



noesberger

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HM, HMK, HMC, HMN

Horizontal Multistage
Centrifugal Pumps, 50Hz

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Horizontal Multistage Pumps

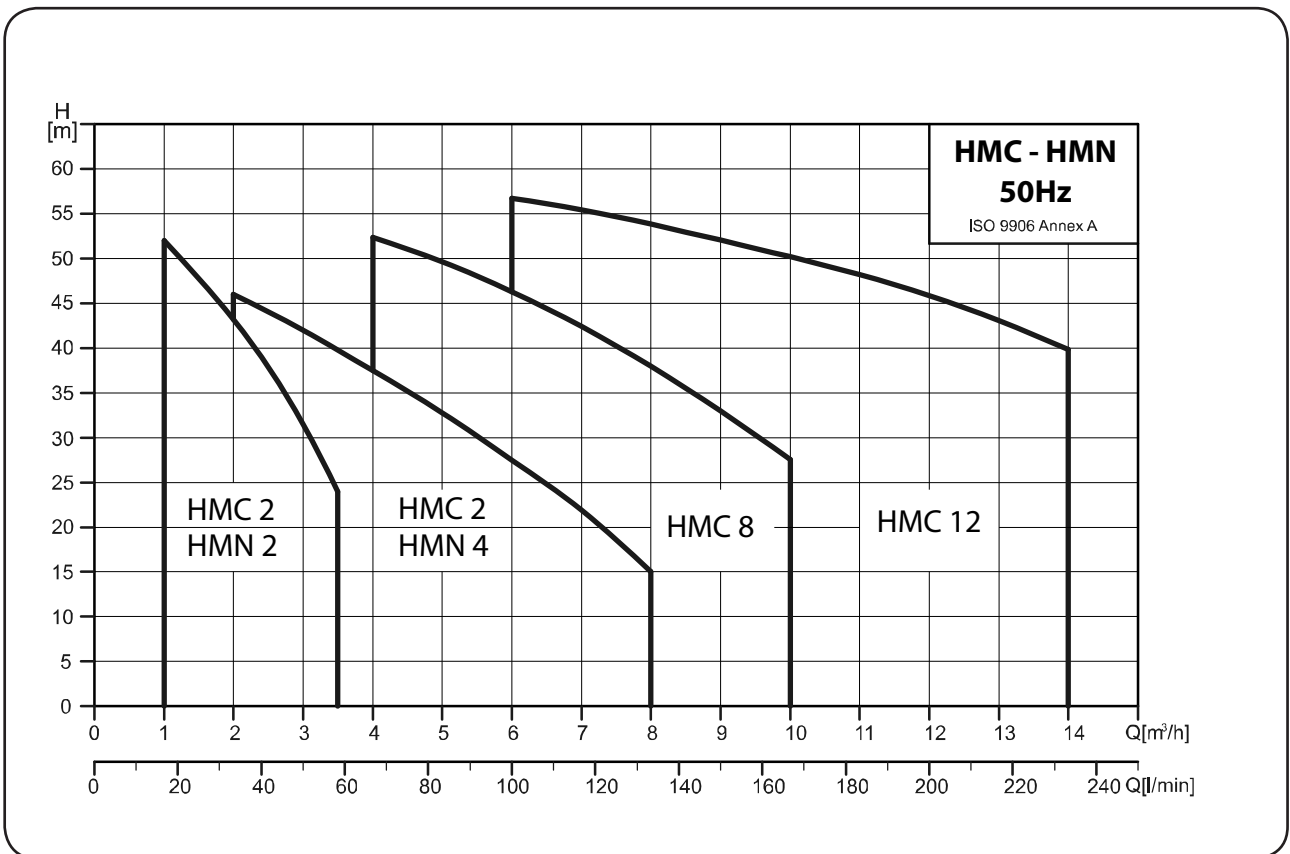
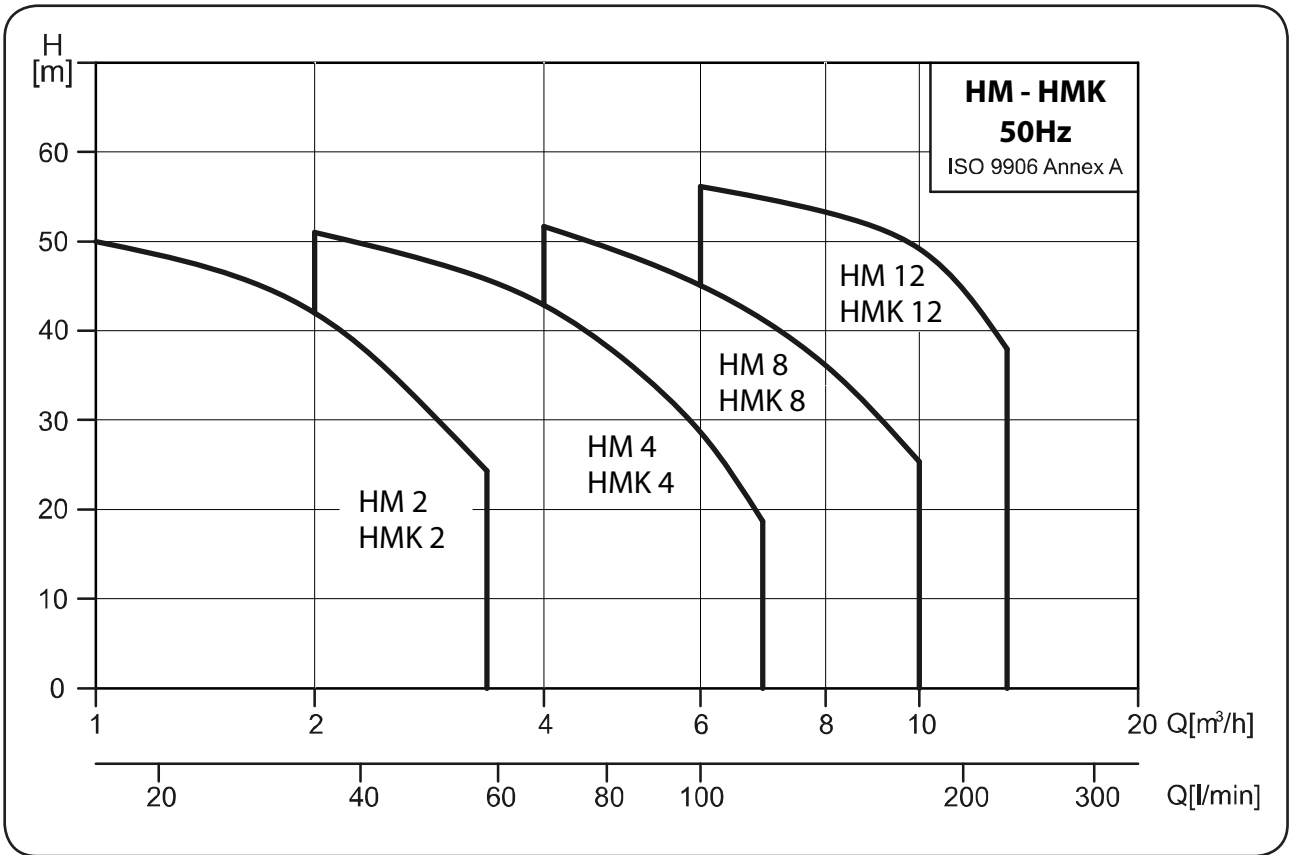
English - SPCO horizontal multistage pumps HMC, HMN, HMK and HM with pumping pressure up to 60 meter and flow up to 22 m³/h. All essential parts like shaft, impeller and intermediate chambers are fully stainless steel AISI 304 (W-Nr. 1.43.01) while the suction and discharge are in cast iron for HMC. HM, HMK and HMN pumps are fully stainless steel including the suction and discharge parts. The pumps are equipped with mechanical seal silicon carbide / carbon. The pumps have got high efficiency.

