



Mn-Zn

Ferrite Cores for Switching Power Supplies

Planar series

EL
ELT
PQI
EIR
ER
EI

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

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.

Ferrite Cores for Switching Power Supplies

Product compatible with RoHS directive
Halogen-free

Overview of the Planar Series

FEATURES

- Low profile shape suited to PCB mounting
- Available in a range of various shapes
- Available in a pair of E core and I core that easily can be mounted on PCBs
- A wide range of sizes is available from 10mm to 25mm

APPLICATION

Low profile DC/DC converters, transformers and coils for use in planers

PART NUMBER CONSTRUCTION

| | | | | | | | |
|-----------------|-----------------------|--|--------------|-----------|-------------|-------------|-------------|
| PC90 | EL11X4 | - | Z | | | | |
| Material | Size of E core | AL-value (Z: without air gap) | | | | | |
| PC90 PC95 | | | | | | | |
| | EL core | | | | | | |
| | EL11X4 | EL13X4.4 | EL15.5X5.8 | EL18X7.3 | EL20X7.7 | EL22X8 | EL25X8.6 |
| | ELT core | | | | | | |
| | ELT11X3 | ELT11X4 | ELT13X3.4 | ELT13X4.4 | ELT15.5X4.3 | ELT15.5X5.8 | ELT18X5.3 |
| | ELT18X7.3 | ELT20X5.7 | ELT20X7.7 | ELT22X6 | ELT22X8 | ELT25X6.6 | ELT25X8.6 |
| | PQI core | | | | | | |
| | PQI16/7.8Z | PQI20/9Z | PQI26/12Z | | | | |
| | EIR core | | | | | | |
| | EIR14/4.5/9 | EIR18/5/12 | EIR22/5.5/15 | | | | |
| | ER core | | | | | | |
| | ER9.5/5 | ER11/5 | ER14/4.5/9 | ER14.5/6 | ER18/5/12 | ER22/5.5/15 | ER25/5.5/18 |
| | EI core | | | | | | |
| | EI14/5/5 | EI18/6/10 | EI22/8/16 | | | | |

RANGE OF USE AND STORAGE TEMPERATURE

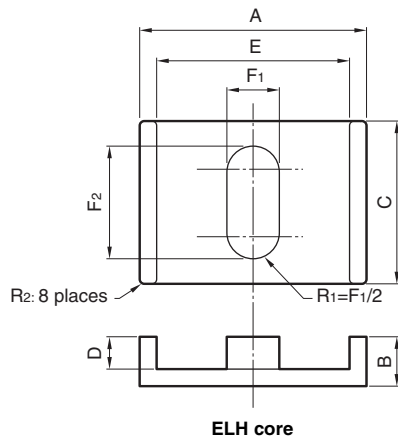
| Temperature range | |
|-------------------------------|-----------------------------|
| Operating temperature (°C) | Storage temperature (°C) |
| -30 to +105 | -30 to +85 |

- 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.

⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use.
Please note that the contents may change without any prior notice due to reasons such as upgrading.

Mn-Zn EL Cores

SHAPES AND DIMENSIONS



| | | | |
|----------|----------------|---|----------------------------------|
| PC95 | EL11X4 | - | Z |
| Material | Size of E core | | AL-value (Z: without air gap) |

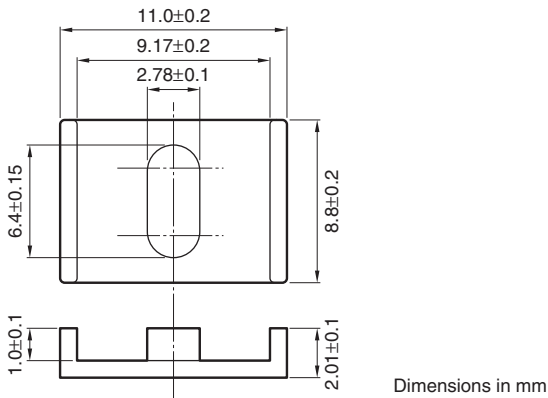
| Part No.(ELH+ELH) | Dimensions (mm) | | | | | | | |
|-------------------|-----------------|-----------|------------|-----------|------------|----------------|----------------|----------------|
| | A | B | C | D | E | F ₁ | F ₂ | R ₂ |
| PC95EL11X4-Z | 11.00±0.20 | 2.01±0.10 | 8.80±0.20 | 1.00±0.10 | 9.17±0.20 | 2.78±0.10 | 6.40±0.15 | 0.30 |
| PC90EL11X4-Z | | | | | | | | |
| PC95EL13X4.4-Z | 13.00±0.25 | 2.19±0.10 | 10.40±0.20 | 1.00±0.10 | 10.83±0.20 | 3.29±0.10 | 7.56±0.15 | 0.30 |
| PC90EL13X4.4-Z | | | | | | | | |
| PC95EL15.5X5.8-Z | 15.50±0.30 | 2.92±0.10 | 12.40±0.25 | 1.50±0.10 | 12.92±0.25 | 3.92±0.10 | 9.01±0.20 | 0.30 |
| PC90EL15.5X5.8-Z | | | | | | | | |
| PC95EL18X7.3-Z | 18.00±0.30 | 3.65±0.10 | 14.40±0.25 | 2.00±0.10 | 15.00±0.30 | 4.55±0.10 | 10.47±0.20 | 0.30 |
| PC90EL18X7.3-Z | | | | | | | | |
| PC95EL20X7.7-Z | 20.00±0.35 | 3.83±0.10 | 16.00±0.30 | 2.00±0.10 | 16.67±0.30 | 5.06±0.15 | 11.63±0.20 | 0.50 |
| PC90EL20X7.7-Z | | | | | | | | |
| PC95EL22X8-Z | 22.00±0.40 | 4.02±0.10 | 17.60±0.30 | 2.00±0.10 | 18.33±0.35 | 5.56±0.15 | 12.79±0.25 | 0.50 |
| PC90EL22X8-Z | | | | | | | | |
| PC95EL25X8.6-Z | 25.00±0.45 | 4.29±0.10 | 20.00±0.35 | 2.00±0.10 | 20.83±0.35 | 6.32±0.15 | 14.54±0.25 | 0.50 |
| PC90EL25X8.6-Z | | | | | | | | |

| Part No.(ELH+ELH) | Effective parameter | | | | | | | Electrical characteristics | |
|-------------------|---|---|---|--|--|---------------------------------------|--------------|--|------------------|
| | Core factor C ₁ (mm ⁻¹) | Effective magnetic path length ℓ _e (mm) | Effective cross-sectional area A _e (mm ²) | Effective core volume V _e (mm ³) | A _{min} . (mm ²) | A _{cw} (mm ²) | Weigh (g) | AL-value (nH/N ²) 1kHz 0.5mA 100Ts Without air gap With air gap | |
| PC95EL11X4-Z | 0.826 | 13.7 | 16.5 | 226 | 15.9 | 6.39 | 1.3 | 2400±25% | 50±3% |
| PC90EL11X4-Z | | | | | | | | 1950±25% | 80±5% 125±7% |
| PC95EL13X4.4-Z | 0.667 | 15.4 | 23.1 | 357 | 22.4 | 7.54 | 2.0 | 3160±25% | 63±3% |
| PC90EL13X4.4-Z | | | | | | | | 2500±25% | 100±5% 160±7% |
| PC95EL15.5X5.8-Z | 0.597 | 19.6 | 32.9 | 646 | 31.9 | 13.5 | 3.5 | 3680±25% | 63±3% |
| PC90EL15.5X5.8-Z | | | | | | | | 3000±25% | 100±3% 160±5% |
| PC95EL18X7.3-Z | 0.538 | 23.8 | 44.3 | 1050 | 43.0 | 20.9 | 6.0 | 4760±25% | 80±3% |
| PC90EL18X7.3-Z | | | | | | | | 3600±25% | 125±3% 200±5% |
| PC95EL20X7.7-Z | 0.469 | 25.6 | 54.6 | 1400 | 52.9 | 23.2 | 7.8 | 5630±25% | 80±3% |
| PC90EL20X7.7-Z | | | | | | | | 4050±25% | 125±3% 200±5% |
| PC95EL22X8-Z | 0.413 | 27.3 | 66.2 | 1810 | 64.2 | 25.5 | 10 | 6540±25% | 100±3% |
| PC90EL22X8-Z | | | | | | | | 5050±25% | 160±3% 250±5% |
| PC95EL25X8.6-Z | 0.350 | 30.0 | 85.6 | 2570 | 83.0 | 29.0 | 15 | 7540±25% | 100±3% |
| PC90EL25X8.6-Z | | | | | | | | 5700±25% | 160±3% 250±5% |

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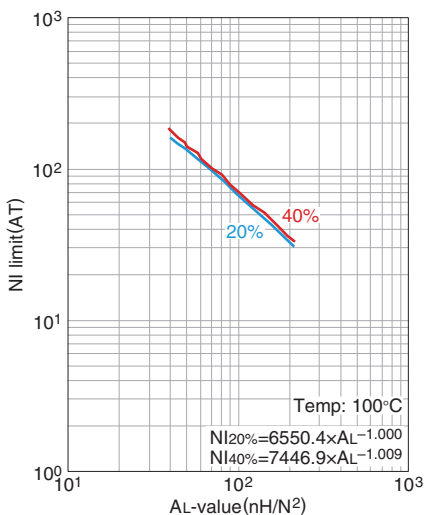
Mn-Zn Planar series Part No.: PC90EL11X4-Z

SHAPES AND DIMENSIONS



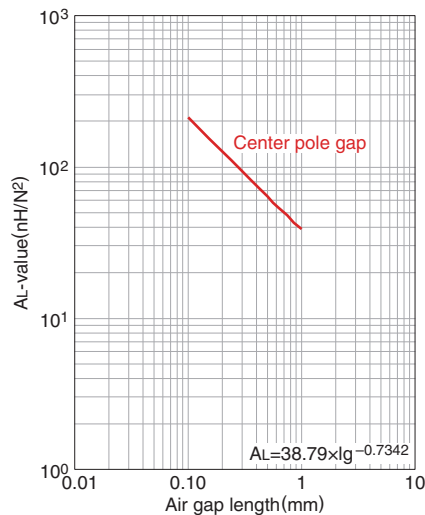
| Effective parameter | | | | | | Electrical characteristics | |
|------------------------------|--------------------------------|--------------------------------|-----------------------------|--------------------------------------|---------|---------------------------------------|-------------------------------------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weight | AL-value * | Core loss |
| C_1 (mm ⁻¹) | ℓ_e (mm) | A_e (mm ²) | V_e (mm ³) | A_{cw} (mm ²) | (g/set) | (nH/N ²) 1kHz 0.5mA | (W)max. 100kHz 200mT 100°C |
| 0.826 | 13.7 | 16.5 | 226 | 6.39 | 1.3 | 1950±25% | 0.2 |

NI limit vs. AL-value (Typ.)



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 (Typ.)

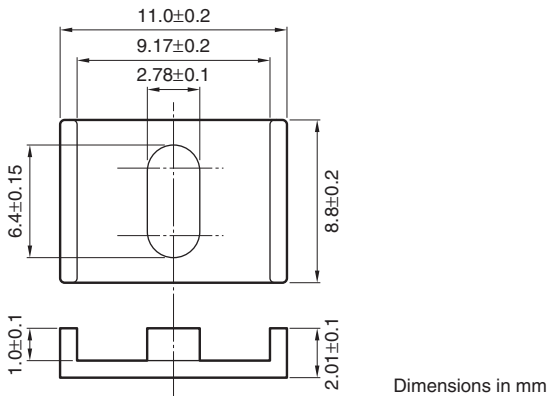


Measuring conditions

- Coil : $\phi 0.18$ 2UEW 100Ts
- Frequency : 1kHz
- Current level : 0.5mA
- Ambient temperature : 25°C

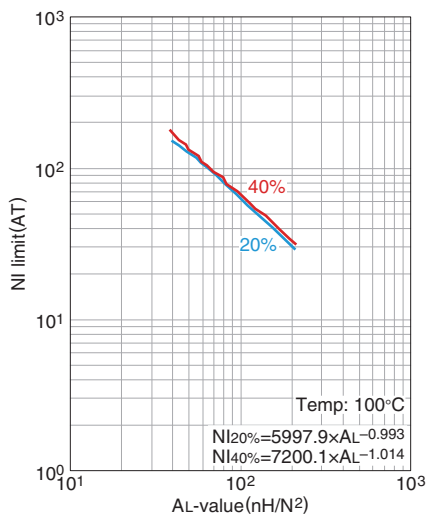
Mn-Zn Planar series Part No.: PC95EL11X4-Z

SHAPES AND DIMENSIONS



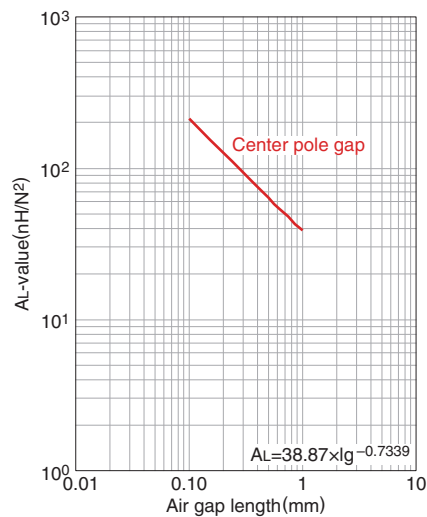
| Effective parameter | | | | | | Electrical characteristics | | | | |
|------------------------------|--------------------------------|--------------------------------|-----------------------------|--------------------------------------|---------|---------------------------------------|----------------------------|------|------|-------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weigh | AL-value * | Core loss | | | |
| C_1 (mm ⁻¹) | ℓ_e (mm) | A_e (mm ²) | V_e (mm ³) | A_{cw} (mm ²) | (g/set) | (nH/N ²) 1kHz 0.5mA | (W)max. 100kHz 200mT | 25°C | 80°C | 120°C |
| 0.826 | 13.7 | 16.5 | 226 | 6.39 | 1.3 | 2400±25% | 0.2 | 0.18 | 0.2 | |

NI limit vs. AL-value (Typ.)



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 (Typ.)

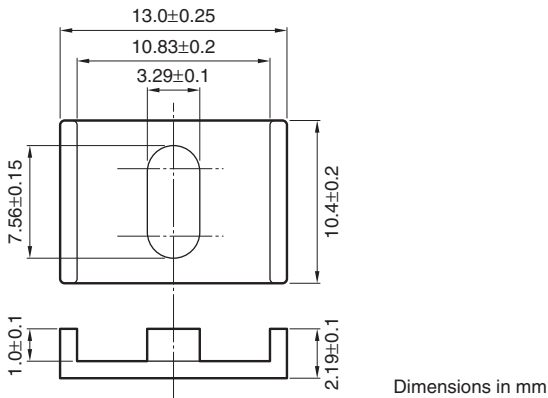


Measuring conditions

- Coil : $\phi 0.18$ 2UEW 100Ts
- Frequency : 1kHz
- Current level : 0.5mA
- Ambient temperature : 25°C

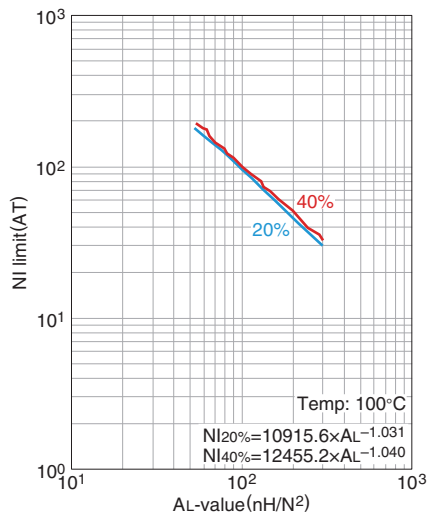
Mn-Zn Planar series Part No.: PC90EL13X4.4-Z

SHAPES AND DIMENSIONS



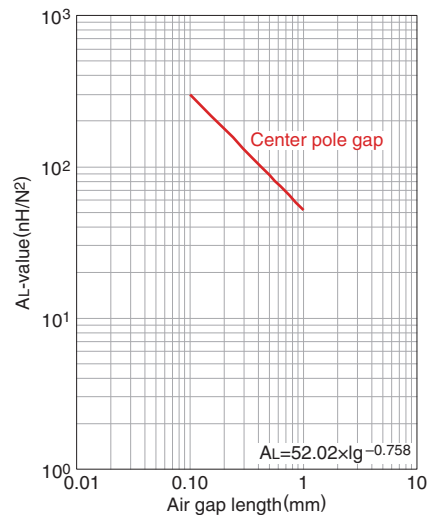
| Effective parameter | | | | | | Electrical characteristics | |
|------------------------------|--------------------------------|--------------------------------|-----------------------------|--------------------------------------|---------|---------------------------------------|-------------------------------------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weigh | AL-value * | Core loss |
| C_1 (mm ⁻¹) | ℓ_e (mm) | A_e (mm ²) | V_e (mm ³) | A_{cw} (mm ²) | (g/set) | (nH/N ²) 1kHz 0.5mA | (W)max. 100kHz 200mT 100°C |
| 0.667 | 15.4 | 23.1 | 357 | 7.54 | 2.0 | 2500±25% | 0.25 |

NI limit vs. AL-value (Typ.)



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 (Typ.)

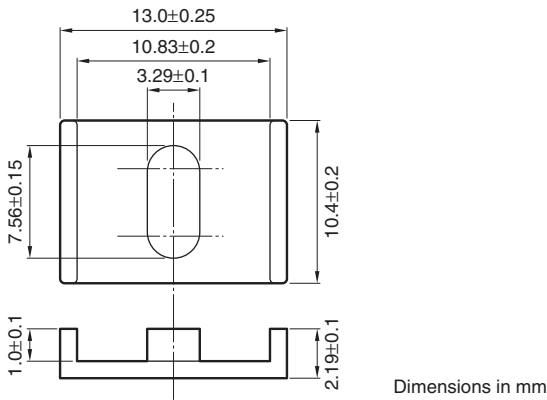


Measuring conditions

- Coil : $\phi 0.18$ 2UEW 100Ts
- Frequency : 1kHz
- Current level : 0.5mA
- Ambient temperature : 25°C

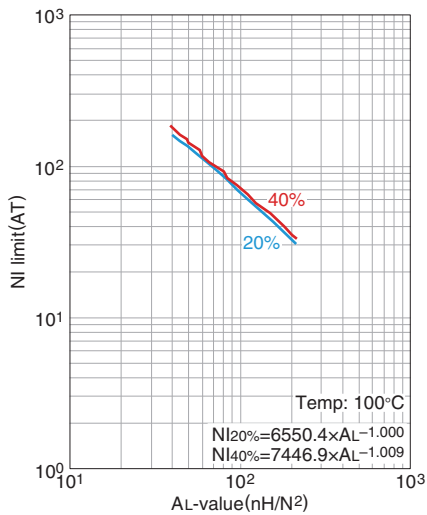
Mn-Zn Planar series Part No.: PC95EL13X4.4-Z

■ SHAPES AND DIMENSIONS



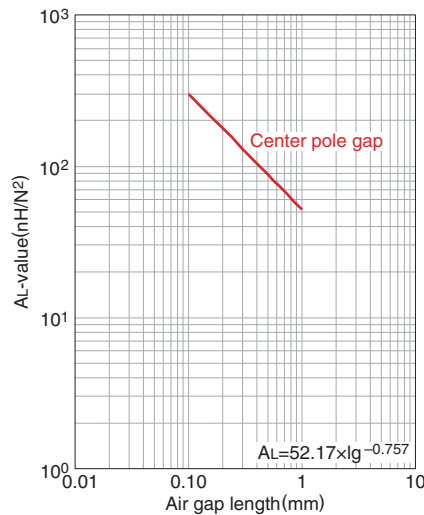
| Effective parameter | | | | | | Electrical characteristics | | | | |
|---------------------------------------|--------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|---------|---------------------------------------|----------------------------|------|------|-------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weight | AL-value * | Core loss | | | |
| C ₁ (mm ⁻¹) | ℓ _e (mm) | A _e (mm ²) | V _e (mm ³) | A _{cw} (mm ²) | (g/set) | (nH/N ²) 1kHz 0.5mA | (W)max. 100kHz 200mT | 25°C | 80°C | 120°C |
| 0.667 | 15.4 | 23.1 | 357 | 7.54 | 2.0 | 3160±25% | 0.25 | 0.2 | 0.25 | |

NI limit vs. AL-value (Typ.)



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 (Typ.)

