

Severe Duty - TEFC Motors

RGZESDI - 10:1 Constant Torque

Inverter Duty High Efficiency Severe Duty TEFC motors are designed for inverter or vector applications where up to a 10:1 constant torque speed range is required. These motors are well suited to be used in adjustable speed applications such as mixers, machine tools, chemical processing, mining, foundry, pulp and paper, waste management and petro/chemical.

Performance Specifications

- 1 to 350 HP
- 1.15 service factor on sine wave power, 40°C ambient
- 1.0 service factor on inverter power
- 3600, 1800, 1200 or 900 RPM
- 3 phase, 60 Hz, 460 volt; 200, 230 & 575 volt available
- Meets or exceeds EPA Act Efficiency standards
- Class F insulation, Class B temperature rise
- Continuous Duty
- 143T through S449 frame

Features for Long Life

Frame & End Shields – Cast iron construction for exceptional structural integrity with condensation T-drains. Lifting eyebolts are included for frames 213T to S449.

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 inverter-duty Class F non-hygroscopic (corona resistant) insulation system with NEMA Class B temperature rise, provides an extra margin of thermal life. All motors are equipped with two series connected, normally closed, Class F thermostats for detection of overload conditions and/or excessive heating. 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 with cast iron inner caps. Alemite grease fittings on the inlets and pipe plugs on the relief ports for ease of routine maintenance. For added bearing protection, 143T-256T frames have a drive end shaft seal and 284T-S449 frames have a drive end shaft V-ring slinger.



