TDK

June 2016

Mn-Zn

Large Size Ferrite Cores for High Power

UU series

⚠ REMINDERS FOR USING THESE PRODUCTS

Please be sure to read this manual thoroughly before using the products.

The products listed on this catalog are intended for use in general electronic equipment (AV equipment, telecommunications equipment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement equipment, industrial robots) under a normal operation and use condition.
The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property.
When using the products for specific purposes, please first make confirmations in areas such as safety, reliability, and quality.
Please understand that we are not in a position to be held responsible for any damage or the like caused by any use exceeding the range or conditions of this specification sheet or by any use in the specific applications.

(1) Aerospace/Aviation equipment
(2) Transportation equipment (electric trains, ships, etc.)
(3) Medical equipment
(4) Power-generation control equipment
(5) Atomic energy-related equipment
(6) Seabed equipment
(7) Transportation control equipment
(8) Public information-processing equipment
(9) Military equipment
(10) Electric heating apparatus, burning equipment
(11) Disaster prevention/crime prevention equipment
(12) Safety equipment
(13) Other applications that are not considered general-purpose applications

When using this product in general-purpose standard applications, you are kindly requested to take into consideration securing protection circuit/equipment or providing backup circuits, etc to ensure higher safety.

Large Size Ferrite Cores for High Power

Product compatible with RoHS directive
Halogen-free

Overview of the UU Series

FEATURES

- Large size cores for transformers with large power outputs.
- Can also be used in reactors.

APPLICATION

- Large size industrial equipment, transformers for consumer equipment
- Reactors

PART NUMBER CONSTRUCTION

PE22 UU 79 × 129 × 31

Material	Core shape	Width	Height when assembled	Thickness
PE22	UU	79	115	31
PC40		100	129	30
PE90		100	150	20
		101	151	25
		120	160	20
		80		30N
				30N
				25N

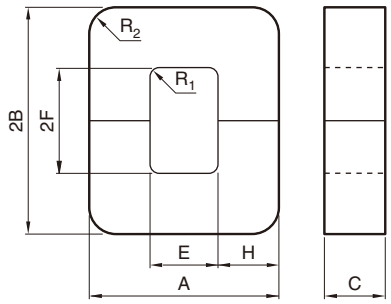
RANGE OF USE AND STORAGE TEMPERATURE

Temperature range	
Operating temperature (°C)	Storage temperature (°C)
–30 to +105	–30 to +85

- RoHS Directive Compliant Product: See the following for more details.https://product.tdk.com/info/en/environment/rohs/index.html
- Halogen-free: Indicates that Cl content is less than 900ppm, Br content is less than 900ppm, and that the total Cl and Br content is less than 1500ppm.

Mn-Zn UU Cores

SHAPES AND DIMENSIONS



PE22 UU 79 × 129 × 31

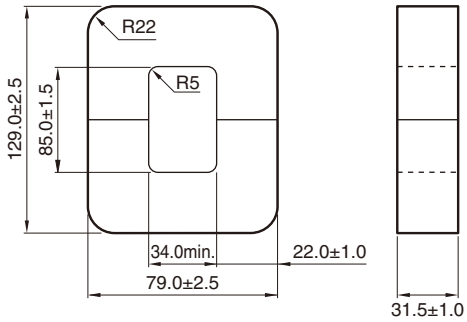
Material	Core shape	Wdth	Height when assembled	Thickness

Part No.	Dimensions (mm)								
	A	2B	C	E	2F	H	R_1	R_2	E×2F(mm^2)
PE22 UU79×129×31 PC40 UU79×129×31 PE90 UU79×129×31	79.0±2.5	129.0±2.5	31.5±1.0	34.0min.	85.0±1.5	22.0±1.0	5	22	2980
PE22 UU100×151×30 PC40 UU100×151×30 PE90 UU100×151×30	100.0±3.0	151.0±2.5	30.0±1.0	39.0min.	90.0±1.5	30.0±1.5	5	30	3600
PE22 UU101×115×25 PC40 UU101×115×25 PE90 UU101×115×25	101.0±3.0	115.0±2.5	25.4±1.0	50.0min.	64.0±1.5	25.0±1.0	5	25	3260
PE22 UU120×160×20 PC40 UU120×160×20 PE90 UU120×160×20	120.0±3.0	160.0±2.5	20.0±1.0	59.0min.	100.0±1.5	30.0±1.5	5	35	6000
PE22 UU80×150×30N PC40 UU80×150×30N PE90 UU80×150×30N	80.0±2.5	150.0±2.5	30.0±1.0	39.0min.	110.0±1.5	20.0±1.0	1	0	4400

