

TF 3.2.1 - Appendix 2
Test report (Ref. EN50438-Annex D)

Test results sheet

Micro generator details

MICRO GENERATOR Type reference: SolarRiver 1100TL/SolarRiver 1600TL		
Maximum continuous rating ¹⁾ 1000W/1500W		
Manufacturer: Samilpower 山亿新能源股份有限公司 SAMIL POWER CO., LTD 	Tel.+86 510 83593132 Fax +86 510 83593136	Address: No.66 Taihangshan Road, Suyu Economic Development Zone, Suqian City, Jiangsu Province, P.R. China
Technical file reference no.		

Test house details

Name and address of test house	SAMIL POWER CO., LTD., No.66 Taihangshan Road, Suyu Economic Development Zone, Suqian City, Jiangsu Province, P.R. China
Telephone number	+86 510 83593132
Fax number	+86 510 83593136
Email address	zhengxiaodong@samilpower.com

Test details

Date of test	10/10/2012
Name of test engineer	Zheng Xiaodong
Signature of test engineer	Zheng Xiaodong
Test location (if different from above)	

¹⁾ The full load electrical output of the unit less the appliance's own consumption.

Power quality

Harmonic current emission								
	Maximum permissible harmonic current in accordance with EN 61000-3-2 Class A [A]							
Harmonic	2nd	3rd	5th	7th	9th	11th	13th	15th ≤ n ≤ 39th
Limit	1.08	2.3	1.14	0.77	0.4	0.33	0.21	0.15 ^{a)} (15/n)
Test value	0.016	0.089	0.053	0.038	0.030	0.035	0.022	0.025
a) 50 % or some other declared value close to the mid point between minimum and maximum.								

Note: Not applicable to electricity-generation plants without inverters

Voltage fluctuations and flicker				
	Maximum permissible voltage fluctuation (expressed as a percentage of nominal voltage at 100% power) and flicker in accordance with EN 61000-3-3			
	Starting	Stopping	Running	
Limit	3.3 %	3.3 %	Pst = 1.0	Plt = 0.65
Test value	0.44 %	1.31 %	0.164	0.085

Power factor			
Protection limit	0.95 leading and 0.95 lagging at three voltage levels		
	210 V	230 V	250 V
Test value	0.997	0.997	0.995

股份有限公司
ERCO
12/14

Under-/Overfrequency tests

Parameter	Underfrequency		Overfrequency	
	Frequency	Time	Frequency	Time
Protection limit (TF 3.2.1 Table 1 or EN 50438 Annex A)	47.5 Hz	0.2 s	52 Hz	0.2 s
Actual setting (as applied to interface protection)	47.51 Hz	0.18 s	51.99 Hz	0.18 s
Trip value (test result)	47.5 Hz	0.185 s	52 Hz	0.188 s

Under-/Overvoltage tests (single-stage protection)

Parameter	Undervoltage		Overvoltage	
	Voltage	Time	Voltage	Time
Protection limit (TF 3.2.1 Table 1 or EN 50438 Annex A)	207 V	10 s	253 V	40 s
Actual setting (as applied to interface protection)	208 V	9.9 s	252 V	39.9 s
Trip value (test result)	208.5 V	9.95 s	252.5 V	39.96 s

公司
LTD.

LoM test

Parameter	Neg. gradient		Pos. gradient	
	Min.	Time	Max	Time
Protection limit (TF 3.2.1 Table 1 or EN 50438 Annex A)	-2.5 Hz/s	0.2 s	+2.5 Hz/s	0.2 s
Actual setting (as applied to interface protection)	<u>50.45</u>	<u>0.18</u>	<u>49.45</u>	<u>0.18</u>
Trip value (test result)	<u>50.45</u>	<u>0.192</u>	<u>49.45</u>	<u>0.190</u>

Fault level contribution

Short-circuit current at microgenerator terminals
Short-circuit applied to microgenerator at normal operating conditions 0 - 2.0 s plot

Note: Not applicable to electricity-generation plants with inverters

Microgenerator short-circuit parameters 2)

Parameter	Symbol	Value 1	Value 2	Value 3	Value 4	Value 5
Peak short-circuit current	i_p					
Initial value of aperiodic component	A					
Initial symmetrical short-circuit current	I_k					
Decaying (aperiodic) component of short-circuit current	i_{DC}					
Reactance/Resistance ratio of source	X/R					

Note: Not applicable to electricity-generation plants with inverters

Comments

--

²⁾ According to EN 60034 series.

TR 3.2.1 - Appendix 1 Supplier statement

The undersigned hereby declares that the *plant type(s)*:

- SolarRiver 1100TL;
- SolarRiver 1600TL

comply with TR 3.2.1 version 2.1 for electricity-generating plants with a rated current of 16 A per phase or less.

This supplier statement must be supplemented with the following appendices:

- Supplier-specific documentation for rated current per phase
- CE Statement of conformity
- TR 3.2.1 Appendix 2: Test report

2012-10-11

Date

Samil power Co., Ltd

Company

山亿新能源股份有限公司
SAMIL POWER CO., LTD.

Signature of supplier

