



European Standards Laboratory
Yokogawa Europe
Amersfoort, The Netherlands

CALIBRATION-CERTIFICATE

Certificate number
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Applicant	<i>Applicant</i>	
Instrument	WT230 Power Meter	
	Manufacturer	Yokogawa
	Type	760503-C1-F/EX2/HRM/CMP
	Serial number	<i>Serial number</i>
	Inventory number	<i>Inventory number</i>
	ID numbers used standards	CSE820
Procedure	CALWT230_3CH Version: 1 of 06-06-2011	
Calibration method	The Powermeter was calibrated using a reference power calibration system.	
Environmental conditions	Temperature	23.2°C ±1°C
	Relative Humidity	31% ±4%
Date of Calibration	14-Dec-11	
Result	The results of the calibration are shown on the next pages	
Traceability	The results of the calibration services of Yokogawa European Standards Laboratory are traceable to primary and/or (inter)nationally accepted measurement standards.	
Date	14-Dec-11	
Name	E.J. Kroon	
Function	Supervisor Standards Laboratory	

E L E M E N T 1

Voltage Calibration DC

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
15V	15.000	14.940	15.001	15.060	V DC	0.004	Pass
30V	30.000	29.880	30.002	30.120	V DC	0.006	Pass
60V	60.000	59.760	59.986	60.240	V DC	-0.023	Pass
150V	150.00	149.40	149.97	150.60	V DC	-0.019	Pass
300V	300.00	298.80	299.93	301.20	V DC	-0.023	Pass
600V	600.00	597.60	599.79	602.40	V DC	-0.036	Pass

Voltage Calibration AC RMS 60 Hz

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
15V	15.000	14.970	15.000	15.030	V AC	-0.003	Pass
30V	30.000	29.940	30.000	30.060	V AC	-0.001	Pass
60V	60.000	59.880	59.986	60.120	V AC	-0.024	Pass
150V	150.00	149.70	149.96	150.30	V AC	-0.028	Pass
300V	300.00	299.40	299.91	300.60	V AC	-0.029	Pass
600V	600.00	598.80	599.72	601.20	V AC	-0.047	Pass

Voltage Calibration AC RMS 1 kHz

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
15V	15.000	14.955	15.000	15.045	V AC	0.001	Pass
30V	30.000	29.910	30.000	30.090	V AC	0.000	Pass
60V	60.000	59.820	59.986	60.180	V AC	-0.023	Pass
150V	150.00	149.55	149.96	150.45	V AC	-0.029	Pass
300V	300.00	299.10	299.91	300.90	V AC	-0.028	Pass
600V	600.00	598.20	599.71	601.80	V AC	-0.048	Pass

Voltage Calibration AC RMS 10 kHz

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
15V	15.000	14.850	14.999	15.150	V AC	-0.006	Pass
30V	30.000	29.700	29.998	300.300	V AC	-0.006	Pass
60V	60.000	59.400	59.983	60.600	V AC	-0.029	Pass
150V	150.00	148.50	149.93	151.50	V AC	-0.049	Pass
300V	300.00	297.00	299.79	303.00	V AC	-0.070	Pass
600V	600.00	594.00	599.45	606.00	V AC	-0.092	Pass

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Voltage Calibration AC RMS 50 kHz

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
15V	15.000	14.610	14.975	15.390	V AC	-0.169	Pass
30V	30.000	29.220	29.949	30.780	V AC	-0.169	Pass
60V	60.000	58.440	59.876	61.560	V AC	-0.207	Pass
150V	100.00	97.15	99.43	102.85	V AC	-0.567	Pass

Voltage Calibration Linearity at AC RMS 60 Hz

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
150V	20.00	19.83	20.00	20.17	V AC	0.002	Pass
150V	60.00	59.79	59.98	60.21	V AC	-0.031	Pass
150V	100.00	99.75	99.97	100.25	V AC	-0.031	Pass
150V	120.00	119.73	119.96	120.27	V AC	-0.034	Pass

Current Calibration DC

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
500mA	500.00	497.99	499.67	502.01	mA DC	-0.066	Pass
1A	1.0000	0.9960	0.9996	1.0040	A DC	-0.038	Pass
2A	2.0000	1.9920	1.9994	2.0080	A DC	-0.028	Pass
5A	5.0000	4.9800	4.9978	5.0200	A DC	-0.045	Pass
10A	10.000	9.960	9.997	10.040	A DC	-0.030	Pass
20A	18.000	17.920	17.996	18.080	A DC	-0.022	Pass

