



Submittal Data

Magna3 Variable Speed Flow Centers



Project Name:	Representative:	
Contractor:	Engineer:	
Ref/P.O.#:	Date:	
Submitted by:	Date:	
<u>Qty:</u>	<u>Part #:</u>	<u>Description</u>

Technical Data

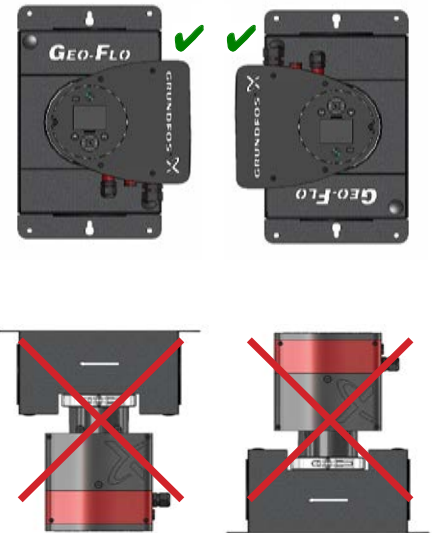
Circulator: Grundfos MAGNA3 Variable Speed, ECM Motor, 30% GF PES impeller
 Cabinet: Powder-coated steel
 Insulation: CFC-free, polyurethane foam
 Pump Housing: Cast iron (optional stainless steel)
 3-way Valves: 2" full port, 3-way, 4-position flushing and service valve, forged brass, C37700, NBR seals
 Connections: SF: 2" Socket Fusion x Flo-Link™ XL
 FP: 2" NPT Female Pipe Thread x Flo-Link™ XL
 FF: 2" Socket Fusion x FL™ XL (Loop) 2" NPT Female Pipe Thread x FL™ XL (Building)

Max. Fluid Temperature: 230°F [110°C]
 Min. Fluid Temperature: 14°F [-10°C]
 Max. Operating Press.: 175 psi [12 bar]
 Min. Operating Press.: 1.5 psi [0.1 bar]*
 Ambient Air Temp: 32 to 104°F [0 to 40°C]
 Max. Sound Pressure: ≤ 43 dB(A)

*At 167°F [75°C]. Increase the min. pressure by 1.45 psi [0.1 bar] for every 330 ft. (100m) above an altitude of 984 ft. (300m). Max installed altitude 6560 ft. (2000m).

Mounting

Always install pump with horizontal motor shaft and horizontal control as shown below. Insulated pump is designed for **indoor installation only**.



Approved Antifreeze

Ethanol
 Methanol
 Propylene Glycol

Model Nomenclature

Nomenclature	1 - 3	4 - 10	11	12	13	14-15	rev. 12JAN2023
	M3F	040-120	B	C	-	FF	
Magna3 Insulated Pump Series							Connection type (loop and building)
M3F = Magna3 Flow Center							SF = 2" Socket Fusion
M3FH = Magna3 Flow Center High Head							FP = 2" NPT Female Pipe Thread
Available Models							FF = 2" Socket Fusion (Loop) 2" NPT Female (Building)
040-080							Options
040-120							- = Options in digits 14 and 15
040-180							Mounting Options
Voltage							C = Standard product (cast iron volute**), factory-insulated cabinet, wall mounted
B = 208-230/1/60 (all models)							

Electrical Data (per pump)

Model	Speed	Voltage / Frequency	Amps (Min. - Max.)	Watts (Min. - Max.)
040-080	Variable	115/50-60	0.30 - 2.45	16 - 276
		208-230/50-60	0.19 - 1.20	16 - 265
040-120	Variable	115/50-60	0.26 - 3.88	16 - 442
		208-230/50-60	0.19 - 1.95	16 - 440
040-180	Variable	115/50-60	0.26 - 5.39	16 - 614
		208-230/50-60	0.18 - 2.68	16 - 607

Additional Motor Information: Magna3 insulated pumps use ECM motor technology. Therefore, horsepower is not shown on the submittal, as it is not pertinent to pump performance, as compared to standard pumps with variable frequency drives. Contact Geo-Flo for more information.

