



TECHNICAL BROCHURE

BAQUAeABII R4



Reviewed for general conformance to the contract documents. This review does relieve the vendor of the responsibility of making the work conform to the plans and the FDOT Design Standards.

Submittal #: 48
CDC: I-PLUMBING-GGMTF-021919
Job #: 424
Reviewed by: EDUARDO PEREIRA
Date: 10/14/2019
Vendor: REVISION
Product: DOMESTIC WATER BOOSTER
Description:

* Available up to 100 GPM systems

Aquavar e-ABII

VARIABLE SPEED CONSTANT PRESSURE SYSTEMS

- 1 HP thru 5 HP - Pressure Booster Packages
- 1AB2 and 2AB2 Prewired Pump/Controller Kits

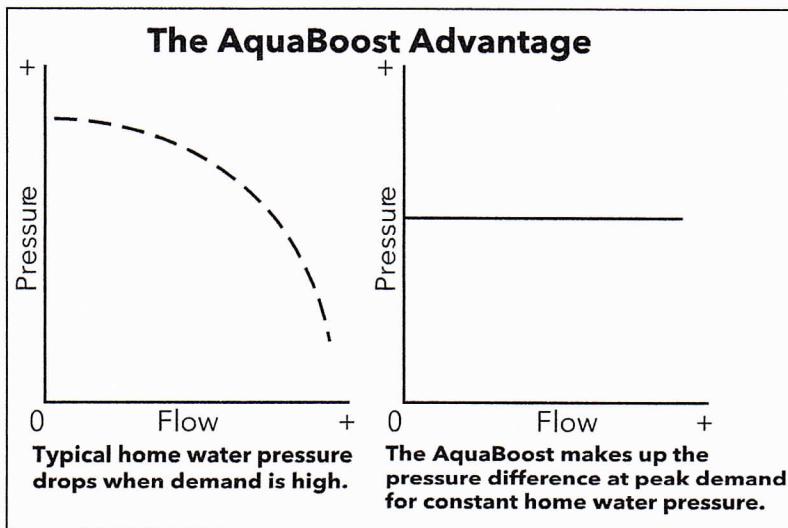


CentriPro
a xylem brand

FEATURES

The e-AB2 variable speed pump controller and complete booster package kits, provide an economical answer for municipal water district customers with low water pressure. Both domestic and light commercial applications can benefit. As water use increases, the controller changes pump speed to maintain pressure. Large supply tanks are eliminated and less wear and tear on your pump and motor.

Think of it as "Cruise Control" for your pump! The e-AB2 is available with a range of flow rates to handle homes with up to four baths, irrigation, filtration and fire suppression systems. Light commercial applications up to 100 GPM at 55 PSI boost. The e-AB2 is available as either a separate controller or as part of a complete pump package with everything you need to plumb it to a domestic water line.



1 HP and 2 HP Controller



3 HP and 5 HP Controller

AQUAVAR IPC CONTROLLER PROVIDES CONSTANT PRESSURE CONTROL PLUS MORE FOR THE 3 HP AND 5 HP MOTOR SIZES (REPLACES 3AB2 AND 5AB2 CONTROLLER)

NEW FEATURES

- Programmed to motor electrical characteristics; just select set pressure.
- Application specific "Start-Up Genie" guides you through quick and easy commissioning
- Removable, graphical control panel with display
- Alarm Log records the last 5 alarms
- Hand on, Auto on, and Off buttons for easy pump operation at the keypad - No toggling between local and remote operation!
- Capable of controlling up to 2 fixed speed pumps, with one standard drive
- Duplex variable speed pumping control with auto lead/lag and alternate

e-AB2 HYDRAULIC SELECTION (e-HM and MCS)

FEET	PSI BOOST	GPM									
		5-10	20	30	40	50	60	70	80	90	100
46	20	1	4	4	9	9	9	9	9	14	14
58	25	1	4	4	9	9	9	9	14	14	14
69	30	1	4	4	10	10	14	14	14	14	14
81	35	1	4	4	10	10	14	14	14	14	14
92	40	2	4	5	11	11	14	14	14	14	14
104	45	2	5	5	11	11	14	14	14	14	14
116	50	2	5	5	11	11	14	14	14	14	15
127	55	2	5	6	11	11	14	14	15	15	15
139	60	3	6	6	12	12	15	15	15	15	15
150	65	3	6	7	12	12	15	15	15	15	15
162	70	3	6	7	12	12	15	15	15	15	15
173	75	3	7	8	12	12	13				
185	80	3	7	8	12	13	13				

e-AB2 CONFIGURATIONS (e-HM and MCS)

