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Product Guide

MQ

Flow based pressure boosting system
60 Hz



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GRUNDFOS 

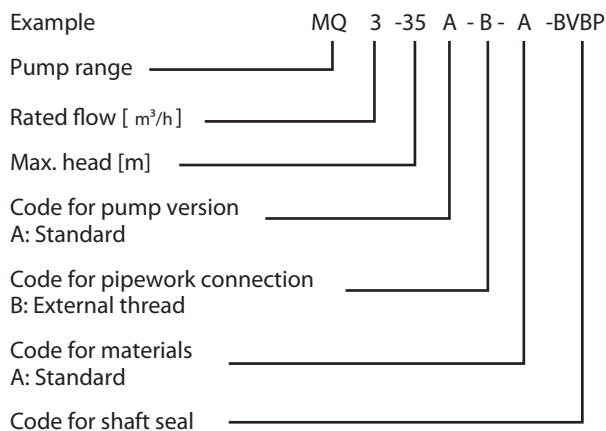
Application

The MQ pump is designed for water supply and pressure boosting ...

- homes
- cabins, cottages
- on farms as well as
- gardens

The pump is suitable for pumping of potable water and rain water.

Type Key



Pumped liquids

Potable water, rain water or other clean, thin, non-aggressive liquids not containing solid particles or fibers.

Operating conditions

System pressure:	Max. 109 psi (7.5 bar) .
Inlet pressure:	Max. 44 psi (3 bar) .
Suction lift:	Max. 26 ft (8 m) .
Liquid temperature:	32°F to +95°F (0°C to +35°C) .
Ambient temperature:	32°F to +113°F (0°C to +45°C) .

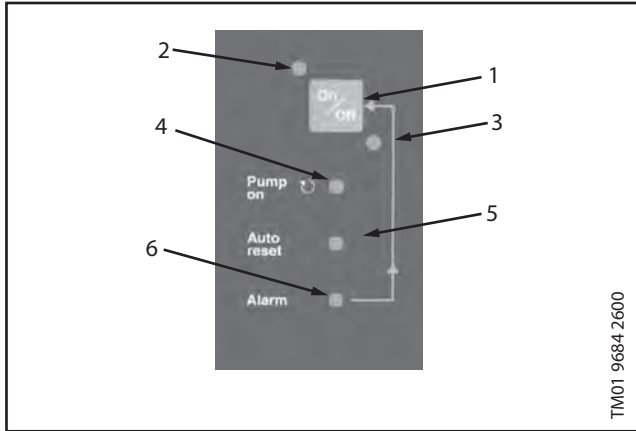
Technical data

Mains voltage:	
• 115V models:	1 x 110-120 V, 60 Hz
• 230V models:	1 x 220-240 V, 60 Hz.
Voltage tolerances:	-10% / +6%.
Enclosure class:	IP54.
Insulation class:	B.
Sound pressure level:	55 dB(A).
Agency approvals:	UL, cUL

Features and benefits

- Complete system
The MQ is a complete, all-in-one unit, incorporating pump, motor, diaphragm tank, pressure and flow sensor, controller and check valve.
The controller ensures that the pump starts automatically when water is consumed and stops automatically when the consumption ceases. In addition, the controller protects the pump in case of faults.
- Installation
Due to its compact design, the pump does not take up much space and is easy to install. No space around the pump is required.
- Simple operation
The pump features a user-friendly control panel with ON/OFF button and indicator lights for indication of the operational state of the pump.
- Self-priming pump
As it is self-priming, the MQ is able to pump water from a level below the pump. Provided it is filled with water, the pump is able to lift water from a depth of 26 ft (8 m) in less than 5 minutes. This facilitates installation and start-up of the pump and provides more reliable water supply in installations where there is a risk of dry running and leakages in suction hose or pipes.
- Built-in protective functions
If exposed to dry running, excessive temperature, or any overload condition the pump will stop automatically, thus preventing a motor burnout.
- Automatic reset
The pump features an automatic reset function. In case of dry running or similar alarm, the pump will stop. Restarting will be attempted every 30 minutes for a period of 24 hours. The reset function can be deactivated.
- Low noise level
Thanks to its hydraulic design and internal cooling, the pump is very quiet, which makes it suitable for many applications.
- Pressure tank
The built-in pressure tank reduces the number of starts and stops in case of leakages in the pipe system, causing less wear on the pump.
- Maintenance
No maintenance of the pump is required.