Current Calibration AC RMS at 60 Hz

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
500mA	500.00	499.00	499.96	501.00	mA AC	-0.008	Pass
1A	1.0000	0.9980	0.9998	1.0020	A AC	-0.016	Pass
2A	2.0000	1.9960	1.9997	2.0040	A AC	-0.013	Pass
5A	5.0000	4.9900	4.9983	5.0100	A AC	-0.034	Pass
10A	10.000	9.980	9.996	10.020	A AC	-0.038	Pass
20A	18.000	17.960	17.996	18.040	A AC	-0.024	Pass

Current Calibration AC RMS at 1 kHz

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
500mA	500.00	498.50	500.08	501.50	mA AC	0.016	Pass
1A	1.0000	0.9970	1.0001	1.0030	A AC	0.014	Pass
2A	2.0000	1.9940	2.0003	2.0060	A AC	0.014	Pass
5A	5.0000	4.9850	5.0008	5.0150	A AC	0.017	Pass

Current Calibration AC RMS at 10 kHz

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
500mA	500.00	495.00	501.54	505.00	mA AC	0.309	Pass
1A	1.0000	0.9900	1.0031	1.0100	A AC	0.310	Pass
2A	2.0000	1.9800	2.0063	2.0200	A AC	0.316	Pass

Current Calibration Linearity at AC RMS 60 Hz

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
1A	0.1000	0.0989	0.1000	0.1011	A AC	0.005	Pass
1A	0.2000	0.1988	0.2000	0.2012	A AC	0.002	Pass
1A	0.6000	0.5984	0.5999	0.6016	A AC	-0.012	Pass

Power Calibration DC

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
15V 1A	15.000	14.940	14.994	15.060	W	-0.039	Pass
30V 1A	30.000	29.880	29.988	30.120	W	-0.041	Pass
60V 1A	60.000	59.760	59.957	60.240	W	-0.071	Pass
150V 1A	150.00	149.40	149.89	150.60	W	-0.071	Pass
300V 1A	300.00	298.80	299.76	301.20	W	-0.081	Pass
600V 1A	600.00	597.60	599.49	602.40	W	-0.085	Pass
150V 500mA	75.000	74.700	74.924	75.300	W	-0.101	Pass
150V 2A	300.00	298.80	299.85	301.20	W	-0.049	Pass
150V 5A	750.00	747.00	749.53	753.00	W	-0.062	Pass
150V 10A	1500.0	1494.0	1499.2	1506.0	W	-0.051	Pass
150V 20A	2700.0	2689.2	2698.6	2710.8	W	-0.050	Pass

Power Calibration AC RMS at 60 Hz pf=1

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
15V 1A	15.000	14.970	14.998	15.030	W	-0.012	Pass
30V 1A	30.000	29.940	29.998	30.060	W	-0.005	Pass
60V 1A	60.000	59.880	59.984	60.120	W	-0.027	Pass
150V 1A	150.00	149.70	149.95	150.30	W	-0.034	Pass
300V 1A	300.00	299.40	299.91	300.60	W	-0.031	Pass
600V 1A	600.00	598.80	599.72	601.20	W	-0.047	Pass
150V 500mA	75.000	74.850	74.973	75.150	W	-0.037	Pass
150V 2A	300.00	299.40	299.87	300.60	W	-0.045	Pass
150V 5A	750.00	748.50	749.59	751.50	W	-0.055	Pass
150V 10A	1500.0	1497.0	1499.0	1503.0	W	-0.067	Pass
150V 20A	2700.0	2694.6	2698.5	2705.4	W	-0.055	Pass

Power Calibration AC RMS at 1 kHz pf=1

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
15V 1A	15.000	14.955	15.001	15.045	W	0.007	Pass
30V 1A	30.000	29.910	30.004	30.090	W	0.012	Pass
60V 1A	60.000	59.820	59.992	60.180	W	-0.013	Pass
150V 1A	150.00	149.55	149.96	150.45	W	-0.029	Pass
300V 1A	300.00	299.10	299.93	300.90	W	-0.024	Pass
600V 1A	600.00	598.20	599.78	601.80	W	-0.037	Pass
150V 500mA	75.000	74.775	74.985	75.225	W	-0.020	Pass
150V 2A	300.00	299.10	299.93	300.90	W	-0.025	Pass
150V 5A	750.00	747.75	749.68	752.25	W	-0.043	Pass
150V 10A	1500.0	1495.5	1499.3	1504.5	W	-0.046	Pass
150V 20A	1500.0	1495.5	1499.4	1504.5	W	-0.041	Pass



