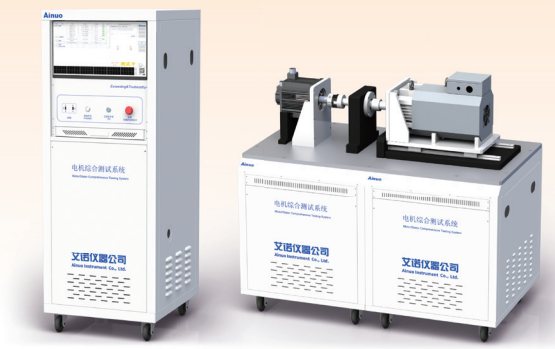
8P(F) Series Motor Performance Test Series



Series of Partial Discharge Tests /

High bandwidth high-precision electrical parameter measurement, precision loading control, accurately acquire the changes in electrical parameters during the operation of motor, identify weak quality defects, improve detection capabilities, applicable to the detection of motor quality characteristics and mechanical characteristics.

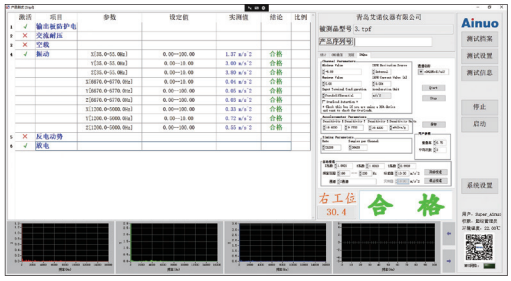
Main Function Introduction /

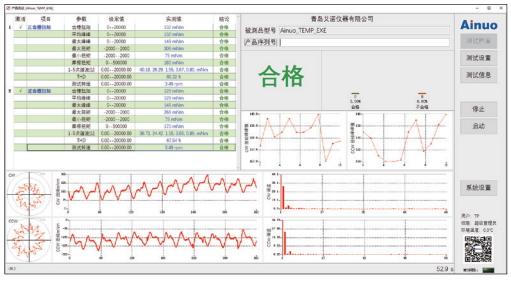
Reverse electromotive force test, no-load/load test (voltage, current, power, efficiency), speed/torque test, position sensor test (Hall, magnetic encoder, optical encoder, rotary encoder), cogging/friction torque, stall/low start test, vibration and noise detection, NVH, etc.

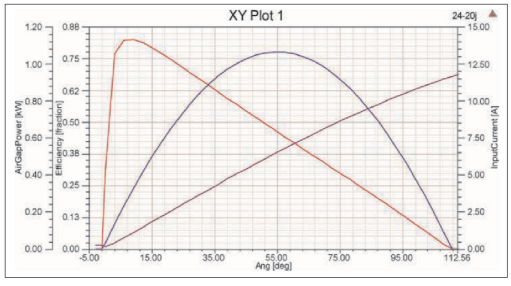
Functional Features /

- **Multi level:** The system power module has multi-power control and test.
- **Broadband:** 0.5Hz~100KHz ultra wide frequency band detection of electrical parameters.
- **High precision:** high-precision torque sensors and voltage/current acquisition modules, with core parameter measurement error within +0.5%.
- **High efficiency:** complete all tests in one clamping, dual and multiple station custom, high efficiency.
- **High performance:** closed-loop feedback regulation system for voltage regulation, steady voltage output.
- **Convenient maintenance:** independently developed AC/DC power supplies, unified and efficient pre-sales/after-sales.
- **Multi-interface:** USB/RS232/LAN, etc., PLC simulation, TCP/IP network protocols, etc., easy data exchange and instrument control.

