

Pump Motors for Swimming Pools, Spas & Jetted Tubs

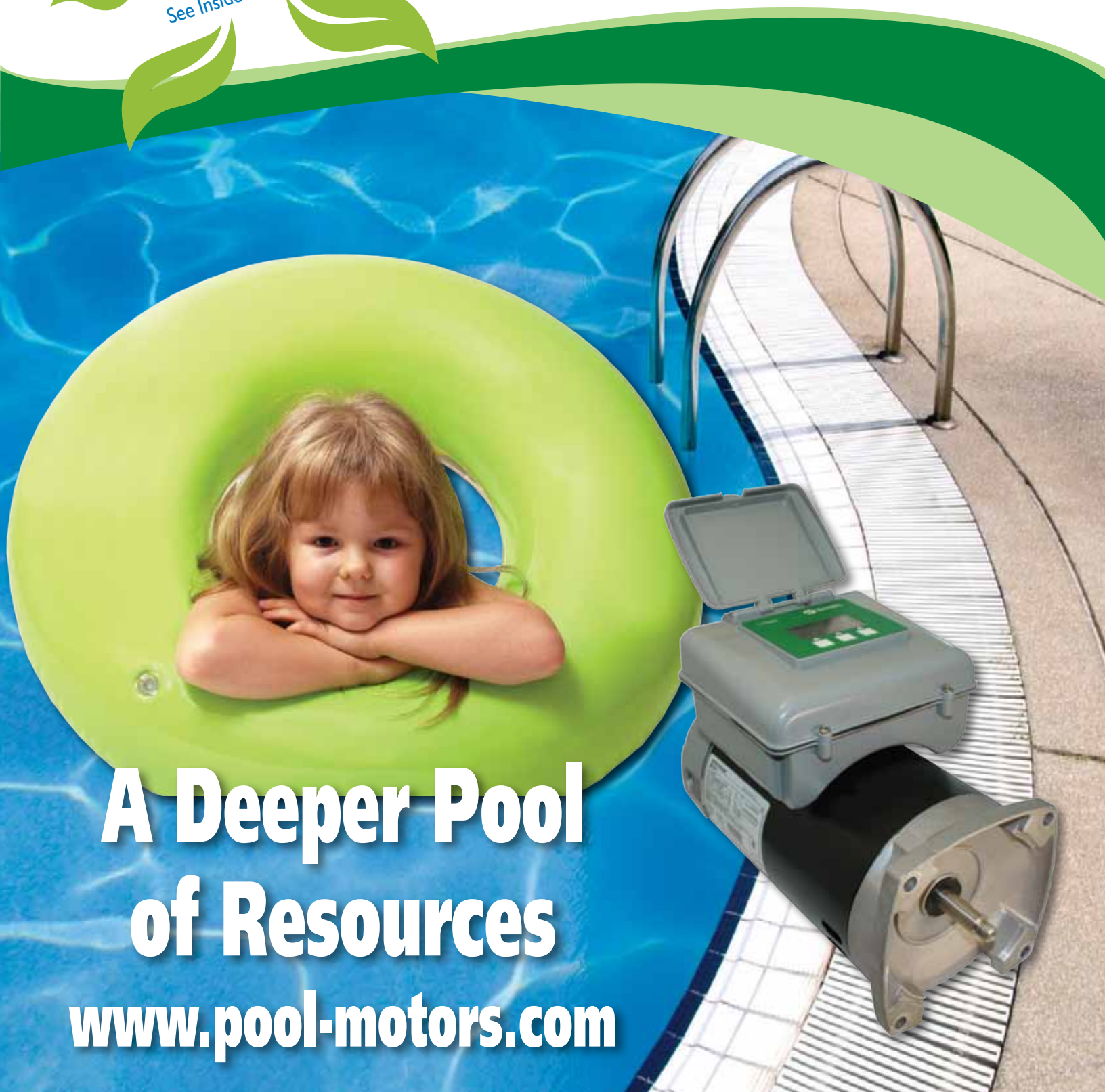
AC Smith®

Bulletin 1081-1082

New!

2Green™

See Inside Back Cover



A Deeper Pool of Resources

www.pool-motors.com

Statement of Warranty Policy

Warranty Period

All A. O. Smith motors are warranted against defects in materials and workmanship for a period of twelve (12) months from the date of installation or twenty-four months (24) from the date of manufacture, whichever comes first.

Limitation of Remedy

In the event of a breach of the warranty within the applicable warranty period, A. O. Smith shall have the option of (1) repairing such motor; (2) supplying an identical or substantially similar replacement motor FOB, A. O. Smith's factory; or (3) refunding or giving credit for the purchase price of such motor.

The remedy set forth above shall be the sole and exclusive remedy for the motors failing within the applicable warranty period. A. O. Smith, shall not be liable for any lost profits, loss of use, or any other consequential, special or incidental damages.

DISCLAIMER OF IMPLIED WARRANTIES

EXCEPT AS MAY BE REQUIRED UNDER APPLICABLE LAW, THE LIMITED WARRANTY SET FORTH ABOVE IS THE EXCLUSIVE WARRANTY PROVIDED WITH THE MOTORS. ALL OTHER WARRANTIES, WHETHER WRITTEN OR VERBAL, EXPRESSED OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY DISCLAIMED BY A. O. SMITH.

Conditions of Warranty

This limited warranty shall be void and of no effect if:

1. The motor has been subjected to improper handling, storage or installation, or subject to abuse or unauthorized repairs;
2. The motor was not suitable for the application or operated above its rated load; or
3. The motor was subject to water damage including motor bearing failures resulting from pump seal failures.

Authorized Location

Defective motors which have failed during the applicable warranty period must be returned freight prepaid to an A. O. Smith's authorized distributor. Call 800-672-6495.

How to Read Date Codes on Motor Nameplates & Labels

Introduction of a new standard date code was implemented in August of 2006 and is used on all A. O. Smith product. The first three characters represent the day of the year, the next two the year, and the last two the plant code. For example, 123064M, would mean the 123rd day of 2006 (12306) manufactured in A. O. Smith's plant (4M).

A. O. Smith Product (Original Date Code)

Plant code–Month–Year. Example: 7B99. 7 is a plant code designation, B is the month (January is A, February is B, etc.) and 99 is the year.

Century® Product (Original Date Code)

Year code–Month. Example: CD3. CD is the year (see table below). 3 is the month (1-12).

1992	BK	1996	BP	2000	BU	2004	BZ	2008	CD
1993	BL	1997	BR	2001	BW	2005	CA	2009	CE
1994	BM	1998	BS	2002	BX	2006	CB	2010	CF
1995	BN	1999	BT	2003	BY	2007	CC		

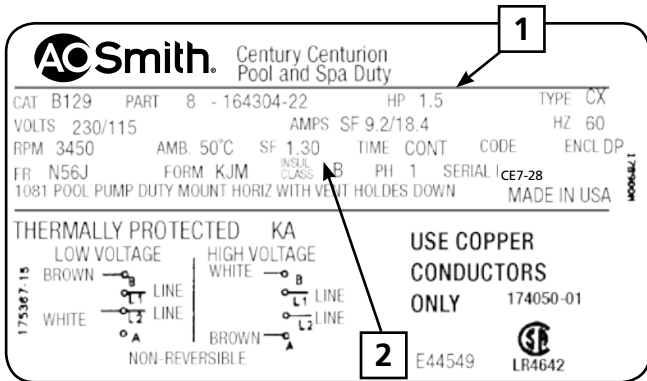


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Centurion Pool & Spa Square Flange & C-face Replacement Guide

Before using the Pool & Spa Motor Replacement Guide, you will need to know the horsepower **(1)**, the service factor **(2)** of the original motor, and the name and/or the manufacturer of the pump on which the motor is used. The sample nameplate below shows the location of the horsepower and service factor.



Find your pump brand, listed in alphabetical order at the right. Read across from the pump name and find the group of Century® catalog motors that will mechanically fit. These groups are labeled "A" through "E". The service factor for each horsepower is shown in these groups below. Match the manufacturer of the pump, the horsepower, and the service factor and you will have a suitable replacement motor.

Name of Pump OEM or Brand Name	Group
Americana, American Eagle	A
American Ultra-flow or Power Pump	C
Aqua Flo C-face	B
Aqua Flo Dominator	A,B,C
Arneson Pool Sweep	D
Hayward Northstar	E
Baker Hydro Hydron	A
Hayward Super Pump or Super Pump II	A
Hayward Max-Flo	A
ITT Marlow Argonaut	A
Jacuzzi Bros. Bronze	B
Jacuzzi Bros. Cygnet	C
Jacuzzi Bros. Plastic	A
Jacuzzi Bros. Magnum (E-Plus® columns only)	A
Letro	D
Pac Fab Challenger	C
Pac Fab Hydro Pump	B
Pac Fab Pinnacle	C
Polaris Vac-Sweep PB4 Booster Pump	D
Premier/Springwater	B
Purex/Hydrotech	A
Purex Whisperflo	C
Sta-Rite Dura-Glas or Max-E-Glas	C
Sta-Rite Dura-Glas II or Max-E-Glas II	C
Speck Pumps, Models 90, 98, 423, 433, 21-80	A
Wet Institute	B
Zodiac (Jandy) Stealth	A,C

Two-speed and three-phase motors available for most applications. Contact your distributor or A. O. Smith Electrical Products Company for more details.

Group "A"

C-face Threaded Shaft (56J)

Hp	Service Factor	Voltage	CENTURION®		E-PLUS®	
			Standard Efficiency Alum. Cat. No.	Energy Efficient Alum. Cat. No.	Standard Efficiency Alum. Cat. No.	Energy Efficient Alum. Cat. No.
1/2	1.60	230/115	B126	B657		
3/4	1.00	230/115	B227SE	B657		
	1.50	230/115	B127	B638		
1	1.00	230/115	B228SE	B638		
	1.40	230/115	B128	B654		
1 1/2	1.00	230/115	B229SE	B654		
	1.30	230/115	B129	B796		
2	1.00	230/115	B230SE	B796		
	1.20	230/115	B836			
	1.20	230	B130	B809		
2 1/2	1.00	230	B231SE	B809		
3	1.15	230	B131	B818		
4	1.25	230		B116		

Group "B"

C-face Keyed Shaft (56C)

Hp	Service Factor	Voltage	Centurion®		E-Plus®	
			Standard Efficiency Alum. Cat. No.	Energy Efficient Alum. Cat. No.	Cast Iron Cat. No.	Cast Iron Cat. No.
1/2	1.60	230/115	B120	B656		
3/4	1.50	230/115	B121	B634	B631	
1	1.40	230/115	B122	B653	B723	
1 1/2	1.30	230/115	B123	B795	B750	
2	1.20	230/115	B835			
	1.20	230	B124	B808	B772	
3	1.15	230	B125	B817	B774	

Group "C"

Square Flange

Hp	Service Factor	Voltage	CENTURION®	
			Standard Efficiency Cat. No.	E-Plus® Energy Efficient Cat. No.
1/3	1.95	230/115	—	—
1/2	1.30	230/115	B856	—
	1.95	230/115	B846	B845
3/4	1.25	230/115	B852	—
	1.65	230/115	B847	B2661
1	1.25	230/115	B853	—
	1.65	230/115	B848	B2841
1 1/2	1.10	230/115	B854	—
	1.50	230/115	B858	—
	1.50	230	B849	B2842
2	1.10	230	B855	—
	1.30	230	B748	B2843
2 1/2	1.04	230	B840	—
	1.15	208-230	—	B2844

Group "E"

Northstar Hayward

Hp	Factor	Service Voltage	Cat. No.
3/4	1.85	208-230/115	SN1072
1	1.40	208-230/115	USN1102
1	1.85	208-230/115	SN1102
1- 1/2	1.25	208-230/115	USN1152
1- 1/2	1.60	208-230/115	SN1152
2	1.20	208-230/115	USN1202
2	1.35	208-230	SN1202
3	1.20	208-230	USN1302
3	1.60	208-230	SN1302

Group "D"

Pool Cleaner Replacement

Hp	Service Factor	Voltage	Shaft	Brand	Cat. No.
3/4	1.50	230/115	Threaded	Polaris	B625
	1.50	230/115	Threaded	Arneson Uniseal	B662
	1.50	230/115	Threaded	Arneson Uniseal	B663
	1.50	230/115	Threaded	Letro	B667
	1.50	230/115	Threaded	Letro	B668

Pool, Spa and Jetted Tubs Thru-Bolt Motor Replacement Guide

To select the correct thru-bolt replacement motor, complete steps 1 through 4.

1. Is the manufacturer and model of your pump in the list of pump manufacturers and models below? If yes, the Century® motors from **Group S** and **Group T** in the tables below will fit your pump.
2. Identify the maximum rated horsepower of your motor.
Maximum Rated Hp = Horsepower (Hp) x Service Factor (SF)

3. What is the voltage?
 4. Is the motor single- or two-speed? If single-speed select motor from **Group S**. If two-speed, select motor from **Group T**.
- Replacement motor horsepower must be equal to or greater than maximum rated horsepower.

Group S Single-speed

Hp (Max. Rated)	Voltage	Cat. No.
1/2	115	BN23SS
3/4	115	BN24V1
1	115	BN25V1
1 1/2	230/115	BN35SS
1 1/2	115	BV35V1
2	230/115	BN40SS

Pump Manufacturer & Model American Products

American II.....	S or T
Maxim "C"	S or T
Maxim "S"	S or T

Aqua Flo

Flo-Master.....	S or T
Tub Master	S

G/G Industries

Olympian	S
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Gruber

Dura-Flo.....	S
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Hayward Mfg.

Matrix Series	S
Power Flo 1500 Series.....	S
Power Flo II 1700 Series	S
Power Flo II 1900 Series	S
Power Flo UN Series.....	S or T
Power Flo UN-LX Series.....	S or T
Power Flo II UN Series	T
Power Flo 1900SD Series.....	S

Hoffinger, Doughboy and Lomart

Cat. No.	Hp	Threads	Rotation	Replaces Hoffinger #
BV90	1.0	Right Hand	CW	300-1028 (1 Hp) 300-1027 (3/4 Hp)
BV91	1.0	Left Hand	CCW	300-1043 (1 Hp) 300-1017 (3/4 Hp)

Jacuzzi Bros.

Inno-Tech J Series	S
JCM Series	S
Vector LVL Series*	S

Group T Two-speed

Hp (Max. Rated)	Voltage	Cat. No.
3/4 / 1.10	115	BN36
1 / 1.12	115	BN37
1 / 1.16	115	BN38
1 1/2 / 2.25	115	BN50
1 1/2 / 1.18	115	BN60
1 1/2 / 1.18	230	BN34
2 / 2.25	230	BN51
2 / 2.25	230	BN61

Pump Manufacturer & Model Jacuzzi Bros. (continued)

LTVL Series.....	T
SLR Series.....	S
LRDV Series.....	S
LCU Series.....	S or T
LTCU Series.....	T
LCM Series.....	S
LTCM Series	T

PAC-FAB

Dynamo	S or T
Dynamite	S or T

Premier/Springwater

220-225-255 MKii Series	S or T
300, 320, 325, 355 Series.....	S

Speck

Model E90 and E91	S or T
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Sta-Rite

Dura-Jet.....	S or T
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Vico/Ultra-Jet.....

Ultra Flow	S
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Waterway

Bath Pump Self Drain	S
Hi-Flo Side Discharge	S or T
Hi-Flo Center Discharge	S or T
SVL56	C
Super Flo Side Discharge	S or T
Workhorse Side Discharge	S or T

Note:

* Pump rated for 115/230 Volt, check voltage supply to ensure replacement motor is suitable.

A. O. Smith Two Compartment to Motor Replacement Guide

Group "SK"

Hp	Service Factor	Voltage	Stock Number	Conservationist
1/2	1.6	115/230	SK1052	CK1052
3/4	1.5	115/230	SK1072	CK1072
1	1.5	115/230	SK1102	CK1102
1.5	1.3	115/230	SK1152	SK1152
2	1.3	230	SK1202	SK1202
3	1.115	230	SK1302V1	SK1302V1

Group "SP"

Hp	Voltage	Brand	Stock Number
3/4	115/230	Arneson	SPS1052
3/4	115/230	Arneson	RPS1052

Group "SQ"

Hp	Service Factor	Voltage	Stock Number	Conservationist
1/2	1.9	115/230	SQ1052	QC1052
1/2	1.3	115/230	USQ1052	
3/4	1.65	115/230	SQ1072	QC1072
3/4	1.27	115/230	USQ1072	UQC1072
1	1.65	115/230	SQ1102	QC1102
1	1.25	115/230	USQ1102	UQC1102
1-1/2	1.47	230	SQ1152	SQ1152
1-1/2	1.1	115/230	USQ1152	UQC1152
2	1.3	230	SQ1202	SQ1202
2	1.1	230	USQ1202	USQ1202
2-1/2	1.0	230	USQ1252	USQ1252
3	1.15	230	SQ1302V1	SQ1302V1

Group "ST"

Hp	Service Factor	Voltage	Stock Number	Conservationist
1/2	1.6	115/230	ST1052	CT1052
3/4	1.5	115/230	ST1072	CT1072
3/4	1.0	115/230	UST1072	
1	1.5	115/230	ST1102	CT1012
1	1.0	115/230	UST1102	
1-1/2	1.3	115/230	ST1152	ST1152
1-1/2	1.0	115/230	UST1152	
2	1.3	208-230	ST1202	ST1202
2	1.0	115/230	UST1202	
2-1/2	1.0	208-230	UST1252	
3	1.15	208-230	ST1302V1	ST1302V1

Above Ground and Spa Applications

Hp	Service Factor	Voltage	Stock Number
1/2	1.0	115	BN23SS
3/4•1/8	1.0	115	BN36*
3/4	1.0	115	BN24V1
1•1/6	1.0	115	BN37*
1	1.0	115	BN25V1

Notes:

*2 Speed

Please contact your local distributor with motor model number, frame size, horsepower, service factor, voltage and pump OEM model number for proper spa or above ground motor identification.

