Effluent Pumps 1 HP

Featuring a rugged, cast iron construction with stainless steel fasteners and motor shaft submersible pumps for residential, commercial, municipal, and industrial applications.

With the exclusive triple seal system, this pump offers three levels of sealing for outstanding reliability! A double mechanical seal located inside the oil chamber provides two full levels of sealing. An additional V-Ring type lip seal between the oil chamber and pump volute provides a third, extra level of sealing, and enhanced mechanical seal protection.

Features:

- Unique triple seal design
- Patented Contra Block® impeller with adjustable wear plate system for clog-free operation
- Discharges: 1 1/4" on 1 HP High Head, 2" on 1 HP Standard Head
- High torque capacitor start single phase motors
- Oil-filled motors (non-toxic oil)
- Stainless steel open loop lifting bale for ease of removal
- Continuous duty

Dimensions



1 HP HH 1 HP -4.50 -3.5 -3.5 -3.5 -3.8 3.88 2.7 NPT -2.38 -2.38

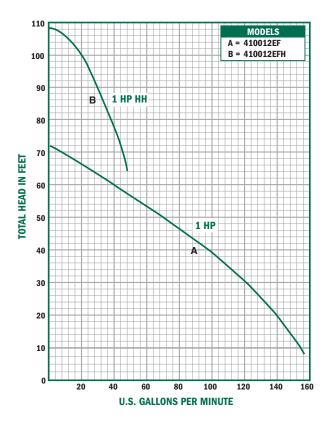
Specifications

Model No.	Voltage	HP	Phase	Solids Size	Hertz	Speed (RPM)	Discharge	Weight	Cable Length(ft.)	Float Included
410012EF	208-230	1	1	3/4"	60	3450	Vertical NPT 2"	71	15	N
410012EFH	230	1	1	5/8"	60	3450	Horizontal NPT 1 1/4"	70	20	N

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Materials of Construction & Motor Specifications

	otion a motor opcomoations			
Upper Motor Lid Cast Iron ASTM A48 Class 30				
Motor Housing	Cast Iron ASTM A48 Class 30			
Oil Chamber	Cast Iron ASTM A48 Class 30			
Volute	Cast Iron ASTM A48 Class 30			
Bottom Plate	Cast Iron ASTM A48 Class 30			
Impeller	Cast Iron ASTM A48 Class 30			
Lifting Bail	AISI 304 Stainless Steel			
Oil (motor & oil chamber)	Non-toxic white mineral oil (Marcol 52)			
External Hardware	AISI 304 Stainless Steel			
0-rings	Buna-N			
Motor Shaft	AISI 420 Stainless Steel			
Upper & Lower Bearing(s)	Single row ball bearing			
Upper Shaft Seal (secondary)	Rotating carbon face w/ stationary ceramic face			
Lower Shaft Seal (primary)	Rotating carbon face w/ stationary ceramic face Includes V-ring lip seal for lower seal protection.			
Motor Design	NEMA design B, squirrel cage induction, oil filled, non toxic oil			
Motor Type	Enclosed submersible			
Insulation Class	Class B, rated at 248° F			
Motor Protection	<u>Single Phase:</u> Internal thermal protection with automatic reset. Installer must provide circuit breaker for short circuit protection per N.E.C. standards.			
	Three Phase: Installer must provide external motor overload protection device such as a contactor w/ thermal relay, and circuit breaker for short circuit protection per N.E.C. standards.			
Service Factor	1.15			
Voltage Tolerance	$\pm10\%$ from name plate rating			

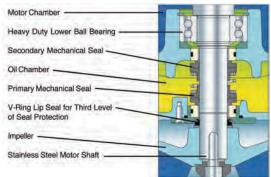


Motor Data, 60 Hz

Model No.	Phase	Rated Output BHP	Volts	Full Load Amps	Locked Rotor Amps	NEMA Code Letter	Pole/Speed (RPM)
410012EF	1*	1.0	230	13.0	45.5	M	2/3450
410012EFH	1	1.0	230	13.0	45.5	M	2/3450

 $[\]ensuremath{^{\star}}$ Start switch and capacitor integrated into top of pump.

Triple Seal System



Cable Specifications

Model No.	Volts	Power Cable	Diameter	Length (Feet)	Outer Jacket
410012EF	230	14/3 SJE00W	0.36IN (9.2MM)	20ft (6m)	Thermoplastic Elastomer

- Maximum submergence, ft. 30
- Maximum temp. of pumped fluid (40°C) $104^{\circ}F$ continuous, (50°C) $122^{\circ}F$ intermittent

^{**} These three phase motors are tri-voltage, 208/230/460.