

Hazardous Duty Motors

Class I, Group D, Class II, Groups F & G, Division 1

RGZZESD

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 300 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 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.

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.

3
YEAR
WARRANTY



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.

SIEMENS

Global network of innovation

Performance Specifications

460 Volts, NEMA Design B, 40°C Ambient

HP	Synch RPM	F.L. RPM	Frame	Current (A)			kVA/ HP Code	Nominal Efficiency			Power Factor			Torque		
				No Load	Full Load	Lckd Rotor		1/2	3/4	Full Load	1/2	3/4	Full Load	Full Ld [Lb-Ft]	Locked Rotor	Break Down
1	1800	1745	143T	1.1	1.5	11	K	78.7%	81.8%	82.5%	52%	66%	76%	3.0	290%	320%
1	1200	1140	145T	1.3	1.8	9	J	76.4%	78.8%	80.0%	42%	56%	65%	4.6	230%	290%
1.5	3600	3485	143T	0.9	2.0	16	K	78.0%	82.0%	82.5%	69%	79%	85%	2.3	270%	320%
1.5	1800	1740	145T	1.4	2.2	17	K	80.7%	83.5%	84.0%	54%	67%	76%	4.5	290%	320%
1.5	1200	1160	182T	1.5	2.3	16	K	81.6%	84.2%	85.5%	50%	63%	71%	6.8	280%	320%
2	3600	3495	145T	1.1	2.5	22	K	79.9%	83.2%	84.0%	73%	83%	89%	3.0	270%	320%
2	1800	1735	145T	1.9	2.9	21	K	80.7%	83.6%	84.0%	52%	67%	77%	6.1	290%	310%
2	1200	1160	184T	1.9	3.0	22	K	84.5%	86.0%	86.5%	50%	63%	72%	9.1	220%	300%
3	3600	3510	182T	1.7	3.6	32	K	83.8%	86.2%	86.5%	75%	84%	90%	4.5	230%	320%
3	1800	1740	182T	1.8	3.9	30	K	87.5%	88.0%	87.5%	65%	76%	82%	9.1	260%	300%
3	1200	1165	213T	2.3	4.0	32	K	85.8%	87.6%	87.5%	58%	73%	80%	14	210%	300%
5	3600	3490	184T	1.8	5.8	46	J	86.5%	87.8%	87.5%	82%	89%	92%	7.5	260%	320%
5	1800	1730	184T	3.2	6.5	46	J	87.5%	88.2%	87.5%	63%	75%	82%	15	260%	300%
5	1200	1160	215T	3.3	6.8	46	J	89.0%	89.7%	88.5%	59%	71%	78%	23	210%	300%
7.5	3600	3515	213T	3.4	8.8	64	H	87.0%	88.0%	88.5%	77%	86%	90%	11	190%	280%
7.5	1800	1750	213T	4.2	9.5	64	H	89.0%	90.0%	89.5%	66%	77%	83%	23	210%	270%
7.5	1200	1170	254T	4.5	9.8	60	H	90.6%	90.9%	90.2%	59%	72%	78%	34	180%	250%
10	3600	3505	215T	4.0	12.0	81	H	89.0%	89.8%	89.5%	80%	89%	87%	15	190%	260%
10	1800	1750	215T	5.4	13.0	81	H	89.5%	90.0%	89.5%	68%	79%	84%	30	210%	270%
10	1200	1165	256T	5.0	13.0	75	G	91.7%	91.5%	90.2%	65%	75%	80%	45	170%	250%
15	3600	3530	254T	5.0	17	116	G	88.5%	90.0%	90.2%	84%	90%	92%	22	190%	260%
15	1800	1760	254T	7.3	19	116	G	91.7%	92.1%	91.7%	68%	78%	82%	45	190%	260%
15	1200	1175	284T	10.0	20	116	G	91.0%	91.7%	91.0%	57%	71%	77%	67	160%	270%
20	3600	3525	256T	7.4	23	145	G	88.3%	89.9%	90.2%	82%	86%	90%	30	180%	260%
20	1800	1755	256T	9.1	26	145	G	92.1%	92.4%	91.7%	67%	76%	80%	60	190%	270%
20	1200	1175	286T	12.0	26	145	G	92.1%	92.4%	91.7%	62%	73%	79%	89	160%	250%
25	3600	3525	284TS	8.0	29	183	G	92.0%	92.2%	91.7%	80%	85%	88%	37	160%	250%
25	1800	1765	284T	13	29	183	G	93.3%	93.6%	93.0%	72%	82%	87%	74	220%	280%