Name of Pump OEM or Brand Name

Group Class

Americana, American Eagle	ST
American Ultra Flow or Power Pump	SQ
Aqua-Flo C-Face	SK
Aqua-Flo Dominator	SQ
Arneson Pool Sweep	SP
Hayward Super & Super II	ST
Hayward Max-Flo	ST
Hydrotech	ST
ITT Marlow Argonaut	ST
Jacuzzi Bronze, Plastic	SK
Jacuzzi Magnum	ST
Pac Fab Challenger	SQ
Pac Fab Hydro Pump	SK
Premier/Springwater	SK
Starite Duraglas or Maxiglas	SQ
Speck	ST
Wet Institute	SK

Please Note:

Every effort has been made to ensure the accuracy of this guide.

A. O. Smith cannot, however, accept responsibility for ultimate selection. OEM design changes and variations from one OEM to another may result in different construction, dimensions or operating characteristics. It is your responsibility to confirm the acceptability of the suggested replacement.

EASY TO INSTALL - PROTECTS PUMP - IMPROVES POOL SAFETY

Features:

- Easy to install
- Auto-Reset
- Auto-Calibration
- Ball Bearing
- Economical
- 60 HZ
- Stainless Steel Shaft
- Nerve Center (lighting sequence)
- 3/4 to 3 HP
- Single-Speed
- Single Phase
- Run/Restart/Rest/Bypass Mode
- Tamper-Resistant Housing
- Compatible with all flow rates



USQG1152A



Applications:

A. O. Smith Guardian® motors comply with requirements for safety vacuum release systems in the Virginia Graeme Baker Pool and Spa Safety Act of 2007. Guardian® motors on this page pass ASME A112.19.17 SVRS standard.

Guardian® motors will not prevent evisceration, hair, object or partial limb entrapment and is designed for suction lift applications.

HP	RPM	Volts	Max. Amps	Service Factor	Frame	Stock Number	Shaft	Approx. "AG"	Notes
TWO COMPARTMENT, C-FACE									
1	3450	115/230	15.0/7.5	1.10	56J	USTG1102A	Threaded	11	
1	3450	115/230	18.6/9.3	1.50	56J	STG1102A	Threaded	12-1/8	
1-1/2	3450	115/230	18.6/9.3	1.00	56J	USTG1152A	Threaded	12-1/8	
2	3450	208-230	12.6/11.4	1.32	56J	STG1202A	Threaded	13-1/16	
3	3450	208-230	14.5/13.8	1.15	56J	STG1302A	Threaded	14-3/16	
CENTURION, C-FACE									
1	3450	230/115	7.2/14.4	1.40	56J	BG128A	Threaded	10	
1-1/2	3450	230/115	9.2/18.4	1.30	56J	BG129A	Threaded	11	
2	3450	230	10.5	1.20	56J	BG130A	Threaded	10-1/2	
3	3450	230	14.1	1.15	56J	BG131A	Threaded	11-9/16	
TWO COMPARTMENT, SQUARE FLANGE									
3/4	3450	115/230	11.8/5.9	1.27	48Y	USQG1072A	Threaded	11-1/2	
1	3450	115/230	14.8/7.4	1.25	48Y	USQG1102A	Threaded	12-1/8	
1-1/2	3450	115/230	19.2/9.6	1.10	48Y	USQG1152A	Threaded	13-1/8	
2	3450	230	11.2	1.30	48Y	SQG1202A	Threaded	13-7/8	
3	3450	230	15.4	1.15	56Y	SQG1302A	Threaded	14	
CENTURION, SQUARE FLANGE									
1	3450	230/115	7.1/14.2	1.25	56Y	BG853A	Threaded	9-7/8	
1	3450	230/115	8.0/16.0	1.65	56Y	BG848A	Threaded	10-1/4	
1-1/2	3450	230/115	8.0/16.0	1.10	56Y	BG854A	Threaded	10-1/4	
2	3450	230	10.0	1.10	56Y	BG855A	Threaded	10-7/8	
2	3450	230	11.5	1.30	56Y	BG748A	Threaded	12-3/4	
3	3450	208-230	15.0-13.6	1.15	56Y	BG2844A	Threaded	13-5/8	
POLARIS POOL CLEANER									
3/4	3450	115/230	12.8/6.4	1.50	56CZ	BE625	Special Threaded	10-1/4	222

Notes:

222. Does not have Aluminum Adapter Bracket

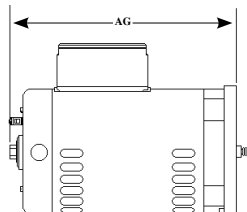
Guardian® Motors Also:

Facilitates no main drain pool designs in place of an equalizer line. Guardian® motors shut off the motor/pump when the water level drops below the skimmer.

Reduces pump, motor and seal damage.

Shut off the motor/pump if any of the following conditions occur: Dry, blocked or jammed pump conditions; locked rotor, loss of prime, or abnormal voltage variations.

Detect clogged or blocked filters and shuts down the pump.



⚠ WARNING Guardian® SVRS helps prevent body entrapment on drains due to suction only. It does NOT protect against the four other types of entrapment:

Hair Entanglement: if long hair is pulled into some drains by the flowing water, it can become knotted or snagged, trapping the swimmer underwater and leading to drowning.

Mechanical Entrapment: small items or body parts (e.g., jewelry, swimsuit, hair decorations, fingers, toes, or knuckles) can be caught in some drains or drain covers, trapping the swimmer underwater and leading to drowning.

Limb Entrapment: arms or legs can become trapped in uncovered drains, leading to drowning.

Evisceration/Disembowelment: if a person sits on some drains, the suction can pull the lower intestine out of the rectum, causing irreversible damage.

Two Compartment NEMA C-Face Pool Filter Motors • Single-Speed

Features:

- Auto Protector • Capacitor Start and Capacitor Start-Capacitor Run
- NEMA “56C” Face Mount
- Open Dripproof • Rotation: CCW Pump End • Sealed Ball Bearings
- Sealed Switch Design • “1081” Design • 50°C Ambient • 60 Hz
- 303 Stainless Shaft (56J & 56C) • 304 Brg. Shaft End



SK1072



CT1072

HIGH SERVICE FACTOR (FULL RATED)- STANDARD EFFICIENCY AND “CONSERVATIONIST™” HIGH EFFICIENCY DESIGNS

HP	RPM	Volts	Max. Amps	Service Factor	Frame	Stock Number	Shaft	Approx. “AG”	Notes
1/2	3450	115/230	10.6/5.3	1.6	56C	SK1052	Key	11	
		115/230	8.0/4.0	1.6	56C	CK1052 ★	Key	11	20,\$
		115/230	11.0/5.5	1.6	56J	ST1052	Thd.	10-5/8	
		115/230	8.0/4.0	1.6	56J	CT1052 ★	Thd.	11	20,\$
3/4	3450	115/230	14.6/7.3	1.5	56C	SK1072	Key	11-9/16	
		115/230	11.0/5.5	1.5	56C	CK1072	Key	11-11/16	20,\$
		115/230	15.0/7.5	1.5	56J	ST1072	Thd.	11	
		115/230	11.0/5.5	1.5	56J	CT1072	Thd.	11-11/16	20,\$
1	3450	115/230	17.0/8.5	1.5	56C	SK1102	Key	12-1/8	
		115/230	13.6/6.8	1.4	56C	CK1102	Key	12-1/8	20,\$
		115/230	18.6/9.3	1.5	56J	ST1102	Thd.	12-1/8	
		115/230	13.6/6.8	1.4	56J	CT1102	Thd.	12-1/8	20,\$
1-1/2	3450	115/230	19.4/9.7	1.3	56C	SK1152	Key	12-5/8	20,\$
		115/208-230	19.6/10.4-9.8	1.5	56J	ST1152	Thd.	12-5/8	20,\$
2	3450	230	11.2	1.3	56C	SK1202	Key	13-1/16	20,\$
		208-230	12.6-11.4	1.3	56J	ST1202	Thd.	13-1/16	20,\$
3	3450	230	14.4	1.15	56C	SK1302V1	Key	13-5/8	20,\$
		208-230	14.5-13.8	1.15	56J	ST1302V1	Thd.	14-3/16	20,\$

Notes:

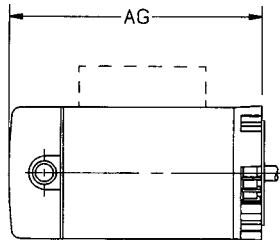
20. \$ Energy Efficient capacitor start, capacitor run “Conservationist™” motor

★ Meets California Energy Commission Appliance Regulations 2008 (Publication Number CEC-400-2006-002-REV1)
www.energy.ca.gov

Important:

1. Total output (HP x service factor) of replacement motor must equal or exceed motor being replaced.
2. The pool motors on this page are **NOT equipped with a Safety Vacuum Release System (SVRS)**. SVRS helps prevent drowning due to body entrapment on underwater drains. In some pool configurations, if a person’s body covers the drain, the person can be trapped by suction. The SVRS turns off the pump if this occurs.

⚠ WARNING Depending on your pool configuration, a SVRS may be required to meet local, state, and federal requirements.



Two Compartment NEMA C-Face Pool Filter Motors • Single Speed

Features:

- Auto Protector • Capacitor Start and Capacitor Start-Capacitor Run
- NEMA “56C” Face Mount
- Open Dripproof • Rotation: CCW Pump End • Sealed Ball Bearings
- Sealed Switch Design • “1081” Design • 50°C Ambient • 60 Hz
- 303 Stainless Shaft (56J & 56C) • 304 Brg. Shaft End



UST1072

LOW SERVICE FACTOR (UP-RATED) - STANDARD EFFICIENCY AND “CONSERVATIONIST™” HIGH EFFICIENCY DESIGNS

HP	RPM	Volts	Max. Amps	Service Factor	Frame	Stock Number	Approx. Shaft	“AG”	Notes
3/4	3450	115/230	11.0/5.5	1.0	56J	UST1072	Thd.	10-5/8	
		115/230	8.0/4.0	1.0	56J	UCT1072 ★	Thd.	11	20,\$
1	3450	115/230	15.0/7.5	1.1	56J	UST1102	Thd.	11	
		115/230	11.0/5.5	1.0	56J	UCT1102	Thd.	11-11/16	20,\$
1-1/2	3450	115/230	18.6/9.3	1.0	56J	UST1152	Thd.	12-1/8	
		115/230	14.6/7.3	1.0	56J	UCT1152	Thd.	12-1/8	20,\$
2	3450	115/208-230	19.6/10.4-9.8	1.1	56J	UST1202	Thd.	12-5/8	20,\$
2-1/2	3450	208-230	12.6/11.4	1.1	56J	UST1252	Thd.	13-1/16	20,\$

Two Compartment NEMA C-Face Pool Filter Motors • Two Speed

Features:

- Auto Protector • Capacitor Start/Capacitor Run • 303 Stainless Steel Threaded Shaft • All Copper Windings
- Open Dripproof • Rotation: CCW Pump End • Sealed Ball Bearings (304 Shaft End)
- Sealed Switch Design • “1081” Design • 40°C Ambient • 60 Hz



STS1072RV1

A. O. Smith NEMA C flange swimming pool filter pump motors are carefully engineered to meet the rugged demands of pool duty. Two sealed ball bearings (with large 304 bearing on shaft end) offer ample capacity for extended life. Bearings are selected for quietness and are lubricated for life with greases specifically chosen for moisture and heat resistant qualities. Aluminum end frames are accurately machined for maximum concentricity and minimum runout.

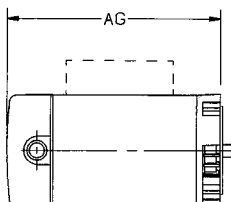
Two-speed motors are shipped less hi/lo switch for remote operation. End cover and switch assembly kit number 1011431-001 available and sold separately.

HP	RPM	Volts	Max. Amps Hi - Lo	Service Factor	Frame	Stock Number	Shaft	Approx. “AG”	Notes
3/4~1/8	3450/1725	230	6.4/1.9	1.5	56J	STS1072R	Thrd	12-1/8	1
3/4~1/10	3450/1725	230	5.4/2.2	1.5	56J	STS1072RV1 ★	Thrd	12-1/8	90,\$
1~1/6	3450/1725	230	8.5/2.5	1.5	56J	STS1102R	Thrd	13-1/16	1,90
1~1/8	3450/1725	230	7.0/2.3	1.5	56J	STS1102RV1 ★	Thrd	12-1/2	90\$
1-1/2~1/4	3450/1725	230	9.0/3.3	1.3	56J	STS1152R ★	Thrd	13-1/16	20,\$
2~1/3	3450/1725	230	11.4/4.1	1.2	56J	STS1202R ★	Thrd	13-3/4	1,20,\$
			11.4/4.1	1.2	56J	STS1202RV1 ★	Thrd	13-3/4	20,\$

Notes:

1. Item to be discontinued when stock is depleted
20. \$ Energy Efficient capacitor start, capacitor run “Conservationist” motor
90. 50 degree C ambient

★ Meets California Energy Commission Appliance Regulations 2008 (Publication Number CEC-400-2006-002-REV1)
www.energy.ca.gov



Important:

1. Total output (HP x service factor) of replacement motor must equal or exceed motor being replaced.
2. The pool motors on this page are **NOT equipped with a Safety Vacuum Release System (SVRS)**. SVRS helps prevent drowning due to body entrapment on underwater drains. In some pool configurations, if a person's body covers the drain, the person can be trapped by suction. The SVRS turns off the pump if this occurs.

⚠ WARNING Depending on your pool configuration, a SVRS may be required to meet local, state, and federal requirements.

NEMA C-Face 3-Phase Pump Motors

Features:

- Ball Bearings • Continuous Duty • Internal Junction Box
- Keyed and Stainless Steel Threaded Shafts • NEMA "56C" Mount
- Open Dripproof • 40°C Ambient • 60 Hz

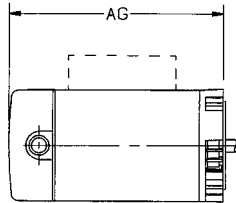


T3052

NEMA C Face mounting bracket, and end frames are die-cast corrosion resistant aluminum, accurately machined for maximum concentricity, and minimum runout. Stator assemblies are press fitted into rolled steel main frames. Double shielded ball bearings, selected for quiet operation, are lubricated for life with greases specifically chosen for moisture and heat resistant qualities.

1/2" x 14 thread tapped opening is provided for conduit fitting. No external junction box required connections made under motor canopy. Motors are supplied with horizontal canopy but are easily converted for vertical operation with the use of optional vertical canopy (#621335-002).

HP	RPM	Volts	Max. Amps	Service Factor	Frame	Stock Number	Shaft	Protector	Approx. "AG"	Notes
1/2	3450	208-230/460	2.7/1.35	1.6	56J	T3052	Thrd	None	8-5/8	
3/4	3450	208-230/460	3.4/1.7	1.5	56C	K3072	Key	None	9-1/8	
		208-230/460	3.4/1.7	1.5	56J	T3072	Thrd	None	9-1/8	
1	3450	208-230/460	4.0/2.0	1.4	56C	K3102	Key	None	9-11/16	
		208-230/460	4.0/2.0	1.4	56J	T3102	Thrd	None	9-11/16	
1-1/2	3450	208-230/460	6.8/3.4	1.3	56C	K3152	Key	None	11-5/16	
		208-230/460	6.8/3.4	1.3	56J	T3152	Thrd	None	11-5/16	
2	3450	208-230/460	8.6/4.3	1.2	56C	K3202	Key	None	11-5/16	
		208-230/460	8.6/4.3	1.2	56J	T3202	Thrd	None	11-5/16	



Important:

1. Total output (HP x service factor) of replacement motor must equal or exceed motor being replaced.
2. The pool motors on this page are **NOT equipped with a Safety Vacuum Release System (SVRS)**. SVRS helps prevent drowning due to body entrapment on underwater drains. In some pool configurations, if a person's body covers the drain, the person can be trapped by suction. The SVRS turns off the pump if this occurs.

⚠ WARNING Depending on your pool configuration, a SVRS may be required to meet local, state, and federal requirements.

