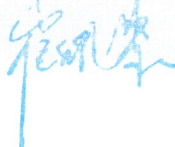




## APPENDIX 2 Type Test Certification Test Result Sheet

### 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 2014/12/09  
Signature 

| Type reference       | Max AC power | Nominal AC power |
|----------------------|--------------|------------------|
| SolarLake 5500TL-PM  | 5500 W       | 5500 W           |
| SolarLake 7000TL-PM  | 7000 W       | 7000 W           |
| SolarLake 8500TL-PM  | 8500 W       | 8500 W           |
| SolarLake 10000TL-PM | 10000 W      | 10000 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]<br>(at rated power)                    | L1 | 0,001 | 0,003 | 0,009 | 0,016 | 0,001 | 0,004 | 0,002 | 0,001         |
|  | L2 | 0,001 | 0,004 | 0,007 | 0,016 | 0,001 | 0,004 | 0,002 | 0,001         |
|  | L3 | 0,001 | 0,003 | 0,011 | 0,016 | 0,001 | 0,004 | 0,001 | 0,001         |

| Voltage fluctuations and flicker as per EN 61000-3-3 |          |          |                          |                 |
|--|----------|----------|--------------------------|-----------------|
|  | Starting | Stopping | Running (at rated power) |                 |
| EN 61000-3-3 Limit                                   | 4%       | 4%       | $P_{st} = 1.0$           | $P_{it} = 0.65$ |
| Test Value   | 0.1%     | 0.1%     | 0.064                    | 0.064           |

| 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) | 0.999  | 0.999 | 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                | L1 | 208.0 V       | 0.44 s | 252.0 V      | 0.42 s |
|                           | L2 | 208.4 V       | 0.42 s | 252.5 V      | 0.35 s |
|                           | L3 | 208.5 V       | 0.39 s | 252.3 V      | 0.49 s |

| Under / Over Frequency Test |  |                 |        |                |        |
|-----------------------------|--|-----------------|--------|----------------|--------|
|                             |  | Under Frequency |        | Over Frequency |        |
| Parameter                   |  | Frequency       | Time   | Frequency      | Time   |
| Protection limit            |  | 48 Hz           | 0.5 s  | 50.5 Hz        | 0.5 s  |
| Actual setting              |  | 48 Hz           | ---    | 50.5 Hz        | ---    |
| Trip value                  |  | 48 Hz           | 0.46 s | 50.5 Hz        | 0.45 s |

| LoM Test       |                 |        |        |
|----------------|-----------------|--------|--------|
| Method used    | Frequency Shift |        |        |
| Output Power % | 10%             | 50%    | 100%   |
| Trip Setting   | ---             | ---    | ---    |
| Trip Value     | 0,38 s          | 0,32 s | 0,33 s |



### Fault Level Contribution

| Fault Level Contribution |                           |
|--------------------------|---------------------------|
| Device                   | Max Short Circuit Current |
| SolarLake 5500TL-PM      | 16 A                      |
| SolarLake 7000TL-PM      | 20 A                      |
| SolarLake 8500TL-PM      | 25 A                      |
| SolarLake 10000TL-PM     | 30 A                      |

### Comments

These tests have been carried out with specifications and parameters set to meet the requirements of CER/06/190. 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.