Samil Power Co., Ltd

SR1100TL Harmonic Testing report

Model of Inverters：<u>Solar River 1100TL</u>

Prepared by Date：<u>Shi HaiQin</u>

Checked by/ Date: <u>Zheng XiaoDong</u>

Approved by/Date：<u>Qiu Wei</u>

Harmonic current

Grid voltage Urms	230.504Vac
Output Current Irms	4.4048A
Output active power	1.0102KW
Power Factor PF	0.99499
Grid voltage THD	0.04%
Output current THD	2.062%

Harmonic order	Harmonic order current(A)	Hdf(%)
2	0.0321	0.729
3	0.0467	1.062
4	0.0120	0.273
5	0.0304	0.692
6	0.0075	0.171
7	0.0187	0.426
8	0.0057	0.129
9	0.0182	0.414
10	0.0047	0.106
11	0.0204	0.464
12	0.0050	0.115
13	0.0145	0.329
14	0.0070	0.160
15	0.0152	0.345
16	0.0062	0.141
17	0.0191	0.433
18	0.0035	0.079
19	0.0220	0.501
20	0.0071	0.161
21	0.0154	0.351
22	0.0048	0.108
23	0.0120	0.272
24	0.0008	0.019
25	0.0172	0.391
26	0.0017	0.038
27	0.0132	0.301
28	0.0032	0.072
29	0.0096	0.218
30	0.0044	0.100
31	0.0047	0.108
32	0.0008	0.017
33	0.0073	0.166
34	0.0031	0.070
35	0.0036	0.081
36	0.0024	0.054
37	0.0055	0.126
38	0.0017	0.038
39	0.0036	0.083
40	0.0007	0.015
41	0.003	0.001

42	0.006	0.003
43	0.005	0.002
44	0.010	0.004
45	0.005	0.002
46	0.006	0.003
47	0.007	0.003
48	0.007	0.003
49	0.009	0.004
50	0.012	0.005

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Normal Mode          Uover:■ ■ ■ ■      PLL Source:    U1    YOKOGAWA ◆
                     Iover:■ ■ ■ ■      Integ:Reset
change items
PLL        U1     Or.  I1 [A]  hdf[%]  Or.  I1 [A]  hdf[%]   Element1
Freq     50.001 Hz      4.4048         dc  -0.0050  -0.113   U1   600Vrms
                   1   4.3994  99.979   2   0.0321   0.729   I1    30Arms
Urms1   230.504 V   3   0.0467   1.062   4   0.0120   0.273
Irms1     4.4048 A   5   0.0304   0.692   6   0.0075   0.171   Element2
P1       1.0102kW   7   0.0187   0.426   8   0.0057   0.129   U2   600Vrms
S1       1.0153kVA  9   0.0182   0.414  10   0.0047   0.106   I2    30Arms
Q1       0.1015kvar 11  0.0204   0.464  12   0.0050   0.115
λ1       0.99499    13  0.0145   0.329  14   0.0070   0.160   Element3
φ1    G   5.736 °   15  0.0152   0.345  16   0.0062   0.141   U3   600Vrms
Uthd1     0.040 %   17  0.0191   0.433  18   0.0035   0.079   I3    30Arms
Ithd1     2.062 %   19  0.0220   0.501  20   0.0071   0.161
Pthd1     0.000 %   21  0.0154   0.351  22   0.0048   0.108   Element4
Uthf1     0.028 %   23  0.0120   0.272  24   0.0008   0.019   U4  1000Vrms
Ithf1     1.621 %   25  0.0172   0.391  26   0.0017   0.038   I4    20Arms
Utif1     1.284     27  0.0132   0.301  28   0.0032   0.072
Itif1    63.011     29  0.0096   0.218  30   0.0044   0.100   Integ:Reset
                    31  0.0047   0.108  32   0.0008   0.017   Time
                    33  0.0073   0.166  34   0.0031   0.070   -----:--:--
                    35  0.0036   0.081  36   0.0024   0.054   Timer
                    37  0.0055   0.126  38   0.0017   0.038      0:01:00
                    39  0.0036   0.083  40   0.0007   0.015

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change items

PLL	U1	Or.	U1 [V]	hdf[%]	Or.	U1 [V]	hdf[%]
Freq	50.001 Hz		230.504		dc	0.021	0.009
		41	0.003	0.001	42	0.006	0.003
Urms1	230.504 V	43	0.005	0.002	44	0.010	0.004
Irms1	4.4048 A	45	0.005	0.002	46	0.006	0.003
P1	1.0102kW	47	0.007	0.003	48	0.007	0.003
S1	1.0153kVA	49	0.009	0.004	50	0.012	0.005
Q1	0.1015kvar	51	----------	---------	52	----------	---------
λ1	0.99499	53	----------	---------	54	----------	---------
φ1 G	5.736 °	55	----------	---------	56	----------	---------
Uthd1	0.040 %	57	----------	---------	58	----------	---------
Ithd1	2.062 %	59	----------	---------	60	----------	---------
Pthd1	0.000 %	61	----------	---------	62	----------	---------
Uthf1	0.028 %	63	----------	---------	64	----------	---------
Ithf1	1.621 %	65	----------	---------	66	----------	---------
Utif1	1.284	67	----------	---------	68	----------	---------
Itif1	63.011	69	----------	---------	70	----------	---------
		71	----------	---------	72	----------	---------
		73	----------	---------	74	----------	---------
		75	----------	---------	76	----------	---------
		77	----------	---------	78	----------	---------
		79	----------	---------	80	----------	---------

Element1
U1   600Vrms
I1   30Arms

Element2
U2   600Vrms
I2   30Arms

Element3
U3   600Vrms
I3   30Arms

Element4
U4 1000Vrms
I4   20Arms

Integ:Reset
Time
-----:--:--
Timer
    0:01:00

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