Century® C-Face Pool and Spa Pump Motors

Permanent Split Capacitor - Switchless - Single Phase - Dripproof No Base - 3450 RPM 1/2 thru 4 HP

Features:

- Ball Bearings • 50°C Ambient • 60 Hz • Class B Insulation
- Rotation: CCW Pump End • 304 Bearing Shaft End



B126

Centurion® “1081” • Full Rate • High Service Factor • Aluminum NEMA “C” Brackets

HP	RPM	Volts	Service Factor Amps	Service Factor	Frame	Stock Number	Overload Protector	Shaft	“C” Dimension	Notes
1/2	3450	230/115	4.4/8.8	1.60	56C	B120 ★	Auto	Keyed	11.44	
		230/115	4.4/8.8	1.60	56J	B126 ★	Auto	Threaded	11.94	12
3/4	3450	230/115	6.0/12.0	1.50	56C	B121	Auto	Keyed	11.44	
		230/115	6.0/12.0	1.50	56J	B127	Auto	Threaded	12.01	12
1	3450	230/115	7.2/14.4	1.40	56C	B122	Auto	Keyed	11.89	
		230/115	7.2/14.4	1.40	56J	B128	Auto	Threaded	12.14	12
1-1/2	3450	230/115	9.2/18.4	1.30	56C	B123	Auto	Keyed	13.19	
		230/115	9.2/18.4	1.30	56J	B129	Auto	Threaded	13.50	12
2	3450	230/115	10.8/21.6	1.20	56C	B835	Auto	Keyed	13.94	
		230	10.5	1.20	56C	B124	Auto	Keyed	12.55	
		230/115	10.8/21.6	1.20	56J	B836	Auto	Threaded	13.90	12
		230	10.5	1.20	56J	B130	Auto	Threaded	13.10	12
3	3450	230	14.1	1.15	56C	B125	Auto	Keyed	13.65	
		230	14.1	1.15	56J	B131	Auto	Threaded	14.15	12
4	3450	208-230	21.0-19.4	1.25	56Y	B116	Manual	Special	16.78	31,34,63,236

Centurion® SE “1081” • Up Rate • Low Service Factor

HP	RPM	Volts	Service Factor Amps	Service Factor	Frame	Stock Number	Overload Protector	Shaft	“C” Dimension	Notes
3/4	3450	230/115	4.4/8.8	1.00	56J	B227SE ★	Auto	Threaded	12.56	12
1	3450	230/115	6.0/12.0	1.00	56J	B228SE	Auto	Threaded	12.81	12
1-1/2	3450	230/115	7.2/14.4	1.00	56J	B229SE	Auto	Threaded	13.91	12
2	3450	230/115	9.2/18.4	1.00	56J	B230SE	Auto	Threaded	14.31	12
2-1/2	3450	230	10.5	1.00	56J	B231SE	Auto	Threaded	13.81	12

Notes:

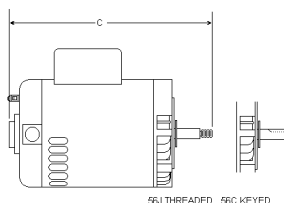
- 12. 303 Stainless steel shaft
- 31. 40 degree C ambient
- 34. Rigid base
- 63. Speck Pump replacement motor
- 236. CCW Rotation facing opposite shaft end

★ Meets California Energy Commission Appliance Regulations 2008 (Publication Number CEC-400-2006-002-REV1) www.energy.ca.gov

Important:

1. Total output (HP x service factor) of replacement motor must equal or exceed motor being replaced.
2. The pool motors on this page are **NOT equipped with a Safety Vacuum Release System (SVRS)**. SVRS helps prevent drowning due to body entrapment on underwater drains. In some pool configurations, if a person's body covers the drain, the person can be trapped by suction. The SVRS turns off the pump if this occurs.

⚠ WARNING Depending on your pool configuration, a SVRS may be required to meet local, state, and federal requirements.



Century® C-Face Pool and Spa Pump Motors

Permanent Split Capacitor – Switchless – Single Phase – Dripproof No Base – 3600 3600/1800 RPM 1/2 thru 3 HP

Features:

- Ball Bearings
- Class B Insulation
- 304 Bearing Shaft End
- 60 Hz
- Rotation: CCW Pump End
- Energy Efficient \$



B638

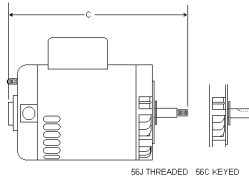
E-Plus® Energy Efficient “1081” • Centurion® Motor • Full Rate • Aluminum NEMA “C” Brackets • 50°C Ambient

HP	RPM	Volts	Service Factor Amps	Service Factor	Frame	Stock Number	Overload Protector	Shaft	“C” Dimension	Notes
1/2	3450	208-230/115	4.0-3.7/7.4	1.60	56C	B656 ★	Auto	Keyed	11.51	1,\$
		208-230/115	4.0-3.7/7.4	1.60	56J	B657 ★	Auto	Threaded	11.95	12,\$
3/4	3450	208-230/115	5.4-5.0/10.0	1.50	56J	B638	Auto	Threaded	12.69	12,\$
1	3450	208-230/115	6.4-5.9/11.8	1.40	56C	B653	Auto	Keyed	12.55	\$
		208-230/115	6.4-5.9/11.8	1.40	56J	B654	Auto	Threaded	13.19	12,\$
1-1/2	3450	208-230/115	8.7-7.8/15.6	1.30	56C	B795	Auto	Keyed	13.19	\$
		208-230/115	8.7-7.8/15.6	1.30	56J	B796	Auto	Threaded	13.55	12,\$
2	3450	208-230	10.4-9.6	1.20	56C	B808	Auto	Keyed	13.65	\$
		208-230	10.4-9.6	1.20	56J	B809	Auto	Threaded	14.15	12,\$
3	3450	208-230	15.0-13.6	1.15	56C	B817	Auto	Keyed	13.65	\$
		208-230	15.0-13.6	1.15	56J	B818	Auto	Threaded	14.15	12,\$

Notes:

1. Item to be discontinued when present stock is depleted
12. 303 Stainless steel shaft

★ Meets California Energy Commission Appliance Regulations 2008
(Publication Number CEC-400-2006-002-REV1)
www.energy.ca.gov



Important:

1. Total output (HP x service factor) of replacement motor must equal or exceed motor being replaced.
2. The pool motors on this page are **NOT equipped with a Safety Vacuum Release System (SVRS)**. SVRS helps prevent drowning due to body entrapment on underwater drains. In some pool configurations, if a person's body covers the drain, the person can be trapped by suction. The SVRS turns off the pump if this occurs.

⚠ WARNING Depending on your pool configuration, a SVRS may be required to meet local, state, and federal requirements.

Century® C-Face Pool and Spa Pump Motors

Permanent Split Capacitor - Switchless - Single Phase - Dripproof No Base - 3600 3600/1800 RPM 1/2 thru 3 HP

Features:

- Ball Bearings
- Class B Insulation
- 304 Bearing Shaft End
- 60 Hz
- Rotation: CCW Pump End
- Energy Efficient \$



B971

Two Speed "1081" • Full Rate • High Service Factor • 40°C Ambient

HP	RPM	Volts	Service Factor Amps	Service Factor	Frame	Stock Number	Overload Protector	Shaft	"C" Dimension	Notes
1/2-.06	3450/1725	115	8.8/3.55	1.60	56C	B970 ★	Auto	Keyed	11.80	\$
		115	8.8/3.55	1.60	56J	B971 ★	Auto	Threaded	12.30	12,\$
3/4-.10	3450/1725	115	11.2/5.0	1.50	56C	B972 ★	Auto	Keyed	11.80	\$
		115	11.2/5.0	1.50	56J	B973 ★	Auto	Threaded	12.30	12,\$
1-.12	3450/1725	230	6.3/2.3	1.40	56C	B974 ★	Auto	Keyed	12.05	\$
		230	6.3/2.3	1.40	56J	B975 ★	Auto	Threaded	13.05	12,\$
1-1/2-.20	3450/1725	230	8.9/3.1	1.30	56C	B976 ★	Auto	Keyed	12.54	\$
		230	8.9/3.1	1.30	56J	B977 ★	Auto	Threaded	13.05	12,\$
		115	14.6/4.4	1.10	56J	B969 ★	Auto	Threaded	13.54	12,63,90,\$
2-.25	3450/1725	230	10.6/3.2	1.20	56C	B978 ★	Auto	Keyed	13.04	\$
		230	10.6/3.2	1.20	56J	B979 ★	Auto	Threaded	13.55	12,\$
3-.38	3450/1725	230	13.8/4.0	1.15	56J	B966 ★	Auto	Threaded	14.29	12,\$

High Speed Switchless, Low Speed Microswitch • Aluminum "C" Bracket • Hi-Lo Toggle Switch available (P/N 17590450)

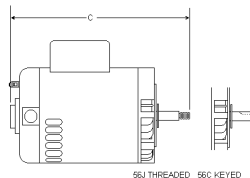
E-Plus® Energy Efficient "1081" • Centurion® Motor • Full Rate • Cast Iron NEMA "C" Brackets • 50°C Ambient

HP	RPM	Volts	Service Factor Amps	Service Factor	Frame	Stock Number	Overload Protector	Shaft	"C" Dimension	Notes
3/4	3450	208-230/115	5.4-5.0/10.0	1.50	56C	B631	Auto	Keyed	12.62	12,\$
1	3450	208-230/115	6.4-5.9/11.8	1.40	56C	B723	Auto	Keyed	12.80	12,\$
1-1/2	3450	208-230/115	8.7-7.8/15.6	1.30	56C	B750	Auto	Keyed	13.30	12,\$
2	3450	208-230	10.4-9.6	1.20	56C	B772	Auto	Keyed	14.05	12,\$
3	3450	208-230	15.0-13.6	1.15	56C	B774	Auto	Keyed	14.05	12,\$

Notes:

- 12. 303 Stainless steel shaft
- 63. Speck Pump replacement motor
- 90. 50 degree C ambient

★ Meets California Energy Commission Appliance Regulations 2008 (Publication Number CEC-400-2006-002-REV1) www.energy.ca.gov



Important:

1. Total output (HP x service factor) of replacement motor must equal or exceed motor being replaced.
2. The pool motors on this page are **NOT equipped with a Safety Vacuum Release System (SVRS)**. SVRS helps prevent drowning due to body entrapment on underwater drains. In some pool configurations, if a person's body covers the drain, the person can be trapped by suction. The SVRS turns off the pump if this occurs.

⚠ WARNING Depending on your pool configuration, a SVRS may be required to meet local, state, and federal requirements.

Two Compartment Square Flange Pool Filter Motors

Single Speed & Energy Efficient

Used on many Sta-Rite, Red Jacket, Pac Fab and American Products.

Features:

- Auto Protector • Capacitor Start
- Class B Insulation • Open Dripproof
- Rotation: CCW Pump End • 303 Stainless Steel Threaded Shaft
- Sealed Ball Bearings • 50°C Ambient • 60 Hz • UL1081



SQ1032



SQ1152

HIGH SERVICE FACTOR (FULL RATED)

HP	RPM	Volts	Max. Amps	Service Factor	Frame	Stock Number	Approx. "AG"	Notes
1/3	3450	115/230	9.9/5.0	1.95	48Y	SQ1032	11-1/8	
1/2	3450	115/230	13.4/6.7	1.9	48Y	SQ1052	11-1/2	
		115/230	9.6/4.8	1.9	48Y	QC1052 ★	10-7/8	20,\$
3/4	3450	115/230	15.3/7.6	1.65	48Y	SQ1072	12-1/8	
		115/230	12.6/6.3	1.65	48Y	QC1072	11-1/4	20,\$
1	3450	115/230	19.2/9.6	1.65	48Y	SQ1102	13-1/8	
		115/208-230	16.0/8.0	1.65	48Y	QC1102	11-7/8	20,\$
1-1/2	3450	230	10.4	1.47	48Y	SQ1152	13-1/4	20,\$
2	3450	230	11.2	1.3	48Y	SQ1202	13-7/8	20,\$
3	3450	230	15.4	1.15	56Y	SQ1302V1	14	20,\$

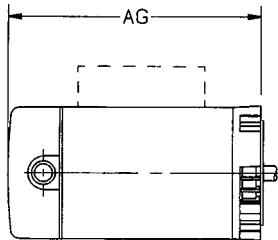
LOW SERVICE FACTOR (UP-RATED)

HP	RPM	Volts	Max. Amps	Service Factor	Frame	Stock Number	Approx. "AG"	Notes
1/2	3450	115/230	9.9/5.0	1.3	48Y	USQ1052	11-1/8	
3/4	3450	115/230	13.4/6.7	1.27	48Y	USQ1072	11-1/2	
		115/230	9.6/4.8	1.27	48Y	UQC1072 ★	10-7/8	20,\$
1	3450	115/230	15.3/7.6	1.25	48Y	USQ1102	12-1/8	
		115/230	12.6/6.3	1.25	48Y	UQC1102	11-1/4	20,\$
1-1/2	3450	115/230	19.2/9.6	1.1	48Y	USQ1152	13-1/8	
		115/230	16.0/8.0	1.1	48Y	UQC1152	13-1/4	20,\$
2	3450	230	10.4	1.1	48Y	USQ1202	13-1/4	20,\$
2-1/2	3450	230	11.2	1.0	48Y	USQ1252	13-7/8	20,\$

Notes:

20. \$ Energy Efficient capacitor start, capacitor run "Conservationist" motor

★ Meets California Energy Commission Appliance Regulations 2008 (Publication Number CEC-400-2006-002-REV1) www.energy.ca.gov



Important:

1. Total output (HP x service factor) of replacement motor must equal or exceed motor being replaced.
2. The pool motors on this page are **NOT equipped with a Safety Vacuum Release System (SVRS)**. SVRS helps prevent drowning due to body entrapment on underwater drains. In some pool configurations, if a person's body covers the drain, the person can be trapped by suction. The SVRS turns off the pump if this occurs.

⚠ WARNING Depending on your pool configuration, a SVRS may be required to meet local, state, and federal requirements.

Two Compartment Square Flange Pool Motors • Two-Speed

Used on many Sta-Rite, Red Jacket, and Sears Jet and Pool Pumps.

Features:

- All Copper Windings • Auto Protector - Single Phase
- Open Dripproof • Rotation: CCW Pump End • Class B Insulation
- 303 Stainless Steel Threaded Shaft • 50°C Ambient • 60 Hz
- Energy Efficient Capacitor Start Low Speed, PSC High Speed • UL1081



SQS1072R

SQS1152R

Two-speed motors are shipped less hi/lo switch for remote operation.
End cover and switch assembly kit number 615332 available and sold separately.

HIGH SERVICE FACTOR (FULL RATED)

HP	RPM	Volts	Amps Hi - Lo	S.F.	Frame	Stock Number	Approx. "AG"	Notes
3/4 ~1/8	3450/1725	115	13.0/4.2	1.65	48Y	SQL1072R ★	12-5/8	\$
		230	6.1/2.1	1.60	48Y	SQS1072R ★	12-5/8	\$
1~1/6	3450/1725	230	7.7/2.8	1.65	48Y	SQS1102R ★	13-13/16	\$
1-1/2~1/4	3450/1725	230	10.0/3.0	1.47	48Y	SQS1152R ★	13-9/16	\$
2~1/3	3450/1725	230	11.3/3.3	1.3	48Y	SQS1202R ★	13-13/16	\$

LOW SERVICE FACTOR (UP-RATED)

HP	RPM	Volts	Amps Hi - Lo	S.F.	Frame	Stock Number	Approx. "AG"	Notes
1~1/6	3450/1725	230	6.1/2.1	1.25	48Y	UQS1102R ★	12-5/8	\$
1-1/2~1/4	3450/1725	230	9.5/2.5	1.1	48Y	UQS1152R ★	13-13/16	\$
2~1/3	3450/1725	230	10.0/3.0	1.1	48Y	UQS1202R ★	13-9/16	\$



Q3052

THREE PHASE SQUARE FLANGE PUMP MOTORS

Features:

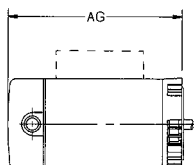
All Copper Windings • Open Dripproof • 303 Stainless Steel Threaded Shaft • Sealed Ball Bearings • 50°C Ambient • 60 Hz

HP	RPM	Volts	Max. Amps	Service Factor	Frame	Stock Number	Overload Protector	Approx. "AG"	Notes
1/2	3450	208-230/460	3.0/1.5	1.9	48Y	Q3052	None	9-7/8	
3/4	3450	208-230/460	3.6/1.8	1.65	48Y	Q3072	None	10-3/8	
1	3450	208-230/460	4.7/2.35	1.65	48Y	Q3102	None	10-7/8	
1-1/2	3450	208-230/460	6.8/3.4	1.47	48Y	Q3152	None	11-7/8	
2	3450	208-230/460	8.5/4.25	1.3	48Y	Q3202	None	12-5/8	
3	3450	200-230/460	9.7/4.9	1.15	56Y	Q3302V1	None	12	31

Notes:

31. 40 degree C ambient

★ Meets California Energy Commission Appliance Regulations 2008
(Publication Number CEC-400-2006-002-REV1)
www.energy.ca.gov



Important:

1. Total output (HP x service factor) of replacement motor must equal or exceed motor being replaced.
2. The pool motors on this page are **NOT equipped with a Safety Vacuum Release System (SVRS)**. SVRS helps prevent drowning due to body entrapment on underwater drains. In some pool configurations, if a person's body covers the drain, the person can be trapped by suction. The SVRS turns off the pump if this occurs.

⚠ WARNING Depending on your pool configuration, a SVRS may be required to meet local, state, and federal requirements.

