

Hazardous Duty Motors

Class I, Groups C & D, Division 1 RGZZESD

These high efficiency explosion-proof motors are UL® listed for hazardous gas environments, and are suitable for use in Class I, Groups C & D, Division 1 hazardous areas. They are ideal for use in applications such as chemical processing, mining, foundry, pulp and paper, waste management, and petro/chemical.

Stator/Windings – Manufactured with premium electrical grade steel laminations and copper electrical magnet wire to lower losses for improved efficiencies. A unique stator core design lowers flux density while increasing cooling capacity. Large conductor cross section reduces resistance and lowers stator losses.



3
YEAR
WARRANTY

Oversized Conduit Box – Cast iron construction that is larger than industry standards, diagonally-split and rotatable in 90° increments for quick and easy connections. Includes a ground lug and non-wicking, clearly and permanently marked leads.

Corrosion Resistance – Cast iron construction, zinc-plated hardware, epoxy enamel paint and stainless steel nameplate resist rust and corrosion.

Modifiable – All Siemens motors are available with a wide variety of modifications to meet your specific motor needs



Performance Specifications

- 1 to 300 HP
- 1.0 service factor, 40°C ambient
- T3C temperature code
- 900, 1200, 1800, or 3600 RPM
- 3 phase, 60 Hz; 230/460 volt operation under 25 HP, 460 volt 25 HP and above; 200 & 575 volt available
- Class F insulation, Class B temperature rise
- NEMA design B, continuous duty
- 143T through 449T frame

Insulation – Proprietary Class F non-hygroscopic insulation system with NEMA Class B temperature rise, provides an extra margin of thermal life. Two series-connected normally-closed Class B thermostats are supplied as standard.

Cooling – A bi-directional, non-sparking fan is locked and keyed to the shaft. Its low-inertia design reduces windage losses, improves airflow, reduces noise and provides dependable cooling. Cast iron fan covers are provided on all frame sizes.

Bearings – Regreasable, oversized single shielded bearings with cast iron inner caps. Alemite grease fittings on the inlets, and pipe plugs on the relief ports for ease of routine maintenance. Frames 143T – 256T are equipped with a shaft seal on the drive end; 284T – 449T frames have a drive end V-ring slinger for added bearing life.

Lubrication – A specially formulated, high temperature tested, polyurea based grease is used to provide more than four times the lubrication life of other polyurea greases.

Features for Long Life

Frame and End Shields – Cast iron frame and end shields for exceptional structural integrity, with sintered condensation drains on 404T – 449T frames. Lifting eyebolts are included for frames 213T to 449T.

Rotor – A unique offset rotor bar design provides improved efficiency while larger bars and end rings reduce resistance for lower rotor losses. Each die cast aluminum rotor assembly is dynamically balanced for extended bearing life, and includes a high-strength carbon steel (C1045) shaft for maximum rotor performance.