Power Calibration AC RMS at 60 Hz pf=0

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
15V 1A	0.000	-0.030	0.000	0.030	W	-	Pass
150V 1A	0.00	-0.30	0.00	0.30	W	-	Pass

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ELEMENT 2

Voltage Calibration DC

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
15V	15.000	14.940	15.000	15.060	V DC	-0.002	Pass
30V	30.000	29.880	30.000	30.120	V DC	-0.001	Pass
60V	60.000	59.760	59.987	60.240	V DC	-0.021	Pass
150V	150.00	149.40	149.96	150.60	V DC	-0.026	Pass
300V	300.00	298.80	299.95	301.20	V DC	-0.016	Pass
600V	600.00	597.60	599.79	602.40	V DC	-0.034	Pass

Voltage Calibration AC RMS 60 Hz

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
15V	15.000	14.970	14.999	15.030	V AC	-0.009	Pass
30V	30.000	29.940	29.999	30.060	V AC	-0.004	Pass
60V	60.000	59.880	59.982	60.120	V AC	-0.031	Pass
150V	150.00	149.70	149.96	150.30	V AC	-0.029	Pass
300V	300.00	299.40	299.94	300.60	V AC	-0.019	Pass
600V	600.00	598.80	599.73	601.20	V AC	-0.044	Pass

Voltage Calibration AC RMS 1 kHz

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
15V	15.000	14.955	14.998	15.045	V AC	-0.013	Pass
30V	30.000	29.910	29.998	30.090	V AC	-0.006	Pass
60V	60.000	59.820	59.980	60.180	V AC	-0.033	Pass
150V	150.00	149.55	149.96	150.45	V AC	-0.026	Pass
300V	300.00	299.10	299.94	300.90	V AC	-0.019	Pass
600V	600.00	598.20	599.74	601.80	V AC	-0.044	Pass

Voltage Calibration AC RMS 10 kHz

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
15V	15.000	14.850	14.998	15.150	V AC	-0.015	Pass
30V	30.000	29.700	29.997	300.300	V AC	-0.009	Pass
60V	60.000	59.400	59.977	60.600	V AC	-0.039	Pass
150V	150.00	148.50	149.92	151.50	V AC	-0.051	Pass
300V	300.00	297.00	299.81	303.00	V AC	-0.065	Pass
600V	600.00	594.00	599.47	606.00	V AC	-0.088	Pass

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Voltage Calibration AC RMS 50 kHz

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
15V	15.000	14.610	14.972	15.390	V AC	-0.184	Pass
30V	30.000	29.220	29.944	30.780	V AC	-0.187	Pass
60V	60.000	58.440	59.863	61.560	V AC	-0.228	Pass
150V	100.00	97.15	99.43	102.85	V AC	-0.568	Pass

Voltage Calibration Linearity at AC RMS 60 Hz

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
150V	20.00	19.83	19.99	20.17	V AC	-0.048	Pass
150V	60.00	59.79	59.98	60.21	V AC	-0.030	Pass
150V	100.00	99.75	99.97	100.25	V AC	-0.031	Pass
150V	120.00	119.73	119.97	120.27	V AC	-0.026	Pass

Current Calibration DC

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
500mA	500.00	497.99	499.73	502.01	mA DC	-0.054	Pass
1A	1.0000	0.9960	0.9996	1.0040	A DC	-0.037	Pass
2A	2.0000	1.9920	1.9995	2.0080	A DC	-0.027	Pass
5A	5.0000	4.9800	4.9980	5.0200	A DC	-0.040	Pass
10A	10.000	9.960	9.997	10.040	A DC	-0.032	Pass
20A	18.000	17.920	17.993	18.080	A DC	-0.037	Pass

