







DuraMAC™ Booster Pumps

THE CUSTOMER IS THE BOSS

EST. 1856 McDonald

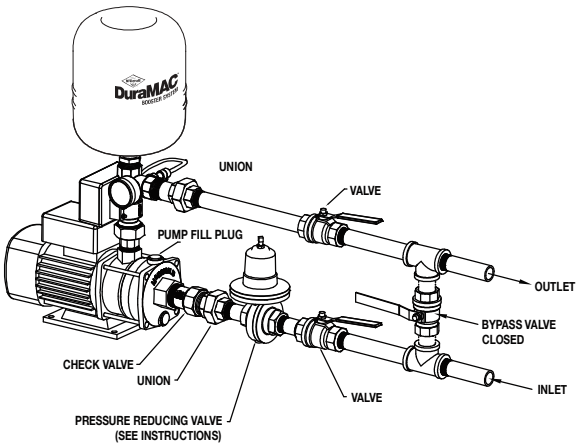
DuraMAC™ Booster Pumps

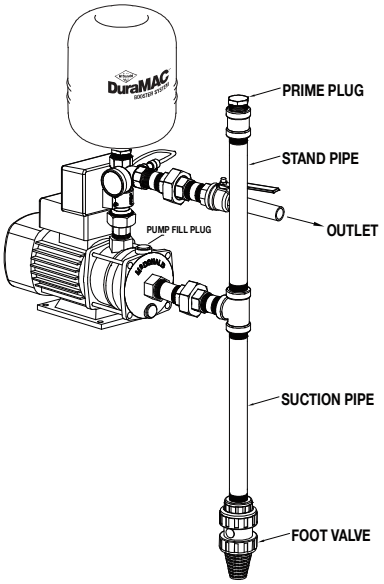
Pump Catalog - March 2022

MORE THAN A BRAND. **WE'RE A FAMILY.**

Typical Installations

Not all boosting applications require complicated boosting systems. The DuraMAC™ Booster System is simple, versatile, sophisticated, and reliable. Quite simply, it is the World's Most Versatile Boosting System.





Versatile

It is the first booster pump of its kind to be designed for virtually all boosting applications. In Pressure Mode, the pump starts with pressure drop and stops on low flow. In Flow Mode, the pump starts and stops by sensing flow. In Conservation Mode, the pump only operates during a peak demand, such as when multiple showers, bathtubs, or irrigation systems are running.

Simple

A single-speed, totally enclosed fan-cooled motor drives the DuraMAC™ booster pump with single phase power. It is controlled with one dial and tells you it is working properly by illuminating a single status light. The settings and readouts are simple and straight forward.

Sophisticated

A pressure transducer constantly monitors system pressure and alerts the pump control to start the pump as water in the system is used. The pump then stays on, boosting the system pressure until the need for water is no longer present, indicated by low flow.

Reliable

Electronic components are completely separated from piping and water ways for added safety and ease of field repair. The DuraMAC™ is built from scratch with one purpose in mind - boosting water pressure. Each component of the system is specifically designed to work together, as one harmonious unit.

The World's Most Versatile Booster System

Pressure Tank
Eliminates short cycling and helps accommodate thermal expansion.

Pressure Gauge
Displays total system pressure

Circuit Board
Sophisticated programming assures proper operation in all conditions.

Digital Control
Single knob for simple pressure adjustment. Status light indicates standby, run and fault modes

Transducer
Constantly monitors system pressure.

Inlet w/Check Valve: Residential
No-Lead Brass NPT thread with large wrench flats for easy & secure pipe connections

Inlet w/Check Valve: Light Commercial
No-Lead Brass NPT thread with large wrench flats for easy & secure pipe connections

Union Swivel
Allows for 360° adjustment of discharge.

Motor
Totally enclosed fan-cooled motor for quiet operation and low power consumption

Pump
All stainless construction for tough water conditions.

A.Y. McDonald's Full Line of DuraMAC™ Booster Pumps

**Vertical Multistage
Variable Speed
Simplex, Duplex & Triplex Boosters**

**Dual-Mode
Modular, Simplex, & Duplex**

**E-Series, Residential,
Light Commercial,
& Irrigation Boosters**

How to Order

Order by Model Number - Example: 17044C070PC2-M

17	044	C	070	P	C	2	-	M

Series
17
18

Water Pressure at 0 GPM
035
040
044
052
060
062
070
078

Type
R - Residential
C - Commercial

GPM
020
035
070
120

Voltage
1 - 120V
2 - 230V

Options
D - Duplex
M - Modular
S - Simplex

SS - Stainless Steel
*Only available in E Series

Models Available

- **E-Series**

18035R020PC1
18052R020PC1
18035R020PC1-SS
18052R020PC1-SS

Models Available

- **Residential, Light Commercial, & Irrigation Boosters**

17035R020PC1
17052R020PC1
17070R020PC2
17040C035PC2
17062C035PC2
170 C035PC2

Models Available

- **Dual-Mode - Modular, Simplex, & Duplex Models**

17044C070PC2-S
17060C070PC2-S
17044C070PC2-M
17060C070PC2-M
1704 C120PC2-D
1706 C120PC2-D

How It Works

The DuraMAC™ Water Pressure Boosting System can be set to three separate modes, which can accommodate virtually any application.

PRESSURE MODE

START METHOD: Pressure drop

STOP METHOD: Low flow

TYPICAL INSTALLATION: Appropriate for the majority of light commercial or residential applications

RESULT: Pump operates continuously while there is a need for water

FLOW MODE

START METHOD: Water flow

STOP METHOD: Low flow

TYPICAL INSTALLATION: Application where pressure fluctuates, or occasional system leaks are present

RESULT: Pump operates when usage of water exceeds approximately one gallon per minute

CONSERVATION MODE

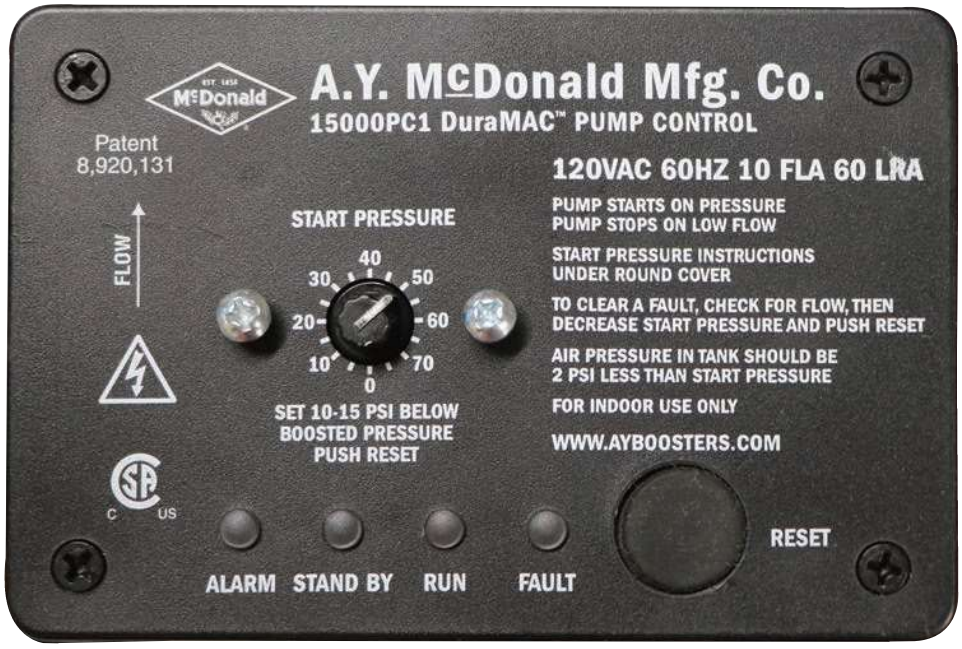
START METHOD: Pressure drop

STOP METHOD: Low Flow

TYPICAL INSTALLATION: Application where pressure is adequate for most uses, and boosting is only necessary for high demand

RESULT: Pump will operate only when system pressure is below city supplied pressure and operate continuously while there is demand for water

DuraMAC™ Residential, Light Commercial, & Irrigation Pump Control (excludes E-Series)



New Pump Control 115V

115V DC: B17 - Current

230V DC: F17 - Current

ESeries
DuraMAC™ Booster Pump

Not all boosting applications require complicated boosting systems. The DuraMAC™ Booster system is simple, versatile, sophisticated, and reliable. With an easy set-up installation and a versatile control with three modes of operation, this pump is flexible enough to meet your commercial or irrigation needs.

The 304 stainless steel version of the DuraMAC™ Booster pump will meet the needs of boosting water pressure from Reverse Osmosis (RO) systems, low PH and other agressive water applications which would be corrosive to no-lead brass and metal pipes.

See Pumps & Accessories Price List for Limited Warranty details.

NSF/ANSI/CAN 61 & 372

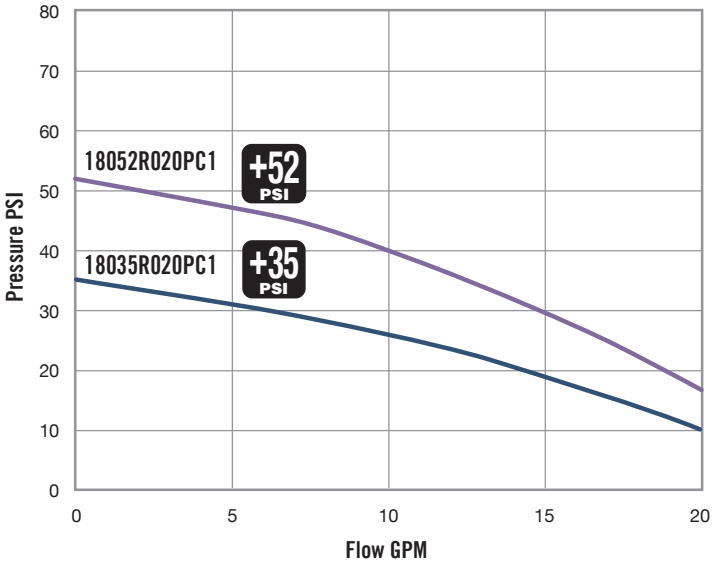
Features:

- Water pressure boosting system for residential, irrigation, or light commercial use
- Easy set-up installation
- All metal connections - no plastic threads
- Half-gallon pressure tank included
- TEFC single phase motor for quiet operation
- Electronics separated and sealed from waterway
- No-Lead Brass / 304 stainless steel check valve included
- Dry-Run protection
- 1" inlet and outlet
- 1 year warranty

Materials of Construction

- Impellers	304 Stainless Steel
- Pump Casing Inlet	301 Stainless Steel
- Pump Casing Outlet	301 Stainless Steel
- Pump Seal (stationary)	Silicon Carbide
- Pump Seal (rotating)	Carbon / NBR
- Diffuser	304 Stainless Steel
- Check Valve	No-Lead Brass / Stainless Steel
- Pump Controller Cross	No-Lead Brass / Stainless Steel

DuraMAC™ Performance (Additional Boost)



Models Available

Part No.	DuraMAC™ Model	Pump Boost	Amps	Voltage	Power	Weight
6010-101	18035R020PC1	35 PSI	5.5	120 - 60 Hz	1/2 HP	27.1
6010-102	18052R020PC1	52 PSI	7.0	120 - 60 Hz	3/4 HP	27.7
6010-110	18035R020PC1SS	35 PSI	5.5	120 - 60 Hz	1/2 HP	27.1
6010-111	18052R020PC1SS	52 PSI	7.0	120 - 60 Hz	3/4 HP	27.7

E-Series DuraMAC™ Booster Pump

Sizing Information

E-Series DuraMAC™ Booster Systems are designed to shut off when no flow is detected. Pump total pressure boost should be added to current household system pressure to determine total system pressure when boosted. Note: It is not recommended to exceed 80 PSI total boosted household pressure.

Example:
Household system pressure before boost = 30 PSI

30	+	____	=	____	*Not Recommended to Exceed 80 PSI
Household Pressure		Total Pump Pressure		Total Pressure After Boost	

Models Available:	**Boost**
18035R020PC1	+35
18052R020PC1	+52

30	+	35	=	65
Household Pressure		Total Pump Pressure		Total Pressure A ter Boost

Based on this example, the recommended model for this application is the 18035R020PC1.

For systems with fluctuating pressure, a pressure reducing valve is recommended to assure system pressure stays below 80 PSI.

Materials of Construction

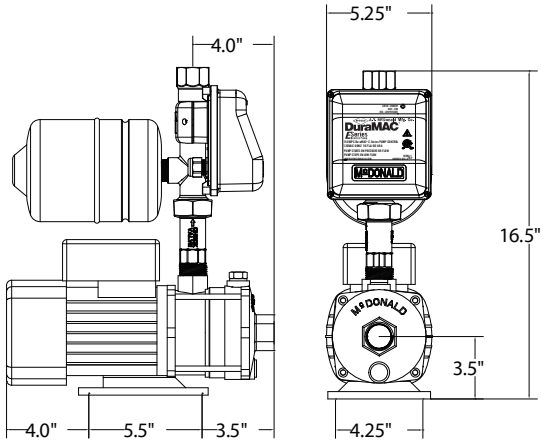
- Impellers	304 Stainless Steel
- Pump Casing Inlet	301 Stainless Steel
- Pump Casing Outlet	301 Stainless Steel
- Pump Seal (stationary)	Silicon Carbide
- Pump Seal (rotating)	Carbon / NBR
- Diffuser	30 Stainless Steel
- Check Valve	No-Lead Brass / Stainless Steel
- Pump Controller Cross	No-Lead Brass / Stainless Steel

Sizing Chart

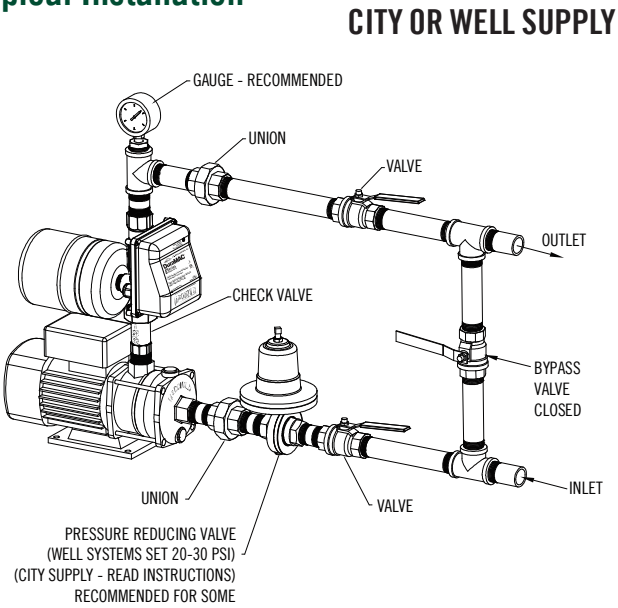
Total static pressure **DuraMAC™** pump

Incoming Pressure (PSI)	18035R020PC1 +35 PSI	18052R020PC1 +52 PSI
60	CONTACT FACTORY	
55		
50		
45	80	
40	75	
35	70	
30	65	
25	60	77
20	55	72
15	50	67
10	45	62

Dimensional Information



Typical Installation



DuraMAC™ - Residential Booster

Not all boosting applications require complicated boosting systems. The DuraMAC™ Boosting system is simple, versatile, sophisticated, and reliable. Quite simply, it is the world's most versatile boosting system for residential use.

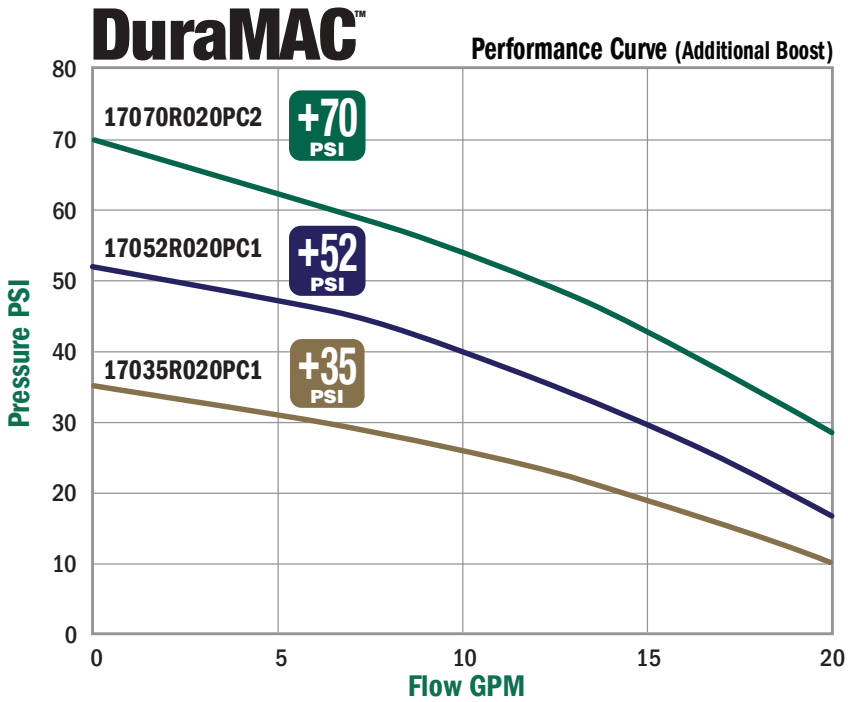
Features:

- Easy set-up installation
- Digital control for three modes of operation
- Durable stainless steel and no-lead brass connections
- Two gallon pressure tank included
- TEFC single phase motor for quiet operation
- Electronics separated and sealed from waterway
- Pressure gauge included
- No-Lead brass check valve included
- Dry-Run protection

3 YEAR LIMITED WARRANTY

See Pumps & Accessories Price List for Limited Warranty details.

NSF/ANSI/CAN 61 & 372



20 Gallon / Minute (GPM) Max

Part No.	DuraMAC™ Model	Pump Boost	Amps	Length "L"	Voltage	Power	*Pressure Reducing Valve Recommended for installation with incoming pressure greater than:	Wt.
6010-006	17035R020PC1	35 PSI	5.5	15.26"	120 - 60 Hz	1/2 HP	45 PSI	33
6010-007	17052R020PC1	52 PSI	7.0	15.97"	120 - 60 Hz	3/4 HP	28 PSI	37
6010-008	17070R020PC2	70 PSI	4.0	16.68"	230 - 60 Hz	1 HP	10 PSI (for use with holding tank)	40

*Many plumbing codes do not recommend system pressure exceeding 80 PSI. Refer to local plumbing codes for maximum boosted pressure.

