NEW!

VITROPERM 550 HF
NEW NANOCRYSTALLINE CORES OFFERING VOLUME, WEIGHT & COST OPTIMIZED HF-DESIGNS

Tape wound cores made of our new VITROPERM® 550 HF offer improved attenuation at high frequencies (HF, f > 100 kHz) in comparison to our standard VITROPERM 500 F cores and typical EMI ferrites. These cores enable high RFI-noise suppression in innovative filter designs with smaller volume and/or higher performance for future applications.

TARGET APPLICATIONS
- Common mode chokes, power-, drive- and signal-transformers for SMPS (Switched Mode Power Supplies), wind/solar inverters and variable frequency drives

MATERIAL DATA OF VITROPERM 550 HF (TYPICAL VALUES)
Saturation flux density 1.21 T (room temperature)
Coercivity (static) < 2 A/m
Saturation magnetostriction ~ 1 x 10^{-7}
Specific electrical resistivity 115 μΩcm
Curie temperature > 600°C
Upper operational temperature
- plastic case: 130°C*
- core mat.: 155°C
- 180°C (lim. time)
Typical permeability |μ| ~ 20,000 - 100,000 (10 kHz)
* Plastic cases suitable for upper continuous application temperatures of 155°C are available on request.

NEW VITROPERM 550 HF CORES

<table>
<thead>
<tr>
<th>Part number</th>
<th>A₁ [μH] @ 100 kHz</th>
<th>Icm [A] @ 10 (100) kHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>L2025-V344</td>
<td>VP 500 F</td>
<td>VP 550 HF</td>
</tr>
<tr>
<td>25 x 16 x 10 mm³</td>
<td>15.5</td>
<td>24</td>
</tr>
<tr>
<td>L2040-V345</td>
<td>VP 500 F</td>
<td>VP 550 HF</td>
</tr>
<tr>
<td>40 x 25 x 15 mm³</td>
<td>23.1</td>
<td>36.1</td>
</tr>
<tr>
<td>L2102-V346</td>
<td>VP 500 F</td>
<td>VP 550 HF</td>
</tr>
<tr>
<td>102 x 76 x 25 mm³</td>
<td>23.3</td>
<td>36.1</td>
</tr>
</tbody>
</table>

NEW VITROPERM 550 HF – VITROPERM 500 F

- Cores, common mode chokes and power transformers for powertrain and battery charging (wallboxes, on-board chargers, charging piles) for electric vehicles

Common mode chokes using VITROPERM 550 HF cores offer the following features:
- Up to 60 % size/weight reduction compared to VITROPERM 500 F (VP) solutions and even more compared to ferrites
- Broadband insertion loss characteristic as known from VP 500 F

In case of transformers, significantly reduced core losses above 50 kHz can be achieved.

TYPICAL CHARACTERISTICS: VITROPERM 550 HF – VITROPERM 500 F

ADVANCED MATERIALS – THE KEY TO PROGRESS