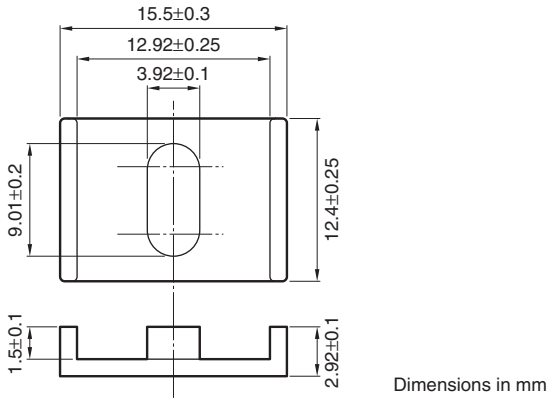


- Measuring conditions
- Coil : ø0.18 2UEW 100Ts
 - Frequency : 1kHz
 - Current level : 0.5mA
 - Ambient temperature : 25°C

⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

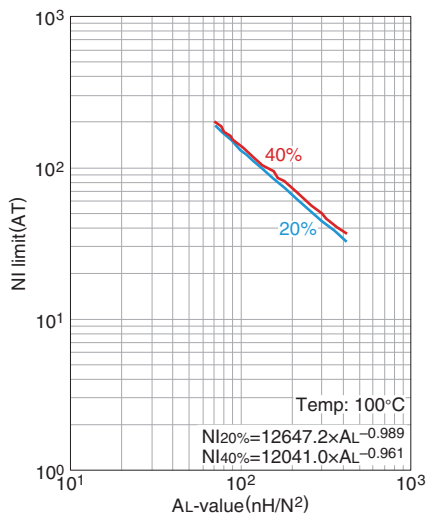
Mn-Zn Planar series Part No.: PC90EL15.5X5.8-Z

■ SHAPES AND DIMENSIONS



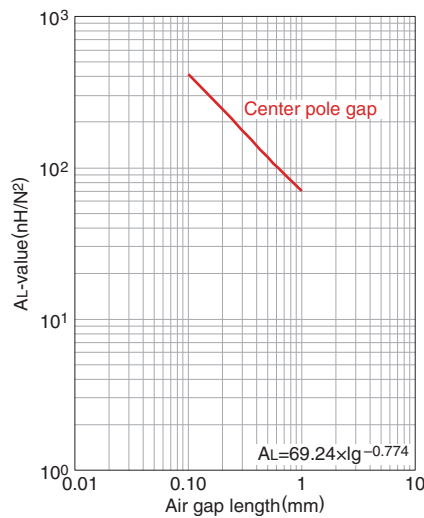
| Effective parameter | | | | | | Electrical characteristics | |
|---------------------------------------|--------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|---------|---------------------------------------|-------------------------------------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weigh | AL-value * | Core loss |
| C ₁ (mm ⁻¹) | ℓ _e (mm) | A _e (mm ²) | V _e (mm ³) | A _{cw} (mm ²) | (g/set) | (nH/N ²) 1kHz 0.5mA | (W)max. 100kHz 200mT 100°C |
| 0.597 | 19.6 | 32.9 | 646 | 13.5 | 3.5 | 3000±25% | 0.5 |

NI limit vs. AL-value (Typ.)




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 (Typ.)

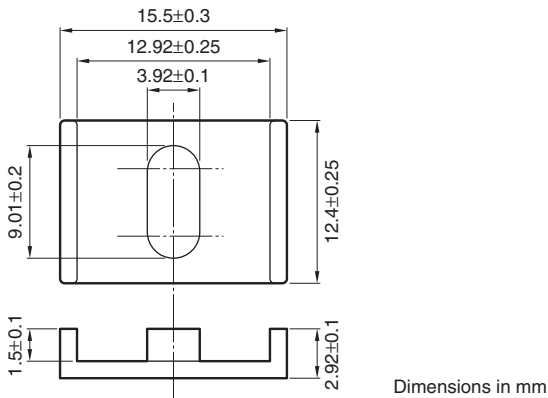


- Measuring conditions
- Coil : ø0.18 2UEW 100Ts
 - Frequency : 1kHz
 - Current level : 0.5mA
 - Ambient temperature : 25°C

 Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

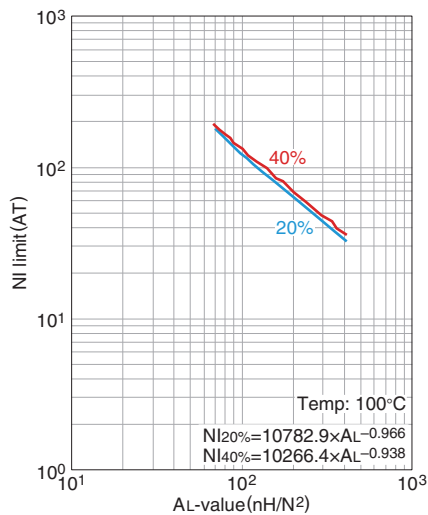
Mn-Zn Planar series Part No.: PC95EL15.5X5.8-Z

SHAPES AND DIMENSIONS



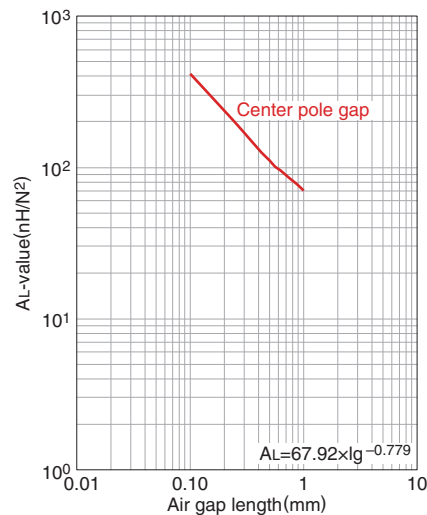
| Effective parameter | | | | | | Electrical characteristics | | | |
|---------------------------------------|--------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|---------|---------------------------------------|------------------------------------|------|-------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weight | AL-value * | Core loss | | |
| C ₁ (mm ⁻¹) | ℓ _e (mm) | A _e (mm ²) | V _e (mm ³) | A _{cw} (mm ²) | (g/set) | (nH/N ²) 1kHz 0.5mA | (W)max. 100kHz 200mT 25°C | 80°C | 120°C |
| 0.597 | 19.6 | 32.9 | 646 | 13.5 | 3.5 | 3680±25% | 0.5 | 0.45 | 0.5 |

NI limit vs. AL-value (Typ.)



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 (Typ.)

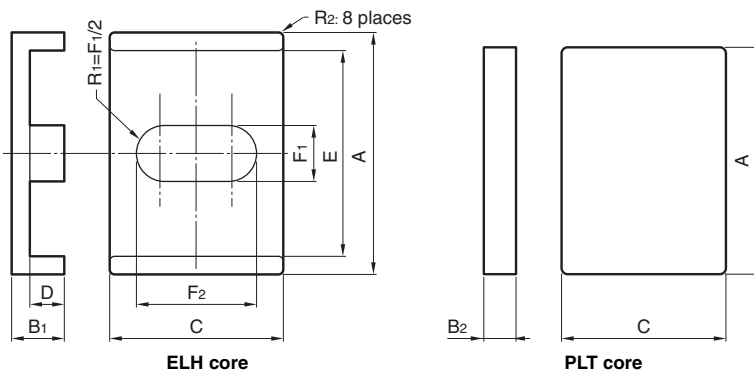


Measuring conditions

- Coil : ø0.18 2UEW 100Ts
- Frequency : 1kHz
- Current level : 0.5mA
- Ambient temperature : 25°C

Mn-Zn **ELT Cores**

■ SHAPES AND DIMENSIONS



| | | | |
|----------|----------------|---|----------------------------------|
| PC95 | ELT11X3 | - | Z |
| Material | Size of E core | | AL-value (Z: without air gap) |

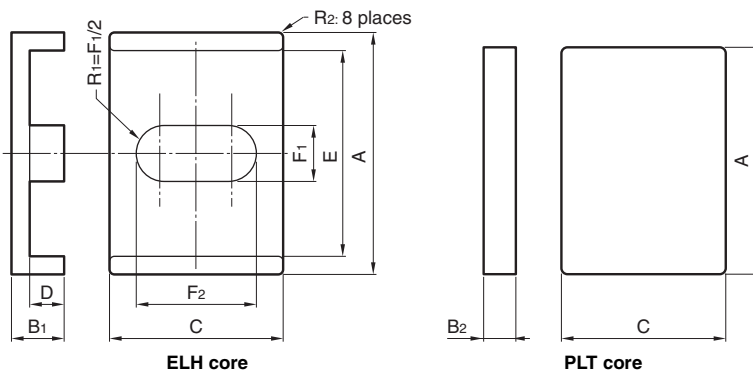
| Part No.(ELH+PLT) | Dimensions (mm) | | | | | | | | |
|-------------------|-----------------|----------------|----------------|------------|-----------|------------|----------------|----------------|----------------|
| | A | B ₁ | B ₂ | C | D | E | F ₁ | F ₂ | R ₂ |
| PC95ELT11X3-Z | 11.00±0.20 | 2.01±0.10 | 1.01±0.05 | 8.80±0.20 | 1.00±0.10 | 9.17±0.20 | 2.78±0.10 | 6.40±0.15 | 0.30 |
| PC90ELT11X3-Z | | | | | | | | | |
| PC95ELT11X4-Z | 11.00±0.20 | 3.01±0.10 | 1.01±0.05 | 8.80±0.20 | 2.00±0.10 | 9.17±0.20 | 2.78±0.10 | 6.40±0.15 | 0.30 |
| PC90ELT11X4-Z | | | | | | | | | |
| PC95ELT13X3.4-Z | 13.00±0.25 | 2.19±0.10 | 1.19±0.05 | 10.40±0.20 | 1.00±0.10 | 10.83±0.20 | 3.29±0.10 | 7.56±0.15 | 0.30 |
| PC90ELT13X3.4-Z | | | | | | | | | |
| PC95ELT13X4.4-Z | 13.00±0.25 | 3.19±0.10 | 1.19±0.05 | 10.40±0.20 | 2.00±0.10 | 10.83±0.20 | 3.29±0.10 | 7.56±0.15 | 0.30 |
| PC90ELT13X4.4-Z | | | | | | | | | |
| PC95ELT15.5X4.3-Z | 15.50±0.30 | 2.92±0.10 | 1.42±0.10 | 12.40±0.25 | 1.50±0.10 | 12.92±0.25 | 3.92±0.10 | 9.01±0.20 | 0.30 |
| PC90ELT15.5X4.3-Z | | | | | | | | | |
| PC95ELT15.5X5.8-Z | 15.50±0.30 | 4.42±0.10 | 1.42±0.10 | 12.40±0.25 | 3.00±0.10 | 12.92±0.25 | 3.92±0.10 | 9.01±0.20 | 0.30 |
| PC90ELT15.5X5.8-Z | | | | | | | | | |
| PC95ELT18X5.3-Z | 18.00±0.30 | 3.65±0.10 | 1.65±0.10 | 14.40±0.25 | 2.00±0.10 | 15.00±0.30 | 4.55±0.10 | 10.47±0.20 | 0.30 |
| PC90ELT18X5.3-Z | | | | | | | | | |

| Part No.(ELH+ELH) | Effective parameter | | | | | | | Electrical characteristics | |
|-------------------|---|---|---|--|--|---------------------------------------|--------------|--|---------------------------|
| | Core factor C ₁ (mm ⁻¹) | Effective magnetic path length ℓ _e (mm) | Effective cross-sectional area A _e (mm ²) | Effective core volume V _e (mm ³) | A _{min} . (mm ²) | A _{cw} (mm ²) | Weigh (g) | AL-value (nH/N ²) 1kHz 0.5mA 100Ts | |
| PC95ELT11X3-Z | 0.702 | 11.7 | 16.6 | 194 | 15.9 | 3.20 | 1.1 | Without air gap | 2590±25% |
| PC90ELT11X3-Z | | | | | | | | With air gap | 50±3% 80±5% 125±7% |
| PC95ELT11X4-Z | 0.826 | 13.7 | 16.5 | 226 | 15.9 | 6.39 | 1.3 | Without air gap | 2400±25% |
| PC90ELT11X4-Z | | | | | | | | With air gap | 50±3% 80±5% 125±7% |
| PC95ELT13X3.4-Z | 0.578 | 13.4 | 23.2 | 312 | 22.4 | 3.77 | 1.8 | Without air gap | 3390±25% |
| PC90ELT13X3.4-Z | | | | | | | | With air gap | 63±3% 100±5% 160±7% |
| PC95ELT13X4.4-Z | 0.667 | 15.4 | 23.1 | 357 | 22.4 | 7.54 | 2.0 | Without air gap | 3160±25% |
| PC90ELT13X4.4-Z | | | | | | | | With air gap | 63±3% 100±5% 160±7% |
| PC95ELT15.5X4.3-Z | 0.503 | 16.6 | 33.1 | 550 | 31.9 | 6.75 | 3.0 | Without air gap | 4340±25% |
| PC90ELT15.5X4.3-Z | | | | | | | | With air gap | 63±3% 100±3% 160±5% |
| PC95ELT15.5X5.8-Z | 0.597 | 19.6 | 32.9 | 646 | 31.9 | 13.5 | 3.5 | Without air gap | 3680±25% |
| PC90ELT15.5X5.8-Z | | | | | | | | With air gap | 63±3% 100±3% 160±5% |
| PC95ELT18X5.3-Z | 0.446 | 19.8 | 44.5 | 882 | 43.0 | 10.5 | 5.0 | Without air gap | 5330±25% |
| PC90ELT18X5.3-Z | | | | | | | | With air gap | 80±3% 125±3% 200±5% |

⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use.
Please note that the contents may change without any prior notice due to reasons such as upgrading.

Mn-Zn ELT Cores

SHAPES AND DIMENSIONS



| | | | |
|----------|----------------|---|----------------------------------|
| PC95 | ELT18X7.3 | - | Z |
| Material | Size of E core | | AL-value (Z: without air gap) |

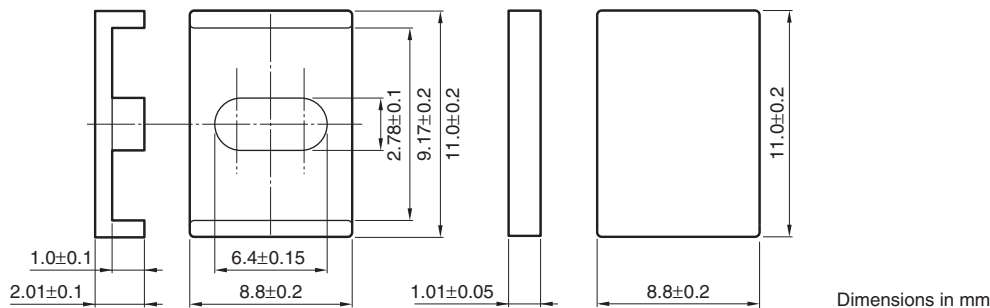
| Part No.(ELH+PLT) | Dimensions (mm) | | | | | | | | |
|-------------------|-----------------|----------------|----------------|------------|-----------|------------|----------------|----------------|----------------|
| | A | B ₁ | B ₂ | C | D | E | F ₁ | F ₂ | R ₂ |
| PC95ELT18X7.3-Z | 18.00±0.30 | 5.65±0.10 | 1.65±0.10 | 14.40±0.25 | 4.00±0.15 | 15.00±0.30 | 4.55±0.10 | 10.47±0.20 | 0.30 |
| PC90ELT18X7.3-Z | | | | | | | | | |
| PC95ELT20X5.7-Z | 20.00±0.35 | 3.83±0.10 | 1.83±0.10 | 16.00±0.30 | 2.00±0.10 | 16.67±0.30 | 5.06±0.15 | 11.63±0.20 | 0.50 |
| PC90ELT20X5.7-Z | | | | | | | | | |
| PC95ELT20X7.7-Z | 20.00±0.35 | 5.83±0.15 | 1.83±0.10 | 16.00±0.30 | 4.00±0.15 | 16.67±0.30 | 5.06±0.15 | 11.63±0.20 | 0.50 |
| PC90ELT20X7.7-Z | | | | | | | | | |
| PC95ELT22X6-Z | 22.00±0.40 | 4.02±0.10 | 2.02±0.10 | 17.60±0.30 | 2.00±0.10 | 18.33±0.35 | 5.56±0.15 | 12.79±0.25 | 0.50 |
| PC90ELT22X6-Z | | | | | | | | | |
| PC95ELT22X8-Z | 22.00±0.40 | 6.02±0.15 | 2.02±0.10 | 17.60±0.30 | 4.00±0.15 | 18.33±0.35 | 5.56±0.15 | 12.79±0.25 | 0.50 |
| PC90ELT22X8-Z | | | | | | | | | |
| PC95ELT25X6.6-Z | 25.00±0.45 | 4.29±0.10 | 2.29±0.10 | 20.00±0.35 | 2.00±0.10 | 20.83±0.35 | 6.32±0.15 | 14.54±0.25 | 0.50 |
| PC90ELT25X6.6-Z | | | | | | | | | |
| PC95ELT25X8.6-Z | 25.00±0.45 | 6.29±0.15 | 2.29±0.10 | 20.00±0.35 | 4.00±0.15 | 20.83±0.35 | 6.32±0.15 | 14.54±0.25 | 0.50 |
| PC90ELT25X8.6-Z | | | | | | | | | |

| Part No.(ELH+ELH) | Effective parameter | | | | | | | Electrical characteristics | |
|-------------------|---|---|---|--|--|---------------------------------------|--------------|--|--------------|
| | Core factor C ₁ (mm ⁻¹) | Effective magnetic path length ℓ _e (mm) | Effective cross-sectional area A _e (mm ²) | Effective core volume V _e (mm ³) | A _{min} . (mm ²) | A _{cw} (mm ²) | Weigh (g) | AL-value (nH/N ²) 1kHz 0.5mA 100Ts | |
| | | | | | | | | Without air gap | With air gap |
| PC95ELT18X7.3-Z | 0.538 | 23.8 | 44.3 | 1050 | 43.0 | 20.9 | 6.0 | 4760±25% | 80±3% |
| PC90ELT18X7.3-Z | | | | | | | | 3100±25% | 125±3% |
| PC95ELT20X5.7-Z | 0.393 | 21.6 | 54.9 | 1180 | 52.9 | 11.6 | 6.7 | 6270±25% | 80±3% |
| PC90ELT20X5.7-Z | | | | | | | | 4150±25% | 125±3% |
| PC95ELT20X7.7-Z | 0.469 | 25.6 | 54.6 | 1400 | 52.9 | 23.2 | 7.8 | 5630±25% | 80±3% |
| PC90ELT20X7.7-Z | | | | | | | | 3900±25% | 125±3% |
| PC95ELT22X6-Z | 0.351 | 23.4 | 66.6 | 1560 | 64.2 | 12.8 | 9.0 | 7250±25% | 100±3% |
| PC90ELT22X6-Z | | | | | | | | 4800±25% | 160±3% |
| PC95ELT22X8-Z | 0.413 | 27.3 | 66.2 | 1810 | 64.2 | 25.5 | 10 | 6540±25% | 100±3% |
| PC90ELT22X8-Z | | | | | | | | 4250±25% | 160±3% |
| PC95ELT25X6.6-Z | 0.302 | 26.0 | 86.0 | 2230 | 83.0 | 14.5 | 13 | 8600±25% | 100±3% |
| PC90ELT25X6.6-Z | | | | | | | | 6100±25% | 160±3% |
| PC95ELT25X8.6-Z | 0.350 | 30.0 | 85.6 | 2570 | 83.0 | 29.0 | 15 | 7540±25% | 100±3% |
| PC90ELT25X8.6-Z | | | | | | | | 5400±25% | 160±3% |

⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use.
Please note that the contents may change without any prior notice due to reasons such as upgrading.

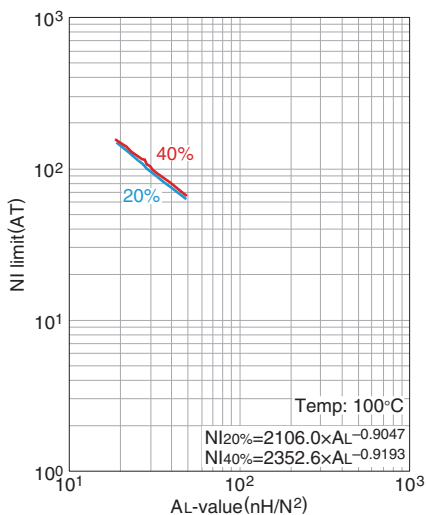
Mn-Zn Planar series Part No.: PC90ELT11X3-Z

■ SHAPES AND DIMENSIONS



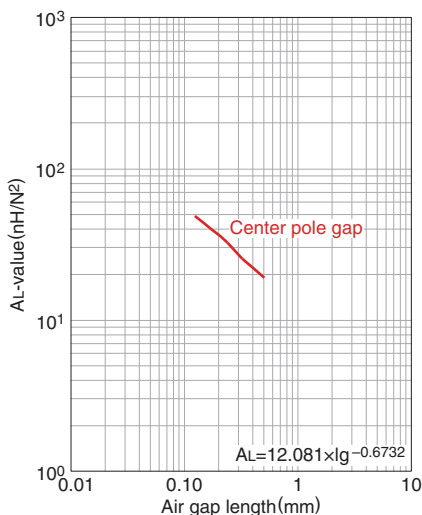
| Effective parameter | | | | | | Electrical characteristics | |
|---------------------------------------|--------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|---------|---------------------------------------|-------------------------------------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weight | AL-value * | Core loss |
| C ₁ (mm ⁻¹) | ℓ _e (mm) | A _e (mm ²) | V _e (mm ³) | A _{cw} (mm ²) | (g/set) | (nH/N ²) 1kHz 0.5mA | (W)max. 100kHz 200mT 100°C |
| 0.702 | 11.7 | 16.6 | 194 | 3.20 | 1.1 | 1750±25% | 0.15 |

NI limit vs. AL-value (Typ.)



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 (Typ.)

