

UNITS: INCHES

ROTATION FROM ODE

☒ CCW ☐ CW

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 0.1875X0.1875X1.378" (MOTOR SUPPLIED WITH KEY)

TOSHIBA RESERVES THE RIGHT TO MAKE CHANGES OF TECHNICAL IMPROVEMENT AND THE DATA MAY CHANGE WITHOUT NOTICE ☐ PRELIMINARY

DO NOT USE FOR CONSTRUCTION, INSTALLATION, OR APPLICATION PURPOSES UNLESS THE DRAWING IS MARKED AS CERTIFIED ☒ CERTIFIED

TOSHIBA

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TOSHIBA INTERNATIONAL CORPORATION

TOTALLY ENCLOSED FAN COOLED

HORIZONTAL FOOT MOUNT

3 PHASE INDUCTION MOTOR

56-56H

F1 ASSEMBLY

DRAWING #: 3HFN000510/MSLV125-01

REV. DATE: 02/14/20 REV. #: 2 PER.:

REV. DESCRIP: Remove old rev & key dimensions

TYPICAL MOTOR PERFORMANCE DATA

Model: 3/42SDSR31H-P

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
0.75	0.55	2	3510	56	230/460	60	3	2.2/1.1
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TEFC	55	F	1.25	CONT	84.0	-		40 C

Load	HP	kW	Amperes	Efficiency (%)	Power Factor (%)
Full Load	0.75	0.6	1.1	84.8	78.7
¾ Load	0.56	0.4	0.8	82.9	72.4
½ Load	0.37	0.3	0.7	77.7	61.3
¼ Load	0.19	0.1	0.6	63.3	43.0
No Load			0.5		10.9
Locked Rotor			7.4		54.7

Torque				Rotor wk² Inertia (lb-ft²)
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	
1.12	220	170	275	0.04

Safe Stall Time(s)		Sound Pressure dB(A) @ 1M	Bearings*		Approx. Motor Weight (lbs)
Cold	Hot		DE	NDE	
35	15		6305ZZ	6305ZZ	48

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

Motor Options:
Product Family:EQP Global SD
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: 3/42SDSR31H-P

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
0.50	0.37	2	2925	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)
TEFC	55	F	1.0	CONT	81.5	-		40 C

Load	HP	kW	Amperes	Efficiency (%)	Power Factor (%)
Full Load	0.50	0.4	0.9	82.1	75.3
¾ Load	0.37	0.3	0.7	79.2	68.1
½ Load	0.25	0.2	0.6	72.6	57.1
¼ Load	0.12	0.1	0.6	56.4	40.5
No Load			0.5		11.9
Locked Rotor			6.6		58.9

Torque				Rotor wk² Inertia (lb-ft²)
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	
0.90	265	200	300	0.04

Safe Stall Time(s)		Sound Pressure dB(A) @ 1M	Bearings*		Approx. Motor Weight (lbs)
Cold	Hot		DE	NDE	
35	15		6305ZZ	6305ZZ	48

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

Motor Options:

Product Family:EQP Global SD
Mounting:Footed,Shaft:56

Customer		
Customer PO		
Sales Order		
Project #		

Tag:

All characteristics are average expected values.

