## **Baldor Super-E Motors**

## Premium efficiency inside and out

The Baldor Super-E<sup>®</sup> premium efficient motor is standard in FANWALL<sup>®</sup> 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 dirty or wet environments. The keyless shaft combined with a compression fan mounting system allows for easier assembly and maintenance and contributes to a more balanced system.

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. Baldor TEAO motors provided for FANWALL systems incorporate Class H rated wire and Class H rated varnish as part of the insulation system.

Testing: Through actual testing of Baldor TEAO motors in FANWALL applications, Baldor and Governair have determined that the temperature rise in these motors is actually very low–in some cases only 40° C. This is well below the 125° C temperature rise for the Class H rating, and adds to the safety margin over the actual ambient temperature. 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 is what makes incremental horsepower motors possible.



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 Baldor or Governair stock inventory.

These motors are engineered and manufactured to incorporate the Baldor shaft grounding brush assembly. The shaft grounding brush prevents electrical damage to motor bearings by safely channeling harmful shaft currents to ground. Utilizing long-life carbon brush technology, the conductive brush provides the path of least resistance for damaging shaft currents, preventing electrical damage to motor bearings and dramatically extending motor life. Now you have this protection from a single-source.

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. The motors are lubricated with Polyrex EM Polyurea grease. This lubricant provides a life of up to four times that of other polyurea greases. Cast iron motor construction is rigid, durable and quiet. Locked bearing construction reduces endplay and provides a stable bearing support system.







## **Baldor TEAO Motors for FANWALL® Systems**

208, 230, 460 Volts

1800 RPM												
HP	FRAME	AMPS (3 HP)			Sync.	Max HZ	FFF	IRS	Spec #			
		208V	230V	460V	Speed	1	211.	205.	Spec. #			
1	143T	2.9	2.8	1.4	1750	120	86.5	58	05G747W052G1			
1.5		4.2	4	2	1740	110	86.5		05G747W052G1			
2	145T	5.7	5.4	2.7	1725	100	86.5	64	05G747W649G1			
2.5		6.8	6.4	3.2	1715	90	86.5		05G747W649G1			
3		8.4	8	4	1760	120	89.5	90	06K265W356G1			
3.5	182T	9.9	9.4	4.7	1745	105	87.5		06K265W356G1			
4		11.1	10	5	1735	90	86.5		06K265W356G1			
4.5		12.4	11.8	5.9	1725	75	84		06K265W356G1			
5	184T	13.7	13	6.5	1750	120	90.2	105	06K265W567G1			
5.5		14.7	14	7	1750	110	88.5		06K265W567G1			
6		15.8	15	7.5	1740	100	88.5		06K265W567G1			
6.5		16.8	16	8	1735	90	87.5		06K265W567G1			
7		17.9	17	8.5	1740	75	86.5		06K265W567G1			
7.5		19.8	19	9.5	1770	110	91.7	170	07M826X790G1			
8		21	20	10	1765	100	91		07M826X790G1			
8.5	213T	22.3	21	10.5	1765	95	91		07M826X790G1			
9	]	23.5	22	11	1760	85	90.2		07M826X790G1			
9.5	1	24.8	23	11.5	1755	75	89.5		07M826X790G1			
10		26.3	25	12.5	1760	110	92.4	231	07M826X776G1			
10.5		28	25.6	12.8	1760	100	92.4		07M826X776G1			
11	215T	28.8	26.8	13.4	1760	95	92.4		07M826X776G1			
11.5		30.1	27.8	13.9	1755	90	91.7		07M826X776G1			
12		30.4	29	14.5	1755	75	91.7		07M826X776G1			
15	254T	38	36.2	18.1	1765	90	92.4	262	09K443Z910G2			



3600 RPM											
HP	FRAME		AMPS (3 HP	')	Sync. Speed	EFF.	LBS.	Spec. #			
		208V	230V	460V							
1	143T	3	2.8	1.4	3450	84	FO	05G747W546G1			
1.5		4.3	4	2	3450	85.5	50	05G747W546G1			
2	145T	5.4	5	2.5	3450	86.5	64	05G747W115G1			
2.5		6.7	6.2	3.1	3450	86.5	04	05G747W115G1			
3	182T	7.5	7	3.5	3500	89.5	81	06K265W727G1			
3.5		8.6	8	4	3490	89.5		06K265W727G1			
4		9.9	9	4.5	3480	89		06K265W727G1			
4.5		11	10	5	3460	88.5		06K265W727G1			
5		12.2	11.4	5.7	3490	90.2	92	06K265W730G1			
5.5		13.7	12.6	6.3	3480	90.2		06K265W730G1			
6	184T	15	13.6	6.8	3470	90.2		06K265W730G1			
6.5		16.2	14.8	7.4	3460	89.5		06K265W730G1			
7		17.5	15.8	7.9	3450	89.5		06K265W730G1			
7.5		18.6	17.2	8.6	3525	91	173	07M826W280G1			
8	]	19.6	18.2	9.1	3520	91		07M826W280G1			
8.5	213T	20.8	19.2	9.6	3510	91		07M826W280G1			
9		22.5	20.2	10.1	3500	91.7		07M826W280G1			
9.5		23.5	21.2	10.6	3500	92.4		07M826W280G1			
10	215T	24.4	22.4	11.2	3500	91.7	203	07M826W723G1			
10.5		25.2	23.3	11.6	3500	91.7		07M826W723G1			
11		26.2	24.2	12.1	3500	91.7		07M826W723G1			
11.5		27.6	25.2	12.6	3500	91.5		07M826W723G1			
12		28.8	26.2	13.1	3495	91.5		07M826W723G1			
15	254T	37.4	34.4	17.2	3525	91.7	239	09K443Y599G3			

/// Mammoth

All motors are 208 / 230 / 460V, 3 PH. All motors have a 1.15 Service Factor, Class F insulation, and a TEAO enclosure. All motors are constructed for 120 Hz continuous operation.

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Ventrol<sup>®</sup>

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