PRODUCT OVERVIEW AND TYPE NUMBER STRUCTURE

Product overview iron powder ring cores (toroids)

CORE TYPE	V_e (mm^3)	A_e (mm^2)	MASS (g)
TN7.5/4.1/3	83	4.81	0.6
TN12/8/4.4	290	9.37	2
TN17/9.8/4.4	635	15.8	5
TN20/13/6	1020	20.4	7.5
TN24/15/7.5	1895	32.8	13
TN27/15/11	3720	60.4	25
TN33/20/11	5200	65.0	35

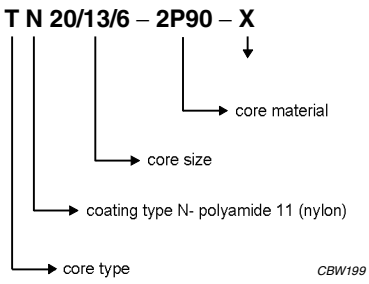


Fig.1 Type number structure for ring cores.

RING CORES (TOROIDS)

Effective core parameters

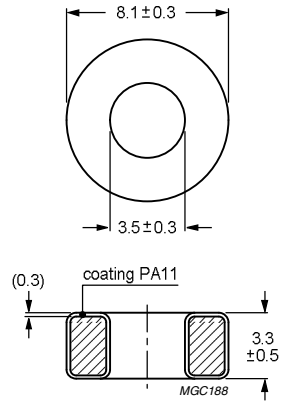
SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	3.58	mm^{-1}
V_e	effective volume	83	mm^3
l_e	effective length	17.3	mm
A_e	effective area	4.81	mm^2
m	mass of core	≈0.6	g

Coating

The cores are coated with polyamide 11 (PA11), flame retardant in accordance with *"UL 94V-2"*; UL file number E 45228 (M).
The colour is white.
Maximum operating temperature is 160 °C.

Isolation voltage

DC isolation voltage: 1500 V.
Contacts are applied on the edge of the ring core, which is also the critical point for the winding operation.



Dimensions in mm.

Fig.1 TN7.5/4.1/3 ring core.

Ring core data

GRADE	A_L (nH)	μ_i	TYPE NUMBER
2P40 sup	14 ±10%	≈40	TN7.5/4.1/3-2P40
2P50 sup	18 ±10%	≈50	TN7.5/4.1/3-2P50
2P65 sup	23 ±10%	≈65	TN7.5/4.1/3-2P65
2P80 sup	28 ±10%	≈80	TN7.5/4.1/3-2P80
2P90 sup	30 +10/–15%	≈90	TN7.5/4.1/3-2P90

RING CORES (TOROIDS)

Effective core parameters

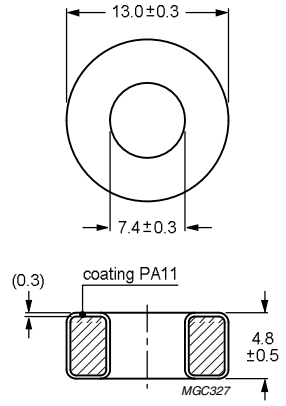
SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	3.30	mm^{-1}
V_e	effective volume	290	mm^3
l_e	effective length	30.9	mm
A_e	effective area	9.37	mm^2
m	mass of core	≈2	g

Coating

The cores are coated with polyamide 11 (PA11), flame retardant in accordance with *"UL 94V-2"*; UL file number E 45228 (M).
The colour is white.
Maximum operating temperature is 160 °C.

Isolation voltage

DC isolation voltage: 1500 V.
Contacts are applied on the edge of the ring core, which is also the critical point for the winding operation.



Dimensions in mm.

Fig.1 TN12/8.4/4 ring core.