Current Calibration AC RMS at 60 Hz

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
500mA	500.00	499.00	499.92	501.00	mA AC	-0.016	Pass
1A	1.0000	0.9980	0.9999	1.0020	A AC	-0.014	Pass
2A	2.0000	1.9960	1.9996	2.0040	A AC	-0.020	Pass
5A	5.0000	4.9900	4.9980	5.0100	A AC	-0.039	Pass
10A	10.000	9.980	9.996	10.020	A AC	-0.041	Pass
20A	18.000	17.960	17.994	18.040	A AC	-0.032	Pass

Current Calibration AC RMS at 1 kHz

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
500mA	500.00	498.50	500.00	501.50	mA AC	0.001	Pass
1A	1.0000	0.9970	1.0001	1.0030	A AC	0.006	Pass
2A	2.0000	1.9940	2.0001	2.0060	A AC	0.006	Pass
5A	5.0000	4.9850	5.0005	5.0150	A AC	0.009	Pass

Current Calibration AC RMS at 10 kHz

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
500mA	500.00	495.00	501.42	505.00	mA AC	0.284	Pass
1A	1.0000	0.9900	1.0029	1.0100	A AC	0.290	Pass
2A	2.0000	1.9800	2.0058	2.0200	A AC	0.292	Pass

Current Calibration Linearity at AC RMS 60 Hz

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
1A	0.1000	0.0989	0.1000	0.1011	A AC	0.001	Pass
1A	0.2000	0.1988	0.2000	0.2012	A AC	0.002	Pass
1A	0.6000	0.5984	0.5999	0.6016	A AC	-0.015	Pass

Power Calibration DC

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
15V 1A	15.000	14.940	14.993	15.060	W	-0.050	Pass
30V 1A	30.000	29.880	29.985	30.120	W	-0.052	Pass
60V 1A	60.000	59.760	59.952	60.240	W	-0.080	Pass
150V 1A	150.00	149.40	149.89	150.60	W	-0.077	Pass
300V 1A	300.00	298.80	299.76	301.20	W	-0.080	Pass
600V 1A	600.00	597.60	599.48	602.40	W	-0.087	Pass
150V 500mA	75.000	74.700	74.941	75.300	W	-0.079	Pass
150V 2A	300.00	298.80	299.84	301.20	W	-0.052	Pass
150V 5A	750.00	747.00	749.56	753.00	W	-0.058	Pass
150V 10A	1500.0	1494.0	1499.0	1506.0	W	-0.067	Pass
150V 20A	2700.0	2689.2	2698.0	2710.8	W	-0.072	Pass

Power Calibration AC RMS at 60 Hz pf=1

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
15V 1A	15.000	14.970	14.996	15.030	W	-0.026	Pass
30V 1A	30.000	29.940	29.996	30.060	W	-0.012	Pass
60V 1A	60.000	59.880	59.977	60.120	W	-0.038	Pass
150V 1A	150.00	149.70	149.94	150.30	W	-0.037	Pass
300V 1A	300.00	299.40	299.93	300.60	W	-0.025	Pass
600V 1A	600.00	598.80	599.72	601.20	W	-0.047	Pass
150V 500mA	75.000	74.850	74.967	75.150	W	-0.044	Pass
150V 2A	300.00	299.40	299.86	300.60	W	-0.048	Pass
150V 5A	750.00	748.50	749.56	751.50	W	-0.059	Pass
150V 10A	1500.0	1497.0	1499.0	1503.0	W	-0.066	Pass
150V 20A	2700.0	2694.6	2698.4	2705.4	W	-0.060	Pass

Power Calibration AC RMS at 1 kHz pf=1

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
15V 1A	15.000	14.955	14.999	15.045	W	-0.007	Pass
30V 1A	30.000	29.910	29.999	30.090	W	-0.003	Pass
60V 1A	60.000	59.820	59.983	60.180	W	-0.028	Pass
150V 1A	150.00	149.55	149.95	150.45	W	-0.033	Pass
300V 1A	300.00	299.10	299.93	300.90	W	-0.023	Pass
600V 1A	600.00	598.20	599.73	601.80	W	-0.044	Pass
150V 500mA	75.000	74.775	74.977	75.225	W	-0.031	Pass
150V 2A	300.00	299.10	299.89	300.90	W	-0.036	Pass
150V 5A	750.00	747.75	749.62	752.25	W	-0.051	Pass
150V 10A	1500.0	1495.5	1499.3	1504.5	W	-0.049	Pass
150V 20A	1500.0	1495.5	1499.4	1504.5	W	-0.039	Pass



