

Przegląd / Survey

P18/11-3H1-NUT

Rdzeń podstawowy / Basic core

(1) 4322 023 20371

(2) 4322 023 21511

Waga / Weight

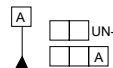
≈ 3.2 [g]

Szczelina powietrzna ; opis produktu / Air gap ; description

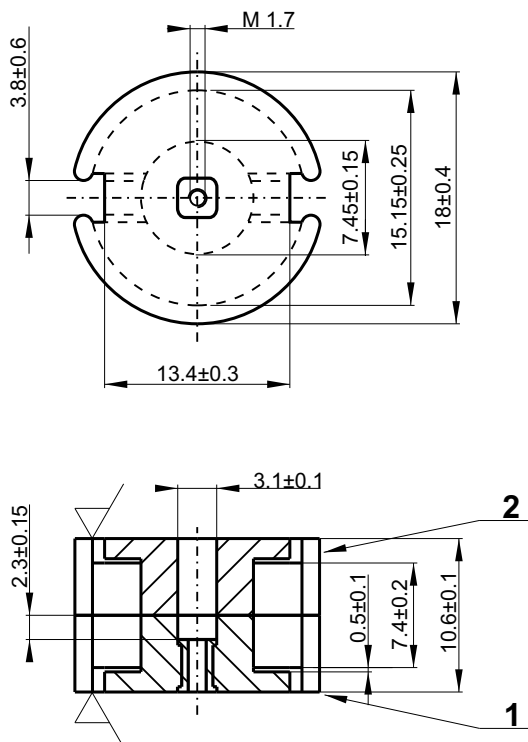
| A <sub>L</sub> (nH) zmierzone w kombinacji z połówką rdzenia <b>bez szczeliny</b> / A <sub>L</sub> (nH) measured in combination with <b>ungapped</b> core half |                                   |                                                              |                              |                                 |        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|--------------------------------------------------------------|------------------------------|---------------------------------|--------|
| Szczelina powietrzna<br>Air gap<br>"G" [μm]                                                                                                                    | Wartość AI<br>AI value<br>AI [nH] | Znakowanie na (1)<br>spodzie rdzenia<br>Marking on core-back | Numery kodów<br>Code numbers | Obecne wydanie<br>Present issue | Status |
| ---                                                                                                                                                            | 3400 ± 25 %                       | 3H1                                                          | 4322 025 34121               | 01-08-09                        | AFIP   |
| 20 (*)                                                                                                                                                         | 1000 ± 10 %                       | 3H1-A1000                                                    | 4322 022 25311               | 01-08-09                        | AFIP   |
| 40 (*)                                                                                                                                                         | 630 ± 5 %                         | 3H1-A630                                                     | 4322 022 25301               | 01-08-09                        | AFIP   |
| 80 (*)                                                                                                                                                         | 400 ± 3 %                         | 3H1-A400                                                     | 4322 022 25281               | 01-08-09                        | AFIP   |
| 120 (*)                                                                                                                                                        | 315 ± 2 %                         | 3H1-A315                                                     | 4322 022 25971               | 01-08-09                        | AFIP   |
| 120 (*)                                                                                                                                                        | 315 ± 3 %                         | 3H1-A315                                                     | 4322 022 25271               | 01-08-09                        | AFIP   |
| 170 (*)                                                                                                                                                        | 250 ± 2 %                         | 3H1-A250                                                     | 4322 022 25961               | 01-08-09                        | AFIP   |
| 170 (*)                                                                                                                                                        | 250 ± 3 %                         | 3H1-A250                                                     | 4322 022 25261               | 01-08-09                        | AFIP   |
|                                                                                                                                                                |                                   |                                                              |                              |                                 |        |
|                                                                                                                                                                |                                   |                                                              |                              |                                 |        |
|                                                                                                                                                                |                                   |                                                              |                              |                                 |        |
| A <sub>L</sub> (nH) zmierzone w kombinacji z połówką rdzenia <b>ze szczeliną</b> / A <sub>L</sub> (nH) measured in combination with <b>gapped</b> core half    |                                   |                                                              |                              |                                 |        |
| Szczelina powietrzna<br>Air gap<br>"G" [μm]                                                                                                                    | Wartość AI<br>AI value<br>AI [nH] | Znakowanie na<br>spodzie rdzenia<br>Marking on core-back     | Numery kodów<br>Code numbers | Obecne wydanie<br>Present issue | Status |
| 160 (*)                                                                                                                                                        | 160 ± 2 %                         | 3H1-E160                                                     | 4322 022 25931               | 01-08-09                        | AFIP   |
| 160 (*)                                                                                                                                                        | 160 ± 3 %                         | 3H1-E160                                                     | 4322 022 25251               | 01-08-09                        | AFIP   |
| 325 (*)                                                                                                                                                        | 100 ± 3 %                         | 3H1-E100                                                     | 4322 022 25241               | 01-08-09                        | AFIP   |
| 525 (*)                                                                                                                                                        | 63 ± 3 %                          | 3H1-E63                                                      | 4322 022 25231               | 01-08-09                        | AFIP   |
|                                                                                                                                                                |                                   |                                                              |                              |                                 |        |
|                                                                                                                                                                |                                   |                                                              |                              |                                 |        |

