

# PROLAC HCPN

## Centrifugal Pump



### APPLICATION

Due to the choice of materials and its design, PROLAC HCPN 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.

### DESIGN AND FEATURES

PROLAC HCPN 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 pump is especially designed for CIP/SIP without disassembly according to the EHEDG recommendations.

The pump is authorized to carry 3-A symbol.

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

### MECHANICAL SEAL

The PROLAC HCPN 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.

### TECHNICAL SPECIFICATIONS

#### Materials

Parts in contact with the product

1.4404 (AISI 316L)

Other steel parts

1.4301 (AISI 304)

Gaskets in contact with the product

EPDM



**Mechanical seal**

|                 |                       |
|-----------------|-----------------------|
| Rotary part     | Silicon carbide (SiC) |
| Stationary part | Carbon (C)            |
| Seals           | EPDM                  |

**Surface finish**

|          |                                   |
|----------|-----------------------------------|
| Internal | Bright polish $Ra \leq 0,8 \mu m$ |
| External | Matt                              |

**Connections**

CLAMP-OD (ASME BPE / DIN 32676 serie C)

**Operating limits**

|                                        |                     |             |
|----------------------------------------|---------------------|-------------|
| Nominal pressure                       | 1600 kPa (16 bar)   | 232 PSI     |
| Working temperature                    | -10°C a 120°C       | 14° a 248°F |
| Temperature, maximum time SIP cleaning | 140°C during 30 min | 284°F       |
| Maximum flow                           | 220 m³/h            | 968 US GPM  |
| Maximum differential head              | 140 m               | 459 ft      |
| Maximum speed                          | 3600 rpm            |             |

**MOTOR**

NEMA Premium Efficiency three-phase induction motor, C-face and foot mounted.

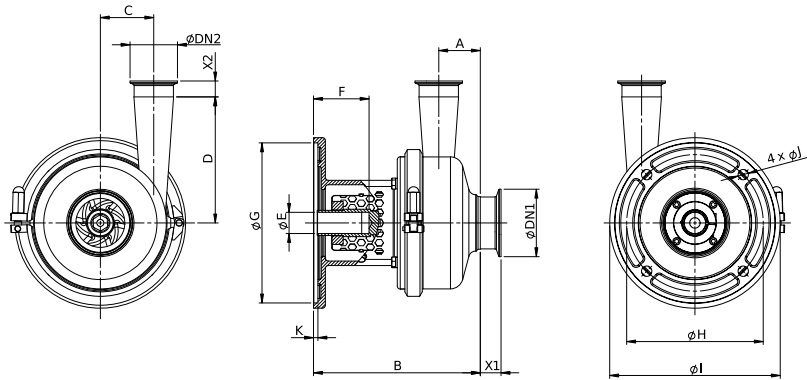
**OPTIONS**

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.  
 Height adjustable hygienic design legs.  
 Trolley and/or control panel.

**OPTIONS FOR THE 3-A SYMBOL**

Connections: CLAMP-DIN (DIN 32676 series A), DIN 11864.  
 Sealing: single mechanical seal.  
 Mechanical seal materials: C/SiC and SiC/SiC.  
 O-rings: EPDM and FPM.  
 Drain: vertical Clamp-OD.

DIMENSIONS



| Pump       | DN1 | DN2 | DIN 11864      |                | CLAMP OD       |                |
|------------|-----|-----|----------------|----------------|----------------|----------------|
|            |     |     | X <sub>1</sub> | X <sub>2</sub> | X <sub>1</sub> | X <sub>2</sub> |
| HCP 40-110 |     |     |                |                |                |                |
| HCP 40-150 | 2"  | 1½" | 0,91           | 0,91           | 0,89           | 0,87           |
| HCP 40-205 |     |     |                |                |                |                |
| HCP 50-150 |     |     |                |                |                |                |
| HCP 50-190 | 2½" | 2"  | 1,06           | 0,91           | 1,02           | 0,79           |
| HCP 50-260 |     |     |                |                |                |                |
| HCP 65-175 |     |     |                |                |                |                |
| HCP 65-215 | 3"  | 2½" | 1,06           | 1,06           | 0,98           | 0,98           |
| HCP 65-250 |     |     |                |                |                |                |
| HCP 80-175 |     |     |                |                |                |                |
| HCP 80-205 | 4"  | 3"  | 1,18           | 1,06           | 1,18           | 1,57           |
| HCP 80-240 |     |     |                |                |                |                |

