Current Transducer LTC 1000-SF

For the electronic measurement of currents: DC, AC, pulsed..., with a galvanic isolation between the primary circuit (high power) and the secondary circuit (electronic circuit).

**Electrical data**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>$I_{PN}$</td>
<td>1000 A</td>
</tr>
<tr>
<td>$I_P$</td>
<td>0 .. ±2400 A</td>
</tr>
<tr>
<td>$R_m$</td>
<td>10 / 10 kA/ms</td>
</tr>
</tbody>
</table>

$R_m$ with:
- ±15 V: 0 .. 15 Ω
- ±24 V: 0 .. 7 Ω
- ±1200 A max: 0 .. 50 Ω
- ±2000 A max: 0 .. 7 Ω

$I_{SN}$: 200 mA

**Accuracy - Dynamic performance data**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>$X_o$</td>
<td>&lt; ±0.4 %</td>
</tr>
<tr>
<td>$E_L$</td>
<td>&lt; ±1 %</td>
</tr>
<tr>
<td>$I_{OT}$</td>
<td>± 0.5 mA</td>
</tr>
<tr>
<td>$t_r$</td>
<td>&gt; 100 A/μs</td>
</tr>
<tr>
<td>$f$</td>
<td>0.1 μs</td>
</tr>
<tr>
<td>$f$</td>
<td>&gt; 100 kHz</td>
</tr>
</tbody>
</table>

**Features**
- Closed loop (compensated) current transducer using the Hall effect
- Insulated plastic case recognized according to UL 94-V0
- Transducer delivered with feet
- Railway equipment.

**Advantages**
- Excellent accuracy
- Very good linearity
- Low temperature drift
- Optimized response time
- Wide frequency bandwidth
- No insertion losses
- High immunity to external interference
- Current overload capability.

**Applications**
- AC variable speed drives and servo motor drives
- Static converters for DC motor drives
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Power supplies for welding applications.

Notes:
- With a di/dt of > 5 A/μs
- Between primary and secondary + shield
- Between secondary and shield
- Test carried out with a busbar $\Phi$ 40 mm centred in the through-hole
- With a di/dt of 100 A/μs.

**General data**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>$T_A$</td>
<td>- 40 .. +85 °C</td>
</tr>
<tr>
<td>$T_S$</td>
<td>- 45 .. +90 °C</td>
</tr>
<tr>
<td>$R_S$</td>
<td>44 Ω</td>
</tr>
<tr>
<td>$m$</td>
<td>780 g</td>
</tr>
</tbody>
</table>

Standards:
- EN50155 (01.12.20)

LEM Components  www.lem.com
Secondary terminals

- Terminal + : supply voltage + 15 .. 24 V
- Terminal M : measure
- Terminal - : supply voltage - 15 .. 24 V
- Terminal E : shield

Connection

Remarks

- $I_p$ is positive when $I_p$ flows in the direction of the arrow.
- Temperature of the primary conductor should not exceed 100°C.
- Dynamic performances (di/dt and response time) are best with a single bar completely filling the primary hole.
- This is a standard model. For different versions (supply voltages, turns ratios, unidirectional measurements...), please contact us.

LEM reserves the right to carry out modifications on its transducers, in order to improve them, without previous notice.