

UNITS: INCHES

FRAME SIZE	MOTOR DIMENSIONS										CONDUIT BOX							
	A	B	C	D	G	J	K	M	O	P	T	AA	AB	AC	AE	AF	XL	XN
509USS	24.9	30.9	49.6	12.50	1.4	5.6	4.8	22.3	25.6	24.9	4.4	4.00	23.8	18.7	15.7	8.7	15.7	11.5
509US	24.9	30.9	54.9	12.50	1.4	5.6	4.8	22.3	25.6	24.9	4.4	4.00	23.8	18.7	15.7	8.7	15.7	11.5

FRAME SIZE	MOUNTING			SHAFT EXTENSION			KEY SEAT			BEARINGS			MAXIMUM WEIGHT
	E	ZF	H	BA	N-W	V	U	R	S	ES	LS	OS	
509USS	10.00	28.00	0.94	8.5	4.75	4.50	2.375	2.021	0.625	3.00	6313C3	6313C3	3200 lbs.
509US	10.00	28.00	0.94	8.5	10.13	9.88	3.375	2.880	0.875	8.50	6320C3	6320C3	3200 lbs.

- NOTES:
1. DIMENSION V REPRESENTS LENGTH OF STRAIGHT PART OF SHAFT
  2. MAIN CONDUIT BOX MAY BE ROTATED IN 90° INCREMENTS
  3. KEY DIMENSIONS EQUAL S x S x 8.50 FOR US AND S x S x 3.00 FOR USS (MOTOR SUPPLIED WITH KEY)
  4. MOTOR WEIGHT SHOWN IS MAXIMUM HORSEPOWER IN FRAME
  5. OPPOSITE ROTATION AVAILABLE ONLY BY CONNECTION CHANGE

CUSTOMER: \_\_\_\_\_ MOTOR MODEL NO.: \_\_\_\_\_ TAG NO's.: \_\_\_\_\_  
 P.O. NO.: \_\_\_\_\_ HP: \_\_\_\_\_ VOLTAGE: \_\_\_\_\_ RPM(SYN.): \_\_\_\_\_ HZ: \_\_\_\_\_  
 FRAME SIZE: \_\_\_\_\_ PRODUCT TYPE: ODP EQP III, EPACKT, & HIGH EFFICIENCY  
 COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 PER: \_\_\_\_\_ DATE: \_\_\_\_\_

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

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

**TOSHIBA**  
 TOSHIBA INTERNATIONAL CORPORATION  
 OPEN DRIP-PROOF  
 HORIZONTAL FOOT-MOUNTED  
 3 PHASE INDUCTION MOTOR  
 F1 ASSEMBLY

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**TYPICAL MOTOR PERFORMANCE DATA**

Model: F4506VLG3OM

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
450	336	6	1180	509US	460	60	3	520.97
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
ODP	22	F	1.15	CONT	95.5	-	G	40 C

Load	HP	kW	Amperes	Efficiency (%)	Power Factor (%)
Full Load	450	335.6	520.9	95.5	84.7
¾ Load	337.50	251.7	404.1	95.5	81.8
½ Load	225.00	167.8	298.9	95.0	74.2
¼ Load	112.50	83.9	215.5	92.0	53.1
No Load			168.0		2.8
Locked Rotor			3405.1		36.2

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)	
2000	225	210	280	181.29

Safe Stall Time(s)		Sound Pressure dB(A) @ 1M	Bearings*		Approx. Motor Weight (lbs)
Cold	Hot		DE	NDE	
9.2	4.5	-	6320C3	6320C3	

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

**Motor Options:**  
Product Family:ODP  
Mounting:Footed,Shaft:US Shaft

Customer	
Customer PO	
Sales Order	
Project #	

Tag:

All characteristics are average expected values.

