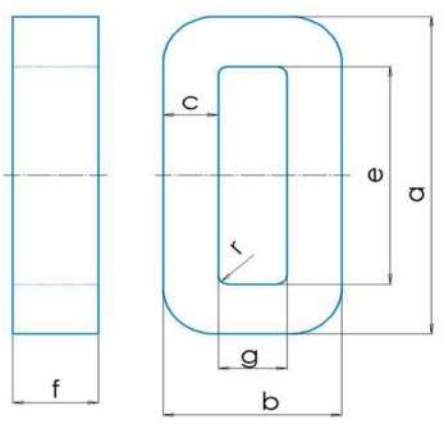


## Datenblatt / Spezifikation

### Data sheet / specification

|   |                      |                                   |            |  |                      |       |      |                      |                      |      |      |                        |                    |        |     |     |     |   |  |  |  |  |   |          |   |       |
|---|----------------------|-----------------------------------|------------|--|----------------------|-------|------|----------------------|----------------------|------|------|------------------------|--------------------|--------|-----|-----|-----|---|--|--|--|--|---|----------|---|-------|
| Sachnummer (Typ) / part number (type) :   |                      | SEM01F-C1000-LG00-51 ( AMCC 100 ) |            |  |                      |       |      |                      |                      |      |      |                        |                    |        |     |     |     |   |  |  |  |  |   |          |   |       |
| Produktbeschreibung / product description :   |                      | Schnittbandkern / c-core          |            |  |                      |       |      |                      |                      |      |      |                        |                    |        |     |     |     |   |  |  |  |  |   |          |   |       |
| Kernmaterial / core material :  |                      | Fe amorph / Fe amorphous          |            |  |                      |       |      |                      |                      |      |      |                        |                    |        |     |     |     |   |  |  |  |  |   |          |   |       |
| Eisenquerschnitt <sup>1)</sup> / iron cross section (cm <sup>2</sup> ):   |                      | 5,9                               |            |  |                      |       |      |                      |                      |      |      |                        |                    |        |     |     |     |   |  |  |  |  |   |          |   |       |
| Mittlerer Eisenweg <sup>1)</sup> / mean iron path (cm):   |                      | 25,0                              |            |  |                      |       |      |                      |                      |      |      |                        |                    |        |     |     |     |   |  |  |  |  |   |          |   |       |
| Kerngewicht <sup>1)</sup> / core mass (g):  |                      | 1055                              |            |  |                      |       |      |                      |                      |      |      |                        |                    |        |     |     |     |   |  |  |  |  |   |          |   |       |
| Nenn-Abmessungen und Toleranzen / nominal dimensions and tolerances :   |                      |                                   |            |  |                      |       |      |                      |                      |      |      |                        |                    |        |     |     |     |   |  |  |  |  |   |          |   |       |
| a   | b                    | c                                 | f          | g  | e                    | r     |      |                      |                      |      |      |                        |                    |        |     |     |     |   |  |  |  |  |   |          |   |       |
| (mm)  | (mm)                 | (mm)                              | (mm)       | (mm)   | (mm)                 | (mm)  |      |                      |                      |      |      |                        |                    |        |     |     |     |   |  |  |  |  |   |          |   |       |
| 102,0 + 3,0<br>- 3,0  | 52,0 + 1,0<br>- 1,0  | 16,0 ± 1,0                        | 45,0 ± 1,0 | 20,0 - 0,3   | 70,0 - 0,3           | ≤ 3,0 |      |                      |                      |      |      |                        |                    |        |     |     |     |   |  |  |  |  |   |          |   |       |
| <b>Materialeigenschaften (nominell) / material properties (nominal)</b><br><br>Banddicke / ribbon thickness (mm): <span style="float: right;">0,023</span><br>Sättigungsinduktion / saturation flux density (T): <span style="float: right;">1,56</span><br>Magnetostriktion / saturation magnetostriction (ppm): <span style="float: right;">27</span><br>Curietemperatur / curie temperature (°C): <span style="float: right;">399</span><br>Kristallisationstemp. / crystallization temperature (°C): <span style="float: right;">508</span><br>Dichte / density (g/cm <sup>3</sup> ): <span style="float: right;">7,18</span><br>Spez. Elektr. Widerstand / electr. resistivity (Ωmm <sup>2</sup> /m): <span style="float: right;">1,3</span><br>Therm. Ausdehnungskoeff. / therm. expansion (ppm/K): <span style="float: right;">7,6</span>  |                      |                                   |            |  <p style="text-align: center;">Skizze ohne Maßstab<br/>draft w/o scale</p> |                      |       |      |                      |                      |      |      |                        |                    |        |     |     |     |   |  |  |  |  |   |          |   |       |
