

Comprehensive Coil/Stator Test Scheme AN8351(F)



Product Introduction

This product is suitable for static testing of various types of coils/stators, widely used in the testing of coils and stators of electric vehicles, shaded pole motors, universal motors, asynchronous motors, tubular motors, linear motors, and automated production lines.

Features

- Efficient: complete performance testing in one connection, automatic storage of test data.
- Compatible: six-in-one test items such as withstand voltage, insulation, resistance, and turn-to-turn.
- High performance: voltage regulation, insulation, turn-to-turn and other voltage adjustments using closed-loop voltage feedback adjustment system to accurately control the voltage regulation and rising process, stable voltage output.
- Module: Module test unit to avoid interference, and customize single/multi-station, serial/parallel test system as required.
- Intelligent: intelligent self-check, remote diagnosis and online upgrade, quick location of problems and eliminating.
- Easy maintenance: plug-in design, convenient for disassembly; intelligent self-check, remote diagnosis, online upgrade and other flexible settings, quick location of problems.

Test items

- Stator: withstand voltage, insulation, resistance, resistance balance, interturn, inductance, rotation.

Test cases



Specifications

General parameters of AN8351(F) series			
Application industries		Various types of coils and stators	
Model of product		AN8351(F)	Custom parameters
Withstand voltage test	Output voltage	Range: 300 ~ 3000 VAC, step: 10V	5000 VAC
		Allowable error: $\pm (2.5\% \times \text{setting} + 10V)$	
	Break down current	Range: 0.10~20.00 mA	100 mA
		Allowable error: $\pm (2.5\% \times \text{reading} + 5 \text{ words})$	
	Duration	Range: 1.0~99.9s, allowable error: $\pm (1\% \times \text{setting} + 0.1s)$	
Insulation test	Output voltage	Range: 200 ~ 1000 VDC, step: 5V	
		Allowable error: $\pm(3\% \times \text{setting} + 5V)$	
	Ripple coefficient	<5%	
	Resistance measurement	Range: 1.0~500M Ω	
		Allowable error: $\leq 200M\Omega$, $\pm(3\% \times \text{reading} + 5 \text{ words})$	
		> 200M Ω , $\pm(5\% \times \text{reading} + 8 \text{ words})$	
	Duration	Range: 1.0~99.9s, allowable error: $\pm (1\% \times \text{setting} + 0.1s)$	
Resistance test	Test and measurement	Range: 0.1~20k Ω , unit: Ω	
		Allowable error: $\pm(0.3\% \times \text{reading} + 3 \text{ words})$	1m Ω ~ 400K Ω
	Temperature measurement	(0.0~60.0) $^{\circ}\text{C}$, allowable error: $\pm 0.5^{\circ}\text{C}$	
Resistance balance	Calculation formula	$ \text{Resistance} - \text{Resistance average} / \text{Resistance average} \times 100\%$	
	Display range	0.0% ~ 99.9%	
Interturn test	Pulse voltage	Range: 300~3000 V, step: 100V	
		Allowable error: $\pm(3\% \times \text{setting} + 10V)$	5000 V
	Wavefront time	$\leq 0.5\mu\text{s}$	
	Acquisition frequency	5kHz~40MHz	
	Wave parameters	Area, difference area, (1~10) consecutive impacts; range: 0~99%	
Inductance test	Test range	0.0001 μH ~99.99kH	
	Allowable error	0.5%	
	Test frequency	100Hz, 120Hz, 1kHz, 10kHz	
	Test level	0.1, 0.3, 1.0 (V)	
Rotation test	Decision parameter	CW/CCW/None	