Selection	Part Number	Description
1	1151AB21HM04	115v 1HP 1" disch, 1" suct V6P N3R wired
	1AB21HM04	230v 1HP 1" disch, 1" suct V6P N3R wired
2	1151AB21HM06	115v 1HP 1" disch, 1" suct V6P N3R wired
	1AB21HM06	230v 1HP 1" disch, 1" suct V6P N3R wired
3	2AB23HM06	230v 2HP 1" disch, 1" suct V6P N3R wired
4	1151AB25HM03	115v 1HP 1" disch, 1.25" suct V15P N3R wired
	1AB25HM03	230v 1HP 1" disch, 1.25" suct V15P N3R wired
5	2AB25HM04	230v 2HP 1" disch, 1.25" suct V15P N3R wired
6	2AB25HM05	230v 2HP 1" disch, 1.25" suct V15P N3R wired
7	2AB25HM06	230v 2HP 1" disch, 1.25" suct V15P N3R wired
8	3AVN35HM07	230v 3HP 1" disch, 1.25" suct IPC-N3R
	3AVN15HM07	230v 3HP 1" disch, 1.25" suct IPC-N1
9	2AB22MS1G2D2	230v 2HP 1.25" disch, 1.5" suct V15P N3R wired
10	2AB210HM02	230v 2HP 1.25" disch, 1.5" suct V15P N3R wired
11	3AVN310HM03	230v 3HP 1.25" disch, 1.5" suct IPC-N3R
	3AVN110HM03	230v 3HP 1.25" disch, 1.5" suct IPC-N1
12	5AVN310HM04	230v 5HP 1.25" disch, 1.5" suct IPC-N3R
	5AVN110HM04	230v 5HP 1.25" disch, 1.5" suct IPC-N1
13	5AVN310HM05	230v 5HP 1.25" disch, 1.5" suct IPC-N3R
	5AVN110HM05	230v 5HP 1.25" disch, 1.5" suct IPC-N1
14	5AVN32MS1J2K2	230v 5HP 1.25" disch, 1.5" suct IPC-N3R
	5AVN12MS1J2K2	230v 5HP 1.25" disch, 1.5" suct IPC-N1
15	5AVN315HM03	230v 5HP 1.5" disch, 2" suct IPC-N3R
	5AVN115HM03	230v 5HP 1.5" disch, 2" suct IPC-N1

* 1 HP available in 115 volt input models. Items 8, 11 thru 15 do not include tank. Recommend bladder tank, sized to 20% of pump flow (gpm). Pressure Transducer supplied with all configurations.

NOTE: PSI is boosting pressure, NOT total system pressure.

INPUT AND OUTPUT POWER (VOLTAGE AND PHASE)

- All 1AB2 and 2AB2 require single-phase input power
 - All will work on 1Ø, 208-230V input power
 - 1151AB2's will work on 1Ø, 115V input power

1151AB21HM04

- 115v SINGLE PHASE INPUT
- 1 HP variable speed controller (1AB2); Nema 3R
- Pump (e-HM 4 stg) and Tank (V6P) included
- Wall mount set; Transducer; pre-wired

1AB21HM04

- 230v SINGLE PHASE INPUT
- 1 HP variable speed controller (1AB2); Nema 3R
- Pump (e-HM 4 stg) and Tank (V6P) included
- Wall mount set; Transducer; pre-wired

1151AB21HM06

- 115V SINGLE PHASE INPUT
- 1 HP variable speed controller (1AB2); Nema 3R
- Pump (e-HM 6 stg) and Tank (V6P) included
- Wall mount set; Transducer; pre-wired

1AB21HM06

- 230v SINGLE PHASE INPUT
- 1 HP variable speed controller (1AB2); Nema 3R
- Pump (e-HM 6 stg) and Tank (V6P) included
- Wall mount set; Transducer; pre-wired

2AB23HM06

- 230v SINGLE PHASE INPUT
- 2 HP variable speed controller (2AB2); Nema 3R
- Pump (e-HM 6 stg) and Tank (V6P) included
- Wall mount set; Transducer; pre-wired

1151AB25HM03

- 115V SINGLE PHASE INPUT
- 1 HP variable speed controller (1AB2); Nema 3R
- Pump (e-HM 3 stg) and Tank (V15P) included
- Wall mount set; Transducer; pre-wired