Control panel operation

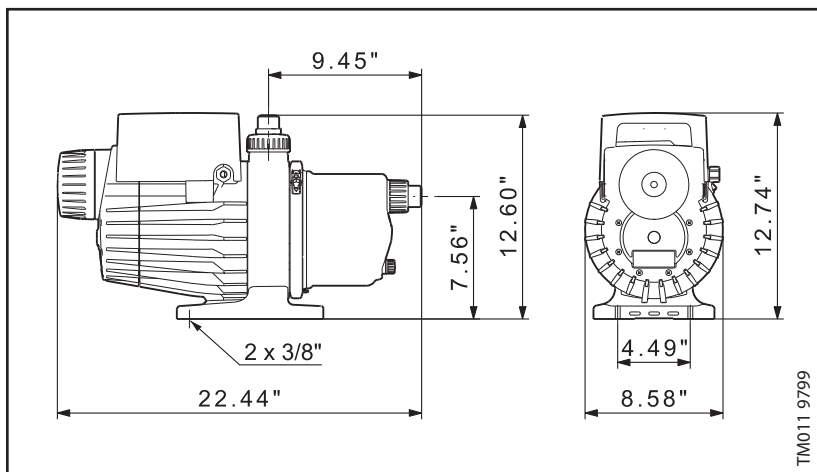


Pos.	Function	Description
1	ON/OFF button	The Pump is started and stopped by means of the ON/OFF button.
2	Power indicator lights	Indicates that the pump is ready for operation (green).
3		Indicates that the pump is on standby (red).
4	Pump ON (green)	Indicates that the pump is running.
5	Auto reset (green)	Indicates that the auto reset function is active. After an alarm, restarting will be attempted every 30 minutes for a period of 24 hours.
6	Alarm (red)	Indicates that the pump is in alarm state. Manual resetting is possible by pressing the ON/OFF button.

Product range and electrical data

Part Number	Model	PH & V	AMPS		P2		Weight Net Pounds	Cord Connection	Plug
			Run	Start	W	HP			
96860172	MQ 3-35	1X110-120V	8	29	585	0.75	30.1	7.54' - 2300mm SJTW-A 18 awg	UL Approved NEMA 5-15P - V125
96860195	MQ 3-45	1X110-120V	10	29	725	1	30.2	7.54' - 2300mm SJTW-A 18 awg	UL Approved NEMA 5-15P - V125
96860201	MQ 3-35	1X220-240V	4	15	565	0.75	30.1	7.54' - 2300mm SJTW-A 18 awg	UL Approved NEMA 6-15P - V250
96860207	MQ 3-45	1X220-240V	4.8	15	716	1	30.2	7.54' - 2300mm SJTW-A 18 awg	UL Approved NEMA 6-15P - V250

