## EQ SERIES* <br> HIGH PERFORMANCE COMMERCIAL PUMP

## FOR COMmercial and high-end residential swimming pools and other water applications



EQ Series pumps are designed for maximum efficiency and quiet operation in every detail. They are the only non-corrosive, all plastic pumps designed for the commercial pool and water applications market.

The EQ Series pump impellers are manufactured for true breakthrough performance, allowing for lower loads and longer motor life. Available with and without the strainer pot. Available in flows to 800 GPM, and from 3 to 15 HP .

## STANDARD FEATURES

- Close-coupled for quiet, stable flow operation.
- Lightweight for easy, one-man installation.
- Clear Cam and Ramp ${ }^{\text {TM }}$ Lid for added service convenience.
- Available in single- and threephase models, ODP. TEFC motor available three-phase only.
- Closed impeller for long life and durability.
- 6" suction and 4 " discharge with strainer pot.
- Great for use with Acu Drive ${ }^{\text {TM }} \mathrm{XS}$ Variable Frequency Drives.
- Self-priming under NSF standards; NSF listed.


## EQ SERIESํ HIGH PERFORMANCE COMMERCIAL PUMP



## MATERIALS AND DESIGN

## Pump Body

Volute type, back pull-out design.

## - Port Size

6" - ANSI Rated 125 bolted flange suction port¹. $4^{\prime \prime}$ - ANSI Rated 125 bolted flange discharge port¹.

- Material - Volute \& Motor Adapter PPO Resin
- Impeller

PPO Resin

- Base

6061 aluminum design, slotted for mounting ease.

## - Corrosion Prevention

All-plastic pump for maximum hydraulic performance and corrosion prevention.

## Hair and Lint Strainer

## - Material

Separate bolt-on PPO Resin body with plastic basket, Polycarbonate Resin Thermoplastic lid, and stainless steel bolts.

## - Size

6" ANSI Rated 125 bolted flange suction and discharge ports.

## Pump Maximum Limits

Liquid Temperature: $104^{\circ} \mathrm{F}$
Ambient Air Temperature: $104^{\circ} \mathrm{F}$

## Motor

Standard JM type. Premium Efficient ODP Class F insulated. On TEFC options, JMZ type, Premium Efficient, Class F insulated.

- Frame Size

NEMA Rated "C" flange. 230/460V are open drip-proof design.

- Shaft

303 stainless steel construction.

## - Design

3 to 15 HP, 3500 RPM, JM open drip-proof, continuous duty, three-phase and single-phase ( $5,71 / 2,10 \mathrm{HP}$ ). 5 to $15 \mathrm{HP}, 3500$ RPM JMZ TEFC, continuous duty three-phase.

- Bearings

Double-shielded, single row, deep-groove type, permanently lubricated.

## - Thermal Overload Protection

All models require external thermal overload protector.

## Electrical

## - Power Supply Required

Three-phase pumps are 208-230/460. 15HP TEFC motor is 230/460 only. Single-phase models are available in ODP 230v, 60 Hz only.

[^0]EQ Series Commercial Pump with Strainer Pot 6" $\times 4^{\prime \prime}$


EQ Series Commercial Pump without Strainer Pot


EQ Series Commercial Pump With Strainer Pot 6" x4"

| Part \# ODP Motor | Part \# TEFC Motor | Description | Voltage | Amps | Phase | HP | Wt | $\begin{aligned} & \text { Dim. } \\ & \text { A-ODP } \end{aligned}$ | Dim. A-TEFC | Dim. B | Dim. C | Dim. | Dim. D-TEFC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 340026 |  | EQW 300 WaterFall | 115/230 | 38/19 | 1 | 3 | 126 | 26.62 | N/A | 10.03 | 7.5 | 43.590 | N/A |
| 340027 |  | EQWK 300 WaterFall | 208-230/460 | 8.4-7.9/3.9 | 3 | 3 | 106 | 23.12 | N/A | 10.16 | 7.5 | 40.094 | N/A |
| 340028 |  | EQW 500 WaterFall | 230 | 23.4 | 1 | 5 | 126 | 26.62 | N/A | 13.18 | 9.7 | 43.590 | N/A |
| 340029 |  | EQWK 500 WaterFall | 208-230/460 | 13.6-12.7/6.4 | 3 | 5 | 106 | 23.12 | 24.68 | 13.31 | 9.7 | 40.094 | 41.65 |
| 340030 |  | EQ500 | 230 | 19.6 | 1 | 5 | 126 | 26.62 | N/A | 10.03 | 7.5 | 43.590 | N/A |
| 340031 | 340604 | EQK500 | 208-230/460 | 13.5-12.3/6.2 | 3 | 5 | 106 | 23.12 | 24.68 | 10.16 | 7.5 | 40.094 | 41.65 |
| 340032 |  | EQ750 | 230 | 30.4 | 1 | 7.5 | 161 | 27.53 | N/A | 10.78 | 8.5 | 44.590 | N/A |
| 340033 | 340605 | EQK750 | 208-230/460 | 20.1-18.3/9.1 | 3 | 7.5 | 116 | 24.50 | 28.06 | 10.16 | 7.5 | 41.560 | 45.12 |
| 340034 | 340606 | EQK1000 | 208-230/460 | $27.1-24.3 / 12.2$ | 3 | 10 | 146 | 26.31 | 29.81 | 10.78 | 8.5 | 43.290 | 46.79 |
| 340035 | 340607* | EQK1500 | 208-230/460 | 40.0-36.0/17.8 | 3 | 15 | 161 | 26.31 | 28.31 | 10.78 | 8.5 | 43.290 | 45.29 |
| 340238 |  | EQ1000 | 230 | 40.0 | 1 | 10 | 179 | 29.0 | N/A | 11.50 | 8.5 | 46.29 | N/A |

