

MAHENDRA PUMPS

MP, MPI, MPS, MPN Series
Horizontal Multistage Centrifugal Pumps 50/60 Hz



Since
1960

Academic Catalogue





Applications

- *Domestic
- *Liquid transfer and circulation of liquids within light industry and farming
- *Pressure boosting
- *Air-conditioning systems
- *Cooling systems or cooling machine
- *Specialized OEM equipment

Pump

The MP and MPI series are non-self priming, horizontal multistage centrifugal pumps. Pump is coupled with motor at the same shaft and mounted on a base-plate. The friendly design makes the pump suitable for installation in the small domestic or industrial water supply systems. The pump is fitted with a mechanical seal and through-going pump-motor shaft.

MP: The discharge and suction chamber are made of cast iron. The other parts of pump in contact with the liquid are made of stainless steel.

MPI: All parts of pump in contact with the liquid are made of stainless steel. EPDM or Viton O-rings are available as standard.

Motor

The pump is fitted with a totally enclosed, fan-cooled, squirrel-cage motor. Rated speed: 2850rpm(50Hz), Enclosure class: IP 54, Insulation class: F Standard voltages: 1 x 220~240 V, 50Hz, 3 x 220~240Δ/380~415Y V, 50Hz

Operating conditions

Liquid: Clean liquid without solid particles.

Liquid temperature range: 0°C ~ +90°C. Maximum ambient temperature: +50°C.

The maximum operating pressure depends on the temperature of the pumped liquid, see table:

Max. operating pressure	10 kg/cm ²	6 kg/cm ²
MP (I) 2, MP (I) 4	0°C to + 40°C	+41°C to + 90°C

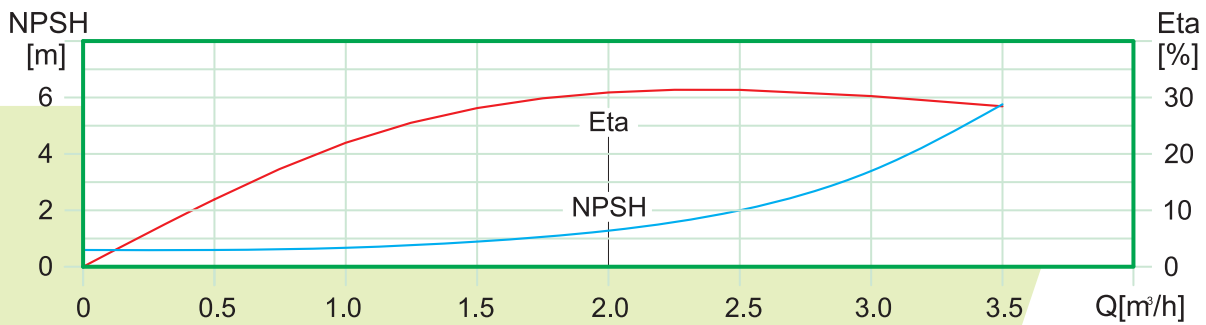
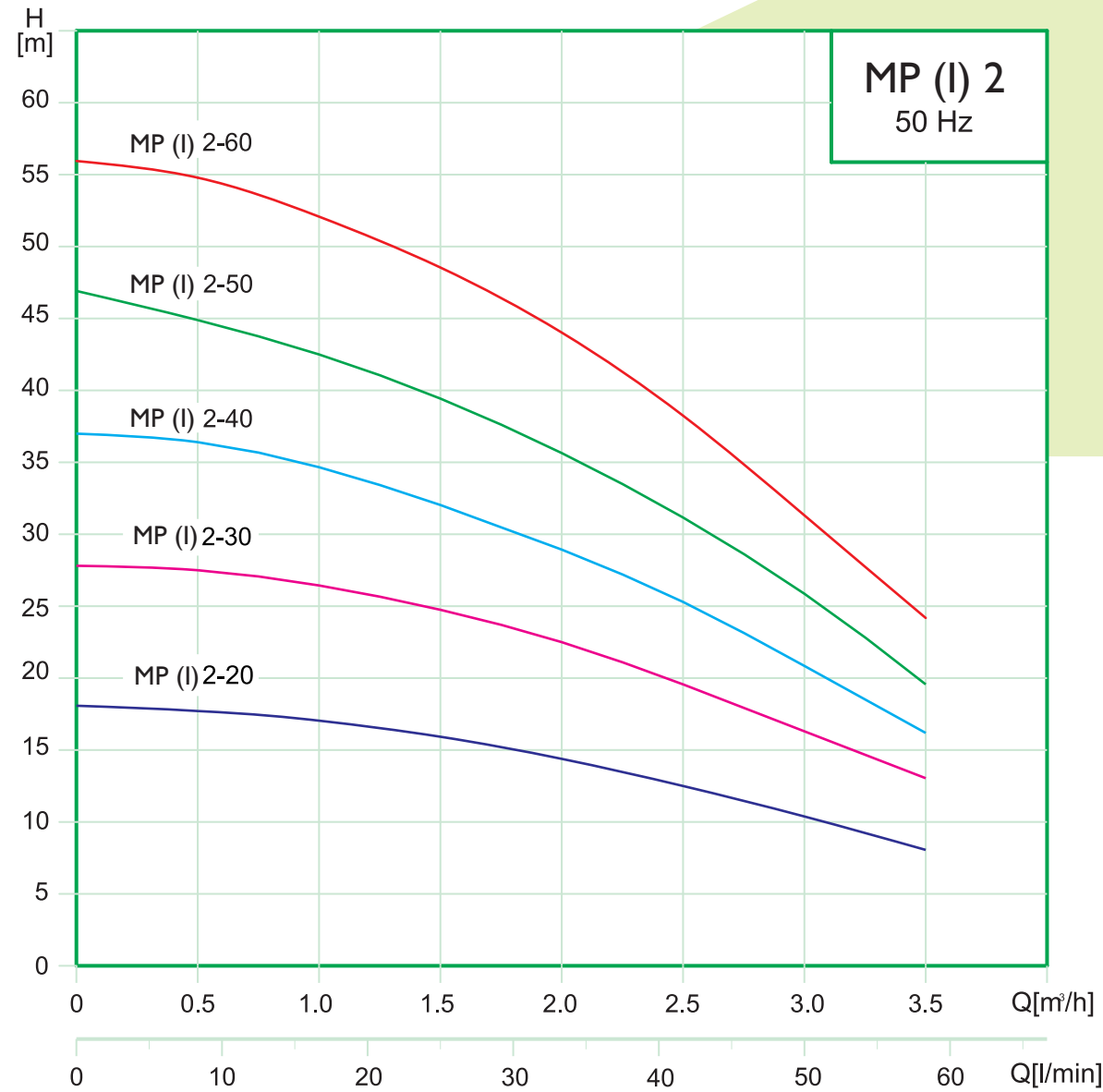
Min. inlet pressure: According to the NPSH curve + a safety margin of 0.5m.

Max. inlet pressure: Limited by the max. operating pressure.

MP/MP1 2-50HZ-1PH							
Model	Max H.	Standard H.	Nominal Q.	P1(w)	P2(w)	Voltage	Ampere
MP/MP1 2-20	18M	12.5 M	2.5m ³ /H	420	260	220-240V	2.1
MP/MP1 2-30	27M	18 M	2.5m ³ /H	480	280	220-240V	2.3
MP/MP1 2-40	36M	23.8. M	2.5m ³ /H	570	370	220-240V	2.6
MP/MP1 2-50	46M	31 M	2.5m ³ /H	680	480	220-240V	3.2
MP/MP1 2-60	56M	37 M	2.5m ³ /H	810	590	220-240V	3.7

