

# TOSHIBA

## EQP III-XS

### SEVERE SERVICE LOW VOLTAGE MOTORS

*Proven performance  
in the toughest environments*



Available through

Allard Electronics

Tel. 512/931-3131

US 877/865-5651

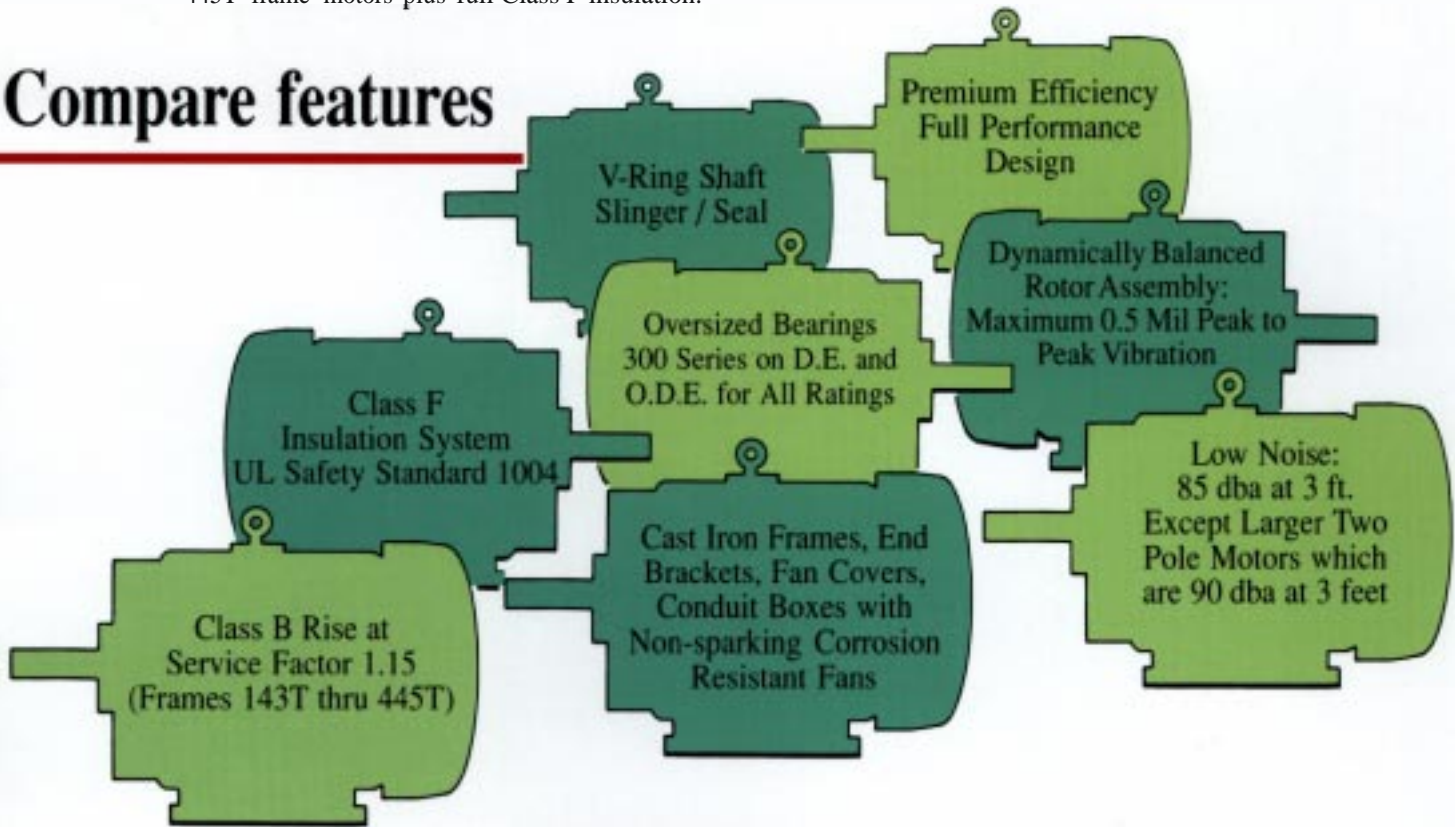
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# Built for industry's tougher environments

Toshiba's EQP III-XS is designed to address the many special requirements of the continuous processing industries — where motor performance and reliability are at a premium. Our "XS" not only meets, but exceeds specifications such as IEEE RP841 for hostile environments in the chemical processing industry. For example, IEEE RP841 recommends class B temperature rise at service factor 1.0. Toshiba offers Class B rise at service factor 1.15 on all 143T through 445T frame motors plus full Class F insulation.

