Equipment and solutions

CHLF Horizontal Multistage Pump

Product technical datasheet

Horizontal multistage pump in AISI 304 stainless steel.



FT-P101 · Rev. 1

The CHLF series is a compact, quiet horizontal multistage pump in stainless steel, suitable for domestic pressurization, irrigation and industrial applications. Built for durability and energy efficiency, its AISI 304 stainless steel construction provides corrosion resistance and.

Applications

- Air conditioning and cooling
- Industrial cleaning
- Water treatment and purification
- Aquaculture
- Fertilisation systems
- Environmental applications
- Pressure boosting systems
- Irrigation and agriculture

Operating conditions

- Confirm the installation conditions, power supply and duty point before commissioning.

Engineering note	Confirm the installation conditions, power supply and duty point before commissioning.
Complementary equipment	Contact JOVAL for compatible accessories and equipment.
Resources and support	Pump selection guide · JOVAL technical support
Contact	+351 253 490 740 · joval@joval.pt

Technical specifications

Type

Multistage centrifugal pump

Horizontal multistage pump, axial inlet and radial outlet

Horizontal multistage pump, axial inlet and radial outlet

Material

Stainless Steel AISI 304 (1.4301)

Seal

SiC/Graphite mechanical seal

Protection

IP 55

Insulation

Class F

Maximum 20 starts per hour

Maximum 20 starts per hour

Nominal Speed

2900 rpm

Voltage

1~ 220-240V / 3~ 220-240V/380-415V

Efficiency

IE2 (1~) / IE3 (3~ >0.55kW)

Standards

ISO 9906, Annex A

Liquid temp.

-15°C to 70°C

70°C to 110°C

70°C to 110°C

Ambient Temp.

Max. 52°C

Maximum Pressure

10 bar

Liquid type

Clean, low-viscosity, non-flammable liquids without solids or fibres

Applications

- Air conditioning and cooling
- Industrial cleaning
- Water treatment and purification
- Aquaculture
- Fertilisation systems
- Environmental applications
- Pressure boosting systems
- Irrigation and agriculture

Operating conditions

- Confirm the installation conditions, power supply and duty point before commissioning.

Engineering note Confirm the installation conditions, power supply and duty point before commissioning.

List of materials

Materials

Pos.	Description	Material	AISI / ASTM
1	Inlet	Stainless steel	AISI 304
2	Plug	Stainless steel	AISI 304
3	Bearing	Tungsten carbide	-
4	Impeller	Stainless steel	AISI 304
5	Shaft	Stainless steel	AISI 304
7	Outlet	Stainless steel	AISI 304
8	Mechanical seal	SiC / Grafite	-
9	Motor cover	Aluminium	-
10	Support base	Steel	AISI 1015
11	Clamping nut	Stainless steel	AISI 304
12	Diffuser	Stainless steel	AISI 304
13	Diffuser support	Stainless steel	AISI 304
14	Impeller sleeve	Stainless steel	AISI 304

