

# Traction Motor Test Set

## Model TM1800-72D



### Testing Applications

Designed to provide no-load test stand power for multi-horsepower DC Traction Motors

The Traction Motor Test Set features separate internal sources for field and armature testing and an AC source for testing winding reactance (Impedance Test.) The output supplies each have separate controls, measuring and protection circuits for efficient use of the test set.

- **Economical motor testing** solution
- All **controls** and **instrumentation** contained in a single, **industrial grade cabinet**
- **Full voltage** regulation

### Design and Safety Features

- Main Power Breaker with indicator
- Control Power Breaker with indicator
- Security Circuit Interlock Open with indicator
- Emergency OFF Mushroom pushbutton switch
- Zero-start interlock
- External interlock provision
- External warning circuit provision
- Thermal overload protection on all voltage regulator outputs
- Filtered, forced air cooling
- Transient protection on all meters and relays
- Rugged steel cabinet with lifting eyes and removable side panels
- Angled control panel with writing desk
- Flashing red warning light
- Output cables included 15' (4.5 m)
- Recessed jacks for twist-lock plugs on output cables
- Two copies of operation/maintenance manual



## Instrumentation

The test system has a complete instrumentation package for definitive measurement of electrical and physical characteristics of motors under test. All meters for AC and DC supplies are digital and displayed on the Human Machine Interface. High accuracy current transformers (CT) and transducers are utilized for stability and a high degree of meter accuracy. All meters are calibrated with standards traceable to NIST/NRC and a calibration sticker is affixed to the control panel faceplate.



MODEL	TM1800-72D
<b>INPUT</b>	480 VAC, 160 A, 3 phase, 60 Hz (Other input voltages are available; consult factory)
<b>OUTPUT</b>	
Armature	0-1800 VDC, 40 ADC
Field	0-12 VDC, 2000 ADC
Impedance	0-50 VAC, 50 AAC
Ripple	<5%
Regulation	<10%
Accuracy	± 0.5% of range ± Least Significant Digit (LSD)
<b>TACHOMETER</b>	Non-contact pickup 0-9999 RPM, accuracy ±1 RPM
<b>VIBRATION</b>	4 position switch, 4 output jacks, 2 pickups with magnetic bases 0-10.00 mil (displacement)/0-0.3 in/sec (velocity) accuracy ± 1% of Range +LSD
<b>TEMPERATURE</b>	4 position switch, 4 output jacks, 2 thermocouples (Eor J) 0-200.0°C (32.0- 392.0°F), accuracy: ±1°C
<b>DUTY CYCLE</b>	Continuous at 100%
<b>DIMENSIONS/WEIGHT (approx.)</b>	100" L x 45" W x 77" H; 3,650 lbs. (2540 mm x 1143 mm x 1956 mm; 1656 kgs)



**PHENIX**  
**TECHNOLOGIES**

### WORLD HEADQUARTERS

**Phenix Technologies, Inc.**  
75 Speicher Drive  
Accident, MD 21520 USA  
Ph: +1.301.746.8118  
Fx: +1.301.895.5570  
Info@phenixtech.com

### BRANCH OFFICES

**Phenix Systems AG**  
Riehenstrasse 62A, 4058 Basel, Switzerland  
Ph: +41.61.383.2770, Fx: +41.61.383.2771, Info@phenixsystems.com

**Phenix Asia**  
Zhong Cheng Rd, Sec 1, No 177, 2F, Taipei 11148 Taiwan  
Ph: +886.2.2835.9738, Fx: +886.2.2835.9879, Info@phenixasia.com

**ISO**  
9001:2008  
Compliant

