

TOSHIBA

TOSHIBA INTERNATIONAL CORPORATION

MEDIUM VOLTAGE MOTORS

TEXP



**EXPLOSION
PROOF**

HAZARDOUS PROTECTION IN AN EXPLOSIVE ENVIRONMENT

Toshiba's medium voltage totally enclosed fan cooled explosion proof motor meets the Division 1 hazardous location requirements of Class I, Group D and Class II, Groups F and G. Its robust construction meets the requirements for UL- and CSA-Listed hazardous locations and offers the highest performance and reliability for indoor and outdoor use. (Across the line starting only.)



IP55 Degree of Protection	Non-sparking shaft seal on the drive end provides increased moisture and dust protection.
Bearings	Oversized bearings prevent premature failure in various modes of operation to increase the service life of the motor.
Lamination Material	C5 core plate lamination is designed for high temperature capabilities making the motor suitable for removal of windings with burnout oven temperatures of up to 750°F, facilitating motor repair and extending service life.
Coil Bracing System	Bracing prevents coil movement caused by excessive forces in harsh starting applications that could lead to insulation damage and failure.
Double Vacuum Pressure Impregnation (VPI)	Two complete VPI cycles are performed to seal the winding against contamination and prevent vibration and movement for maximum reliability.
Winding Thermal Protection	Embedded 100Ω platinum stator RTDs and normally closed (NC), bi-metallic thermostats help protect the motor's insulation system from excessive heat and unsafe operation.



GENERAL FEATURES

- Cast iron frame, brackets and terminal box ensure strength and durability for low maintenance and longevity.
- Fabricated copper bar rotors are used for reliability and repairability.
- Stainless steel drain & breather plug are found at the lowest point of the frame to offer a corrosion resistant drain of accumulated condensation.
- Corrosion-resistant ASTM Grade 5 hardware is employed for fasteners with anti-corrosive properties to deter material degradation brought on by moisture of chemical exposure.

OPTIONAL FEATURES

- Roller bearing designs are offered on the drive end of 4 - 8 pole ratings to carry higher radial loads in belted applications.
- Added protection of the insulation from the surrounding elements including moisture, fungus growth and chemicals can be achieved with insulation treatments like tropicalization, fungus proofing and abrasion resistance.
- Jacking bolt provisions and bolts can be provided to assist with the proper alignment of the motor shaft with the driven equipment.

OPTIONAL ACCESSORIES

- Three-lead single element bearing RTDs can be supplied for bearing protection to help prevent premature bearing failure.
- Constant level oilers can be furnished to maintain proper bearing lubrication at a predetermined oil level for efficient operation and scheduled maintenance (6800 Frame with Sleeve Bearings Only).
- A single direction vibration transmitter can be provided to measure vibration in either the horizontal or vertical direction on either bearing housing.
- Stainless steel full foot shims are available for proper alignment of the motor shaft with the driven equipment and soft foot correction.
- ASTM A36 low carbon steel soleplates can be provided for a stable foundation to anchor the motor.

