

CDT-601

RECTIFIER TESTER

PRODUCTION TESTING

- Decreased cycle time with auto connect tooling
- Designed for the new generation of rectifiers with up to 8 phases
- Real-time filtering and digital processing for extreme accuracy and repeatability
- Compact footprint for easy integration into production line



The CDT-601 is a Windows®-based, high speed, high accuracy, robust, lean cell production tester for diode rectifier assemblies. CDT-601 is also available in modular configurations for in-line testing applications.

Features

- Compatible with the test specifications of all major Tier 1 manufacturers
- Tests standard and new generation rectifiers with up to 8 phases
- Tests rectifiers with diode trio assemblies
- Along with all standard tests there are number of built-in advanced measurements such as dynamic resistance, dynamic voltage drop, reverse direction stress test, dynamic reverse resistance, recognition of “soft knee” characteristic, noise etc.
- Ability to recognize diode quality issues, semiconductor material imperfections (micro-fractures, cracks), diode substrate damage and solder voids
- Recognizes rectifier assembly issues: incorrect diode, mixed diodes, physical damage to diode from installation and heat transfer issues
- Able to measure parameters in up to 16 diodes in one test
- Thermal resistance evaluation ($\Delta V_f/R_{th}$) with up to 150A heating current and adjusts automatically the energy of the heating pulse
- Can test stator/rectifiers assemblies and identify faulty solder connections or welds
- Verification of connections to rectifier to limit the possibility of false results
- Temperature compensation of the measured results based on the ambient air temperature, as well as optional infrared sensing of the temperature of the rectifier assembly
- Quick tooling fixture changeover (approximately 1 minute start to finish)
- Step-by-step tooling setup instruction sequence with pictures for operator ease of use
- High speed measuring and control electronics with solid state switches for fast, reliable, accurate testing
- Comprehensive software suite that includes individual test settings and part profiles, machine setup instructions (visual tutorial), labels and group names for diodes and connections, etc.
- Scripting capabilities for customized test sequence optimization and control of peripheral devices (label printing, marking device, barcode scanner, reject acknowledgement sensor, etc.)
- Multi-level User Manager with customizable logins and permission levels for access control
- Reports include test parameters with user set limits, graphical results identifying faulty diodes and plotting capabilities for detailed observations
- Customized statistical data output to suit end-user needs using D&V's Statistical Writer Editor
- Tester-to-tester data exchange and synchronization for results sharing and storage

TECHNICAL DATA

Parameters	Limits
Forward and Reverse Current Range	10 μ A-160A
Diode Forward Voltage Measuring Range	Up to 2.5V
Diode Forward Voltage Resolution	0.1mV
Zener Voltage Measuring Range	Up to 55V
Zener Voltage Resolution	1mV
Voltage and Current Measuring Accuracy	0.10%
Break-down Voltage	Up to 500V (Optional up to 1000V)
Break-down Test Current	Up to 2mA
Leakage Current	Up to 200 μ A (Dual range)
Leakage Current Resolution	1nA
Capacitance Measuring Range	100nF-10 μ F
Phase to Phase Resistance Measuring Range	0.005 Ω -2 Ω



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