Deutsch - SPCO horizontale Hochdruckpumpen der Baureihe HMC, HMN und HM mit Förderhöhen bis zu 60 Metern und Fördermengen bis zu 22 m³/h. Sämtliche wesentlichen Teile wie Welle, Laufräder und Zwischenkammern sind aus Edelstahl AISI (W-Nr. 1.43.01). HM und HMN Pumpen sind komplett aus Edelstahl inkl. der Saug- und Druckstutzen während die HMC Pumpen Grauguss Druck- und Saugstutzen haben. Die Gleitringdichtung besteht aus Kohle / Hartmetall. Die Pumpen haben einen hohen Wirkungsgrad und sind wartungsfrei.

Français - Les pompes de haute pression horizontales SPCO de l'assortiment HMC, HMN et HM avec des hauteurs de propulsion jusqu'à 60 mètres et une puissance de propulsion jusqu'à 22 m³/h. Toutes les pièces principales comme axes, roués libres et espaces intermédiaires sont fabriquées en acier inoxydable AISI 304 (W-No. 1.43.01). Les pompes HM et HMN sont entièrement fabriquées en acier y compris les raccords aspire et marques et le pompe HMC avec le raccord en font gris. Le joint circulaire mobile se compose de charbon / métal dur. Les pompes ont un degré d'activité élevé et sont libres de maintenance.

Italiano - SPCO – Pompe orizzontali plurigranti HMC – HMN e HM sono capaci di prevalenze fino a 60 m e portate sino a 22 m³/h. Nel tipo HMC la costruzione prevede ACCIAIO INOX 304 (W-Nr. 1.43.01) per le parti essenziali come giranti, albero e camere intermedie, camere di aspirazione e mandata sono in ghisa. Per i tipi HM e HMN anche camere di aspirazione e mandata sono realizzate in ACCIAIO INOX. Tutte sono provviste di tenuta meccanica in carburo di silicio e grafite. Le pompe garantiscono alta efficienza e sono esenti da manutenzione.

Performance range



Applications HM - HMK

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

Pump HM - HMK

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.

Operating conditions HM - HMK

- Liquid temperature range: 0 °C ~ +110 °C .
 Maximum ambient temperature: +52 °C .
 Maximum operating pressure: 10 kg/cm².
 Maximum inlet pressure is limited by maximum operating pressure.

Pipe connections

Connection	HM(K) 2	HM(K) 4	HM(K) 8	HM(K) 12
Suction Port	Rp 1	Rp 1 ¼	Rp 1 ½	Rp 1 ½
Discharge Port	Rp 1	Rp 1 ¼	Rp 1 ½	Rp 1 ½
Drain hole, Priming Hole	G ¾	G ¾	G ¾	G ¾

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 SPCO if there are any questions as to whether certain liquids are suitable for pumping with these pumps.

Applications HMC - HMN

- 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 HMC - HMN

The HMC and HMN 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.

HMC: 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.

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

Operating conditions HMC - HMN

Liquid: Clean liquid without solid particles.

Liquid temperature range: 0°C ~ +90°C .

Maximum ambient temperature: +52°C .

The maximum operating pressure depends on the temperature of the pumped liquid.

Max. Operating Pressure	10 kg/cm ²	6 kg/cm ²
HMC(N) 2, HMC(N) 4	0°C to +40°C	+41°C to +90°C
HMC 8 , HMC 12	0°C to +55°C	+56°C to +90°C

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

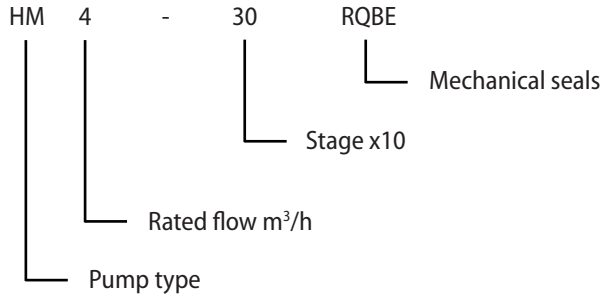
Max. inlet pressure: Limited by the max. operating pressure .

Pipe connections

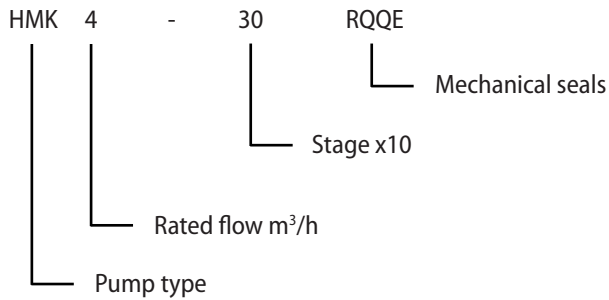
Connection	HMC(N) 2	HMC(N) 4	HMC 8	HMC 12
Suction Port	Rp 1	Rp 1 ¼	Rp 1 ½	Rp 1 ½
Discharge Port	Rp 1	Rp 1	Rp 1 ¼	Rp 1 ½
Drain hole, Priming Hole	Rc ¾	Rc ¾	Rp ½	Rp ½

Definition of Model

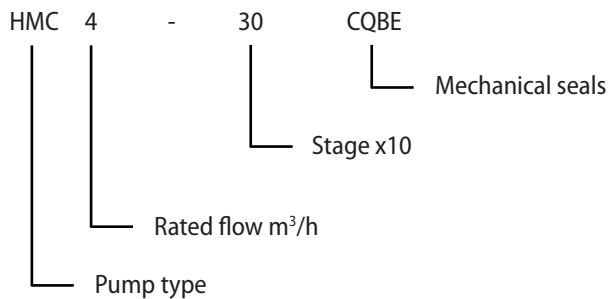
HM Example



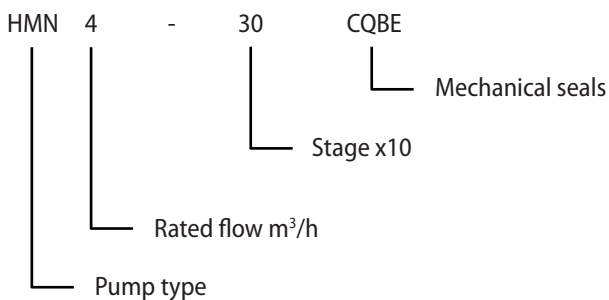
HMK Example



HMC Example



HMN Example



Electric Motor

The pump is fitted with a totally enclosed, fan-cooled, squirrel-cage motor.

Rated speed: 2850 rpm (50Hz)

Enclosure class: IP 54

Insulation class: F

Standard voltage: 1 x 220 ~ 240 V, 50Hz

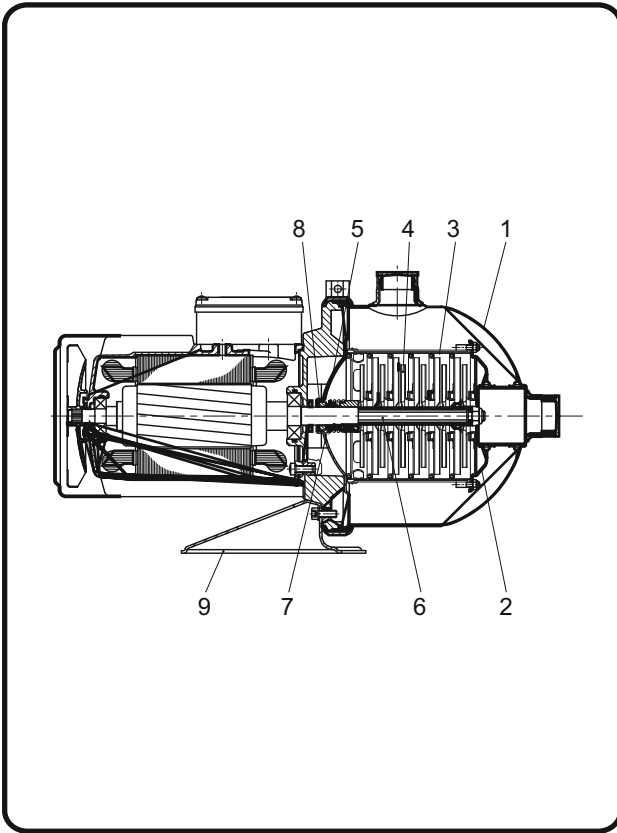
3 x 220 ~ 240 V / 380 ~ 415 V, 50Hz

Mechanical seals

Seal Type	HM	HMK	HMC(N) 2,4	HMC 8,12
Mechanical Seals				
RQB	•	Optional	--	--
RQQ	Optional	•	--	--
CQB	--	--	•	•
CQQ	--	--	Optional	Optional
AUU	--	--	Optional	Optional
O-rings				
EPDM	•	•	•	•
Viton	•	•	•	•