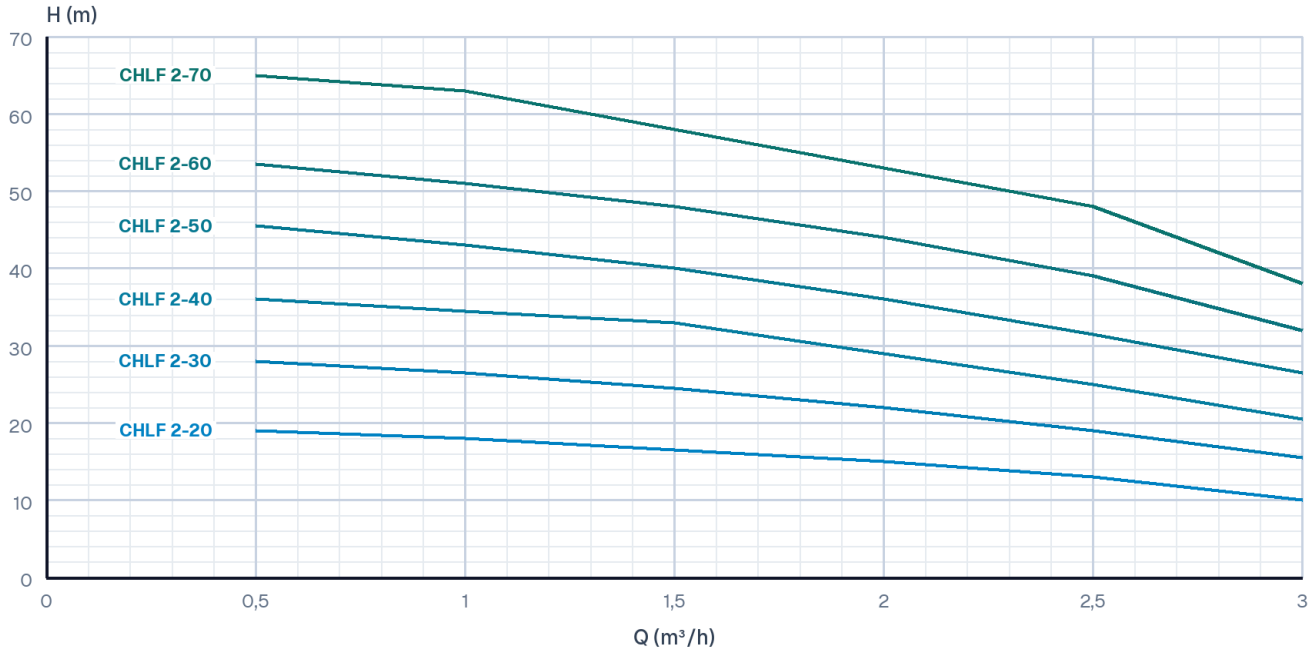
Additional information

Materials

Model	Inlet	Outlet
CHLF 2	G1	G1
CHLF 4	G1 1/4	G1
CHLF 8	G1 1/2	G1 1/4
CHLF 12	G1 1/2	G1 1/2
CHLF 16	G2	G2

Performance · Series CHLF 2

Performance curves



Electrical data

Rated values at 400 V

Model	kW	HP	A (400 V)
CHLF 2-20	0,37	0,5	2,26 / 1,66-1,49
CHLF 2-30	0,37	0,5	3,65 / 2,20-2,11
CHLF 2-40	0,55	0,75	3,65 / 2,20-2,11

Model	kW	HP	A (400 V)
CHLF 2-50	0,55	0,75	3,65 / 2,20-2,11
CHLF 2-60	0,75	1	4,8 / 3,01-2,86
CHLF 2-70	0,75	1	4,2 / 1,7

Performance · Series CHLF 2

Hydraulic performance

Total head H in metres

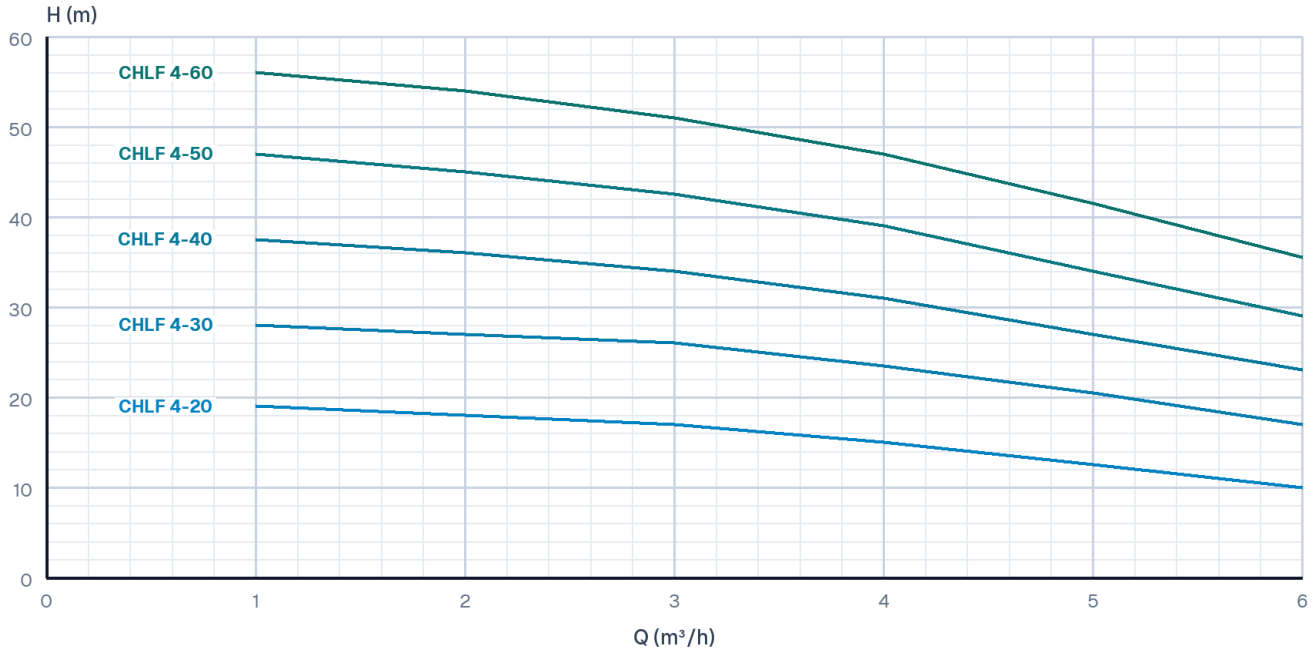
Q · Flow (m³/h)