(\*) Wartość przybliżona / Approximate value

(1) Na połówce ze szczeliną / On gapped core half

|                                                                                                                       |  |                                                                                                                     |  |                                                                                              |  |                                                       |  |                     |  |                                                                                                                                                                                                                          |  |
|-----------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------|--|-------------------------------------------------------|--|---------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  UN-D 28<br>Ra w mikrometrach (μm) |  | Tolerances unless otherwise stated<br>Tolerancja (jeśli nie ustalono inaczej)<br>Dimensions Wymiary ±3%   Angle Kąt |  |  UN-D 603 |  | Name Nazwisko<br>Justyna Dorobczyńska                 |  | Signature Podpis    |  | Date Data                                                                                                                                                                                                                |  |
| General Roughness Chropowatość<br>Unit Jednostka mm.                                                                  |  | MATERIAL 3H1 acc. to KPN-K588<br>MATERIAL 3H1 zgodnie z: KPN-K588                                                   |  |                                                                                              |  | Check Sprawdził<br>Approval Zatwierdził<br>Other Inne |  | Robert Gosławski    |  | <b>UNCONTROLLED COPY</b><br>generated electronically, conform with original up to the date of its creation<br><b>KOPIA NIEKONTROLOWANA</b><br>wygenerowana elektronicznie, zgodna z oryginałem w dniu jego zatwierdzenia |  |
| Scale None Skala Brak<br>PROJ.EURO PROJ.EURO                                                                          |  |                                                                                                                     |  |                                                                                              |  | TYPE NUMBER / TYP                                     |  | LAB REF No.         |  |                                                                                                                                                                                                                          |  |
| Status/Status                                                                                                         |  | P18/11-3H1-NUT                                                                                                      |  |                                                                                              |  | (1) 4322 023 20371<br>(2) 4322 023 21511              |  | D<br>C<br>B<br>A    |  | 01-08-09                                                                                                                                                                                                                 |  |
| Issued by: Wydano przez: JAN WORMS / M.B.                                                                             |  | SUPERSEDES ZASTĘPUJE                                                                                                |  |                                                                                              |  | SHEETS STRONY 1                                       |  | SHEET STRONA 110-01 |  |                                                                                                                                                                                                                          |  |
| M.B.                                                                                                                  |  | Property of WŁAŚCICIEL Ferroxcube Polska Sp. z o.o. SKIERNIEWICE, POLAND                                            |  |                                                                                              |  | DATE DATA 01-08-09                                    |  |                     |  | A-4                                                                                                                                                                                                                      |  |

Znakowanie: patrz strona 110-01 / Marking: see sheet 110-01



**Magnetical dimensions according to: / Właściwości magnetyczne zgodne z: IEC 205**

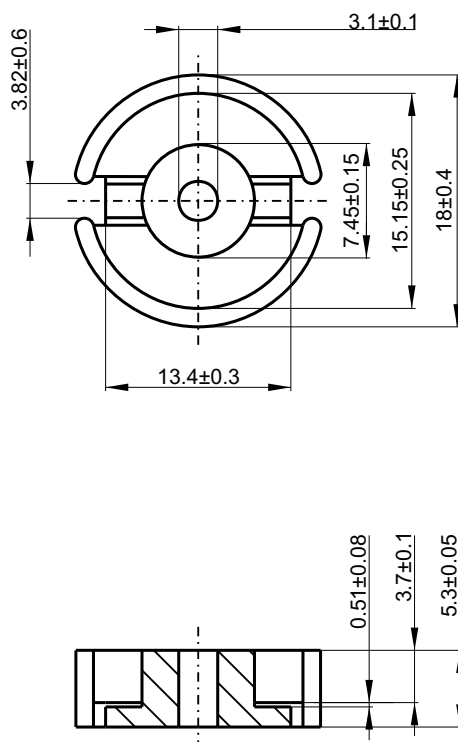
|                           |                               |                         |                                          |
|---------------------------|-------------------------------|-------------------------|------------------------------------------|
| $A_e : 43.3 \text{ mm}_L$ | $A_{min} : 36.1 \text{ mm}_L$ | $l_e : 25.8 \text{ mm}$ | $V_e : 1120 \text{ mm}^3$                |
|                           |                               |                         | Weight/Waga: $\approx 6.4 \text{ g/set}$ |