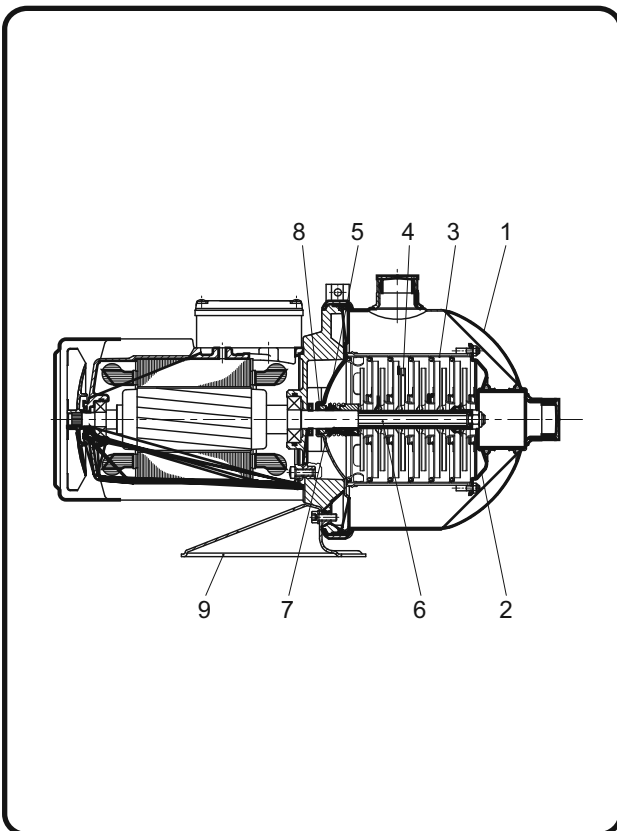
- Q: Silicon carbide
- U: Tungsten carbide
- B: Carbon
- A: Seal type
- R: Seal type
- C: Seal type

Section drawing HM and material list



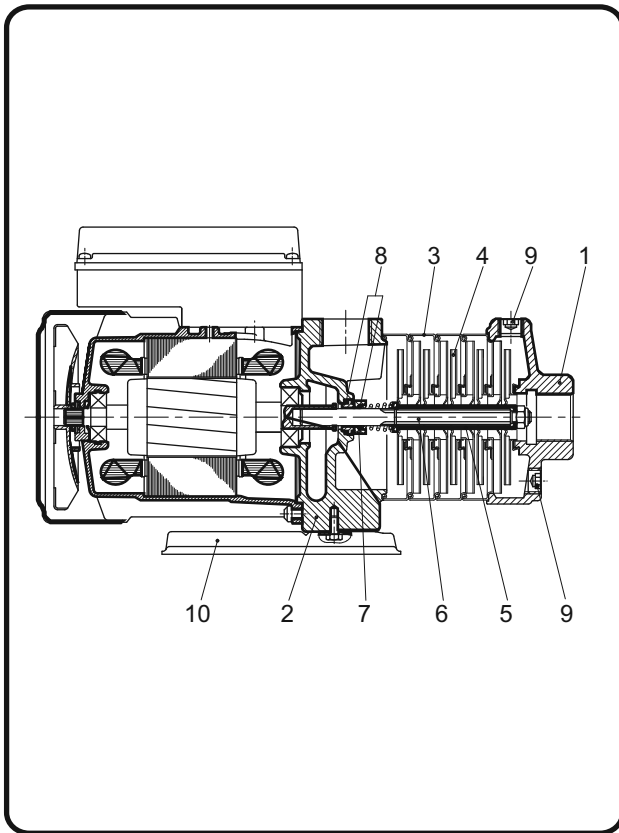
No.	Name	Material	AISI / ASTM
1	Pump casing	Stainless steel	SS304
2	Suction inter-connector	Stainless steel	SS304
3	Chamber	Stainless steel	SS304
4	Impeller	Stainless steel	SS304
5	Cover plate	Stainless steel	SS304
6	Shaft	Stainless steel	SS431
7	Mechanical seal	Silicon carbide / Carbon	
8	O-ring	EPDM or Viton	
9	Base plate	Steel	

Section drawing HMK and material list



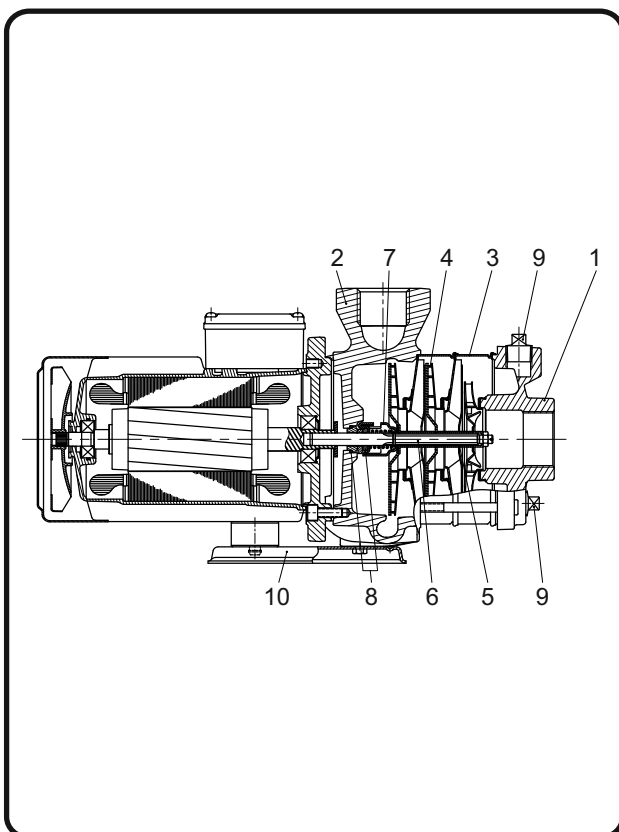
No.	Name	Material	AISI / ASTM
1	Pump casing	Stainless steel	SS316
2	Suction inter-connector	Stainless steel	SS316
3	Chamber	Stainless steel	SS316
4	Impeller	Stainless steel	SS316
5	Cover plate	Stainless steel	SS316
6	Shaft	Stainless steel	SS316
7	Mechanical seal	Silicon carbide / Carbon	
8	O-ring	EPDM or Viton	
9	Base plate	Steel	