Specifications table begins on the next page →

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RGZZESD

Stock/Modifiable

HP	RPM	Frame	Voltage	Type	DE Bearing	Part Number	List Price \$	Multiplier Symbol	FL Amps 460V	FL Nom. Eff. (%)	Weight (lbs.)	Stock Model
Horizontal, Foot Mounted												
1	1800	143T	230/460	RGZZESD	Ball	1MB29311AB216AG3	774	SA-7MXP	1.5	82.5	60	✓
1	1200	145T	230/460	RGZZESD	Ball	1MB29311AC316AG3	863	SA-7MXP	1.8	80	70	
1	900	182T	230/460	RGZZESD	Ball	1MB29311CD116AG3	1392	SA-7MXP	1.9	78.5	113	
1.5	3600	143T	230/460	RGZZESD	Ball	1MB29311AA216AG3	800	SA-7MXP	2	82.5	60	
1.5	1800	145T	230/460	RGZZESD	Ball	1MB29311AB316AG3	815	SA-7MXP	2.2	84	70	✓
1.5	1200	182T	230/460	RGZZESD	Ball	1MB29311CC116AG3	922	SA-7MXP	2.3	85.5	100	
1.5	900	184T	230/460	RGZZESD	Ball	1MB29311CD316AG3	1599	SA-7MXP	2.6	80	117	
2	3600	145T	230/460	RGZZESD	Ball	1MB29311AA316AG3	877	SA-7MXP	2.5	84	70	
2	1800	145T	230/460	RGZZESD	Ball	1MB29311AB416AG3	856	SA-7MXP	2.9	84	70	✓
2	1200	184T	230/460	RGZZESD	Ball	1MB29311CC316AG3	1012	SA-7MXP	3	86.5	120	
2	900	213T	230/460	RGZZESD	Ball	1MB29312AD116AG3	1907	SA-7MXP	3.3	82.5	153	
3	3600	182T	230/460	RGZZESD	Ball	1MB29311CA116AG3	937	SA-7MXP	3.6	86.5	100	
3	1800	182T	230/460	RGZZESD	Ball	1MB29311CB116AG3	934	SA-7MXP	3.9	87.5	100	✓
3	1200	213T	230/460	RGZZESD	Ball	1MB29312AC116AG3	1218	SA-7MXP	4	87.5	160	
3	900	215T	230/460	RGZZESD	Ball	1MB29312AD216AG3	2238	SA-7MXP	4.7	84	171	
5	3600	184T	230/460	RGZZESD	Ball	1MB29311CA316AG3	1093	SA-7MXP	5.8	87.5	120	
5	1800	184T	230/460	RGZZESD	Ball	1MB29311CB316AG3	1019	SA-7MXP	6.5	87.5	115	✓
5	1200	215T	230/460	RGZZESD	Ball	1MB29312AC216AG3	1506	SA-7MXP	6.8	88.5	180	
5	900	254T	230/460	RGZZESD	Ball	1MB29312BD116AG3	2391	SA-7MXP	7.5	86.5	292	
7.5	3600	213T	230/460	RGZZESD	Ball	1MB29312AA116AG3	1310	SA-7MXP	8.8	88.5	160	
7.5	1800	213T	230/460	RGZZESD	Ball	1MB29312AB116AG3	1305	SA-7MXP	9.5	89.5	160	✓
7.5	1200	254T	230/460	RGZZESD	Ball	1MB29312BC116AG3	1940	SA-7MXP	9.8	90.2	265	
7.5	900	256T	230/460	RGZZESD	Ball	1MB29312BD216AG3	2855	SA-7MXP	12	87.5	324	
10	3600	215T	230/460	RGZZESD	Ball	1MB29312AA216AG3	1444	SA-7MXP	12	89.5	180	
10	1800	215T	230/460	RGZZESD	Ball	1MB29312AB216AG3	1467	SA-7MXP	13	89.5	180	✓
10	1200	256T	230/460	RGZZESD	Ball	1MB29312BC216AG3	2233	SA-7MXP	13	90.2	325	
10	900	284T	230/460	RGZZESD	Ball	1MB29312CD116AG3	3687	SA-7MXP	15	91	410	
15	3600	254T	230/460	RGZZESD	Ball	1MB29312BA116AG3	1900	SA-7MXP	17	90.2	265	
15	1800	254T	230/460	RGZZESD	Ball	1MB29312BB116AG3	1878	SA-7MXP	19	91.7	265	✓
15	1200	284T	230/460	RGZZESD	Ball	1MB29312CC116AG3	3053	SA-7MXP	20	91	410	
15	900	286T	230/460	RGZZESD	Ball	1MB29312CD216AG3	4552	SA-7MXP	23	91	460	
20	3600	256T	230/460	RGZZESD	Ball	1MB29312BA216AG3	2205	SA-7MXP	23	90.2	325	
20	1800	256T	230/460	RGZZESD	Ball	1MB29312BB216AG3	2187	SA-7MXP	26	91.7	325	✓
20	1200	286T	230/460	RGZZESD	Ball	1MB29312CC216AG3	3520	SA-7MXP	26	91.7	460	
20	900	324T	230/460	RGZZESD	Ball	1MB29313AD116AG3	5545	SA-7MXP	31	91	589	
25	3600	284TS	460	RGZZESD	Ball	1MB29312DA112AG3	2867	SA-7MXP	29	91.7	410	
25	1800	284T	460	RGZZESD	Ball	1MB29312CB112AG3	2780	SA-7MXP	29	93	410	✓
25	1200	324T	460	RGZZESD	Ball	1MB29313AC112AG3	4456	SA-7MXP	33	92.4	589	
25	900	326T	460	RGZZESD	Ball	1MB29313AD212AG3	6437	SA-7MXP	38	90.2	645	
30	3600	286TS	460	RGZZESD	Ball	1MB29312DA212AG3	3195	SA-7MXP	34	91.7	460	
30	1800	286T	460	RGZZESD	Ball	1MB29312CB212AG3	3082	SA-7MXP	35	93	460	✓
30	1200	326T	460	RGZZESD	Ball	1MB29313AC212AG3	4936	SA-7MXP	39	92.4	645	
30	900	364T	460	RGZZESD	Ball	1MB29313CD112AG3	7544	SA-7MXP	47	91	865	
40	3600	324TS	460	RGZZESD	Ball	1MB29313BA112AG3	4305	SA-7MXP	45	93.6	589	
40	1800	324T	460	RGZZESD	Ball	1MB29313AB112AG3	4178	SA-7MXP	47	93.6	589	✓
40	1200	364T	460	RGZZESD	Ball	1MB29313CC112AG3	6684	SA-7MXP	52	93.6	865	
40	900	365T	460	RGZZESD	Ball	1MB29313CD212AG3	8853	SA-7MXP	63	91.7	915	

