





# HM, HMK, HMC, HMN

Horizontal Multistage Centrifugal Pumps, 50Hz



## **Approvals**





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## **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/cm <sup>2</sup> .

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	Rp1 1/4	Rp 1 1/2	Rp1 1/2
Discharge Port	Rp 1	Rp 1 1/4	Rp 1 1/2	Rp 1 1/2
Drain hole, Priming Hole	G 3/8	G 3/8	G 3/8	G 3/8

## 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:  $0^{\circ}C \sim +90^{\circ}C$ .

Maximum ambient temperature: +52°C.

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

Max. Operating Pressure	10 kg/cm <sup>2</sup>	6 kg/cm²
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	Rp1 1/4	Rp 1 1/2	Rp1 1/2
Discharge Port	Rp 1	Rp 1	Rp1 1/4	Rp1 1/2
Drain hole, Priming Hole	Rc 3/8	Rc 3/8	Rp 1/2	Rp 1/2

## **Definition of Model**

#### HM(K) Example





#### **HMC Example**





#### **HMN Example**





7 **SPCO** 

## **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  $\sim$  240 V/380  $\sim$  415 V, 50Hz

## Section drawing HM - HMK



## **Material HM - HMK**

No	Description	Description Materi	
NO.	Description	НМ	НМК
1	Pump casing	SS304	SS316
2	Suction inter-connector	SS304	SS316
3	Chamber	SS304	SS316
4	Impeller	SS304	SS316
5	Cover plate	SS304	SS316
6	Shaft	SS431	SS316
7	Mechanical seal	Silicon carbide / Carbon	Silicon carbide / Sic
8	O-ring	EPDM or Viton	EPDM or Viton
9	Base plate	Steel	Steel

## **Mechanical seal HM - HMK**

List of Materials	
Q : Silicon carbide	E : EPDM
B : Carbon	V : Viton
R : Seal Type	

Mechanical Seals	НМ	НМК
RQQ	Optional	•
RQB	•	Optional
O-ring		
E	•	•
V	•	•

• Standard.

## Section drawing HMC - HMN



## **Material HMC - HMN**

No	Description	Materials	
Description		НМС	HMN
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

## Mechanical seal HMC - HMN

List of Materials	
Q.S.liconcarbide	E: EPDM
U:Tungsten carbide	V:Viton
B:Carbon	C:SealType
A:SealType	

Mechanical Seals	HMC(N) 2, 4	HMC 8, 12
COB	•	•
CQQ	Optional	Optional
AUU	Optional	Optional
O-ring		
E	•	•
V	•	•

• Standard.



## HM 2 - HMK 2

#### Installation sketch



### **Dimensions and weights**

		Dimension [mm]						
Model	1-PI	hase	3-P	weight [kg]				
	L1	н	L1	н	[K9]			
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			

Madal	1 x 220	)-240 V	3 x 220-240/380-415 V				
Model	P <sub>1</sub> [W]	I <sub>1/1</sub> [A]	P <sub>1</sub> [W]	I <sub>1/1</sub> [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			



HM 4 - HMK 4

#### Installation sketch



### **Dimensions and weights**

Model	1-PI	nase	3-P	3-Phase		
	L1	н	L1	н	[Kg]	
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	

Madal	1 x 220	)-240 V	3 x 220-240/380-415 V				
Model	P <sub>1</sub> [W]	I <sub>1/1</sub> [A]	P <sub>1</sub> [W]	I <sub>1/1</sub> [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			



HM 8 - HMK 8

#### Installation sketch



	Mo	tor						Dime	nsion	[mm]						Wei	Weight	
Model	P	2	L	L1 .		12	14	15	Α		P	C	D	E	E	[kg]		
	Phase	HP	1Ø	3Ø	LZ	23	L4	LJ	1Ø	3Ø	U		U	E	F	1Ø	3Ø	
HM 8-10 / HMK 8-10	1	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	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	2	514		200	180	195	235	267		121	245	158	178	177	23.08		
111010-2371110110-23	3	1.5		441	181	171	138	162		233	118	243	108	132	141		13.92	
HM 8-30 / HMK 8-30	1	2	514	493	200	180	195	235	267	261	121	245	158	178	177	23.14	22.22	

