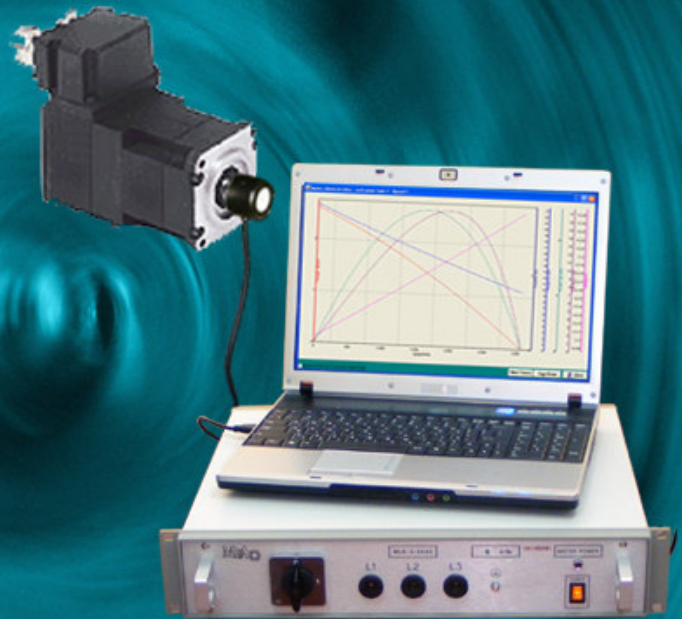


# MotorLab Kit®

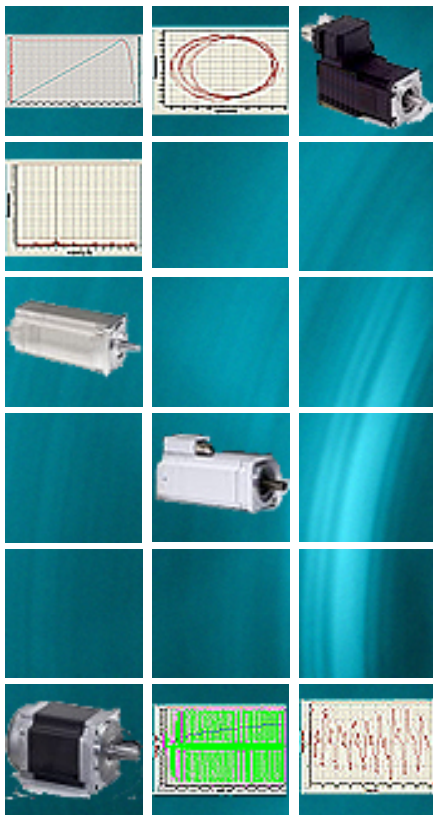
MLK-B  
DC Brushless Motor  
Tester

Low-cost portable unit for:

R&D, Quality Assurance,  
Receiving Inspection,  
Electric Motor Performance Testing



U.S. and International Patented System



## MLK-B Series - Brushless Tester, up to 5kW

### Features and Benefits

- Low-cost portable unit with all the major motor performance tests of the MotorLab® system.
- Connects directly to USB 2.0 port.
- Full load performance without coupling to external load (torque, speed, current, voltage, input power, output power, power factor, time, motor efficiency, frequency) from stall up to no-load.
- Graphical results and table results.
- Motors can be tested inside their applications.
- Optional tests: Dynamic performance tests (speed and torque spectrum, speed and torque oscillations, friction torque, friction spectrum, cogging torque level)



M.E.A. Testing Systems Ltd.  
[www.meatesting.com](http://www.meatesting.com)

## General Specifications

<b>MLK</b>	
<b>Dimensions</b>	(W x H x D) 26 x 12 x 33 cm
<b>Calibration</b>	Calibration controlled by software. Adjustments are made through software calibration interface. Calibration information is stored in the system database.

