Declaration by manufacturer

Declaration for Solis single and three phase inverter use together with type A residual current device

Due to the circuit topology transformerless inverters emit residual currents that are the result of the isolation resistance of the generator and its capacity to ground. They fulfill this requirement in accordance with DIN VDE 0100-712 as well as IEC 60364-7-712:2002.

Based on requirement of IEC62109-2, 4.8.3.5, non-isolated inverter shall provide residual current monitoring that functions whenever the inverter is connected to the mains with the automatic disconnection means closed. The residual current monitoring means shall measure the total (both a.c. and d.c. components) RMS current.

<table>
<thead>
<tr>
<th>Residual current sudden change</th>
<th>Max time to inverter disconnection from the mains</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 mA</td>
<td>0,3 s</td>
</tr>
<tr>
<td>60 mA</td>
<td>0,15 s</td>
</tr>
<tr>
<td>150 mA</td>
<td>0,04 s</td>
</tr>
</tbody>
</table>

Due to this requirement all series of Solis inverter are protected by integrated residual current monitoring device. When inverter is working, the DC leakage current is less than 6mA.

Single phase PV inverter:
Solis-mini-(700–3600)-4G
Solis-1P(2.5–6)K-4G
Solis-1P(7-8)K-5G
Solis-1P(9-10)K-4G

Three phase PV inverter:
Solis-3P(3–20)K-4G
Solis-(25-40)K
Solis-(40-70)K
Solis-(25-50)K-5G
Solis-(80-110)K-5G

Based on above Solis inverter could be used together with type A RCD. Due to the circuit topology transformerless inverters emit residual currents that are the result of the isolation resistance of the generator and its capacity to ground. This results in the fact that Residual Current Devices with a rating of at least 100 mA must be used.

For every connected inverter, a rated residual current of 100 mA has to be provided. The RCD’s rated residual current must be equal to at least the sum of the rated residual currents of the connected inverter.

Manufacture Stamp

Date and place of issue
Ningbo
2019-12-12

Zhangkun