Part No.	Effective parameter						Electrical characteristics
	Core factor C_1 (mm^{-1})	$C_2×10^{-2}$ (mm^{-3})	**Effective cross-sectional area** A_e (mm^2)	**Effective magnetic path length** ℓ_e (mm)	**Effective core volume** V_e (mm^3)	**Weigh** (g)	**A_L-value** (nH/N^2) 1kHz 0.4A/m 23°C
PE22 UU79×129×31 PC40 UU79×129×31 PE90 UU79×129×31	0.44605	0.06437	693	309	214220	1080 1080 1103	4790±25% 6030±25% 5768±25%
PE22 UU100×151×30 PC40 UU100×151×30 PE90 UU100×151×30	0.38801	0.04241	915	355	324860	1630 1630 1664	5540±25% 6990±25% 6686±25%
PE22 UU101×115×25 PC40 UU101×115×25 PE90 UU101×115×25	0.47757	0.07373	648	309	200350	1000 1000 1021	4480±25% 5640±25% 5395±25%
PE22 UU120×160×20 PC40 UU120×160×20 PE90 UU120×160×20	0.69041	0.11507	600	414	248550	1240 1240 1266	3140±25% 3960±25% 3788±25%
PE22 UU80×150×30N PC40 UU80×150×30N PE90 UU80×150×30N	0.60472	0.00101	600	363	217700	1095 1095 1118	3570±25% 4500±25% 4304±25%

Mn-Zn UU series Part No.: PE22 UU79X129X31

SHAPES AND DIMENSIONS

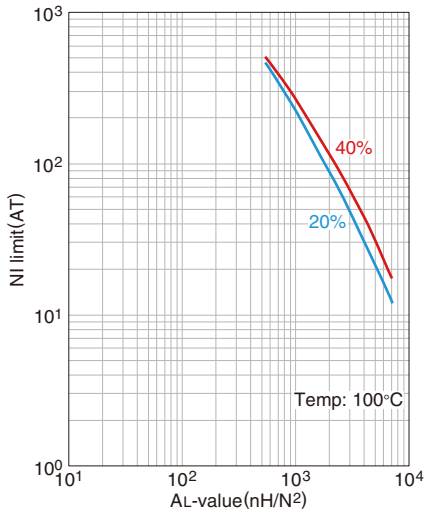


Dimensions in mm

Effective parameter								Electrical characteristics
Core factor		Effective magnetic path length	Effective cross-sectional area	Effective core volume	Minimum cross-sectional area	Winding cross-sectional area	Weigh (approx.)	AL-value
C1 (mm^{-1})	C2×10^{-2} (mm^{-3})	ℓe (mm)	Ae (mm^2)	Ve (mm^3)	A min.* (mm^2)	Acw (mm^2)	(g)	(nH/N^2) 1kHz 0.4A/m 23°C
0.44605	0.06437	309	693	214220	693LB*	2980	1080	4790±25%

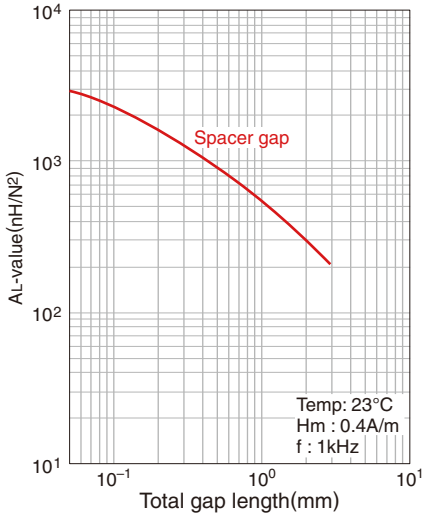
* The symbol followed A min. value shows minimum cross-sectional area part.
L is outer pole part, B is the back part.