As with all of our NEMA frame motors, the "XS" was designed and is being built at our 600,000 square foot Houston, Texas manufacturing facility. Our employees are proud of Toshiba's commitment to them and to our U.S.A. plant. At a time when the industry trend is to overseas manufacturing or sourcing from such countries as Korea, Taiwan, Mexico, Hungary and Brazil, Toshiba has made the commitment to build the world's finest motors in the U.S.A.

## Compare features



And much more...

- Regreaseable bearing construction 143T through 447T frame. Open bearing construction on 213T frames and larger.
- Automatic grease relief.
- Increased cross sectional areas on all conductors for increased efficiency.
- Low-loss electrical grade silicon steel with interlamination insulation capable of withstanding 1000°F burnout.
- CSA approved.
- UL recognized.
- Corrosion resistant stainless steel nameplate
- 3 leads single voltage — permanently numbered non-wicking leads.
- Drain and breathers — Qty. (2).
- Lead separator adds a water resistant seal between the conduit box and motor frame.
- Every motor is tested in excess of NEMA standards.
- All exposed internal machined surfaces are given a protective coating.
- Corrosion resistant zinc die-cast plated hardware.
- UL listed ground lug in the conduit box.
- Epoxy paint system.

# A unique combination of reliability, efficiency

## Nameplates

*Stainless Steel nameplates are standard and stamped for lifetime legibility. In addition to the standard NEMA data, Toshiba adds the motor weight, lubrication type and replacement bearing sizes. A label with lubrication instruction is attached to each motor to facilitate proper motor maintenance.*

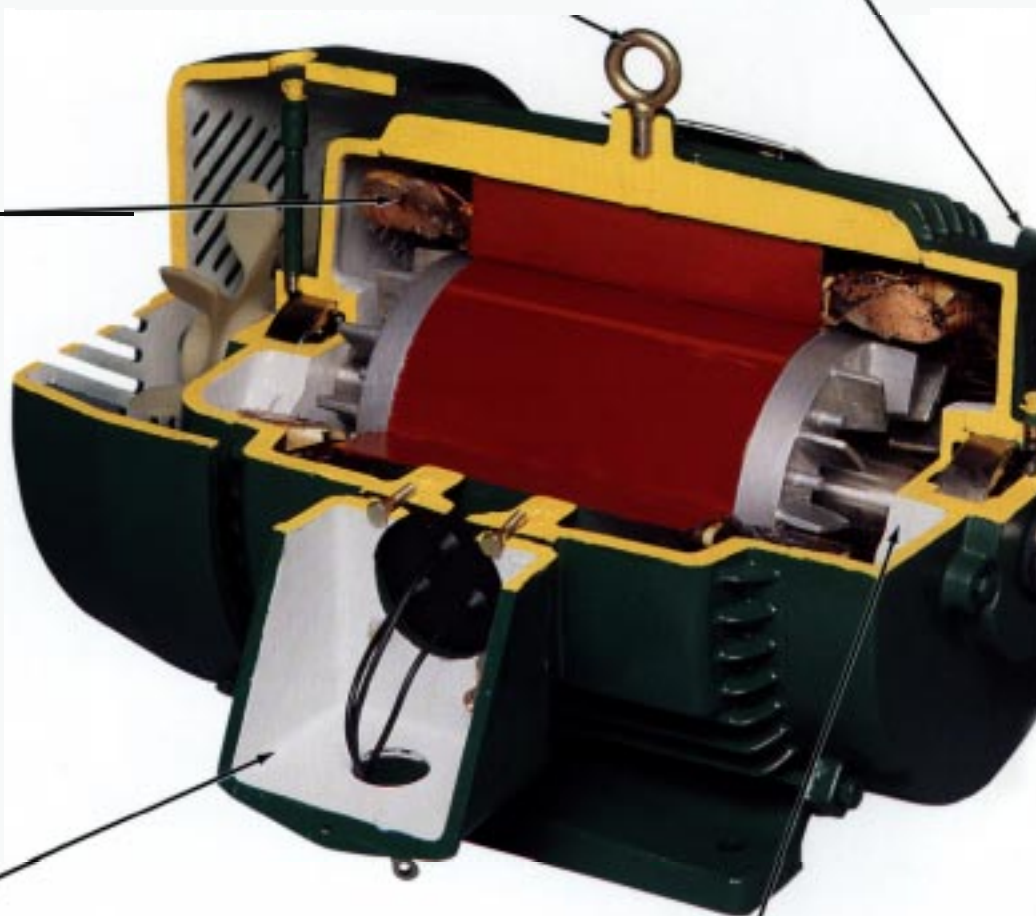
## Cast Iron Frames, End Brackets, Fan Covers, and Conduit Boxes

*Cast iron (grade 25 or greater) frames, end brackets, fan covers and conduit boxes are standard. Both a primer and epoxy finish coating are given to each motor. The paint system is designed and tested to pass a 96 hour salt spray test. ANS/ASTM B117*