DuraMAC™ - Residential Booster

Sizing Information

DuraMAC™ Booster Systems are designed to shut off when no flow is detected. Pump pressure boost should be added to current system pressure to determine total system pressure when boosted.

Example:
Household system pressure before boost = 30 PSI

Household Pressure	+	Total Pump Pressure	=	Total Pressure After Boost	*Not Recommended to Exceed 80 PSI
30	+	_____	=	_____	

Models Available:

	Boost
17035R020PC1	+35
17052R020PC1	+52
17070R020PC2	+70

Household Pressure	+	Total Pump Pressure	=	Total Pressure After Boost
30	+	35	=	65

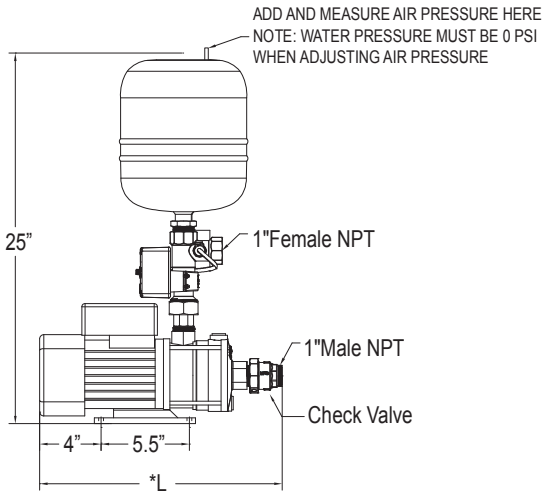
Based on this example, the recommended model for this application is the 17035R020PC1.

For systems with fluctuating pressure, a pressure reducing valve is recommended to assure system pressure stays below 80 PSI.

Materials of Construction

- Impellers	304 Stainless Steel
- Pump Casing Inlet	301 Stainless Steel
- Pump Casing Outlet	301 Stainless Steel
- Pump Seal (stationary)	Silicon Carbide
- Pump Seal (rotating)	Carbon / NBR
- Diffuser	304 Stainless Steel
- Check Valve	No-Lead Brass
- Pump Controller Cross	No-Lead Brass

Typical Installation

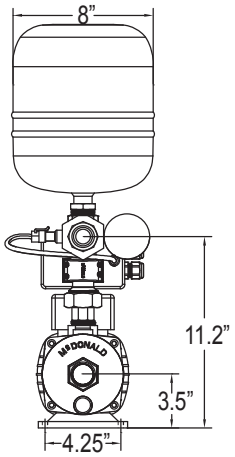


Sizing Chart

Total static pressure **DuraMAC™** pump

Incoming Pressure (PSI)	17035R020PC1 +35	17052R020PC1 +52	17070R020PC2 +70
60			
55			
50			
45			
40	7		
35	7		
30	65		
25	60	77	
20	55	72	
15	50	67	
10	45	62	80

CONTACT FACTORY



DuraMAC™ - Light Commercial & Irrigation

Not all boosting applications require complicated boosting systems. The DuraMAC™ Boosting system is simple, versatile, sophisticated, and reliable. With an easy set-up installation and a versatile control with three modes of operation, this pump is flexible enough to meet your commercial or irrigation needs.

Features:

- Easy set-up installation
- Digital control for three modes of operation
- Durable stainless steel and no-lead brass connections
- Two gallon pressure tank included
- TEFC single phase motor for quiet operation
- Electronics separated and sealed from waterway
- Pressure gauge included
- No-Lead brass check valve included
- Dry-Run protection

3 YEAR LIMITED WARRANTY

See Pumps & Accessories Price List for Limited Warranty details.

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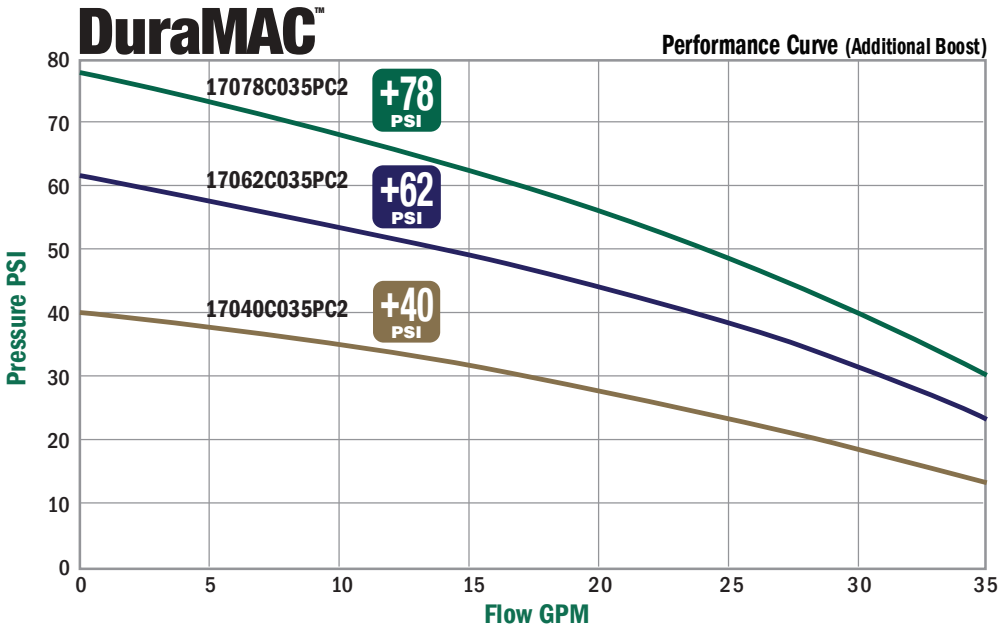


35 Gallon / Minute (GPM) Max

Part No.	DuraMAC™ Model	Pump Boost	Amps	Length "L"	Voltage	Power	*Pressure Reducing Valve Recommended for installation with incoming pressure greater than:	Wt.
6010-014	17040C035PC2	40 PSI	5.0	15.43"	230 - 60 Hz	1 HP	40 PSI	38
6010-015	17062C035PC2	62 PSI	6.3	16.49"	230 - 60 Hz	1 HP	18 PSI	41
6010-016	17078C035PC2	78 PSI	6.8	17.55"	230 - 60 Hz	1 1/2 HP	2 PSI (for use with holding tank)	35

*Many plumbing codes do not recommend system pressure exceeding 80 PSI. Refer to local plumbing codes for maximum boosted pressure.

DuraMAC™ - Light Commercial & Irrigation

Sizing Information

DuraMAC™ Booster Systems are designed to shut off when no flow is detected. Pump pressure boost should be added to current system pressure to determine total system pressure when boosted.

Example:
Household system pressure before boost = 30 PSI

Household Pressure	+	Total Pump Pressure	=	Total Pressure After Boost	
30	+	_____	=	_____	*Not Recommended to Exceed 80 PSI

Models Available:	**Boost**
17040C035PC2	+40
17062C035PC2	+62
17078C035PC2	+78

Household Pressure	+	Total Pump Pressure	=	Total Pressure After Boost
30	+	40	=	70

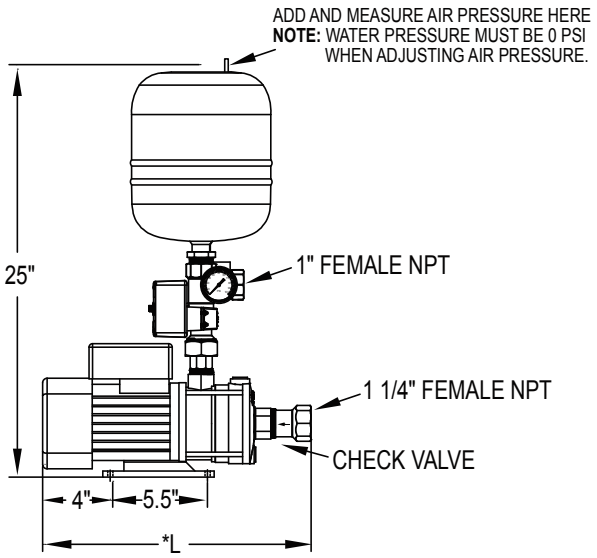
Based on this example, the recommended model for this application is the 17040C035PC2.

For systems with fluctuating pressure, a pressure reducing valve is recommended to assure system pressure stays below 80 PSI.

Materials of Construction

- Impellers	304 Stainless Steel
- Pump Casing Inlet	301 Stainless Steel
- Pump Casing Outlet	301 Stainless Steel
- Pump Seal (stationary)	Silicon Carbide
- Pump Seal (rotating)	Carbon / NBR
- Diffuser	304 Stainless Steel
- Check Valve	No-Lead Brass
- Pump Controller Cross	No-Lead Brass

Typical Installation

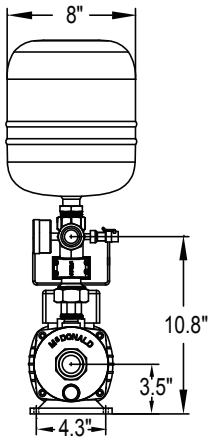


Sizing Chart

Total static pressure **DuraMAC**™ pump

Incoming Pressure (PSI)	170 C035PC2 +40 PSI	17062C035PC2 +62 PSI	17078C035PC2 +78 PSI
60			
55			
50			
45			
40	8		
35	7		
30	70		
25	65		
20	60		
15	55	77	
10	50	72	

CONTACT FACTORY



DuraMAC™ - Dual Mode Modular

Not all boosting applications require complicated boosting systems. The DuraMAC™ Boosting system is simple, versatile, sophisticated, and reliable. With a quick and easy installation, and unique digital control featuring dual modes of operation, this pump can meet your unique commercial or irrigation needs.

See Pumps & Accessories
Price List for Limited Warranty details.

Features:

- Easy set-up installation
- Digital control with dual modes of operation
- Durable stainless steel and no-lead brass connections
- TEFC single phase motor for quiet operation
- Electronics separated and sealed from waterway
- Pressure gauge included
- No-Lead brass check valve included (meets no-lead compliance)
- Standard, 1 year from install warranty applies

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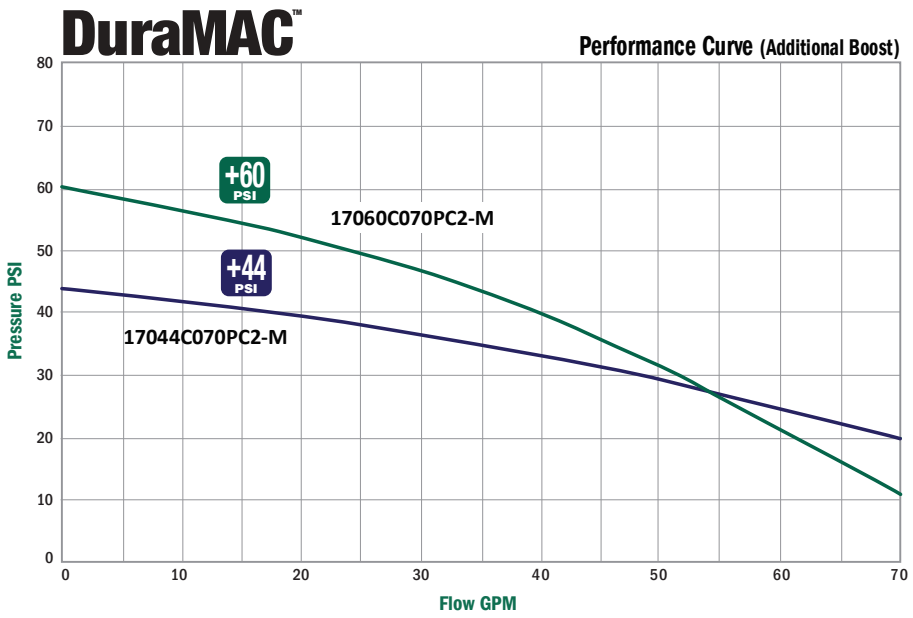
61 & 372



70 Gallon / Minute (GPM) Max

Part No.	DuraMAC™ Model	Description	Pump Boost	Amps	Voltage	Power	*Pressure Reducing Valve Recommended for installation with incoming pressure greater than:	Wt.
6011-005	17044C070PC2-M	230V Booster System	44 PSI	7.0	230 - 60 Hz	2 HP	36 PSI	56
6011-006	17060C070PC2-M	230V Booster System	60 PSI	8.0	230 - 60 Hz	2 HP	20 PSI	56

Pressure tank required. See instruction manual for sizing information.
*Many plumbing codes do not recommend system pressure exceeding 80 PSI. Refer to local plumbing codes for maximum boosted pressure.

DuraMAC™ - Dual Mode Modular

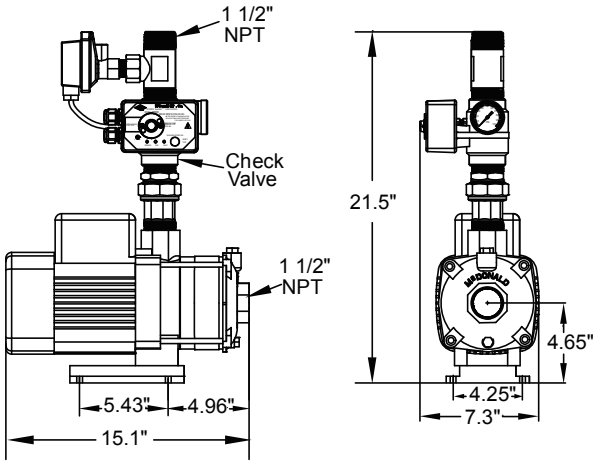
Control Features

The DuraMAC™ Dual-Mode control has the flexibility to be run in two different modes.

PRESSURE MODE
START METHOD: Pressure Drop
STOP METHOD: Low Flow

In Pressure Mode, the control accurately measures pressure with a pressure transducer and starts the pump at an adjustable start pressure point. The pump will stop when the flow is less than three Gallons per Minute.

This smart system will only run the pump when water is in use. There is a preset seven second delay after water is not flowing past the flow sensor to fully pressurize your system and eliminate water hammer.



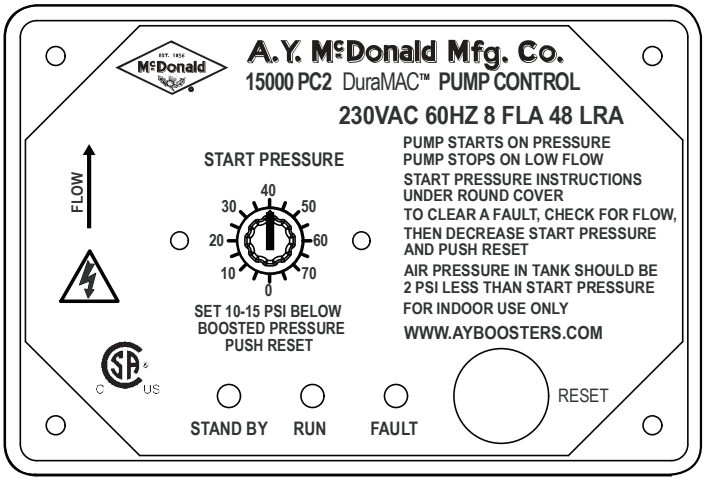
Dual-Mode Modular Shown.
Skid mounted Simplex and Duplex available.

FLOW MODE
START METHOD: Water Flow
STOP METHOD: Low Flow

In Flow Mode, the control will start and stop on flow, regardless of pressure. This method can be used for systems with minor leaking or when incoming pressure varies. The starting flow rate is approximately five Gallons per Minute. The pump will stop when the flow is less than three Gallons per Minute.

Materials of Construction

- Impellers	304 Stainless Steel
- Pump Casing Inlet	301 Stainless Steel
- Pump Casing Outlet	30 Stainless Steel
- Pump Seal (stationary)	Silicon Carbide
- Pump Seal (rotating)	Carbon / NBR
- Diffuser	304 Stainless Steel
- Union Connection	No-Lead Brass
- Check Valve	No-Lead Brass
- Pump Control	No-Lead Brass
- Motor - Single Phase	2 HP TEFC



DuraMAC™ - Dual Mode Simplex

Not all boosting applications require complicated boosting systems. The DuraMAC™ Boosting system is simple, versatile, sophisticated, and reliable. With the ability to pump up to 70 GPM this unique pump is ideal for commercial or irrigation use.

Features:

- Easy set-up installation
- Digital control with dual modes of operation
- Durable stainless steel and no-lead brass connections
- TEFC single phase motor for quiet operation
- Electronics separated and sealed from waterway
- Pressure gauge included
- No-Lead brass check valve included
- Up to 70 GPM
- 20 gallon pressure tank included
- Stainless steel base
- Dry run protection
- Standard, 1 year from install warranty applies

See Pumps & Accessories Price List for Limited Warranty details.

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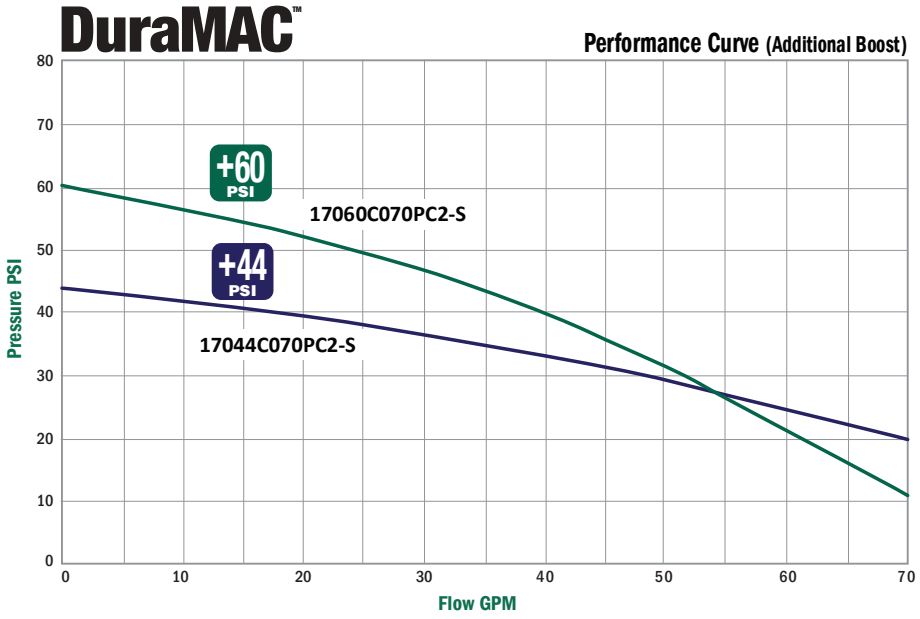


70 Gallon / Minute (GPM) Max

Part No.	DuraMAC™ Model	Description	Pump Boost	Amps	Voltage	Power	*Pressure Reducing Valve Recommended for installation with incoming pressure greater than:	Wt.
6011-001	17044C070PC2-S	230V Booster System	44 PSI	7.0	230 - 60 Hz	2 HP	36 PSI	168
6011-003	17060C070PC2-S	230V Booster System	60 PSI	8.0	230 - 60 Hz	2 HP	20 PSI	168

Pressure tank required. See instruction manual for sizing information.