340013 Strainer Pot Assembly including Strainer, Lid, Basket and Hardware
EQ Series Commercial Pump Without Strainer Pot 6" x 6"

| Part \# <br> ODP Motor | Part \# <br> TEFC Motor | Description | Voltage | Amps | Phase | HP | Wt |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 340014 |  | EQW 300 WaterFall | $115 / 230$ | $38 / 19$ | 1 | 3 | 97 |
| 340016 |  | EQWK 300 WaterFall | $208-230 / 460$ | $8.4-7.9 / 3.9$ | 3 | 3 | 77 |
| 340017 |  | EQW 500 WaterFall | 230 | 23.4 | 1 | 5 | 97 |
| 340018 |  | EQWK 500 WaterFall | $208-230 / 460$ | $13.6-12.7 / 6.4$ | 3 | 5 | 77 |
| 340019 |  | EQ500 | 230 | 19.6 | 1 | 5 | 97 |
| 340020 | 340608 | EQK500 | $208-230 / 460$ | $13.5-12.3 / 6.2$ | 3 | 5 | 77 |
| 340021 |  | EQ750 | 230 | 30.4 | 1 | 7.5 | 132 |
| 340022 | 340609 | EQK750 | $208-230 / 460$ | $20.1-18.3 / 9.1$ | 3 | 7.5 | 87 |
| 340237 |  | EQ1000 | 230 | 40.0 | 1 | 10 | 125 |
| 340023 | 340610 | EQK1000 | $208-230 / 460$ | $27.1-24.3 / 12.2$ | 3 | 10 | 117 |
| 340024 | $340611^{*}$ | EQK1500 | $208-230 / 460$ | $40.0-36.0 / 17.8$ | 3 | 15 | 132 |

*15 HP with TEFC option is 230/460 only.
EQ Series pumps are available in 575 V and 50 Hz models. Please contact your local sales representative or Pentair office for details.


## ENGINEERING SPECIFICATIONS

## EQ Series pump

- Recirculation pump shall be Pentair ${ }^{\circledR}$ EQ Series pump Model No. $\qquad$ self-priming centrifugal pump, $\qquad$ phase, 60 Hz .


## General Notes

- Install pump in a cool, dry, well-vented location away from pool heaters and chemical storage.
- Pump should be firmly mounted with pipe supported to prevent vibration and undue operational noise.
- Allow 12" minimum clearance behind motor for servicing.
- Motor overheating may be caused by a voltage drop or excessive voltage. Be sure that wire size and voltage input are properly regulated.


## Specifications

- The recirculation pump shall be a self-priming, centrifugal design with a hair and lint strainer as shown in the plans.
- The pump body, seal plate, and attached hair and lint strainer shall be constructed of non-corrosive PPO Resin materials, and close-coupled to an electric motor by means of an adaptor of the same material. The pump body shall have a single suction port with a 6" ANSI Rated 125 bolt flange to the hair and lint strainer. A centerline discharge port of 4" ANSI Rated 125 bolt flange and a winterizing drain port of $1 / 44^{\prime \prime}$ NPT shall be a part of the design.
- The pump shall be a back pull-out design to allow servicing without disturbing piping. The pump shall have a PPO Resin diffuser to aid in priming and it shall contain a replaceable bronze wear ring for the impeller. The impeller shall be of the closed type and PPO Resin, non-overloading at any point on the performance curve. The mechanical shaft seal shall be constructed of ceramic and carbon seal faces, with stainless steel, brass and Buna $N$ materials in the spring bellows portion. The impeller shall be secured to the motor shaft by means of a stainless steel key and locking screw into the end of the motor shaft. The pump shall be capable of operating at up to $50 \mathrm{psi}, 104^{\circ} \mathrm{F}$ continuous water temperature.
- The electric motor coupled to the pump shall be of the NEMA Rated series JM construction with stainless steel shaft inside a removable shaft sleeve of 300 series stainless steel. The motor shall be of an open, drip-proof design (or TEFC JMZ frame) with double-shielded, single row, deep-groove ball bearings. Motors shall be continuous duty rated at $40^{\circ} \mathrm{C}$ (or realign better) ambient and be suitable for outdoor installation.
- The pump motor shall be a $\qquad$ HP, $\qquad$ phase, $60 \mathrm{~Hz}, 3450$ RPM for service on a ___ volt electric supply. The pump shall be rated for $\qquad$ GPM at $\qquad$ TDH. The pump shall be tested and certified by a nationally recognized testing laboratory to conform to National Sanitation Foundation Standard 50.


## Hair and Lint Strainer

- The pump strainer shall consist of a PPO Resin body, Polycarbonate Resin Thermoplastic cover with 0-ring seal, and Cam and Ramp ${ }^{\text {TM }}$ Lid, and a strainer basket of mineral reinforced polypropylene material.
- The strainer body shall be 6" ANSI Rated 150 bolt flanged suction and discharge ports. The strainer body shall have a removable drain plug for winterizing.
- The strainer basket shall be securely positioned below the suction inlet of the trap, with access for inspection and cleaning through a removable trap body lid. The trap body lid shall be secured by means of a locking ring. The strainer basket shall have a perforation which in total open area is 98 square inches.


[^0]:    Use ANSI Rated class 125 plastic flange and $1 / 8^{\prime \prime}$ thick class 125 full flange gasket to make connection.

