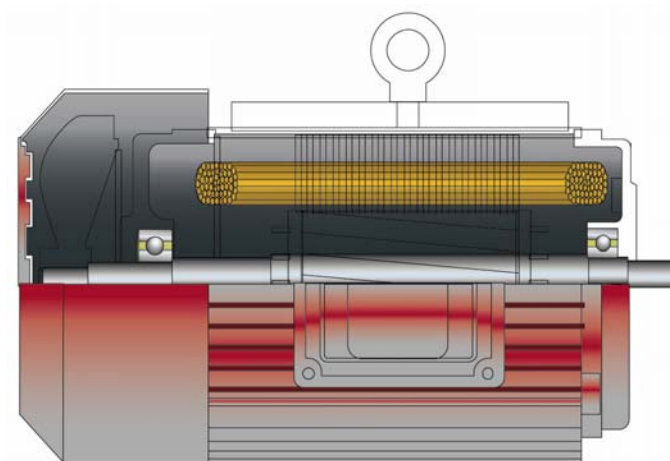




# INSTALLATION, OPERATION & MAINTENANCE MANUAL FOR SERIES 900 HORIZONTAL MOTORS



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## SAFETY CONSIDERATIONS

The American-Marsh horizontal motor has been designed and manufactured for safe operation. In order to ensure safe operation, it is very important that this manual be read in its entirety prior to installing or operating the pump. American-Marsh Pumps shall not be liable for physical injury, damage or delays caused by a failure to observe the instructions for installation, operation and maintenance contained in this manual.

Remember that every motor has the potential to be dangerous, because of the following factors:

- parts are rotating at high speeds
- high pressures may be present
- high temperatures may be present
- highly corrosive and/or toxic chemicals may be present

Paying constant attention to safety is always extremely important. However, there are often situations that require special attention. These situations are indicated throughout this book by the following symbols:

 **DANGER**

**DANGER** - Immediate hazards which WILL result in severe personal injury or death.

 **WARNING**

**WARNING** – Hazards or unsafe practices which COULD result in severe personal injury or death.

 **CAUTION**

**CAUTION** – Hazards or unsafe practices which COULD result in minor personal injury or product or property damage.

Maximum Lifting Speed: 15 feet/second.

Do not unpack the motor until it is ready to be installed. The packaging and crating is specifically designed to protect the motor during transport and storage.

Do not lift the motor by the motor lead. Damage to the lead and eventual failure of the motor can be caused.

Never operate the motor for more than a short interval with the discharge valve closed. The length of the interval depends on several factors including the nature of the fluid pumped and its temperature. Contact American-Marsh Engineering for additional support if required.

Excessive pump noise or vibration may indicate a dangerous operating condition. The motor must be shutdown immediately.

It is absolutely essential that the rotation of the motor be checked before installation of the coupling spacer and starting the pump. Incorrect rotation of the pump for even a short period of time can cause severe damage.

Always lockout power to the driver before performing maintenance.

Never operate the pump without the coupling guard and all other safety devices correctly installed.

If any external leaks are found while pumping hazardous product, immediately stop operations and repair.



## MOTOR IDENTIFICATION

### MANUFACTURER

American-Marsh Pumps  
185 Progress Road  
Collierville, TN 38017  
United States of America

### TYPE OF MOTOR

The American-Marsh horizontal motors are available two, four, six and eight pole speeds, EPACT efficiency with TEFC enclosure configurations.

### DATE OF MANUFACTURE

The date of manufacture is indicated on the motor data plate.