NI limit vs. AL-value



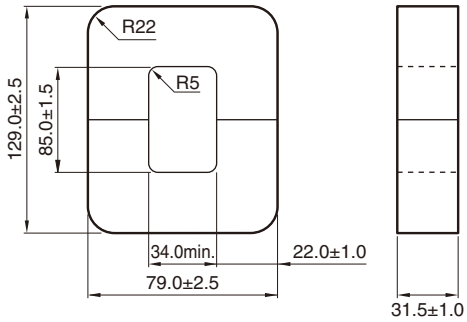
The 20% and 40% graph shows when a 20% and 40% drop from the initial AL-value has been made due to the DC superimposition.

AL-value vs. Air gap length



Mn-Zn UU series Part No.: PC40 UU79X129X31

SHAPES AND DIMENSIONS

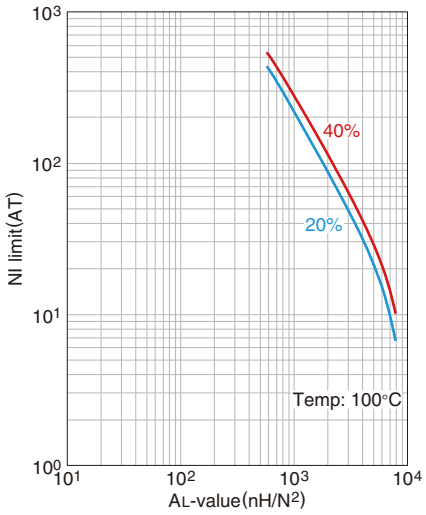


Dimensions in mm

Effective parameter								Electrical characteristics
Core factor		Effective magnetic path length	Effective cross-sectional area	Effective core volume	Minimum cross-sectional area	Winding cross-sectional area	Weigh (approx.)	AL-value
C_1 (mm^{-1})	$C_2 \times 10^{-2}$ (mm^{-3})	ℓe (mm)	Ae (mm^2)	Ve (mm^3)	A min.* (mm^2)	Acw (mm^2)	(g)	(nH/N^2) 1kHz 0.4A/m 23°C
0.44605	0.06437	309	693	214220	693LB*	2980	1080	6030±25%

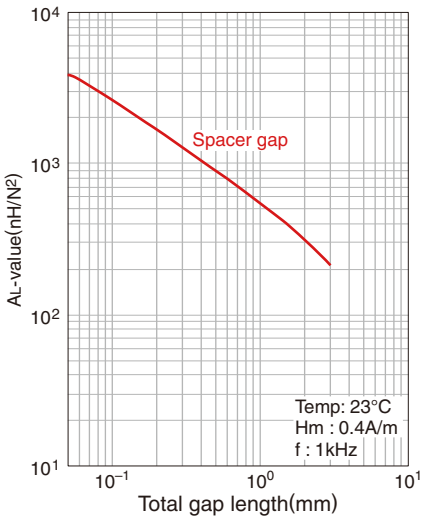
* The symbol followed A min. value shows minimum cross-sectional area part.
L is outer pole part, B is the back part.

NI limit vs. AL-value



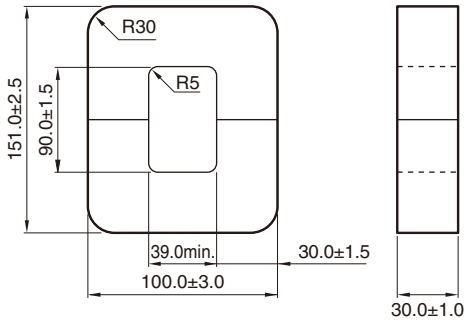
The 20% and 40% graph shows when a 20% and 40% drop from the initial AL-value has been made due to the DC superimposition.