1AB25HM03

- 230v SINGLE PHASE INPUT
- 1 HP variable speed controller (1AB2); Nema 3R
- Pump (e-HM 3 stg) and Tank (V15P) included
- Wall mount set; Transducer; pre-wired

2AB25HM04

- 230v SINGLE PHASE INPUT
- 2 HP variable speed controller (2AB2); Nema 3R
- Pump (e-HM 4 stg) and Tank (V15P) included
- Wall mount set; Transducer; pre-wired

- All controllers output three-phase, 230 Volt power
- All pumps are equipped with three-phase motors

2AB25HM05

- 230v SINGLE PHASE INPUT
- 2 HP variable speed controller (2AB2); Nema 3R
- Pump (e-HM 5 stg) and Tank (V15P) included
- Wall mount set; Transducer; pre-wired

2AB25HM06

- 230v SINGLE PHASE INPUT
- 2 HP variable speed controller (2AB2); Nema 3R
- Pump (e-HM 6 stg) and Tank (V15P) included
- Wall mount set; Transducer; pre-wired

3AVN35HM07

- 230v SINGLE PHASE INPUT
- 3 HP variable speed controller (Aquavar IPC); Nema 3R
- Pump (e-HM 7 stg) and Transducer (included)
- Tank (not included) and wiring (by others)

3AVN15HM07

- 230v SINGLE PHASE INPUT
- 3 HP variable speed controller (Aquavar IPC); Nema 1
- Pump (e-HM 7 stg) and Transducer (included)
- Tank (not included) and wiring (by others)

2AB22MS1G2D2

- 230v SINGLE PHASE INPUT
- 2 HP variable speed controller (2AB2); Nema 3R
- Pump (MCS) and Tank (V15P) included
- Wall mount set; Transducer; pre-wired

2AB210HM02

- 230v SINGLE PHASE INPUT
- 2 HP variable speed controller (2AB2); Nema 3R
- Pump (e-HM 2 stg) and Tank (V15P) included
- Wall mount set; Transducer; pre-wired

3AVN310HM03

- 230v SINGLE PHASE INPUT
- 3 HP variable speed controller (Aquavar IPC); Nema 3R
- Pump (e-HM 3 stg) and Transducer (included)
- Tank (not included) and wiring (by others)

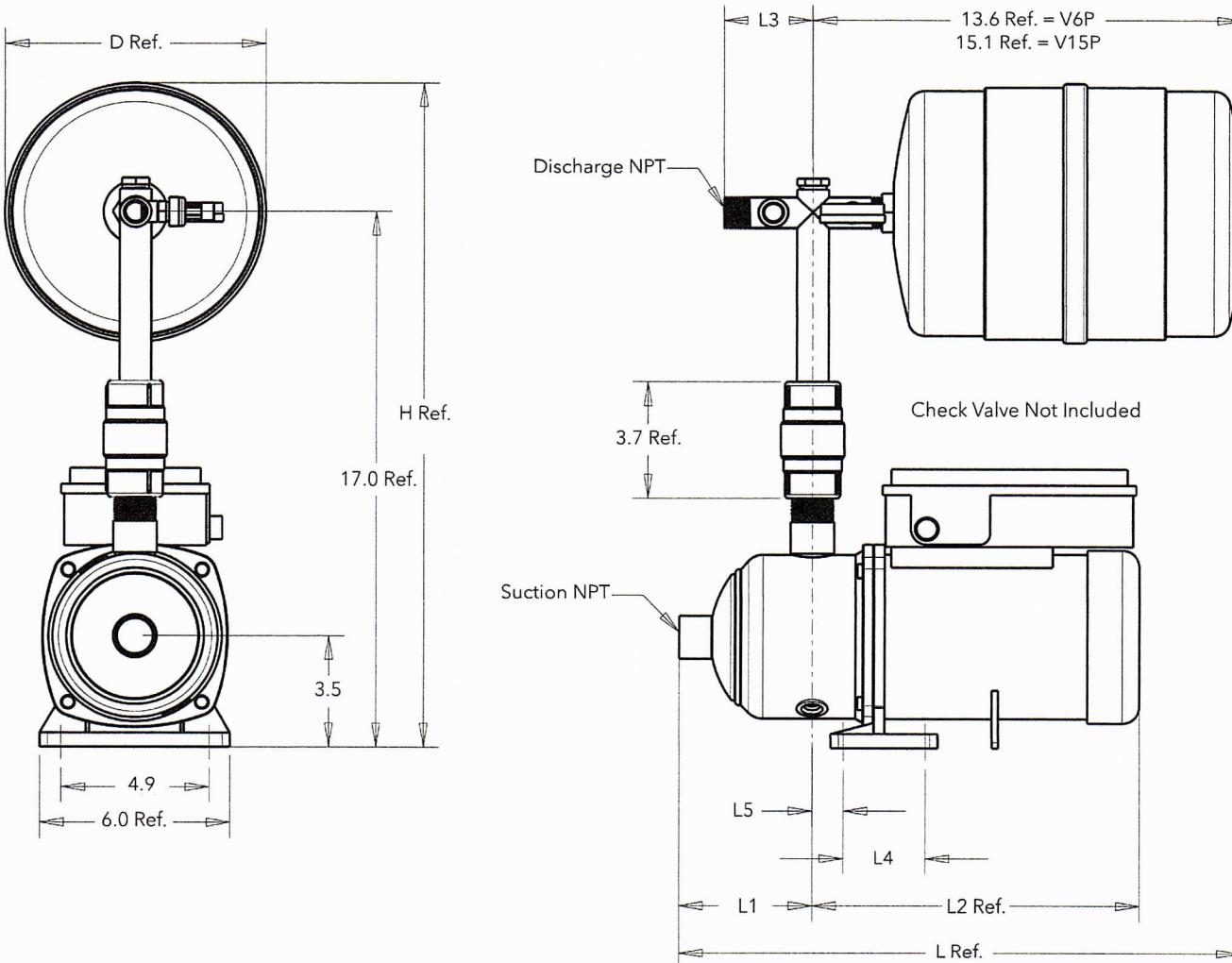
DIMENSIONS (For Reference Only - Do not use for construction purposes)**e-HM PUMPS****Capacities** – to 12 GPM (1HM)