*Many plumbing codes do not recommend system pressure exceeding 80 PSI. Refer to local plumbing codes for maximum boosted pressure.

DuraMAC™ - Dual Mode Simplex

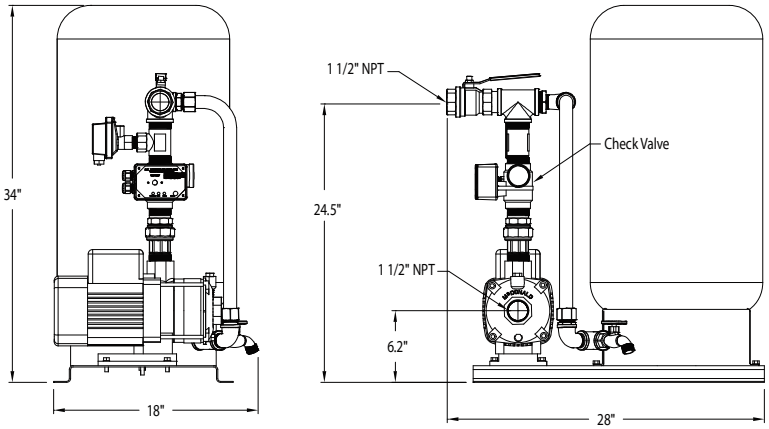
Control Features

The DuraMAC™ Dual-Mode control has the flexibility to be run in two different modes.

PRESSURE MODE
START METHOD: Pressure Drop
STOP METHOD: Low Flow

In Pressure Mode, the control accurately measures pressure with a pressure transducer and starts the pump at an adjustable start pressure point. The pump will stop when the flow is less than three Gallons per Minute.

This smart system will only run the pump when water is in use. There is a preset seven second delay after water is not flowing past the flow sensor to fully pressurize your system and eliminate water hammer.



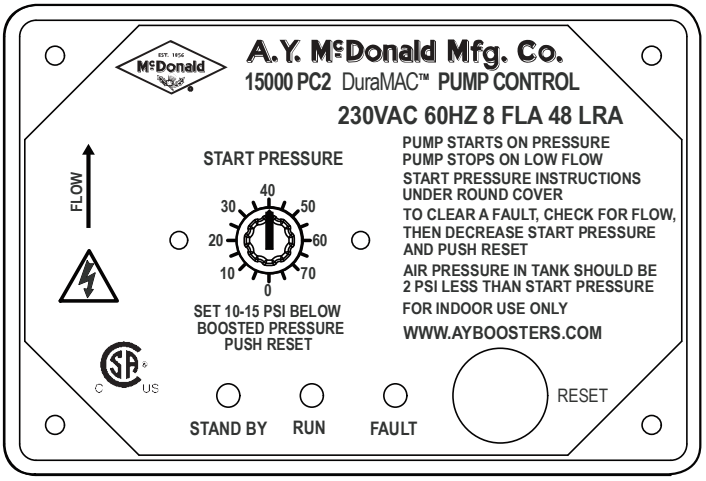
Simplex base mounted with 20 gallon tank.

FLOW MODE
START METHOD: Water Flow
STOP METHOD: Low Flow

In Flow Mode, the control will start and stop on flow, regardless of pressure. This method can be used for systems with minor leaking or when incoming pressure varies. The starting flow rate is approximately five Gallons per Minute. The pump will stop when the flow is less than three Gallons per Minute.

Materials of Construction

- Impellers	304 Stainless Steel
- Pump Casing Inlet	301 Stainless Steel
- Pump Casing Outlet	301 Stainless Steel
- Pump Seal (stationary)	Silicon Carbide
- Pump Seal (rotating)	Carbon / NBR
- Diffuser	304 Stainless Steel
- Union Connection	No-Lead Brass
- Check Valve	No-Lead Brass
- Pump Control	No-Lead Brass
- Motor - Single Phase	2 HP TEFC
- Base	304 Stainless Steel



DuraMAC™ - Dual Mode Duplex

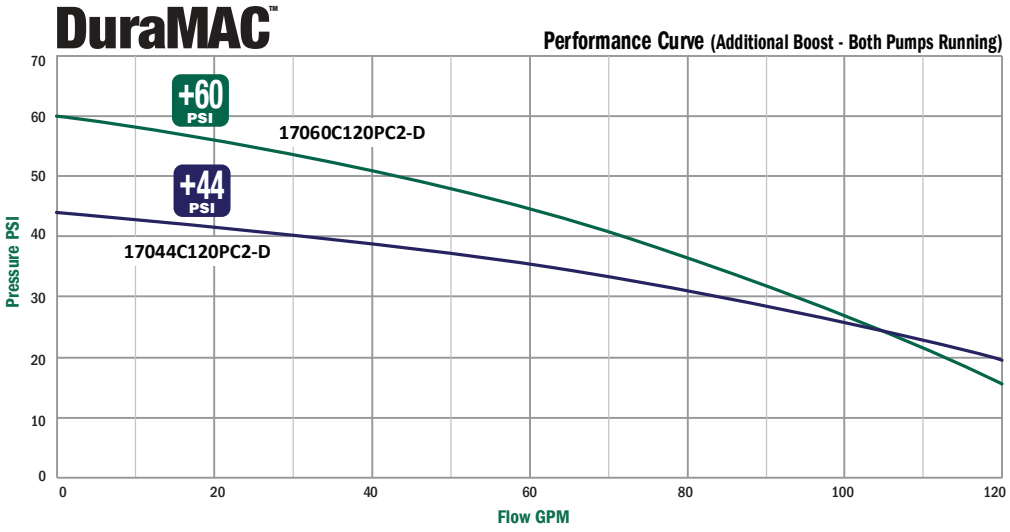
Not all boosting applications require complicated boosting systems. The DuraMAC™ Boosting system is simple, versatile, sophisticated, and reliable. Quite simply, it is the world's most versatile boosting system for commercial or irrigation use.

Features:

- Easy set-up installation
- Digital control with dual modes of operation
- Durable stainless steel and no-lead brass connections
- TEFC single phase motor for quiet operation
- Electronics separated and sealed from waterway
- Pressure gauge included
- No-Lead brass check valve included
- Designed for Lead-Lag
- Up to 120 GPM
- 20 gallon pressure tank included
- Stainless steel base
- Dry run protection
- Standard, 1 year from install warranty applies

See Pumps & Accessories Price List for Limited Warranty details.

NSF/ANSI/CAN 61 & 372



120 Gallon / Minute (GPM) Max

Part No.	DuraMAC™ Model	Description	Pump Boost	Amps	Voltage	Power	*Pressure Reducing Valve Recommended for installation with incoming pressure greater than:	Wt.
6011-002	17044C120PC2-D	230V Booster System	44 PSI	7.0	230 - 60 Hz	2 HP	36 PSI	252
6011-004	17060C120PC2-D	230V Booster System	60 PSI	8.0	230 - 60 Hz	2 HP	20 PSI	252

Pressure tank required. See instruction manual for sizing information.

*Many plumbing codes do not recommend system pressure exceeding 80 PSI. Refer to local plumbing codes for maximum boosted pressure.

DuraMAC™ - Dual Mode Duplex

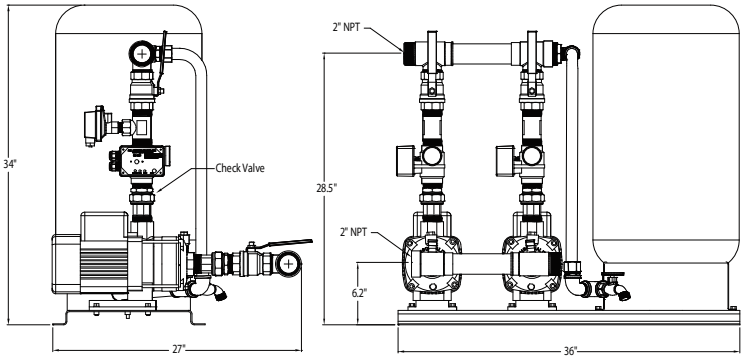
Control Features

The DuraMAC™ Dual-Mode control has the flexibility to be run in two different modes.

PRESSURE MODE
START METHOD: Pressure Drop
STOP METHOD: Low Flow

In Pressure Mode, the control accurately measures pressure with a pressure transducer and starts the pump at an adjustable start pressure point. The pump will stop when the flow is less than three Gallons per Minute.

This smart system will only run the pump when water is in use. There is a preset seven second delay after water is not flowing past the flow sensor to fully pressurize your system and eliminate water hammer.



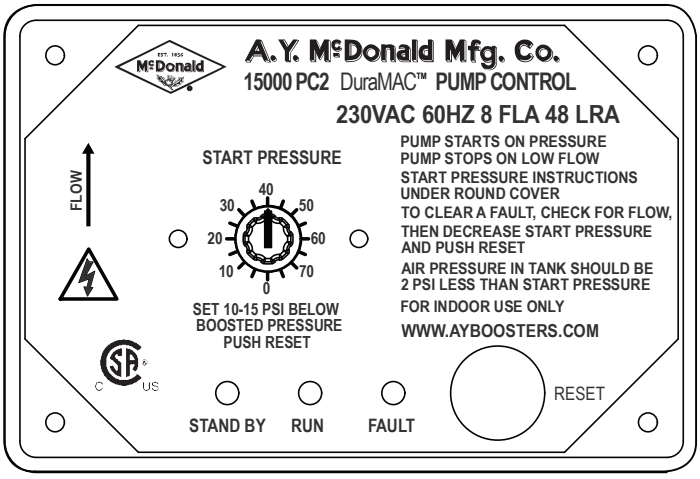
Duplex base mounted with 20-gallon tank 2" NPT manifolds with ball valves.

FLOW MODE
START METHOD: Water Flow
STOP METHOD: Low Flow

In Flow Mode, the control will start and stop on flow, regardless of pressure. This method can be used for systems with minor leaking or when incoming pressure varies. The starting flow rate is approximately five Gallons per Minute. The pump will stop when the flow is less than three Gallons per Minute.

Materials of Construction

- Impellers	304 Stainless Steel
- Pump Casing Inlet	301 Stainless Steel
- Pump Casing Outlet	301 Stainless Steel
- Pump Seal (stationary)	Silicon Carbide
- Pump Seal (rotating)	Carbon / NBR
- Diffuser	304 Stainless Steel
- Union Connection	No-Lead Brass
- Check Valve	No-Lead Brass
- Pump Control	No-Lead Brass
- Motor - Single Phase	2 HP TEFC
- Base	304 Stainless Steel



How to Order a Vertical Multistage Simplex / Duplex / Triplex System

Order by Model Number - Example: 17060V140Y-34

17	060	V	140	Y	-	3	4

Series

Water Pressure at 0 GPM
056
060
062
084
088
104
140
142
150

Variable Speed

GPM
080
120
140
160
240
280
360
420

Yaskawa Drive

Phase
1 - Single Phase
3 - Three Phase

Volts
4 - 460V
Leave blank for 208 / 230 volts (standard)

Models Available

- **Simplex Models**

17062V080Y-1
17062V080Y-3
17084V080Y-1
17084V080Y-3
17104V080Y-1
17104V080Y-3
1715 V080Y-3
17142V120Y-3
17056V120Y-1
17060V140Y-3
17088V140Y-3

Models Available

- **Duplex Models**

17062V160Y-1
17062V160Y-3
17084V160Y-1
17084V160Y-3
17104V160Y-1
17104V160Y-3
17150V160Y-3
17142V240Y-3
17056V240Y-1
17060V280Y-3
17088V280Y-3

Models Available

- **Triplex Models**

17056V360Y-1
170 V240Y-1
17062V240Y-3
17062V240Y-34
17084V240Y-1
17084V240Y-3
17084V240Y-34
17104V240Y-1
17104V240Y-3
17104V240Y-34
17150V240Y-3
17150V240Y-34
17142V360Y-3
17142V360Y-34
17060V420Y-3
17060V420Y-34
1708 V420Y-3
17088V420Y-34

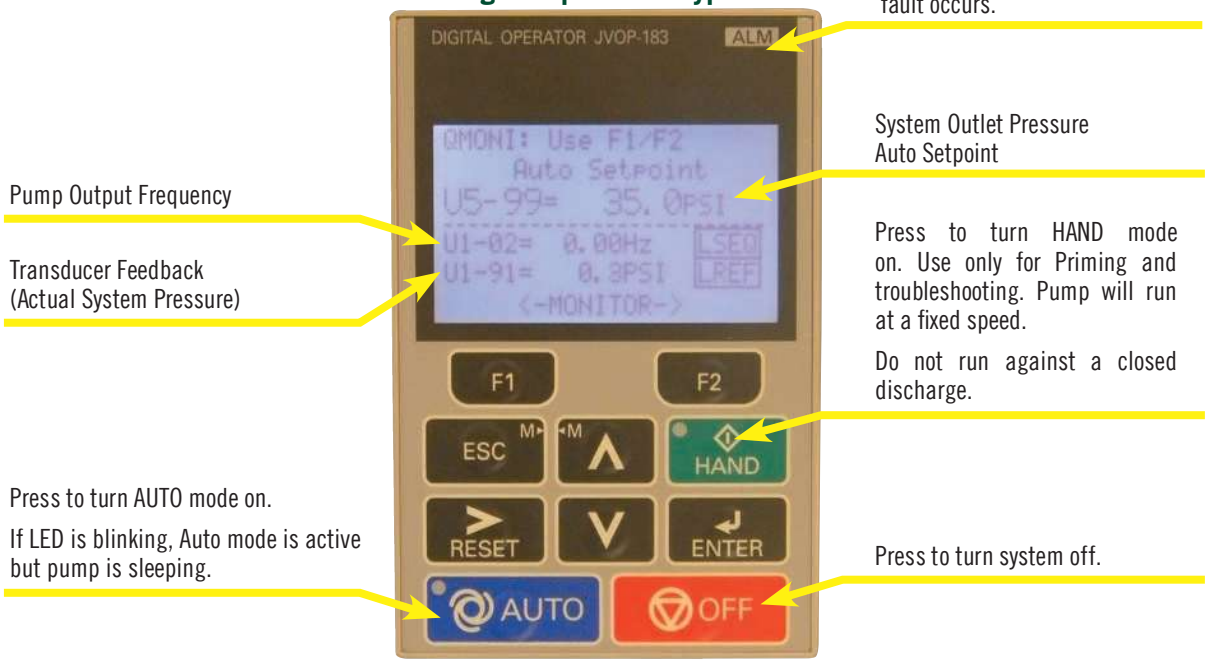
How It Works

The Yaskawa iQpump 1000 drive features powerful software combined with an internal PLC to deliver multiple features that are designed help protect the drive, pump, motor, and entire pumping system. While many of these features are factory programmed and set, many features depend on the specific pumping application and may be required to be set during install.

Changing certain parameters while the drive and pump are running may cause unwanted behavior. It is recommended to turn the drive off OFF before changing parameter values.

To return to home screen, hold ESC for 3 seconds, or press F1. The display should look similar to the one below. Once at the home screen, additional drive status can be viewed by pressing F2. Additional drive information includes output frequency, current, voltage, DC bus voltage, and kilowatts.

Digital Operator Keypad



DuraMAC™ Vertical Multistage Variable Speed Simplex / Duplex / Triplex Booster Pump Control Features

- Set it and forget it technology
- Factory set point at 50 PSI, but can be easily be changed in the field
- Extremely reliable
- Proven product
- Yaskawa Drive

DuraMAC™ - Vertical Multistage Variable Speed
Simplex Booster System

The DuraMAC™ Boosting system is simple, versatile, sophisticated, and reliable. The Vertical Multistage Variable Speed Booster System changes motor speed based on demands of the system, which allows users to save energy costs over traditional constant speed booster systems.

See Pumps & Accessories Price List for Limited Warranty details.

