



# The Standard Duty Pump

## Alfa Laval i-CP100 Centrifugal Pump

### Applications

The Alfa Laval i-CP100 pump is designed for standard duty applications, like pumping CIP (Cleaning In Place) solutions, utilities, water (processing, heating, cooling), washing machines, simple transport duty within working range. Alfa Laval i-CP100 is suited for use in the food, dairy, beverage and water industries.

### Standard design

The Alfa Laval i-CP100 pump consists of a standard motor, stub shaft, mechanical compression coupling, adaptor, back plate, impeller, pump casing and shaft seal.

The Alfa Laval i-CP100 pump is designed for CIP with emphasis on large internal roundings and cleanable seals.

Alfa Laval i-CP100 has a stainless steel shroud for protection of the motor, and the complete unit is supported on four adjustable legs.

### Shaft seals

The Alfa Laval i-CP100 pump is equipped with either an external single or a flushed shaft seal. Both have stationary seal rings in acid-resistant steel AISI 329 with sealing surface in silicon carbide and rotating seal rings in carbon. The secondary seal of the flushed seal is a long lasting lip seal.

### Materials

Product wetted steel parts: . . . . . Acid-resistant steel 1.4403 (304L).

Other steel parts: . . . . . Stainless steel 1.4301 (304).

Finish: . . . . . Blasted (standard)  
3A polishing (Ra 0.8).

Product wetted seals: . . . . . EPDM rubber (acc. to FDA).

### Technical data

Max. inlet pressure: . . . . . 400 kPa (4 bar).

Temperature range: . . . . . -10°C to +120°C (EPDM).

### Flushed shaft seal (FSS):

Water pressure inlet: . . . . . max. 100 kpa (1 bar).

Water consumption: . . . . . 0.25 -0.5 l/min.

### Connections for FSS:

R 1/8" (BSP) external thread.

### Motor

Foot-flanged motor according to the IEC metric standard (EFF II), 2 poles = 3000/3600 rpm. at 50/60 Hz, IP 55 (with drain hole with labyrinth plug), insulation class F.



### Voltage and frequency

3 ~, 50 Hz, 220-240V Δ/380-420VY ≤ 4 kW

3 ~, 60 Hz, 250-280V Δ/440-480VY ≤ 4.6 kW

3 ~, 50 Hz, 380-420V Δ/660-690VY ≥ 5.5 kW

3 ~, 60 Hz, 440-480V Δ ≥ 6.4 kW

### Motor sizes

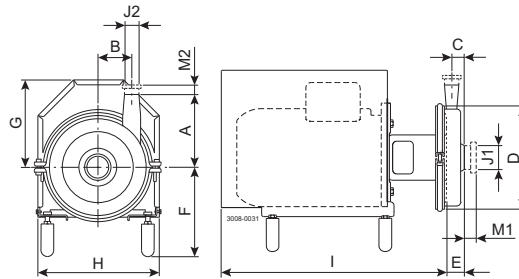
50 Hz: 1.5, 2.2, 3, 4, 5.5, 7.5, 11, 15, 18.5 kW

60 Hz: 1.75, 2.5, 3.5, 4.6, 6.4, 8.6, 12.5, 17, 21 kW.

### Warranty

Extended 3-years warranty on the Alfa Laval i-CP100 Centrifugal Pump range. The warranty covers all non wear parts on the condition that genuine Alfa Laval Spare Parts are used.

## Dimensions (mm)



## Pump specific measures

Pump Model	ICP-101	ICP-102	ICP-103	ICP-104
A	180	200	230	210
B	67	94	121	121
C	28	35	27	31
D	249	288	322	344
E	40	47	44	44

## Motor specific measures

Motor IEC	IEC90	IEC100	IEC112	IEC132	IEC160
Motor kW	1.5/2.2	3.0	4.0	5.5/7.5	11/15/18.5
F(max)*	246	256	259	279	307
G	197	200	229	240	292
H	235	285	284	334	384
I	490	528	511	643	771

\*Possible to reduce dimension F by min. XX mm for all pump models. For smaller models it will be possible to reduce dimension F even further.

## Motor overview

Pump Model	ICP-101	ICP-102	ICP-103	ICP-104
Motor range (IEC)	IEC90-IEC112	IEC100-IEC160	IEC132-IEC160	IEC132-IEC160

Dimensional data are based on 2 pole, TechTop motors.

