

I Application

Due to the choice of materials and its design, PROLAC HCP is appropriate for applications requiring a high level of hygiene, it offers gentle handling of the product and resistance to chemical agents. It is particularly suitable as main process pump in the dairy, beverage, pharmaceutical and cosmetic industries.

I Design and features

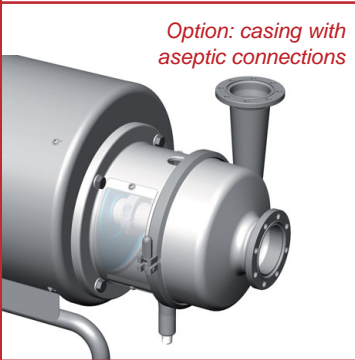
PROLAC HCP is a range of close-coupled centrifugal pumps with hygienic design, compact and highly efficient. It is made of a cold-formed stainless steel casing, impeller, mechanical seal, pump cover, lantern and shaft, connected to the motor shaft by mechanical compression.

The motor complies with the IEC standards, it is protected with a stainless steel shroud and provided with the height adjustable hygienic designed legs.

The pump is EHEDG certified, it is especially designed for CIP/SIP without disassembly.

The pump is authorized to carry 3-A symbol.

Note: Consult the options of the pumps authorized to carry 3-A symbol.

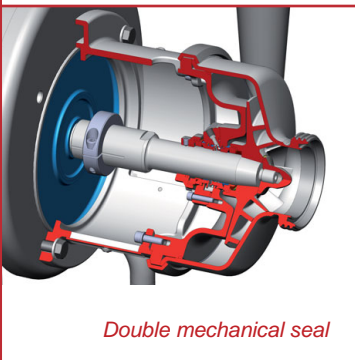


Option: casing with aseptic connections

I Mechanical seal

The PROLAC HCP pump is provided with an internal single mechanical seal. The seal is balanced and has a hygienic design. As standard, the stationary part is in carbon and the rotary part is in silicon carbide, the gaskets are in EPDM. However, when required, other material can be used.

There is also an option of assembly of a double mechanical seal made of two identical seals. It helps to upgrade a pump with single seal to double seal and simplifies the management of necessary spare parts as the seal is the same.



Double mechanical seal

I Technical specifications

Materials:

Parts in contact with the product	Stainless steel AISI 316L (1.4404)
Other steel parts	Stainless steel AISI 304 (1.4301)
Gaskets in contact with the product	EPDM

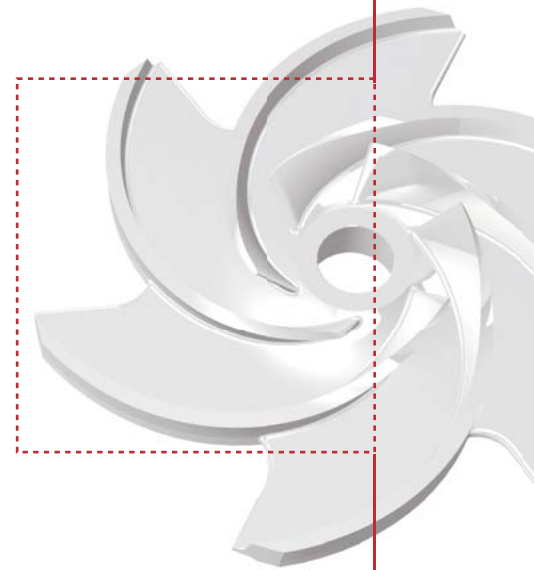
Mechanical seal:

Rotary part	Silicon carbide (SiC)
Stationary part	Carbon (C)
Gaskets	EPDM



I Technical specifications

Surface finish:		
External	Matt	
Internal	Bright polish Ra<0,8µm	
Connections	DIN 11851 Aseptic flange DIN 11864 CLAMP SMS (other connections available on request)	
Operating limits:		
Nominal pressure	1600 kPa (16 bar)	232 PSI
Temperature range	-10°C to +120 °C +140°C (SIP, max. 30 min.)	14 °F to 248 °F 284 °F
Maximum flow	220 m³/h	968 US GPM
Maximum differential head	140 m	459 ft
Maximum speed	3600 rpm	



I Motor

Triphasic induction motor with B5 flange and B3 legs, in compliance with the IEC standards,
2 poles = 3000/3600 rpm, efficiency class according to EC regulation, IP 55 protection and F-class insulation.