Century® Pool and Spa Pump Motors Square Flange

Permanent Split Capacitor - Switchless - Single Phase - Dripproof No Base - 3600 and 3600/1800 RPM 1/2 thru 3 HP

Features:

- Ball Bearings
- 50°C Ambient
- Rotation: CCW Pump End
- \$ Energy Efficient
- 60 Hz
- Class B Insulation
- Stainless Steel Shafts



B2661



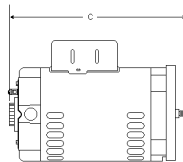
B852

HP	RPM	Volts	Service Factor Amps	Service Factor	Frame	Stock Number	Shaft	Overload Protector	"C" Dim.	Notes
Centurion® "1081" • Full Rate • High Service Factor										
1/2	3450	230/115	5.4/10.8	1.95	56Y	B846 ★	Threaded	Auto	12.4	
3/4	3450	230/115	7.1/14.2	1.65	56Y	B847	Threaded	Auto	12.4	
1	3450	230/115	8.0/16.0	1.65	56Y	B848	Threaded	Auto	12.8	
1-1/2	3450	230/115	10.5/21.0	1.50	56Y	B858	Threaded	Auto	14.4	
		230	10.0	1.50	56Y	B849	Threaded	Auto	13.4	
2	3450	230	11.5	1.30	56Y	B748	Threaded	Auto	13.4	
Centurion® "1081" • Up-Rate • Low Service Factor										
1/2	3450	230/115	4.0/8.0	1.30	56Y	B856 ★	Threaded	Auto	12.4	1
3/4	3450	230/115	5.4/10.8	1.25	56Y	B852 ★	Threaded	Auto	12.4	
1	3450	230/115	7.1/14.2	1.25	56Y	B853	Threaded	Auto	12.4	
1-1/2	3450	230/115	8.0/16.0	1.10	56Y	B854	Threaded	Auto	12.8	
2	3450	230/115	11.2/22.4	1.10	56Y	B859	Threaded	Auto	14.4	
		230	10.0	1.10	56Y	B855	Threaded	Auto	13.4	
2-1/2	3450	230	11.5	1.04	56Y	B840	Threaded	Auto	13.4	
Centurion® II "1081" • Up-Rate • Low Service Factor										
1/2	3450	230/115	3.6/7.2	1.30	48Y	B856SM ★	Threaded	Auto	12.3	1,158,235
E-Plus® Energy Efficient "1081" • New Centurion • Full Rate										
1/2	3450	208-230/115	4.5-4.4/8.8	1.90	56Y	B845 ★	Threaded	Auto	12.4	\$
3/4	3450	115/208-230	6.0-5.6/11.2	1.67	56Y	B2661	Threaded	Auto	13.1	
1	3450	115/208-230	7.8-7.4/14.8	1.65	56Y	B2841	Threaded	Auto	13.4	
1-1/2	3450	208-230	9.6-8.8	1.47	56Y	B2842	Threaded	Auto	13.9	
2	3450	208-230	11.0-10.2	1.30	56Y	B2843	Threaded	Auto	14.4	
3	3450	208-230	15.0-13.6	1.15	56Y	B844	Threaded	Auto	14.4	1,\$
		208-230	15.0-13.6	1.15	56Y	B844A	Threaded	Auto	14.4	1,352,\$
		208-230	15.0-13.6	1.15	56Y	B2844	Threaded	Auto	14.4	

Notes:

1. Item to be discontinued when present stock is depleted
158. Open motor construction, overload protector mounted at 12 o'clock
235. Centurion II motors are switchless. Designed in a 48-frame shell diameter that is .80 inches smaller in diameter than the 56-frame Centurion and Centurion SE designs.
352. Pentair, almond paint, direct replacement motor

★ Meets California Energy Commission Appliance Regulations 2008 (Publication Number CEC-400-2006-002-REV1)
www.energy.ca.gov



Important:

1. Total output (HP x service factor) of replacement motor must equal or exceed motor being replaced.
2. The pool motors on this page are **NOT equipped with a Safety Vacuum Release System (SVRS)**. SVRS helps prevent drowning due to body entrapment on underwater drains. In some pool configurations, if a person's body covers the drain, the person can be trapped by suction. The SVRS turns off the pump if this occurs.

⚠ WARNING Depending on your pool configuration, a SVRS may be required to meet local, state, and federal requirements.

Century® Pool and Spa Pump Motors Square Flange

New from A. O. Smith – High Efficiency two-speed motors.

New Centurion High Efficiency two-speed motors have PSC (Permanent Split Capacitor) high speeds and PSC low speeds. The PSC high speeds have always saved energy but until now the low speeds were standard efficient. New Centurion two-speed motors have PSC low speeds which improves efficiency up to 20%.

New Centurion High Efficiency Two-Speed Pool and Spa Motors

Features:

- Ball Bearing
- Class B Insulation
- 50°C Ambient
- \$ High Efficient High and Low Speed
- Open Dripproof
- Permanent Split Capacitor
- Rotation: CCW Pump End
- Single Phase
- 303 Stainless Steel Shafts



B2980

TWO-SPEED - "1081" - PSC ENERGY EFFICIENT HIGH SPEED - PSC ENERGY EFFICIENT LOW SPEED - SQUARE FLANGE - FULL RATE

HP	RPM	Volts	Service Factor	Service Amps	Service Factor	Frame	Stock Number	Shaft	Overload Protector	Length Includ. Shaft	Notes
3/4~.10	3450/1725	230	6.0/1.0	1.67	56Y	B2980 ★	Threaded	Auto	13.1	\$	
3/4~.10	3450/1725	115	12.4/2.2	1.67	56Y	B2981 ★	Threaded	Auto	13.1	\$	
1~.13	3450/1725	230	7.4/1.4	1.65	56Y	B2982 ★	Threaded	Auto	13.4	\$	
1-1/2~.19	3450/1725	230	10.0/1.6	1.47	56Y	B2983 ★	Threaded	Auto	13.9	\$	
2~.25	3450/1725	230	11.0/1.8	1.30	56Y	B2984 ★	Threaded	Auto	14.4	\$	
2~.33	3450/1725	230	11.0/4.0	1.30	56Y	B984 ★	Threaded	Auto	14.3	\$	
		230	10.0/3.5	1.10	56Y	B985 ★	Threaded	Auto	13.8	107,\$	

★ Meets California Energy Commission Appliance Regulations 2008

Permanent Split Capacitor - Switchless - Single Phase - Dripproof No Base - 3600 and 3600/1800 RPM 1/2 thru 3 HP

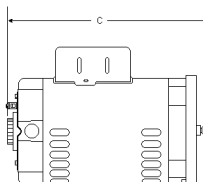
Features:

- Ball Bearing
- Class B Insulation
- Energy Efficient \$
- 60 Hz
- Rotation: CCW Pump End
- 50°C Ambient
- Stainless Steel Shafts

HP	RPM	Volts	Service Factor	Service Amps	Service Factor	Frame	Stock Number	Shaft	Overload Protector	"C" Dim.	Notes
E-Plus® Energy Efficient "1081" • Centurion SE • Up-Rate											
3/4	3450	208-230/115	4.5-4.4/8.8	1.25	56Y	B862SE ★	Threaded	Auto	13.6	1,158,\$	
2	3450	208-230	9.6-8.8	1.10	56Y	B865SE	Threaded	Auto	15.0	1,\$	

Notes:

1. Item to be discontinued when stock is depleted
107. Uprated – Low Service Factor
158. Open motor construction, overload protector mounted at 12 o'clock



Important:

1. Total output (HP x service factor) of replacement motor must equal or exceed motor being replaced.
2. The pool motors on this page are **NOT equipped with a Safety Vacuum Release System (SVRS)**. SVRS helps prevent drowning due to body entrapment on underwater drains. In some pool configurations, if a person's body covers the drain, the person can be trapped by suction. The SVRS turns off the pump if this occurs.

⚠ WARNING Depending on your pool configuration, a SVRS may be required to meet local, state, and federal requirements.

Above Ground Swimming Pool Pump Motors

Jetted Tub/Spa/Above Ground Swimming Pool Pump Motors - Split Phase, Capacitor Start & PSC Single-phase - Drip-proof - Ball Bearing - Rigid Base & No Base - 3450 and 3450/1725 RPM - 1/2 thru 4 HP SP

Features:

- 12 & 3 O'clock Conduit Entries
- 40°C Ambient
- Class B Insulation
- Rotation: CCW Pump End
- Through Bolt Mount
- 48/56 Base Mounting
- 3-1/2" Shaft Height
- Four Thru Bolts on a 5.146 Bolt Circle



Applications: Spa, above ground swimming pool and jetted tub pumps.

Optional Flex-48 Accessories: Airswitch (#17800901), Single-speed Toggle Switch Assy. - On/Off (#18374501), Day/Night Controller (#18602400), Two-speed Toggle Switch Assy. - Lo/Off/Hi (#18313301)

Century Flex-48 W/Stainless Steel Shaft & Ball Bearings • "1081" • "1795" • "1563" • Rigid Base

HP	RPM	Volts	Hz	Full Load Amps	Service Factor	Frame	Stock Number	Shaft	Overload Protector	"C" Dim.	Notes
1/2	3450	115	60	7.2	1.0	48Y	BN23SS	Threaded	Auto	11.08	
3/4	3450	115	60	9.8	1.0	48Y	BN24SS	Threaded	Auto	11.08	1
		115	60	9.8	1.0	48Y	BN24V1	Threaded	Auto	11.08	90
1	3450	115	60	12.0	1.0	48Y	BN25SS	Threaded	Auto	11.58	1
		115	60	12.0	1.0	48Y	BN25V1	Threaded	Auto	11.58	
1-1/2	3450	230/115	60	8.0/16.0	1.0	48Y	BN35SS	Threaded	Auto	12.08	45
		115	60	17.0	1.0	48Y	BV35SS	Threaded	Auto	12.08	1
		115	60	17.0	1.0	48Y	BV35V1	Threaded	Auto	12.08	
2	3450	230/115	60	10.0/20.0	1.0	48Y	BN40SS	Threaded	Auto	13.33	45

Century Flex 48 LASAR® Line (Low Amp Start and Run) • Two-speed • "1081" • "1563" • Rigid Base

3/4~10	3450/1725	115	60	8.8/2.6	1.0	48Y	BN36	Threaded	Auto	12.08	
1~12	3450/1725	115	60	11.0/2.9	1.0	48Y	BN37	Threaded	Auto	12.08	45
1-1/2~25	3450/1725	115	60	16.4/4.4	1.0	48Y	BN50	Threaded	Auto	12.83	45
1-1/2~18	3450/1725	230	60	8.0/2.6	1.0	48Y	BN34	Threaded	Auto	12.83	45
2~25	3450/1725	230	60	10.5/2.6	1.0	48Y	BN51	Threaded	Auto	13.33	45

Century Flex 48 LASAR-XL • Extra Low Running Amps • Two-speed • Rigid Base

1~12	3450/1725	115	60	10.3/3.1	1.0	48Y	BN38	Threaded	Auto	12.83	45
1-1/2~18	3450/1725	115	60	13.8/3.8	1.0	48Y	BN60 ★	Threaded	Auto	12.83	68,145,\$
2~25	3450/1725	230	60	8.5/2.8	1.0	48Y	BN61 ★	Threaded	Auto	13.33	68,145,\$
3~38	3450/1725	230	60	12.0/3.5	1.0	48Y	BN62 ★	Threaded	Auto	14.33	68,90,145,\$
4.0~42 SPL	3450/1725	208-230	60	12.0/3.5	1.0	48Y	BN63 ★	Threaded	Auto	14.33	68,90,145,\$

Notes:

- Item to be discontinued when stock is depleted
45. Capacitor start
68. PSC Motor
90. 50°C Ambient
145. Run capacitor mounted on motor shell

★ Meets California Energy Commission Appliance Regulations 2008 (Publication Number CEC-400-2006-002-REV1) www.energy.ca.gov

Continues on the next page

Important:

The pool motors on this page are **NOT** equipped with a **Safety Vacuum Release System (SVRS)**. SVRS helps prevent drowning due to body entrapment on underwater drains. In some pool configurations, if a person's body covers the drain, the person can be trapped by suction. The SVRS turns off the pump if this occurs.

⚠ WARNING Depending on your pool configuration, a SVRS may be required to meet local, state, and federal requirements.

Above Ground Swimming Pool Pump Motors

Jetted Tub/Spa/Above Ground Swimming Pool Pump Motors – Split Phase, Capacitor Start & PSC Single-phase – Dripproof – Ball Bearing – Rigid Base & No Base – 3450 and 3450/1725 RPM – 1/2 thru 4 HP SP



Hoffinger Replacement (Doughboy/Lomart) • No Base

HP	RPM	Volts	Hz	Full Load Amps	Service Factor	Frame	Stock Number	Shaft	Overload Protector	“C” Dim.	Notes
1	3450	115	60	10.0	1.0	48Y	BV90	Threaded	Auto	10.45	
		115	60	9.0	1.0	48Y	BV91	Threaded	Auto	10.22	285

Notes:

285. 3/8-16, Left hand threads, CWPE rotation

★ Meets California Energy Commission Appliance Regulations 2008 (Publication Number CEC-400-2006-002-REV1) www.energy.ca.gov

Sta-Rite Direct Replacement Spa Motors

Features:

- Open Construction
- Threaded Shaft
- 1.0 Service Factor
- Rotation: CCW Pump End
- Rigid Base
- Through Bolt Mount
- \$ Energy Efficient
- 2-Speed (Capacitor Start Low Speed, PSC High Speed)
- Sealed Ball Bearings
- 50°C Ambient
- Auto Protector



Four Thru Bolts on a 5.146 Bolt Circle Replacement Motor for Dimension One, Hydroquip, GPM Industries, Hawkeye, Marquis and Master Spas

HP	RPM	Volts	Amps	Frame	Stock Number	Insulation Class	Approx. “AG”	Dim. “BX”	Notes
1.0-.12	3450/1725	115	10.4/3.6	56Z	SDS1102 ★	B	10.30	8.85	\$
1.5-.19	3450/1725	230	7.2/2.4	56Z	SDS1152 ★	F	10.79	9.34	\$
2.0-.25	3450/1725	230	8.5/3.0	56Z	SDS1202 ★	F	11.42	9.98	\$
2.5-.25	3450/1725	230	10.7/3.0	56Z	SDS1252 ★	F	10.67	9.23	\$
3.0-.38	3450/1725	230	12.0/3.7	56Z	SDS1302 ★	F	10.92	9.48	\$

Note:

When crossing to an original equipment A. O. Smith Motor, use the Quick Cross Reference table. Find the amps and model number of the OEM motor on the motor nameplate. Find the equivalent amps and model number on the Quick Cross Reference table below. The replacement is the stock number listed in the “Use” column. The horsepower and service factor may not be the same, but the motors are the same.

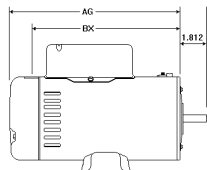
QUICK CROSS REFERENCE BY AMPS AND MOTOR MODEL NUMBER		
Name Plate Amps	Name Plate Model No.	Use Stock No.
10.4/3.6	K48L2A1	SDS1102
7.2/2.4	K48M2A4	SDS1152
8.5/3.0	K48N2A5	SDS1202
10.7/3.0	K48N2A4C2	SDS1252
12.0/3.7	K48P2A1	SDS1302

★ Meets California Energy Commission Appliance Regulations 2008 (Publication Number CEC-400-2006-002-REV1) www.energy.ca.gov

Important:

The pool motors on this page are **NOT equipped with a Safety Vacuum Release System (SVRS)**. SVRS helps prevent drowning due to body entrapment on underwater drains. In some pool configurations, if a person’s body covers the drain, the person can be trapped by suction. The SVRS turns off the pump if this occurs.

⚠ WARNING Depending on your pool configuration, a SVRS may be required to meet local, state, and federal requirements.



Century® Swimming Pool Pump Motors

Squirrel Cage (Three Phase) - Dripproof - 3600/3000 RPM - 1/2 thru 3 HP

Features:

- Ball Bearings
- 40°C Ambient
- Class A or B Insulation
- Cast Iron NEMA "C" Bracket
- 303 Stainless Steel Shaft
- Reversible (Three Phase)
- 50/60 Hz



H281

60/50 Hz • Three Phase "1081" • Full Rate • High Service Factor

HP	RPM	Volts	Service Factor Amps@ 60 Hz	Service Factor	Frame	Stock Number	Shaft	Overload Protector	Insul. Class	"C" Dim.	Notes
1/2	3450	208-230/460	2.1-2.4/1.2	1.60	56C	H281	Keyed	None	A	11.87	282
		208-230/460	2.1-2.4/1.2	1.60	56J	H282	Threaded	None	A	12.05	282
3/4	3450	208-230/460	3.7-3.6/1.8	1.50	56C	H450	Keyed	None	A	12.80	282
		208-230/460	3.7-3.6/1.8	1.50	56J	H451	Threaded	None	A	12.12	282
1	3450	208-230/460	4.3-4.0/2.0	1.40	56C	H513	Keyed	None	A	12.62	282
		208-230/460	4.3-4.0/2.0	1.40	56J	H514	Threaded	None	A	12.12	282
1-1/2	3450	208-230/460	5.9-5.6/2.8	1.30	56C	H616	Keyed	None	A	13.24	282
		208-230/460	5.9-5.6/2.8	1.30	56J	H617	Threaded	None	A	12.62	282
2	3450	208-230/460	7.0-6.6/3.3	1.20	56C	H704	Keyed	None	A	13.62	282
		208-230/460	7.0-6.6/3.3	1.20	56J	H705	Threaded	None	A	13.12	282
3	3450	208-230/460	9.6-9.2/4.6	1.15	56C	H740	Keyed	None	B	13.30	257
		208-230/460	9.6-9.2/4.6	1.15	56J	H741	Threaded	None	B	13.12	257

Century® Pool Cleaner Replacement Pump Motors

Permanent Split Capacitor - Switchless - Single Phase - Dripproof

No Base & Rigid Base - 3600 RPM

Features:

- Ball Bearings
- 40°C Ambient
- Class B Insulation
- CW Non-Reversible
- 303 Stainless Steel Shaft
- "1081" Features
- Aluminum Adapter Bracket
- 60 Hz



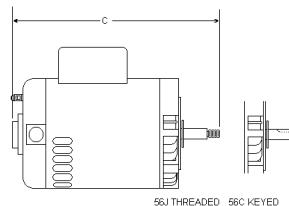
B662 & B663

Applications: Replacement motor for Arneson "Pool Sweep," Polaris "Vac-Sweep" and Letro "Jet Vac" brand pool cleaners.