## Forged Shouldered Eyebolt

## Insulation System

- Class F insulation System utilizing Class H magnet wire
- Class B rise at Service Factor
- For 143T thru 445T frames
- Class B rise at Service Factor 1.0 for frames 447T and larger
- Multi Dips and Bakes utilizing Class H varnish
- Motor shall meet a minimum resistance of 1.5 megohms after 168 hours exposure in a humidity chamber maintained at 100% relative humidity operating in a 40°C ambient
- Phase paper is standard on 143T frame and larger



## Conduit Box

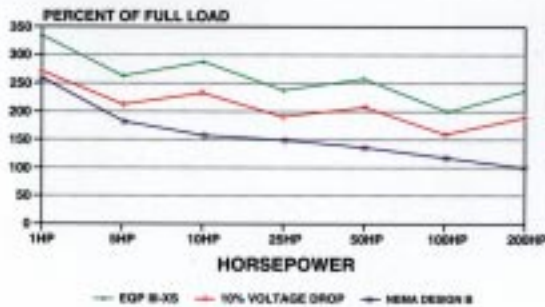
- Neoprene gasket between motor frame and T-box
- Neoprene lead separator
- Listed ground lug
- Sized as per NEMA standard — one size up

## Bearing System

- Only 300 series bearings are used.
  - Oversized bearings are standard.
  - Regreaseable bearings 143T - 447T
  - Open bearing with inner bearing caps on 213T - 447T frames.
  - V-ring seal on drive end bearing.
  - Greasing instruction on label.
  - Automatic grease relief.
  - Provisions for oil mist (optional).
  - Provisions for "Inpro/Seal" (optional).
- Toshiba bearing system is designed to have one of the lowest bearing temperature rises in the industry.*

# and performance

## Compare torques

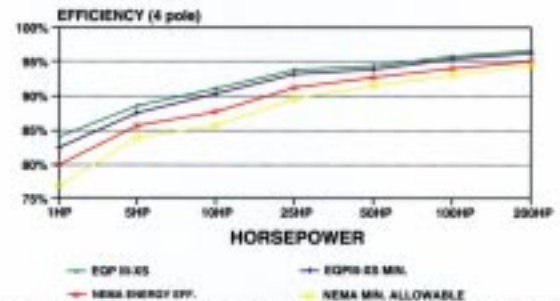


There is no power savings if your premium efficient motor cannot start the load. Toshiba motors are designed to develop full NEMA Design B locked rotor torques with only 90% voltage applied. Toshiba features the best locked rotor torques in the industry.

## Compare efficiency

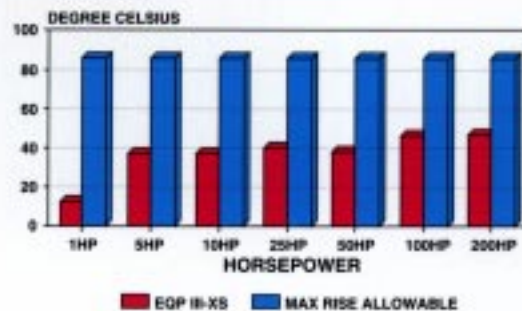
Toshiba stamps both the nominal and minimum guaranteed efficiencies on our nameplates. Efficiencies are determined per NEMA MG 1—12.54 to help insure repeatability and accuracy. Guaranteed values are based on the future NEMA standard which allows for only a 10% loss variance from nominal as opposed to the less stringent current standard of 20% loss variance.

### EQP III-XS VS NEMA STD



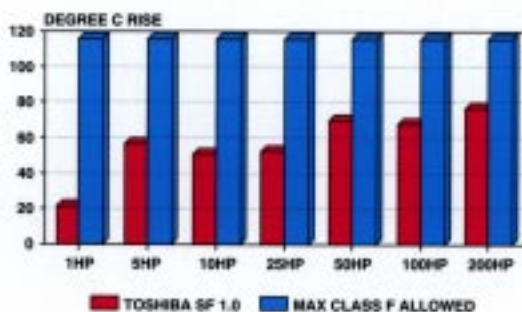
THE TOTAL PERFORMANCE PREMIUM EFFICIENT MOTOR: EQP III-XS

## Compare bearings — temperature rise



Low bearing temperature rises significantly increases the lubrication life. Toshiba EQP III-XS motors are not only designed to meet industry standards (such as IEEE RP841 recommended bearing temperature rises), but to exceed them.

## Compare thermal windows



By reducing the motor's total temperature by 10°C below the insulation rating, one can double the expected thermal life.

