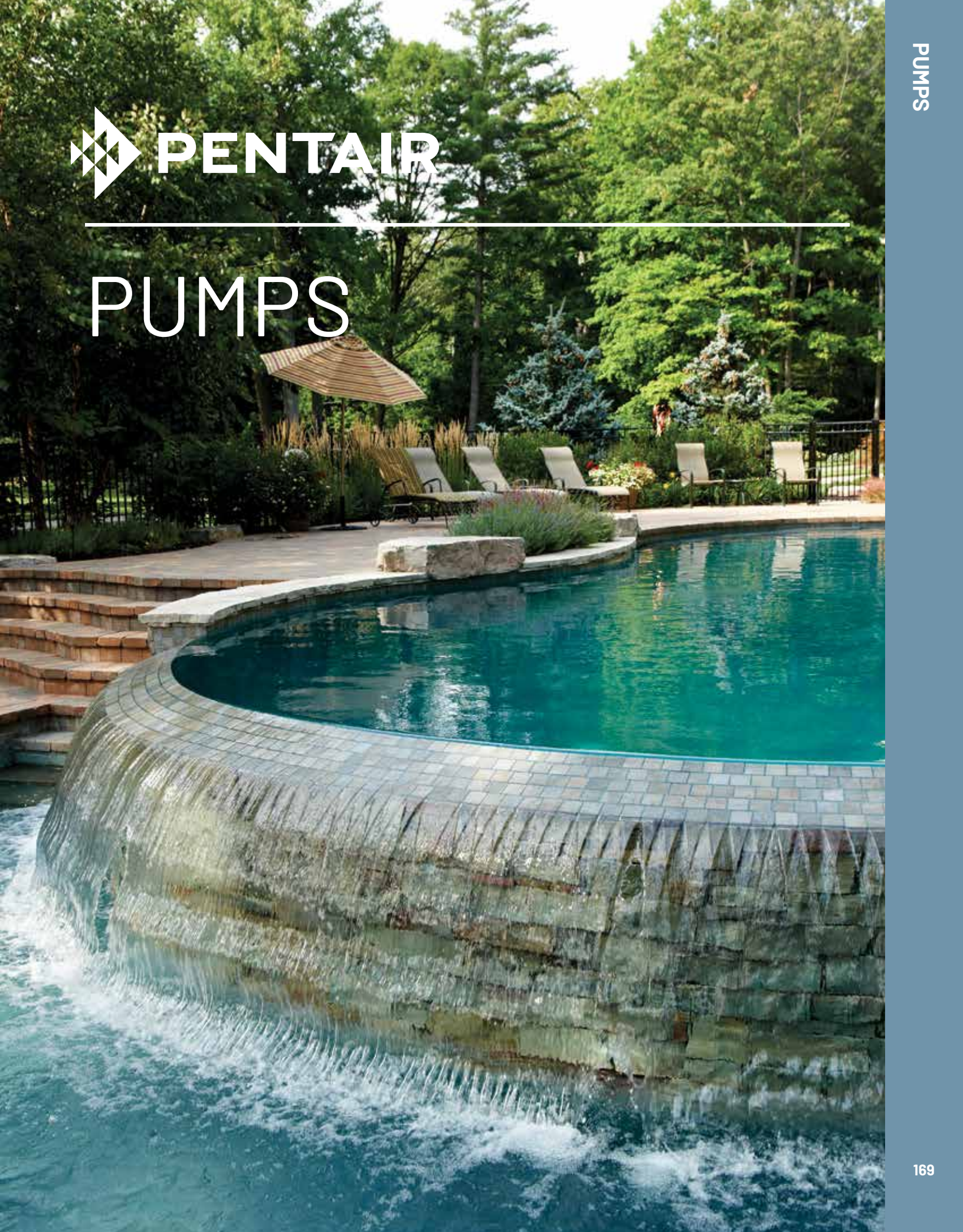




PUMPS



INTELLIFLOXF[®] VSF

VARIABLE SPEED AND FLOW PUMP

TRADEGRADE



IntelliFloXF VSF
Variable Speed and Flow Pump

Patent Information: www.pentair.com/patents

Featured Highlights

- Eight programmable speed or flow settings and built-in timer
- Rotatable keypad with optional wall mount kit (sold separately)
- Top-mounted field wiring compartment is easier to access and connect
- Totally enclosed fan-cooled design keeps motor shielded from the elements for extended life
- Menus are easier than ever to use
- Union connectors included for connecting directly to 2.5" or 3" plumbing
- Maintains system flow requirements
- Compatible with Pentair Automation

The IntelliFlo VSF pump family is the first variable speed and flow pump that adjusts to changes in flow system conditions to maintain its programmed flow rate. With its available performance and efficiency, it is perfectly suited for large and feature rich pools with high flow demand to power waterfalls, slides, negative edges and more.

Ordering Information

Product	Description	THP	WEF	HHP	Service Factor	Voltage	Frequency	Current	Port Size (NPT)	Weight	Certifications ³
INTELLIFLOXF VSF ENERGY EFFICIENT VARIABLE SPEED AND FLOW PUMP											
022056	IntelliFloXF VSF	3.95	5.6	2.10	1.0	230	50/60	16.0	2.5" x 2.5" OR 3" x 3"	60	UL ¹ , NSF ²
ACCESSORIES											
400012	XF Riser Base - Simplifies installation of XF-series pumps in applications where Challenger pumps are being replaced.										
521109	IntelliCom 2 - Rated 9 - 30 V DC with 4 inputs										1
350122	Communication Cable - 50 ft. - Included with pump										2
356904Z	Keypad Relocation Kit										2

¹ 'UL' indicates that pump bears a UL mark signifying evaluation to U.S. Standards UL1081 for Permanently Connected Swimming Pool and Spa Pumps and to Canadian Standards CAN/CSA C22.2 No. 108-01 Liquid Pumps For Swimming Pools Only (Enclosure 3).

² 'NSF' indicates that pump bears a mark signifying evaluation to NSF Standard 50 For Self-Priming Centrifugal Pumps For Swimming Pools Only.

³ Product may have been evaluated to other state and local regulatory standards. Listing status may change. Always confirm status with appropriate agency if in doubt.

Note: Pump must be used with current collectors when installed on spas or hot tubs in Canada.

Refer to catalog page 58 for a selection of 2-Pole GFCI breakers which offer 6 milliamp personnel protection while meeting 2008 to current NEC Standards for Pool Pumps.

CALIFORNIA PROPOSITION 65 WARNING

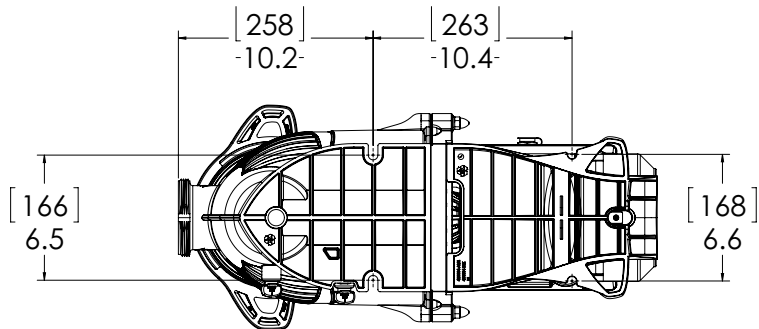
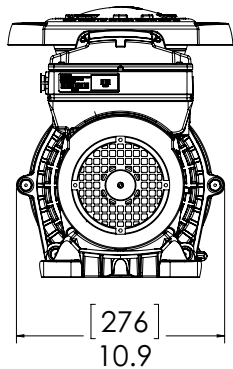
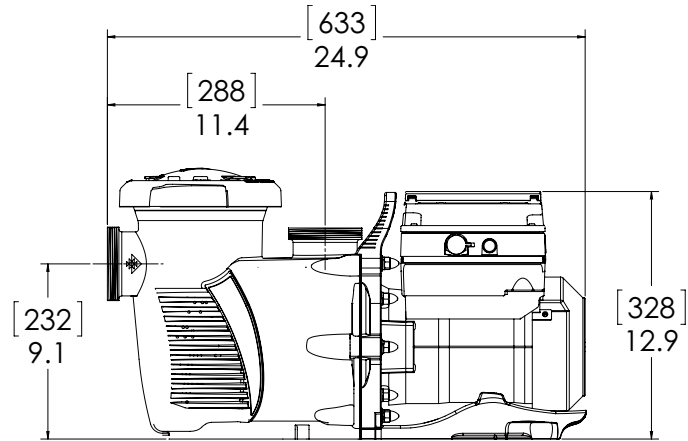
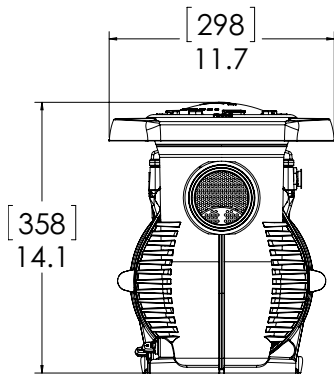
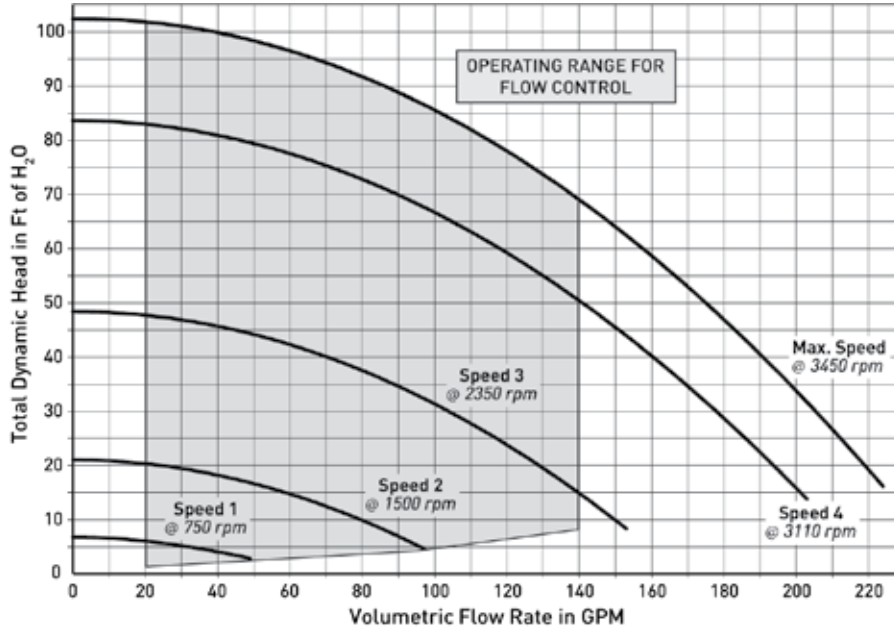
▲ **WARNING:** Cancer and Reproductive Harm.
▲ **AVERTISSEMENT:** Peut Causer le Cancer et des Dommages au Système Reproducteur.
▲ **ADVERTENCIA:** Cáncer y Daño Reproductivo.

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PR320174

INTELLIFLOXF[®] VSF

VARIABLE SPEED AND FLOW PUMP (CONT'D)

Dimensions and Performance



See page 469 for replacement parts.

INTELLIFLO® VSF

VARIABLE SPEED AND FLOW PUMP

TRADEGRADE



IntelliFlo VSF
Variable Speed and Flow
Pump

Featured Highlights

- Eight programmable speed or flow settings and built-in timer
- Rotatable keypad with optional wall mount kit (sold separately)
- Top-mounted field wiring compartment is easier to access and connect
- Totally enclosed fan-cooled design for increased performance and long life
- Menus are easier than ever to use
- Consistently maintains system flow requirements
- Compatible with Pentair Automation

Patent Information: www.pentair.com/patents

IntelliFlo VSF pump is the first variable speed and flow pump that adjusts to changes in flow conditions to maintain its preprogrammed flow rate to run optimally throughout the entire filtration cycle. Filters get the right amount of flow to maintain water clarity. Laminares and other water features perform more consistently. Equipment efficiency and service life increase.

Ordering Information

Product	Description	THP	WEF	HHP	Service Factor	Voltage	Frequency	Current	Port Size	Weight	Certifications ³
INTELLIFLO VSF ENERGY EFFICIENT VARIABLE SPEED AND FLOW PUMP											
011056	IntelliFlo VSF	3.95	6.9	1.88	1.0	230	50/60	16.0	2" x 2"	53	UL ¹ , NSF ²
ACCESSORIES											
521109	IntelliCom 2 - Rated 9 - 30 V DC with 4 inputs										1
350122	Communication Cable - 50 ft. - Included with pump										2
357156	Chemical Resistant Lid										1
356904Z	Keypad Relocation Kit										2
356198	Chemical/Salt/Ozone Resistant EPDM & SS Seal Quick Kit										1
UNIONS											
11201-0154	2 in. x 2 in. Union (2 in. NPT male x 2 in. female NPT quick connect)										* Note: two required per pump (sold individually) 2

¹ 'UL' indicates that pump bears a UL mark signifying evaluation to U.S. Standards UL1081 for Permanently Connected Swimming Pool and Spa Pumps and to Canadian Standards CAN/CSA C22.2 No. 108-01 Liquid Pumps For Swimming Pools Only (Enclosure 3).

² 'NSF' indicates that pump bears a mark signifying evaluation to NSF Standard 50 For Self-Priming Centrifugal Pumps For Swimming Pools Only.

³ Product may have been evaluated to other state and local regulatory standards. Listing status may change. Always confirm status with appropriate agency if in doubt.

Note: Pump must be used with current collectors when installed on spas or hot tubs in Canada.

Refer to catalog page 58 for a selection of 2-Pole GFCI breakers which offer 6 milliamp personnel protection while meeting 2008 to current NEC Standards for Pool Pumps.

CALIFORNIA PROPOSITION 65 WARNING

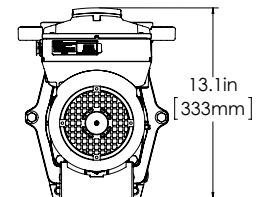
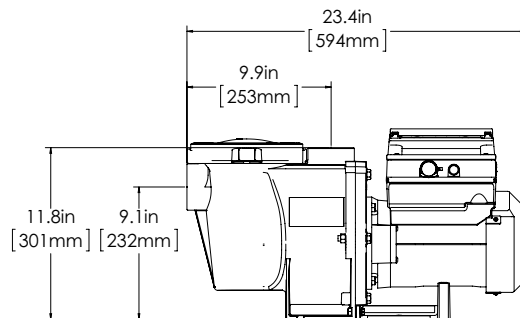
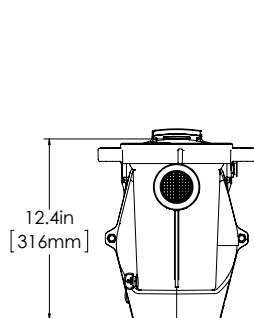
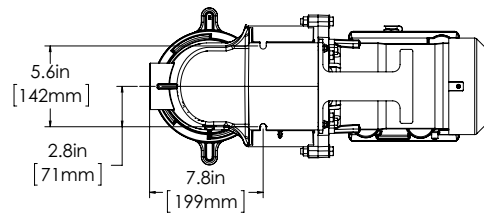
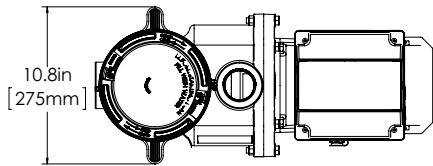
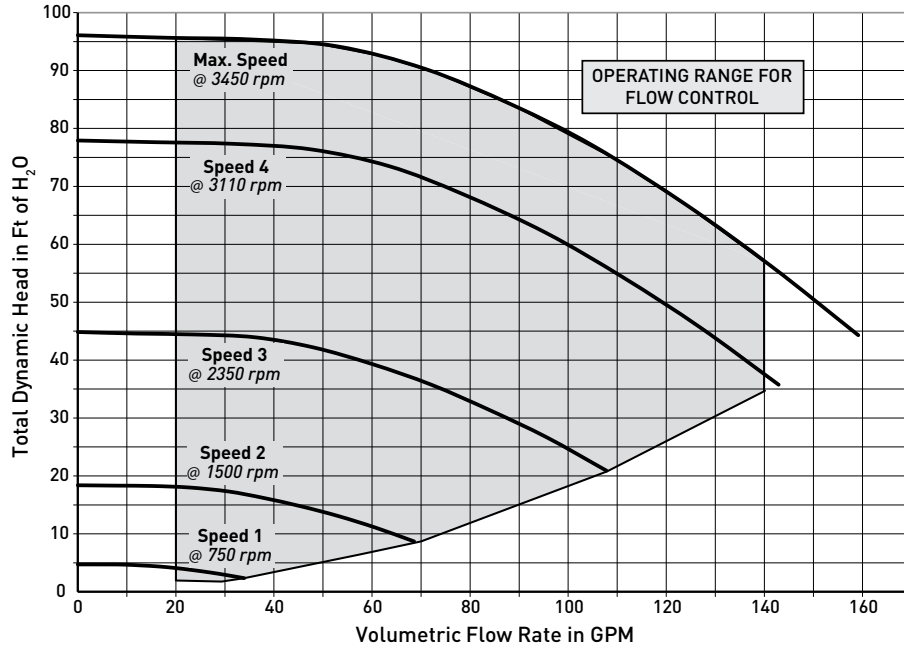
⚠ **WARNING:** Cancer and Reproductive Harm.
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 ⚠ **ADVERTENCIA:** Cáncer y Daño Reproductivo.

www.p65warnings.ca.gov PR326114

INTELLIFLO® VSF

VARIABLE SPEED AND FLOW PUMP (CONT'D)

Dimensions and Performance



INTELLIFLO® VS+SVRS

HIGH PERFORMANCE PUMPS



IntelliFlo VS+SVRS
High Performance Pump

Patent Information: www.pentair.com/patents

IntelliFlo pumps combine variable speed technology, onboard digital intelligence and permanent magnet motors (used in hybrid cars) to reduce pump-related energy costs by up to 90%*. The IntelliFlo VS+SVRS pump models were the first swimming pool pumps to feature a built-in Safety Vacuum Release System that detects drain blockage and automatically shuts the pump off.

Featured Highlights

- Ability to program exact pump speeds for specific operations – filtering, heating, cleaning, spa jets, water features and more
- SVRS complies with Virginia Graeme Baker Safety Act
- Built-in diagnostics helps protect the IntelliFlo pump from the most common causes of premature failure – overheating, freezing, and voltage irregularities.
- Includes priming protection. No SVRS calibrations needed. Built-in SVRS cannot be turned off.
- Safety lock-out feature (password protected) prevents pump speed settings from being changed by unauthorized personnel
- Ability to set minimum and maximum speeds so pump will only operate within the ranges set to help assure suitable operation for a longer life
- Compatible with Pentair Automation Systems
- Compliant with the current ASME A112.19.17 Standard for Safety Vacuum Release Systems (SVRS)
- Operates seamlessly on 50 hz or 60 hz input power. Flow/speed are constant when operating on 50hz or 60 hz.

Ordering Information

Product	Description	THP	WEF	HHP	Service Factor	Voltage	Frequency	Current	Port Size	Weight	Certifications ³
ENERGY EFFICIENT VARIABLE SPEED WITH SAFETY VACUUM RELEASE SYSTEM											
011057	IntelliFlo VS+SVRS	3.95	6.9	1.88	1.0	230	50/60	16.0	2" x 2"	53	UL ¹ , NSF ²
ACCESSORIES											
521109	IntelliCom 2 - Rated 9 - 30 V DC with 4 inputs										1
350122	Communication Cable - 50 ft. - Included with pump										2
350250Z	SVRS KIT - Allows use of discharge check valves with SVRS pump										1
356198	Chemical/Salt/Ozone Resistant EPDM & SS Seal Quick Kit										1
UNIONS											
11201-0154	2 in. x 2 in. Union (2 in. NPT male x 2 in. female NPT quick connect)										* Note: two required per pump (sold individually) 2

¹ 'UL' indicates that pump bears a UL mark signifying evaluation to U.S. Standards UL1081 for Permanently Connected Swimming Pool and Spa Pumps and to Canadian Standards CAN/CSA C22.2 No. 108-01 Liquid Pumps For Swimming Pools Only (Enclosure 3).

² 'NSF' indicates that pump bears a mark signifying evaluation to NSF Standard 50 For Self-Priming Centrifugal Pumps For Swimming Pools Only.

³ Product may have been evaluated to other state and local regulatory standards. Listing status may change. Always confirm status with appropriate agency if in doubt.

Note: Pump must be used with current collectors when installed on spas or hot tubs in Canada.

• Savings based on variable speed pump compared to a single-speed pump running 12 hours per day at an average of \$0.16 per kWh in a 20,000 gallon pool. Actual savings may vary based on local utility rates, pool size, pump run time, pump horsepower, pump rpm, plumbing size and length, pump model, service factor and other hydraulic factors.

Refer to catalog page 58 for a selection of 2-Pole GFCI breakers which offer 6 milliamp personnel protection while meeting 2008 to Current NEC Standards for Pool Pumps.

CALIFORNIA PROPOSITION 65 WARNING

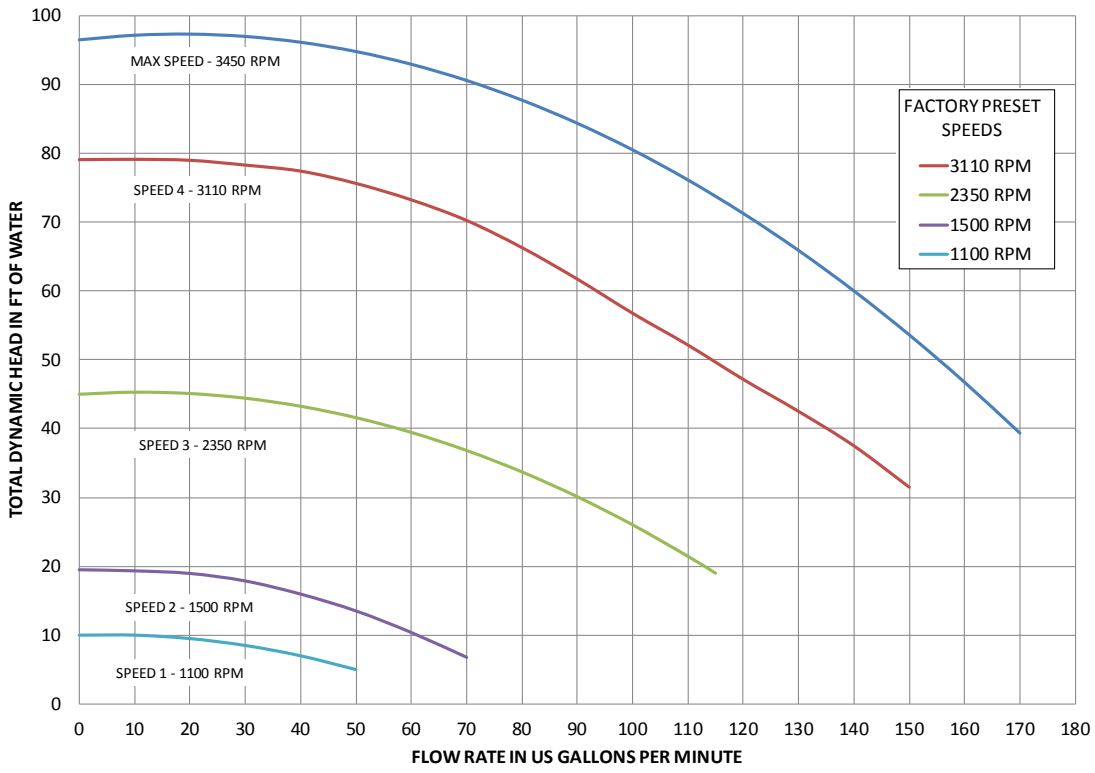
⚠ **WARNING:** Cancer and Reproductive Harm.
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 ⚠ **ADVERTENCIA:** Cáncer y Daño Reproductivo.

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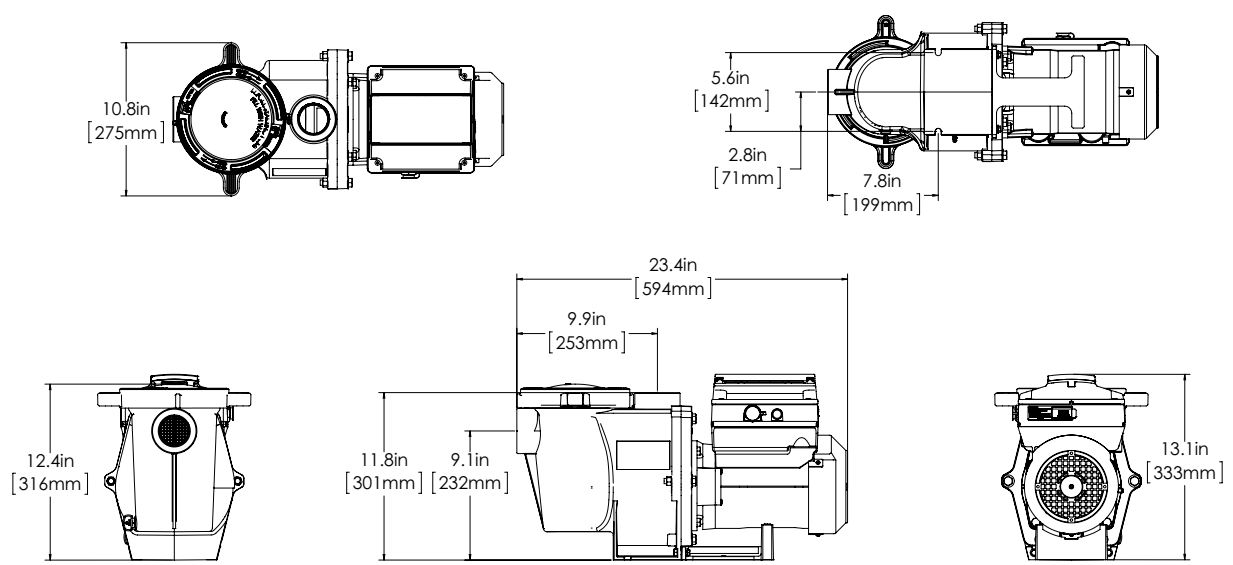
INTELLIFLO® VS+SVRS

HIGH PERFORMANCE PUMPS (CONT'D)

Dimensions and Performance



Note: IntelliFlo VS+SVRS minimum speed is 1100 RPM



See page 473 for replacement parts.

INTELLIFLO® i2

VARIABLE SPEED PUMP



IntelliFlo i2
Variable Speed Pump

Patent Information: www.pentair.com/patents

Featured Highlights

- Rotable keypad for easy programming and viewing
- Keypad has the ability to be wall mounted with optional wall kit (sold separately)
- Intuitive interface/HMI simplifies programming and use
- Top-mounted field wiring compartment for easy access and installation
- 8 programmable speed settings and built in timer
- Totally-enclosed fan-cooled design (TEFC) for quiet operation
- Built-in diagnostics helps protect the pump for longer service life
- Interfaces perfectly with Pentair automation systems

IntelliFlo i2 Variable Speed pump is hydraulically engineered to provide maximum performance on a 15-amp breaker. It has a maximum rating of 11.8 amps, also making retrofits easier in applications that are limited by existing wire gauge size. The IntelliFlo i2 pump provides all the great features that have made our best-selling IntelliFlo pumps the industry standard.

Ordering Information

Product	Description	THP	WEF	HHP	Service Factor	Voltage	Frequency	Current	Port Size	Weight	Certifications ³
ENERGY EFFICIENT VARIABLE SPEED FULL RATED											
011060	IntelliFlo i2	3.95	6.9	1.69	1.0	230	50/60	11.8	2" x 2"	53	UL ¹ , NSF ²
ACCESSORIES											
521109	IntelliCom 2 - Rated 9 - 30 V DC with 4 inputs									1	
350122	Automation Communication Cable for IntelliFlo - Included with pump									2	
357156	Chemical Resistant Lid									1	
356904Z	Optional Keypad Wall Mount Kit									2	
356198	Chemical/Salt/Ozone/Resistant EPDM & SS Seal Quick Kit									1	

¹ 'UL' indicates that pump bears a specific UL mark signifying evaluation to U.S. Standards UL1081 for Permanently Connected Swimming Pool and Spa Pumps and to Canadian Standards CAN/CSA C22.2 No. 108-01 Liquid Pumps For Swimming Pools Only (Enclosure 3).

² 'NSF' indicates that pump bears a mark signifying evaluation to NSF Standard 50 For Self-Priming Centrifugal Pumps For Swimming Pools Only.

³ Product may have been evaluated to other state and local regulatory standards. Listing status may change. Always confirm status with appropriate agency if in doubt.

Refer to catalog page 58 for a selection of 2-Pole GFCI breakers which offer 6 milliamp personnel protection while meeting 2008 to current NEC Standards for Pool Pumps.

CALIFORNIA PROPOSITION 65 WARNING

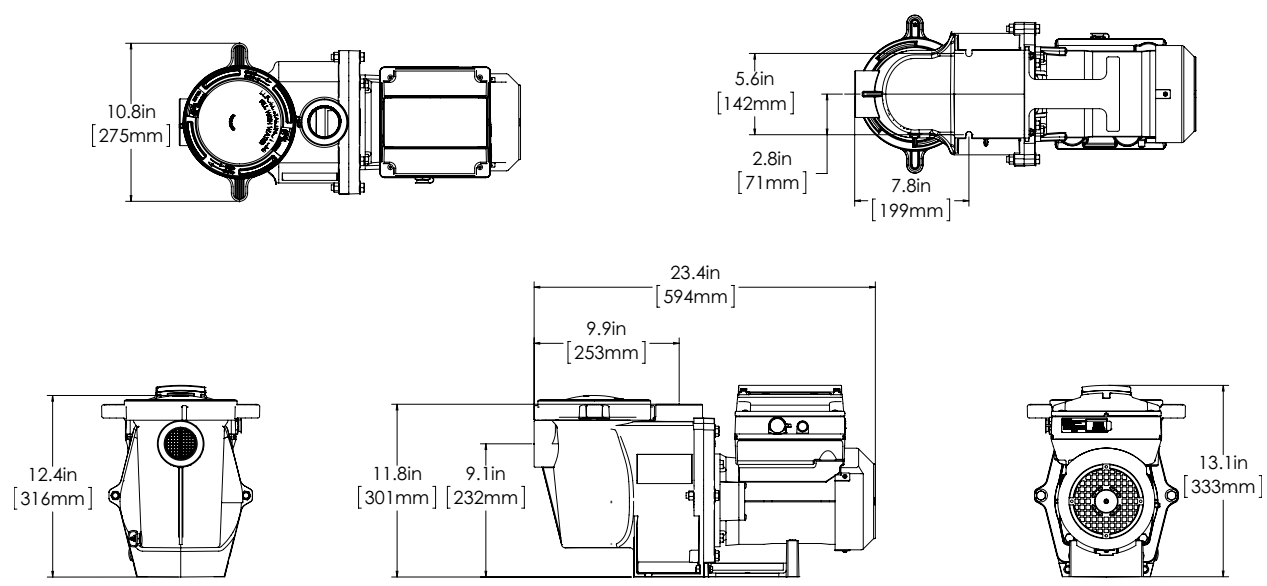
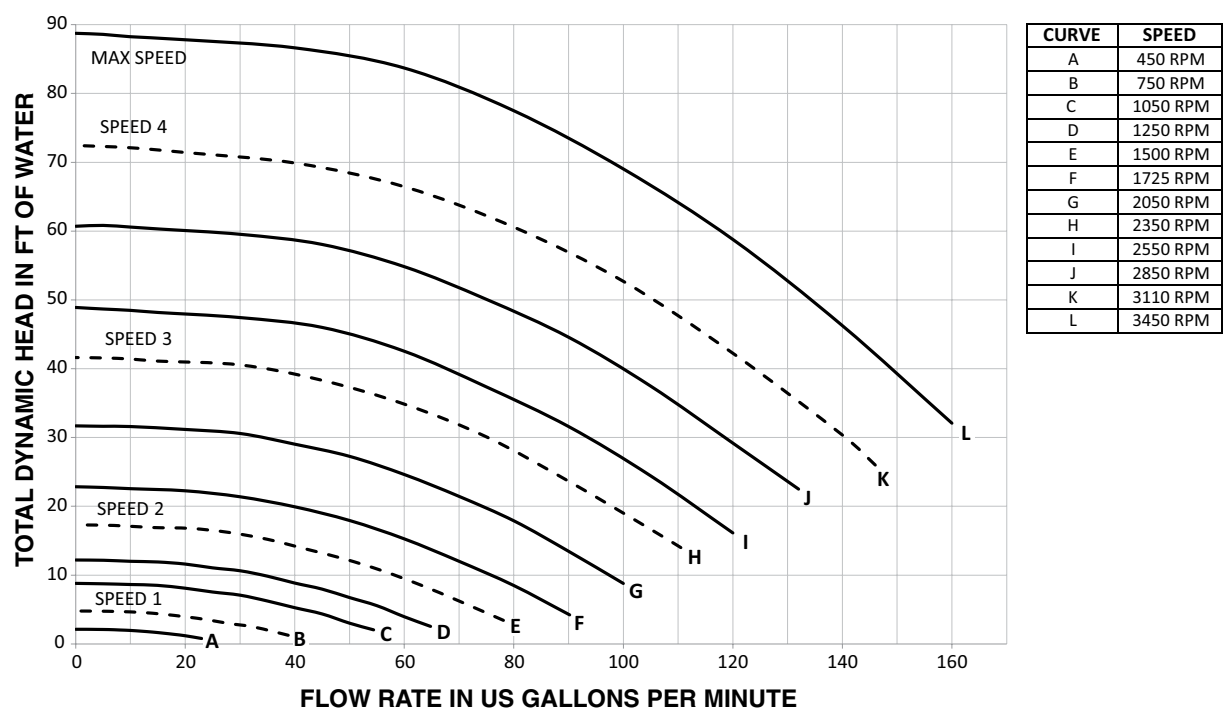
⚠ **WARNING:** Cancer and Reproductive Harm.
 ⚠ **AVERTISSEMENT:** Peut Causer le Cancer et des Dommages au Système Reproducteur.
 ⚠ **ADVERTENCIA:** Cáncer y Daño Reproductivo.