Model	0,5	1	1,5	2	2,5	3
CHLF 2-20	19	18	16,5	15	13	10
CHLF 2-30	28	26,5	24,5	22	19	15,5
CHLF 2-40	36	34,5	33	29	25	20,5
CHLF 2-50	45,5	43	40	36	31,5	26,5
CHLF 2-60	53,5	51	48	44	39	32
CHLF 2-70	65	63	58	53	48	38

Select the duty point at the intersection of Q and H.

Performance · Series CHLF 4

Performance curves



Electrical data

Rated values at 400 V

Model	kW	HP	A (400 V)
CHLF 4-20	0,37	0,5	3,65 / 2,2-2,11
CHLF 4-30	0,55	0,75	3,9 / 2,3-2,2
CHLF 4-40	0,75	1	4,8 / 3,01-2,86

Model	kW	HP	A (400 V)
CHLF 4-50	1,1	1,5	7,0 / 4,16-3,98
CHLF 4-60	1,1	1,5	7,0 / 4,16-3,98

Performance · Series CHLF 4

Hydraulic performance

Total head H in metres

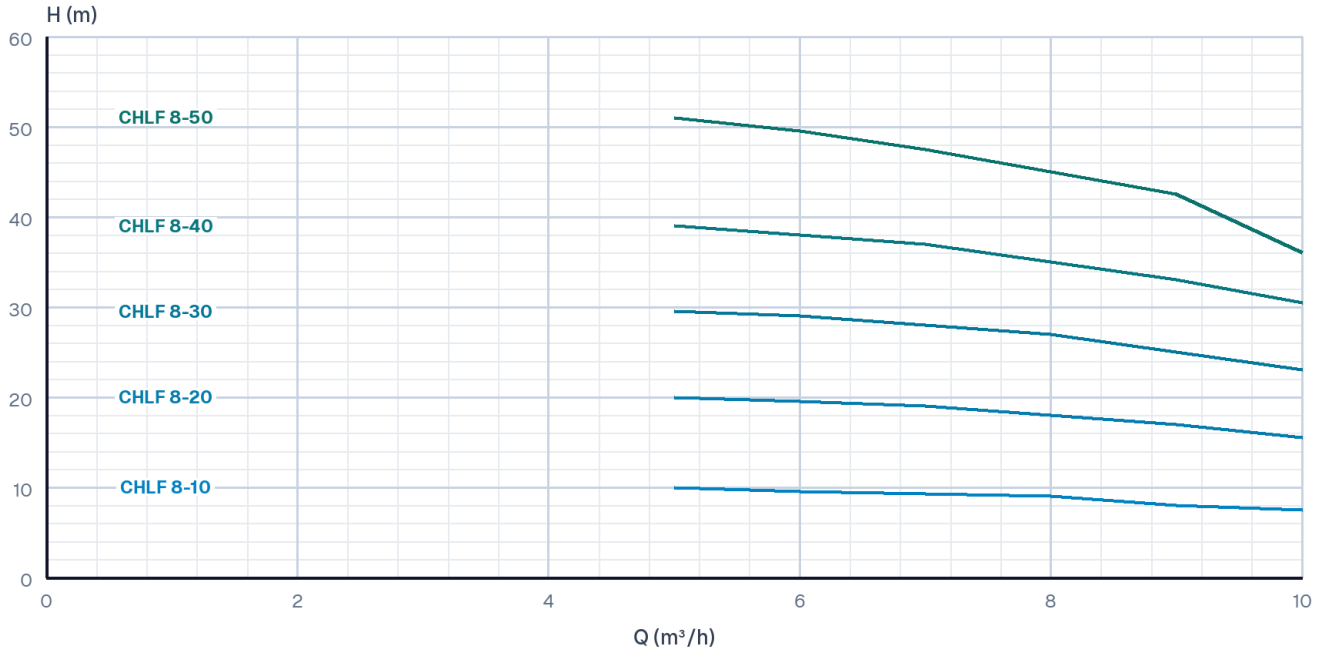
Q · Flow (m³/h)