Features:

- Easy set-up installation
- Variable speed control
- Stainless steel pump
- Energy efficient NEMA TEFC motors
- Liquid filled gauges
- Wafer check valves with soft seat
- Stainless steel base
- 2” Brass No-Lead isolation valves
- NEMA 1 enclosure
- Suction and discharge transducers
- Fused disconnect
- 2” Suction and discharge
- **Certified to:**
  NSF/ANSI/CAN 61
  NSF/ANSI 372

Models Available

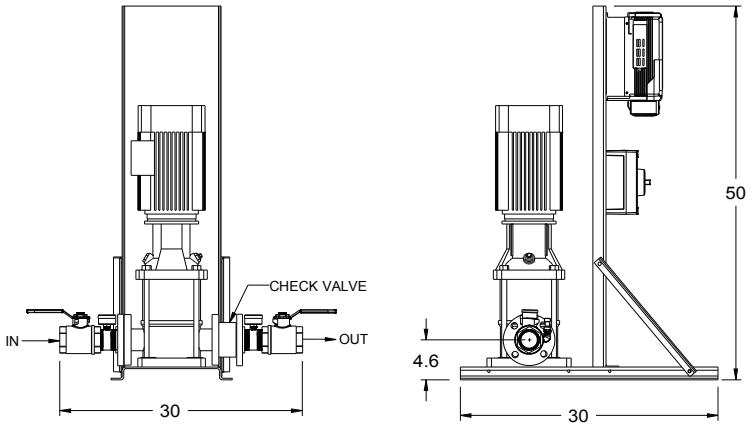
Model	Description	Pump Boost	Voltage	HP
17062V080Y-1	62 PSI 230V VFD Booster	62 PSI	208 - 230 - Single Phase	3
17062V080Y-3	62 PSI 230V VFD Booster	62 PSI	208 - 230 - Three Phase	3
17084V080Y-1	84 PSI 230V VFD Booster	84 PSI	208 - 230 - Single Phase	5
17084V080Y-3	84 PSI 230V VFD Booster	84 PSI	208 - 230 - Three Phase	5
17104V080Y-1	104 PSI 230V VFD Booster	104 PSI	208 - 230 - Single Phase	5
17104V080Y-3	104 PSI 230V VFD Booster	104 PSI	208 - 230 - Three Phase	5
17150V080Y-3	150 PSI 230V VFD Booster	150 PSI	208 - 230 - Three Phase	7 1/2
17142V120Y-3	142 PSI 230V VFD Booster	142 PSI	208 - 230 - Three Phase	10
17056V120Y-1	56 PSI 230V VFD Booster	56 PSI	208 - 230 - Single Phase	5
17060V140Y-3	60 PSI 230V VFD Booster	60 PSI	208 - 230 - Three Phase	5
17088V140Y-3	88 PSI 230V VFD Booster	88 PSI	208 - 230 - Three Phase	7 1/2

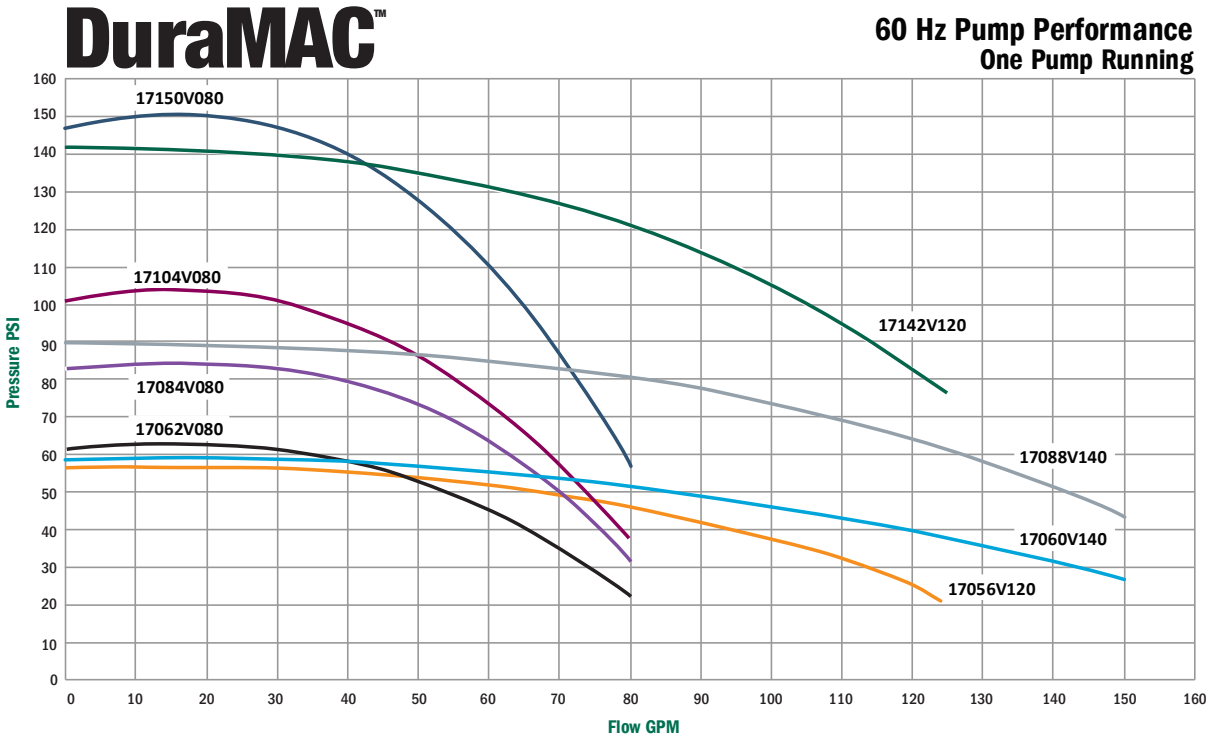
460 volt version also available

DuraMAC™ - Vertical Multistage Variable Speed
Simplex Booster System

Control Features

- Variable speed control, speeds up and slows down based on the demand of system, maintaining a constant pressure.
- Date and time stamp for all faults.
- Better system efficiency by applying only the power needed based on the load.
- Password protected parameter settings.
- Real time clock.
- No Flow Mode - puts pump to sleep during no flow conditions.
- Low Suction Alarm to prevent the pump from running if the incoming supply of water is interrupted.
- Internal monitors prevent the pump from running if a pipe is broken or demand exceeds capability.
- Live Zero protects the pump if the transducer cable is broken or damaged.





Materials of Construction

- Impellers	304 Stainless Steel
- Pump Casing Inlet	301 Stainless Steel
- Pump Casing Outlet	301 Stainless Steel
- Pump Seal (stationary)	Silicon Carbide
- Pump Seal (rotating)	Carbon / NBR
- Diffuser	304 Stainless Steel
- Base	304 Stainless Steel

DuraMAC™ - Vertical Multistage Variable Speed
Duplex Booster System

The DuraMAC™ Boosting system is simple, versatile, sophisticated, and reliable. The Vertical Multistage Variable Speed Booster System changes motor speed based on demands of the system, which allows users to save energy costs over traditional constant speed booster systems.

Features:

- Easy set-up installation
- Variable speed control
- Stainless steel pump
- Energy efficient NEMA TEFC motors
- Liquid filled gauges
- Wafer check valves with soft seat
- Stainless steel base
- 2” Brass No-Lead isolation valves
- NEMA 1 enclosure
- Suction and discharge transducers
- Fused disconnect
- 3” Flanged stainless steel manifolds
- **Certified to:**
  NSF/ANSI/CAN 61
  NSF/ANSI 372

See Pumps & Accessories
Price List for Limited Warranty details.

Models Available

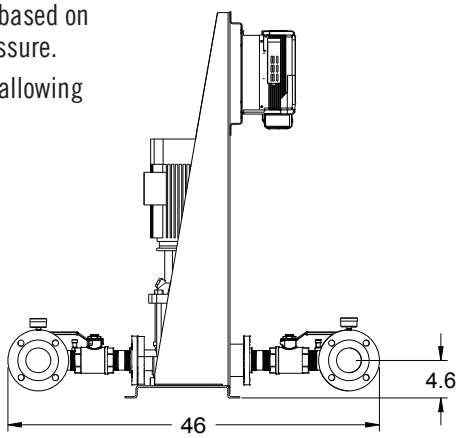
Model	Description	Pump Boost	Voltage	HP
17062V160Y-1	62 PSI 230V VFD Booster	62 PSI	208 - 230 - Single Phase	3
17062V160Y-3	62 PSI 230V VFD Booster	62 PSI	208 - 230 - Three Phase	3
17084V160Y-1	84 PSI 230V VFD Booster	84 PSI	208 - 230 - Single Phase	5
17084V160Y-3	84 PSI 230V VFD Booster	84 PSI	208 - 230 - Three Phase	5
17104V160Y-1	104 PSI 230V VFD Booster	104 PSI	208 - 230 - Single Phase	5
17104V160Y-3	104 PSI 230V VFD Booster	104 PSI	208 - 230 - Three Phase	5
17150V160Y-3	150 PSI 230V VFD Booster	150 PSI	208 - 230 - Three Phase	7 1/2
17142V240Y-3	142 PSI 230V VFD Booster	142 PSI	208 - 230 - Three Phase	10
17056V240Y-1	56 PSI 230V VFD Booster	56 PSI	208 - 230 - Single Phase	5
17060V280Y-3	60 PSI 230V VFD Booster	60 PSI	208 - 230 - Three Phase	5
17088V280Y-3	88 PSI 230V VFD Booster	88 PSI	208 - 230 - Three Phase	7 1/2

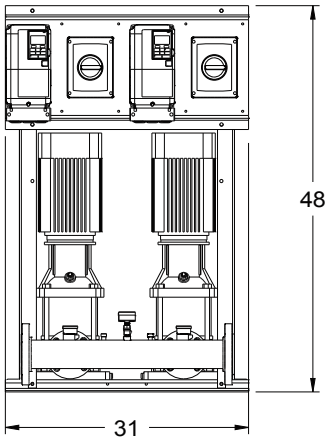
460 volt version also available

DuraMAC™ - Vertical Multistage Variable Speed
Duplex Booster System

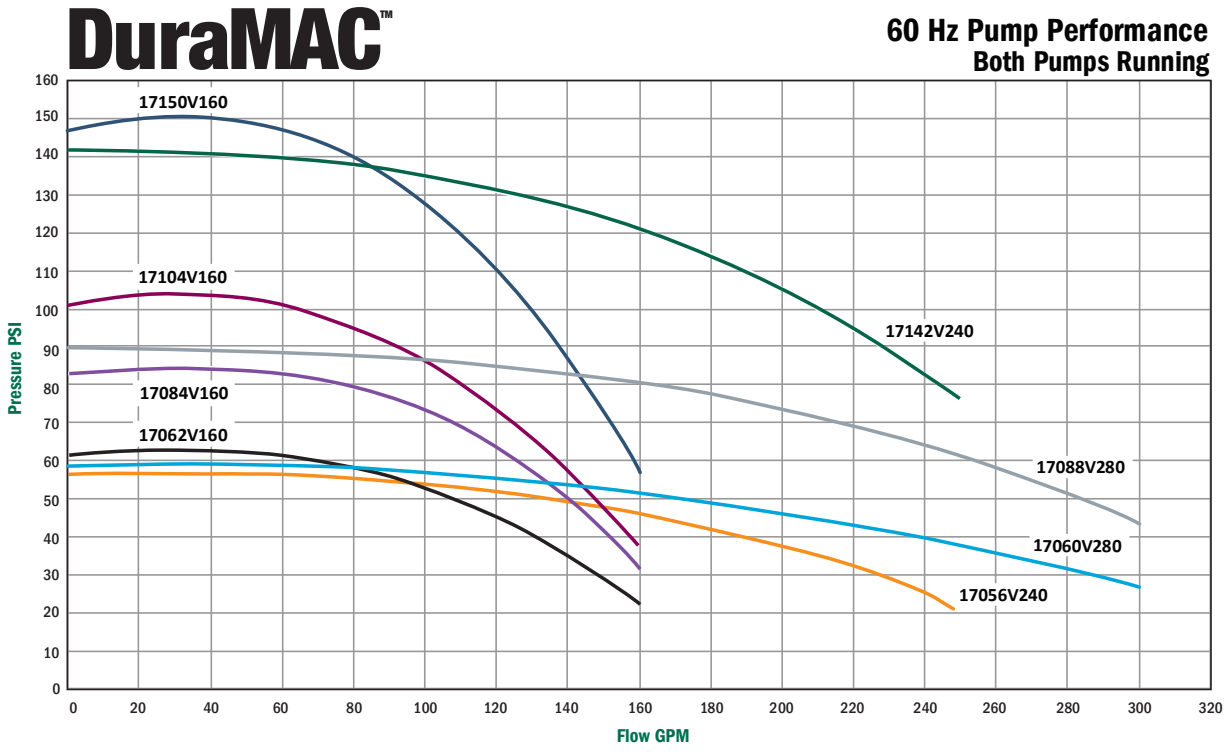
Control Features

- Variable speed control, speeds up and slows down based on the demand of system, maintaining a constant pressure.
- Lead - Lag pump control to alternate pump starts, allowing equal run times on all pumps for longer life cycles.
- Better system efficiency by applying only the power needed based on the load.
- Password protected parameter settings.
- Real time clock.
- No Flow Mode - puts pump to sleep during no flow conditions.
- Low Suction Alarm to prevent the pump from running if the incoming supply of water is interrupted.





- Internal monitors prevent the pump from running if a pipe is broken or demand exceeds capability.
- Live Zero protects the pump if the transducer cable is broken or damaged.
- Backup system transducer for pump and drive redundancy.



Materials of Construction

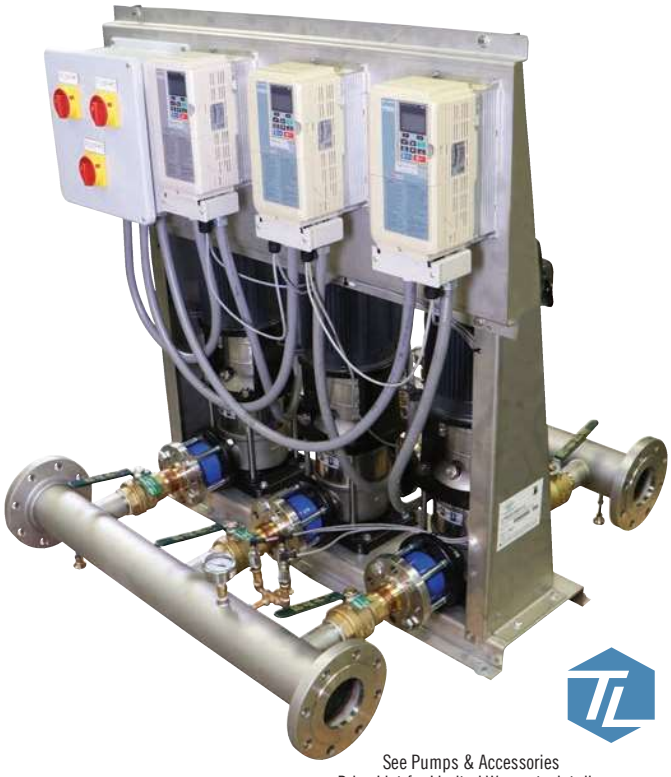
- Impellers	304 Stainless Steel
- Pump Casing Inlet	301 Stainless Steel
- Pump Casing Outlet	301 Stainless Steel
- Pump Seal (stationary)	Silicon Carbide
- Pump Seal (rotating)	Carbon / NBR
- Diffuser	304 Stainless Steel
- Base	304 Stainless Steel

DuraMAC™ - Vertical Multistage Variable Speed
Triplex Booster System

The DuraMAC™ Boosting system is simple, versatile, sophisticated, and reliable. The Vertical Multistage Variable Speed Booster System changes motor speed based on demands of the system, which allows users to save energy costs over traditional constant speed booster systems.

Features:

- Easy set-up installation
- Variable speed control
- Stainless steel pump
- Energy efficient NEMA TEFC motors
- Liquid filled gauges
- Wafer check valves with soft seat
- Stainless steel base
- 2" Brass No-Lead isolation valves
- NEMA 1 enclosure
- Suction and discharge transducers
- Fused disconnect
- 4" Flanged stainless steel manifolds
- **Certified to:**
  NSF/ANSI/CAN 61
  NSF/ANSI 372



See Pumps & Accessories
Price List for Limited Warranty details.

Models Available

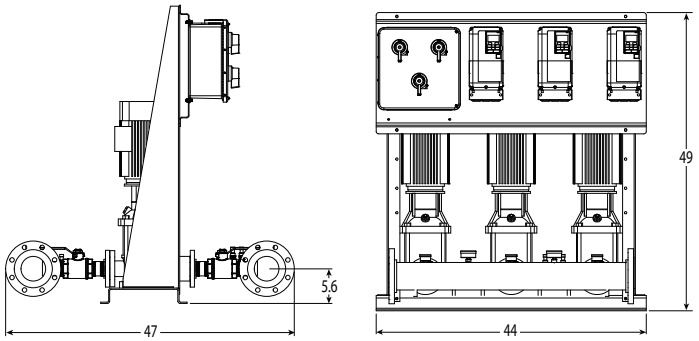
Model	Description	Pump Boost	Voltage	HP
17056V360Y-1	56 PSI 230V VFD Booster	56 PSI	208 - 230 - Single Phase	5
17062V240Y-1	62 PSI 230V VFD Booster	62 PSI	208 - 230 - Single Phase	3
17062V240Y-3	62 PSI 230V VFD Booster	62 PSI	208 - 230 - Three Phase	3
17084V240Y-1	84 PSI 230V VFD Booster	84 PSI	208 - 230 - Sinlge Phase	5
17084V240Y-3	84 PSI 230V VFD Booster	84 PSI	208 - 230 - Three Phase	5
17104V240Y-1	104 PSI 230V VFD Booster	104 PSI	208 - 230 - Single Phase	5
17104V240Y-3	104 PSI 230V VFD Booster	104 PSI	208 - 230 - Three Phase	5
17150V240Y-3	150 PSI 230V VFD Booster	150 PSI	208 - 230 - Three Phase	7 1/2
17142V360Y-3	142 PSI 230V VFD Booster	142 PSI	208 - 230 - Three Phase	10
17060V420Y-3	60 PSI 230V VFD Booster	60 PSI	208 - 230 - Three Phase	5
17088V420Y-3	88 PSI 230V VFD Booster	88 PSI	208 - 230 - Three Phase	7 1/2

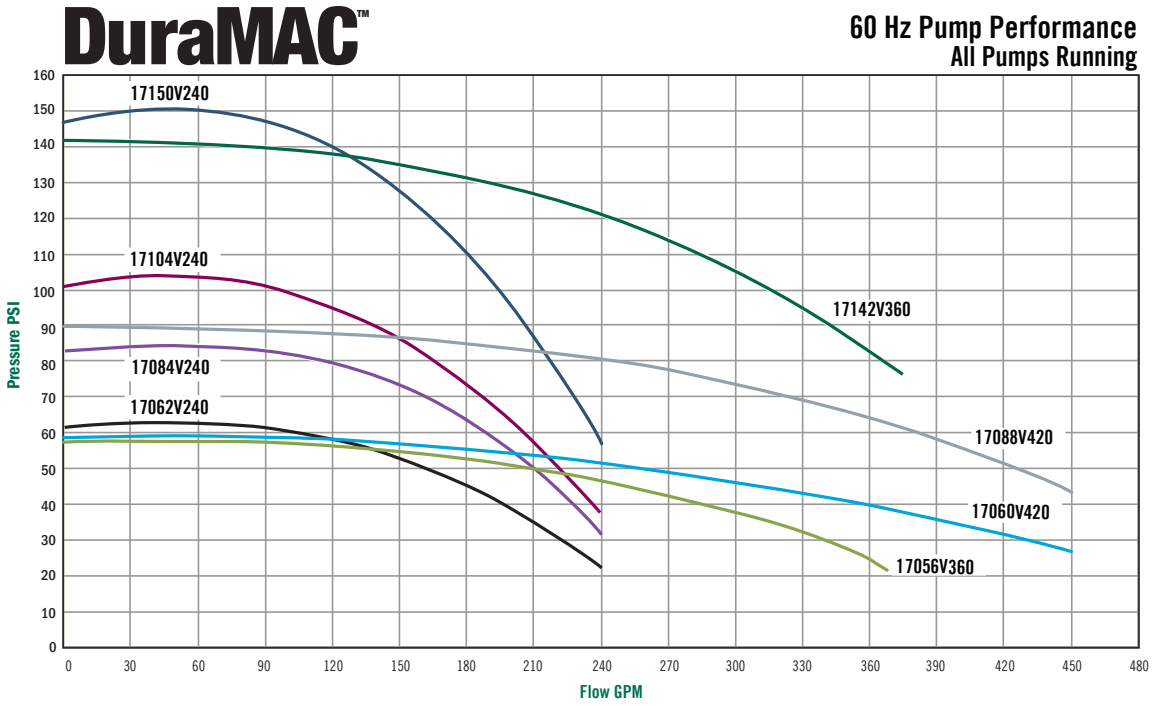
460 volt version also available

DuraMAC™ - Vertical Multistage Variable Speed
Triplex Booster System

Control Features

- Variable speed control, speeds up and slows down based on the demand of system, maintaining a constant pressure.
- Lead - Lag pump control to alternate pump starts, allowing equal run times on all pumps for longer life cycles.
- Better system efficiency by applying only the power needed based on the load.
- Password protected parameter settings.
- Real time clock.
- No Flow Mode - puts pump to sleep during no flow conditions.
- Low Suction Alarm to prevent the pump from running if the incoming supply of water is interrupted.
- Internal monitors prevent the pump from running if a pipe is broken or demand exceeds capability.
- Live Zero protects the pump if the transducer cable is broken or damaged.
- Backup system transducer for pump and drive redundancy.