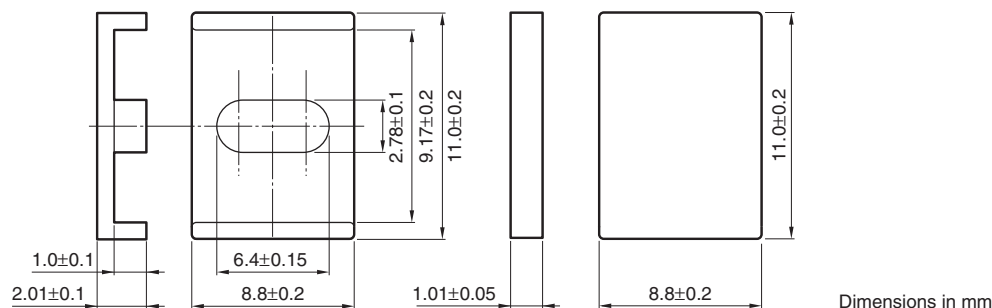


- Measuring conditions
- Coil : ø0.18 2UEW 100Ts
 - Frequency : 1kHz
 - Current level : 0.5mA
 - Ambient temperature : 25°C

Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

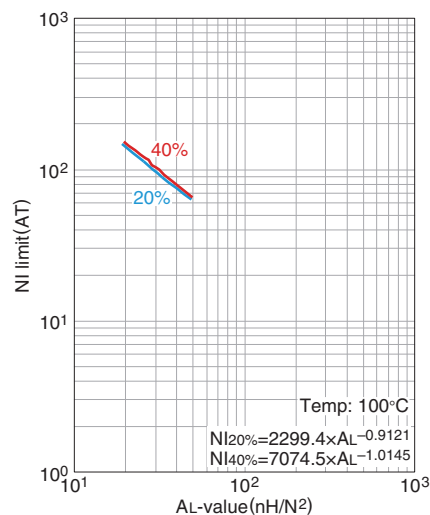
Mn-Zn Planar series Part No.: PC95ELT11X3-Z

SHAPES AND DIMENSIONS



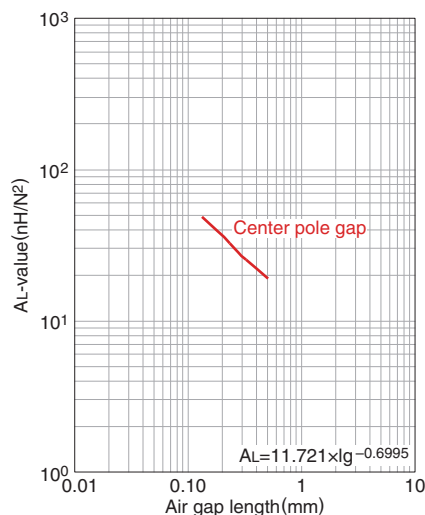
| Effective parameter | | | | | | Electrical characteristics | | | |
|------------------------------|--------------------------------|--------------------------------|-----------------------------|--------------------------------------|---------|---------------------------------------|------------------------------------|------|-------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weight | AL-value * | Core loss | | |
| C_1 (mm ⁻¹) | ℓ_e (mm) | A_e (mm ²) | V_e (mm ³) | A_{cw} (mm ²) | (g/set) | (nH/N ²) 1kHz 0.5mA | (W)max. 100kHz 200mT 25°C | 80°C | 120°C |
| 0.702 | 11.7 | 16.6 | 194 | 3.20 | 1.1 | 2590±25% | 0.14 | 0.12 | 0.14 |

NI limit vs. AL-value (Typ.)



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 (Typ.)

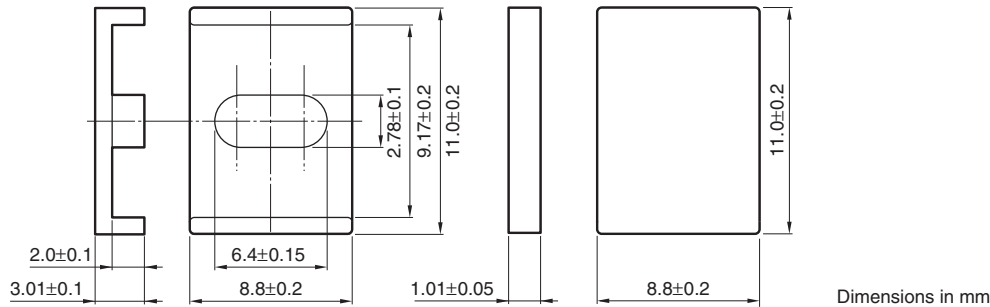


Measuring conditions

- Coil : $\varnothing 0.18$ 2UEW 100Ts
- Frequency : 1kHz
- Current level : 0.5mA
- Ambient temperature : 25°C

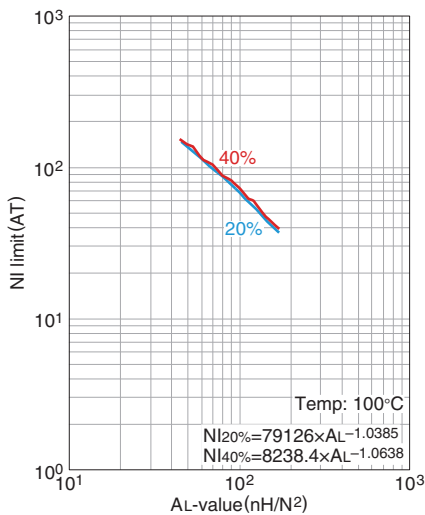
Mn-Zn Planar series Part No.: PC90ELT11X4-Z

SHAPES AND DIMENSIONS



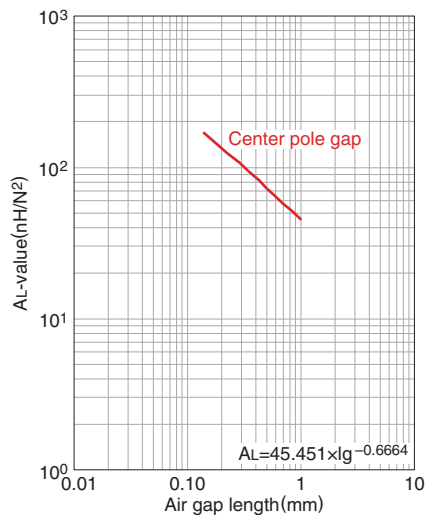
| Effective parameter | | | | | Electrical characteristics | | |
|-------------------------------|--------------------------------|--------------------------------|----------------------------|--------------------------------------|----------------------------|--------------------------------------|-------------------------------------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weight | AL-value * | Core loss |
| C_1 (mm^{-1}) | ℓ_e (mm) | A_e (mm^2) | V_e (mm^3) | A_{cw} (mm^2) | (g/set) | (nH/N^2) 1kHz 0.5mA | (W)max. 100kHz 200mT 100°C |
| 0.826 | 13.7 | 16.5 | 226 | 6.39 | 1.3 | 1700±25% | 0.18 |

NI limit vs. AL-value (Typ.)



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 (Typ.)

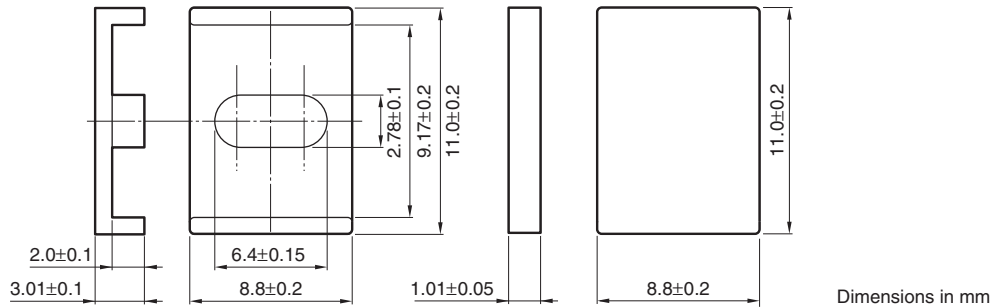


Measuring conditions

- Coil : $\phi 0.18$ 2UEW 100Ts
- Frequency : 1kHz
- Current level : 0.5mA
- Ambient temperature : 25°C

Mn-Zn Planar series Part No.: PC95ELT11X4-Z

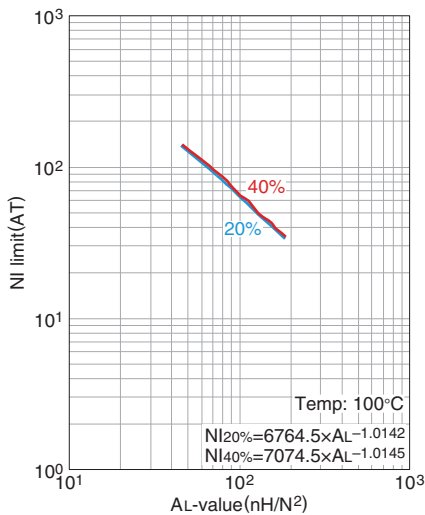
SHAPES AND DIMENSIONS



Dimensions in mm

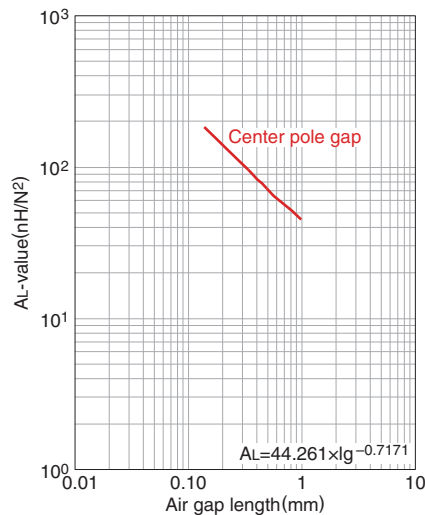
| Effective parameter | | | | | | Electrical characteristics | | | |
|-------------------------------|--------------------------------|--------------------------------|----------------------------|--------------------------------------|---------|--------------------------------------|------------------------------------|------|-------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weigh | AL-value * | Core loss | | |
| C_1 (mm^{-1}) | ℓ_e (mm) | A_e (mm^2) | V_e (mm^3) | A_{cw} (mm^2) | (g/set) | (nH/N^2) 1kHz 0.5mA | (W)max. 100kHz 200mT 25°C | 80°C | 120°C |
| 0.826 | 13.7 | 16.5 | 226 | 6.39 | 1.3 | 2400±25% | 0.16 | 0.15 | 0.16 |

NI limit vs. AL-value (Typ.)



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 (Typ.)

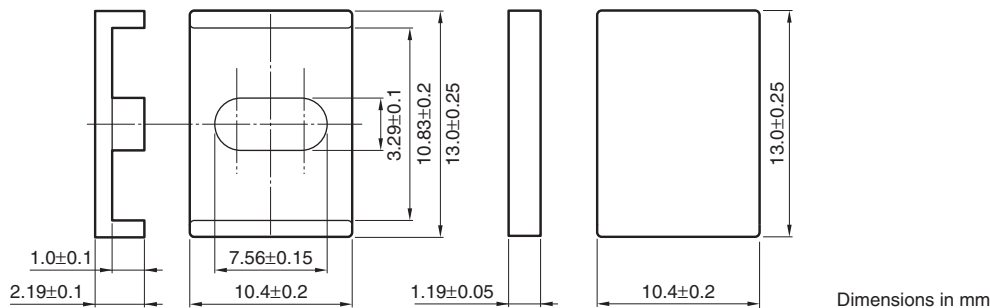


Measuring conditions

- Coil : $\phi 0.18$ 2UEW 100Ts
- Frequency : 1kHz
- Current level : 0.5mA
- Ambient temperature : 25°C

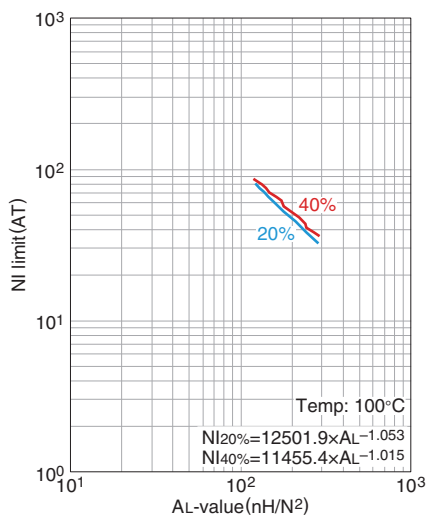
Mn-Zn Planar series Part No.: PC90ELT13X3.4-Z

■ SHAPES AND DIMENSIONS



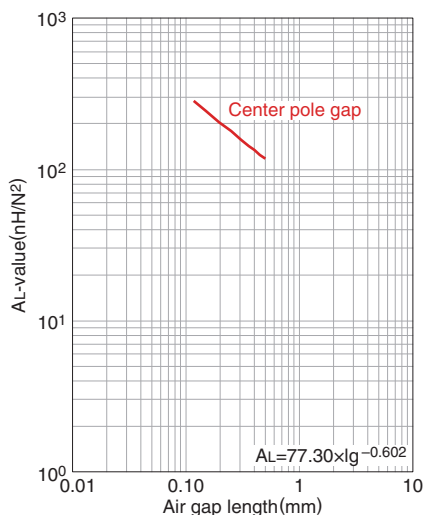
| Effective parameter | | | | | | Electrical characteristics | |
|---------------------------------------|--------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|---------|---------------------------------------|-------------------------------------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weight | AL-value * | Core loss |
| C ₁ (mm ⁻¹) | ℓ _e (mm) | A _e (mm ²) | V _e (mm ³) | A _{cw} (mm ²) | (g/set) | (nH/N ²) 1kHz 0.5mA | (W)max. 100kHz 200mT 100°C |
| 0.578 | 13.4 | 23.2 | 312 | 3.77 | 1.8 | 2400±25% | 0.3 |

NI limit vs. AL-value (Typ.)



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 (Typ.)

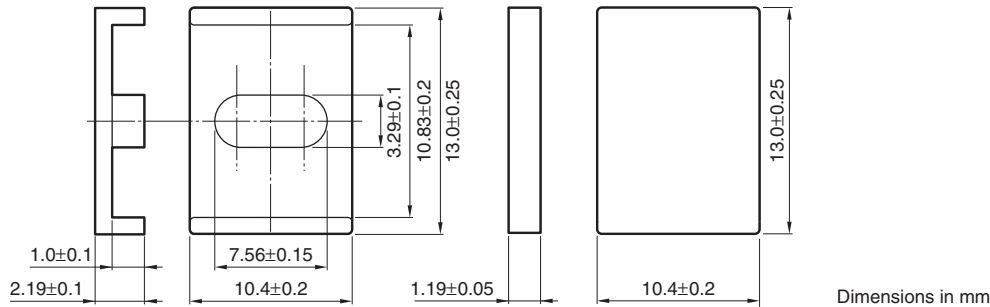


Measuring conditions
 • Coil : ø0.18 2UEW 100Ts
 • Frequency : 1kHz
 • Current level : 0.5mA
 • Ambient temperature : 25°C

⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

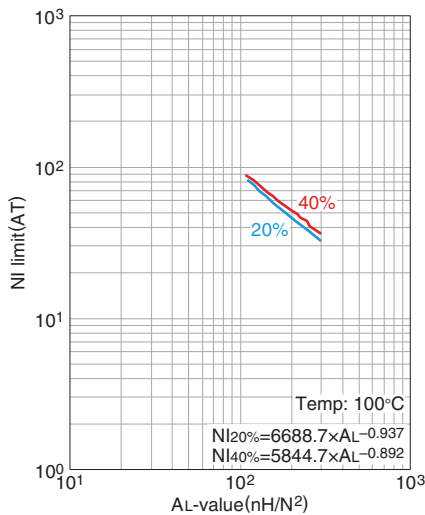
Mn-Zn Planar series Part No.: PC95ELT13X3.4-Z

SHAPES AND DIMENSIONS



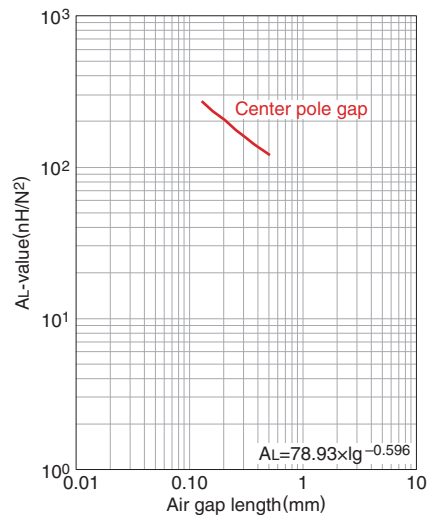
| Effective parameter | | | | | | Electrical characteristics | | | |
|------------------------------|--------------------------------|--------------------------------|-----------------------------|--------------------------------------|---------|---------------------------------------|------------------------------------|------|-------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weight | AL-value * | Core loss | | |
| C_1 (mm ⁻¹) | ℓ_e (mm) | A_e (mm ²) | V_e (mm ³) | A_{cw} (mm ²) | (g/set) | (nH/N ²) 1kHz 0.5mA | (W)max. 100kHz 200mT 25°C | 80°C | 120°C |
| 0.578 | 13.4 | 23.2 | 312 | 3.77 | 1.8 | 3390±25% | 0.3 | 0.28 | 0.3 |

NI limit vs. AL-value (Typ.)



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 (Typ.)

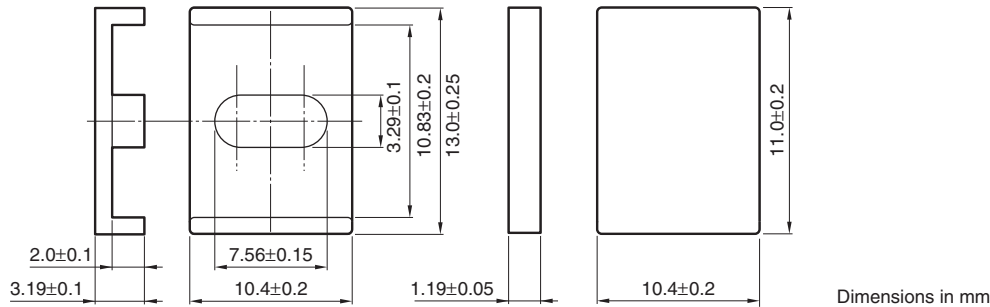


Measuring conditions

- Coil : $\phi 0.18$ 2UEW 100Ts
- Frequency : 1kHz
- Current level : 0.5mA
- Ambient temperature : 25°C

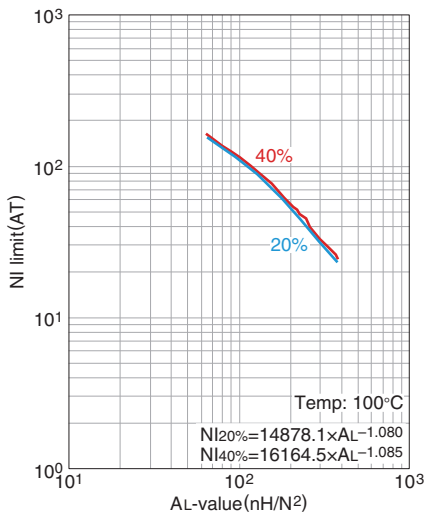
Mn-Zn Planar series Part No.: PC90ELT13X4.4-Z

SHAPES AND DIMENSIONS



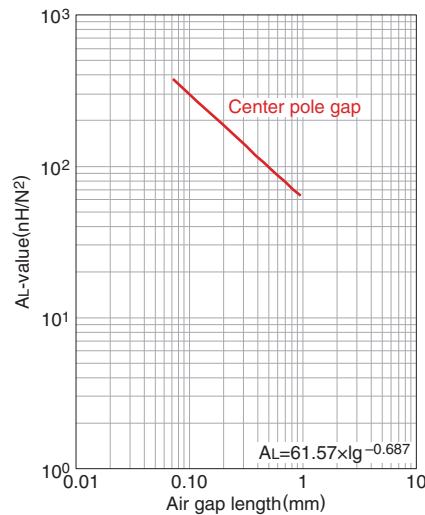
| Effective parameter | | | | | | Electrical characteristics | |
|-------------------------------|--------------------------------|--------------------------------|----------------------------|--------------------------------------|---------|--------------------------------------|-------------------------------------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weight | AL-value * | Core loss |
| C_1 (mm^{-1}) | ℓ_e (mm) | A_e (mm^2) | V_e (mm^3) | A_{cw} (mm^2) | (g/set) | (nH/N^2) 1kHz 0.5mA | (W)max. 100kHz 200mT 100°C |
| 0.667 | 15.4 | 23.1 | 357 | 7.54 | 2.0 | 2300±25% | 0.3 |

NI limit vs. AL-value (Typ.)



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 (Typ.)