Model	1	2	3	4	5	6
CHLF 4-20	19	18	17	15	12,5	10
CHLF 4-30	28	27	26	23,5	20,5	17
CHLF 4-40	37,5	36	34	31	27	23
CHLF 4-50	47	45	42,5	39	34	29
CHLF 4-60	56	54	51	47	41,5	35,5

Select the duty point at the intersection of Q and H.

Performance · Series CHLF 8

Performance curves



Electrical data

Rated values at 400 V

Model	kW	HP	A (400 V)
CHLF 8-10	0,75	1	4,8 / 3,01-2,86
CHLF 8-20	0,75	1	4,8 / 3,01-2,86
CHLF 8-30	1,1	1,5	7,0 / 4,16-3,98

Model	kW	HP	A (400 V)
CHLF 8-40	1,5	2	9,1 / 5,96-5,37
CHLF 8-50	2,2	3	12,4 / 8,31-7,67

Performance · Series CHLF 8

Hydraulic performance

Total head H in metres

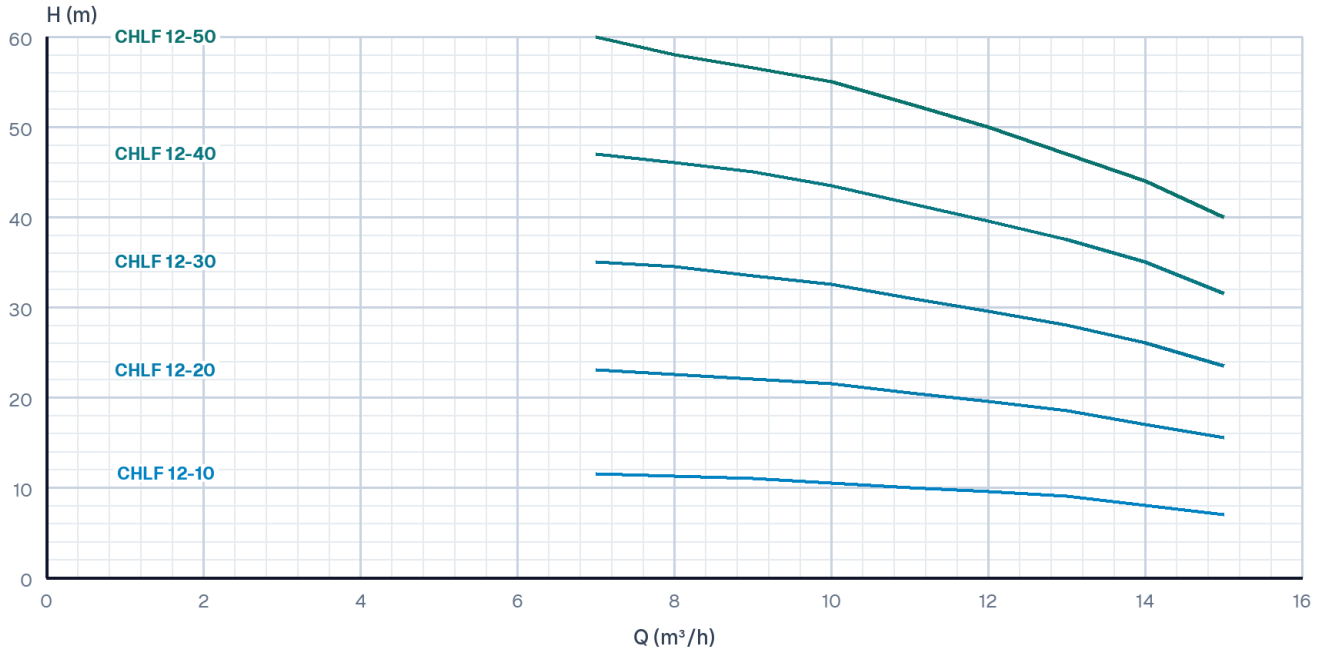
Q · Flow (m³/h)