3 phases, 50 Hz, 230 V Δ / 400 V Y, ≤ 4 kW
3 phases, 50 Hz, 400 V Δ / 690 V Y, ≥ 5,5 kW

I Options

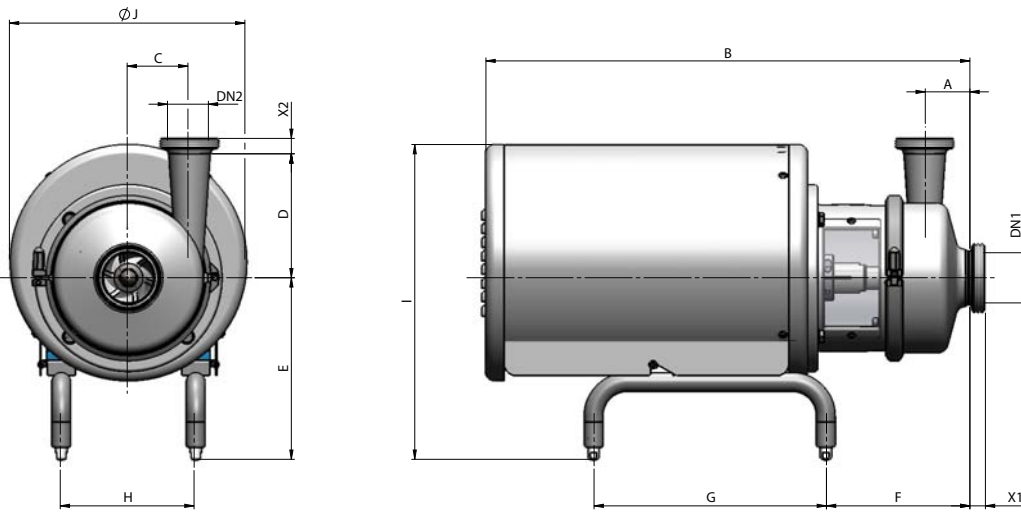
- Pump casing with drain port.
- Pump casing with heating chamber.
- Different types of connections.
- Mechanical seal: SiC/SiC or TuC/SiC.
- Double mechanical seal.
- Gaskets: FPM or FFKM.
- Motor with other voltages, frequencies, mechanical protections, efficiencies.
- Trolley and/or control panel.
- ATEX certification.

I Options of the pumps authorized to carry 3-A symbol

- Connections: CLAMP-OD, CLAMP-DIN, DIN11864.
- Sealing: single mechanical seal.
- Mechanical seal materials: C/SiC and SiC/SiC.
- O-rings EPDM and FPM.
- Drain: vertical Clamp-OD.



I Dimensions



Dimensions X₁, X₂

			DIN 11851		DIN 11864		SMS		CLAMP OD	
	DN ₁	DN ₂	X ₁	X ₂	X ₁	X ₂	X ₁	X ₂	X ₁	X ₂
40-110	50 2"	40 1½"	22,5	22	25,5	25,5	23	23	28,5	14
40-150										
40-205										
50-150	65 2½"	50 2"	26	20	25,5	25,5	27	23	28,5	21
50-190										
50-260										
65-175	80 3"	65 2½"	25	25	27,5	25,5	27	27	29	28,5
65-215										
65-250										
80-175	100 4"	80 3"	30	40	27,5	27,5	30	27	21,5	29
80-205										
80-240										