Dimensions

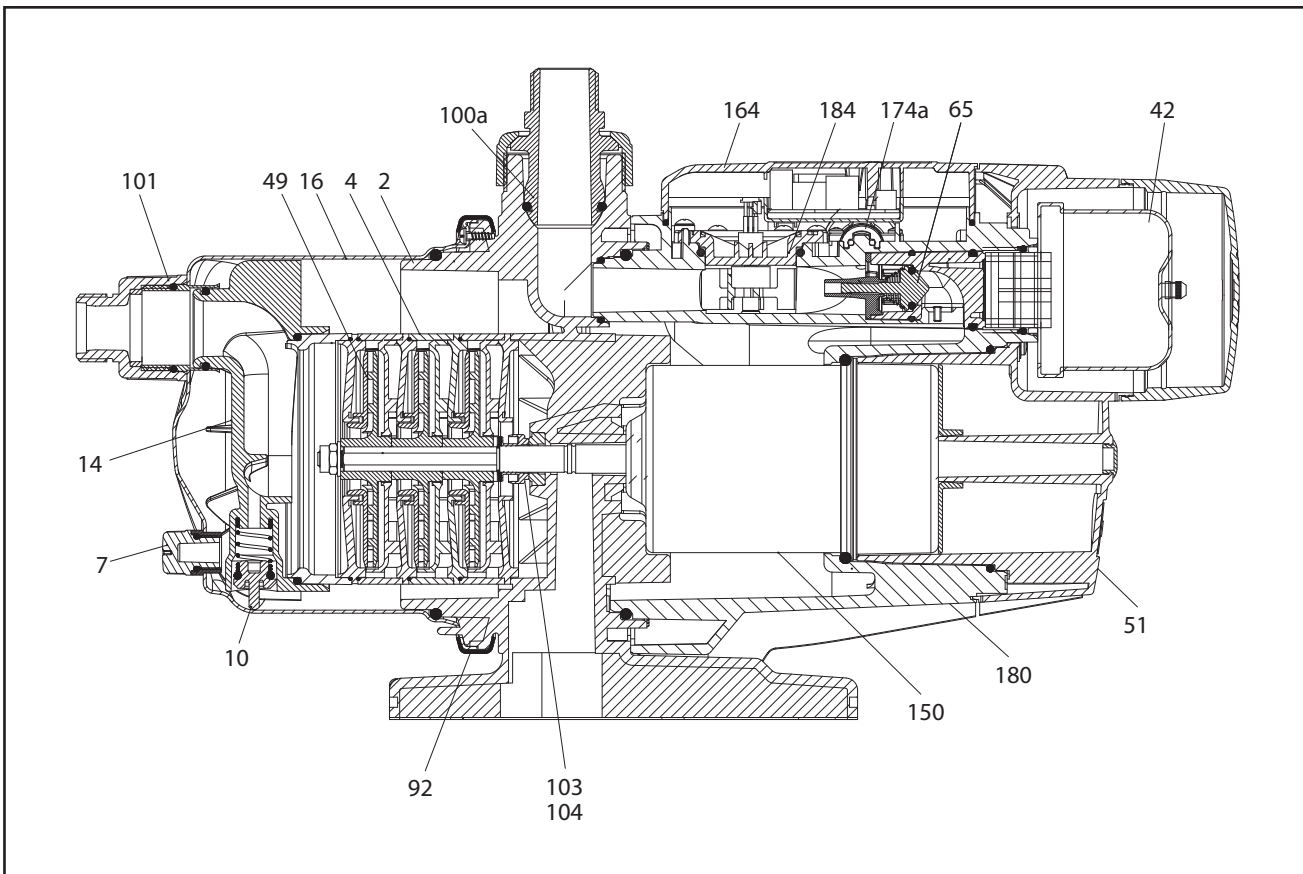


Material specification

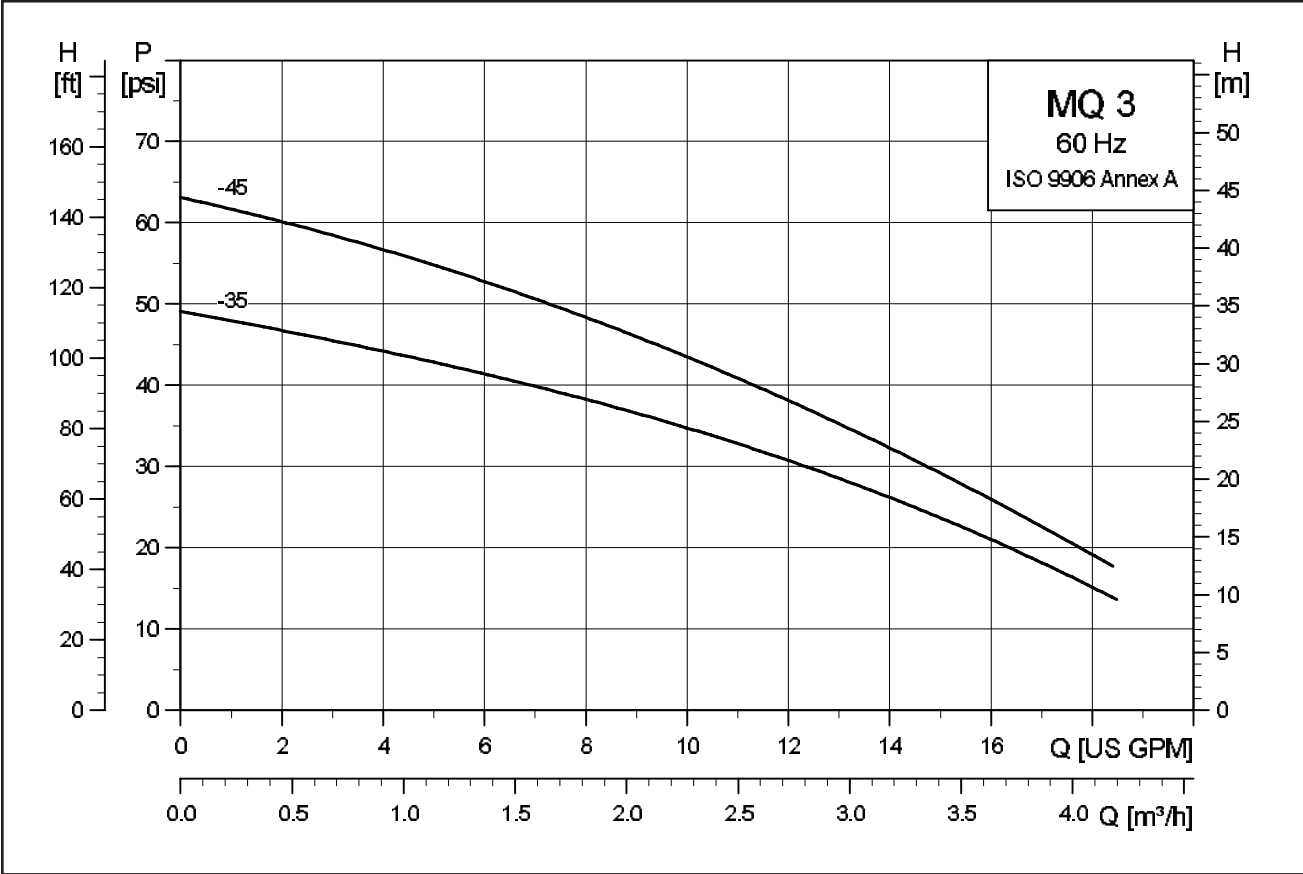
Pos.	Components	Material
2	Support flange	PP+30% Glass Fiber HB (f1)
4	Chamber	PPO+20% Glass Fiber
7	Drain and priming plug	PPO+20% Glass Fiber
10	Self-priming valve	PP+30% Glass Fiber
14	Self-priming part	PPO+20% Glass Fiber
16	Pump sleeve	Stainless steel, DIN W.-Nr. 1.4301, AISI 304
42	Tank cover	PP+30% Glass Fiber HB (f1)
49	Impeller	PPO +20% Glass Fiber-PTFE
51	Motor cover	PP+30% Glass Fiber HB (f1)
65	Non-return valve	POM+25% Glass Fiber
92	Clamp	Stainless steel, DIN W.-Nr. 1.4301, AISI 304
100a	Discharge port	PPO+20% Glass Fiber

Pos.	Components	Material
101	Suction port	PPO+20% Glass Fiber
103 104	Shaft seal: Stationary and rotating part	Carbon/ceramics/NBR rubber
149	Insulation disc	PA 5VA (Polyamide)
150	Shaft	Stainless steel, DIN W.-Nr 1.4005, AISI 416
	Motor sleeve	Stainless steel, DIN W.-Nr 1.4301, AISI 304
164	Terminal box cover	PP+30% Glass Fiber 5VA (f1)
174a	Pressure switch	POM+25% Glass Fiber / SIL Rubber (Silicone Rubber)
	Pressure switch membrane	SIL Rubber - Silicone Rubber.
180	Motor body	PP+30% Glass Fiber 5VA (f1)
184	Flow sensor	POM+25% Glass Fiber
	O-rings	NBR-rubber

POM: Polyoximetylen
NR-rubber: Natural Rubber
PPO: Polyphenylene Oxides
PP: Polypropylene
NBR-rubber: Nitrile-Butadiene Rubber