### INSTALLATION, OPERATION & MAINTENANCE MANUAL IDENTIFICATION

Prepared: November, 2006  
Edition: 01  
Revision:  
Date of Revision:

## NAMEPLATE INFORMATION

HP	FRAME	ENCL.
VOLTS	PHASE	AMB.
AMPS	INS. CLASS	DE / ODE BRG
HZ	S.F.	
NOM. EFF	POWER FACTOR	
SERIAL NUMBER	LB/WT	

**FIGURE 1 – Motor Data Plate**

HP	: Rated HP of motor.
FRAME	: NEMA frame of motor.
ENCL.	: Motor enclosure (TEFC std.).
VOLTS	: Rated voltage of motor.
PHASE	: Rated phase of motor.
AMB.	: Ambient temperature rating of motor.
AMPS	: Rated amperage of motor.
INS. CLASS	: Rated insulation class of motor.
DE / ODE BRG	: Drive End / Opposite Drive End Bearing.
HZ	: Rated frequency of motor.
RPM	: Rated speed of motor.
S.F.	: Service Factor of motor.
NOM. EFF.	: Nominal efficiency of motor.
POWER FACTOR	: Motor power factor.
SERIAL NUMBER	: Motor serial number.
LB/WT	: Weight of motor.



## WARRANTY

American-Marsh Pumps guarantees that only high quality materials are used in the construction of our pumps and that machining and assembly are carried out to high standards.

The motors are guaranteed against defective materials and/or faulty craftsmanship for a period of one year from the date of shipment unless specifically stated otherwise.

Replacement of parts or of the motor itself can only be carried out after careful examination of the motor by qualified personnel.

**The warranty is not valid if third parties have tampered with the pump.**

This warranty does not cover parts subject to deterioration or wear and tear (lip seals, pressure and vacuum gauges, rubber or plastic items, thrust bearings, etc.) or damage caused by misuse or improper handling of the pump by the end user.

Parts replaced under warranty become the property of American-Marsh Pumps.

Contact the American-Marsh Pumps' factory:

**American-Marsh Pumps**  
185 Progress Road  
Collierville, TN 38017  
United States Of America

**Phone:** (901) 860-2300  
**Fax:** (901) 860-2323  
**www.american-marsh.com**

## GENERAL INSTRUCTIONS

The motor unit must be examined upon arrival to ascertain any damage caused during shipment. If damaged immediately notify the carrier and/or the sender. Check that the goods correspond exactly to the description on the shipping documents and report any differences as soon as possible to the sender. Always quote the pump type and serial number stamped on the data plate.

**The motors must be used only for applications for which the manufacturers have specified:**

- ❖ **The construction materials**
- ❖ **The operating conditions**
- ❖ **The field of application**

In case of doubt, contact the manufacturer.

## HANDLING AND TRANSPORT

### METHOD OF TRANSPORT

The motors can be transported in the horizontal or vertical position

### INSTALLATION

During installation and maintenance, all components must be handled and transported securely by using suitable slings. Handling must be carried out by specialized personnel to avoid damage to the pump and persons. The lifting rings attached to various components should be used exclusively to lift the components for which they have been supplied.

## CAUTION

**Maximum lifting speed: 15 feet/second**

It is important to exercise extreme care in handling and installing all parts. Certain items are precision machined for proper alignment and, if dropped, banged, sprung, or mistreated in any way, misalignment and malfunction will result. Other components, such as the electrical cable, may be vulnerable to gouging or scuffing. Parts which are too heavy to be lifted from the transporting car or truck should be skidded slowly and carefully to the ground to prevent damage. Never unload by dropping parts directly from the carrier to the ground and never use shipping crates for skids.

If job site conditions permit, you may be able to install directly from the truck that delivered the pump. If not, move the components to the installation area and lay them out in a clean and protected space convenient to the work location. The motor assembly should be left on the skids until lifted for installation. The power cable and motor leads must receive special protection to avoid damage to jacket or insulation.

If installation cannot begin within a few days after delivery, segregate and identify all components of the shipment so they won't be confused with other equipment arriving at the job site.

Read and follow the storage instructions carefully because care of the pump during this period before installation can be as important as maintenance after operation has begun.



Check all parts against the packing list to make sure nothing is missing. It is much better to find out now than during the installation.

## **STORAGE**

### **SHORT-TERM STORAGE**

Normal packaging is designed to protect the pump during shipment and for dry, indoor storage for up to one year or less. During this time the motor can be stored in the horizontal orientation. Ensure that all motors are completely filled with water.

