8A(F) Series Motor Winding and Coil Test Series



Series of Partial Discharge Tests /

For static operating conditions such as impedance and insulation of motors, custom function combinations and integrated automated test can be implemented, significantly improving cycle efficiency with module accuracy up to 1%. It is adaptable to various DUTs (Device Under Test) including stators, rotors, and complete machines, meeting requirements for laboratory, production line, and online test scenarios.

Main Function Introduction /

DC resistance, LCR test, ACW, DCW, IR, inter-turn insulation, surge, rotation direction test, reverse winding test, vacuum wire damage detection, etc.

Functional Features /

- **High integration:** integrating 7 test items, completing all tests with single wiring.
- **Multi-channel:** up to 32 channels, meeting the test requirements for multiple winding and multiple accessories of motors, and other multi-tap configurations.
- **Wide range:** Expandable resistance measurement (0.1mΩ~20000KΩ); upper limit of IR test: 50GΩ.
- **High performance:** Developed specialized constant voltage, impulse, and oscillation technologies to address the low inductance characteristics of specialized motors, significantly enhancing inter-turn detection capability compared to traditional techniques.
- **High precision:** The accuracy of the tester can reach up to the 1% level.
- **High reliability:** It has undergone rigorous operational condition tests and normal operation in complex environments through millions of cycles.
- **Multi-interface:** USB/RS232/LAN, PLC communication and TCP/IP network protocols, easy data exchange and instrument control to meet the requirements of automated line integration.

Software Interface /





Applicable Industry /

New energy vehicle motors, robot motors, home appliance motors, industrial motors, and automation control motors.

Technical Specifications /

Test Function	Names of Parameters	Specifications	Custom Parameters
Withstand Voltage Test	Output Voltage	Range: (300~3000)VAC, Step: 10V	5000VAC
		Error: ±(1% × setting + 5V)	Direct withstand
	Break Down Current	Range: (0.01~20.0)mA	100mA
		Error: ±(1% × reading + 5 words)	
	Duration	Range: (1.0~99.9)s, error: ±(0.1% × setting + 2 words)	
Insulation Test	Output Voltage	Range: (200~1000)VDC, step: 5V	2500V
		Error: ±(1% × setting + 5V)	
	Ripple Coefficient	< 5%	
	Resistance Measurement	Range: 1.0~500MΩ	50GΩ
		Error: ±(2% × reading + 2 words)	
	Duration	Range: (1.0~99.9)s, error: ±(0.1% × setting + 2 words	
Resistance Test	Test and Measurement	Range: (0.1~20k)Ω, unit: Ω	1mΩ~2MΩ
		Error: +(0.3% × reading + 0.1% × range)	
	Temperature Measurement	(-10.0 ~ 60.0)°C, error: ±0.5°C	
Resistance Balance	Calculation Formula	|Resistance -Resistance average|/Resistance average*100%	Others
	Display Range	0.0% ~ 99.9%	
Interturn Test	Pulse Voltage	Voltage range: 0~6kV	Upper limit for modification: 10kV
		Error: ±(2.5% × setting + 10V)	
	Interval of Continuous Hitting	20ms	
	Wave Sampling	100MHz	
Inductance Test	Test Range	1.0uH-1000.0mH	99.99kH
	Basic Accuracy	0.5%	
	Test Frequency	100Hz,120Hz,1kHz,10kHz	
	Test Level	0.1,0.3,1.0 (V)	
Steering Test	Decision Paramete	Forward rotation, reverse rotation, no rotation	
Surge	Voltage Level	0.2kV~5kV	
	Internal Impedance	2Ω、12Ω、40Ω	
	Open-circuit Voltage Wave	Leading edge: 1.2μs, pulse width: 50μs	
	Short-circuit Current Wave	Leading edge: 8μs, Pulse width: 20μs	
	Judgment Methodr	No breakdown, no flashover	