Section drawing HMC(N) 2,4 and material list



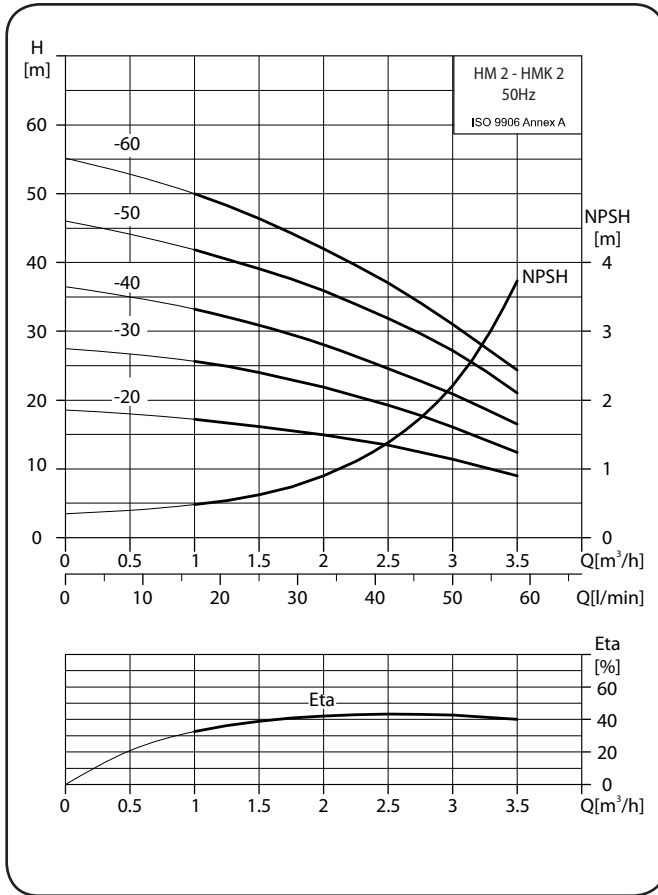
No.	Name	Material	AISI / ASTM
3	Intermediate chamber	Stainless steel	SS304
4	Impeller	Stainless steel	SS304
5	Spacing pipe	Stainless steel	SS304
6	Shaft	Stainless steel	SS431
7	Mechanical seal	Silicon carbide / Carbon	
8	O-ring	EPDM or Viton	
HMC			
1	Suction chamber	Cast iron	
2	Pump head	Cast iron	
9	Drain and priming plug	Steel	
10	Base plate	Steel	
HMN			
1	Suction chamber	Stainless steel	SS304
2	Pump head	Stainless steel	SS304
9	Drain and priming plug	Stainless steel	SS304
10	Base plate	Stainless steel	SS304

Section drawing HMC 8,12 and material list



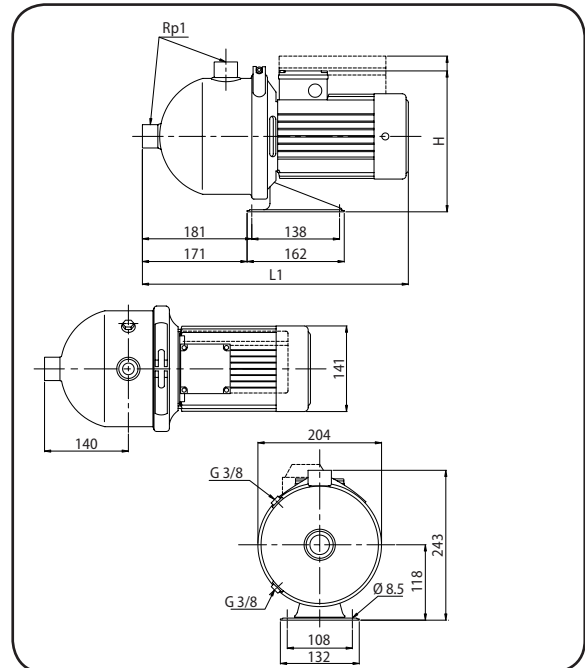
No.	Name	Material	AISI / ASTM
1	Suction chamber	Cast iron	
2	Pump head	Cast iron	
3	Intermediate chamber	Stainless steel	SS304
4	Impeller	Stainless steel	SS304
5	Spacing pipe	Stainless steel	SS304
6	Shaft	Stainless steel	SS431
7	Mechanical seal	Silicon carbide / Carbon	
8	O-ring	EPDM or Viton	
9	Drain and priming plug	Steel	
10	Base plate	Steel	

Performance curves



HM 2 - HMK 2

Installation sketch



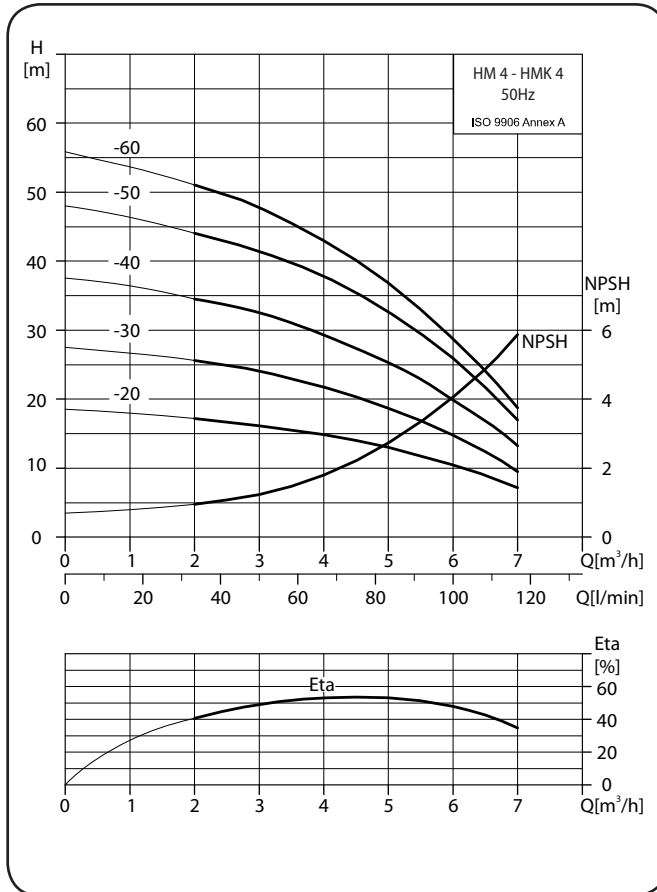
Dimensions and weights

Model	Dimension [mm]				Weight [kg]
	1-Phase		3-Phase		
	L1	H	L1	H	
HM 2-20 / HMK 2-20	403	255	403	233	9.6
HM 2-30 / HMK 2-30	403	255	403	233	9.9
HM 2-40 / HMK 2-40	403	255	403	233	10.1
HM 2-50 / HMK 2-50	403	255	403	233	10.8
HM 2-60 / HMK 2-60	403	255	403	233	11.0

Electrical data, 2850 min⁻¹

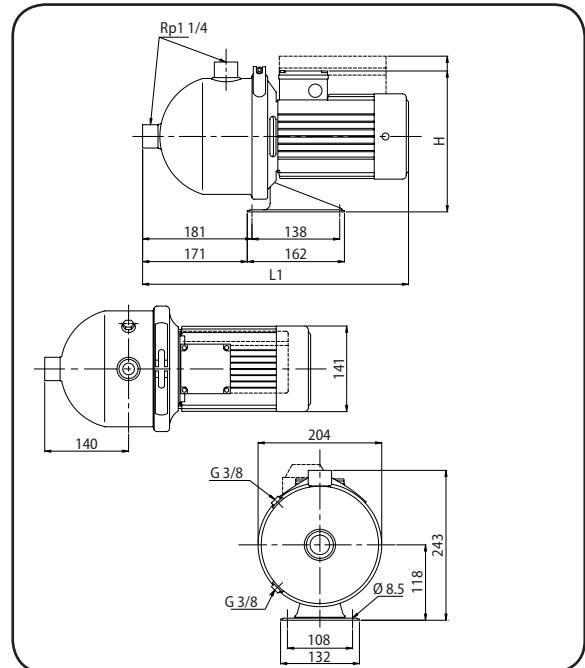
Model	1 x 220-240 V		3 x 220-240/380-415 V	
	P ₁ [W]	I _{1/1} [A]	P ₁ [W]	I _{1/1} [A]
HM 2-20 / HMK 2-20	450	1.9	370	1.9 / 1.1
HM 2-30 / HMK 2-30	540	2.4	480	1.9 / 1.1
HM 2-40 / HMK 2-40	630	2.8	620	2.0 / 1.2
HM 2-50 / HMK 2-50	800	3.8	820	2.7 / 1.6
HM 2-60 / HMK 2-60	940	4.2	910	2.8 / 1.6

