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.

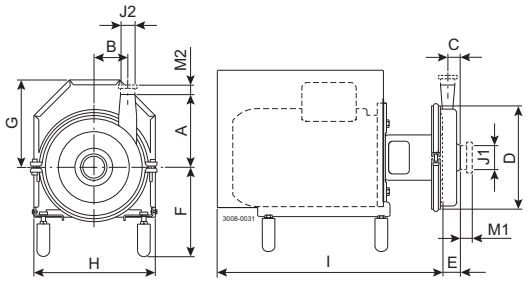
Voltage and frequency

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

Moter 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.

Moter overview

Pump Model	ICP-101	ICP-102	ICP-103	ICP-104
Moter 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.

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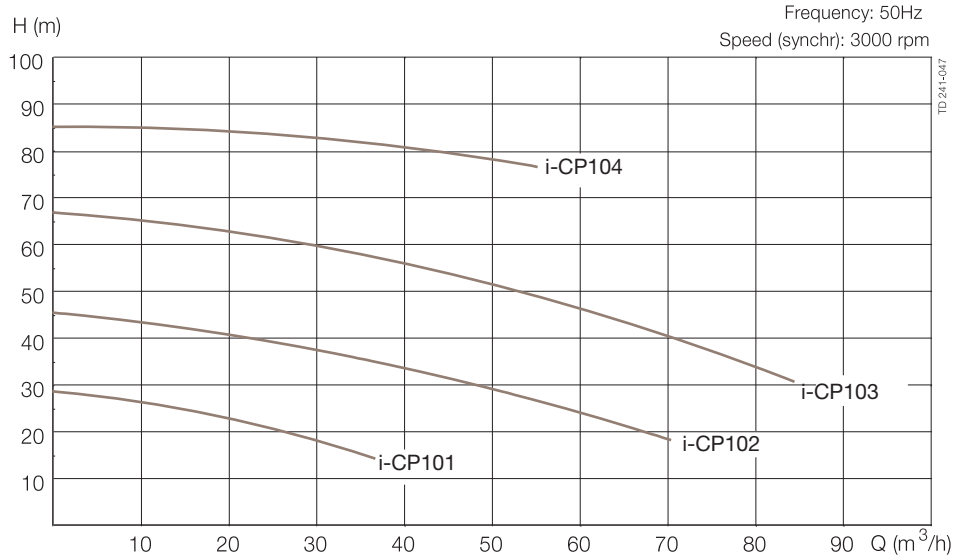
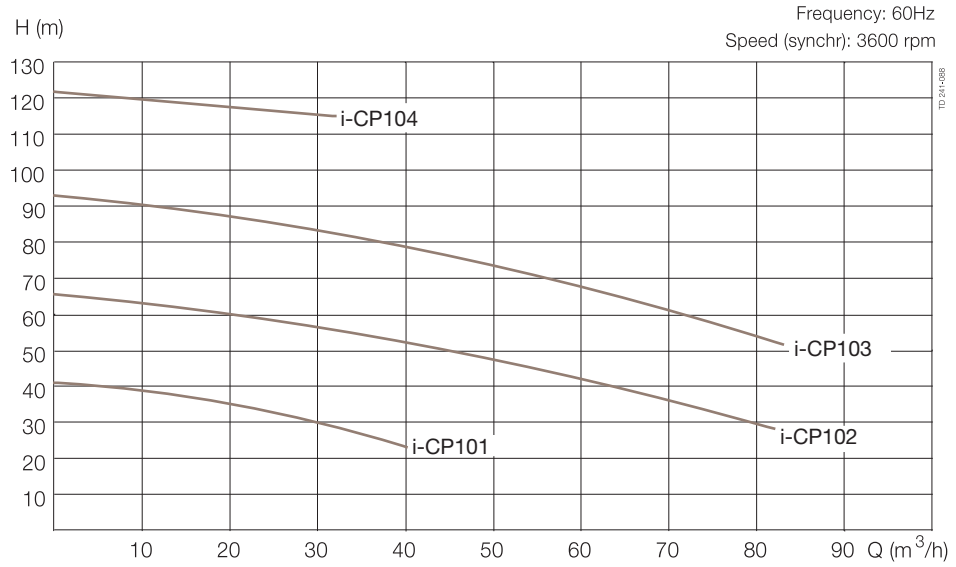
Flow chart





Connections (mm) Sanitary version

Alfa Laval i-CP101

D^{I} 51 D^{I}38	ISO Clamp	DIN Male	SMS Male
M^{I} M^{II}	21 21	23 22	20 20

Alfa Laval i-CP102

D^{I} 63.5 D^{I}38	ISO Clamp	DIN Male	SMS Male
M^{I} M^{II}	21 21	61 22	24 20

Alfa Laval i-CP103

D^{I} 76.1 D^{I}38	ISO Clamp	DIN Male	SMS Male
M^{I} M^{II}	21 21	61 22	24 20

Alfa Laval i-CP104

D^{I} 76.1 D^{I}51	ISO Clamp	DIN Male	SMS Male
M^{I} M^{II}	21 21	61 23	24 20

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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

Authorized Distributor

Alfa Laval reserves the right to change specifications without prior notification. ALFA LAVAL is a trademark registered and owned by Alfa Laval Corporate AB.

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How to contact Alfa Laval

Contact details for all countries are continually updated on our website. Please visit www.alfalaval.com to access the information direct.