Dimensions in inches

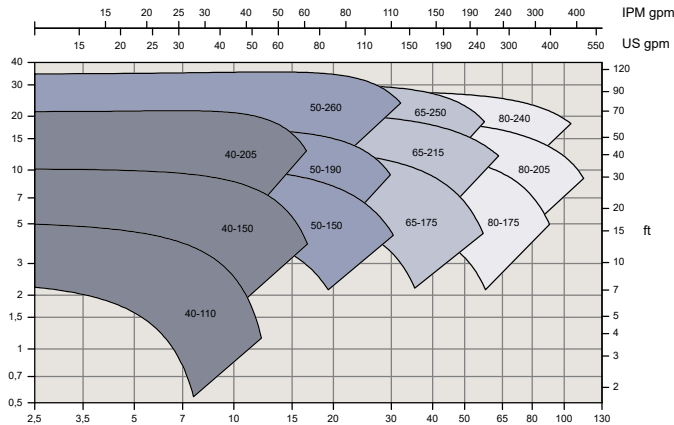
| Pump        | Motor      | DN1 | DN2 | A    | B    | C    | D    | E    | F    | G    | H    | I    | ØJ   | K    | kg   |      |      |      |      |    |
|-------------|------------|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----|
| HCPN 40-110 | 56C        | 2"  | 1½" | 1,54 | 7,24 | 2,09 | 5,12 | 0,63 | 1,89 | 4,50 | 5,87 | 6,61 | 0,43 | 0,16 | 9    |      |      |      |      |    |
|             | 143/145TC  |     |     |      |      |      |      | 0,88 | 2,24 |      |      |      |      |      | 9    |      |      |      |      |    |
| HCPN 40-150 | 56C        | 2"  | 1½" | 1,83 | 7,44 | 2,99 | 5,51 | 0,63 | 1,89 | 4,50 | 5,87 | 6,61 | 0,43 | 0,16 | 12   |      |      |      |      |    |
|             | 143/145TC  |     |     |      | 0,88 |      |      | 2,24 | 12   |      |      |      |      |      |      |      |      |      |      |    |
|             | 182/184TC  |     |     |      | 8,82 |      |      | 1,13 | 2,76 |      |      |      |      |      | 8,50 | 7,25 | 9,06 | 0,55 | 0,24 | 14 |
| HCPN 40-205 | 182/184TC  | 2"  | 1½" | 1,77 | 8,82 | 4,29 | 6,89 | 1,13 | 2,76 | 8,50 | 7,25 | 9,06 | 0,55 | 0,24 | 21   |      |      |      |      |    |
|             | 213/215TC  |     |     |      | 1,38 |      |      | 3,39 | 21   |      |      |      |      |      |      |      |      |      |      |    |
|             | 254/256TC  |     |     |      | 9,61 |      |      | 1,63 | 4,02 |      |      |      |      |      | 22   |      |      |      |      |    |
| HCPN 50-150 | 56C        | 2½" | 2"  | 2,20 | 7,48 | 2,83 | 6,69 | 0,63 | 1,89 | 4,50 | 5,87 | 6,61 | 0,43 | 0,16 | 12   |      |      |      |      |    |
|             | 143/145TC  |     |     |      | 0,88 |      |      | 2,24 | 12   |      |      |      |      |      |      |      |      |      |      |    |
|             | 182/184TC  |     |     |      | 8,86 |      |      | 1,13 | 2,76 |      |      |      |      |      | 8,50 | 7,25 | 9,06 | 0,55 | 0,24 | 14 |
|             | 213/215TC  |     |     |      | 1,38 |      |      | 3,39 | 14   |      |      |      |      |      |      |      |      |      |      |    |
| HCPN 50-190 | 182/184TC  | 2½" | 2"  | 2,32 | 8,94 | 4,13 | 8,27 | 1,13 | 2,76 | 8,50 | 7,25 | 9,06 | 0,55 | 0,24 | 21   |      |      |      |      |    |
|             | 213/215TC  |     |     |      | 1,38 |      |      | 3,39 | 21   |      |      |      |      |      |      |      |      |      |      |    |
|             | 254/256TC  |     |     |      | 9,72 |      |      | 1,63 | 4,02 |      |      |      |      |      | 22   |      |      |      |      |    |
| HCPN 50-260 | 213/215TC  | 2½" | 2"  | 2,83 | 10,4 | 5,83 | 9,84 | 1,38 | 3,39 | 8,50 | 7,25 | 9,06 | 0,55 | 0,24 | 36   |      |      |      |      |    |
|             | 254/256TC  |     |     |      | 11,1 |      |      | 1,63 | 4,02 |      |      |      |      |      | 37   |      |      |      |      |    |
|             | 284/286TSC |     |     |      | 10,2 |      |      | 1,63 | 3,27 |      |      |      |      |      | 10,5 | 9,0  | 11,0 | 37   |      |    |
|             | 324/326TSC |     |     |      | 10,4 |      |      | 1,88 | 3,74 |      |      |      |      |      | 12,5 | 11,0 | 13,9 | 0,71 | 41   |    |
| HCPN 65-175 | 213/215TC  | 3"  | 2½" | 2,83 | 10,1 | 3,86 | 7,87 | 1,38 | 3,39 | 8,50 | 7,25 | 9,06 | 0,55 | 0,24 | 24   |      |      |      |      |    |
|             | 254/256TC  |     |     |      | 10,9 |      |      | 1,63 | 4,02 |      |      |      |      |      | 25   |      |      |      |      |    |

