

**Low Voltage,
Three Phase,
460 Volts, TEFC,
Foot Mounted**

400 thru 800 Hp

G5010 thru G5810

Applications: Pumps, compressors, fans, blowers, conveyors and other general purpose applications. Suitable for tropical climates and industrial process applications requiring protection against corrosion caused by severe environmental operating conditions. Suitable for use with VFD for variable torque applications.



Features: High efficiency (95% or higher), cast iron frame, end shields and inner caps, carbon steel fan cover and air deflector, ground lug in the conduit box, epoxy enamel paint, stainless steel breather and drain, Inpro seals, epoxy coating on the rotor OD, stator ID and windings. Stock motors include a three year warranty, precision balance, 100 ohm platinum winding RTD's and space heaters. Division 2, Groups C & D, T2 Hazardous location, XTS enclosure enhancement, oversized main conduit box, 3.5 pu Surge withstand, insulated bearings, shaft grounding device and provisions for bearing RTD's. The "S" shafts are for coupled loads and are not convertible to roller bearings. The "L" shafts are ball bearing and convertible to roller bearing. All shafts are Class II material.

Hp	RPM	NEMA Frame	Catalog Number	List Price	Mult. Sym.	"C" Dim.	Aprx. Wt. (lb)	Full Load Efficiency	Voltage	Full Load Amps	Notes (a)
400	3600	G5010	ECP50402S-4	86,311	LM	67.14	4850	95.8	460	439	1, 48
500	3600	G5010	ECP50502S-4	90,151	LM	67.14	4850	95.8	460	545	1, 48
	1800	G5010	ECP50504L-4	86,202	LM	71.14	5550	96.2	460	573	1, 48
600	3600	G5810	ECP50602S-4	122,631	LM	86.07	10000	95.4	460	645	1, 48
700	3600	G5810	ECP58702S-4	129,991	LM	86.07	10000	95.9	460	754	1, 48
800	3600	G5810	ECP58802S-4	137,262	LM	86.07	10000	96	460	863	1, 48

(a) See notes on inside back flap.

All ratings are 1.00 service factor, Class B rise and 1.15 service factor, Class F rise at 40°C ambient. All ratings meet IP54 Ingress protection marine duty (below deck).

Custom TEFC motors available through 2,250 Hp; Open and WP/II custom motors through 15,000 Hp. Contact your Baldor•Reliance Sales Representative.

■ Cast Iron Frame

General Information

Single Phase Motors

General Purpose Industrial Motors

Severe Duty Motors

Large AC Motors

Washdown Duty Motors

Explosion Proof Motors

Pump Motors

Light Industrial/Commercial Motors

HVAC Motors

**Medium Voltage,
Three Phase,
2300/4000 Volts,
TEFC, Foot Mounted**

200 thru 800 Hp

G449 thru G5012

Applications: Pumps, compressors, fans, blowers, conveyors and other general purpose applications. Suitable for tropical climates and industrial process applications requiring protection against corrosion caused by severe environmental operating conditions.

Features: High efficiency (95% or higher), cast iron frame, end shields and inner caps, carbon steel fan cover and air deflector, ground lug in the conduit box, epoxy enamel paint, stainless steel breather and drain, DE shaft slinger, epoxy coating on the rotor OD, stator ID and windings. Stock motors include a three year warranty, precision balance, 100 ohm platinum winding RTD's and space heaters. The "S" shafts are for coupled loads and are not convertible to roller bearings. The "L" shafts are ball bearing and convertible to roller bearing. Belted duty "LR" shafts are roller bearing and convertible to ball bearing. All "L" and "LR" shafts are Class II material.



