DV ELECTRONICS LTD.

ALTERNATOR & STARTER TESTER

TESTING THE FUTURE®


DAV
ELECTRONICS
LTD.


JFM
JFM Technology

ALTERNATOR TESTER

ALT-72

Endurance & Performance

Feature

- Fully automated precision testing with -40 to +140 ℃ test chamber
- Option for humidity control
- Torque & effeciency readings with direct drive
- Built-in battery simulator 12-32V for cinsistent test conditions
- High efficienct regenerative load bank system
- Measures over 100 different alternator parameters
- Database program for creation and editing of test conditions and results

Technical Data

Output voltage	Up to 56* V	**Alternator Leakage**	Up to 100 mA
Stator Voltage	Up to 56* V	**Feedback Voltage**	0 - 50* V (0 ~ 100% PWM)
Output Current	Up to 300* Amps	**Output Power**	Up to 5600* Watts
Field Current	Up to 10 Amps	**Memory Capacity**	Unlimited P/N Profiles
Alternator Speed	Up to 21,000 rpm with belt drive or optional direct drive	**Alternator Temp.**	-40 ~ +140 ℃

* Standard ranges for reference only

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ALTERNATOR TESTER

ALT-100

Computerized Alternator Testers

Feature

- PC based system with a variable speed drive motor, battery simulator and programmable electronic load
- Simulation of car's on board couputer and connection problems
- Verification all parameters and prints reports after test completion
- User friendly enviroment for set-up and test procedure

Technical Data

Stator Voltage	0 ~ 50 V	**Feedback Voltage**	0 ~ 50 V (0 – 100% PWM)
Output Current	0 ~ 300 Amps	**Output Power**	0 ~ 5000 W
Field Current	0 ~ 10 Amps	**Memory number**	4000 part profile
Alternator Speed	0 ~ 12000 RPM	**Alternator Temp.**	25 ~ 200 ℃ (Optional)

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ALTERNATOR TESTER

ALT-186G2

Laboratory Testing

Feature

- Programmable test profiles for diverse test requirements
- High speed, high accuracy data acquisition for precise measurements
- Customizable software suite for detailed analysis and reporting
- Energy saving "Regen" load banks
- Endurance test mode for compnent validation

Technical Data

Parameter	ALT-186G2	ALT186G2 HD	Parameter	ALT-186G2	ALT186G2 HD
Power Loading	Up to 10 kW	Up to 28 kW	**Speed**	0 ~ 24000 RPM	0 ~ 15000 RPM 0 ~ 24000 RPM
Output Voltage	0 ~ 60 V	0 ~ 60 V	**Alternator Leakage**	0 ~ 25 mA	0 ~ 25 mA
Output Current	0 ~ 600 Amps	0 ~ 1200 Amps	**Feedback Voltage**	0 ~ 60 V	0 ~ 60 V
Field Current	0 ~ 15 Amps	0 ~ 15 Amps	**Optional Torque Sensor**	0 ~ 50 Nm	0 ~ 100 Nm

ALTERNATOR TESTER

ALT-198

With 300 AMP Resistive Load Bank

Feature

- Advance data acquisition
- Updated ALT-PRO software platform
- Also availble with larger capacity, energy saving regenerative load bank
- Available with 11kW, 15kW and 22kW variable speed motors
- Enduracne test mode for component validation

Technical Data

ALT-198 Models	15HP Resistive	15HP Regen	20HP Regen	30HP Regen
Driving Motor	11kW	15kW	15kW	22kW
Load Voltage Range	6 ~ 32V	6 ~ 58V		6 ~ 50V
Max. Alternator Current	300A	300A	450A	600A
Load Bank Power	4.8kW	6 kW	9 kW	12 kW
Alternator Speed **	0 ~ 12,000 rpm			

* Alternator speed with a 3:1 pulley ratio

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ALTERNATOR TESTER

ALT-262

Computerized Alternator Testers

Feature

- End of line production environment before shipment
- Easily intergrate with a variety of conveyor systems
- Simulate all signals to the alternator including on-board computer functions