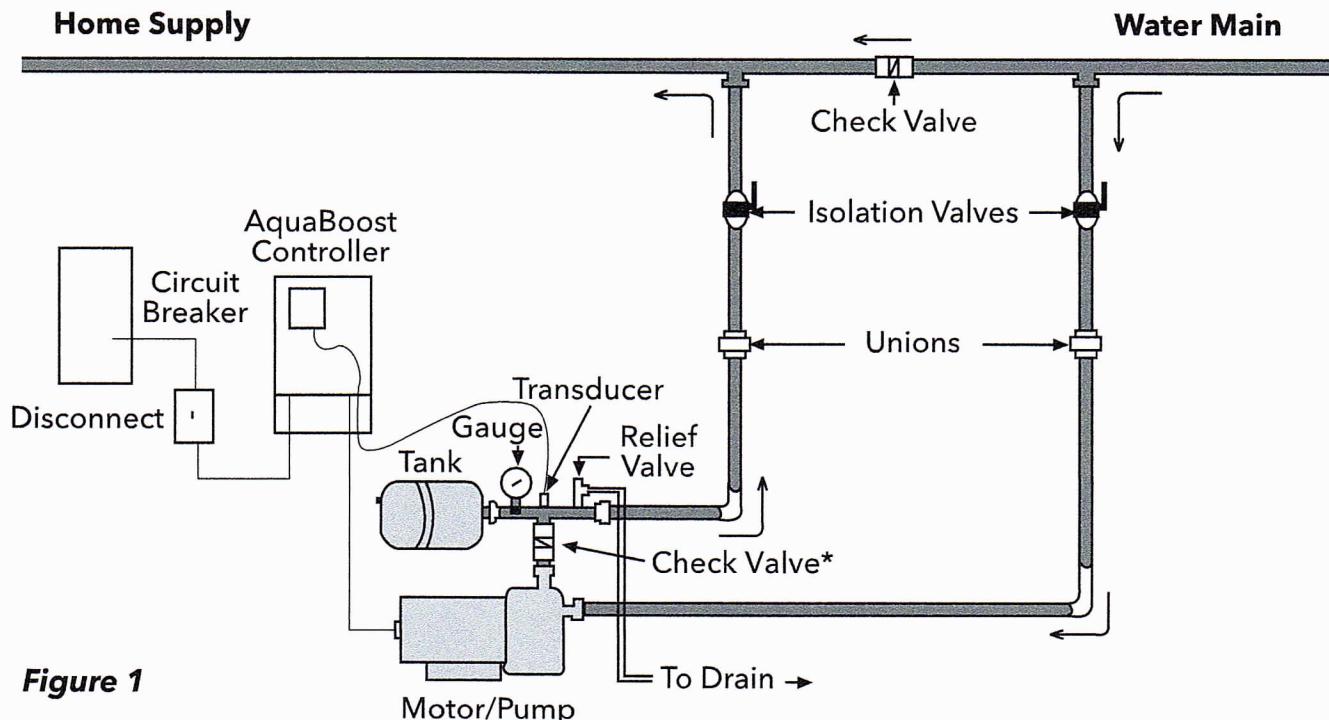
to 23 GPM (3HM)