Model	5	6	7	8	9	10
CHLF 8-10	10	9,5	9,3	9	8	7,5
CHLF 8-20	20	19,5	19	18	17	15,5
CHLF 8-30	29,5	29	28	27	25	23
CHLF 8-40	39	38	37	35	33	30,5
CHLF 8-50	51	49,5	47,5	45	42,5	36

Select the duty point at the intersection of Q and H.

Performance · Series CHLF 12

Performance curves



Electrical data

Rated values at 400 V

Model	kW	HP	A (400 V)
CHLF 12-10	0,75	1	7-6,4 / 4,5-4,1
CHLF 12-20	1,2	1,6	7,6-7 / 4,9-4,5
CHLF 12-30	1,8	2,5	11-10,1 / 7,1-6,5

Model	kW	HP	A (400 V)
CHLF 12-40	2,4	3,5	14,6-13,4 / 9-8,3
CHLF 12-50	3	4	- / 11-10

Performance · Series CHLF 12

Hydraulic performance

Total head H in metres

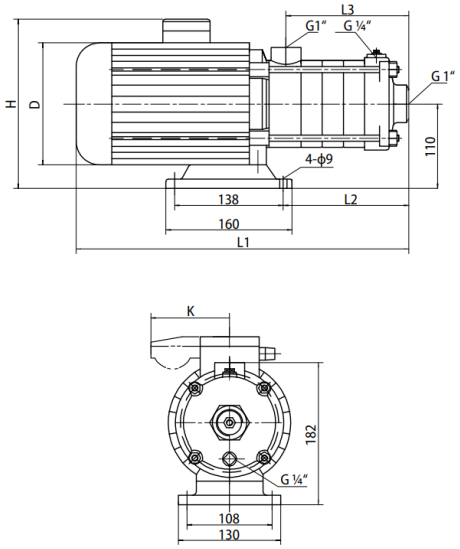
Q · Flow (m³/h)

Model	7	8	9	10	11	12	13	14	15
CHLF 12-10	11,5	11,2	11	10,5	10	9,5	9	8	7
CHLF 12-20	23	22,5	22	21,5	20,5	19,5	18,5	17	15,5
CHLF 12-30	35	34,5	33,5	32,5	31	29,5	28	26	23,5
CHLF 12-40	47	46	45	43,5	41,5	39,5	37,5	35	31,5
CHLF 12-50	60	58	56,5	55	52,5	50	47	44	40

Select the duty point at the intersection of Q and H.