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INTELLIFLO® i2

VARIABLE SPEED PUMP (CONT'D)

Dimensions and Performance



See page 475 for replacement parts.

INTELLIFLO® i1

VARIABLE SPEED PUMP



IntelliFlo i1
Variable Speed Pump

Featured Highlights

- Rotable keypad for easy programming and viewing
- Keypad has the ability to be wall mounted with optional wall kit (sold separately)
- Intuitive interface/HMI simplifies programming and use
- Top-mounted field wiring compartment for easy access and installation
- 8 programmable speed settings and built in timer
- Totally-enclosed fan-cooled design (TEFC) for quiet operation
- Built-in diagnostics helps protect the pump for longer service life
- Interfaces perfectly with Pentair automation systems

Patent Information: www.pentair.com/patents

IntelliFlo i1 Variable Speed pump has a unique hydraulic platform designed for compliance in specific geographical areas with certain flow rates. IntelliFlo i1 pump provides all the features as standard IntelliFlo pumps but is engineered to be limited to the flow rate of a 1-HP pump. It also has a max amp rating of 7 amps for easy retrofits with limited existing wire gauge size.

Ordering Information

Product	Description	THP	WEF	HHP	Service Factor	Voltage	Frequency	Current	Port Size	Weight	Certifications ³
ENERGY EFFICIENT VARIABLE SPEED FULL RATED											
011059	IntelliFlo i1	3.95	7.5	1.13	1.0	230	50/60	7.3	2" x 2"	53	UL ¹ , NSF ²
ACCESSORIES											
521109	IntelliCom 2 - Rated 9 - 30 V DC with 4 inputs									1	
350122	Automation Communication Cable for IntelliFlo - Included with pump									2	
357156	Chemical Resistant Lid									1	
356904Z	Optional Keypad Wall Mount Kit									2	
356198	Chemical/Salt/Ozone/Resistant EPDM & SS Seal Quick Kit									1	

¹ 'UL' indicates that pump bears a specific UL mark signifying evaluation to U.S. Standards UL1081 for Permanently Connected Swimming Pool and Spa Pumps and to Canadian Standards CAN/CSA C22.2 No. 108-01 Liquid Pumps For Swimming Pools Only (Enclosure 3).

² 'NSF' indicates that pump bears a mark signifying evaluation to NSF Standard 50 For Self-Priming Centrifugal Pumps For Swimming Pools Only.

³ Product may have been evaluated to other state and local regulatory standards. Listing status may change. Always confirm status with appropriate agency if in doubt.

Refer to catalog page 58 for a selection of 2-Pole GFCI breakers which offer 6 milliamp personnel protection while meeting 2008 to current NEC Standards for Pool Pumps

CALIFORNIA PROPOSITION 65 WARNING

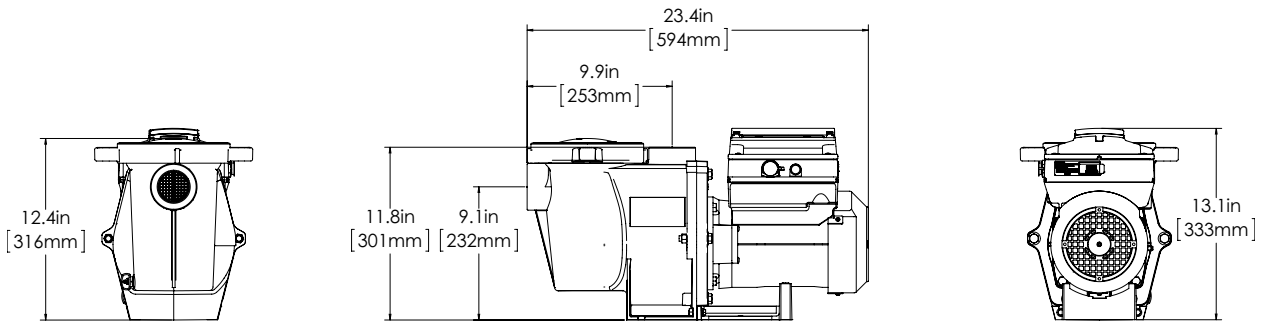
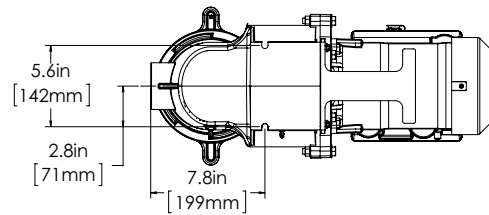
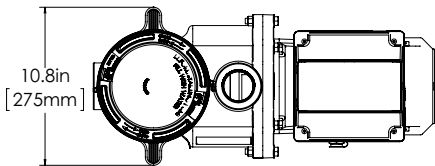
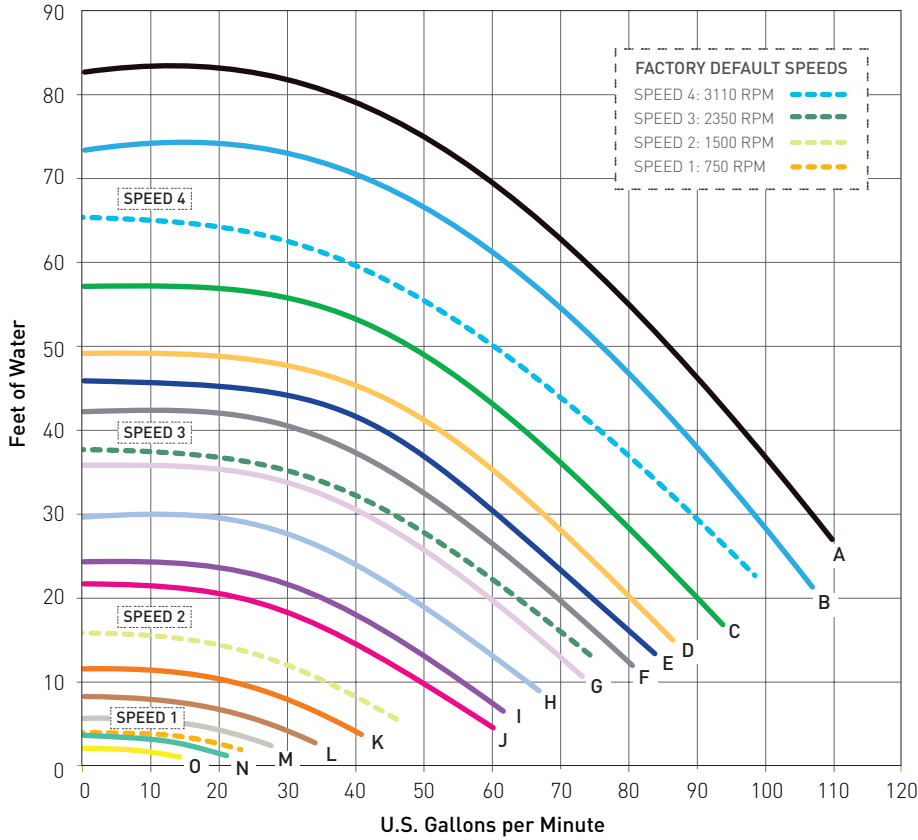
⚠ **WARNING:** Cancer and Reproductive Harm.
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 ⚠ **ADVERTENCIA:** Cáncer y Daño Reproductivo.

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P9230174

INTELLIFLO® i1

VARIABLE SPEED PUMP (CONT'D)

Dimensions and Performance



See page 475 for replacement parts.

WHISPERFLOXF® HIGH PERFORMANCE PUMPS

TRADEGRADE



WhisperFloXF Pump
shown with TEFC Motor

Developed using the most advanced engineering tools available - CFD (Computational Fluid Dynamics) and FEA (Finite Element Analysis). The impeller design delivers high level of precision concentricity for increased efficiency. *Optional riser base for Challenger pump replacements Part # 400012 available separately.
TEFC Super-Duty Single Speed Models are designated

Product 022032, 022033, 022034

Featured Highlights

- Drop-in replacement for all WhisperFlo® Pump models. Simple replacement for Challenger® Pumps.*
- Union connectors included for connecting directly to 2.5 in. or 3 in. plumbing
- Extra large, robust basket with smooth surface for easy debris removal
- Easy-carry handle; easily removable ergonomic lock ring; and see-through lid for easy basket inspection
- Three Phase XF pumps are compatible with Pentair's Acu Drive XS VFD's

Ordering Information

Product	Rated HP	THP	WEF	HHP	Service Factor	Voltage	Frequency	Current	Port Size	Weight	Certifications ³	Curve Key
COMMERCIAL SINGLE-SPEED TEFC												
022034	5	5	N/A	N/A	1.00	208-230	60	20.0-18.8	2.5" x 2.5" or 3" x 3"	67	UL ¹ , NSF ²	A
TEFC SINGLE-SPEED—NOT FOR SALE IN THE USA												
022032-INT	2	2.60	N/A	N/A	1.30	208-230	60	11.1-9.5	2.5" x 2.5" or 3" x 3"	57	UL ¹ , NSF ²	D
022033-INT	3	3.45	N/A	N/A	1.15	208-230	60	14.6-12.7	2.5" x 2.5" or 3" x 3"	61	UL ¹ , NSF ²	B
THREE-PHASE SUPER-DUTY												
022017	2	2.6	N/A	N/A	1.30	208-230/460	60	7.5-7.2/3.6	2.5" x 2.5" or 3" x 3"	60	UL ¹ , NSF ²	I
022018	3	3.25	N/A	N/A	1.15	208-230/460	60	9.8-9.4/4.7	2.5" x 2.5" or 3" x 3"	60	UL ¹ , NSF ²	H
022019	5	5.00	N/A	N/A	1.00	208-230/460	60	13.9-13.1/6.6	2.5" x 2.5" or 3" x 3"	72	UL ¹ , NSF ²	G
ACCESSORIES												
400012	XF Riser Base - Simplifies installation of XF-series pumps in applications where Challenger pumps are being replaced.											

¹ 'UL' indicates that pump bears a UL mark signifying evaluation to U.S. Standards UL1081 for Permanently Connected Swimming Pool and Spa Pumps and to Canadian Standards CAN/CSA C22.2 No. 108-01 Liquid Pumps For Swimming Pools Only (Enclosure 3).

² 'NSF' indicates that pump bears a mark signifying evaluation to NSF Standard 50 For Self-Priming Centrifugal Pumps For Swimming Pools, Spas and Hot Tubs.

³ Product may have been evaluated to other state and local regulatory standards. Listing status may change. Always confirm status with appropriate agency if in doubt.

CALIFORNIA PROPOSITION 65 WARNING

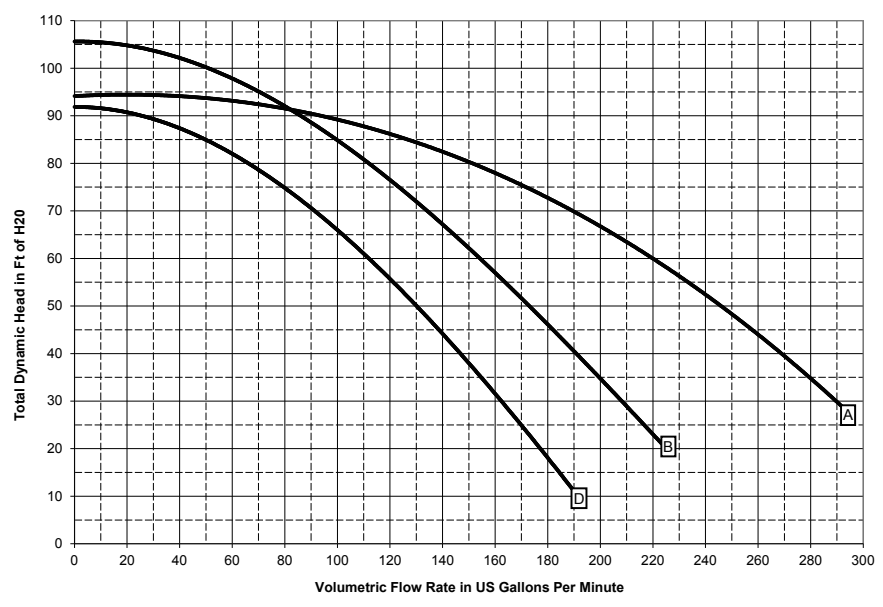
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 ⚠ **ADVERTENCIA:** Cáncer y Daño Reproductivo.
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WHISPERFLOXF[®]

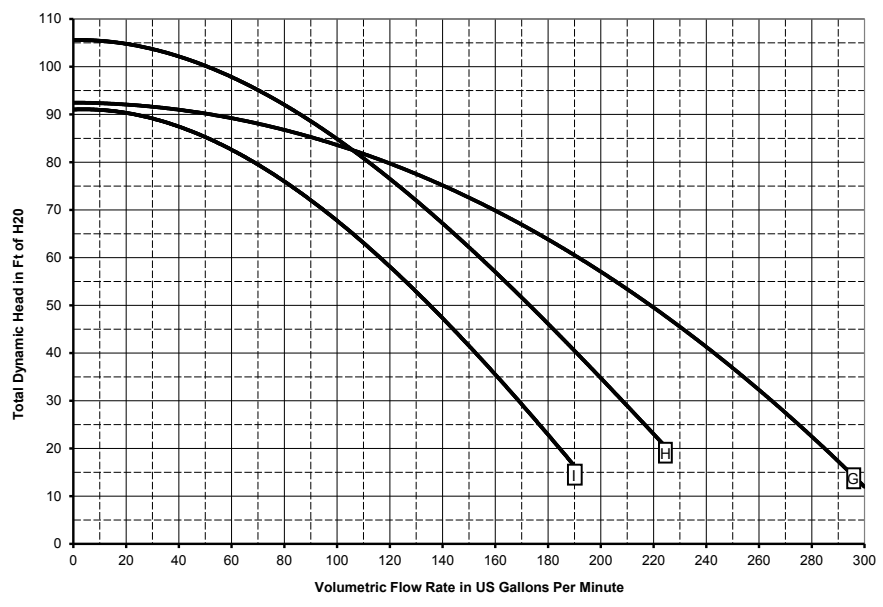
HIGH PERFORMANCE PUMPS (CONT'D)

Dimensions and Performance

1 & 2-Speed Performance Curve

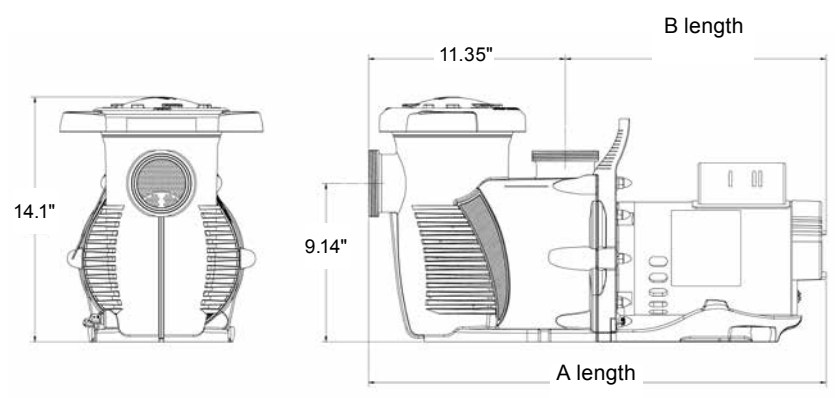


3 Phase Performance Curve



B-VARYING LENGTH		
HP	TEFC	3-PH
2	13.05	12.35
3	13.65	13.05
5	14.55	13.88

A-VARYING LENGTH		
HP	TEFC	3-PH
2	24.4	23.7
3	25	24.4
5	25.9	25.23



See page 478-479 for replacement parts.

WHISPERFLO®

HIGH PERFORMANCE PUMPS

TRADEGRADE



WhisperFlo Pump shown with TEFC Motor

Robust thermoplastic with the Cam & Ramp™ See-Through Lid design. Self-priming, high flow with Funnel-Flo™ Diffusers. 2 in. suction and discharge ports. Motor features threaded shaft and durable commercial duty 56 frame motor.

Featured Highlights

- Oversized strainer basket and volute—industry standard in pool pumps
- TEFC Motors available
- Lower HP's deliver higher performance than industry standard
- Compatible with all cleaning systems, various filters and jet action spas
- Heavy-duty/durable construction is designed for long life
- Designed for residential and commercial applications

CALIFORNIA PROPOSITION 65 WARNING

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www.p65warnings.ca.gov

Ordering Information

Product	Rated HP	THP	WEF	HHP	Service Factor	Voltage	Frequency	Current	Port Size	Weight	Certifications ³	Curve Key
DOE COMPLIANT SINGLE-SPEED TEFC												
015583	N/A	1.1	3.4	0.69	1.00	115/208-230	60	10.5/5.4-5.4	2" x 2"	50	UL ¹ , NSF ²	E
ENERGY EFFICIENT SINGLE-SPEED - NOT FOR SALE IN THE USA												
011511-INT	1/2	0.95	N/A	N/A	1.00	115/208-230	60	8.8/4.5-4.4	2" x 2"	44	UL ¹ , NSF ²	E
011512-INT	3/4	1.25	N/A	N/A	1.00	115/208-230	60	12.8/7.0-6.4	2" x 2"	44	UL ¹ , NSF ²	F
TEFC SINGLE-SPEED - NOT FOR SALE IN THE USA												
011527-INT	1	1.65	N/A	N/A	1.00	115/208-230	60	15.1/8.5-7.7	2" x 2"	50	UL ¹ , NSF ²	G
011528-INT	1 1/2	2.21	N/A	N/A	1.00	208-230	60	10.3-9.1	2" x 2"	53	UL ¹ , NSF ²	H
011529-INT	2	2.60	N/A	N/A	1.00	208-230	60	11.7-10.3	2" x 2"	58	UL ¹ , NSF ²	I
011530-INT	3	3.45	N/A	N/A	1.00	208-230	60	14.6-12.7	2" x 2"	62	UL ¹ , NSF ²	J
ENERGY EFFICIENT 50 HZ SINGLE-SPEED - NOT FOR SALE IN THE USA												
347926-INT	1/2	0.55	N/A	N/A	1.10	240/120	50	7.5/15.0	2" x 2"	45	—	—
347927-INT	3/4	0.83	N/A	N/A	1.10	240/120	50	7.5/15.0	2" x 2"	45	—	—
347928-INT	1	1.10	N/A	N/A	1.10	240/120	50	6.9/13.8	2" x 2"	52	—	—
347929-INT	1 1/2	1.65	N/A	N/A	1.10	240	50	7.2	2" x 2"	52	—	—
347930-INT	2	2.20	N/A	N/A	1.10	240	50	9.4	2" x 2"	55	—	—
THREE-PHASE SUPER-DUTY												
011641	1	1.65	2.9	1.10	1.65	208-230/460	60	4.9-4.5/2.3	2" x 2"	41	UL ¹ , NSF ²	G
011642	1.5	2.21	2.6	1.44	1.47	208-230/460	60	6.4-6.3/3.2	2" x 2"	43	UL ¹ , NSF ²	H
011643	2	2.60	2.5	1.61	1.30	208-230/460	60	7.5-7.2/3.6	2" x 2"	47	UL ¹ , NSF ²	I
011644	3	3.45	2.1	2.02	1.15	208-230/460	60	9.8-9.4/4.7	2" x 2"	52	UL ¹ , NSF ²	J
ACCESSORIES												
11201-0154	2 in. x 2 in. Union (2 in. NPT male x 2 in. female NPT quick connect) * Note: two required per pump (sold individually)											
357156	Cover/Lid, Chemical Resistant, CAM & RAMP											
356198	Chemical/Salt/Ozone/Resistant EPDM & SS Seal Quick Kit											

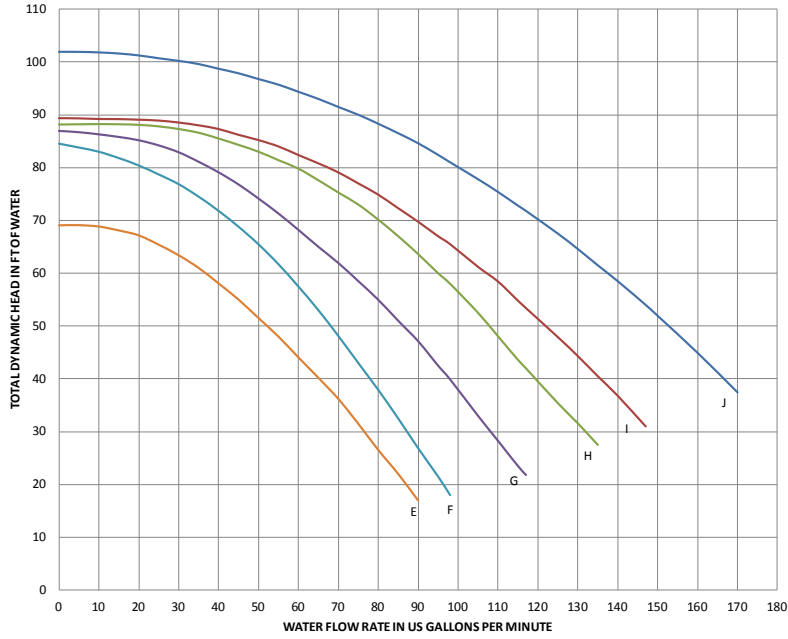
¹ 'UL' indicates that pump bears a UL mark signifying evaluation to U.S. Standards UL1081 for Permanently Connected Swimming Pool and Spa Pumps and to Canadian Standards CAN/CSA C22.2 No. 108-01 Liquid Pumps For Swimming Pools Only (Enclosure 3).

² 'NSF' indicates that pump bears a mark signifying evaluation to NSF Standard 50 For Self-Priming Centrifugal Pumps For Swimming Pools, Spas and Hot Tubs.

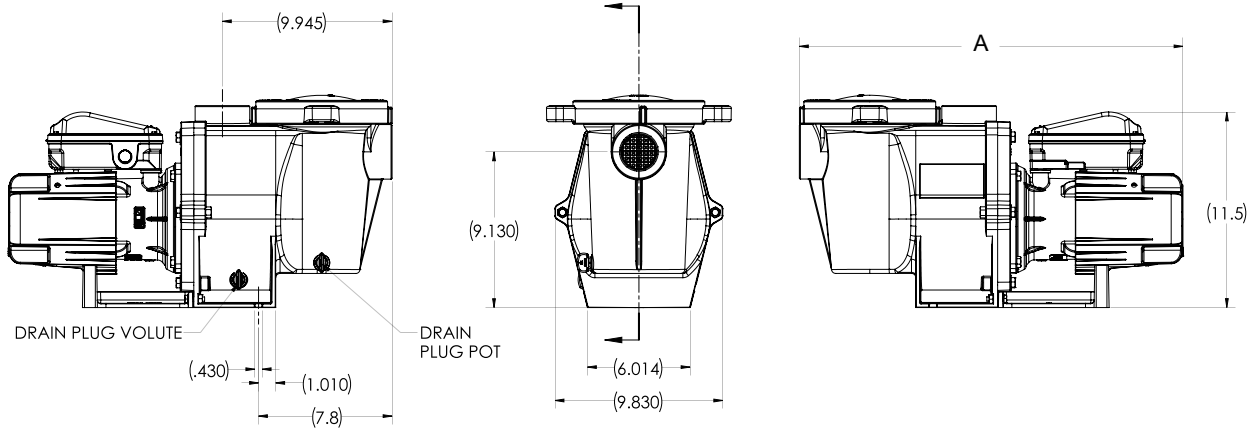
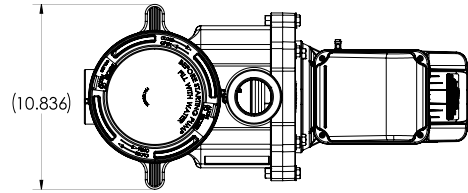
³ Product may have been evaluated to other state and local regulatory standards. Listing status may change. Always confirm status with appropriate agency if in doubt.

WHISPERFLO® HIGH PERFORMANCE PUMPS (CONT'D)

Dimensions and Performance



A- VARYING LENGTH				
HP	EE	TEFC	DOE Compliant	3-PH
0.5	24.41	—	—	—
0.75	24.41	—	—	—
1	—	21.71	—	21.5
1.1	—	—	22.5	—
1.5	—	22.16	—	21.5
2	—	22.51	—	21.81
3	—	23.21	—	22.61



See page 480–481 for replacement parts.

WATERFALL

SPECIALTY PUMPS



WaterFall Specialty Pump

With Closed Impeller, Single-Speed. Custom designed for the specific demands of water features such as fountains, waterfalls, and other special pool features.

Featured Highlights

- Designed for low head applications that require 35–180 GPM's
- Pump components are custom molded of thermoplastic for strength, durability, and a quieter operation
- Standard 2 in. suction and discharge ports for operating efficiency
- Extra-large strainer basket extends time between cleanings
- Transparent strainer pot lid with comfortable handle provides easy access to strainer basket

CALIFORNIA PROPOSITION 65 WARNING

⚠ **WARNING:** Cancer and Reproductive Harm.
 ⚠ **AVERTISSEMENT:** Peut Causer le Cancer et des Dommages au Système Reproducteur.
 ⚠ **ADVERTENCIA:** Cáncer y Daño Reproductivo.
www.p65warnings.ca.gov

Ordering Information

Product	Model	Voltage	Full Load Amps	Primary Listings and Certifications ²	Port Size (NPT)	Carton Wt. (Lbs.)	Curve Key
EFFICIENT SINGLE SPEED WITH STRAINER							
▶ 340350	AFP-75	115/230	9.6/4.8	UL ^{1,2}	2 in. x 2 in.	40	A
▶ 340351	AFP-120	115/230	9.6/4.8	UL ^{1,2}	2 in. x 2 in.	40	B
▶ 340352	AFP-150	115/230	12.0/6.0	UL ^{1,2}	2 in. x 2 in.	43	D
EFFICIENT SINGLE SPEED WITHOUT STRAINER							
▶ 340300 ³	AF-75 ³	115/230	9.6/4.8	UL ^{1,2}	2 in. x 2 in.	37	A
▶ 340301 ³	AF-120 ³	115/230	9.6/4.8	UL ^{1,2}	2 in. x 2 in.	37	C
▶ 340302 ³	AF-180 ³	115/230	12.0/6.0	UL ^{1,2}	2 in. x 2 in.	40	E

¹ 'UL' indicates that pump bears a specific UL mark signifying evaluation to U.S. Standards UL1081 for Permanently Connected Swimming Pool and Spa Pumps and to Canadian Standards CAN/CSA C22.2 No. 108-01 Liquid Pumps For Swimming Pools And Spas. (Enclosure 3).

² Product may have been evaluated to other state and local regulatory standards. Listing status may change. Always confirm status with appropriate agency if in doubt.

³ Flooded suction models do not contain priming/strainer pot.



WaterFall Pump w/o Strainer

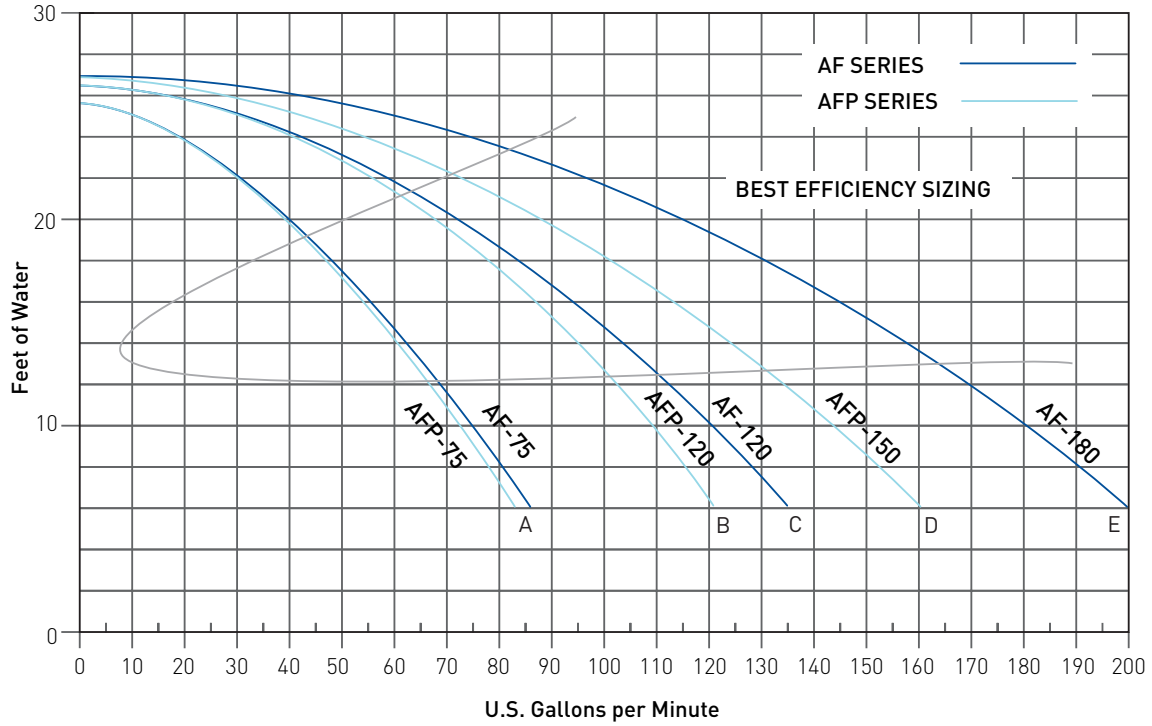
AF-75, 120, 180

▶ This product either meets or is exempt from the DOE Dedicated Purpose Pool Pump regulation. This product will remain available after the DOE regulation takes effect in July 2021.

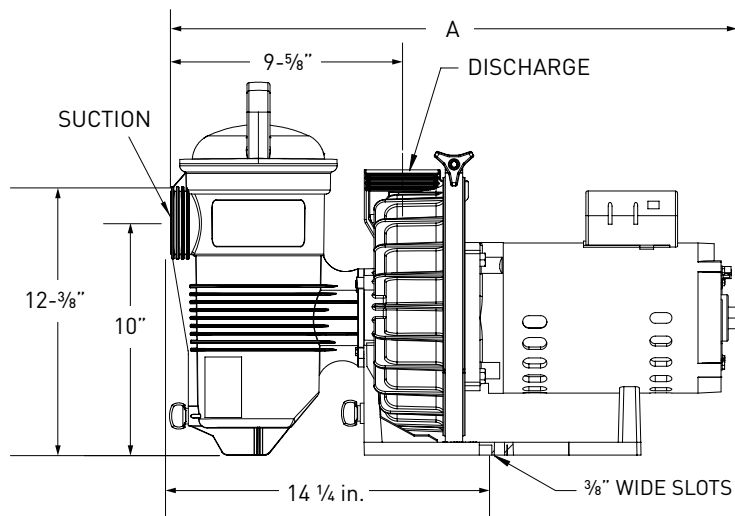
WATERFALL

SPECIALTY PUMPS (CONT'D)

Dimensions and Performance



FOR MODELS AFP 75, 120 & 150



"A" dimension varies from 23" to 24" depending upon model.
 Suction and discharge connections are 2" NPT.

See page 523 for replacement parts.

SUPERFLO® VST VARIABLE SPEED PUMP

TRADEGRADE



SuperFlo VST Variable Speed Pump

Featured Highlights

- TEFC motor, can adapt to 115V to 230V or 50hz or 60hz power with no special wiring or switching
- Improved mechanical seal for long, dependable performance
- Simple, easy-to-use digital control keypad with three programmable speeds, override capability and a real-time, 24 hour clock
- Easy to access electrical connections for simple installation
- Ideal for new and standard pool pump replacement for pools requiring up to a 1.5 HP pump
- SuperFlo pumps by Pentair are a direct replacement for the Hayward® Super Pump®*

The SuperFlo VST Variable Speed Pump features sophisticated technology in a simple to operate pump. Designed for the practical pool owner, the SuperFlo VST pump has a dependable and robust Totally Enclosed Fan Cooled motor and can adapt to 115V to 230V and 50hz or 60hz power with no special wiring or switching.

CALIFORNIA PROPOSITION 65 WARNING

⚠️ **WARNING:** Cancer and Reproductive Harm.
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 ⚠️ **ADVERTENCIA:** Cáncer y Daño Reproductivo.

www.p65warnings.ca.gov PN20018A

Ordering Information

Product	THP	WEF	HHP	Service Factor	Voltage	Frequency	Current	Port Size	Weight	Certifications
SUPERFLO VST VARIABLE SPEED										
342002	2.2	9.0	1.08	1.0	115/208-230	50/60	13.6/8.0-7.1	1.5" x 1.5"	53	UL ¹ , NSF ²
ACCESSORIES										
356324Z	External Control Wiring Kit									
356197	Chemical/Salt/Ozone Resistant EPDM & SS Seal Quick Kit (for pumps Mfg. before June 2019)									

¹ 'UL' indicates that pump bears a UL mark signifying evaluation to U.S. Standards UL1081 for Permanently Connected Swimming Pool and Spa Pumps and to Canadian Standards CAN/CSA C22.2 No. 108-01 Liquid Pumps For Swimming Pools Only (Enclosure 3). UL 60730 Compliant.

² 'NSF' indicates that pump bears a mark signifying evaluation to NSF Standard 50 For Self-Priming Centrifugal Pumps For Swimming Pools Only.

³ Product may have been evaluated to other state and local regulatory standards. Listing status may change. Always confirm status with appropriate agency if in doubt.

• Savings based on variable speed pump compared to a single-speed pump running 12 hours per day at an average of \$0.16 per kWh in a 20,000 gallon pool. Actual savings may vary based on local utility rates, pool size, pump run time, pump horsepower, pump rpm, plumbing size and length, pump model, service factor and other hydraulic factors.