Hp	RPM	NEMA Frame	Catalog Number	List Price	Mult. Sym.	"C" Dim.	Aprx. Wt. (lb)	Full Load Efficiency	Voltage	Full Load Amps	Notes (a)
200	3600	G449TS	ECP44202T-2340	52,273	LM	49.49	3000	94.1	2300/4000	26.1	1
	1800	G449T	ECP44204T-2340	50,912	LM	53.24	3500	94.1	2300/4000	26.1	1
250	3600	G5008	ECP50252S-2340	82,245	LM	60.14	4775	95	2300/4000	32	1
	1800	G5008	ECP50254L-2340	80,673	LM	64.14	3995	94	2300/4000	33.5	1
	1200	G5008	ECP50256LR-2340	89,538	LM	71.14	5088	95	2300/4000	33.5	1, 5
300	1800	G5008	ECP50304L-2340	82,644	LM	64.14	4422	95	2300/4000	40.1	1
	1200	G5010	ECP50306LR-2340	92,251	LM	71.14	5205	95	2300/4000	40.1	1, 5
350	1800	G5008	ECP50354L-2340	84,625	LM	64.14	5998	95.1	2300/4000	47.1	1
	1200	G5010	ECP50356LR-2340	98,988	LM	79.14	5843	95	2300/4000	46.5	1, 5
400	3600	G5010	ECP50402S-2340	89,326	LM	67.14	4883	95.1	2300/4000	50.7	1
	1800	G5008	ECP50404L-2340	86,648	LM	64.14	4200	95.3	2300/4000	53.6	1
		G5008	ECP50404S-2340	84,033	LM	60.14	5998	95.3	2300/4000	53.6	1
	1200	G5012	ECP50406LR-2340	102,327	LM	79.14	5331	95.2	2300/4000	53	1, 5
450	1800	G5010	ECP50454L-2340	88,593	LM	71.14	4892	95.5	2300/4000	59	1
500	1800	G5010	ECP50504L-2340	92,013	LM	71.14	5039	95.7	2300/4000	65	1
	1200	G5012	ECP50506LR-2340	114,196	LM	79.14	6000	95.2	2300/4000	66	1, 5
600	3600	G5010	ECP50602S-2340	96,889	LM	67.14	4921	95.2	2300/4000	76	1
	1800	G5012	ECP50604L-2340	97,126	LM	79.14	5540	95.4	2300/4000	80	1
700	1800	G5012	ECP50704L-2340	98,451	LM	79.14	6035	95.6	2300/4000	93	1
800	1800	G5012	ECP50804S-2340	97,984	LM	79.14	7000	95.9	2300/4000	105	1

(a) See notes on inside back flap.

All ratings are 1.00 service factor, Class B rise and 1.15 service factor, Class F rise at 40°C ambient. All ratings meet 50°C ambient at 1.00 service factor and IP54 Ingress protection marine duty (below deck).

Custom TEFC motors available through 2,250 Hp; Open and WPIL custom motors through 15,000 Hp. Contact your Baldor•Reliance Sales Representative.

■ Cast Iron Frame

General Information

Single Phase Motors

General Purpose Industrial Motors

Severe Duty Motors

Large AC Motors

Washdown Duty Motors

Explosion Proof Motors

Pump Motors

Light Industrial/Commercial Motors

HVAC Motors

**Medium Voltage,
Three Phase,
2300/4000 Volts,
WPI & WPII,
Foot Mounted**

1,250 Hp

O5810 Frame

Applications: Pumps, compressors, fans, blowers, conveyors and other general purpose applications.

Features: High efficiency (95% or higher), Epoxy ester enamel paint, stainless steel breather drains, ground lug in conduit box, cast iron frame, end shields, DE shaft slinger and shaft cap, ODE shaft cap, epoxy coated rotor OD and stator ID (including windings), lead separator gasket between frame and conduit box. Stock motors include a three year warranty, precision balance, 100 ohm platinum winding RTD's and space heaters.



Hp	RPM	NEMA Frame	Enclosure	Catalog Number	List Price	Mult. Sym.	"C" Dim.	Aprx. Wt. (lb)	Full Load Efficiency	Voltage	Full Load Amps	Notes (a)
1,250	3600	O5810	WPII	EM251252S-2340	138,553	LM	66.50	7700	95.7	2300/4000	160	1, 88
	1800	O5810	WPII	EM251254S-2340	136,606	LM	63.99	6883	95.4	2300/4000	164	1

(a) See notes on inside back flap.

1250 Hp motors are also rated at 1500 Hp at 1.0 service factor.

■ Cast Iron Frame

General Information

Single Phase Motors

General Purpose Industrial Motors

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HVAC Motors

Baldor Large AC Motor Capabilities Overview

The reach of Baldor's Large AC Motor product offering is vast. It extends well beyond NEMA frames to ratings as high as 15,000 Hp and as low as 300 RPM. This includes an extensive range of proven cast iron and fabricated steel motors well suited for both General Purpose the Custom (critical service) applications.