### **LONG-TERM STORAGE**

Long-term storage is defined as more than one year, but less than 2 years. During this time the motor must be stored in the horizontal orientation.

**Every three months, the shaft should be rotated approximately 10 revolutions.**

## **INSTALLATION**

### **INTRODUCTION**

Horizontal motors are carefully constructed of high quality materials and are designed to give long trouble-free life. This manual describes the basic procedure for installing, operating, and maintaining a horizontal motor. Failure to read, understand, and follow the instructions in this manual, the motor manual, and the instructions for accessory equipment can cause personal injury, poor performance of the equipment, shortened life of the equipment, and can void the warranty on the equipment.

This manual will reference the pump motor manual in several places. Read the motor manual and the instructions for other equipment that is part of the installation and integrate these instructions with the basic instructions contained in this manual.

Hoisting equipment capable of controlled hoisting and lowering of the combined weight of the pump, motor, drop cable, column pipe, and discharge head.

## **CAUTION**

*The height of the equipment must be sufficient to accommodate the longest component to be installed.*

## **ELECTRICAL CONSIDERATIONS**

A major portion of the work associated with a horizontal pump is electrical. It is not the intent of this manual to provide detailed instructions for the electrical work. The services of a competent power electrician or electrical contractor will be required.

All work must be done in accordance with applicable codes, the pump motor manual, instructions for other equipment that is part of the installation, and sound electrical practices. The electrical work performed will include but not be limited to the following:

### **PROVIDING A PROPER POWER SUPPLY**

The power supply must agree with values on nameplate. Terminal voltage should not vary more than  $\pm 10\%$  of nameplate voltage at rated frequency. Unbalanced line voltage, greater than 1%, can cause overheating. Do not exceed the rated load amperes on the nameplate. Starting controls and overload protection should be properly sized in accordance with the NEC and the control manufacturer's recommendations.

Motor connections should be made by following the instructions on connection diagram. Determine direction of rotation before connecting driven equipment. If direction of rotation label is supplied, operate only in specified direction. Rotation may be reversed on three phase motors by interchanging any two line connections. On single phase motors, interchange leads per connection diagram on motor. Wiring of units, controls and grounding shall be in accordance with local and NEC requirements.

### **SELECTING AND INSTALLING A PROPER MOTOR CONTROL SYSTEM**

The motor control system must be sized to accommodate the pump motor. The control system should protect the motor from damage from abnormal conditions such as low voltage, high voltage, overload, excessive current unbalance, phase loss, overheating, lightening, etc. A standard magnetic starter with special extra- quick overload relays can be used for three phase motors; however, a control which is designed specially for horizontal pumps is recommended. Overload protection and fuse requirements are given in the pump motor manual. The warranty can be voided by the use of an improper control system.





## PROPERLY GROUNDING THE UNIT

All units must be grounded in accordance with applicable codes.

**! DANGER**

*Failure to ground the unit properly can result in serious or fatal shock.*

## INSTALLATION

Mount unit on a firm, flat surface sufficiently rigid to prevent vibration. Drive belts and chains should be tensioned in accordance with supplier recommendations. Couplings should be properly aligned and balanced. For belt, chain and gear drive selection refer to the drive or equipment manufacturer. For application of drive equipment refer to applicable information in NEMA MG1.

Motors have been dynamically balanced using a half key the same length as the full key shipped with the motor. If pulley length keyway is less than this length, rework long key by removing one-half of excess length between pulley and end of key to maintain balance.

Do not restrict motor ventilation. Unless otherwise specified on nameplate, motor is designed for operation in accordance with NEMA MG1 "Usual Service Conditions" which states an ambient temperature range of -15° C to 40° C (5° F to 104° F). Standard grease lubricated units are suitable for operation in this temperature range. Special lubricants may be required for ambient temperatures outside of this range. Note: Motors operating under rated load and allowable ambient conditions may feel hot when touched; this is normal and should not be cause for concern. When in doubt, measure frame surface temperature and confer with nearest office. Enclosed motors normally have condensation drain openings. Ensure that drain openings are properly located and open (plugs removed) for the motor mounting position. Drain openings should be at lowest point of end brackets, frame housing and terminal housing when the motor is installed. This may require modification of motor to accomplish. If unit appears wet, and/or has been stored in a damp location, dry thoroughly and check for adequate insulation resistance to ground before operating.