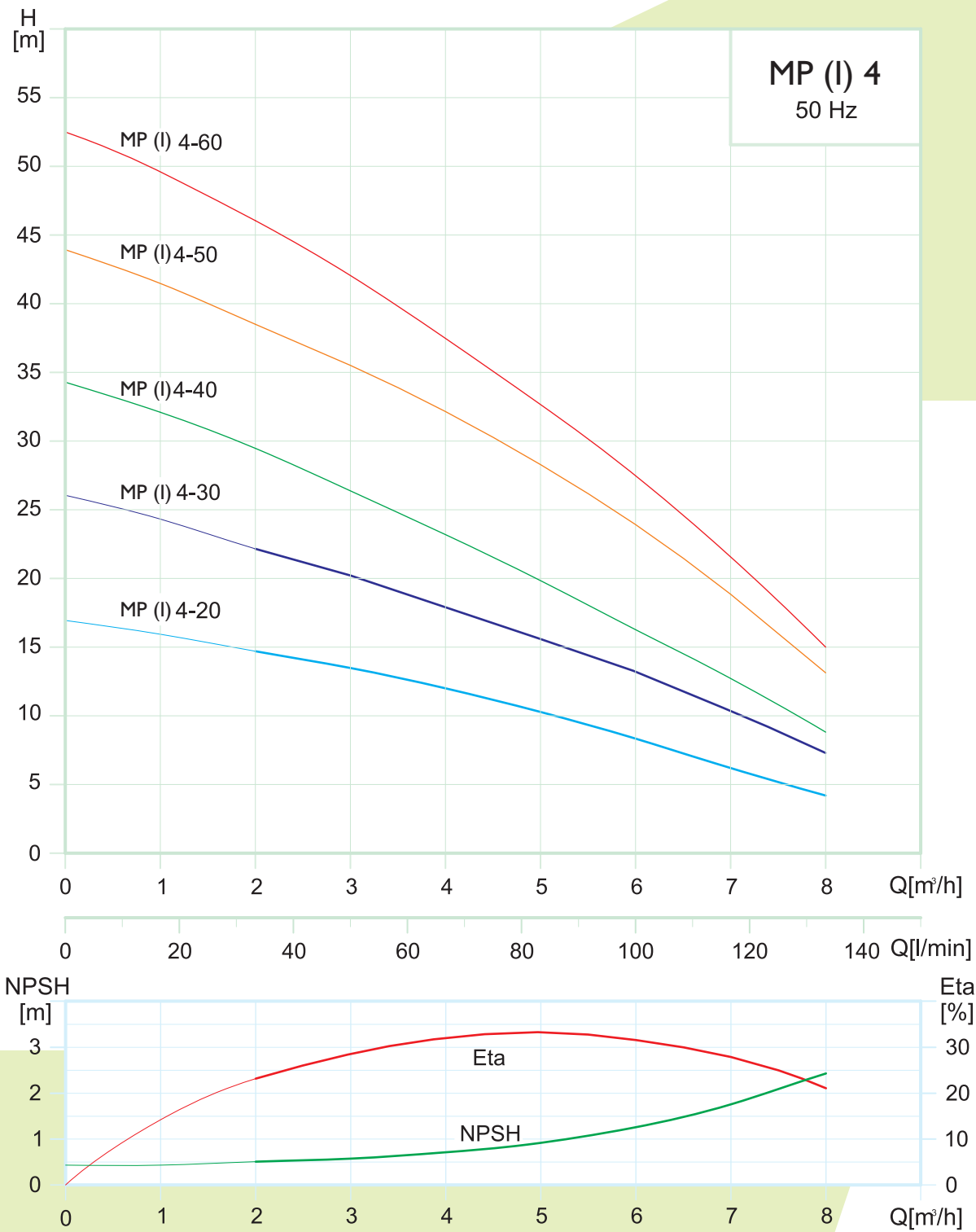
MP/MP1 2-50HZ-3PH							
Model	Max H.	Standard H.	Nominal Q.	P1(w)	P2(w)	Voltage	Ampere
MP/MP1 2-20	19M	13.4 M	2.5m ³ /H	380	250	220-240V/380-415	1.8-1.1
MP/MP1 2-30	28M	19.3 M	2.5m ³ /H	460	320	220-240V/380-415	1.9-1.2
MP/MP1 2-40	37M	24.5 M	2.5m ³ /H	560	400	220-240V/380-415	2.0-1.2
MP/MP1 2-50	47M	32.4 M	2.5m ³ /H	660	480	220-240V/380-415	2.7-1.6
MP/MP1 2-60	56M	37.2 M	2.5m ³ /H	810	580	220-240V/380-415	2.8-1.6

Maximum Capacity 3.5 M³/hr



MP/MP1 4-50HZ-1PH							
Model	Max H.	Standard H.	Nominal Q.	P1(w)	P2(w)	Voltage	Ampere
MP/MP1 4-20	17M	10 M	5m ³ /H	540	340	220-240V	2.4
MP/MP1 4-30	26M	15.5 M	5m ³ /H	820	560	220-240V	3.5
MP/MP1 4-40	34M	20.5 M	5m ³ /H	1020	740	220-240V	4.3
MP/MP1 4-50	44M	27.3 M	5m ³ /H	1220	920	220-240V	5.4
MP/MP1 4-60	54M	34.7 M	5m ³ /H	1450	1050	220-240V	6.2

Maximum Capacity 8.5 M³/hr

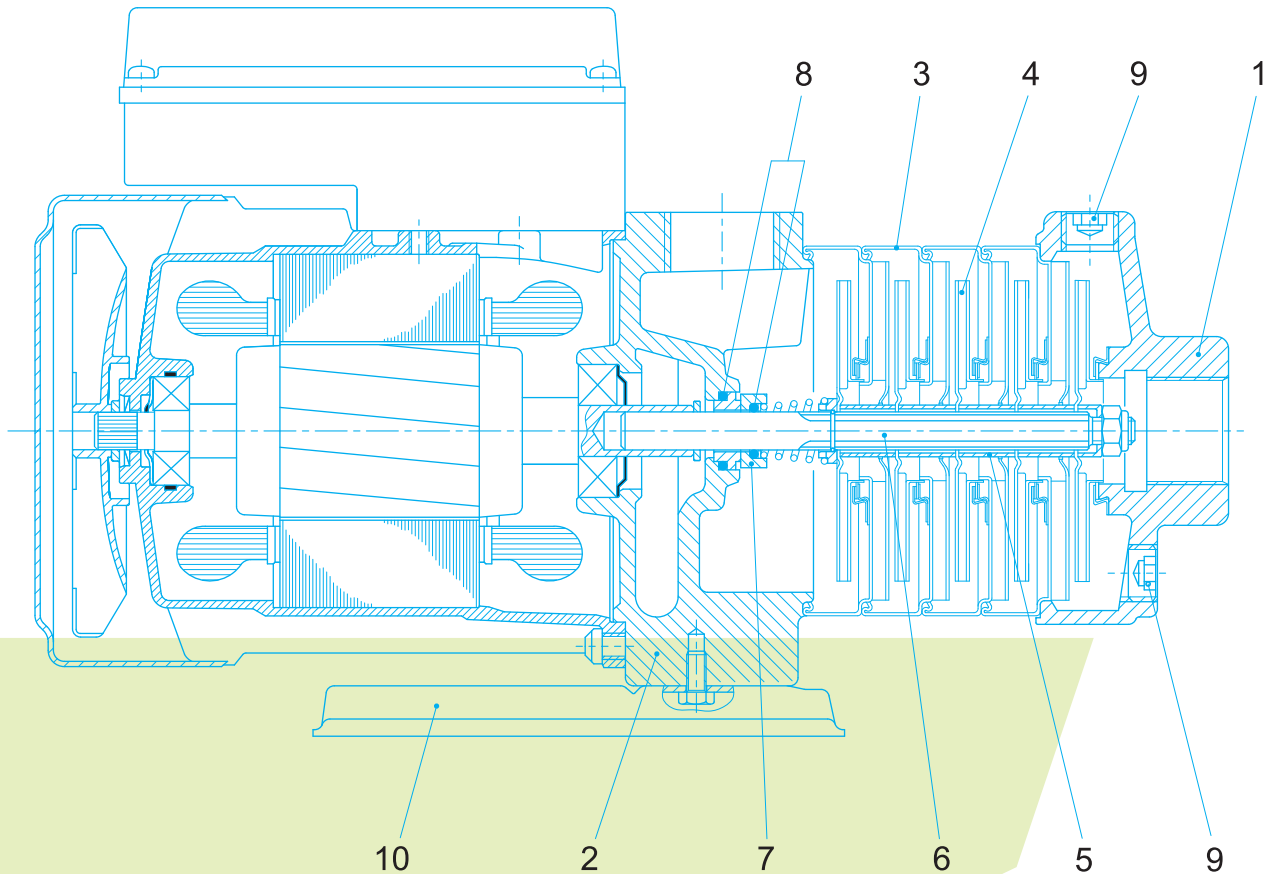


MP/MPI 4-50HZ-3PH							
Model	Max H.	Standard H.	Nominal Q.	P1(w)	P2(w)	Voltage	Ampere
MP/MPI 4-20	17M	11.1M	5m ³ /H	560	390	220-240V/380-415	2.0-1.2
MP/MPI 4-30	27M	17 M	5m ³ /H	770	540	220-240V/380-415	2.3-1.3
MP/MPI 4-40	34M	20.8 M	5m ³ /H	1000	750	220-240V/380-415	3.1-1.8
MP/MPI 4-50	45M	29.6 M	5m ³ /H	1200	900	220-240V/380-415	4.0-2.3
MP/MPI 4-60	54M	34.7 M	5m ³ /H	1400	1100	220-240V/380-415	4.6-2.7

Materials

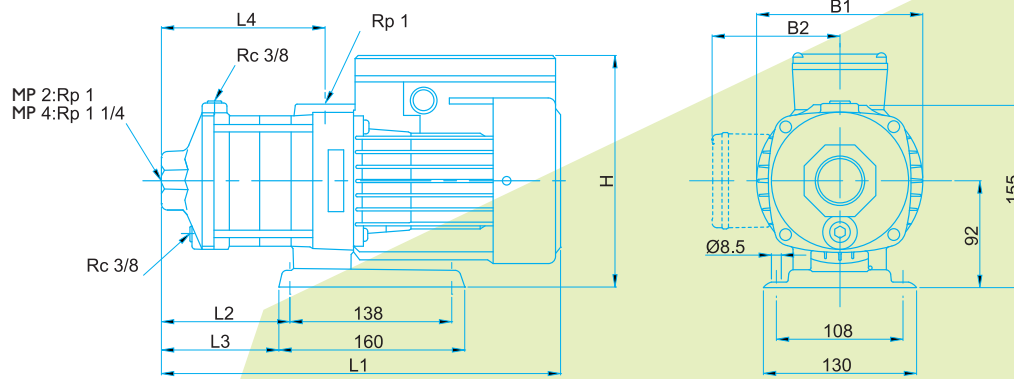
Pos.	Description	Materials	
		MP	MPI
1	Suction chamber	Cast iron	SS304
2	Pump head	Cast iron	SS304
3	Intermediate chamber	SS304	SS304
4	Impeller	SS304	SS304
5	Spacing pipe	SS304	SS304
6	Shaft	SS431	SS431
7	Mechanical seal	Silicon carbide / Carbon	Silicon carbide / Carbon
8	O-ring	EPDM or Viton	EPDM or Viton
9	Drain and priming plug	Steel	SS304
10	Base plate	Steel	SS304

