

# MotorLab®

ML-13  
Single & Three Phase Motor Tester

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



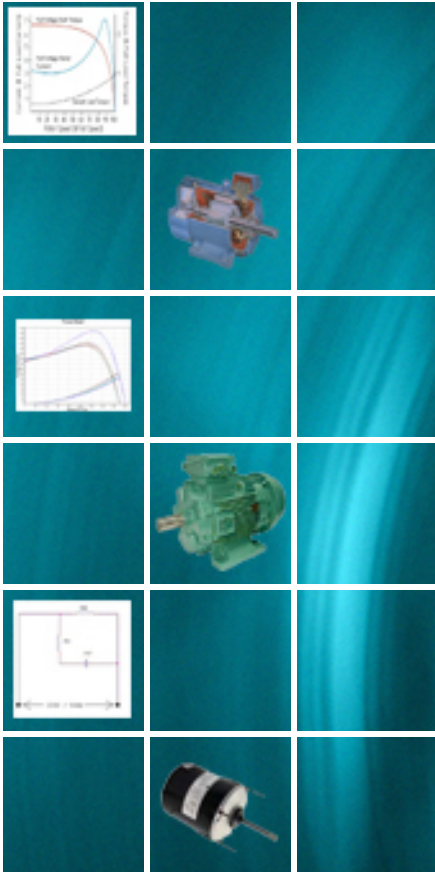
U.S. and International Patented System



**53900 Series** - Single & Three Phase Motor Tester up to 1kW compatible with power analyzer 5600 & 3600 series

**53910 Series** - Single & Three Phase Motor Tester up to 10kW compatible with power analyzer 5610 & 3610 series

**53920 Series** - Single & Three Phase Motor Tester up to 100kW compatible with power analyzer 5620 & 3620 series



## Features and Benefits

- Full load performance without coupling to external load (torque, current, voltage, input power, output power, power factor, motor efficiency, from stall up to no-load)
- Gives RMS, AVG and real-time results.
- Provides friction torque, friction output power, and friction spectrum.
- Provides ripple torque, cogging torque level, and vibration reason.
- Spectrum of speed and torque for a wide band of frequencies.
- Motor power switching is done by the motor electronics; or by the system itself, depend on the motor size.
- Customized test reports in Excel or PDF format.
- All results can be displayed vs. time.
- Motors can be tested inside their applications.
- Protected against short circuit motors.



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

## General Input Specifications

<b>Voltage</b>	110-230 V ± 10%
<b>Frequency</b>	50/60 Hz

## Performance Test Mode

<b>Supported Tests</b>	Torque, speed, current, input power, output power, power factor, efficiency, frequency, direction of rotation
<b>Additional Tests</b>	Speed and torque spectrum, speed and torque oscillations, and friction torque, cogging 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°.

## Power Analyzer & Power Switching

### Electronic Input

<b>Voltage</b>	110-230 V ± 10%
<b>Frequency</b>	50/60 Hz

### Motor Input

<b>Voltage Range</b>	30-280 V for 1PH 50-530/660/750 V for 3PH
<b>Current Range</b>	See Power Analyzer table below.
<b>Frequency</b>	47-63 Hz
<b>Accuracy</b>	± 0.2%

## Industrial computer includes

<b>Computer</b>	<ul style="list-style-type: none"> <li>- 4U Rack Mounted Chassis</li> <li>- Intel Pentium 4 Processor 3 GHz or higher</li> <li>- DDR 512 MB</li> <li>- Ethernet controller</li> <li>- HDD 80 GB</li> <li>- USB x 2 (on the front)</li> <li>- CDRW</li> <li>- Microsoft Windows XP Pro</li> </ul>
<b>Screen</b>	19" LCD

## General Specifications

<b>Mobile Cabinet</b>	
Dimensions	(W x H x D) 74 x 92 x 74 cm
Weight	70 kg
<b>Motor Holding Device</b>	Used to firmly fix the motor under test.
Dimensions	(W x H x D) 20 x 46 X 30 cm
Weight	7 kg
	We manufacture customized / individual holding devices, depending on particular customer requirements.
<b>Calibration</b>	Calibration controlled by software. Adjustments are made through software calibration interface. Calibration information is stored in the system database.

## Power Analyzer & Power Switching (some options as examples)

Model	3600/PAS 1PH 10-280-3SA	3610/PAS 1PH 25-280-3SA	3620/PAS 1PH 50-280-3SA	3630/PAS 1PH 90-280-3SA	5600/PAS 3PH 530V-10A-40K	5610/PAS 3PH 530V-25A-40K
Current	0.06-10 A	0.08-25 A	0.1-50 A	1-90 A	0.06-10 A	0.08-25 A

Model	5620/ PAS 3PH 530V-50A-40K	5630/ PAS 3PH 530V-90A-40K	5640/ PAS 3PH 660V-200A-40K	5650/ PA 3PH 750V-300A-40K	5660/ PA 3PH 750V-400A-40K	5670/ PA 3PH 750V-1000A-40K
Current	0.1-50 A	1-90 A	5-200 A	10-300 A	15-400 A	25-1000 A

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



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