Notes:

1. Pump motor incorporates overload protection.
2. Approvals are ETL and FCC W_RADIAL.
3. Enclosure class Type 2, IEC 34-5: X4D; Insulation class Type F, IEC 85: F.



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Pump Performance Curves -- MAGNA3 M3F040-080

Head (ft)

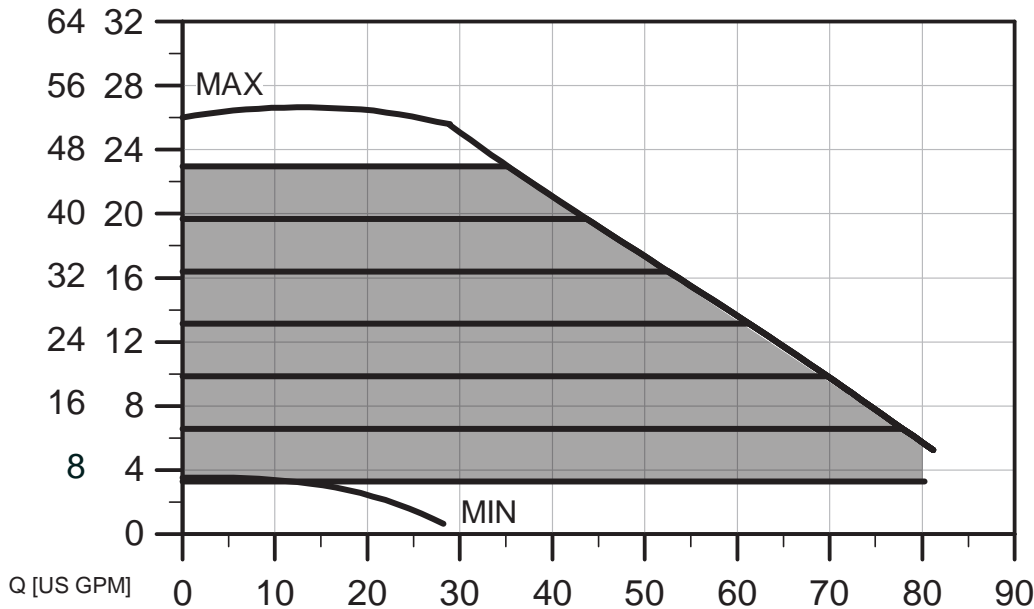
M3FH* M3F**

Performance

Pump Curve Usage:

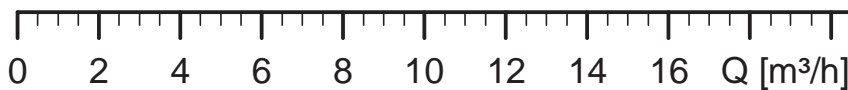
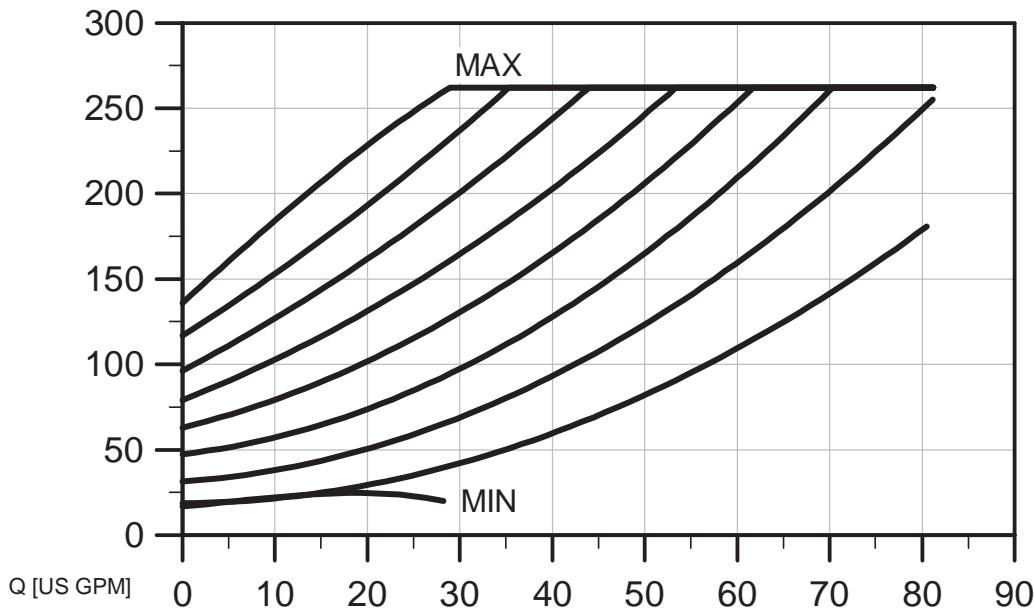
1. In Constant Pressure (Differential Pressure) mode, pump operating range is the gray shaded area.
2. In Constant Curve mode, pump operates between the MIN and MAX curves.