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Stock/Modifiable

HP	RPM	Frame	Voltage	Type	DE Bearing	Part Number	List Price \$	Multiplier Symbol	FL Amps 460V	FL Nom. Eff. (%)	Weight (lbs.)	Stock Model
Horizontal, Foot Mounted - continued												
50	3600	326TS	460	RGZZESD	Ball	1MB29313BA212AG3	5189	SA-7MXP	55	93.6	738	
50	1800	326T	460	RGZZESD	Ball	1MB29313AB212AG3	4835	SA-7MXP	58	93.6	645	✓
50	1200	365T	460	RGZZESD	Ball	1MB29313CC212AG3	7414	SA-7MXP	66	93.6	915	
50	900	404T	460	RGZZESD	Ball	1MB29314AD112AG3	10742	SA-7MXP	67	91.7	1230	
60	3600	364TS	460	RGZZESD	Ball	1MB29313DA112AG3	6783	SA-7MXP	68	93.6	865	
60	1800	364T	460	RGZZESD	Ball	1MB29313CB112AG3	6739	SA-7MXP	71	93.6	865	✓
60	1200	404T	460	RGZZESD	Ball	1MB29314AC112AG3	9453	SA-7MXP	74	94.1	1230	
60	900	405T	460	RGZZESD	Ball	1MB29314AD212AG3	12722	SA-7MXP	78	91.7	1335	
75	3600	365TS	460	RGZZESD	Ball	1MB29313DA212AG3	8092	SA-7MXP	85	94.1	915	
75	1800	365T	460	RGZZESD	Ball	1MB29313CB212AG3	8097	SA-7MXP	87	94.1	915	✓
75	1200	405T	460	RGZZESD	Ball	1MB29314AC212AG3	10629	SA-7MXP	93	94.5	1335	
75	900	444TS	460	RGZZESD	Ball	1MB29314DD112AG3	16327	SA-7MXP	94	93	1700	
100	3600	405TS	460	RGZZESD	Ball	1MB29314BA212AG3	11328	SA-7MXP	108	94.1	1335	
100	1800	405T	460	RGZZESD	Ball	1MB29314AB212AG3	10663	SA-7MXP	113	94.5	1335	✓
100	1200	444TS	460	RGZZESD	Ball	1MB29314DC112AG3	13930	SA-7MXP	117	94.5	1700	
100	900	445TS	460	RGZZESD	Ball	1MB29314DD212AG3	19287	SA-7MXP	123	94.1	1900	
125	3600	444TS	460	RGZZESD	Ball	1MB29314DA112AG3	14515	SA-7MXP	138	94.5	1700	
125	1800	444TS	460	RGZZESD	Ball	1MB29314DB112AG3	13719	SA-7MXP	143	95	1700	
125	1200	445TS	460	RGZZESD	Ball	1MB29314DC212AG3	16366	SA-7MXP	144	94.5	1900	
125	900	447TS	460	RGZZESD	Ball	1MB29314DD312AG3	20764	SA-7MXP	152	93.6	2450	
150	3600	445TS	460	RGZZESD	Ball	1MB29314DA212AG3	16781	SA-7MXP	164	95	1900	
150	1800	445TS	460	RGZZESD	Ball	1MB29314DB212AG3	15419	SA-7MXP	170	95.8	1900	
150	1200	447TS	460	RGZZESD	Ball	1MB29314DC312AG3	18479	SA-7MXP	170	95	2450	
150	900	449TS	460	RGZZESD	Ball	1MB29314DD512AG3	25878	SA-7MXP	186	94.1	2535	
200	3600	447TS	460	RGZZESD	Ball	1MB29314DA312AG3	21432	SA-7MXP	216	95	2450	
200	1800	447TS	460	RGZZESD	Ball	1MB29314DB312AG3	18795	SA-7MXP	225	95.8	2450	
200	1200	449TS	460	RGZZESD	Ball	1MB29314DC512AG3	21665	SA-7MXP	226	95	2535	
200	900	449TS	460	RGZZESD	Ball	1MB29314DD612AG3	27166	SA-7MXP	241	94.5	2535	
250	3600	449TS	460	RGZZESD	Ball	1MB29314DA512AG3	25514	SA-7MXP	267	95.4	2535	
250	1800	449TS	460	RGZZESD	Ball	1MB29314DB512AG3	21990	SA-7MXP	281	95.8	2535	
250	1200	449TS	460	RGZZESD	Ball	1MB29314DC612AG3	25782	SA-7MXP	280	95	2535	
300	3600	449TS	460	RGZZESD	Ball	1MB29314DA612AG3	33173	SA-7MXP	323	95.8	2535	
300	1800	449TS	460	RGZZESD	Ball	1MB29314DB612AG3	24998	SA-7MXP	346	95.4	2535	

HIGH EFFICIENT
General PurposeHIGH EFFICIENT
Severe DutyHIGH EFFICIENT
Multi SpeedHIGH EFFICIENT
Hazardous DutyHIGH EFFICIENT
Definite PurposeHIGH EFFICIENT
P-Base VerticalNEMA PREMIUM
General PurposeNEMA PREMIUM
Severe Duty