

Motor Stator/Complete Machine Comprehensive Tester AN8A10RT(F) Series



Features

- High integration:** It can integrate 7 test functions and complete all tests with one wiring connection.
- Multi-channel:** The system can support up to 32 channels, meeting the needs of testing multiple windings, multiple attachments and other multiple taps of the motor.
- Wide range:** The extendable resistance measurement range is 0.1mΩ~20,000KΩ; the upper limit of the insulation testing range reaches 50GΩ.
- High performance:** In view of the low inductance characteristics of the new energy main drive motor, special constant voltage, impact and oscillation technologies are developed, and the interturn detection ability is many times higher than that of traditional technology.
- High precision:** The accuracy of the module can reach up to 1% level, which is the measurement level of the same type of international single-function meter in the United States.
- High reliability:** It has undergone strict working condition tests and millions of tests in complex environments.
- Multiple interfaces:** The system supports USB, RS232, LAN and other interfaces, supports PLC communication, TCP/IP network protocol, etc., which is convenient for data interaction and instrument control, and meets the requirements of automatic production line docking.

Product Overview

This tester features resistance, inductance, insulation, withstand voltage, interturn tests and other functions, with all functions tested in one wiring connection. It is a new comprehensive tester with high integration, high precision, practicality, and safety. It is suitable for stator/complete machine test requirements of new energy vehicle motors, household appliance motors, servo motors, stepper motors, fan motors, pump motors, large industrial motors, BLDC motors, etc.

Test items

- AC withstand voltage, DC withstand voltage, insulation resistance, DC resistance, resistance balance, interturn, inductance, inductance balance, reverse embedding, steering, etc.

Software interface

Item	Parameters	Values	Result
DCR	DR-B 1V100 TempOffset: Low=1.000C High=100.000C	292.54mΩ	OK
DCR	DR-B 0V100 TempOffset: Low=1.000C High=100.000C	289.97mΩ	OK
DCR	DR-C 1V100 TempOffset: Low=1.000C High=100.000C	291.81mΩ	OK
LCR	DR-B Low=8.00mH High=10.000mH	2.897mH	OK
LCR	DR-B Low=8.00mH High=10.000mH	2.897mH	OK
ACWV	DR-002000 0V100.0V 100.000V Low=2.000V High=22.000V	0.307mA	OK
IR	DR-002000 0V100.0V 100.000V Low=3.000M High=5.000M	500MΩ	OK
IW	DR-B 1V100.0V 0.0A 0.0% 0.0%	0.2% 0.3%	OK
IW	DR-B 1V100.0V 0.0A 0.0% 0.0%	0.2% 0.3%	OK
IW	DR-B 1V100.0V 0.0A 0.0% 0.0%	0.0% 0.4%	OK

IW A-B

IW B-C

IW A-C

ST1 ST2

1 100V/1A OK 3 0.5V/1mA OK

OK



Specifications

Product Name		Motor Stator/Complete Machine Comprehensive Tester	
Model		AN8A10RT(F) Series	Customized Parameter
Withstand voltage test	Output voltage	Range: (300-3,000)VAC, step size: 10V/step	5,000VAC
		Allowable Error: $\pm(1\% \times \text{Setting value} + 5V)$	DCW
	Breakdown current	Range: (0.01-20.0)mA	100mA
Allowable Error: $\pm(1\% \times \text{Reading value} + 5 \text{ digits})$			
	Duration	Range: (1.0-99.9)s, allowable error: $\pm(1\% \times \text{Setting value} + 0.1s)$	
Insulation test	Output voltage	Range: (200-1,000)VDC, step: 5V/step	2,500V
		Allowable Error: $\pm(1\% \times \text{Setting value} + 5V)$	
	Ripple coefficient	< 5%	
	Resistance measurement	Range: 1.0-500M Ω	50G Ω
Allowable Error: $\pm(2\% \times \text{Reading value} + 2 \text{ digits})$			
	Duration	Range: (1.0-99.9)s, allowable error: $\pm(0.1\% \times \text{Setting value} + 2 \text{ digits})$	
Resistance test	Testing and measurement	Range: (0.1-20k) Ω , unit Ω	1m Ω ~ 2M Ω
		Allowable Error: $\pm(0.3\% \times \text{Reading value} + 0.1\% \times \text{Range})$	
	Temperature measurement	(-10.0-60.0) $^{\circ}\text{C}$, Allowable error: $\pm 0.5^{\circ}\text{C}$	
Resistance balance	Calculation formula	$ \text{Resistance value} - \text{Average resistance} / \text{Average resistance} \times 100\%$	Others
	Display range	0.0% ~ 99.9%	
Interturn test	Impulse voltage	Range: (300-3,000)V, Step: 10V/step Allowable Error: $\pm(2.5\% \times \text{Setting value} + 10V)$	5000V
Inductance test	Combo Interval	20ms	
	Waveform Sampling	100MHz	
	Testing Range	1.0uH-1,000.0mH	99.99KH
	Basic Accuracy	0.5%	
	Test Frequency	100Hz, 120Hz, 1kHz, 10kHz	
	Test Level	0.1, 0.3, 1.0 (V)	
Rotation test	Decision Parameter	Forward rotation, reverse rotation, and non-rotation	

The above specifications are subject to change without notice.