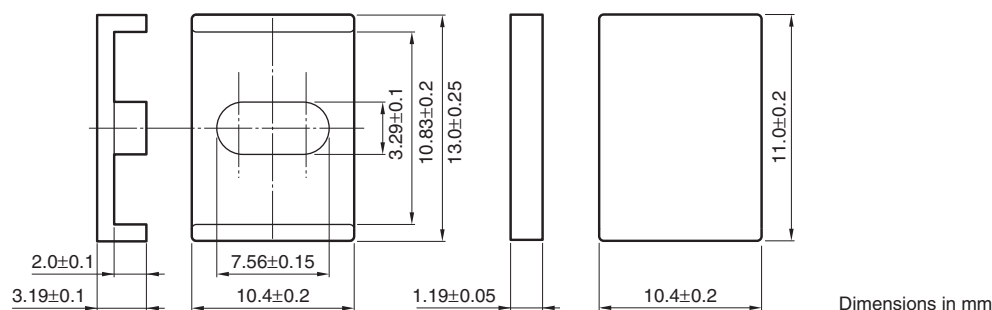


Measuring conditions

- Coil : $\phi 0.18$ 2UEW 100Ts
- Frequency : 1kHz
- Current level : 0.5mA
- Ambient temperature : 25°C

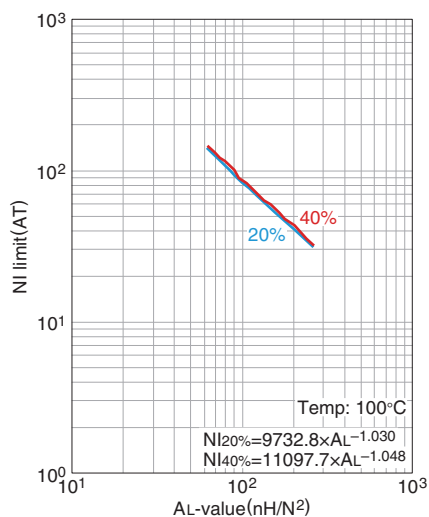
Mn-Zn Planar series Part No.: PC95ELT13X4.4-Z

SHAPES AND DIMENSIONS



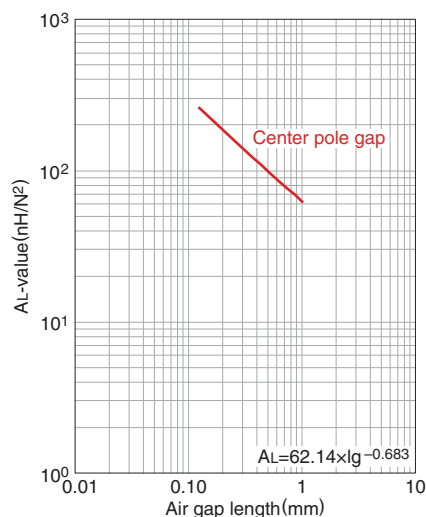
| Effective parameter | | | | | | Electrical characteristics | | | |
|-------------------------------|--------------------------------|--------------------------------|----------------------------|--------------------------------------|---------|---|------------------------------------|------|-------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weight | AL-value * | Core loss | | |
| C_1 (mm^{-1}) | ℓ_e (mm) | A_e (mm^2) | V_e (mm^3) | A_{cw} (mm^2) | (g/set) | (nH/N^2) 1kHz 0.5mA | (W)max. 100kHz 200mT 25°C | 80°C | 120°C |
| 0.667 | 15.4 | 23.1 | 357 | 7.54 | 2.0 | 3160±25% | 0.3 | 0.28 | 0.3 |

NI limit vs. AL-value (Typ.)



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 (Typ.)

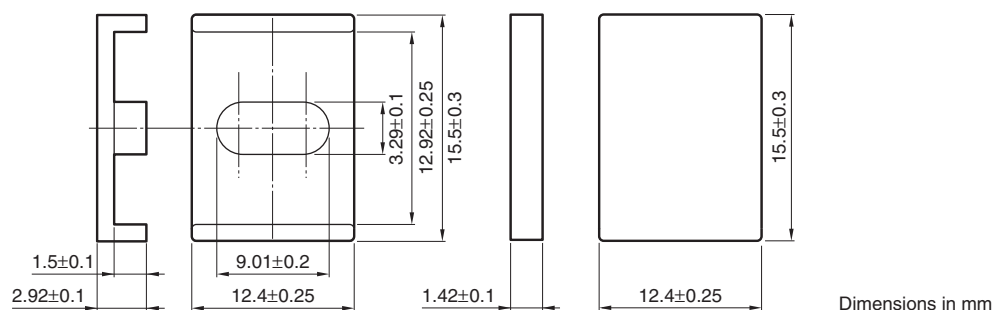


Measuring conditions

- Coil : $\phi 0.18$ 2UEW 100Ts
- Frequency : 1kHz
- Current level : 0.5mA
- Ambient temperature : 25°C

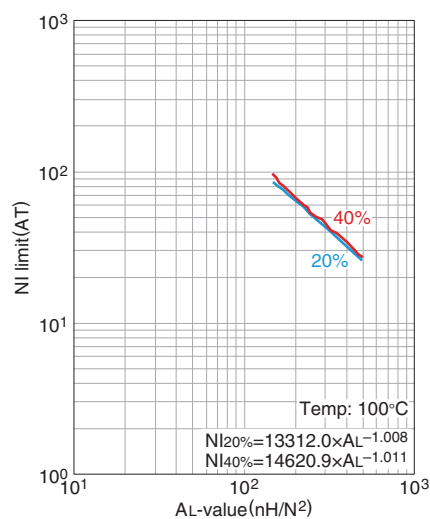
Mn-Zn Planar series Part No.: PC90ELT15.5X4.3-Z

SHAPES AND DIMENSIONS



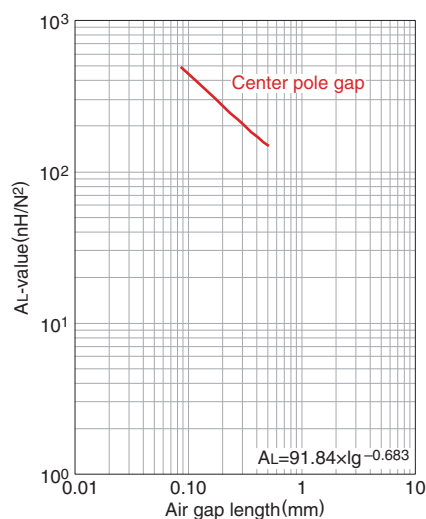
| Effective parameter | | | | | | Electrical characteristics | |
|-------------------------------|--------------------------------|--------------------------------|----------------------------|--------------------------------------|---------|--------------------------------------|-------------------------------------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weigh | AL-value * | Core loss |
| C_1 (mm^{-1}) | ℓ_e (mm) | A_e (mm^2) | V_e (mm^3) | A_{cw} (mm^2) | (g/set) | (nH/N^2) 1kHz 0.5mA | (W)max. 100kHz 200mT 100°C |
| 0.503 | 16.6 | 33.1 | 550 | 6.75 | 3.0 | 2900±25% | 0.5 |

NI limit vs. AL-value (Typ.)



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 (Typ.)

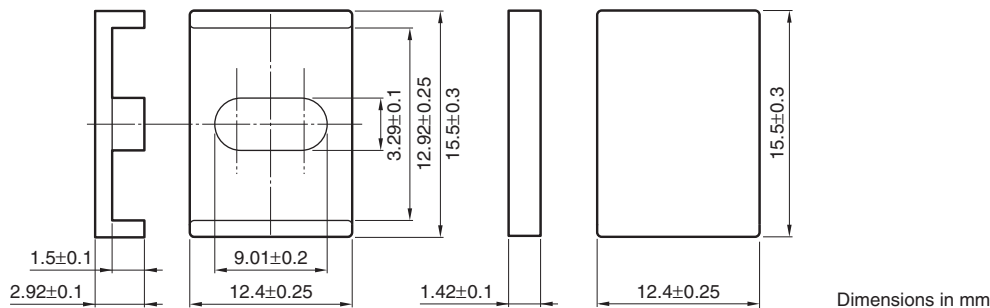


Measuring conditions

- Coil : $\phi 0.18$ 2UEW 100Ts
- Frequency : 1kHz
- Current level : 0.5mA
- Ambient temperature : 25°C

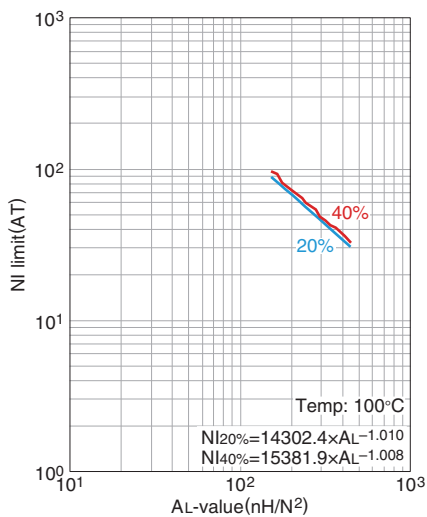
Mn-Zn Planar series Part No.: PC95ELT15.5X4.3-Z

■ SHAPES AND DIMENSIONS



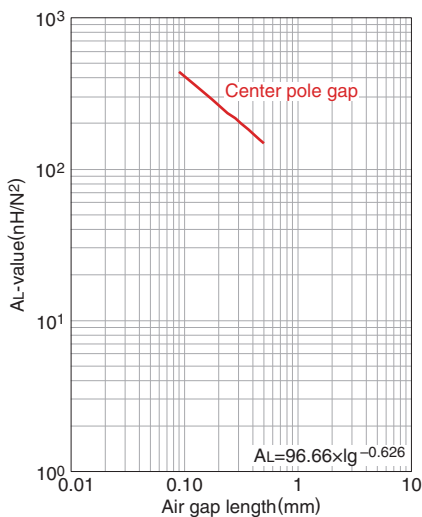
| Effective parameter | | | | | | Electrical characteristics | | | | |
|------------------------------|--------------------------------|--------------------------------|-----------------------------|--------------------------------------|---------|---------------------------------------|----------------------------|------|------|-------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weigh | AL-value * | Core loss | | | |
| C_1 (mm ⁻¹) | ℓ_e (mm) | A_e (mm ²) | V_e (mm ³) | A_{cw} (mm ²) | (g/set) | (nH/N ²) 1kHz 0.5mA | (W)max. 100kHz 200mT | 25°C | 80°C | 120°C |
| 0.503 | 16.6 | 33.1 | 550 | 6.75 | 3.0 | 4340±25% | 0.5 | 0.45 | 0.5 | |

NI limit vs. AL-value (Typ.)



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 (Typ.)

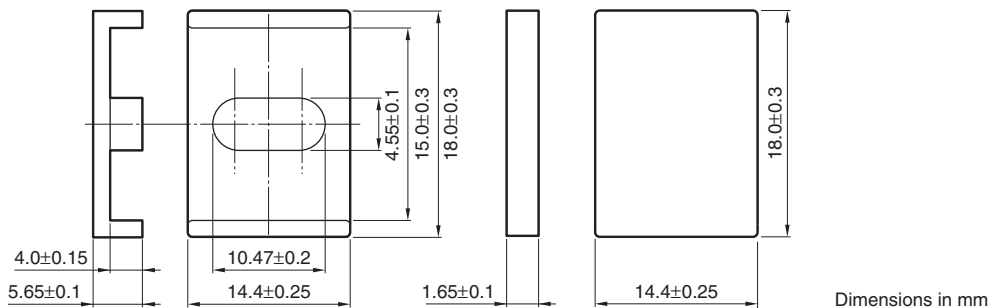


Measuring conditions
 • Coil : $\phi 0.18$ 2UEW 100Ts
 • Frequency : 1kHz
 • Current level : 0.5mA
 • Ambient temperature : 25°C

⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

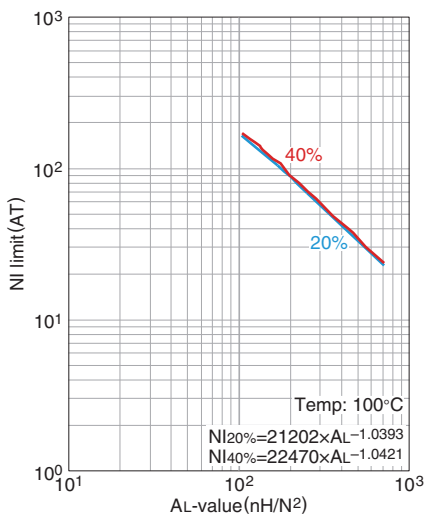
Mn-Zn Planar series Part No.: PC90ELT18X7.3-Z

■ SHAPES AND DIMENSIONS



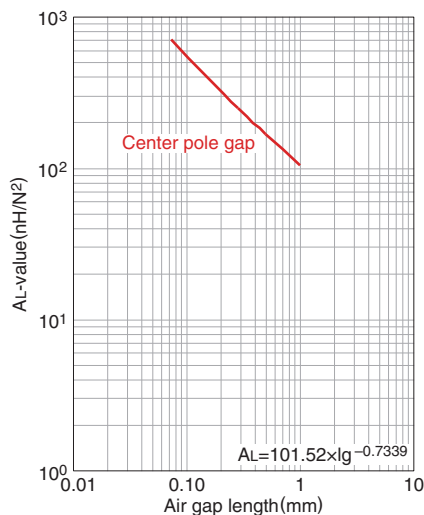
| Effective parameter | | | | | | Electrical characteristics | |
|---------------------------------------|--------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|---------|---------------------------------------|-------------------------------------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weight | AL-value * | Core loss |
| C ₁ (mm ⁻¹) | ℓ _e (mm) | A _e (mm ²) | V _e (mm ³) | A _{cw} (mm ²) | (g/set) | (nH/N ²) 1kHz 0.5mA | (W)max. 100kHz 200mT 100°C |
| 0.538 | 23.8 | 44.3 | 1050 | 20.9 | 6.0 | 3100±25% | 0.7 |

NI limit vs. AL-value (Typ.)



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 (Typ.)

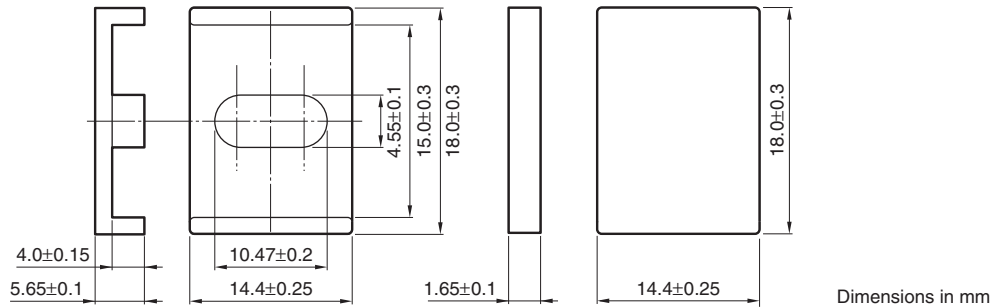


- Measuring conditions
- Coil : ø0.18 2UEW 100Ts
 - Frequency : 1kHz
 - Current level : 0.5mA
 - Ambient temperature : 25°C

⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

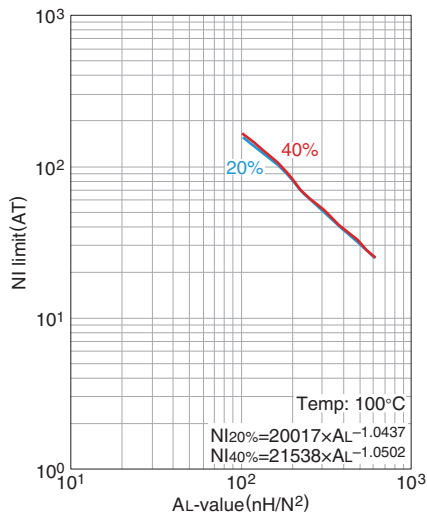
Mn-Zn Planar series Part No.: PC95ELT18X7.3-Z

SHAPES AND DIMENSIONS



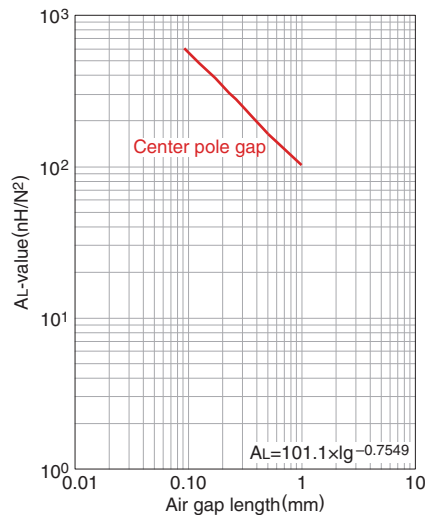
| Effective parameter | | | | | | Electrical characteristics | | | |
|-------------------------------|--------------------------------|--------------------------------|----------------------------|--------------------------------------|---------|--------------------------------------|------------------------------------|------|-------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weigh | AL-value * | Core loss | | |
| C_1 (mm^{-1}) | ℓ_e (mm) | A_e (mm^2) | V_e (mm^3) | A_{cw} (mm^2) | (g/set) | (nH/N^2) 1kHz 0.5mA | (W)max. 100kHz 200mT 25°C | 80°C | 120°C |
| 0.538 | 23.8 | 44.3 | 1050 | 20.9 | 6.0 | 4760±25% | 0.6 | 0.55 | 0.6 |

NI limit vs. AL-value (Typ.)



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 (Typ.)

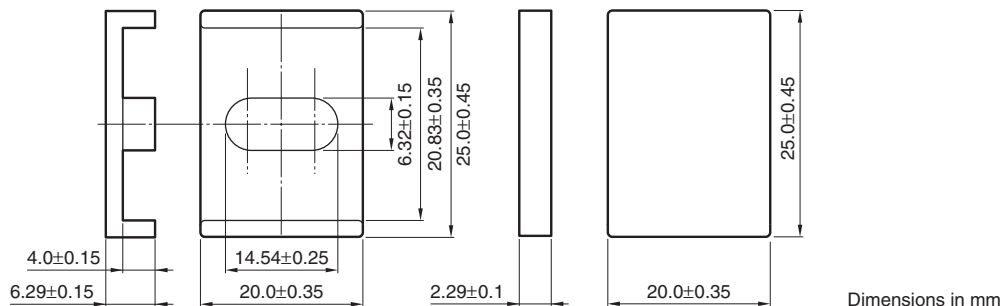


Measuring conditions

- Coil : $\phi 0.18$ 2UEW 100Ts
- Frequency : 1kHz
- Current level : 0.5mA
- Ambient temperature : 25°C

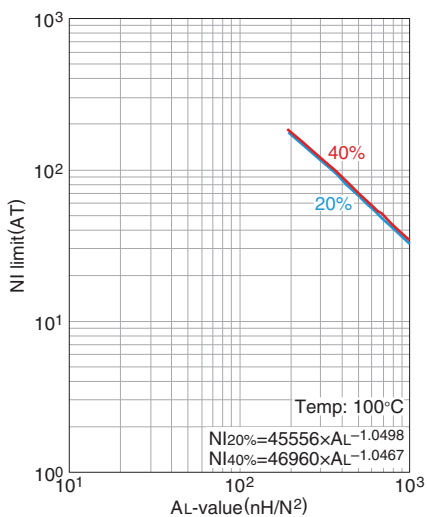
Mn-Zn Planar series Part No.: PC90ELT25X8.6-Z

■ SHAPES AND DIMENSIONS



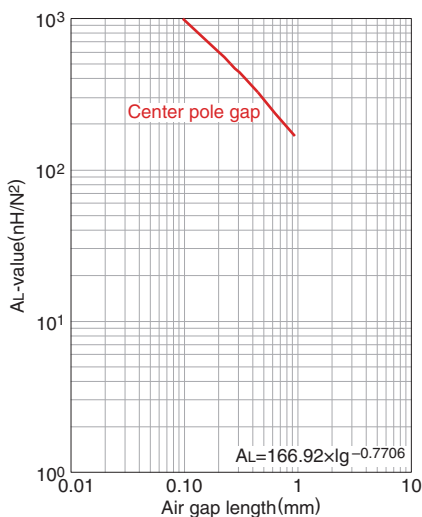
| Effective parameter | | | | | | Electrical characteristics | |
|------------------------------|--------------------------------|--------------------------------|-----------------------------|--------------------------------------|---------|---------------------------------------|-------------------------------------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weigh | AL-value * | Core loss |
| C_1 (mm ⁻¹) | ℓ_e (mm) | A_e (mm ²) | V_e (mm ³) | A_{cw} (mm ²) | (g/set) | (nH/N ²) 1kHz 0.5mA | (W)max. 100kHz 200mT 100°C |
| 0.350 | 30.0 | 85.6 | 2570 | 29.0 | 15 | 5400±25% | 1.8 |

NI limit vs. AL-value (Typ.)



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 (Typ.)