I Dimensions

	kW	Motor	DN ₁	DN ₂	A	B	C	D	E	F	G	H	I	ØJ	kg
HCP 40-110															
	0,37 ⁽¹⁾	71	50	40	39	445	53	130	203	119	250	112	340	230	18
	0,55	71	50	40	39	445	53	130	203	119	250	112	340	230	18
	0,75	80	50	40	39	520	53	130	217	140	275	132	395	290	26,5
HCP 40-150															
	0,75 ⁽¹⁾	80	50	40	46,5	545	76	140	217	165	275	132	395	290	30
	1,1	80	50	40	46,5	545	76	140	217	165	275	132	395	290	29
	1,5	90	50	40	46,5	545	76	140	227	171	275	132	405	290	33
	2,2	90	50	40	46,5	545	76	140	227	171	275	132	405	290	35,5
HCP 40-205															
	1,5 ⁽¹⁾	90	50	40	45	545	109	175	227	171	275	132	405	290	43,5
	2,2	90	50	40	45	545	109	175	227	171	275	132	405	290	42
	3	100	50	40	45	623	109	175	266	169	325	175	475	350	53
	4	112	50	40	45	623	109	175	278	175	325	175	487	350	60
	5,5	112	50	40	45	623	109	175	278	175	325	175	487	350	66
	5,5	132	50	40	45	770	109	175	293	199	375	216	526	400	78,5
	7,5	132	50	40	45	770	109	175	293	199	375	216	526	400	87
	11	132	50	40	45	770	109	175	293	199	375	216	526	400	100
HCP 50-150															
	0,75 ⁽¹⁾	80	65	50	56	546	72	170	217	166	275	132	395	290	30,5
	1,5	90	65	50	56	546	72	170	227	172	275	132	405	290	33
	2,2	90	65	50	56	546	72	170	227	172	275	132	405	290	36
	3	100	65	50	56	624	72	170	266	170	325	175	475	350	47,5
	4	112	65	50	56	624	72	170	278	176	325	175	487	350	54,5
HCP 50-190															
	1,5 ⁽¹⁾	90	65	50	59	548	105	210	227	174	275	132	405	290	43,5
	3	100	65	50	59	628	105	210	266	172	325	175	475	350	52,5
	4	112	65	50	59	628	105	210	278	178	325	175	487	350	59,5
	5,5	112	65	50	59	628	105	210	278	178	325	175	487	350	65,5
	5,5	132	65	50	59	773	105	210	293	202	375	216	526	400	78
	7,5	132	65	50	59	773	105	210	293	202	375	216	526	400	87
HCP 50-260															
	5,5 ⁽¹⁾	132	65	50	72	809	148	250	293	238	375	216	526	400	97
	7,5	132	65	50	72	809	148	250	293	238	375	216	526	400	102
	11	132	65	50	72	809	148	250	293	238	375	216	526	400	115
	11	160	65	50	72	1024	148	250	367	283	475	267	642	465	149
	15	160	65	50	72	1024	148	250	367	283	475	267	642	465	169
	18,5	160	65	50	72	1024	148	250	367	283	475	267	642	465	186
	22	180	65	50	72	1024	148	250	387	324,5	475	267	662	465	233
HCP 65-175															
	3 ⁽¹⁾	100	80	65	72	655	98	200	266	201	325	175	475	350	60,5
	4	112	80	65	72	655	98	200	278	207	325	175	487	350	62,5
	5,5	112	80	65	72	655	98	200	278	207	325	175	487	350	68,5
	5,5	132	80	65	72	802	98	200	293	231	375	216	526	400	81
	7,5	132	80	65	72	802	98	200	293	231	375	216	526	400	90

(1) 4-pole motor



I Dimensions

	kW	Motor	DN ₁	DN ₂	A	B	C	D	E	F	G	H	I	ØJ	kg
HCP 65-215															
5,5 ⁽¹⁾	132	80	65	77	808	120	240	293	237	375	216	526	400	90	
7,5	132	80	65	77	808	120	240	293	237	375	216	526	400	95	
11	132	80	65	77	808	120	240	293	237	375	216	526	400	108	
11	160	80	65	77	1023	120	240	367	282	475	267	642	465	142	
15	160	80	65	77	1023	120	240	367	282	475	267	642	465	162	
18,5	160	80	65	77	1023	120	240	367	282	475	267	642	465	179	
HCP 65-250															
5,5 ⁽¹⁾	132	80	65	77,5	810	144	280	293	239	375	216	526	400	97	
11	132	80	65	77,5	810	144	280	293	239	375	216	526	400	115	
11	160	80	65	77,5	1025	144	280	367	284	475	267	642	465	149	
15	160	80	65	77,5	1025	144	280	367	284	475	267	642	465	169	
18,5	160	80	65	77,5	1025	144	280	367	284	475	267	642	465	186	
22	180	80	65	77,5	1025	144	280	387	325,5	475	267	662	465	233	
30	200	80	65	77,5	1065	144	280	412	318,5	530	318	807	650	291	
HCP 80-175															
3 ⁽¹⁾	112	100	80	79	661	91	185	278	213	325	175	487	350	61	
4	112	100	80	79	661	91	185	278	213	325	175	487	350	63	
5,5	132	100	80	79	808	91	185	293	237	375	216	526	400	81,5	
7,5	132	100	80	79	808	91	185	293	237	375	216	526	400	90,5	
11	132	100	80	79	808	91	185	293	237	375	216	526	400	104	
11	160	100	80	79	1023	91	185	367	282	475	267	642	465	138	
15	160	100	80	79	1023	91	185	367	282	475	267	642	465	158	
HCP 80-205															
5,5 ⁽¹⁾	132	100	80	81	813	113	220	293	242	375	216	526	400	101	
11	132	100	80	81	813	113	220	293	242	375	216	526	400	108	
11	160	100	80	81	1028	113	220	367	287	475	267	642	465	142	
15	160	100	80	81	1028	113	220	367	287	475	267	642	465	162	
18,5	160	100	80	81	1028	113	220	367	287	475	267	642	465	179	
22	180	100	80	81	1028	113	220	387	328,5	475	267	662	465	226	
30	200	100	80	81	1065	113	220	412	321,5	530	318	807	650	285	
HCP 80-240															
5,5 ⁽¹⁾	132	100	80	86	820	138	275	293	249	375	216	526	400	98	
7,5 ⁽¹⁾	132	100	80	86	820	138	275	293	249	375	216	526	400	108	
18,5	160	100	80	86	1035	138	275	367	294	475	267	642	465	187	
22	180	100	80	86	1035	138	275	387	335,5	475	267	662	465	234	
30	200	100	80	86	1065	138	275	412	328,5	530	318	807	650	291	
37	200	100	80	86	1065	138	275	412	328,5	530	318	807	650	307	
45	225	100	80	86	1105	138	275	437	344,5	530	356	830	650	399	

