

Hazardous Duty Motors

Class I, Group D, Class II, Groups F & G, Division 1 RGZZESDI - 6:1 Variable or 6:1 Constant Torque

These high efficiency explosion-proof motors are UL® listed for dust ignition proof environments, and are suitable for use in Class I, Group D, Class II, Groups F & G, 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.

Performance Specifications

- 1 to 200 HP
- 1.0 service factor, 40°C ambient
- T3B 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

Features for Long Life

Frame & 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.

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, also lowering stator losses.

Insulation – Proprietary Class F non-hygroscopic insulation system with NEMA Class B temperature rise, provides an extra margin of thermal life. Varnish system application ensures maximum wire penetration to provide protection from moisture, corrosion and electrical shock. Two series-connected normally-closed Class B thermostats are supplied as standard. Suitable for operation from adjustable speed drives with an insulation system that meets or exceeds NEMA MG1-2006, Part 31.

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.

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.



Specifications table begins on the next page →

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HP	RPM	Frame	Voltage	Type	DE Bearing	Part Number	List Price \$	Multiplier Symbol	FL Amps 460V	FL Nom. Eff. (%)	Weight (lbs.)	Stock Model
1	3600	143T	460	RGZZESDI	Ball	1PC29311AA112AG3	672	SA-7XXP	1.5	82.5	65	
1	1800	145T	460	RGZZESDI	Ball	1PC29311AB512AG3	687	SA-7XXP	1.7	83.6	70	✓
1	1200	182T	460	RGZZESDI	Ball	1PC29311CC612AG3	795	SA-7XXP	1.7	85.5	125	
1	900	184T	460	RGZZESDI	Ball	1PC29311CD712AG3	1523	SA-7XXP	1.9	78.5	130	
1.5	3600	145T	460	RGZZESDI	Ball	1PC29311AA512AG3	750	SA-7XXP	1.9	84	70	
1.5	1800	145T	460	RGZZESDI	Ball	1PC29311AB312AG3	728	SA-7XXP	2.5	84	70	✓
1.5	1200	184T	460	RGZZESDI	Ball	1PC29311CC712AG3	884	SA-7XXP	2.6	86.2	130	
1.5	900	213T	460	RGZZESDI	Ball	1PC29312AD912AG3	1744	SA-7XXP	2.8	80	170	
2	3600	182T	460	RGZZESDI	Ball	1PC29311CA512AG3	810	SA-7XXP	2.6	86.5	100	
2	1800	182T	460	RGZZESDI	Ball	1PC29311CB512AG3	807	SA-7XXP	3	87.5	100	✓
2	1200	213T	460	RGZZESDI	Ball	1PC29312AC912AG3	1055	SA-7XXP	2.8	88.5	170	
2	900	215T	460	RGZZESDI	Ball	1PC29312AD012AG3	2075	SA-7XXP	3.5	82.5	180	
3	3600	184T	460	RGZZESDI	Ball	1PC29311CA712AG3	966	SA-7XXP	3.6	87.5	115	
3	1800	184T	460	RGZZESDI	Ball	1PC29311CB712AG3	891	SA-7XXP	4.6	87.5	115	✓
3	1200	215T	460	RGZZESDI	Ball	1PC29312AC012AG3	1342	SA-7XXP	4.4	89.5	180	
3	900	254T	460	RGZZESDI	Ball	1PC29312BD912AG3	2161	SA-7XXP	5.5	84	290	
5	3600	213T	460	RGZZESDI	Ball	1PC29312AA912AG3	1146	SA-7XXP	6.2	88.5	160	
5	1800	213T	460	RGZZESDI	Ball	1PC29312AB912AG3	1141	SA-7XXP	7.3	89.5	160	✓
5	1200	254T	460	RGZZESDI	Ball	1PC29312BC912AG3	1711	SA-7XXP	7	90.2	290	
5	900	256T	460	RGZZESDI	Ball	1PC29312BD012AG3	2625	SA-7XXP	9	86.5	360	
7.5	3600	215T	460	RGZZESDI	Ball	1PC29312AA012AG3	1281	SA-7XXP	9.2	89.5	180	
7.5	1800	215T	460	RGZZESDI	Ball	1PC29312AB012AG3	1304	SA-7XXP	10.7	89.5	180	✓
7.5	1200	256T	460	RGZZESDI	Ball	1PC29312BC012AG3	2003	SA-7XXP	10	90.2	360	
7.5	900	284T	460	RGZZESDI	Ball	1PC29312CD712AG3	3151	SA-7XXP	12	87.5	450	
10	3600	254T	460	RGZZESDI	Ball	1PC29312BA912AG3	1671	SA-7XXP	11.8	90.2	265	
10	1800	254T	460	RGZZESDI	Ball	1PC29312BB912AG3	1648	SA-7XXP	13.7	91.7	265	✓
10	1200	284T	460	RGZZESDI	Ball	1PC29312CC712AG3	2681	SA-7XXP	14.5	91	450	
10	900	286T	460	RGZZESDI	Ball	1PC29312CD812AG3	3937	SA-7XXP	17	91	525	
15	3600	256T	460	RGZZESDI	Ball	1PC29312BA012AG3	1976	SA-7XXP	17.6	90.2	325	
15	1800	256T	460	RGZZESDI	Ball	1PC29312BA012AG3	1957	SA-7XXP	20	91.7	325	✓
15	1200	286T	460	RGZZESDI	Ball	1PC29312CC812AG3	3148	SA-7XXP	20	91.7	525	
15	900	324T	460	RGZZESDI	Ball	1PC29313AD912AG3	4892	SA-7XXP	25	91	660	
20	3600	284TS	460	RGZZESDI	Ball	1PC29312DA512AG3	2495	SA-7XXP	23.4	91.7	410	
20	1800	284T	460	RGZZESDI	Ball	1PC29312CB712AG3	2407	SA-7XXP	24	93	410	✓
20	1200	324T	460	RGZZESDI	Ball	1PC29313AC912AG3	3900	SA-7XXP	28	92.4	660	
20	900	326T	460	RGZZESDI	Ball	1PC29313AD012AG3	5567	SA-7XXP	33	91	690	
25	3600	286TS	460	RGZZESDI	Ball	1PC29312DA612AG3	2822	SA-7XXP	28.5	91.7	460	
25	1800	286T	460	RGZZESDI	Ball	1PC29312CB812AG3	2710	SA-7XXP	30	93	460	✓
25	1200	326T	460	RGZZESDI	Ball	1PC29313AC012AG3	4380	SA-7XXP	33	92.4	690	
25	900	364T	460	RGZZESDI	Ball	1PC29313CD912AG3	6616	SA-7XXP	41	91	900	
30	3600	324TS	460	RGZZESDI	Ball	1PC29313BA512AG3	3750	SA-7XXP	35.3	93.6	589	
30	1800	324T	460	RGZZESDI	Ball	1PC29313AB912AG3	3622	SA-7XXP	34	93.6	589	✓
30	1200	364T	460	RGZZESDI	Ball	1PC29313CC912AG3	5924	SA-7XXP	41	93.6	900	
30	900	365T	460	RGZZESDI	Ball	1PC29313CD012AG3	7810	SA-7XXP	52	91	915	

