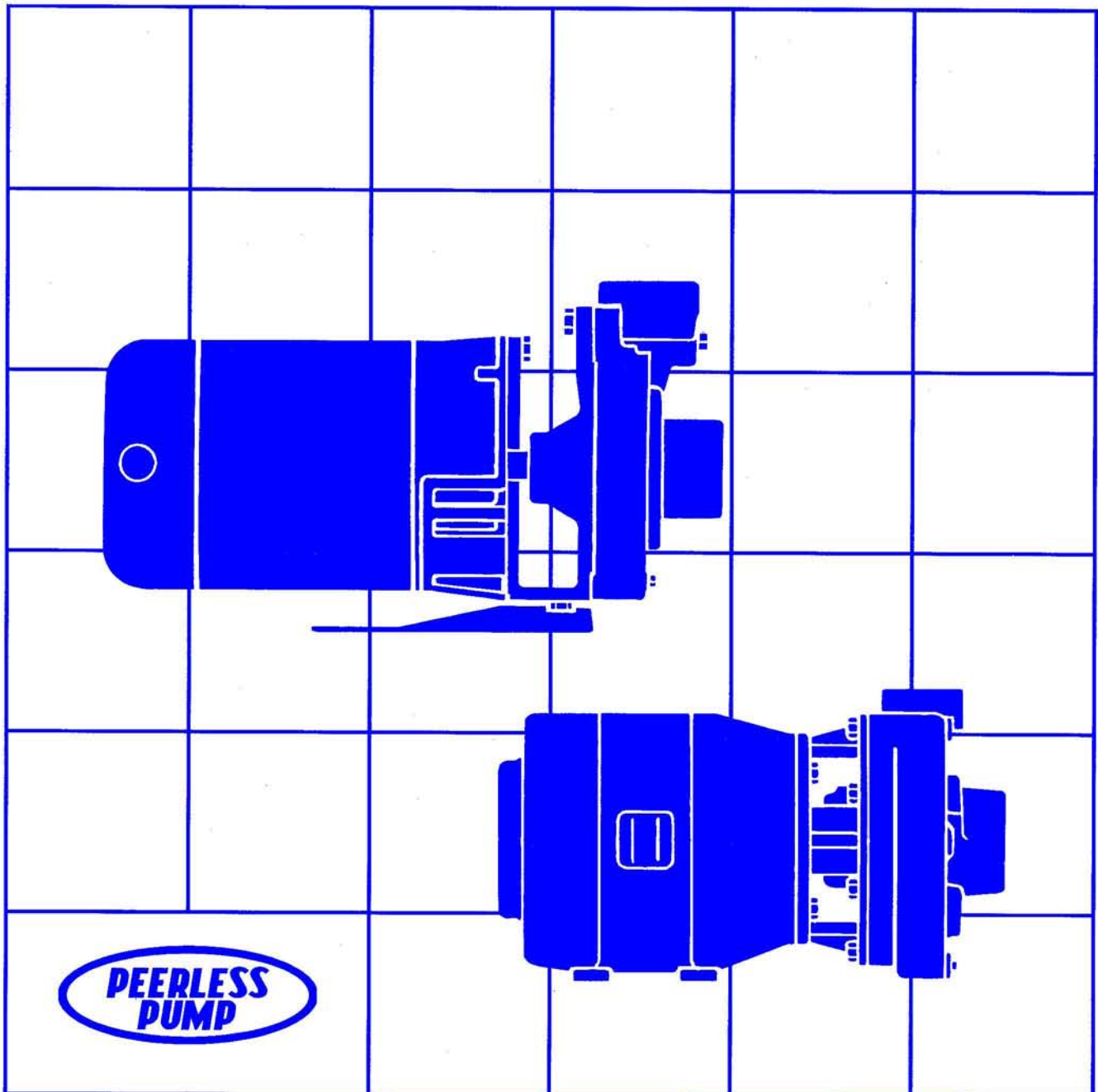


Peerless Pump Company

HORIZONTAL END SUCTION PUMPS

Type PE



Peerless Pump Type PE End Suction Pumps

Rates of flowto 320 gpm
Headsto 275 feet

	Fractional HP	Integral HP
Max. Case Working Pressure	75 psi	175 psi
Max. Operating Temperature	160°F	225°F

Ideal for most boost, transfer and circulation applications, Peerless Pump Type PE pumps are general purpose end suction pumps with vertically split cases. They are furnished as non-modifiable units equipped with preset impeller trims for non-overloading performance.

