)]	7600 ± 25 %	B64290-L48-X37

1) Uncoated cores are available on request. 2) Preliminary data

Magnetic characteristics **R 36**

$\Sigma l/A$ = 0,94 mm^{-1}
l_e = 89,65 mm
A_e = 95,89 mm^2
V_e = 8597 mm^3

Approx. weight 43 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	A_{L1min} nH (320 mT, 10 kHz, 100 ˚C)	P_V W/core (Measuring conditions)	Ordering code[1)]
N67	2810 ± 25%	1200	< 5,9 W (200 mT/100 kHz/100 ˚C)	B64290-L674-X67
N30	5750 ± 25 %			B64290-L674-X830
T65[2)]	6700 ± 30 %			B64290-L674-X65
T37[2)]	8000 ± 25 %			B64290-L674-X37

Magnetic characteristics **R 40**

$\Sigma l/A$ = 0,77 mm^{-1}
l_e = 96,29 mm
A_e = 125,30 mm^2
V_e = 12070 mm^3

Approx. weight 61 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	Ordering code[1)]
N30	7000 ± 25 %	B64290-L659-X830
T65[2)]	8200 ± 30 %	B64290-L659-X65
T37[2)]	9800 ± 25 %	B64290-L659-X37

1) Uncoated cores are available on request.
2) Preliminary data

Magnetic characteristics **R 42**

$\Sigma l/A$ = 1,08 mm^{-1}
l_e = 103,0 mm
A_e = 95,75 mm^2
V_e = 9862 mm^3

Approx. weight 48 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	Ordering code
N30	5000 ± 25 %	B64290-A22-X830
N30	5000 ± 25 %	B64290-L22-X830
T65	5800 ± 30 %	B64290-L22-X65
T37	7000 ± 25 %	B64290-L22-X37

Magnetic characteristics **R 50**

$\Sigma l/A$ = 0,62 mm^{-1}
l_e = 120,4 mm
A_e = 195,7 mm^2
V_e = 23560 mm^3

Approx. weight 118 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	Ordering code
N30	8700 ± 25 %	B64290-A82-X830
N30	8700 ± 25 %	B64290-L82-X830
T65	10000 ± 30 %	B64290-L82-X65
T37	12000 ± 25 %	B64290-L82-X37

Magnetic characteristics R 58

$\Sigma l/A$ = 1,00 mm^{-1}
l_e = 152,4 mm
A_e = 152,4 mm^2
V_e = 23230 mm^3

Approx. weight 115 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	Ordering code
N30	5400 ± 25 %	B64290-A40-X830
T65	6250 ± 30 %	B64290-L40-X65
T37	7160 ± 25 %	B64290-L40-X37

Magnetic characteristics R 63

$\Sigma l/A$ = 0,5 mm^{-1}
l_e = 152,1 mm
A_e = 305,9 mm^2
V_e = 46530 mm^3

Approx. weight 238 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	Ordering code
N30	10800 ± 25 %	B64290-L699-X830
N30	10800 ± 30 %	B64290-A699-X830
T37[1)]	14500 ± 25 %	B64290-L699-X37

Magnetic characteristics R 68

$\Sigma l/A$ = 1,39 mm^{-1}
l_e = 178,6 mm
A_e = 128,7 mm^2
V_e = 22980 mm^3

Approx. weight 114 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	Ordering code
N30	3890 ± 25 %	B64290-L696-X830
N30	3890 ± 25 %	B64290-A696-X830

1) Preliminary data

Magnetic characteristics — R 100

$\Sigma l/A$ = 0,96 mm^{-1}
l_e = 255,3 mm
A_e = 267,2 mm^2
V_e = 68220 mm^3

Approx. weight 330 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	A_{L1min} nH (320 mT, 10 kHz, 100 ˚C)	P_V W/core (Measuring conditions)	Ordering code
N87	2880 ± 25%	1600	< 14 W (100 mT/100 kHz/100 ˚C)	B64290-L84-X87
N30	5500 ± 25 %			B64290-L84-X830

Magnetic characteristics — R 140

$\Sigma l/A$ = 0,82 mm^{-1}
l_e = 375,8 mm
A_e = 458,9 mm^2
V_e = 172440 mm^3

Approx. weight 860 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	Ordering code
N30	6200 ± 25 %	B64290-A705-X830

Magnetic characteristics — R 200

$\Sigma l/A$ = 0,90 mm^{-1}
l_e = 550,5 mm
A_e = 608,6 mm^2
V_e = 335030 mm^3

Approx. weight 1600 g

Material	A_L value nH (1 mT, 10 kHz, 25 ˚C)	Ordering code
N30	5500 ± 30 %	B64290-A711-X830