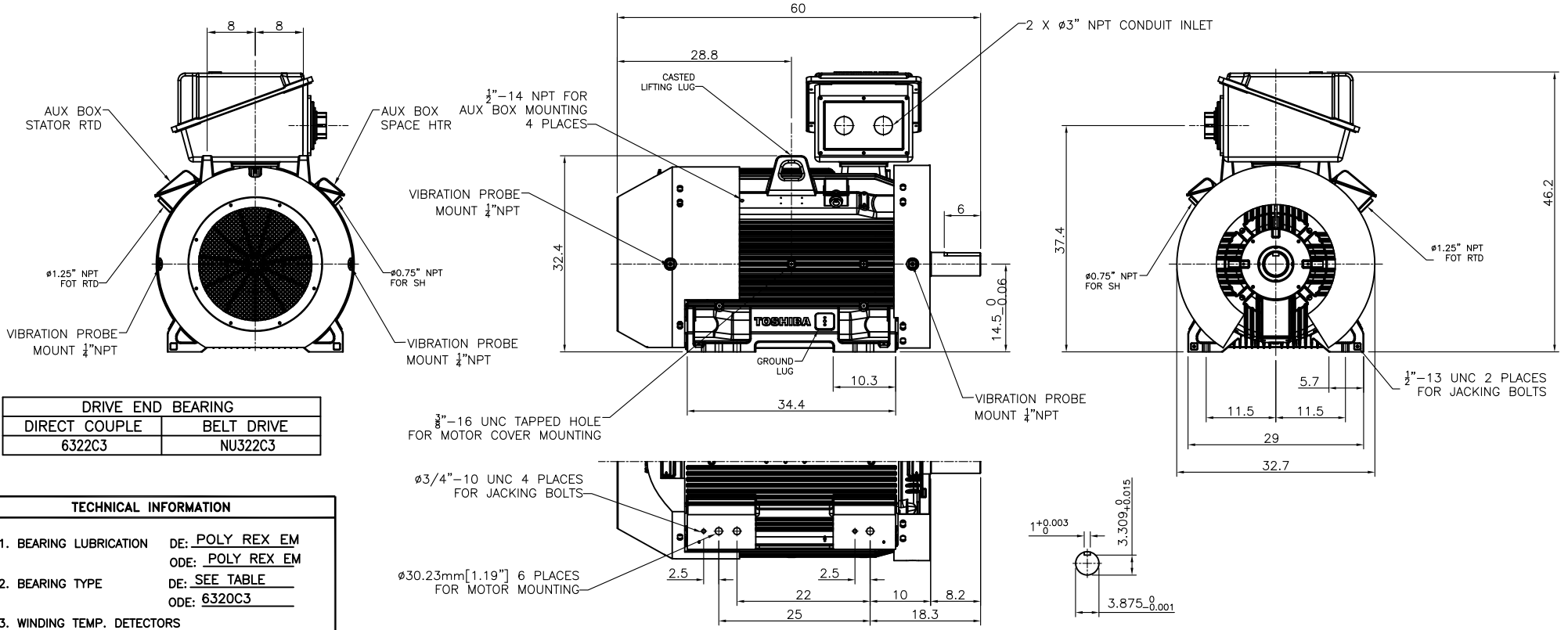

DRIVE END BEARING	
DIRECT COUPLE	BELT DRIVE
6322C3	NU322C3

TECHNICAL INFORMATION

1. BEARING LUBRICATION DE: POLY REX EM
   ODE: POLY REX EM
2. BEARING TYPE DE: SEE TABLE
   ODE: 6320C3
3. WINDING TEMP. DETECTORS
   NUMBER AND TYPE: 6xRTD(Pt0°C–100ohm)
   LOCATION: IN STATOR SLOT
4. BEARING TEMP. DETECTORS
   NUMBER AND TYPE: N/A
5. SPACE HEATER 1 PHASE
   VOLTS: 120 WATTS: 400
6. ROTATION: CCW VIEWED FROM NON DRIVE END
   THIS MOTOR IS BI DIRECTIONAL
7. MOTOR PAINT COLOR: Toshiba Green
8. APPROX. WEIGHT: 6000 Lbs
9. ACCESORIES:

TOSHIBA INTERNATIONAL CORPORATION
RESERVES THE RIGHT TO MAKE TECHNICAL
IMPROVEMENT AND DATA CHANGES WITHOUT NOTICE

UNITS:IN

DRAWING LIST

MAIN TERMINAL BOX
130P–7640–01

AUX TERMINAL BOX FOR	
SPACE HEATER	130P–7520–50
R.T.D.	130–C7522U–51
THERMISTOR	N/A
PRODUCTION #	N/A

NO.	REVISION	BY	DATE
2	DELETE PRELIMINARY NOTE	SS	04/28/22
1	REV HP,POLE,&BRG TYPE DE AND ADD AUX TBOX PART NO	SS	11/11/20
0	FIRST ISSUE	CEC	01/25/20

MOTOR OUTLINE FOR
THREE PHASE INDUCTION MOTOR

CUSTOMER NAME				P.O. NO.	MOTOR TAG NO.	
OUTPUT	POLE	VOLTAGE	FREQUENCY	FULL LOAD SPEED	TOSHIBA MODEL NO.	
HP	4,6,8	V	Hz	(min^{-1})		
TYPE	FORM	INS. CLASS	RATING	FRAME	S.F.	ENCLOSURE
		F	CONT.	S587		TEFC

TOSHIBA INTERNATIONAL CORPORATION
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3rd ANGLE PROJ.	PREPARED BY:	DATE:	CHECKED BY:	DATE:	DRAWING NO.:	REV.
	C. Chetan	01/25/20		01/25/20	MDSL0172–01	0

Issued Date	1/4/2023	Transmit #	
Issued By	dschoeck	Issued Rev	

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TYPICAL MOTOR PERFORMANCE DATA

Model: 4504SDAK41A-AR

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
450	336	4	1785	S587T	2300/4000	60	3	109/63

Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TEFC	55	F	1.15	CONT	96.1	A	G	40 C

Load	HP	kW	Amperes	Efficiency (%)	Power Factor (%)
Full Load	450.00	335.6	62	96.1	80.2
¾ Load	337.50	251.7	48	95.1	78.3
½ Load	225.00	167.8	35	92.8	72.9
¼ Load	112.50	83.9	25	85.8	56.4
No Load			20.9		
Locked Rotor			410		26.3

Torque				Rotor wk² Inertia
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	(lb-ft²)
1323	185	130	270	238.36

Safe Stall Time(s)		Sound Pressure dB(A) @ 1M	Bearings*		Approx. Motor Weight (lbs)
Cold	Hot		DE	NDE	
22	13	80	NU322C3	6320C3	

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

Motor Options:
Product Family:EQP Global SD
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	SSuryani	Doc. Written By	D. Suarez	Doc.# / Rev	MPCF-1119 / 0
Engr. Date	6/7/2021	Doc. Approved By	M. Campbell	Doc. Issued	6/8/2011