Ring core data

GRADE	A_L (nH)	μ_i	TYPE NUMBER
2P40 sup	15 ±10%	≈40	TN12/8/4.4-2P40
2P50 sup	19 ±10%	≈50	TN12/8/4.4-2P50
2P65 sup	25 ±10%	≈65	TN12/8/4.4-2P65
2P80 sup	31 ±10%	≈80	TN12/8/4.4-2P80
2P90 sup	33 +10/–15%	≈90	TN12/8/4.4-2P90

RING CORES (TOROIDS)

Effective core parameters

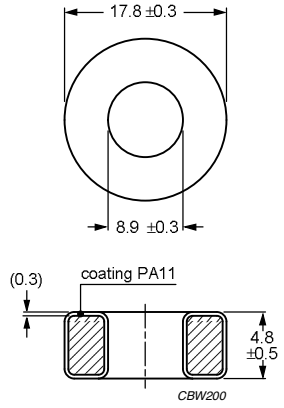
SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	2.55	mm^{-1}
V_e	effective volume	635	mm^3
l_e	effective length	40.2	mm
A_e	effective area	15.8	mm^2
m	mass of core	≈5	g

Coating

The cores are coated with polyamide 11 (PA11), flame retardant in accordance with *"UL 94V-2"*; UL file number E 45228 (M).
The colour is white.
Maximum operating temperature is 160 °C.

Isolation voltage

DC isolation voltage: 1500 V.
Contacts are applied on the edge of the ring core, which is also the critical point for the winding operation.



Dimensions in mm.

Fig.1 TN17/9.8/4.4 ring core.

Ring core data

GRADE	A_L (nH)	μ_i	TYPE NUMBER
2P40 sup	20 ±10%	≈40	TN17/9.8/4.4-2P40
2P50 sup	25 ±10%	≈50	TN17/9.8/4.4-2P50
2P65 sup	32 ±10%	≈65	TN17/9.8/4.4-2P65
2P80 sup	40 ±10%	≈80	TN17/9.8/4.4-2P80
2P90 sup	42 +10/–15%	≈90	TN17/9.8/4.4-2P90

RING CORES (TOROIDS)

Effective core parameters

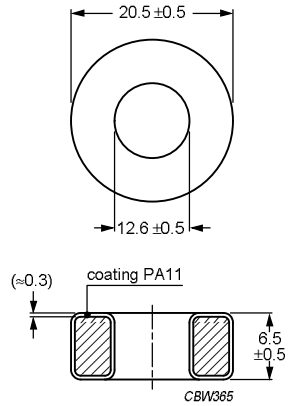
SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	2.44	mm^{-1}
V_e	effective volume	1020	mm^3
l_e	effective length	49.9	mm
A_e	effective area	20.4	mm^2
m	mass of core	≈7.5	g

Coating

The cores are coated with polyamide 11 (PA11), flame retardant in accordance with *"UL 94V-2"*; UL file number E 45228 (M).
The colour is white.
Maximum operating temperature is 160 °C.

Isolation voltage

DC isolation voltage: 1500 V.
Contacts are applied on the edge of the ring core, which is also the critical point for the winding operation.



Dimensions in mm.

Fig.1 TN20/13/6 ring core.

Ring core data

GRADE	A_L (nH)	μ_i	TYPE NUMBER
2P40 sup	21 ±10%	≈40	TN20/13/6-2P40
2P50 sup	26 ±10%	≈50	TN20/13/6-2P50
2P65 sup	34 ±10%	≈65	TN20/13/6-2P65
2P80 sup	41 ±10%	≈80	TN20/13/6-2P80
2P90 sup	44 +10/−15%	≈90	TN20/13/6-2P90

RING CORES (TOROIDS)

Effective core parameters

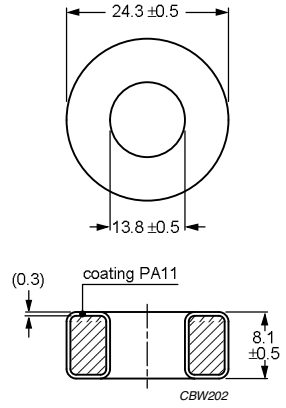
SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	1.76	mm^{-1}
V_e	effective volume	1895	mm^3
l_e	effective length	57.8	mm
A_e	effective area	32.8	mm^2
m	mass of core	≈13	g

Coating

The cores are coated with polyamide 11 (PA11), flame retardant in accordance with *"UL 94V-2"*; UL file number E 45228 (M).
The colour is white.
Maximum operating temperature is 160 °C.