Note the following charts which apply to motors meeting these NEMA standards:

- 650% Inrush current
- Equal or greater than NEMA, Part 20 design torques (as described by NEMA for Above NEMA Motors)
- Standard NEMA voltage for each horsepower rating

- Minimum 90% Reduced Voltage Start
- NEMA specified (or less) load inertia applied to the motor shaft
- Inverter powered capabilities limited to Variable Torque loads
- Altitude below 3300 feet (above sea level)
- Operating ambient of 40°C (or lower)
- Horizontal foot mounted
- Centrifugal loads
- Direct coupled

The list of Baldor•Reliance Custom design capabilities and features is even more impressive. Please contact a Baldor office for details.

Open Motors

Output (Hp)	Speed (RPM)											
	3600	1800	1200	900	720	600	514	450	400	360	327	300
150	E447	E447	E449	E449	E5008	E5010	E5808					
200	E447	E447	E449	E5006	E5008	E5010	E5808					
250	E447	E449	E5006	E5006	E5010	E5808	E5808	6811			9240	9240
300	E449	E449	E5006	E5008	E5010	E5808	E5810	6811	8040	9240	9240	9240
350	E449	E449	E5006	E5010	E5808	E5808	E5810	6811	8040	9240	9240	10840
400	E449	E5006	E5008	E5010	E5808	E5810	E5812	6811	8040	9240	9240	10840
450	E449	E5008	E5010	E5012	E5808	E5810	E5812	6811	9240	9240	10840	10840
500	E5008	E5008	E5010	E5012	E5808	E5812	E5812	6813	9240	9240	10840	10840
600	E5008	E5008	E5010	E5808	E5810	E5812	6813	6813	9240	9240	10840	10840
700	E5010	E5010	E5012	E5810	E5812	E5812	6813	8040	9240	9240	10840	10840
800	05808	E5010	E5810	E5810	E5812	6811	6813	9240	9240	10840	10840	10840
900	05808	E5012	E5810	E5812	E5812	6813	8040	9240	9240	10840	10840	10840
1000	05808	E5012	E5810	E5812	E5812	6813	6813	8040	9240	9240	10840	10840
1250	05810	E5810	E5812	E5812	E5812	6813	9240	9240	10840	10840	10840	900
1500	05810	E5810	E5812	6811	6813	9240	9240	9240	10840	10840	900	
1750	05810	E5812	6811	6813	9240	9240	9240	10840	10840	900		
2000	05812	E5812	6813	6813	9240	9240	9240	10840	10840			
2250	05812	6811	6813	9240	9240	10840	10840	900				
2500	05812	6811	6813	9240	9240	10840	10840	900				
2750	6811	6813	9240	9240	10840	10840	10840	900				
3000	6811	6813	9240	9240	10840	10840	10840	900				
3500	6813	6813	9240	9240	10840	10840	10840	900				
4000	6813	9240	9240	10840	10840	10840	900					
4500	6813	9240	10840	10840	10840	900	900					
5000	6813	10840	10840	10840	10840	900						
5500	630	10840	10840	10840	900	900						
6000	630	10840	10840	10840	900	900						
7000	630	10840	900	900	900							
8000		10840	900	900	900							
9000		900	900	900								
10000		900	900	900								
11000		900	900									
12000		900										
13000		900										
14000		900										
15000		900										

