

**FLASH TEST RESULTS**

Name	Voc (V)	Isc (A)	Pm (W)	Vm (V)	Im (A)	FF (%)	$\eta$ (%)
1 10101180039	37.694	8.357	226.62	29.133	7.779	71.94	13.93
1 10101180157	38.024	8.094	223.7	29.46	7.593	72.68	13.75
1 10101180168	37.795	8.515	230.42	28.911	7.97	71.6	14.16
1 10101180139	38.012	8.285	225.09	29.499	7.63	71.48	13.84
1 10101180146	38.043	8.283	228.31	29.531	7.731	72.46	14.03
1 10101180065	37.412	8.149	220.04	28.826	7.633	72.18	13.53
1 10101180059	37.654	8.339	225.99	28.974	7.8	71.97	13.89
1 10101180179	37.898	8.274	225.26	29.327	7.681	71.84	13.85
1 10101180041	37.647	8.405	226.86	29.06	7.807	71.7	13.94
1 10101180121	37.771	8.556	231.83	28.941	8.01	71.74	14.25
1 10101180063	37.57	8.147	220.12	28.693	7.672	71.92	13.53
1 10101180150	38.161	8.42	230.9	29.467	7.836	71.86	14.19
1 10101180038	37.861	8.361	229.13	29.164	7.856	72.38	14.08
1 10101180162	38.053	8.407	231.74	29.483	7.86	72.44	14.24
1 10101180087	37.835	8.497	233.17	29.199	7.986	72.53	14.33
1 10101180091	37.946	8.41	230.59	29.213	7.893	72.26	14.17
1 10101180147	38.142	8.242	227.59	29.561	7.699	72.4	13.99
1 10101180175	38.068	8.123	220.38	29.205	7.546	71.27	13.55
1 10101180145	38.336	8.253	226.97	29.548	7.681	71.74	13.95
1 10101180134	38.046	8.527	220.63	28.351	7.782	68.01	13.56
1 10101180171	38.136	8.268	224.35	29.543	7.594	71.15	13.79
1 10101180163	38.176	8.244	226.38	29.441	7.689	71.93	13.91
1 10101180143	38.258	8.402	220.6	28.971	7.614	68.63	13.56
1 10101180113	37.98	8.439	230.28	29.21	7.884	71.85	14.15
1 10101180089	37.977	8.449	231.9	29.279	7.92	72.27	14.25
1 10101180084	37.893	8.438	231.83	29.306	7.911	72.51	14.25
1 10101180103	37.835	8.351	230.1	29.262	7.863	72.82	14.14
1 10101180067	37.931	8.349	230.55	29.262	7.879	72.8	14.17
1 10101180082	37.872	8.351	229.62	29.296	7.838	72.61	14.11
1 10101180166	37.948	8.013	221.55	29.491	7.513	72.86	13.62
1 10101180096	37.86	8.413	230.23	29.269	7.866	72.28	14.15
1 10101180180	38.022	8.167	220.75	29.418	7.504	71.09	13.57
1 10101180090	38.29	8.287	232.53	29.485	7.886	73.28	14.29
1 10101180080	37.946	8.21	227.79	29.428	7.741	73.12	14
1 10101180117	37.695	8.347	227.38	29.031	7.832	72.27	13.98
1 10101180124	37.994	8.298	228.25	29.258	7.801	72.39	14.03
1 10101180070	37.91	8.33	229.68	29.368	7.821	72.73	14.12