3
YEAR
WARRANTY

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, neoprene gasketed 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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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
1	1800	143T	460	RGZESDI	Ball	1PC28911AB212AG3	775	SA-7INV	1.5	82.5	45	✓
1	1200	145T	460	RGZESDI	Ball	1PC28911AC312AG3	855	SA-7INV	1.8	80	55	✓
1	900	182T	460	RGZESDI	Ball	1PC28911CD112AG3	1180	SA-7INV	1.9	78.5	85	
1.5	3600	143T	460	RGZESDI	Ball	1PC28911AA212AG3	875	SA-7INV	2	82.5	45	✓
1.5	1800	145T	460	RGZESDI	Ball	1PC28911AB312AG3	805	SA-7INV	2.2	84	55	✓
1.5	1200	182T	460	RGZESDI	Ball	1PC28911CC112AG3	1005	SA-7INV	2.3	85.5	85	✓
1.5	900	184T	460	RGZESDI	Ball	1PC28911CD312AG3	1385	SA-7INV	2.6	80	100	
2	3600	145T	460	RGZESDI	Ball	1PC28911AA312AG3	910	SA-7INV	2.5	84	55	✓
2	1800	145T	460	RGZESDI	Ball	1PC28911AB412AG3	840	SA-7INV	2.9	84	62	✓
2	1200	184T	460	RGZESDI	Ball	1PC28911CC312AG3	1075	SA-7INV	3	86.5	100	✓
2	900	213T	460	RGZESDI	Ball	1PC28912AD112AG3	1540	SA-7INV	3.3	82.5	135	
3	3600	182T	460	RGZESDI	Ball	1PC28911CA112AG3	1070	SA-7INV	3.6	86.5	85	✓
3	1800	182T	460	RGZESDI	Ball	1PC28911CB112AG3	985	SA-7INV	3.9	87.5	85	✓
3	1200	213T	460	RGZESDI	Ball	1PC28912AC112AG3	1185	SA-7INV	4	87.5	135	✓
3	900	215T	460	RGZESDI	Ball	1PC28912AD212AG3	1850	SA-7INV	4.7	84	162	
5	3600	184T	460	RGZESDI	Ball	1PC28911CA312AG3	1178	SA-7INV	5.8	87.5	100	✓
5	1800	184T	460	RGZESDI	Ball	1PC28911CB312AG3	1085	SA-7INV	6.5	87.5	100	✓
5	1200	215T	460	RGZESDI	Ball	1PC28912AC212AG3	1515	SA-7INV	6.8	88.5	160	✓
5	900	256T	460	RGZESDI	Ball	1PC28912BD012AG3	2650	SA-7INV	7.5	86.5	300	
7.5	3600	213T	460	RGZESDI	Ball	1PC28912AA112AG3	1395	SA-7INV	8.8	88.5	151	✓
7.5	1800	213T	460	RGZESDI	Ball	1PC28912AB112AG3	1275	SA-7INV	9.5	89.5	157	✓
7.5	1200	256T	460	RGZESDI	Ball	1PC28912BC012AG3	2165	SA-7INV	9.8	90.2	300	
7.5	900	284T	460	RGZESDI	Ball	1PC28912CD712AG3	2990	SA-7INV	12	87.5	336	
10	3600	215T	460	RGZESDI	Ball	1PC28912AA212AG3	1595	SA-7INV	12	89.5	160	✓
10	1800	215T	460	RGZESDI	Ball	1PC28912AB212AG3	1455	SA-7INV	13	89.5	160	✓
10	1200	284T	460	RGZESDI	Ball	1PC28912CC712AG3	2785	SA-7INV	13	89.5	380	
10	900	286T	460	RGZESDI	Ball	1PC28912CD812AG3	3350	SA-7INV	15	91	410	
15	3600	256T	460	RGZESDI	Ball	1PC28912BA012AG3	2301	SA-7INV	17	90.2	295	
15	1800	256T	460	RGZESDI	Ball	1PC28912BB012AG3	2215	SA-7INV	19	91.7	295	
15	1200	286T	460	RGZESDI	Ball	1PC28912CC812AG3	3256	SA-7INV	20	91	450	
15	900	324T	460	RGZESDI	Ball	1PC28913AD912AG3	4068	SA-7INV	23	91	565	
20	3600	284TS	460	RGZESDI	Ball	1PC28912DA512AG3	3089	SA-7INV	23	90.2	380	
20	1800	284T	460	RGZESDI	Ball	1PC28912CB712AG3	2576	SA-7INV	26	91.7	380	
20	1200	324T	460	RGZESDI	Ball	1PC28913AC912AG3	3966	SA-7INV	26	91.7	565	
20	900	326T	460	RGZESDI	Ball	1PC28913AD012AG3	4730	SA-7INV	31	91	600	
25	3600	286TS	460	RGZESDI	Ball	1PC28912DA612AG3	3516	SA-7INV	29	91.7	450	
25	1800	286T	460	RGZESDI	Ball	1PC28912CB812AG3	3175	SA-7INV	29	93	450	
25	1200	326T	460	RGZESDI	Ball	1PC28913AC012AG3	4465	SA-7INV	33	92.4	600	
25	900	364T	460	RGZESDI	Ball	1PC28913CD912AG3	5598	SA-7INV	38	90.2	830	
30	3600	324TS	460	RGZESDI	Ball	1PC28913BA512AG3	4120	SA-7INV	34	91.7	565	
30	1800	324T	460	RGZESDI	Ball	1PC28913AB912AG3	3590	SA-7INV	35	93	565	
30	1200	364T	460	RGZESDI	Ball	1PC28913CC912AG3	5785	SA-7INV	39	92.4	830	
30	900	365T	460	RGZESDI	Ball	1PC28913CD012AG3	6769	SA-7INV	47	91	850	
40	3600	326TS	460	RGZESDI	Ball	1PC28913BA612AG3	4762	SA-7INV	45	93.6	600	
40	1800	326T	460	RGZESDI	Ball	1PC28913AB012AG3	4360	SA-7INV	47	93.6	600	
40	1200	365T	460	RGZESDI	Ball	1PC28913CC012AG3	6522	SA-7INV	52	93.6	850	
40	900	404T	460	RGZESDI	Ball	1PC28914AD712AG3	9239	SA-7INV	63	91.7	1000	