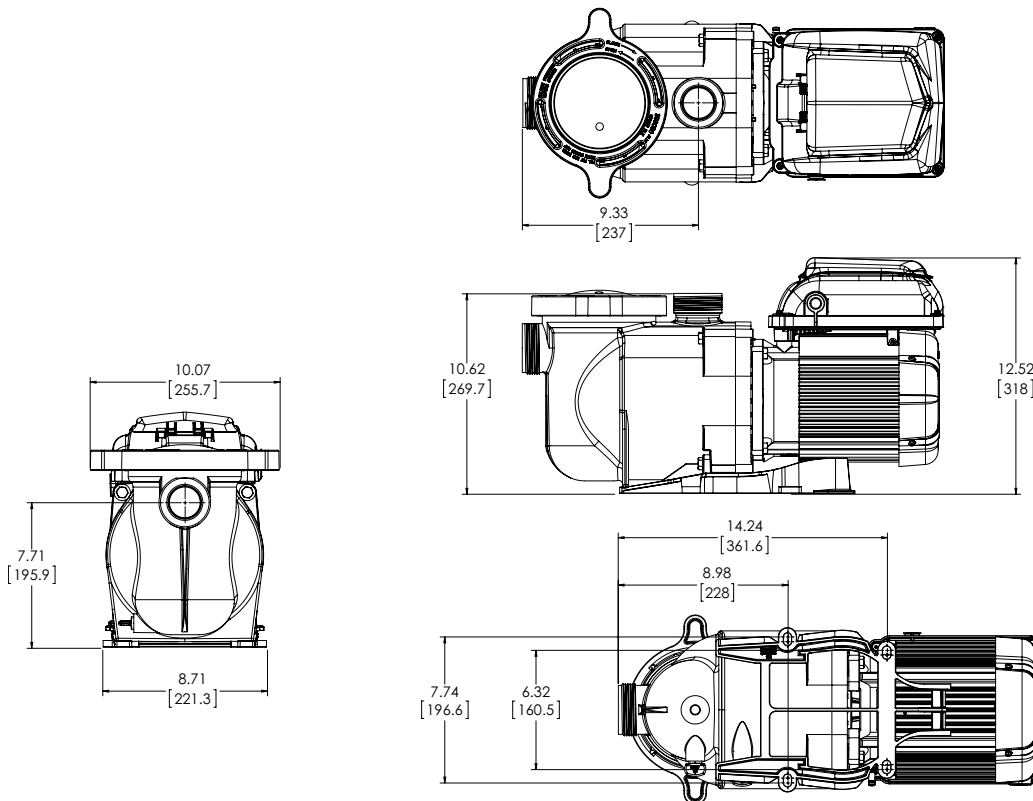
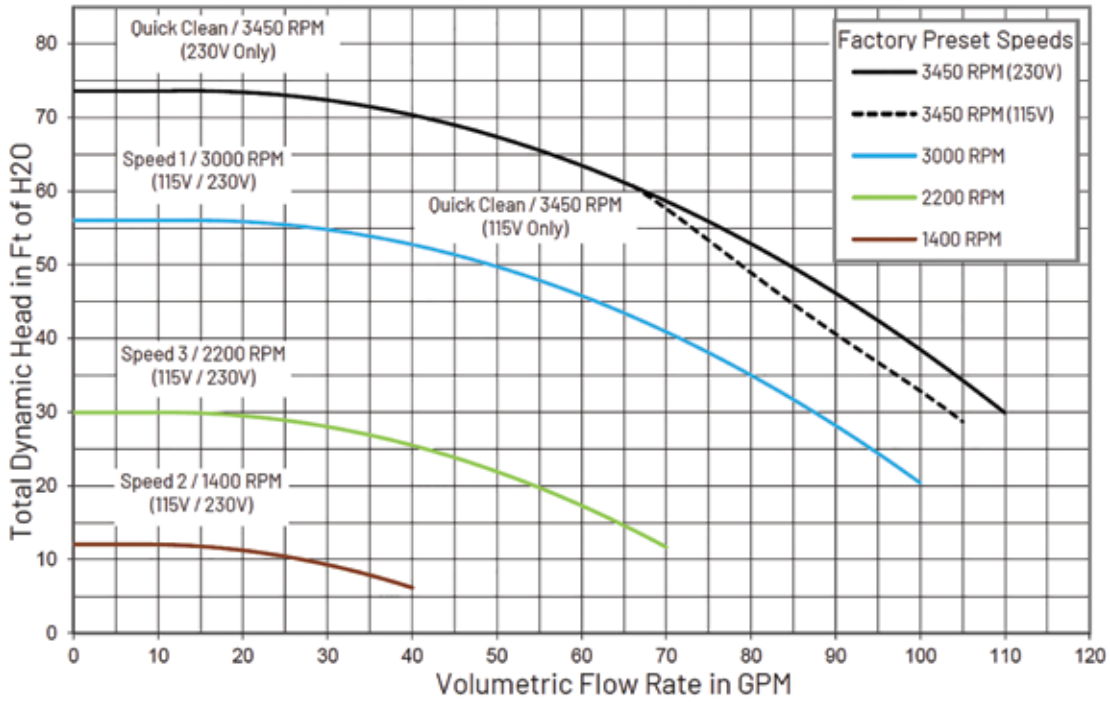
* Hayward® and Super Pump® are registered trademarks of Hayward Industries, Inc.

See page 486–487 for replacement parts.

SUPERFLO® VST

VARIABLE SPEED PUMP (CONT'D)

Dimensions and Performance



SUPERFLO®

HIGH PERFORMANCE PUMPS

TRADEGRADE



SuperFlo Pump

SuperFlo pumps feature thick walled body parts, a heavy-duty 56 square flange motor, and highly engineered hydraulics, SuperFlo pumps' silent running capability and small footprint allow it to easily drop into a compact equipment pad.

Featured Highlights

- SuperFlo pump by Pentair Aquatic Systems is a direct replacement for the Hayward® Super Pump® *
- Extremely quiet operation
- Unionized fittings included (1-1/2 in. internal slip and 2 in. external slip)
- Cam and Ramp™ Lid
- Heavy-duty, high service factor 56 square flange motor
- Integral volute and pot reduce hydraulic noise

Ordering Information

Product	Rated HP	THP	WEF	HHP	Service Factor	Voltage	Frequency	Current	Port Size	Weight	Certifications ³	Curve Key
DOE COMPLIANT SINGLE-SPEED TEFC												
348190	N/A	1.1	3.6	0.63	1.00	115/208-230	60	10.5/5.4-5.4	1.5" x 1.5"	50	UL ¹ , NSF ²	B
ENERGY EFFICIENT SINGLE-SPEED - NOT FOR SALE IN THE USA												
348021-INT	1/2	0.95	N/A	N/A	1.00	115/208-230	60	8.8/4.5-4.4	1.5" x 1.5"	44	UL ¹ , NSF ²	A
348022-INT	3/4	0.95	N/A	N/A	1.00	115/208-230	60	8.8/4.5-4.4	1.5" x 1.5"	44	UL ¹ , NSF ²	A
TEFC SINGLE-SPEED - NOT FOR SALE IN THE USA												
348144-INT	1	1.65	N/A	N/A	1.00	115/208-230	60	15.1/8.5-7.7	1.5" x 1.5"	50	UL ¹ , NSF ²	C
348145-INT	1-1/2	2.21	N/A	N/A	1.00	208-230	60	10.3-9.1	1.5" x 1.5"	53	UL ¹ , NSF ²	D
348146-INT	2	2.60	N/A	N/A	1.00	208-230	60	11.7-10.3	1.5" x 1.5"	58	UL ¹ , NSF ²	E
ENERGY EFFICIENT 50 HZ SINGLE-SPEED - NOT FOR SALE IN THE USA												
340094-INT	1/2	0.55	N/A	N/A	1.10	240/120	50	7.5/15.0	1.5" x 1.5"	45	—	—
340095-INT	3/4	0.83	N/A	N/A	1.10	240/120	50	7.5/15.0	1.5" x 1.5"	45	—	—
340096-INT	1	1.10	N/A	N/A	1.10	240/120	50	6.9/13.8	1.5" x 1.5"	52	—	—
340097-INT	1 1/2	1.65	N/A	N/A	1.10	240	50	7.2	1.5" x 1.5"	52	—	—
340098-INT	2	2.20	N/A	N/A	1.10	240	50	9.4	1.5" x 1.5"	55	—	—
ACCESSORIES												
351157	Union Kit – 1-1/2 in. Internal Slip x 2 in. External Slip (includes 2 unions as pictured above)											
356197	Chemical/Salt/Ozone Resistant EPDM & SS Seal Quick Kit											

¹ 'UL' indicates that pump bears a UL mark signifying evaluation to U.S. Standards UL1081 for Permanently Connected Swimming Pool and Spa Pumps and to Canadian Standards CAN/CSA C22.2 No. 108-01 Liquid Pumps For Swimming Pools Only (Enclosure 3).

² 'NSF' indicates that pump bears a mark signifying evaluation to NSF Standard 50 For Self-Priming Centrifugal Pumps For Swimming Pools Only.

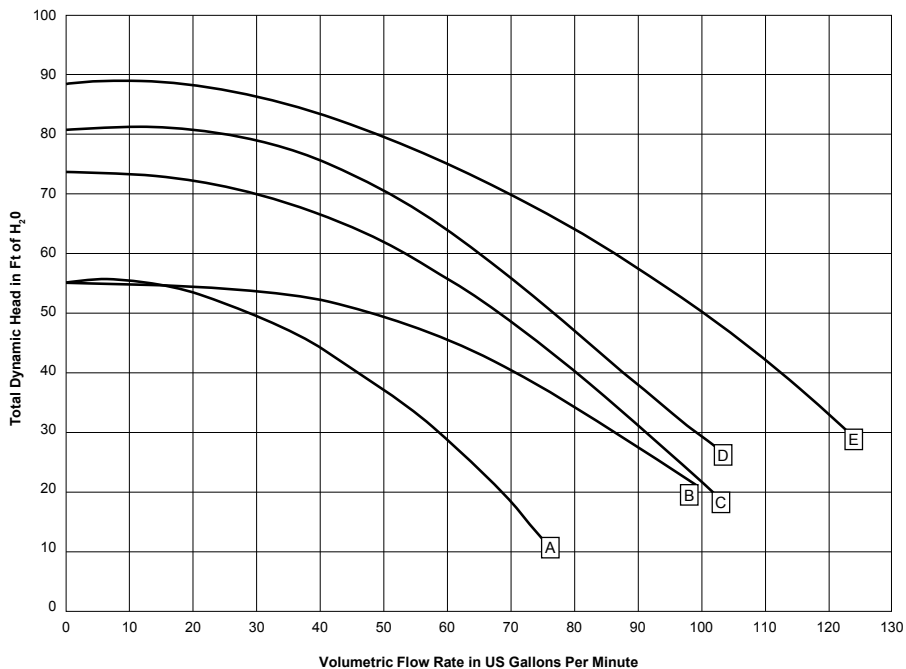
³ Product may have been evaluated to other state and local regulatory standards. Listing status may change. Always confirm status with appropriate agency if in doubt.

* Hayward® and Super Pump® are registered trademarks of Hayward Industries, Inc.

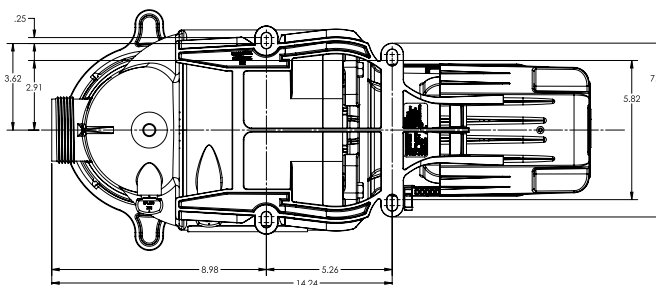
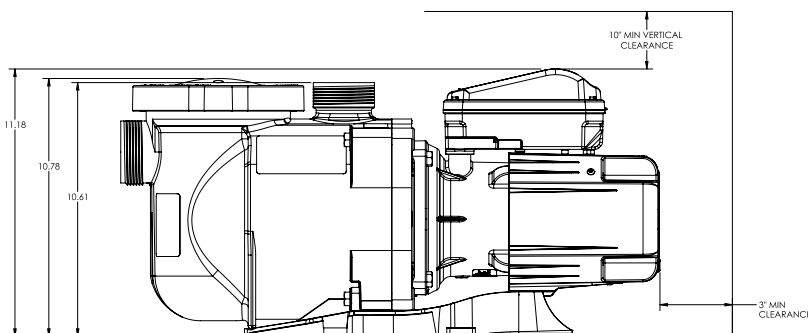
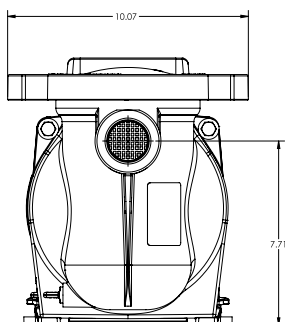
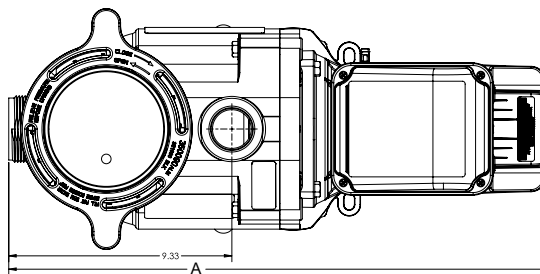
SUPERFLO®

HIGH PERFORMANCE PUMPS (CONT'D)

Dimensions and Performance



A- VARYING LENGTH			
HP	EE	TEFC	DOE Compliant
0.5	24.64	—	—
0.75	24.64	—	—
1	—	22	—
1.1	—	—	22.55
1.5	—	22.45	—
2	—	22.9	—



CALIFORNIA PROPOSITION 65 WARNING

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 ⚠ **AVERTISSEMENT:** Peut Causer le Cancer et des Dommages au Système Reproducteur.
 ⚠ **ADVERTENCIA:** Cáncer y Daño Reproductivo.

www.p65warnings.ca.gov

See page 490–491 for replacement parts.

INTELLIPROXF[®] VSF

VARIABLE SPEED AND FLOW PUMP



TRADEGRADE



IntelliProXF VSF Pump

Patent Information: www.pentair.com/patents

Featured Highlights

- Eight programmable speed or flow settings and built-in timer
- Rotatable keypad with optional wall mount kit (sold separately)
- Top-mounted field wiring compartment is easier to access and connect
- Totally enclosed fan-cooled design keeps motor shielded from the elements for extended life
- Menus are easier than ever to use
- Union connectors included for connecting directly to 2.5" or 3" plumbing
- Maintains system flow requirements
- Compatible with Pentair Automation

The IntelliPro VSF pump family is the first variable speed and flow pump that adjusts to changes in flow system conditions to maintain its programmed flow rate. With its available performance and efficiency, it is perfectly suited for large and feature rich pools with high flow demand.

Ordering Information

Product	Description	THP	WEF	HHP	Service Factor	Voltage	Frequency	Current	Port Size	Weight	Certifications ³
INTELLIPROXF VSF VARIABLE SPEED AND FLOW PUMP											
023056	IntelliProXF VSF	3.95	5.6	2.10	1.0	230	50/60	16.0	2" x 2"	60	UL ¹ , NSF ²
ACCESSORIES											
400012	XF Riser Base - Simplifies installation of XF-series pumps in applications where Challenger pumps are being replaced.										
521109	IntelliCom 2 - Rated 9 - 30 V DC with 4 inputs									1	
350122	Communication Cable - 50 ft. - Included with pump									2	
356905Z	Keypad Relocation Kit									1	

¹ 'UL' indicates that pump bears a UL mark signifying evaluation to U.S. Standards UL1081 for Permanently Connected Swimming Pool and Spa Pumps and to Canadian Standards CAN/CSA C22.2 No. 108-01 Liquid Pumps For Swimming Pools Only (Enclosure 3).

² 'NSF' indicates that pump bears a mark signifying evaluation to NSF Standard 50 For Self-Priming Centrifugal Pumps For Swimming Pools Only.

³ Product may have been evaluated to other state and local regulatory standards. Listing status may change. Always confirm status with appropriate agency if in doubt.

Refer to catalog page 58 for a selection of 2-Pole GFCI breakers which offer 6 milliamp personnel protection while meeting 2008 to current NEC Standards for Pool Pumps.

CALIFORNIA PROPOSITION 65 WARNING

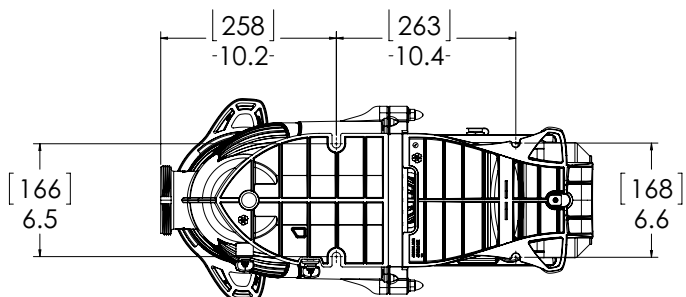
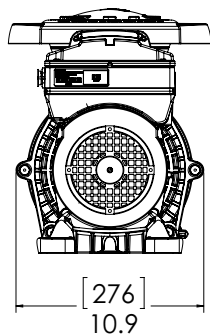
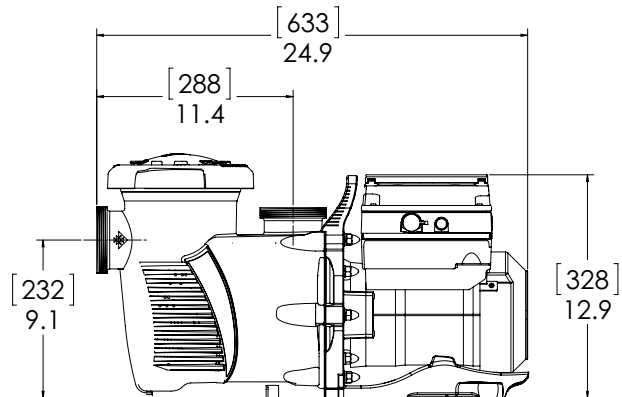
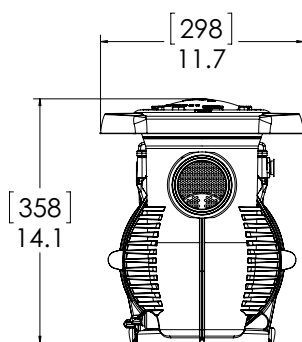
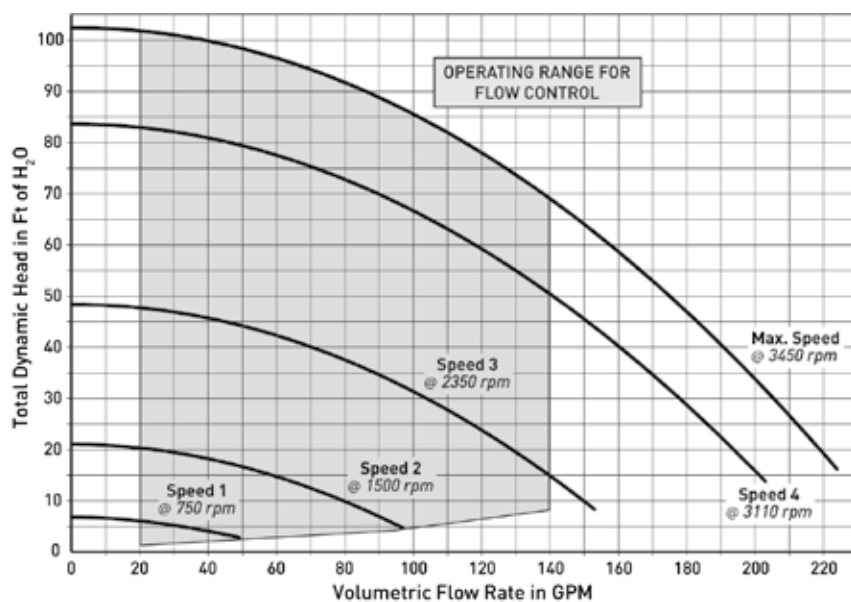
▲ **WARNING:** Cancer and Reproductive Harm.
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▲ **ADVERTENCIA:** Cáncer y Daño Reproductivo.

www.p65warnings.ca.gov
PR020174A

INTELLIPROXF[®] VSF

VARIABLE SPEED AND FLOW PUMP (CONT'D)

Dimensions and Performance



See page 492 for replacement parts.

INTELLIPRO® VSF

VARIABLE SPEED AND FLOW PUMP



TRADEGRADE



IntelliPro VSF Pump



Featured Highlights

- Eight programmable speed or flow settings and built-in timer
- Rotatable keypad with optional wall mount kit (sold separately)
- Top-mounted field wiring compartment is easier to access and connect
- Totally enclosed fan-cooled design for increased performance and long life
- Menus are easier than ever to use
- Helps maintain system flow requirements
- Compatible with Pentair Automation

Patent Information: www.pentair.com/patents

The IntelliPro VSF pump family is the first variable speed and flow pump that adjusts to changes in flow conditions to maintain its preprogrammed flow rate to run optimally throughout the entire filtration cycle. It's like having cruise control for your pump.

Ordering Information

Product	Description	THP	WEF	HHP	Service Factor	Voltage	Frequency	Current	Port Size	Weight	Certifications ³
INTELLIPRO VSF VARIABLE SPEED AND FLOW PUMP											
013004	IntelliPro VSF	3.95	6.6	2.10	1.0	230	50/60	16.0	2" x 2"	53	UL ¹ , NSF ²
ACCESSORIES											
521109	IntelliCom 2 - Rated 9 - 30 V DC with 4 inputs										1
350122	Communication Cable - 50 ft. - Included with pump										2
356905Z	Keypad Relocation Kit										2
356196	Chemical/Salt/Ozone Resistant EPDM & SS Seal Quick Kit										1

¹ 'UL' indicates that pump bears a specific UL mark signifying evaluation to U.S. Standards UL1081 for Permanently Connected Swimming Pool and Spa Pumps and to Canadian Standards CAN/CSA C22.2 No. 108-01 Liquid Pumps For Swimming Pools Only (Enclosure 3).

² 'NSF' indicates that pump bears a mark signifying evaluation to NSF Standard 50 For Self-Priming Centrifugal Pumps For Swimming Pools Only.

³ Product may have been evaluated to other state and local regulatory standards. Listing status may change. Always confirm status with appropriate agency if in doubt.

Refer to catalog page 58 for a selection of 2-Pole GFCI breakers which offer 6 milliamp personnel protection while meeting NEC 2008 Standards for Pool Pumps.

CALIFORNIA PROPOSITION 65 WARNING

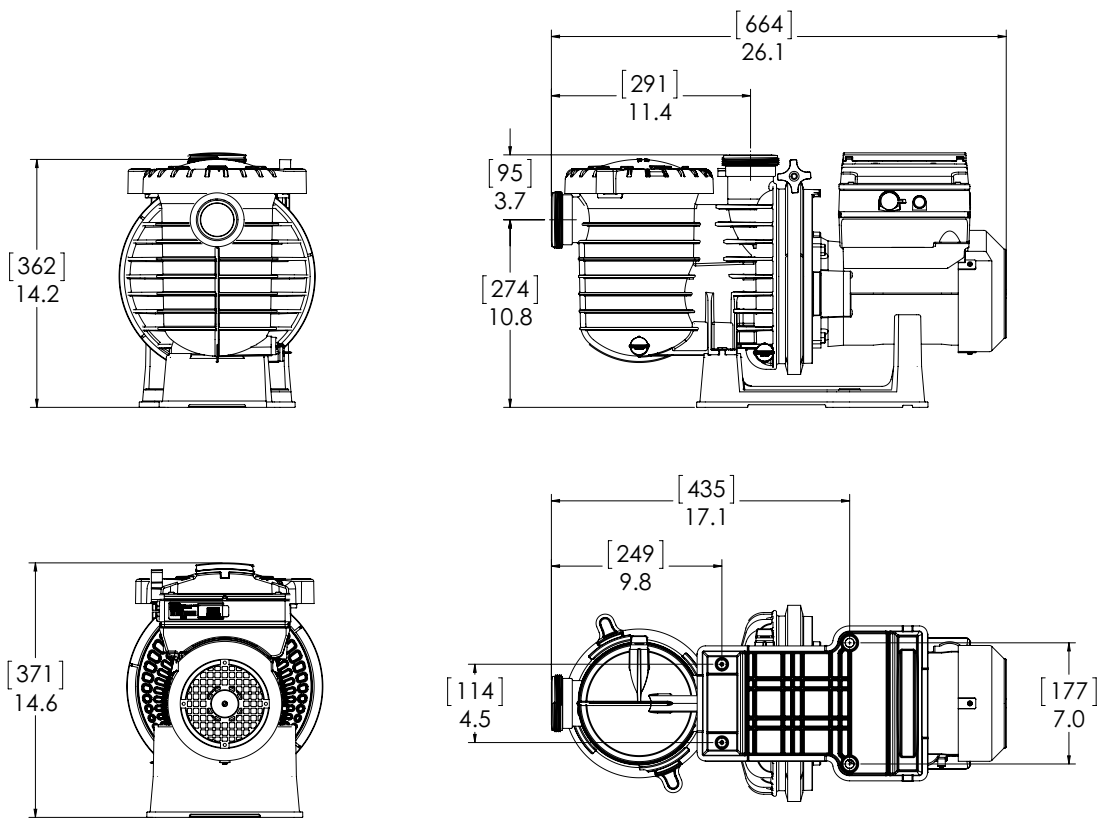
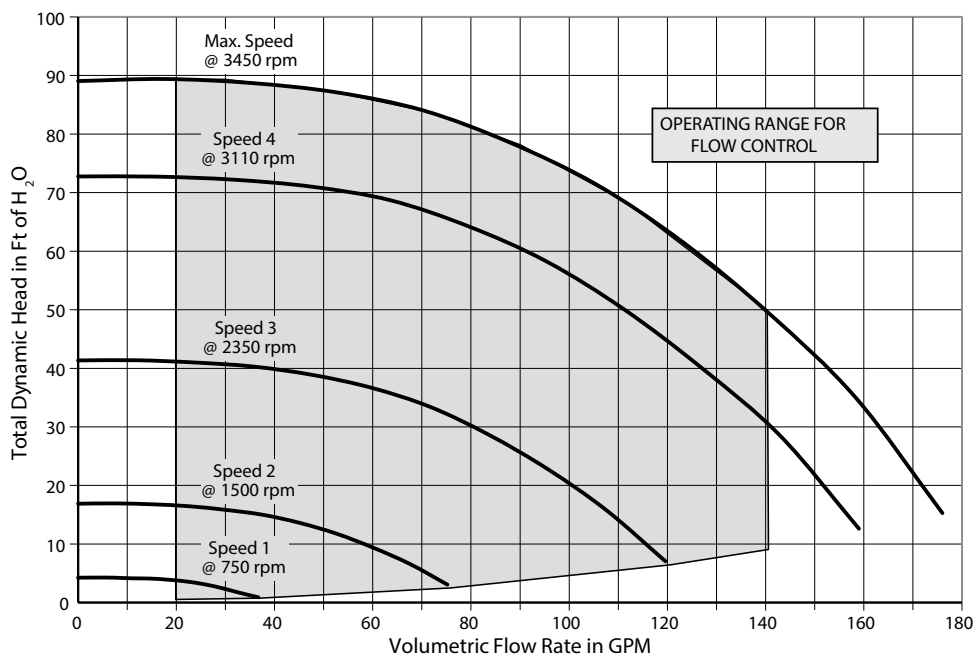
▲ **WARNING:** Cancer and Reproductive Harm.
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▲ **ADVERTENCIA:** Cáncer y Daño Reproductivo.

www.p65warnings.ca.gov
PR630714

INTELLIPRO® VSF

VARIABLE SPEED AND FLOW PUMP (CONT'D)

Dimensions and Performance



See page 494 for replacement parts.

INTELLIPRO® VS+SVRS

HIGH PERFORMANCE PUMPS



IntelliPro VS+SVRS
Variable Speed Pump

Patent Information: www.pentair.com/patents

IntelliPro pumps combine variable speed technology, onboard digital intelligence and permanent magnet motors (used in hybrid cars) to reduce pump-related energy costs by up to 90%. The IntelliPro VS+SVRS pump models were the first swimming pool pumps to feature a built-in Safety Vacuum Release System that detects drain blockage and automatically shuts the pump off.

CALIFORNIA PROPOSITION 65 WARNING

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 ⚠️ **ADVERTENCIA:** Cáncer y Daño Reproductivo.
www.p65warnings.ca.gov PA 201214

Featured Highlights

- Ability to program exact pump speeds for specific operations – filtering, heating, cleaning, spa jets, water features and more
- SVRS complies with Virginia Graeme Baker Safety Act
- Built-in diagnostics helps protect the IntelliPro pump from the most common causes of premature failure – overheating, freezing, and voltage irregularities.
- Includes priming protection. No SVRS calibrations needed. Built-in SVRS cannot be turned off.
- Safety lock-out feature (password protected) prevents pump speed settings from being changed by unauthorized personnel
- Ability to set minimum and maximum speeds so pump will only operate within the ranges set to help assure suitable operation for a longer life
- Compatible with Pentair Automation Systems
- Compliant with the current ASME A112.19.17 standard for Safety Vacuum Release Systems (SVRS)

Ordering Information

Product	Description	THP	WEF	HHP	Service Factor	Voltage	Frequency	Current	Port Size	Weight	Certifications ³
INTELLIPRO VS+ SVRS VARIABLE SPEED WITH SAFETY VACUUM RELEASE SYSTEM											
013004	IntelliPro VSF	3.95	6.6	2.10	1.0	230	50/60	16.0	2" x 2"	53	UL ¹ , NSF ²
ACCESSORIES											
521109	IntelliCom 2 - Rated 9 - 30 V DC with 4 inputs										1
350122	Communication Cable - 50 ft. - Included with pump										2
350250Z	SVRS KIT - Allows use of discharge check valves with SVRS pump										1
356905Z	Optional Keypad Wall Mount Kit										
356196	Chemical/Salt/Ozone Resistant EPDM & SS Seal Quick Kit										1
UNIONS											
11201-0154	2 in. x 2 in. Union (2 in. NPT male x 2 in. female NPT quick connect)										* Note: two required per pump (sold individually) 2

¹ 'UL' indicates that pump bears a UL mark signifying evaluation to U.S. Standards UL1081 for Permanently Connected Swimming Pool and Spa Pumps and to Canadian Standards CAN/CSA C22.2 No. 108-01 Liquid Pumps For Swimming Pools Only (Enclosure 3).

² 'NSF' indicates that pump bears a mark signifying evaluation to NSF Standard 50 For Self-Priming Centrifugal Pumps For Swimming Pools Only.

³ Product may have been evaluated to other state and local regulatory standards. Listing status may change. Always confirm status with appropriate agency if in doubt.

Note: Pump must be used with current collectors when installed on spas or hot tubs in Canada.

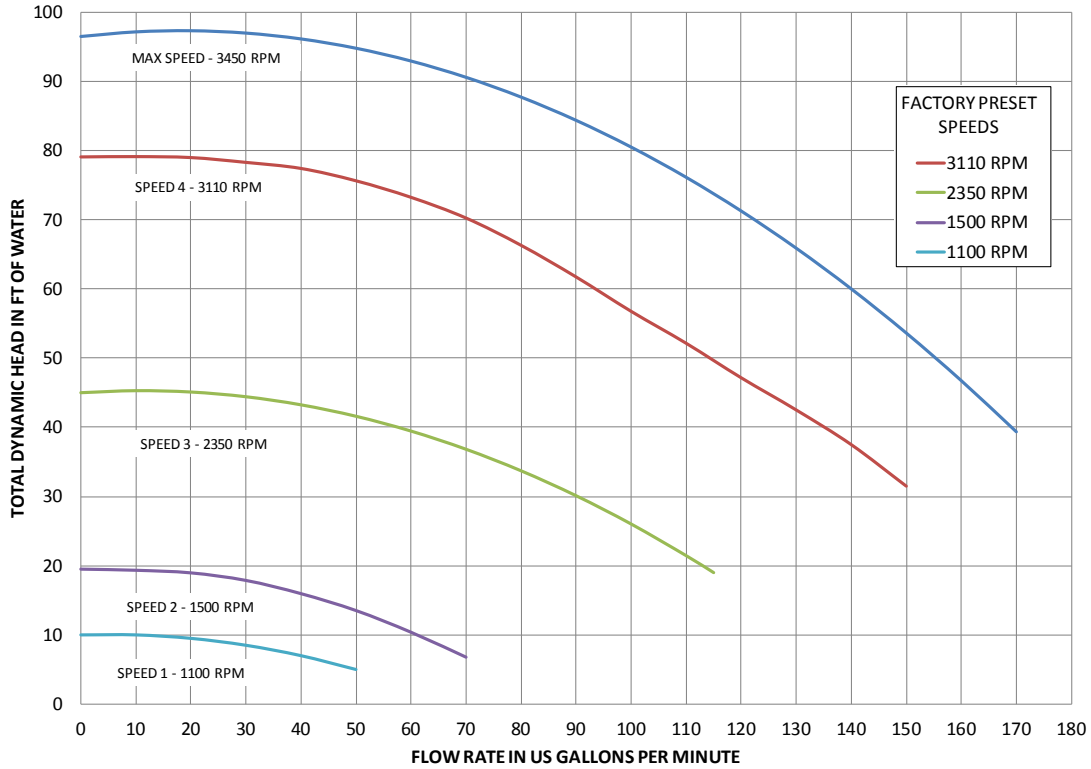
Refer to catalog page 58 for a selection of 2-Pole GFCI breakers which offer 6 milliamp personnel protection while meeting 2008 to Current NEC Standards for Pool Pumps.