**Specified value / Wartości specyfikowane**

| Symbol<br>Symbol    | Nominal<br>Nominal | Unit<br>Jednostka          | Frequency<br>Częstotliwość<br>f [kHz] | Induction<br>Indukcja<br>B [mT] | Temperature<br>Temperatura<br>t [°C] |
|---------------------|--------------------|----------------------------|---------------------------------------|---------------------------------|--------------------------------------|
| Alfa F              | $1.0 \pm 0.5$      | $10^{-6} / ^\circ\text{C}$ | 30                                    | $< 0.1$                         | 5 - 25                               |
| Alfa F              | $1.0 \pm 0.5$      | $10^{-6} / ^\circ\text{C}$ | 30                                    | $< 0.1$                         | 25 - 55                              |
| Alfa F              | $1.0 \pm 0.5$      | $10^{-6} / ^\circ\text{C}$ | 30                                    | $< 0.1$                         | 25 - 70                              |
| DF                  | $< 4.3$            | $10^{-6}$                  | 30                                    | $< 0.1$                         | $25 \pm 1$                           |
| Eta B               | $< 1.0$            | $10^{-3} / \text{T}$       | 4                                     | 1.5 - 3.0                       | $25 \pm 5$                           |
| $\tan \delta / \mu$ | $< 2.0$            | $10^{-6}$                  | 4                                     | $< 0.1$                         | $25 \pm 5$                           |
| $\tan \delta / \mu$ | $< 6.0$            | $10^{-6}$                  | 100                                   | $< 0.1$                         | $25 \pm 5$                           |

|                                                      |  |                                                                                                                           |  |          |  |                                                       |  |                                          |  |                                                                                                                                                                                                                              |  |
|------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------|--|----------|--|-------------------------------------------------------|--|------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| UN-D 28<br>Ra w mikrometrach (μm)                    |  | Tolerances unless otherwise stated<br>Tolerancja (jeśli nie ustalono inaczej)<br>Dimensions Wymiary $\pm 3\%$   Angle Kąt |  | UN-D 603 |  | Name Nazwisko<br>Justyna Dorobczyńska                 |  | Signature Podpis                         |  | Date Data                                                                                                                                                                                                                    |  |
| General Roughness Chropowatość<br>Unit Jednostka mm. |  | MATERIAL 3H1 acc. to KPN-K588<br>MATERIAL zgodnie z:                                                                      |  |          |  | Check Sprawdził<br>Approval Zatwierdził<br>Other Inne |  | Robert Gosławski                         |  | <b>UNCONTROLLED COPY</b><br>generated electronically, conform with original up to the date of its creation<br><br><b>KOPIA NIEKONTROLOWANA</b><br>wygenerowana elektronicznie, zgodna z oryginałem w dniu jego zatwierdzenia |  |
| Scale None Skala Brak<br>PROJ.EURO PROJ.EURO         |  | TYPE NUMBER / TYP<br>LAB REF No.                                                                                          |  |          |  | P18/11-3H1-NUT                                        |  | (1) 4322 023 20371<br>(2) 4322 023 21511 |  | D<br>C<br>B<br>A<br>01-08-09                                                                                                                                                                                                 |  |
| Status/Status                                        |  | Issued by: Wydano przez: JAN WORMS / M.B. SUPERSEDES ZASTĘPUJE                                                            |  |          |  | SHEETS STRONY 1 SHEET STRONA 110-02A                  |  | DATE DATA 01-08-09                       |  | A-4                                                                                                                                                                                                                          |  |
| M.B.                                                 |  | Property of WŁAŚCICIEL Ferroxcube Polska Sp. z o.o. SKIERNIEWICE, POLAND                                                  |  |          |  | DATE DATA 01-08-09                                    |  | A-4                                      |  | A-4                                                                                                                                                                                                                          |  |

