

DOBLE OFF-LINE TESTING & ASSESSMENT

M7100™

High-Voltage Asset Analyzer

THE MOST-COMPREHENSIVE, FASTEST SOLUTION FOR TESTING WITH BUILT-IN SAFETY

The Doble M7100 High-Voltage (HV) Asset Analyzer is your complete solution for high and low voltage testing. The only test set featuring two dual-function high-voltage leads for source and measurement delivers the fastest, complete set of measurements. Compared to a single-lead system, this patented design dramatically improves technician safety by reducing ladder trips by as much as two-thirds and simplifying lead placement.

The M7100 automates multiple tests, previously performed by several pieces of equipment, cutting down testing time from seven hours to one and a half hours. Reduced testing time means technicians can safely perform more commissioning, scheduled maintenance and diagnostic activities.

FEATURES

- Patented dual-function high-voltage lead design allows you to switch between source and measurement—both capabilities are within each HV lead
- Built-in low voltage/high current multi-frequency source
- True 4-Terminal measurements
- Easy setup using either a color or number to indicate the connection
- Only dual high-voltage lead test set in the industry
- Standard two-year warranty and three-year calibration interval based upon accuracy and reliability in the field

BENEFITS

FAST AND EFFICIENT

- Finish testing in a third of the time
- Replace a truck full of instruments and cables

COMPREHENSIVE

- Maximize your outages and limit safety risk

EASY AND SAFE

- Greatly reduce the number of ladder trips technicians are exposed to per job
- A dual-lead system eliminates most steps needed for connection, reducing errors during lead placement—where most mistakes occur—and instilling confidence in testing
- Enhanced safety with special safety switch design and emergency stop switch



Doble Asset Management Software and Database

Extend the value of the test result data from the M7100 High-Voltage Asset Analyzer with additional tools to proactively manage the lifecycle of your assets. Combine the M7100 with other Doble software solutions to collect, store and analyze data from high-voltage testing. Provide field staff with secure universal controllers—laptops or tablets built specifically for field applications—to quickly evaluate apparatus test results.



Doble Test Assistant Software (DTA)

Pair the M7100 with Doble Test Assistant Software (DTA) for automated control and testing of the instrument. This single platform provides built-in templates for all configurations and types of HV assets including transformers, breakers, cables, instrument transformers, surge arresters, rotating machines and more.

DTAWeb

DTAWeb database software stores and organizes test result data from the M7100 and other Doble test equipment. Upload and download data to a remote Doble-hosted database and eliminate the need to maintain a server and manage database installation and upgrades. Harness the power of the dbleDATABASE, which includes millions of aggregated asset test results, to understand how your assets are performing compared to others in the industry.



DUCe for Apparatus Testing

Doble Universal Controller enterprise (DUCe) for Apparatus Testing automates multiple manual steps in traditional testing workflows, provides effective cybersecurity controls to protect your substation assets and offers a selection of versatile and rugged controllers. Automatically updates the database to avoid trapping data on laptops.



SUPPORTED STANDARDS	
IEEE	C57.152 C57.13 C57.13.6 C57.19.01 286
IEC	60076-1 60137 61850-9-2-Ed.2 B
IEC/TR	60894
NETA	2011 Maintenance 7.2.2 2007 Acceptance 7.19.2

TEST CAPABILITIES
Power Factor/Tan Delta
Variable Frequency Power Factor/Tan Delta
Demagnetization Feature
3 Phase Turns Ratio
10 kV Turns Ratio
Short Circuit Impedance Leakage Reactance (1Ø, 3Ø)
3 Phase Winding DC Resistance
3 Phase 10kV (Single Phase) Exciting Current and Loss
FUTURE ENHANCEMENTS
OLTC Dynamic Resistance Measurement (DRM)
Capacitor Bank

INCLUDED ACCESSORIES	
SYSTEM CABLES	
Type	Quantity
High Voltage Cables	2
Low Voltage Cables (Red, Blue, Yellow, Black)	4
Measurement Cables (Red, Blue, Yellow)	3
Ground Lead (Copper)	1
OLTC Control Cable	1
USB Cable	1
Ethernet Cable	1
AC Power Cord	1
External Temperature & Humidity Module w/Cable	1
External LED Strobe Lamp w/Cable	1
8' (2.4M) Integrated Safety Switch/Cable	1
65' (19.8M) Integrated Safety Switch/Cable	1
Doble Bushing Tap Adapters	4
Hot Collar Straps	7
5 ft Copper Jumpers	5
OPTIONAL ACCESSORIES	
M7 Truck	
MFL Liquid Insulation Test Cell	
Type C Resonator (Up to 12 kV)	
Doble Universal Controller (DUC)	



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Specifications are subject to change without notice.
 Doble is an ISO 9001 & ISO/IEC 17025 & 17034 Certified Company.
 Doble is an ESCO Technologies Company.
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