Issued Date	1/4/2023	Transmit #	
Issued By	dschoeck	Issued Rev	

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SPEED TORQUE/CURRENT CURVE

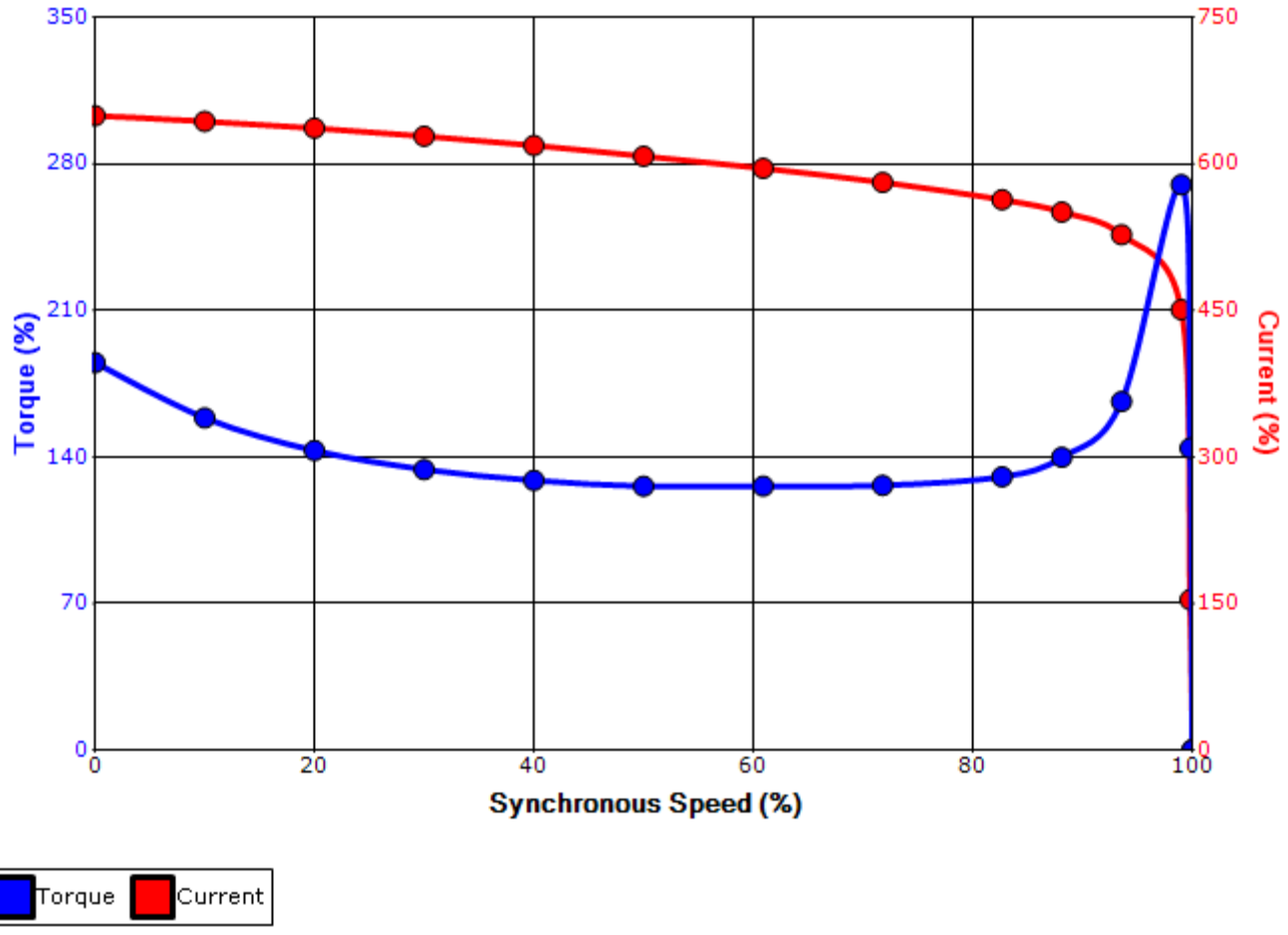
Model: 4504SDAK41A-AR

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
450	336	4	1785	S587T	2300/4000	60	3	109/63

Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TEFC	55	F	1.15	CONT	96.1	A	G	40 C

Locked Rotor Amps	Rotor wk² Inertia (lb-ft²)	Torque			
		Full Load (lb-ft)	Locked Rotor (%)	Pull Up (%)	Break Down (%)
410	238.36	1323	185	130	270

Design Values



Customer			wk² Load Inertia (lb-ft²)	-
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	SSuryani	Doc. Written By	D. Suarez	Doc.# / Rev	MPCF-1121 / 0
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Issued Date	1/4/2023	Transmit #	
Issued By	dschoeck	Issued Rev	