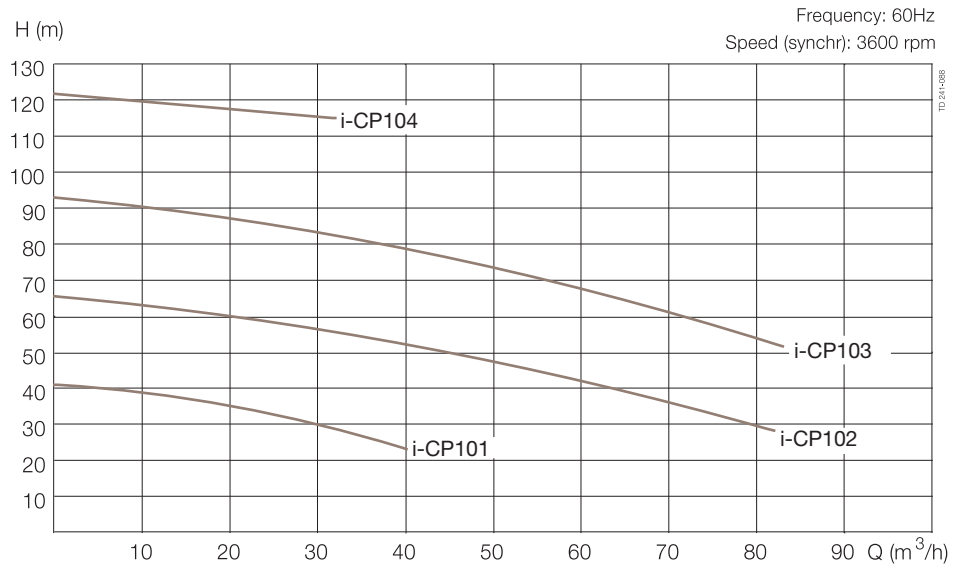
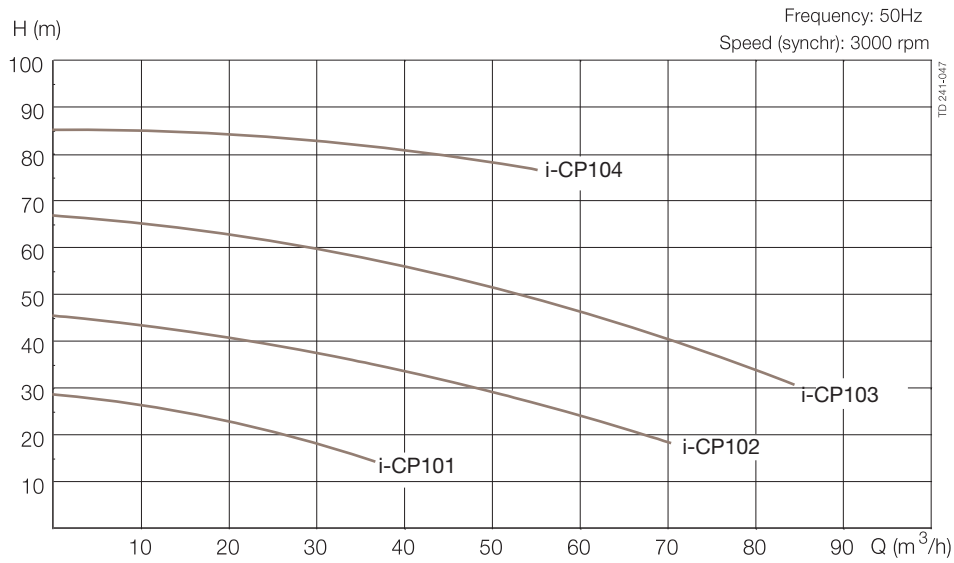
## Connections

Pump Model		ICP-101	ICP-102	ICP-103	ICP-104
Clamp ISO 2037	M1	21	21	21	21
	M2	21	21	21	21
Union DIN/ISO	M1	23	61	61	61
	M2	22	22	22	23
Union SMS	M1	20	24	24	24
	M2	20	20	20	20
J1*		51 / 2"	63,5 / 2,5"	76,1 / 3"	76,1 / 3"
J2*		38 / 1,5"	38 / 1,5"	38 / 1,5"	51 / 2"

\* Other dimensions available on request.

ESE00231/2

Flow chart



Connections (mm) Sanitary version

Alfa Laval i-CP101

	ISO	DIN	SMS
D <sup>I</sup> 51	Clamp	Male	Male
D <sup>I</sup> 38			
M <sup>I</sup>	21	23	20
M <sup>II</sup>	21	22	20

Alfa Laval i-CP102

	ISO	DIN	SMS
D <sup>I</sup> 63.5	Clamp	Male	Male
D <sup>I</sup> 38			
M <sup>I</sup>	21	61	24
M <sup>II</sup>	21	22	20

Alfa Laval i-CP103

	ISO	DIN	SMS
D <sup>I</sup> 76.1	Clamp	Male	Male
D <sup>I</sup> 38			
M <sup>I</sup>	21	61	24
M <sup>II</sup>	21	22	20

Alfa Laval i-CP104

	ISO	DIN	SMS
D <sup>I</sup> 76.1	Clamp	Male	Male
D <sup>I</sup> 51			
M <sup>I</sup>	21	61	24
M <sup>II</sup>	21	23	20

**Options**

- A. Impeller with reduced diameter.
- B. Motor for other voltage and/or frequency.
- C. 1500 rpm. motor.
- D. Flushed shaft seal.
- E. Product wetted seals of Nitrile (NBR), Fluorinated rubber (FPM) or FEP.
- F. Rotating seal ring of Silicon Carbide.

**Ordering**

Please state the following when ordering:

- Pump size.
- Connections.
- Impeller diameter.
- Motor size.
- Voltage and frequency.
- Flow, pressure and temperature.
- Density and viscosity of the product.
- Options.

**Note!**

For further details, see also ESE00232.

This product has EHEDG certification

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