



## APPENDIX 2 Type Test Certification Test Result Sheet

### Grid-tied Inverter Details:

Manufacturer	Samil Power Co., Ltd.
Address	No.6 Xuefengshan Road, Suqian High-tech Industrial Development Zone, Jiangsu Province, P. R. China
Postal code	223800
Country	P. R. China
Phone	+86-510-83593132

Test house Details	Samil Power Co., Ltd.
Date of test	2013/12/25
Signature	

山亿新能源股份有限公司  
SAMIL POWER CO., LTD.

Type reference	Max AC power	Nominal AC power
SolarRiver 2300TL	2200 W	2000 W
SolarRiver 3000TL	2800 W	2600 W



## Test Results:

### Power Quality

Harmonic current emissions as per EN 61000-3-2 Class A									
Harmonic		2nd	3rd	5th	7th	9th	11th	13th	15th ... 39th
EN 61000-3-2 Limit [A]		1.08	2.30	1.14	0.77	0.40	0.33	0.21	0.15 x (15/n)
Test Values [A] (at rated power)	SolarRiver 2300TL	0.04	0.08	0.07	0.05	0.06	0.05	0.05	0.04
	SolarRiver 3000TL	0.05	0.13	0.12	0.11	0.12	0.15	0.11	0.13

Voltage fluctuations and flicker as per EN 61000-3-3				
	Starting	Stopping	Running (at rated power)	
EN 61000-3-3 Limit	4%	4%	$P_{st} = 1.0$	$P_{lt} = 0.65$
Test Value	0.44%	0.44%	0.164	0.085

Power Factor			
Protection Limit	0.95 lag – 0.95 lead at three voltage levels		
Test level (AC voltage)	210 V	230 V	250 V
Test value (at rated power)	0.991	0.998	0.998

### Grid Monitoring

Under / Over Voltage Test				
	Under Voltage		Over Voltage	
Parameter	Voltage	Time	Voltage	Time
Protection limit	207 V	0.5 s	253 V	0.5 s
Actual setting	209 V	---	251 V	---
Trip value	208.8 V	0.078 s	251.9 V	0.071 s



Under / Over Frequency Test				
	Under Frequency		Over Frequency	
Parameter	Frequency	Time	Frequency	Time
Protection limit	47 Hz	0.5 s	51 Hz	0.5 s
Actual setting	47 Hz	---	50.5 Hz	---
Trip value	47.01 Hz	0.068 s	50.5 Hz	0.053 s

LoM Test			
Method used	Frequency Shift		
Output Power %	10%	50%	100%
Trip Setting	---	---	---
Trip Value	0.25 s	0.26 s	0.22 s

### Fault Level Contribution

Fault Level Contribution	
Device	Max Short Circuit Current
SolarRiver 2300TL	17 A
SolarRiver 3000TL	24 A

### Comments

These tests have been carried out with specifications and parameters set to meet the requirements of CER/01/190. It is hereby declared by the manufacturer that all units shipped to Ireland will have identical parameter settings and that these parameters cannot be changed by a user, installer or by any person other than the manufacturer.