Materials of Construction

- Impellers	304 Stainless Steel
- Pump Casing Inlet	301 Stainless Steel
- Pump Casing Outlet	30 Stainless Steel
- Pump Seal (stationary)	Silicon Carbide
- Pump Seal (rotating)	Carbon / NBR
- Diffuser	304 Stainless Steel
- Base	30 Stainless Steel

How to Order a Vertical Multistage Simplex / Duplex

Order by Model Number - Example: 17066V040Y-3

17	066	V	040	Y	-	3	
Series	**Water Pressure at 0 GPM** 066 103 110 122 140	**Variable Speed**	**GPM** 020 040 080	**Yaskawa Drive**		**Phase** **1** - Single Phase **3** - Three Phase	**Volts** Leave blank for 208 / 230 volts (standard)

Models Available

- **Simplex Models**

17103V020Y-1	1711 V040Y-3
17103V020Y-3	17110V040Y-3
17140V020Y-1	17122V040Y-1
17140V020Y-3	17122V040Y-3
17066V040Y-1	
17066V040Y-3	

Models Available

- **Duplex Models**

1710 V040Y-1	17110V080Y-3
17103V040Y-3	17110V080Y-3
17140V040Y-1	17122V080Y-1
17140V040Y-3	17122V080Y-3
17066V080Y-1	
17066V080Y-3	

How It Works

The Yaskawa iQpump micro drive features powerful software combined with an internal PLC to deliver multiple features that are designed help protect the drive, pump, motor, and entire pumping system. While many of these features are factory programmed and set, many features depend on the specific pumping application and may be required to be set during install.

Changing certain parameters while the drive and pump are running may cause unwanted behavior. It is recommended to turn the drive off OFF before changing parameter values.

To return to home screen, hold ESC for 3 seconds. The display should look similar to the one below. Once at the home screen, additional drive status can be viewed by pressing ∧. Additional drive information includes output frequency, current, voltage, DC bus voltage, and kilowatts.

Digital Operator Keypad

Alarm light blinks if alarm or fault occurs.

System Outlet Pressure Auto Setpoint

Press to turn HAND mode on. Use only for Priming and troubleshooting. Pump will run at a fixed speed.

Do not run against a closed discharge.

Press to turn AUTO mode on.

If LED is blinking, Auto mode is active but pump is sleeping.

Press to turn system off.

DuraMAC™ Vertical Multistage Variable Speed Simplex / Duplex Booster Pump Control Features

- Set it and forget it technology
- Factory set point at 50 PSI, but can be easily be changed in the field
- Extremely reliable
- Proven product
- Yaskawa Drive

DuraMAC™ - Vertical Multistage Variable Speed
Simplex Booster System

The DuraMAC™ 1 1/2 to 3 HP Vertical Multistage Variable Speed Simplex Booter capable of up to 140 PSI and 40 gallons per minute (GPM). It's simple, versatile, sophisticated, and reliable. The Vertical Multistage Variable Speed Booster System changes motor speed based on demands of the system, which allows users to save energy costs over traditional constant speed booster systems.

Features:

- Easy set-up installation
- Variable speed control
- Stainless steel pump
- Energy efficient NEMA TEFC motors
- Liquid filled gauge
- Stainless steel base
- NEMA 1 enclosure
- 1 1 " Suction & 1 1/4" Discharge
- Discharge transducer

NSF/ANSI/CAN 61 & 372

See Pumps & Accessories Price List for Limited Warranty details.

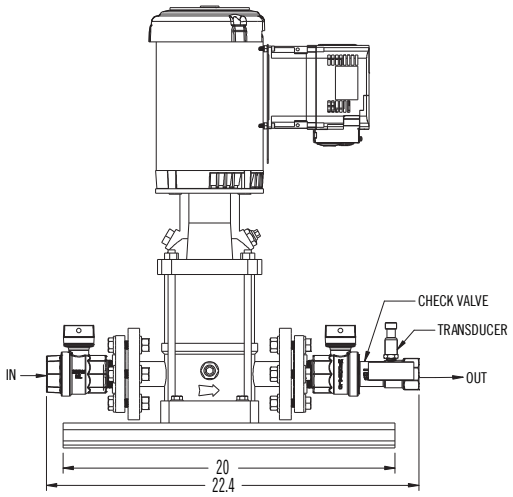
Models Available

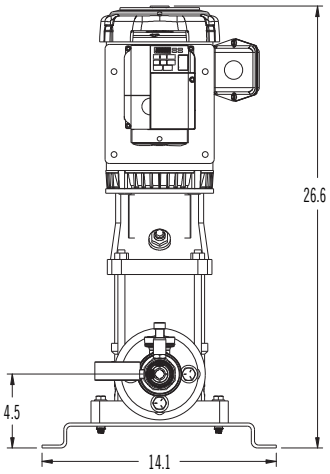
Model	Description	Pump Boost	Voltage	GPM	HP
17103V020Y-1	103 PSI 230V VFD Booster	103 PSI	230V Single Phase	20	1 1/2
17103V020Y-3	103 PSI 230V VFD Booster	103 PSI	230V Three Phase	20	1 1/2
17140V020Y-1	140 PSI 230V VFD Booster	140 PSI	230V Single Phase	20	2
17140V020Y-3	140 PSI 230V VFD Booster	140 PSI	230V Three Phase	20	2
17066V040Y-1	66 PSI 230V VFD Booster	66 PSI	230V Single Phase	40	2
17066V040Y-3	66 PSI 230V VFD Booster	66 PSI	230V Three Phase	40	2
17110V040Y-1	110 PSI 230V VFD Booster	110 PSI	230V Single Phase	40	3
17110V040Y-3	110 PSI 230V VFD Booster	110 PSI	230V Three Phase	40	3
17122V040Y-1	122 PSI 230V VFD Booster	122 PSI	230V Single Phase	40	3
17122V040Y-3	122 PSI 230V VFD Booster	122 PSI	230V Three Phase	40	3

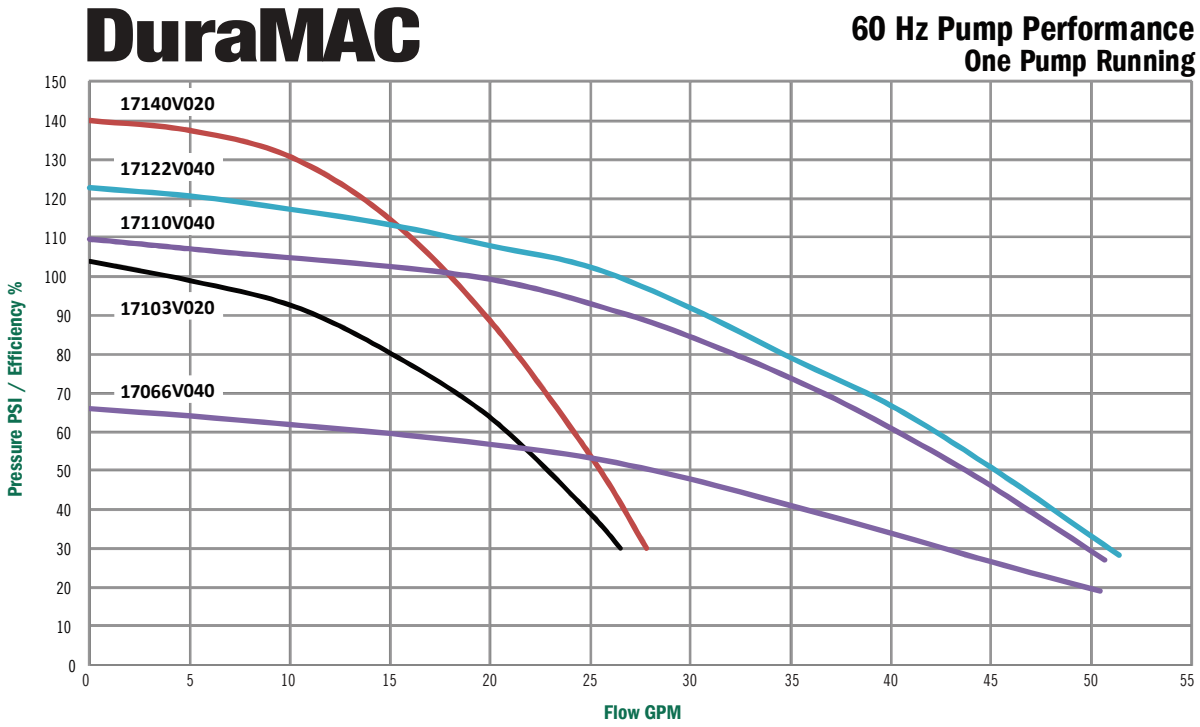
DuraMAC™ - Vertical Multistage Variable Speed
Simplex Booster System

Control Features

- Sleep Mode / Low Flow Protection
- Automatic system restart
- Sleep boost
- Dry run protection







Materials of Construction

- Impellers	304 Stainless Steel
- Pump Casing Inlet	301 Stainless Steel
- Pump Casing Outlet	301 Stainless Steel
- Pump Seal (stationary)	Silicon Carbide
- Pump Seal (rotating)	Carbon / NBR
- Diffuser	304 Stainless Steel
- Base	304 Stainless Steel

DuraMAC™ - Vertical Multistage Variable Speed
Duplex Booster System

The DuraMAC™ 1 1/2 to 3 HP Vertical Multistage Variable Speed Duplex Booter capable of up to 140 PSI and 80 gallons per minute (GPM). It's simple, versatile, sophisticated, and reliable. The Vertical Multistage Variable Speed Booster System changes motor speed based on demands of the system, which allows users to save energy costs over traditional constant speed booster systems.

Features:

- Easy set-up installation
- Variable speed control
- Stainless steel pump
- Energy efficient NEMA TEFC motors
- Liquid filled gauge
- Stainless steel base
- NEMA 1 enclosure
- Discharge transducers
- 2" NPT stainless steel manifolds

NSF/ANSI/CAN 61 & 372

See Pumps & Accessories Price List for Limited Warranty details.

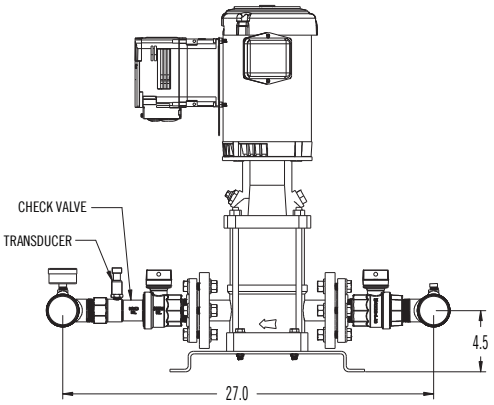
Models Available

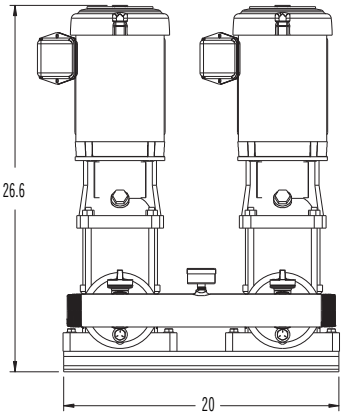
Model	Description	Pump Boost	Voltage	GPM	HP
17103V040Y-1	103 PSI 230V VFD Booster	103 PSI	230V Single Phase	40	1 1/2
17103V040Y-3	103 PSI 230V VFD Booster	103 PSI	230V Three Phase	40	1 1/2
17140V040Y-1	140 PSI 230V VFD Booster	140 PSI	230V Single Phase	40	2
17140V040Y-3	140 PSI 230V VFD Booster	140 PSI	230V Three Phase	40	2
17066V080Y-1	66 PSI 230V VFD Booster	66 PSI	230V Single Phase	80	2
17066V080Y-3	66 PSI 230V VFD Booster	66 PSI	230V Three Phase	80	2
17110V080Y-1	110 PSI 230V VFD Booster	110 PSI	230V Single Phase	80	3
17110V080Y-3	110 PSI 230V VFD Booster	110 PSI	230V Three Phase	80	3
17122V080Y-1	122 PSI 230V VFD Booster	122 PSI	230V Single Phase	80	3
17122V080Y-3	122 PSI 230V VFD Booster	122 PSI	230V Three Phase	80	3

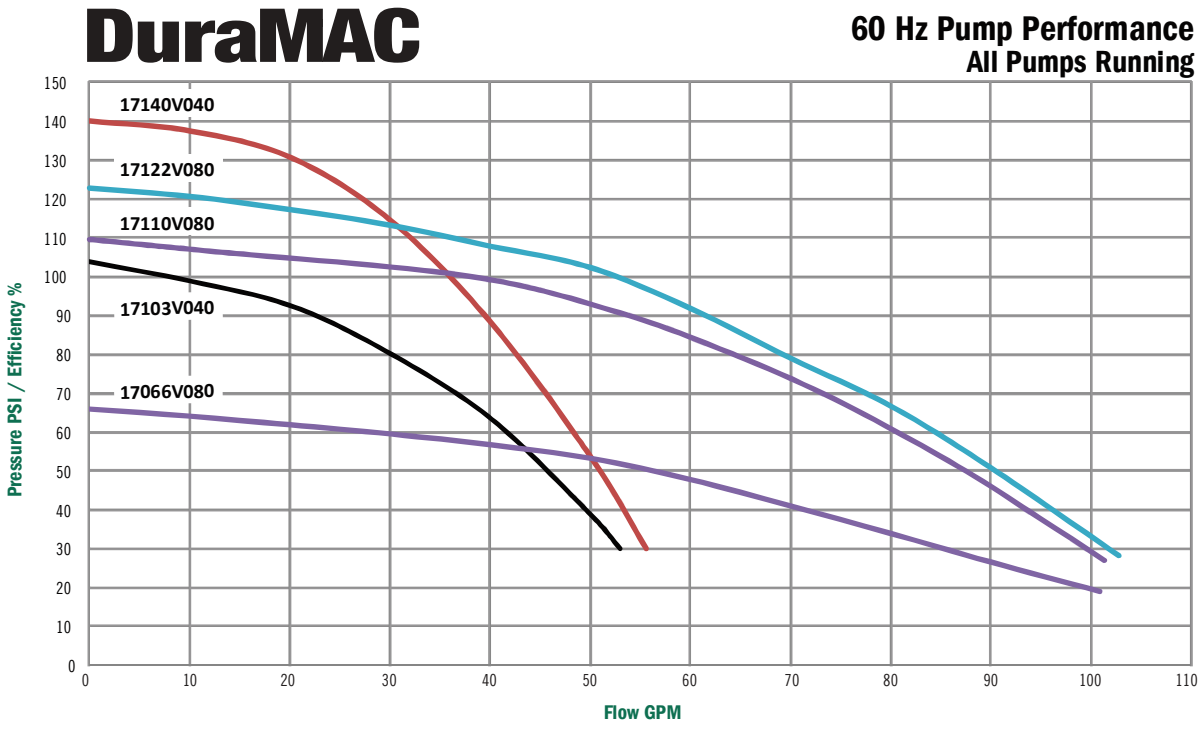
DuraMAC™ - Vertical Multistage Variable Speed
Duplex Booster System

Control Features

- Sleep Mode / Low Flow Protection
- Automatic system restart
- Sleep boost
- Dry run protection