## GREASE LUBRICATION

Units are pre-lubricated at the factory and do not require initial lubrication. Relubricating interval depends upon speed, type of bearing and service. Refer to Figure 2 for suggested regreasing intervals. Operating conditions

may dictate more frequent lubrication. Motor must be at rest and electrical controls should be locked open to prevent energizing while motor is being serviced (refer to section on Safety). If motor is being taken out of storage, refer to storage procedures.

To relubricate bearings, remove the drain plug. Inspect grease drain and remove any blockage with a mechanical probe, taking care not to damage bearing.

**! CAUTION**

*Under no circumstances should a mechanical probe be used while the motor is in operation. Add new grease at the grease inlet (refer to Figure 2 for replenishment quantities). New grease must be compatible with grease in the motor (see Caution Note). Run the motor for 15 to 30 minutes with the drain plug removed to allow purging of any excess grease. Shut off unit and replace the drain plug. Return motor to service. Some motors have sealed bearings and are not regreasable.*

*Over greasing can cause excessive bearing temperatures, premature lubricant breakdown and bearing failure. Care should be exercised against over greasing.*



Bearing Number-Common		Bearing Number-AFBMA		Grease FL Oz.	Lubrication Interval		
62XX	63XX	XXBC02	XXBC03		3600 RPM	1800 RPM	1200 RPM
6203-6207	6303-6306	17-35	17-30	0.2	2 Years	3 Years	3 Years
6208-6212	6307-6309	40-60	35-45	0.4	1 Year	2 Years	2 Years
6213-6215	6310-6311	65-75	50-55	0.6	1 Year	2 Years	2 Years
6218-6220	6312-6315	80-100	60-75	1	6 Mos.	1 Year	2 Years
6221-6228	6316-6320	105-140	80-100	1.8	6 Mos.	1 Year	1 Year

**FIGURE 2 – Recommended Grease Replenishment Quantities & Intervals**  
(For lubrication of units in service)

For motors mounted vertically or in hostile environments, reduce intervals shown by 50%.

Refer to motor nameplate for bearings provided on a specific motor.

For bearings not listed in the table above, the amount of grease required may be calculated by the following formula:

$$G = 0.11 \times D \times B$$

Where:

G = Quantity of grease in fluid ounces

D = Outside diameter of bearing in inches

B = Width of bearing in inches

The following greases are interchangeable with the grease as provided in units supplied from factory (unless stated otherwise on a lubrication nameplate provided on motor).

Manufacturer	Grease (NLGI No. 2)
Exxon Corp.	Polyrex – EM
Chevron U.S.A. Inc.	SRI NO. 2

**FIGURE 3 – Recommended Grease**



*Greases of different bases (lithium, polyurea, clay, etc.) may not be compatible when mixed. Mixing such greases can result in reduced lubricant life and premature bearing failure. When necessary, prevent such intermixing by disassembling the motor, removing all old grease from bearings and housings (including all grease fill and drain holes). Inspect and replace damaged bearings. Fill bearing houses and bearing approximately 30% full of new grease. Remove any excess grease extending beyond the edges of the bearing races and retainers. Refer to Figure 3 for recommended greases.*





## **SPARE PARTS**

### ***RECOMMENDED SPARE PARTS***

The decision on what spare parts to stock varies greatly depending on many factors such as the criticality of the application, the time required to buy and receive new spares, the erosive/corrosive nature of the application, and the cost of the spare part. Please refer to the “American-Marsh Pump Parts Catalog” for more information.

