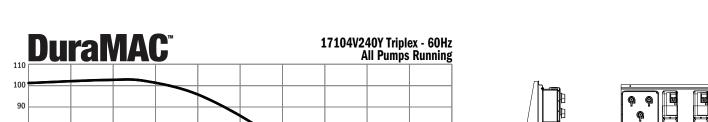
# SUBMITTAL DATA SHEET

DuraMAC<sup>™</sup> Booster Pumps Vertical Multistage Variable Speed Triplex Booster System

## 17104V240Y-3

speed based on demands of the system. Saving energy over tranitional constant speed booster systems.

The DuraMAC<sup>™</sup> Boosting system is simple, versatile, sophisticated, and reliable. The Vertical Multistage Variable Speed Booster System changes motor



210

240

270

300

**DuraMAC**<sup>®</sup> 17104V240Y Triplex - 60Hz **One Pump Running** 110 Pressure PSI 100 4.5 90 4 Brake Horse Pressure PSI - Efficiency % 80 3.5 Powel 70 Efficiency % 3 Horse 60 2.5 Brake 50 2 40 1.5 30 1 20 0.5 10 0 0 40 80 90 100 10 20 30 60 70 50 Flow GPM

120

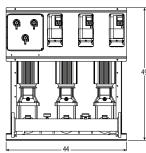
90

150

Flow GPM

180

# lhti



### **Technical Information**

Model Number	17104V240Y-3
Max Flow	240 GPM
Max Boost	104 PSI
Suction Transducer	0-150 PSI 4-20mA
Discharge Transducer	0-150 PSI 4-20mA
Drive - Yaskawa iQ Pump	NEMA 1
Suction Ball Valve	2" No-Lead Brass
Discharge Ball Valve	2" No-Lead Brass
Impeller	304 Stainless Steel
Pump End	304 Stainless Steel
Motor - Energy Eff.	TEFC 184TC
Horsepower	5
Seal Material	Carbon/Sic
Base	304 Stainless Steel
Tank Required	52 Gallon Minimum
Electrical	208-230V 3 Phase
	_

Model	V080
PEI	0.89
Imp. Dia. (in)	3.64

NO-LEAD: The weighted average of the wetted surface of this no-lead product contacted by consumable water contains less than one quarter of one percent (0.25%) lead.



A.Y. McDonald Mfg. Co. P.O. Box 508 Dubuque, IA 52004-0508

Toll Free: 1-800-292-2737 Fax: 1-800-832-9296 Hours: 7:00 a.m. - 5:00 p.m., CST sales@aymcdonald.com www.aymcdonald.com

A.Y. McDonald considers the information on this assembly drawing correct when published. Item and option availability, including specifications, are subject to change without notice.

Submitted by:

80 70

40 30 20

10 0

0

30

60

Pressure PSI 60 50

4-21

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# **SUBMITTAL DATA SHEET**

DuraMAC<sup>™</sup> Booster Pumps Vertical Multistage Variable Speed Triplex Booster System



## 17104V240Y-3

#### TRIPLEX BOOSTER SYSTEM

Furnish a Model <u>17104V240Y-3</u> Triplex variable speed, factory assembled water pressure booster system as manufactured by AY McDonald Mfg Co. The unit shall be rated for a system capacity of <u>240</u> GPM at a system pressure of <u>37</u> PSIG.

The motor must be UL Listed under UL 1004. In addition to the UL Listing for the motor the frequency drive must be separately listed under UL 508C.

Certified to: NSF/ANSI/CAN 61 & NSF/ANSI 372

#### FACTORY ASSEMBLY

The booster system shall be factory assembled on a stainless steel base including pumps, motors, valves, and 4" flanged suction and discharge manifold. All interconnecting piping and isolation valves shall be stainless steel, no lead brass and copper material. Provide wetted stainless steel flange connection on the suction and discharge of the pump. Provide no lead brass isolation ball valves on the suction and discharge of each pump. The valves shall be full-port ball valves. Provide two 2 1/2" liquid filled pressure gauges for indicating system suction and system discharge pressure.

#### **PUMPS**

System shall include <u>three</u> vertical multi-stage centrifugal pumps model <u>17104V80</u> with 2" flange connections. Pump casing, discharge, diffuser and impeller shall be made of stainless steel. Pump shall have a replaceable mechanical seal suitable for a working pressure of 230 PSIG. The mechanical seal shall be constructed of Nitrile Buna Rubber (NBR), Carbon and Silicon Carbide (SiC).

Pump shall be rated **<u>60</u>** GPM at **<u>166</u>** ft head.

#### **MOTORS**

Motors shall be <u>208-230</u> volt, three phase, 60 Hz totally enclosed fan cooled (TEFC). Motor shall be <u>5 HP</u>, 3520 RPM. Motors shall be selected so that they do not exceed name plate HP rating throughout the programmed sequence of pump operation.

#### **CHECK VALVES**

Each pump discharge will have a silent non-slam cast iron check valve sized for a maximum loss of 3 PSI at maximum flow and be suitable for the maximum working pressure of the system.

#### **HYDRO-PNEUMATIC TANK**

A hydro-pneumatic tank (**Sold Separately**) with a steel shell and a butyl diaphragm to separate the air and water is required for this system to work properly. Features shall include an air fill valve and bottom system connection suitable for 100% drawdown. The tank must be suitable for the maximum working pressure of the system, with a minimum volume of <u>52</u> gallons.

#### **PUMP OPERATION**

The pump shall run only as necessary to maintain system pressure and shall be controlled automatically by means of a pressure transducer and a variable frequency drive.

NO-LEAD: The weighted average of the wetted surface of this no-lead product contacted by consumable water contains less than one quarter of one percent (0.25%) lead.



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#### Submitted by:

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