

# TEST REPORT

Applicant: Ablerex Electronics Co., Ltd.  
1F, No. 3, Lane 7, Paokao Rd., Hsintien 23144, Taipei Hsien,  
Taiwan R.O.C.

Product: PV Inverter

Brand name: Ablerex

Model: ES6000

Rating: Input: Nominal 740 Vdc, MPPT 370-850 Vdc, Max. 2 x 8.5 A  
Output: 220 Vac, 60 Hz, 6000 W, 3 x 8.69 A

Sample Description: Power inverter for PV

Testing Specification: IEEE 519, Rev. June. 5. 2004

Date of Test: September 02, 2011 –September 08, 2011

Sample of Receipt the Test Item: September 01, 2011

Conclusion: From the results of our testing on the submitted sample(s), we are of the opinion that the submitted sample(s) **COMPLY WITH** the above testing specification.

Tested by:



Lawrence Lin  
Project Engineer

Reviewed by:



Tin Lin  
Supervisor

### Harmonics test for Inverters

#### Results:

Load		6K		Voltage Phase		U		DC input		740    Vdc	
								AC output		220    Vac	
Harm. order h		2	3	4	5	6	7	8	9	10	
Current (%)		0.295	0.091	0.146	1.509	0.155	2.601	0.141	0.058	0.101	
Limit (%)		1.000	4.000	1.000	4.000	1.000	4.000	1.000	4.000	1.000	
Harm. order h	11	12	13	14	15	16	17	18	19	20	
Current (%)	1.178	0.050	0.834	0.088	0.029	0.065	0.472	0.031	0.365	0.057	
Limit (%)	2.000	0.500	2.000	0.500	2.000	0.500	1.500	0.375	1.500	0.375	
Harm. order h	21	22	23	24	25	26	27	28	29	30	
Current (%)	0.008	0.038	0.246	0.021	0.197	0.037	0.006	0.016	0.150	0.008	
Limit (%)	1.500	0.375	0.600	0.150	0.600	0.150	0.600	0.150	0.600	0.150	
Harm. order h	31	32	33	34	35	36	37	38	39	40	
Current (%)	0.133	0.024	0.003	0.010	0.112	0.007	0.106	0.016	0.030	0.008	
Limit (%)	0.600	0.150	0.600	0.150	0.300	0.075	0.300	0.075	0.300	0.075	
TRD (%)	3.442										
Limit (%)	5										

## Results

Load		6K		Voltage Phase		V		DC input		740    Vdc	
								AC output		220    Vac	
Harm. order h		2	3	4	5	6	7	8	9	10	
Current (%)		0.689	0.109	0.146	1.475	0.302	2.544	0.176	0.051	0.119	
Limit (%)		1.000	4.000	1.000	4.000	1.000	4.000	1.000	4.000	1.000	
Harm. order h	11	12	13	14	15	16	17	18	19	20	
Current (%)	1.217	0.150	0.801	0.092	0.026	0.062	0.481	0.085	0.359	0.048	
Limit (%)	2.000	0.500	2.000	0.500	2.000	0.500	1.500	0.375	1.500	0.375	
Harm. order h	21	22	23	24	25	26	27	28	29	30	
Current (%)	0.030	0.041	0.244	0.061	0.201	0.022	0.016	0.024	0.152	0.033	
Limit (%)	1.500	0.375	0.600	0.150	0.600	0.150	0.600	0.150	0.600	0.150	
Harm. order h	31	32	33	34	35	36	37	38	39	40	
Current (%)	0.131	0.019	0.005	0.024	0.118	0.027	0.101	0.006	0.018	0.017	
Limit (%)	0.600	0.150	0.600	0.150	0.300	0.075	0.300	0.075	0.300	0.075	
TRD (%)	3.464										
Limit (%)	5										

## Results

Load		6K		Voltage Phase		W		DC input		740 Vdc	
								AC output		220 Vac	
Harm. order h		2	3	4	5	6	7	8	9	10	
Current (%)		0.644	0.140	0.066	1.485	0.172	2.549	0.153	0.074	0.114	
Limit (%)		1.000	4.000	1.000	4.000	1.000	4.000	1.000	4.000	1.000	
Harm. order h	11	12	13	14	15	16	17	18	19	20	
Current (%)	1.200	0.102	0.815	0.067	0.043	0.069	0.470	0.057	0.359	0.035	
Limit (%)	2.000	0.500	2.000	0.500	2.000	0.500	1.500	0.375	1.500	0.375	
Harm. order h	21	22	23	24	25	26	27	28	29	30	
Current (%)	0.036	0.044	0.228	0.040	0.197	0.017	0.021	0.032	0.152	0.026	
Limit (%)	1.500	0.375	0.600	0.150	0.600	0.150	0.600	0.150	0.600	0.150	
Harm. order h	31	32	33	34	35	36	37	38	39	40	
Current (%)	0.132	0.012	0.019	0.029	0.116	0.025	0.104	0.005	0.018	0.018	
Limit (%)	0.600	0.150	0.600	0.150	0.300	0.075	0.300	0.075	0.300	0.075	
TRD (%)	3.443										
Limit (%)	5										