AL-value vs. Air gap length



Mn-Zn UU series Part No.: PE22 UU100X151X30

SHAPES AND DIMENSIONS

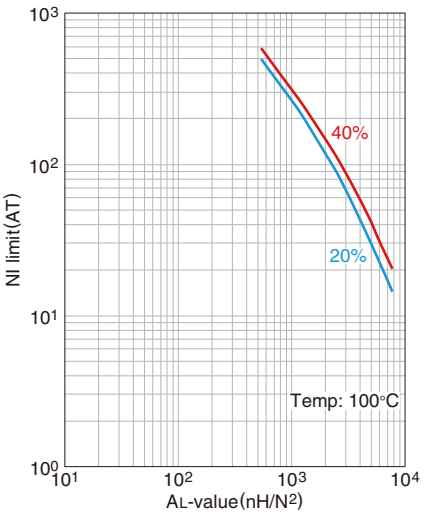


Dimensions in mm

Effective parameter								Electrical characteristics
Core factor		Effective magnetic path length	Effective cross-sectional area	Effective core volume	Minimum cross-sectional area	Winding cross-sectional area	Weigh (approx.)	AL-value
C1	C2×10−2	ℓe	Ae	Ve	A min.*	Acw		
(mm−1)	(mm−3)	(mm)	(mm2)	(mm3)	(mm2)	(mm2)	(g)	(nH/N2) 1kHz 0.4A/m 23°C
0.38801	0.04241	355	915	324860	900L*	3600	1630	5540±25%

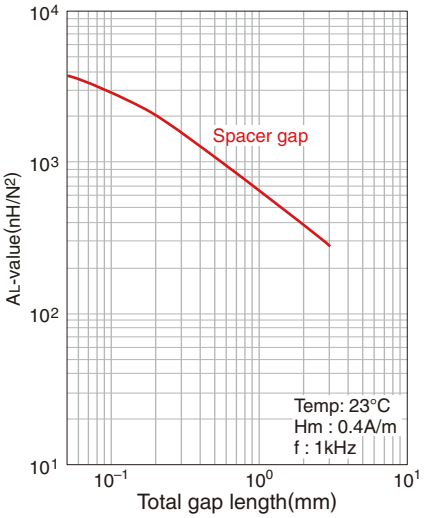
* The symbol followed A min. value shows minimum cross-sectional area part.
L is outer pole part, B is the back part.

NI limit vs. AL-value



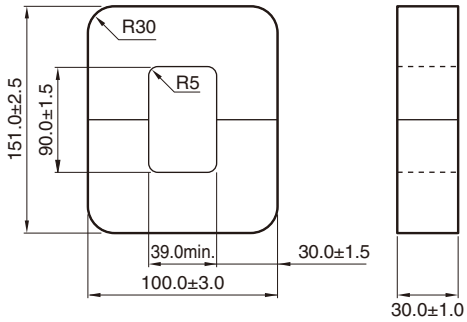
The 20% and 40% graph shows when a 20% and 40% drop from the initial AL-value has been made due to the DC superimposition.

AL-value vs. Air gap length



Mn-Zn UU series Part No.: PC40 UU100X151X30

SHAPES AND DIMENSIONS

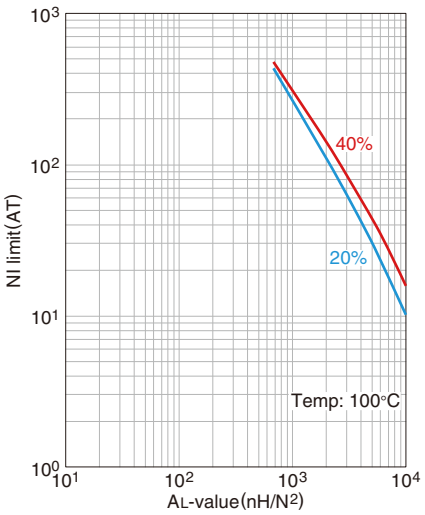


Dimensions in mm

Effective parameter								Electrical characteristics
Core factor		Effective magnetic path length	Effective cross-sectional area	Effective core volume	Minimum cross-sectional area	Winding cross-sectional area	Weigh (approx.)	AL-value
C1	C2×10−2	ℓe	Ae	Ve	A min.*	Acw		
(mm−1)	(mm−3)	(mm)	(mm2)	(mm3)	(mm2)	(mm2)	(g)	(nH/N2) 1kHz 0.4A/m 23°C
0.38801	0.04241	355	915	324860	900L*	3600	1630	6990±25%

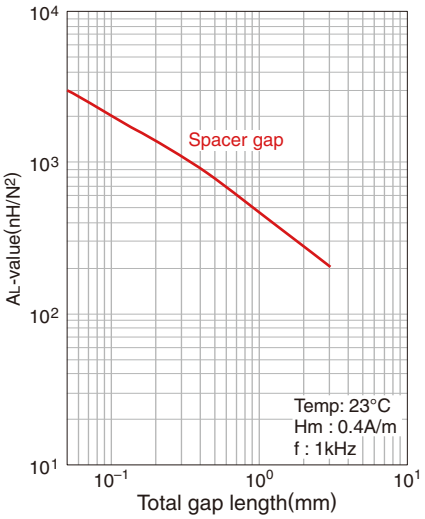
* The symbol followed A min. value shows minimum cross-sectional area part.
L is outer pole part, B is the back part.