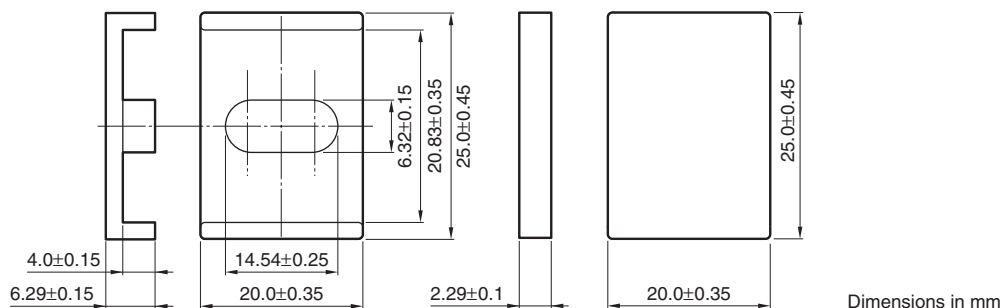


Measuring conditions
 • Coil : ø0.18 2UEW 100Ts
 • Frequency : 1kHz
 • Current level : 0.5mA
 • Ambient temperature : 25°C

⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

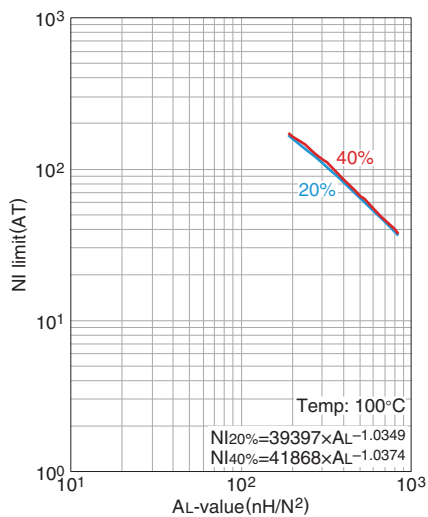
Mn-Zn Planar series Part No.: PC95ELT25X8.6-Z

SHAPES AND DIMENSIONS



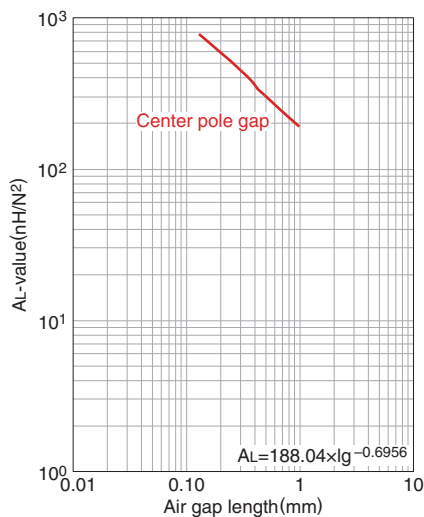
| Effective parameter | | | | | | Electrical characteristics | | | |
|------------------------------|--------------------------------|--------------------------------|-----------------------------|--------------------------------------|---------|---------------------------------------|------------------------------------|------|-------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weight | AL-value * | Core loss | | |
| C_1 (mm ⁻¹) | ℓ_e (mm) | A_e (mm ²) | V_e (mm ³) | A_{cw} (mm ²) | (g/set) | (nH/N ²) 1kHz 0.5mA | (W)max. 100kHz 200mT 25°C | 80°C | 120°C |
| 0.350 | 30.0 | 85.6 | 2570 | 29.0 | 15 | 7540±25% | 1.6 | 1.5 | 1.6 |

NI limit vs. AL-value (Typ.)



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 (Typ.)

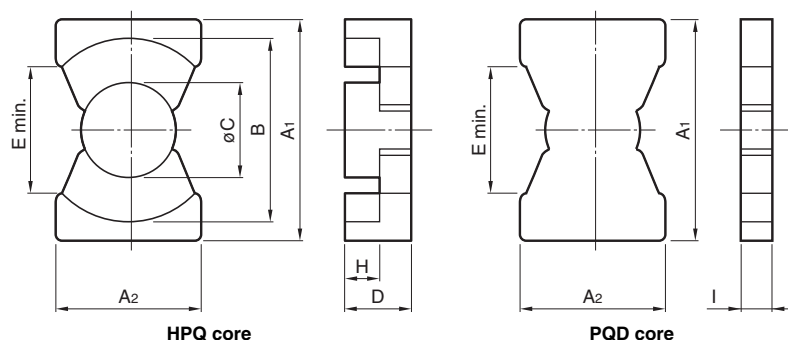
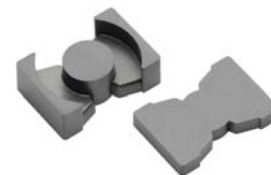


Measuring conditions
 • Coil : $\phi 0.18$ 2UEW 100Ts
 • Frequency : 1kHz
 • Current level : 0.5mA
 • Ambient temperature : 25°C

⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

Mn-Zn PQI Cores

SHAPES AND DIMENSIONS



| | | | |
|----------|----------------|---|----------------------------------|
| PC95 | PQI16/7.8Z | - | 12 |
| Material | Size of E core | | AL-value (Z: without air gap) |

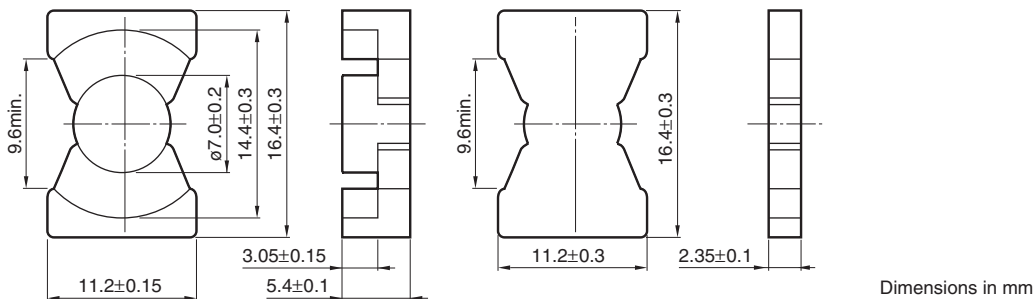
| Part No.(HPQ+PQD) | Dimensions (mm) | | | | | | | |
|-------------------|-----------------|------------|------------|------------|-----------|--------|-----------|-----------|
| | A1 | A2 | B | øC | D | E min. | H | I |
| PC95PQI16/7.8Z-12 | 16.40±0.30 | 11.20±0.30 | 14.40±0.30 | 7.00±0.20 | 5.40±0.10 | 9.60 | 3.05±0.15 | 2.35±0.10 |
| PC90PQI16/7.8Z-12 | | | | | | | | |
| PC95PQI20/9Z-12 | 20.50±0.40 | 14.00±0.40 | 18.00±0.40 | 8.80±0.20 | 6.00±0.10 | 12.00 | 3.05±0.15 | 2.95±0.10 |
| PC90PQI20/9Z-12 | | | | | | | | |
| PC95PQI26/12Z-12 | 26.50±0.45 | 19.00±0.45 | 22.50±0.45 | 12.00±0.20 | 7.30±0.10 | 15.50 | 3.10±0.15 | 4.20±0.10 |
| PC90PQI26/12Z-12 | | | | | | | | |

| Part No.(ELH+ELH) | Effective parameter | | | | | | | Electrical characteristics | |
|-------------------|--------------------------------------|---|--|---|--|--------------------------------------|--------------|----------------------------|--------|
| | Core factor $C_1(\text{mm}^{-1})$ | Effective magnetic path length $\ell_e(\text{mm})$ | Effective cross-sectional area $A_e(\text{mm}^2)$ | Effective core volume $V_e(\text{mm}^3)$ | $A_{\text{min.}}$ (mm^2) | A_{cw} (mm^2) | Weigh (g) | AL-value | |
| PC95PQI16/7.8Z-12 | 0.467 | 19.5 | 41.8 | 815 | 37.6 | 11.3 | 5.0 | 4910±25% | 63±3% |
| PC90PQI16/7.8Z-12 | | | | | | | | 3600±25% | 100±5% |
| PC95PQI20/9Z-12 | 0.346 | 22.9 | 66.0 | 1510 | 59.3 | 14.0 | 9.0 | 7070±25% | 100±3% |
| PC90PQI20/9Z-12 | | | | | | | | 5200±25% | 160±5% |
| PC95PQI26/12Z-12 | 0.224 | 27.7 | 123 | 3410 | 109 | 16.3 | 21 | 11950±25% | 100±3% |
| PC90PQI26/12Z-12 | | | | | | | | 8600±25% | 160±3% |

⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use.
Please note that the contents may change without any prior notice due to reasons such as upgrading.

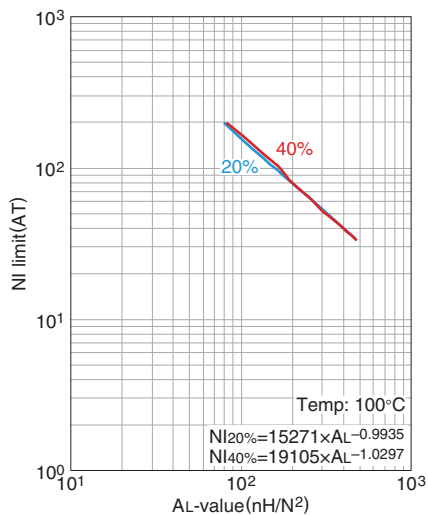
Mn-Zn Planar series Part No.: PC90PQI16/7.8Z-12

■ SHAPES AND DIMENSIONS



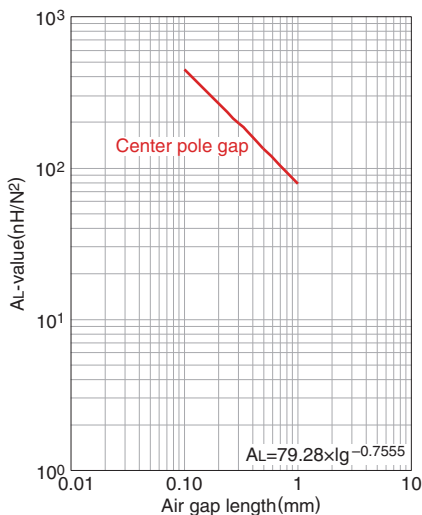
| Effective parameter | | | | | | Electrical characteristics | |
|---------------------------------------|--------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|---------|---------------------------------------|-------------------------------------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weigh | AL-value * | Core loss |
| C ₁ (mm ⁻¹) | ℓ _e (mm) | A _e (mm ²) | V _e (mm ³) | A _{cw} (mm ²) | (g/set) | (nH/N ²) 1kHz 0.5mA | (W)max. 100kHz 200mT 100°C |
| 0.467 | 19.5 | 41.8 | 815 | 11.3 | 5.0 | 3600±25% | 0.5 |

NI limit vs. AL-value (Typ.)



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 (Typ.)

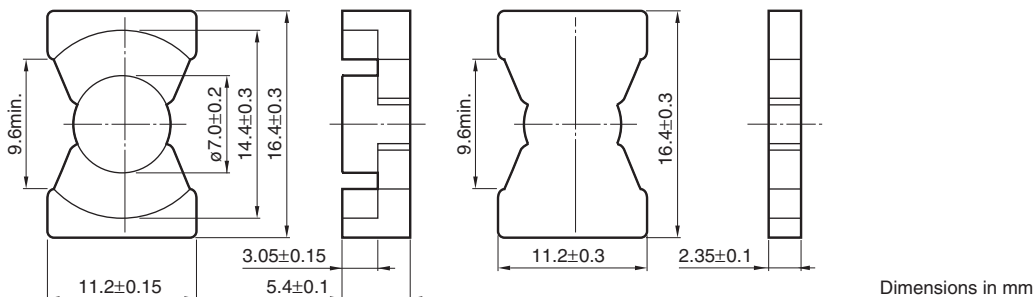


- Measuring conditions
- Coil : ø0.18 2UEW 100Ts
 - Frequency : 1kHz
 - Current level : 0.5mA
 - Ambient temperature : 25°C

⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

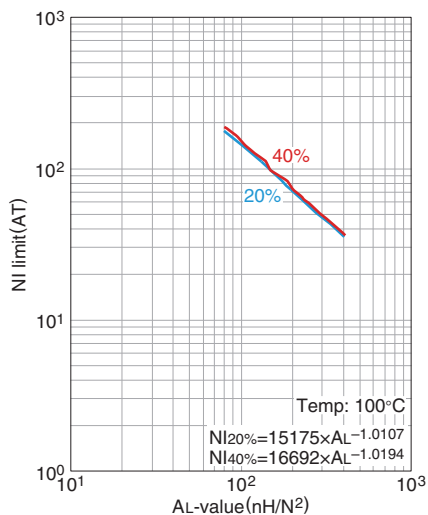
Mn-Zn Planar series Part No.: PC95PQI16/7.8Z-12

■ SHAPES AND DIMENSIONS



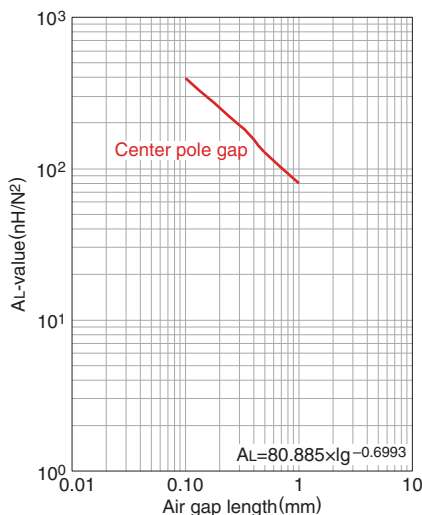
| Effective parameter | | | | | | Electrical characteristics | | | |
|---------------------------------------|--------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|---------|---------------------------------------|----------------------------|-----------|-------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weigh | AL-value * | | Core loss | |
| C ₁ (mm ⁻¹) | ℓ _e (mm) | A _e (mm ²) | V _e (mm ³) | A _{cw} (mm ²) | (g/set) | (nH/N ²) 1kHz 0.5mA | (W)max. 100kHz 200mT | | |
| | | | | | | | 25°C | 80°C | 120°C |
| 0.467 | 19.5 | 41.8 | 815 | 11.3 | 5.0 | 4910±25% | 0.45 | 0.35 | 0.45 |

NI limit vs. AL-value (Typ.)



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 (Typ.)

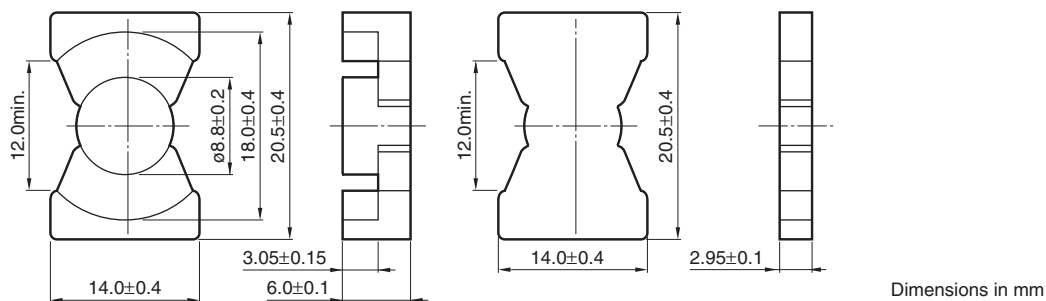


- Measuring conditions
- Coil : ø0.18 2UEW 100Ts
 - Frequency : 1kHz
 - Current level : 0.5mA
 - Ambient temperature : 25°C

⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

Mn-Zn Planar series Part No.: PC90PQI20/9Z-12

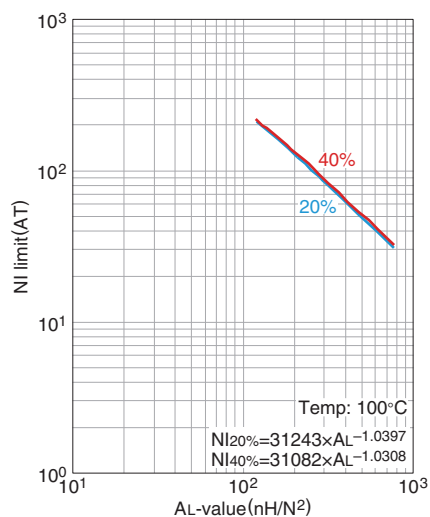
SHAPES AND DIMENSIONS



Dimensions in mm

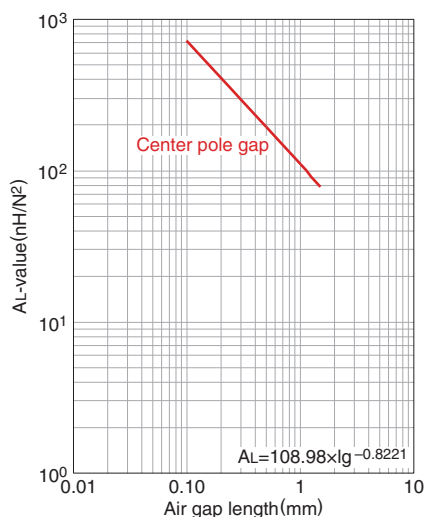
| Effective parameter | | | | | | Electrical characteristics | |
|---------------------------------------|--------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|---------|---------------------------------------|-------------------------------------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weight | AL-value * | Core loss |
| C ₁ (mm ⁻¹) | ℓ _e (mm) | A _e (mm ²) | V _e (mm ³) | A _{cw} (mm ²) | (g/set) | (nH/N ²) 1kHz 0.5mA | (W)max. 100kHz 200mT 100°C |
| 0.346 | 22.9 | 66.0 | 1510 | 14.0 | 9.0 | 5200±25% | 0.8 |

NI limit vs. AL-value (Typ.)



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 (Typ.)

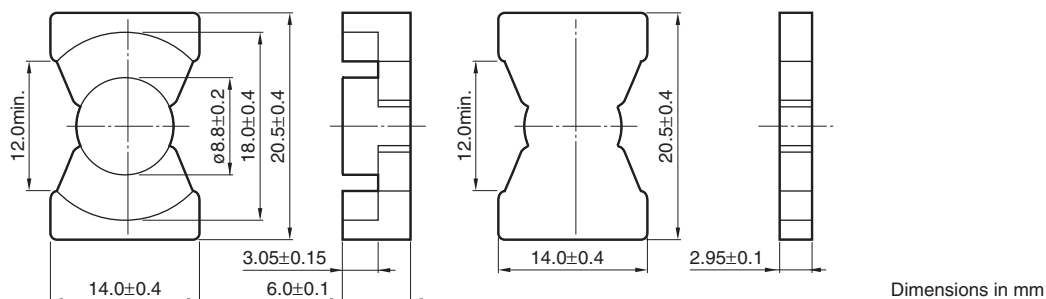


Measuring conditions
 • Coil : ø0.18 2UEW 100Ts
 • Frequency : 1kHz
 • Current level : 0.5mA
 • Ambient temperature : 25°C

⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

Mn-Zn Planar series Part No.: PC95PQI20/9Z-12

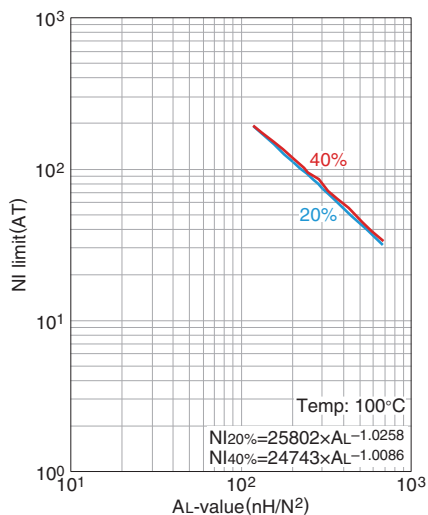
SHAPES AND DIMENSIONS



Dimensions in mm

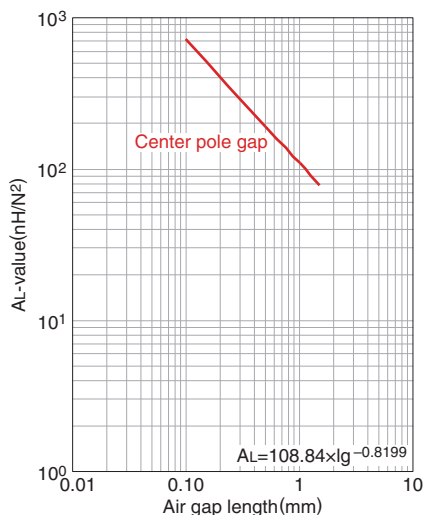
| Effective parameter | | | | | | Electrical characteristics | | | | |
|------------------------------|--------------------------------|--------------------------------|-----------------------------|--------------------------------------|---------|---------------------------------------|----------------------------|------|------|-------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weight | AL-value * | Core loss | | | |
| C_1 (mm ⁻¹) | ℓ_e (mm) | A_e (mm ²) | V_e (mm ³) | A_{cw} (mm ²) | (g/set) | (nH/N ²) 1kHz 0.5mA | (W)max. 100kHz 200mT | 25°C | 80°C | 120°C |
| 0.346 | 22.9 | 66.0 | 1510 | 14.0 | 9.0 | 7070±25% | 0.75 | 0.65 | 0.75 | |

NI limit vs. AL-value (Typ.)



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 (Typ.)

