

The Standard Duty Pump

SolidC Pump

Applications

The SolidC 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. SolidC is suited for use in the food, dairy, beverage, personal care, pharmaceutical, light chemical and water industries.

Standard design

The SolidC pump consists of a standard motor, stub shaft, mechanical compression coupling, adaptor, back plate, impeller, pump casing and shaft seal.

The SolidC pump is designed for CIP with emphasis on large internal roundings and cleanable seals.

SolidC has a stainless steel shroud for protection of the motor, and the complete unit is supported on four adjustable legs.

Shaft seals

The SolidC 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 1.4404 (316L).

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. 1 bar.

Water consumption: 0.25 -0.5 l/min.

Connections for FSS:

R 1/8" (BSP) external thread.



SolidC pump.

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: 1.1, 1.5, 2.2, 3, 4, 5.5,
7.5, 11, 15, 18.5, 22 kW

60 Hz: 1.3, 1.75, 2.5, 3.5, 4.6,
6.4, 8.6, 12.5, 17, 21, 25 kW.

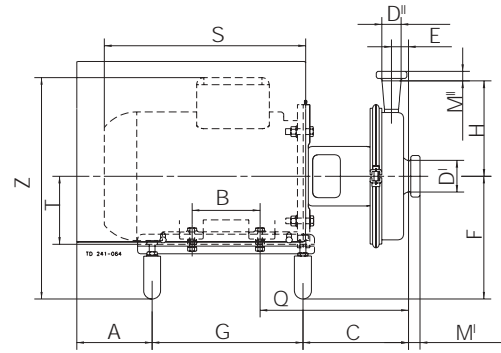
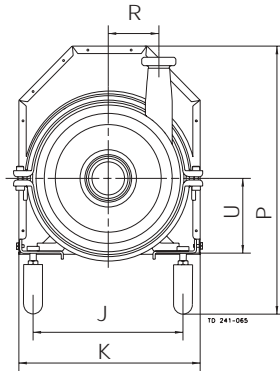
NOTE!

When used with frequency converter the 22 kW motor only has 20 kW effect.

Warranty

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

Dimensions (mm)
900234/1



SolidC-1

Size	Weg-motor			
	1.5kW	2.2kW	3kW	4kW
A	84	84	101	87
B	125	125	140	140
C	173	173	161	165
E	28	28	28	28
F min	195	195	205	217
F max	210	210	220	232
G	242	242	290	300
H	180	180	180	180
J	177	177	228	227
K	305	305	305	305
P min	392	392	405	447
P max	407	407	420	462
Q	231	231	236	245
R	67	67	67	67
S	254	279	316	333
T	90	90	100	112
U	93	93	103	115
Z min	345	345	365	397
Z max	360	360	380	412
Weight (kg)	38	40	52	63

SolidC-2

Size	Weg-motor			
	3kW	4kW	5.5/7.5kW	11kW
A	101	87	157	173
B	140	140	178	254
C	168	172	229	227
E	35	35	35	35
F min	205	217	237	265
F max	220	232	252	280
G	290	300	305	503
H	200	200	200	200
J	228	227	277	327
K	349	349	349	349
P min	405	447	478	536
P max	420	462	493	551
Q	243	252	311	331
R	94	94	94	94
S	316	333	410	488
T	100	112	132	160
U	103	115	135	163
Z min	365	397	444	515
Z max	380	412	459	530
Weight (kg)	55	65	94/96	140