NI limit vs. AL-value



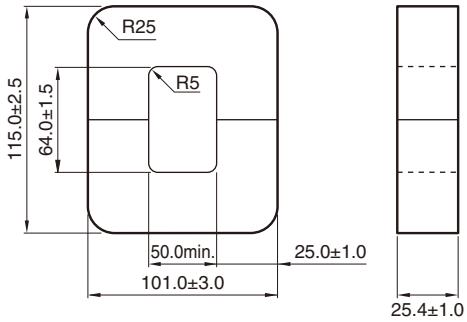
The 20% and 40% graph shows when a 20% and 40% drop from the initial AL-value has been made due to the DC superimposition.

AL-value vs. Air gap length



Mn-Zn UU series Part No.: PE22 UU101X115X25

SHAPES AND DIMENSIONS

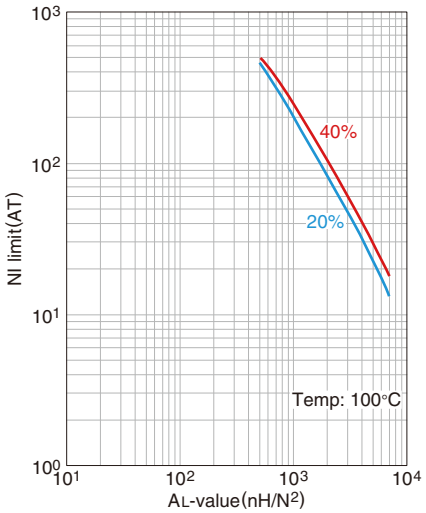


Dimensions in mm

Effective parameter								Electrical characteristics
Core factor		Effective magnetic path length	Effective cross-sectional area	Effective core volume	Minimum cross-sectional area	Winding cross-sectional area	Weigh (approx.)	AL-value
C_1 (mm^{-1})	$C_2 \times 10^{-2}$ (mm^{-3})	ℓe (mm)	Ae (mm^2)	Ve (mm^3)	A min.* (mm^2)	Acw (mm^2)	(g)	(nH/N²) 1kHz 0.4A/m 23°C
0.47757	0.07373	309	648	200350	635L*	3260	1000	4480±25%

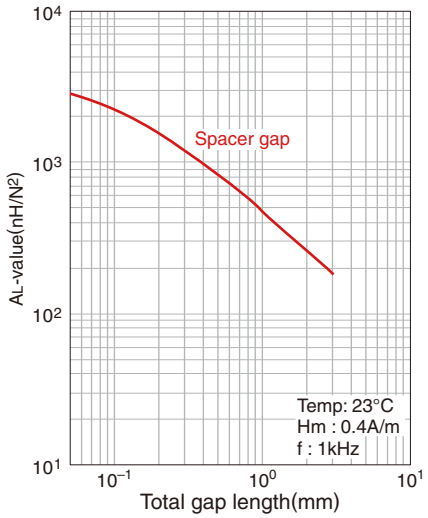
* The symbol followed A min. value shows minimum cross-sectional area part.
L is outer pole part, B is the back part.

NI limit vs. AL-value



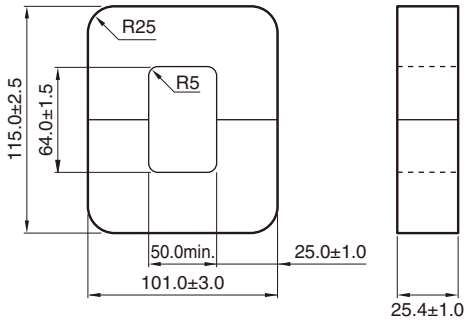
The 20% and 40% graph shows when a 20% and 40% drop from the initial AL-value has been made due to the DC superimposition.