#### **Dimensions and weights**

Model	1 x 220	)-240 V	3 x 220-240/380-415 V				
Model	P <sub>1</sub> [W]	I <sub>1/1</sub> [A]	P <sub>1</sub> [W]	I <sub>1/1</sub> [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			



HM 12 - HMK 12

#### Installation sketch



	Мо	tor						Dime	ension	[mm]						We	ight
Model	P	2	L	.1	12	12	14	1.5	Α		в	6		E	E	[kg]	
	Phase	HP	1Ø	3Ø	LZ	LS	L4	LS	1Ø	3Ø	D			E	"	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 3	1	441	441	181	171	138	162	255	233	118	243	108	132	141	11.72	11.52
HM 12-15 / HMK 12-15	1 3	1.5	441	441	181	171	138	162	255	233	118	243	108	132	141	13.38	13.18
HM 12-20 / HMK 12-20	1 3	2	514	493	200	180	195	235	267	261	121	245	158	178	177	22.52	21.48
HM 12-25 / HMK 12-25	1 3	3	514	493	200	180	195	235	267	261	121	245	158	178	177	25.74	24.36
HM 12-30 / HMK 12-30	3	4		539	230	198	195	245		284	133	259	174	198	197		30.2

### **Dimensions and weights**

Model	1 x 220	0-240 V	3 x 220-240/380-415 V				
Model	<b>P</b> <sub>1</sub> [ <b>W</b> ]	I <sub>1/1</sub> [A]	P <sub>1</sub> [W]	I <sub>1/1</sub> [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			



## HMC 2 - HMN 2

#### Installation sketch



### Dimensions and weights

				Dir	Dimension [mm]										
Model	11	12	1.2	14	D1	B2		н		[kg]					
	LI	LZ	LS	L4 B1	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				

				Dir	nension [n	nm]				Weight	
Model	11	12	12	14	P1	B2		н		[kg]	
		LZ	LS	L4 D1	ы	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

Madal	1 x 220	)-240 V	3 x 220-240/380-415 V				
Model	P <sub>1</sub> [W]	I <sub>1/1</sub> [A]	P <sub>1</sub> [W]	I <sub>1/1</sub> [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			



**HMC 4 - HMN 4** 

#### Installation sketch



### Dimensions and weights

				Dir	nension [n	nm]				Weight		
Model	11	12	12	14	D1	В	B2		н		[kg]	
	L1	LZ	LS	L4 D1	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	

		Weight									
Model	11	12	1.2	14	D1	B2		I	н	[kg]	
	L1	LZ	LS	L4	DI	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

Madal	1 x 220	)-240 V	3 x 220-240/380-415 V				
Model	P <sub>1</sub> [W]	I <sub>1/1</sub> [A]	P <sub>1</sub> [W]	I <sub>1/1</sub> [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			





#### Installation sketch



### Dimensions and weights

		Dimension [mm]													Weight	
Model	L1		12	12	14	B1		B2		Ш1	มา	ЦЭ	H4		[kg]	
	1Ø	3Ø	LZ	LJ	L4	1Ø	3Ø	1Ø	3Ø	пт	пг	пэ	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

Model	1 x 220	)-240 V	3 x 220-240/380-415 V				
Model	P <sub>1</sub> [W]	I <sub>1/1</sub> [A]	P <sub>1</sub> [W]	I <sub>1/1</sub> [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			





#### Installation sketch



## Dimensions and weights

		Dimension [mm]													Weight			
Model	L1		12	1.2		B1		B2		Ш1		ЦЭ	H4		[ <b>kg</b> ]			
	1Ø	3Ø	LZ	LJ	L4	1Ø	3Ø	1Ø	3Ø	пі	пz	пэ	пэ	пэ	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		

Madal	1 x 220	)-240 V	3 x 220-240/380-415 V				
Model	P <sub>1</sub> [W]	I <sub>1/1</sub> [A]	P <sub>1</sub> [W]	I <sub>1/1</sub> [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			





Swiss Pump Company AG Moosweg 36 CH - 3645 Thun - Gwatt Switzerland Tel. +41 33 223 11 00 Fax +41 33 223 11 22 mail@swisspump.com

www.swisspump.com