



Vertical Multi-Stage Stainless Steel Pump

Type EVM

APPLICATIONS

- Washing system
- Water treatment plants
- Reverse Osmosis system
- Some chemical applications
- Conditioning systems
- Heating systems
- Industrial boilers
- Pressure boosting for industrial systems

MATERIALS

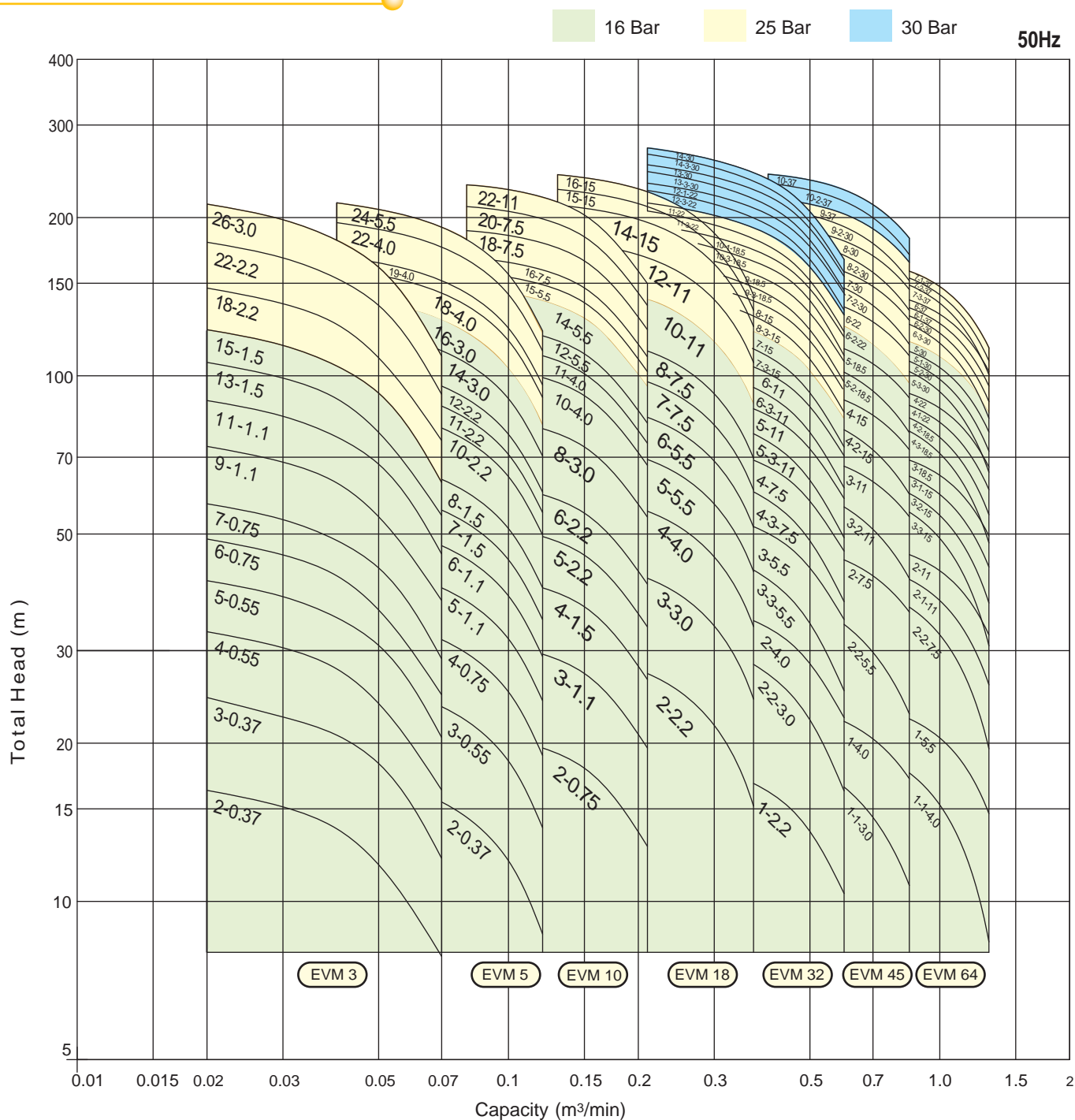
- Pump body, external casing, casing cover impellers, diffusers, bearing sleeve, coupling guard and bolts in contact with liquid
AISI 304 (EVM), AISI 316 (EVML), EVMG version :
bottom casing in cast iron
- Tie-rods and bolts not in contact with liquid in zinc coated steel
- Shaft in AISI 316
- Bearing in contact with liquids in tungsten-carbide
- Bracket and base in cast iron
- Mechanical seal in SiC/Carbon/FPM
(EVM3-EVM5-EVM10-EVM18)
- Cartridge mechanical seal standard
(EVM32-EVM45-EVM64)

