

UNITS: INCHES

ROTATION FROM NDE

CCW CW

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

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

PRELIMINARY
 CERTIFIED

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 0.500" x 0.500" x 2.00" (MOTOR SUPPLIED WITH KEY)

TOTALLY ENCLOSED FAN COOLED DRAWING #: MDSL V002-06

HORIZONTAL FOOT MOUNTED REV. DATE: 07/09/18 REV. #: 4 PER.: M. D'DOWD

3 PHASE INDUCTION MOTOR REV. DESCRIP.:

TOSHIBA SEVERE DUTY
 www.toshiba.com/tic **EQP Global SD**
TOSHIBA INTERNATIONAL CORPORATION

324TS-326TS F1 ASSEMBLY



Issued Date	3/19/2021	Transmit #	
Issued By	dschoeck	Issued Rev	

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	116.00/58.00
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		
Locked Rotor			362		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	683

*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.

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

Engineering	aacosta	Doc. Written By	D. Suarez	Doc.# / Rev	MPCF-1119 / 1
Engr. Date	4/19/2012	Doc. Approved By	M. Campbell	Doc. Issued	9/20/2019



Issued Date	3/19/2021	Transmit #	
Issued By	dschoeck	Issued Rev	

TYPICAL MOTOR PERFORMANCE DATA

Model: 0502SDSR41B-P

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
50	37	2	2905	326TS	190/380	50	3	143.50/72.00
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TEFC	55	F	1.15	CONT	90.2	B	E	40 C

Load	HP	kW	Amperes	Efficiency (%)	Power Factor (%)
Full Load	50	37.3	71.6	90.1	87.8
¾ Load	37.50	28.0	54.0	90.1	87.3
½ Load	25.00	18.6	37.7	89.1	84.2
¼ Load	12.50	9.3	23.6	84.6	70.7
No Load			13.2		
Locked Rotor			371		37.5

Torque				Rotor wk ² Inertia (lb-ft ²)
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	
90.4	170	145	200	6.39

Safe Stall Time(s)		Sound Pressure dB(A) @ 1M	Bearings*		Approx. Motor Weight (lbs)
Cold	Hot		DE	NDE	
27	10	-	6312ZC3	6312ZC3	683

*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.

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

Engineering	bmmamen	Doc. Written By	D. Suarez	Doc.# / Rev	MPCF-1119 / 1
Engr. Date	3/19/2021	Doc. Approved By	M. Campbell	Doc. Issued	9/20/2019



