

## Application Note- Huawei C&I Inverters Short Current Contribution

Revision History

Version 1.2 December, 2025

<b>Application Solution</b>	Application Note- Huawei C&I Inverters Short Current Contribution																																																																													
<b>Solution Description</b>	According to IEC60909-0:2016, the definitions of $I_p$ , $I''_k$ and $I_k$ is used for calculation of short-circuits current of power generators.																																																																													
<b>Solution Diagram</b>	<table border="1"> <thead> <tr> <th data-bbox="325 600 612 674">Model</th> <th data-bbox="612 600 783 674">Pmax (kVA)</th> <th data-bbox="783 600 954 674">Vac (V)</th> <th data-bbox="954 600 1106 674"><math>I_p</math> (A)</th> <th data-bbox="1106 600 1257 674"><math>I''_k</math> (A)</th> <th data-bbox="1257 600 1445 674"><math>I_k</math> (A)</th> </tr> </thead> <tbody> <tr> <td data-bbox="325 674 612 757">SUN2000-30KTL-M3</td> <td data-bbox="612 674 783 757">33</td> <td data-bbox="783 674 954 757">400 Vac</td> <td data-bbox="954 674 1106 757">149.0</td> <td data-bbox="1106 674 1257 757">71.85</td> <td data-bbox="1257 674 1445 757">47.9</td> </tr> <tr> <td data-bbox="325 757 612 840">SUN2000-36KTL-M3</td> <td data-bbox="612 757 783 840">40</td> <td data-bbox="783 757 954 840">400 Vac</td> <td data-bbox="954 757 1106 840">180.4</td> <td data-bbox="1106 757 1257 840">87</td> <td data-bbox="1257 757 1445 840">58</td> </tr> <tr> <td data-bbox="325 840 612 922">SUN2000-40KTL-M3</td> <td data-bbox="612 840 783 922">44</td> <td data-bbox="783 840 954 922">400 Vac</td> <td data-bbox="954 840 1106 922">198.5</td> <td data-bbox="1106 840 1257 922">95.7</td> <td data-bbox="1257 840 1445 922">63.8</td> </tr> <tr> <td data-bbox="325 922 612 1005">SUN2000-50KTL-M3</td> <td data-bbox="612 922 783 1005">55</td> <td data-bbox="783 922 954 1005">400 Vac</td> <td data-bbox="954 922 1106 1005">246.9</td> <td data-bbox="1106 922 1257 1005">158.7</td> <td data-bbox="1257 922 1445 1005">79.4</td> </tr> <tr> <td data-bbox="325 1005 612 1088">SUN2000-30K-MC0</td> <td data-bbox="612 1005 783 1088">33</td> <td data-bbox="783 1005 954 1088">400 Vac</td> <td data-bbox="954 1005 1106 1088">149.0</td> <td data-bbox="1106 1005 1257 1088">71.85</td> <td data-bbox="1257 1005 1445 1088">47.9</td> </tr> <tr> <td data-bbox="325 1088 612 1171">SUN2000-40K-MC0</td> <td data-bbox="612 1088 783 1171">44</td> <td data-bbox="783 1088 954 1171">400 Vac</td> <td data-bbox="954 1088 1106 1171">198.5</td> <td data-bbox="1106 1088 1257 1171">95.7</td> <td data-bbox="1257 1088 1445 1171">63.8</td> </tr> <tr> <td data-bbox="325 1171 612 1254">SUN2000-50K-MC0</td> <td data-bbox="612 1171 783 1254">55</td> <td data-bbox="783 1171 954 1254">400 Vac</td> <td data-bbox="954 1171 1106 1254">246.9</td> <td data-bbox="1106 1171 1257 1254">158.7</td> <td data-bbox="1257 1171 1445 1254">79.4</td> </tr> <tr> <td data-bbox="325 1254 612 1337">SUN2000-100KTL-M2</td> <td data-bbox="612 1254 783 1337">110</td> <td data-bbox="783 1254 954 1337">400 Vac</td> <td data-bbox="954 1254 1106 1337">498.8</td> <td data-bbox="1106 1254 1257 1337">498.8</td> <td data-bbox="1257 1254 1445 1337">498.8</td> </tr> <tr> <td data-bbox="325 1337 612 1420">SUN2000-115KTL-M2</td> <td