Technical Data

Stator Voltage	0 ~ 50 Volts	**Alternator Speed**	0 ~ 10,000 RPM
Output Current	0 ~ 300 Amps	**Feedback Voltage**	0 ~ 50V (0~100% PWM)
Field Current	0 ~ 10 Amps	**Output Power**	0 ~ 10kW

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AST-10

Alternator & Starter Tester

Feature

- 7.5 Kw / 10HP Variable speed motor – Real-power for true load testing
- Automatic recognition of LIN/BSS protocols
- Ready for start-stop and change-of-mind starters
- Pneumatic belt-tensioning system for effortless setup
- Touch-Screen Windows PC based system

Technical Data

Output Voltage	0 ~ 50 Volts	**Stator Voltage**	0 ~ 50 Volts
Alternator Output	0 ~ 270 Amps	**Alternator Leakage**	1 ~ 100 mAmps
Starter Free Run Current Solenoid Current	0 ~ 300 Amps	**Starter Free Running Speed via Speed Sensor**	0 ~ 20,000 RPM

ALTERNATOR &
STARTER TESTER

JBT-1

Alternator & Starter Motor Tester for part stores & distribution centers

Feature

- New computer with touch-user interface
- Tests all alternators or starters accurately
- Built in RVC, BSS and LIN interface for testing of advanced new generation alternators
- Comprehensive parts database with thousands of part numbers serchable
- Fully automatic belt tesnioing system for effortlesst testing

Technical Data

Operating Voltage	12 Version	120V, 60 Hz	**Driving Motor**	12 Version	1 HP
	12-24 Version	220~240V, 50 or 60 Hz		12-24 Version	1 HP@60Hz 0.75HP@50Hz
Software Interface	Microsoft Windows, Touch Screen		**Alternator Voltage**	12 Version	12V
				12-24 Version	12-24V
Alternator Leak	1 ~ 100 mA		**Max. Alternator Load Current**	15 Amps	
Starter Free Run Current	0 ~ 150 Amps		**Starter Free Run Speed Range**	1,000 ~ 20,000 RPM	
Solenoid Current	0 ~ 100 Amps		**Solenoid Volatge Drop**	0 ~ 5 Volts	
RPM Speed Sensing	Optional		**Terminal Verification**	Automatic	

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VOLTAGE REGULATOR TESTER

VRT-10

Voltage Regulator Tester

Feature

- Test all types of solid state voltage regulators 6-32V
- Simulates all alternator signals to the regulator
- Simulates all car signals including on-board computer's signal to alternator&regulator
- Built-in short circuit and reverse polarity protection
- Extended testing capabilities via custom test procedures

Technical Data

Voltage Set Point	6 ~ 40 Volts ± 0.1 Volts	**Leakage Current**	0~100 mA ±0.1 mA
Feedback Voltage	0 ~ 30 Volts	**Field Switching Freq.**	10 ~ 10,000 Hz
Lamp Voltage	0 ~ 30 Volts	**Field Current**	Up to 10 Amps

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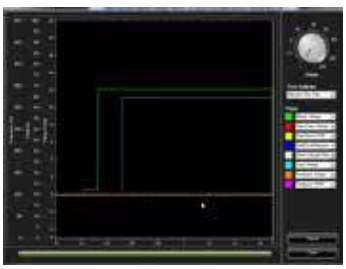
VOLTAGE
REGULATOR TESTER

VRT-315

Voltage Regulator / Alternator Tester

Feature

- The most advanced high performance voltage regulator tester
- Real-time control and high-resolution measurement of regulator components
- Built-in oscilloscope displays all measured and calculated regulator signals
- Precise measurement of feedback terminal
- Typical 0.05% measuring accuracy for all volatages
- Lamp simulator with programmable load current up to 2 Amps for Lamp&Relay Driver test



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DIODE TESTER

CDT-65A

Computerized Diode Tester

Feature

- Measures; Diode forward voltage drop, Reverse break over voltage, and Reverse leakage current
- Programmable limits for diode trio, rectifier and avalanche diodes
- Able to check rectifier with stator connected
- Automatic selection of polarity at the test clips
- HIGH/LOW indication for every measured parameter

Technical Data

Breakover Voltage	0 ~ 200 V	**Test Current**	Up to 125 Amps
Reverse Leakage Current	0 ~ 1,000uA (1mA)	**Power Supply**	120/220V AC, 40 VA
Accuracy			
Diode Voltage Drop	1% ± .002V	**Break voltage**	1% ±1V

DAV ELECTRONICS LTD.