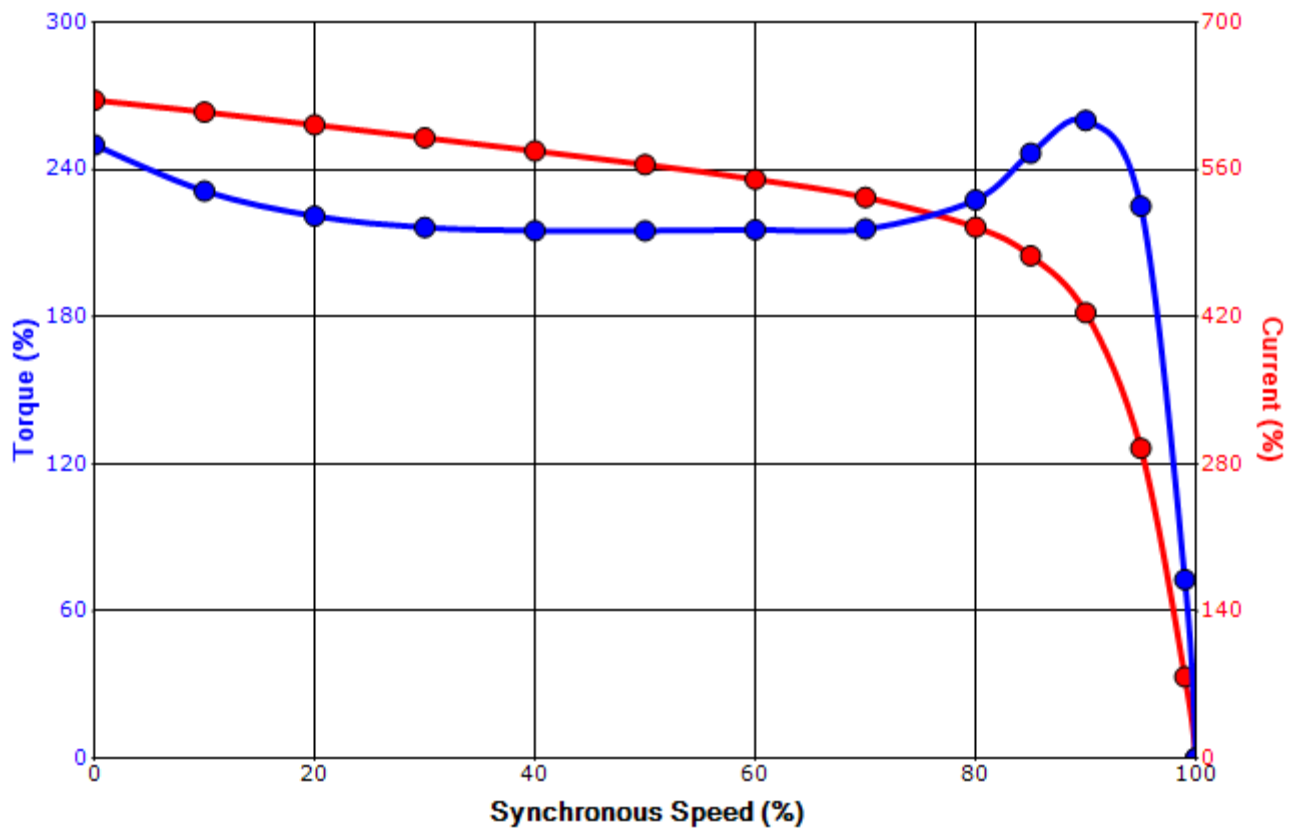
Issued Date	3/19/2021	Transmit #	
Issued By	dschoeck	Issued Rev	

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	116.00/58.00
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				Pull Up (%)	Break Down (%)	
		Full Load (lb-ft)	Locked Rotor (%)					
362	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.

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

Engineering	aacosta	Doc. Written By	D. Suarez	Doc.# / Rev	MPCF-1121/1
Engr. Date	4/19/2012	Doc. Approved By	M. Campbell	Doc. Issued	9/20/2019