Material construction



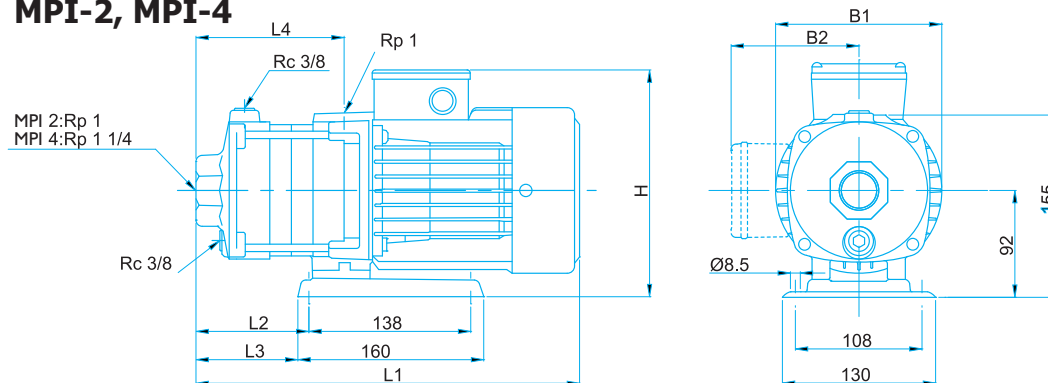
Pipe connections:

Connections	MP/MPI 2	MP/MPI 4
Suction port	Rp 1	Rp 1 1/4
Discharge port	Rp 1	Rp 1
Drain hole, priming hole	Rc 3/8	Rc 3/8



pump type	mm									Kg	
	L1	L2	L3	L4	B1	B2		H		1phase	3phase
						1phase	3phase	1phase	3phase		
MP 2-20	309	75	63	101	141	127	112	228	206	10.3	10.0
MP 2-30	327	93	81	119	141	127	112	228	206	10.5	10.3
MP 2-40	345	111	99	137	141	127	112	228	206	10.8	10.5
MP 2-50	363	129	117	155	141	127	112	228	206	11.6	11.2
MP 2-60	381	147	135	173	141	127	112	228	206	11.8	11.5
MP 4-20	318	84	72	110	141	127	112	228	206	10.4	10.1
MP 4-30	344	111	99	137	141	127	112	228	206	10.8	10.5
MP 4-40	372	138	126	164	141	127	112	228	206	11.6	11.2
MP 4-50	438	165	153	191	141	127	112	228	206	13.4	13.1
MP 4-60	465	192	180	218	141	127	112	228	206	14.8	14.5

MPI-2, MPI-4



pump type	mm									Kg	
	L1	L2	L3	L4	B1	B2		H		1phase	3phase
						1phase	3phase	1phase	3phase		
MPI 2-20	309	75	63	101	141	127	112	228	206	9.1	8.8
MPI 2-30	327	93	81	119	141	127	112	228	206	9.4	9.1
MPI 2-40	345	111	99	137	141	127	112	228	206	9.6	9.4
MPI 2-50	363	129	117	155	141	127	112	228	206	10.4	10.1
MPI 2-60	381	147	135	173	141	127	112	228	206	10.7	10.3
MPI 4-20	318	84	72	110	141	127	112	228	206	9.2	9.0
MPI 4-30	344	111	99	137	141	127	112	228	206	9.6	9.3
MPI 4-40	372	138	126	164	141	127	112	228	206	10.4	10.1
MPI 4-50	438	165	153	191	141	127	112	228	206	11.3	12.0
MPI 4-60	465	192	180	218	141	127	112	228	206	13.6	13.4

MPS, MPN Series 3.5 M³/hr stage 50 Hz



Applications

- Water supply and pressure boosting
- Air-conditioning
- Water treatment
- Heating and cooling in industrial processes
- Industrial washing and dish-washing machines softened water
- Pressure boosting of process water
- Fertilizer/dosing systems

Pump

A horizontal, multistage centrifugal pump is made of stainless steel. The pump is a non-self priming type and fitted with a mechanical shaft seal.

Motor

Totally enclosed and fan-cooled standard motor.

Standard voltages: 1 x 220~240 V, 50Hz, 1 x 110/220 V, 60Hz, 3 x 220~240△/380~415Y V, 50Hz
3 x 200~230△/346~400Y V, 60Hz Insulation class: F Enclosure class: IP54

Operating conditions

Liquid temperature range: 0°C ~+110°C

Maximum ambient temperature: +40°C

Maximum operating pressure: 10 kg./cm².

Maximum inlet pressure is limited by maximum operating pressure.

Liquids to be pumped

These pumps are designed for pumping freely flowing non-corrosive, non-explosive, and non-flammable liquids. The liquids to be pumped must also be free of solid matter, sands, fibers, and similar materials.

Most common non-highly corrosive watery liquids, oily liquids, hot and cold liquids can be pumped with these pumps.

The suitability of these pumps for pumping any particular liquid depends upon a number of factors, such as the pH value, contents of chemicals such as chlorides, oils, the temperature of the liquids, etc.. Please contact your distributor or the factory if there are any questions as to whether certain liquids are suitable for pumping with these pumps.

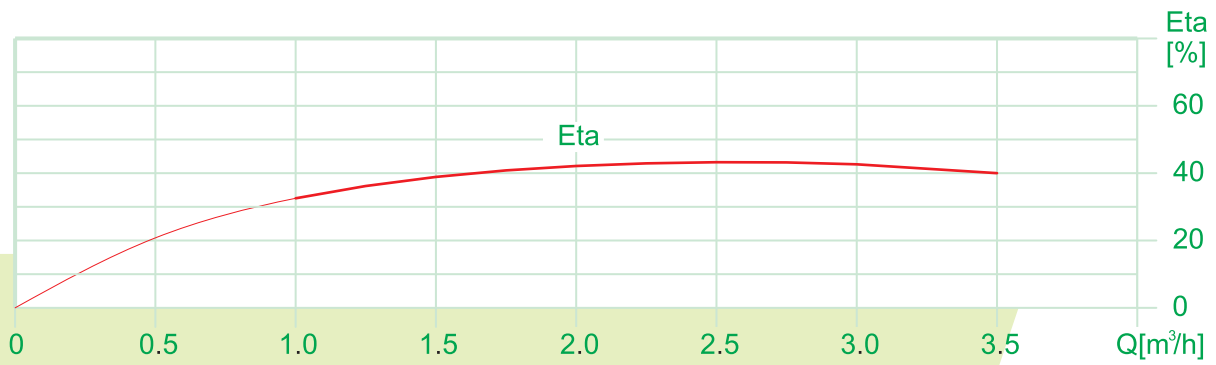
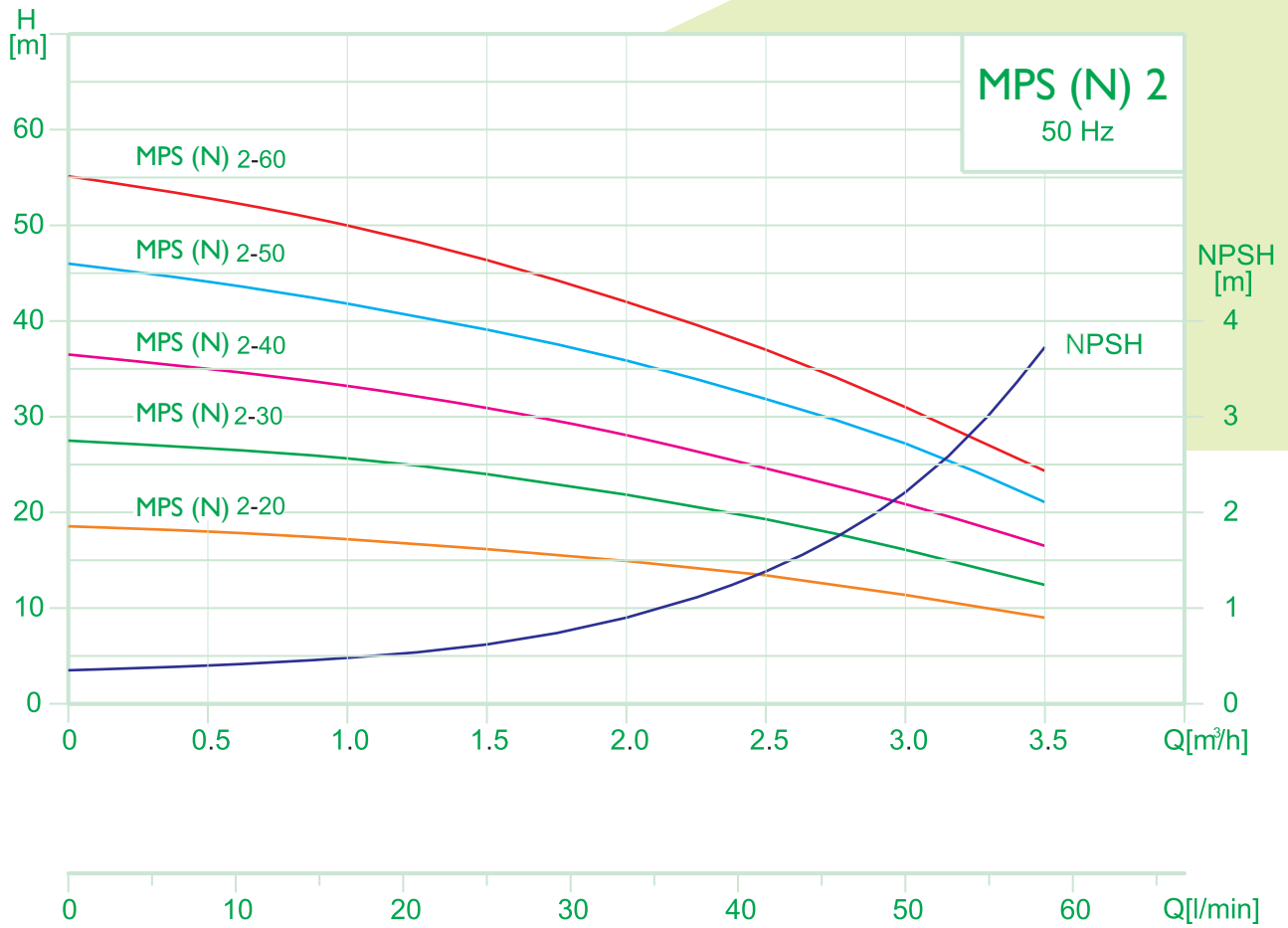
MPS/MPN 2-50HZ-1PH

