

UNITS: INCHES
 ROTATION FROM ODE
 ccw cw

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NOTES:
 1. MAIN CONDUIT BOX MAY BE ROTATED IN 90° INCREMENTS
 2. STANDARD PRODUCT USES BI-DIRECTIONAL FAN. OPPOSITE ROTATION AVAILABLE ONLY BY CONNECTION CHANGE.
 3. KEY DIMENSIONS EQUAL 0.1875X0.1875X1.375 (MOTOR SUPPLIED WITH KEY)

TOSHIBA
 www.toshiba.com/tic
EQP Global
 TOSHIBA INTERNATIONAL CORPORATION

TOTALLY ENCLOSED NONVENTILATED
 HORIZONTAL FOOT MOUNT
 3 PHASE INDUCTION MOTOR
 56-56H F1 ASSEMBLY

DRAWING #: 3HFEN000605/MDSL V126-01
 REV. DATE: 02/14/20 REV. #: 1 PER: -
 REV. DESCRIP.: Remove KEY dimensions

TYPICAL MOTOR PERFORMANCE DATA

Model: 1/24FNSR31H-P

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
0.50	0.37	4	1755	56	230/460	60	3	1.4/0.7
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TENV	55	F	1.25	CONT	84.0	-		40 C

Load	HP	kW	Amperes	Efficiency (%)	Power Factor (%)
Full Load	0.50	0.4	0.7	84.8	74.9
¾ Load	0.38	0.3	0.6	83.4	67.5
½ Load	0.25	0.2	0.5	79.3	55.7
¼ Load	0.13	0.1	0.4	66.8	37.1
No Load			0.4		
Locked Rotor			5.6		51.1

Torque				Rotor wk² Inertia (lb-ft²)
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	
1.50	245	195	355	0.11

Safe Stall Time(s)		Sound Pressure dB(A) @ 1M	Bearings*		Approx. Motor Weight (lbs)
Cold	Hot		DE	NDE	
35	15		6305ZZ	6305ZZ	53

*Bearings are the only recommended spare part(s).

Motor Options:
Mounting:Footed,Shaft:56

Customer	
Customer PO	
Sales Order	
Project #	

Tag:

All characteristics are average expected values.

TOSHIBA INTERNATIONAL CORPORATION · HOUSTON, TEXAS U.S.A.

Engineering	SPinzon	Doc. Written By	D. Suarez	Doc.# / Rev	MPCF-1119 / 0
Engr. Date	6/23/2022	Doc. Approved By	M. Campbell	Doc. Issued	6/8/2011

TYPICAL MOTOR PERFORMANCE DATA

Model: 1/24FNSR31H-P

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
0.50	0.37	4	1440	56	190/380	50	3	1.8/0.9
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TENV	55	F	1.0	CONT	81.5	-		40 C

Load	HP	kW	Amperes	Efficiency (%)	Power Factor (%)
Full Load	0.50	0.4	0.9	82.4	79.4
¾ Load	0.38	0.3	0.7	82.5	73.4
½ Load	0.25	0.2	0.5	79.8	62.2
¼ Load	0.13	0.1	0.4	69.2	42.6
No Load			0.4		
Locked Rotor			5.1		56.2

Torque				Rotor wk ² Inertia (lb-ft ²)
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	
1.82	200	155	295	0.11

Safe Stall Time(s)		Sound Pressure dB(A) @ 1M	Bearings*		Approx. Motor Weight (lbs)
Cold	Hot		DE	NDE	
35	15		6305ZZ	6305ZZ	53

*Bearings are the only recommended spare part(s).

Motor Options:
Mounting:Footed,Shaft:56

Customer	
Customer PO	
Sales Order	
Project #	

Tag:

All characteristics are average expected values.