Performance curves



HM 4 - HMK 4

Installation sketch



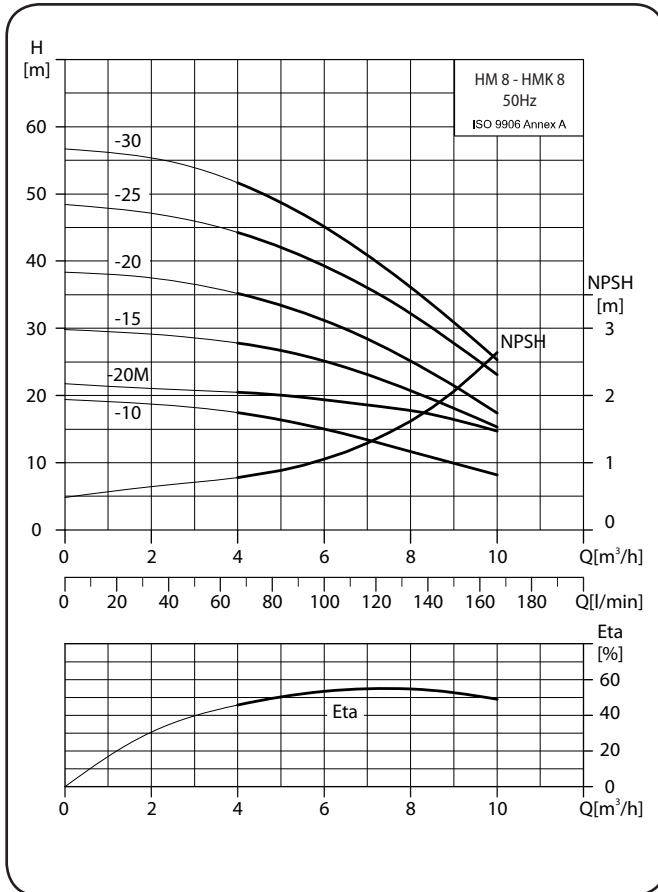
Dimensions and weights

Model	Dimension [mm]				Weight [kg]
	1-Phase		3-Phase		
	L1	H	L1	H	
HM 4-20 / HMK 4-20	403	255	403	233	9.6
HM 4-30 / HMK 4-30	403	255	403	233	9.9
HM 4-40 / HMK 4-40	403	255	403	233	10.6
HM 4-50 / HMK 4-50	441	255	441	233	12.1
HM 4-60 / HMK 4-60	441	255	441	233	12.3

Electrical data, 2850 min⁻¹

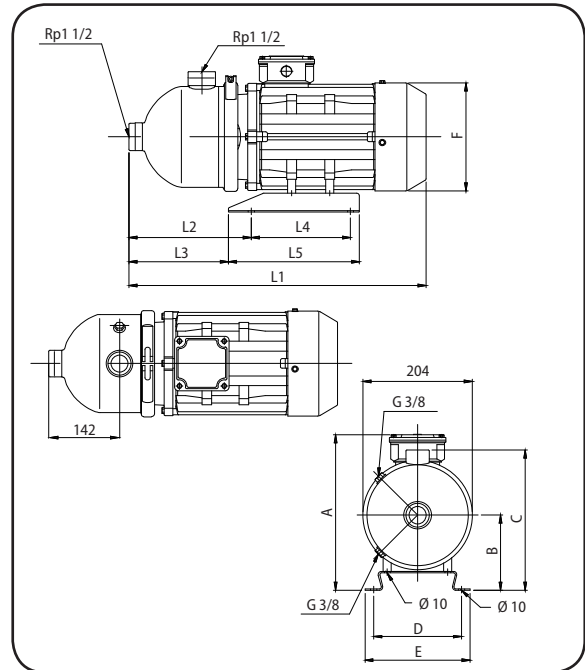
Model	1 x 220-240 V		3 x 220-240/380-415 V	
	P ₁ [W]	I _{1/1} [A]	P ₁ [W]	I _{1/1} [A]
HM 4-20 / HMK 4-20	560	2.5	560	2.0 / 1.2
HM 4-30 / HMK 4-30	760	3.5	720	2.4 / 1.4
HM 4-40 / HMK 4-40	1000	4.8	980	3.2 / 1.8
HM 4-50 / HMK 4-50	1220	5.7	1210	4.0 / 2.3
HM 4-60 / HMK 4-60	1410	6.4	1410	4.8 / 2.7

Performance curves



HM 8 - HMK 8

Installation sketch



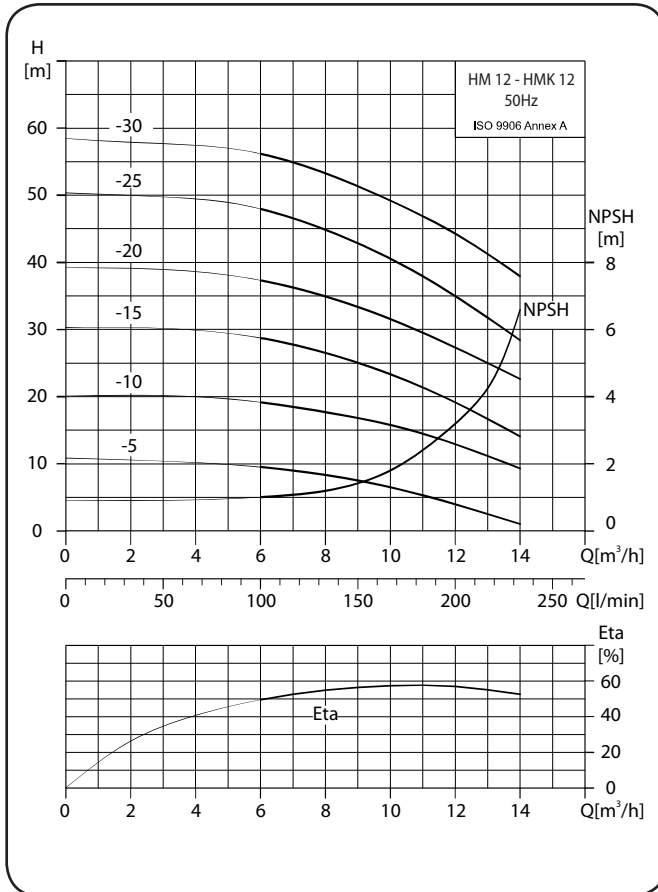
Dimensions and weights

Model	Motor		Dimension [mm]												Weight [kg]		
	P2		L1		L2	L3	L4	L5	A		B	C	D	E	F	1Ø	3Ø
	Phase	HP	1Ø	3Ø					1Ø	3Ø							
HM 8-10 / HMK 8-10	1/3	0.75	403	403	181	171	138	162	255	233	118	243	108	132	141	10.2	10.02
HM 8-15 / HMK 8-15	1/3	1	441	441	181	171	138	162	255	233	118	243	108	132	141	12.28	12.08
HM 8-20M / HMK 8-20M	3	1	--	441	181	171	138	162	--	233	118	243	108	132	141	--	11.98
HM 8-20 / HMK 8-20	1/3	1.5	441	441	181	171	138	162	255	233	118	243	108	132	141	13.54	13.34
HM 8-25 / HMK 8-25	1/3	2	514	--	200	180	195	235	267	--	121	245	158	178	177	23.08	--
HM 8-25 / HMK 8-25	3	1.5	--	441	181	171	138	162	--	233	118	243	108	132	141	--	13.92
HM 8-30 / HMK 8-30	1/3	2	514	493	200	180	195	235	267	261	121	245	158	178	177	23.14	22.22