The pumps are made primarily of cast iron and bronze and are furnished with mechanical seals. They are suitable for clear, noncorrosive liquids such as water or ethylene glycol solutions. Fractional and integral horsepower sizes can be used on some types of hydrocarbon liquids.

The impeller shafts are extensions of their motor rotor shafts. Fractional horsepower sizes have stainless steel shafts; integral horsepower sizes have steel shafts with bronze shaft sleeves. The pumps are close coupled to face mount motors which feature ball bearings, quiet operation and quality construction for long, trouble-free service lives. The ball bearings are sized for a minimum L₁₀ life of 17,500 hours, equivalent to a minimum 87,500 hour average bearing life.

Peerless Pump Type PE pumps feature back pullout design. The rotating element can be removed and replaced without

removing the casing from its suction or discharge piping. Casings are protected from wear by replaceable bronze casing rings at the impeller skirts. Casings include plugged drain and vent ports. The casings are designed for low hydraulic noise levels. This is achieved by good hydraulic design and by providing a 10% clearance between the impeller and the casing cutwater. Peerless Pump Type PE pumps are exceptionally quiet.

Modern foundry technology, using shell moldings, permanent mold and shell cores for casing and impeller castings, assures smooth water passages, good weight symmetry and part density. These features, coupled with enclosed impellers, mean maximum efficiency, reliability and long service life.

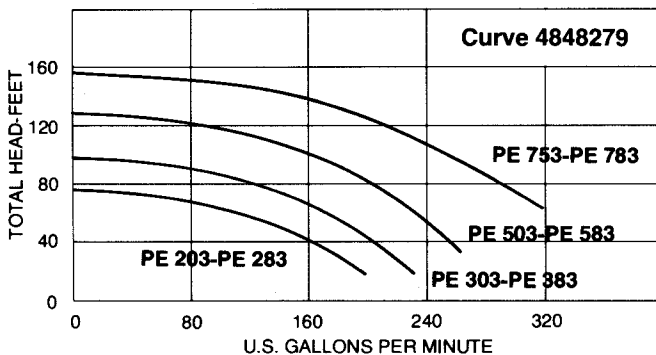
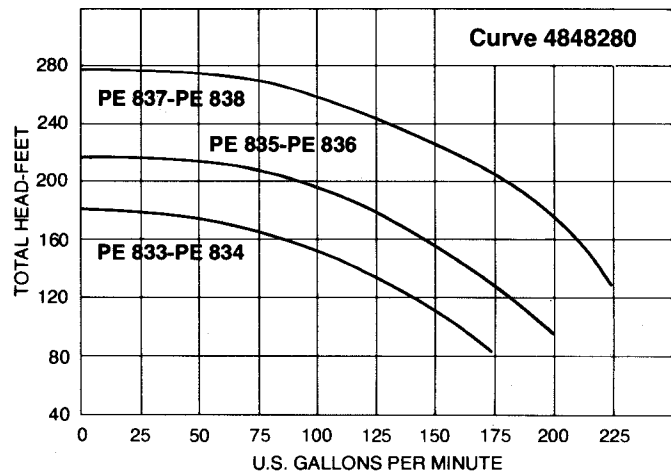
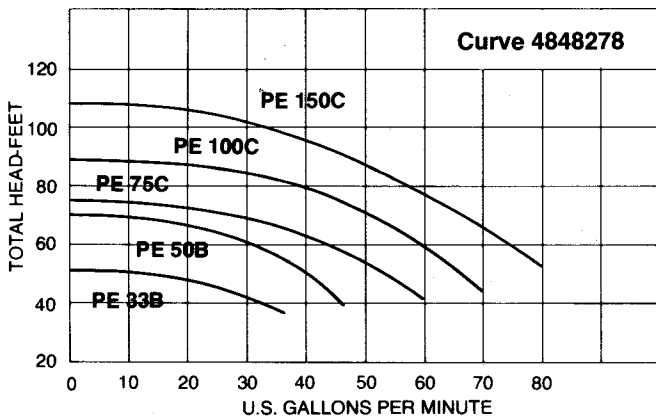
Integral horsepower type PE pumps are the same as Peerless Pump Type C pumps except that PE pumps are non-modifiable, with predetermined impeller trims. Assembled to order, Type C pumps are available with bronze fitted or all iron construction, mechanical shaft seals or packed type stuffing boxes and other options. Request Brochure B-2300.

