

HYDROMATIC®

OSP50

SUBMERSIBLE SUMP/EFFLUENT

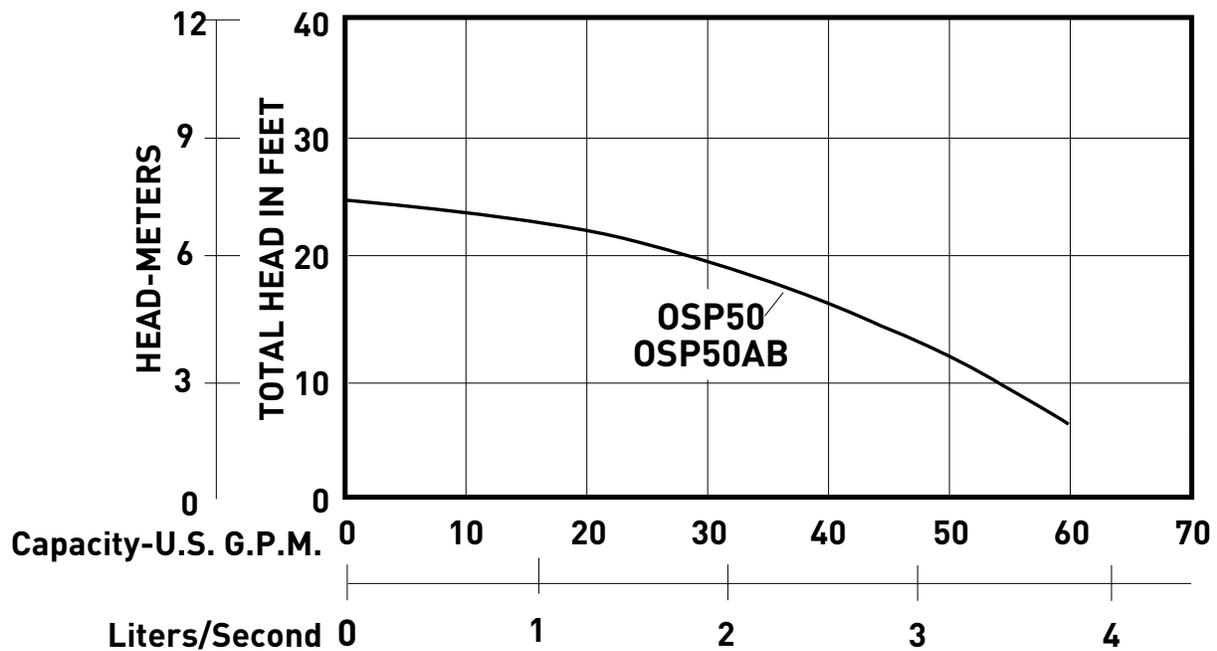
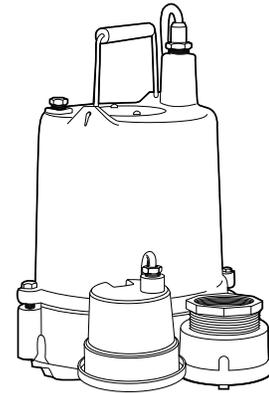
PERFORMANCE DATA

Wholesale Products Page: 6220-1

Dated: April 2002

Supersedes: January 2001

RPM: 1750 Discharge: 1 1/2" Solids: 5/8"



The curves reflect maximum performance characteristics without exceeding full load (Nameplate) horsepower. All pumps have a service factor of 1.2. Operation is recommended in the bounded area with operational point within the curve limit. Performance curves are based on actual tests with clear water at 70° F. and 1280 feet site elevation.