Max H.	Standard H.	Nominal Q.	P1(w)	P2(w)	Voltage	Ampere	
MPS/MPN 2-20	19M	13 M	2.5m ³ /H	450	240	220-240V	1.9
MPS/MPN 2-30	28M	19 M	2.5m ³ /H	540	320	220-240V	2.4
MPS/MPN 2-40	37M	25 M	2.5m ³ /H	630	420	220-240V	2.8
MPS/MPN 2-50	47M	32 M	2.5m ³ /H	800	580	220-240V	3.8
MPS/MPN 2-60	55M	37 M	2.5m ³ /H	940	620	220-240V	4.2

MPS/MPN 2-50HZ-3PH

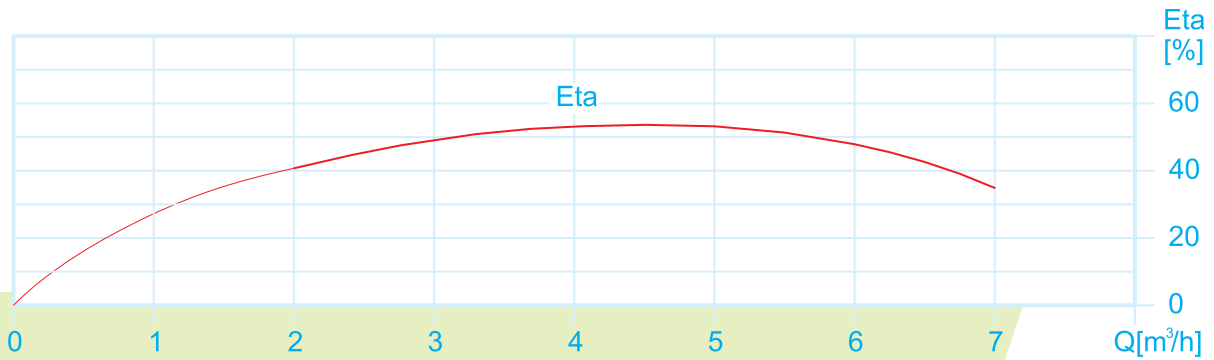
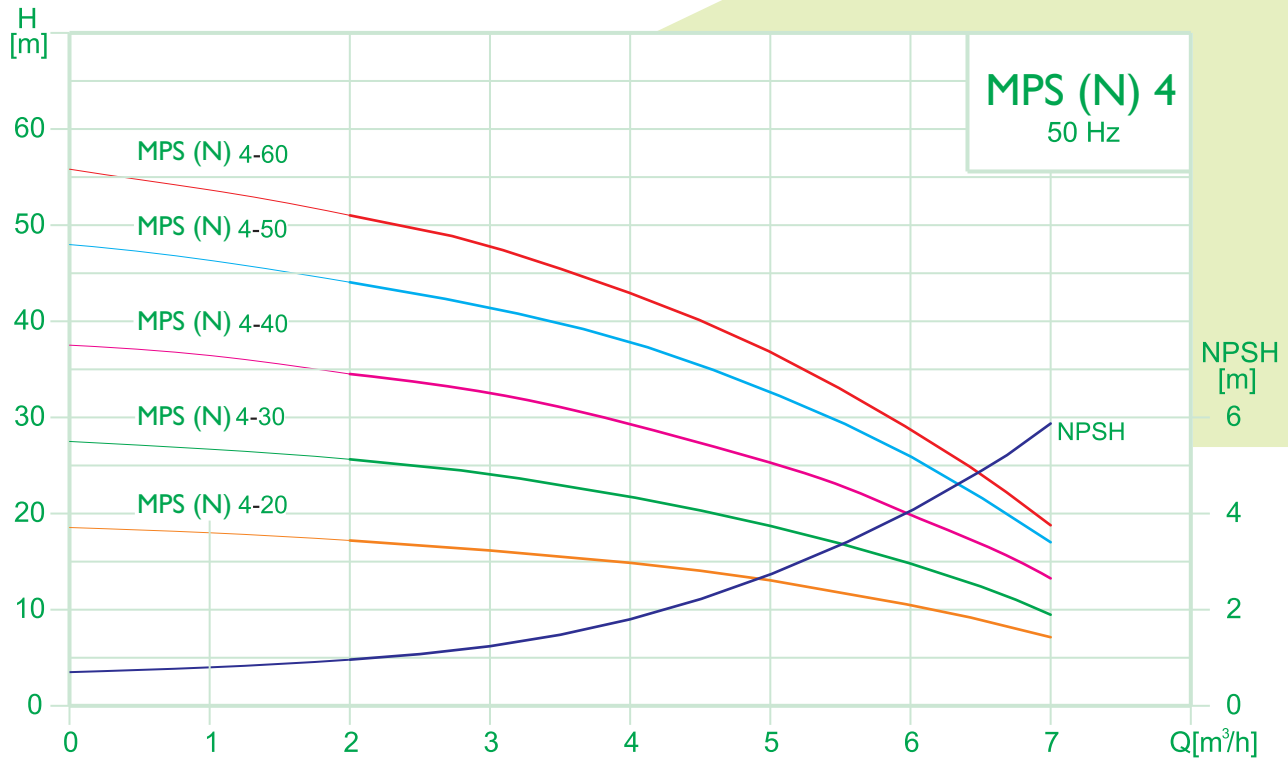
Model	Max H.	Standard H.	Nominal Q.	P1(w)	P2(w)	Voltage	Ampere
MPS/MPN 2-20	19M	13M	2.5m ³ /H	370	260	220-240V/380-415	1.9-1.1
MPS/MPN 2-30	28M	19 M	2.5m ³ /H	480	350	220-240V/380-415	1.9-1.1
MPS/MPN 2-40	37M	25 M	2.5m ³ /H	620	450	220-240V/380-415	2.0-1.2
MPS/MPN 2-50	47M	32 M	2.5m ³ /H	820	560	220-240V/380-415	2.7-1.6
MPS/MPN 2-60	56M	37 M	2.5m ³ /H	910	650	220-240V/380-415	2.8-1.6

Performance curves 50 Hz



MPS/MPN 4-50HZ-1PH							
Model	Max H.	Standard H.	Nominal Q.	P1(w)	P2(w)	Voltage	Ampere
MPS/MPN 4-20	20M	15 M	4.5m ³ /H	560	380	220-240V	2.5
MPS/MPN 4-30	29M	21 M	4.5m ³ /H	760	530	220-240V	3.5
MPS/MPN 4-40	39M	28 M	4.5m ³ /H	1000	710	220-240V	4.8
MPS/MPN 4-50	48M	34 M	4.5m ³ /H	1220	910	220-240V	5.7
MPS/MPN 4-60	58M	41 M	4.5m ³ /H	1410	1020	220-240V	6.4

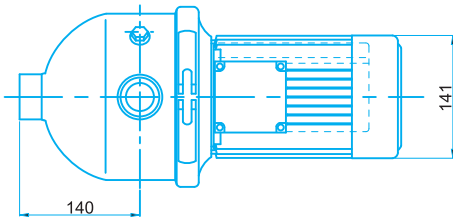
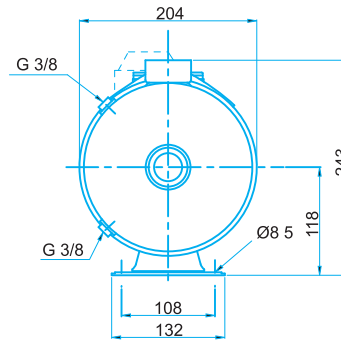
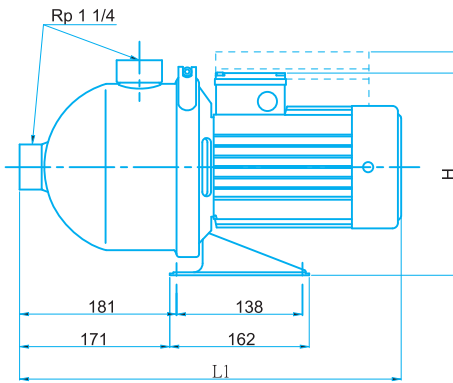
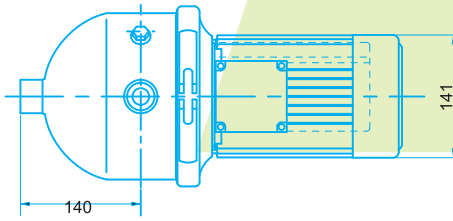
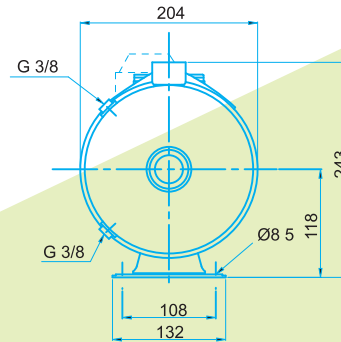
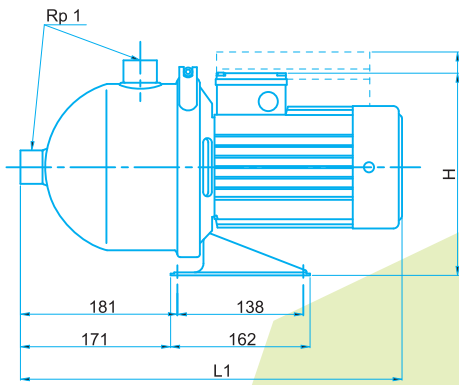
Performance curves 50 Hz



