**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 $|\mu|$: ~ 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>T60004-</th>
<th>VP 500 F</th>
<th>VP 550 HF</th>
<th>VP 500 F</th>
<th>VP 550 HF</th>
</tr>
</thead>
<tbody>
<tr>
<td>L2025-V344</td>
<td>25 x 16 x 10 mm$^3$</td>
<td>15.5</td>
<td>24</td>
<td>0.3 (0.65)</td>
<td>0.3 (0.6)</td>
</tr>
<tr>
<td>L2040-V345</td>
<td>40 x 25 x 15 mm$^3$</td>
<td>23.1</td>
<td>36.1</td>
<td>0.5 (1.0)</td>
<td>0.5 (0.9)</td>
</tr>
<tr>
<td>L2102-V346</td>
<td>102 x 76 x 25 mm$^3$</td>
<td>23.3</td>
<td>36.1</td>
<td>1.5 (3.3)</td>
<td>1.5 (2.8)</td>
</tr>
</tbody>
</table>

**TYPICAL CHARACTERISTICS: 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.

**ADVANCED MAGNETIC SOLUTIONS**