INDUSTRIES SERVED

- Oil & Gas
- Mining & Minerals
- Chemical
- Pulp & Paper

APPLICATIONS

- Pumps
- Fans
- Compressors
- Conveyors
- Mixers
- Crushers





HP	Full Load RPM	Frame	Voltage	Current (A)			Full Load Torque (lb.ft)	Torque (%)		Efficiency (%)	Power Factor (%)	Weight (lbs.)
				Full Load	Locked Rotor	kVA Code		Locked Rotor Torque	Break-down Torque	Nominal Full Load	Full Load	
200	3562	N449TS	4000	25.3	167	G	295	100	251	92.4	92.5	3200
200	1782	N449T	4000	26.3	166	G	589	139	217	93.5	87.8	3100
200	1190	N449T	4000	27.0	161	F	883	102	246	93.6	86.3	3500
200	894	509E	4000	27.4	179	H	1175	102	276	94.0	84.8	3500
250	3563	509US	4000	29.6	190	F	369	111	282	93.9	93.6	3500
250	1779	449T	4000	33.3	198	F	738	144	209	92.1	87.7	3200
250	1189	509E	4000	33.1	184	E	1104	96	226	93.9	86.5	3500
250	894	D509E	4000	34.4	227	H	1469	106	280	94.4	83.9	4000
300	3569	H509US	4000	36.6	235	F	441	84	258	93.8	94.3	5000
300	1785	509E	4000	38.0	233	F	883	105	216	94.5	90.1	3500
300	1190	509E	4000	39.6	234	F	1324	104	237	94.3	86.6	3500
300	894	H509E	4000	40.4	249	G	1762	98	257	94.5	84.7	5000
350	3569	H509US	4000	42.7	287	G	515	95	271	94.4	93.8	5000
350	1784	509E	4000	44.7	272	F	1030	107	209	94.7	90.1	3500
350	1190	D509E	4000	46.4	289	F	1545	111	245	94.3	86.3	4000
350	894	H509E	4000	47.0	288	G	2056	99	254	94.6	84.8	5000
400	3567	H509US	4000	48.7	304	F	589	89	251	94.5	93.9	5000
400	1786	D509E	4000	50.4	327	F	1176	103	237	94.0	91.3	5000
400	1190	H509E	4000	52.8	327	F	1765	111	242	94.3	86.7	5000
400	895	5811L	4000	55.3	318	G	2347	102	200	94.1	82.4	6500
450	3574	5810S	4000	54.5	365	F	661	96	232	94.5	94.4	6500
450	1788	H509E	4000	56.3	351	F	1322	91	226	94.4	91.4	5000
450	1190	H509E	4000	59.0	346	F	1986	105	229	94.6	87.0	5000
450	894	688S	4000	59.6	377	G	2644	98	231	94.8	85.9	7500
500	3574	5811S	4000	60.5	407	F	735	98	230	94.6	94.5	7000
500	1788	H509E	4000	62.4	404	F	1469	101	231	94.7	91.4	5000
500	1191	5810L	4000	62.6	365	F	2205	101	183	94.6	87.2	6500
500	894	688S	4000	66.1	426	G	2937	101	234	94.9	86.1	7500
600	3571	688H	4000	72.5	455	E	882	96	213	94.8	94.4	7500
600	1787	688S	4000	74.2	458	F	1763	90	238	94.8	92.2	7500
600	1191	6809L	4000	77.3	532	F	2646	103	212	94.1	87.8	11000
600	893	6809L	4000	77.4	521	F	3529	73	219	95.1	88.0	11000
700	3580	6810H	4000	86.0	542	F	1027	78	246	94.9	92.9	11000
700	1789	6809L	4000	88.7	542	F	2055	107	204	94.7	90.7	11000
700	1191	6809L	4000	91.0	588	F	3087	98	196	94.1	87.7	11000
700	893	6810L	4000	89.9	593	F	4117	72	211	95.1	88.4	11500
800	3579	6811H	4000	97.9	619	F	1174	81	242	95.1	93.0	12000
800	1788	6810L	4000	100.0	604	F	2350	114	190	95.3	90.8	11500
800	1190	6810L	4000	103.8	631	E	3531	94	184	94.4	87.2	11500
800	892	6811L	4000	102.8	631	E	4710	74	205	95.2	88.5	12500
900	1778	6811L	4000	112.3	752	F	2658	180	214	94.8	91.3	12500
900	1191	6811L	4000	116.2	748	F	3969	101	193	95.1	87.3	12500
900	893	6811L	4000	114.9	749	F	5293	72	205	95.6	88.4	12500
1000	1780	6811L	4000	124.1	892	G	2951	199	224	95.2	91.6	12500

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 Toshiba International Corporation
 Motors & Drives Division
 13131 West Little York Road
 Houston, Texas 77041 USA
 Tel +713-466-0277
 US 1-800-231-1412
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