CNP

MS/MSS 50Hz/60Hz

Light stainless steel horizontal single-stage centrifugal pump

Stock code:300145

Pumping Water Pumping Honor

CNP

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subject to amendments

Company profile

Nanfang Pump Industry Co.,Ltd (CNP),as a subsidiary of Nanfang Zhongjin Environment Co.,Ltd, was founded in 1991,and listed on Shenzhen Stock Exchange on December 9,2010 with stock code 300145.

In 2019, CNP's annual output exceeded 900,000 units/set with nearly 3 billion sales revenue, continuing to maintain high growth.

As a national enterprise technology center, CNP has flagship ultra-high efficient product -new generation CDM (F) light vertical multistage centrifugal pump, MEI≥0.7. Same series high temperature pump products are developed in 2019 to satisfy high temperature applications. All light stainless steel pump product series grow stably. Advanced frequency conversion water supply equipment has been innovated to the 6th generation. Fire pump and diesel engine have obtained UL certification.TD in-line pump, NIS/NISO end suction pump, NSC split casing pump, WQ sewage pump, PQ stainless steel fountain submersible pump, BP silent tube pump, pool pump, non-blocking self-priming sewage pump, metering pump, oil pump and other pump products, can meet various application needs of different fields.

CNP has a complete sales network both in domestic and overseas market,exporting to over 60 countries and regions, maintaining long-term and strong relationship with our clients. CNP pumps have been widely applied in various fields like water treatment、water supply and drainage、HVAC、industrial application、seawater desalination、energy and power etc.

CNP, a green water expert beside you.

Content

Model definition

MS/MSS 330 / 2.2 S S C

- C:Normal
- S:304;L:316L
- S:Three-phase220/380V D:Single phase220V
- Power distribution(kW)
- Rated flow(l/min)
- Light stainless steel horizontal single-stage centrifugal pump (MSS means 60Hz)

Structure features

MS/MSS series of pump is single-stage centrifugal pump and features axial suction and radial discharge.

- Compact structure, the pump is directly connected with the motor, coaxial installation.
- Convenient installation screw thread water inlet and outlet.
- Light weight, thin plate pressing structure for main parts and components.
- A little corrosion resistance, material of wet parts is AISI 304 or AISI 316 stainless steel.

Application

- Pressurization and pumping of industrial and civilian clean water or other liquids
- Water treatment
- Water circulating system
- Agricultural irrigation
- Other fields

Pumping liquids

- Thin, clean, non-flammable and explosive, not containing the liquid with solid particle and fiber.
- Able to transmit light corrosive medium(Relate to the content of chloride ion in the medium, thickness of acid or alkali, whether generate corrosion on the rubber and mechanical seal materials).
- The density of transmitted medium is less than that of clean water viscosity close to that of water. Otherwise the motor of large power is required

Operating condition

- Liquid temperature: -10℃~+ 85℃
- Ambient temperature:up to +40℃
- Altitude: up to 1000m
- Max. pressure of the system is 8 bar

Motor

- TEFC motor,2-pole;
- Protection class: Ip55;
- Insulation class:F;
- Standard voltage:50Hz 1×220v
  3×380V/3×220V
- Standard voltage:60Hz 1×220V
  3×380V/3×220V

Installation requiremen

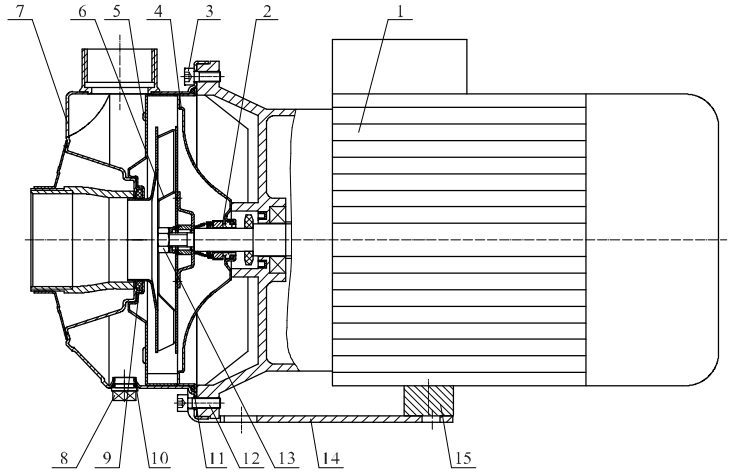
- The pump shall be fastened on the stable horizontal base.
- The installation of the pump shall ensure that the pump will not be influenced by the tension of the pipeline.
- The pump shall be installed on the ventilating and anti-freezing place to ensure normal operation of the motor.
- Electric wiring device shall guarantee that the pump will not be damaged by lack of phase, unstable voltage current leakage and overload.

Curves

Include performance curve in the technical data:

- All curves are based on the measured values of 50Hz: constant motor speed 2850r/min, 60 Hz: constant motor speed 3450r/min.
- Measurement is done with 20℃ air-free water, kinematic viscosity of 1mm²/sec.
- Curve tolerance in conformity to ISO9906: 2012 Grade 3B.
- The operation of pump shall refer to the performance region to prevent overload of motor due to too large flow rate.

