

Induction Motor Test



This is a 3 phase 50Hz 0.55kW (0.73 HP) AC squirrel cage induction motor built in the USSR. It has an ingress protection IP44 rating. The motor has GOST 183-74 insulation class B. A cosine theta p.f. of 0.70. It has a power efficiency of 70.5% and operates at 1370 RPM. It operates at 240V, 2.7A in Delta configuration and 415V, 1.55A in Star configuration.

Test Performed	Measurement Instrument	Results			Notes
		U	V	W	
Insulation Resistance	YOKOGAWA 2406E	∞	∞	∞	To Earth
	MEGGER BM121	∞	∞	∞	U to V
	Both tested at 500V	∞	∞	∞	V to W
		∞	∞	∞	W to U
Winding Resistance	UNI-T UT39B (200 Ω)	U	V	W	
		15.5 Ω	15.5 Ω	15.5 Ω	
Visual Test	Stator shows mild wear and tear and signs of aging. Rotor is severely bent.				
Bearing Test	Bearings on the fan side have lateral movement. Movement on key side is present but acceptable.				
Summary of Findings	Motor requires a bearing / rotor replacement. Not fit for service. Recommend rotor and bearing replacement.				