Performance

Peerless Type PE pumps @ 3500 RPM

Non-Overloading Impellers: Each Type PE pump is made so that its impeller will not exceed the motor's horsepower rating, including its allowable service factor, when the liquid has 1.0 specific gravity, 32 SSU viscosity (similar to clear water at about 80°F) and is within the pump's maximum

temperature and pressure ratings. Note: Fractional horsepower sizes must not be used with hydrocarbons. Integral horsepower sizes can be used with some hydrocarbons. Refer to factory.



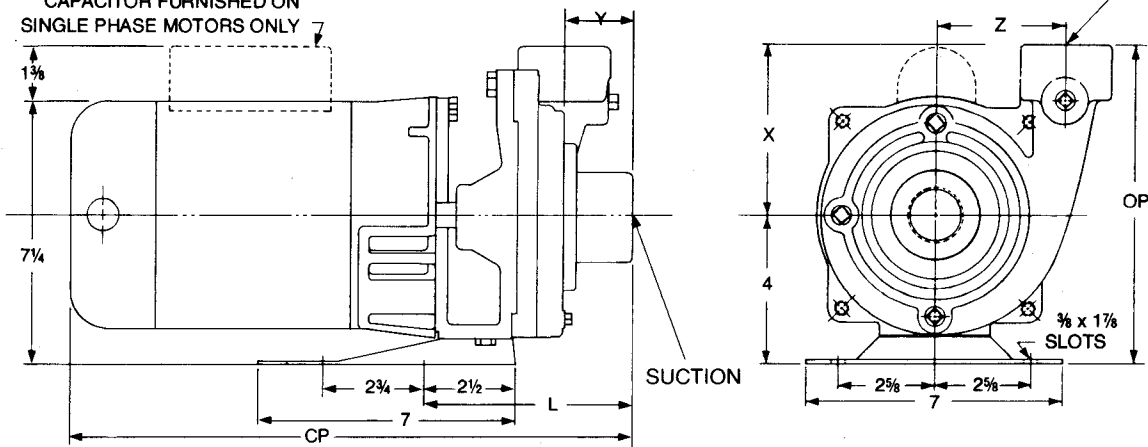
Materials of Construction

Adapter & casing	Cast iron
Impeller	Forged brass, fractional HP sizes Cast Bronze integral HP sizes.
Casing ring, Shaft sleeve (for integral HP sizes only)	Bronze
Mechanical seal (for fractional HP sizes only)	Ceramic seat, carbon washer, Buna-N rubber flexible members, brass metal parts.
Mechanical seal (for integral HP sizes only)	Ni-Resist seat, carbon washer, Buna-N rubber flexible members, 18-8ss metal parts.