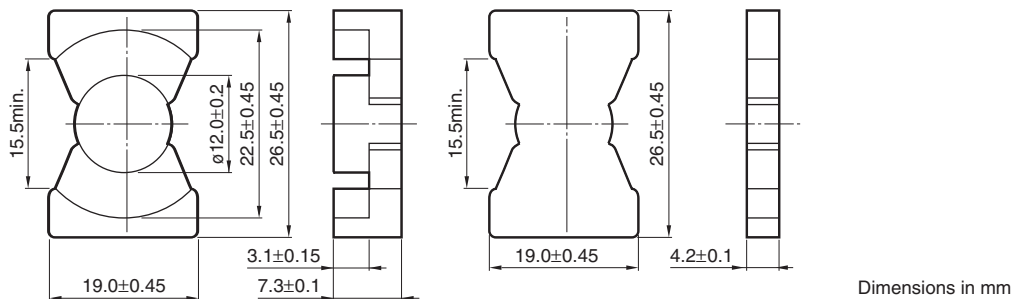


Measuring conditions
 • Coil : $\phi 0.18$ 2UEW 100Ts
 • Frequency : 1kHz
 • Current level : 0.5mA
 • Ambient temperature : 25°C

⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

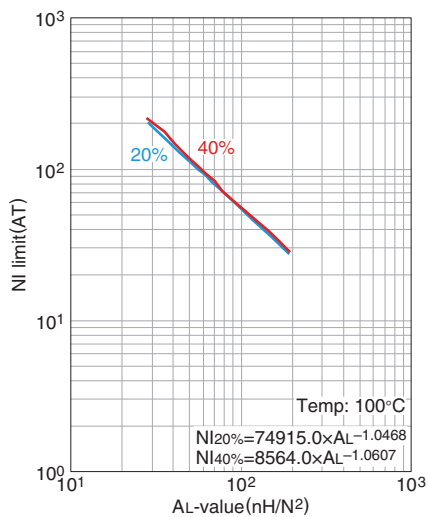
Mn-Zn Planar series Part No.: PC90PQI26/12Z-12

■ SHAPES AND DIMENSIONS



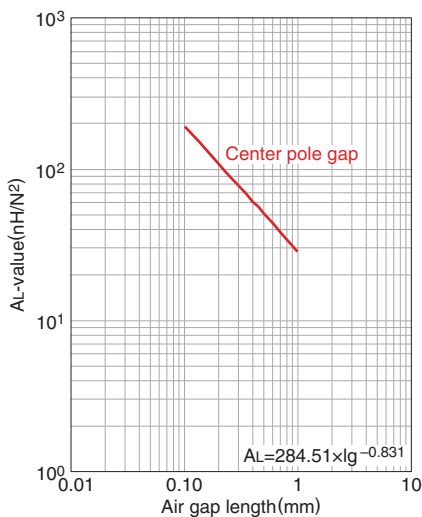
| Effective parameter | | | | | | Electrical characteristics | |
|------------------------------|--------------------------------|--------------------------------|-----------------------------|--------------------------------------|---------|---------------------------------------|-------------------------------------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weight | AL-value * | Core loss |
| C_1 (mm ⁻¹) | ℓ_e (mm) | A_e (mm ²) | V_e (mm ³) | A_{cw} (mm ²) | (g/set) | (nH/N ²) 1kHz 0.5mA | (W)max. 100kHz 200mT 100°C |
| 0.224 | 27.7 | 123 | 3410 | 16.3 | 21 | 8600±25% | 1.6 |

NI limit vs. AL-value (Typ.)



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 (Typ.)



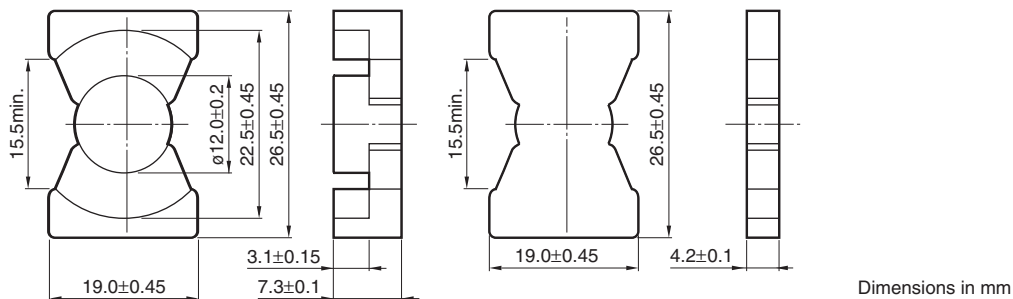
Measuring conditions

- Coil : $\phi 0.18$ 2UEW 100Ts
- Frequency : 1kHz
- Current level : 0.5mA
- Ambient temperature : 25°C

⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

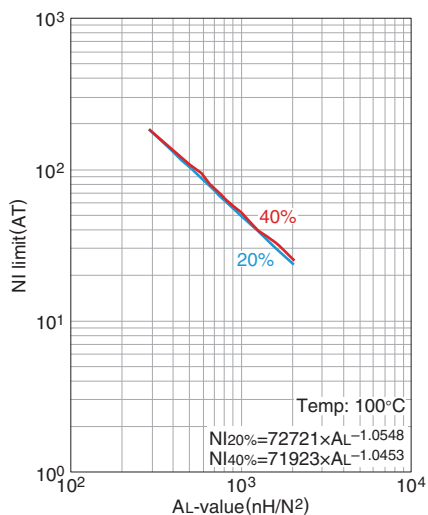
Mn-Zn Planar series Part No.: PC95PQI26/12Z-12

■ SHAPES AND DIMENSIONS



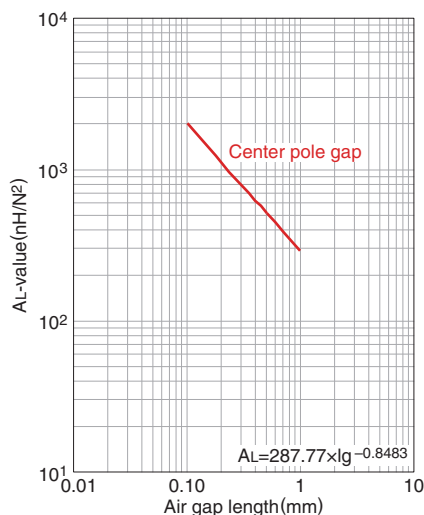
| Effective parameter | | | | | | Electrical characteristics | | | |
|------------------------------|--------------------------------|--------------------------------|-----------------------------|--------------------------------------|---------|---------------------------------------|----------------------------|------|-------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weight | AL-value * | Core loss | | |
| C_1 (mm ⁻¹) | ℓ_e (mm) | A_e (mm ²) | V_e (mm ³) | A_{cw} (mm ²) | (g/set) | (nH/N ²) 1kHz 0.5mA | (W)max. 100kHz 200mT | | |
| | | | | | | | 25°C | 80°C | 120°C |
| 0.224 | 27.7 | 123 | 3410 | 16.3 | 21 | 11950±25% | 1.5 | 1.4 | 1.5 |

NI limit vs. AL-value (Typ.)



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 (Typ.)

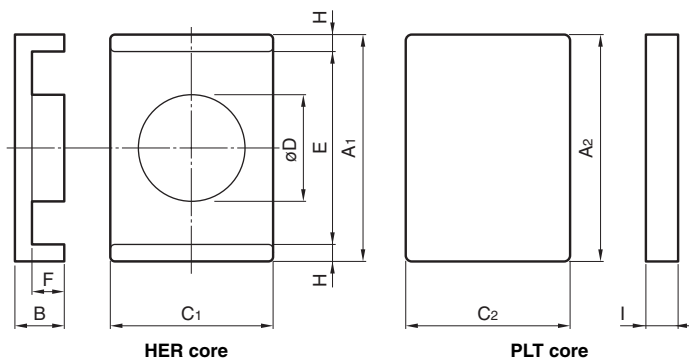
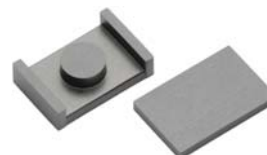


Measuring conditions
 • Coil : ø0.18 2UEW 100Ts
 • Frequency : 1kHz
 • Current level : 0.5mA
 • Ambient temperature : 25°C

⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

Mn-Zn EIR Cores

SHAPES AND DIMENSIONS



| | | | |
|----------|----------------|---|----------------------------------|
| PC95 | EIR14/4.5/9 | - | Z |
| Material | Size of E core | | AL-value (Z: without air gap) |

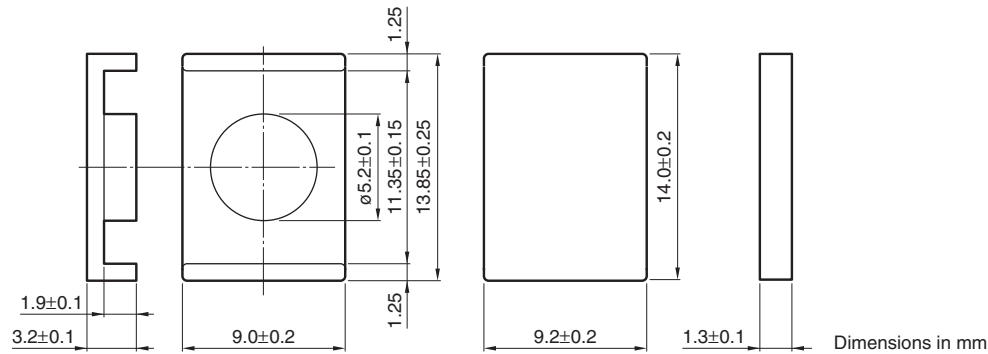
| Part No.(ELH+ELH) | Dimensions (mm) | | | | | | | | | |
|--------------------|-----------------|-----------|------------|-----------|------------|-----------|------|------------|------------|-----------|
| | A1 | B | C1 | øD | E | F | H | A2 | C2 | I |
| PC95EIR14/4.5/9-Z | 13.85±0.25 | 3.20±0.10 | 9.00±0.20 | 5.20±0.10 | 11.35±0.15 | 1.90±0.10 | 1.25 | 14.00±0.20 | 9.20±0.20 | 1.30±0.10 |
| PC90EIR14/4.5/9-Z | | | | | | | | | | |
| PC95EIR18/5/12-Z | 18.15±0.30 | 3.50±0.10 | 12.00±0.20 | 6.00±0.10 | 15.75±0.25 | 2.00±0.10 | 1.20 | 18.20±0.25 | 12.20±0.20 | 1.50±0.10 |
| PC90EIR18/5/12-Z | | | | | | | | | | |
| PC95EIR22/5.5/15-Z | 22.10±0.35 | 3.75±0.10 | 15.25±0.25 | 6.80±0.10 | 19.70±0.30 | 2.00±0.10 | 1.20 | 22.20±0.30 | 15.50±0.20 | 1.75±0.10 |
| PC90EIR22/5.5/15-Z | | | | | | | | | | |

| Part No.(HPQ+PQD) | Effective parameter | | | | | | | Electrical characteristics | | |
|--------------------|---|---|---|--|--|---------------------------------------|--------------|--|----------|--------|
| | Core factor C ₁ (mm ⁻¹) | Effective magnetic path length ℓ _e (mm) | Effective cross-sectional area A _e (mm ²) | Effective core volume V _e (mm ³) | A _{min} . (mm ²) | A _{cw} (mm ²) | Weigh (g) | AL-value (nH/N ²) 1kHz 0.5mA 100Ts | | |
| PC95EIR14/4.5/9-Z | 0.679 | 15.4 | 22.7 | 349 | 21.2 | 5.84 | 2.0 | Without air gap | 2800±25% | 63±3% |
| PC90EIR14/4.5/9-Z | | | | | | | | With air gap | 2050±25% | 100±5% |
| PC95EIR18/5/12-Z | 0.601 | 19.7 | 32.8 | 645 | 28.3 | 9.75 | 3.8 | Without air gap | 3690±25% | 80±3% |
| PC90EIR18/5/12-Z | | | | | | | | With air gap | 2500±25% | 125±5% |
| PC95EIR22/5.5/15-Z | 0.505 | 23.2 | 46.1 | 1070 | 36.3 | 12.9 | 6.5 | Without air gap | 4150±25% | 80±3% |
| PC90EIR22/5.5/15-Z | | | | | | | | With air gap | 3000±25% | 125±5% |

⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use.
Please note that the contents may change without any prior notice due to reasons such as upgrading.

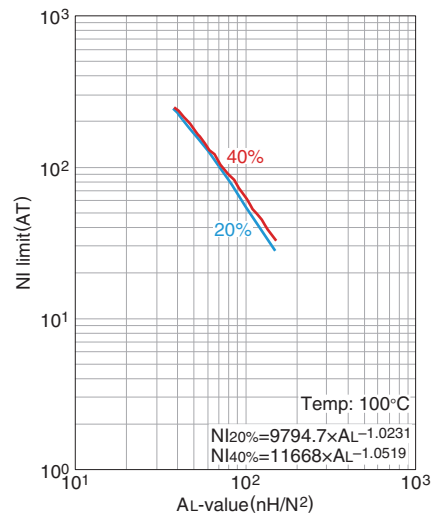
Mn-Zn Planar series Part No.: PC90EIR14/4.5/9-Z

SHAPES AND DIMENSIONS



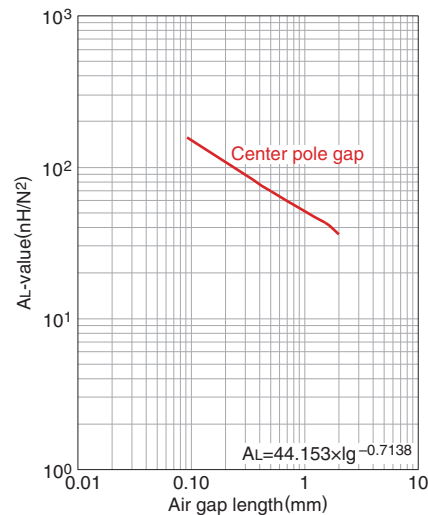
| Effective parameter | | | | | | Electrical characteristics | |
|------------------------------|--------------------------------|--------------------------------|-----------------------------|--------------------------------------|---------|---------------------------------------|-------------------------------------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weight | AL-value * | Core loss |
| C_1 (mm ⁻¹) | ℓ_e (mm) | A_e (mm ²) | V_e (mm ³) | A_{cw} (mm ²) | (g/set) | (nH/N ²) 1kHz 0.5mA | (W)max. 100kHz 200mT 100°C |
| 0.679 | 15.4 | 22.7 | 349 | 5.84 | 2.0 | 2050±25% | 0.3 |

NI limit vs. AL-value (Typ.)



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 (Typ.)

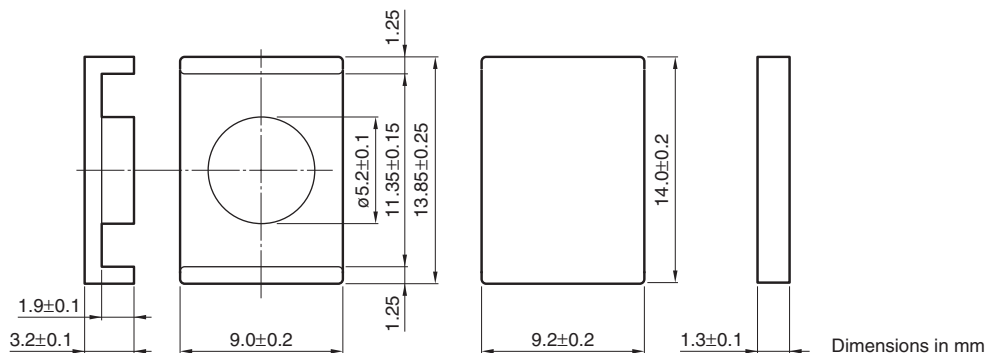


Measuring conditions

- Coil : ø0.18 2UEW 100Ts
- Frequency : 1kHz
- Current level : 0.5mA
- Ambient temperature : 25°C

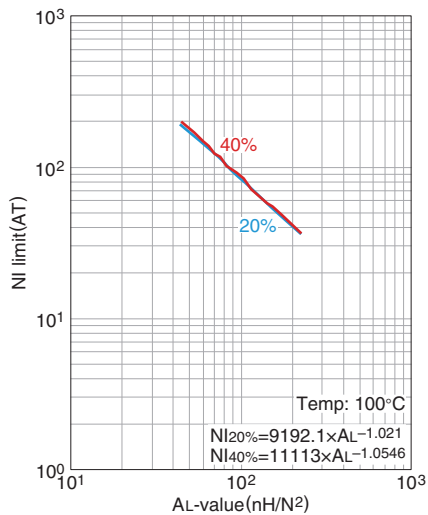
Mn-Zn Planar series Part No.: PC95EIR14/4.5/9-Z

■ SHAPES AND DIMENSIONS



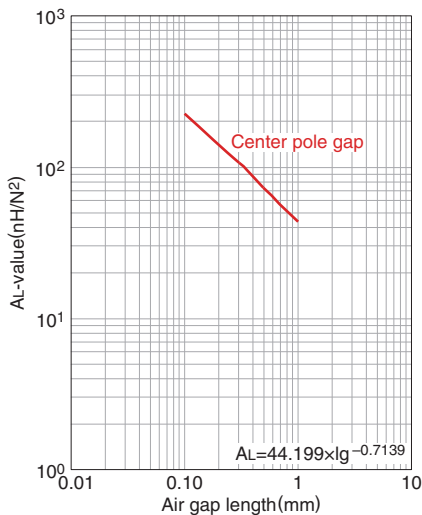
| Effective parameter | | | | | | Electrical characteristics | | | | |
|------------------------------|--------------------------------|--------------------------------|-----------------------------|--------------------------------------|---------|---------------------------------------|----------------------------|------|------|-------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weight | AL-value * | Core loss | | | |
| C_1 (mm ⁻¹) | ℓ_e (mm) | A_e (mm ²) | V_e (mm ³) | A_{cw} (mm ²) | (g/set) | (nH/N ²) 1kHz 0.5mA | (W)max. 100kHz 200mT | 25°C | 80°C | 120°C |
| 0.679 | 15.4 | 22.7 | 349 | 5.84 | 2.0 | 2800±25% | 0.25 | 0.2 | 0.25 | |

NI limit vs. AL-value (Typ.)



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 (Typ.)

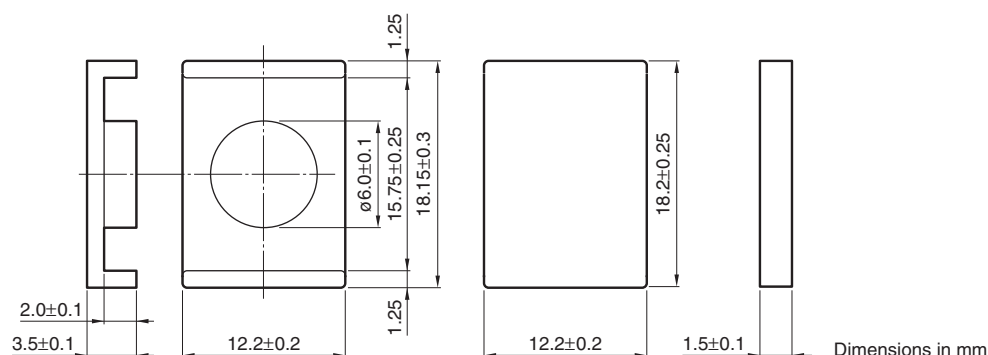


Measuring conditions
 • Coil : ø0.18 2UEW 100Ts
 • Frequency : 1kHz
 • Current level : 0.5mA
 • Ambient temperature : 25°C

⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

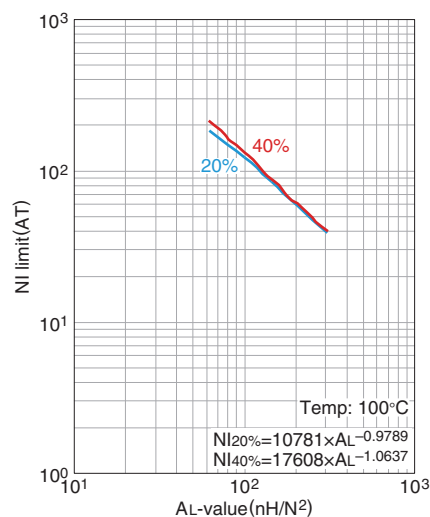
Mn-Zn Planar series Part No.: PC90EIR18/5/12-Z

SHAPES AND DIMENSIONS



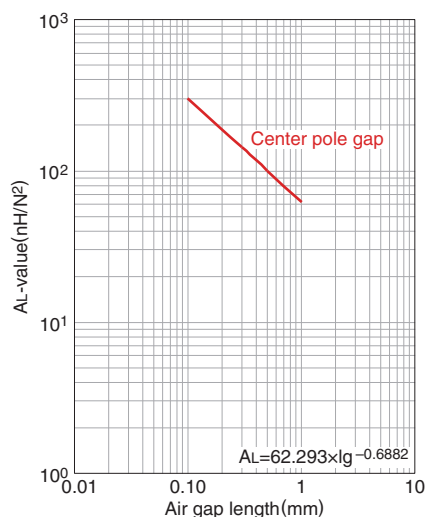
| Effective parameter | | | | | | Electrical characteristics | |
|-------------------------------|--------------------------------|--------------------------------|----------------------------|--------------------------------------|---------|--------------------------------------|-------------------------------------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weight | AL-value * | Core loss |
| C_1 (mm^{-1}) | ℓ_e (mm) | A_e (mm^2) | V_e (mm^3) | A_{cw} (mm^2) | (g/set) | (nH/N^2) 1kHz 0.5mA | (W)max. 100kHz 200mT 100°C |
| 0.601 | 19.7 | 32.8 | 645 | 9.75 | 3.8 | 2500±25% | 0.45 |

NI limit vs. AL-value (Typ.)



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 (Typ.)

