

VERIFICATION OF CONFORMITY

Applicant Name & Address : Samil Power Co., Ltd.
No.6, Xuefengshan Road, Suqian High-tech Industrial Development
Zone, Jiangsu Province, P.R.China

Manufacture Name & Address : Same as above

Product(s) : PV Grid-tied Inverter

Model(s) : SolarRiver 3200TL-S

Technical Specification : IP65, Class I;
SolarRiver 3200TL-S
Input 188-450Vd.c, 550Vdc max.17A;
Output 230V 50Hz, max. 13A, 3000W

Brand name : SAMILPOWER

Relevant Standard(s) : VDE-AR-N 4105: 2011-08
DIN VDE V 0124-100: 2012-07

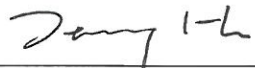
Verification Number : EFSH201601-V005

Report Number(s) : EFSH15082088-IE-05-L01

NOTE 1: This verification is part of the full test report(s) and should be read in conjunction with it.

This is the result of tests carried out on those samples of the product referred to above which were submitted for testing, in accordance with the specification for the respective standards. The sample(s) of the tested product has been found to comply with the relevant standard listed on this verification at the time the tests were carried out.

The manufacturer shall file and keep the documentation according to the rules of the applicable standard(s) and shall consider changes of the standard(s) if relevant. Additional requirements may be applicable such as additional standard(s) or local laws.



Jerry Hu
Manager
2016-01-20

F.3 Requirements for the test report for power generation units			
Extract from test report for unit certificate "Determination of electrical properties"			No. EFSH15082088-IE-05-L01
Type of system:	Integrated NS protection	Manufacturer's data	Samil Power Co., Ltd No.6, Xuefengshan Road, Suqian High-tech Industrial Development Zone, Jiangsu Province, P.R.China
System manufacturer:	SolarRiver 3200TL-S	Type of system: ((CHP, PV-WT, ...))	PV Grid-tied Inverter
		Active power (nominal power at reference conditions:)	3,0 kW max
		Rated voltage:	230 V
Measuring period:	from 2015-12-10 to 2016-01-04		
Active power:	$P_{E_{max}}$ 3,0 kW		
Switch actions			
Making operation without default (of primary energy carrier)	k_i	0,107	
Worst case at switch over of generator sections	k_i	0,082	
Making operation at reference conditions (of primary energy carrier)	k_i	0,100	
Breaking operation at nominal power	k_i	0,985	
Worst-case value of all switching operations	k_{imax}	0,985	
Flicker	Angle of network impedance ψ_k : 32° Coefficient of system flicker c_{ψ} : 3,36		

F.4 Requirements for the test report for the NS protection																															
Extract from test report for NS protection "Determination of electrical properties"		No. EFSH15082088-IE-05-L01																													
<input checked="" type="checkbox"/> NS protection as integrated NS protection																															
Type of NS protection:	Integrated NS protection	Other manufacturer's data																													
Software version:	Master DSP A:1.00 Slave DSP B:1.00	assigned to PGU type	SolarRiver 3200TL-S																												
Manufacturer:	Samil Power Co., Ltd No.6, Xuefengshan Road, Suqian High-tech Industrial Development Zone, Jiangsu Province, P.R.China	Integrated interface switch Type of Switching equipment 1	210H-2AH-F-C																												
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Measuring period:	from 2015-12-10 to 2016-01-04																														
<table border="1"> <thead> <tr> <th>Protection function</th> <th>Setting value</th> <th>Tripping value</th> <th>Break time</th> </tr> </thead> <tbody> <tr> <td>Voltage drop protection $U <$</td> <td>$0,8 * U_n$</td> <td>$* U_n$</td> <td>72,5 ms</td> </tr> <tr> <td>Rise-in-voltage protection $U >$</td> <td>$1,1 * U_n$</td> <td>$* U_n$</td> <td>300 s</td> </tr> <tr> <td>Rise-in-voltage protection $U >>$</td> <td>$1,15 * U_n$</td> <td>$* U_n$</td> <td>73,0 ms</td> </tr> <tr> <td>Frequency decrease protection $f <$</td> <td>47,5 Hz</td> <td>Hz</td> <td>78,0 ms</td> </tr> <tr> <td>Frequency decrease protection $f >$</td> <td>51,5 Hz</td> <td>Hz</td> <td>79,0 ms</td> </tr> <tr> <td>Proper time of interface switch</td> <td colspan="2">10 ms</td> <td></td> </tr> </tbody> </table>				Protection function	Setting value	Tripping value	Break time	Voltage drop protection $U <$	$0,8 * U_n$	$* U_n$	72,5 ms	Rise-in-voltage protection $U >$	$1,1 * U_n$	$* U_n$	300 s	Rise-in-voltage protection $U >>$	$1,15 * U_n$	$* U_n$	73,0 ms	Frequency decrease protection $f <$	47,5 Hz	Hz	78,0 ms	Frequency decrease protection $f >$	51,5 Hz	Hz	79,0 ms	Proper time of interface switch	10 ms		
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The break time (sum of tripping time NS protection plus proper time of interface switch) shall not exceed 200 ms. The verification of the full functional chain „NS protection – Interface switch“ has yield to intended disconnection.																															