

TOSHIBA EQP Global™ SD

With Hybrid Ceramic Bearings (208, 230, 460 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 F 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 F rated wire and Class F 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 F 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 (208, 230, 460 Volt)
Efficiency, Quality & Performance (EQP) 1800 RPM MOTORS

1800 RPM Motors										
HP	Part #	Toshiba Spec #	RPM @ 60Hz with slip	FRAME	EFF	FLA			LBS	Max RPM
						460V	230V	208V		
1	200.0789	40A001L1ZVS210	1760	143T	85.5	1.7	3.4	3.3	53	3600
1.5			1745			2.1	4.2			
2	200.0790	40A002L1ZVS210	1750	145T	86.5	3.0	6.0	6.1	58	3600
2.5			1730			3.5	7.0			
3	200.0791	40A003L1ZVS210	1760	182T	89.5	4.0	8.0	8.6	92	3600
3.5			1750			4.5	9.0	3150		
4			1740			5.1	10.2	2700		
4.5			1735			5.7	11.4	2400		
5	200.0792	40A005L1ZVS210	1755	184T	89.5	6.4	12.8	13.8	104	3600
5.5			1750			6.9	13.8	3300		
6			1745			7.5	15.0	3000		
6.5			1740			8.1	16.2	2850		
7			1735			8.8	17.6	2700		
7.5	200.0793	40AY75L1ZVS210	1760	213T	91.7	9.8	19.6	21.0	175	3600
8			1760			10.1	20.2	3450		
8.5			1760			10.7	21.4	3300		
9			1760			11.2	22.4	3000		
9.5			1755			11.8	23.6	2850		
10	200.0794	40A010L1ZVS210	1760	215T	91.7	13.0	26.0	28.0	190	3600
10.5			1760			13.3	26.6	3000		
11			1760			13.9	27.8	2850		
11.5			1760			14.5	29.0	2700		
12			1755			15.1	30.2	2250		
15	200.0795	40A015L1ZVS210	1770	254T	92.4	19.0	38.0	42.0	289	3600
20	200.0796	40A020L1ZVS210	1770	256T	93.0	25.0	50.0	55.0	331	2550

TOSHIBA EQP Global™ SD

With Hybrid Ceramic Bearings (208, 230, 460 Volt)
Efficiency, Quality & Performance (EQP) 3600 RPM MOTORS

3600 RPM Motors										
HP	Part #	Toshiba Spec #	RPM @ 60Hz with slip	FRAME	EFF	FLA			LBS	Max RPM
						460V	230V	208V		
1	200.0797	20AY15L1ZVS210	3525	143T	82.5	1.5	3.0	50	4800	
1.5			3490		84.0	2.0	4.0			4.4
2	200.0798	20A002L1ZVS210	3490	145T	85.5	2.6	5.2	53	4800	
2.5			3455		82.5	3.1	6.2			
3	200.0799	20A003L1ZVS210	3500	182T	86.5	3.7	7.4	80	4800	
3.5			3480		85.5	4.2	8.4			
4			3460		84.0	4.8	9.6			
4.5			3440		82.5	5.5	11.0			
5	200.0800	20A005L1ZVS210	3500	184T	88.5	5.8	11.6	95	4800	
5.5			3480		87.5	6.3	12.6			
6			3465		86.5	6.9	13.8			
6.5			3455		86.5	7.6	15.2			
7			3440		85.5	8.2	16.4			
7.5	200.0801	20AY75L1ZVS210	3500	213T	89.5	9.0	18.0	159	4800	
8			3490		89.5	9.4	18.8			
8.5			3485		89.5	10.0	20.0			
9			3475		88.5	10.6	21.2			
9.5			3470		88.5	11.2	22.4			
10	200.0802	20A010L1ZVS210	3510	215T	90.2	11.8	24.0	177	4800	
10.5			3500		89.5	12.3	24.6			
11			3495		89.5	12.9	25.8			
11.5			3490		88.5	13.4	26.8			
12			3485		88.5	14.1	28.2			
15	200.0803	20A015L1ZVS210	3530	254T	91.0	18.0	36.0	40.0	274	4800
20	200.0804	20A020L1ZVS210	3520	256T	91.0	24.0	48.0	53.0	292	4800

Specifications and illustrations subject to change
without notice and without incurring obligation.



www.nortekair.com
nortekairinfo@nortek.com

FANWALL® is a registered trademark of Nortek Air Solutions, LLC.
All other trademarks are the property of their respective organizations.
© Nortek Air Solutions, LLC 2021. All Rights Reserved.

503F-0621 (Replaces 503F-0919)

