

- NOTES:
1. MAIN CONDUIT BOX MAY BE ROTATED IN 90° INCREMENTS
 2. STANDARD PRODUCT USE BI-DIRECTIONAL FAN. OPPOSITE ROTATION AVAILABLE ONLY BY CONNECTION CHANGE.
 3. KEY DIMENSIONS EQUAL 0.500" x 0.500" x 2.00" (MOTOR SUPPLIED WITH KEY)

UNITS: INCHES

TOSHIBA RESERVES THE RIGHT TO MAKE CHANGES OF TECHNICAL IMPROVEMENT WITHOUT NOTICE. DO NOT USE FOR CONSTRUCTION, INSTALLATION, OR APPLICATION PURPOSES UNLESS THE DRAWING IS CERTIFIED.

**320TS TEFC FRAME
F1 ASSEMBLY**

MDSL002-06

TOSHIBA

TOSHIBA INTERNATIONAL CORPORATION

TOLERANCES

.X	.1
.XX	.03
.XXX	.005
.XXXX	.0005

MAXIMUM MOTOR WEIGHT	3	CHANGED 'H' DIMENSION FROM 0.67	MO	04/17/14	JR
651 lbs.	2	ADDED AIR DEFLECTOR (GUIDE PLATE)	M. O'DOWD	12/07/12	JR
295 kgs.	1	ADDED KEY DIMENSIONS	S. CLANCY	08/10/12	JR
	0	FIRST ISSUE	N. MOMIN	09/15/10	JR
	NO	REVISION	DRAWN BY	DATE	CHECK



DRAWN BY: N. MOMIN
 CHECK BY: J. RUSSELL
 APPROVED BY: _____
 www.toshiba.com/ind

TYPICAL MOTOR PERFORMANCE DATA

Model: 0502SDSR41B-P

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
50	37	2	3540	326TS	230/460	60	3	116/58
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TEFC	55	F	1.15	CONT	93	B	G	40 C

Load	HP	kW	Amperes	Efficiency (%)	Power Factor (%)
Full Load	50	37.3	58.0	93.0	88.2
¾ Load	37.50	28.0	43.9	92.2	85.7
½ Load	25.00	18.6	31.6	90.2	80.5
¼ Load	12.50	9.3	21.1	85.1	65.0
No Load			13.7		7.1
Locked Rotor			362.00		41.2

Torque				Rotor wk ² Inertia (lb-ft ²)
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	
74.2	250	215	260	6.39

Safe Stall Time(s)		Sound Pressure dB(A) @ 1M	Bearings*		Approx. Motor Weight (lbs)
Cold	Hot		DE	NDE	
35	15	-	6312ZC3	6312ZC3	

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

Motor Options:
Product Family:EQP Global SD
Mounting:Footed,Shaft:TS Shaft

Customer	
Customer PO	
Sales Order	
Project #	

Tag:

All characteristics are average expected values.

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Engineering	aacosta	Doc. Written By	D. Suarez	Doc.# / Rev	MPCF-1119 / 0
Engr. Date	4/19/2012	Doc. Approved By	M. Campbell	Doc. Issued	6/8/2011

TYPICAL MOTOR PERFORMANCE DATA

Model: 0502SDSR41B-P

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
50	37	2	2930	326TS	380	50	3	72
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TEFC	55	F	1.0	CONT	90.5	B	F	40 C

Load	HP	kW	Amperes	Efficiency (%)	Power Factor (%)
Full Load	50	37.3	71.0	90.5	88.2
¾ Load	37.50	28.0	53.5	90.5	87.7
½ Load	25.00	18.6	37.4	89.5	84.5
¼ Load	12.50	9.3	23.4	84.9	71.0
No Load			13.2		7.7
Locked Rotor			380.00		36.1

Torque				Rotor wk ² Inertia (lb-ft ²)
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	
89.6	165	155	210	6.39

Safe Stall Time(s)		Sound Pressure dB(A) @ 1M	Bearings*		Approx. Motor Weight (lbs)
Cold	Hot		DE	NDE	
18.4	0.3	-	6312ZC3	6312ZC3	

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

Motor Options:
Product Family:EQP Global SD
Mounting:Footed,Shaft:TS Shaft

Customer	
Customer PO	
Sales Order	
Project #	

Tag:

All characteristics are average expected values.