*Two pumps in series
 **Single pump or two pumps in parallel. Note: For two parallel pumps, double the flow rate for each head value.



P1 [W]

Power (per pump)



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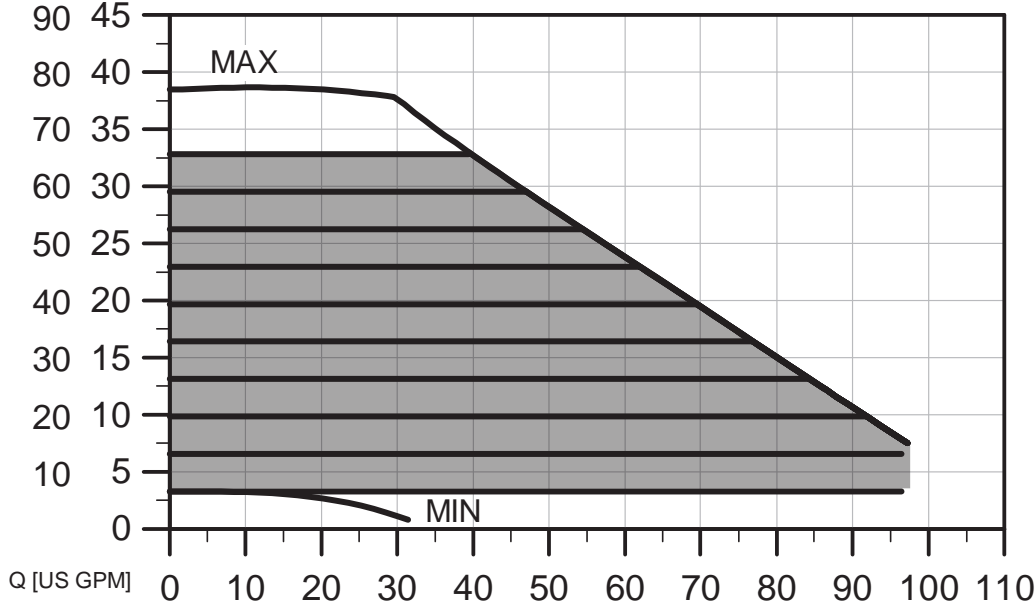
Curves are manufacturer's reported averages using water at 68°F [20°C].