to 45 GPM (5HM)

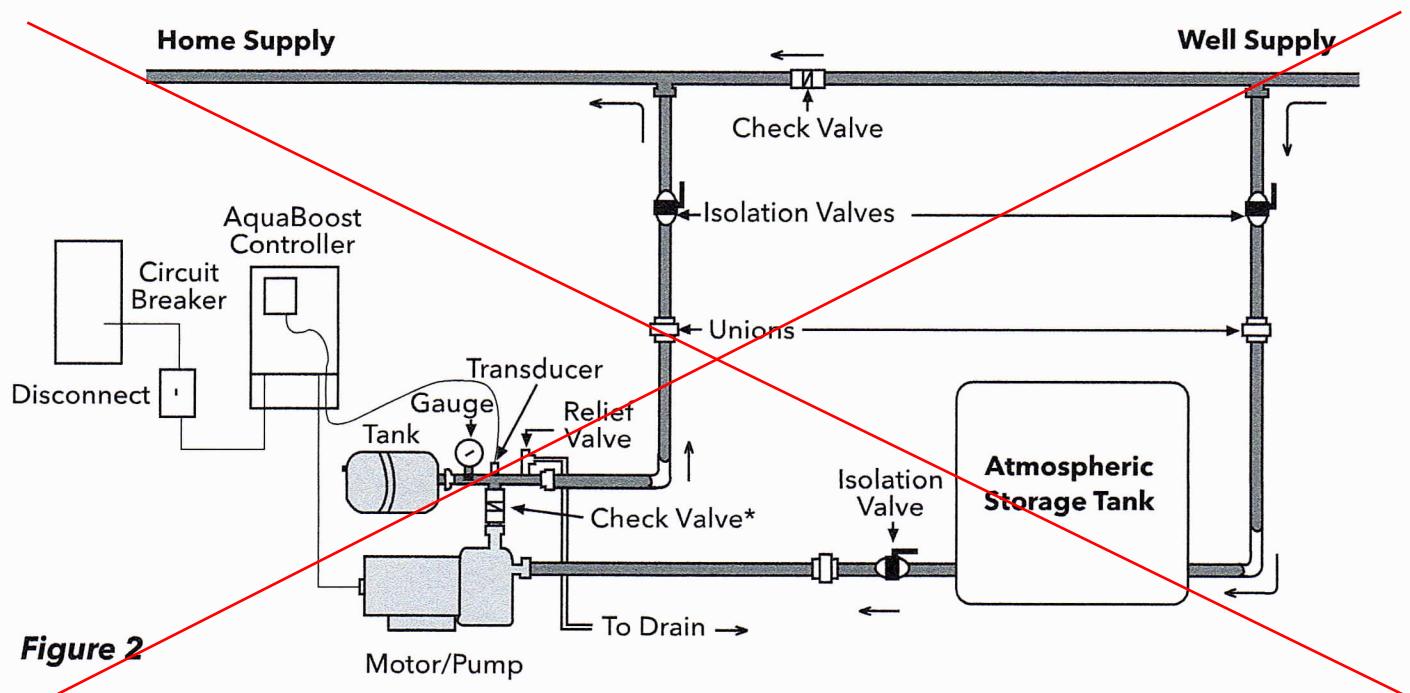
Rotation – Right hand clockwise,
viewed from motor end**Materials** – 316L stainless steel for all liquid
handling components**Motor** – 1 HP, TEFC, Three Phase, 208-230/460V
– 1.5 HP, TEFC, Three Phase, 208-230/460V
– 2 HP, TEFC, Three Phase, 208-230/460V**Pipe Connections** – 1 x 1 NPT (1HM/3HM)

– 1 x 1 ¼ NPT (5HM)