TOSHIBA
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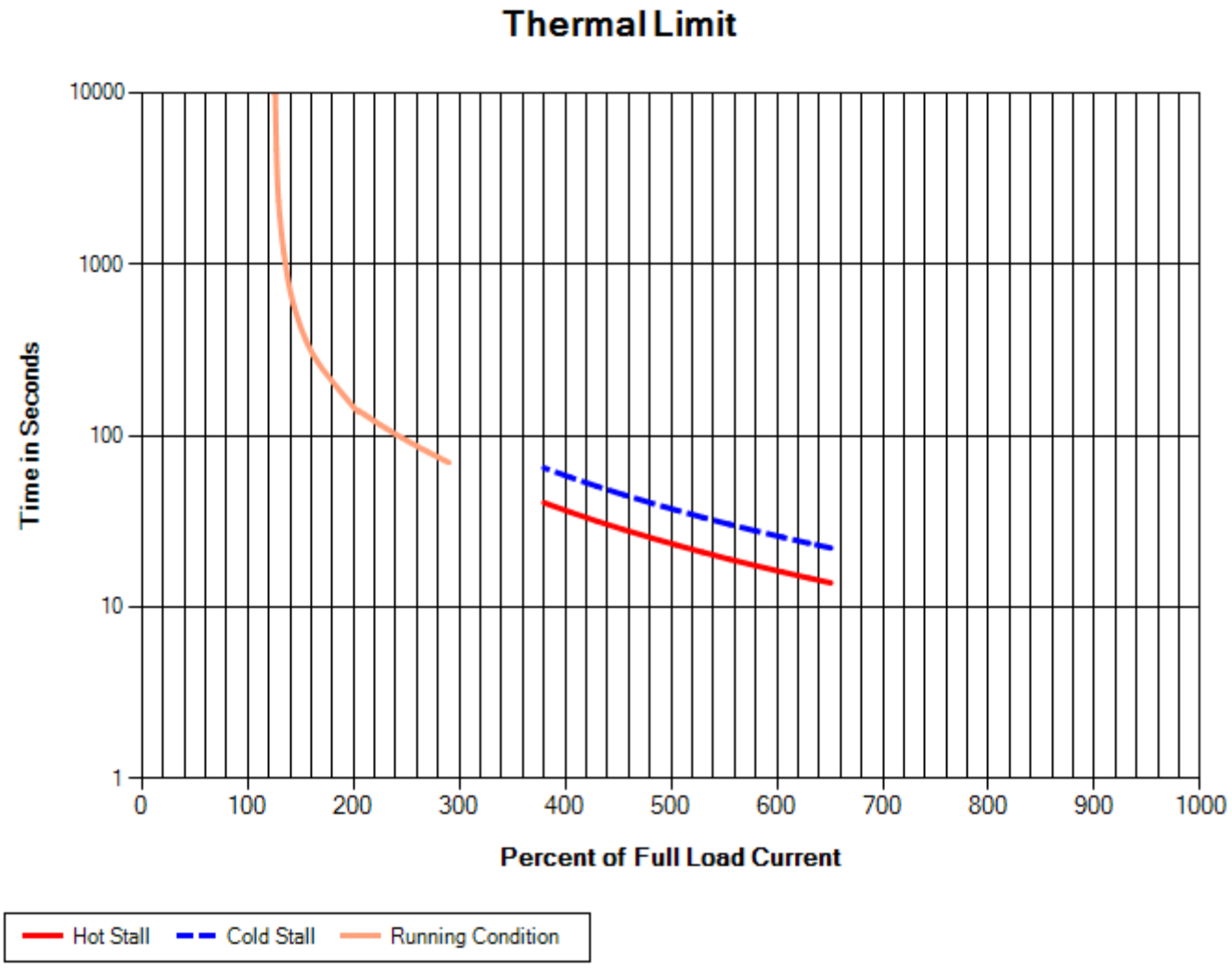
THERMAL LIMIT CURVE

Model: 4504SDAK41A-AR

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
450	336	4	1785	S587T	2300/4000	60	3	109/63
Enclosure	**IP**	**Ins. Class**	**S.F.**	**Duty**	**NEMA Nom. Eff.**	**NEMA Design**	**kVA Code**	**Ambient (°C)**
TEFC	55	F	1.15	CONT	96.1	A	G	40 C



Customer			**wk² Load Inertia (lb-ft²)**	-
Customer PO			**Load Type**	-
Sales Order			**Voltage (%)**	100
Project #			**Rotor wk² Inertia (lb-ft²)**	238.36

Tag:

All characteristics are average expected values.