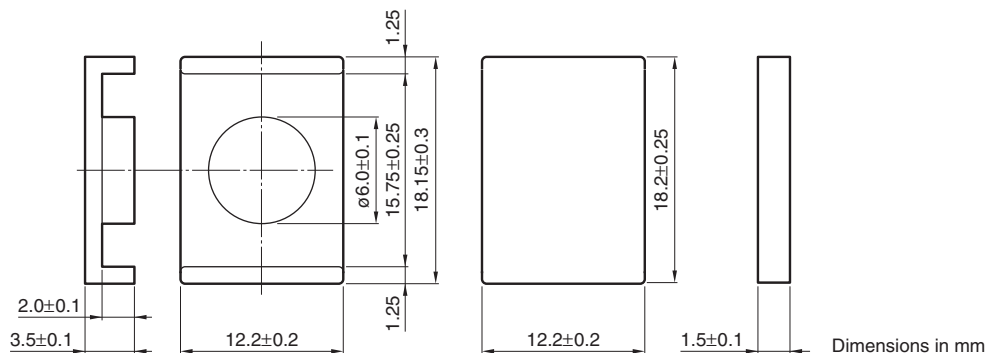


Measuring conditions

- Coil : $\phi 0.18$ 2UEW 100Ts
- Frequency : 1kHz
- Current level : 0.5mA
- Ambient temperature : 25°C

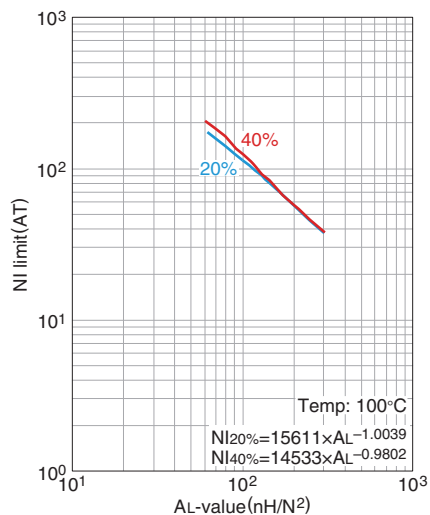
Mn-Zn Planar series Part No.: PC95EIR18/5/12-Z

■ SHAPES AND DIMENSIONS



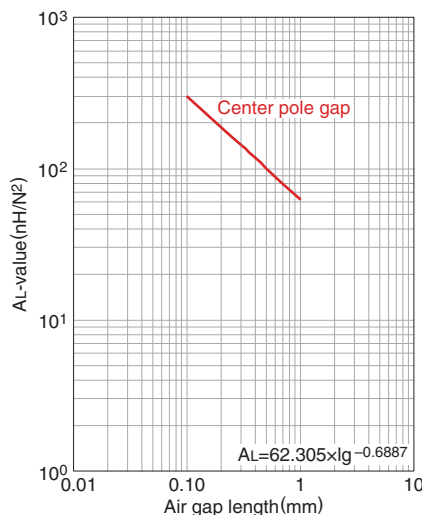
| Effective parameter | | | | | | Electrical characteristics | | | | |
|---------------------------------------|--------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|---------|---------------------------------------|----------------------------|------|------|-------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weight | AL-value * | Core loss | | | |
| C ₁ (mm ⁻¹) | ℓ _e (mm) | A _e (mm ²) | V _e (mm ³) | A _{cw} (mm ²) | (g/set) | (nH/N ²) 1kHz 0.5mA | (W)max. 100kHz 200mT | 25°C | 80°C | 120°C |
| 0.601 | 19.7 | 32.8 | 645 | 9.75 | 3.8 | 3690±25% | 0.4 | 0.35 | 0.4 | |

NI limit vs. AL-value (Typ.)



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 (Typ.)

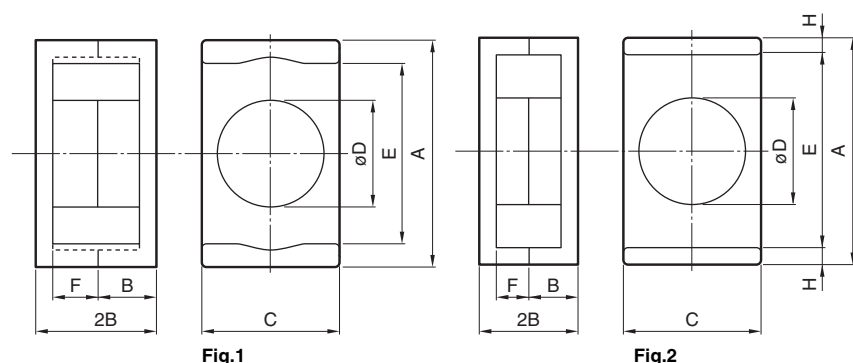


- Measuring conditions
- Coil : ø0.18 2UEW 100Ts
 - Frequency : 1kHz
 - Current level : 0.5mA
 - Ambient temperature : 25°C

⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

Mn-Zn ER Cores

SHAPES AND DIMENSIONS



| | | | |
|----------|----------------|---|----------------------------------|
| PC95 | ER9.5/5 | - | Z |
| Material | Size of E core | | AL-value (Z: without air gap) |

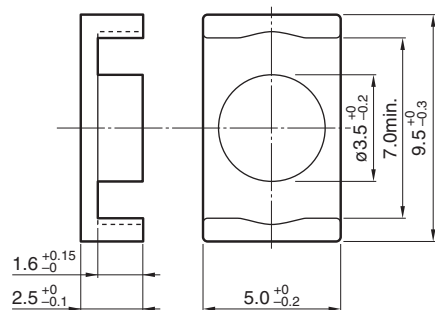
| Part No.(HER+HER) | Core | Dimensions (mm) | | | | | | |
|-------------------|-------|-------------------------------------|-----------------------------------|-----------------------------------|-------------------------------------|------------|------------------------------------|------|
| | | A | B | C | øD | E | F | H |
| PC95ER9.5/5-Z | Fig.1 | 9.5 ⁺⁰ _{-0.3} | 2.5 ⁺⁰ _{-0.1} | 5.0 ⁺⁰ _{-0.2} | 3.5 ⁺⁰ _{-0.2} | 7.0min. | 1.6 ^{+0.15} ₋₀ | — |
| PC90ER9.5/5-Z | | | | | | | | |
| PC95ER11/5-Z | Fig.1 | 11.0 ⁺⁰ _{-0.35} | 2.5 ⁺⁰ _{-0.1} | 6.0 ⁺⁰ _{-0.2} | 4.25 ⁺⁰ _{-0.25} | 7.9min. | 1.5 ^{+0.15} ₋₀ | — |
| PC90ER11/5-Z | | | | | | | | |
| PC95ER14/4.5/9-Z | Fig.2 | 13.85±0.25 | 2.25±0.10 | 9.00±0.20 | 5.20±0.10 | 11.35±0.15 | 0.95±0.10 | 1.25 |
| PC90ER14/4.5/9-Z | | | | | | | | |
| PC95ER14.5/6-Z | Fig.2 | 14.5±0.2 | 3.0 ⁺⁰ _{-0.1} | 6.7±0.1 | 4.7±0.1 | 11.8±0.2 | 1.65±0.1 | 1.35 |
| PC90ER14.5/6-Z | | | | | | | | |
| PC95ER18/5/12-Z | Fig.2 | 18.15±0.30 | 2.50±0.10 | 12.00±0.20 | 6.00±0.10 | 15.75±0.25 | 1.00±0.10 | 1.20 |
| PC90ER18/5/12-Z | | | | | | | | |
| PC95ER22/5.5/15-Z | Fig.2 | 22.10±0.35 | 2.75±0.10 | 15.25±0.25 | 6.80±0.10 | 19.70±0.30 | 1.00±0.10 | 1.20 |
| PC90ER22/5.5/15-Z | | | | | | | | |
| PC95ER25/5.5/18-Z | Fig.2 | 25.30±0.40 | 2.75±0.10 | 18.00±0.40 | 7.00±0.15 | 22.90±0.40 | 1.00±0.10 | 1.20 |
| PC90ER25/5.5/18-Z | | | | | | | | |

| Part No.(HER+HER) | Effective parameter | | | | | | | Electrical characteristics | |
|-------------------|---|---|---|--|--|---------------------------------------|--------------|--|--------|
| | Core factor C _i (mm ⁻¹) | Effective magnetic path length ℓ _e (mm) | Effective cross-sectional area A _e (mm ²) | Effective core volume V _e (mm ³) | A _{min} . (mm ²) | A _{cw} (mm ²) | Weigh (g) | AL-value (nH/N ²) 1kHz 0.5mA 100Ts Without air gap With air gap | |
| PC95ER9.5/5-Z | 1.67 | 14.2 | 8.47 | 120 | 7.6 | 7.07 | 0.7 | 1190±25% | 63±5% |
| PC90ER9.5/5-Z | | | | | | | | 610min. | 100±7% |
| PC95ER11/5-Z | 1.23 | 14.7 | 11.9 | 174 | 10.3 | 7.44 | 1.1 | 1680±25% | 63±5% |
| PC90ER11/5-Z | | | | | | | | 1300±25% | 100±7% |
| PC95ER14/4.5/9-Z | 0.679 | 15.4 | 22.7 | 349 | 21.2 | 5.84 | 2.0 | 2550±25% | 63±3% |
| PC90ER14/4.5/9-Z | | | | | | | | 2100±25% | 100±5% |
| PC95ER14.5/6-Z | 1.08 | 19.0 | 17.6 | 333 | 17.3 | 8.42 | 2.0 | 1880±25% | 100±5% |
| PC90ER14.5/6-Z | | | | | | | | 1300±25% | 160±7% |
| PC95ER18/5/12-Z | 0.601 | 19.7 | 32.8 | 645 | 28.3 | 9.75 | 3.8 | 3500±25% | 80±3% |
| PC90ER18/5/12-Z | | | | | | | | 2900±25% | 125±5% |
| PC95ER22/5.5/15-Z | 0.505 | 23.2 | 46.1 | 1070 | 36.3 | 12.9 | 6.5 | 4300±25% | 80±3% |
| PC90ER22/5.5/15-Z | | | | | | | | 3200±25% | 125±5% |
| PC95ER25/5.5/18-Z | 0.486 | 26.1 | 53.7 | 1400 | 38.5 | 15.9 | 8.5 | 4400±25% | 80±3% |
| PC90ER25/5.5/18-Z | | | | | | | | 3400±25% | 125±3% |

⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use.
Please note that the contents may change without any prior notice due to reasons such as upgrading.

Mn-Zn Planar series Part No.: PC90ER9.5/5-Z

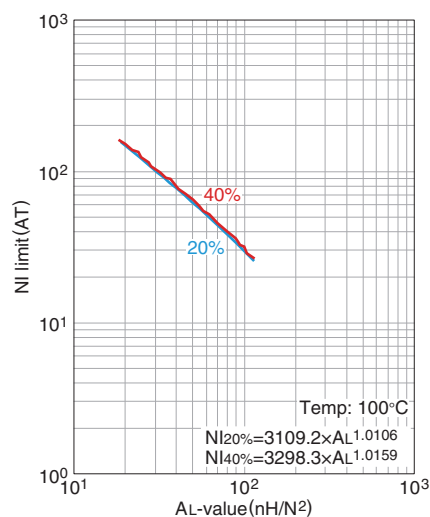
SHAPES AND DIMENSIONS



Dimensions in mm

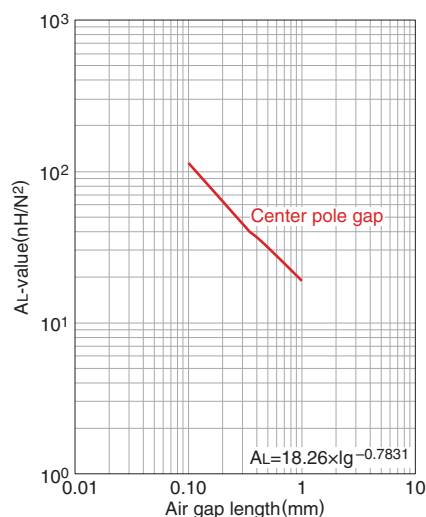
| Effective parameter | | | | | | Electrical characteristics | |
|---------------------------------------|--------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|---------|---------------------------------------|-------------------------------------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weight | AL-value * | Core loss |
| C ₁ (mm ⁻¹) | ℓ _e (mm) | A _e (mm ²) | V _e (mm ³) | A _{cw} (mm ²) | (g/set) | (nH/N ²) 1kHz 0.5mA | (W)max. 100kHz 200mT 100°C |
| 1.67 | 14.2 | 8.47 | 120 | 7.07 | 0.7 | 610min. | 0.1 |

NI limit vs. AL-value (Typ.)



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 (Typ.)

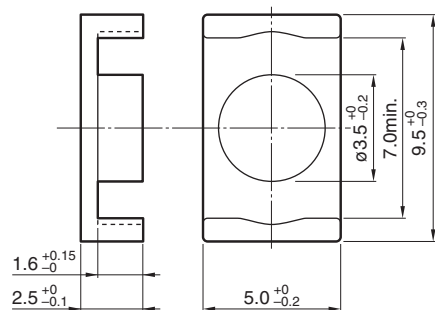


Measuring conditions

- Coil : $\phi 0.18$ 2UEW 100Ts
- Frequency : 1kHz
- Current level : 0.5mA
- Ambient temperature : 25°C

Mn-Zn Planar series Part No.: PC95ER9.5/5-Z

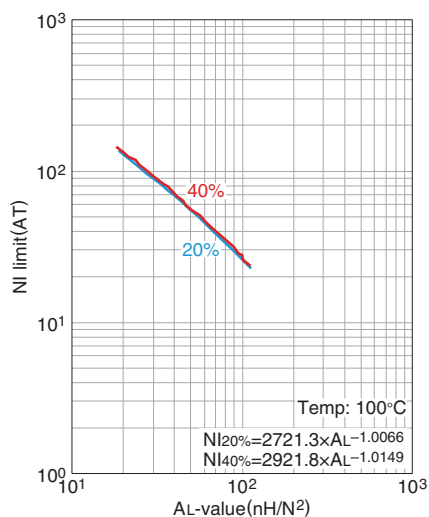
SHAPES AND DIMENSIONS



Dimensions in mm

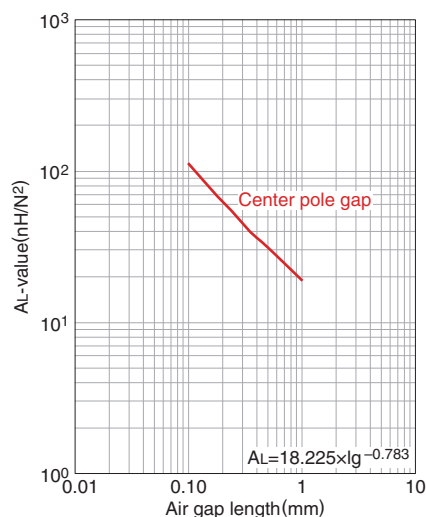
| Effective parameter | | | | | | Electrical characteristics | | | | |
|---------------------------------------|--------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|---------|---------------------------------------|----------------------------|------|------|-------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weight | AL-value * | Core loss | | | |
| C ₁ (mm ⁻¹) | ℓ _e (mm) | A _e (mm ²) | V _e (mm ³) | A _{cw} (mm ²) | (g/set) | (nH/N ²) 1kHz 0.5mA | (W)max. 100kHz 200mT | 25°C | 80°C | 120°C |
| 1.67 | 14.2 | 8.47 | 120 | 7.07 | 0.7 | 1190±25% | 0.1 | 0.09 | 0.1 | |

NI limit vs. AL-value (Typ.)



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 (Typ.)

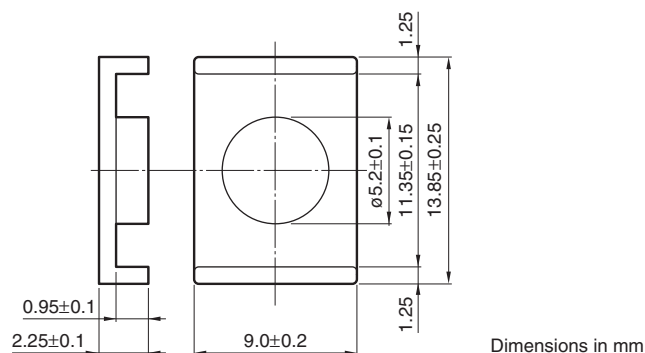


Measuring conditions

- Coil : $\phi 0.18$ 2UEW 100Ts
- Frequency : 1kHz
- Current level : 0.5mA
- Ambient temperature : 25°C

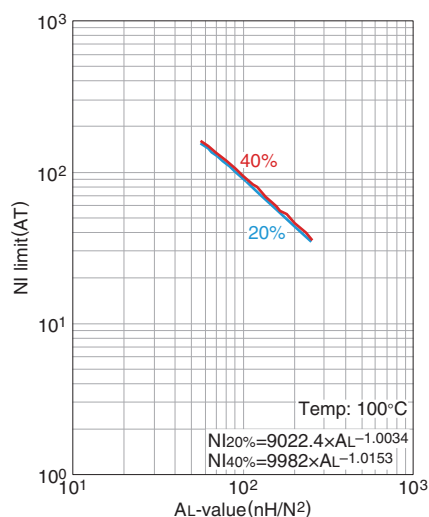
Mn-Zn Planar series Part No.: PC90ER14/4.5/9-Z

SHAPES AND DIMENSIONS



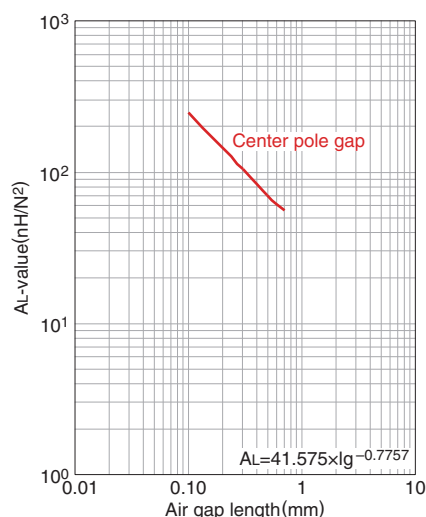
| Effective parameter | | | | | | Electrical characteristics | |
|-------------------------------|--------------------------------|--------------------------------|----------------------------|--------------------------------------|---------|--------------------------------------|-------------------------------------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weight | AL-value * | Core loss |
| C_1 (mm^{-1}) | ℓ_e (mm) | A_e (mm^2) | V_e (mm^3) | A_{cw} (mm^2) | (g/set) | (nH/N^2) 1kHz 0.5mA | (W)max. 100kHz 200mT 100°C |
| 0.679 | 15.4 | 22.7 | 349 | 5.84 | 2.0 | 2100±25% | 0.3 |

NI limit vs. AL-value (Typ.)



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 (Typ.)

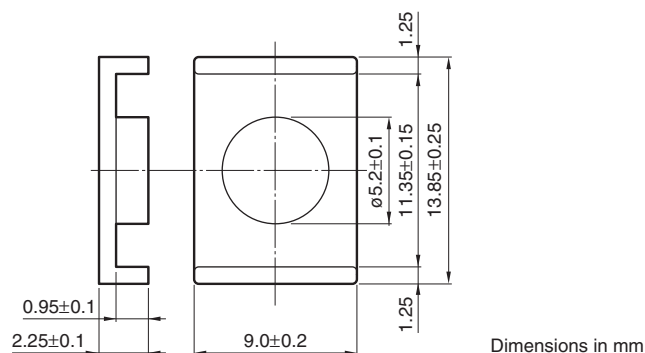


Measuring conditions

- Coil : $\phi 0.18$ 2UEW 100Ts
- Frequency : 1kHz
- Current level : 0.5mA
- Ambient temperature : 25°C

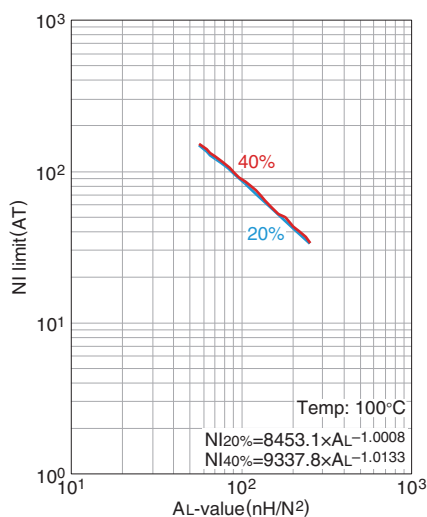
Mn-Zn Planar series Part No.: PC95ER14/4.5/9-Z

SHAPES AND DIMENSIONS



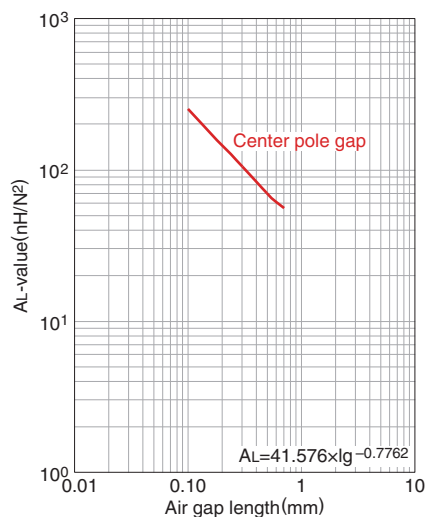
| Effective parameter | | | | | | Electrical characteristics | | | | |
|------------------------------|--------------------------------|--------------------------------|-----------------------------|--------------------------------------|---------|---------------------------------------|----------------------------|------|------|-------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weight | AL-value * | Core loss | | | |
| C_1 (mm ⁻¹) | ℓ_e (mm) | A_e (mm ²) | V_e (mm ³) | A_{cw} (mm ²) | (g/set) | (nH/N ²) 1kHz 0.5mA | (W)max. 100kHz 200mT | 25°C | 80°C | 120°C |
| 0.679 | 15.4 | 22.7 | 349 | 5.84 | 2.0 | 2550±25% | 0.25 | 0.2 | 0.25 | |

NI limit vs. AL-value (Typ.)