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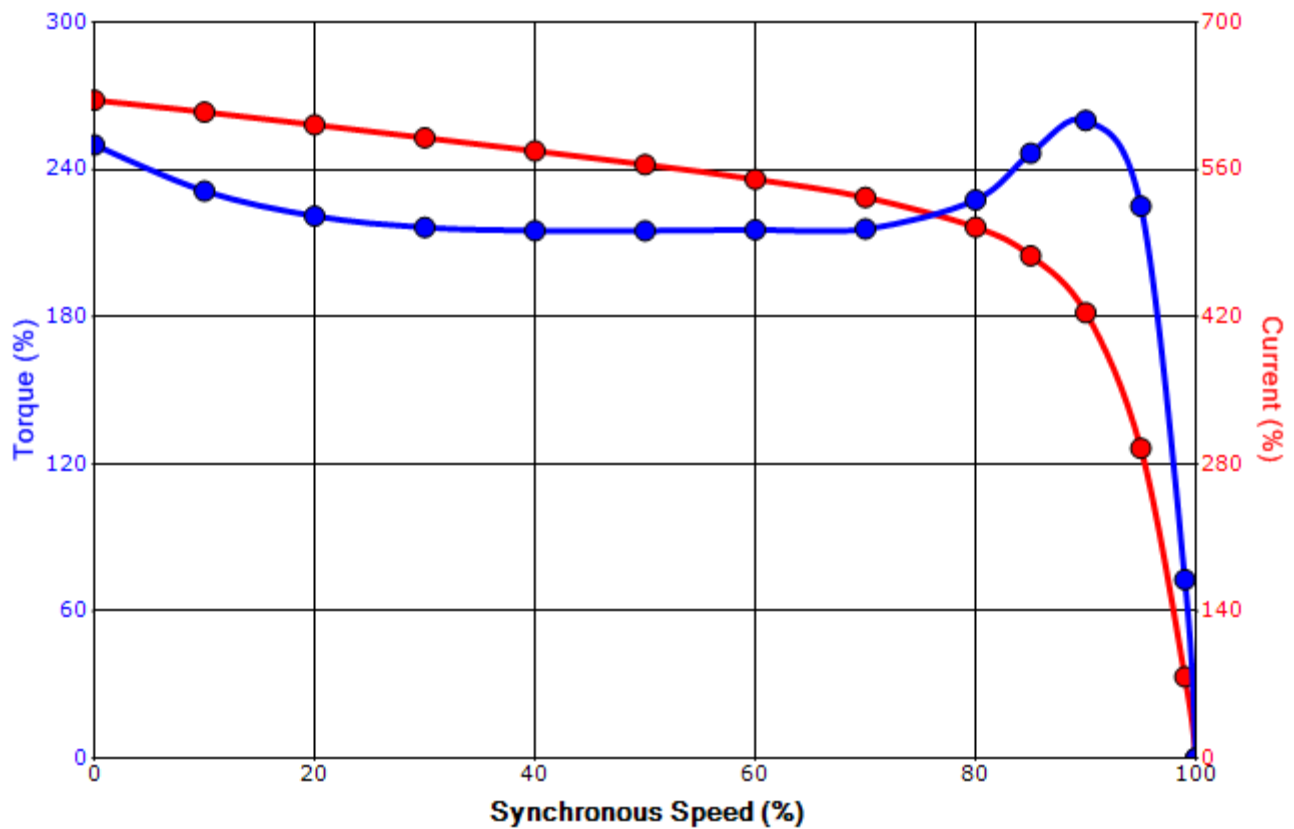
Engineering	jaustin	Doc. Written By	D. Suarez	Doc.# / Rev	MPCF-1119 / 0
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SPEED TORQUE/CURRENT CURVE

Model: 0502SDSR41B-P

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
50	37	2	3540	326TS	230/460	60	3	116/58
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TEFC	55	F	1.15	CONT	93	B	G	40 C
Locked Rotor Amps	Rotor wk ² Inertia (lb-ft ²)	Torque						Break Down (%)
		Full Load (lb-ft)	Locked Rotor (%)	Pull Up (%)				
362.00	6.39	74.2	250	215			260	