Power Calibration AC RMS at 60 Hz pf=0

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
15V 1A	0.000	-0.030	0.000	0.030	W	-	Pass
150V 1A	0.00	-0.30	0.01	0.30	W	-	Pass

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ELEMENT 3

Voltage Calibration DC

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
15V	15.000	14.940	15.000	15.060	V DC	-0.001	Pass
30V	30.000	29.880	29.999	30.120	V DC	-0.004	Pass
60V	60.000	59.760	59.986	60.240	V DC	-0.023	Pass
150V	150.00	149.40	149.97	150.60	V DC	-0.019	Pass
300V	300.00	298.80	299.96	301.20	V DC	-0.013	Pass
600V	600.00	597.60	599.78	602.40	V DC	-0.037	Pass

Voltage Calibration AC RMS 60 Hz

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
15V	15.000	14.970	14.998	15.030	V AC	-0.010	Pass
30V	30.000	29.940	29.999	30.060	V AC	-0.005	Pass
60V	60.000	59.880	59.982	60.120	V AC	-0.029	Pass
150V	150.00	149.70	149.96	150.30	V AC	-0.029	Pass
300V	300.00	299.40	299.94	300.60	V AC	-0.019	Pass
600V	600.00	598.80	599.75	601.20	V AC	-0.042	Pass

Voltage Calibration AC RMS 1 kHz

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
15V	15.000	14.955	14.998	15.045	V AC	-0.012	Pass
30V	30.000	29.910	29.999	30.090	V AC	-0.003	Pass
60V	60.000	59.820	59.982	60.180	V AC	-0.029	Pass
150V	150.00	149.55	149.96	150.45	V AC	-0.025	Pass
300V	300.00	299.10	299.94	300.90	V AC	-0.019	Pass
600V	600.00	598.20	599.75	601.80	V AC	-0.042	Pass

Voltage Calibration AC RMS 10 kHz

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
15V	15.000	14.850	14.999	15.150	V AC	-0.010	Pass
30V	30.000	29.700	29.998	300.300	V AC	-0.006	Pass
60V	60.000	59.400	59.980	60.600	V AC	-0.033	Pass
150V	150.00	148.50	149.93	151.50	V AC	-0.048	Pass
300V	300.00	297.00	299.82	303.00	V AC	-0.059	Pass
600V	600.00	594.00	599.50	606.00	V AC	-0.084	Pass

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Voltage Calibration AC RMS 50 kHz

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
15V	15.000	14.610	14.979	15.390	V AC	-0.137	Pass
30V	30.000	29.220	29.959	30.780	V AC	-0.137	Pass
60V	60.000	58.440	59.893	61.560	V AC	-0.178	Pass
150V	100.00	97.15	99.46	102.85	V AC	-0.542	Pass

Voltage Calibration Linearity at AC RMS 60 Hz

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
150V	20.00	19.83	20.00	20.17	V AC	0.002	Pass
150V	60.00	59.79	59.99	60.21	V AC	-0.022	Pass
150V	100.00	99.75	99.97	100.25	V AC	-0.031	Pass
150V	120.00	119.73	119.97	120.27	V AC	-0.026	Pass

Current Calibration DC

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
500mA	500.00	497.99	499.56	502.01	mA DC	-0.087	Pass
1A	1.0000	0.9960	0.9995	1.0040	A DC	-0.049	Pass
2A	2.0000	1.9920	1.9991	2.0080	A DC	-0.045	Pass
5A	5.0000	4.9800	4.9971	5.0200	A DC	-0.058	Pass
10A	10.000	9.960	9.997	10.040	A DC	-0.032	Pass
20A	18.000	17.920	17.993	18.080	A DC	-0.038	Pass

Current Calibration AC RMS at 60 Hz

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
500mA	500.00	499.00	499.94	501.00	mA AC	-0.012	Pass
1A	1.0000	0.9980	0.9999	1.0020	A AC	-0.013	Pass
2A	2.0000	1.9960	1.9996	2.0040	A AC	-0.020	Pass
5A	5.0000	4.9900	4.9981	5.0100	A AC	-0.039	Pass
10A	10.000	9.980	9.996	10.020	A AC	-0.040	Pass
20A	18.000	17.960	17.995	18.040	A AC	-0.026	Pass