MPS/MPN 4-50HZ-3PH							
MODEL	MAX H.	STANDARD H.	NOMINAL Q.	P1(W)	P2(W)	VOLTAGE	AMPERE
MPS/MPN 4-20	20M	15 M	4.5m ³ /H	560	380	220-240V/380-415	2.0-1.2
MPS/MPN 4-30	29M	21 M	4.5m ³ /H	720	520	220-240V/380-415	2.4-1.4
MPS/MPN 4-40	39M	28 M	4.5m ³ /H	980	710	220-240V/380-415	3.2-1.8
MPS/MPN 4-50	49M	35 M	4.5m ³ /H	1210	890	220-240V/380-415	4.0-2.3
MPS/MPN 4-60	58M	41 M	4.5m ³ /H	1410	1050	220-240V/380-415	4.8-2.7

Dimensions and weights 50 Hz

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PUMPS



pump type	Dimension (mm)				Net Weight (kg)
	1-Phase		3-Phase		
	L1	H	L1	H	
MPS/MPN 2-20	403	255	403	233	9.6
MPS/MPN 2-30	403	255	403	233	9.9
MPS/MPN 2-40	403	255	403	233	10.1
MPS/MPN 2-50	403	255	403	233	10.8
MPS/MPN 2-60	403	255	403	233	11.0
MPS/MPN 4-20	403	255	403	233	9.6
MPS/MPN 4-30	403	255	403	233	9.9
MPS/MPN 4-40	403	255	403	233	10.6
MPS/MPN 4-50	441	255	441	233	12.1
MPS/MPN 4-60	441	255	441	233	12.3

MP/MPI 2- 60HZ-IPH							
Model	Max H	Standard H.	Normal Q.	Pi(w)	P2(w)	Voltage	Ampere
MP/MPI 2-20	26M	17.6M	3m3/H	640	360	110/220V	6.0-3.0
MP/MPI 2-30	39M	26.2M	3M3/H	780	460	110/220V	7.6-3.8
MP/MPI 2-40	52M	32.5M	3M3/H	870	550	110/220V	8.8-4.4
MP/MPI 2-50	68M	46M	3M3/H	1210	820	110/220V	11-5.5
MP/MPI 2-60	80M	52M	3M3/H	1280	850	110/220V	13.5-6.8

MP/MPI 2- 60HZ-3PH							
Model	Max H	Standard H.	Normal Q.	Pi(w)	P2(w)	Voltage	Ampere
MP/MPI 2-20	27M	18M	3m3/H	520	380	200-230/346-400V	2.7-1.6
MP/MPI 2-30	40M	27M	3M3/H	690	510	200-230/346-400V	3.0-1.8
MP/MPI 2-40	54M	37M	3M3/H	860	660	200-230/346-400V	3.2-1.9
MP/MPI 2-50	66M	44.5M	3M3/H	1090	880	200-230/346-400V	3.6-2.1
MP/MPI 2-60	80M	54.8M	3M3/H	1240	1000	200-230/346-400V	4.1-2.4

MP/MPI 4- 60HZ-IPH							
Model	Max H	Standard H.	Normal Q.	Pi(w)	P2(w)	Voltage	Ampere
MP/MPI 4-20	24M	14.2M	6m3/H	970	580	110/220V	8.5-4.2
MP/MPI 4-30	38M	23.8M	6M3/H	1450	900	110/220V	13.5-6.8
MP/MPI 4-40	51M	31.7M	6M3/H	1710	1200	110/220V	16-8

MP/MPI 4- 60HZ-3PH							
Model	Max H	Standard H.	Normal Q.	Pi(w)	P2(w)	Voltage	Ampere
MP/MPI 4-20	25M	14.7M	6m3/H	810	650	200-230/346-400V	8.5-4.2
MP/MPI 4-30	38M	23.3M	6M3/H	1250	900	200-230/346-400V	13.5-6.8
MP/MPI 4-40	51M	31.4M	6M3/H	1520	1200	200-230/346-400V	16-8

MPS/MPN 2- 60HZ-IPH

Model	Max H	Standard H.	Normal Q.	Pi(w)	P2(w)	Voltage	Ampere
MPS/MPN 2-10	14M	9M	3m3/H	450	300	110/220V	3.4-1.7
MPS/MPN 2-20	27M	19M	3M3/H	620	350	110/220V	5.2-2.6
MPS/MPN 2-30	40M	27M	3M3/H	800	460	110/220V	7.0-3.5
MPS/MPN 2-40	54M	35M	3M3/H	1020	680	110/220V	9.4-4.7
MPS/MPN 2-50	66M	42M	3M3/H	1200	790	110/220V	11-5.5
MPS/MPN 2-60	81M	53M	3M3/H	1420	1050	110/220V	13-6.5

MPS/MPN 2- 60HZ-3PH

Model	Max H	Standard H.	Normal Q.	Pi(w)	P2(w)	Voltage	Ampere
MPS/MPN 2-10	14M	8M	3m3/H	380	280	200-230/346-400V	3.4-1.7
MPS/MPN 2-20	28M	19M	3M3/H	560	390	200-230/346-400V	5.2-2.6
MPS/MPN 2-30	40M	27M	3M3/H	780	570	200-230/346-400V	7.0-3.5
MPS/MPN 2-40	54M	37M	3M3/H	1020	750	200-230/346-400V	9.4-4.7
MPS/MPN 2-50	66M	44M	3M3/H	1120	870	200-230/346-400V	11-5.5
MPS/MPN 2-60	80M	54M	3M3/H	1260	1020	200-230/346-400V	13-6.5

MPS/MPN 4- 60HZ-IPH

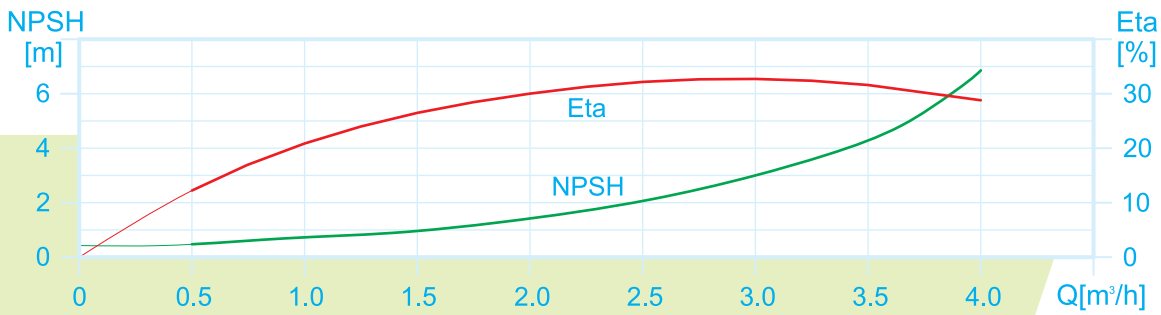
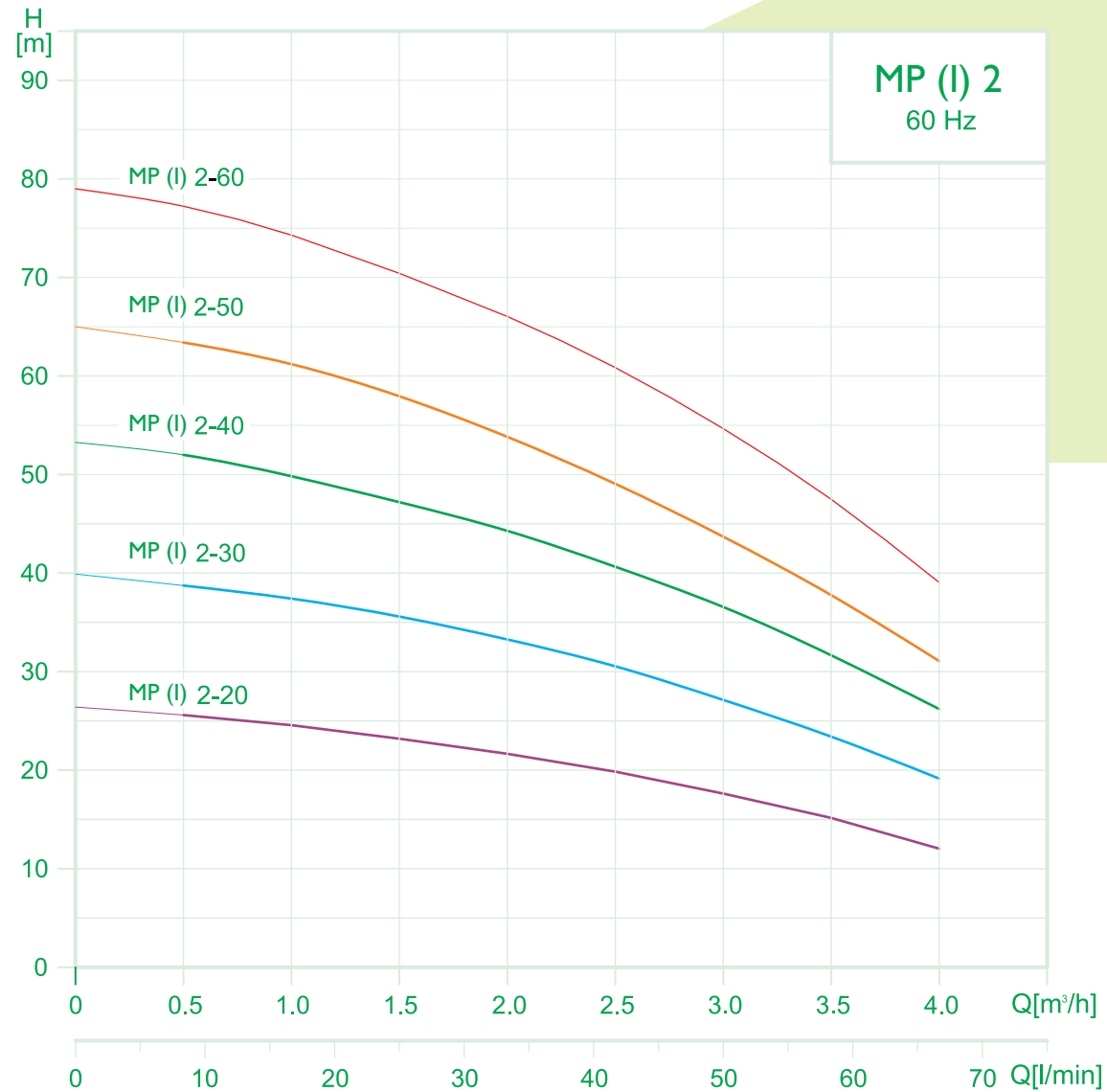
Model	Max H	Standard H.	Normal Q.	Pi(w)	P2(w)	Voltage	Ampere
MPS/MPN 4-10	14M	10M	5.5m3/H	520	340	110/220V	5.4-2.7
MPS/MPN 4-20	28M	20M	5.5m3/H	890	610	110/220V	9.2-4.6
MPS/MPN 4-30	43M	31M	5.5m3/H	1280	940	110/220V	13-6.5
MPS/MPN 4-40	58M	42M	5.5m3/H	1680	1250	110/220V	16-8
MPS/MPN 4-50	71M	53M	5.5m3/H	2080	1540	110/220V	21-10.5