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

Engineering	SSuryani	**Doc. Written By**	D. Suarez	**Doc.# / Rev**	MPCF-1122 / 0
Engr. Date	6/7/2021	**Doc. Approved By**	M. Campbell	**Doc. Issued**	6/8/2011

Issued Date	1/4/2023	**Transmit #**	
Issued By	dschoeck	**Issued Rev**	

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NAMEPLATE DATA

Model: 4504SDAK41A-AR

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
450	336	4	1785	S587T	2300/4000	60	3	109/63
Enclosure	**IP**	**Ins. Class**	**S.F.**	**Duty**	**NEMA Nom. Eff.**	**NEMA Design**	**kVA Code**	**Ambient (°C)**
TEFC	55	F	1.15	CONT	96.1	A	G	40 C

Type: TIKK

Form: FCK1

Drive End Bearing: NU322C3 / 110RU03M3OX

Non-Drive End Bearing: 6320C3 / 100BC03J3OX

Power Factor: 80.2

Max Safe RPM: -

Comments 1:

Comments 2:

Comments 3:

Comments 4:

Customer	
Customer PO	
Sales Order	
Project #	

Tag:

All characteristics are average expected values.

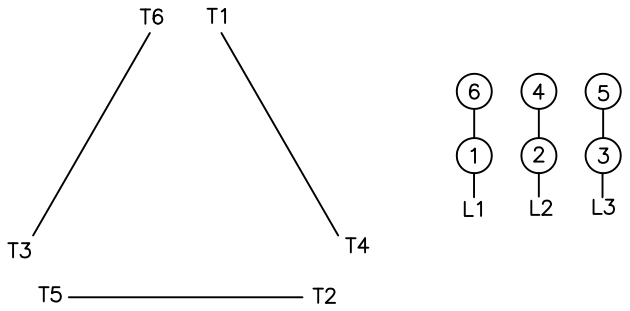
TOSHIBA INTERNATIONAL CORPORATION · HOUSTON, TEXAS U.S.A.

Engineering	SSuryani	**Doc. Written By**	D. Suarez	**Doc.# / Rev**	MPCF-1120 / 0
Engr. Date	6/7/2021	**Doc. Approved By**	M. Campbell	**Doc. Issued**	6/8/2011

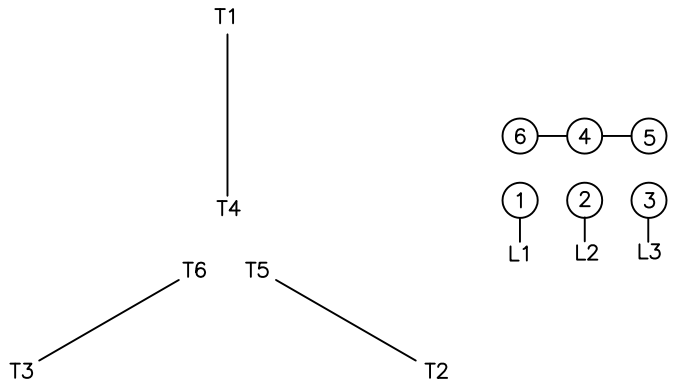
Motor Connection Diagrams
6 Leads

Across-the-Line Starting / Running Connections

Low Voltage – Delta



High Voltage – Wye



Switch L1 and L2 to reverse rotation

Issued Date:	1/4/2023	**Transmit #:**	
Issued By:	dschoeck	**Issued Rev:**	

TOSHIBA
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SPARE PARTS LIST*

Model: 4504SDAK41A-AR

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
450	336	4	1785	S587T	2300/4000	60	3	109/63
Enclosure	**IP**	**Ins. Class**	**S.F.**	**Duty**	**NEMA Nom. Eff.**	**NEMA Design**	**kVA Code**	**Ambient (°C)**
TEFC	55	F	1.15	CONT	96.1	A	G	40 C

Bearings DE	NU322C3 / 110RU03M3OX
Bearings NDE	6320C3 / 100BC03J3OX

*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:

All characteristics are average expected values.

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

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