25	1200	1180	324T	15	33	183	G	92.2%	92.7%	92.4%	57%	69%	77%	111	170%	240%
30	3600	3525	286TS	9.5	34	218	G	92.0%	92.2%	91.7%	84%	89%	90%	45	160%	250%
30	1800	1765	286T	15	35	218	G	93.2%	93.6%	93.0%	71%	82%	86%	89	220%	280%
30	1200	1180	326T	19	39	218	G	92.6%	92.9%	92.4%	58%	70%	78%	134	170%	240%
40	3600	3530	324TS	12	45	290	G	94.0%	94.1%	93.6%	80%	87%	89%	60	150%	250%
40	1800	1770	324T	15	47	290	G	94.0%	94.2%	93.6%	77%	82%	85%	119	190%	240%
40	1200	1180	364T	24	52	290	G	93.6%	93.9%	93.6%	59%	71%	77%	178	170%	230%
50	3600	3530	326TS	15	55	363	G	94.1%	94.2%	93.6%	82%	89%	91%	74	150%	250%
50	1800	1770	326T	18	58	363	G	94.1%	94.2%	93.6%	77%	87%	86%	148	190%	240%
50	1200	1180	365T	30	66	363	G	94.0%	94.2%	93.6%	60%	71%	76%	223	170%	230%
60	3600	3565	364TS	19	68	435	G	93.8%	94.1%	93.6%	80%	86%	88%	89	160%	250%
60	1800	1775	364T	21	71	435	G	93.9%	94.1%	93.6%	74%	82%	85%	178	160%	240%
60	1200	1185	404T	26	74	435	G	94.1%	94.5%	94.1%	70%	78%	81%	266	150%	200%
75	3600	3565	365TS	22	85	543	G	94.3%	94.5%	94.1%	81%	86%	88%	111	160%	260%
75	1800	1775	365T	27	87	543	G	94.4%	94.6%	94.1%	74%	83%	85%	222	155%	240%
75	1200	1185	405T	34	93	543	G	94.7%	94.9%	94.5%	68%	77%	80%	332	150%	200%
100	3600	3570	405TS	19	108	725	G	94.6%	94.7%	94.1%	90%	92%	92%	147	120%	200%
100	1800	1780	405T	30	113	725	G	95.0%	95.2%	94.5%	80%	85%	87%	295	160%	200%
100	1200	1185	444T	38	117	725	G	94.6%	94.9%	94.5%	75%	82%	85%	443	140%	200%
125	3600	3575	444TS	32	138	908	G	94.0%	94.6%	94.5%	85%	89%	89%	184	120%	200%
125	1800	1785	444T	42	143	908	G	95.1%	95.3%	95.0%	78%	84%	86%	368	160%	200%
125	1200	1185	445T	44	144	908	G	94.7%	94.9%	94.5%	77%	84%	86%	554	140%	200%
150	3600	3575	445TS	37	164	1085	G	94.8%	95.2%	95.0%	84%	89%	90%	220	120%	200%
150	1800	1785	445T	45	170	1085	G	95.7%	96.0%	95.8%	80%	85%	86%	441	150%	200%
150	1200	1185	447T	45	170	1085	G	95.4%	95.6%	95.0%	81%	86%	87%	665	125%	200%
200	3600	3575	447TS	40	216	1450	G	94.9%	95.2%	95.0%	88%	90%	91%	294	120%	200%
200	1800	1785	447T	60	225	1450	G	96.0%	96.1%	95.8%	81%	86%	87%	588	150%	200%
200	1200	1185	449T	55	226	1450	G	95.4%	95.5%	95.0%	82%	86%	87%	886	125%	200%
250	3600	3570	449TS	45	267	1825	G	95.3%	95.6%	95.4%	90%	92%	92%	368	120%	200%
250	1800	1785	449T	78	281	1825	G	95.8%	96.0%	95.8%	80%	85%	87%	735	140%	200%
250	1200	1185	449T	75	280	1825	G	95.5%	95.5%	95.0%	82%	87%	88%	1108	120%	200%
300	3600	3575	449TS	68	323	2200	G	95.2%	95.8%	95.8%	86%	90%	91%	441	100%	200%
300	1800	1785	S449	110	346	2200	G	95.0%	95.5%	95.4%	76%	83%	85%	882	120%	200%
300	1200	1185	S449	90	336	2200	G	95.5%	95.5%	95.0%	82%	87%	88%	1329	105%	200%

*NEMA Design A, 1.0SF, Class F Insulation

900 RPM ratings are also available. Contact Siemens for more information.

Typical performance data shown. For certified data, contact Siemens.