• Savings based on variable speed pump compared to a single-speed pump running 12 hours per day at an average of \$0.16 per kWh in a 20,000 gallon pool. Actual savings may vary based on local utility rates, pool size, pump run time, pump horsepower, pump rpm, plumbing size and length, pump model, service factor and other hydraulic factors

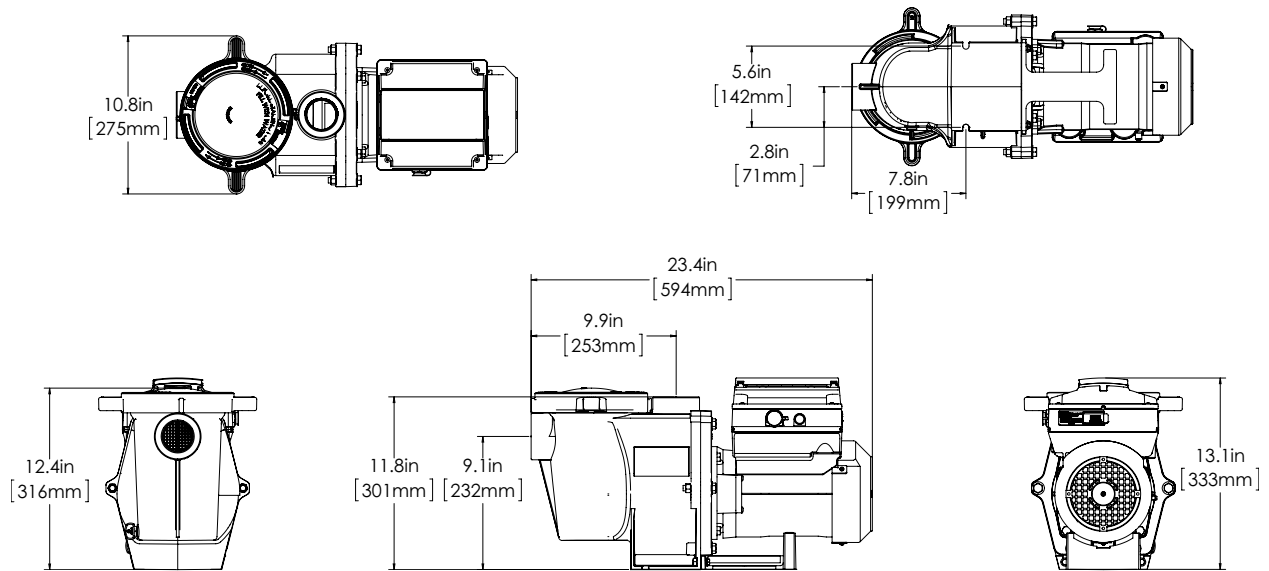
INTELLIPRO® VS+SVRS

HIGH PERFORMANCE PUMPS (CONT'D)

Dimensions and Performance



* IntelliPro VS+SVRS minimum speed is 1100 RPM



See page 496 for replacement parts.

MAX-E-PROXF[®]

HIGH PERFORMANCE PUMPS



TRADEGRADE



Max-E-ProXF Pump shown with TEFC Motor

Developed using the most advanced engineering tools available - CFD (Computational Fluid Dynamics) and FEA (Finite Element Analysis). The impeller design delivers high level of precision concentricity for increased efficiency.

Featured Highlights

- Drop-in replacement for all Max-E-Pro[®] Pump models. Simple replacement for Challenger[®] Pumps *
- Hydraulic isolator separates priming water from pumping water for faster priming, more turbulent-free flow and increased efficiency
- Union connectors included for connecting directly to 2.5 in. or 3 in. plumbing
- Extra large, robust basket with smooth surface for easy debris removal
- Easy-carry handle; easily removable ergonomic lock ring; and see-through lid for easy basket inspection
- Three Phase XF pumps are compatible with Pentair's Acu Drive XS VFD's
- Optional riser base for Challenger pump replacements, part #400012 available separately

Ordering Information

Product	Rated HP	THP	WEF	HHP	Service Factor	Voltage	Frequency	Current	Port Size	Weight	Certifications ³	Curve Key
COMMERCIAL SINGLE-SPEED TEFC												
023034	5	5	N/A	N/A	1.00	208-230	60	20.0-18.8	2.5" x 2.5" or 3" x 3"	67	UL ¹ , NSF ²	C
TEFC SINGLE-SPEED - NOT FOR SALE IN THE USA												
023032-INT	2	2.60	N/A	N/A	1.30	208-230	60	11.1-9.5	2.5" x 2.5" or 3" x 3"	57	UL ¹ , NSF ²	B
023033-INT	3	3.45	N/A	N/A	1.15	208-230	60	14.6-12.7	2.5" x 2.5" or 3" x 3"	61	UL ¹ , NSF ²	A
THREE-PHASE SUPER-DUTY												
023017	2	2.6	N/A	N/A	1.30	208-230/460	60	7.5-7.2/3.6	2.5" x 2.5" or 3" x 3"	60	UL ¹ , NSF ²	I
023018	3	3.25	N/A	N/A	1.15	208-230/460	60	9.8-9.4/4.7	2.5" x 2.5" or 3" x 3"	60	UL ¹ , NSF ²	H
023019	5	5.00	N/A	N/A	1.00	208-230/460	60	13.9-13.1/6.6	2.5" x 2.5" or 3" x 3"	72	UL ¹ , NSF ²	G
ACCESSORIES												
400012	XF Riser Base - Simplifies installation of XF-series pumps in applications where Challenger pumps are being replaced.											

¹ 'UL' indicates that pump bears a UL mark signifying evaluation to U.S. Standards UL1081 for Permanently Connected Swimming Pool and Spa Pumps and to Canadian Standards CAN/CSA C22.2 No. 108-01 Liquid Pumps For Swimming Pools Only (Enclosure 3).

² 'NSF' indicates that pump bears a mark signifying evaluation to NSF Standard 50 For Self-Priming Centrifugal Pumps For Swimming Pools, Spas and Hot Tubs.

³ Product may have been evaluated to other state and local regulatory standards. Listing status may change. Always confirm status with appropriate agency if in doubt.

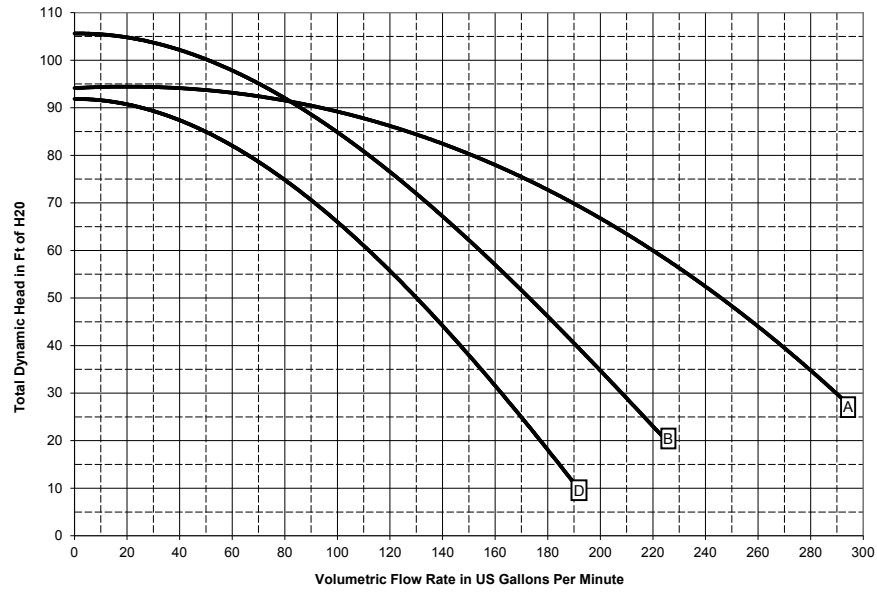
CALIFORNIA PROPOSITION 65 WARNING

⚠ **WARNING:** Cancer and Reproductive Harm.
 ⚠ **AVERTISSEMENT:** Peut Causer le Cancer et des Dommages au Système Reproducteur.
 ⚠ **ADVERTENCIA:** Cáncer y Daño Reproductivo.
www.p65warnings.ca.gov PN 20211A

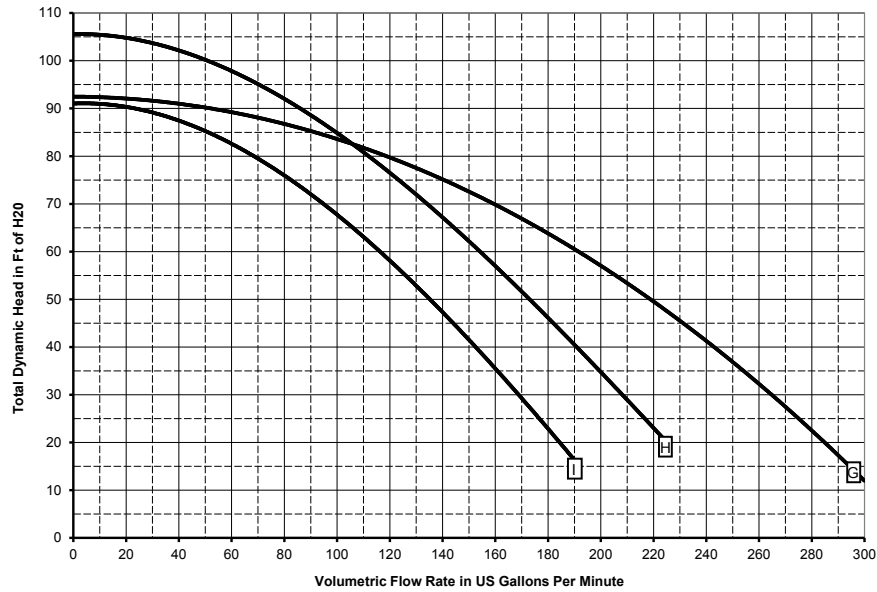
MAX-E-PROXF[®]

HIGH PERFORMANCE PUMPS (CONT'D)

1 & 2-Speed
Performance
Curve

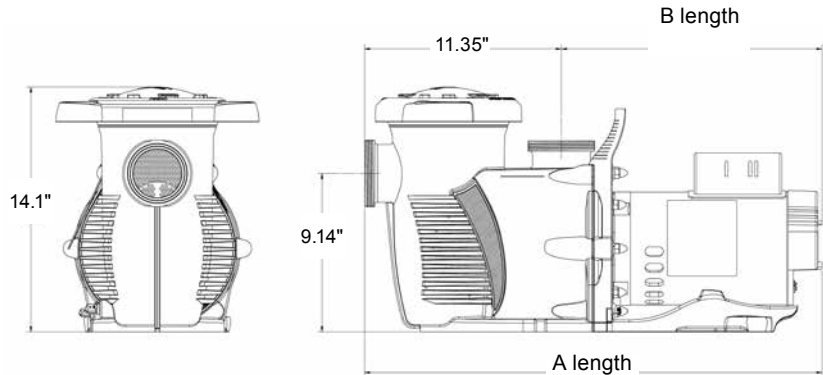


3 Phase
Performance
Curve



B-VARYING LENGTH		
HP	TEFC	3-PH
2	13.05	12.35
3	13.65	13.05

A-VARYING LENGTH		
HP	TEFC	3-PH
2	24.4	23.7
3	25	24.4



See page 498–499 for replacement parts.

MAX-E-PRO®

HIGH-EFFICIENCY POOL/SPA PUMPS



TRADEGRADE



Max-E-Pro Pump shown with TEFC Motor

CALIFORNIA PROPOSITION 65 WARNING
 ⚠️ **WARNING:** Cancer and Reproductive Harm.
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 ⚠️ **ADVERTENCIA:** Cáncer y Daño Reproductivo.
www.p65warnings.ca.gov PR20251A

Featured Highlights

- Typical Installation – Inground pools, pool/spa combinations, inground spas, fountains and water features
- Easy-to-Install – 2 in. ports include external and internal threads for more plumbing options
- Efficient Hydraulic Design – Moves larger volumes of water, resulting in lower operating costs
- Impeller Manufactured with PPO Resin – Withstands the toughest water environments
- EDPM Rubber Shaft Seal – Longer-lasting seal stands up to the harshest environments
- Self-lubricating Lid O-ring – Does not require lubricant

P6 & 5P6R SERIES – High efficiency, low maintenance and maximum performance—all the features demanded by today’s pool professionals. The Max-E-Pro pump has our new Quick-Lock™ Trap Cover Ring and the 2 in. ports incorporate internal and external threads. Available in single- and two-speed models, with ratings from 1/2 to 3 HP. **Built with quality construction** using a durable one-piece pump housing constructed of industry leading glass-reinforced composite resin. **Fast cleaning** with a new Quick-Lock trap cover ring permits fast access to strainer basket. Large see-through lid makes it simple to check for debris. A **strong, sturdy**, specially-designed base dampens sound and vibration, making the Max-E-Pro pump one of the quietest pumps in its class.

Ordering Information

Product	Rated HP	THP	WEF	HHP	Service Factor	Voltage	Frequency	Current	Port Size	Weight	Certifications ³	Curve Key
DOE COMPLIANT SINGLE-SPEED TEFC												
348185	N/A	1.1	3.5	0.65	1.00	115/208-230	60	10.5/5.4-5.4	2" x 2"	50	UL ¹ , NSF ²	B
ENERGY EFFICIENT SINGLE-SPEED - NOT FOR SALE IN THE USA												
P6E6C-204L-INT	1/2	0.95	N/A	N/A	1.00	115/208-230	60	11/5.5	2" x 2"	44	UL ¹ , NSF ²	A
P6E6D-205L-INT	3/4	1.25	N/A	N/A	1.00	115/208-230	60	13.8/6.9	2" x 2"	44	UL ¹ , NSF ²	C
TEFC SINGLE-SPEED - NOT FOR SALE IN THE USA												
348150-INT	1	1.65	N/A	N/A	1.00	115/208-230	60	15.1/8.5-7.7	2" x 2"	50	UL ¹ , NSF ²	D
348151-INT	1-1/2	2.21	N/A	N/A	1.00	208-230	60	10.3-9.1	2" x 2"	53	UL ¹ , NSF ²	E
348152-INT	2	2.60	N/A	N/A	1.00	208-230	60	11.7-10.3	2" x 2"	58	UL ¹ , NSF ²	F
348153-INT	3	3.45	N/A	N/A	1.00	208-230	60	14.6-12.7	2" x 2"	62	UL ¹ , NSF ²	G
ENERGY EFFICIENT 50 HZ SINGLE-SPEED - NOT FOR SALE IN THE USA												
5P6R6D-209-INT	1/2	0.55	N/A	N/A	1.10	240/120	50	12.6/6.1	2" x 2"	45	—	I
5P6R6E-210-INT	3/4	0.83	N/A	N/A	1.10	240/120	50	15.4/7.7	2" x 2"	45	—	J
5P6R6F-211-INT	1	1.10	N/A	N/A	1.10	240/120	50	19.4/9.7	2" x 2"	52	—	K
5P6R6G-212-INT	1-1/2	1.65	N/A	N/A	1.10	240	50	10.5	2" x 2"	52	—	L
5P6R6H-213-INT	2	2.20	N/A	N/A	1.10	240	50	13.9	2" x 2"	55	—	M

MAX-E-PRO®

HIGH-EFFICIENCY POOL/SPA PUMPS (CONT'D)

Ordering Information

Product	Rated HP	THP	WEF	HHP	Service Factor	Voltage	Frequency	Current	Port Size	Weight	Certifications ³	Curve Key
THREE-PHASE SUPER-DUTY												
345076	1	1.65	*	*	1.65	208-230/460	60	4.9-4.5/2.3	2" x 2"	41	UL ¹ , NSF ²	D
345077	1-1/2	2.21	*	*	1.47	208-230/460	60	6.4-6.3/3.2	2" x 2"	43	UL ¹ , NSF ²	E
345078	2	2.60	*	*	1.30	208-230/460	60	7.5-7.2/3.6	2" x 2"	47	UL ¹ , NSF ²	F
345079	3	3.45	*	*	1.15	208-230/460	60	9.8-9.4/4.7	2" x 2"	52	UL ¹ , NSF ²	G
THREE-PHASE SINGLE-SPEED - HIGH VOLTAGE APPLICATIONS												
P6EA6D36-204	3/4	1.12	*	*	1.50	575	60	1.2	2" x 2"	37	NSF ²	C
P6EA6E36-205	1	1.4	*	*	1.40	575	60	1.5	2" x 2"	40	NSF ²	D
P6EA6F36-206	1-1/2	1.65	*	*	1.10	575	60	1.9	2" x 2"	41	NSF ²	E
P6EA6G36-207	2	2	*	*	1.00	575	60	3.2	2" x 2"	45	NSF ²	F
P6E6H36-209	3	3.45	*	*	1.15	575	60	3.9	2" x 2"	52	NSF ²	G
THREE-PHASE 50 HZ SINGLE-SPEED - NOT FOR SALE IN THE USA												
5P6R6D3-209-INT	3/4	0.95	N/A	N/A	1.27	220-240/380-415	50	3.6/2.1	2" x 2"	38	—	I
5P6R6E3-210-INT	1	1.25	N/A	N/A	1.25	220-240/380-415	50	4.0/2.3	2" x 2"	40	—	J
5P6R6F3-211-INT	1-1/2	1.65	N/A	N/A	1.10	220-240/380-415	50	5.2/3.0	2" x 2"	47	—	K
5P6R6G3-212-INT	2	2.2	N/A	N/A	1.10	220-240/380-415	50	6.6/3.8	2" x 2"	49	—	L
5P6R6H3-213-INT	3	3	N/A	N/A	1.10	220-240/380-415	50	8.0/4.7	2" x 2"	58	—	M
ACCESSORIES												
77703-0100	2 in. Union Half x 1-1/2 in. FPT – Package Of Two											
77703-0101	2 in. Union Half x 1-1/2 in. Slip – Package Of Two											
PKG 188Z	2 in. Union Half x 2 in. Slip – Package Of Two											
PKG 189	2 in. Union Half x 2 in. FPT – Package Of Two											
356196	Chemical/Salt/Ozone Resistant EPDM & SS Seal Quick Kit											

¹ 'UL' indicates that pump bears a specific UL mark signifying evaluation to U.S. Standards UL1081 for Permanently Connected Swimming Pool and Spa Pumps and to Canadian Standards CAN/CSA C22.2 No. 108-01 Liquid Pumps For Swimming Pools And Spas. (Enclosure 3).

² 'NSF' indicates that pump bears a mark signifying evaluation to NSF Standard 50 For Self-Priming Centrifugal Pumps For Swimming Pools, Spas and Hot Tubs.

³ Product may have been evaluated to other state and local regulatory standards. Listing status may change. Always confirm status with appropriate agency if in doubt.

* WEF and HHP values will be updated at a date TBD. For product specific requests contact Pentair.

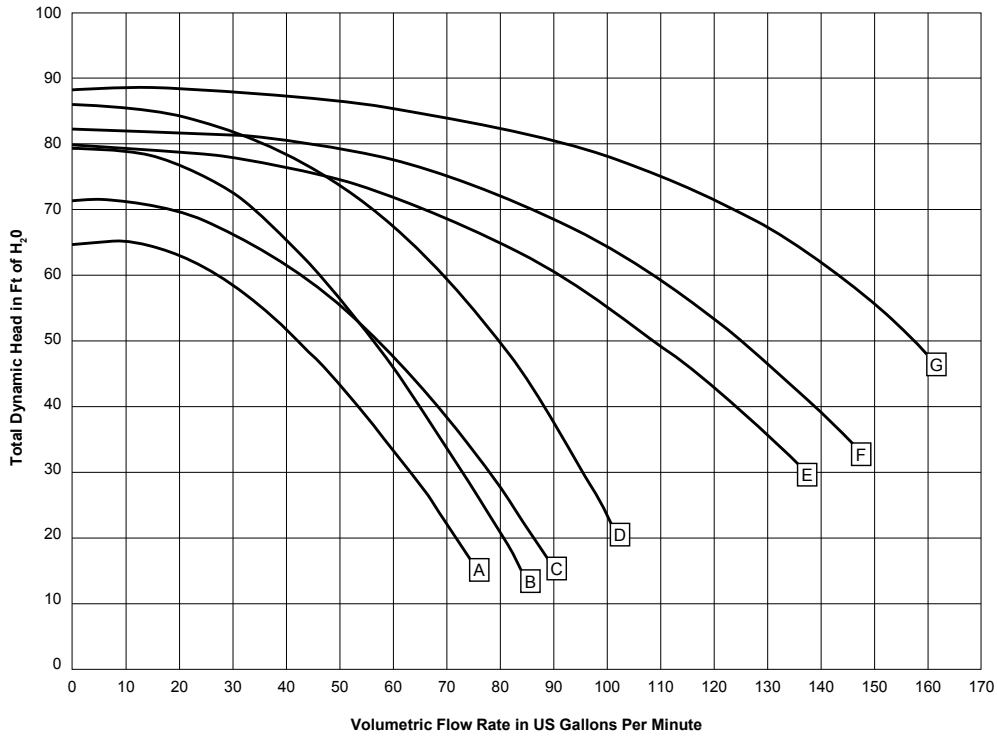
See page 500–502 for replacement parts.

MAX-E-PRO®

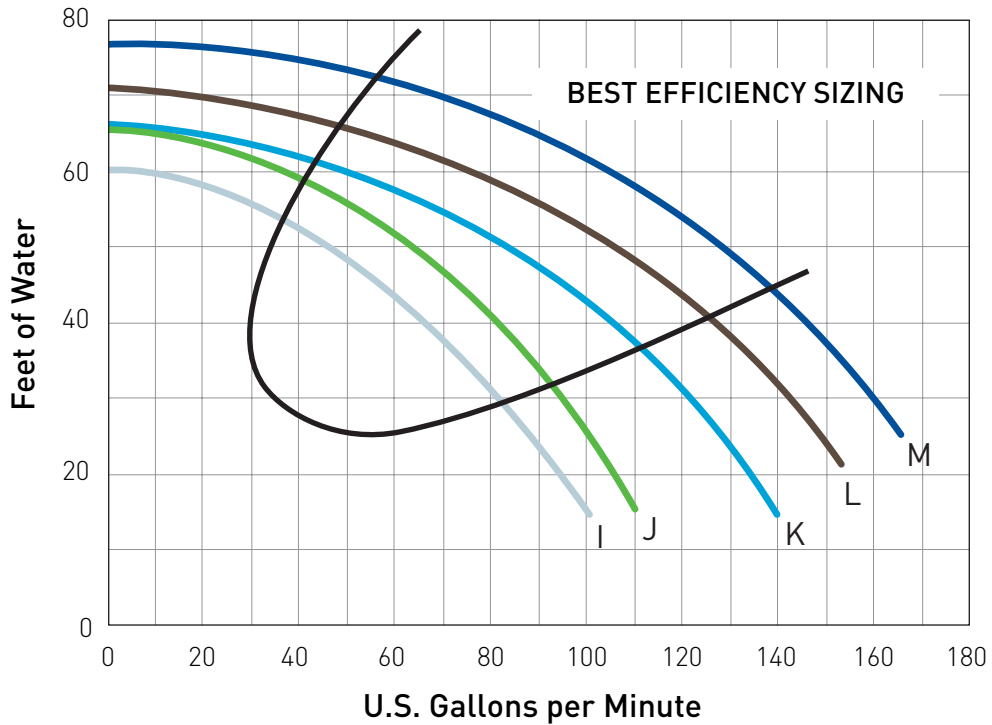
HIGH-EFFICIENCY POOL/SPA PUMPS (CONT'D)

Dimensions and Performance

60 Hz Performance Curve

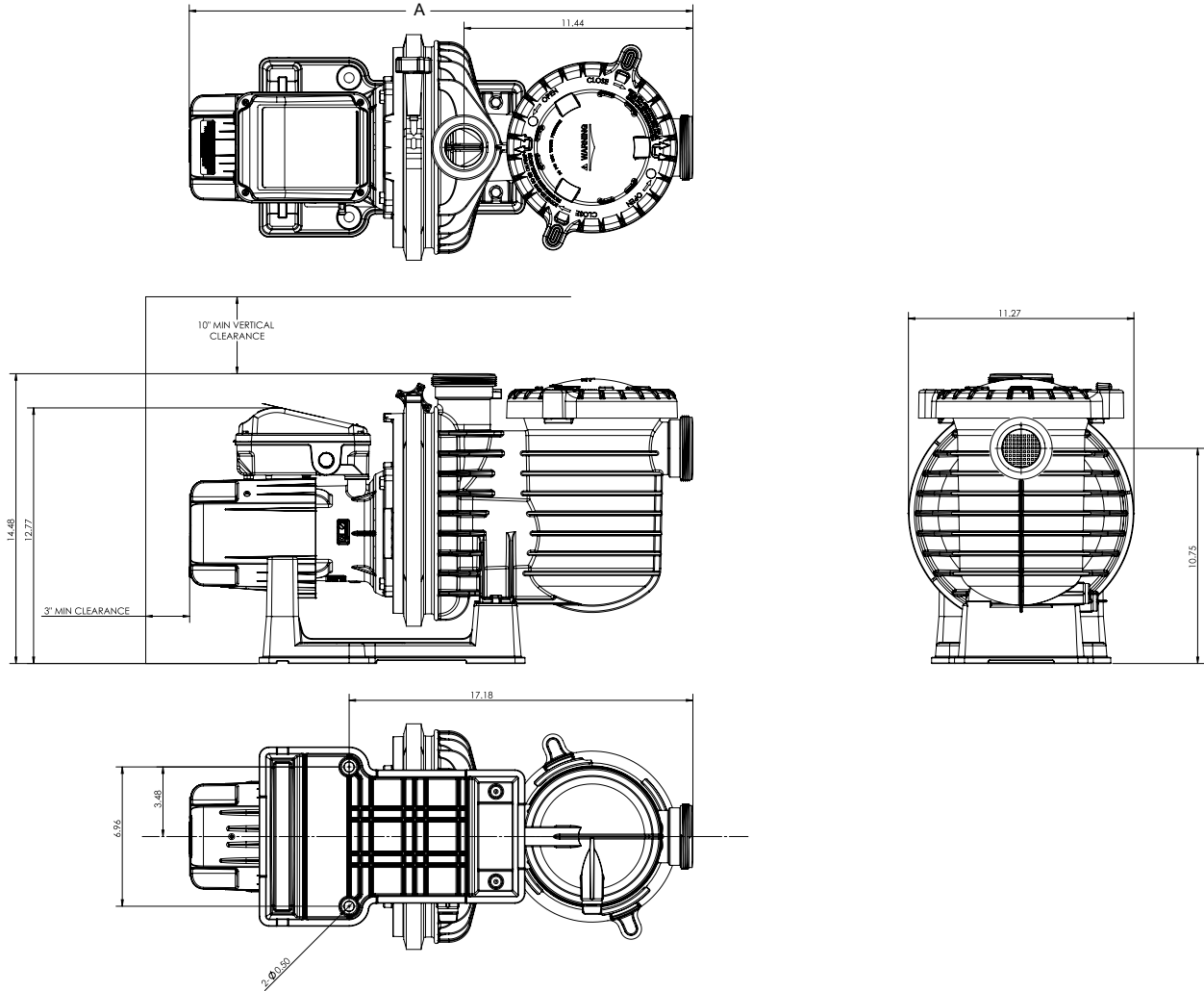


50 Hz Performance Curve



MAX-E-PRO®

HIGH-EFFICIENCY POOL/SPA PUMPS (CONT'D)



A- VARYING LENGTH					
HP	STD EFF	EE	1PH TEFC	3PH	DOE COMPLIANT
0.5	26.92	—	—	—	—
0.75	26.92	—	—	—	—
1	27.29	28.45	25.03	24.76	—
1.1	—	—	—	—	25.18
1.5	28.92	28.45	25.48	24.76	—
2	28.92	29.08	25.93	25.17	—
3	28.92	29.08	26.53	25.87	—

SUPERMAX® VS

VARIABLE SPEED PUMPS



TRADEGRADE



SuperMax VS
Variable Speed Pump

Featured Highlights

- Variable speed technology provides energy & costs savings.
- Ideal for standard pools requiring up to 1.5 hp pump
- 110/230V and 50/60 Hz capability
- Real-time clock with 24-hour memory retention
- Simple, intuitive user interface is easy to program and operate
- Easy to access electrical connections for simple installation
- Three operating speed settings plus override capability
- SuperMax pump by Pentair Aquatic Systems is a direct replacement for the Hayward® Super Pump® *

For pool owners who want to step-up to the energy and cost savings of variable speed technology, the SuperMax VS pump is the wise choice. SuperMax VS pump is engineered for easy installation, simple operation, and trouble-free service.

Ordering Information

Product	THP	WEF	HHP	Service Factor	Voltage	Frequency	Current	Port Size	Weight	Certifications ³
SUPERMAX VS VARIABLE SPEED										
343001	2.2	9.0	1.08	1.0	115/208-230	50/60	13.6/8.0-7.1	1.5" x 1.5"	53	UL ¹ , NSF ²
ACCESSORIES										
356324Z	External Control Wiring Kit									
356197	Chemical/Salt/Ozone Resistant EPDM & SS Seal Quick Kit (for pumps Mfg. before June 2019)								1	

¹ 'UL' indicates that pump bears a UL mark signifying evaluation to U.S. Standards UL1081 for Permanently Connected Swimming Pool and Spa Pumps and to Canadian Standards CAN/CSA C22.2 No. 108-01 Liquid Pumps For Swimming Pools Only (Enclosure 3). UL 60730 Compliant.

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³ Product may have been evaluated to other state and local regulatory standards. Listing status may change. Always confirm status with appropriate agency if in doubt.

* Hayward® and Super Pump® are registered trademarks of Hayward Industries, Inc.

CALIFORNIA PROPOSITION 65 WARNING

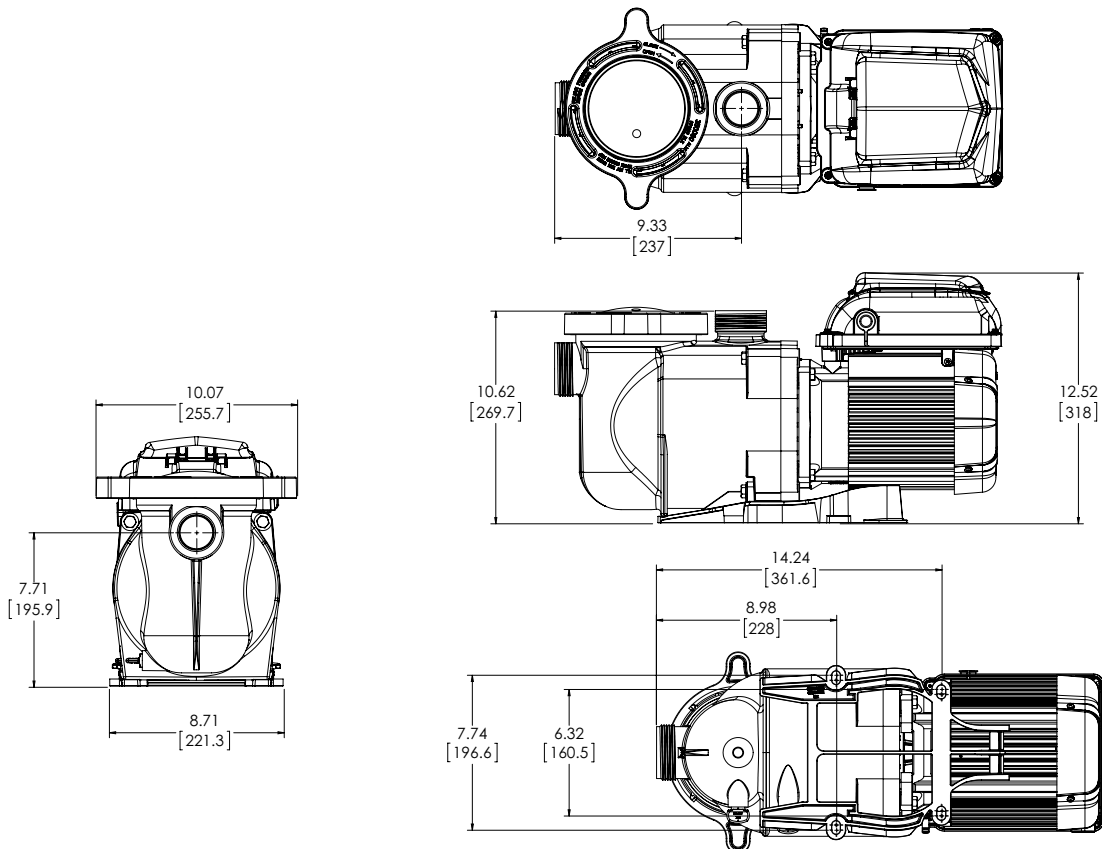
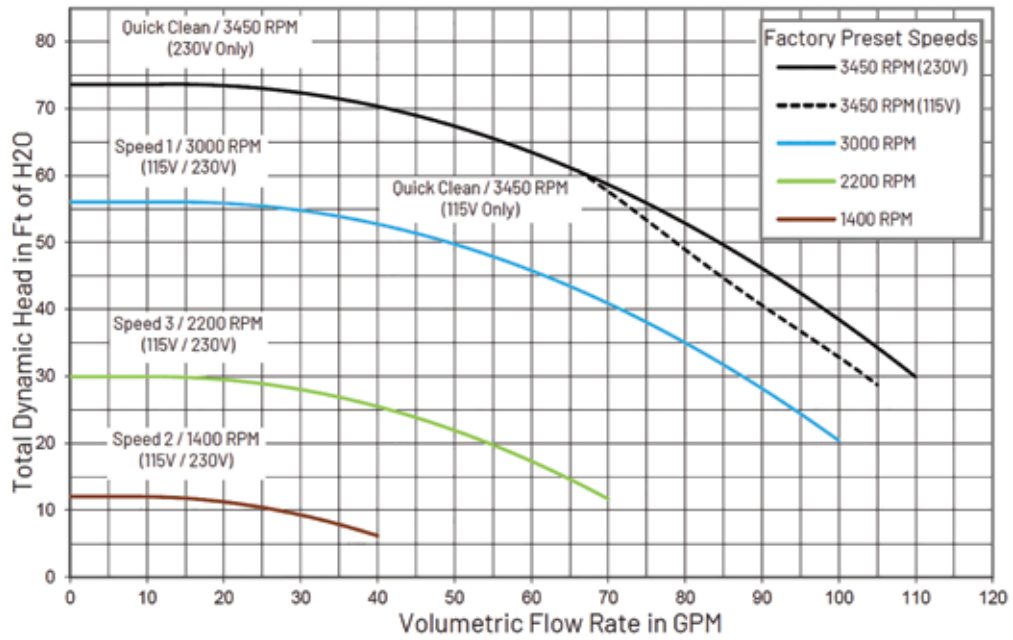
▲ **WARNING:** Cancer and Reproductive Harm.
▲ **AVERTISSEMENT:** Peut Causer le Cancer et des Dommages au Système Reproducteur.
▲ **ADVERTENCIA:** Cáncer y Daño Reproductivo.

