

UNITS: INCHES  
 ROTATION FROM DDE  
 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  
 www.toshiba.com/tic  
**EQP Global**.sd  
 TOSHIBA INTERNATIONAL CORPORATION

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

DRAWING #: 3HFN000510/MDSL V125-01  
 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		
Locked Rotor			7.4		54.7

Torque				Rotor wk <sup>2</sup> Inertia (lb-ft <sup>2</sup> )
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		
Locked Rotor			6.6		58.9

Torque				Rotor wk <sup>2</sup> Inertia (lb-ft <sup>2</sup> )
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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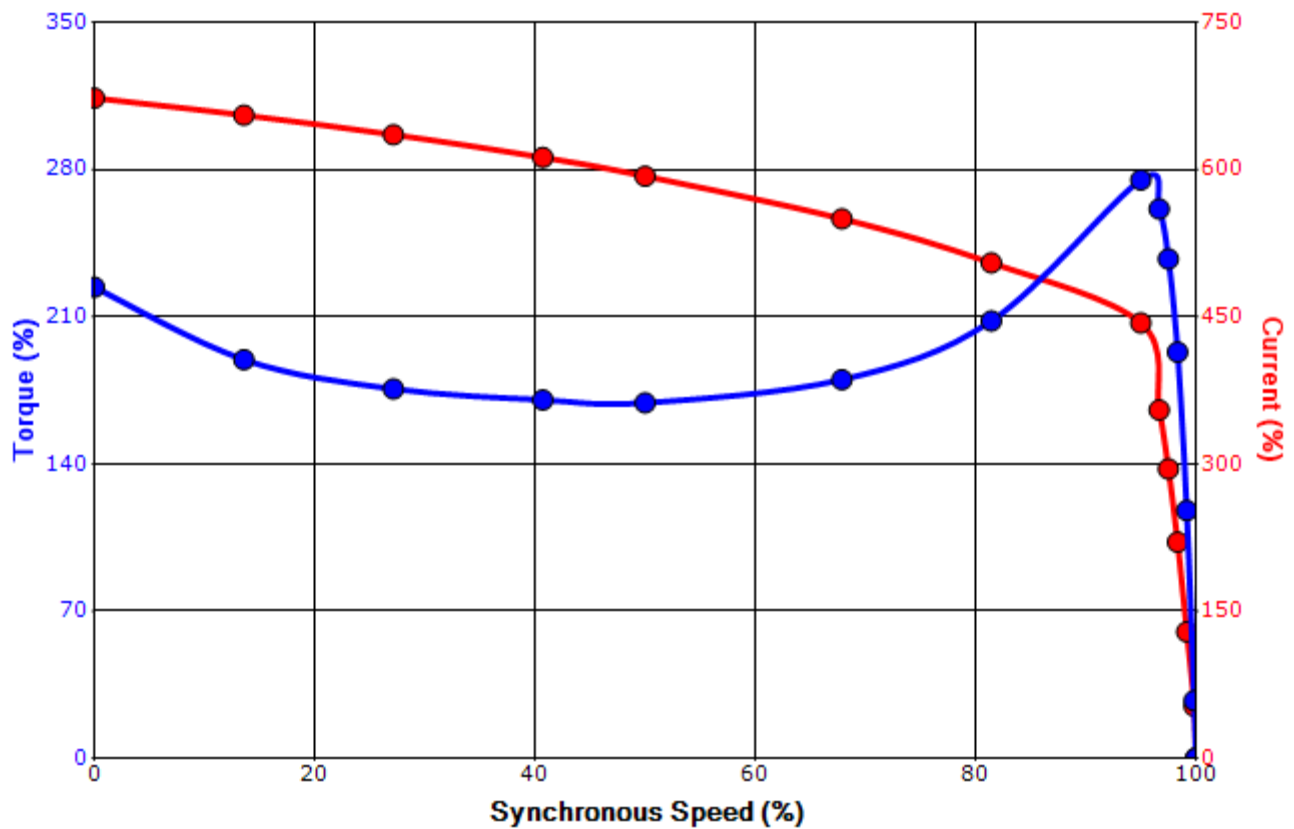
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**SPEED TORQUE/CURRENT CURVE**

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 <sup>2</sup> Inertia (lb-ft <sup>2</sup> )	Torque						
		Full Load (lb-ft)	Locked Rotor (%)	Pull Up (%)	Break Down (%)			
7.4	0.04	1.12	220	170	275			

**Design Values**



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

Tag:

All characteristics are average expected values.