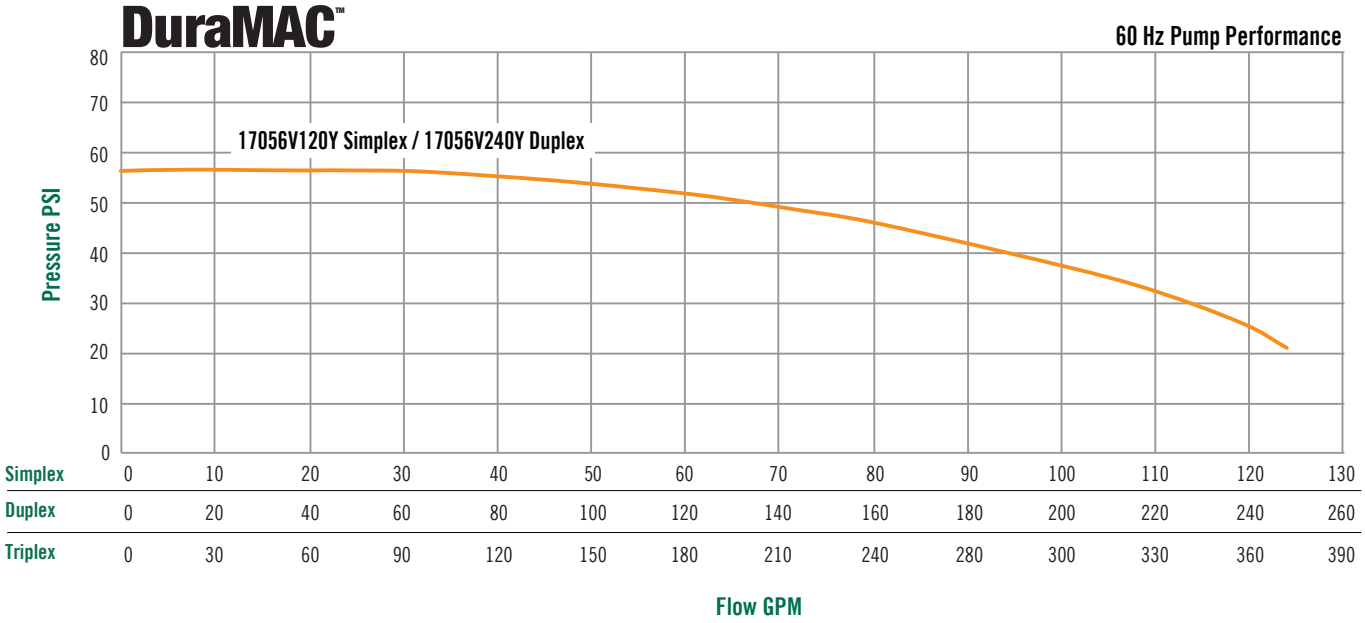


Materials of Construction

- Impellers	304 Stainless Steel
- Pump Casing Inlet	301 Stainless Steel
- Pump Casing Outlet	301 Stainless Steel
- Pump Seal (stationary)	Silicon Carbide
- Pump Seal (rotating)	Carbon / NBR
- Diffuser	304 Stainless Steel
- Base	304 Stainless Steel

DuraMAC™ - 17056V120Y Simplex / 17056V240Y Duplex 17056V360Y Triplex

Technical Information & Performance Curves



Technical Information

Max Boost	56 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
Electrical	208-230V 1 Phase
Base	304 Stainless Steel

Technical Information - Simplex

Model Number	17056V120Y-1
Max Flow	120 GPM
Tank Required	32 Gallon Minimum

Technical Information - Duplex

Model Number	17056V240Y-1
Max Flow	240 GPM
Tank Required	52 Gallon Minimum

Technical Information - Triplex

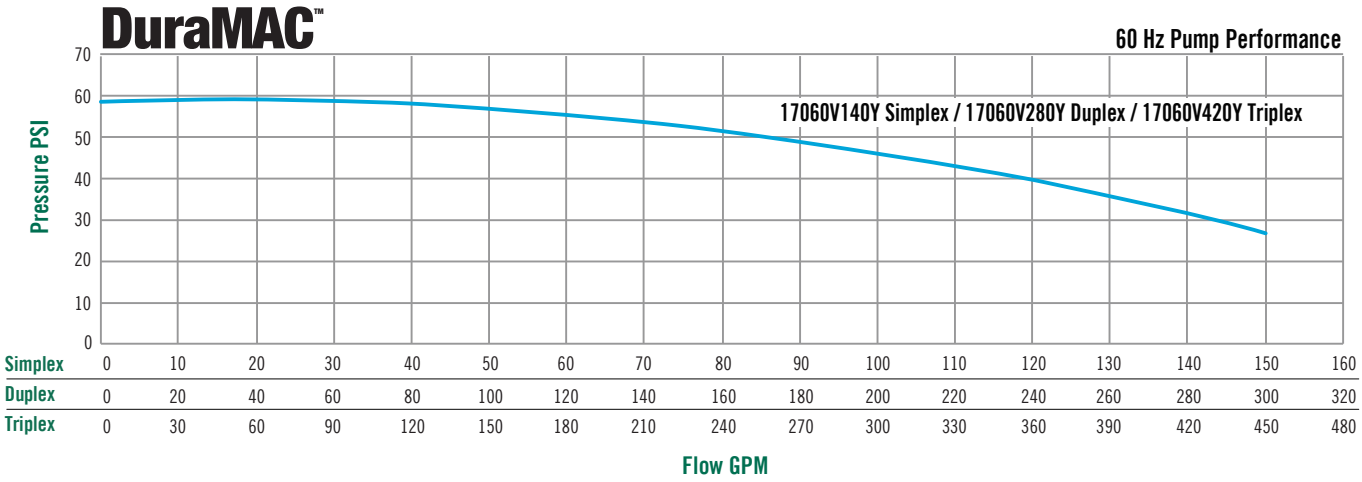
Model Number	17056V360Y-1
Max Flow	360 GPM
Tank Required	86 Gallon Minimum

Model	V120
PEI	0.94
Imp. Dia. (in)	4.11

A.Y. McDonald considers the information on this sheet correct when published. Specifications are subject to change with notice.

DuraMAC™ - 17060V140Y Simplex / 17060V280Y Duplex 17060V420Y Triplex

Technical Information & Performance Curves



Technical Information

Max Boost	60 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

Technical Information - Simplex

Model Number	17060V140Y-3
Max Flow	140 GPM
Electrical	208-230V 3 Phase
Tank Required	36 Gallon Minimum

Technical Information - Duplex

Model Number	17060V280Y-3
Max Flow	280 GPM
Electrical	208-230V 3 Phase
Tank Required	52 Gallon Minimum

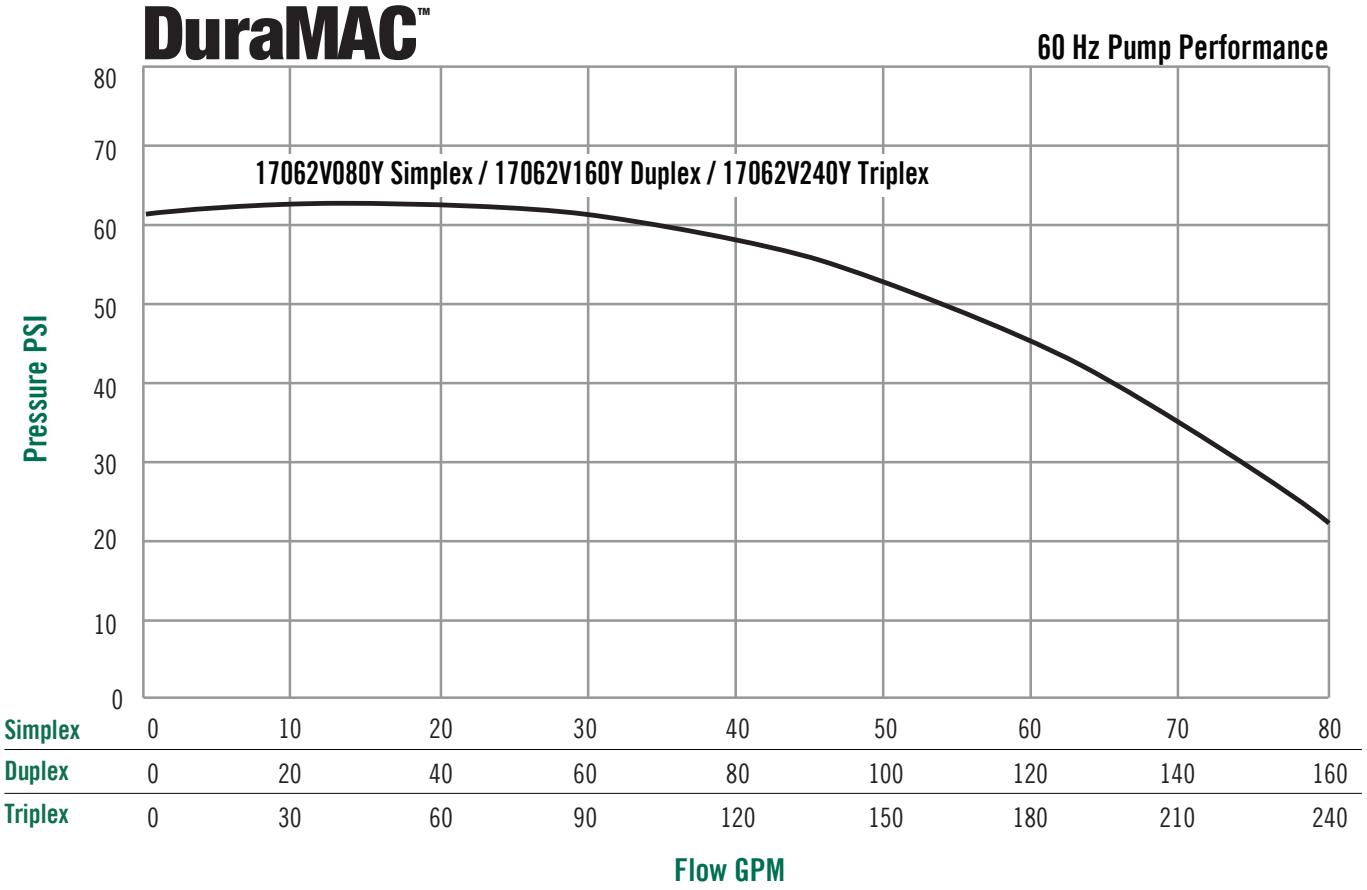
Technical Information - Triplex

Model Number	17060V420Y-3
Max Flow	420 GPM
Electrical	208-230V 3 Phase
Tank Required	86 Gallon Minimum

Model	V140
PEI	0.96
Imp. Dia. (in)	4.12

DuraMAC™ -17062V080Y Simplex / 17062V160Y Duplex 17062V240Y Triplex

Technical Information & Performance Curves



Technical Information

Max Boost	62 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 182TC
Horsepower	3
Seal Material	Carbon/Sic
Base	304 Stainless Steel

Technical Information - Simplex

Model Number	17062V080Y-1
Max Flow	80 GPM
Electrical	208-230V 1 Phase
Tank Required	20 Gallon Minimum
Model Number	17062V080Y-3
Max Flow	80 GPM
Electrical	208-230V 3 Phase
Tank Required	20 Gallon Minimum

Technical Information - Triplex

Model Number	17062V240Y-3
Max Flow	240 GPM
Electrical	208-230V 3 Phase
Tank Required	52 Gallon Minimum

Technical Information - Duplex

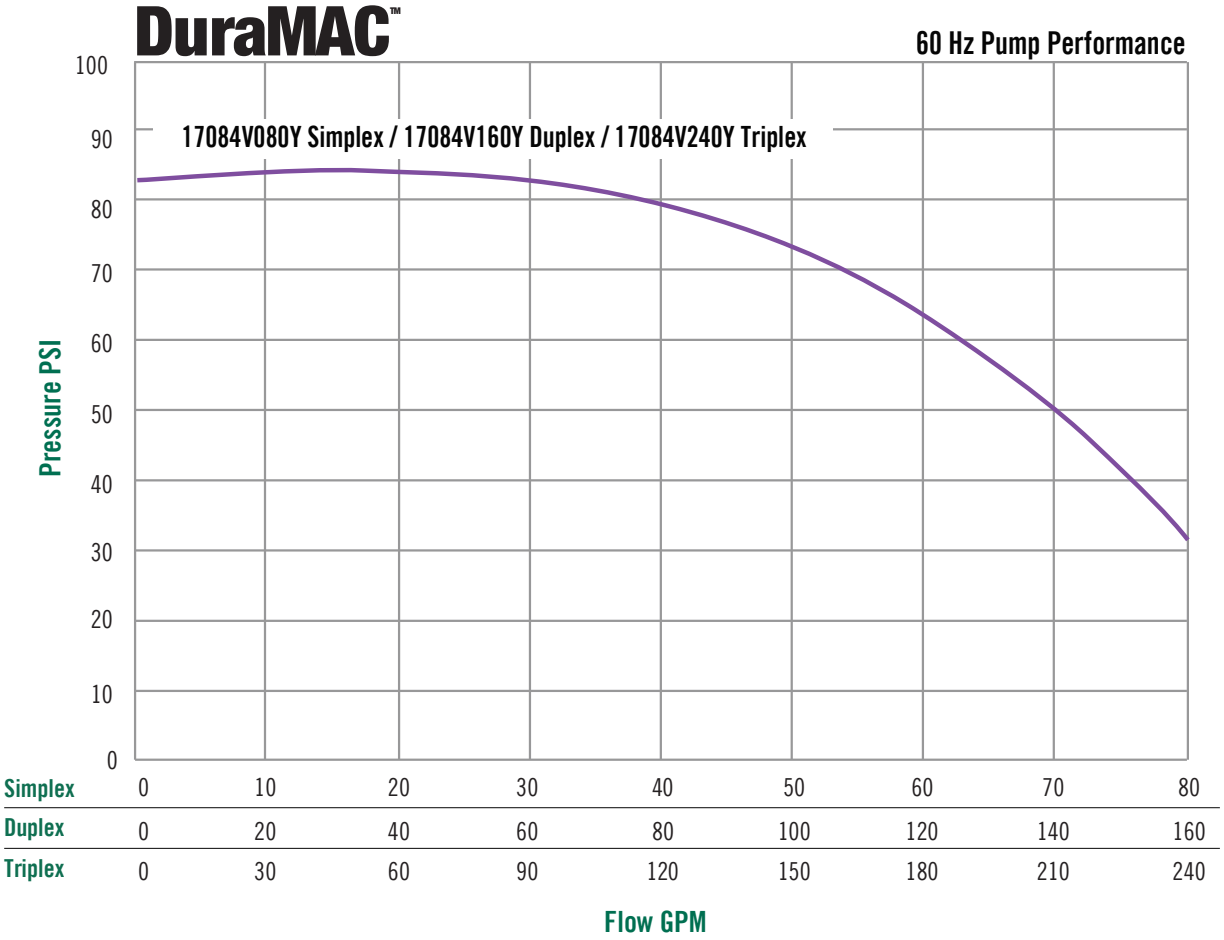
Model Number	17062V160Y-1
Max Flow	160 GPM
Electrical	208-230V 1 Phase
Tank Required	52 Gallon Minimum
Model Number	17062V160Y-3
Max Flow	160 GPM
Electrical	208-230V 3 Phase
Tank Required	52 Gallon Minimum
Model Number	17062V240Y-1
Max Flow	240 GPM
Electrical	208-230V 1 Phase
Tank Required	52 Gallon Minimum

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

A.Y. McDonald considers the information on this sheet correct when published. Specifications are subject to change with notice.

DuraMAC™ - 17084V080Y Simplex / 17084V160Y Duplex 17084V240Y Triplex

Technical Information & Performance Curves



Technical Information

Max Boost	84 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

Technical Information - Simplex

Model Number	17084V080Y-1
Max Flow	80 GPM
Electrical	208-230V 1 Phase
Tank Required	20 Gallon Minimum

Model Number	17084V080Y-3
Max Flow	80 GPM
Electrical	208-230V 3 Phase
Tank Required	20 Gallon Minimum

Technical Information - Triplex

Model Number	17084V240Y-3
Max Flow	240 GPM
Electrical	208-230V 3 Phase
Tank Required	52 Gallon Minimum

Technical Information - Duplex

Model Number	17084V160Y-1
Max Flow	160 GPM
Electrical	208-230V 1 Phase
Tank Required	52 Gallon Minimum

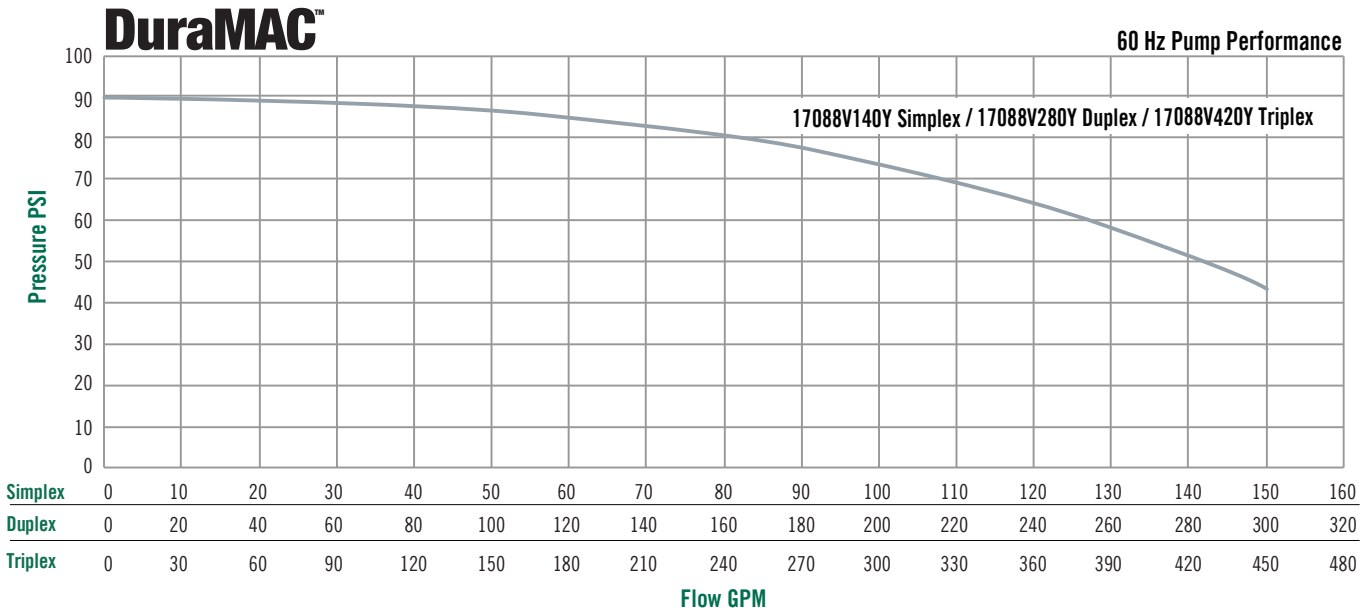
Model Number	17084V160Y-3
Max Flow	160 GPM
Electrical	208-230V 3 Phase
Tank Required	52 Gallon Minimum