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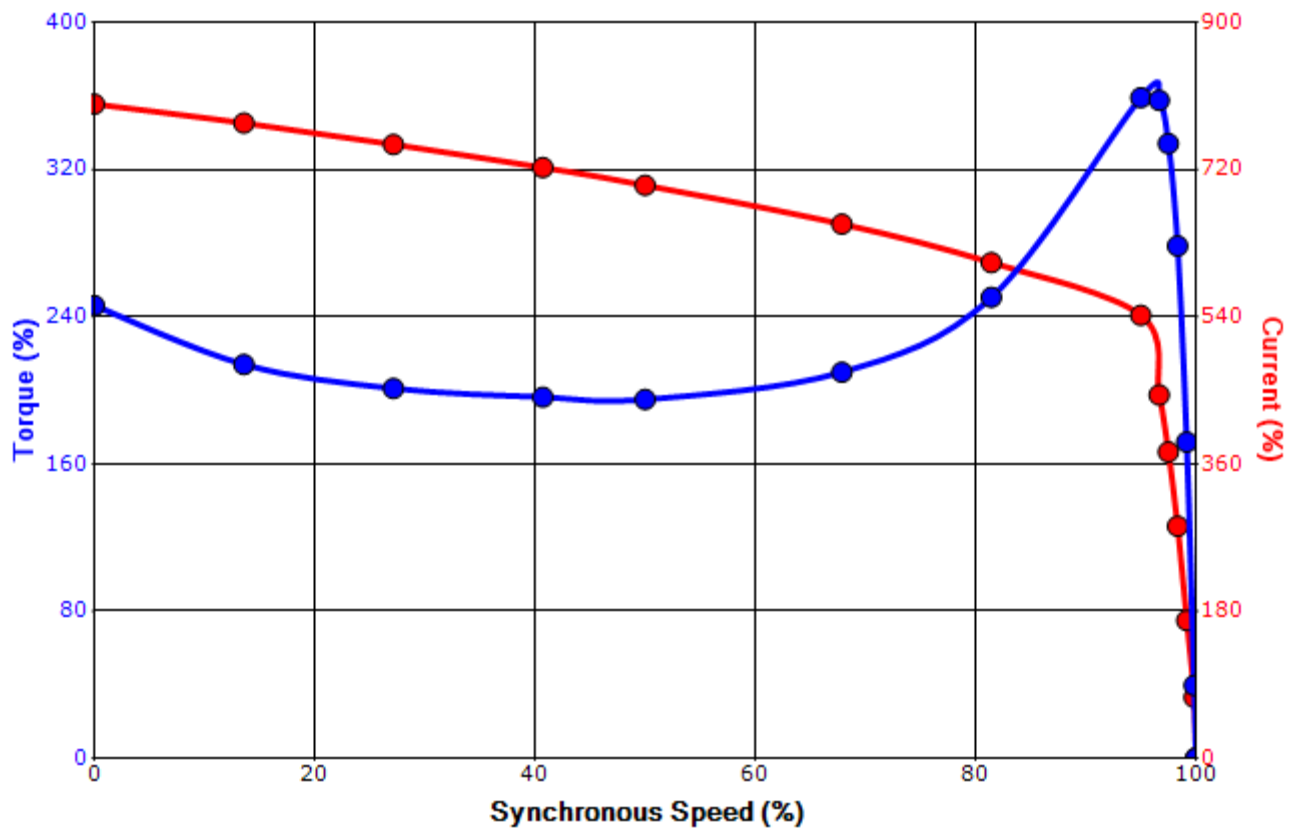
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SPEED TORQUE/CURRENT CURVE

Model: 1/24FNSR31H-P

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
0.50	0.37	4	1755	56	230/460	60	3	1.4/0.7
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TENV	55	F	1.25	CONT	84.0	-		40 C
Locked Rotor Amps	Rotor wk ² Inertia (lb-ft ²)	Torque						
		Full Load (lb-ft)	Locked Rotor (%)	Pull Up (%)	Break Down (%)			
5.6	0.11	1.50	245	195	355			

Design Values



Customer		wk ² Load Inertia (lb-ft ²)	-
Customer PO		Load Type	-
Sales Order		Voltage (%)	100
Project #		Accel. Time	-

Tag:

All characteristics are average expected values.