Closed Motors

Output (Hp)	Speed (RPM)											
	3600	1800	1200	900	720	600	514	450	400	360	327	300
100				G447								
125	G449	G447	G447									
150	G449	G447	G447	G5008	G5010	G5010						
200	G449	G449	G449	G5008	G5010	G5012	G5810					
250	G5008	G449	G449	G5010	G5012	G5012	G5810	6811	8040			
300	G5008	GL449	GL449	G5010	G5012	G5810B	G500S	6811	8040	9240	9240	9240
350	G5008	GL449	G5010	G5012	G5810	G500S	G500S	6811	9240	9240	9240	9240
400	G5010	GL449	G5012	G5012	G5810	G500S	G500S	6811	9240	9240	9240	10840
450	G5010	G5010	G5012	G5012	G5810B	G500S	G500S	6813	9240	9240	9240	10840
500	G5010	G5010	G5012	G5012	G500S	G500S	G500S	6813	9240	9240	10840	10840
600	G5010	G5012	G5012	G5810	G500S	G500S	G500S	8040	9240	9240	10840	10840
700	G5810	G5012	G5810B	G500S	G500S	G500M	G500M	9240	9240	10840	10840	10840
800	G5810B	G5012	G500S	G500S	G500M	G500M	8040	9240	9240	10840	10840	10840
900	G500M	G5012	G500S	G500S	G500M	G500M	9240	9240	10840	10840	10840	10840
1000	G500M	G5810	G500S	G500S	G500S	9240	9240	9240	10840	10840	10840	10840
1250	G500M	G500M	G500S	G500M	6813	9240	9240	9240	10840	10840	10840	10840
1500	G500M	G500M	G500M	G500M	9240	9240	9240	10840	10840	900	10840	900
1750	6811	G500M	G500M	9240	9240	9240	10840	10840	900			
2000	6811	G500M	9240	9240	9240	9240	10840	10840	900			
2250	6811	G500M	9240	9240	9240	10840	10840	10840				
2500	6813	6813	9240	9240	10840	10840	10840	900				
2750	6813	6813	9240	9240	10840	10840	10840	900				
3000	6813	6813	9240	10840	10840	10840	10840	900	900			
3500	6813	9240	10840	10840	10840	10840	900					
4000	6813	10840	10840	10840	10840	900						
4500	630	10840	10840	10840	10840	900						
5000	630	10840	900	900	900	900						
5500	630	10840	900	900	900							
6000	630	10840	900	900	900							
7000	630	900	900	900	900							
8000	630	900	900									
9000		900										
10000		900										
11000		900										
12000												
13000												
14000												
15000												

Important Notes:

- Charts are based on designs in accordance with NEMA MG1:20.
- Enhanced cooling blower systems (provided on the motor) may be required depending on application requirements.
- Slower speed, higher pole count designs are available upon request.

Important Notes:

- Charts are based on designs in accordance with NEMA MG1:20.
- Fabricated steel frames are TEAAC enclosure.
- Enhanced cooling blower systems (provided on the motor) may be required depending on application requirements.
- Slower speed, higher pole count designs are available upon request.

Cast Frames

Fabricated Steel Frames

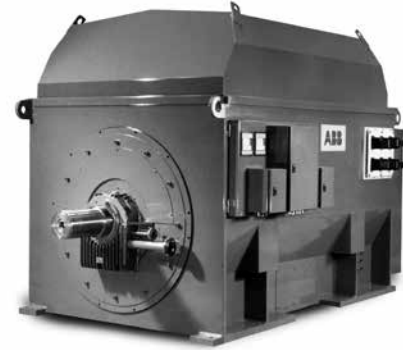
ABB Large AC Motor Capabilities Overview

Synchronous motors



- Ranging up to 70 MW / 94,000 Hp
- 20 - 2000 rpm (also 2 pole available)
- Shaft height 0710 - 2500 mm
- Ranging from 1 - 60 kV
- Endshield and pedestal mounted, horizontal and vertical design
- All main cooling types
- Motor design for hazardous environment according to main Ex standards
- All main DOL starting methods and VSD technology supported

Induction motors



- Ranging up to 13.8 kV and 23 MW / 30,000 HP
- Motor types AMA and AMI
- Shaft heights 400 to 1000 mm
- Poles 2 to 20
- 50 and 60 Hz
- Ambient -50°C to +60°C, Ambient -58°F to +140°F
- Suitable for IEC, EN and NEMA standards
- Motors for safe and hazardous areas
- Motors for onshore and offshore applications
- Horizontally or vertically mounted

General Information

Single Phase Motors

General Purpose Industrial Motors

Severe Duty Motors

Large AC Motors

Washdown Duty Motors

Explosion Proof Motors

Pump Motors

Light Industrial/ Commercial Motors

HVAC Motors

Synchronous Motors – Output Ratings at Different Speeds

Fixed Speed Motors		Speed (RPM)												
Output (MW)	1900	1500	1000	750	600	500	429	375	333	300	273	250	140	
5														
10														
15														
20														
25														
30														
35														
40														
45														
50														
55														
60														
65														
70														

Variable Speed Motors		Speed (RPM)											
Output (MW)	2000	1500	1000	750	600	500	429	375	333	300	273	250	20
5													
10													
15													
20													
25													
30													
35													
40													
45													
50													

Output ranges of ABB synchronous motors (from 1 to 70 MW, 1 to 15 kV).

Fabricated Steel Frames

Induction Motors – Output Ratings at Different Speeds

Output (MW)	Speed (RPM)												
	3000	1500	1000	750	600	500	429	375	333	300	273	250	
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													

Examples of output at 50 Hz