MPS/MPN 4- 60HZ-3PH

Model	Max H	Standard H.	Normal Q.	Pi(w)	P2(w)	Voltage	Ampere
MPS/MPN 4-10	14M	9M	5.5m3/H	530	370	200-230/346-400V	2.7-1.6
MPS/MPN 4-20	28M	20M	5.5m3/H	890	630	200-230/346-400V	3.3-1.9
MPS/MPN 4-30	42M	31M	5.5m3/H	1210	950	200-230/346-400V	4.4-2.5
MPS/MPN 4-40	56M	41M	5.5m3/H	1620	1280	200-230/346-400V	6.0-3.5
MPS/MPN 4-50	71M	51M	5.5m3/H	1830	1510	200-230/346-400V	6.8-3.9

MP, MPI series. 4 M³/hr

Performance curves 60 Hz

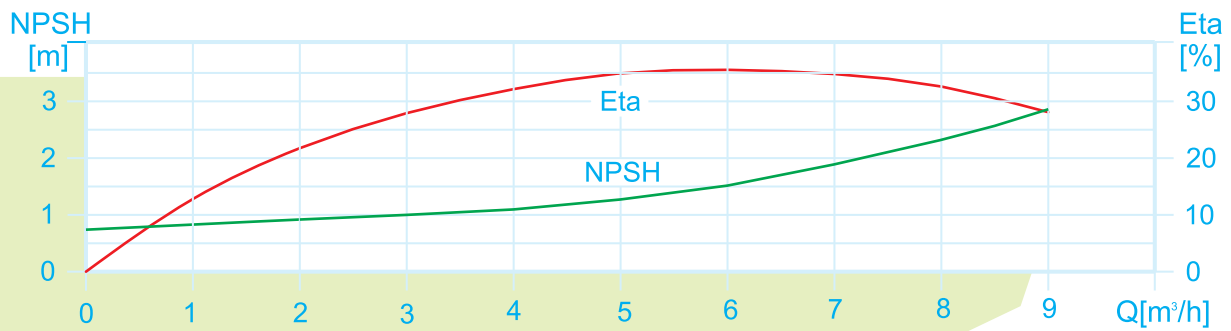
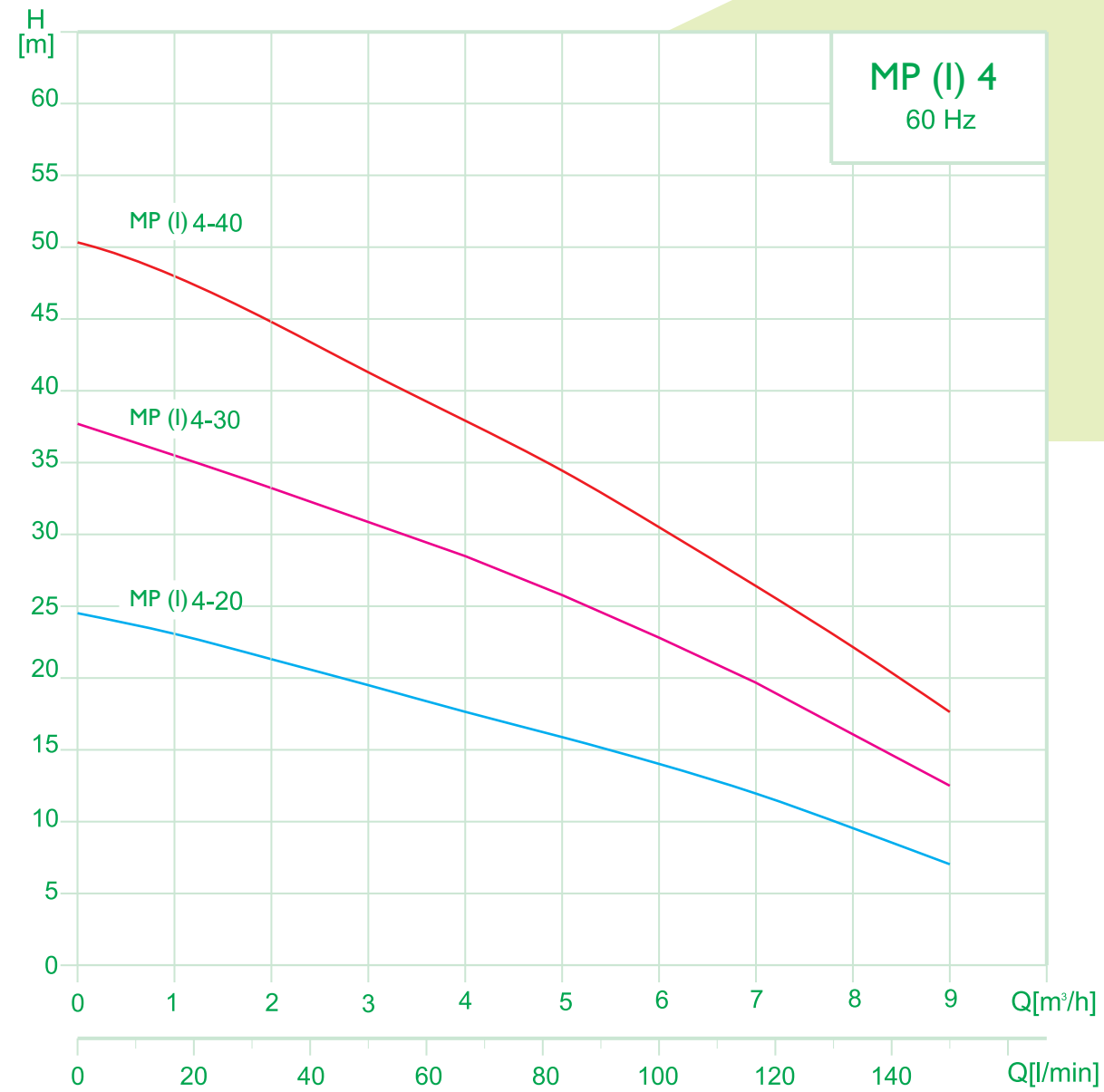


Electrical data, 3450 min⁻¹

pump type	HP	1 x 110/220 V		3 x 200-230 Δ/346-400 Y V	
		P _i [W]	I _{1/1} [A]	P _i [W]	I _{1/1} [A]
MP/MPI 2-20	0.50	640	6.0 / 3.0	520	2.7 / 1.6
MP/MPI 2-30	0.50	780	7.6 / 3.8	690	3.0 / 1.8
MP/MPI 2-40	0.50	870	8.8 / 4.4	860	3.2 / 1.9
MP/MPI 2-50	0.75	1210	11 / 5.5	1090	3.6 / 2.1
MP/MPI 2-60	0.75	1280	13.5 / 6.8	1240	4.1 / 2.4

