

# Induction Motor Attributes

These are the motor configuration attributes that apply specifically to induction motor types.

## Induction Motor Rated Frequency

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Required - D	Set/GSV	REAL	60 DB	0	$\infty$	Hertz

The Induction Motor Rated Frequency attribute is a floating point value that specifies the nameplate frequency rating of an induction motor.

## Induction Motor Flux Current

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Required	Set/SSV*	REAL	0 DB FD	0	$\infty$	Amps (RMS)

\* Indicates the attribute cannot be set while the drive power structure is enabled (Power Structure Enable bit in CIP Axis Status is true).

The Induction Motor Flux Current attribute is an ID Current Reference that is required to generate full motor flux. This value is closely approximated by the No Load Motor Rated Current commonly found in Induction Motor data sheets.

## Induction Motor Stator Resistance

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Required	Set/SSV*	REAL	0 DB FD	0	$\infty$	Ohms

\* Indicates the attribute cannot be set while the drive power structure is enabled (Power Structure Enable bit in CIP Axis Status is true).

The Induction Motor Stator Resistance attribute is a floating point value that specifies the Y circuit, phase-neutral, winding resistance of the stator as shown as  $R_1$  in the IEEE motor model.

## Induction Motor Stator Leakage Reactance

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Optional	Set/SSV*	REAL	0 DB --	0	$\infty$	Ohms

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			FD			
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\* Indicates the attribute cannot be set while the drive power structure is enabled (Power Structure Enable bit in CIP Axis Status is true).

The Induction Motor Stator Leakage Reactance attribute is a floating point value that specifies the Y circuit, phase-neutral, leakage reactance of the stator winding, at rated frequency, as shown as  $X_1$  in the IEEE motor model.

## Induction Motor Magnetization Reactance

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Optional <sup>1</sup>	Set/SSV*	REAL	0 DB	0	$\infty$	Ohms

<sup>1</sup> This parameter has a strong motor temperature component that some drives circumvent through various adaptive control or compensation techniques.

\* Indicates the attribute cannot be set while the drive power structure is enabled (Power Structure Enable bit in CIP Axis Status is true).

The Induction Motor Magnetization Reactance attribute is a floating point value that specifies the Y circuit, phase-neutral, magnetizing reactance of the motor, at rated frequency, as shown as  $X_m$  in the IEEE motor model.

## Induction Motor Rotor Resistance

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Optional <sup>1</sup>	Set/SSV*	REAL	0 DB	0	$\infty$	Ohms

<sup>1</sup> This parameter has a strong motor temperature component that some drives circumvent through various adaptive control or compensation techniques.

\* Indicates the attribute cannot be set while the drive power structure is enabled (Power Structure Enable bit in CIP Axis Status is true).

The Induction Motor Rotor Resistance attribute is a floating point value that specifies the phase-neutral equivalent stator-referenced winding resistance of the rotor as shown as  $R_2$  in the IEEE motor model.

## Induction Motor Rotor Leakage Resistance

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Optional	Set/SSV*	REAL	0 DB FD	0	$\infty$	Ohms

\* Indicates the attribute cannot be set while the drive power structure is enabled (Power Structure Enable bit in CIP Axis Status is true).

The Induction Motor Rotor Leakage Resistance attribute is a floating point value that specifies the Y circuit, phase-neutral, equivalent stator-referenced leakage inductance of

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Specifies the T circuit, phase-neutral, equivalent stator-referred leakage inductance of the rotor winding, at rated frequency, as shown as  $X_2'$  in the IEEE motor model.

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## Induction Motor Rated Slip Speed

Usage	Access	Data Type	Default	Min	Max	Semantics of Values
Optional	Set/SSV*	REAL	0 FD	0	$\infty$	RPM (rotary motor type) m/s (linear motor type)

\* Indicates the attribute cannot be set while the drive power structure is enabled (Power Structure Enable bit in CIP Axis Status is true).

The Induction Motor Rated Slip Speed attribute represents the amount of slip at motor rated current (full load) and motor rated frequency.

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