AL-value vs. Air gap length



Mn-Zn UU series Part No.: PC40 UU101X115X25

SHAPES AND DIMENSIONS

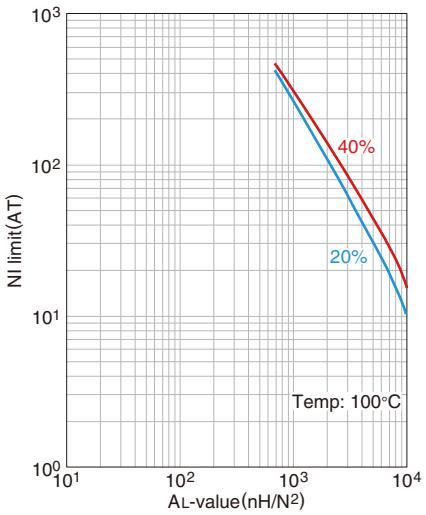


Dimensions in mm

Effective parameter								Electrical characteristics
Core factor		Effective magnetic path length	Effective cross-sectional area	Effective core volume	Minimum cross-sectional area	Winding cross-sectional area	Weigh (approx.)	AL-value
C_1 (mm^{-1})	$C_2 \times 10^{-2}$ (mm^{-3})	ℓe (mm)	Ae (mm^2)	Ve (mm^3)	A min.* (mm^2)	Acw (mm^2)	(g)	(nH/N^2) 1kHz 0.4A/m 23°C
0.47757	0.07373	309	648	200350	635L*	3260	1000	5640±25%

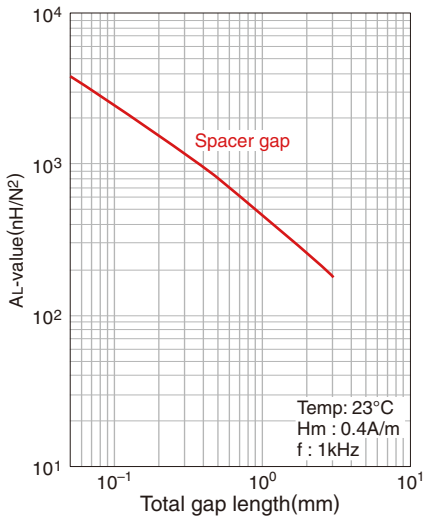
* The symbol followed A min. value shows minimum cross-sectional area part.
L is outer pole part, B is the back part.

NI limit vs. AL-value



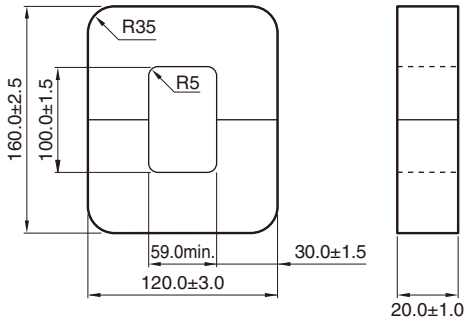
The 20% and 40% graph shows when a 20% and 40% drop from the initial AL-value has been made due to the DC superimposition.

AL-value vs. Air gap length



Mn-Zn UU series Part No.: PE22 UU120X160X20

SHAPES AND DIMENSIONS

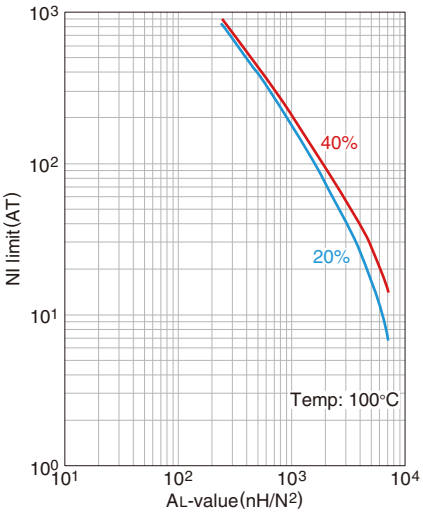


Dimensions in mm

Effective parameter								Electrical characteristics
Core factor		Effective magnetic path length	Effective cross-sectional area	Effective core volume	Minimum cross-sectional area	Winding cross-sectional area	Weigh (approx.)	AL-value
C_1 (mm^{-1})	$C_2 \times 10^{-2}$ (mm^{-3})	ℓe (mm)	Ae (mm^2)	Ve (mm^3)	A min.* (mm^2)	Acw (mm^2)	(g)	(nH/N^2) 1kHz 0.4A/m 23°C
0.69041	0.11507	414	600	248550	600LB*	6000	1240	3140±25%