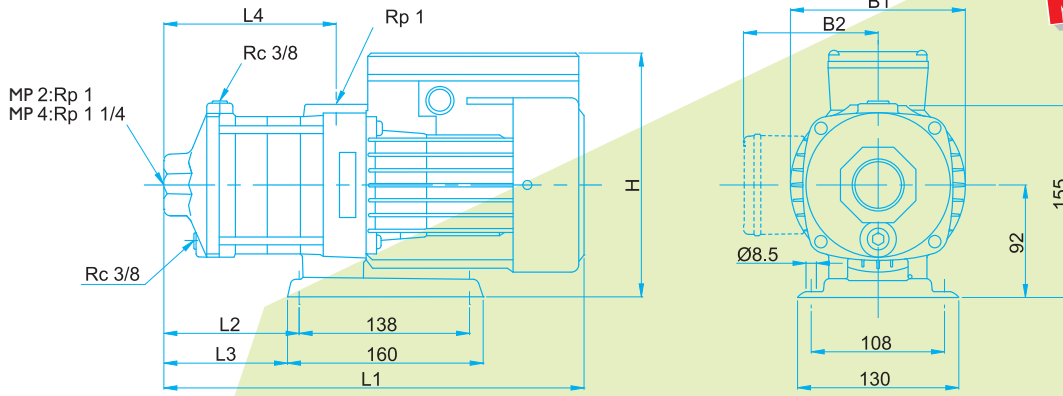
Performance curves 60Hz

MP, MPI series. 9 M³/hr

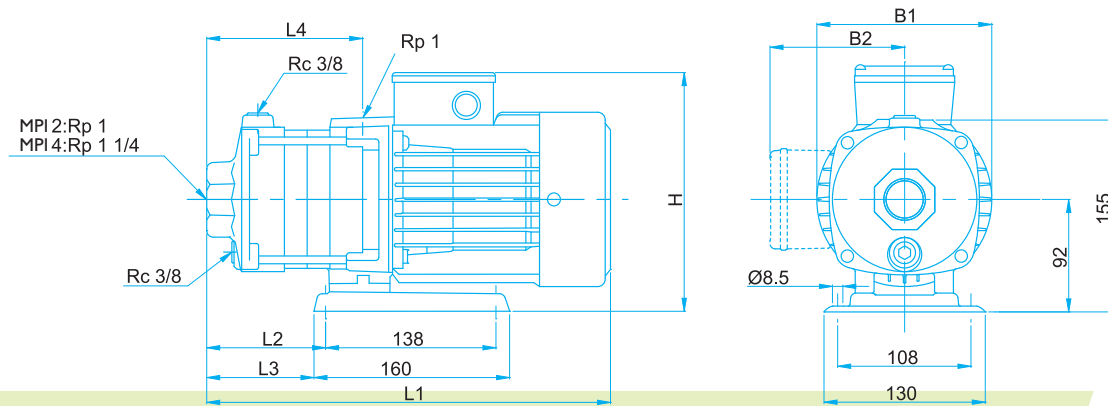


Electrical data, 3450 min⁻¹

pump type	HP	1 x 110/220 V		3 x 200-230 Δ/346-400 Y V	
		P ₁ [W]	I _{1/1} [A]	P ₁ [W]	I _{1/1} [A]
MP/MPI 4-20	0.50	970	8.5 / 4.2	810	3.1 / 1.8
MP/MPI 4-30	0.50	1450	13.5 / 6.8	1250	3.9 / 2.3
MP/MPI 4-40	0.75	1710	16 / 8	1520	4.9 / 2.8

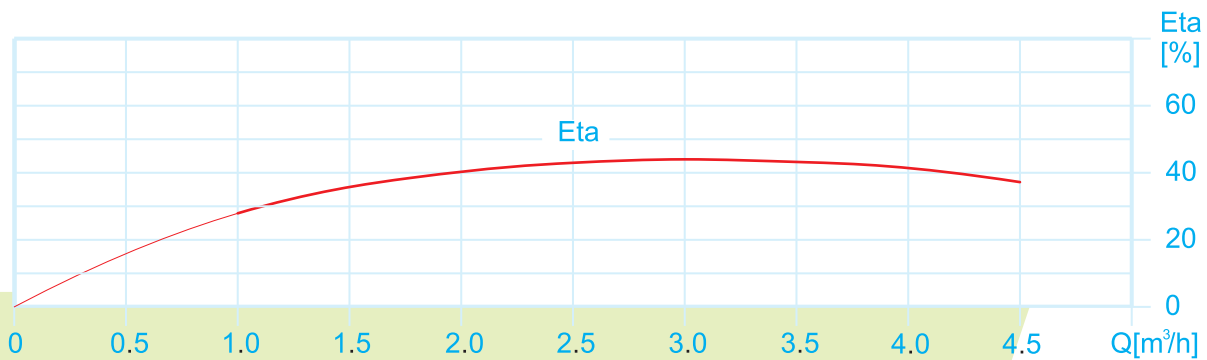
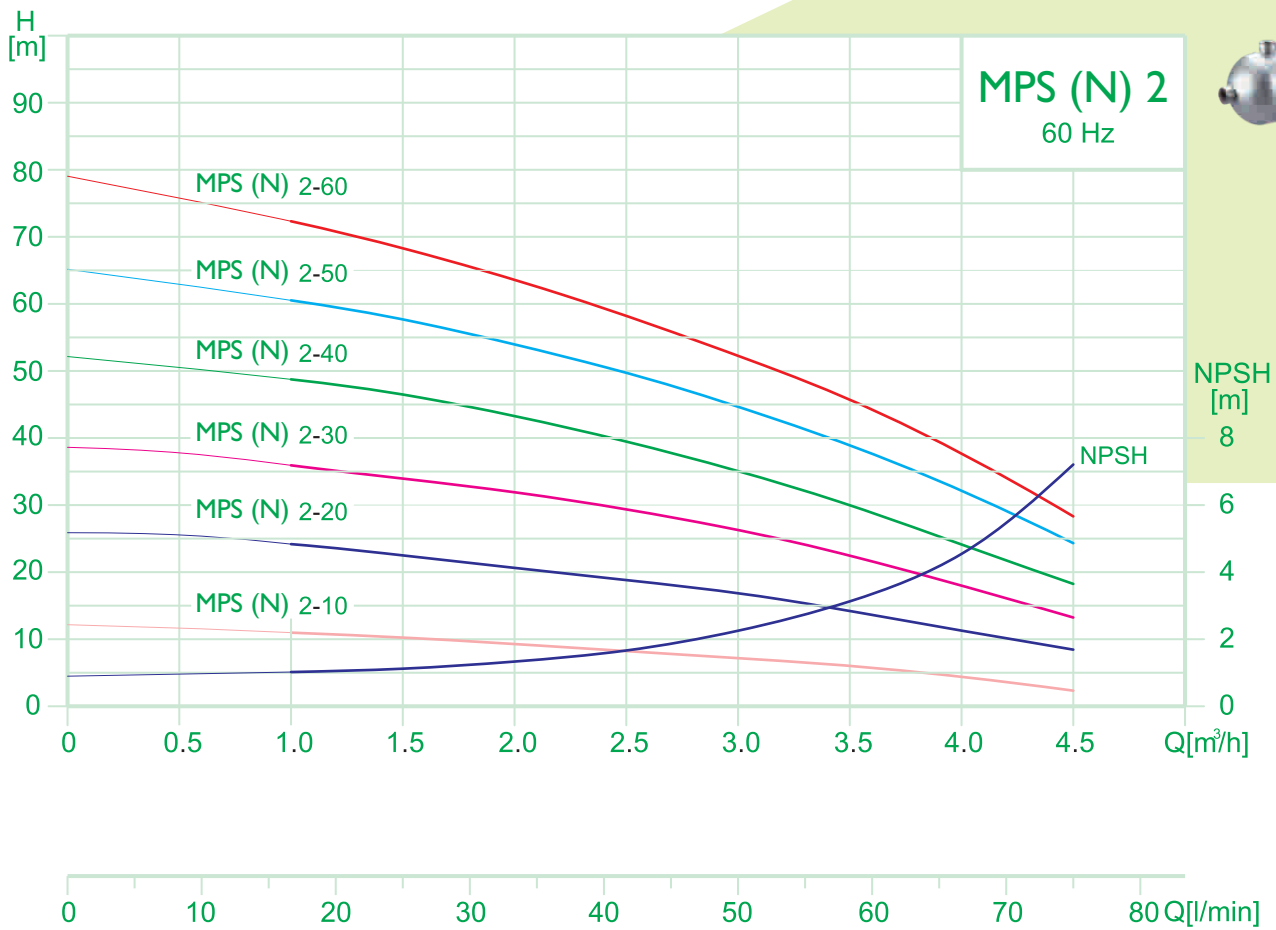


pump type	mm									Kg	
	L1	L2	L3	L4	B1	B2		H		1phase	3phase
						1phase	3phase	1phase	3phase		
MP 2-20	309	75	63	101	141	127	112	228	206	10.3	10.0
MP 2-30	327	93	81	119	141	127	112	228	206	11.1	10.8
MP 2-40	345	111	99	137	141	127	112	228	206	11.3	11.1
MP 2-50	403	129	117	155	141	127	112	228	206	13	12.4
MP 2-60	421	147	135	173	141	127	112	228	206	13.2	12.7
MP 4-20	318	84	72	110	141	127	112	228	206	12.2	10.7
MP 4-30	384	111	99	137	141	127	112	228	206	12.7	12.3
MP 4-40	412	138	126	164	141	127	112	228	206	14	13.7



pump type	mm									Kg	
	L1	L2	L3	L4	B1	B2		H		1phase	3phase
						1phase	3phase	1phase	3phase		
MPI 2-20	309	75	63	101	141	127	112	228	206	9.1	8.8
MPI 2-30	327	93	81	119	141	127	112	228	206	10.0	9.6
MPI 2-40	345	111	99	137	141	127	112	228	206	10.2	10.0
MPI 2-50	403	129	117	155	141	127	112	228	206	11.8	11.5
MPI 2-60	421	147	135	173	141	127	112	228	206	12.1	11.7
MPI 4-20	318	84	72	110	141	127	112	228	206	9.8	9.5
MPI 4-30	384	111	99	137	141	127	112	228	206	11.5	11.1
MPI 4-40	412	138	126	164	141	127	112	228	206	12.8	12.6