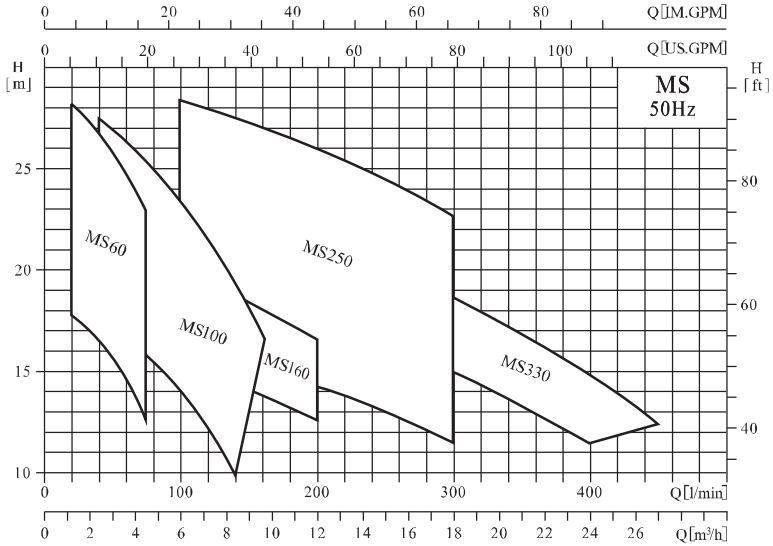
Sectional Drawing



Material Table

No	Parts	Name	Material
1	Motor		
2	Mechanical seal	Carbon/ Silicon	
3	M6×15/ Screw	Stainless steel	AISI304
4	Seal base	Stainless steel	AISI304
5	Diffuser	Stainless steel	AISI304
6	Impeller	Stainless steel	AISI304
7	Pump body	Stainless steel	AISI304
8	Vent	Stainless steel	AISI304
9	O-Ring	F4	
10	O-Ring	NBR	
11	O-Ring	NBR	
12	M6×20/ Screw	Stainless steel	AISI304
13	Nut M10	Stainless steel	AISI304
14	Base	steel	A570
15	Support foot	NBR	

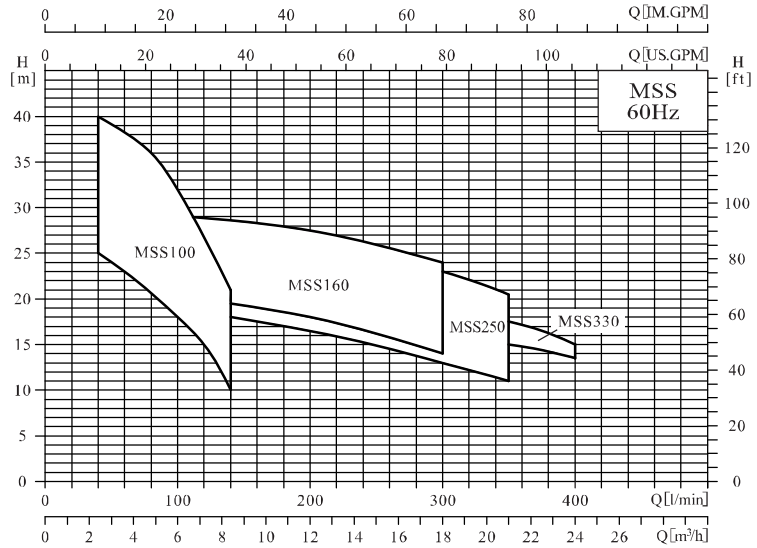
MS Performance range



MS Performance table

Model	Driving motor		Q(l/min)	20	40	60	80	100	120	140	160	200	250	300	330	350	400	450
	(kW)	(hp)	Q(m³/h)	1.2	2.4	3.6	4.8	6.0	7.2	8.4	9.6	12	15	18	20	21	24	27
MS60/0.37	0.37	0.5		17.7	16.4	14.6	11.4											
MS60/0.55	0.55	0.75		22.7	21.3	19.5	16.2											
MS60/0.75	0.75	1		28.2	26.8	25	22											
MS100/0.55	0.55	0.75			17.8	16.7	15.4	14	12.2	9.9								
MS100/1.1	1.1	1.5			27.4	26.3	25	23.4	21.5	19.5	16.7							
MS160/0.75	0.75	1	H (m)			15.5	15.3	15	14.8	14.3	13.8	12.5						
MS160/1.1	1.1	1.5				19.7	19.5	19.3	19.1	18.7	18.2	16.5						
MS250/1.1	1.1	1.5						15.8	15.6	15.4	15	14.3	13	11.5				
MS250/1.5	1.5	2						23.2	23	22.7	22.2	21.4	19.8	17.7				
MS250/2.2	2.2	3						28.2	27.8	27.5	27	26.2	24.6	22.6				
MS330/1.5	1.5	2							18.8	18.7	18.5	17.8	16.7	15	14	13.5	11.6	
MS330/2.2	2.2	3							22.5	22.2	22	21.5	20.3	18.7	17.5	16.8	14.8	12.3