HP	RPM	Volts	Service Factor	Service Amps	Service Factor	Frame	Stock Number	Shaft	Base	Mount	Overload Protector	"C" Dim.	Brand	Notes
3/4	3450	230/115	6.4/12.8	1.50	56CZ	B625	Threaded	None	Horizontal	Auto	14.03	Polaris	222	
		230/115	6.0/12.0	1.50	56Y	B662	Threaded	Rigid	Horizontal	Auto	11.74	Arneson	12	
		230/115	6.0/12.0	1.50	56Y	B663	Threaded	None	Vertical	Auto	10.89	Arneson	12	
		230/115	6.0/12.0	1.50	56Y	B667	Threaded	Rigid	Horizontal	Auto	12.97	Letro	12,247	
		230/115	6.5/13.0	1.50	56CZ	B668	Threaded	None	Horizontal	Auto	13.87	Letro	246	

Notes:

- 12. 303 Stainless steel shaft
- 222. Does not have Aluminum Adapter Bracket
- 246. B668 fits pump #LA01N manufactured March 1997 to present
- 247. B667 fits pump #LA01 manufactured March 1997 and prior
- 257. 60 Hz, only
- 282. 3450 RPM for 60 Hz and 2875 RPM for 50 Hz



Important:

1. Total output (HP x service factor) of replacement motor must equal or exceed motor being replaced.
2. The pool motors on this page are **NOT equipped with a Safety Vacuum Release System (SVRS)**. SVRS helps prevent drowning due to body entrapment on underwater drains. In some pool configurations, if a person's body covers the drain, the person can be trapped by suction. The SVRS turns off the pump if this occurs.

⚠ WARNING Depending on your pool configuration, a SVRS may be required to meet local, state, and federal requirements.

Pool Cleaner (Booster Pump) motors are not included in the California Energy Commission Appliance Regulations 2006 (Publication Number CEC 400-2006-002 REV 1)

Century® Purex Replacement Pump Motors

Horizontal - Dripproof - No Base - 60 and 50 Hz - 3450 and 3450/2850 RPM - 5 thru 20 HP

Features: Ball Bearings • 40°C Ambient • Service Factor 1.15 • Reversible • External Slinger

Applications: Hydrotech (Purex) East Side “L” Series and “C” Series commercial pump.



HP	RPM	Volts	Hertz	Full Load Amps	Frame	Insul Class	Stock Number	Overload	“C” Dim.	Efficiency	Notes
Single Phase • Capacitor Start											
5	3450	230	60	25.6	184TY	B	V214	None	15.7	77.0	153
		230	60	25.6	184TY	B	V220	None	15.8	77.0	152
Three Phase											
5	3450	208-220/440	60	14.0-13.5/6.75	182TY	F	R237	None	16.2	81.0	153
		208-220/440	60	14.0-13.5/6.75	182TY	F	R236	None	15.0	81.0	152
7-1/2	3450	208-220/440	60	21.6-19.4/9.7	184TY	F	R232	None	14.7	82.0	153
10	3450	208-220/440	60	28.0-26.0/13.0	213TY	B	R338	None	19.4	87.5	153
15	3450	208-220/440	60	40.0-38.0/19.0	215TY	F	R339	None	21.4	88.6	153

Notes:

152. Pump Series: L (threaded)

153. Pump Series: C (keyed)

Centurion® Square Flange Pool and Spa Pump Motors

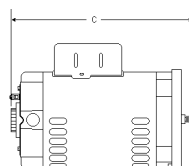
Squirrel Cage - Three Phase - Dripproof - No Base - 3600 RPM - 1/2 thru 3 HP

Features:

Ball bearings • 60 Hz • 50°C Ambient • Class B Insulation • 303 Stainless Steel Threaded Shafts



HP	RPM	Volts	Service Factor Amps@ 60 Hz	Service Factor	Frame	Stock Number	Shaft	Overload Protector	“C” Dim.	Notes
1/2	3450	208-230/460	3.2-3.0/1.5	1.90	56Y	H491	Threaded	None	12.2	
3/4	3450	208-230/460	3.8-3.6/1.8	1.65	56Y	H492	Threaded	None	12.8	
1	3450	208-230/460	5.0-4.6/2.3	1.65	56Y	H635	Threaded	None	13.2	
1-1/2	3450	208-230/460	6.4-5.8/2.9	1.47	56Y	H636	Threaded	None	13.4	
2	3450	208-230/460	7.1-6.8/3.4	1.30	56Y	H637	Threaded	None	13.9	
3	3450	208-230/460	9.0-8.6/4.3	1.15	56Y	H755	Threaded	None	13.9	



Important:

1. Total output (HP x service factor) of replacement motor must equal or exceed motor being replaced.
2. The pool motors on this page are **NOT equipped with a Safety Vacuum Release System (SVRS)**. SVRS helps prevent drowning due to body entrapment on underwater drains. In some pool configurations, if a person’s body covers the drain, the person can be trapped by suction. The SVRS turns off the pump if this occurs.

⚠ WARNING Depending on your pool configuration, a SVRS may be required to meet local, state, and federal requirements.

Century® Pentair/Pac Fab Replacement Pump Motors

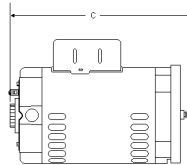
Square Flange - Horizontal - Dripproof - No Base - 60 Hz

Features: Ball Bearings • 40°C Ambient • Class B Insulation



B1000

HP	RPM	Volts	Hertz	Full Load Amps	Service Factor	Frame	Stock Number	Pac Fab Number	"C" Dim.	Notes
Single Phase PSC "1081"										
5	3450	208-230	60	21.0-19.4	1.0	56Y	B1000	35-5705	14.9	
Three Phase "1081"										
3	3450	208-230/460	60	11.0-10.4/5.2	1.15	56Y	H994	35-5398	13.9	
5	3450	208-230/460	60	13.4-13.4/6.7	1.0	56Y	H995	35-5704	14.9	



Century® Waterway Replacement Pump Motors

Dripproof - 60 HZ - Single Phase - Rigid Base - 6-1/2" Diameter - 3-1/2" Shaft Height

Features:

- Ball Bearings
- Auto Protector
- 50°C Ambient
- Permanent Split Capacitor
- 3/8-16 UNC-2A Threads Includes Slinger
- Four Thru Bolts on a 5.812 Bolt Circle



B232

HP-SPL	RPM	Volts	Full Load Amps	Frame	Stock Number	Insul. Class	"C" Dim.	Waterway Number	Notes
1.0~18	3450/1725	230	6.4/2.6	56Y	B232 ★	F	10.87	3720621	108,\$
2.0~25	3450/1725	230	8.0/3.0	56Y	B233 ★	F	11.87	3721021	108,\$
3.0~30	3450/1725	230	10.0/3.5	56Y	B234 ★	F	12.12	3721421	108,\$
4.0~50	3450/1725	230	12.0/4.4	56Y	B235 ★	F	13.37	3721621	108,\$
5.0~63	3450/1725	230	16.4/4.8	56Y	B236 ★	F	13.37	3722021	108,\$
4.0	3450	230	12.0	56Y	B237	B	12.62	3711821	
5.0	3450	230	16.4	56Y	B238	B	13.37	3712021	

Notes:

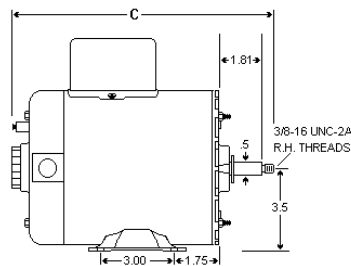
108. Two speed motor

★ Meets California Energy Commission Appliance Regulations 2008 (Publication Number CEC-400-2006-002-REV1) www.energy.ca.gov

Important:

1. Total output (HP x service factor) of replacement motor must equal or exceed motor being replaced.
2. The pool motors on this page are **NOT equipped with a Safety Vacuum Release System (SVRS)**. SVRS helps prevent drowning due to body entrapment on underwater drains. In some pool configurations, if a person's body covers the drain, the person can be trapped by suction. The SVRS turns off the pump if this occurs.

⚠ WARNING Depending on your pool configuration, a SVRS may be required to meet local, state, and federal requirements.



Century® Hayward Northstar Replacement Pump Motors

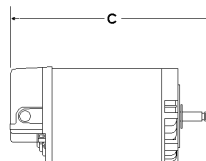
NEMA C-Face - Dripproof - No Base - 60 Hz - Energy Efficient

Features:

- Ball Bearings
- 50°C Ambient
- 303 Stainless Steel Shaft
- Class B Insulation
- 60 Hz
- Low Noise
- Switchless
- E-Coated Main Frame for Superior Corrosion Resistance
- Cool Running for Longer Winding Life



HP	RPM	Volts	Full Load Amps	Service Factor	Frame	Stock Number	Industry Number	"C" Dim.	Notes
Full Rated									
3/4	3450	208-230/115	6.0-5.5/11.0	1.85	56J	SN1072	SP1607Z1BNSC	13.10	\$
1	3450	208-230/115	8.5-7.8/15.6	1.85	56J	SN1102	SP1610Z1BNSC	13.35	\$
1-1/2	3450	208-230/115	11.0-10.2/20.4	1.60	56J	SN1152	SP1615Z1BNSC	13.85	\$
2	3450	208-230	13.0-11.8	1.35	56J	SN1202	SP1620Z1BNSC	14.60	\$
3	3450	208-230	20.6-19.0	1.60	56J	SN1302	SP1630Z1BNSC	16.10	\$
Up rated									
1	3450	208-230/115	6.0-5.5/11.0	1.40	56J	USN1102	Sp1607Z1MNSC	13.10	\$
1-1/2	3450	208-230/115	8.5-7.8/15.6	1.25	56J	USN1152	SP1610Z1MNSC	13.35	\$
2	3450	208-230/115	11.0-10.2/20.4	1.20	56J	USN1202	SP1615Z1MNSC	13.85	\$
2-1/2	3450	208-230	13.0-11.8	1.10	56J	USN1252	SP1620Z1MNSC	14.60	\$
3	3450	208-230	16.0-14.8	1.20	56J	USN1302	SP1625Z1MNSC	14.85	\$



Important:

1. Total output (HP x service factor) of replacement motor must equal or exceed motor being replaced.
2. The pool motors on this page are **NOT equipped with a Safety Vacuum Release System (SVRS)**. SVRS helps prevent drowning due to body entrapment on underwater drains. In some pool configurations, if a person's body covers the drain, the person can be trapped by suction. The SVRS turns off the pump if this occurs.

⚠ WARNING Depending on your pool configuration, a SVRS may be required to meet local, state, and federal requirements.

Century® Hayward TriStar Replacement Pump Motors

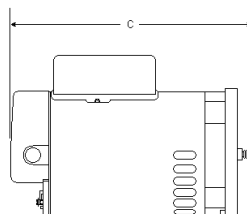
Features:

- 303 Stainless Steel Shaft
- 60°C Ambient
- Automatic Protector
- Ball Bearing
- Capacitor Start/Capacitor Run
- Class F Insulation
- Energy Efficient
- Open Drip Proof
- Single Phase



Single Speed - "1081" Capacitor Start/Capacitor Run - High Efficiency - Square Flange - Full Rate

HP	RPM	Volts	Amps	Service Factor	Frame	Stock Number	Shaft	Overload Protector	"C" Dim	Industry Number	Notes
1/2	3450	115/208-230	8.6/5.0-4.30	1.99	56Y	HSQ1052	Threaded	Auto	12.8	SP3205Z1BE	NEW!
3/4	3450	115/208-230	11.6/7.0-5.8	1.85	56Y	HSQ1072	Threaded	Auto	13.1	SP3207Z1BE	NEW!
1	3450	115/208-230	15.0/8.8-7.5	1.85	56Y	HSQ1102	Threaded	Auto	13.4	SP3210Z1BE	NEW!
1-1/2	3450	115/208-230	20.0/12.0-10.0	1.60	56Y	HSQ1152	Threaded	Auto	13.8	SP3215Z1BE	NEW!
2	3450	208-230	12.0-11.0	1.35	56Y	HSQ1202	Threaded	Auto	14.1	SP3220Z1BE	NEW!



Important:

1. Total output (HP x service factor) of replacement motor must equal or exceed motor being replaced.
2. The pool motors on this page are **NOT equipped with a Safety Vacuum Release System (SVRS)**. SVRS helps prevent drowning due to body entrapment on underwater drains. In some pool configurations, if a person's body covers the drain, the person can be trapped by suction. The SVRS turns off the pump if this occurs.

⚠ WARNING Depending on your pool configuration, a SVRS may be required to meet local, state, and federal requirements.

Century® Close-Coupled Pump Motors

Types JM, JP and TCZ - Three-Phase - Horizontal - Dripproof - Rigid Base - 3600 and 1800 RPM - 60 Hz - 1 thru 40 HP

Features: Ball Bearings • 60 Hz • 40°C Ambient • Class B or F Insulation • External Slinger • Oversized, Locked Shaft End Bearing • Frame Suffix Letters TCZ Designate Century West Coast Pump Standard Motors



Applications: Commercial/industrial pump duty. Designed to meet a wide variety of applications for fluid transfer.

HP	RPM	Volts	Full Load Amps	Service Factor	Frame	Stock Number	Insulation Class	"C" Dim.	Efficiency	Notes
1	1800	200-230/460	3.5-3.8/1.9	1.15	143JM	E117	B	14.40	84.0	6,21
		230/460	3.8/1.9	1.25	143JP	E118	B	17.85	81.5	6,21
1-12	3600	200-230/460	4.5-4.2/2.1	1.15	143JM	E119	B	14.87	86.5	6,21
		230/460	4.2/2.1	1.25	143TCZ	E149	B	17.85	86.5	1,6,21
	1800	200-230/460	5.0-5.6/2.8	1.15	145JM	E156	B	14.87	84.0	6,21
		230/460	5.6/2.8	1.25	145JP	E157	B	17.85	81.5	6,21
2	3600	200-230/460	6.2-5.6/2.8	1.15	145JM	E159	B	15.40	82.5	6,21
		230/460	5.3/2.65	1.25	145JP	E172	B	17.85	82.5	6,21
	1800	200-230/460	6.2-6.4/3.2	1.15	145JM	E174	B	15.40	81.5	6,21
		230/460	6.4/3.2	1.25	145JP	E175	B	17.85	81.5	6,21
3	3600	200-230/460	9.0-8.6/4.3	1.15	145JM	E177	B	15.40	84.0	6,21
		230/460	8.6/4.3	1.25	145JP	E178	B	17.85	84.0	6,21
		230/460	8.6/4.3	1.25	145TCZ	E179	B	17.85	84.0	1,6,21
	1800	200-230/460	9.1-8.8/4.4	1.15	182JM	E294	B	16.88	85.5	6,21
		230/460	8.8/4.4	1.25	182JP	E295	F	19.94	85.5	6,21
		200-230/460	9.2-8.6/4.3	1.15	182TCZ	E276	B	18.02	84.0	1
5	3600	208-230/460	13.4-13.2/6.6	1.15	182JM	E296	B	17.12	86.5	6,21
		230/460	13.4/6.7	1.25	182JP	E297	F	20.18	86.5	6,21
		200-230/460	14.2-13.0/6.5	1.15	182TCZ	E279	B	19.52	80.0	1
	1800	200-230/460	15.5-15.0/7.5	1.15	184JM	E282M	F	14.97	82.5	
		200-230/460	15.5-15.0/7.5	1.15	184JP	E283M	F	19.11	85.5	
		200-230/460	15.5-15.0/7.5	1.15	184TCZ	E284M	F	18.02	85.5	1
7-12	3600	200-230/460	21.8-20.0/10.0	1.15	184JM	E285M	F	16.97	82.0	
		200-230/460	22.0-19.0/9.5	1.25	184JP	E286M	F	20.78	85.5	
		200-230/460	20.5-17.2/8.6	1.15	184TCZ	E287M	F	20.78	87.5	1
	1800	200-230/460	22.0-21.0/10.5	1.15	213JM	E368	F	17.43	87.5	
		200-230/460	22.0-21.0/10.5	1.15	213JP	E369	F	21.31	87.5	
		200-230/460	28.2-27.0/13.5	1.15	213TCZ	E373M	F	21.49	88.5	1
10	3600	200-230/460	28.2-27.0/13.5	1.15	213JM	E371M	F	18.43	86.5	
		200-230/460	28.2-27.0/13.5	1.15	213JP	E372M	F	22.31	86.5	
		200-230/460	29.0-27.0/13.5	1.15	213TCZ	E373M	F	21.49	88.5	1
	1800	200-230/460	30.0-26.0/13.0	1.15	215JM	E374	F	17.43	88.5	
		230/460	26.0/13.0	1.25	215JP	E375	F	21.31	88.5	
		200-230/460	34.0-26.0/13.0	1.25	215TCZ	E376M	F	20.47	88.5	1
15	3600	200-230/460	42.0-38.0/19.0	1.15	215JM	E377	F	19.93	88.5	
		200-230/460	42.0-38.0/19.0	1.15	215JP	E378	F	23.81	88.5	
		200-230/460	42.0-38.0/19.0	1.15	215TCZ	E379	F	22.59	88.5	
	1800	200-230/460	46.0-39.6/19.8	1.15	254JM	E482	F	20.88	88.5	
		200-230/460	46.0-39.6/19.8	1.15	254JP	E483	F	20.88	88.5	
		200-230/460	55.0-51.0/25.5	1.15	254TCZ	E487	F	26.48	90.2	1
20	3600	200-230/460	55.0-51.0/25.5	1.15	254JM	E485	F	23.60	90.2	
		200-230/460	55.0-51.0/25.5	1.15	254JP	E486	F	26.48	90.2	
		200-230/460	55.0-51.0/25.5	1.15	254TCZ	E487	F	26.48	90.2	1
	1800	200-230/460	58.0-53.6/26.8	1.15	256JM	E488	F	23.60	87.5	
		200-230/460	58.0-53.6/26.8	1.15	256JP	E489	F	26.48	87.5	
		200-230/460	67.0-61.0/30.5	1.15	256TCZ	E493	F	26.48	90.2	1
25	3600	200-230/460	67.0-61.0/30.5	1.15	256JM	E491	F	23.60	90.2	
		200-230/460	67.0-61.0/30.5	1.15	256JP	E492	F	26.48	90.2	
		200-230/460	67.0-61.0/30.5	1.15	256TCZ	E493	F	26.48	90.2	1

Notes:

- 1. Item to be discontinued when stock is depleted
- 6. 60/50 HZ
- 21. Terminal in bracket construction

Continues on next page



Century® Close-Coupled Pump Motors

Types JM, JP and TCZ – Three-Phase – Horizontal – Dripproof – Rigid Base • 3600 and 1800 RPM – 60 Hz – 1 thru 40 HP

Features:

- Ball Bearings
- Class B or F Insulation
- 1.15 Service Factor
- 60 Hz
- External Slinger
- Frame Suffix Letters TCZ Designate Century West Coast Pump Standard Motors
- 40°C Ambient
- Oversized, Locked Shaft End Bearing



Applications: Commercial/industrial pump duty. Designed to meet a wider variety of applications for fluid transfer.