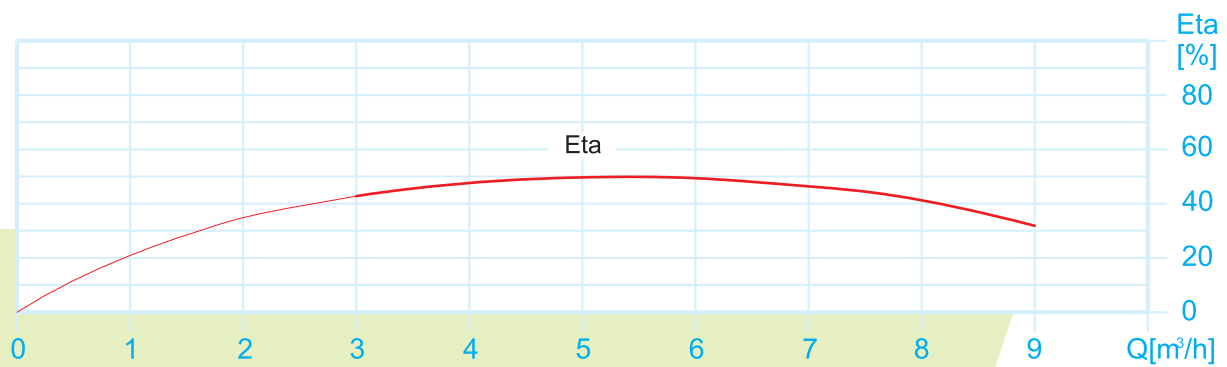
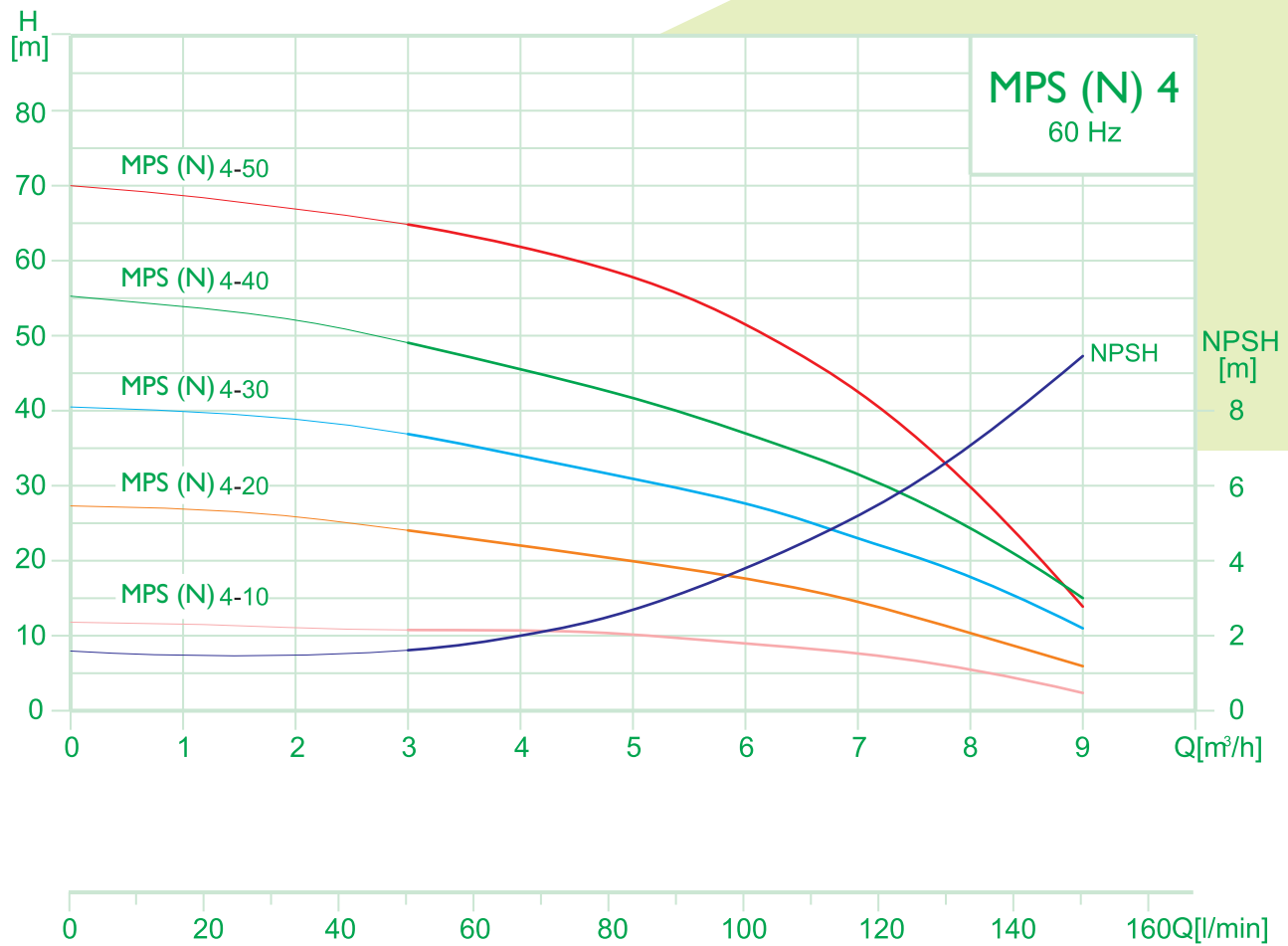
Performance curves 60 Hz



Electrical data, 3450 min⁻¹

pump type	HP	1 x 110/220 V		3 x 200-230 Δ/346-400 Y V	
		P _i [W]	I _{1/n} [A]	P _i [W]	I _{1/n} [A]
MPS/MPN 2-10	0.50	450	3.4 / 1.7	380	1.5 / 0.9
MPS/MPN 2-20	0.50	620	5.2 / 2.6	560	2.8 / 1.6
MPS/MPN 2-30	0.50	800	7.0 / 3.5	780	3.2 / 1.8
MPS/MPN 2-40	0.75	1020	9.4 / 4.7	1020	3.5 / 2.0
MPS/MPN 2-50	0.75	1200	11 / 5.5	1120	3.8 / 2.2
MPS/MPN 2-60	1.00	1420	13 / 6.5	1260	4.5 / 2.6

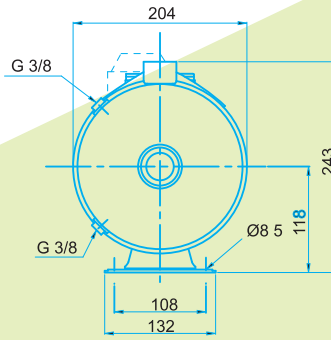
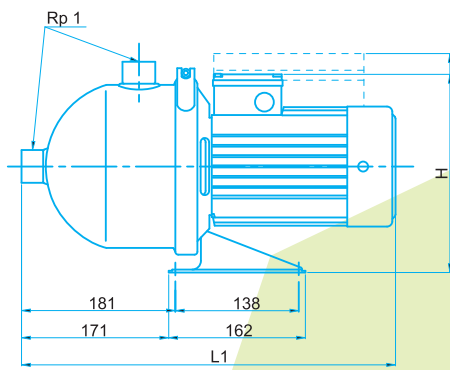
Performance curves 60 Hz



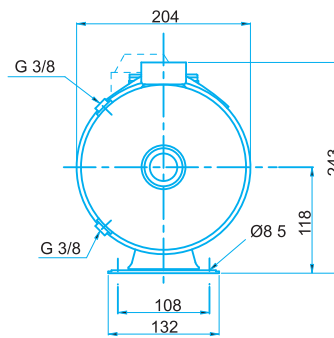
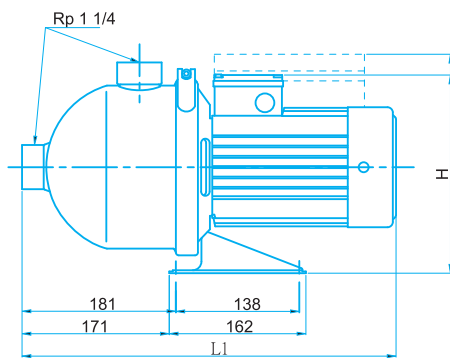
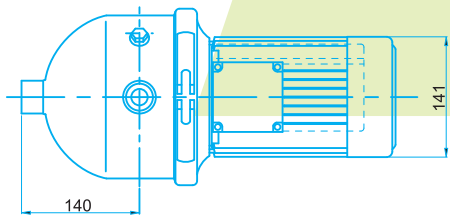
Electrical data, 3450 min⁻¹

pump type	HP	1 x 110/220 V		3 x 200-230 Δ/346-400 Y V	
		P ₁ [W]	I _{1/1} [A]	P ₁ [W]	I _{1/1} [A]
MPS/MPN 4-10	0.50	520	5.4 / 2.7	530	2.7 / 1.6
MPS/MPN 4-20	0.50	890	9.2 / 4.6	890	3.3 / 1.9
MPS/MPN 4-30	0.75	1280	13 / 6.5	1210	4.4 / 2.5
MPS/MPN 4-40	0.75	1680	16 / 8	1620	6.0 / 3.5
MPS/MPN 4-50	1.00	2080	21 / 10.5	1830	6.8 / 3.9

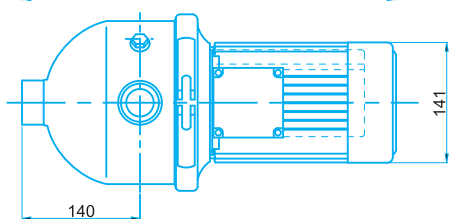
Dimensions and weights 60 Hz



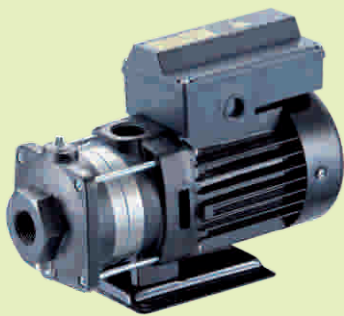
MPS/MPN-2



MPS/MPN-4



pump type	Dimension (mm)				Net Weight (kg)
	1-Phase		3-Phase		
	L1	H	L1	H	
MPS/MPN 2-10	403	255	403	233	9.5
MPS/MPN 2-20	403	255	403	233	9.5
MPS/MPN 2-30	403	255	403	233	9.8
MPS/MPN 2-40	403	255	403	233	10.3
MPS/MPN 2-50	441	255	441	233	11.7
MPS/MPN 2-60	441	255	441	233	12.0
MPS/MPN 4-10	403	255	403	233	9.5
MPS/MPN 4-20	403	255	403	233	9.5
MPS/MPN 4-30	403	255	403	233	10.1
MPS/MPN 4-40	441	255	441	233	11.5
MPS/MPN 4-50	441	255	441	233	12.8



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