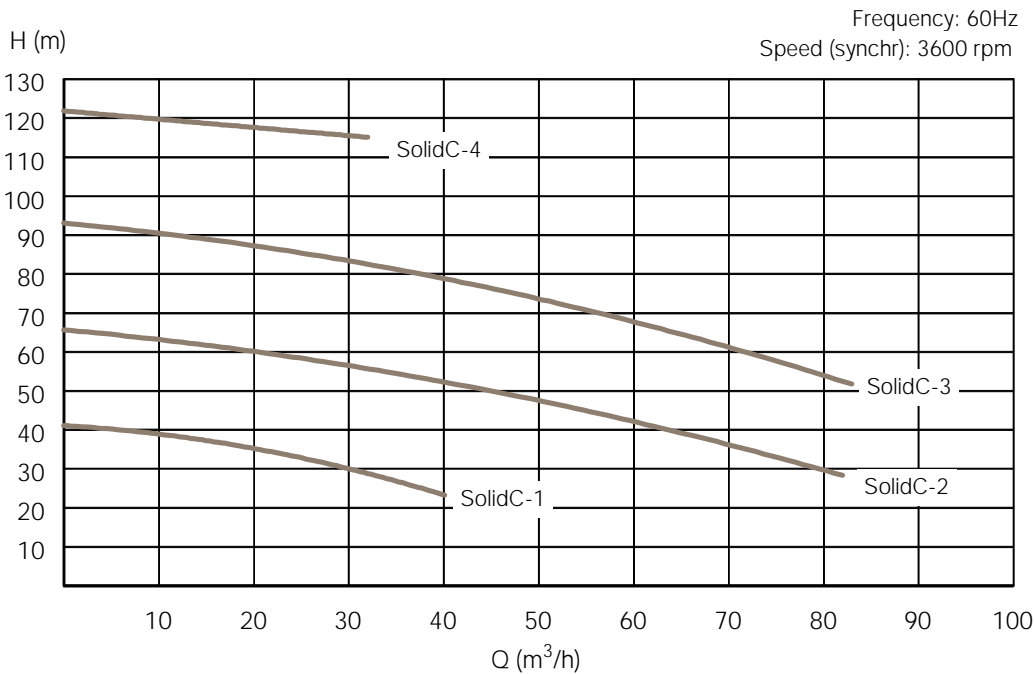
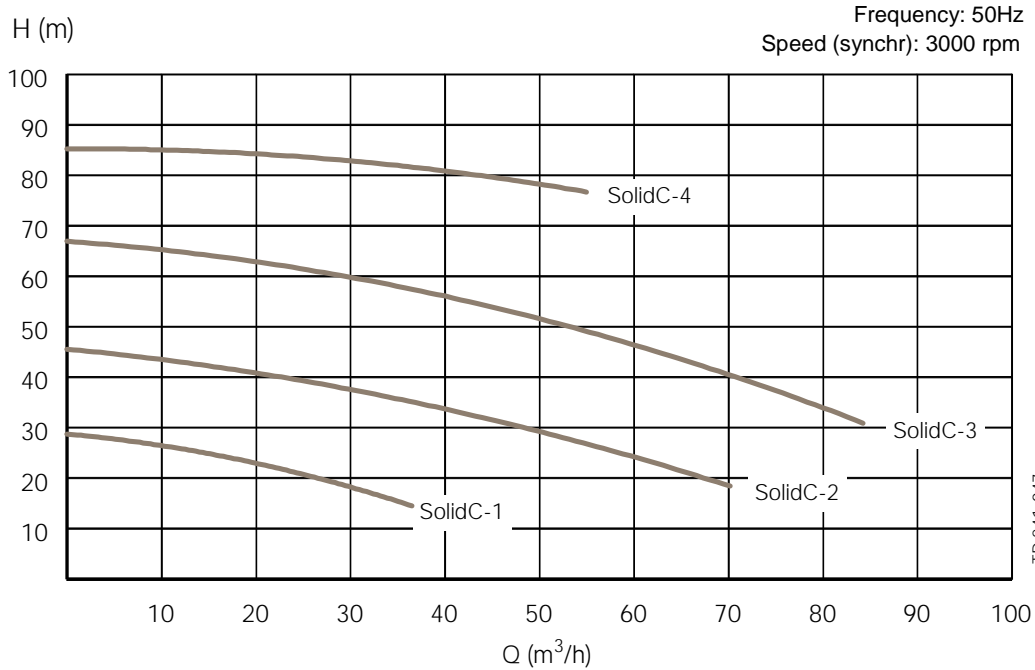
SolidC-3

Size	Weg-motor		
	5.5/7.5kW	11/15kW	18.5kW
A	157	173	109
B	178	210	254
C	226	221	205
E	31	31	31
F min	237	265	265
F max	252	280	280
G	305	419	503
H	210	210	210
J	277	327	327
K	390	390	390
P min	478	536	536
P max	493	551	551
Q	308	328	328
R	121	121	121
S	410	488	532
T	132	160	160
U	135	163	163
Z min	444	515	515
Z max	459	530	530
Weight (kg)	99/102	146/153	171

SolidC-4

Size	Weg-motor		
	5.5/7.5kW	11/15kW	18.5/22kW
A	157	173	109
B	178	210	254
C	225	224	204
E	27	27	27
F min	237	265	265
F max	252	280	280
G	305	419	503
H	230	230	230
J	277	327	327
K	410	410	410
P min	478	536	536
P max	493	551	551
Q	308	328	328
R	121	121	121
S	410	488	532
T	132	160	160
U	135	163	163
Z min	444	515	515
Z max	459	530	530
Weight (kg)	101/103	147/154	170

Flow chart



Connections (mm) Sanitary version

SolidC-1

D ^I 51 D ^{II} 38	ISO Clamp	IDF Male	DIN Male	SMS Male	BS Male	DS Male
M ^I	21	21	23	20	27	20
M ^{II}	21	21	22	20	27	20

SolidC-2

D 63.5 D ^{II} 38	ISO Clamp	IDF Male	DIN Male	SMS Male	BS Male	DS Male
M ^I	21	21	61	24	27	24
M ^{II}	21	21	22	20	27	20

SolidC-3

D ^I 76.1 D ^{II} 38	ISO Clamp	IDF Male	DIN Male	SMS Male	BS Male	DS Male
M ^I	21	21	61	24	27	24
M ^{II}	21	21	22	20	27	20

SolidC-4

D ^I 76.1 D ^{II} 51	ISO Clamp	IDF Male	DIN Male	SMS Male	BS Male	DS Male
M ^I	21	21	61	24	27	24
M ^{II}	21	21	23	20	27	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 IM 70821.