Model Number	17084V240Y-1
Max Flow	240 GPM
Electrical	208-230V 1 Phase
Tank Required	52 Gallon Minimum

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

DuraMAC™ - 17088V140Y Simplex / 17088V280Y Duplex 17088V420Y Triplex

Technical Information & Performance Curves



Technical Information

Max Boost	88 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 213TC
Horsepower	7 1/2
Seal Material	Carbon/Sic
Electrical	208-230V 3 Phase
Base	304 Stainless Steel

Technical Information - Simplex

Model Number	17088V140Y-3
Max Flow	140 GPM
Tank Required	36 Gallon Minimum

Technical Information - Duplex

Model Number	17088V280Y-3
Max Flow	280 GPM
Tank Required	52 Gallon Minimum

Technical Information - Triplex

Model Number	17088V420Y-3
Max Flow	420 GPM
Tank Required	86 Gallon Minimum

Model	V140
PEI	0.96
Imp. Dia. (in)	4.12

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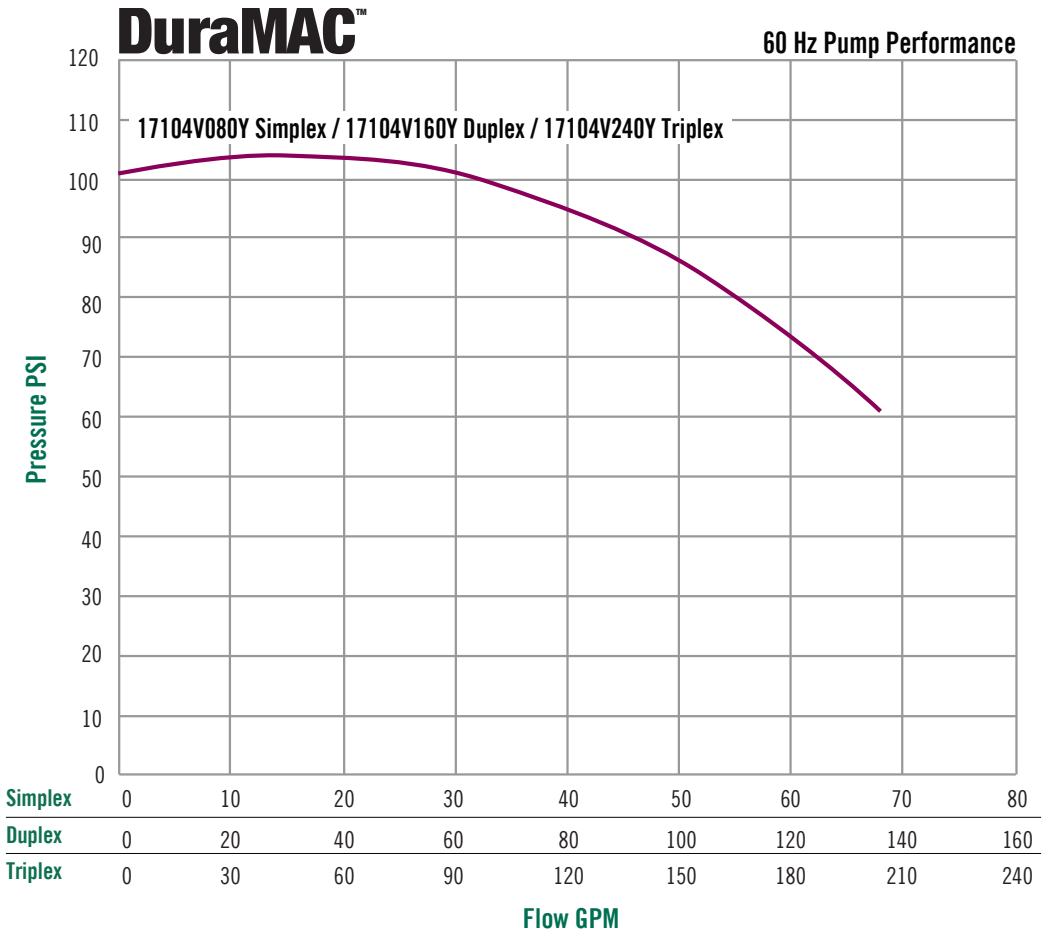
DuraMAC™ - 17104V080Y Simplex / 17104V160Y Duplex 17104V240V Triplex

Technical Information & Performance Curves



Technical Information

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

Technical Information - Simplex

Model Number	17104V080Y-1
Max Flow	80 GPM
Electrical	208-230V 1 Phase
Tank Required	20 Gallon Minimum

Model Number	17104V080Y-3
Max Flow	80 GPM
Electrical	208-230V 3 Phase
Tank Required	20 Gallon Minimum

Technical Information - Triplex

Model Number	17104V240Y-3
Max Flow	240 GPM
Electrical	208-230V 3 Phase
Tank Required	52 Gallon Minimum

Technical Information - Duplex

Model Number	17104V160Y-1
Max Flow	160 GPM
Electrical	208-230V 1 Phase
Tank Required	52 Gallon Minimum

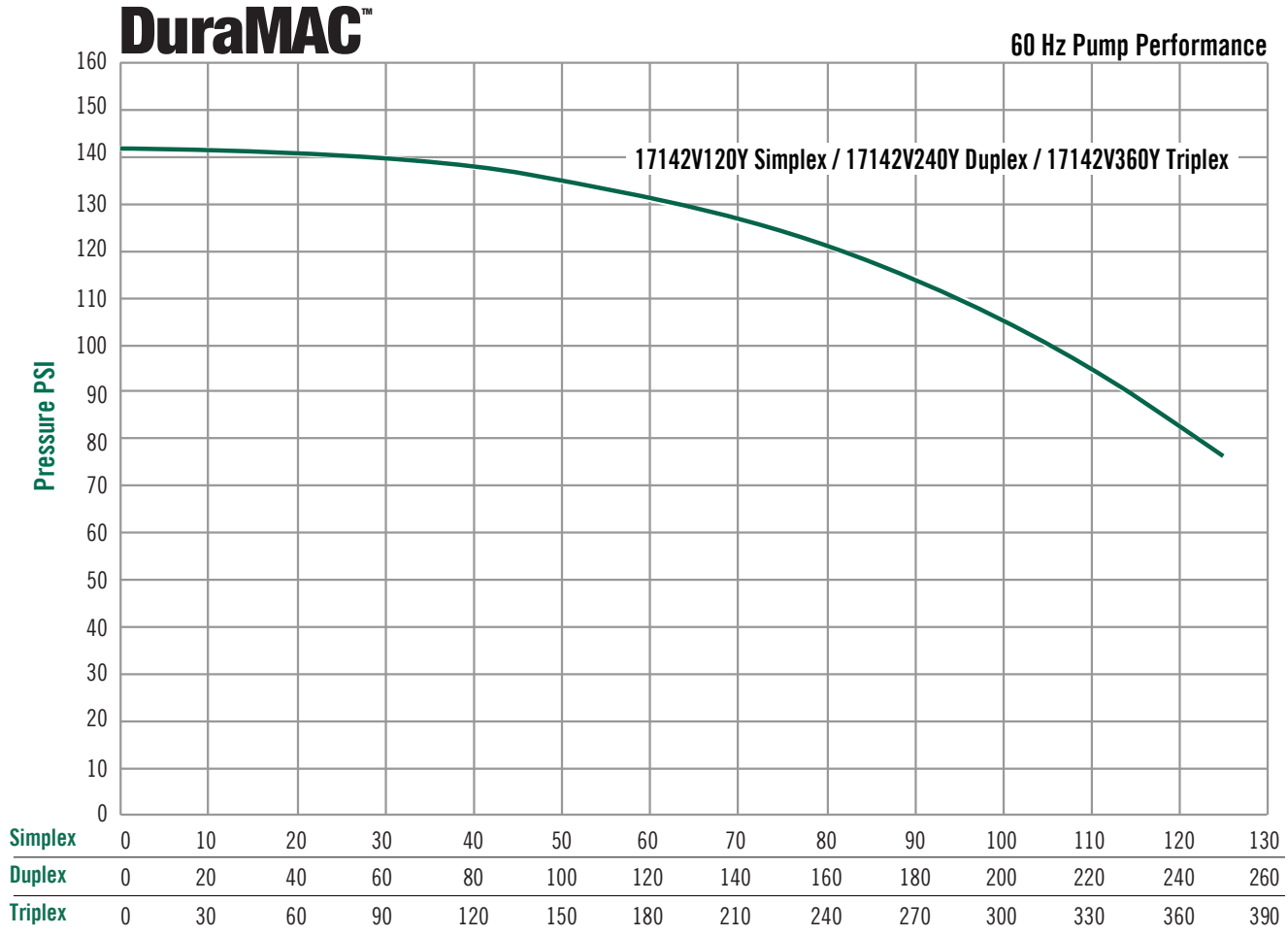
Model Number	17104V160Y-3
Max Flow	160 GPM
Electrical	208-230V 3 Phase
Tank Required	52 Gallon Minimum

Model Number	17104V240Y-3
Max Flow	240 GPM
Electrical	208-230V 1 Phase
Tank Required	52 Gallon Minimum

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

DuraMAC™ - 17142V120Y Simplex / 17142V240Y Duplex 17142V360Y Triplex

Technical Information & Performance Curves



Technical Information

Max Boost	142 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 215TC
Horsepower	10
Seal Material	Carbon/Sic
Electrical	208-230V 3 Phase
Base	304 Stainless Steel

Technical Information - Simplex

Model Number	17142V120Y-3
Max Flow	120 GPM
Tank Required	32 Gallon Minimum

Technical Information - Duplex

Model Number	17142V240Y-3
Max Flow	240 GPM
Tank Required	52 Gallon Minimum

Technical Information - Triplex

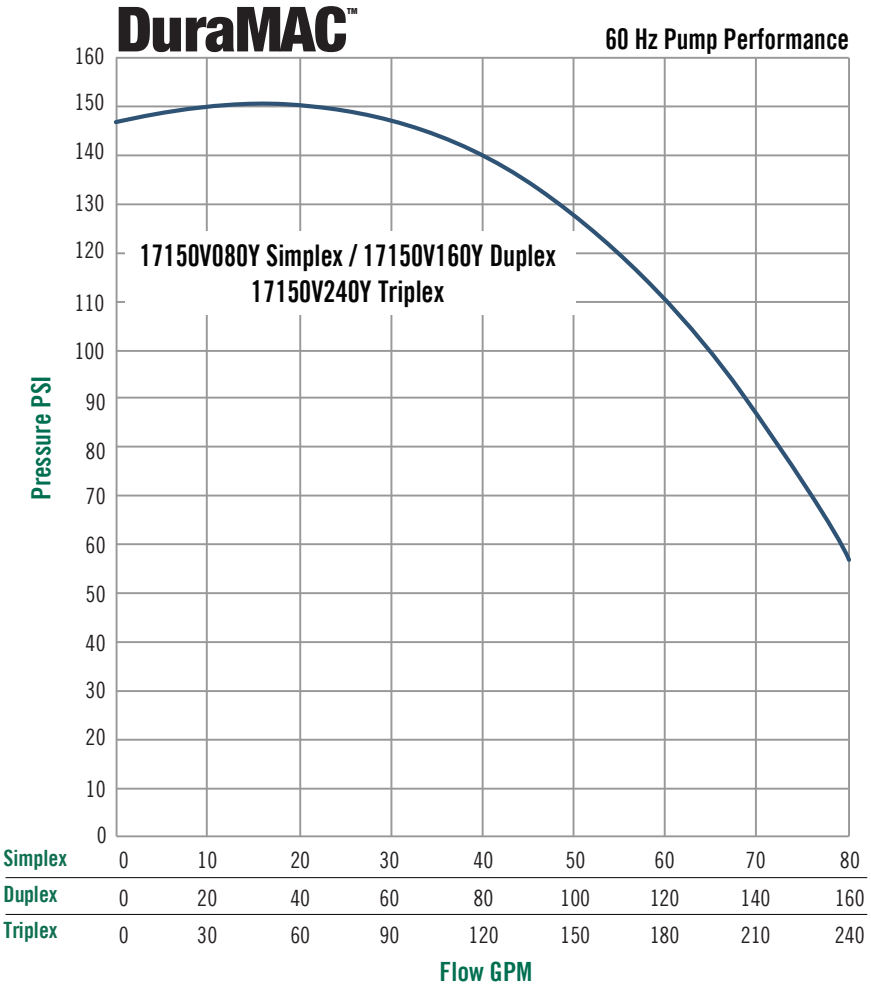
Model Number	17142V360Y-3
Max Flow	360 GPM
Tank Required	86 Gallon Minimum

Model	V120
PEI	0.94
Imp. Dia. (in)	4.11

A.Y. McDonald considers the information on this sheet correct when published. Specifications are subject to change with notice.

DuraMAC™ - 17150V080Y Simplex / 17150V160Y Duplex 17150V240Y Triplex

Technical Information & Performance Curves



Technical Information

Max Boost	150 PSI
Suction Transducer	0-200 PSI 4-20mA
Discharge Transducer	0-200 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 213TC
Horsepower	7 1/2
Seal Material	Carbon/Sic
Electrical	208-230V 3 Phase
Base	304 Stainless Steel

Technical Information - Simplex

Model Number	17150V080Y-3
Max Flow	80 GPM
Tank Required	20 Gallon Minimum

Technical Information - Duplex

Model Number	17150V160Y-3
Max Flow	160 GPM
Tank Required	52 Gallon Minimum

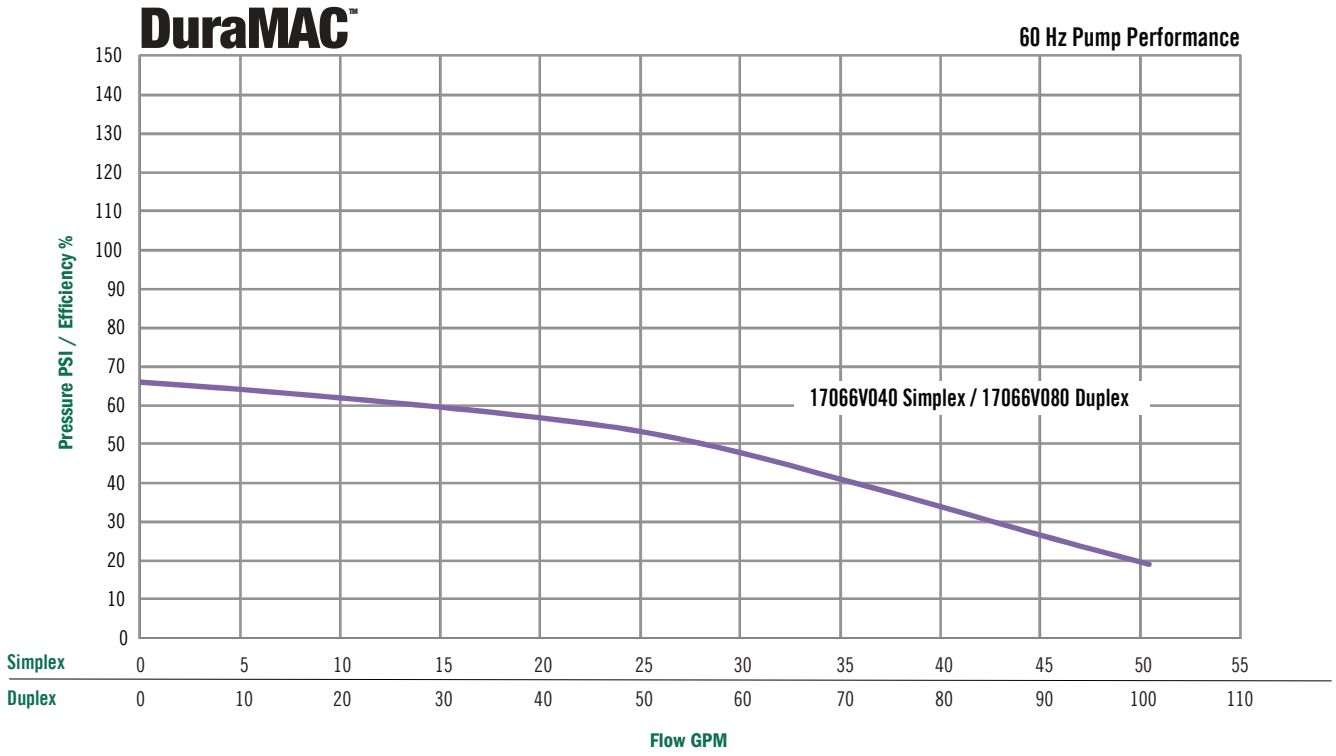
Technical Information - Triplex

Model Number	17150V240Y-3
Max Flow	240 GPM
Tank Required	52 Gallon Minimum

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

A.Y. McDonald considers the information on this sheet correct when published. Specifications are subject to change with notice.