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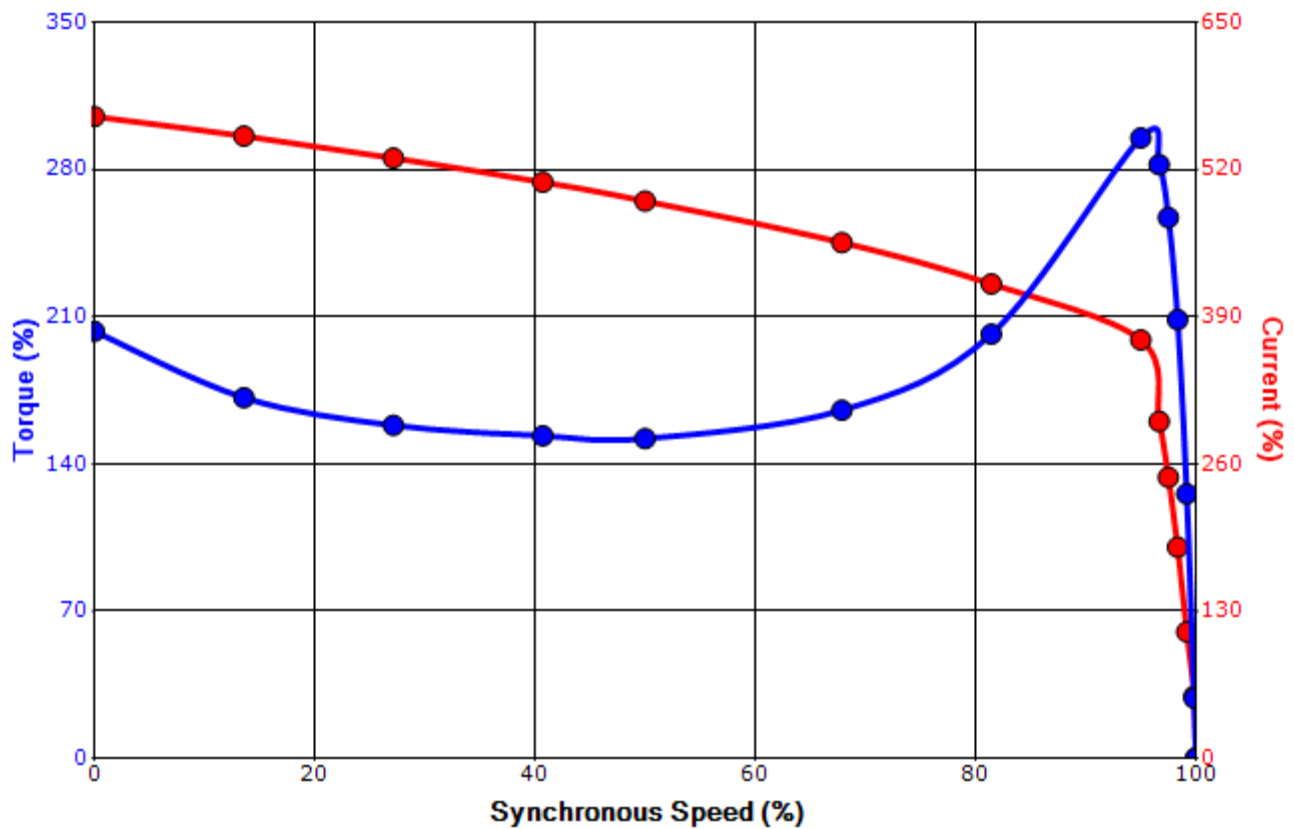
Engineering	SPinzon	Doc. Written By	D. Suarez	Doc.# / Rev	MPCF-1121 / 0
Engr. Date	6/23/2022	Doc. Approved By	M. Campbell	Doc. Issued	6/8/2011

SPEED TORQUE/CURRENT CURVE

Model: 1/24FNSR31H-P

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
0.50	0.37	4	1440	56	190/380	50	3	1.8/0.9
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TENV	55	F	1.0	CONT	81.5	-		40 C
Locked Rotor Amps	Rotor wk ² Inertia (lb-ft ²)	Torque						
		Full Load (lb-ft)	Locked Rotor (%)	Pull Up (%)	Break Down (%)			
5.1	0.11	1.82	200	155	295			

Design Values



Customer		wk ² Load Inertia (lb-ft ²)	-
Customer PO		Load Type	-
Sales Order		Voltage (%)	100
Project #		Accel. Time	-

Tag:

All characteristics are average expected values.

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Motor Connection Diagrams
9 Leads

Across-the-Line Starting / Running Connections

Low Voltage Wye



High Voltage Wye



Switch L1 and L2 to reverse rotation