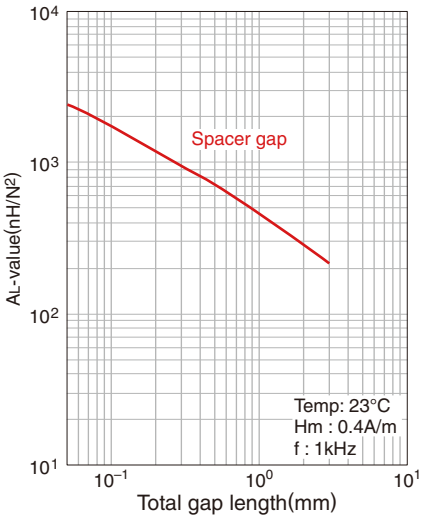
* The symbol followed A min. value shows minimum cross-sectional area part.
L is outer pole part, B is the back part.

NI limit vs. AL-value



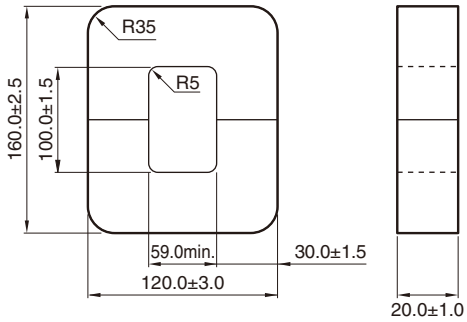
The 20% and 40% graph shows when a 20% and 40% drop from the initial AL-value has been made due to the DC superimposition.

AL-value vs. Air gap length



Mn-Zn UU series **Part No.: PC40 UU120X160X20**

SHAPES AND DIMENSIONS

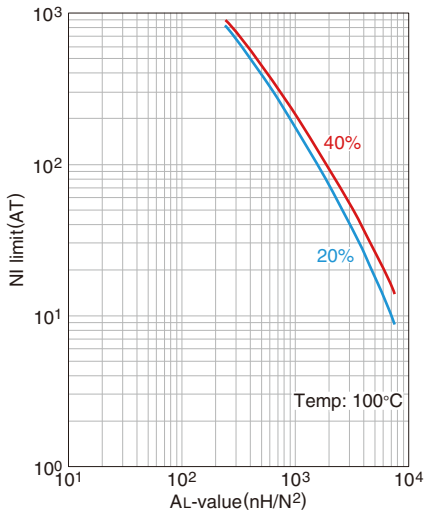


Dimensions in mm

Effective parameter								Electrical characteristics
Core factor		Effective magnetic path length	Effective cross-sectional area	Effective core volume	Minimum cross-sectional area	Winding cross-sectional area	Weigh (approx.)	AL-value
C_1 (mm^{-1})	$C_2 \times 10^{-2}$ (mm^{-3})	ℓe (mm)	Ae (mm^2)	Ve (mm^3)	A min.* (mm^2)	Acw (mm^2)	(g)	(nH/N^2) 1kHz 0.4A/m 23°C
0.69041	0.11507	414	600	248550	600LB*	6000	1240	3960±25%

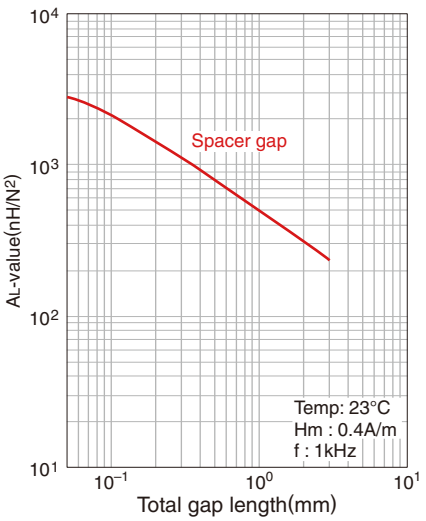
* The symbol followed A min. value shows minimum cross-sectional area part.
L is outer pole part, B is the back part.

NI limit vs. AL-value



The 20% and 40% graph shows when a 20% and 40% drop from the initial AL-value has been made due to the DC superimposition.

AL-value vs. Air gap length



Общество с ограниченной ответственностью «МосЧип» ИНН 7719860671 / КПП 771901001
Адрес: 105318, г.Москва, ул.Щербаковская д.3, офис 1107

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

http://moschip.ru/get-element

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

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