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HP	RPM	Frame	Voltage	Type	DE Bearing	Part Number	List Price \$	Multiplier Symbol	FL Amps 460V	FL Nom. Eff. (%)	Weight (lbs.)	Stock Model
40	3600	326TS	460	RGZZESDI	Ball	1PC29313BA612AG3	4633	SA-7XXP	44.5	93.6	645	
40	1800	326T	460	RGZZESDI	Ball	1PC29313AB012AG3	4279	SA-7XXP	48	93.6	645	✓
40	1200	365T	460	RGZZESDI	Ball	1PC29313CC012AG3	6654	SA-7XXP	55	93.6	915	
40	900	404T	460	RGZZESDI	Ball	1PC29314AD712AG3	9452	SA-7XXP	53	91.7	1290	
50	3600	364TS	460	RGZZESDI	Ball	1PC29313DA512AG3	6023	SA-7XXP	57	93.6	865	
50	1800	364T	460	RGZZESDI	Ball	1PC29313CB912AG3	5979	SA-7XXP	60	93.6	865	✓
50	1200	404T	460	RGZZESDI	Ball	1PC29314AC712AG3	7939	SA-7XXP	61	94.1	1290	
50	900	405T	460	RGZZESDI	Ball	1PC29314AD912AG3	10626	SA-7XXP	66	91.7	1420	
60	3600	365TS	460	RGZZESDI	Ball	1PC29313DA612AG3	7332	SA-7XXP	69	94.1	915	
60	1800	365T	460	RGZZESDI	Ball	1PC29313CB012AG3	7337	SA-7XXP	71	94.1	915	✓
60	1200	405T	460	RGZZESDI	Ball	1PC29314AC912AG3	9115	SA-7XXP	74	94.5	1420	
60	900	444TS	460	RGZZESDI	Ball	1PC29314PD112AG3	13949	SA-7XXP	77	91.7	1740	
75	3600	405TS	460	RGZZESDI	Ball	1PC29314BA512AG3	9813	SA-7XXP	81	94.1	1335	
75	1800	405T	460	RGZZESDI	Ball	1PC29314AB912AG3	9148	SA-7XXP	86	94.5	1335	✓
75	1200	444TS	460	RGZZESDI	Ball	1PC29314PC112AG3	12201	SA-7XXP	88	94.5	1740	
75	900	445TS	460	RGZZESDI	Ball	1PC29314PD212AG3	16884	SA-7XXP	95	93	1930	
100	3600	444TS	460	RGZZESDI	Ball	1PC29314PA112AG3	12786	SA-7XXP	111	94.5	1740	
100	1800	444TS	460	RGZZESDI	Ball	1PC29314PB112AG3	11990	SA-7XXP	118	95	1740	
100	1200	445TS	460	RGZZESDI	Ball	1PC29314PC212AG3	14726	SA-7XXP	118	94.5	1930	
100	900	447TS	460	RGZZESDI	Ball	1PC29314PD312AG3	18168	SA-7XXP	124	94.1	2415	
125	3600	445TS	460	RGZZESDI	Ball	1PC29314PA212AG3	15052	SA-7XXP	137	95	1930	
125	1800	445TS	460	RGZZESDI	Ball	1PC29314PB212AG3	13690	SA-7XXP	143	95.8	1930	
125	1200	447TS	460	RGZZESDI	Ball	1PC29314PC312AG3	16283	SA-7XXP	142	95	2415	
125	900	449TS	460	RGZZESDI	Ball	1PC29314PD412AG3	22615	SA-7XXP	159	93.6	2625	
150	3600	447TS	460	RGZZESDI	Ball	1PC29314PA312AG3	18913	SA-7XXP	159	95	2415	
150	1800	447TS	460	RGZZESDI	Ball	1PC29314PB312AG3	16598	SA-7XXP	171	95.8	2415	
150	1200	449TS	460	RGZZESDI	Ball	1PC29314PC412AG3	19117	SA-7XXP	170	95	2625	
200	3600	449TS	460	RGZZESDI	Ball	1PC29314PA412AG3	22493	SA-7XXP	213	95.4	2625	
200	1800	449TS	460	RGZZESDI	Ball	1PC29314PB412AG3	19401	SA-7XXP	223	95.8	2625	