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

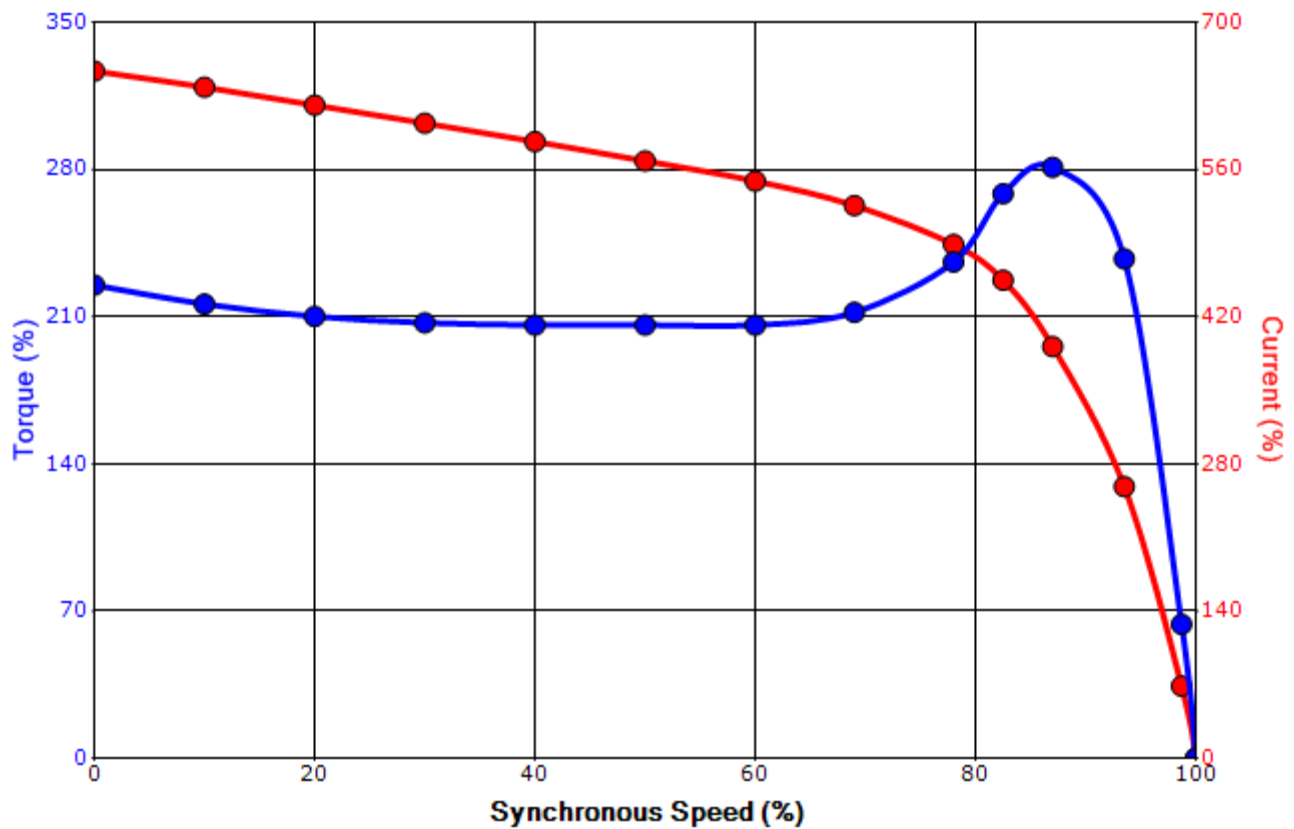
Engineering	bmmamen	Doc. Written By	D. Suarez	Doc.# / Rev	MPCF-1119 / 0
Engr. Date	5/12/2014	Doc. Approved By	M. Campbell	Doc. Issued	6/8/2011

**SPEED TORQUE/CURRENT CURVE**

Model: F4506VLG3OM

HP	kW	Pole	FL RPM	Frame	Voltage	Hz	Phase	FL Amps
450	336	6	1180	509US	460	60	3	520.97
Enclosure	IP	Ins. Class	S.F.	Duty	NEMA Nom. Eff.	NEMA Design	kVA Code	Ambient (°C)
ODP	22	F	1.15	CONT	95.5	-	G	40 C
Locked Rotor Amps	Rotor wk <sup>2</sup> Inertia (lb-ft <sup>2</sup> )	Torque						Break Down (%)
		Full Load (lb-ft)	Locked Rotor (%)	Pull Up (%)				
3405.1	181.29	2000	225	210			280	

**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	bmammen	Doc. Written By	D. Suarez	Doc.# / Rev	MPCF-1121 / 0
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# Motor Connection Diagram

## 12 Leads

### Single Voltage



Switch L1 and L2 to reverse rotation