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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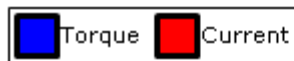
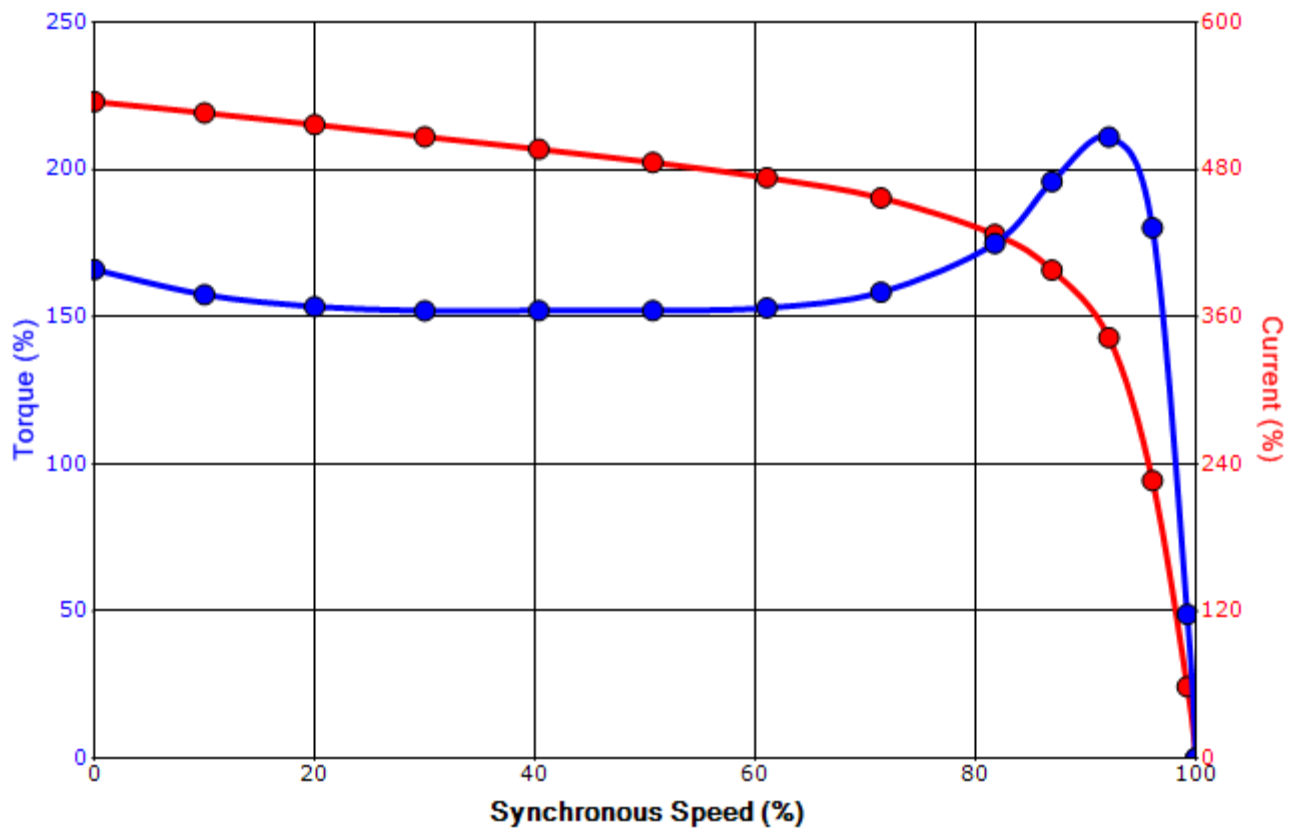
Engineering	aacosta	Doc. Written By	D. Suarez	Doc.# / Rev	MPCF-1121 / 0
Engr. Date	4/19/2012	Doc. Approved By	M. Campbell	Doc. Issued	6/8/2011

SPEED TORQUE/CURRENT CURVE

Model: 0502SDSR41B-P

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
50	37	2	2930	326TS	380	50	3	72
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TEFC	55	F	1.0	CONT	90.5	B	F	40 C
Locked Rotor Amps	Rotor wk ² Inertia (lb-ft ²)	Torque						Break Down (%)
		Full Load (lb-ft)	Locked Rotor (%)	Pull Up (%)				
380.00	6.39	89.6	165	155			210	

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.

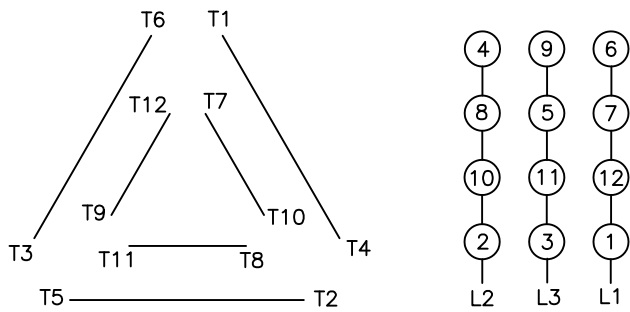
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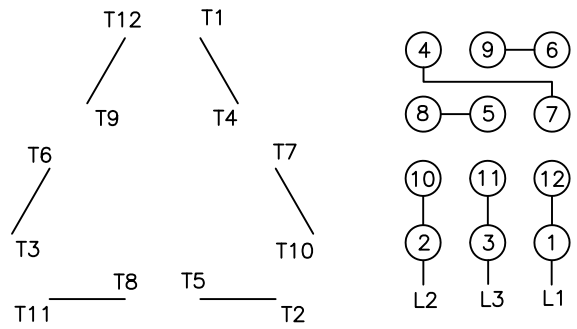
Motor Connection Diagrams
12 Leads

Across-the-Line Starting / Running Connections

Low Voltage Delta



High Voltage Delta



Switch L1 and L2 to reverse rotation

Suitable for Wye-Delta Starting and Limited Part-Winding-Starting.
Please Contact Toshiba International for specific connections.