HP	RPM	Volts	Full Load Amps	Frame	Stock Number	Insulation Class	“C” Dim.	Efficiency	Notes
30	1725	200-230/460	81.0-72.0/36.0	286JM	E572	F	26.36	91.7	1

Century® Close-Coupled Pump Motors

Three Phase – Type JM – Dripproof – NEMA “C” Face – No Base – 50/60 Hz

Features:

- Double Sealed Ball Bearings
- Class B Insulation
- Terminal In Bracket Construction.
- 60/50 Hz Markings on Nameplate
- External Shaft Slinger
- 40°C Ambient
- Oversized, Locked Shaft End Bearing

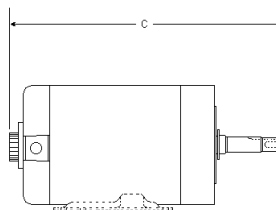


Applications: Commercial pump duty. Designed to meet a wide variety of applications for fluid transfer.

HP	RPM	Volts	Full Load Amps	Service Factor	Frame	Stock Number	“C” Dim.	Efficiency	Notes
1	1800	200-230/460	3.5-3/8/1.9	1.15	143JM	E117RF	14.4	84.0	1
2	3600	200-230/460	6.2-5.6/2.8	1.15	145JM	E159RF	15.4	84.0	1

Notes:

1. Item to be discontinued when stock is depleted



Century® Industrial Close-Coupled Pump Motors

Types JM, JP and TCZ – Three-Phase – Horizontal – TEFC – Rigid Base – 3600 and 1800 RPM – 1 thru 25 HP

Features:

- Ball Bearings
- Class B or F Insulation
- Oversized, Locked Shaft End Bearing
- Frame Suffix Letters JM and JP Designate NEMA Standard Motors
- Frame Suffix TCZ Designates Century West Coast Pump Standard Motors
- 60 Hz
- Service Factor 1.15
- 40°C Ambient
- External Slinger



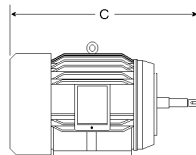
N211

Applications: Designed for the specific requirements of centrifugal pumps.

HP	RPM	Volts	Full Load Amps	Frame	Stock Number	Insulation Class	Cast Iron	Type	"C" Dim.	Efficiency	Notes
1	3600	200-230/460	3.5-3.2/1.6	143JM	TCP71001 ☼	F	✓	E+	15.5	75.5	361,363 New!
		200-230/460	3.5-3.2/1.6	143JP	TCP72001 ☼	F	✓	E+	18.9	75.5	361,363 New!
	1800	200-230/460	3.3-3.4/1.7	143JM	N149	B			16.0		
		200-230/460	3.2-2.9/1.5	143JM	TCP71026 ☼	F	✓	E+	15.5	82.5	361,363 New!
1-1/2	3600	200-230/460	3.2-2.9/1.5	143JP	TCP72026 ☼	F	✓	E+	18.9	82.5	361,363 New!
		200-230/460	4.5-4.2/2.1	143JM	N148	B			16.0		
		200-230/460	4.5-4.4/2.2	143JM	TCP71002 ☼	F	✓	E+	15.5	82.5	361,363 New!
		200-230/460	4.5-4.4/2.2	143JP	TCP72002 ☼	F	✓	E+	18.9	82.5	361,363 New!
	1800	200-230/460	4.5-4.4/2.2	145JM	N161	B			16.0		
		200-230/460	4.4-4.2/2.1	145JM	TCP71027 ☼	F	✓	E+	15.5	84.0	361,363 New!
		200-230/460	4.4-4.2/2.1	145JP	TCP72027 ☼	F	✓	E+	18.9	84.0	361,363 New!
		200-230/460	6.0-5.3/2.65	145JM	N153	B			16.0		
2	3600	200-230/460	5.5-5.2/2.6	145JM	TCP71003 ☼	F	✓	E+	15.5	84.0	361,363 New!
		200-230/460	5.5-5.2/2.6	145JP	TCP72003 ☼	F	✓	E+	18.9	84.0	361,363 New!
		200-230/460	5.9-5.6/2.8	145JM	N163	B			16.0		
		200-230/460	5.7-5.6/2.8	145JM	TCP71028 ☼	F	✓	E+	15.5	84.0	361,363 New!
	1800	200-230/460	5.7-5.6/2.8	145JP	TCP72028 ☼	F	✓	E+	18.9	84.0	361,363 New!
		208-230/460	8.5-8.2/4.1	145JM	N157	B			17.5		291
		200-230/460	8.2-7.2/3.6	182JP	TCP72004 ☼	F	✓	E+	17.2	85.5	361,363
		200-230/460	8.2-7.2/3.6	182JM	TCP71004 ☼	F	✓	E+	17.2	85.5	361,363
3	3600	230/460	8.4/4.2	182TCZ	N251	F			21.1	85.5	1,291
		200-230/460	9.0-8.0/4.0	182JP	TCP72029 ☼	F	✓	E+	20.9	87.5	361,363
	1800	200-230/460	9.0-8.0/4.0	182JM	TCP71029 ☼	F	✓	E+	17.2	87.5	361,363
		230/460	12.0/6.0	184TCZ	N209	F			21.1	85.5	1,291
5	3600	200-230/460	13.9-11.8/5.9	184JM	TCP71005 ☼	F	✓	E+	17.2	87.5	361,363
		200-230/460	13.9-11.8/5.9	184JP	TCP72005 ☼	F	✓	E+	20.9	87.5	361,363
		230/460	13.0/6.5	184TCZ	N211	F			21.1	86.5	1,291
	1800	200-230/460	15.0-12.8/6.4	184JP	TCP72030 ☼	F	✓	E+	20.9	87.5	361,363
		200-230/460	15.0-12.8/6.4	184JM	TCP71030 ☼	F	✓	E+	17.2	87.5	361,363
		230/460	19.0/9.5	213JP	N335	F	✓		25.3	85.5	1
7-1/2	3600	200-230/460	21.2-18.8/9.4	213JM	TCP71006 ☼	F	✓	E+	21.1	88.5	362,363
		200-230/460	21.2-18.8/9.4	213JP	TCP72006 ☼	F	✓	E+	24.9	88.5	362,363
		230/460	20.0/10.0	213JP	N329	F	✓		25.5	86.5	1
	1800	230/460	19.6/9.8	213TCZ	N311	F			22.6	86.5	1,333
		200-230/460	21.0-18.9/9.45	213JP	TCP72031 ☼	F	✓	E+	24.9	89.5	362,363
		200-230/460	21.0-18.9/9.45	213JM	TCP71031 ☼	F	✓	E+	21.1	89.5	362,363

Notes:

- Item to be discontinued when stock is depleted
291. 208 Volt @ 1.0 Service Factor
333. Aluminum shell
361. 9 lead
362. 12 lead – Capability for Y Start-Delta Run
363. Double shielded bearings with no regreasing provisions



Motors specially designed, tested and warranted to be **Corona-Free** for compatible inverter duty are marked on this page with a ☼ See pages 28 and 29 of this catalog for more Speed Engineered® motors information.

Continues on next page

Century® Industrial Close-Coupled Pump Motors

Types JM, JP and TCZ – Three-Phase – Horizontal – TEFC – Rigid Base – 3600 and 1800 RPM – 1 thru 25 HP

Features:

- Ball Bearings
- Class B or F Insulation
- Oversized, Locked Shaft End Bearing
- Frame Suffix Letters JM and JP Designate NEMA Standard Motors
- Frame Suffix TCZ Designates Century West Coast Pump Standard Motors
- 60 Hz
- Service Factor 1.15
- 40°C Ambient
- External Slinger



Applications: Designed for the specific requirements of centrifugal pumps.

HP	RPM	Volts	Full Load Amps	Frame	Stock Number	Insulation Class	Cast Iron	Type	"C" Dim.	Efficiency	Notes
10	3600	230/460	26.0/13.0	215JP	N346	F	√		24.8	84.0	1
		230/460	25.0/12.5	215TCZ	N313	F			24.1	85.5	333
		200-230/460	29.4-24.0/12.0	215JM	TCP71007	F	√	E+	21.1	89.5	361,2,363
	1800	200-230/460	29.4-24.0/12.0	215JP	TCP72007	F	√	E+	24.9	89.5	362,363
		200-230/460	28.3-25.2/12.6	215JP	TCP72032	F	√	E+	24.9	89.5	362,363
		200-230/460	28.3-25.2/12.6	215JM	TCP71032	F	√	E+	21.1	89.5	362,363
15	3600	200-230/460	40.0-35.0/17.6	254JM	TCP71008	F	√	E+	26.9	90.2	362,364
		200-230/460	40.0-35.0/17.6	254JP	TCP72008	F	√	E+	29.8	90.2	362,364
	1800	230/460	36.0/18.0	254JM	N424	F	√		26.8	89.5	1
		230/460	36.0/18.0	254JP	N419	F	√		29.6	89.5	1
		200-230/460	40.9-36.6/18.3	254JM	TCP71033	F	√	E+	26.9	91.0	362,364
		200-230/460	40.9-36.6/18.3	254JP	TCP72033	F	√	E+	29.8	91.0	362,364
20	3600	230/460	46.0/23.0	256JP	N433	F	√		29.6	87.5	1
		200-230/460	53.2-47.0/23.5	256JM	TCP71009	F	√	E+	26.9	90.2	362,364
		200-230/460	53.2-47.0/23.5	256JP	TCP72009	F	√	E+	29.8	90.2	362,364
	1800	230/460	48.0/24.0	256JP	N435	F	√		29.6	91.0	1
		200-230/460	56.7-49.2/24.6	256JP	TCP72034	F	√	E+	29.8	91.0	362,364
		200-230/460	56.7-49.2/24.6	256JM	TCP71034	F	√	E+	26.9	91.0	362,364
25	3600	230/460	60.0/30.0	284JM	N516	F	√		28.4	87.5	1
		230/460	60.0/30.0	284JP	N523	F	√		28.0	87.5	1
		200-230/460	66.1-59.0/29.5	284JM	TCP71010	F	√	E+	27.8	91.0	362,364
	1800	200-230/460	66.1-59.0/29.5	284JP	TCP72010	F	√	E+	30.7	91.0	362,364
		200-230/460	67.9-62.0/31.0	284JM	TCP71035	F	√	E+	27.8	92.4	362,364
		200-230/460	67.9-62.0/31.0	284JP	TCP72035	F	√	E+	30.7	92.4	362,364

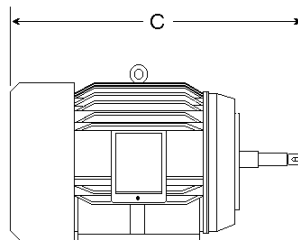
Notes:

- Item to be discontinued when stock is depleted
291. 208 Volt @ 1.0 Service Factor
333. Aluminum shell
361. 9 lead
362. 12 lead – Capability for Y Start-Delta Run
363. Double shielded bearings with no regreasing provisions
364. Open bearings with regreasing provisions

Continues on next page



Motors specially designed, tested and warranted to be **Corona-Free** for compatible inverter duty are marked on this page with a ⚡. See pages 28 and 29 of this catalog for more Speed Engineered® motors information.



Century® Industrial Close-Coupled Pump Motors

Types JM, JP and TCZ - Three-Phase - Horizontal - TEFC - Rigid Base - 3600 and 1800 RPM - 1 thru 25 HP

Features:

- Ball Bearings
- Class B or F Insulation
- Oversized, Locked Shaft End Bearing
- Frame Suffix Letters JM and JP Designate NEMA Standard Motors
- Frame Suffix TCZ Designates Century West Coast Pump Standard Motors
- 60 Hz
- Service Factor 1.15
- 40°C Ambient
- External Slinger



N346

Applications: Designed for the specific requirements of centrifugal pumps.

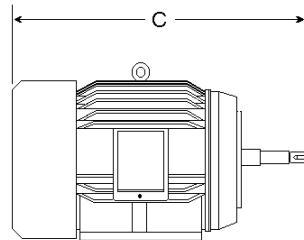
HP	RPM	Volts	Full Load Amps	Frame	Stock Number	Insulation Class	Cast Iron	"C" Dim.	Efficiency	Notes
30	3600	200-230/460	79-70/35	286JM	TCP71011 ☼	F	√	29.3	91.0	362,364 New!
		200-230/460	79-70/35	286JP	TCP72011 ☼	F	√	32.2	91.0	362,364 New!
	1800	200-230/460	80-73/37	286JM	TCP71036 ☼	F	√	29.3	92.4	362,364 New!
		200-230/460	80-73/37	286JP	TCP72036 ☼	F	√	32.2	92.4	362,364 New!
40	3600	200-230/460	105-96/48	324JM	TCP71012 ☼	F	√	30.0	91.7	362,364 New!
		200-230/460	105-96/48	324JP	TCP72012 ☼	F	√	32.8	91.7	362,364 New!
	1800	200-230/460	106-96/48	324JM	TCP71037 ☼	F	√	30.0	93.0	362,364 New!
		200-230/460	106-96/48	324JP	TCP72037 ☼	F	√	32.8	93.0	362,364 New!
50	3600	200-230/460	131-120/60	326JM	TCP71013 ☼	F	√	31.6	92.4	362,364 New!
		200-230/460	131-120/60	326JP	TCP72013 ☼	F	√	34.5	92.4	362,364 New!
	1800	200-230/460	134-118/59	326JM	TCP71038 ☼	F	√	31.6	93.0	362,364 New!
		200-230/460	134-118/59	326JP	TCP72038 ☼	F	√	34.5	93.0	362,364 New!

Notes:

- 362. 12 lead – Capability for Y Start-Delta Run
- 364. Open bearings with regreasing provisions



Motors specially designed, tested and warranted to be **Corona-Free** for compatible inverter duty are marked on this page with a ☼ See pages 28 and 29 of this catalog for more Speed Engineered® motors information.



Century® Close-Coupled Pump Motors

Types JM, JP and WCP - Single-Phase - Horizontal - Drip-proof - Rigid Base - 3600 and 1800 RPM - 1 thru 10 HP

Features:

- Double Sealed Ball Bearings
- Class B Insulation
- External Slinger
- Frame Suffix Letters JM and JP Designate NEMA Standard Motors
- Frame Suffix TCZ Designates Century West Coast Pump Standard Motors
- 60 Hz
- Service Factor 1.15
- Oversized, Locked Shaft End Bearing
- 40°C Ambient
- Reversible



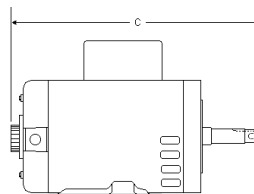
P137

Applications: Designed for the specific requirements of centrifugal pumps.