data-bbox="612 1337 783 1420">125</td> <td data-bbox="783 1337 954 1420">400 Vac</td> <td data-bbox="954 1337 1106 1420">566.8</td> <td data-bbox="1106 1337 1257 1420">566.8</td> <td data-bbox="1257 1337 1445 1420">566.8</td> </tr> <tr> <td data-bbox="325 1420 612 1503">SUN2000-150K-MG0</td> <td data-bbox="612 1420 783 1503">165</td> <td data-bbox="783 1420 954 1503">400 Vac</td> <td data-bbox="954 1420 1106 1503">748.3</td> <td data-bbox="1106 1420 1257 1503">360.8</td> <td data-bbox="1257 1420 1445 1503">240.5</td> </tr> <tr> <td data-bbox="325 1503 612 1608">SUN2000-150K-MG0</td> <td data-bbox="612 1503 783 1608">165</td> <td data-bbox="783 1503 954 1608">480 Vac</td> <td data-bbox="954 1503 1106 1608">623.6</td> <td data-bbox="1106 1503 1257 1608">300.7</td> <td data-bbox="1257 1503 1445 1608">200.5</td> </tr> </tbody> </table>						Model	Pmax (kVA)	Vac (V)	$I_p$ (A)	$I''_k$ (A)	$I_k$ (A)	SUN2000-30KTL-M3	33	400 Vac	149.0	71.85	47.9	SUN2000-36KTL-M3	40	400 Vac	180.4	87	58	SUN2000-40KTL-M3	44	400 Vac	198.5	95.7	63.8	SUN2000-50KTL-M3	55	400 Vac	246.9	158.7	79.4	SUN2000-30K-MC0	33	400 Vac	149.0	71.85	47.9	SUN2000-40K-MC0	44	400 Vac	198.5	95.7	63.8	SUN2000-50K-MC0	55	400 Vac	246.9	158.7	79.4	SUN2000-100KTL-M2	110	400 Vac	498.8	498.8	498.8	SUN2000-115KTL-M2	125	400 Vac	566.8	566.8	566.8	SUN2000-150K-MG0	165	400 Vac	748.3	360.8	240.5	SUN2000-150K-MG0	165	480 Vac	623.6	300.7	200.5
	Model	Pmax (kVA)	Vac (V)	$I_p$ (A)	$I''_k$ (A)	$I_k$ (A)																																																																								
	SUN2000-30KTL-M3	33	400 Vac	149.0	71.85	47.9																																																																								
	SUN2000-36KTL-M3	40	400 Vac	180.4	87	58																																																																								
	SUN2000-40KTL-M3	44	400 Vac	198.5	95.7	63.8																																																																								
	SUN2000-50KTL-M3	55	400 Vac	246.9	158.7	79.4																																																																								
	SUN2000-30K-MC0	33	400 Vac	149.0	71.85	47.9																																																																								
	SUN2000-40K-MC0	44	400 Vac	198.5	95.7	63.8																																																																								
	SUN2000-50K-MC0	55	400 Vac	246.9	158.7	79.4																																																																								
	SUN2000-100KTL-M2	110	400 Vac	498.8	498.8	498.8																																																																								
	SUN2000-115KTL-M2	125	400 Vac	566.8	566.8	566.8																																																																								
	SUN2000-150K-MG0	165	400 Vac	748.3	360.8	240.5																																																																								
	SUN2000-150K-MG0	165	480 Vac	623.6	300.7	200.5																																																																								
<b>Solution Notes</b>	<ul style="list-style-type: none"> <li>● Pmax: Max.AC Apparent Power</li> <li>● Vac: Rated Output Voltage (line voltage)</li> <li>● <math>I_p</math>: Peak short-circuit current</li> <li>● <math>I''_k</math>: Initial short circuit current,</li> <li>● <math>I_k</math>: Short circuit contribution</li> </ul> <p>Please contact our local support for more details</p>																																																																													