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PH.201714

SUPERMAX® VS

VARIABLE SPEED PUMPS (CONT'D)

Dimensions and Performance



See page 486–487 for replacement parts.

SUPERMAX®

HIGH PERFORMANCE PUMPS



TRADEGRADE



SuperMax Pump
shown with TEFC Motor

Featured Highlights

- SuperMax pump by Sta-Rite is a direct replacement for the Hayward® * Super Pump® *
- Single and two-speed models ranging from 1/2 to 2-1/2 HP
- Cam and Ramp™ Lid locks and unlocks with a simple quarter turn
- Exterior thermoplastic resin withstands temperature extremes and delivers long life
- Unionized fittings included (1-1/2 in. internal slip and 2 in. external slip)

The SuperMax pump features a commercial grade, 56 square flange motor for top performance in residential swimming pools. SuperMax pump is a superior drop-in replacement for Super Pump. Consumers enjoy its economical performance. Pool professionals benefit from its ease of installation and reliability.

CALIFORNIA PROPOSITION 65 WARNING
 ⚠️ WARNING: Cancer and Reproductive Harm.
 ⚠️ AVERTISSEMENT: Peut Causer le Cancer et des Dommages au Système Reproducteur.
 ⚠️ ADVERTENCIA: Cáncer y Daño Reproductivo.
www.p65warnings.ca.gov PH201714

Ordering Information

Product	Rated HP	THP	WEF	HHP	Service Factor	Voltage	Frequency	Current	Port Size	Weight	Certifications ³	Curve Key
DOE COMPLIANT SINGLE-SPEED TEFC												
348191	N/A	1.1	3.6	0.63	1.00	115/208-230	60	10.5/5.4-5.4	1.5" x 1.5"	50	UL, NSF	B
ENERGY EFFICIENT SINGLE-SPEED - NOT FOR SALE IN THE USA												
PHK2E6C-100L-INT	1/2	0.95	N/A	N/A	1.00	115/208-230	60	8.8/4.5-4.4	1.5" x 1.5"	44	UL, NSF	A
PHK2E6D-101L-INT	3/4	0.95	N/A	N/A	1.00	115/208-230	60	8.8/4.5-4.4	1.5" x 1.5"	44	UL, NSF	A
TEFC SINGLE-SPEED - NOT FOR SALE IN THE USA												
348147-INT	1	1.65	N/A	N/A	1.00	115/208-230	60	15.1/8.5-7.7	1.5" x 1.5"	50	UL, NSF	C
348148-INT	1-1/2	2.21	N/A	N/A	1.00	208-230	60	10.3-9.1	1.5" x 1.5"	53	UL, NSF	D
348149-INT	2	2.60	N/A	N/A	1.00	208-230	60	11.7-10.3	1.5" x 1.5"	58	UL, NSF	E
ENERGY EFFICIENT 50 HZ SINGLE-SPEED - NOT FOR SALE IN THE USA												
5PHK2E6C-100-INT	1/2	0.55	N/A	N/A	1.10	240/120	50	7.5/15.0	1.5" x 1.5"	45	—	—
5PHK2E6D-101-INT	3/4	0.83	N/A	N/A	1.10	240/120	50	7.5/15.0	1.5" x 1.5"	45	—	—
5PHK2E6E-102-INT	1	1.10	N/A	N/A	1.10	240/120	50	6.9/13.8	1.5" x 1.5"	52	—	—
5PHK2E6F-103-INT	1-1/2	1.65	N/A	N/A	1.10	240	50	7.2	1.5" x 1.5"	52	—	—
5PHK2E6G-104-INT	2	2.20	N/A	N/A	1.10	240	50	9.4	1.5" x 1.5"	55	—	—
ACCESSORIES												
351157	Union Kit – 1-1/2 in. Internal Slip x 2 in. External Slip - includes 2									1		
356197	Chemical/Salt/Ozone Resistant EPDM & SS Seal Quick Kit									1		

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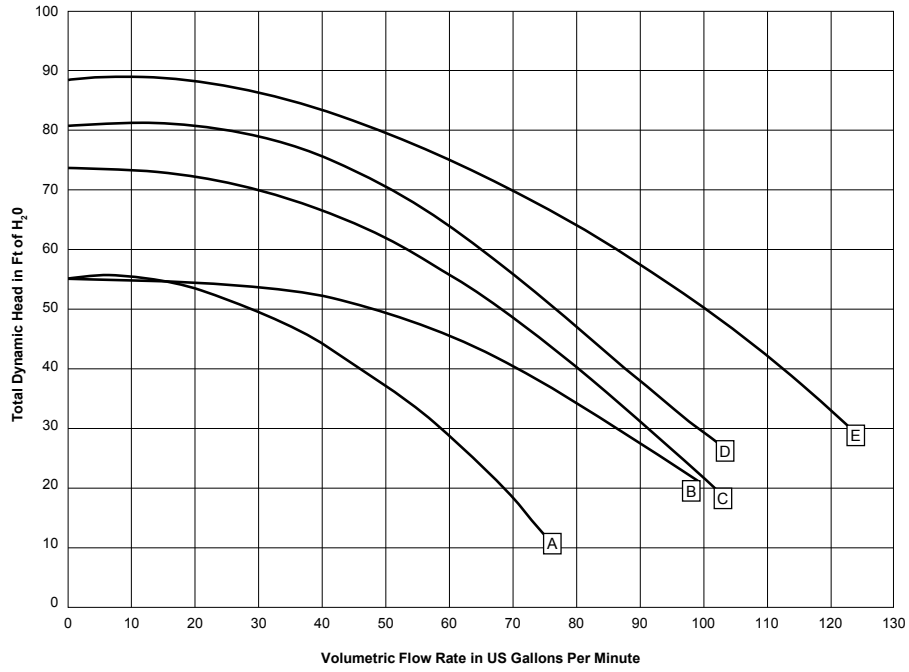
Product may have been evaluated to other state and local regulatory standards. Listing status may change. Always confirm status with appropriate agency if in doubt.

* Hayward® and Super Pump® are registered trademarks of Hayward Industries, Inc.

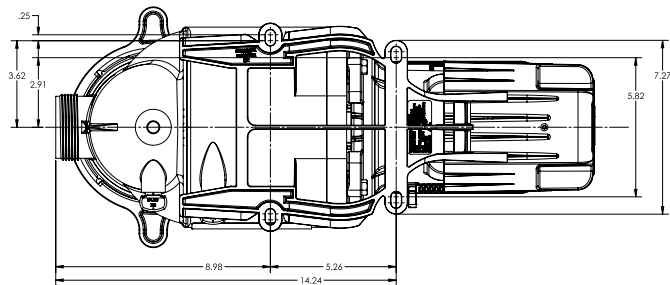
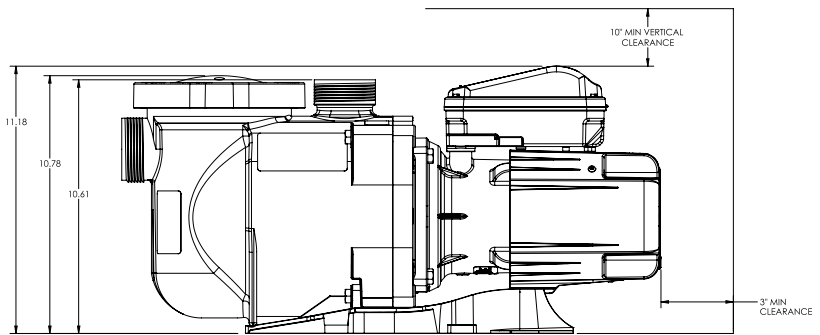
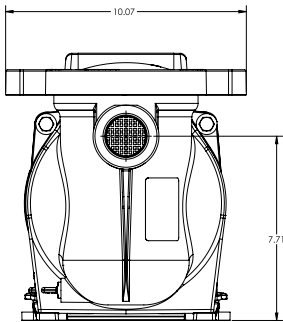
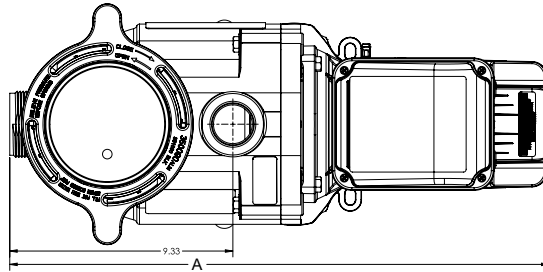
SUPERMAX[®]

HIGH PERFORMANCE PUMPS (CONT'D)

Dimensions and Performance



A- VARYING LENGTH			
HP	EE	TEFC	DOE Compliant
0.5	24.64	—	—
0.75	24.64	—	—
1	—	22	—
1.1	—	—	22.55
1.5	—	22.45	—
2	—	22.9	—



See pages 503–505 for replacement parts.

OPTIFLO® PUMP

FOR ABOVEGROUND POOLS



OptiFlo Pump

OptiFlo pumps feature a revolutionary design that delivers dependable high flow performance. The OptiFlo pump features a 48 frame-thru bolt motor, easy access to change the discharge port position, service the impeller, and an innovative Cam and Ramp lid.

Featured Highlights

- Large strainer basket
- Cam and Ramp™ Lid lock
- See-through lid
- Unionized discharge port connection
- Easy to service
- User-friendly removable drain plugs
- Metal base on motor
- Available with 3 ft. cord, with twist lock or standard plug

Ordering Information

Product	Discharge	Voltage	Full load amps	HP	Cord	Pipe	Weight
DOE COMPLIANT SINGLE-SPEED TEFC - CORD W/ STANDARD PLUG							
348196	Vertical	115	11.0	1	3' STD	1.5"	28.5
348200	Horizontal	115	11.0	1	3' STD	1.5"	28.5
DOE COMPLIANT SINGLE-SPEED TEFC - CORD W/ TWIST LOCK PLUG							
348195	Vertical	115	11.0	1	3' TWL	1.5"	28.5
348199	Horizontal	115	11.0	1	3' TWL	1.5"	28.5
DOE COMPLIANT SINGLE-SPEED TEFC - NO CORD							
348198	Vertical	115	11.0	1	None	1.5"	28.5
348202	Horizontal	115	11.0	1	None	1.5"	28.5
CSA SINGLE-SPEED TEFC - CORD W/ STANDARD PLUG - NOT FOR SALE IN THE USA							
348197	Vertical	115	11.0	1	25' STD	1.5"	28.5
348201	Horizontal	115	11.0	1	25' STD	1.5"	28.5
SINGLE-SPEED 230V - NO CORD - NOT FOR SALE IN THE USA							
340088	Vertical	230	4.6	3/4	None	1.5"	23.5
340089	Vertical	230	6.0	1	None	1.5"	23.0
340090	Vertical	230	8.0	1.5	None	1.5"	28.9
SINGLE-SPEED 50HZ - NO CORD - NOT FOR SALE IN THE USA							
340056	Vertical	230	5.0	3/4	None	1.5"	23.5
340057	Vertical	230	6.2	1	None	1.5"	23.0
340058	Vertical	230	7.8	1.5	None	1.5"	28.9

Note: TWL = Twist Lock Cord, STD = Standard Cord

CALIFORNIA PROPOSITION 65 WARNING

⚠️ **WARNING:** Cancer and Reproductive Harm.
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 ⚠️ **ADVERTENCIA:** Cáncer y Daño Reproductivo.

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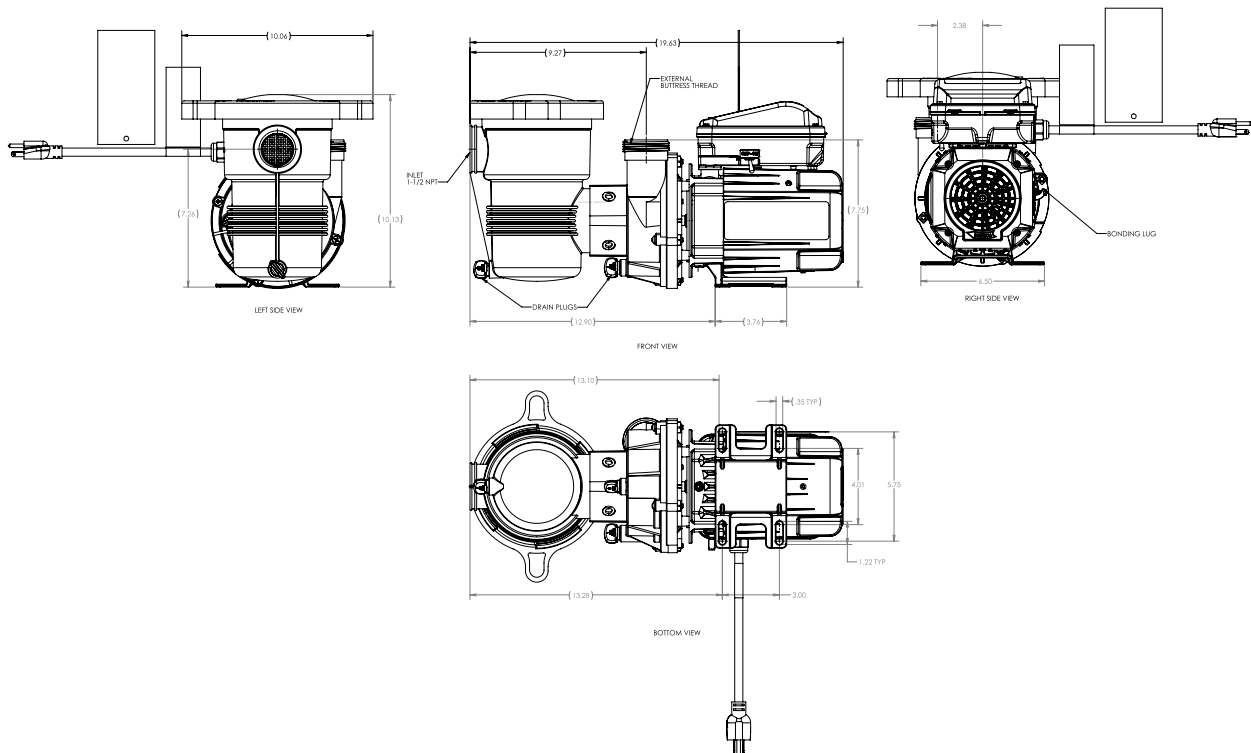
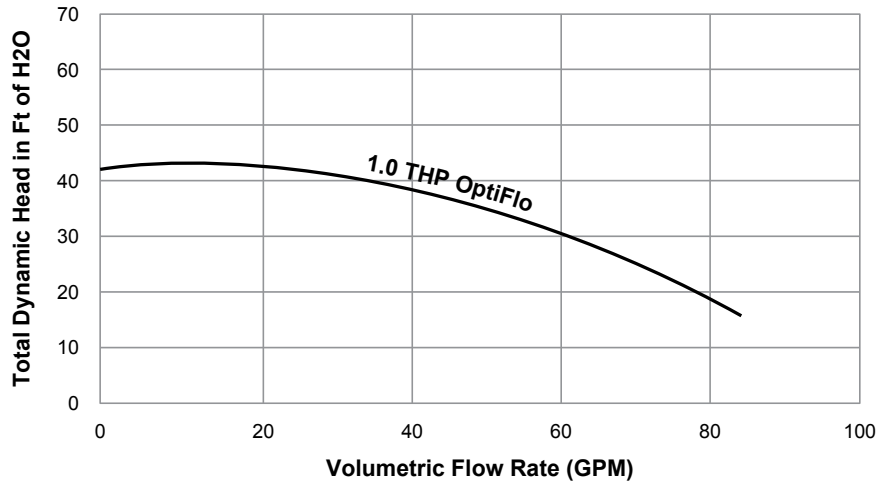
OPTIFLO® PUMP

FOR ABOVEGROUND POOLS (CONT'D)

Dimensions and Performance



OptiFlo Pool Pump Performance Curves



See page 507 for replacement parts.

STA-RITE® OPTIFLO® PUMP

FOR ABOVEGROUND POOLS



Sta-Rite OptiFlo Pool Pump

Sta-Rite OptiFlo Pump high-flow performance supports a quieter operation. Constructed of Sta-Rite's rugged thermoplastic resin. Large 5-1/2 in. capacity trap and an all-weather, smooth-running motor.

Featured Highlights

- User-friendly removable drain plugs
- Cam and Ramp™ Lid lock
- Typical Installation – Ideal for aboveground pools
- Years of Service – Stands tough against temperature and weather extremes
- External Threads – Discharge port features external threads for quick-connect unions

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Ordering Information

Product	Discharge	Voltage	Full load amps	HP	Cord	Pipe	Weight
DOE COMPLIANT SINGLE-SPEED TEFC - CORD W/ STANDARD PLUG							
348196SR	Vertical	115	11.0	1	3' STD	1.5"	28.5
348200SR	Horizontal	115	11.0	1	3' STD	1.5"	28.5
DOE COMPLIANT SINGLE-SPEED TEFC - CORD W/ TWIST LOCK PLUG							
348195SR	Vertical	115	11.0	1	3' TWL	1.5"	28.5
348199SR	Horizontal	115	11.0	1	3' TWL	1.5"	28.5
DOE COMPLIANT SINGLE-SPEED TEFC - NO CORD							
348198SR	Vertical	115	11.0	1	None	1.5"	28.5
348202SR	Horizontal	115	11.0	1	None	1.5"	28.5
CSA SINGLE-SPEED TEFC - CORD W/ STANDARD PLUG - NOT FOR SALE IN THE USA							
348197SR	Vertical	115	11.0	1	25' STD	1.5"	28.5
348201SR	Horizontal	115	11.0	1	25' STD	1.5"	28.5
SINGLE-SPEED 230V - NO CORD - NOT FOR SALE IN THE USA							
340056SR	Vertical	230	5.0	3/4	None	1.5"	23.5
340057SR	Vertical	230	6.2	1	None	1.5"	23.0
340058SR	Vertical	230	7.8	1.5	None	1.5"	28.9

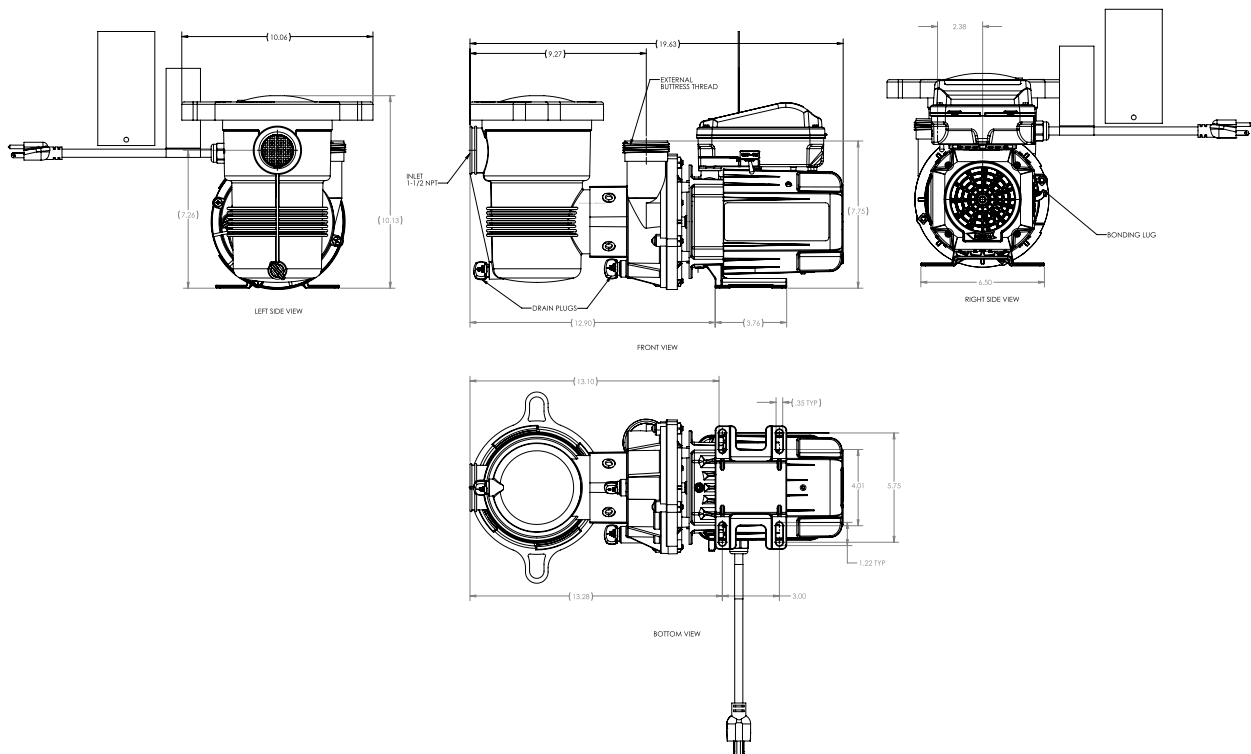
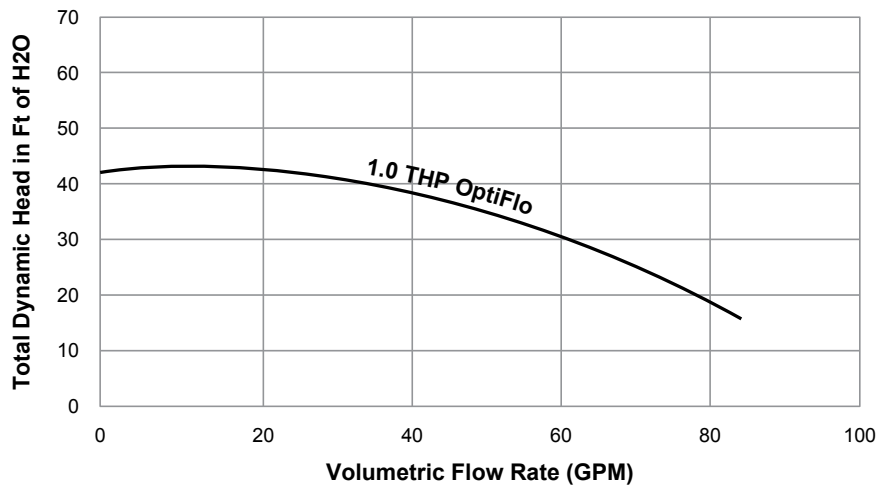
STA-RITE® OPTIFLO® PUMP

FOR ABOVEGROUND POOLS (CONT'D)

Dimensions and Performance



OptiFlo Pool Pump Performance Curves



See page 507 for replacement parts.

WHISPERFLOXF[®] VS COMMERCIAL VARIABLE SPEED PUMP

TRADEGRADE



WhisperFloXF VS Pump

The first variable speed pump that runs on single-phase or three-phase power. It's economical, combined motor/drive solution for HMAc (hotel, motel, apartment, condominium) or large residential installations, providing sophisticated, energy-saving pump technology without the high costs typically associated with independent pump/external drive setups.

Featured Highlights

- Integrated 5HP motor/drive; no expensive external drive required
- Versatile power input capability; runs off a wide range of single- or three-phase power
- Speed or flow control for maximum efficiency and pool performance*
- External control capability through automation systems or relays
- Intuitive programming and operation
- Meets commercial codes and agency requirements

Ordering Information

Product	THP	WEF	HHP	Service Factor	Voltage	Frequency	Current	Port Size	Weight	Certifications ³
WHISPERFLOXF VARIABLE SPEED										
022035	5.0	5.0	2.09	1.00	Single-Phase: 208-230/277-460 Three-Phase: 208-460	50/60	Single-Phase: 20-21/17-11 Three-Phase: 13-6	2.5" x 2.5" or 3" x 3"	95	UL ¹ , NSF ²
ACCESSORIES										
356324Z	RS-485 Automation Wiring Kit, 25 ft.									
400012	XF Riser Base - Simplifies installation of XF-series pumps in application where Challenger Pumps are being replaced.									

*When connected to Pentair's inline 4-20mA flowmeter for 3" plumbing (P/N 97014-4203KIT—sold separately), or similar 4-20mA flowmeters, this pump is capable of maintaining a constant flow based on the needs of your pool system. To connect the flowmeter and pump, the digital input cable provided in the External Control Wiring Kit (P/N 356324Z sold separately) is required.

¹ 'UL' indicates that pump bears a UL mark signifying evaluation to U.S. Standards UL1081 for Permanently Connected Swimming Pool and Spa Pumps and to Canadian Standards CAN/CSA C22.2 No. 108-01 Liquid Pumps For Swimming Pools Only (Enclosure 3).

² 'NSF' indicates that pump bears a mark signifying evaluation to NSF Standard 50 For Self-Priming Centrifugal Pumps For Swimming Pools, Spas and Hot Tubs.

³ Product may have been evaluated to other state and local regulatory standards. Listing status may change. Always confirm status with appropriate agency if in doubt.

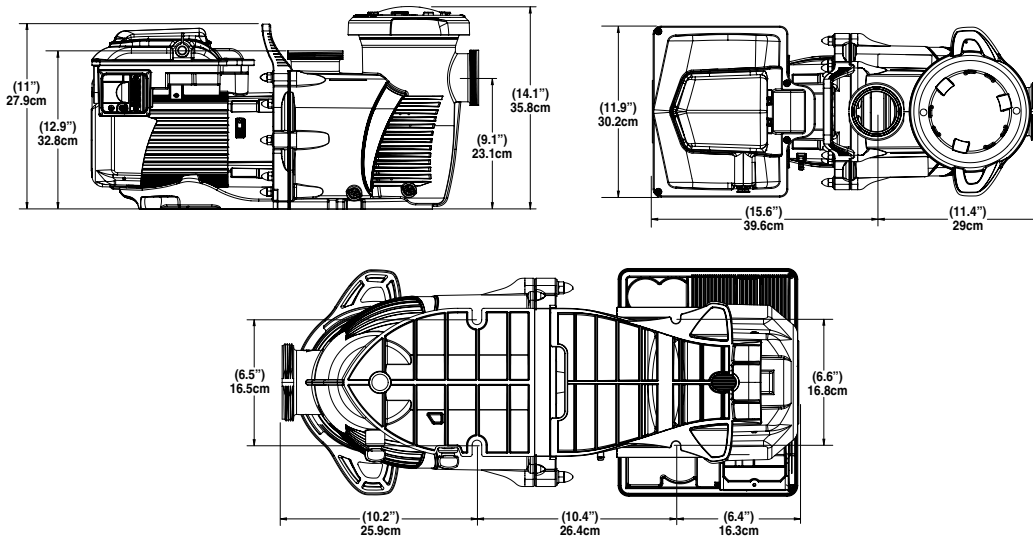
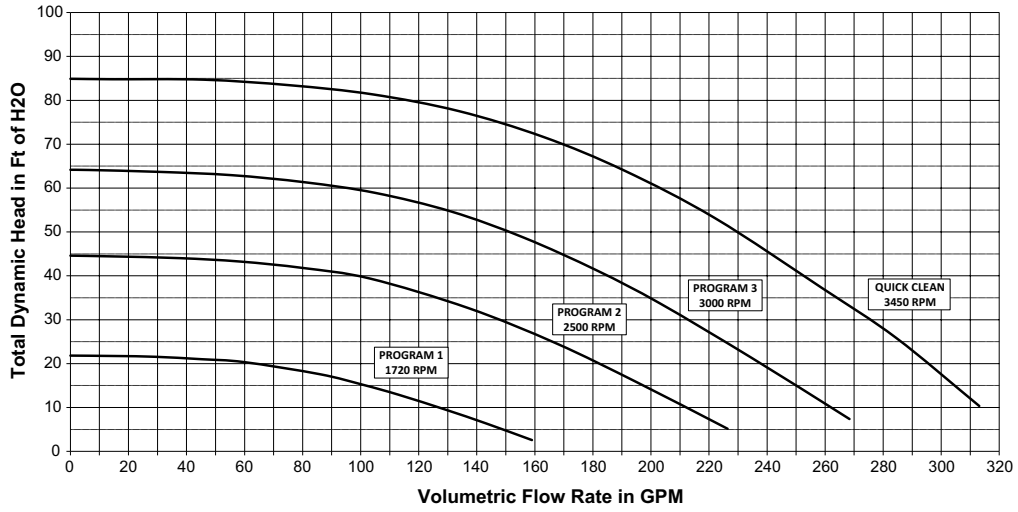
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WHISPERFLOXF VS COMMERCIAL VARIABLE SPEED PUMP (CONT'D)

Dimensions and Performance



See page 509 for replacement parts.

MAX-E-PROXF[®] VS COMMERCIAL VARIABLE SPEED PUMP



TRADEGRADE



Max-E-ProXF VS Pump

The first variable speed pump that runs on single-phase or three-phase power. It's economical, combined motor/drive solution for HMAC (hotel, motel, apartment, condominium) or large residential installations, providing sophisticated, energy-saving pump technology without the high costs typically associated with independent pump/external drive setups.

Featured Highlights

- Integrated 5HP motor/drive; no expensive external drive required
- Versatile power input capability; runs off a wide range of single- or three-phase power
- Speed or flow control for maximum efficiency and pool performance*
- External control capability through automation systems or relays
- Intuitive programming and operation
- Meets commercial codes and agency requirements

Ordering Information

Product	THP	WEF	HHP	Service Factor	Voltage	Frequency	Current	Port Size	Weight	Certifications ³
WHISPERFLOXF VARIABLE SPEED										
023035	5.0	5.0	2.09	1.00	Single-Phase: 208-230/277-460 Three-Phase: 208-460	50/60	Single-Phase: 20-21/17-11 Three-Phase: 13-6	2.5" x 2.5" or 3" x 3"	95	UL ¹ , NSF ²
ACCESSORIES										
356324Z	RS-485 Automation Wiring Kit, 25 ft.									
400012	XF Riser Base - Simplifies installation of XF-series pumps in application where Challenger Pumps are being replaced.									

*When connected to Pentair's inline 4-20mA flowmeter for 3" plumbing (P/N 97014-4203KIT—sold separately), or similar 4-20mA flowmeters, this pump is capable of maintaining a constant flow based on the needs of your pool system. To connect the flowmeter and pump, the digital input cable provided in the External Control Wiring Kit (P/N 356324Z sold separately) is required.

¹ 'UL' indicates that pump bears a UL mark signifying evaluation to U.S. Standards UL1081 for Permanently Connected Swimming Pool and Spa Pumps and to Canadian Standards CAN/CSA C22.2 No. 108-01 Liquid Pumps For Swimming Pools Only (Enclosure 3).

² 'NSF' indicates that pump bears a mark signifying evaluation to NSF Standard 50 For Self-Priming Centrifugal Pumps For Swimming Pools, Spas and Hot Tubs.

³ Product may have been evaluated to other state and local regulatory standards. Listing status may change. Always confirm status with appropriate agency if in doubt.

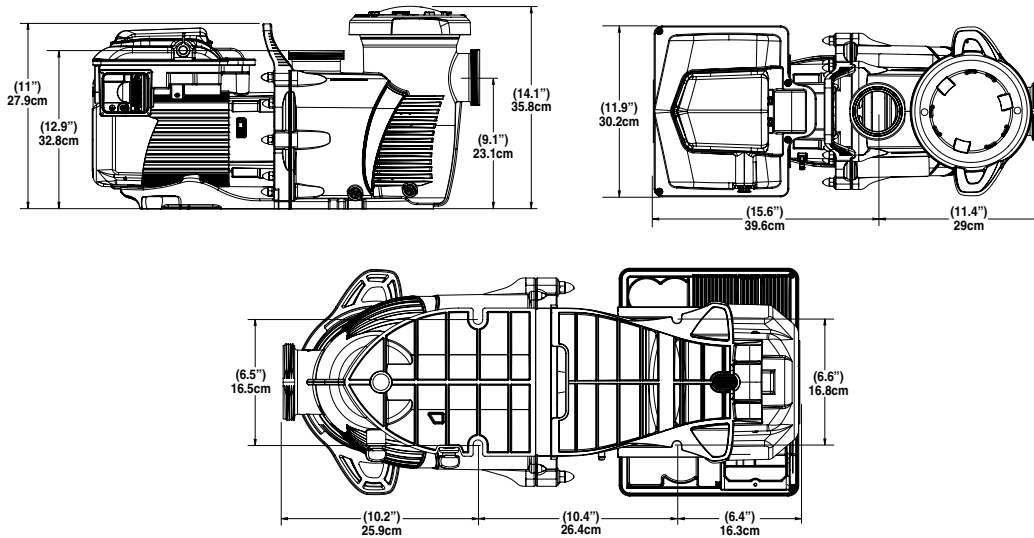
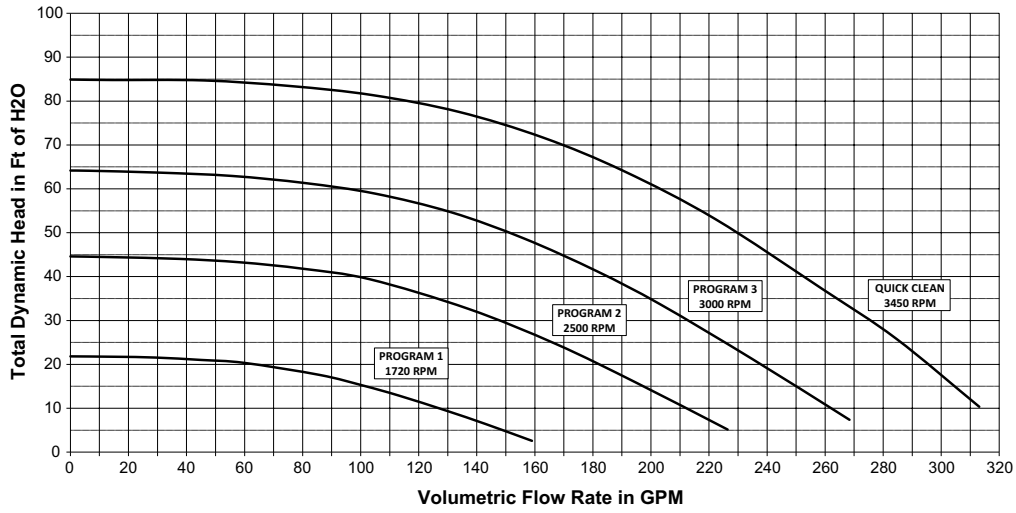
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MAX-E-PROXF[®] VS COMMERCIAL VARIABLE SPEED PUMP (CONT'D)

Dimensions and Performance



See page 509 for replacement parts.