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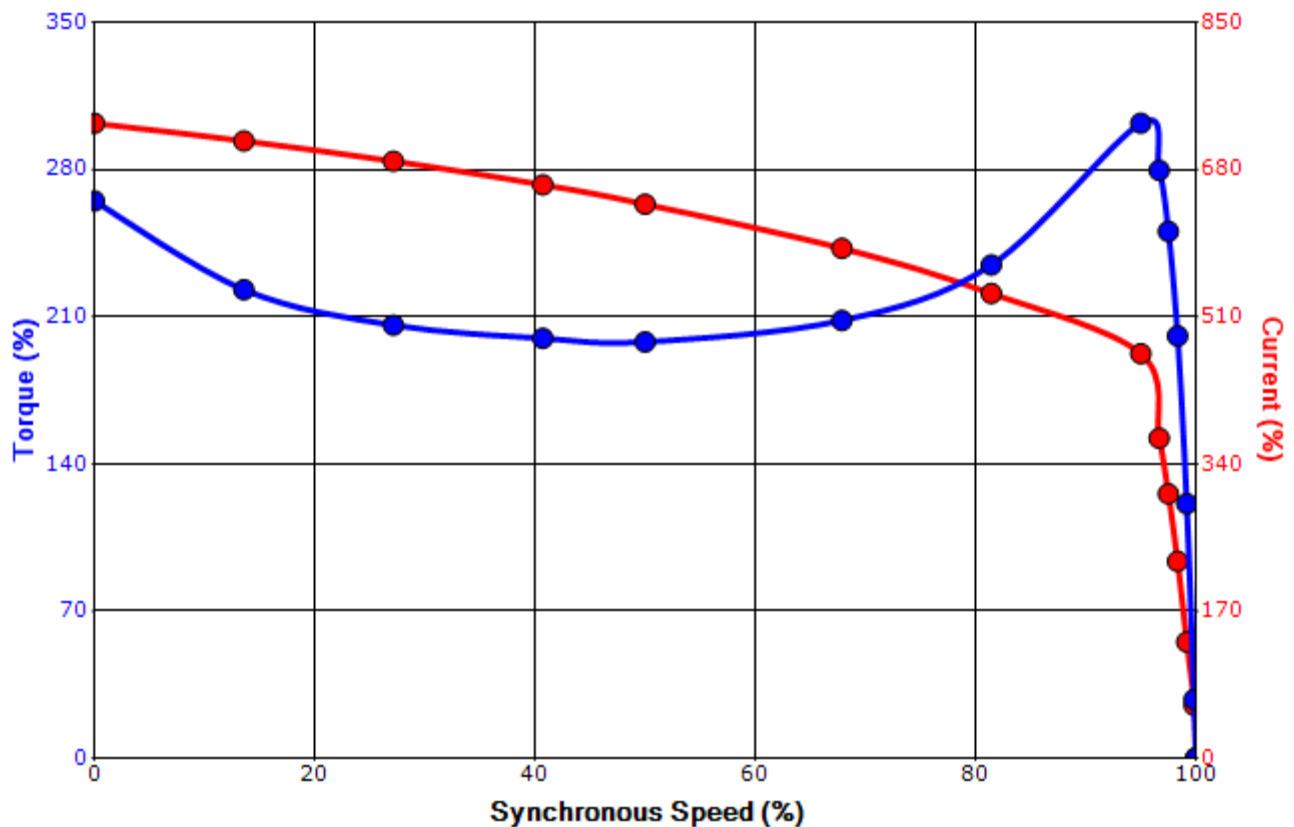
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**SPEED TORQUE/CURRENT CURVE**

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 <sup>2</sup> Inertia (lb-ft <sup>2</sup> )	Torque						Break Down (%)
		Full Load (lb-ft)	Locked Rotor (%)	Pull Up (%)				
6.6	0.04	0.90	265	200			300	

**Design Values**



Customer		wk <sup>2</sup> Load Inertia (lb-ft <sup>2</sup> )	-
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