### ***HOW TO ORDER SPARE PARTS***

Spare parts can be ordered from the local American-Marsh Sales Engineer, or from the American-Marsh Distributor or Representative. The motor size and type can be found on the name plate on the motor housing. See Figure 1. Please provide the item number, description, and alloy for the part(s) to be ordered.

To make parts ordering easy, American-Marsh has created a catalog titled “American-Marsh Pump Parts Catalog.” A copy of this book can be obtained from the local American-Marsh Sales Engineer or Distributor/Representative.



## APPENDIX A

208-230/460 Volts / 60 Hertz, Class B Rise @ 1.15 Service Factor / Class F Insulation														
Motor HP	Poles	Full Load RPM	Efficiency			Power Factor			Full Load Amps	Locked Rotor Amps	Motor Frame	Service Factor	Bearings	
			100%	75%	50%	100%	75%	50%					DE	ODE
208-230/460V														
3	2	3510	85.5	86	85.4	87	85.1	76.2	3.8	32	182T	1.15	6306	6306
5	2	3510	87.5	88	87.9	88	88.5	81.8	6.1	46	184T	1.15		
7.5	2	3520	88.5	89.1	89	89	90.6	85.2	8.9	64	213T	1.15	6208	6208
10	2	3520	89.5	90.1	90.1	89	91.5	86.8	11.6	81	215T	1.15		
15	2	3540	90.2	89.6	88.9	89	89	83.5	17.6	116	254T	1.15	6309	6309
20	2	3530	90.2	89.6	89.5	90	90.8	87	23.2	145	256T	1.15		
25	2	3550	91	91	90.7	90	89.9	85.1	28.9	183	284TS	1.15	6310	6310
30	2	3550	91	91.1	90.9	90	90.2	85.7	34.5	218	286TS	1.15		
40	2	3560	91.7	91.2	90.3	90	86.5	79.9	46.5	290	324TS	1.15	6312	6312
50	2	3560	92.4	91.5	90.7	90	87.6	81.9	58.5	363	326TS	1.15		
60	2	3560	93	92.3	91.7	90	92.1	89	67.5	435	364TS	1.15	6314	6314
75	2	3560	93	92.4	92	90	92.1	89.9	84.3	543	365TS	1.15		
100	2	3570	93.6	93.5	93.1	91	92.3	89.2	100	725	405TS	1.15	6316	6316
460V ONLY														
125	2	3575	94.5	93.9	93.2	91	92.7	89.7	137	908	444TS	1.15	6316	6316
150	2	3575	94.5	94	93.3	91	93	90	164	1085	445TS	1.15		
200	2	3575	95	94.4	93.9	92	94.4	92.9	215	1450	447TS	1.15		
250	2	3575	95	94.2	93.7	94.5	94.4	92.7	272	1825	449TS	1.15		