COMMERCIAL ACU DRIVE™ XS

VARIABLE FREQUENCY DRIVE

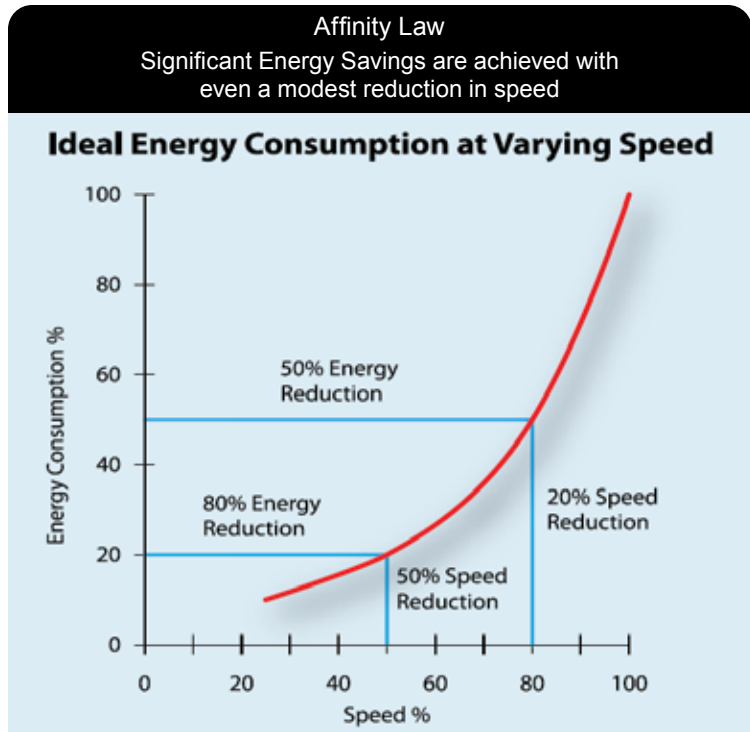


Featured Highlights

- Save up to 60% or more on pump's electricity usage*
- "Right-size" your pump to the exact flow required
- Helps save energy with constant flow as the filters gets dirty (with optional flow sensor)
- Off-hour flow management capability
- Does not blow corrosive filter-room air across the circuitry
- High efficiency up to 98% – adjusts drive input voltage for best efficiency point
- Eliminates need for motor starters
- Integrated disconnects, fusing and optional bypasses
- 2-step ramps (Soft Start Feature)
- Real-time clock for time based functions
- Great match for 3-phase models of EQ Series® Pumps
- Overload trip protection helps protect motor and Acu Drive XS VFD Drive from Voltage Spikes and phase unbalance
- Can connect to an IntelliTouch® Automation System
- 3-year manufacturers warranty, Optional 6-year warranty available
- Optional: Factory Start-up upgrade available
- Indoor & Outdoor-rated enclosures
- One drive type for the full power range
- For use with 3 phase pumps only
- Acu Drive XS VFD Drives with single phase input power available

The Acu Drive XS VFD Drive offers built-in intelligence for increased performance in all aquatic pump applications. Specified for energy and cost savings, the Acu Drive XS VFD Drive offers a fast return on investment. The Acu Drive XS VFD Drive allows the pump to run at its most efficient point on the curve. Preventative maintenance costs will drop due to motor protection, motor soft start, and a significant decrease in water hammer protecting the shaft and impeller. Up to an additional 5% savings due to the Acu Drive XS VFD Drive's ability to balance power phase and harmonic suppression. Built with powerful standard and optional features specifically designed for energy optimization, the Acu Drive XS VFD Drive is perfectly matched with the full line of Pentair Commercial pumps.

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*Savings based on single speed pool pumps traditionally configured without VFD's, up to 20% larger than actual required flow and head pressure. Actual savings may vary based on local utility rates, pool size, pump run time, pump horsepower, pump RPM, plumbing size and length, pump model, service factor and other hydraulic factors.

COMMERCIAL ACU DRIVE™ XS

VARIABLE FREQUENCY DRIVE (CONT'D)

Ordering Information

3-PHASE INCLUDES FUSED DISCONNECT, BATTERY BACKUP, & PENTAIR SMART START*						
Horse Power (HP)	NEMA-12 RATED (IP 54/55)			NEMA-4X RATED (IP 66)		
	200-240 VAC	360-480 VAC	525-600 VAC	200-240 VAC	360-480 VAC	525-600 VAC
3	AD030X-2303-N12	AD030X-4603-N12	AD030X-5753-N12	AD030X-2303-N4X	AD030X-4603-N4X	AD030X-5753-N4X
5	AD050X-2303-N12	AD050X-4603-N12	AD050X-5753-N12	AD050X-2303-N4X	AD050X-4603-N4X	AD050X-5753-N4X
7-1/2	AD075X-2303-N12	AD075X-4603-N12	AD075X-5753-N12	AD075X-2303-N4X	AD075X-4603-N4X	AD075X-5753-N4X
10	AD100X-2303-N12	AD100X-4603-N12	AD100X-5753-N12	AD100X-2303-N4X	AD100X-4603-N4X	AD100X-5753-N4X
15	AD150X-2303-N12	AD150X-4603-N12	AD150X-5753-N12	AD150X-2303-N4X	AD150X-4603-N4X	AD150X-5753-N4X
20	AD200X-2303-N12	AD200X-4603-N12	AD200X-5753-N12	AD200X-2303-N4X	AD200X-4603-N4X	AD200X-5753-N4X
25	AD250X-2303-N12	AD250X-4603-N12	AD250X-5753-N12	AD250X-2303-N4X	AD250X-4603-N4X	AD250X-5753-N4X
SINGLE-PHASE INPUT DRIVES (FOR USE WITH 3-PHASE PUMPS ONLY) INCLUDES STANDARD DISCONNECT ONLY (NO FUSES), BATTERY BACKUP, & PENTAIR SMART START*						
Horse Power (HP)	NEMA-12 RATED (IP 54/55)		NEMA-4X RATED (IP 66)			
	200-240 VAC		200-240 VAC			
3	AD030X-2301-N12		AD030X-2301-N4X			
5	AD050X-2301-N12		AD050X-2301-N4X			
7-1/2	AD075X-2301-N12		AD075X-2301-N4X			
10	AD100X-2301-N12		AD100X-2301-N4X			
15 - 20	AD200X-2301-N12		AD200X-2301-N4X			

For 30HP and higher - Please contact factory.

3-PHASE Units available with Optional Bypass Contactor mounted to common back plate. Please contact factory.

*Startup Services

CERTIFIED START-UP ASSISTANCE BY TRAINED TECHNICIANS IS AVAILABLE FOR PURCHASE WITH ALL ACU DRIVE VFD's. USE PRODUCT NUMBERS AS FOLLOWS:	
AD-STDSU01	Startup for single Drive (with or without Bypass Option)
AD-SUDW01	Batch Startup for 2-3 standard drives (4 hr. onsite / day)
AD-SUFW01	Batch Startup for 4-6 standard drives (8 hr. onsite / day)

Optional Accessories and Warranties

"ENHANCED SERVICE WARRANTY - ON SITE" INCLUDES PARTS, LABOR, TRAVEL AND ON-SITE WARRANTY REPAIR. USE PRODUCT NUMBERS AS FOLLOWS:"				
	200-240 VAC		360-480 VAC	
DURATION	3 HP & Below	5-25 HP	10 HP & Below	15-40 HP
6 YEARS	AD-EWW172	AD-EWW272	AD-EWW172	AD-EWW272

Flow Sensor Options

ACU DRIVE XS - FLOW SENSOR KITS						
Pipe Size (inches)	NEMA-12 RATED (IP 54/55)			NEMA-4X RATED (IP 66)		
	200-240 VAC	525-600 VAC		200-240 VAC	525-600 VAC	
2"	97014-4202KIT	Includes:		—	Includes:	
3"	97014-4203KIT	• Sch80 PVC Clamp-on Pipe Saddle.		97014BL-03KIT	• Sch80 PVC Clamp-on Pipe Saddle(3"-8").	
4"	97014-4204KIT	• 100 linear feet shielded signal wire.		97014BL-04KIT	• Iron Saddle (10"-14").	
6"	97016-4206KIT	• Strain relief connector.		97016BL-06KIT	• 100 linear feet shielded signal wire.	
8"	97016-4208KIT	Does <u>not</u> include separate wall-mount flow display.		97016BL-08KIT	• Strain relief connector.	
10"	—			97020BL-10KIT	Separate wall-mount flow display/transmitter.	
12"	—			97020BL-12KIT		
14"	—			97020BL-14KIT		

*Additional charges will apply if on-site start-up exceeds four hours (including round-trip travel) per Acu Drive XS Drive.

Other options and add-ons are available including "Bypass Contactors", and "Contact Motor Select" upgrades, and additional on-site technical training. For more information on these options, other sizes, or applications assistance call 1-800-831-7133.

Some pump motors (e.g. 230/460V versions) can be wired to accommodate multiple voltages. This is not true of VFDs. In order to ensure proper VFD selection, the actual pump motor input voltage must be consistent with the drives operating range as shown.

The Acu Drive VF Drive is recommended for use with all "High" or "Premium" efficiency motors and all motors that have Class F insulation or better. For all non-Class F motors, please contact the factory for proper selection of Acu Drive XS Drive and accessories.

Standard Acu Drive XS VF Drives can be returned within 12 months of invoice only if unused, in original packaging, and subject to a 35% restocking charge. Special drives are non-returnable.

Nema Rated 12 enclosure provides protection against dust, dirt and light splashing. Nema Rated 12 units may be used outdoors when sheltered from direct precipitation and sunlight.

Nema Rated 4X enclosure provides a degree of protection against solid foreign objects (windblown dust), water (rain, sleet, snow, splashing water, and hose directed water), and an additional level of protection against corrosion; and that will be undamaged by the external formation of ice on the enclosure.

EQ SERIES®

COMMERCIAL PLASTIC PUMP WITH AND WITHOUT HAIR AND LINT STRAINER



EQ Series TEFC Pump with Strainer



EQ Series Pump without Strainer

Commercial Plastic pump built specifically for commercial and large residential pools. Pump features electrical and hydraulic designs that helps reduce electrical costs, less wear and tear on critical moving parts, and lightweight for ease of installation.

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Featured Highlights

- Efficiency 3-phase motors
- Commercial grade, non-corrosive Plastic Parts for durability and long life
- Now available in TEFC and ODP 3-phase motor options
- Cam and Ramp™ See -Through Lid
- Self-priming with Hair and Lint Strainer
- Light weight
- 3-phase models compatible with Acu Drive™ XS VF Drive
- Drop-in replacement for C Series® and CSP Series™ Pumps
- Waterfall models great for low head, high flow applications
- Easy cleaning and serviceability
- 50 Hz models available -contact factory

Ordering Information

Product	Description	Voltage	Amps	HP	SF	SFHP	Primary Listings and Certifications ⁸	Port Size (ANSI Flange)	Motor Class	Carton Wt. (Lbs.)	Curve Key
PREMIUM EFFICIENCY SINGLE PHASE POOL PUMP WITHOUT STRAINER - ODP											
▶ 340019	EQ-500	230	20.0	5	1.15	5.75	NSF ² , ETL ⁵	6 in. x 4 in.	F	97	A
▶ 340021	EQ-750	230	30.4	7.5	1.15	8.63	NSF ²	6 in. x 4 in.	F	132	B
▶ 340237	EQ-1000	230	40.0	10	1.15	11.50	NSF ²	6 in. x 4 in.	F	125	C
NEMA RATED PREMIUM EFFICIENCY THREE PHASE POOL PUMP WITHOUT STRAINER - ODP											
▶ 340020	EQK-500	208-230/460	13.5-12.3/6.2	5	1.15	5.75	NSF ²	6 in. x 4 in.	F	77	D
▶ 340022	EQK-750	208-230/460	20.4-18.2/9.1	7.5	1.15	8.63	NSF ²	6 in. x 4 in.	F	87	E
▶ 340023	EQK-1000	208-230/460	27.0/26.2-13.1	10	1.15	11.50	NSF ²	6 in. x 4 in.	F	117	F
▶ 340024	EQK-1500	208-230/460	40.0-38.0/18.8	15	1.15	17.25	NSF ²	6 in. x 4 in.	F	132	G
NEMA RATED PREMIUM EFFICIENCY THREE PHASE POOL PUMP WITHOUT STRAINER - TEFC											
▶ 340608	EQKT-500	208-230/460	13.4-12.2/6.1	5	1.25	6.25	NSF ² , UL ⁷	6 in x 4 in	F	97	D
▶ 340609	EQKT-750	208-230/460	19.9-17.8/8.9	7.5	1.25	9.38	NSF ² , UL ⁷	6 in x 4 in	F	117	E
▶ 340610	EQKT-1000	208-230/460	26.4-23.5/11.7	10	1.25	12.50	NSF ² , UL ⁷	6 in x 4 in	F	163	F
▶ 340611	EQKT-1500	208-230/460	39.0-36.0/18.0	15	1.25	18.75	NSF ² , UL ⁸	6 in x 4 in	F	177	G
NEMA RATED PREMIUM EFFICIENCY THREE PHASE POOL PUMP WITHOUT STRAINER - 575 VOLT - ODP											
▶ 340148	EQK-500	575	5.1	5	1.15	5.75	NSF ²	6 in. x 4 in.	F	77	D
▶ 340149	EQK-750	575	7.2	7.5	1.15	8.63	NSF ²	6 in. x 4 in.	F	87	E
▶ 340150	EQK-1000	575	10.2	10	1.15	11.50	NSF ²	6 in. x 4 in.	F	117	F
▶ 340151	EQK-1500	575	15.0	15	1.15	17.25	NSF ²	6 in. x 4 in.	F	132	G
PREMIUM EFFICIENCY SINGLE PHASE POOL PUMP WITH STRAINER - ODP											
▶ 340030	EQ-500	230	20.0	5	1.15	5.75	NSF ³ , ETL ⁵	6 in. x 4 in.	F	126	A
▶ 340032	EQ-750	230	30.4	7.5	1.15	8.63	NSF ³	6 in. x 4 in.	F	161	B
▶ 340238	EQ-1000	230	40.0	10	1.15	11.50	NSF ³	6 in. x 4 in.	F	160	C
NEMA RATED PREMIUM EFFICIENCY THREE PHASE POOL PUMP WITH STRAINER - ODP											
▶ 340031	EQK-500	208-230/460	13.5-12.3/6.2	5	1.15	5.75	NSF ³	6 in. x 4 in.	F	106	D
▶ 340033	EQK-750	208-230/460	20.1-18.3/9.1	7.5	1.15	8.63	NSF ³	6 in. x 4 in.	F	116	E
▶ 340034	EQK-1000	208-230/460	27.0/26.2-13.1	10	1.15	11.50	NSF ³	6 in. x 4 in.	F	146	F
▶ 340035	EQK-1500	208-230/460	40.0-36.0/17.8	15	1.15	17.25	NSF ³	6 in. x 4 in.	F	161	G
NEMA RATED PREMIUM EFFICIENCY THREE PHASE POOL PUMP WITH STRAINER - TEFC											
▶ 340604	EQKT-500	208-230/460	13.4-12.2/6.1	5	1.25	6.25	NSF ³ , UL ⁷	6 in x 4 in	F	127	D
▶ 340605	EQKT-750	208-230/460	19.9-17.8/8.9	7.5	1.25	9.38	NSF ³ , UL ⁷	6 in x 4 in	F	147	E
▶ 340606	EQKT-1000	208-230/460	26.4-23.5/11.7	10	1.25	12.50	NSF ³ , UL ⁷	6 in x 4 in	F	193	F
▶ 340607	EQKT-1500	208-230/460	39.0-36.0/18.0	15	1.25	18.75	NSF ³ , UL ⁸	6 in x 4 in	F	207	G

▶ This product either meets or is exempt from the DOE Dedicated Purpose Pool Pump regulation. This product will remain available after the DOE regulation takes effect in July 2021.

EQ SERIES®

COMMERCIAL PLASTIC PUMP WITH AND WITHOUT HAIR AND LINT STRAINER

Product	Description	Voltage	Amps	HP	SF	SFHP	Primary Listings and Certifications ⁶	Port Size (ANSI Flange)	Motor Class	Carton Wt. (Lbs.)	Curve Key
NEMA RATED PREMIUM EFFICIENCY THREE PHASE POOL PUMP WITH STRAINER - ODP - 575 VOLT											
▶ 340155	EQK-500	575	5.1	5	1.15	5.75	NSF ³	6 in. x 4 in.	F	106	D
▶ 340156	EQK-750	575	7.2	7.5	1.15	8.63	NSF ³	6 in. x 4 in.	F	116	E
▶ 340157	EQK-1000	575	10.2	10	1.15	11.50	NSF ³	6 in. x 4 in.	F	146	F
▶ 340159	EQK-1500	575	15.0	15	1.15	17.25	NSF ³	6 in. x 4 in.	F	161	G
SINGLE PHASE WATERFALL PUMP WITHOUT STRAINER - ODP - 1750 RPM											
▶ 340014	EQW-300	208-230	19.5/19.2	3	1.15	3.45	NSF ² , ETL ⁵	6 in. x 4 in.	F	97	H
▶ 340017	EQW-500	208-230	23.0-20.1	5	1.25	6.25	NSF ² , ETL ⁵	6 in. x 4 in.	F	97	I
NEMA RATED PREMIUM EFFICIENCY THREE PHASE WATERFALL PUMP WITHOUT STRAINER - ODP - 1750 RPM											
▶ 340016	EQWK-300	208-230/460	8.4-7.8/3.9	3	1.15	3.45	NSF ²	6 in. x 4 in.	F	77	H
▶ 340018	EQWK-500	208-230/460	13.8-13.0/6.5	5	1.25	6.25	NSF ²	6 in. x 4 in.	F	77	I
SINGLE PHASE WATERFALL PUMP WITH STRAINER - ODP - 1750 RPM											
▶ 340026	EQW-300	208/230	19.5/19.2	3	1.15	3.45	NSF ³ , ETL ⁵	6 in. x 4 in.	F	126	H
▶ 340028	EQW-500	208-230	23.0/20.1	5	1.25	6.25	NSF ⁴ , ETL ⁵	6 in. x 4 in.	F	126	I
NEMA RATED PREMIUM EFFICIENCY THREE PHASE WATERFALL PUMP WITH STRAINER - ODP											
▶ 340027	EQWK-300	208-230/460	8.4-7.8/3.9	3	1.15	3.45	NSF ³	6 in. x 4 in.	F	106	H
▶ 340029	EQWK-500	208-230/460	13.8-13.0/6.5	5	1.25	6.25	NSF ⁴	6 in. x 4 in.	F	106	I
HAIR AND LINT STRAINER WITH CAM AND RAMP LID, BASKET AND HARDWARE											
340013	EQ 6X6 Strainer						NSF ⁴	6 in. x 6 in.		33	J
EQ SERIES PUMP ACCESSORIES FLANGE ASSEMBLY KITS											
357262	Flange 4 in. w/ gasket and SS hardware ¹	(See images on next page)								20	
357263	Flange 6 in. w/ gasket and SS hardware ¹	(See images on next page)								23	
357212	Flange 6 in. w/ gasket and SS hardware.	For use on EQ Pumps without Strainer.								23	

See page 249 for an assortment of PS Series In-Line Strainers that work well with EQ Series pumps.

¹ Thermoplastic PVC socket style.

² 'NSF' indicates that pump bears a mark signifying evaluation to NSF Standard 50 For Non Self-Priming Centrifugal Pumps For Swimming Pools, Spas and Hot Tubs.

³ 'NSF' indicates that pump bears a mark signifying evaluation to NSF Standard 50 For Self-Priming Centrifugal Pumps For Swimming Pools, Spas and Hot Tubs.

⁴ 'NSF' indicates that product bears a mark signifying evaluation to NSF Standard 50 For Materials and Components.

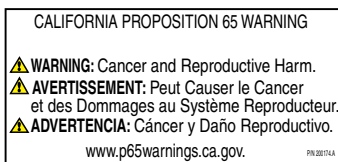
⁵ 'ETL' indicates that pump bears a specific ETL mark signifying evaluation to U.S. Standards UL1081 for Permanently Connected Swimming Pool and Spa Pumps and to Canadian Standards CAN/CSA C22.2 No. 108-01 Liquid Pumps For Swimming Pools And Spas. (Enclosure 3).

⁶ Product may have been evaluated to other state and local regulatory standards. Listing status may change. Always confirm status with appropriate agency if in doubt.

⁷ 'UL' indicates that pump bears a UL mark signifying evaluation to U.S. Standards UL1081 for Permanently Connected Swimming Pool and Spa Pumps and to Canadian Standards CAN/CSA C22.2 No. 108-01 Liquid Pumps For Swimming Pools Only (Enclosure 3).

⁸ 'UL' indicates that pump bears a UL mark signifying evaluation to U.S. Standards UL1081 for Permanently Connected Swimming Pool and Spa Pumps.

Dimensions and Performance - See next page.



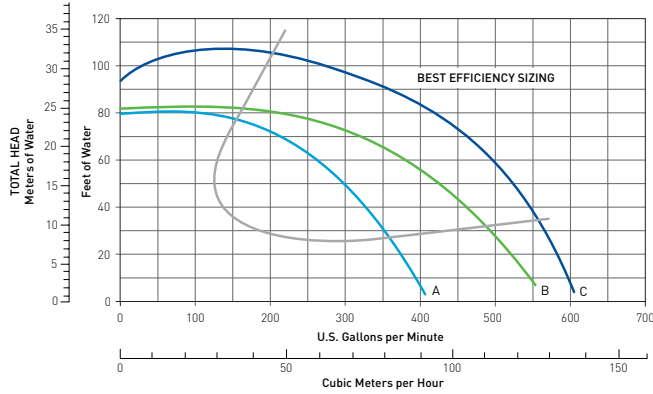
See pages 510–511 for replacement parts.

EQ SERIES®

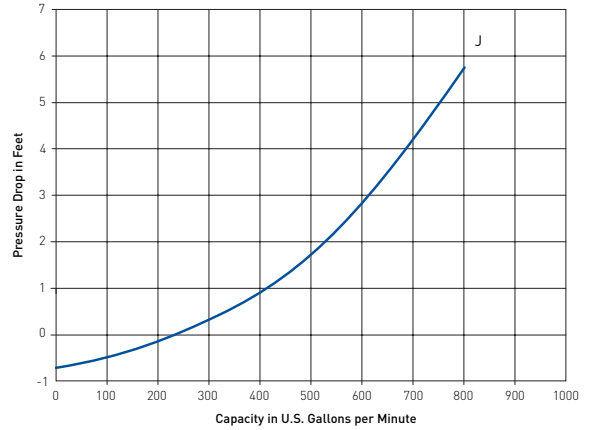
COMMERCIAL PLASTIC PUMP WITH AND WITHOUT HAIR AND LINT STRAINER (CONT'D)

Dimensions and Performance

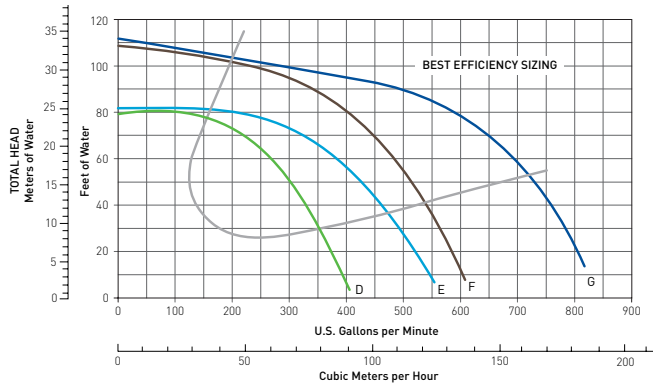
Single Phase Pumps - EQ Models



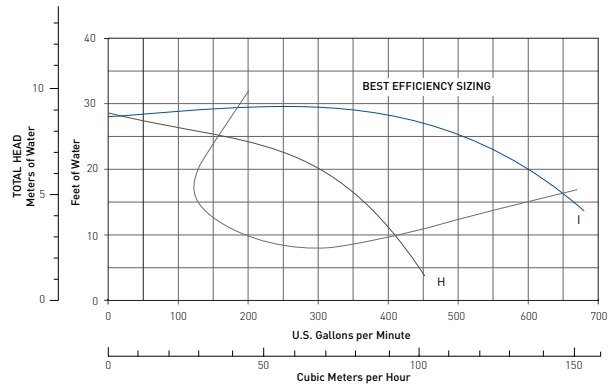
EQ Strainer Only



Three Phase Pumps - EQK Models



WaterFall Pumps - EQW & EQWK Models



For detailed efficiency curves go to www.pentaircommercial.com

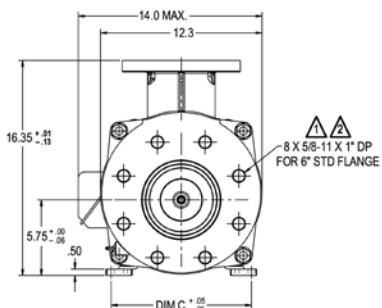
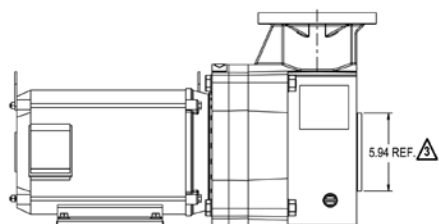
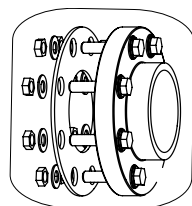
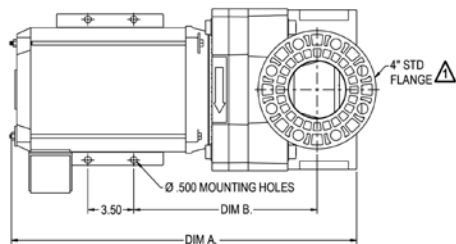
EQ SERIES®

COMMERCIAL PLASTIC PUMP WITH AND WITHOUT HAIR AND LINT STRAINER (CONT'D)

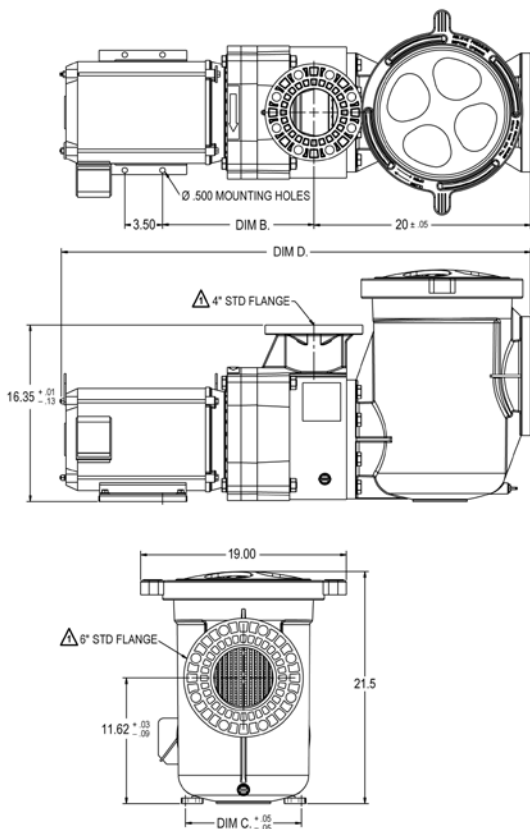
Dimensions and Performance

EQ Series Commercial Pump without Strainer

EQ Series Pump
Flange Assembly Kit



EQ Series Commercial Pump with Strainer



Product No W/O Pot	Product No. W/ Pot	Dim A*	Dim B*	Dim C*	Dim D*
340014	340026	26.62	13.32	9.69	43.59
340017	340028	26.62	14.21	9.69	43.59
340019	340030	26.62	13.32	9.69	43.59
340021	340032	27.53	14.21	10.69	44.59
340237	340238	26.94	14.03	10.69	43.92
340016	340027	23.12	13.32	9.69	40.09
340018	340029	23.12	13.32	9.69	40.09
340020	340031	23.12	13.32	9.69	40.09
340022	340033	24.50	13.32	9.69	41.56
340023	340034	26.31	14.38	10.69	43.29
340024	340035	26.31	14.38	10.69	43.29
340148	340155	24.62	13.32	7.50	41.59
340149	340156	24.62	13.32	7.50	41.59
340150	340157	26.31	14.07	8.50	43.29
340151	340159	26.31	14.07	8.50	43.29
340608	340604	24.52	13.48	9.69	41.50
340609	340605	26.52	14.19	10.69	43.50
340610	340606	28.02	14.19	10.69	45.00
340611	340607	28.02	14.19	10.69	45.00
340086	340082	24.62	13.48	9.69	41.59
340085	340081	24.62	13.48	9.69	41.59
340084	340080	28.31	14.19	10.69	45.29
340083	340049	28.31	14.19	10.69	45.29
340048	340046	28.31	14.19	10.69	45.29
340047	340045	28.31	14.19	10.69	45.29

* This value may vary slightly depending upon manufacturer and motor design.

- △ FASTENERS AND O-RING ARE INCLUDED WITH PENTAIR POOL PRODUCTS EQ 6X6 STRAINER TO CONNECT STRAINER DIRECTLY TO EQ SERIES PUMP. IF PUMP IS TO BE INSTALLED WITHOUT STRAINER MAKE BOTH CONNECTIONS PER NOTE 1.
- △ USE ANSI CLASS 150 PLASTIC FLANGE AND 1/8 in. THICK CLASS 150 FULL FLANGE GASKET TO MAKE CONNECTION.
- △ THIS DIAMETER FITS INSIDE 6 in. SCH 40 PIPE. DO NOT USE SCH 80 PIPE AS FINAL PIPE SIZE WHEN MAKING THIS FLANGE CONNECTION.

See pages 510–511 for replacement parts.

C SERIES®

COMMERCIAL BRONZE PUMPS



C Series Commercial Bronze Pump

Bronze volute and pot, coated cast iron foot, flanged connections, 6 in. suction, 4 in. discharge.

CALIFORNIA PROPOSITION 65 WARNING

⚠ **WARNING:** Cancer and Reproductive Harm.
 ⚠ **AVERTISSEMENT:** Peut Causer le Cancer et des Dommages au Système Reproducteur.
 ⚠ **ADVERTENCIA:** Cáncer y Daño Reproductivo.
www.p65warnings.ca.gov

Featured Highlights

- Large commercial pump with s/s basket
- Easy serviceability
- All-bronze construction for strength and durability
- 6 in. suction and 4 in. discharge for maximum capabilities
- Heavy-gauge stainless steel strainer basket with an open area 5 times the area of the suction port
- Closed impeller for longer motor bearing life
- Heat-resistant seal capable of operation at up to 150°
- Available in single and three-phase, 50 and 60-Hertz models
- For 200-208v applications order 200-208v model pump

Ordering Information

Product	Description	Voltage	Amps	HP	SF	SFHP	Primary Listings and Certifications ²	Motor Class	Port Size (ANSI Flange)	Carton Wt. (Lbs.)	Curve Key
NEMA RATED STANDARD EFFICIENCY SINGLE PHASE 230V											
▶011651	CM-50	230	24.0	5	1.15	5.75	NSF ¹	B	6 in. x 4 in.	352	F
▶011656	CH-50	230	24.0	5	1.15	5.75	NSF ¹	B	6 in. x 4 in.	352	A
▶347917	CM-75	230	37.0	7-1/2	1.15	8.63	NSF ¹	B	6 in. x 4 in.	375	G
▶347916	CH-75	230	37.0	7-1/2	1.15	8.63	NSF ¹	B	6 in. x 4 in.	375	B
▶347964	CM-100	230	51.0	10	1.15	11.50	NSF ¹	B	6 in. x 4 in.	370	H
▶347963	CH-100	230	51.0	10	1.15	11.50	NSF ¹	B	6 in. x 4 in.	370	C
NEMA RATED STANDARD EFFICIENCY SINGLE PHASE 200 - 208V											
▶347938	CM-50	200-208	29.0	5	1.15	5.75	NSF ¹	B	6 in. x 4 in.	322	F
▶348001	CM-75	200-208	42.6	7-1/2	1.15	8.63	NSF ¹	B	6 in. x 4 in.	375	G
NEMA RATED STANDARD EFFICIENCY THREE PHASE 200 - 208V											
▶347940	CMK-50	200-208	16.1	5	1.15	5.75	NSF ¹	B	6 in. x 4 in.	346	F
▶347941	CHK-50	200-208	16.1	5	1.15	5.75	NSF ¹	B	6 in. x 4 in.	350	A
▶347942	CMK-75	200-208	22.3	7-1/2	1.15	8.63	NSF ¹	B	6 in. x 4 in.	346	G
▶347943	CHK-75	200-208	22.3	7-1/2	1.15	8.63	NSF ¹	B	6 in. x 4 in.	346	B
▶347944	CMK-100	200-208	28.7	10	1.15	11.50	NSF ¹	B	6 in. x 4 in.	370	H
▶347945	CHK-100	200-208	28.7	10	1.15	11.50	NSF ¹	B	6 in. x 4 in.	356	C
▶347948	CHK-200	200-208	54.0	20	1.15	23.00	NSF ¹	F	6 in. x 4 in.	406	E
NEMA RATED STANDARD EFFICIENCY THREE PHASE 220/440V											
▶011657	CHK-50	220/440	13.0/6.5	5	1.15	5.75	NSF ¹	F	6 in. x 4 in.	336	A
▶011658	CHK-75	220/440	18.4/9.2	7-1/2	1.15	8.63	NSF ¹	F	6 in. x 4 in.	349	B
▶011659	CHK-100	220/440	25.3/12.6	10	1.15	11.50	NSF ¹	B	6 in. x 4 in.	376	C
▶011660	CHK-150	220/440	37.5/18.8	15	1.15	17.25	NSF ¹	B	6 in. x 4 in.	398	D
▶011661	CHK-200	220/440	49.0/24.6	20	1.15	23.00	NSF ¹	F	6 in. x 4 in.	403	E

▶ This product either meets or is exempt from the DOE Dedicated Purpose Pool Pump regulation. This product will remain available after the DOE regulation takes effect in July 2021.