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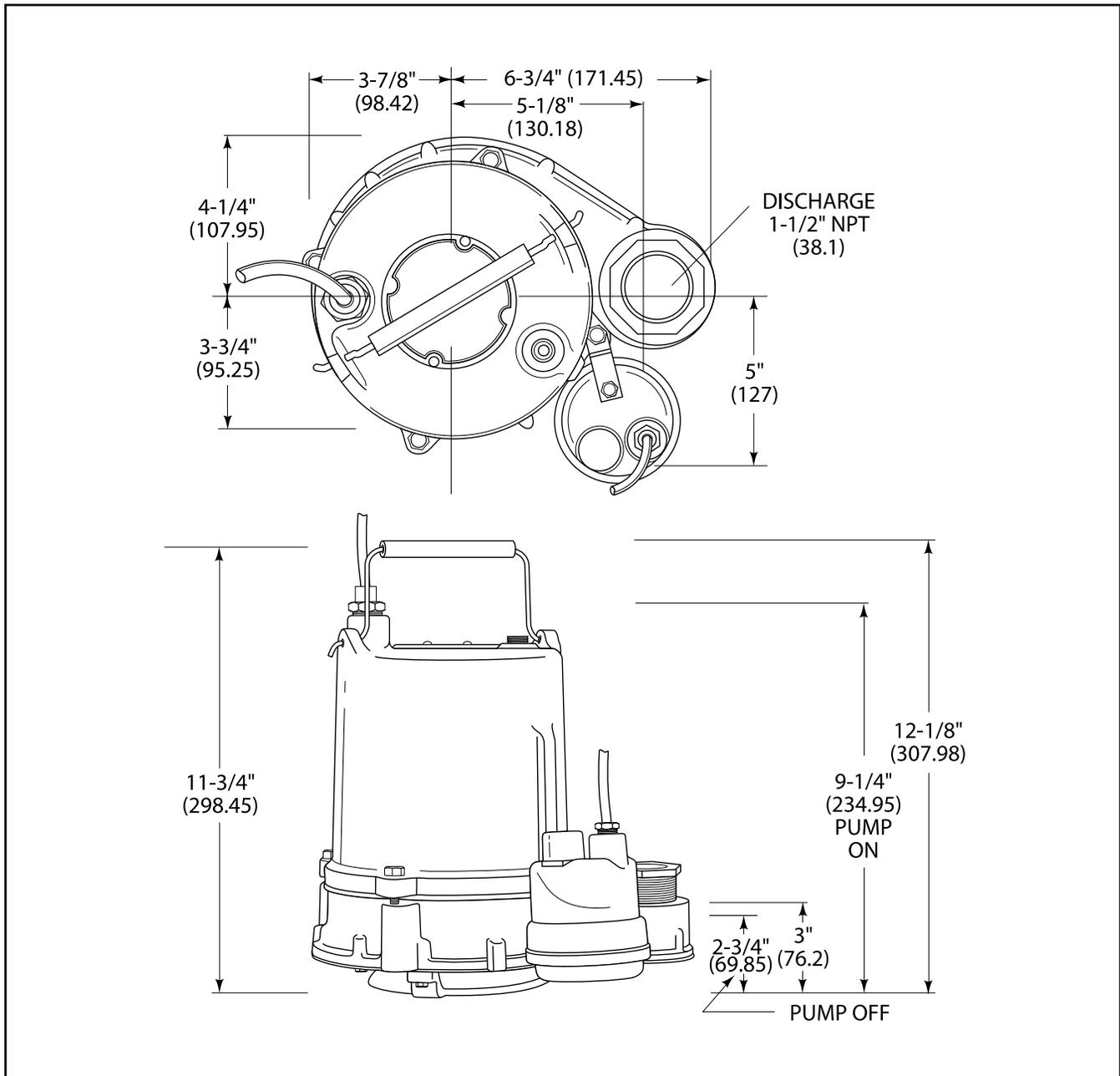
DIMENSIONAL DATA

OSP50 SUBMERSIBLE SUMP/EFFLUENT

Wholesale Products Page: 6220-2

Dated: April 2002

Supersedes: January 2001



All dimensions in inches. Metric for international use. Component dimensions may vary $\pm 1/8$ inch. Dimensional data not for construction purpose unless certified. Dimensions and weights are approximate. On/Off level adjustable. We reserve the right to make revisions to our product (s) and the product (s) specifications without notice.

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ELECTRICAL DATA

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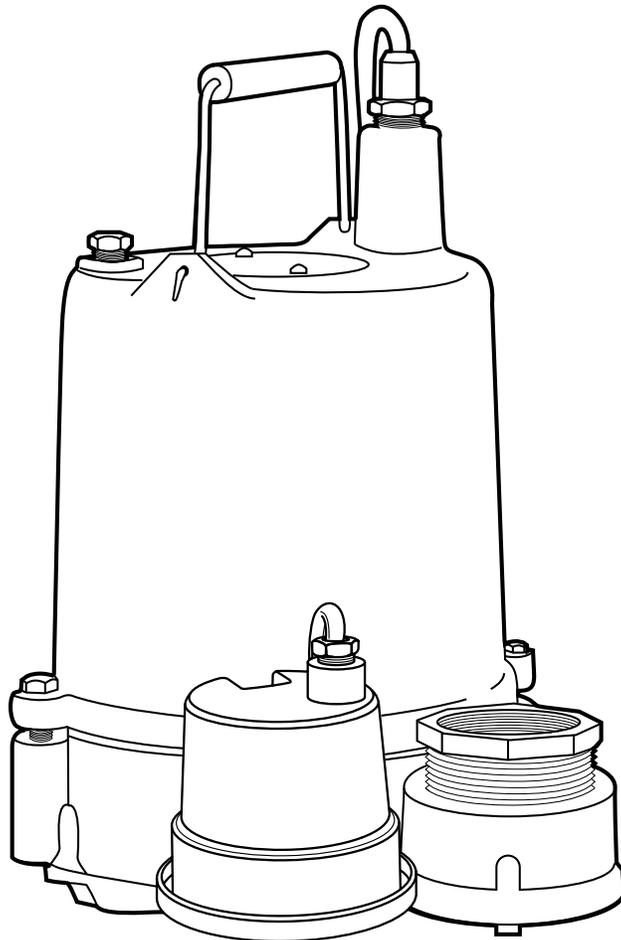
Dated: July 2008

Supersedes: October 2002

MODEL: OSP50

R.P.M.	1750
MOTOR TYPE	OIL FILLED WITH AUTOMATIC RESET, SPLIT PHASE
GENERAL INSULATION CLASS	A
MOTOR PROTECTION	AUTOMATIC RESET / THERMAL OVERLOAD