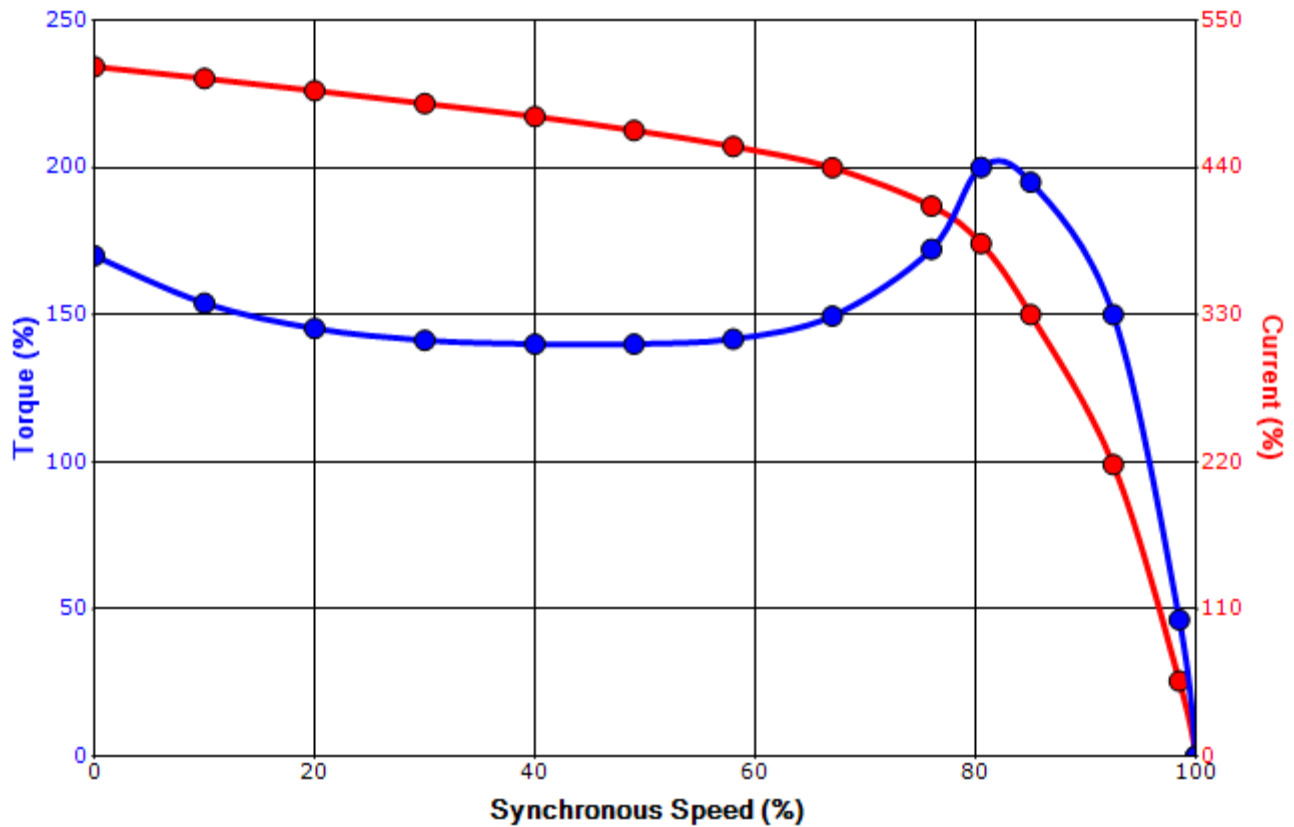
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SPEED TORQUE/CURRENT CURVE

Model: 0502SDSR41B-P

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
50	37	2	2905	326TS	190/380	50	3	143.50/72.00
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TEFC	55	F	1.15	CONT	90.2	B	E	40 C
Locked Rotor Amps	Rotor wk ² Inertia (lb-ft ²)	Torque				Pull Up (%)	Break Down (%)	
		Full Load (lb-ft)	Locked Rotor (%)					
371	6.39	90.4	170		145	200		

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.

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

Engineering	bmammen	Doc. Written By	D. Suarez	Doc.# / Rev	MPCF-1121/1
Engr. Date	3/19/2021	Doc. Approved By	M. Campbell	Doc. Issued	9/20/2019

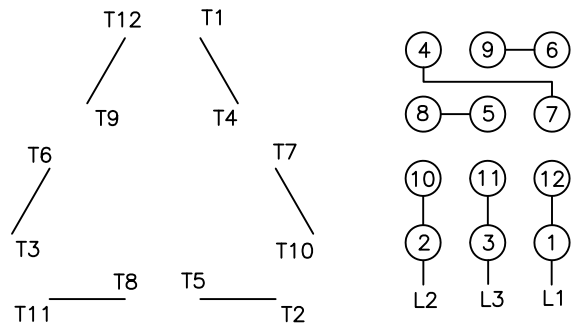
Motor Connection Diagrams
12 Leads

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.



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SPARE PARTS LIST*

Model: 0502SDSR41B-P

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
50	37	2	3540	326TS	230/460	60	3	116.00/58.00
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

Bearings DE	6312ZC3 / 60BC03JP3OX
Bearings NDE	6312ZC3 / 60BC03JP3OX

*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.

Engineering	aacosta	Doc. Written By	D. Suarez	Doc.# / Rev	MPCF-1125 / 1
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Issued Date	3/19/2021	Transmit #	
Issued By	dschoeck	Issued Rev	

SPARE PARTS LIST*

Model: 0502SDSR41B-P

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
50	37	2	2905	326TS	190/380	50	3	143.50/72.00
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TEFC	55	F	1.15	CONT	90.2	B	E	40 C

Bearings DE	6312ZC3 / 60BC03JP3OX
Bearings NDE	6312ZC3 / 60BC03JP3OX

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

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