DuraMAC™ - 17066V040 Simplex / 17066V080 Duplex
Technical Information & Performance Curves



Technical Information

Max Boost	66 PSI
Discharge Transducer	0-200 PSI 4-20mA
Drive - Yaskawa iQ Pump	NEMA 1
Suction Ball Valve	1 1/4" No-Lead Brass
Discharge Ball Valve	1 1/4" No-Lead Brass
Impeller	304 Stainless Steel
Pump End	304 Stainless Steel
Motor - Energy Eff.	TEFC 56C
Horsepower	2
Seal Material	Carbon/Sic
Base	304 Stainless Steel

Technical Information - Simplex

Model Number	17066V040Y-1
Max Flow	40 GPM
Electrical	208-230V 1 Phase
Tank Required	7.3 Gallon Minimum

Model Number	17066V040Y-3
Max Flow	40 GPM
Electrical	208-230V 3 Phase
Tank Required	7.3 Gallon Minimum

Technical Information - Duplex

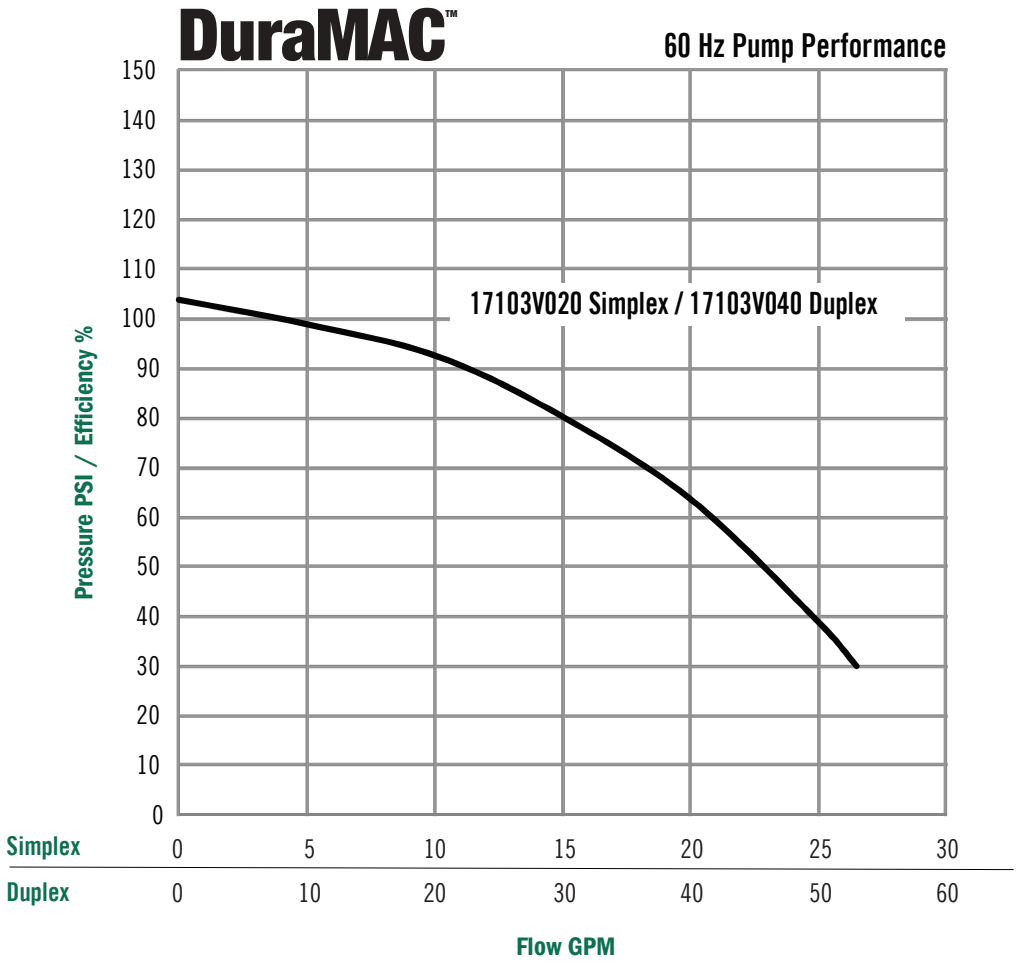
Model Number	17066V080Y-1
Max Flow	80 GPM
Electrical	208-230V 1 Phase
Tank Required	20 Gallon Minimum

Model Number	17066V080Y-3
Max Flow	80 GPM
Electrical	208-230V 3 Phase
Tank Required	20 Gallon Minimum

Model	V040
PEI	0.82
Imp. Dia. (in)	2.874

A.Y. McDonald considers the information on this sheet correct when published. Specifications are subject to change with notice.

DuraMAC™ - 17103V020 Simplex / 17103V040 Duplex
Technical Information & Performance Curves



Technical Information

Max Boost	103 PSI
Discharge Transducer	0-150 PSI 4-20mA
Drive - Yaskawa iQ Pump	NEMA 1
Suction Ball Valve	1 1/4" No-Lead Brass
Discharge Ball Valve	1 1/4" No-Lead Brass
Impeller	304 Stainless Steel
Pump End	304 Stainless Steel
Motor - Energy Eff.	TEFC 56C
Horsepower	1 1/2
Seal Material	Carbon/Sic
Base	304 Stainless Steel

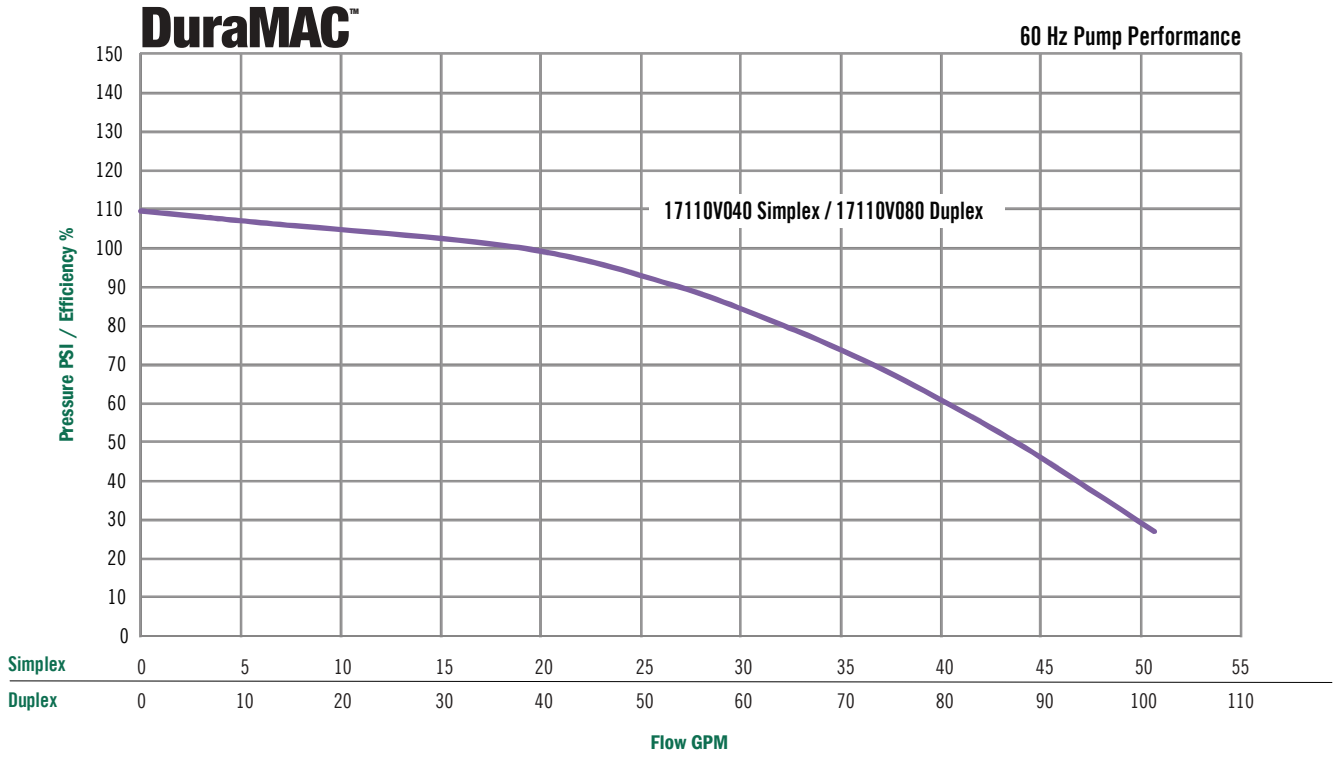
Technical Information - Simplex

Model Number	17103V020Y-1
Max Flow	20 GPM
Electrical	208-230V 1 Phase
Tank Required	7.3 Gallon Minimum
Model Number	17103V020Y-3
Max Flow	20 GPM
Electrical	208-230V 3 Phase
Tank Required	7.3 Gallon Minimum

Technical Information - Duplex

Model Number	17103V040Y-1
Max Flow	40 GPM
Electrical	208-230V 1 Phase
Tank Required	14 Gallon Minimum
Model Number	17103V040Y-3
Max Flow	40 GPM
Electrical	208-230V 3 Phase
Tank Required	14 Gallon Minimum

DuraMAC™ - 17110V040 Simplex / 17110V080 Duplex
Technical Information & Performance Curves



Technical Information

Max Boost	110 PSI
Discharge Transducer	0-200 PSI 4-20mA
Drive - Yaskawa iQ Pump	NEMA 1
Suction Ball Valve	1 1/4" No-Lead Brass
Discharge Ball Valve	1 1/4" No-Lead Brass
Impeller	304 Stainless Steel
Pump End	304 Stainless Steel
Motor - Energy Eff.	TEFC 56C
Horsepower	3
Seal Material	Carbon/Sic
Base	304 Stainless Steel

Technical Information - Simplex

Model Number	17110V040Y-1
Max Flow	40 GPM
Electrical	208-230V 1 Phase
Tank Required	7.3 Gallon Minimum

Model Number	17110V040Y-3
Max Flow	40 GPM
Electrical	208-230V 3 Phase
Tank Required	7.3 Gallon Minimum

Technical Information - Duplex

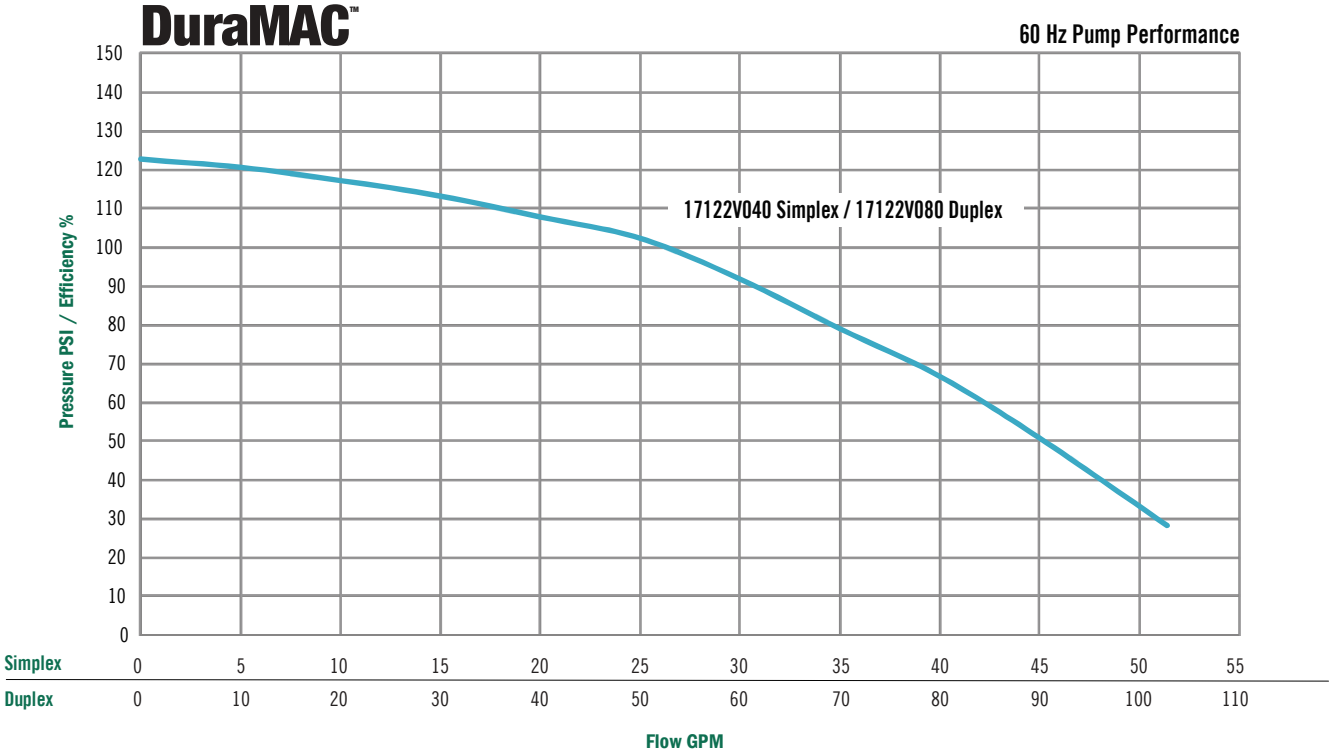
Model Number	17110V080Y-1
Max Flow	80 GPM
Electrical	208-230V 1 Phase
Tank Required	20 Gallon Minimum

Model Number	17110V080Y-3
Max Flow	80 GPM
Electrical	208-230V 3 Phase
Tank Required	20 Gallon Minimum

Model	V040
PEI	0.82
Imp. Dia. (in)	2.874

A.Y. McDonald considers the information on this sheet correct when published. Specifications are subject to change with notice.

DuraMAC™ - 17122V040 Simplex / 17122V080 Duplex
Technical Information & Performance Curves



Technical Information

Max Boost	122 PSI
Discharge Transducer	0-200 PSI 4-20mA
Drive - Yaskawa iQ Pump	NEMA 1
Suction Ball Valve	1 1/4" No-Lead Brass
Discharge Ball Valve	1 1/4" No-Lead Brass
Impeller	304 Stainless Steel
Pump End	304 Stainless Steel
Motor - Energy Eff.	TEFC 56C
Horsepower	3
Seal Material	Carbon/Sic
Base	304 Stainless Steel

Technical Information - Simplex

Model Number	17122V040Y-1
Max Flow	40 GPM
Electrical	208-230V 1 Phase
Tank Required	7.3 Gallon Minimum

Model Number	17122V040Y-3
Max Flow	40 GPM
Electrical	208-230V 3 Phase
Tank Required	7.3 Gallon Minimum

Technical Information - Duplex

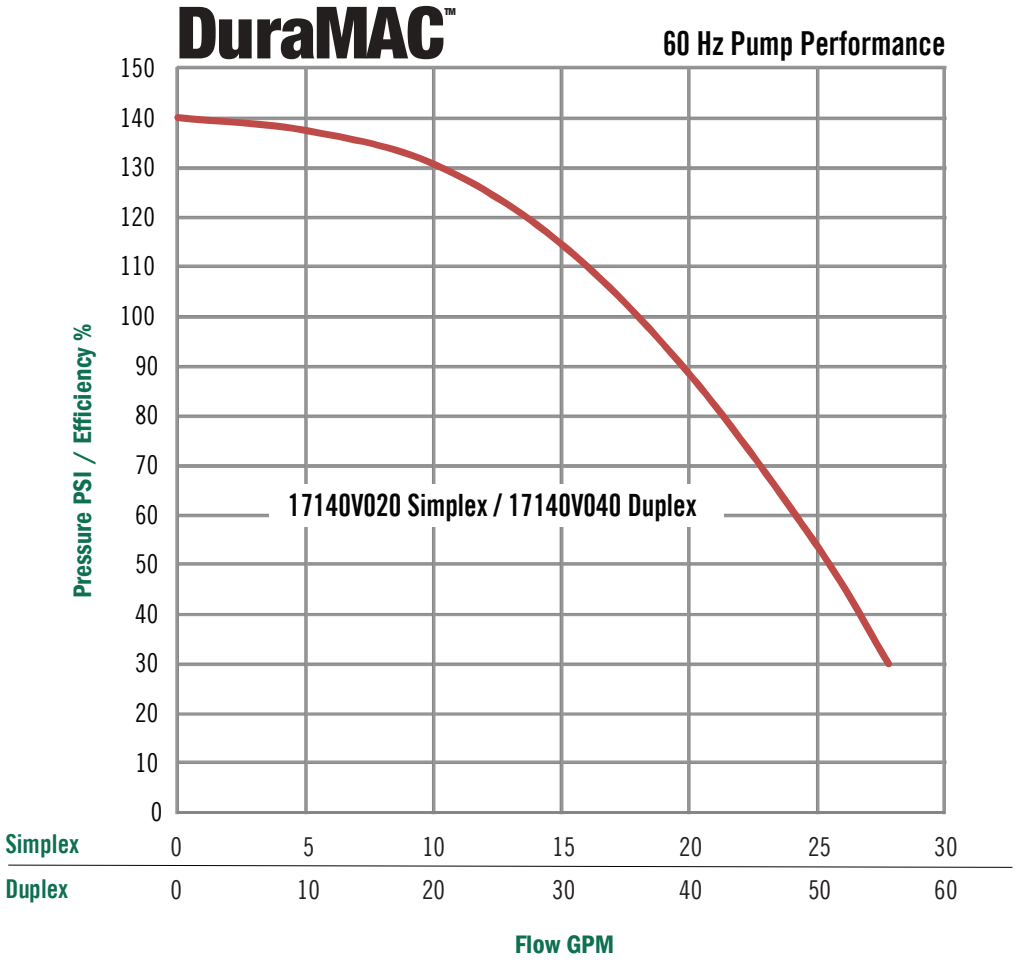
Model Number	17122V080Y-1
Max Flow	80 GPM
Electrical	208-230V 1 Phase
Tank Required	20 Gallon Minimum

Model Number	17122V080Y-3
Max Flow	80 GPM
Electrical	208-230V 3 Phase
Tank Required	20 Gallon Minimum

Model	V040
PEI	0.82
Imp. Dia. (in)	2.874

A.Y. McDonald considers the information on this sheet correct when published. Specifications are subject to change with notice.

DuraMAC™ - 17140V020 Simplex / 17140V040 Duplex
Technical Information & Performance Curves



Technical Information

Max Boost	140 PSI
Discharge Transducer	0-200 PSI 4-20mA
Drive - Yaskawa iQ Pump	NEMA 1
Suction Ball Valve	1 1/4" No-Lead Brass
Discharge Ball Valve	1 1/4" No-Lead Brass
Impeller	304 Stainless Steel
Pump End	304 Stainless Steel
Motor - Energy Eff.	TEFC 56C
Horsepower	2
Seal Material	Carbon/Sic
Base	304 Stainless Steel

Technical Information - Simplex

Model Number	17140V020Y-1
Max Flow	20 GPM
Electrical	208-230V 1 Phase
Tank Required	7.3 Gallon Minimum
Model Number	17140V020Y-3
Max Flow	20 GPM
Electrical	208-230V 3 Phase
Tank Required	7.3 Gallon Minimum

Technical Information - Duplex

Model Number	17140V040Y-1
Max Flow	40 GPM
Electrical	208-230V 1 Phase
Tank Required	14 Gallon Minimum
Model Number	17140V040Y-3
Max Flow	40 GPM
Electrical	208-230V 3 Phase
Tank Required	14 Gallon Minimum