Pump Performance Curves -- MAGNA3 M3F040-120

Head (ft)

M3FH* M3F**

Performance



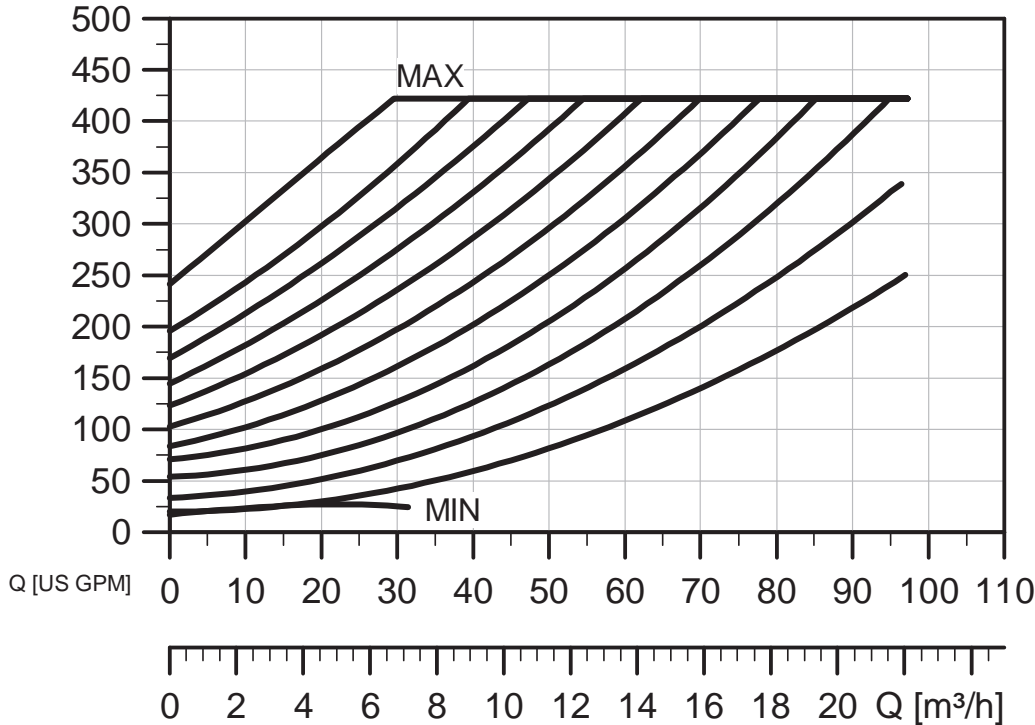
Pump Curve Usage:

1. In Constant Pressure (Differential Pressure) mode, pump operating range is the gray shaded area.
2. In Constant Curve mode, pump operates between the MIN and MAX curves.

*Two pumps in series
 **Single pump or two pumps in parallel. Note: For two parallel pumps, double the flow rate for each head value.

P1 [W]

Power (per pump)



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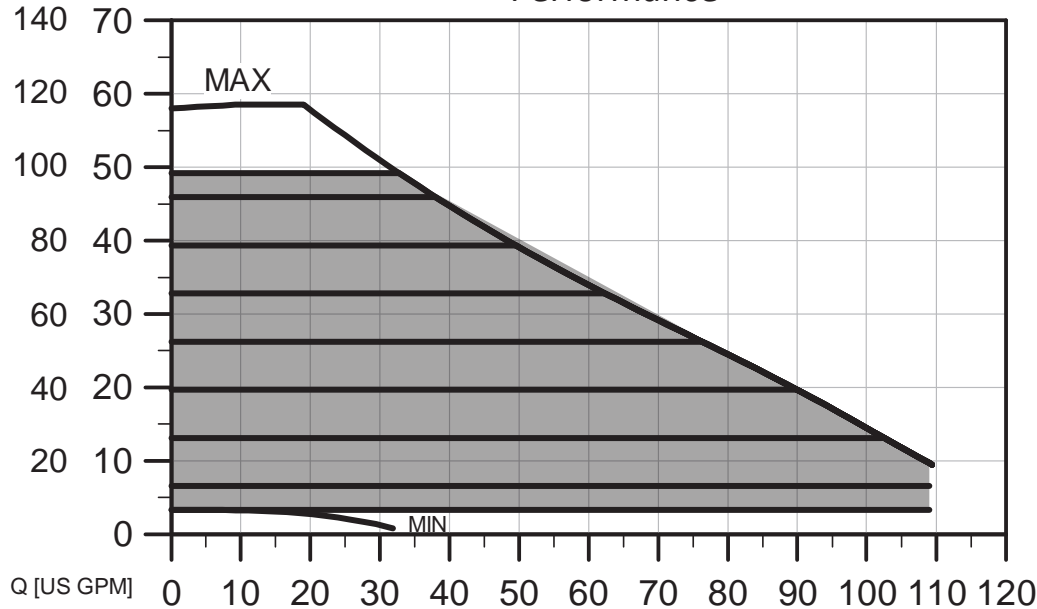
Curves are manufacturer's reported averages using water at 68°F [20°C].