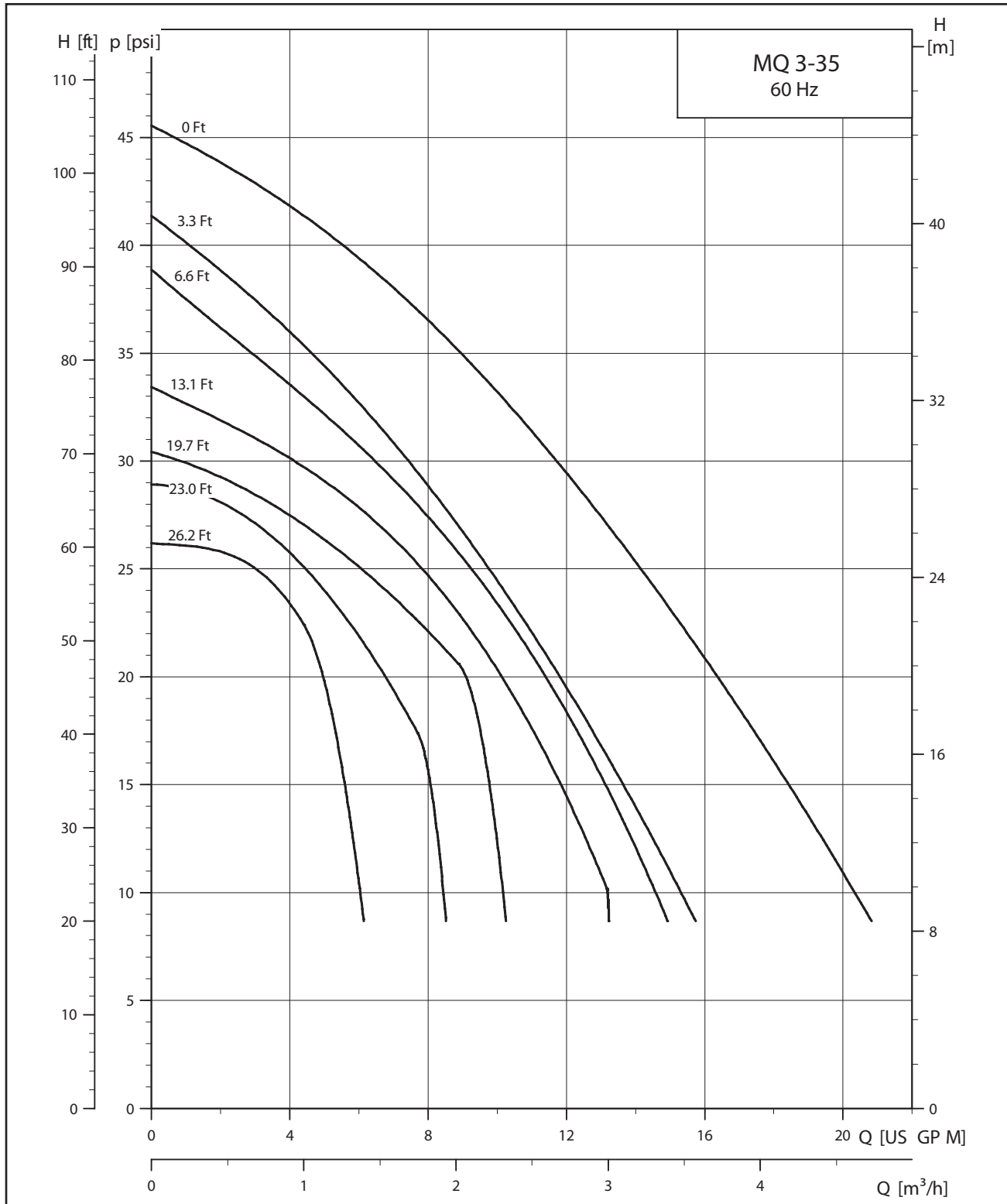


Flooded suction (0 PSI inlet) performance curves*



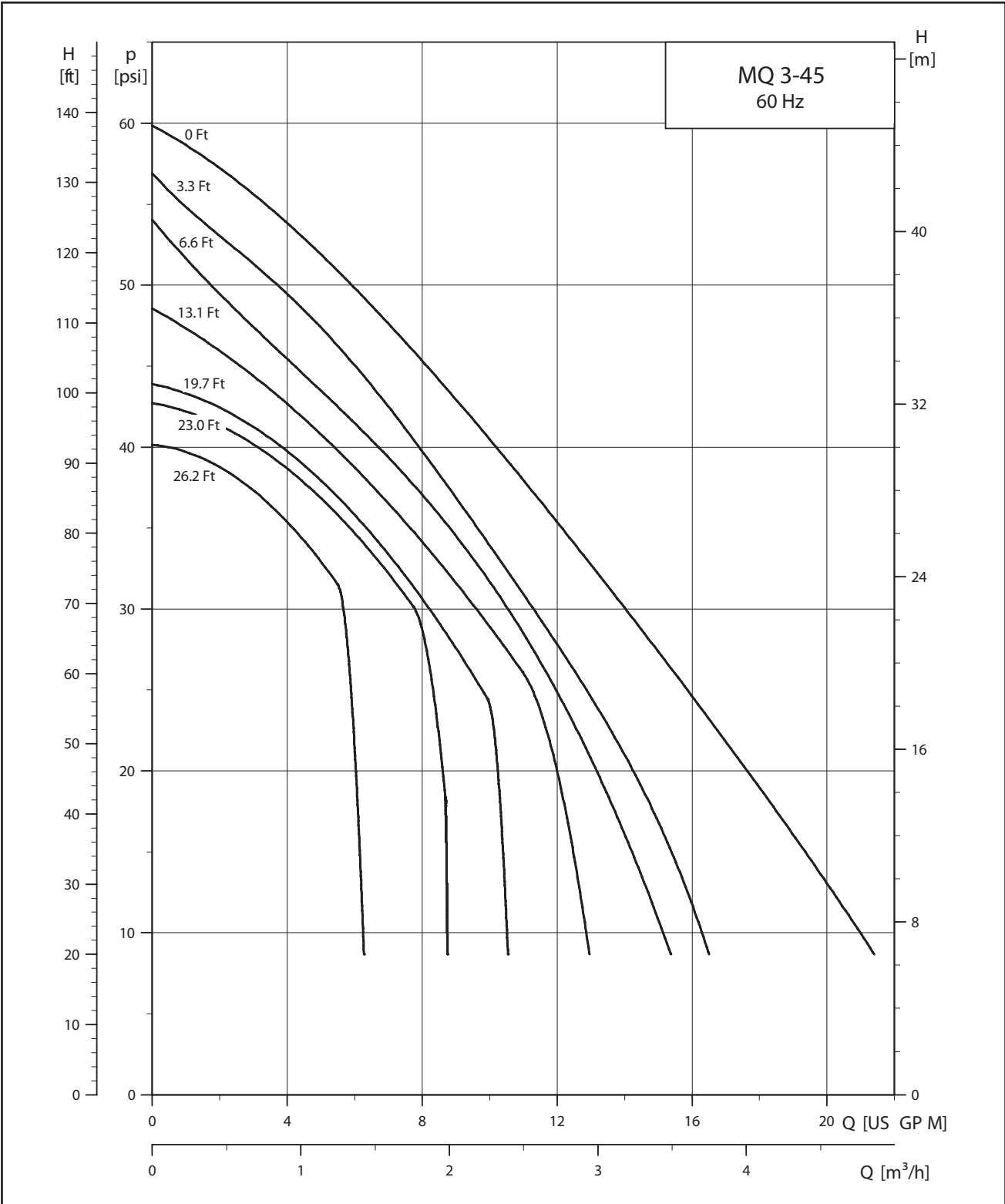
*See suction lift performance curves for installations with water level below intake.

MQ 3-35 Suction lift performance curves



Provided it is filled with water, the pump is able to lift water from a depth of 26 ft (8 m) in less than 5 minutes.

MQ 3-45 Suction lift performance curves



Provided it is filled with water, the pump is able to lift water from a depth of 26 ft (8 m) in less than 5 minutes.

Accessories

Protection Cover:

Designed to protect the MQ Key Pad and electronics in outdoor applications.

Protection cover is required for outdoor applications where the MQ is exposed to the elements.

The protection cover is sold as an accessory PN 96693071.

The cover is made of polypropylene and is a snap fit to the MQ. Two Velcro tabs are included with the accessory to help adhere the back end of the cover to the pump.



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