Electrical data, 2850 min⁻¹

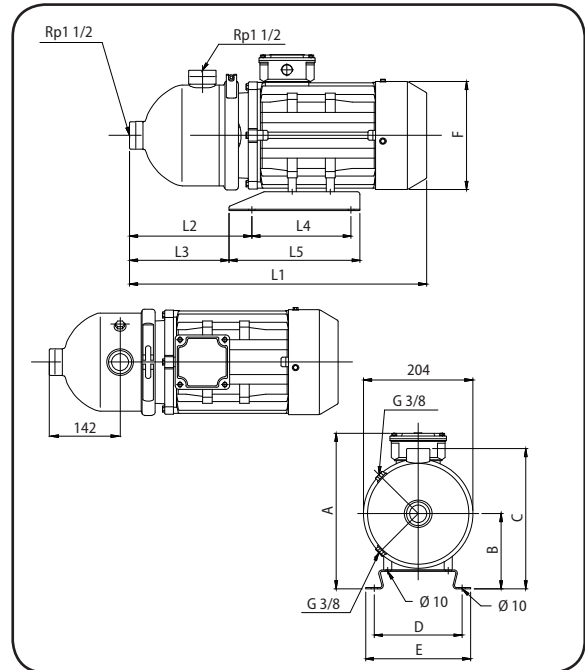
Model	1 x 220-240 V		3 x 220-240/380-415 V	
	P ₁ [W]	I _{1/1} [A]	P ₁ [W]	I _{1/1} [A]
HM 8-10 / HMK 8-10	720	3.4	760	2.9 / 1.7
HM 8-20M / HMK 8-20M	--	--	1030	4.1 / 2.4
HM 8-15 / HMK 8-15	1150	5.4	1180	4.3 / 2.5
HM 8-20 / HMK 8-20	1400	6.4	1430	5.5 / 3.2
HM 8-25 / HMK 8-25	1930	8.6	1810	6.0 / 3.5
HM 8-30 / HMK 8-30	2100	9.3	2050	6.9 / 4.0

Performance curves



HM 12 - HMK 12

Installation sketch



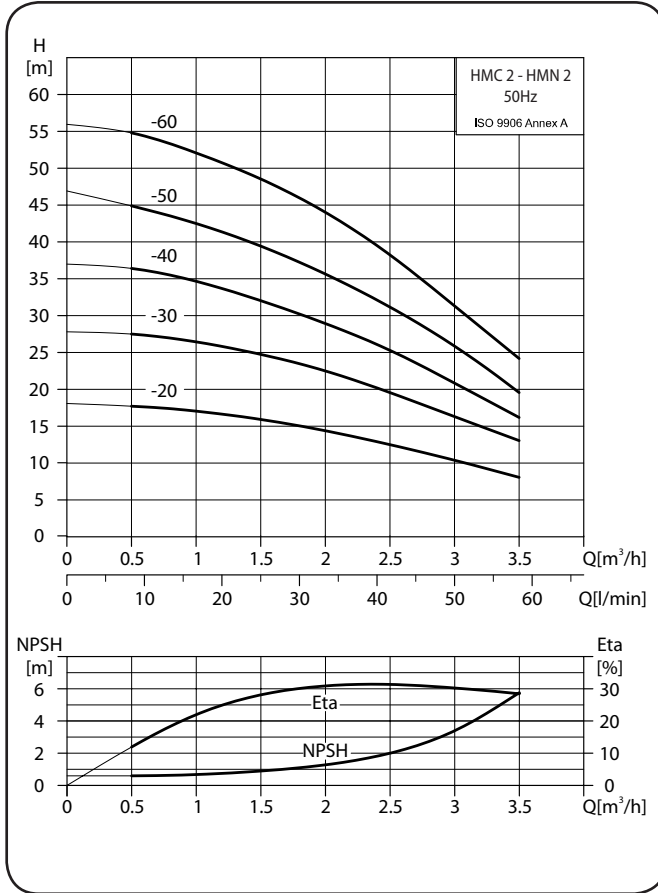
Dimensions and weights

Model	Motor		Dimension [mm]													Weight [kg]	
	P2		L1		L2	L3	L4	L5	A		B	C	D	E	F	1Ø	3Ø
	Phase	HP	1Ø	3Ø					1Ø	3Ø							
HM 12-05 / HMK 12-05	3	0.5	--	403	181	171	138	162	--	233	118	243	108	132	141	--	9.41
HM 12-10 / HMK 12-10	1	1	441	441	181	171	138	162	255	233	118	243	108	132	141	11.72	11.52
	3																
HM 12-15 / HMK 12-15	1	1.5	441	441	181	171	138	162	255	233	118	243	108	132	141	13.38	13.18
	3																
HM 12-20 / HMK 12-20	1	2	514	493	200	180	195	235	267	261	121	245	158	178	177	22.52	21.48
	3																
HM 12-25 / HMK 12-25	1	3	514	493	200	180	195	235	267	261	121	245	158	178	177	25.74	24.36
	3																
HM 12-30 / HMK 12-30	3	4	--	539	230	198	195	245	--	284	133	259	174	198	197	--	30.2

Electrical data, 2850 min⁻¹

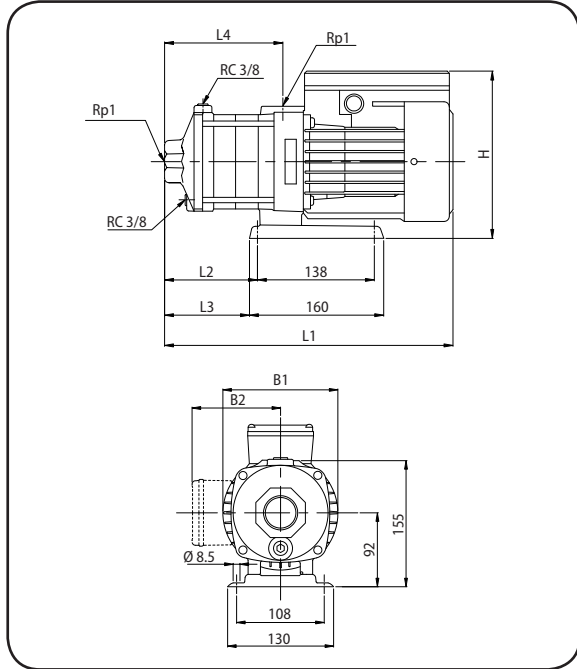
Model	1 x 220-240 V		3 x 220-240/380-415 V	
	P ₁ [W]	I _{1/1} [A]	P ₁ [W]	I _{1/1} [A]
HM 12-05 / HMK 12-05	--	--	550	2.6 / 1.5
HM 12-10 / HMK 12-10	1200	5.5	1210	4.3 / 2.5
HM 12-15 / HMK 12-15	1700	7.8	1680	5.9 / 3.4
HM 12-20 / HMK 12-20	2460	11	2410	7.4 / 4.3
HM 12-25 / HMK 12-25	2900	13	2870	9.2 / 5.3
HM 12-30 / HMK 12-30	--	--	3640	11.6 / 6.7