Pump Performance Curves -- MAGNA3 M3F040-180

Head (ft)

M3FH* M3F**

Performance



Pump Curve Usage:

1. In Constant Pressure (Differential Pressure) mode, pump operating range is the gray shaded area.
2. In Constant Curve mode, pump operates between the MIN and MAX curves.

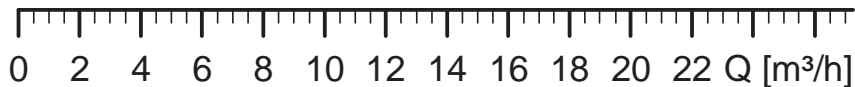
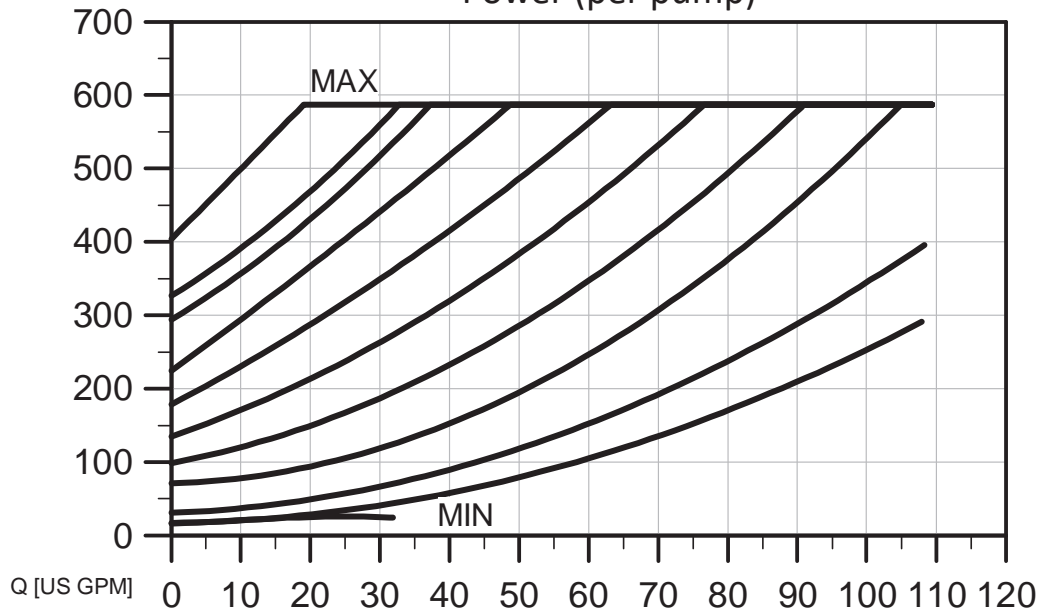
*Two pumps in series

**Single pump or two pumps in parallel. Note: For two parallel pumps, double the flow rate for each head value.

P1

[W]

Power (per pump)