Dimensions in inches

| Pump        | Motor              | DN1 | DN2 | A    | B    | C    | D    | E    | F    | G    | H    | I    | ØJ   | K    | kg   |      |      |    |  |  |
|-------------|--------------------|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----|--|--|
| HCPN 65-215 | 213/215TC          | 3"  | 2½" | 3,03 | 10,3 | 4,72 | 9,45 | 1,38 | 3,39 | 8,50 | 7,25 | 9,06 | 0,55 | 0,24 | 29   |      |      |    |  |  |
|             | 254/256TC          |     |     |      | 11,1 |      |      | 1,63 | 4,02 |      |      | 9,84 |      |      | 30   |      |      |    |  |  |
|             | 284/286TSC         |     |     |      | 10,1 |      |      | 1,63 | 3,27 |      |      | 10,5 |      |      | 9,0  | 11,0 | 30   |    |  |  |
|             | 324/326TSC         |     |     |      | 10,3 |      |      | 1,88 | 3,74 |      |      | 12,5 |      |      | 11,0 | 13,9 | 0,71 | 34 |  |  |
| HCPN 65-250 | 213/215TC          | 3"  | 2½" | 77,5 | 10,4 | 5,67 | 11,0 | 1,38 | 3,39 | 8,50 | 7,25 | 9,06 | 0,55 | 0,24 | 35   |      |      |    |  |  |
|             | 254/256TC          |     |     |      | 11,2 |      |      | 1,63 | 4,02 |      |      | 9,84 |      |      | 37   |      |      |    |  |  |
|             | 284/286TSC         |     |     |      | 10,2 |      |      | 1,63 | 3,27 |      |      | 10,5 |      |      | 9,0  | 11,0 | 37   |    |  |  |
|             | 324/326/364TSC     |     |     |      | 10,4 |      |      | 1,88 | 3,74 |      |      | 12,5 |      |      | 11,0 | 13,9 | 0,71 | 40 |  |  |
| HCPN 80-175 | 213/215TC          | 4"  | 3"  | 79   | 10,3 | 3,58 | 7,28 | 1,38 | 3,39 | 8,50 | 7,25 | 9,06 | 0,55 | 0,24 | 24   |      |      |    |  |  |
|             | 254/256TC          |     |     |      | 11,1 |      |      | 1,63 | 4,02 |      |      | 9,84 |      |      | 24   |      |      |    |  |  |
|             | 284/286TSC         |     |     |      | 10,1 |      |      | 1,63 | 3,27 |      |      | 10,5 |      |      | 9,0  | 11,0 | 24   |    |  |  |
| HCPN 80-205 | 213/215TC          | 4"  | 3"  | 81   | 10,5 | 4,45 | 8,66 | 1,38 | 3,39 | 8,50 | 7,25 | 9,06 | 0,55 | 0,24 | 29   |      |      |    |  |  |
|             | 254/256TC          |     |     |      | 11,3 |      |      | 1,63 | 4,02 |      |      | 9,84 |      |      | 29   |      |      |    |  |  |
|             | 284/286TSC         |     |     |      | 10,3 |      |      | 1,63 | 3,27 |      |      | 10,5 |      |      | 9,0  | 11,0 | 29   |    |  |  |
|             | 324/326/364TSC     |     |     |      | 10,5 |      |      | 1,88 | 3,74 |      |      | 12,5 |      |      | 11,0 | 13,9 | 0,71 | 33 |  |  |
| HCPN 80-240 | 213/25TC           | 4"  | 3"  | 86   | 10,8 | 5,43 | 10,8 | 1,38 | 3,39 | 8,50 | 7,25 | 9,06 | 0,55 | 0,24 | 36   |      |      |    |  |  |
|             | 254/256TC          |     |     |      | 11,6 |      |      | 1,63 | 4,02 |      |      | 9,84 |      |      | 37   |      |      |    |  |  |
|             | 284/286TSC         |     |     |      | 10,6 |      |      | 1,63 | 3,27 |      |      | 10,5 |      |      | 9,0  | 11,0 | 37   |    |  |  |
|             | 324/326/364/365TSC |     |     |      | 10,8 |      |      | 1,88 | 3,74 |      |      | 12,5 |      |      | 11,0 | 13,9 | 0,71 | 41 |  |  |
|             | 405TSC             |     |     |      | 10,8 |      |      | 2,13 | 4,25 |      |      |      |      |      |      |      |      | 41 |  |  |

Dimensions in inches

1750 rpm



3500 rpm