**FIGURE 4 – 900 Series, 3600 RPM, Three Phase, 208-230/460V, Horizontal Motors**

**NOTE:** For current at 230V, multiple above values by 2.



208-230/460 Volts / 60 Hertz, Class B Rise @ 1.15 Service Factor / Class F Insulation														
Motor HP	Poles	Full Load RPM	Efficiency			Power Factor			Full Load Amps	Locked Rotor Amps	Motor Frame	Service Factor	Bearings	
			100%	75%	50%	100%	75%	50%					DE	ODE
208-230/460V														
3	4	1755	87.5	87.4	86.3	82	76.8	64.8	4.1	32	182T	1.15	6306	6306
5	4	1750	87.5	88.1	87.7	83	80	68.8	6.5	46	184T	1.15		
7.5	4	1750	89.5	89.9	89.8	84	83.2	74.3	9.4	64	213T	1.15	6208	6208
10	4	1750	89.5	90.4	90.5	84	85.2	77.6	12.5	81	215T	1.15		
15	4	1760	91	90.7	89.8	83	81.4	71.4	18.6	116	254T	1.15	6309	6309
20	4	1760	91	91.8	91.5	84	85	77.6	24.8	145	256T	1.15		
25	4	1770	92.4	91.7	91.1	86	83.4	74.7	29.6	183	284T	1.15	6310	6310
30	4	1770	92.4	92.1	91.6	86	84.5	76.5	35.5	218	286T	1.15		
40	4	1770	93	92.2	91.1	87	83.9	77.8	47.1	290	324T	1.15	6312	6312
50	4	1770	93	92.1	91.2	87	84.1	78.2	59.2	363	326T	1.15		
60	4	1775	93.6	93.4	92.9	87	86.3	80.2	69.4	435	364T	1.15	6314	6314
75	4	1775	94.1	93.5	93.2	87	87.4	82.4	86.2	543	365T	1.15		
100	4	1780	94.5	94.3	93.9	87	87.6	82	114	725	405T	1.15	6316	6316
460V ONLY														
125	4	1780	94.5	94.4	94.1	88	90.8	87.3	141	908	444T	1.15	NU318	6316
150	4	1780	95	94.6	94.2	88	90.9	87.5	169	1085	445T	1.15		
200	4	1780	95	94.7	94.3	89	91.3	88.3	223	1450	447T	1.15	NU320	6316
250	4	1790	95	94.8	94.1	94	89.2	84.7	296	1825	449T	1.15		
300	4	1790	95.0	94.5	93.7	89.0	88.3	82.9	332	2053	587UZ	1.15	NU324	6324
350	4	1790	94.0	94.6	93.9	89.0	88.4	83.3	388	2310	587UZ	1.15	NU324	6324
400	4	1790	94.0	94.8	94.1	89.0	89.9	84.9	443	2558	587UZ	1.15	NU324	6324
450	4	1790	95.0	94.8	94.1	89.0	91.2	88.3	498	2895	587UZ	1.15	NU324	6324
500	4	1790	95.0	94.8	94.1	89.0	91.2	88.1	554	3355	588UZ	1.15	NU324	6324

**FIGURE 5 – 900 Series, 1800 RPM, Three Phase, 208-230/460V, Horizontal Motors**

**NOTE:** For current at 230V, multiple above values by 2.



208-230/460 Volts / 60 Hertz, Class B Rise @ 1.15 Service Factor / Class F Insulation														
Motor HP	Poles	Full Load RPM	Efficiency			Power Factor			Full Load Amps	Locked Rotor Amps	Motor Frame	Service Factor	Bearings	
			100%	75%	50%	100%	75%	50%					DE	ODE
208-230/460V														
3	6	1170	87.5	87.1	85.4	75	67.3	54.1	4.2	32	213T	1.15	6208	6208
5	6	1165	87.5	87.7	86.9	77	72.5	60	7.1	46	215T	1.15		
7.5	6	1170	89.5	89.2	87.9	75	69.5	57.5	10.6	64	254T	1.15	6309	6309
10	6	1170	89.5	89.7	88.6	76	70.9	58.7	13.7	81	256T	1.15		
15	6	1175	90.2	90.1	89.5	81	78.7	68.3	19.3	116	284T	1.15	6310	6310
20	6	1175	90.2	90.3	90.2	81	81.9	73.9	25.8	145	286T	1.15		
25	6	1180	91.7	91.7	91.2	82	80.6	71.7	31.9	183	324T	1.15	6312	6312
30	6	1180	91.7	91.8	91.4	83	81.1	72.7	38	218	326T	1.15		
40	6	1180	93	93	92.6	85	83	75.6	47.4	290	364T	1.15	6314	6314
50	6	1180	93	93.1	92.8	85	84	77.5	59.2	363	365T	1.15		
60	6	1185	93.6	93.7	93.4	86	85.2	78.7	70	435	404T	1.15	6316	6316
75	6	1185	93.6	93.8	93.6	86	86.5	81	87.7	543	405T	1.15		
460V ONLY														
100	6	1180	94.1	94	93.4	86	85.1	78.7	116	725	444T	1.15	NU318	6316
125	6	1180	94.1	94.1	93.6	86	85.5	79.6	145	908	445T	1.15		
150	6	1180	95	94.5	94.0	87	85.3	78.8	170	1085	447T	1.15	NU320	6316
200	6	1180	95.0	94.6	94.0	87.0	84.0	77.0	227	1450	449T	1.15		
250	6	1190	95.0	94.5	93.6	86.0	83.6	75.9	287	1742	587UZ	1.15	NU324	6324
300	6	1190	95.0	94.6	93.8	86.0	85.5	79.3	344	1992	587UZ	1.15	NU324	6324
350	6	1190	95.0	94.6	93.7	86.0	85.4	78.8	401	2525	587UZ	1.15	NU324	6324
400	6	1190	95.0	94.7	93.9	86.0	86.2	80.4	458	2715	587UZ	1.15	NU324	6324
450	6	1190	95.0	94.7	93.9	87.0	86.3	80.4	516	3148	588UZ	1.15	NU324	6324
500	6	1190	95.0	95.0	94.2	87.0	86.9	81.6	573	3381	588UZ	1.15	NU324	6324