Current Calibration AC RMS at 1 kHz

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
500mA	500.00	498.50	500.03	501.50	mA AC	0.006	Pass
1A	1.0000	0.9970	1.0001	1.0030	A AC	0.014	Pass
2A	2.0000	1.9940	2.0002	2.0060	A AC	0.008	Pass
5A	5.0000	4.9850	5.0006	5.0150	A AC	0.013	Pass

Current Calibration AC RMS at 10 kHz

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
500mA	500.00	495.00	501.54	505.00	mA AC	0.308	Pass
1A	1.0000	0.9900	1.0032	1.0100	A AC	0.316	Pass
2A	2.0000	1.9800	2.0063	2.0200	A AC	0.316	Pass

Current Calibration Linearity at AC RMS 60 Hz

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
1A	0.1000	0.0989	0.1000	0.1011	A AC	-0.001	Pass
1A	0.2000	0.1988	0.2000	0.2012	A AC	0.005	Pass
1A	0.6000	0.5984	0.5999	0.6016	A AC	-0.019	Pass

Power Calibration DC

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
15V 1A	15.000	14.940	14.990	15.060	W	-0.067	Pass
30V 1A	30.000	29.880	29.981	30.120	W	-0.063	Pass
60V 1A	60.000	59.760	59.943	60.240	W	-0.094	Pass
150V 1A	150.00	149.40	149.88	150.60	W	-0.082	Pass
300V 1A	300.00	298.80	299.76	301.20	W	-0.081	Pass
600V 1A	600.00	597.60	599.41	602.40	W	-0.098	Pass
150V 500mA	75.000	74.700	74.921	75.300	W	-0.106	Pass
150V 2A	300.00	298.80	299.80	301.20	W	-0.067	Pass
150V 5A	750.00	747.00	749.48	753.00	W	-0.069	Pass
150V 10A	1500.0	1494.0	1498.9	1506.0	W	-0.072	Pass
150V 20A	2700.0	2689.2	2698.2	2710.8	W	-0.065	Pass

Power Calibration AC RMS at 60 Hz pf=1

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
15V 1A	15.000	14.970	14.997	15.030	W	-0.020	Pass
30V 1A	30.000	29.940	29.997	30.060	W	-0.011	Pass
60V 1A	60.000	59.880	59.978	60.120	W	-0.037	Pass
150V 1A	150.00	149.70	149.95	150.30	W	-0.036	Pass
300V 1A	300.00	299.40	299.93	300.60	W	-0.024	Pass
600V 1A	600.00	598.80	599.74	601.20	W	-0.043	Pass
150V 500mA	75.000	74.850	74.970	75.150	W	-0.040	Pass
150V 2A	300.00	299.40	299.86	300.60	W	-0.048	Pass
150V 5A	750.00	748.50	749.58	751.50	W	-0.055	Pass
150V 10A	1500.0	1497.0	1499.0	1503.0	W	-0.067	Pass
150V 20A	2700.0	2694.6	2698.5	2705.4	W	-0.056	Pass

Power Calibration AC RMS at 1 kHz pf=1

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
15V 1A	15.000	14.955	15.000	15.045	W	0.000	Pass
30V 1A	30.000	29.910	30.002	30.090	W	0.006	Pass
60V 1A	60.000	59.820	59.989	60.180	W	-0.018	Pass
150V 1A	150.00	149.55	149.96	150.45	W	-0.027	Pass
300V 1A	300.00	299.10	299.94	300.90	W	-0.019	Pass
600V 1A	600.00	598.20	599.78	601.80	W	-0.037	Pass
150V 500mA	75.000	74.775	74.978	75.225	W	-0.030	Pass
150V 2A	300.00	299.10	299.90	300.90	W	-0.032	Pass
150V 5A	750.00	747.75	749.67	752.25	W	-0.044	Pass
150V 10A	1500.0	1495.5	1499.3	1504.5	W	-0.047	Pass
150V 20A	1500.0	1495.5	1499.4	1504.5	W	-0.039	Pass



Power Calibration AC RMS at 60 Hz pf=0

Range	Target	Lowlimit	Measured	Highlimit	Unit	Deviation %	Result
15V 1A	0.000	-0.030	0.000	0.030	W	-	Pass
150V 1A	0.00	-0.30	0.01	0.30	W	-	Pass

The above measurements are within the Manufacturer Specifications.

Comments :