HP	RPM	Volts	Full Load		Stock Number	Insulation Class	"C" Dim.	Efficiency	Notes
			Amps	Frame					
1	1800	115/230	15.0/7.5	143JM	P121	B	15.6		21
		115/230	15.0/7.5	143JP	P126	B	18.6		21
1-1/2	3600	115/230	16.0/8.0	143JM	P122	B	15.6		21
		115/230	16.0/8.0	143JP	P127	B	18.6		21
	1800	115/230	15.0/7.5	145JM	P123	B	16.3		21
		115/230	18.0/9.0	145JP	P128	B	18.6		21
2	3600	115/230	19.2/9.6	145JM	P124	B	15.5		21
		115/230	19.2/9.6	145JP	P129	B	18.6		21
	1800	115/230	20.4/10.2	182JM	P137	B	16.3		21
		115/230	25.0/12.5	182JM	P228	B	16.0	72.5	
3	3600	115/230	25.0/12.5	182JP	P232	B	18.9	72.5	
		230	13.4	182JM	P130	B	16.1		21
		230	13.4	182JP	P131	B	19.4		21
		200	15.6	182JM	P132	B	16.3		21
5	3600	115/230	34.0/17.0	182JM	P229	B	16.0	72.0	
		115/230	34.0/17.0	184JM	P230	B	17.0	77.0	
		230	20.0	184JM	P140	B	17.1	83.9	160
		230	22.0	184JP	P135	B	20.1		21
7-1/2	3600	200	24.0	184JM	P133	B	17.0		21
		230	26.0	184JM	P231	B	17.0	77.0	
		230	26.0	184JP	P235	B	20.1	78.5	
		230	26.0	184TCZ	P212	B	20.1	77.0	
	1800	230	25.0	213JM	P317	B	17.6	81.0	
		230	25.0	213JP	P324	B	21.5	81.0	
		230	25.0	213TCZ	P312	B	20.7	81.0	
		230	39.0	213JM	P318	B	17.6	77.0	
10	3600	230	39.0	213JP	P325	B	21.5	77.0	
		230	39.0	213TCZ	P311	B	20.7	77.0	
		230	32.0	215JM	P319	B	19.1	86.0	
10	3600	230	32.0	215JP	P326	B	23.0	86.0	
		230	32.0	215TCZ	P313	B	22.2	86.0	
		230	42.0	215JM	P320	B	19.2	83.8	
10	3600	230	42.0	215JP	P327	B	22.2	83.8	
		230	42.0	215TCZ	P321	B	22.2	83.8	


Notes:

- 21. Terminal in bracket construction
- 160. Non-reversible, connected for CW facing end opposite shaft



Speed Engineered® Motors



Motors specially designed, tested and warranted to be **Corona-Free** for compatible inverter duty are marked in this catalog with a .



**E-Plus®
Speed Engineered®
Inverter Duty Motor**

Why Specify Speed Engineered® Inverter Duty Motors?

Variable frequency drives (VFDs), while offering advantages of greater control and energy savings to commercial and industrial motor users, can also cause premature winding failure in motors not designed specifically for inverter duty. Now A. O. Smith engineers have developed a solid solution...Speed Engineered® Inverter Duty Motor.

Speed Engineered Inverter Duty Motors are specially designed and constructed to eliminate the destructive forces that can occur when motors are applied with drives. The Speed Engineered "Corona-Free" solution eliminates the causes of premature winding failure.

All Speed Engineered motors meet or exceed NEMA MG1-31 performance standards, in addition to carrying A. O. Smith's Speed Engineered warranty for inverter duty applications.

The Causes of Premature Motor Failure

Research we conducted identified why motors can fail when used with variable frequency drives under certain operating conditions. The results were published in a white paper, *The Simple Truth About Motor/Drive Compatibility*, which is available from A. O. Smith. Our findings revealed that "corona" as well as other potential hazards, can materialize and eventually damage motors applied with a drive.

What is Corona?

VFDs create high voltage pulses at the motor, especially when the motor and drive are separated by long power leads. Those high voltage pulses (or voltage spikes) develop voltage potential between adjacent conductors in the motor winding.

When the voltage generated in the air between the conductors is high enough, the air breaks down.

This breakdown is known as "corona." The discharge that is created forms ozone, which causes the motor's magnet wire insulation to disintegrate, causing premature failure.

This phenomenon has been around for a long time and affects a limited number of earlier vintage motor/drive applications. But with drives becoming more sophisticated, inverter switching rates increasing and the percentage of motors operating with drives growing rapidly, incidents of downtime are also growing, and corona is now getting a lot of attention in the motor/drive industry.

There are several techniques employed in the market to increase motor tolerance to corona. Although simpler and less costly, these practices are not always effective since corona is not cured...only bandaged. The only way to be sure the destructive efforts of corona will not compromise your motor/drive application is to eliminate corona altogether. This is easily accomplished by specifying A. O. Smith Speed Engineered motors on your next project.

What Makes Corona-Free Speed Engineered® Motors Best For Motor-Drive Compatibility?

There are several solutions to the problem of motor insulation stress caused by inverters. Rather than just squelching the voltage overshoot which leads to corona, as mentioned earlier, the preferred method and the approach used by A. O. Smith is to design the motor to be corona free at expected peak voltage. We begin with a design premise of understanding the magnet wire corona inception voltage (CIV) and distribution of voltage in the motor.

From that, our design approach becomes simply to:

Choose a winding layout that minimizes the proximity voltage differences and reliably positions insulation materials to improve dielectrics above the threshold of corona...

You may recognize this as the design approach for any motor, regardless if it is line operated or driven by an inverter. The difference is that with an inverter you must anticipate a much higher peak voltage and the rapid rise times of these potentially harmful pulses.



**E-Plus® 3
Speed Engineered®
Inverter Duty Motor**

At A. O. Smith, we build a motor able to withstand voltage peaks 3.5 times what is stated on the motor nameplate. Therefore we design additional insulation (tape, sleeving, phase paper, etc.) and strategically locate this added insulation in a manner that will yield the necessary protection against the high voltage pulses that may occur between magnet wire strands. This approach yields the desired design integrity.

With the design for insulation and winding layout determined, the success of each motor now depends on placing the insulation properly during production. To provide final assurance for our customers, A. O. Smith uses a proprietary CIV tester that employs a unique procedure to detect and measure corona for each and every Speed Engineered motor we produce...before that motor leaves our factory!

Because Motor/Drive Applications Are so Varied, A. O. Smith Offers Three Distinct Families of Speed Engineered® Motors:

E-Plus® motors, the industry's first high efficiency, energy-saving motor, meets 1997 EPACT standards. Now, E-Plus Motors also carry the protection of the Speed Engineered design and is warranted to offer the best performance available to inverter duty applications.

E-Plus® 3 motors offer even heartier energy-efficient performance and savings, exceeding most utility conservation initiatives, in addition to meeting the 1997 EPACT standards. All E-Plus 3 motors are Speed Engineered rated for compatible inverter duty applications.

Both E-Plus® and E-Plus® 3 motors are available in a variety of application configurations including: variable or constant torque loads, PWM, sensorless or sensed vector and with limited or broad speed ranges.

Speed Engineered motors are rated for 4:1 speed ratio at constant torque or 6:1 at variable torque.



Speed Plus® Motor

In addition to being corona free, A. O. Smith **Speed Plus®** motors offer many additional benefits such as:

Wide Speed Ranges to fit your application:

- 20:1 at constant torque, standard
- 1000:1 at constant torque with the addition of a blower kit

Standard Features provide operational flexibility and dependability:

- Totally-enclosed severe duty
- All cast-iron construction
- VPI corona-free Class F insulation system
- F-1 mounted conduit box
- Dual foot holes
- Normally closed thermostats
- Encoder provisions

Highly Adaptable to address more specific process specifications:

- Provisions for mounting a wide range of encoders:
 - Dynapar HS35
 - Avtron M285
 - Lakeshore SL56
 - BEI HS 35
- 120-volt A/C blower kits
- Drive end C-Face
- Drive end D-Flange
- Field convertible to F-2 conduit box location
- Brake kits

Commercial Pump Motor Cross Reference

SINGLE-PHASE 230 (115) VOLT ODP

HP	RPM	FRAME	AOS	MARATHON	BALDOR	EMERSON	GE	STA-RITE BERKLEY	ITT-MARLOW	AURORA	PENTAIR/PUREX
3	3600	182JM	P229	Z406	JML1406T						
3	3600	182JM	P130					DMH/DDH			
3	1800	184JM	P230	Z407	JML1408T						
5	3600	184JM	P231	Z408	JML1409T			DMJ/DHJ	3B28EC-C2-1		
5	3600	184TY	V214								CH50/CM50
5	3600	184TY	V220								LH50
5	1800	184JM	P317	Z409	JML1508T						
7.5	3600	213JM	P318	Z410	JML1509T			CSPHK	3B32EC-C2-1		
7.5	1800	215JM	P319	Z411	JML1510T					341A-3X4X9B-7.5-1	
10	3600	215JM	P320	Z412	JML1511T			CSPHL			

THREE-PHASE 230/460 VOLT ODP

HP	RPM	FRAME	AOS	MARATHON	BALDOR	EMERSON	GE	STA-RITE BERKLEY	ITT-MARLOW	AURORA	PENTAIR/PUREX
3	3600	145JM	E177	M311	JMM3158T	DJ3S1AM	N846	DMH3/DHH3			
3	1800	182JM	E294	M313	JMM3211T	DJ3S2AM	N704				
5	3600	182JM	E296	M315	JMM3212T	DJ5S1AM	N705	DMJ3/DHJ3	3B28EC-C2-3		
5	3600	182TY	R237								CHK50/CMK50
5	3600	182TY	R236								LHK50
5	1800	184JM	E282M	M317	JMM3218T	DJ5S2AM	N706				
7.5	3600	184JM	E285M	M319	JMM3219T	DJ7S1AM	N707	CSPHK3	3B32EC-C2-3		
7.5	3600	184TY	R232								CMK75/CHK75
7.5	1800	213JM	E368	M321	JMM3311T	DJ7S2AM	N708			341A-3X4X9B-7.5-3	
10	3600	213JM	E371M	M323	JMM3312T	DJ10S1AM	N709	CSPHL3	L SERIES		
10	3600	213TY	R338						L SERIES		CMK100/CHK100
10	1800	215JM	E374	M325	JMM3313T	DJ10S2AM	N710		L SERIES	341A-3X4X9B-10-3	
15	3600	215JM	E377	M327	JMM3314T	DJ15S1AM	N711	CSPHM3	L SERIES		
15	3600	215TY	R339						L SERIES		CMK150/CHK150
15	1800	254JM	E482	M329		DJ15S2AM	N712		L SERIES	341A-3X4X9B-15-3	
20	3600	254JM	E485	M330	JMM2514T	DJ20S1AM	N713	CSPHN3	L SERIES		
20	1800	256JM	E488	M331	JMM2515T	DJ20S2AM	N714		L SERIES	341A-4X5X11-20-3	
25	3600	256JM	E491	M332	JMM2516T	DJ25S1AM	N715				

THREE-PHASE 208-230/460 VOLT TEFC

HP	RPM	FRAME	AOS	MARATHON	BALDOR	EMERSON	GE	STA-RITE BERKLEY	ITT MARLOW	AURORA	PENTAIR PUREX
3	3600	182JM	TCP71004	M405	JMM3610T	UJ3S1AM	N735				
3	1800	182JM	TCP71029	M406	JMM3611T	UJ3S2AM	N737				
5	3600	184JM	TCP71005	M407	JMM3613T	UJ5S1AM	N738				
5	1800	184JM	TCP71030	M408	JMM3615T	UJ5S2AM	N739				
7.5	3600	213JM	TCP71006	M409	JMM3709T	UJ7S1AM	N740				
7.5	1800	213JM	TCP71031	M410	JMM3710T	UJ7S2AM	N741				
10	3600	215JM	TCP71007	M411	JMM3711T	UJ10S1AM	N742				
10	1800	215JM	TCP71032	M412	JMM3714T	UJ10S2AM	N743				
15	3600	254JM	TCP71008	M413	JMM2394T	UJ15S1AM	N744				
15	1800	254JM	TCP71033	M420	JMM2333T	UJ15S2AM	N745	M08311			
20	3600	256JM	TCP71009	M414	JMM4106T	UJ20S1AM	N746				
20	1800	256JM	TCP71034	M421	JMM2334T	UJ20S2AM	N747	M10490			
25	3600	284JM	TCP71010		JMM4107T	UJ25S1AM	N748	S34562			
25	1800	284JM	TCP71035		JMM4103T	UJ25S2AM	N749				

Index of Footnotes

No.	Footnote Description
1	Item to be discontinued when stock is depleted
2	Ball Bearing
3	Special OEM replacement motor
4	Supplied with lead and plug assembly
5	\$ Energy efficient two value capacitor start, capacitor run motor
6	60/50 HZ
7	Resilient mounting rings included
8	Nema design A
9	Reversing plug
10	Reversible. Quick connect terminals
11	C Flange kit available
12	303 Stainless steel shaft
13	Six lead motor suitable for part winding start
14	Totally enclosed non-ventilated
15	56HZ = 7/8 keyed X 2 5/16 shaft
16	\$ E-Plus energy efficient motor complying with E Pact
17	Suitable for 208 volts @ 1.0 service factor
18	Includes 1/4 - 5/16 bushing
19	C & D flange kit available
20	\$ Energy efficient capacitor start, capacitor run Conservationist motor
21	Terminal in bracket construction
22	3 thru bolts, 4.42 dia. Bolt circle
23	Suitable for 200/400 volt and 50 HZ
24	Mounting accessories packaged with motor
25	Has hex mounting hub on both ends for cradle base mounting
26	Extended thru bolts, shaft end only
27	Extended thru bolts, both ends
28	Blower kit adaptable, TEFC
29	60 degree C ambient
30	56,140 frame combination base (12 mounting holes)
31	40 degree C ambient
32	24" leads (minimum)
33	Roller bearings
34	Rigid base
35	Quick connect design bracket
36	Lug mount
37	Lead reversible, no plug
38	Includes conduit box, mounting screws, gasket, shipped detached
39	Gasketed conduit box
40	Four mounting holes in shell
41	Extended thru bolts, lead end only
42	Eight mounting holes in shell
43	Class A insulation
44	CCWLE rotation only
45	Capacitor start
46	Adapt-a-Lug motors (See lugs)
47	3/8 diameter shaft
48	1.0 Service factor at 50 HZ
49	1.0 Service factor
50	Use with 5MFD/370V @ 230 volt, 7.5MFD/370 volt @ 208 volt
51	Use downsize 250 Frame C & D flange kits (D-flange kit part # 800289-01, C-flange kit part # 800288-01
52	Two-speed connection: white-common, red-low, black-high
53	Twelve lead, wye delta
54	Triple build wire for greater high voltage insulation
55	Terminal board
56	TEAO gasketed conduit box - 3/4 extended thru bolts
57	Tapped holes for Coleman mount
58	Supplied with resilient mounting rings
59	Suitable for use with low ambient speed control
60	Stock no. 1218A adapter and rings supplied for base mounting
61	Start capacitor inside
62	Split Phase
63	Speck pump replacement motor
64	Spade connector
65	Six lead, Wye Delta
66	Sealed switch design
67	Rewire for second speed
68	PSC motor
69	Pin hole in shaft
70	Permanent Split Capacitor

No.	Footnote Description
71	No hubs on either end
72	No brake kit available
73	No base
74	Nema design A available until current stock is depleted, then will become Nema design B
75	Mounting rings not included
76	Motors shipped with thru bolts out shaft end - See photos above. May be reversed for vertical applications
77	Molex Terminal Plug
78	Moderate start torque
79	Leadless design
80	Large capacitor/terminal box construction
81	Includes base
82	Horizontal mount only
83	Extended thru bolts - 5/8
84	Energy efficient with split phase start, capacitor run with mounted capacitor
85	Energy efficient \$ - capacitor start/run
86	Cord and plug with pull chain
87	Class F insulation
88	C & D flange kit adaptable, ODP, EMI Series 850000
89	60" leads
90	50 degree C ambient
91	5/8 extended thru bolts, 1 7/8 shaft length and 1/2 shaft dia.
92	48/56 FR = 1/2 X 1 1/2 shaft with 5/8 shaft adapter - 48/56 slotted 3 height base
93	36" cord
94	30" leads (minimum)
95	3/8 flatted shaft
96	2 thru bolts, 4.42 dia. Bolt circle
97	182T and 184T mounting holes, 4.5 shaft height
98	1/2 hub on shaft end and slinger
99	1/2 extended thru bolts, shaft end
100	1/2 diameter shaft
101	1.5 service factor
102	1.15 service factor
103	When using U. E. base, add (2) 1221A adapter rings to EACH mounting ring
104	Vertical mount
105	Use with 1805A or 2099A bracket
106	Use 4MFD/370V capacitor
107	Uprated - low service factor
108	Two-speed motor
109	Two side bosses
110	Two mounting holes in each bracket for a 9 and for a 10.18 bolt circle
111	Totally enclosed version of OCC1026
112	Totally enclosed fan cooled
113	Totally enclosed
114	Threaded shaft with Acme threads
115	This motor is rated for operation on 60 or 50 HZ power, full load amps listed at 60 HZ
116	Temperature sensitive thermostat with two leads for connection to external control
117	TEAO gasketed conduit box
118	TEAO
119	Suitable replacement for Aaon
120	Suitable replacement for 1/12 HP and 1/10 HP
121	Stronger 3/4 HP required for some applications
122	Stock number 91 has a stainless steel shaft and 20 leads for use on ice machines
123	Stock no. 684 BA dimension was 4, motors built after 4/98 will have a BA dim. Of 3 3/4
124	Stainless steel shaft
125	Special pivot style rigid base
126	Special mounting bracket
127	Special Hayward replacement for SP-1515-Z24-EBK, EBKC, C48M2A16A1
128	Special Doughboy replacement, less base, 40 degree C ambient, Al. Windings
129	Special Canadian motor, external relay is required
130	Sleeve bearing
131	Single flat on shaft
132	Shaft sleeve and key supplied for 5/8 diameter
133	Shaft N-W = 2.50 with two flats .04 deep, 2.16 long, 90 degrees apart
134	Shaft N-W = 2.50 with 5/8 diameter and keyway