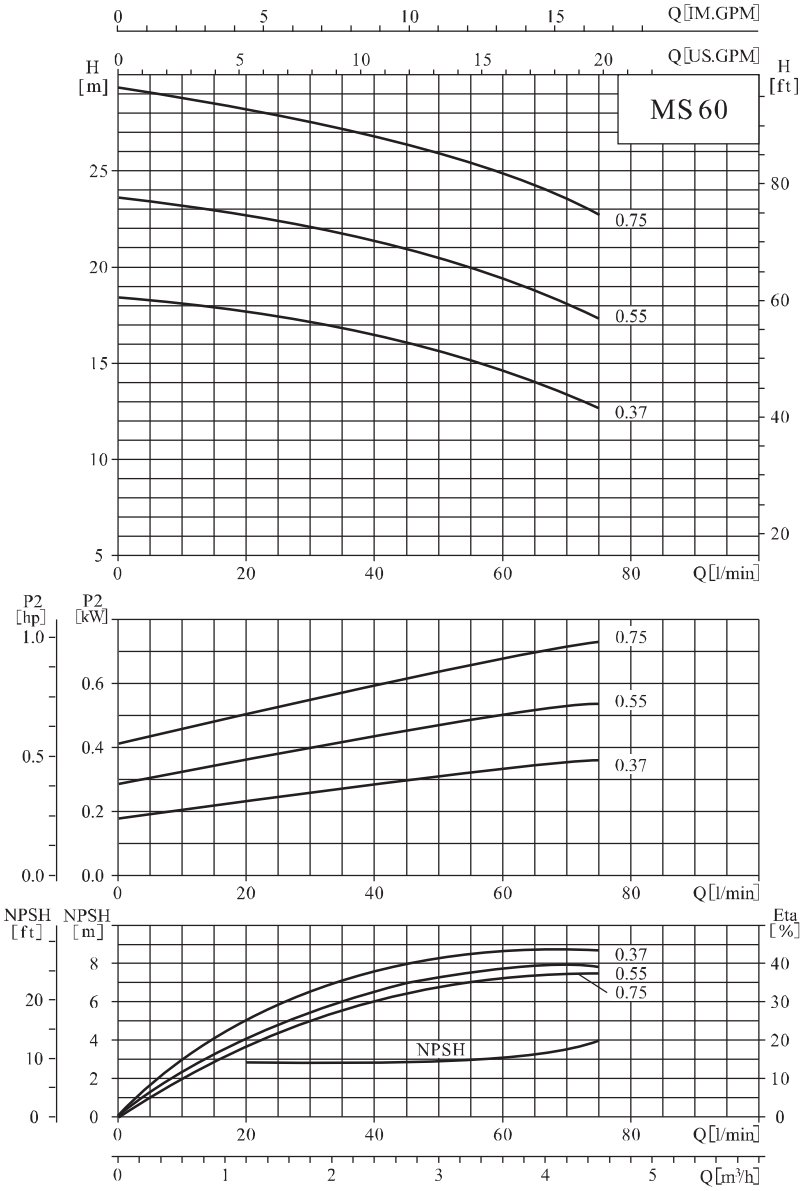
MSS Performance range



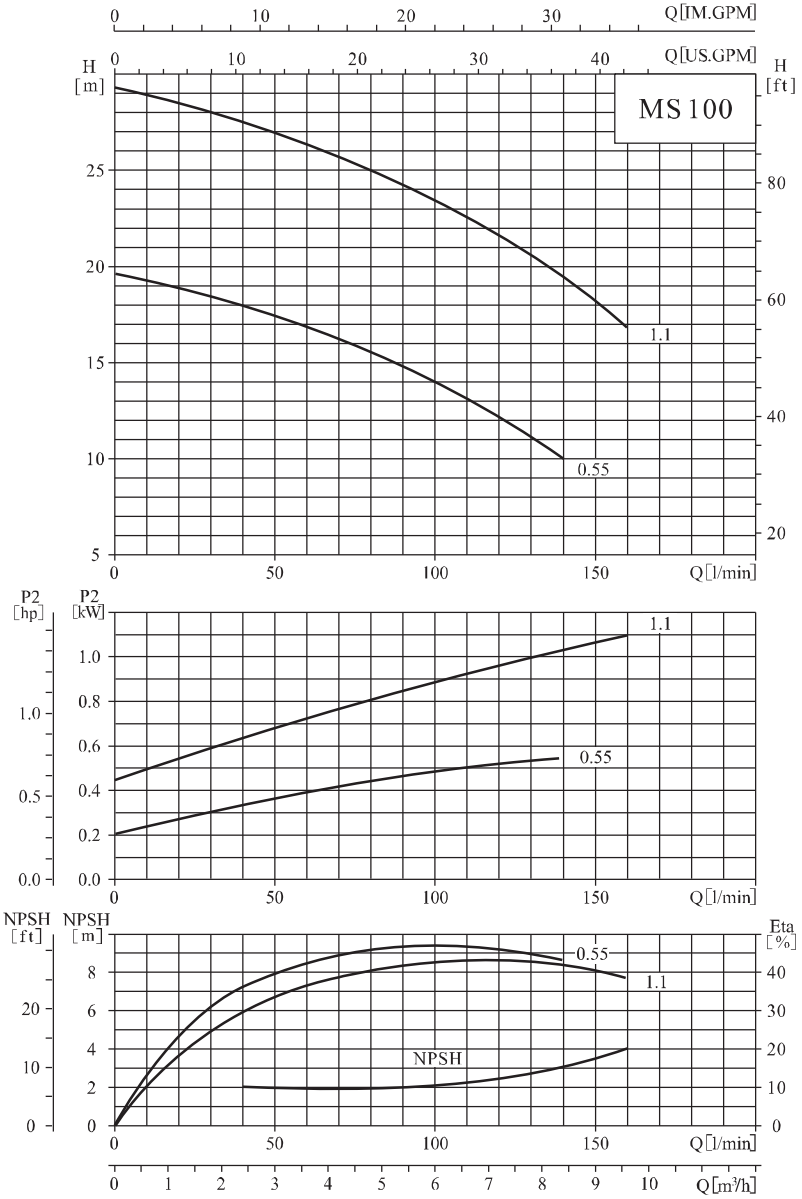
MSS Performance table

Model	Driving motor		Q(l/min)	20	40	60	80	100	120	140	160	200	250	300	330	350	400
	(kW)	(hp)	Q(m³/h)	1.2	2.4	3.6	4.8	6.0	7.2	8.4	9.6	12	15	18	20	21	24
MSS100/0.75	0.75	1	H(m)		25	23	21	17	15	10							
MSS100/1.1	1.1	1.5			33	31	29	25	21	15							
MSS100/1.5	1.5	2			40	38	36	32	27	22							
MSS160/1.1	1.1	1.5						20.5	20	19.5	19	18	17	14			
MSS160/1.5	1.5	2						25.5	25	24.5	24	23	22	20			
MSS160/2.2	2.2	3						29	28.8	28.5	28	27.5	26	24			
MSS250/1.1	1.1	1.5							18.5	18	17.5	16.5	15	13	12	11	
MSS250/1.5	1.5	2							22.5	22	21.5	20.5	18.5	16	14	13	
MSS250/2.2	2.2	3							28.5	28	27.5	26.5	25	23	21.5	20.5	
MSS330/1.5	1.5	2								19.5	19	18.5	18	16.5	16	15	13.5
MSS330/2.2	2.2	3								23	22.5	22	20.5	19.5	18.5	17.5	15