| <b>Leistung (Richtwerte) / performance (guidance values) :</b><br><br>Wickeldaten:<br>Winding data: <table border="1" style="display: inline-table; margin-right: 20px;"> <tr><td style="text-align: center;">A<sub>Cu,50%</sub> [cm<sup>2</sup>]</td><td style="text-align: center;">I<sub>Cu</sub> [cm]</td></tr> <tr><td style="text-align: center;">7,0</td><td style="text-align: center;">20,2</td></tr> </table> Richtwerte:<br>guidance values: <table border="1" style="display: inline-table; margin-right: 20px;"> <tr><td style="text-align: center;">L<sup>2</sup> [VAs]</td><td style="text-align: center;">I<sub>eff</sub> [A]</td></tr> <tr><td style="text-align: center;">1,03</td><td style="text-align: center;">32,1</td></tr> </table> Gültig für:<br>Estimated for: <table border="1" style="display: inline-table; margin-right: 20px;"> <tr><td style="text-align: center;">S [A/mm<sup>2</sup>]</td><td style="text-align: center;">B<sub>0</sub> [T]</td><td style="text-align: center;">L [mH]</td></tr> <tr><td style="text-align: center;">2,5</td><td style="text-align: center;">1,0</td><td style="text-align: center;">1,0</td></tr> </table> |                      |                                   |            | A <sub>Cu,50%</sub> [cm <sup>2</sup> ]   | I <sub>Cu</sub> [cm] | 7,0   | 20,2 | L <sup>2</sup> [VAs] | I <sub>eff</sub> [A] | 1,03 | 32,1 | S [A/mm <sup>2</sup> ] | B <sub>0</sub> [T] | L [mH] | 2,5 | 1,0 | 1,0 | <b>Spezifikation / specification <sup>2)</sup></b><br><br><table border="1" style="margin: auto;"> <tr><td colspan="2" style="text-align: center;"><b>Verluste / core losses (16 kHz, 0,037 T):</b></td></tr> <tr><td style="text-align: center;">≤</td><td style="text-align: center;">2,0 W/kg</td></tr> <tr><td style="text-align: center;">≈</td><td style="text-align: center;">2,1 W</td></tr> </table> <p><sup>1)</sup> gerechnet mit Nenn-Banddicke. Produktionsbedingte Gewichtsschwankungen möglich.<br/><sup>1)</sup> calculated with the nominal strip-thickness. Process depending mass tolerances possible.</p> <p><sup>2)</sup> AQL 0,65</p> |  |  | <b>Verluste / core losses (16 kHz, 0,037 T):</b> |  | ≤ | 2,0 W/kg | ≈ | 2,1 W |
| A <sub>Cu,50%</sub> [cm <sup>2</sup> ]  | I <sub>Cu</sub> [cm] |                                   |            |  |                      |       |      |                      |                      |      |      |                        |                    |        |     |     |     |   |  |  |  |  |   |          |   |       |
| 7,0   | 20,2                 |                                   |            |  |                      |       |      |                      |                      |      |      |                        |                    |        |     |     |     |   |  |  |  |  |   |          |   |       |
| L <sup>2</sup> [VAs]  | I <sub>eff</sub> [A] |                                   |            |  |                      |       |      |                      |                      |      |      |                        |                    |        |     |     |     |   |  |  |  |  |   |          |   |       |
| 1,03  | 32,1                 |                                   |            |  |                      |       |      |                      |                      |      |      |                        |                    |        |     |     |     |   |  |  |  |  |   |          |   |       |
| S [A/mm <sup>2</sup> ]  | B <sub>0</sub> [T]   | L [mH]                            |            |  |                      |       |      |                      |                      |      |      |                        |                    |        |     |     |     |   |  |  |  |  |   |          |   |       |
| 2,5   | 1,0                  | 1,0                               |            |  |                      |       |      |                      |                      |      |      |                        |                    |        |     |     |     |   |  |  |  |  |   |          |   |       |
| <b>Verluste / core losses (16 kHz, 0,037 T):</b>  |                      |                                   |            |  |                      |       |      |                      |                      |      |      |                        |                    |        |     |     |     |   |  |  |  |  |   |          |   |       |
| ≤   | 2,0 W/kg             |                                   |            |  |                      |       |      |                      |                      |      |      |                        |                    |        |     |     |     |   |  |  |  |  |   |          |   |       |
| ≈   | 2,1 W                |                                   |            |  |                      |       |      |                      |                      |      |      |                        |                    |        |     |     |     |   |  |  |  |  |   |          |   |       |
| Das amorphe Band ist nach der Wärmebehandlung spröde. Bei der Handhabung der Kerne sind Schutzmaßnahmen (Augenschutz) gegen evtl. abplatzende Splitter unbedingt einzuhalten. Beschädigte innere und äußere Bandlagen haben keine Auswirkungen auf die magnetischen Eigenschaften.<br>The amorphous strip is fairly brittle after annealing. The handling of the cores requires stringent safety procedures (eye protection) that are caused by chipping splinters. Damaged inner and outer core layers are not possible to avoid during the manufacturing process and no quality criteria. Magnetic properties are not influenced by broken outer and inner layers.  |                      |                                   |            |  |                      |       |      |                      |                      |      |      |                        |                    |        |     |     |     |   |  |  |  |  |   |          |   |       |