**FIGURE 6 – 900 Series, 1200 RPM, Three Phase, 208-230/460V, Horizontal Motors**

**NOTE: For current at 230V, multiple above values by 2.**



208-230/460 Volts / 60 Hertz, Class B Rise @ 1.15 Service Factor / Class F Insulation														
Motor HP	Poles	Full Load RPM	Efficiency			Power Factor			Full Load Amps	Locked Rotor Amps	Motor Frame	Service Factor	Bearings	
			100%	75%	50%	100%	75%	50%					DE	ODE
208-230/460V														
3	8	870	80	80.6	78.3	62	56.2	42	5.7	32	215T	1.15	6208	6208
5	8	880	84	83.7	83.5	65	58.1	45.2	8.6	46	254T	1.15	6309	6309
7.5	8	880	84	86.2	84.7	66	55	46.1	12.7	64	256T	1.15		
10	8	880	87.5	87.3	85.9	71	63.2	51.1	15.1	81	284T	1.15	6310	6310
15	8	880	87.5	88.2	86.6	71	63.2	50	22.6	116	286T	1.15		
20	8	880	89.5	89.3	87.9	67	58.8	46.9	31.2	145	324T	1.15	6312	6312
25	8	880	89.5	89.6	88.1	67	59.7	47.4	39	183	326T	1.15		
30	8	880	90.2	90.8	89.6	73	66.8	55.1	42.7	218	364T	1.15	6314	6314
40	8	880	90.2	91.1	90.1	73	67.9	56.7	56.9	290	365T	1.15		
50	8	880	91	91.5	90.6	75	70.7	58.8	68.6	363	404T	1.15	6316	6316
60	8	880	91	91.7	91	75	73	61.4	82.3	435	405T	1.15		
460V ONLY														
75	8	885	91.7	91.8	90.6	75	67.8	55.8	102	543	444T	1.15	NU318	6316
100	8	885	91.7	92	91.2	75	66	57	136	725	445T	1.15		
125	8	885	92.4	92.8	91.8	75	68.9	57	169	908	447T	1.15	NU320	6316
150	8	885	92.4	93	91.9	75	68.4	56.8	203	1085	449T	1.15		
200	8	890	95.0	94.1	93.0	82.0	77.0	66.8	240	1407	587UZ	1.15	NU324	6324
250	8	890	95.0	94.6	93.6	82.0	78.8	69.7	300	1702	587UZ	1.15	NU324	6324
300	8	890	95.0	94.5	93.6	82.0	80.4	72.4	361	1936	587UZ	1.15	NU324	6324
350	8	890	95.0	94.5	93.6	83.0	80.0	71.5	421	2353	588UZ	1.15	NU324	6324
400	8	890	95.0	94.7	93.9	83.0	81.4	74.1	481	2518	588UZ	1.15	NU324	6324

**FIGURE 7 – 900 Series, 900 RPM, Three Phase, 208-230/460V, Horizontal Motors**

**NOTE: For current at 230V, multiple above values by 2.**