

REAR SHAFT EXTENSION

FRAME SIZE	U	N-W	V	KEY SIZE	B	C	F	K	XEV	XG	XP	F1 ASSY BS	BA	APPROX WEIGHT
444TS	2.375	4.75	4.50	.625 X .625 X 3.00	17.5	38.5	7.25	4.0	1.50	12.8	17.7	4.13	7.50	2000
444T	3.375	8.50	8.25	.875 X .875 X 6.88	17.5	42.2	7.25	4.0	1.50	12.8	17.7	4.13	7.50	2000
445TS	2.375	4.75	4.50	.625 X .625 X 3.00	18.5	40.5	8.25	4.5	1.00	12.8	18.7	5.13	7.50	2300
445T	3.375	8.50	8.25	.875 X .875 X 6.88	18.5	44.2	8.25	4.5	1.00	12.8	18.7	5.13	7.50	2300
447TS	2.375	4.75	4.50	.625 X .625 X 3.00	23.0	44.0	10.00	4.0	1.50	14.4	20.4	2.38	7.50	2600
447T	3.375	8.50	8.25	.875 X .875 X 6.88	23.0	47.7	10.00	4.0	1.50	14.4	20.4	2.38	7.50	2600
449TS	2.375	4.75	4.50	.625 X .625 X 3.00	28.0	49.0	12.50	4.0	1.50	14.4	22.9	2.38	7.50	3200
449T	3.375	8.50	8.25	.875 X .875 X 6.88	28.0	52.7	12.50	4.0	1.50	14.4	22.9	2.38	7.50	3200
449TU	4.125	12.38	12.12	1.00 X 1.00 X 10.62	28.0	56.6	12.50	4.0	1.50	14.4	22.9	2.38	7.50	3200

STANDARD CAST IRON CONDUIT BOXES

TEFC						EXPLOSION PROOF					
AA	AB	AC	AF	XL	XN	AA	AB	AC	AF	XL	XN
3.00	21.10	17.30	6.62	10.62	7.76	3.00	21.50	17.00	7.00	12.26	11.00
4.00	25.30	19.44	9.38	13.68	11.50	4.00	24.50	18.62	10.38	16.50	13.00

NOTES:

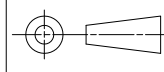
- THIS OUTLINE IS NOT TO BE REGARDED AS INDICATING THE EXACT DETAILS OF CONSTRUCTION. IT IS PROPERLY DIMENSIONED FOR ERECTION PURPOSES ONLY.
- EACH FOOT MUST BE MOUNTED ON A BASE EQUAL TO OR LARGER THAN THE PAD AREA.
- MOUNTING BOLTS, DOWELS & SHIMS ARE NOT SUPPLIED BY TOSHIBA
- ANTI-FRICTION BEARINGS MUST BE REGREASED WHILE MOTOR IS RUNNING.

THESE DRAWINGS ARE PREPARED IN ACCORDANCE WITH THE NORMAL AND ACCEPTED STANDARDS WITHIN THE ELECTRICAL INDUSTRY FOR THE PURPOSE OF OBTAINING CUSTOMER APPROVAL AS PART OF THE MANUFACTURING OR PRODUCTION PROCESS. ANY USE OR COMMUNICATION OF THE DRAWINGS BY THE CUSTOMER (OTHER THAN FOR GRANTING APPROVAL) SHALL BE THE SOLE RESPONSIBILITY OF THE CUSTOMER.

PRELIMINARY SHAFT AND MOUNTING ONLY

G.O. _____ S.O. _____ CUST. ORDER _____
 CUST. _____
 RATING _____
 PER: _____ DATE _____

THIRD ANGLE PROJECTION



THE INFORMATION CONTAINED HEREON WHICH IS THE PROPERTY OF TOSHIBA INDUSTRIAL PRODUCTS CANADA - TIPC CANADA MUST BE MAINTAINED IN CONFIDENCE, AND NO PORTION OF THIS DRAWING MAY BE REPRODUCED OR USED WITHOUT THE EXPRESS PERMISSION OF THE COMPANY.

TOSHIBA INDUSTRIAL PRODUCTS CANADA TOSHIBA

TITLE TYPE HSBN MOTOR FRAME 440
 OUTLINE - TEFC/TEXP ENCLOSURE

DIMENSIONS IN INCHES UNLESS OTHERWISE SPECIFIED SCALE: N.T.S. SHEET: OF

DRAWN N.WEST	DATE	APP.BY	DATE
CHECKED		APP.BY	
CHECKED		APP.BY	

E10C076

TOSHIBA INDUSTRIAL PRODUCTS CANADA, STONEY CREEK

ISSUE 1

STANDARD REVISIONS



Issued Date

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TYPICAL MOTOR PERFORMANCE DATA

Model: 2504XPAK11A-C

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
250 hp	186 kW	4	1779 rpm	449T	4000 V	60	3	33.3 A
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TEXP	55	F	1.15	Cont.	92.1	B	F	40

Load	HP	kW	Amperes	Efficiency (%)	Power Factor (%)
Full Load	250	186	33.3	92.1	87.7
¾ Load	187.5	140	25.5	91.2	87.0
½ Load	125	93	18.4	89.7	82.0
¼ Load	62.5	47			
No Load			9.0		11.8
Locked Rotor			197.6		26.3

Torque				Rotor wk ² Inertia (lb-ft ²)
Full Load (lb-ft)	Locked Rotor (% FLT)	Pull Up (% FLT)	Break Down (% FLT)	
736	144	144	209	78

Safe Stall Time(s)		Sound Pressure dB(A) @ 1M	Bearings*		Approx. Motor Weight (lbs)
Cold	Hot		DE	NDE	
30	26	-	N319C3	6313Z-C3	3200

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

Motor Options:

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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NAMEPLATE DATA

Model: 2504XPAK11A-C

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
250	186.4225	4	1779	449T	4000	60	3	33.26
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TEXP	55	F	1.15	Cont.	92.1	B	F	40

Type: HSB

Form:

Drive End Bearing: N319C3

Non-Drive End Bearing: 6313Z-C3

Power Factor: 87.7

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.