No.	Footnote Description
135	Shaft has no flat
136	Shaft dim.= 9 X 1/2 X 8 1/2
137	Shaft dim.= 8-1/2 X 1/2 X 9 1/8
138	Shaft dim. = 9 X 1/2 X 7-1/2
139	Shaft dim. = 10-3/4 X 1/2 X 10-15/16
140	Shaft diameter is 1/2, N=2
141	Shaft diameter is 1/2, N=1.94 with .04 deep flat
142	Service factor amps
143	Service factor 1.00 under inverter power (sine wave power only 60 HZ) as shown above
144	Service factor 1.0 used on non-sinusoidal voltage wave forms
145	Run capacitor mounted on motor shell
146	Round frame
147	Resilient mounting rings included for refrigeration applications
148	Replacement for Carrier HD52AK652
149	Reconnect for separate speeds
150	Rated 50/60 HZ
151	Quick connect design bracket, auto overload protector
152	Pump series: L
153	Pump series: C
154	Previous stock numbers with X suffix are the same as current models
155	Polaris Vac-sweep (shaft adapter not required)
156	Open shaft end bracket
157	Open construction
158	Open motor construction, overload protector mounted at 12 O'clock
159	Open dripproof
160	Non-reversible, connected for CW facing end opposite shaft
161	No side bosses
162	No resilient rings. 12 leads with Molex terminal
163	No keyway, double flat
164	No hub on lead end end frame
165	No extended thru bolts
166	No conduit box
167	New Quad-Plus model - removable base (RMOV), vertical shaft up or down and steel frame construction
168	Nema 42/48 C-face, 1/2 diameter keyed shaft, 1 5/16 long
169	Motors produced before June, 2003 are E+
170	Motors may be rewired to run CW
171	Motor is thermally protected
172	Motor is center mounted
173	Motor has 4 studs
174	Motor fits torque mount
175	Molex lead connection plug, 12 long leads
176	Moisture proof stator
177	Meets the requirements of the energy policy act of 1992
178	Low speed 1/2 HP
179	Low amps
180	Low amp replacement for a variety of OEM Special and SPL 5 horsepower requirements
181	Loose lead construction
182	Locked bearing on drive end
183	Lifting provisions
184	Lead exit is on shaft end
185	Items with Universal and A. O. Smith stock numbers and same specifications are identical. The A. O. Smith stock numbers will be discontinued when stock is depleted.
186	Item to be discontinued when stock is depleted. Discontinued items available from Graham Transmission, Inc.
187	Includes mounting bracket and shaft bushing
188	Includes split bushing and key for 5/8 shafts. 3 thru bolts on a 4.42 dia. Bolt circle
189	Includes split bushing and key for 5/8 shafts
190	Includes pilot light detector
191	Includes mounting bracket
192	Includes four (4) 10-32 mounting holes
193	Includes former GE brand equipment
194	Includes fan blade
195	Includes 6' cord and switch
196	Includes 5/8 adapter and key

Index of Footnotes

No.	Footnote Description
197	Includes 2 speed plug
198	Impedance protected
199	Horizontal rigid base
200	Has special 3.15 bolt circle
201	Four studs on a 5.15 diameter bolt circle
202	For motor only, use J375
203	For motor only, use J373
204	For motor only, use J372
205	For motor only, use J370
206	MasterFit motor, for additional information see page 73
207	Fleximount arms are not attached to motor - bellyband with arms is packed with motor
208	Fits most 38GS Series
209	FB1106 & FR1106 also replaces motor used on Kramer Trenton units DD661, DD791 (use FR1106 for vertical applications)
210	FB1076/FR1076 also replaces Kramer Trenton 045-004 and Universal HF3W0R8K, HF3W052N
211	FB1056 is the same as FB1056X
212	FB1056 also replaces Dunham Bush motor MTR-226
213	Farm duty - gasketed conduit box and capacitor cover
214	F2 Assembly
215	Eyelet terminals on the leads
216	Equipped with rotation switch for easy reversibility
217	Equipped with provisions for mounting 4 X 4 conduit box
218	Energy efficient \$ - split phase start/capacitor run
219	Dual voltage connection: black-common, white-120 volt, red-240 volt
220	Dripcover kit available (Part # 103017-03)
221	Does not have conduit box
222	Does not have aluminum adapter bracket
223	Direct replacement for Surge milk pumps, Babson motor #27732, requires 30MFD/370VAC capacitor, separately - not supplied
224	Direct replacement for GE WB26X24, WB26X40 and WB26X45
225	Direct replacement for gaffer and sattler and dyna vent
226	Direct replacement for Carlin 27490S
227	Direct replacement for Beckett 21805U
228	CWSE not reversible
229	CWLE rotation
230	CSA approvable not applicable
231	Includes 8/32 mounting studs
232	Closed main frame, 2 1/2 rings, 14 leads
233	Class B insulation
234	Century nameplated product
235	Centurion II motors are switchless. Designed in a 48 frame shell diameter that is .80 inches smaller than the 56 frame Centurion and Centurion SE designs
236	CCW rotation facing opposite shaft end
237	Carrier replacement for HD60FK651, special BA dim. = 4.12
238	Carrier replacement for HD60FK652, special BA dim. = 4.12
239	Capacitor attached
240	Capacitor and rainshield included
241	Capacitor and rain shield included
242	BX connector
243	Base & clamp included, 9.44 ring to ring dimension
244	Ball/sleeve construction
245	Ball Bearing, for motor only, use J320
246	B668 fits pump #LA01N manufactured March, 1997 to present
247	B667 fits pump #LA01 manufactured March, 1997 and prior
248	B14 mount
249	Arneson Pool Sweep
250	Also 1/10 Hp at 1050 RPM
251	All 1 HP and 1 1/2 HP motor supplied with conversion kit allowing motor to be used in most 56 frame applications
252	8.5 foot conductor cord and plug with strain relief attached

No.	Footnote Description
253	5/8" dia. keyed and flatted shaft 6" long
254	8.26" bolt circle, .28" diameter mounting holes
255	70 degree C ambient
256	7-3/8" diameter bolt circle
257	60 HZ only
258	6 MFD/370V @ 230V, 8MFD/370V @ 280V
259	575 volt brake coil
260	56Z = 1/2" flatted shaft
261	56Z = 1/2" flat X 1-1/2" shaft, 3 1/2 shaft height
262	56Z = 1/2" flat X 1.62" shaft, with 56 FR. Base
263	53" leads
264	50/60 HZ 1.4/1.7 Amps
265	50 leads, 2 1/2 resilient rings
266	50 HZ, 190/380 volt, 925 RPM
267	50 HZ - 1.00 service factor, 190/380 volt
268	50 HZ
269	50 cycle only
270	5/8 keyed shaft with flat
271	5/8 keyed shaft
272	5/16 diameter shaft
273	48Z = 5/8 dia. X 2 shaft, with 3 height
274	48Z = 1/2 flat X 1.88 shaft, with 48 FR base
275	48-56 frame mounting - 3 shaft height, sleeve and key adapter to 5/8 shaft
276	48-56 frame mounting - 3 1/2 shaft height, sleeve and key adapter to 5/8 shaft
277	47" leads
278	40" leads
279	4 thru bolts and 4 dummy studs on a 5.16 diameter bolt circle
280	4 in 1 multi-horsepower motor, replaces 1/3, 1/4, 1/5, 1/6 HP
281	36" leads
282	3450 RPM for 60 HZ and 2875 RPM for 50 HZ
283	31" line leads, 5 capacitor leads
284	31" leads (minimum)
285	3/8-16, Left hand threads, CWPE rotation
286	3.5 shaft height
287	3 shaft height
288	26" leads (minimum)
289	12-1/4" leads
290	230V and 208V connection, same torque
291	208 Volt @ 1.0 Service factor
292	20" leads
293	9" leads
294	2.6" shaft height
295	2 shaft length and 1/2" shaft diameter, sleeve and key adapter to 5/8"
296	2-Speed shipped less hi-lo switch for remote control
297	184T base, 4.5 shaft height
298	2-1/4 X 7/8 keyed shaft
299	15" leads
301	115 volt tap off main winding to power gear drive unit
302	11" leads (minimum)
303	11" leads
304	10.19 bolt circle, .28 diameter mounting holes
305	10-1/2" leads
306	1/4-20 UNC-2B tapped holes on a 4.67 diameter bolt circle
307	1/2" shaft, sleeve and key adapter to 5/8 shaft
308	1/2" hub on shaft end frame with slinger. Grommet on lead exits.
309	1/2" extended thru bolts
310	1/2" double flat shaft, 2 1/2 rings
311	1/2" dia. Shaft - single flat
312	1.40 Service factor
313	1" extended thru bolts each end
314	1" extended thru bolts
315	1-7/8" shaft end, 1/2 lead end extended thru bolts
316	1-5/8" shaft end, 7/8 lead end extended thru bolts
317	1-5/8" extended thru bolts
318	1-1/2" extended thru bolts
319	C Dimension is the total length including shaft
320	56Y = 7/8" diameter keyed shaft, 2.25 long
321	Bohn/Heatcraft mounting hardware and OEM fan blade included.
322	Mechanically Reversible

No.	Footnote Description
323	Kit includes three fans: 4" blade, 5.50" dia., CCW rot., 5" blade, 5.50" dia. CCW rot. 5" blade, 4.00" dia. CW rot.
324	Motor fits tongue mount
325	Can be mounted vertically by adding 10301702 cover (sold separately)
326	Cast Iron
327	Carrier Sensor Assembly (50HJ 401 484) not included
328	Square Frame
329	For use with adjustable base
330	56Z = 1/2" shaft with flat, 1.62" long
331	Cannot be mounted with rings - ring to ring dimension is body length
332	No connector plug, leads only
333	Aluminum shell
334	Reversible
335	Energy Efficient, cap start, low speed, PSC high speed
336	Capacitor start, low speed, PSC high speed
337	Connection diagram may be #23, old #125 or new #125 depending on date of manufacture
338	Taco replacement
339	Armstrong replacement
340	Bell and Gosset replacement
341	1/2" dia. - shaft 2.25" long
342	5/8" dia. - shaft 2.37" long
343	5/8" keyed shaft - 3.88" long
344	5/8" keyed shaft - 2.31" long
345	Rigid base - wall mount
346	65 degree C ambient
347	3 thru bolts, 4.62 dia, bolt circle
348	6-1/2" diameter body
349	2-1/4" mounting rings
350	Conduit connector included
351	eMod equipped motor
352	Pentair, almond paint, direct replacement motor
353	56Z = 5/8" diameter keyed shaft, 2-1/8" long
354	56Z = 7/8" diameter keyed shaft, 2-1/4" long
355	Base 805C290H04 and Clamps 165B674A01 available
356	3 rear mounting holes
357	4 thru bolts, 4.42" dia. bolt circle
358	4 thru bolts, on 4.62 dia. bolt circle
359	4 studs with spacer and nut on a 3.87 diameter bolt circle
360	4 thru bolts on a 5.15 dia. bolt circle
361	9 leads
362	12 lead - capability for Y Start-Delta Run
363	Double shielded bearings with no regreasing provisions
364	Open bearings with regreasing provisions
365	3 leads
366	6 leads
367	12 leads
368	Inverter Duty
369	Automatic Protector
370	48" leads
371	Removable 56H rigid base
372	VCM™ Feature (Voltage Change Module)



A premium efficiency motor in the Centurion motor family.



Features:

- Integrated Timer Interface
- Timer Mode
- Adjustable Contrast
- Manual Mode
- Over Current Protection
- Battery Backup - Program Saver
- LCD Display with Backlight
- Ball Bearing
- Class B Insulation
- 50°C Ambient
- High Efficiency High and Low Speed
- Open Dripproof
- Rotation: CCW Pump End
- Single Phase
- 303 Stainless Steel Shaft

Two-Speed - "1081" Capacitor Run Low Speed, PSC High Speed, Sq. Flange

HP	RPM	Volts	Service Factor	Service Factor Amps	Stock Number	Total HP	Percent Energy Savings*	Yearly \$ Savings**
3/4 ~ .10	3450/1725	230	1.67	6.0/1.0	B2980T	1.25	58%	\$633.32
3/4 ~ .10	3450/1725	115	1.67	12.4/2.2	B2981T	1.25	55%	\$606.29
1 ~ .13	3450/1725	230	1.65	7.4/1.4	B2982T	1.65	51%	\$625.60
1 1/2 ~ .19	3450/1725	230	1.47	10.0/1.6	B2983T	2.21	51%	\$687.79
2 ~ .25	3450/1725	230	1.30	11.0/1.8	B2984T	2.60	53%	\$634.53

*Savings over the equivalent single speed motor.

**Calculated @ \$.23 per Kilowatt hour, pumping same amount of water as a single speed motor, eight hours per day.
See the Energy Savings Calculator at: www.aosmithmotors.com



The reasons a 2Green™ premium-efficiency replacement motor can offer such impressive savings are numerous including:

- An integrated timer interface allows for easier installation and operation of a two-speed replacement motor. The all-in-one design reduces installation time and expense with no additional wiring required.
- A run capacitor used on both high and low speeds improves electromagnetic balance increasing the power factor and watts efficiency resulting in lower amps and lower operating cost.
- The amount of horsepower required to move the water through the pipes drops much more quickly than the speed. While it may take one horsepower to move the water through the pipes on high speed it only takes 1/8 horsepower to move one half as much water through those same pipes on low speed. Even when run on low speed twice as long to pump the same amount of water as on high speed, the lower horsepower results in significant energy savings.

Guardian[®]

The Pool Motor...

with a built in **S**afety **V**acuum **R**elease **S**ystem



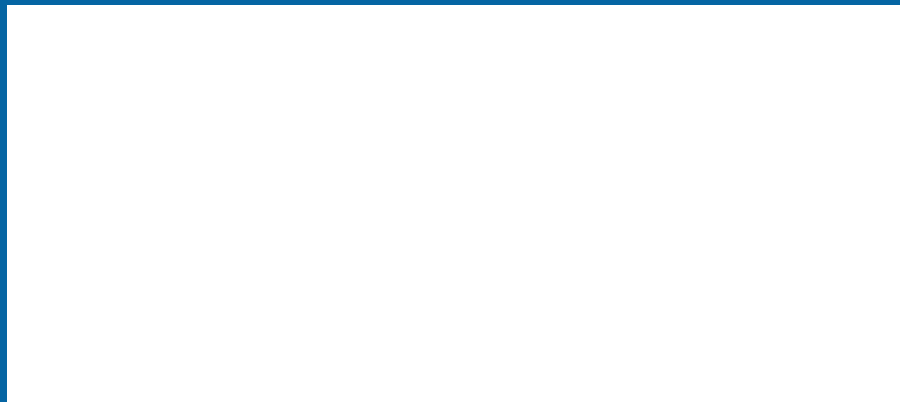
Listed to the
ASME A112.19.17
SVRS standard for
suction lift
applications.

The New Standard in Pool and Spa Motors

HP	Voltage	RPM	Frame Size	Service Factor	Service Factor Amps	Model Number	Mounting
1	115/230	3450	56J	1.10	15.0/7.5	USTG1102A	NEMA-C
1	115/230	3450	56J	1.50	18.6/9.3	STG1102A	NEMA-C
1-1/2	115/230	3450	56J	1.00	18.6/9.3	USTG1152A	NEMA-C
2	208-230	3450	56J	1.32	12.6/11.4	STG1202A	NEMA-C
3	208-230	3450	56J	1.15	14.5/13.8	STG1302A	NEMA-C
1	230/115	3450	56J	1.40	7.2/14.4	BG128A	NEMA-C
1-1/2	230/115	3450	56J	1.30	9.2/18.4	BG129A	NEMA-C
2	230	3450	56J	1.20	10.5	BG130A	NEMA-C
3	230	3450	56J	1.15	14.1	BG131A	NEMA-C
3/4	115/230	3450	48Y	1.27	11.8/5.9	USQG1072A	SQ-FLANGE
1	115/230	3450	48Y	1.25	14.8/7.4	USQG1102A	SQ-FLANGE
1-1/2	115/230	3450	48Y	1.10	19.2/9.6	USQG1152A	SQ-FLANGE
2	230	3450	48Y	1.30	11.2	SQG1202A	SQ-FLANGE
3	230	3450	56Y	1.15	15.4	SQG1302A	SQ-FLANGE
1	230/115	3450	56Y	1.25	7.1/14.2	BG853A	SQ-FLANGE
1	230/115	3450	56Y	1.65	8.0/16.0	BG848A	SQ-FLANGE
1-1/2	230/115	3450	56Y	1.10	8.0/16.0	BG854A	SQ-FLANGE
2	230	3450	56Y	1.10	10.0	BG855A	SQ-FLANGE
2	230	3450	56Y	1.30	11.5	BG748A	SQ-FLANGE
3	208-230	3450	56Y	1.15	15.0-13.6	BG2844A	SQ-FLANGE
3/4	115/230	3450	56CZ	1.50	12.8/6.4	BE625*	SPECIAL

60HZ, Ball Bearing, Stainless Steel Shaft, *Polaris Pool Cleaner

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