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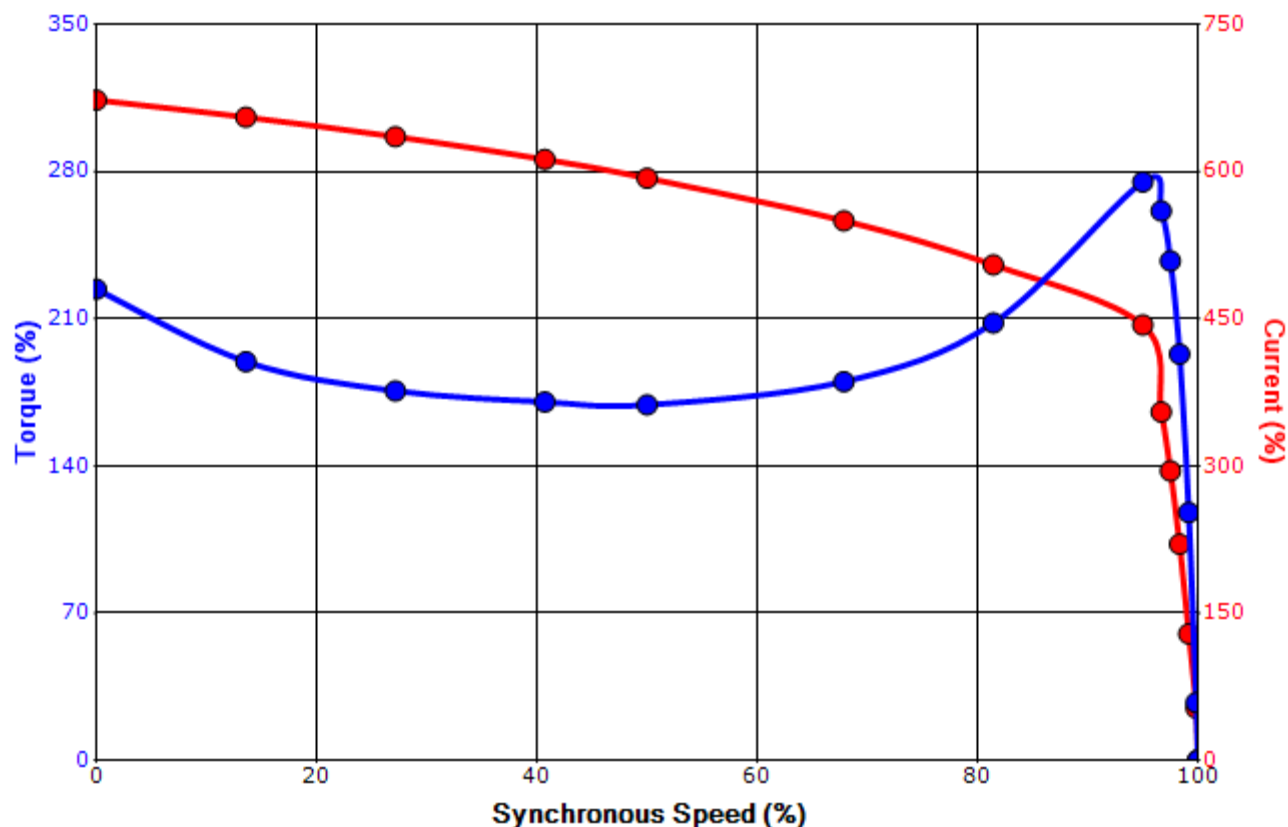
Engineering	SPinzon	Doc. Written By	D. Suarez	Doc.# / Rev	MPCF-1119 / 0
Engr. Date	6/23/2022	Doc. Approved By	M. Campbell	Doc. Issued	6/8/2011

SPEED TORQUE/CURRENT CURVE

Model: 3/42SDSR31H-P

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
0.75	0.55	2	3510	56	230/460	60	3	2.2/1.1
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TEFC	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 (%)		
7.4	0.04	1.12	220	170		275		