## MLK Internal Power Analyzer

<b>Electronic Input</b>	
<b>Voltage</b>	110-230 V ± 10%
<b>Frequency</b>	50/60 Hz
<b>Motor Input</b>	
<b>Voltage Range</b>	See examples table below.
<b>Current Range</b>	See examples table below.
<b>Accuracy</b>	± 0.2%

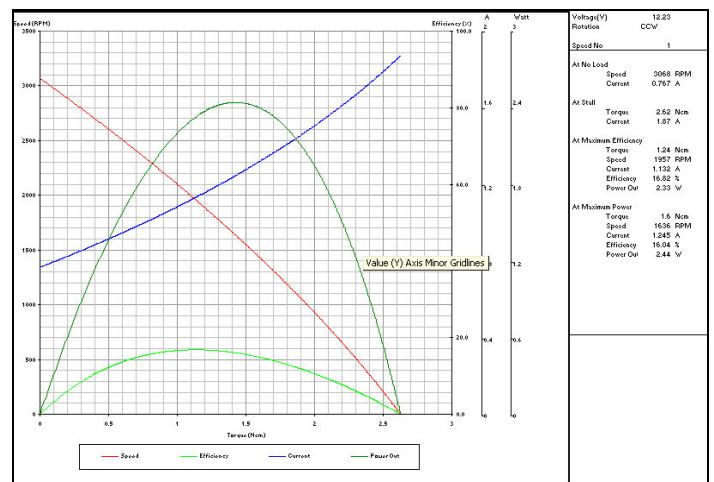
## Performance Test Mode

<b>Supported Tests</b>	Torque, speed, current, voltage, input power, output power, power factor, time, efficiency, frequency, direction of rotation
<b>Optional Additional Tests</b>	Speed and torque spectrum, speed and torque oscillations, friction torque, friction spectrum, cogging torque level
<b>System Accuracy</b>	± 0.2%
<b>Torque Range</b>	Not limited
<b>Sensor</b>	Type 1 with speed range up to 4800 rpm. Industry standard. Accuracy: ± 0.3°.

## MotorLab Kit (some examples)

Model	MLK-B-6601	MLK-B-6611	MLK-B-6604	MLK-B-6614
<i>Voltage</i>	50-560 V	50-560 V	50-1500 V	50-1500 V
<i>Current</i>	0.1-10 A	0.1-50 A	0.1-10 A	0.1-50 A
<i>Power Line Frequency</i>	Current: 10 Hz -1 kHz Voltage: 10 Hz-20 kHz	Current: 10 Hz -1 kHz Voltage: 10 Hz-20 kHz	Current: 10 Hz -1 kHz Voltage: 10 Hz-20 kHz	Current: 10 Hz -1 kHz Voltage: 10 Hz-20 kHz
<i>Sampling Rate</i>	200 kHz	200 kHz	200 kHz	200 kHz

Speed (RPM)	Torque (Ncm)	Current (A)	P In (W)	P Out (W)	Efficiency (%)	Speed Volt (V)
5.564	2.623	1.870	22.870	0.015	0.067	12.093
11.739	2.620	1.867	22.839	0.032	0.141	12.094
17.914	2.616	1.865	22.808	0.049	0.215	12.094
24.089	2.612	1.862	22.777	0.066	0.289	12.094
30.263	2.608	1.860	22.746	0.083	0.363	12.094
36.438	2.605	1.857	22.716	0.099	0.438	12.095
42.613	2.601	1.855	22.685	0.116	0.512	12.095
48.788	2.597	1.852	22.654	0.133	0.586	12.095
54.963	2.594	1.850	22.623	0.149	0.660	12.096
61.138	2.590	1.847	22.592	0.166	0.734	12.096
67.313	2.586	1.845	22.561	0.182	0.808	12.096
73.487	2.582	1.842	22.530	0.199	0.882	12.096
79.662	2.579	1.840	22.500	0.215	0.956	12.097
85.837	2.575	1.837	22.469	0.231	1.030	12.097
92.012	2.571	1.835	22.438	0.248	1.104	12.097
98.187	2.567	1.832	22.407	0.264	1.178	12.098
104.362	2.563	1.829	22.377	0.280	1.252	12.098
110.537	2.560	1.827	22.346	0.296	1.326	12.098
116.711	2.556	1.824	22.315	0.312	1.400	12.098
122.886	2.552	1.822	22.284	0.328	1.474	12.099
129.061	2.548	1.819	22.254	0.344	1.548	12.099
135.236	2.544	1.817	22.223	0.360	1.621	12.099
141.411	2.541	1.814	22.192	0.376	1.695	12.100
147.586	2.537	1.812	22.162	0.392	1.769	12.100
153.761	2.533	1.809	22.131	0.408	1.843	12.100



- Customized solutions
- Customer support
- Technical services
- 1-Year warranty
- Optional extended warranty program
- Local sales offices throughout the world



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