Isolation voltage

DC isolation voltage: 1500 V.
Contacts are applied on the edge of the ring core, which is also the critical point for the winding operation.



Dimensions in mm.

Fig.1 TN24/15/7.5 ring core.

Ring core data

GRADE	A_L (nH)	μ_i	TYPE NUMBER
2P40 sup	29 ±10%	≈40	TN24/15/7.5-2P40
2P50 sup	36 ±10%	≈50	TN24/15/7.5-2P50
2P65 sup	47 ±10%	≈65	TN24/15/7.5-2P65
2P80 sup	57 ±10%	≈80	TN24/15/7.5-2P80
2P90 sup	61 +10/–15%	≈90	TN24/15/7.5-2P90

RING CORES (TOROIDS)

Effective core parameters

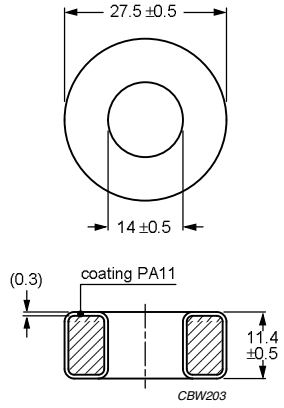
SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	1.02	mm^{-1}
V_e	effective volume	3720	mm^3
l_e	effective length	61.6	mm
A_e	effective area	60.4	mm^2
m	mass of core	≈25	g

Coating

The cores are coated with polyamide 11 (PA11), flame retardant in accordance with *"UL 94V-2"*; UL file number E 45228 (M).
The colour is white.
Maximum operating temperature is 160 °C.

Isolation voltage

DC isolation voltage: 1500 V.
Contacts are applied on the edge of the ring core, which is also the critical point for the winding operation.



Dimensions in mm.

Fig.1 TN27/15/11 ring core.

Ring core data

GRADE	A_L (nH)	μ_i	TYPE NUMBER
2P40 sup	49 ±10%	≈40	TN27/15/11-2P40
2P50 sup	62 ±10%	≈50	TN27/15/11-2P50
2P65 sup	80 ±10%	≈65	TN27/15/11-2P65
2P80 sup	94 ±10%	≈80	TN27/15/11-2P80
2P90 sup	105 +10/–15%	≈90	TN27/15/11-2P90

RING CORES

Effective core parameters

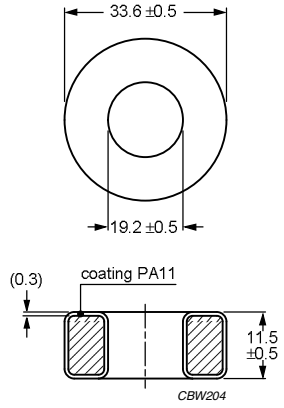
SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	1.23	mm^{-1}
V_e	effective volume	5200	mm^3
l_e	effective length	80.0	mm
A_e	effective area	65.0	mm^2
m	mass of core	≈35	g

Coating

The cores are coated with polyamide 11 (PA11), flame retardant in accordance with *"UL 94V-2"*; UL file number E 45228 (M).
The colour is white.
Maximum operating temperature is 160 °C.

Isolation voltage

DC isolation voltage: 1500 V.
Contacts are applied on the edge of the ring core, which is also the critical point for the winding operation.



Dimensions in mm.

Fig.1 TN33/20/11 ring core.

Ring core data

GRADE	A_L (nH)	μ_i	TYPE NUMBER
2P40 sup	41 ±10%	≈40	TN33/20/11-2P40
2P50 sup	51 ±10%	≈50	TN33/20/11-2P50
2P65 sup	67 ±10%	≈65	TN33/20/11-2P65
2P80 sup	82 ±10%	≈80	TN33/20/11-2P80
2P90 sup	87 +10/–15%	≈90	TN33/20/11-2P90

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