

# General Purpose - TEFC Brake Motors

## GP10A Brake (Cast Aluminum Frame)

GP10A Brake Motors are designed for general purpose operating environments. Brakes are spring-set and electrically released, with either a manually adjustable or self-adjusting design. In addition to foot mounting, Siemens brake motors are also available with C-face or D-flange construction.

### Performance Specifications

- 1 to 20 HP
- 1.15 service factor, 40°C ambient
- 1800 RPM
- 3-phase, 60 Hz; 208-230/460 and 575 volt operation
- Meets or exceeds EPA efficiency standards
- Class F insulation, Class B temperature rise
- NEMA design B, continuous duty
- 143T through 256T frame

### Features for Long Life

**Frame & End Shields** – Die cast aluminum construction for exceptional heat dissipation and structural integrity, equipped with bolt-on feet and condensation drain holes. Lifting provisions are included for frames 180T to 256T. Unique frame fin design maximizes cooling.

**Rotor** – A unique offset rotor bar design provides improved efficiency. Large cross section 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 and lowers stator losses.

**Insulation** – Proprietary inverter-rated NEMA Class F non-hygroscopic insulation system with Class B temperature rise @ 1.0SF, provides an extra margin of thermal life. Varnish system application ensures maximum wire penetration to provide protection from moisture, corrosion and electrical shock. This insulation system meets or exceeds NEMA MG1-2006, Part 31 making all motors suitable for operation with variable frequency drives.

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

**Bearings** – Lubricated for life, oversized, complete with external bearing protection.

**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.



**18**  
MONTH  
WARRANTY

**Oversized Conduit Box** – Cast aluminum 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** – Die cast aluminum construction, structural foam fan and fan cover, zinc-plated hardware, epoxy enamel paint and aluminum nameplate resist corrosion.

**Brake** – NEMA 4 enclosure with steel housing and aluminum endplate, 230/460 volt, single phase. Other voltages available.

**Modifiable** – Siemens GP10A Brake motors are available with a variety of modifications and kits.



Specifications table begins on the next page →

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General Purpose

HIGH EFFICIENT  
Severe Duty

HIGH EFFICIENT  
Multi Speed

HIGH EFFICIENT  
Hazardous Duty

HIGH EFFICIENT  
Definite Purpose

HIGH EFFICIENT  
P-Base Vertical

NEMA PREMIUM  
General Purpose

NEMA PREMIUM  
Severe Duty

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Custom

HP	RPM	Frame	Voltage	Type	DE Bearing	Part Number	List Price \$	Multiplier Symbol	Brake (lb-ft)	FL Amps 460V	FL Nom. Eff. (%)	Weight w/ Brake (lbs.)	Stock Model
1	1800	143T	208-230/460	GP10A	Ball	1PC27211AB214AA3	830	SA-7BR	6	1.5	82.5	51	
1.5	1800	145T	208-230/460	GP10A	Ball	1PC27211AB314AA3	973	SA-7BR	10	2.2	84	56	
2	1800	145T	208-230/460	GP10A	Ball	1PC27211AB414AA3	1005	SA-7BR	10	3	84	58	
3	1800	182T	208-230/460	GP10A	Ball	1PC27211CB114AA3	1357	SA-7BR	15	4	87.5	83	
5	1800	184T	208-230/460	GP10A	Ball	1PC27211CB314AA3	1688	SA-7BR	20	6.7	87.5	90	
7.5	1800	213T	208-230/460	GP10A	Ball	1PC27212AB114AA3	2224	SA-7BR	35	9.5	89.5	145	
10	1800	215T	208-230/460	GP10A	Ball	1PC27212AB214AA3	2837	SA-7BR	50	12.5	89.5	161	
15	1800	254T	208-230/460	GP10A	Ball	1PC27212BB114AA3	3829	SA-7BR	75	19	91	234	
20	1800	256T	208-230/460	GP10A	Ball	1PC27212BB214AA3	4634	SA-7BR	105	25	91	253	

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