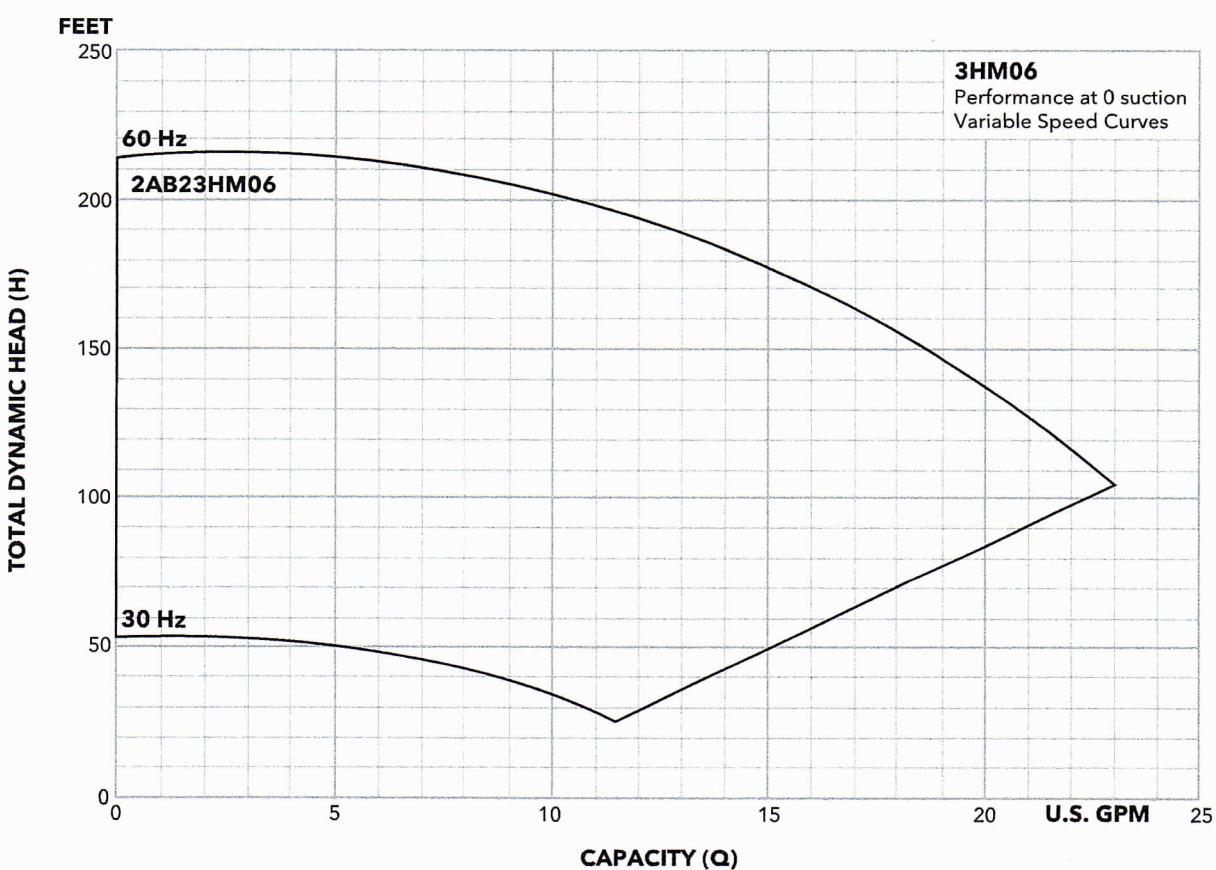
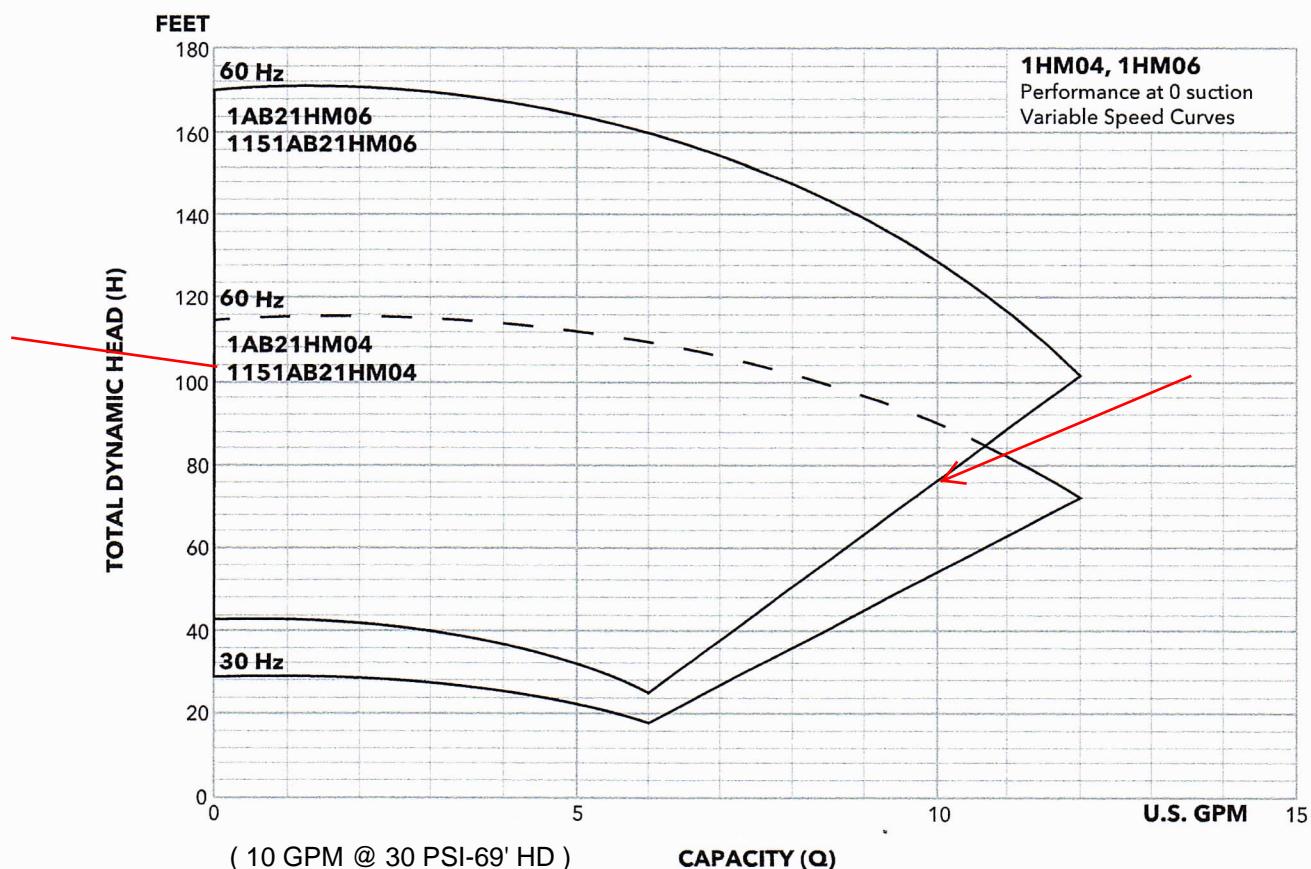
Maximum Temperature of Water – 120° F**NOTE:** Tank Liquid Temperature Limit is 120° F
Pump Liquid Temperature Limit is 212° F**Maximum System Working Pressure** – 145 psi**Seal** – Carbon / Silicon Carbide / EPR*Overload protection, starters, heaters not required. Dimensions are in inches.*