CDT-150

Diode Tester

Feature

- Measured parameters include; Diode forward voltage drop, Reverse break over voltage, and Reverse leakage current
- Programmable part number profiles include Pass/Fail limits
- Able to check rectifier with stator connected
- GOOD/BAD diode test result indiciation on-screen
- Statistial report with streaming printout of test results

Technical Data

Breakover Voltage	20 ~ 200 V	**Leakage Current**	0 ~ 999 Amps
Rectifier Test Current	25 ~ 250 Amps	**Diode Trio Test Current**	5 ~ 25 Amps
Accuracy			
Diode Voltage Drop	1% ± .002V	**Break voltage**	1% ±1V
Leakage Current	1% ±1nA (0.001mA)	**Measuring Speed**	3~4 Test Cycles per second

RECTIFIER TESTER

CDT-200R2

Rectifier Tester suitable for laboratory testing

Feature

- Designed for the new generation of rectifiers with up to 8 phases
- Real-time filtering and digital processing for extreme accuracy and repeatability
- Compatible with the test specifications of all major Tier 1 manufacturers
- Tests rectifiers with diode trio assemblies

Technical Data

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

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RECTIFIER TESTER

CDT-601

Production Testing

Feature

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

Technical Data

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

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SOLENOID TESTER

SST-160G2

Production and Laboratory Testing

Feature

- New generation solenoid tester with improved speed, accuracy and measuring capabilities
- Patenet pending measuring methods allowing cycle time under 10 seconds
- Two-times increased productivity compared to previous generation tester
- Ready for standard, single coil, tandem, electronic and CoM solenoids

Technical Data

	Standard Duty	Heavy Duty		Standard Duty	Heavy Duty
Solenoid Coil Current	0 ~ 120A (240A opt.)	0 ~ 480A	**Solenoid Force**	0~90 kg	0~180kg
Solenoid Voltage	0 ~ 24A (48V opt.)	0 ~ 48V	**Coil Resistance**	0~10 0hms	0~10 0hms
BOR Distance	0~10 mm	0~10mm	**Contact Voltage Drop**	0~2.5 V	0~2.5V

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SST-162

Solenoid Tester

Feature

- New generation fully-automatic in-line solenoid tester with improved speed, accuracy and measuring capabilities
- Patent pending measuring methods allowing cycle time under 10 seconds
- Two-times increased productivity compared to previous generation tester
- Ready for standard, single coil, tandem, electronic and CoM solenoids

Technical Data

	Low-power	High-power		Low-power	High-power
Output Voltage	0~24V	0~48V	**Typical Position Accuracy**	0.01mm	0.01mm
Output Current	0~120A	0~480A	**Typical Force Measuring Accuracy**	0.2%	0.2%
Measured Force	0~100Kg	0~250Kg	**Typical Test Time**	9 Sec.	9 Sec.

STARTER TESTER

ST-24B

Computerized Starter Tester

Feature

- Built for the new ear of automotive testing
- High speed, accurate robust starter motor tester for customizable high-volume testing
- Touch screen PC based machine
- Measure more than 40 different starter parameters

Technical Data

Starter Current	0~3000 Amps, 0.15%	**Solenoid Current**	0~300 Amps, 0.2%
Starter Voltage	0~40 Volts, 0.15%	**Starter Efficiency**	0~100%
Starter Speed	0~20,000 RPM, 1%	**Starter Output Power**	0~10Kw, 0.5%
Starter Torque	0~120+nm	**Starter Input Power**	0~50Kw, 0.5%