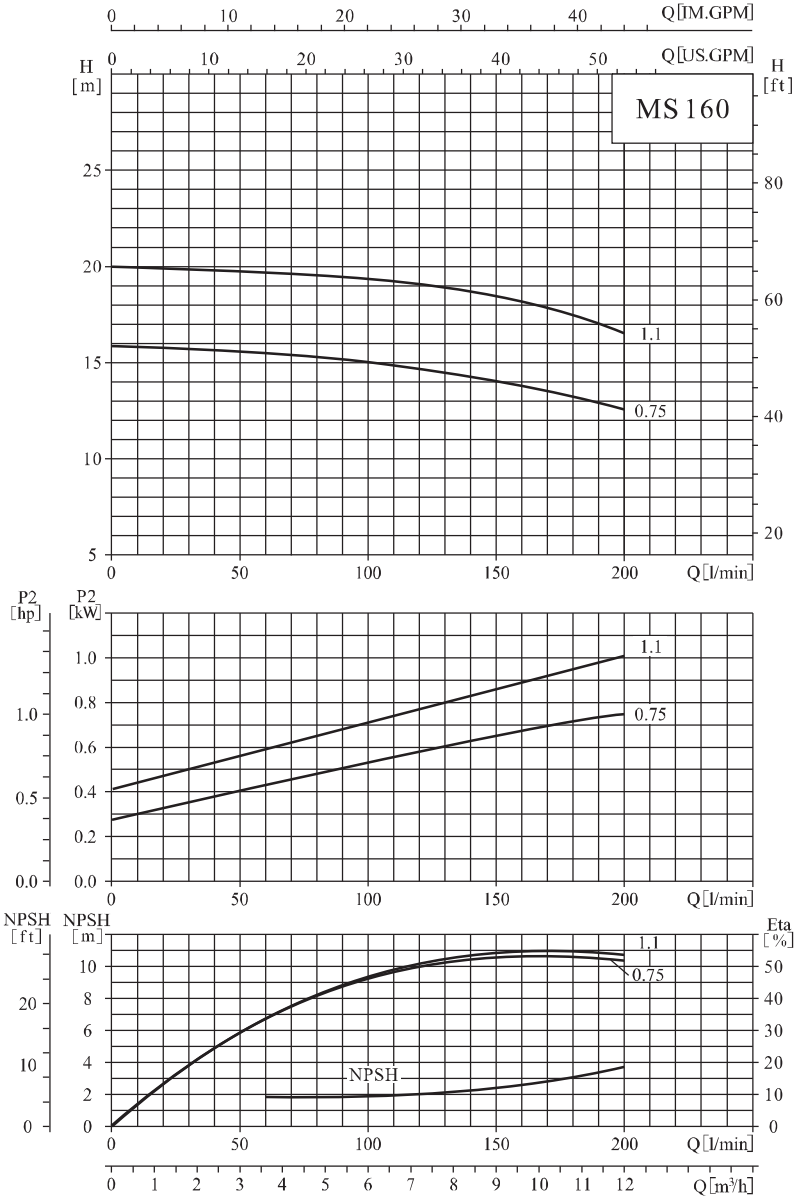
MS60 Performance curve



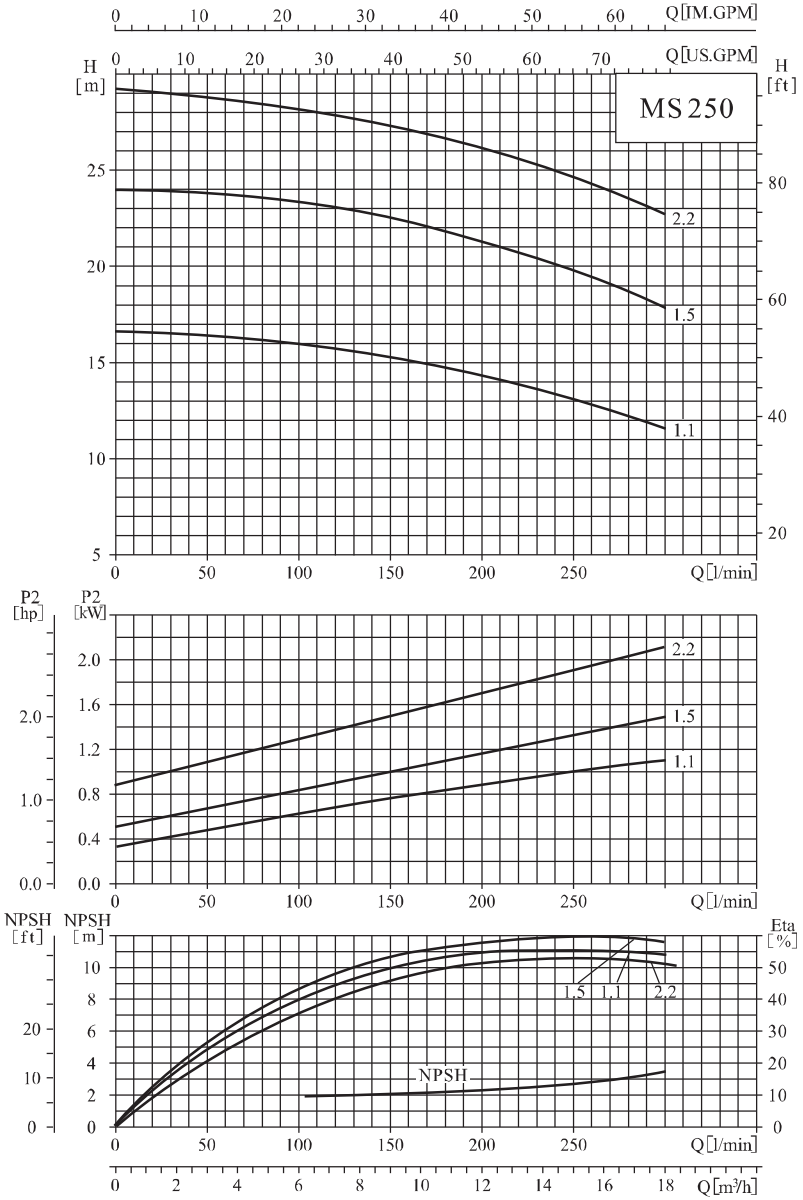
MS100 Performance curve



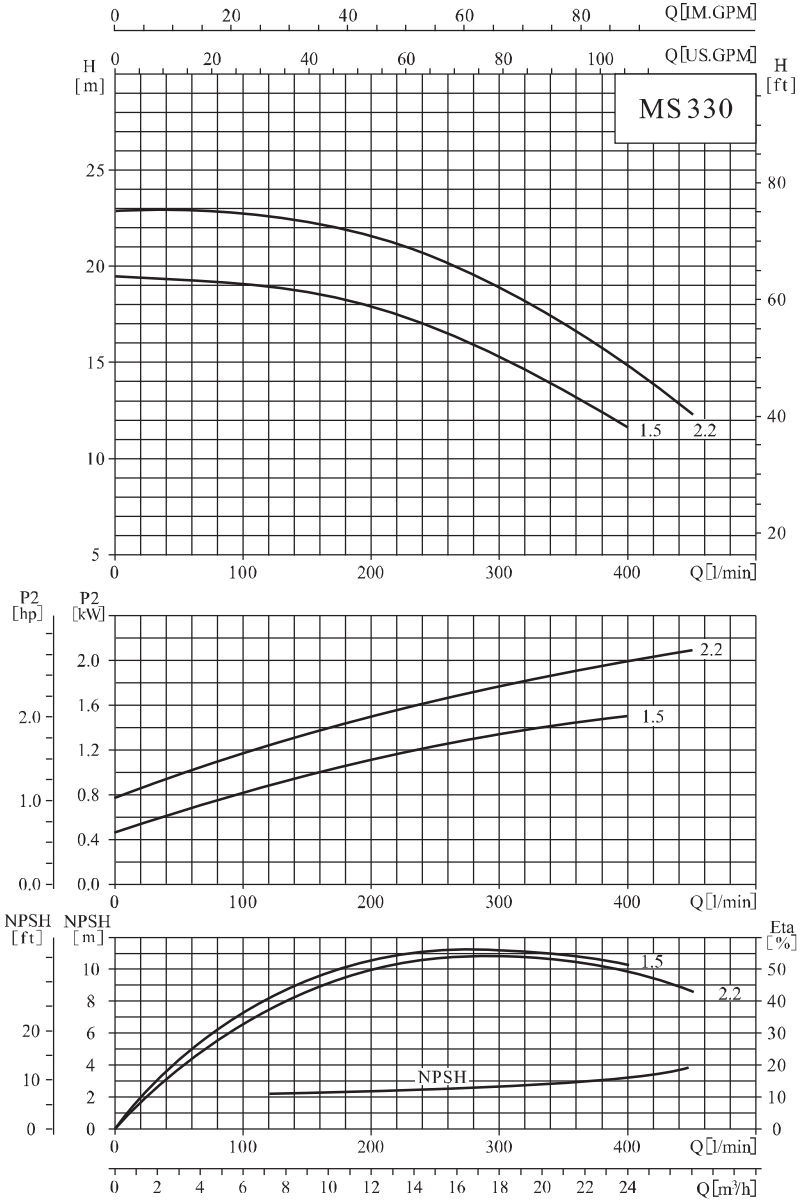
MS160 Performance curve



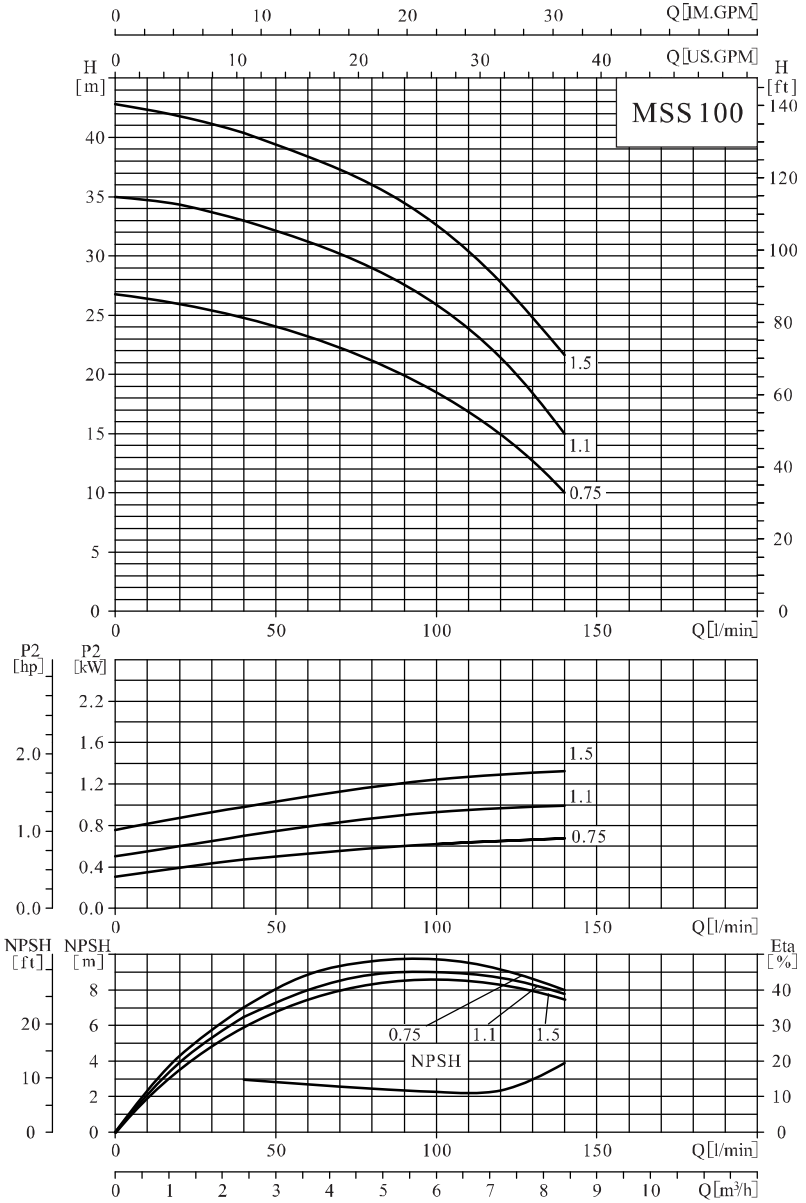
MS250 Performance curve



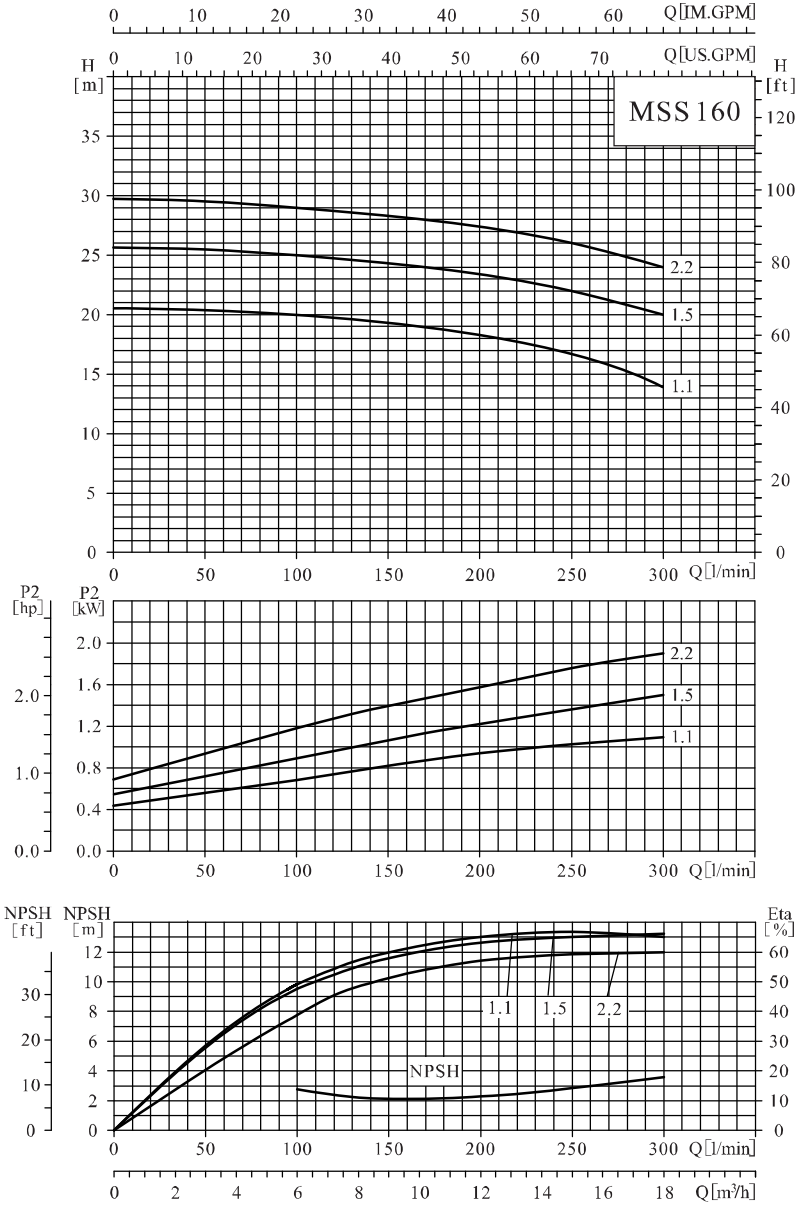
MS330 Performance curve



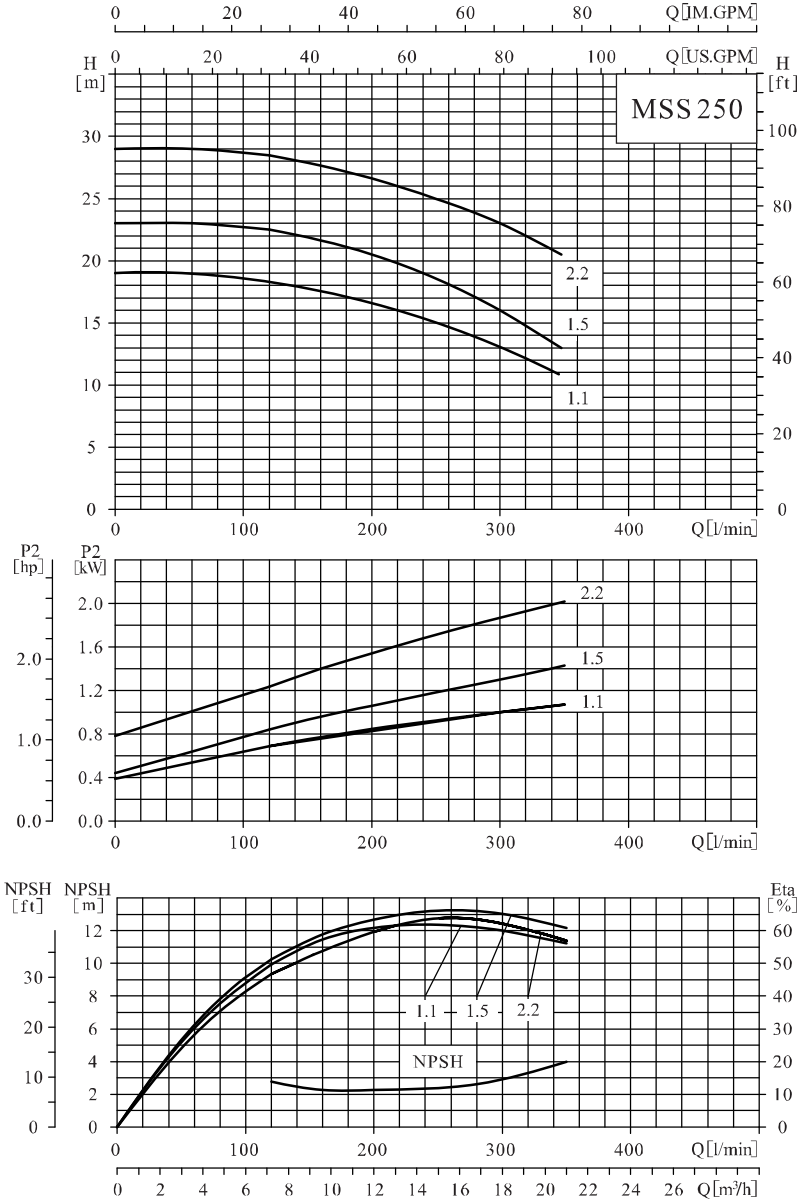
MSS100 Performance curve