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 (Typ.)

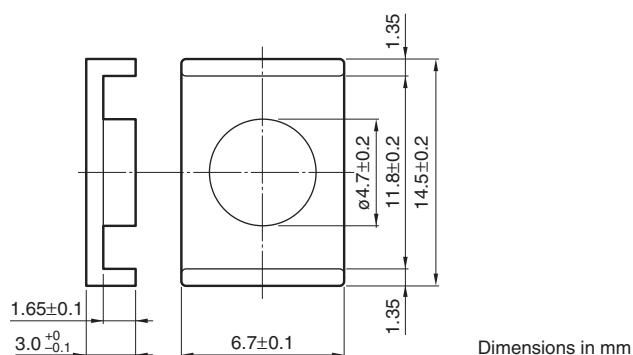


Measuring conditions

- Coil : $\phi 0.18$ 2UEW 100Ts
- Frequency : 1kHz
- Current level : 0.5mA
- Ambient temperature : 25°C

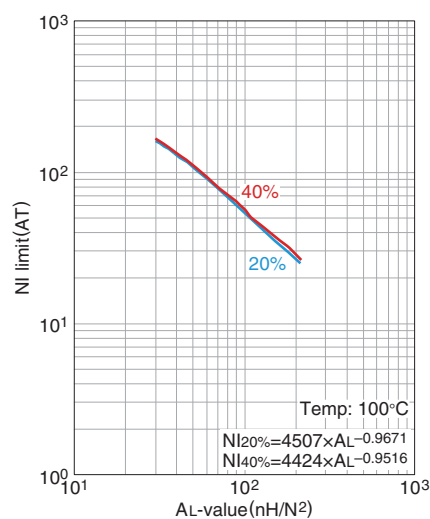
Mn-Zn Planar series Part No.: PC95ER14.5/6-Z

SHAPES AND DIMENSIONS



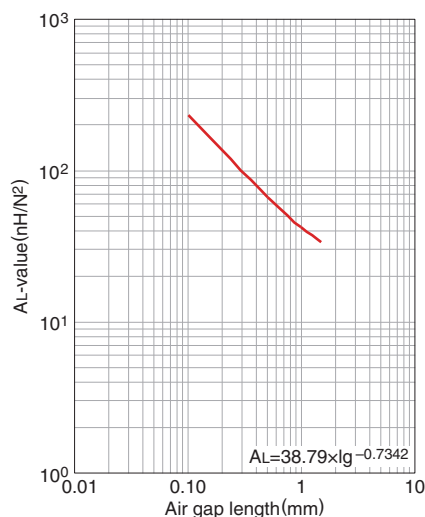
| Effective parameter | | | | | | Electrical characteristics | | | |
|------------------------------|--------------------------------|--------------------------------|-----------------------------|--------------------------------------|---------|---------------------------------------|------------------------------------|------|-------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weight | AL-value * | Core loss | | |
| C_1 (mm ⁻¹) | ℓ_e (mm) | A_e (mm ²) | V_e (mm ³) | A_{cw} (mm ²) | (g/set) | (nH/N ²) 1kHz 0.5mA | (W)max. 100kHz 200mT 25°C | 80°C | 120°C |
| 1.08 | 19.0 | 17.6 | 333 | 8.42 | 2.0 | 3500±25% | 0.3 | 0.28 | 0.3 |

NI limit vs. AL-value (Typ.)



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 (Typ.)

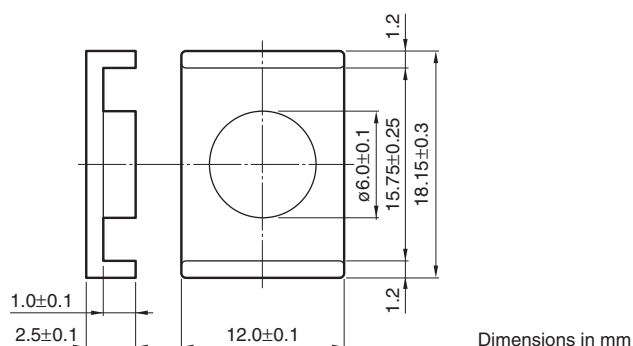


Measuring conditions

- Coil : $\phi 0.18$ 2UEW 100Ts
- Frequency : 1kHz
- Current level : 0.5mA
- Ambient temperature : 25°C

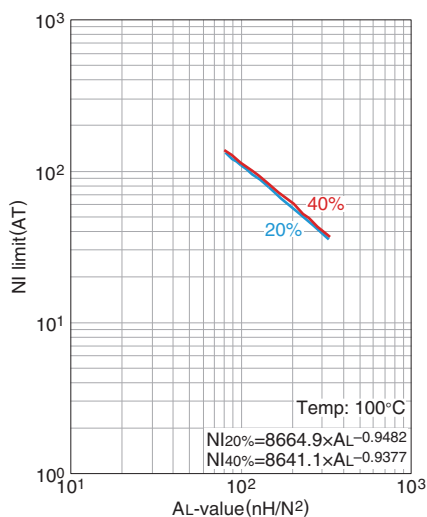
Mn-Zn Planar series Part No.: PC90ER18/5/12-Z

SHAPES AND DIMENSIONS



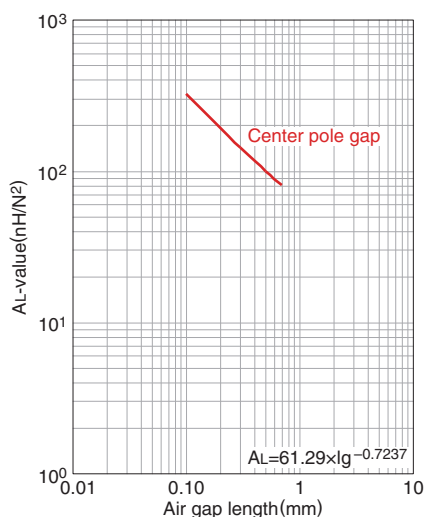
| Effective parameter | | | | | | Electrical characteristics | |
|-------------------------------|--------------------------------|--------------------------------|----------------------------|--------------------------------------|---------|--------------------------------------|-------------------------------------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weight | AL-value * | Core loss |
| C_1 (mm^{-1}) | ℓ_e (mm) | A_e (mm^2) | V_e (mm^3) | A_{cw} (mm^2) | (g/set) | (nH/N^2) 1kHz 0.5mA | (W)max. 100kHz 200mT 100°C |
| 0.601 | 19.7 | 32.8 | 645 | 9.75 | 3.8 | 2900±25% | 0.5 |

NI limit vs. AL-value (Typ.)



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 (Typ.)

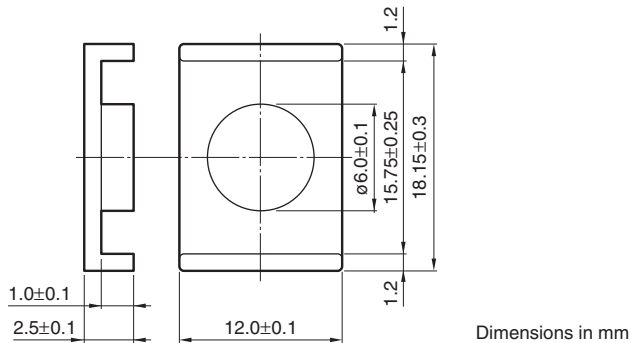


Measuring conditions

- Coil : $\phi 0.18$ 2UEW 100Ts
- Frequency : 1kHz
- Current level : 0.5mA
- Ambient temperature : 25°C

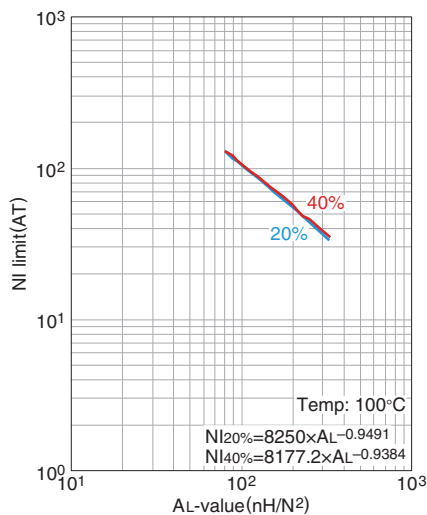
Mn-Zn Planar series Part No.: PC95ER18/5/12-Z

SHAPES AND DIMENSIONS



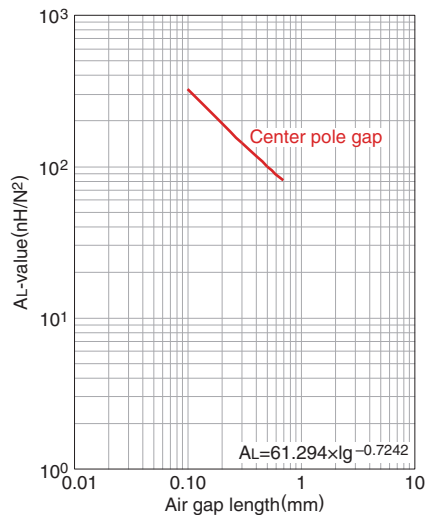
| Effective parameter | | | | | | Electrical characteristics | | | |
|-------------------------------|--------------------------------|--------------------------------|----------------------------|--------------------------------------|---------|---|------------------------------------|------|-------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weight | AL-value * | Core loss | | |
| C_1 (mm^{-1}) | ℓ_e (mm) | A_e (mm^2) | V_e (mm^3) | A_{cw} (mm^2) | (g/set) | (nH/N^2) 1kHz 0.5mA | (W)max. 100kHz 200mT 25°C | 80°C | 120°C |
| 0.601 | 19.7 | 32.8 | 645 | 9.75 | 3.8 | 3500±25% | 0.45 | 0.4 | 0.45 |

NI limit vs. AL-value (Typ.)



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 (Typ.)

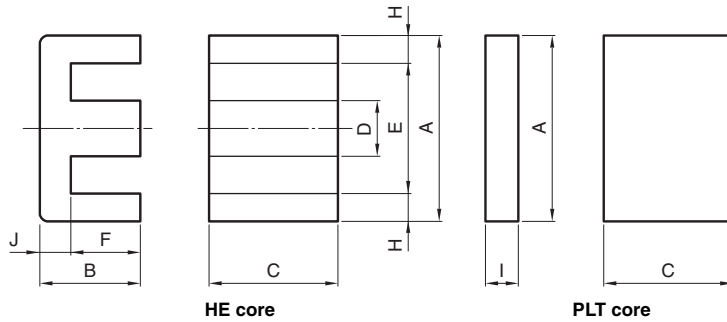


Measuring conditions

- Coil : $\phi 0.18$ 2UEW 100Ts
- Frequency : 1kHz
- Current level : 0.5mA
- Ambient temperature : 25°C

Mn-Zn EI Cores

SHAPES AND DIMENSIONS



| | | | |
|----------|----------------|---|----------------------------------|
| PC95 | EI14/5/5 | - | Z |
| Material | Size of E core | | AL-value (Z: without air gap) |

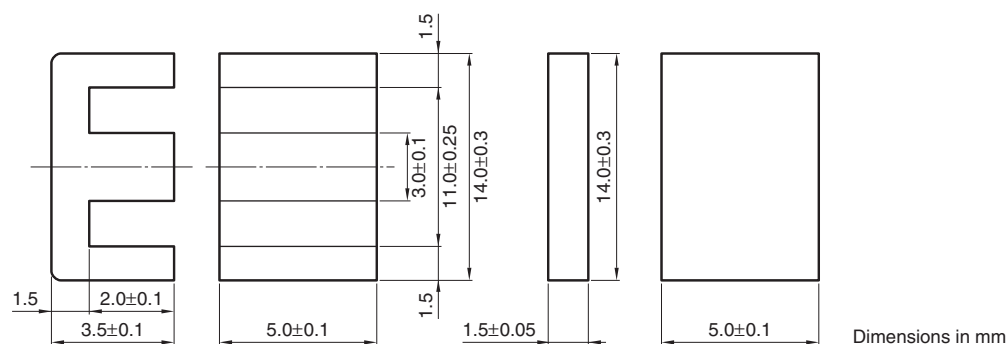
| Part No.(HE+PLT) | Dimensions (mm) | | | | | | | | | |
|------------------|-----------------|-----------|------------|-----------|------------|-----------|------|-----------|------|--|
| | A | B | C | D | E | F | H | I | J | |
| PC95EI14/5/5-Z | 14.00±0.30 | 3.50±0.10 | 5.00±0.10 | 3.00±0.10 | 11.00±0.25 | 2.00±0.10 | 1.50 | 1.50±0.05 | 1.50 | |
| PC90EI14/5/5-Z | | | | | | | | | | |
| PC95EI18/6/10-Z | 18.00±0.35 | 4.00±0.10 | 10.00±0.20 | 4.00±0.10 | 14.00±0.30 | 2.00±0.10 | 2.00 | 2.00±0.05 | 2.00 | |
| PC90EI18/6/10-Z | | | | | | | | | | |
| PC95EI22/8/16-Z | 21.80±0.40 | 5.70±0.10 | 15.80±0.30 | 5.00±0.10 | 16.80±0.40 | 3.20±0.10 | 2.50 | 2.50±0.05 | 2.50 | |
| PC90EI22/8/16-Z | | | | | | | | | | |

| Part No.(HER+HER) | Effective parameter | | | | | | | Electrical characteristics | |
|-------------------|---------------------------|--|---|--|--------------------------------|-----------------------------|-----------|--|--------|
| | Core factor | Effective magnetic path length ℓ_e (mm) | Effective cross-sectional area A_e (mm ²) | Effective core volume V_e (mm ³) | A_{min} . (mm ²) | A_{cw} (mm ²) | Weigh (g) | AL-value | |
| | C_1 (mm ⁻¹) | | | | | | | (nH/N ²) 1kHz 0.5mA 100Ts | |
| PC95EI14/5/5-Z | 1.11 | 16.7 | 15.0 | 251 | 15.0 | 8.00 | 1.3 | 1550±25% | 63±3% |
| PC90EI14/5/5-Z | | | | | | | | 1200±25% | 100±5% |
| PC95EI18/6/10-Z | 0.507 | 20.3 | 40.0 | 811 | 40.0 | 10.0 | 4.4 | 4720±25% | 100±3% |
| PC90EI18/6/10-Z | | | | | | | | 3100±25% | 160±3% |
| PC95EI22/8/16-Z | 0.330 | 26.1 | 79.0 | 2060 | 79.0 | 18.9 | 11 | 8010±25% | 160±3% |
| PC90EI22/8/16-Z | | | | | | | | 5300±25% | 250±3% |

Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use.
Please note that the contents may change without any prior notice due to reasons such as upgrading.

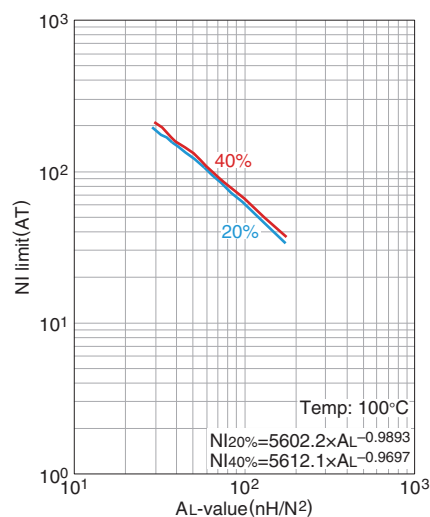
Mn-Zn Planar series Part No.: PC90E14/5/5-Z

SHAPES AND DIMENSIONS



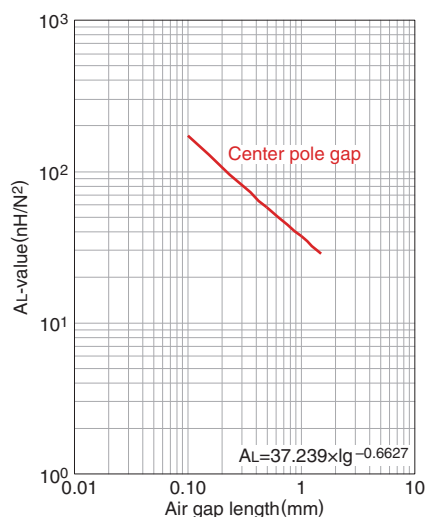
| Effective parameter | | | | | | Electrical characteristics | |
|-------------------------------|--------------------------------|--------------------------------|----------------------------|--------------------------------------|---------|--------------------------------------|-------------------------------------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weigh | AL-value * | Core loss |
| C_1 (mm^{-1}) | ℓ_e (mm) | A_e (mm^2) | V_e (mm^3) | A_{cw} (mm^2) | (g/set) | (nH/N^2) 1kHz 0.5mA | (W)max. 100kHz 200mT 100°C |
| 1.11 | 16.7 | 15.0 | 251 | 8.0 | 1.3 | 1200±25% | 0.3 |

NI limit vs. AL-value (Typ.)



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 (Typ.)

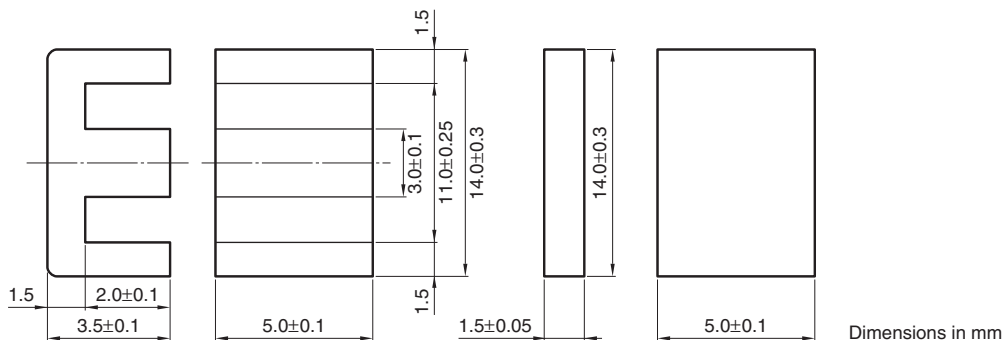


Measuring conditions

- Coil : $\phi 0.18$ 2UEW 100Ts
- Frequency : 1kHz
- Current level : 0.5mA
- Ambient temperature : 25°C

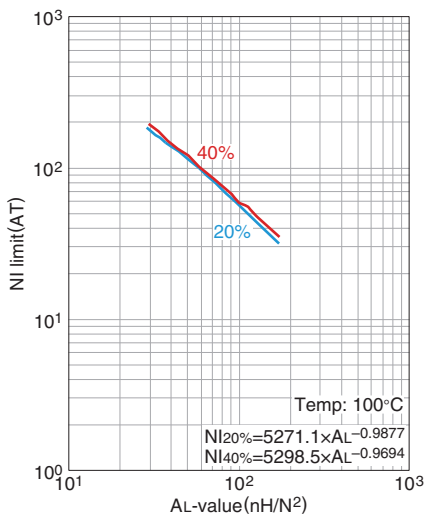
Mn-Zn Planar series Part No.: PC95E14/5/5-Z

■ SHAPES AND DIMENSIONS



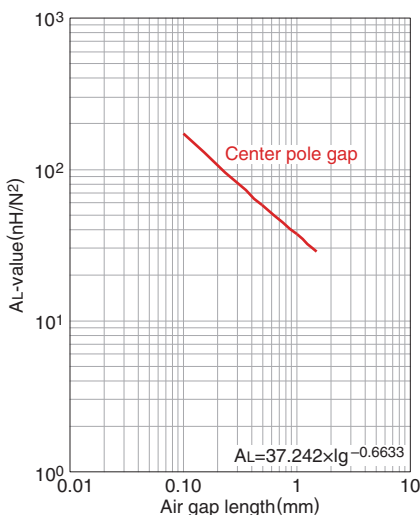
| Effective parameter | | | | | | Electrical characteristics | | | | |
|---------------------------------------|--------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|---------|---------------------------------------|----------------------------|------|------|-------|
| Core factor | Effective magnetic path length | Effective cross-sectional area | Effective core volume | Cross-sectional winding area of core | Weigh | AL-value * | Core loss | | | |
| C ₁ (mm ⁻¹) | ℓ _e (mm) | A _e (mm ²) | V _e (mm ³) | A _{cw} (mm ²) | (g/set) | (nH/N ²) 1kHz 0.5mA | (W)max. 100kHz 200mT | 25°C | 80°C | 120°C |
| 1.11 | 16.7 | 15.0 | 251 | 8.0 | 1.3 | 1550±25% | 0.3 | 0.25 | 0.3 | |

NI limit vs. AL-value (Typ.)



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 (Typ.)



Measuring conditions
 • Coil : ø0.18 2UEW 100Ts
 • Frequency : 1kHz
 • Current level : 0.5mA
 • Ambient temperature : 25°C

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