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STARTER TESTER

ST-64G2

Starter Motor Tester for advanced performance evaluation

Feature

- Advanced testing designed to deliver maximum capabilities, flexibilitu and accuracy
- User configurable graphical interface with wide range of virtual instruments
- Programmable test profiles for complete control of test process
- Ready for Start-Stop and Chage-of Mind Straters

Technical Data

Starter Current	Up to 1500 or 3000 Amps	**Solenoid Current**	Up to 120 A or 240A (Option)
Starter Voltage	12&24V (32V Optional)	**Starter Efficiency**	0~100%
Loaded Starter Speed	0~11,000 RPM*	**Starter Output Power**	Up to 10kW
Starter Torque	Up to 200+Nm*	**Starter Input Power**	Up to 30kW

ST-66G2 / ST-69G2

Starter Tester with Engine Simulation

Feature

- Endurance and prototype testing
- Tests four starters with separate and unique crank profiles
- Ability to test Start/Stop and Change-of-Mind Starters
- Automated testing with programmable scripting
- Provides simulation of engine firing sequence

Technical Data

	ST-66G2	ST-69G2		ST-66G2	ST-69G2
Starter Output	Up to 3kW	3*~12kW	**Flywheel Shaft Torque**	Up to 1000Nm	Up to 5000Nm
Starter Input Power	Up to 12kW	Up to 24 kW	**Flywheel Speed**	Up to 4000RPM	Up to 2500RPM
Heavy Duty Option	N/A	Up to 48 kW	**Pinion Speed**	30,000** RPM	30,000** RPM

* May vary due to starter mass **Dependent on flywheel to pinion gear ratio

STARTER TESTER

ST-116

Starter Motor Tester for end-of-line prodction testing

Feature

- Designed with the industry's most flexible tooling for testing of large and small batches of starters, quickly and effortlessly
- Class leading cycle time and changeover optimized operator part loading
- Precision product diagnostics with D&V's state of the are data acquisition and processing technology
- Flexible operation with manual or automatic connection tooling for a wide range of starters
- Start-Stop and Change-of-Mind testing capabilities

Technical Data

Starter Current	Up to 1500 Amps	**Solenoid Current**	0~20,000 RPM
Starter Voltage	12 & 24 Volts	**Contact Voltage Drop**	0~5 Volts
Starter Speed	0 ~ 20,000 RPM	**Starter Efficiency**	0~100 %
Starter Torque	Up to 50 Nm	**Starter Output Power**	1~5 kW (Torque Limited)

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STARTER TESTER

ST-120

Starter Tester for testing starter motor assemblies

Feature

- Fast testing with auto connect tooling for reducing the cycle time
- Small footprint for wasy integration in production line
- Reject label & report printing capabilitiy
- Ready for Start-Stop and Change-of-Mind Starters

Technical Data

Starter Current	Up to 1500 Amps	**Contact Voltage Drop**	0 ~ 2.5 Volts
Starter Voltage	12 & 24 Volts (32V Optional)	**Starter Efficiency**	0~100 %
Starter Speed	0 ~ 20,000 RPM	**Starter Output Power**	Up to 5 kW
Starter Torque	Up to 100 Nm	**Starter Input Power**	Up to 10 kW
Solenoid Current	Up to 120 Amps	**Ripple Current**	0 ~ 200 Amps

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STARTER TESTER

ST-408

Eight-Station Starter Free-Run and Solenoid Endurance Tester

Feature

- Simultaneous operation tester for testing starter free-run endurance and starter solenoid endurance
- Unique 8-station design
- Four dedicated TMUs with 32 channels offer temperature measurement of wach starter at various locations
- Eight speed sensors with adjustable position measure free-run speed

Measured Values

- Unload source voltage(V)
- Starter voltage (V)
- Starter current (A)
- Maximum peak current (A)
- Starter temperature (°C)
- Ambient temperature (°C)
- Brushes temperature (°C) if starter equipped
- …..

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