C SERIES®

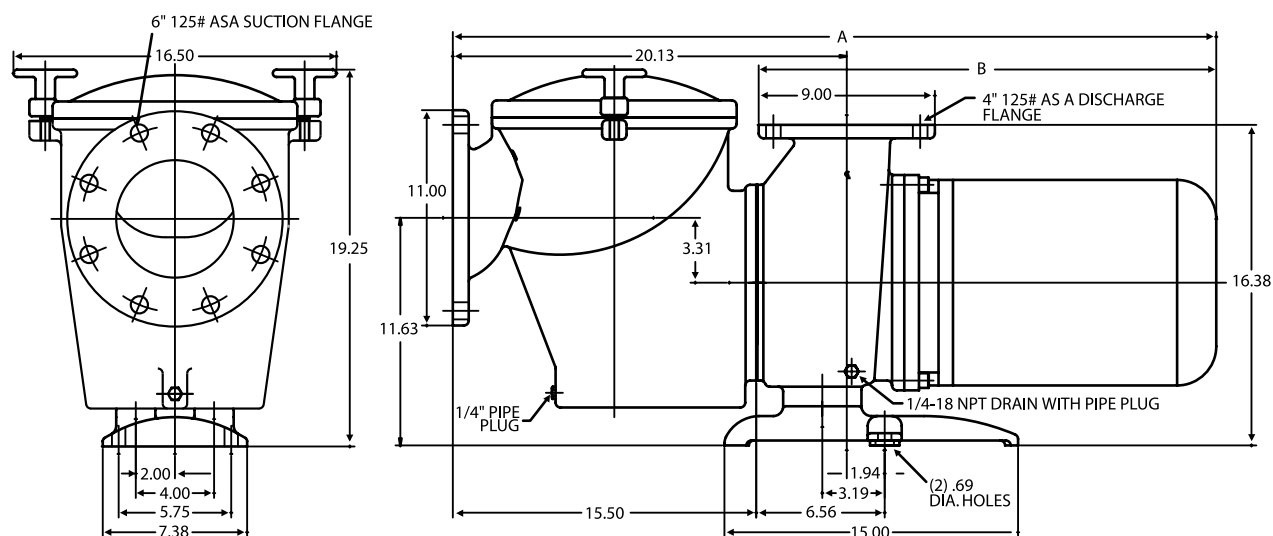
COMMERCIAL BRONZE PUMPS (CONT'D) WITH HAIR AND LINT STRAINER

Product	Description	Voltage	Amps	HP	SF	SFHP	Primary Listings and Certifications ²	Motor Class	Port Size (ANSI Flange)	Carton Wt. (Lbs.)	Curve Key
NEMA RATED STANDARD EFFICIENCY THREE PHASE 575V											
▶ 347967	CHK-50	575	5.6	5	1.15	5.75	NSF ¹	F	6 in. x 4 in.	336	A
▶ 347935	CHK-200	575	19.5	20	1.15	23.00	NSF ¹	F	6 in. x 4 in.	406	E
NEMA RATED STANDARD EFFICIENCY THREE PHASE 380-415V- 50 HZ											
▶ 014884	CHKL-200	380-415	28.0-26.0	20	1.15	23.00	NSF ¹	F	6 in. x 4 in.	403	

¹ "NSF" indicates that pump has been certified to NSF/ANSI 50, the Standard for Equipment for swimming pools, spas, hot tubs and other recreational water features.

² Product may have been evaluated to other state and local regulatory standards. Listing status may change. Always confirm status with appropriate agency if in doubt.

Dimensions and Performance



PUMP DIMENSIONS			
THREE-PHASE AMPS @ 220/440 & 380/415 V			
HP	AMPS	A	B
5	14	34.88	19.50
7.5	20	35.88	20.50
10	26	36.88	22.50
15	38	37.38	22.00
20	46	37.88	23.50

PUMP DIMENSIONS			
SINGLE-PHASE AMPS @ 230 VOLTS			
HP	AMPS	A	B
5	26	35.50	20.50
7.5	37	35.88	20.50

PUMP DIMENSIONS			
SINGLE-PHASE AMPS @ 200 VOLTS			
HP	AMPS	A	B
5	29	35.50	20.50
7.5	39.6	35.88	20.50

NOTES:
 1. BOTH "A" AND "B" DIMENSIONS ARE APPROXIMATE IT DEPENDS ON MOTOR MANUFACTURER.
 2. ALL DIMENSIONS ARE IN INCHES AND MAY VARY ± .25.

C SERIES®

COMMERCIAL BRONZE PUMPS (CONT'D) WITHOUT HAIR AND LINT STRAINER



C Series
Commercial
Bronze Pump
without Hair and
Lint Strainer

Featured Highlights

- High performance motors for maximum flow
- All-bronze construction for strength and durability
- 5 in. suction and 4 in. discharge for maximum capabilities
- Closed impeller for longer motor bearing life
- Heat-resistant seal capable of operation at up to 150°
- Available in single and three-phase, 50 and 60-hertz models
- For 200-208v applications order 200-208v model pump

CALIFORNIA PROPOSITION 65 WARNING

⚠ **WARNING:** Cancer and Reproductive Harm.
 ⚠ **AVERTISSEMENT:** Peut Causer le Cancer et des Dommages au Système Reproducteur.
 ⚠ **ADVERTENCIA:** Cáncer y Daño Reproductivo.
www.p65warnings.ca.gov

Ordering Information

Product	Description	Voltage	Amps	HP	SF	SFHP	Primary Listings and Certifications ³	Motor Class	Port Size (ANSI Flange)	Carton Wt. (Lbs.)	Curve Key
NEMA RATED STANDARD EFFICIENCY SINGLE PHASE 200-208V											
▶ 347950	CH-50	200-208	29.0	5	1.15	5.75	NSF ²	B	5 in. x 4 in.	302	A
▶ 347961	CM-75	200-208	42.6	7-1/2	1.15	8.63	NSF ²	B	5 in. x 4 in.	315	G
C SERIES & AURORA PUMP ACCESSORIES FLANGE ASSEMBLY KITS											
357260	Flange 5 in. w/ gasket and SS hardware ¹ for pump less strainer									22	
357262	Flange 4 in. w/ gasket and SS hardware ¹									20	
357263	Flange 6 in. w/ gasket and SS hardware ¹									23	

¹ Thermoplastic PVC socket style

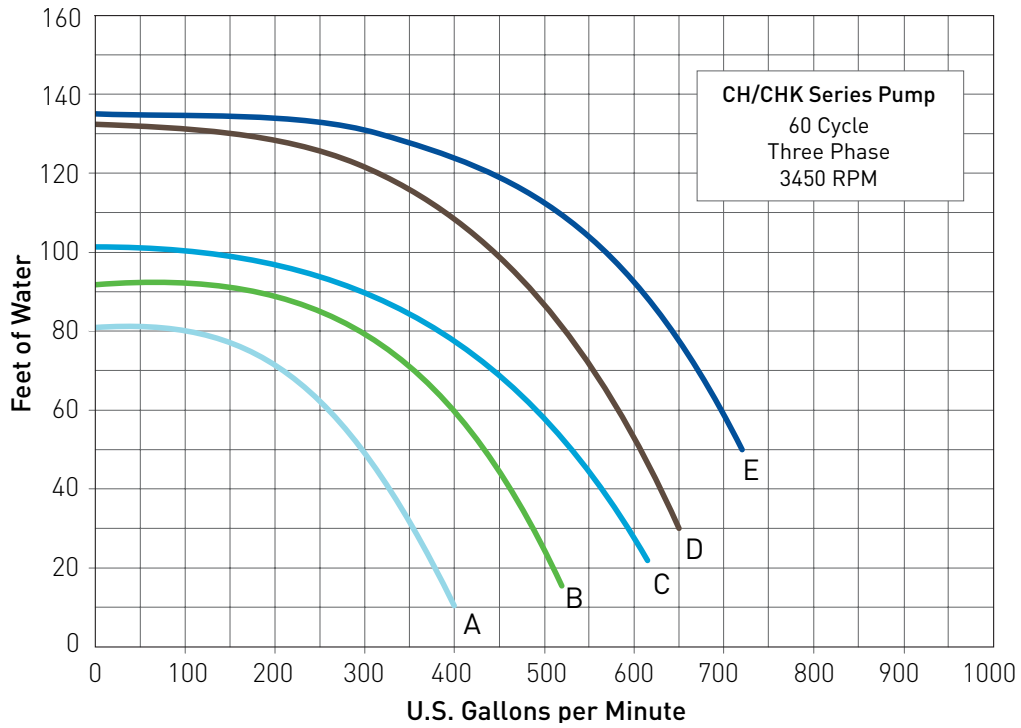
² 'NSF(1)' indicates that pump bears a mark signifying evaluation to NSF Standard 50 For Non Self-Priming Centrifugal Pumps For Swimming Pools, Spas and Hot Tubs.

³ Product may have been evaluated to other state and local regulatory standards. Listing status may change. Always confirm status with appropriate agency if in doubt.

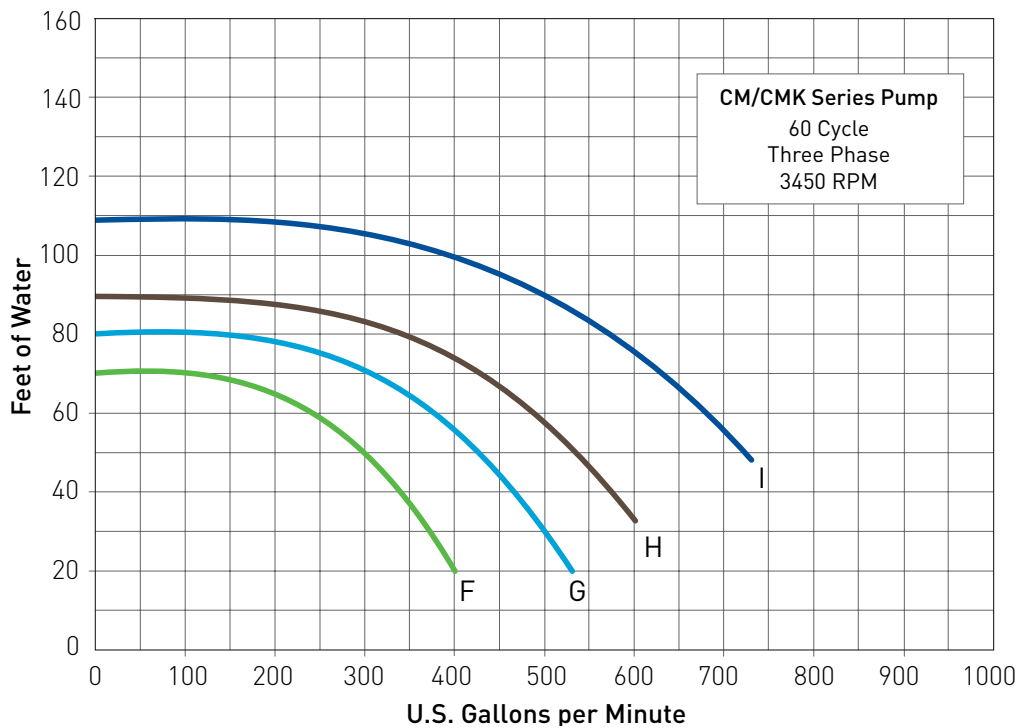
C SERIES®

COMMERCIAL BRONZE PUMPS (CONT'D) WITH HAIR AND LINT STRAINER

CH/CHK SERIES PUMP - 60HZ



CM/CMK SERIES PUMP - 60HZ



For detailed efficiency curves go to www.pentaircommercial.com

See pages 512–513 for replacement parts.

CSP/CCSP SERIES™

COMMERCIAL SELF-PRIMING PUMP



CSP/CCSP Series
Commercial Self-Priming
Pump with PKG 184
Strainer (sold separately)

CALIFORNIA PROPOSITION 65 WARNING
 ⚠️ **WARNING:** Cancer and Reproductive Harm.
 ⚠️ **AVERTISSEMENT:** Peut Causer le Cancer et des Dommages au Système Reproducteur.
 ⚠️ **ADVERTENCIA:** Cáncer y Daño Reproductivo.
www.p65warnings.ca.gov

Featured Highlights

- Especially designed for commercial and public swimming pools and spas, aquatic facilities, water parks and fountain applications where high performance and self-priming are required
- Pump has enclosed bronze impeller and standard 6 in. x 4 in. A.N.S.I. rated flange connections
- The pump strainer (order separately) has capacity of 1,100 cubic inches. Both pump and strainer can be ordered with optional epoxy coated castings to provide additional performance and corrosion resistance

Ordering Information

Product	Voltage	Amps ¹	HP	SF	SFHP	Primary Listings and Certifications ⁴	Port Size (ANSI Flange)	Carton Wt. (Lbs.)	Curve Key
NEMA RATED STANDARD EFFICIENCY SINGLE PHASE CAST IRON									
▶ CSPHK-142	230	39	7.5	1.15	8.63	NSF ²	6 in. x 4 in.	270	A
▶ CSPHL-143	230	46	10	1.15	11.50	NSF ²	6 in. x 4 in.	275	B
NEMA RATED STANDARD EFFICIENCY SINGLE PHASE EPOXY COATED CAST IRON									
▶ CCSPHK-142	230	39	7.5	1.15	8.63	NSF ²	6 in. x 4 in.	270	E
▶ CCSPHL-143	230	46	10	1.15	11.50	NSF ²	6 in. x 4 in.	275	F
NEMA RATED STANDARD EFFICIENCY THREE PHASE CAST IRON									
▶ CSPHK3-142	230/460	21.2-19.2/9.6	7-1/2	1.25	9.38	NSF ²	6 in. x 4 in.	265	A
▶ CSPHL3-143	230/460	27.6-24.4/12.2	10	1.25	12.50	NSF ²	6 in. x 4 in.	270	B
▶ CSPHM3-144	230/460	44.2-40/20	15	1.25	18.75	NSF ²	6 in. x 4 in.	280	C
▶ CSPHN3-145	230/460	55.3-50/25	20	1.25	25.00	NSF ²	6 in. x 4 in.	325	D
NEMA RATED STANDARD EFFICIENCY THREE PHASE CAST IRON - 200V⁶									
▶ CSPH2K3-142	200	22.1	7-1/2	1.15	8.63	NSF ²	6 in. x 4 in.	265	A
▶ CSPH2L3-143	200	28.1	10	1.25	12.50	NSF ²	6 in. x 4 in.	270	B
▶ CSPH2M3-144	200	42.3	15	1.25	18.75	NSF ²	6 in. x 4 in.	280	C
▶ CSPH2N3-145	200	57.3	20	1.25	25.00	NSF ²	6 in. x 4 in.	350	D
NEMA RATED STANDARD EFFICIENCY THREE PHASE EPOXY COATED CAST IRON									
▶ CCSPHK3-142	230/460	21.2-19.2/9.6	7-1/2	1.25	9.38	NSF ²	6 in. x 4 in.	265	E
▶ CCSPHL3-143	230/460	27.6-24.4/12.2	10	1.25	12.50	NSF ²	6 in. x 4 in.	270	F
▶ CCSPHM3-144	230/460	44.2-40/20	15	1.25	18.75	NSF ²	6 in. x 4 in.	280	G
▶ CCSPHN3-145	230/460	55.3-50/25	20	1.25	25.00	NSF ²	6 in. x 4 in.	325	H
NEMA RATED STANDARD EFFICIENCY THREE PHASE EPOXY COATED CAST IRON - 200 V⁶									
▶ CCSPH2K3-142	200	22.1	7-1/2	1.15	8.63	NSF ²	6 in. x 4 in.	265	E
▶ CCSPH2L3-143	200	28.1	10	1.25	12.50	NSF ²	6 in. x 4 in.	270	F
▶ CCSPH2M3-144	200	42.3	15	1.25	18.75	NSF ²	6 in. x 4 in.	280	G
▶ CCSPH2N3-145	200	57.3	20	1.25	25.00	NSF ²	6 in. x 4 in.	350	H
ACCESSORIES FOR CSP/CCSP SERIES									
PKG 184	Strainer for CSP/CCSP 6 in. ANSI flange (1,100 cu. in. capacity)					NSF ³	6 in. x 6 in.	180	I
PKG 184C	Same as PKG 184 Except Strainer is Epoxy Coated					NSF ³	6 in. x 6 in.	180	I
357262	Flange 4 in. w/ gasket and SS hardware ⁵							20	
357263	Flange 6 in. w/ gasket and SS hardware ⁵							23	

¹ Amp draw may vary depending on motor manufacturer.

² 'NSF(1)' indicates that pump bears a mark signifying evaluation to NSF Standard 50 For Self-Priming Centrifugal Pumps For Swimming Pools And Spas.

³ 'NSF(2)' indicates that product bears a mark signifying evaluation to NSF Standard 50 For Materials and Components.

⁴ Product may have been evaluated to other state and local regulatory standards. Listing status may change. Always confirm status with appropriate agency if in doubt.

⁵ Thermoplastic PVC socket style.

⁶ For 208 volt applications, use 200v model options.

▶ This product either meets or is exempt from the DOE Dedicated Purpose Pool Pump regulation. This product will remain available after the DOE regulation takes effect in July 2021.

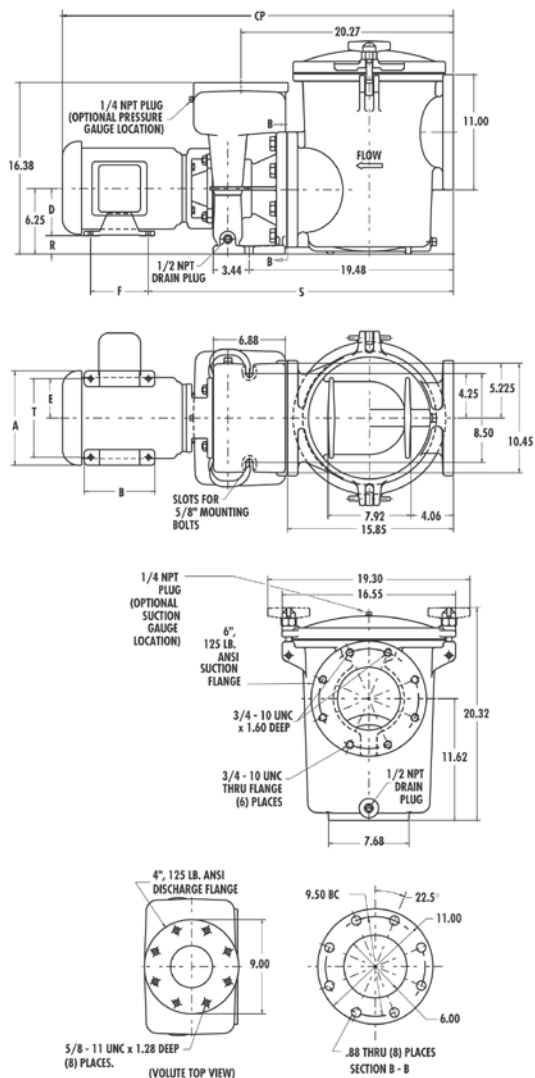
CSP/CCSP SERIES™

COMMERCIAL SELF-PRIMING PUMP (CONT'D)

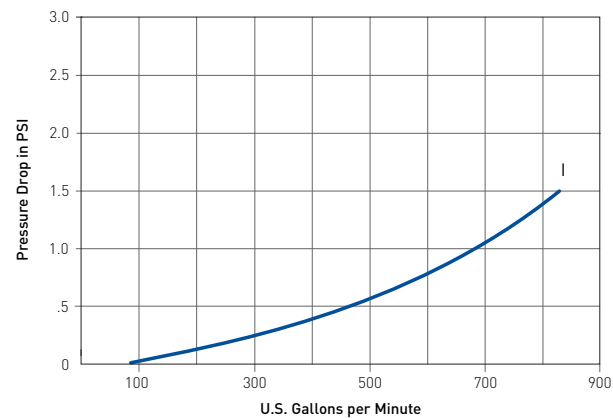
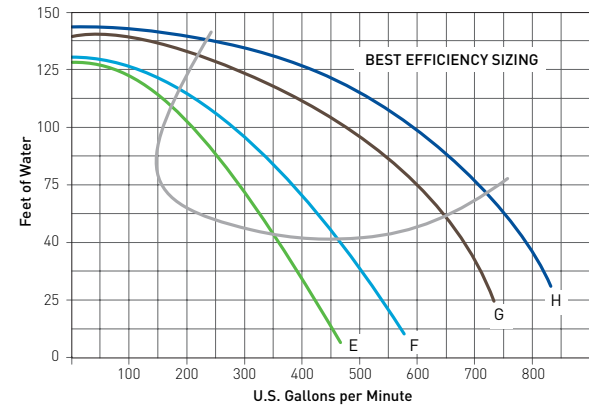
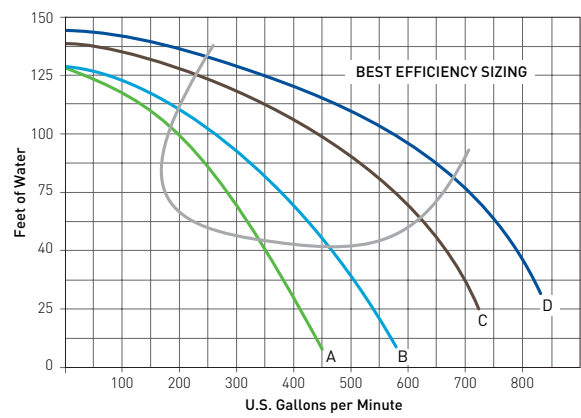
Featured Highlights

Options: CCSP Models feature special epoxy coated castings for maximum performance and corrosion resistance. 60 Hz T.E.F.C., 60 Hz premium efficiency, or 575 volt motors available. Inverter duty rated class F motors available for most models. Contact factory for details.

Note: Maximum ambient temperature for motor is 104°F (40°C). All pump motors require external overload protection (magnetic starter). Pump strainer must be ordered separately. Full load amps on motor model plate.



Dimensions and Performance



Catalog Number	A	B	CP	D	E	F	R	S	T
CSPHK, CCSPHK	10.62	7.00	39.44	5.25	4.25	5.50	1.00	30.00	8.50
CSPHK3, CCSPHK3, CSPH2K3	9.00	6.75	40.31	4.50	3.75	5.50	1.75	29.13	7.50
CSPHL, CCSPHL	10.35	8.26	42.69	5.25	4.25	7.00	1.00	30.00	8.50
CSPHL3, CCSPHL3	10.62	7.00	41.00	5.25	4.25	5.50	1.00	30.00	8.50
CSPHM3, CCSPHM3	10.62	8.50	42.50	5.25	4.25	7.00	1.00	30.00	8.50
CSPH2L3, CSPH2M3	10.62	8.50	42.50	5.25	4.25	7.00	1.00	30.00	8.50
CSPHN3, CCSPHN3	12.50	10.80	46.75	6.25	5.00	8.20	0.00	31.62	10.00
CSPH2N3, CCSPH2N3	13.38	12.44	48.50	6.25	5.00	10.00	0.00	31.65	10.00

All dimensions shown in inches.

See page 516 for replacement parts.

5CSP/5CCSP SERIES™

50 HERTZ COMMERCIAL SELF-PRIMING PUMP



5CSP/5CCSP Series Commercial Self-Priming Pump with PKG 184 Strainer Pot (sold separately)

Featured Highlights

- Especially designed for commercial and public swimming pools and spas, aquatic facilities, water parks and fountain applications where high performance and self-priming are required
- Pump has enclosed bronze impeller and standard 6 in. x 4 in. A.N.S.I. flange connections
- The pump strainer (order separately) has capacity of 1,100 cubic inches. Both pump and strainer can be ordered with optional epoxy coated castings to provide additional performance and corrosion resistance

• **Note: 50 hertz pumps cannot be used in North America.**

CALIFORNIA PROPOSITION 65 WARNING

⚠ **WARNING:** Cancer and Reproductive Harm.
 ⚠ **AVERTISSEMENT:** Peut Causer le Cancer et des Dommages au Système Reproducteur.
 ⚠ **ADVERTENCIA:** Cáncer y Daño Reproductivo.
www.p65warnings.ca.gov

Ordering Information

Product	Voltage	Amps ¹	HP	SF	SFHP	Primary Listings and Certifications ³	Port Size (ANSI Flange)	Carton Wt. (Lbs.)	Curve Key
SINGLE PHASE CAST IRON WITHOUT STRAINER- 50 HZ									
▶ 5CSPHJ-142	220-240	35.5-32.5	5	1.00	5		6 in. x 4 in.	270	A
▶ 5CSPHK-143	220-240	43.0-39.4	7-1/2	1.00	7-1/2		6 in. x 4 in.	280	B
THREE PHASE CAST IRON WITHOUT STRAINER- 50 HZ									
▶ 5CSPHJ3-142	220-240/380-415	13.0/6.9	5	1.00	5		6 in. x 4 in.	260	A
▶ 5CSPHK3-143	220-240/380-415	20.7-21.5/12.0/12.4	7-1/2	1.00	7-1/2		6 in. x 4 in.	270	B
▶ 5CSPHL3-144	220-240/380-415	27.0-27.5/15.6-15.9	10	1.00	10		6 in. x 4 in.	280	C
▶ 5CSPHM3-145	220-240/380-415	38.9-20.6	15	1.00	15		6 in. x 4 in.	300	D
THREE PHASE EPOXY COATED CAST IRON WITHOUT STRAINER - 50 HZ									
▶ 5CCSPHJ3-142	220-240/380-415	13.0/6.9	5	1.00	5		6 in. x 4 in.	260	A
▶ 5CCSPHK3-143	220-240/380-415	20.7-11.0	7-1/2	1.00	7-1/2		6 in. x 4 in.	270	B
▶ 5CCSPHL3-144	220-240/380-415	26.9-14.3	10	1.00	10		6 in. x 4 in.	280	C
▶ 5CCSPHM3-145	220-240/380-415	38.9-20.6	15	1.00	15		6 in. x 4 in.	300	D
ACCESSORIES FOR 5CSP/5CCSP SERIES									
PKG 184	Strainer for CSP/CCSP 6 in. ANSI flange (1,100 cu. in. capacity)					NSF ⁴	6 in. x 6 in.	180	I
PKG 184C	Same as PKG 184 Except Strainer is Epoxy Coated					NSF ⁴	6 in. x 6 in.	180	I
357262	Flange 4 in. w/ gasket and SS hardware ²							20	
357263	Flange 6 in. w/ gasket and SS hardware ²							23	

¹ Amp draw may vary depending on motor manufacturer. Full load amps on motor model plate.

² Thermoplastic PVC socket style.

³ Product may have been evaluated to other state and local regulatory standards. Listing status may change. Always confirm status with appropriate agency if in doubt.

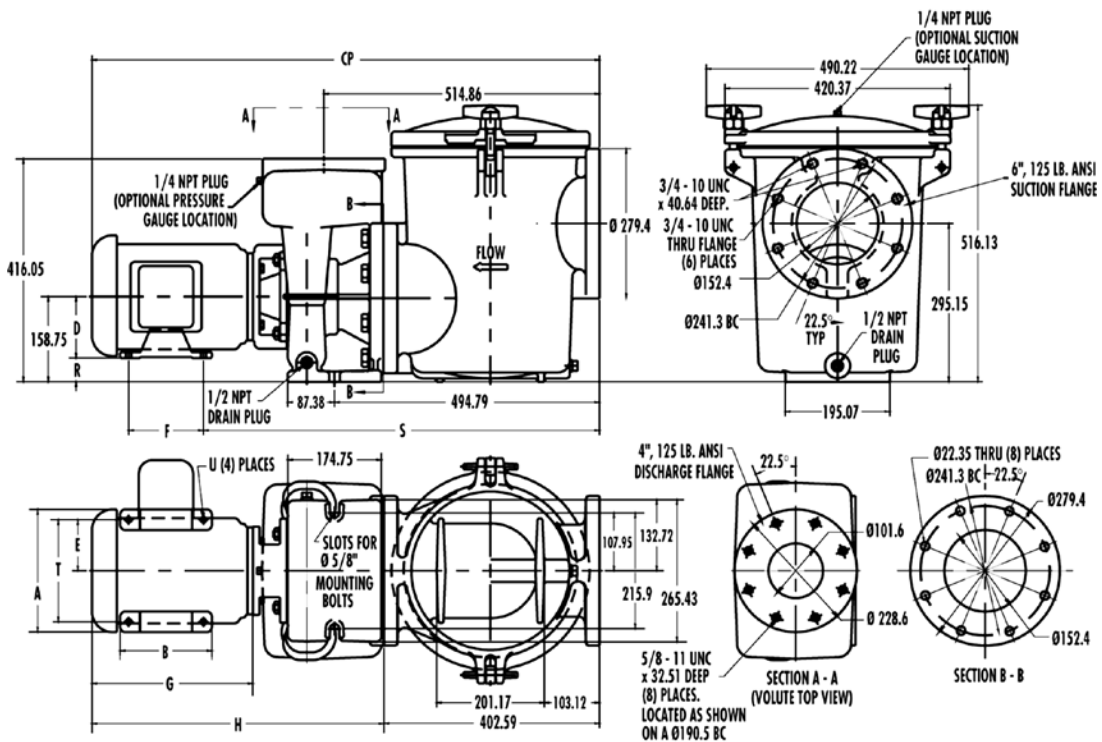
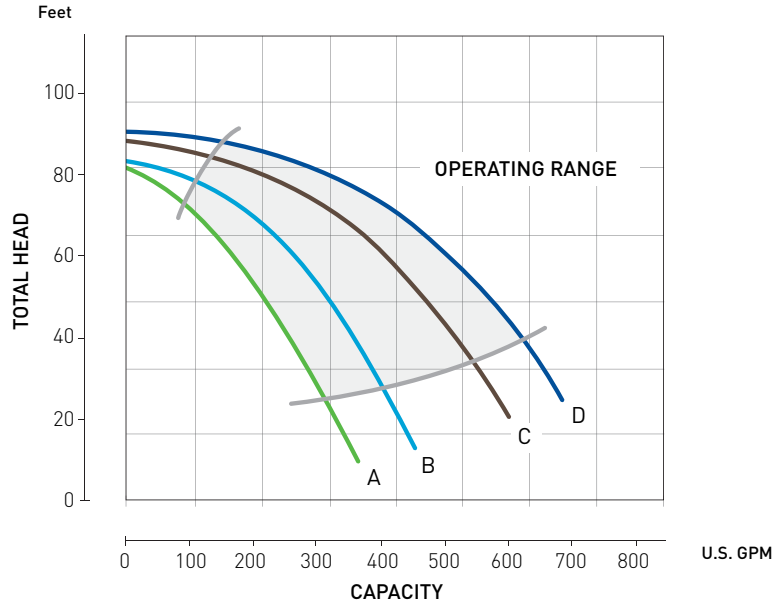
⁴ 'NSF(2)' indicates that product bears a mark signifying evaluation to NSF Standard 50 For Materials and Components.

See pages 236 for Hair and Lint Strainer Packages.

5CSP/5CCSP SERIES™

50 HERTZ COMMERCIAL SELF-PRIMING PUMP (CONT'D)

Dimensions and Performance



Catalog Number	A	B	CP	D	E	F	R	S	T
5CSPHJ	269.75	177.8	1039.62	133.25	107.95	139.7	25.4	733.3	215.9
5CSPHK	269.75	215.9	1075.69	133.25	107.95	177.8	25.4	733.3	215.9
5CSPHJ3	228.6	171.45	988.82	133.25	95.25	139.7	44.45	734.06	190.5
5CSPHK3	269.75	177.8	1039.62	133.25	107.95	139.7	25.4	733.3	215.9
5CSPHL3	269.75	215.9	1075.69	133.25	107.95	177.8	25.4	733.3	215.9
5CSPHM3	317.5	274.32	1185.67	158.75	127.0	209.55	-	793.75	254.0

All dimensions shown in millimeters.

D-SERIES™

CAST IRON SELF-PRIMING CENTRIFUGAL COMMERCIAL PUMP



D Series Cast Iron Self-Priming Centrifugal Commercial Pump

Featured Highlights

- Especially designed for commercial applications where high performance and self-priming characteristics are desired
- These self-priming, high performance pumps are available in high head and medium head models, providing a complete range of performance characteristics
- Motors are open drip-proof, continuous duty rated 3450 RPM.