Tylko dla 4322 020 29291 / Only for 4322 020 29291



Rdzeń nie szlifowany / Core is delivered unground

Wartość  $A_l = 28550 \pm 25\%$  [nH] dla rdzenia bez szczeliny szlifowanego na wysokość  $5.3 \pm 0.05$  (patrz strona 110-02A)

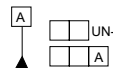
$A_l$  value =  $28550 \pm 25\%$  when ground to  $5.3 \pm 0.05$  without airgap (see sheet 110-02A)

#### Magnetical dimensions according to: / Właściwości magnetyczne zgodne z: IEC 205

|                              |                                  |                 |                              |
|------------------------------|----------------------------------|-----------------|------------------------------|
| $A_e$ : 43.3 mm <sub>L</sub> | $A_{min}$ : 36.1 mm <sub>L</sub> | $l_e$ : 25.8 mm | $V_e$ : 1120 mm <sup>3</sup> |
|                              |                                  |                 | Weight/Waga: $\approx 3.2$ g |

#### Specified value / Wartości specyfikowane

| Temperature<br>Temperatura<br>$t$ [°C] | Induction<br>Indukcja<br>$B$ [mT] | Field strength<br>Napięcie pola<br>$H$ [A/m] | Losses / Pair<br>Strata / Para<br>$P_v$ [W] | Measuring frequency<br>Częstotliwość pomiarowa<br>$f$ [kHz] |
|----------------------------------------|-----------------------------------|----------------------------------------------|---------------------------------------------|-------------------------------------------------------------|
| 100                                    | 100                               | ---                                          | □                                           | 100                                                         |
| 100                                    | 50                                | ---                                          | □                                           | 400                                                         |
| 100                                    | □ 320                             | 250                                          | ---                                         | 25                                                          |

|                                                                                                                       |  |                                                                                                                           |  |                                                                                              |  |                                                       |  |                  |  |                                                                                                                                                                                                                                                                                                                 |  |
|-----------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------|--|-------------------------------------------------------|--|------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  UN-D 28<br>Ra w mikrometrach (μm) |  | Tolerances unless otherwise stated<br>Tolerancja (jeśli nie ustalono inaczej)<br>Dimensions Wymiary $\pm 3\%$   Angle Kąt |  |  UN-D 603 |  | Name Nazwisko<br>Justyna Dorobczyńska                 |  | Signature Podpis |  | Date Data                                                                                                                                                                                                                                                                                                       |  |
| General Roughness Chropowatość<br>Unit Jednostka mm.                                                                  |  | MATERIAL 3F3 acc. to KPN-K1706<br>MATERIAL zgodnie z:                                                                     |  |                                                                                              |  | Check Sprawdził<br>Approval Zatwierdził<br>Other Inne |  | Robert Gosławski |  | <div style="border: 1px solid blue; padding: 2px;"> <b>UNCONTROLLED COPY</b><br/>         generated electronically, conform with original up to the date of its creation<br/> <b>KOPIA NIEKONTROLOWANA</b><br/>         wygenerowana elektronicznie, zgodna z oryginałem w dniu jego zatwierdzenia       </div> |  |
| Scale None Skala Brak<br>PROJ.EURO PROJ.EURO                                                                          |  | P18/11-3F3                                                                                                                |  |                                                                                              |  | TYPE NUMBER / TYP                                     |  | LAB REF No.      |  |                                                                                                                                                                                                                                                                                                                 |  |
| Status/Status                                                                                                         |  |                                                                                                                           |  |                                                                                              |  | 4322 023 29291                                        |  | D<br>C<br>B<br>A |  | 01-08-08                                                                                                                                                                                                                                                                                                        |  |
| Issued by: Wydano przez: JAN WORMS / M.B. SUPERSEDES ZASTĘPUJE                                                        |  |                                                                                                                           |  |                                                                                              |  | SHEETS STRONY 1 SHEET STRONA 110-02B                  |  |                  |  |                                                                                                                                                                                                                                                                                                                 |  |
| M.B.                                                                                                                  |  | Property of WŁAŚCICIEL Ferroxcube Polska Sp. z o.o. SKIERNIEWICE, POLAND                                                  |  |                                                                                              |  | DATE DATA 01-08-08                                    |  |                  |  | A-4                                                                                                                                                                                                                                                                                                             |  |