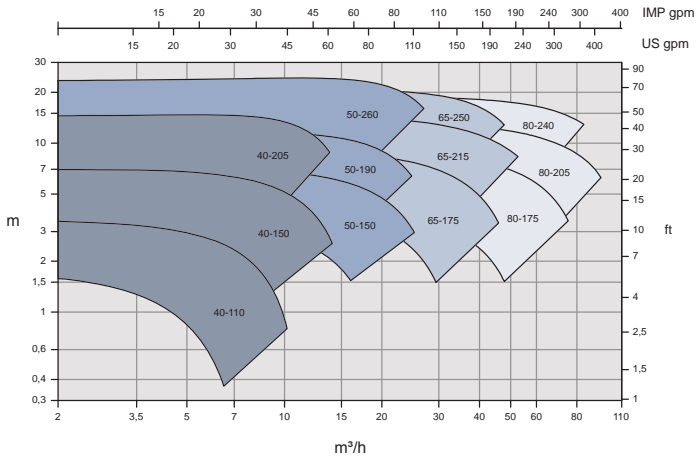
(1) 4-pole motor



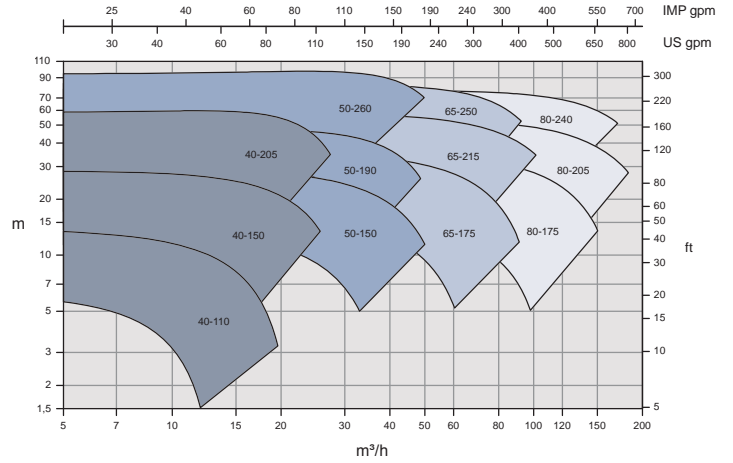
I Performance charts

50 Hz

1450 rpm

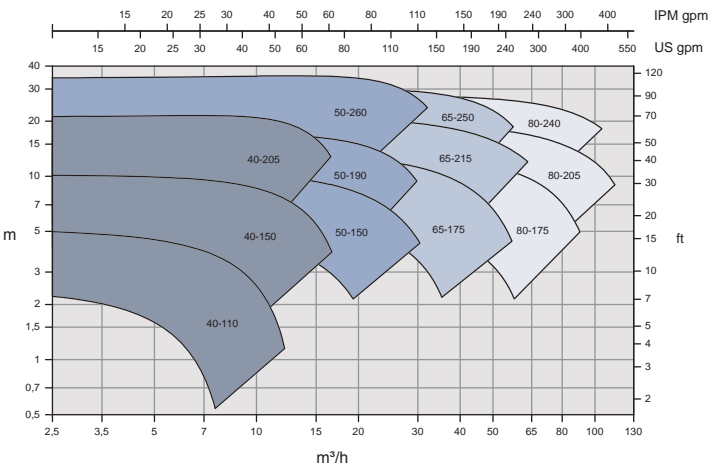


2900 rpm



60 Hz

1750 rpm



3500 rpm