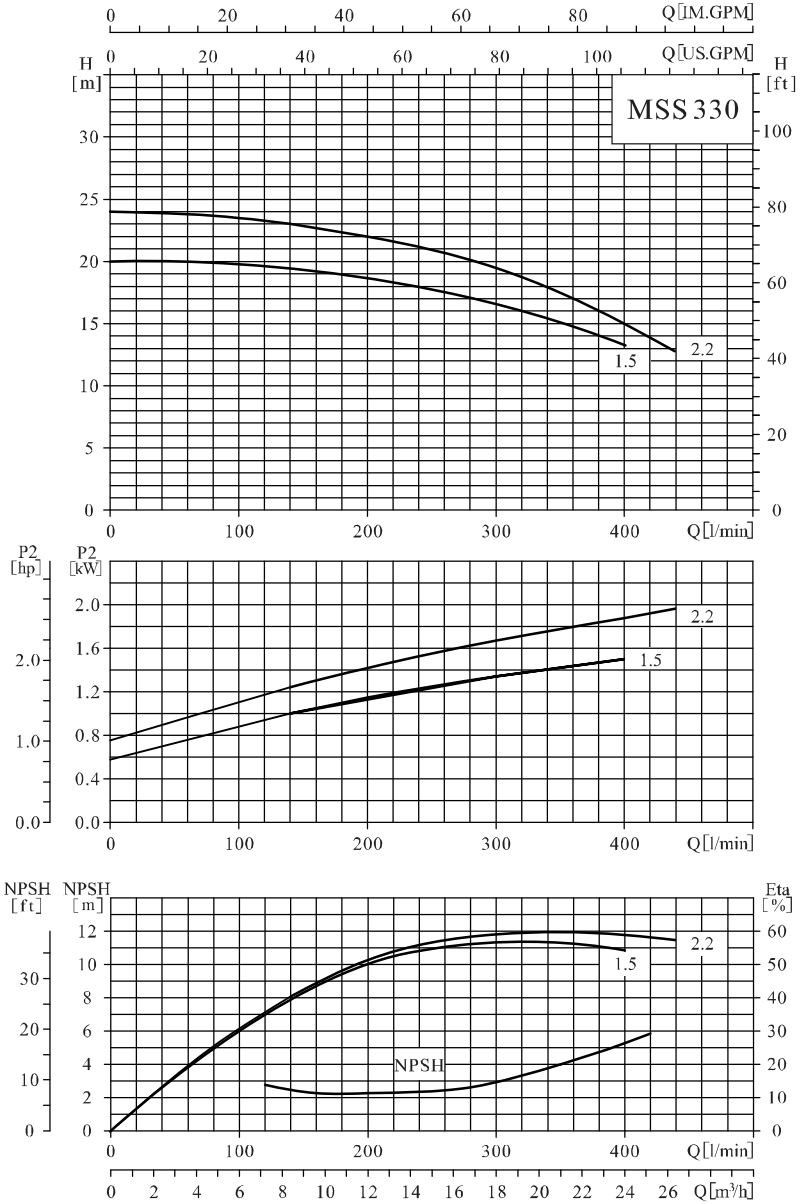
MSS160 Performance curve



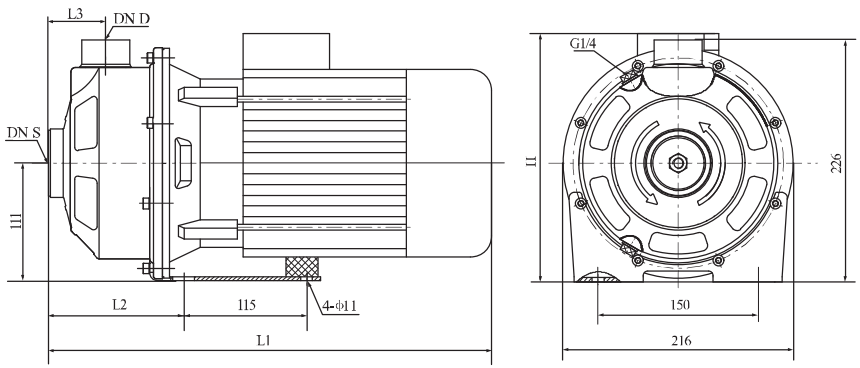
MSS250 Performance curve



MSS330 Performance curve



Installation sketch



Dimensions and weight

Dimensions and weight-50Hz

Model	Motor			L1	L2	L3	H	DN S	DN D	Weight
	Phase	kW	hp	mm				Inlet	Outlet	kg
MS60/0.37	3PH/1PH	0.37	0.5	328	113	51	216 / 230	G1¼	G1	10