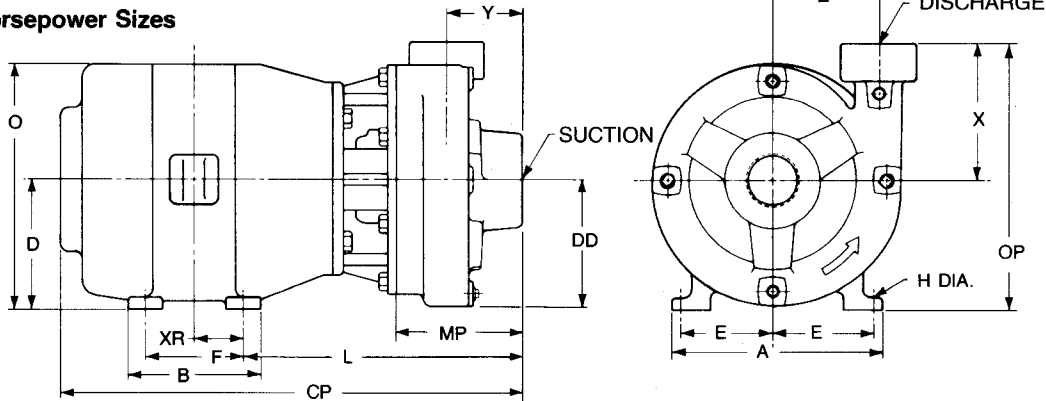
Dimensions and Motor Data

Fractional Horsepower Sizes

CAPACITOR FURNISHED ON SINGLE PHASE MOTORS ONLY



Integral Horsepower Sizes



Dimensions

Pump Model No.	Motor Frame	Connections		A Max.	B Max.	D	E	F	H	L	O Max.	X	Y	Z	CP Max.	DD	OP
		Suct.	Disch.														
PE33B	56J	1 1/4 NPT	1 NPT	—	—	—	—	—	—	5 1/2	—	4 3/8	1 5/8	3 1/4	14	—	8 3/8
PE50B	56J	1 1/4 NPT	1 NPT	—	—	—	—	—	—	5 1/2	—	4 3/8	1 5/8	3 1/4	14 1/2	—	8 3/8
PE75C	56J	1 1/2 NPT	1 1/4 NPT	—	—	—	—	—	—	5	—	4 5/8	1 7/8	3 1/2	15 1/4	—	8 3/8
PE100C	56J	1 1/2 NPT	1 1/4 NPT	7	—	4	2 5/8	—	—	5	7 1/4	4 5/8	1 7/8	3 1/2	15 3/4	—	8 3/8
PE150C	56J	1 1/2 NPT	1 1/4 NPT	7	—	4	2 5/8	—	—	5	7 1/4	4 5/8	1 7/8	3 1/2	16 1/4	—	8 3/8
PE203, PE283 PE303, PE383	145JM	2 NPT	1 1/2 NPT	7	6 1/2	3 1/2	2 3/4	5	.34	9 1/2	8 3/4	5	2 3/4	3 5/8	21	4 3/8	8 1/2
PE303, PE503, PE583	182JM	2 NPT	1 1/2 NPT	9	6 1/2	4 1/2	3 3/4	4 1/2	.40	10 1/4	9 3/8	5	2 3/4	3 5/8	21 3/4	4 3/8	9 1/2
PE503, PE753, PE783	184JM	2 NPT	1 1/2 NPT	9	7 1/2	4 1/2	3 3/4	5 1/2	.40	10 1/4	9 3/8	5	2 3/4	3 5/8	21 3/4	4 3/8	9 1/2
PE833, PE834	184JM	2 NPT	1 NPT	9	7 1/2	4 1/2	3 3/4	5 1/2	.40	10 1/4	9 3/8	5 1/8	2 3/4	4 5/16	20 5/8	5 1/4	9 5/8
PE835, PE836	213JM	2 NPT	1 NPT	10 1/2	7 1/2	5 1/4	4 1/4	5 1/2	.40	11 1/8	11 1/8	5 1/8	2 3/4	4 5/16	22 3/4	5 1/4	10 3/8
PE837, PE838	215JM	2 NPT	1 NPT	10 1/2	9	5 1/4	4 1/4	7	.40	11 1/8	11 1/8	5 1/8	2 3/4	4 5/16	24 1/4	5 1/4	10 3/8

Motor Data

60 Hertz Single Phase 115/230 Volt, 1.15 Min. S.F.			60 Hertz Three Phase 230/460 Volt, 1.15 Min. S.F.			60 Hertz Three Phase 200 Volt, 1.15 Min. S.F.		
Pump Model No.	Horse-Power	Motor Frame	Pump Model No.	Horse-Power	Motor Frame	Pump Model No.	Horse-Power	Motor Frame
PE33B	1/8	56J	PE33B	1/8	56J	—	—	—
PE50B	1/4	56J	PE50B	1/4	56J	—	—	—
PE75B	3/8	56J	PE75B	3/8	56J	—	—	—
PE100B	1	56J	PE100B	1	56J	—	—	—
PE150B	1 1/2	56J	PE150B	1 1/2	56J	—	—	—
PE203	2	145JM	PE203	2	145JM	PE283	2	145JM
PE303	3	182JM	PE303	3	145JM	PE383	3	145JM
PE503	5 (230V)	184JM	PE503	5	182JM	PE583	5	182JM
—	—	—	PE753	7 1/2	184JM	PE783	7 1/2	184JM
—	—	—	PE833	7 1/2	184JM	PE834	7 1/2	184JM
—	—	—	PE835	10	213JM	PE836	10	213JM
—	—	—	PE837	15	215JM	PE838	15	215JM

Ordering Specifications

for fractional HP type PE pumps

The pump(s) shall be Peerless Pump Type PE end suction vertically split case centrifugal, Model