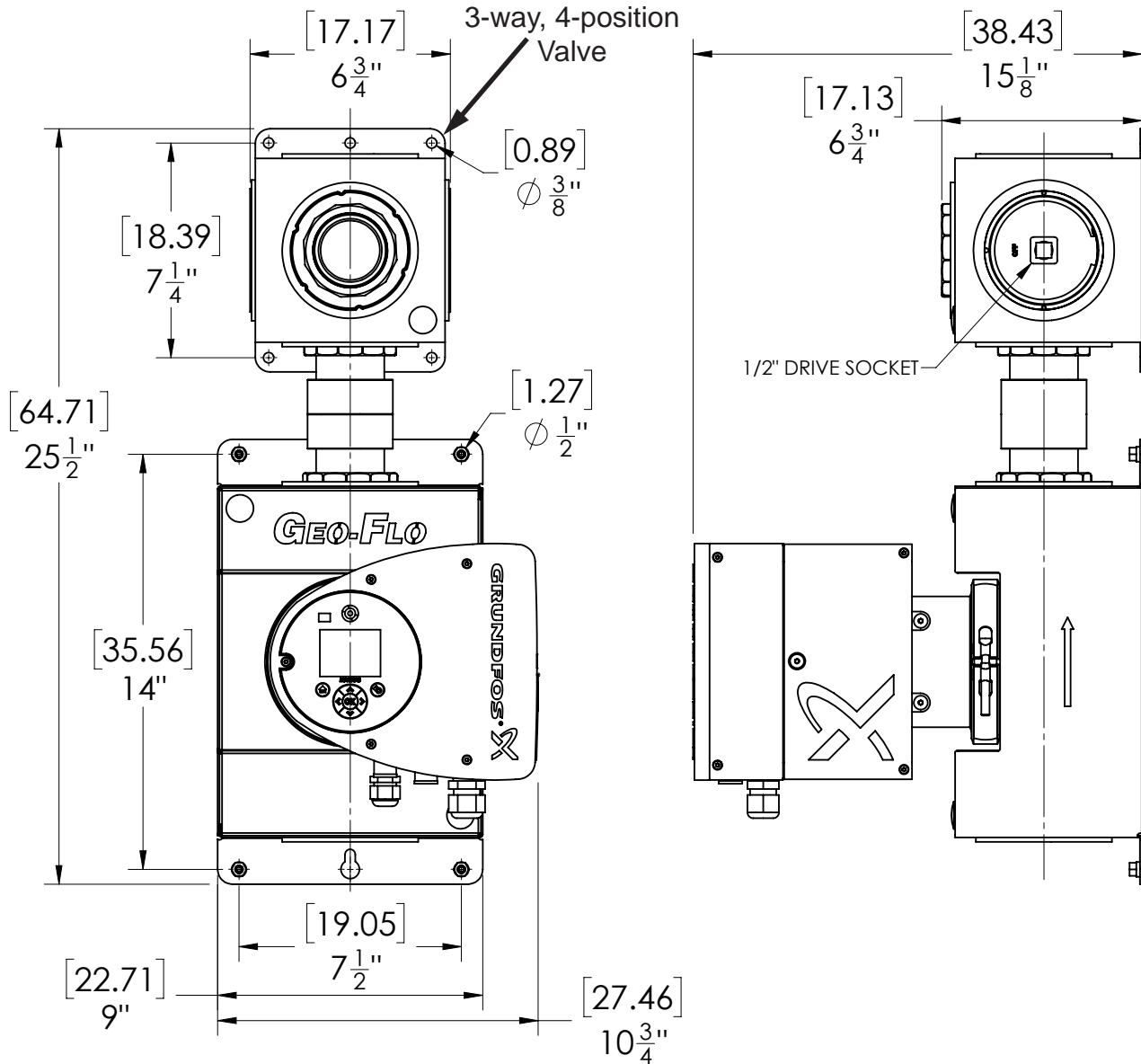
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Curves are manufacturer's reported averages using water at 68°F [20°C].

Dimensional Data- M3F***

MAGNA 3 Flow Centers include a second 3-way, 4-position valve and fitting sets (not pictured below)



***M3FH Models include a second insulated Magna3 pump in series (not shown in dimensional data)

NOTES:

1. Dimensional data provided for informational purposes and is rounded to nearest 1/16".
2. Metric data is a simple conversion of imperial data and should not be considered more accurate.

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