
TOSHIBA EQP Global™ SD

With Hybrid Ceramic Bearings (575 Volt)

Efficiency, Quality & Performance (EQP)



The TOSHIBA EQP Global SD premium efficient motor are suited for the FANWALL® applications. Motors are balanced to vibration levels at half the allowable NEMA limits. The totally enclosed air over (TEAO) design runs quiet, is very compact and is a superior enclosure for any application, including dirty or wet environments.

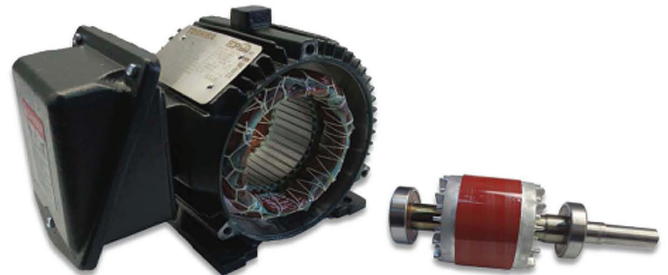
The insulation system in a motor is designed to handle the sum of three temperatures: an ambient design temperature 40°C / 104°F; the temperature rise in the motor under load; and a 10°C hot spot allowance. For example, a NEMA Class B rated motor can have a maximum motor temperature rise during operation of 80°C. This results in a total motor temperature rating of 130°C (40°C ambient temp. + 80°C motor temp. rise + 10°C hot spot temp.). A NEMA Class F rating allows for a motor temperature rise of 105°C yielding a total motor temperature rating of 155°C. A NEMA Class H ratings allows for a 125°C motor temperature rise for a total motor temperature rating of 180°C. Additionally, NEMA allows the motor temperature rating limit to increase by 10°C for motors rated with a 1.15 service factor. TOSHIBA EQP motors provided for FANWALL systems incorporate Class H rated wire and Class H rated varnish as part of the insulation system.

Testing: Through manufacturers testing the TOSHIBA EQP motors are suitable for continuous duty in ambient temperatures from -25°C to 40°C in 100% humidity. The increased airflow over the motor fins, produced by the Coplanar Silencer® design in FANWALL systems, helps to keep the motor windings cooler and well below a Class H 180°C [356°F] rating. This unique cooling design makes available a significantly greater number of motor horsepower increments that can be selected to more closely match brake horsepower requirements. These incremental horsepower motors carry a full factory warranty, maintain a 1.15 service factor, are constructed for 120 Hz continuous operation, and are readily available from Nortek Air Solutions LLC stock inventory.

Frame mounting dimensions are industry standard for readily available replacement. The motors utilize an insulation system which meets the requirements of NEMA MG1 Part 31.4.4.2 for VFD use, and is considered inverter ready. Cast iron motor construction is rigid, durable and quiet. The motors have double sealed hybrid ceramic ball bearings that exceed a L-10 life of 150,000 hours in direct coupled applications. These hybrid ceramic bearings prevent electrical arcing that damages traditional bearings.

The TOSHIBA motors are in accordance with the latest revisions of the applicable sections of the NEMA MG1, NEC, CSA, UL, IEEE and CE standards. The nominal efficiency is stamped on the nameplate of the motor. The nameplate and fasteners surpass a 720 hour salt spray (fog) test for corrosion resistance per ASTM B117/IEEE 841 A.4.

All efficiency testing and labeling are done in accordance with the NEMA MG1 standard. The motors are dynamically balanced to 0.10 inches per second peak velocity and vibration testing is per NEMA MG1 Part 7. All motors are painted with a corrosion-resistance, severe duty, alkyd resin primer paint with an acrylic enamel finish.



TOSHIBA EQP Global™ SD

With Hybrid Ceramic Bearings (575 Volt)
Efficiency, Quality & Performance (EQP) 1800 RPM MOTORS

1800 RPM Motors								
						FLA		
HP	Part #	Toshiba Spec #	RPM @ 60Hz with slip	FRAME	EFF	575V	LBS	Max RPM
1	200.0805	405001L1ZVS210	1760	143T	85.5	1.3	53	3600
1.5			1740		84.0	1.7		
2	200.0806	405002L1ZVS210	1750	145T	86.5	2.4	58	3600
2.5			1730		84.5	2.8		2700
3	200.0807	405003L1ZVS210	1760	182T	89.5	3.2	92	3600
3.5			1750		89.5	3.5		3150
4			1740		89.5	3.9		2700
4.5			1735		87.5	4.5		2400
5	200.0808	405005L1ZVS210	1750	184T	89.5	5.2	104	3600
5.5			1750		88.5	5.6		3300
6			1740		87.5	6.0		3000
6.5			1735		87.5	6.6		2850
7			1730		86.5	7.1		2700
7.5	200.0809	405Y75L1ZVS210	1760	213T	91.7	7.8	175	3600
8			1760		91.0	8.2		3450
8.5			1760		91.0	8.6		3300
9			1760		91.0	9.0		3000
9.5			1760		91.0	9.5		2850
10	200.0810	405010L1ZVS210	1760	215T	91.7	10.4	190	3600
10.5			1760		91.0	10.6		3000
11			1760		91.0	11.1		2850
11.5			1760		91.0	11.6		2700
12			1760		90.2	12.1		2250
15	200.0811	405015L1ZVS210	1770	254T	92.4	15.2	289	3600
20	200.0812	405020L1ZVS210	1770	256T	93.0	20.0	331	2550

TOSHIBA EQP Global™ SD With Hybrid Ceramic Bearings (575 Volt)

Efficiency, Quality & Performance (EQP) 3600 RPM MOTORS

3600 RPM Motors								
						FLA		
HP	Part #	Toshiba Spec #	RPM @ 60Hz with slip	FRAME	EFF	575V	LBS	Max RPM
1	200.0813	2O5Y15L1ZVS210	3525	143T	82.5	1.2	50	4800
1.5			3490		84.0	1.6		
2	200.0814	2O5002L1ZVS210	3490	145T	85.5	2.1	53	4800
2.5			3455		84.0	2.5		
3	200.0815	2O5003L1ZVS210	3500	182T	86.5	3.0	80	4800
3.5			3485		85.5	3.4		
4			3465		84.0	3.9		
4.5			3440		82.5	4.4		
5	200.0816	2O5005L1ZVS210	3500	184T	88.5	4.6	95	4800
5.5			3475		87.5	5.1		
6			3465		86.5	5.6		
6.5			3455		86.5	6.1		
7			3440		85.5	6.6		
7.5	200.0817	2O5Y75L1ZVS210	3500	213T	89.5	7.2	159	4800
8			3490		89.5	7.5		
8.5			3485		89.5	8.0		
9			3475		88.5	8.5		
9.5			3470		88.5	9.0		
10	200.0818	2O5010L1ZVS210	3510	215T	90.2	9.4	177	4800
10.5			3505		90.2	9.7		
11			3500		90.2	10.1		
11.5			3495		90.2	10.6		
12			3490		90.2	11.1		
15	200.0819	2O5015L1ZVS210	3530	254T	91.0	14.4	274	4800
20	200.0820	2O5020L1ZVS210	3520	256T	91.0	19.2	292	4800



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