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D. Suarez

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M. Campbell

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6/8/2011



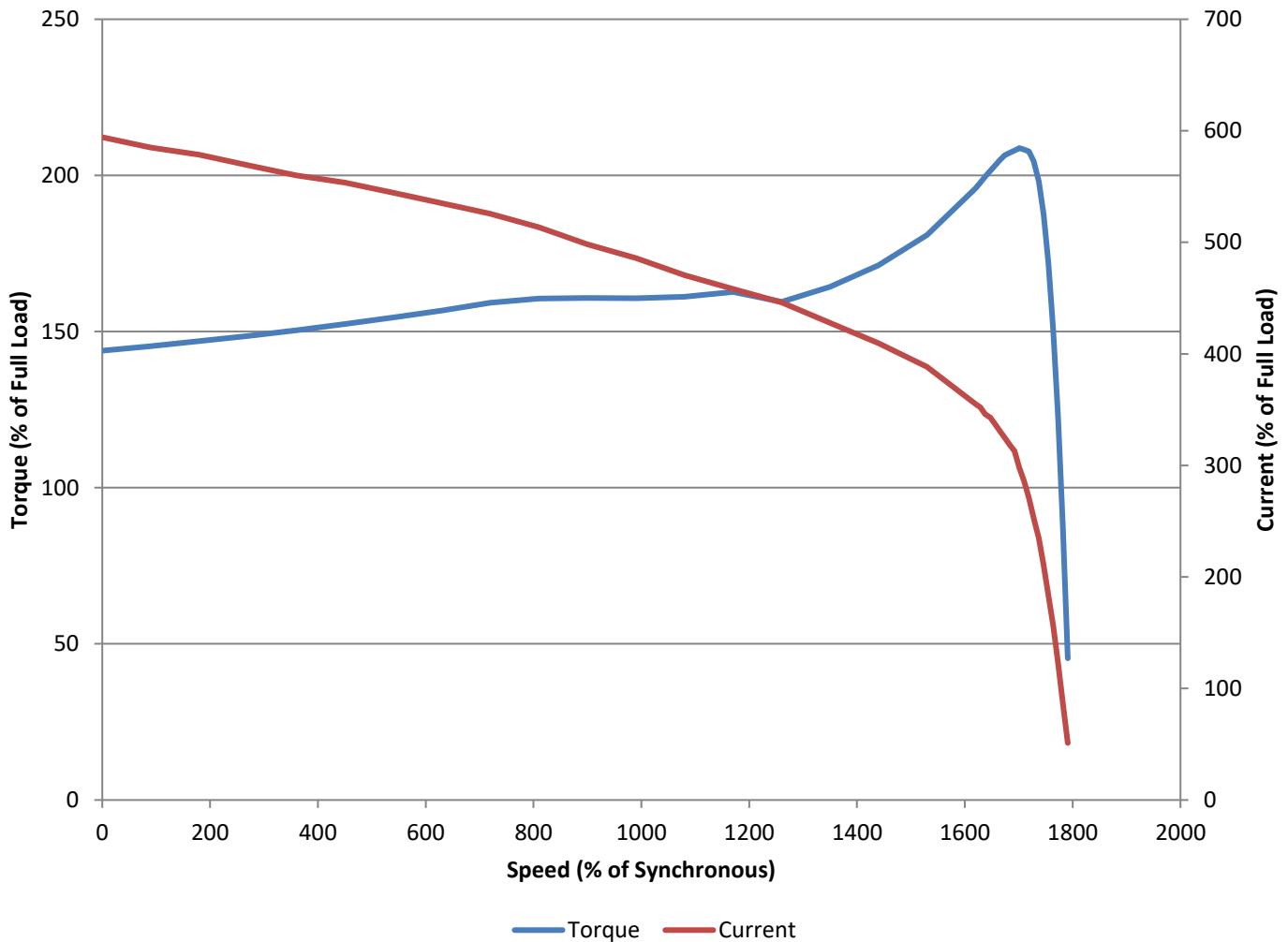
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SPEED TORQUE/CURRENT CURVE

Model: 2504XPAK11A-C

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
250	186.4225	4	1779	449T	4000	60	3	33.26
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TEXP	55	F	1.15	Cont.	92.1	B	F	40
Locked Rotor Amps	Rotor wk ² Inertia (lb-ft ²)	Torque				Break Down (%)		
		Full Load (lb-ft)	Locked Rotor (%)	Pull Up (%)				
197.64	78	736.05	143.9059846	143.9059846	208.761633			

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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SPARE PARTS LIST*

Model: 2504XPAK11A-C

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
250	186.4225	4	1779	449T	4000	60	3	33.26
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
TEXP	55	F	1.15	Cont.	92.1	B	F	40

Bearings DE

N319C3

Bearings NDE

6313Z-C3

*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.

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