- PE33B with 1/3 HP motor, 1 1/4" NPT suction, 1" NPT discharge
- PE50B with 1/2 HP motor, 1 1/4" NPT suction, 1" NPT discharge
- PE75C with 3/4 HP motor, 1 1/2" NPT suction, 1 1/4" NPT discharge
- PE100C with 1 HP motor, 1 1/2" NPT suction, 1 1/4" NPT discharge
- PE150C with 1 1/2 HP motor, 1 1/2" NPT suction, 1 1/4" NPT discharge

The motor shall be the open drip proof foot mounted type equipped with ball bearings having a minimum L₁₀ life of 17,500 hours, equivalent to a minimum average life of 87,500 hours. The motor shall operate on

- 60 Hz single phase 115/230 volt 1.15 min. S.F.
- 60 Hz three phase 230/460 volt 1.15 min. S.F.

The motor shall have a stainless steel shaft extension on which the impeller shall be mounted.

The pump assembly shall be close coupled and face mounted to the motor. The pump service will be _____

_____ (liquid) at _____ viscosity at _____ (°F)(°C) with a suction pressure of _____ (feet)(psi). Flow shall be _____ USGPM at a total discharge head of _____ (feet)(psi). The maximum total system pressure will be _____ (feet)(psi). The maximum liquid temperature will be _____ (°F)(°C).

The pump shall be equipped with a mechanical shaft seal designed for service with noncorrosive clear liquids. The pump assembly shall be of the back pullout type to permit removal/disassembly without removing the casing from its suction or discharge piping. The pump casing shall be made of 30,000 psi cast iron; the casting shall have smooth water passages and be equipped with a replaceable bronze casing ring. Each casing shall include at least one drain and one vent port, closed with pipe plugs.

The impeller shall be made of forged brass. It shall be of the enclosed (double shroud) configuration and be accurately machined to minimize recirculation. The impeller shall be positively fastened to the motor rotor shaft extension.

for integral HP type PE pumps

The pump(s) shall be Peerless Pump Type PE end suction vertically split case centrifugal, Model

- | | | | |
|---|---|---|---|
| <input type="checkbox"/> PE203, 2 HP*† | ① | { | <input type="checkbox"/> PE283, 2 HP‡ |
| <input type="checkbox"/> PE303, 3 HP*† | | | <input type="checkbox"/> PE383, 3 HP‡ |
| <input type="checkbox"/> PE503, 5 HP*† | | | <input type="checkbox"/> PE583, 5 HP‡ |
| <input type="checkbox"/> PE753, 7 1/2 HP† | | | <input type="checkbox"/> PE783, 7 1/2 HP‡ |
| <input type="checkbox"/> PE833, 7 1/2 HP† | ② | { | <input type="checkbox"/> PE834, 7 1/2 HP‡ |
| <input type="checkbox"/> PE835, 10 HP† | | | <input type="checkbox"/> PE836, 10 HP‡ |
| <input type="checkbox"/> PE837, 15 HP† | | | <input type="checkbox"/> PE838, 15 HP‡ |

* 60 Hz, single phase 115/230 volt, 1.15 min. S.F.

† 60 Hz, three phase 230/460 volt, 1.15 min. S.F.

‡ 60 Hz, three phase 200 volt, 1.15 min. S.F.

① With 2" NPT suction and 1 1/2" NPT discharge connections

② With 2" NPT suction and 1" NPT discharge connections

The motor shall be the open drip proof foot mounted type equipped with ball bearings having a minimum L₁₀ life of 17,500 hours, equivalent to a minimum average life of 87,500 hours.

The pump assembly shall be close coupled and face mounted to the motor. The pump service will be _____

_____ (liquid) at _____ viscosity at _____ (°F)(°C) with a suction pressure of _____ (feet)(psi). Flow shall be _____ USGPM at a total discharge head of _____ (feet)(psi). The maximum total system pressure will be _____ (feet)(psi). The maximum liquid temperature will be _____ (°F)(°C).

The pump shall be equipped with a mechanical shaft seal designed for service with noncorrosive clear liquids and with a replaceable bronze shaft sleeve. The pump assembly shall be of the back pullout type to permit removal/disassembly without removing the casing from its suction or discharge piping. The pump casing shall be made of 30,000 psi cast iron; the casting shall have smooth water passages and be equipped with a replaceable bronze casing ring. Each casing shall include at least one drain and one vent port, closed with pipe plugs.

The impeller shall be made of cast bronze. It shall be of the enclosed (double shroud) type accurately machined to minimize recirculation. The impeller shall be positively fastened to the motor shaft extension.



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