INVERTER Duty
Severe Duty

INVERTER Duty
Hazardous Duty

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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
50	3600	364TS	460	RGZESDI	Ball	1PC28913DA512AG3	6480	SA-7INV	55	93.6	830	
50	1800	364T	460	RGZESDI	Ball	1PC28913CB912AG3	5929	SA-7INV	58	93.6	830	
50	1200	404T	460	RGZESDI	Ball	1PC28914AC712AG3	8366	SA-7INV	66	93.6	1100	
50	900	405T	460	RGZESDI	Ball	1PC28914AD912AG3	12175	SA-7INV	67	91.7	1250	
60	3600	365TS	460	RGZESDI	Ball	1PC28913DA612AG3	7985	SA-7INV	68	93.6	850	
60	1800	365T	460	RGZESDI	Ball	1PC28913CB012AG3	7295	SA-7INV	71	93.6	850	
60	1200	405T	460	RGZESDI	Ball	1PC28914AC912AG3	9746	SA-7INV	74	94.1	1250	
60	900	444TS	460	RGZESDI	Ball	1PC28914PD112AG3	13650	SA-7INV	78	91.7	1620	
75	3600	405TS	460	RGZESDI	Ball	1PC28914BA512AG3	10889	SA-7INV	85	94.1	1250	
75	1800	405T	460	RGZESDI	Ball	1PC28914AB912AG3	9097	SA-7INV	87	94.1	1250	
75	1200	444TS	460	RGZESDI	Ball	1PC28914PC112AG3	12042	SA-7INV	93	94.5	1620	
75	900	445TS	460	RGZESDI	Ball	1PC28914PD212AG3	16363	SA-7INV	94	93	1740	
100	3600	444TS	460	RGZESDI	Ball	1PC28914PA112AG3	12924	SA-7INV	108	94.1	1620	
100	1800	444TS	460	RGZESDI	Ball	1PC28914PB112AG3	11827	SA-7INV	113	94.5	1620	
100	1200	445TS	460	RGZESDI	Ball	1PC28914PC212AG3	14500	SA-7INV	117	94.5	1740	
100	900	447TS	460	RGZESDI	Ball	1PC28914PD312AG3	16291	SA-7INV	123	94.1	2000	
125	3600	445TS	460	RGZESDI	Ball	1PC28914PA212AG3	13544	SA-7INV	138	94.5	2740	
125	1800	445TS	460	RGZESDI	Ball	1PC28914PB212AG3	13544	SA-7INV	143	95	1740	
125	1200	447TS	460	RGZESDI	Ball	1PC28914PC312AG3	16073	SA-7INV	144	94.5	2000	
125	900	447TS	460	RGZESDI	Ball	1PC28914DD812AG3	21710	SA-7INV	152	93.6	2000	
150	3600	447TS	460	RGZESDI	Ball	1PC28914DD812AG3	18580	SA-7INV	164	95	1740	
150	1800	447TS	460	RGZESDI	Ball	1PC28914PB312AG3	16198	SA-7INV	170	95.8	2000	
150	1200	449TS	460	RGZESDI	Ball	1PC28914PC412AG3	19390	SA-7INV	170	95	2300	
150	900	449TS	460	RGZESDI	Ball	1PC28914PD512AG3	21210	SA-7INV	186	94.1	2300	
200	3600	449TS	460	RGZESDI	Ball	1PC28914PA412AG3	22958	SA-7INV	223	95	2300	
200	1800	449TS	460	RGZESDI	Ball	1PC28914PB412AG3	20000	SA-7INV	239	95.8	2300	
200	1200	449TS	460	RGZESDI	Ball	1PC28914PC512AG3	22099	SA-7INV	238	95	2300	
250	3600	449TS	460	RGZESDI	Ball	1PC28914PA512AG3	28189	SA-7INV	282	95.4	2300	
250	1800	449TS	460	RGZESDI	Ball	1PC28914PB512AG3	22673	SA-7INV	302	95.8	2300	
250	1200	S449SS	460	RGZESDI	Ball	1PC28914GC212AG3	37512	SA-7INV	296	95	3050	
300	3600	S449SS	460	RGZESDI	Ball	1PC28914GA212AG3	34872	SA-7INV	333	95.8	3063	
300	1800	S449SS	460	RGZESDI	Ball	1PC28914GB112AG3	32422	SA-7INV	356	95.4	3050	
350	3600	S449SS	460	RGZESDI	Ball	1PC28914GA112AG3	38915	SA-7INV	392	95.4	3050	
350	1800	S449SS	460	RGZESDI	Ball	1PC28914GB212AG3	36175	SA-7INV	406	95.8	3050	