Performance curves



HMC 2 - HMN 2

Installation sketch



Dimensions and weights

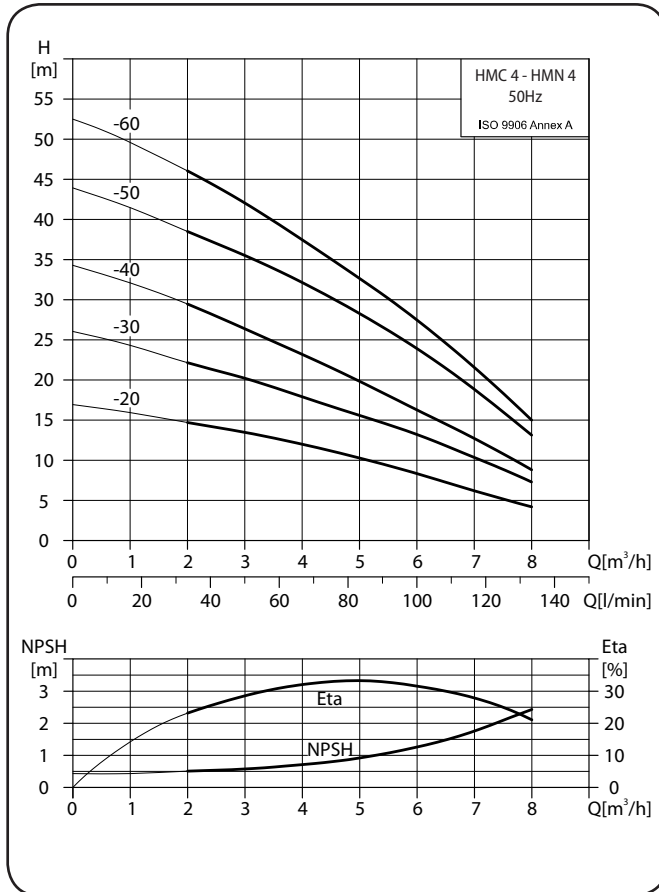
Model	Dimension [mm]									Weight [kg]	
	L1	L2	L3	L4	B1	B2		H		1-phase	3-phase
						1-phase	3-phase	1-phase	3-phase		
HMC 2-20	309	75	63	101	141	127	112	228	206	10.3	10.0
HMC 2-30	327	93	81	119	141	127	112	228	206	10.5	10.3
HMC 2-40	345	111	99	137	141	127	112	228	206	10.8	10.5
HMC 2-50	363	129	117	155	141	127	112	228	206	11.6	11.2
HMC 2-60	381	147	135	173	141	127	112	228	206	11.8	11.5

Model	Dimension [mm]									Weight [kg]	
	L1	L2	L3	L4	B1	B2		H		1-phase	3-phase
						1-phase	3-phase	1-phase	3-phase		
HMN 2-20	309	75	63	101	141	127	112	228	206	9.1	8.8
HMN 2-30	327	93	81	119	141	127	112	228	206	9.4	9.1
HMN 2-40	345	111	99	137	141	127	112	228	206	9.6	9.4
HMN 2-50	363	129	117	155	141	127	112	228	206	10.4	10.1
HMN 2-60	381	147	135	173	141	127	112	228	206	10.7	10.3

Electrical data, 2850 min⁻¹

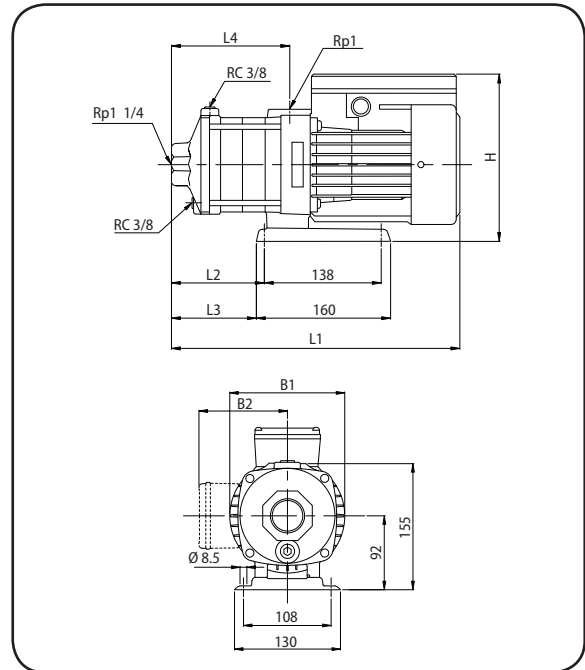
Model	1 x 220-240 V		3 x 220-240/380-415 V	
	P ₁ [W]	I _{1/1} [A]	P ₁ [W]	I _{1/1} [A]
HMC 2-20 / HMN 2-20	420	2.1	380	1.8 / 1.1
HMC 2-30 / HMN 2-30	480	2.3	460	1.9 / 1.2
HMC 2-40 / HMN 2-40	570	2.6	560	2.0 / 1.2
HMC 2-50 / HMN 2-50	680	3.2	660	2.7 / 1.6
HMC 2-60 / HMN 2-60	810	3.7	810	2.8 / 1.6

Performance curves



HMC 4 - HMN 4

Installation sketch



Dimensions and weights

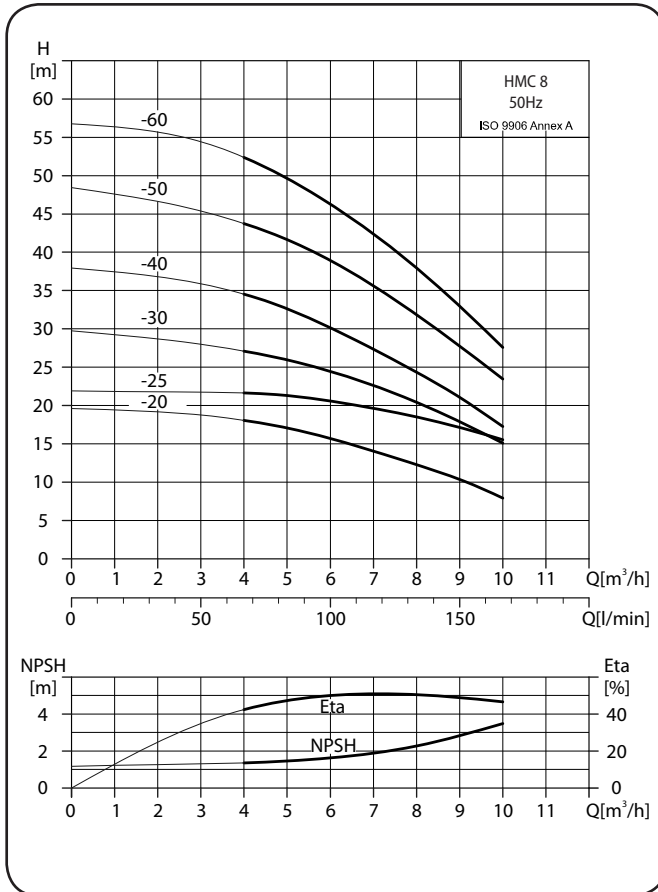
Model	Dimension [mm]								Weight [kg]		
	L1	L2	L3	L4	B1	B2		H		1-phase	3-phase
						1-phase	3-phase	1-phase	3-phase		
HMC 4-20	318	84	72	110	141	127	112	228	206	10.4	10.1
HMC 4-30	344	111	99	137	141	127	112	228	206	10.8	10.5
HMC 4-40	372	138	126	164	141	127	112	228	206	11.6	11.2
HMC 4-50	438	165	153	191	141	127	112	228	206	13.4	13.1
HMC 4-60	465	192	180	218	141	127	112	228	206	14.8	14.5

Model	Dimension [mm]								Weight [kg]		
	L1	L2	L3	L4	B1	B2		H		1-phase	3-phase
						1-phase	3-phase	1-phase	3-phase		
HMN 4-20	318	84	72	110	141	127	112	228	206	9.2	9.0
HMN 4-30	344	111	99	137	141	127	112	228	206	9.6	9.3
HMN 4-40	372	138	126	164	141	127	112	228	206	10.4	10.1
HMN 4-50	438	165	153	191	141	127	112	228	206	11.3	12.0
HMN 4-60	465	192	180	218	141	127	112	228	206	13.6	13.4