1	10101180116	37.917	8.275	227.37	29.213	7.783	72.46	13.98
1	10101180094	37.991	8.323	227.62	29.139	7.812	71.99	13.99
1	10101180105	38.02	8.311	228.06	29.35	7.77	72.17	14.02
1	10101180068	37.94	8.34	229.7	29.495	7.788	72.59	14.12
1	10101180119	37.832	8.254	227.56	29.19	7.796	72.88	13.99
1	10101180071	38.027	8.242	228.24	29.23	7.808	72.83	14.03
1	10101180109	37.98	8.252	228.34	29.423	7.761	72.85	14.04
1	10101180095	38.256	8.145	231.25	29.622	7.807	74.21	14.21
1	10101180052	37.707	8.124	217.38	28.857	7.533	70.96	13.36
1	10101180054	37.523	8.079	211.73	28.137	7.525	69.84	13.01
1	10101180061	37.52	8.099	219.59	29.071	7.553	72.26	13.5
1	10101180152	38.187	8.179	225.89	29.639	7.621	72.33	13.88
1	10101180158	38.009	7.936	218.11	29.378	7.424	72.31	13.41
1	10101180102	37.889	8.276	229.7	29.457	7.798	73.26	14.12
1	10101180123	37.856	8.331	228.75	29.279	7.813	72.53	14.06
1	10101180045	37.667	8.172	221.45	29.341	7.548	71.94	13.61
1	10101180057	37.67	8.143	220.95	29.16	7.577	72.03	13.58
1	10101180040	37.672	8.157	221.55	29.126	7.606	72.09	13.62
1	10101180131	38.08	8.052	221.3	29.372	7.534	72.18	13.6
1	10101180097	37.858	8.341	229.03	29.296	7.818	72.53	14.08
1	10101180048	37.654	8.2	217.49	29.04	7.489	70.44	13.37
1	10101180140	38.152	8.156	224	29.666	7.551	71.98	13.77
1	10101180073	38.008	8.31	229.91	29.4	7.82	72.79	14.13
1	10101180144	38.015	8.178	224.02	29.592	7.57	72.05	13.77
1	10101180169	38.07	7.916	218.24	29.541	7.388	72.42	13.41
1	10101180159	38.05	8.006	219.56	29.397	7.469	72.07	13.5
1	10101180128	38.048	7.959	215.62	28.725	7.506	71.21	13.25
1	10101180151	38.227	8.204	225.19	29.691	7.584	71.8	13.84
1	10101180167	38.157	8.086	225.4	29.811	7.561	73.06	13.85
1	10101180176	37.956	7.984	219.2	29.459	7.441	72.33	13.47
1	10101180164	38.053	8.056	221.05	29.376	7.525	72.11	13.59
1	10101180153	38.208	8.24	228.55	29.811	7.667	72.59	14.05
1	10101180079	37.9	8.435	232.03	29.464	7.875	72.58	14.26
1	10101180075	38.042	8.268	232.34	29.509	7.873	73.86	14.28
1	10101180125	38.024	8.421	231.91	29.453	7.874	72.43	14.25
1	10101180174	38.056	8.09	220.88	29.378	7.519	71.75	13.58
1	10101180142	38.12	8.086	223.37	29.543	7.561	72.47	13.73
1	10101180170	37.939	7.963	222.06	29.695	7.478	73.5	13.65
1	10101180149	38.125	8.204	225.58	29.664	7.605	72.12	13.87
1	10101180156	38.006	8.035	222.78	29.58	7.531	72.95	13.69

1	10101180138	38.095	8.064	223.3	29.557	7.555	72.69	13.73
1	10101180165	38.152	8.06	225.04	29.631	7.595	73.19	13.83
1	10101180161	38.256	8.106	225.35	29.535	7.63	72.67	13.85
1	10101180172	38.023	7.952	220.54	29.612	7.448	72.95	13.56
1	10101180178	38.229	8.005	221.37	29.609	7.476	72.33	13.61
1	10101180160	38.298	8.142	226.69	29.704	7.632	72.7	13.93
1	10101180155	38.201	8.187	226.74	29.837	7.599	72.5	13.94
1	10101180173	38.16	8.168	222.02	29.601	7.501	71.23	13.65
1	10101180141	38.329	8.223	226.66	29.675	7.638	71.91	13.93
1	10101180108	38.036	8.302	228.73	29.397	7.781	72.43	14.06
1	10101180085	38.089	8.34	229.51	29.357	7.818	72.25	14.11
1	10101180154	38.174	8.049	225.49	29.749	7.58	73.39	13.86
1	10101180112	37.82	8.291	227.37	29.296	7.761	72.51	13.98

Standard Test Conditions (STC):

Module parameters are measured at standard test conditions (STC). STC specifies a temperature of 25 °C and an irradiance of 1000 W/m<sup>2</sup> with an air mass 1.5 (AM1.5) spectrum.