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Motor Test Result Attributes

These are the attributes that are associated with result status applied to a Motion Control Axis.

Motor Test Status

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Required - D	Get/GSV		USINT	-	-	-	Enumeration 0 = Test Process Successful 1 = Test in Progress 2 = Test Process Aborted 3 = Test Process Timed-out 4 = Test Process Faulted 5...255 = Reserved

The Motor Test Status attribute returns status of the last Run Motor Test service on the targeted drive axis. The Motor Test Status attribute can be used to determine when the motor test service has successfully completed. Conditions may occur, however, that make it impossible for the drive to properly perform the operation. When this is the case, the test process is automatically terminated and a test error is reported that is stored in the Motor Test Status output parameter.

Motor Test Resistance

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Required - D	Get/GSV		REAL	-	-	-	Ohms

This floating point value represents the stator resistance of an induction or permanent magnet motor as measured by the Motor Test procedure.

Motor Test Inductance

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Required - D	Get/GSV		REAL	-	-	-	Henries

This floating point value represents the motor inductance of an induction or permanent magnet motor as measured by the Motor Test procedure.

Motor Test Flux Current

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Required - D IM Only	Get/GSV		REAL	-	-	-	Amps

This floating point value represents the motor flux current of an induction motor as measured by the Motor Test procedure.

Motor Test Slip Speed

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Required - D	Get/GSV		REAL	-	-	-	RPM: rotary motor type
IM Only							m/s: linear motor type

This floating point value represents the slip speed of an induction motor as measured by the Motor Test procedure.

Motor Test Counter EMF

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Required - D	Get/GSV		REAL	-	-	-	Volts
PM Only							

This floating point value represents the measured Counter EMF (CEMF) of a PM motor at Rated Speed by the Motor Test procedure.

Motor Test Lq Inductance

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Required - D	Get/GSV		REAL	-	-	-	Henries
IPM Only							

This floating point value represents the phase-to-phase q-axis motor inductance measured by the Motor Test procedure.

Motor Test Ld Inductance

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Required - D	Get/GSV		REAL	-	-	-	Henries
IPM Only							

This floating point value represents the phase-to-phase d-axis motor inductance measured by the Motor Test procedure.

Motor Test Lq Flux Saturation

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Required - D	Get/GSV		REAL [8]	-	-	-	% Nominal Inductance
IPM Only							

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This floating point value represents the phase-to-phase q-axis stator inductance of the motor as measured by the Motor Test procedure expressed as a percentage of the measured Nominal Inductance, Lq, at 25%, 50%, 75%, 100%, 125%, 150%, 175% and 200% rated continuous current.

Motor Test Ld Flux Saturation

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Required - D IPM Only	Get/GSV		REAL	-	-	-	% Nominal Inductance

This floating point value represents the phase-to-phase d-axis stator inductance of the motor as measured by the Motor Test procedure expressed as a percentage of the measured Nominal Inductance, Ld, at 100% rated continuous current.

Motor Test Bus Overvoltage Speed

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Required - D IPM Only	Get/GSV		REAL	-	-	-	RPM (rotary motor type) m/s (linear motor type)

This floating point value represents the maximum speed of the motor without exceeding the operational DC bus overvoltage limit, as determined by the Motor Test procedure.

Motor Test Commutation Offset Comp

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Required - D IPM Only	Get/GSV		REAL	-	-	-	Electrical Degrees

This floating point value represents the change in motor Commutation Offset at rated continuous current as measured by the Motor Test procedure.

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