

UNITS: INCHES

BEARINGS		APPROX. WEIGHT
LS	OS	
6312ZZC3	6312ZZC3	651 lbs

- 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 3.88"

CUSTOMER: \_\_\_\_\_ MOTOR MODEL NO.: \_\_\_\_\_

P.O. NO.: \_\_\_\_\_ HP: \_\_\_\_\_ VOLTAGE: \_\_\_\_\_ RPM(SYN.): \_\_\_\_\_ HZ: \_\_\_\_\_

FRAME SIZE: 320T PRODUCT TYPE: COOLING TOWER

COMMENTS: \_\_\_\_\_

PER: \_\_\_\_\_ DATE: \_\_\_\_\_

TAG NUMBERS

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- STANDARD (NO AUX. BOXES)
- RTD AUX. BOX
- SPACE HEATER AUX. BOX
- BEARING RTD's

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



MDSL503-06  
TOTALLY ENCLOSED FAN COOLED  
3 PHASE INDUCTION MOTOR  
F1 ASSEMBLY





Issued Date	9/24/2019	Transmit #	
Issued By	dschoeck	Issued Rev	

### TYPICAL MOTOR PERFORMANCE DATA

Model: 0504SDGR41A-P

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
50	37	4	1775	326T	230/460	60	3	120/60
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TEFC	56	F	1.15	CONT	94.5	B	G	40 C

Load	HP	kW	Amperes	Efficiency (%)	Power Factor (%)
Full Load	50	37.3	60.0	94.5	85.7
¾ Load	37.50	28.0	45.5	93.8	83.4
½ Load	25.00	18.6	34.0	92.2	77.1
¼ Load	12.50	9.3	24.9	86.3	54.4
No Load			18.7		5.3
Locked Rotor			362.5		30.0

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)	
148	175	145	265	11.60

Safe Stall Time(s)		Sound Pressure dB(A) @ 1M	Bearings*		Approx. Motor Weight (lbs)
Cold	Hot		DE	NDE	
35	15	-	6312ZZC3	6312ZZC3	0

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

**Motor Options:**  
 Product Family:EQP Global Cooling Tower  
 Mounting:Footed,Shaft:T Shaft

Customer	
Customer PO	
Sales Order	
Project #	

Tag:

All characteristics are average expected values.

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

Engineering	jhock	Doc. Written By	D. Suarez	Doc.# / Rev	MPCF-1119 / 1
Engr. Date	3/17/2014	Doc. Approved By	M. Campbell	Doc. Issued	9/20/2019



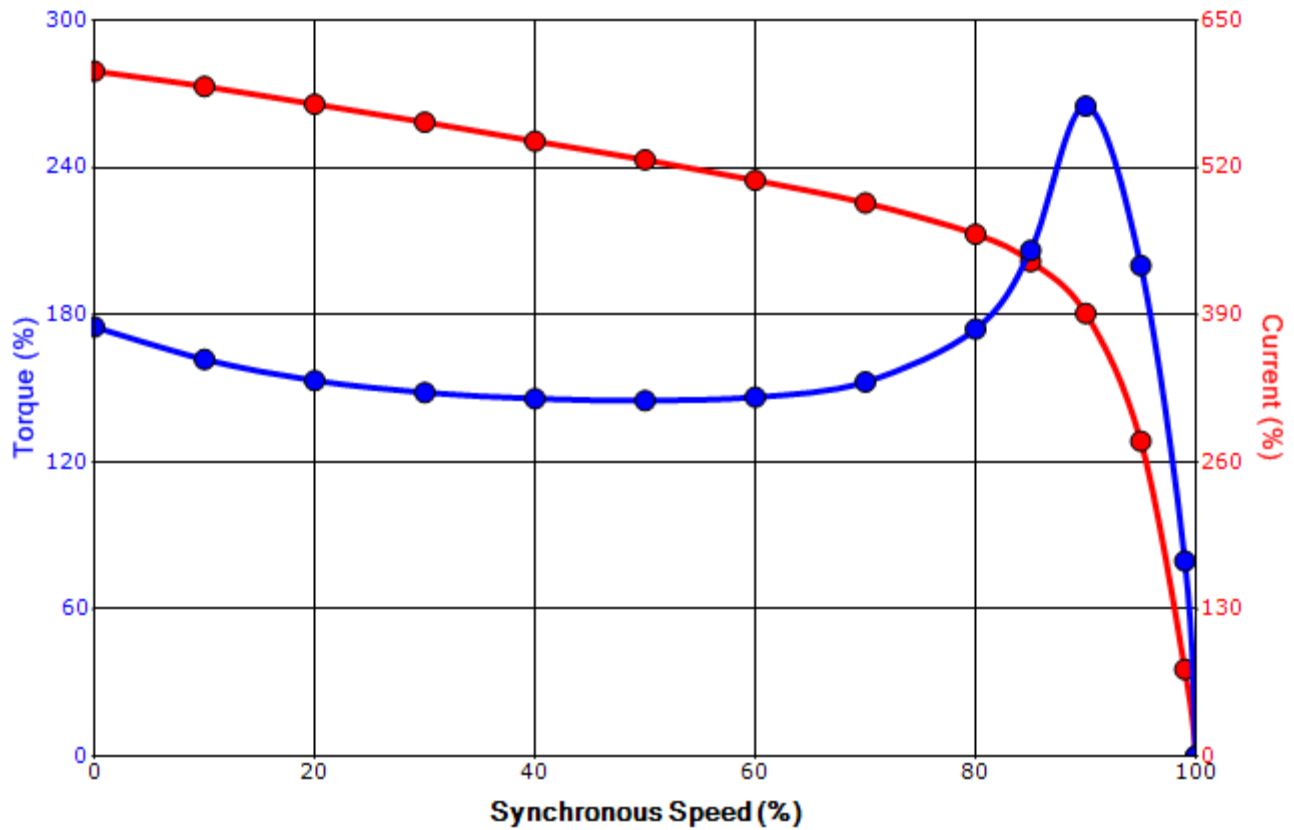
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### SPEED TORQUE/CURRENT CURVE

Model: 0504SDGR41A-P

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
50	37	4	1775	326T	230/460	60	3	120/60
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TEFC	56	F	1.15	CONT	94.5	B	G	40 C
Locked Rotor Amps	Rotor wk <sup>2</sup> Inertia (lb-ft <sup>2</sup> )	Torque				Pull Up (%)	Break Down (%)	
		Full Load (lb-ft)	Locked Rotor (%)					
362.5	11.60	148	175		145	265		

### 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.

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

Engineering	jhock	Doc. Written By	D. Suarez	Doc.# / Rev	MPCF-1121/1
Engr. Date	3/17/2014	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.