

METER QUALIFICATION BOARDS



THE EASTERN SPECIALTY COMPANY

A New Generation of Meter Qualification Boards brings reimagined possibilities to your fingertips.

Power-up and apply load to electric watt-hour meters for functionality testing with TESCO's multi-position Meter Qualification Boards (MQBs). These boards assist with AMI Meter Certification process and AMI meter qualification and communication testing.

Available in functional test, series parallel, and true three-phase configurations, these boards can be banked together to provide any number of sockets required. Disconnect testing is standard on all TESCO MQBs and each socket position is designed to accommodate any meter form requested.

The new waveform generator has all waveforms called out in ANSI C12.20-2015 (published April 2017).

Optional software allows the user to program test scripts that permit users to run extended, predefined test protocols.



FEATURES & TESTS

- Every socket can be independently controlled or you can have bank control
- Waveform synthesizers
- Standard disconnect/reconnect functionality
- Software to control the board is standard
- Disconnect/reconnect functionality
- Functional testing
- Forward/Reverse Current Setting
- Options available for every budget
- Meter communications performance
- Check for correct firmware version on all meters vs. incorrect firmware
- Check for correct vs incorrect predefined settings
- Check that all alarms and errors clear
- Check for communication functionality
- Check for correct ANSI tables
- Check remote disconnect operation and confirm the state of the disconnect

MQB ADDITIONAL INFO



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MQB-20

Any system configuration of master (MQM) and slave (MQS) modules can be configured into a system as long as the following rules are followed:

- For master slave configurations (banked drive) a maximum of 1 MQM and 2 MQSs can be placed in a single cabinet
- For all independent socket configurations a maximum of 2 MQMs and NO MQSs can be placed in a single cabinet.

Examples:

MQB-12: One (1) bank of two master sockets and two (2) banks of slave sockets for a total of six meter sockets in a single rack enclosure.*

MQB-11: One (1) bank of two master sockets and one (1) bank of two slave sockets for a total of four meter sockets in a single rack enclosure.*

MQB-10: One (1) bank of two master (independent) sockets and zero (0) slave sockets for a total of two meter sockets in a single rack enclosure.

MQB-12-12: Two identical rack enclosures, each with one (1) bank of two master sockets and two (2) banks of slave sockets for a total of 12 meter sockets between the two racks.*

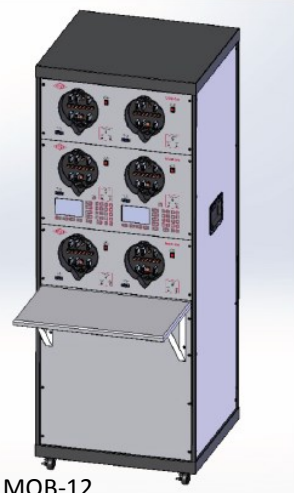
MQB-30: Three (3) banks of two master sockets and zero (0) slave sockets for a total of six independent meter sockets in a single rack enclosure.

MQB-20: Two (2) banks of two master sockets and zero (0) slave sockets for a total of four independent meter sockets in a single rack enclosure.

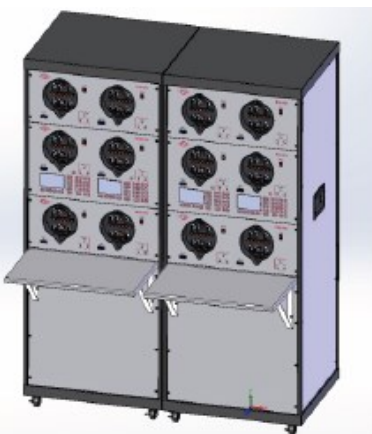
**Master and slave must operate together using the same form and test conditions.*

SPECIFICATIONS

- True ZERO insertion force socket with automatic closure on meter insertion.
- Digital Waveform Generator
 - Voltage Drive: 60-480V RMS, 680V PK.
 - Current Drive: 0.001A to 50A RMS, 75A PK.
 - Options up to 320A.
 - Arbitrary Waveform Generator 6 kHz Bandwidth.
 - Arbitrary harmonically defined waveforms.
 - Dropped cycle testing.
 - Power Factor is fully adjustable 0 to 359.9 degrees.
 - For three-phase MQBs voltage to voltage phase angles can be independently adjusted phase to phase as can current phase angles.
- Voltage Accuracy: $\pm 1.0\%$.
- Current Accuracy: $\pm 1.0\%$.
- Fundamental Frequency: 45-65Hz.
- Standard Meter Forms
 - Able to accommodate all meter forms. Please call for additional details on infrequently used forms.
- Controls
 - Powerful multi-core, 32 bit Processors.
 - 800x480 color LCD display.
 - Integrated control keypad.
 - Ethernet connectivity.
- Standard Features
 - Disconnect testing with 1000VA supplemental power transformer.
 - Computer control software package.
- Options
 - Control all functions of the MQB plus gain the ability to create testing scripts that will allow test parameters to be changed over time to create sags, swells, missing cycles, and other real-world situations.
- Designed to blend seamlessly within your meter shop and constructed on a durable aluminum extrusion frame with casters for ease of mobility.
- Dimensions vary by product.



MQB-12



MQB-12-12



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