CALIFORNIA PROPOSITION 65 WARNING
 ⚠️ **WARNING:** Cancer and Reproductive Harm.
 ⚠️ **AVERTISSEMENT:** Peut Causer le Cancer et des Dommages au Système Reproducteur.
 ⚠️ **ADVERTENCIA:** Cáncer y Daño Reproductivo.
www.p65warnings.ca.gov PN20074A

Ordering Information

Product	Voltage	Amps ¹	HP	Primary Listings and Certifications ³	Port Size (NPT)	Carton Wt. (Lbs.)	Curve Key
STANDARD EFFICIENCY THREE PHASE HIGH HEAD							
▶ DHH3-169	230/460	8.6/4.3	3	NSF ²	1-1/2 in.	135	A
▶ DMH3-171	230/460	8.6/4.3	3	NSF ²	2 in.	135	C
STANDARD EFFICIENCY THREE PHASE MEDIUM HEAD							
▶ DHJ3-170	230/460	13.2/6.6	5	NSF ²	2 in.	178	B
▶ DMJ3-172	230/460	13.2/6.6	5	NSF ²	2-1/2 in.	178	D

* 200 Volt models available. Contact factory for details.

¹ Dimensions and Max Load Amps may vary per motor manufacturer.

² 'NSF(1)' indicates that pump bears a mark signifying evaluation to NSF Standard 50 For Self-Priming Centrifugal Pumps For Swimming Pools, Spas and Hot Tubs when installed with a NSF certified Hair and Lint Strainer.

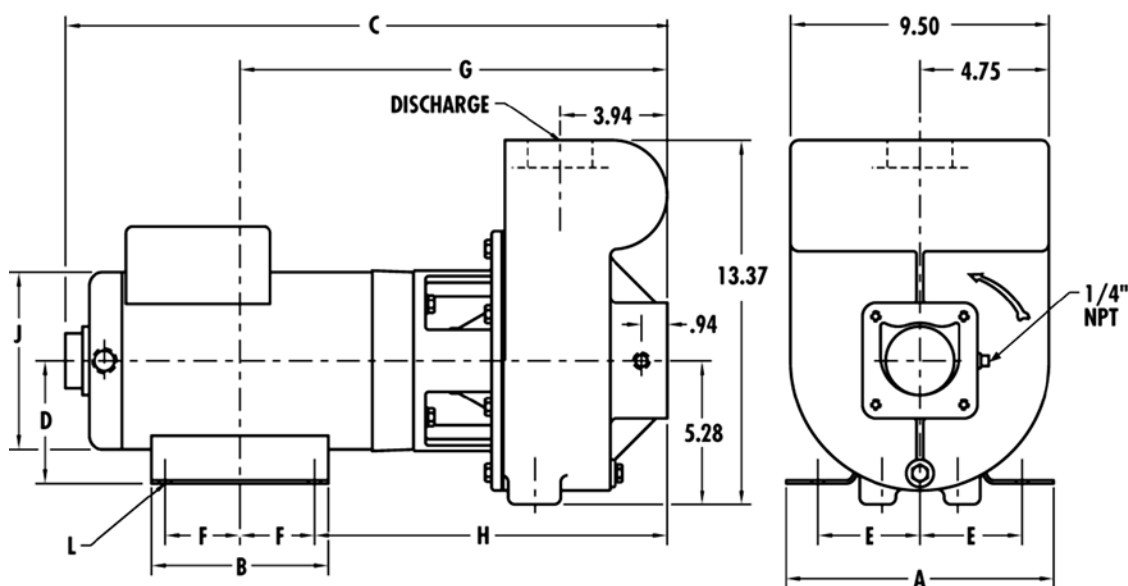
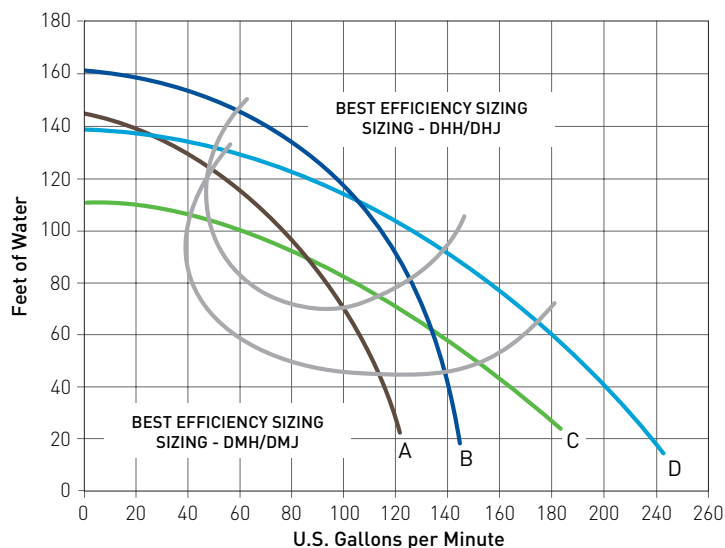
³ Product may have been evaluated to other state and local regulatory standards. Listing status may change. Always confirm status with appropriate agency if in doubt.

See pages 236 for Hair and Lint Strainer Packages.

D-SERIES™

CAST IRON SELF-PRIMING CENTRIFUGAL COMMERCIAL PUMP (CONT'D)

Dimensions and Performance



Note: "L" mounting dimension: .44 Slot = 3/8 in. Bolt .34 Diameter = 5/16 in.

Catalog Number	HP	Discharge (NPT)	A	B	C*	D	E	F	G	H	J	L
DHH-169	3	1-1/2	8.75	6.50	21.37	4.50	3.75	2.25	15.21	12.96	6.51	.44 SLOT
DHH3-169	3	1-1/2	6.50	6.50	19.87	3.50	2.75	2.50	14.45	12.20	6.51	.34 DIA.
DHJ-170	5	2	8.75	6.50	22.12	4.50	3.75	2.75	15.71	12.96	6.51	.44 SLOT
DHJ3-172	5	2	8.75	6.50	21.62	4.50	3.75	2.25	15.21	12.96	6.50	.44 SLOT
DMH-171	3	2	8.75	6.50	21.37	4.50	3.75	2.25	15.21	12.96	6.51	.44 SLOT
DMH3-171	3	2	6.50	6.50	19.87	3.50	2.75	2.50	14.45	12.20	6.51	.34 DIA.
DMJ-172	5	2-1/2	8.75	6.50	22.12	4.50	3.75	2.75	15.71	12.96	6.51	.44 SLOT
DMJ3-172	5	2-1/2	8.75	6.50	21.62	4.50	3.75	2.25	15.21	12.96	6.50	.44 SLOT

See page 517 for replacement parts.

AURORA® 3800 SERIES AND 410 SERIES

END SUCTION AND SPLIT CASE PUMPS



3801

Featured Highlights

- Multiple configurations available
- Models to 100 ft. TDH
- Compatible with Acu Drive™ XS VF Drive
- Cast Iron Stainless Steel Fitted Models
- Flooded Suction applications
- Highly reliable performance
- NSF approved models available
- Various flow capabilities for all applications
- Epoxy Coating option available
- ODP and TEFC motors in Standard and Premium efficiency available
- PS Series In-line Strainers match up to most Aurora pumps.

Pentair now offers the Aurora 3800 Series End Suction and the 410 Series Split Case Pumps for commercial pools, spas, and other water applications. The 3800 and 410 Series are available in horizontal and vertical configurations in horsepower's to 150 and flows to 8,000 GPM.

Ordering Information

Product	Description	Carton Wt. (Lbs.)
Please contact our factory (1-800-831-7133) for applications sizing, pricing, and availability.		
AURORA PUMP ACCESSORIES FLANGE ASSEMBLY KITS		
357259	Flange 2-1/2 in. w/ gasket and SS hardware ¹	16
357260	Flange 5 in. w/ gasket and SS hardware ¹	22
357261	Flange 3 in. w/ gasket and SS hardware ¹	18
357262	Flange 4 in. w/ gasket and SS hardware ¹	20
357263	Flange 6 in. w/ gasket and SS hardware ¹	23

¹ Thermoplastic PVC socket style.

CALIFORNIA PROPOSITION 65 WARNING

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 ⚠ **ADVERTENCIA:** Cáncer y Daño Reproductivo.

www.p65warnings.ca.gov
PR201714

BERKELEY® B-SERIES

CENTRIFUGAL COMMERCIAL PUMPS



Featured Highlights

Where a large volume of water is needed, in flooded suction applications, Berkeley brand pumps can accommodate almost any water-moving needs. Berkeley brand pumps have been one of the top names in the water systems for decades. Once recognized for only being affiliated with irrigation and water systems, Berkeley pumps are now available in many configurations to be used in the following applications:

- Water features
- Water parks
- Aquaculture
- Commercial pools and spas

The pumps included in the chart below show just a small sampling of the many pump sizes and designs that are available. In addition, we offer a wide range of gpm/head configurations; 1200, 1750, or 3450 rpm motors; 50 or 60 Hz; optional high-efficiency motors; voltage, horsepower, and service factor options; lead-free bronze impellers; flange or threaded connection in many sizes; and packing or mechanical shaft seal design pumps. Flooded suction required. For a complete selection guide to help you size the pump(s) that best fit your needs, call our customer service at 1-800-831-7133, or use the convenient Berkeley Electronic Catalog (BEC) located at www.berkeleypumps.com.

- Berkeley pumps are not NSF approved.



Berkeley B-Series

CALIFORNIA PROPOSITION 65 WARNING

⚠️ **WARNING:** Cancer and Reproductive Harm.
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 ⚠️ **ADVERTENCIA:** Cáncer y Daño Reproductivo.

www.p65warnings.ca.gov PN20214

Ordering Information

CALL FOR QUOTE

Product	General Pump Design Model	HP	Best Operating Performance G.P.M.	Connection at X ft. of Head	RPM	Flange (inches)
BERKELEY B-SERIES PUMPS						
B71943S	B3ZPMS	5 HP	350	40	1800	3 x 4
B71945S	B3ZPMS	7.5 HP	400	53	1800	3 x 4
B71947S	B3ZPMS	10 HP	500	60	1800	3 x 4
B71949S	B3ZPMS	15 HP	600	63	1800	3 x 4
B76775	B5EPHS	20 HP	950	60	1800	5 x 6
B76776	B5EPHS	25 HP	1050	65	1800	5 x 6
B75861	B4GPBHS	30 HP	1100	85	1800	4 x 6
B74945	B6JPBMS	40 HP	1500	80	1800	6 x 8
B76786	B8GPBMS	50 HP	2700	50	1800	8 x 10

Options: The above pumps have silicon bronze impellers, flanged connections, close-coupled, open drip-proof motors, and mechanical shaft seals. As mentioned in the text at the top of the page, many options are available. Please call our Customer Service at 800-831-7133 or try using the convenient "BEC" system at www.berkeleypumps.com.

HYDROBOOST™ BOOSTER PUMP

PRESSURE-SIDE CLEANER PUMP

TRADEGRADE



HydroBoost Booster Pump

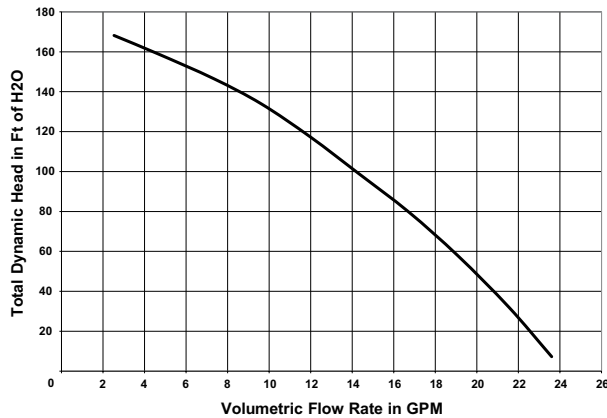
Featured Highlights

- Totally Enclosed Fan Cooled (TEFC) Motor to help reduce the chance of motor burnout
- Certified by ENERGY STAR®
- Quick installation
- Reliable operation
- THP: 0.8 WEF: 0.62

The HydroBoost™ Booster Pump provides high pressure water to your pressure side automatic pool cleaner. This booster pump is NOT self-priming and should not run unless the filter pump is running.

Ordering Information

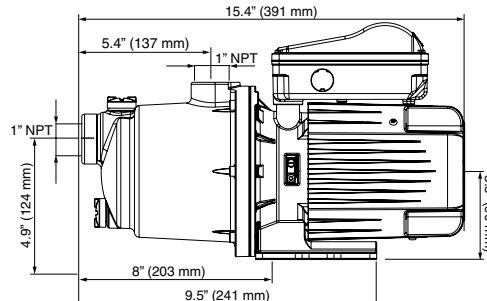
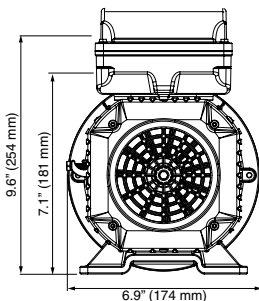
Product	Voltage	Full Load Amps	THP	WEF	Primary Listings and Certifications ²	Port Size (NPT)	Carton Wt. (Lbs.)
HYDROBOOST BOOSTER PUMP							
360526	115/230	9.0/4.5	0.8	0.62	UL ¹	1"	29.18
ACCESSORIES							
353040	Hose Kit (includes 3/4" - 1" Adapters (2); 6 ft. Hose (1))						



¹ 'UL' indicates that pump bears a specific UL mark signifying evaluation to U.S. Standards UL1081 for Permanently Connected Swimming Pool and Spa Pumps and to Canadian Standards CAN/CSA C22.2 No. 108-01 Liquid Pumps For Swimming Pools And Spas. (Enclosure 3).

² Product may have been evaluated to other state and local regulatory standards. Listing status may change. Always confirm status with appropriate agency if in doubt.

- **Pumps and replacement motors that are single speed and one (1) Total HP or greater cannot be sold, offered for sale, or installed in a residential pool for filtration use in California, Title 20 CCR sections 1601-1609.**



CALIFORNIA PROPOSITION 65 WARNING

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 ⚠️ **ADVERTENCIA:** Cáncer y Daño Reproductivo.

www.p65warnings.ca.gov. P1620174A

See page 520 for replacement parts.

BOOSTER PUMP

PRESSURE-SIDE CLEANER PUMP

Featured Highlights

- Use with all pressure-side pool cleaners
- Hose and adapters included
- Ideal for pressure-side Booster pump replacement

Combines ultimate performance with efficiency for pressure-side pool cleaner ease. The 3/4 HP booster pump is made from durable, corrosion-proof materials, and provides 50 psi at 12 GPM.

CALIFORNIA PROPOSITION 65 WARNING
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 ⚠️ **ADVERTENCIA:** Cáncer y Daño Reproductivo.
www.p65warnings.ca.gov PR320714



Booster Pump

Hose and adapters included



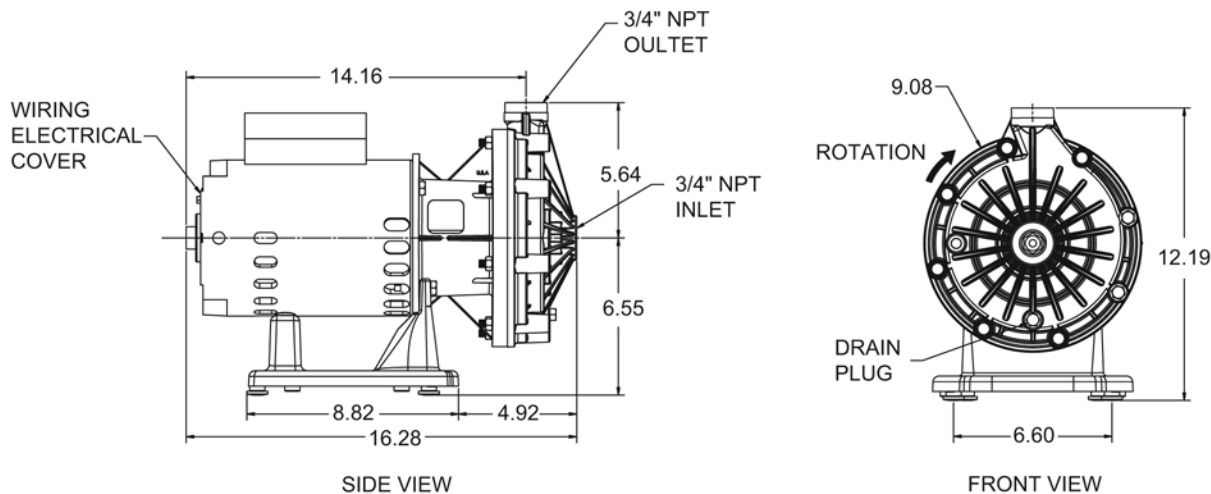
Ordering Information

Product	Voltage	Full Load Amps	HP	SF	SFHP	Primary Listings and Certifications ²	Port Size (NPT)	Carton Wt. (Lbs.)
ENERGY EFFICIENT SINGLE SPEED								
▶ LA01N	115/230	13.0/6.5	3/4	1.50	1.13	UL ¹	3/4 in. x 3/4 in.	32
ACCESSORIES								
353020	Booster Pump Hose Kit							4
370239	Booster Pump Adapter Kit (4 hose adapters in a bag, no hose)							

¹ 'UL(2)' indicates that pump bears a UL mark signifying evaluation to U.S. Standards UL1081 for Permanently Connected Swimming Pool Pumps Only.

² Product may have been evaluated to other state and local regulatory standards. Listing status may change. Always confirm status with appropriate agency if in doubt.

Dimensions and Performance



See page 522 for replacement parts.

▶ This product either meets or is exempt from the DOE Dedicated Purpose Pool Pump regulation. This product will remain available after the DOE regulation takes effect in July 2021.

PCD-1000 SUBMERSIBLE PUMP

STAINLESS STEEL SUBMERSIBLE POOL SERVICE PUMP



Submersible Pool Service Pump

Featured Highlights

- 115V, 60 Hz single phase, permanent split capacitor motor
- Automatic thermal overload protection
- Clog-resistant cast stainless steel impeller
- Accommodates water temperatures ranging from 32 degrees F to 130 degrees F
- Permanently lubricated ball bearings
- Equipped with 15-foot, 18/3 grounding type power cord
- Convenient top-mounted handle
- Rubber feet to eliminate scratching
- Optional float switch included

The PCD-1000 submersible, portable, high capacity pump designed for use by the professional in draining pools and spas as well as for general purpose applications, now has improved flow rates, and stainless steel casing, suction strainer, impeller and shaft for greater corrosion resistance and longer service life.

The PCD-1000 can pump water down to 1-3/8 inches in depth. Debris and stones up to 3/4 inch are able to pass through the pump. It also features a 1-1/4 inch discharge port for faster draining. Discharge port adapters are included. Optional float switch included; switch stops pump when low water level reached. Remove float switch for constant run.

CALIFORNIA PROPOSITION 65 WARNING
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 ⚠️ **ADVERTENCIA:** Cáncer y Daño Reproductivo.
www.p65warnings.ca.gov P182011A

Adaptors included:

- 1-1/4 in. Female NPT Elbow
- 1-1/4 in. Male NPT to 1-1/2 in. Female NPT Adaptor



Optional Float Switch Included



Ordering Information

Product	Description	Voltage	Full Load Amps	HP	Carton Wt. (Lbs.)
STAINLESS STEEL SUBMERSIBLE WITH BRASS BASE					
▶ PCD-1000	Submersible Utility Pump	115	6.4	3/4	15
ACCESSORIES					
ZBR46760	Replacement Float Switch				

Dimensions and Performance

Model	HP	Motor Full Load (Amps)	RPM	Minimum Circuit Req.	Liquid Temperature Range	Switch Setting		Pumps Down To
						On	Off	
PCD-1000	3/4	6.4	3450	15 amps	32/130°F 0/54°C	12" 30 cm	6" 15.2 cm	1 3/8" 3.5 cm

Pump Performance TDH/GPM						Shut Off Head
TDH	5'	10'	15'	20'	25'	28
GPM	55	45.5	36.5	25	8.5	N/A

▶ This product either meets or is exempt from the DOE Dedicated Purpose Pool Pump regulation. This product will remain available after the DOE regulation takes effect in July 2021.

PARTS-PAKS™ AND ACCESSORIES

POINT-OF-SALE, STOCK ROOM, SERVICE VEHICLE

OVERHAUL KITS – Attractive, clamshell packaging contains recommended parts for seal/gasket servicing or complete overhaul of most swimming pool/spa pumps. Eliminate the need for large parts inventories, protect parts from damage, and reduce paperwork.

Ordering Information

Pump Model by HP				
Product	PE, P2R	PEA, P2RA	PR	PRA
SEAL/GASKET KITS – Include shaft seal, gaskets, and O-rings				
PP1010	1/3	1/3, 1/2		1/2
PP1011	1/2	3/4	1/2	3/4
PP1012			3/4	1
PP1014	3/4	1		
PP1016	1	1-1/2		
PP1017	2	2-1/2	2	2-1/2
PP1018	1-1/2	2		
PP1019	3			

CALIFORNIA PROPOSITION 65 WARNING

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 ⚠️ **ADVERTENCIA:** Cáncer y Daño Reproductivo.

www.p65warnings.ca.gov



Pump Model by HP			
Product	CH, LT, L1	LHA, LTA, L1A	PCD
SEAL/GASKET KITS – Include shaft seal, gaskets, and O-rings			
PP1080	1/6		
PP1081	1/3	1/2	
PP1082	1/2	3/4	
PP1682			1/2

Pump Model by HP			
Product	P4E, P4R	P4EA, P4RA	MPRA, MPEA
SEAL/GASKET KITS – Include shaft seal, gaskets, and O-rings			
PP4010	3/4	1	
PP4011	1	1-1/2	
PP4012	1-1/2	2	
PP4013	2	2-1/2	
PP4014	3		
PP3010			3/4
PP3011			1
PP3012			1-1/2
PP3013			2

Product	Description	Carton Wt. (Lbs.)
SEAL/GASKET KITS – Include shaft seal, gaskets, and O-rings		
PP1075	LH, LHA, LT, LTA, L1, L1A - All HP	
PP3000	MPRA, MPEA - All HP	
PP1000	PE, PEA, PR, PRA, P2R, P2RA (models with copper insert pre-1998) - All HP	
PP4000	P4E, P4EA, P4R, P4RA (models with copper insert pre-1998) - All HP	
PP1200	PE, PEA, P2R, P2RA (models without copper insert beginning 1998) - All HP	
PP4200	P4E, P4EA, P4R, P4RA (models without copper insert beginning 1998) - All HP	
TRAP LID KITS – Include trap lid and trap lid o-ring		
PP2075	PE, PEA, PR, PRA, P2R, P2RA (with 5 in. trap – standard) - ALL HP	
PP4075	P4E, P4EA, P4R, P4RA, MPR, MPE (with 6 in. trap – standard) - ALL HP	
PUMP CONNECTOR UNION HALF (WILL NOT FIT DJ OR TP SERIES PUMPS)		
PKG 188Z	2 in. Union x 2 in. Slip, 2 per Pkg.	1
PKG 189	2 in. Union x 2 in. FPT, 2 per Pkg.	1
77703-0100	2 in. Union x 1-1/2 in. FPT, 2 per Pkg.	1
77703-0101	2 in. Union x 1-1/2 in. Slip, 2 per Pkg.	1
PUMP BASE NOISE REDUCER		
17350-0008	Rubber Pump Base Pad for MPR, P4R, P4E, TPR, TPE Models	1
SEAL KIT - CHEMICAL/SALT/OZONE RESISTANT EPDM & SS SEALS		
356196	Seal Quick Kit Max-E-Pro / IntelliPro and VS Pumps Chemical/Salt/Ozone Resistant EPDM & SS	1
356197	Seal Quick Kit SuperFlo /SuperMax and VS Pumps Chemical/Salt/Ozone Resistant EPDM & SS	
356198	Seal Quick Kit WhisperFlo/IntelliFlo and VS Pumps Chemical/Salt/Ozone Resistant EPDM & SS	
356199	Seal Quick Kit Challenger Pumps Chemical/Salt/Ozone Resistant EPDM & SS	

HAIR AND LINT STRAINER PACKAGES

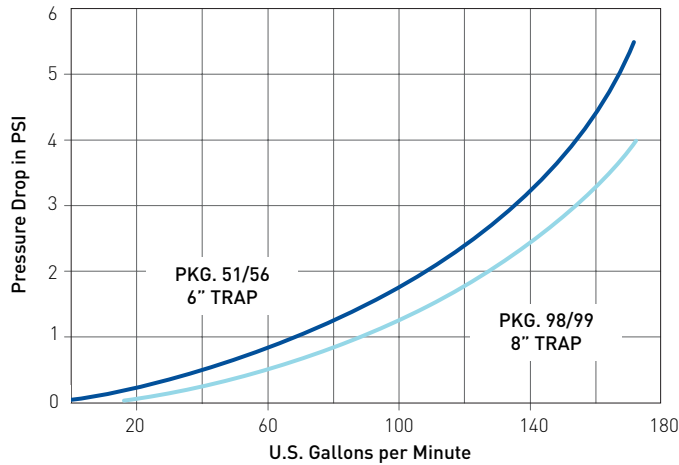


Ordering Information

Product	Description	Suction Port Size	Carton Wt. (Lbs.)
HAIR AND LINT STRAINER PACKAGES			
PKG 115	5 in. Trap with Basket (For Dura-Glas, Max-E-Glas and JWP Pumps)	1-1/2 in. NPT	5
PKG 51	6 in. Cast Iron Trap with Basket (For C, CC, and D Series Pumps)	2 in. NPT	20
PKG 56	6 in. Bronze Trap with Basket (For C, CC, and D Series Pumps)	2 in. NPT	20
PKG 98	8 in. Cast Iron Trap with Basket (For C, CC, and D Series Pumps)	3 in. NPT	40
PKG 76	Cast Iron Flange for Remote Trap Install	3 in. NPT	4
PKG 161	6 in. PPO Resin Strainer (For P2R, PE Series, Dura-Glas and Max-E-Glas Pumps)	2 in. NPT	6
PKG 184	CSP Series Hair and Lint Strainer (1100 cu. in. capacity)	6 in. ANSI Flange	180
PKG 184C	CCSP Series Hair and Lint Strainer – Coated (1100 cu. in. capacity)	6 in. ANSI Flange	180
PKG 73	3 in. Suction Flange (For C, CC, and D Series Pumps)		
PKG 72	2.5 in. Suction Flange (For C, CC, and D Series Pumps)		
PKG 52	1.5 in. Suction Flange (For C, CC, and D Series Pumps)		
PKG 53	1.5 in. Suction Flange (For C, CC, and D Series Pumps)		

CALIFORNIA PROPOSITION 65 WARNING
 ⚠️ **WARNING:** Cancer and Reproductive Harm.
 ⚠️ **AVERTISSEMENT:** Peut Causer le Cancer et des Dommages au Système Reproducteur.
 ⚠️ **ADVERTENCIA:** Cáncer y Daño Reproductivo.
www.p65warnings.ca.gov

Dimensions and Performance



PKG 76



PKG 98 - 8 in.

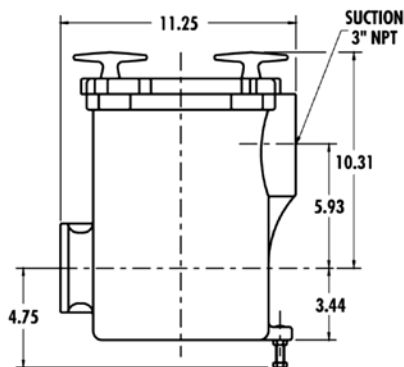


PKG 184 - 8 in.

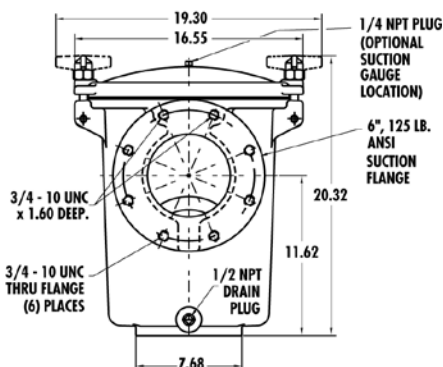


PKG 51 - 5 in. OR 6 in.

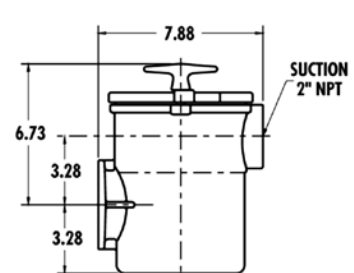
PKG 98/99 - 8 INCH TRAP



PKG 184/184C



PKG 51/56 - 6 INCH TRAP



PS SERIES™ IN-LINE STRAINER

FOR COMMERCIAL SERIES PUMPS

Featured Highlights

- Designed for hydraulic performance
- Clear lid with easy access allows for simple visibility of debris
- Extra large stainless steel strainer basket
- 50 psi rating
- NSF listed

CALIFORNIA PROPOSITION 65 WARNING

⚠ **WARNING:** Cancer and Reproductive Harm.
 ⚠ **AVERTISSEMENT:** Peut Causer le Cancer et des Dommages au Système Reproducteur.
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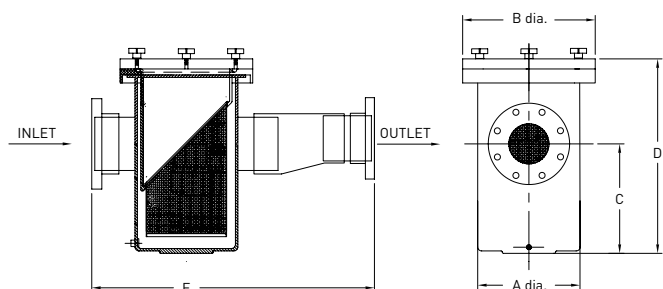


PS Series In-Line Strainer

The Commercial PS Series In-Line Strainers from Pentair are designed for ease of installation and hydraulic efficiencies in commercial aquatics applications. In three standard sizes and with the addition of eccentric reducers PS Series strainers fit with almost any plumbing configuration. The design of the PS Series accommodates the high-flow performance in a variety of applications. ANSI flange bolt pattern allows for ease of installation and peace of mind.

Ordering Information

Product	Description	Flange Size		Typical Max. Flow (GPM)	A (Inches)	B (Inches)	C (Inches)	D (Inches)	E (Inches)
		Inlet (suction)	Outlet (pump)						
PS SERIES 6 INCH SUCTION									
PS6X6	Straight	6 in.	6 in.	540	12-3/4	16-1/2	13-5/8	25-1/2	23-5/8
PS6X5E	Eccentric Reducing	6 in.	5 in.	540	12-3/4	16-1/2	13-5/8	25-1/2	35-1/4
PS6X4E	Eccentric Reducing	6 in.	4 in.	540	12-3/4	16-1/2	13-5/8	25-1/2	32-7/8
PS6X3E	Eccentric Reducing	6 in.	3 in.	540	12-3/4	16-1/2	13-5/8	25-1/2	38
PS SERIES 8 INCH SUCTION									
PS8X8	Straight	8 in.	8 in.	930	12-3/4	16-1/2	13-5/8	25-1/2	23-3/8
PS8X6E	Eccentric Reducing	8 in.	6 in.	930	12-3/4	16-1/2	13-5/8	25-1/2	35-7/8
PS8X5E	Eccentric Reducing	8 in.	5 in.	930	12-3/4	16-1/2	13-5/8	25-1/2	43-1/2
PS8X4E	Eccentric Reducing	8 in.	4 in.	930	12-3/4	16-1/2	13-5/8	25-1/2	41-1/4
PS SERIES 10 INCH SUCTION									
PS10X10	Straight	10 in.	10 in.	1470	12-3/4	16-1/2	20-5/8	32-1/2	24-1/2
PS10X8E	Eccentric Reducing	10 in.	8 in.	1470	12-3/4	16-1/2	20-5/8	32-1/2	38-3/4
PS10X6E	Eccentric Reducing	10 in.	6 in.	1470	12-3/4	16-1/2	20-5/8	32-1/2	47
PS10X5E	Eccentric Reducing	10 in.	5 in.	1470	12-3/4	16-1/2	20-5/8	32-1/2	54-1/2
BASKETS									
67150	PS6 and PS8 Basket								
67152	PS10 Basket								



Dimensions and Performance

1. Select inlet size based on size of suction pipe. Use chart above to determine Typical Max. Flow in pipe size based on flow velocity of 6 fps.
2. Select strainer outlet size to match pump inlet where practical.
3. Also available with custom flange sizes. Call factory for more information.

CONVERSION REFERENCE CHARTS

1 U.S. Gallon/Minute = 0.22712470704 Cubic Meter/Hour
1 U.S. Gallon/Minute = 0.83267418463 UK Gallon/Minute
1 Foot of Water/Head = 0.30487804878 Meter of Water/Head
1 Foot of Water/Head = 0.43352750193 Pound/Square Inch

Pressure to Head Conversion		
Feet of Water	Meters of Water	PSI
10	3.05	4.34
20	6.10	8.67
30	9.15	13.01
40	12.20	17.34
50	15.24	21.68
60	18.29	26.01
70	21.34	30.35
80	24.39	34.68
90	27.44	39.02
100	30.49	43.35
110	33.54	47.69
120	36.59	52.02
130	39.63	56.36
140	42.68	60.69
150	45.73	65.03

Volumetric Flow Rate Conversion		
US Gallons per Minute	Cubic Meters per Hour	British Gallons per Minute
10	2.27	8.33
20	4.54	16.65
30	6.81	24.98
40	9.09	33.31
50	11.36	41.64
60	13.63	49.96
70	15.90	58.29
80	18.17	66.62
90	20.44	74.94
100	22.71	83.27
110	24.98	91.60
120	27.26	99.92
130	29.53	108.25
140	31.80	116.58
150	34.07	124.91
160	36.34	133.23
170	38.61	141.56
180	40.88	149.89
190	43.15	158.21
200	45.43	166.54
210	47.70	174.87
220	49.97	183.19
230	52.24	191.52
240	54.51	199.85
250	56.78	208.18
260	59.05	216.50
270	61.32	224.83
280	63.60	233.16
290	65.87	241.48
300	68.14	249.81
310	70.41	258.14
320	72.68	266.46
330	74.95	274.79
340	77.22	283.12
350	79.49	291.45
360	81.77	299.77
370	84.04	308.10
380	86.31	316.43
390	88.58	324.75
400	90.85	333.08