MS60/0.55		0.55	0.75	328	113	51	216 / 230	G1¼	G1	12
MS60/0.75		0.75	1	361	113	51	223 / 245	G1¼	G1	14
MS100/0.55		0.55	0.75	328	113	51	216 / 230	G1¼	G1	12
MS100/1.1		1.1	1.5	361	113	51	223 / 245	G1¼	G1	16
MS160/0.75		0.75	1	375	127	54	223 / 245	G1½	G1¼	14
MS160/1.1		1.1	1.5	375	127	54	223 / 245	G1½	G1¼	16
MS250/1.1		1.1	1.5	375	127	54	223 / 245	G1½	G1¼	16
MS250/1.5		1.5	2	415	127	54	232 / 253	G1½	G1¼	20
MS250/2.2		2.2	3	415	127	54	232 / 253	G1½	G1¼	23
MS330/1.5		1.5	2	415	127	54	232 / 253	G2	G1¼	20
MS330/2.2		2.2	3	415	127	54	232 / 253	G2	G1¼	23

Dimensions and weight-60Hz

Model	Motor			L1	L2	L3	H	DN S	DN D	Weight
	Phase	kW	hp	mm				Inlet	Outlet	kg
MSS100/0.75	3PH/1PH	0.75	1	361	113	51	223 / 245	G1¼	G1	14
MSS100/1.1		1.1	1.5	361	113	51	223 / 245	G1¼	G1	14
MSS100/1.5		1.5	2	401	113	51	232 / 253	G1¼	G1	20
MSS160/1.1		1.1	1.5	375	127	54	223 / 245	G1½	G1¼	16
MSS160/1.5		1.5	2	415	127	54	232 / 253	G1½	G1¼	20
MSS160/2.2		2.2	3	415	127	54	232 / 253	G1½	G1¼	23
MSS250/1.1		1.1	1.5	375	127	54	223 / 245	G1½	G1¼	16
MSS250/1.5		1.5	2	415	127	54	232 / 253	G1½	G1¼	20
MSS250/2.2		2.2	3	415	127	54	232 / 253	G1½	G1¼	23
MSS330/1.5		1.5	2	415	127	54	232 / 253	G2	G1¼	20
MSS330/2.2		2.2	3	415	127	54	232 / 253	G2	G1¼	23