Electrical data, 2850 min⁻¹

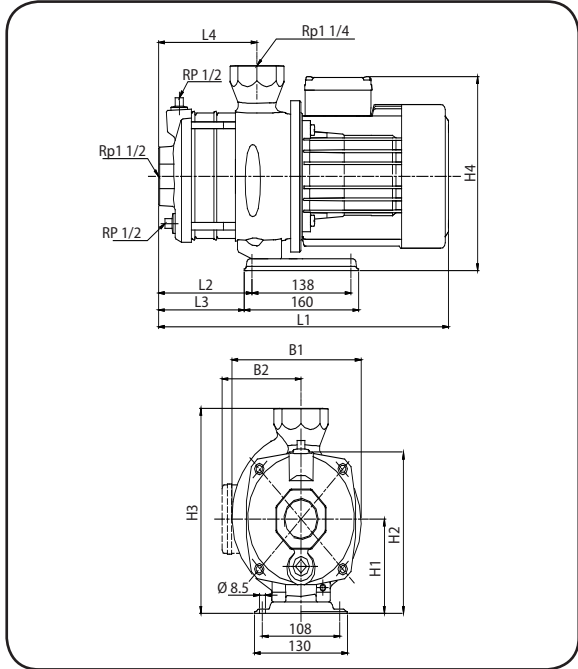
Model	1 x 220-240 V		3 x 220-240/380-415 V	
	P ₁ [W]	I _{1/1} [A]	P ₁ [W]	I _{1/1} [A]
HMC 4-20 / HMN 4-20	540	2.4	560	2.0 / 1.2
HMC 4-30 / HMN 4-30	820	3.5	770	2.3 / 1.3
HMC 4-40 / HMN 4-40	1020	4.3	1000	3.1 / 1.8
HMC 4-50 / HMN 4-50	1220	5.4	1200	4.0 / 2.3
HMC 4-60 / HMN 4-60	1450	6.2	1400	4.6 / 2.7

Performance curves



HMC 8

Installation sketch



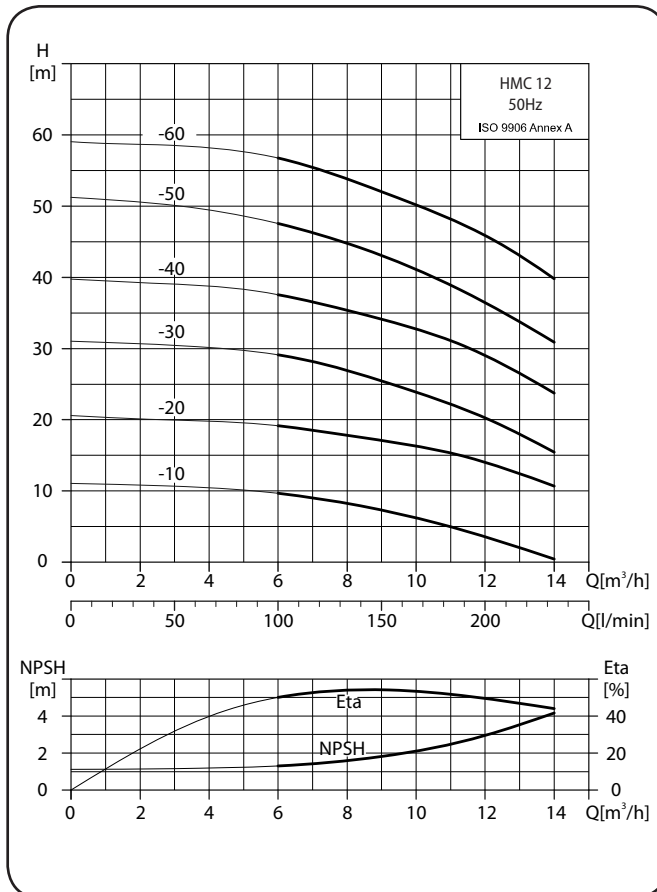
Dimensions and weights

Model	Dimension [mm]												Weight [kg]			
	L1		L2	L3	L4	B1		B2		H1	H2	H3	H4		1Ø	3Ø
	1Ø	3Ø				1Ø	3Ø	1Ø	3Ø				1Ø	3Ø		
HMC 8-20	320	320	54	42	78	181	181	136	116	112	190	240	248	228	17.2	17.0
HMC 8-25	--	390	84	72	108	--	181	--	116	112	190	240	--	228	--	19.1
HMC 8-30	390	390	84	72	108	181	181	136	116	112	190	240	248	228	19.5	19.2
HMC 8-40	390	390	84	72	108	181	181	136	116	112	190	240	248	228	20.7	20.5
HMC 8-50	478	420	132	120	138	185	181	156	116	112	190	240	268	228	27.9	21.4
HMC 8-60	478	478	132	120	138	185	185	156	141	112	190	240	268	253	28.1	27.0

Electrical data, 2850 min⁻¹

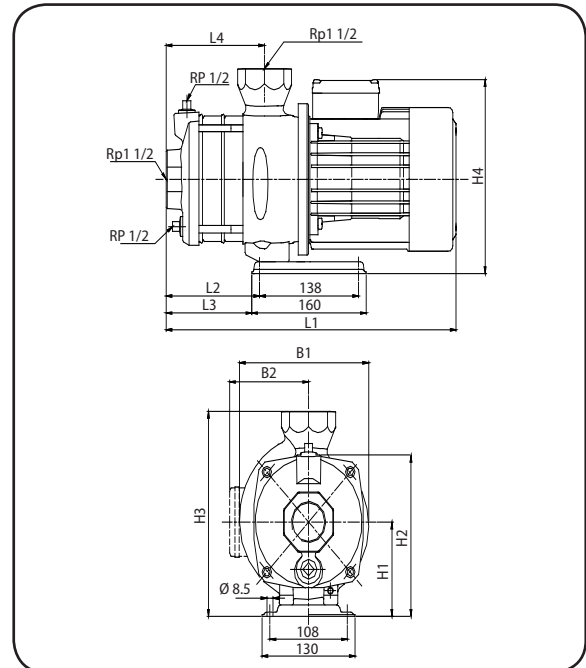
Model	1 x 220-240 V		3 x 220-240/380-415 V	
	P ₁ [W]	I _{1/1} [A]	P ₁ [W]	I _{1/1} [A]
HMC 8-20	740	3.4	720	2.6 / 1.5
HMC 8-25	--	--	960	3.5 / 2.0
HMC 8-30	1130	5.2	1100	3.8 / 2.2
HMC 8-40	1400	6.3	1350	5.0 / 2.9
HMC 8-50	1890	8.6	1730	6.0 / 3.5
HMC 8-60	2150	9.8	2040	6.4 / 3.7

Performance curves



HMC 12

Installation sketch



Dimensions and weights

Model	Dimension [mm]												Weight [kg]			
	L1		L2	L3	L4	B1		B2		H1	H2	H3	H4		1Ø	3Ø
	1Ø	3Ø				1Ø	3Ø	1Ø	3Ø				1Ø	3Ø		
HMC 12-10	--	320	54	42	78	--	181	--	116	112	190	240	--	228	--	17.85
HMC 12-20	360	360	54	42	78	181	181	136	116	112	190	240	248	228	18.35	18.15
HMC 12-30	390	390	84	72	108	181	181	136	116	112	190	240	248	228	20.62	20.40
HMC 12-40	448	448	102	90	108	185	185	156	141	112	190	240	268	253	27.05	26.05
HMC 12-50	478	450	132	120	138	185	185	156	141	112	190	240	268	253	29.22	29.30
HMC 12-60	--	503	132	120	138	--	196	--	147	125	203	253	--	272	--	34.58

Electrical data, 2850 min⁻¹

Model	1 x 220-240 V		3 x 220-240/380-415 V	
	P ₁ [W]	I _{1/1} [A]	P ₁ [W]	I _{1/1} [A]
HMC 12-10	--	--	560	2.4 / 1.4
HMC 12-20	1170	5.4	1140	3.8 / 2.2
HMC 12-30	1710	7.6	1650	5.9 / 3.4
HMC 12-40	2360	10.4	2300	7.1 / 4.1
HMC 12-50	2850	13	2820	9.1 / 5.3
HMC 12-60	--	--	3500	11.1 / 6.4