Dimensions · Series CHLF 2

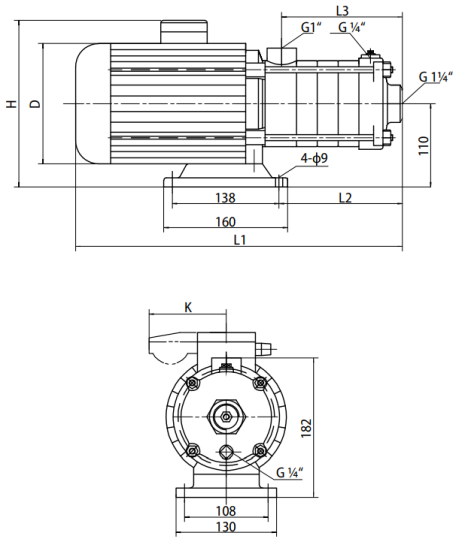
Dimensions and models



Model	L1	L2	L3	H (1Dia.)	H (3Dia.)	D	K (1Dia.)	Weight
CHLF 2-20	305	87	84	230	215	145	96	15
CHLF 2-30	323	105	102	230	215	145	96	15
CHLF 2-40	341	123	120	230	215	145	96	15
CHLF 2-50	359	141	138	230	215	145	96	15
CHLF 2-60	422	159	156	245	225	170	100	17

Dimensions · Series CHLF 4

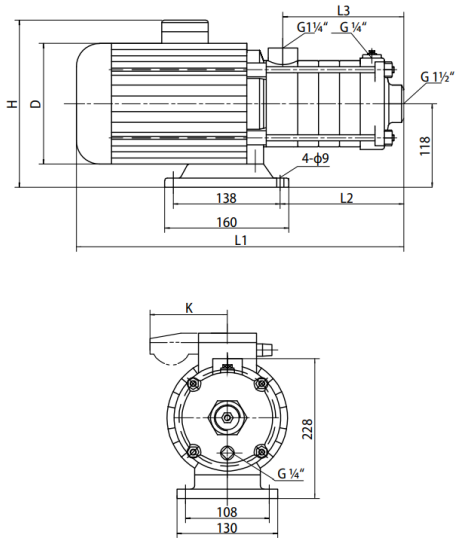
Dimensions and models



Model	L1	L2	L3	H (1Dia.)	H (3Dia.)	D	K (1Dia.)	Weight
CHLF 4-20	329	105	102	230	215	145	96	15
CHLF 4-30	356	132	129	230	215	145	96	15
CHLF 4-40	416	162	156	245	225	170	100	17
CHLF 4-50	455	188	183	245	225	170	100	17
CHLF 4-60	482	213	213	245	225	170	100	17

Dimensions · Series CHLF 8

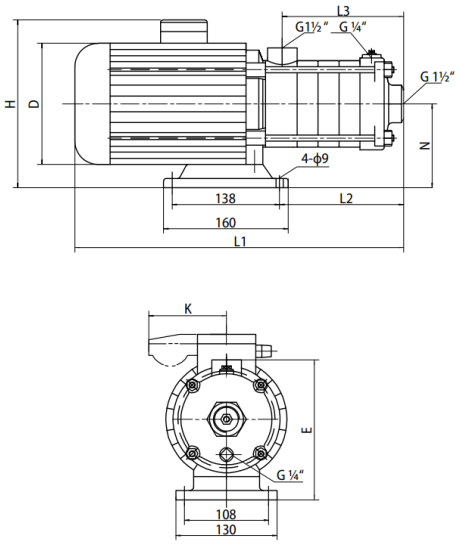
Dimensions and models



Model	L1	L2	L3	H (1Dia.)	H (3Dia.)	D	K (1Dia.)	Weight
CHLF 8-10	395	126	108	265	230	170	100	20
CHLF 8-20	395	126	108	265	230	170	100	20
CHLF 8-30	425	156	138	265	230	170	100	25
CHLF 8-40	490	186	168	270	240	180	100	28
CHLF 8-50	520	216	198	270	240	180	100	30

Dimensions · Series CHLF 12

Dimensions and models



Model	L1	L2	L3	H (1Dia.)	H (3Dia.)	D	E	N	K (1Dia.)	Weight
CHLF 12-10	395	126	108	265	230	170	228	118	100	20
CHLF 12-20	395	126	108	265	230	170	228	118	100	21
CHLF 12-30	460	156	138	270	240	180	228	118	100	25
CHLF 12-40	490	186	168	270	240	180	228	118	100	29
CHLF 12-50	555	216	198	270	195	240	126	126	126	34