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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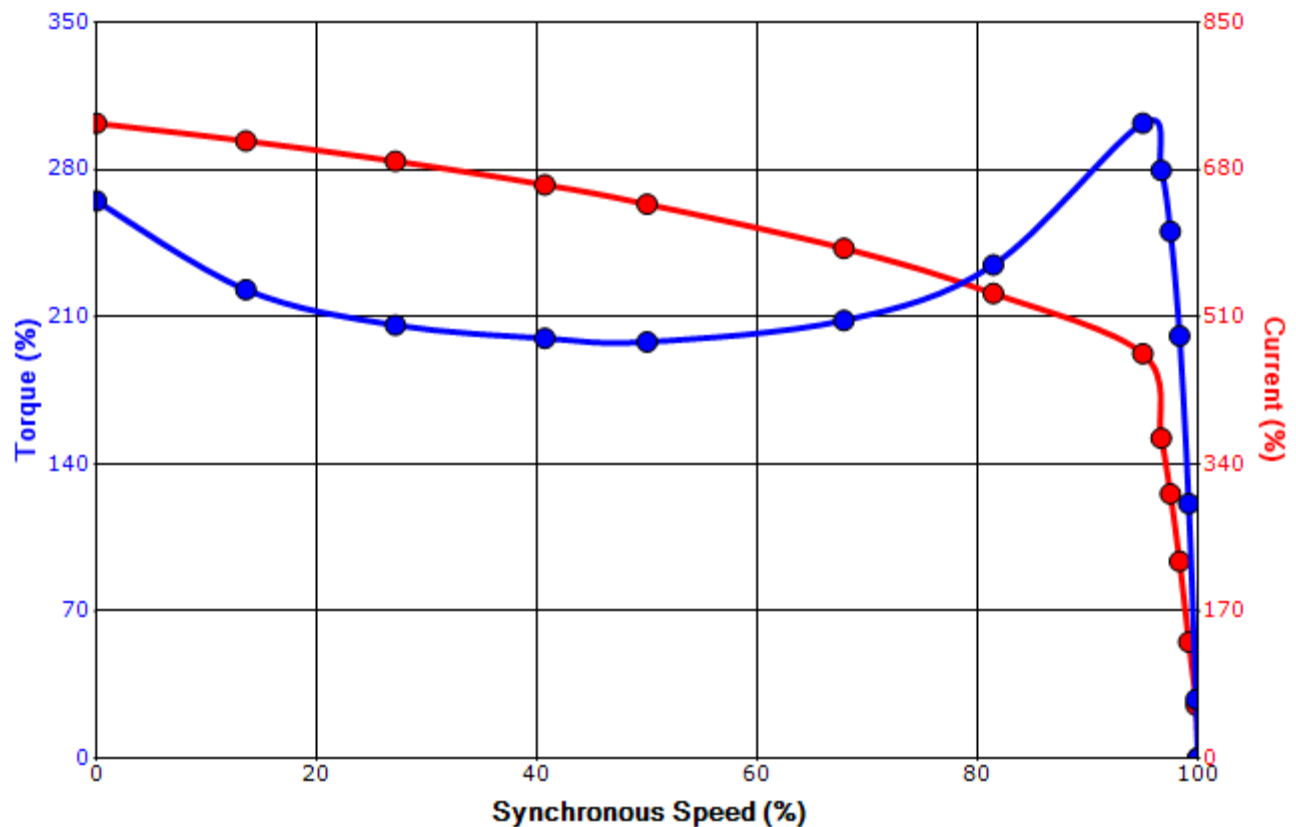
Engineering	SPinzon	Doc. Written By	D. Suarez	Doc.# / Rev	MPCF-1121 / 0
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SPEED TORQUE/CURRENT CURVE

Model: 3/42SDSR31H-P

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
0.50	0.37	2	2925	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)
TEFC	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 (%)		
6.6	0.04	0.90	265	200		300		

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
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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

SPARE PARTS LIST*

Model: 3/42SDSR31H-P

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
0.75	0.55	2	3510	56	230/460	60	3	2.2/1.1
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TEFC	55	F	1.25	CONT	84.0	-		40 C

Bearings DE 6305ZZ / 25BC03JPPOX

Bearings NDE 6305ZZ / 25BC03JPPOX

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

Other than the grease used for regreasable bearings and the oil used for oil-lubricated bearings, Toshiba advises that there are no "use" parts. The only insurance spares that Toshiba suggests for these squirrel-cage induction motors are industry-standard and commercially available off-the-shelf bearings as noted above.

Motor components such as terminal boxes, fan covers and other machined parts are available on special request. In these cases, please advise our order entry department of the model and serial numbers found on the motor nameplate and a description of the needed components. With this information they will be able to furnish the current part number, price and availability.

Note: Our internal part numbers are subject to change without notice and are not published.

Customer	
Customer PO	
Sales Order	
Project #	

Tag:

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

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