SUGGESTED AB2 INSTALLATION FOR MUNICIPAL WATER SYSTEM**Figure 1**

*Check valve - provided by installer

SUGGESTED AQUABOOST INSTALLATION FOR WELL PUMP SYSTEM**Figure 2**

*Check valve - provided by installer



AQUAVAR ABII CONTROLLER FEATURES

Input Power* – 208-230V ±15%, single phase (controller only)

Output Power – Up to 230V three phase (based on input voltage). Motor rated for 208-230V, ±10%.

Maximum Output Current – 4.2 amps - 1AB2 (1 HP)
– 6.9 amps - 2AB2 (2 HP)

Input Controls – Up and down buttons to set pressure.

Signal Lights – Power on, pump running, inverter stopped, pump stopped, standby, faults/errors.

Electrical Efficiency – Over 95% at full load

Protection Against – Short circuit, under voltage, over-load, motor temperature, dead heading, run out, suction loss, sensor fault, bound pump, over voltage, static discharge. **Note:** Suction loss/run out is set for minimum 10 psi at discharge!

Ambient Temperature – 34° F to 104° F

Maximum Humidity – 95% at 104° F, non-condensing

Air Pollution – Avoid mounting in areas with excessive dust, acids, corrosives and salts.

Approvals –   (Listing on Controller Only)

Controller Enclosure – Outdoor, NEMA 3R, IP 43 (Rain-tight)

Mounting – Wall mount with mounting hardware.

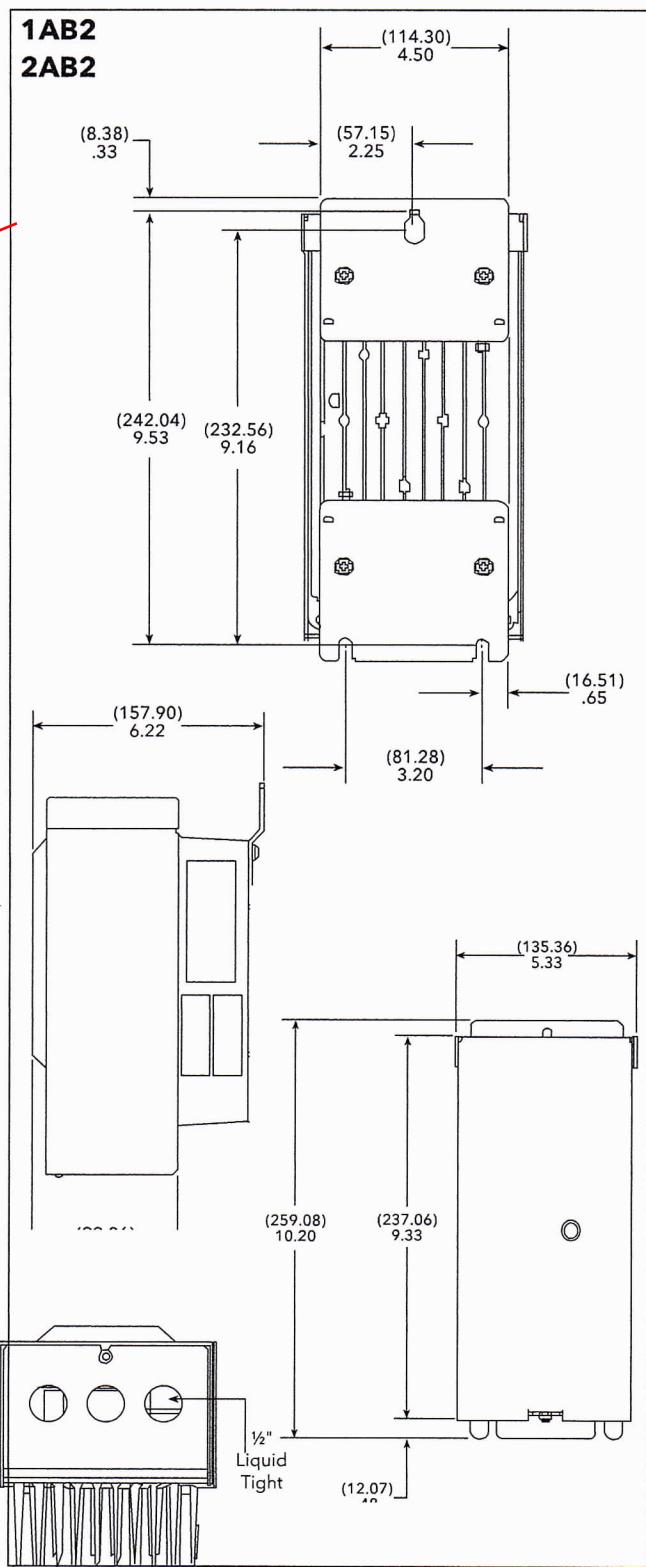
Cooling – Convection with cast aluminum heat sink.
– 3 HP, 5 HP with temperature fan

Transducer – 0.5 - 4.5 VDC with 5 VDC power supply, 100 psi range, 10-foot 3-wire shielded cable.

Input Wire – 5 feet of 14, 10 or 8 gauge cable. Depending on size, cable is pre-wired to controller and motor conduit box.

Output Wire – 10 feet of 14 gauge cable. Cable is pre-wired to controller and pump motor (when provided).

*Low input voltage may affect motor operation.



PRESSURE RANGE

Nominal Range – Field adjustable from 20 - 85 psi, total system pressure.

WARNING **DO NOT SET REQUIRED SYSTEM PRESSURE ABOVE 85 PSI. SEVERE DAMAGE TO PLUMBING COULD RESULT. PLUMB RELIEF VALVE OUTSIDE OR TO A DRAIN.**