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
Reverse Electromotive Force Test	Voltage	1.00 V~26.99V, 27.0~700.0V	Custom for voltages above 700V
	Voltage Error	±(0.5% x display + 0.1% x range)	
	Frequency Range	10.0Hz~200.0Hz	
	Frequency Error	±(0.2% x display + 1 word)	
	Phase Range	0~360°	
	Phase Error	±1°	
No Load/Load Electrical Parameter Test	Voltage	0~1000V	Upper limit expansion
	Voltage Error	DC: ±(0.1% x display + 0.2% x range), 0.5Hz≤f<45Hz: ±(0.1% x display + 0.2% x range) 45Hz≤f<66Hz: ±(0.1% x display +0.1% x range), 66Hz<f ≤1kHz: ±(0.1% x display + 0.2% x range) 1kHz<f≤10kHz: ±(\ [0.07xf]% x display+0.3% x range) 10kHz<f≤100kHz: ±(0.5% x display + 0.5% x range), +\[0.04x(f-10)]% x display]	
	Current Range	20A	Upper limit expansion
	Current Error	DC: ±(0.1% x display + 0.2% x range), 0.5Hz ≤f<45Hz: ±(0.1% x display + 0.2% x range) 45Hz≤f<66Hz: ±(0.1% x display +0.1% x range), 66Hz<f ≤1kHz: ±(0.1% x display + 0.2% x range) 1kHz<f≤10kHz: ±(\ [0.07xf]% x display+0.3% x range) 10kHz<f≤100kHz: ±(0.5% x display + 0.5% x range), +\[0.04x(f-10)]% x display]	
	Current Error	1W~4400W	
	Power Factor	0.001~1.000	
Load Torque/ Speed Test	Range of Speed	0~3000rpm	Custom speed
	Speed Accuracy	1%	
	Torque Range	0~50Nm	Custom speed
	Torque Accuracy	1%	
Hall Test	Voltage	0.00~30.00V	
	Voltage Error	±(0.5% x display + 0.1% x range)	
	Frequency Range	1.0~1000.0Hz	
	Frequency Error	±(0.2% x display + 1 word)	
	Duty Cycle Range	10.0%~90.0%	
	Duty Cycle Error	±0.5% , (≤ 100.0Hz, 10.0%~90.0%) ; ±0.5% , (1.0~1000.0Hz, 45.0%~55.0%)	
	Phase Range	0~360°	
	Phase Error	±1°	
Reverse Electromotive Force and Hall Phase Test	Phase Range	0~360°	
	Phase Error	±1°	
Rotary Encoder Test	Exciting Voltage	7.0V	
	Frequency	2000~10000Hz	
	Pole Pairs	1~256	
Cogging/ Friction Torque	Test Range	50mNm/200mNm/500mNm/1Nm/2Nm	
	Accuracy of Torque Test	<1mNm	
	Torque Resolution	0.1mNm/0.1mNm/0.1mNm/0.1mNm/0.1mNm	
	Test Speed	1~30rpm	
	Direction	CW/CCW	
	Test Results	1) Max. torque; 2) Min. torque; 3) Max. peak-to-peak torque (cogging); 4) Offset (friction); 5) FFT analysis (1st ~ 128th order);	
Stall/Low Start Test	Voltage	1.00 V~26.99V, 27.0~700.0V	
	Voltage Error	±(0.5% x display + 0.1% x range)	
	Voltage Frequency	Measurement: (0.1~200.0)m/s² (peak)	
	Voltage Resolution	0.01V/0.1V	
	Current Range	0.020A~0.099A, 0.10A~2.69A, 2.7~40.0A	Upper limit expansion
	Current Error	±(0.5% x display + 0.1% x range)	
	Range of Power	50.0W~25.0kW	
	Power Error	±±(0.2% x display + 1 word)	
Vibration Test	Acceleration	Measurement: (0.1~200.0)mm/s (RMS)	
		Frequency: (10~1k)Hz	
		Display error: ±5%	
	Speed	Measurement: (1-2000)μm (peak-to-peak)	
		Frequency: (10~1k)Hz	
		Display error: ±5%	
	Displacement	Measurement: (1-2000)μm (peak-to-peak)	
		Frequency: (10~1k)Hz	
		Display error: ±5%	