# Specifications

## EQP III-XS SEVERE SERVICE

HP	RPM	FRAME	EFF'Y NOM.	MODEL NO.	DRIVE END BEARING	NET WEIGHT POUNDS	LOCKED ROTOR TORQUE	
							NEMA DESIGN B %	TOSHIBA %
0.75	1200	143T	80.0	B346FLF1BMHD	6305	60	175	365
	1800	143T	85.5	B0014FLF1BMHD	6305	55	275	336
	1200	145T	82.5	B0016FLF1BMHD	6305	63	170	265
1	3600	143T	84.0	BY152FLF1BMHD	6305	55	175	350
	1800	145T	86.5	BY154FLF1BMHD	6305	62	250	385
	1200	182T	86.5	BY156FLF1BMHD	6306	105	165	266
1.5	3600	145T	86.5	B0022FLF1BMHD	6305	60	170	350
	1800	145T	86.5	B0024FLF1BMHD	6305	64	235	380
	1200	184T	88.5	B0026FLF1BMHD	6306	107	160	280
2	3600	182T	88.5	B0032FLF1BMHD	6306	91	160	248
	1800	182T	89.5	B0034FLF1BMHD	6306	96	215	259
	1200	213T	90.2	B0036FLF3BMHD	6308	173	155	279
3	3600	184T	89.5	B0052FLF1BMHD	6306	107	150	265
	1800	184T	88.5	B0054FLF1BMHD	6306	107	185	265
	1200	215T	90.2	B0056FLF3BMHD	6308	202	150	279
5	3600	213T	90.2	BY752FLF3BMHD	6308	172	140	213
	1800	213T	91.0	BY754FLF3BSHD	6308	167	175	280
	1200	254T	91.7	BY756FLF3BMHD	6309	282	150	218
7.5	3600	215T	90.2	B0102FLF3BMHD	6308	197	135	212
	1800	215T	91.0	B0104FLF3BSHD	6308	197	165	290
	1200	256T	92.4	B0106FLF3BMHD	6309	317	150	234
10	3600	254T	91.7	B0152FLF3BMHD	6309	288	130	220
	1800	254T	92.4	B0154FLF3BMHD	6309	287	160	229
	1200	284T	92.4	B0156FLF3BMHD	6310	409	140	208
15	3600	256T	92.4	B0202FLF3BMHD	6309	342	130	200
	1800	256T	93.0	B0204FLF3BMHD	6309	336	150	225
	1200	286T	92.4	B0206FLF3BMHD	6310	471	135	205
20	3600	284TS	92.4	B0252FLG3BMHD	6310	404	130	260
	1800	284T	93.6	B0254FLG3BMHD	6310	455	150	240
	1200	324T	93.0	B0256FLF3BMHD	6312	575	135	245
25	3600	286TS	92.4	B0302FLG3BMHD	6310	453	130	260
	1800	286T	93.6	B0304FLF3BMHD	6310	457	150	255
	1200	326T	93.6	B0306FLF3BMHD	6312	647	135	245
30	3600	324TS	93.0	B0402FLG3BMHD	6312	551	125	260
	1800	324T	94.1	B0404FLF3BSHD	6312	586	140	260
	1200	364T	94.1	B0406FLF3BMHD	6314	816	135	245
40	3600	326TS	93.0	B0602FLG3BMHD	6312	571	120	270
	1800	326T	94.1	B0604FLF3BSHD	6312	650	140	260
	1200	365T	94.1	B0606FLF3BMHD	6314	856	135	250
50	3600	364TS	93.6	B0602FLG3BMHD	6312	743	120	230
	1800	364T	95.0	B0604FLF3BMHD	6314	799	140	216
	1200	404T	95.0	B0606FLF3BSHD	6317	1241	135	210
60	3600	365TS	93.6	B0752FLG3BMHD	6312	804	105	260
	1800	365T	95.4	B0754FLF3BMHD	6314	861	140	200
	1200	405T	95.0	B0756FLF3BSHD	6317	1381	135	210
75	3600	405TS	95.0	B1002FLG3BSHD	6313	1290	105	215
	1800	405T	95.4	B1004FLF3BSHD	6317	1332	125	200
	1200	444T	95.4	B1006FLF4BSHD	NU318	1865	125	200
100	3600	445TS (2)	95.4	B1253FLG3BSHD	6313	1800	100	215
	1800	444T	95.8	B1254FLF4BSHD	NU318	1843	110	216
	1200	445T	95.4	B1256FLF4BSHD	NU318	2010	125	206
125	3600	405TS (2)	95.8	B1503FLG3BSHD	6313	2003	100	210
	1800	445T	95.8	B1504FLF4BSHD	NU318	1982	110	220
	1200	447TZ	95.8	B1506FLF4BSHD	NU318	2285	120	220
150	3600	447TSS (2)	96.2	B2003FLG3BSHD	6313	2267	100	230
	1800	447TZ	96.2	B2004FLF4BSHD	NU318	2314	100	240

(1) Single Voltage: 460V or 575 Volts

(2) Counter Clockwise Rotation Facing Opposite The Drive End  
For CW Rotation Specify on Order.