HP	VOLTAGE	PHASE	NEC CODE	SERVICE FACTOR	FULL LOAD AMPS
1/2	115	1	-	1	9.5
	230				5.2



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Wholesale Products Page: 6220-4

Dated: April 2002

Supersedes: January 2001

MODEL: OSP50

Physical Data

DISCHARGE SIZE	1 1/2" NPT
SOLIDS SIZE	5/8"
IMPELLER TYPE	OPEN VANE
CABLE LENGTH	10' STANDARD 20' OPTIONAL
PAINT	PAINTED AFTER ASSEMBLY, DARK GREEN, WATER REDUCIBLE ENAMEL, ONE COAT, AIR DRIED.

Temperature

MAXIMUM LIQUID	140°F
MAXIMUM STATOR	-
OIL FLASH POINT	-

Technical Data

POWER CORD TYPE	SJTW	
MATERIALS OF CONSTRUCTION	MOTOR HOUSING	CAST IRON
	CASING	CAST IRON
	IMPELLER	NAVAL BRONZE (OPEN VANE), THERMOPLASTIC (VORTEX)
	MOTOR SHAFT	STEEL
	HARDWARE	STAINLESS STEEL
	"O" RINGS	BUNA-N
MECHANICAL SEALS Standard:	CARBON / CERAMIC	
UPPER BEARING	SINGLE ROW-BALL	
LOWER BEARING	SINGLE ROW-BALL	

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SUBMERSIBLE SUMP/EFFLUENT

Wholesale Products Page: 6220-5

Dated: April 2002

Supersedes: January 2001

MODEL: OSP50

1.01 GENERAL

Contractor shall furnish all labor, materials, equipment and incidentals required to provide _____ (Qty.) submersible centrifugal sump/effluent pump(s) as specified herein. The pump model covered in this specification is the OSP50. The pump furnished for this application shall be MODEL _____ as manufactured by Hydromatic Pumps.

2.01 DESIGN CONDITIONS

Each pump shall be rated _____ H.P., _____ volts, _____ phase, _____ hertz and operate at _____ RPM.

3.01 OPERATING CONDITIONS

The pump shall deliver _____ U.S. GPM/LPS at feet/meters TDH, and handle a _____ inch solid. The curve submitted for approval shall state, in addition to head and capacity performance, solid handling capability, amp rating, and design impeller diameter.

4.01 CONSTRUCTION

Each pump shall be of the sealed submersible type, incorporating features normally found in pumps furnished for the residential market.

These features include:

1. The pump volute, motor, and seal housing of the OSP50 shall be high quality gray cast iron, ASTM A-48, Class 30.
2. The pump inlet shall be open and clear, without screening to provide access for effluent and septic tank solids.
3. All external mating parts shall be machined and Buna N, O-Ring sealed.
4. All fasteners exposed to the pumped liquid shall be 300 series stainless steel.
5. All power cords shall be water resistant UL or CSA approved, with double insulation, and sized as a function of Amp. draw.

5.01 MOTOR AND SHAFT

The stator, rotor and bearings shall be mounted in a sealed submersible type housing. Single phase motors shall be Split phase with centrifugal switch. Full Load and Locked Rotor Amps as well as Start and Run winding resistance shall be tabulated for each pump.

6.01 BEARINGS, SHAFT AND MECHANICAL SEAL

An upper radial and lower thrust bearing shall be required. These shall be heavy duty single row ball bearings which are both permanently and continuously lubricated and cooled by the dielectric oil which fills the motor housing. The motor shaft shall be corrosion resistant steel and sealed from the pumped liquid with a carbon ceramic mechanical seal.

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Dated: April 2002

Supersedes: January 2001

7.01 IMPELLER

The Impeller shall be Naval Bronze ASTM B-584 six vane, open design, or thermoplastic, high capacity, eight vane, vortex design.

8.01 AUTOMATIC CONTROL

All pumps should be capable of automatic operation.

9.01 PRESSURE SWITCH

The OSP50 Single Phase pump is furnished with a pressure diaphragm switch that is UL listed for water and sewage and CSA certified. The diaphragm switch shall be fitted with a piggy-back plug that allows the pump to be operated manually without removal from the sump.

10.01 PAINTING

All cast iron parts shall be painted before assembly with a water reducible alkyd air dried enamel. The paint shall be applied in one coat with a minimum thickness of 3 to 4 mils.

11.01 TESTING

All pumps shall be individually tested to include the following:

1. The pump and power cord shall be visually inspected for imperfections, cuts or nicks.
2. The pump shall have a ground continuity check and the motor chamber shall be Hi-potted to test for moisture content and/or insulation defects.
3. The motor and volute housing shall be pressurized and a 10 second air leak decay test run.
4. A specific amount of oil is now added. The pump is run in a fully automated, sequenced, control console, which monitors voltage, current and watts visually and electronically. The tester listens for any noise or malfunction.



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Because we are continuously improving our products and services, Pentair reserves the right to change specifications without prior notice.