TECHNICAL DATA

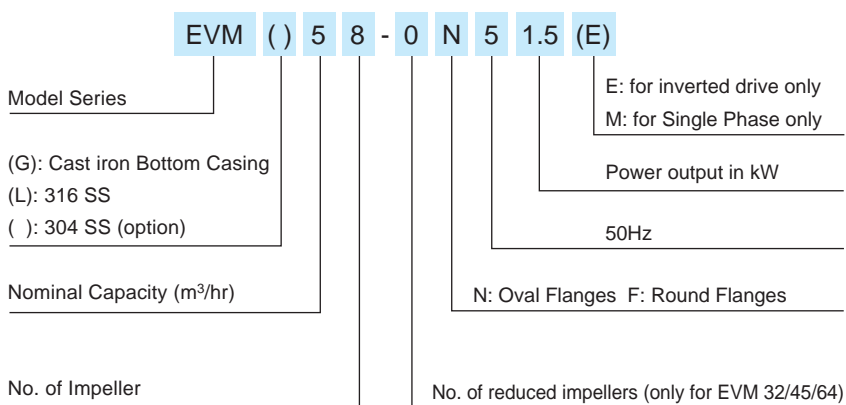
- Asynchronous 2 poles motor
- Insulation : Class F
- Protection : IP55
- 1~230V \pm 10% 50Hz (up to 2.2 kW)
- 3~230/400V \pm 10% 50Hz delta connection
(up to 4 kW included)
- 3~400/690V \pm 10% above 5.5kW



PERFORMANCE CHART



MODEL CODE



SPECIFICATIONS

- Maximum working pressure:
 - 16 bar
 - 25 bar
 - 30 bar (only for EVM32-EVM45)
- Liquid temperature:
 - from -15°C up to +120°C
 - from -15°C up to +85°C (for EVMW)

STANDARD SPECIFICATION - EVM (G)

Model Type	3	5	10	18	32	45	64
Application	Water supply, Light industrial (boiler feed, washing, coolant, etc.)						
Temperature	-15 to +120°C						
Flow / head	80 m ³ /hr (max): 300m (max)						
Max. working pressure	1.6/2.5MPa (16Bar/25Bar)				1.6/2.5/3.0Mpa (16/25/30Bar)		
Sealing	16 bar: Mechanical-seal - according to DIN				Cartridge type Mechanical-seal - according to DIN		
	25 bar: Cartridge Mechanical-seal - according to DIN						
Connecting flange	OVAL or DIN TYPE			DIN TYPE			
Material	Impeller	EN 1.4301 (AISI 304)					
	Intermediate casing	EN 1.4301 (AISI 304)					
	Bottom casing	EN 1.4301 (AISI 304) - EVM					
		Cast iron (EVMG)					
	Casing cover	Cast iron					
	Outer casing	EN 1.4301 (AISI 304)					
	Shaft	EN 1.4401 (AISI 316)					
	Liner ring	EPDM/EN 1.4301 (AISI 304)					
	Motor bracket	Cast iron					
	Mechanical seal	Silicon Carbide/Carbon/FPM					
O-ring	EPDM						
Motor	No. of Poles	2P (3000rpm:50Hz - Synchronous speed)					
	Phase	Three phase					
	Voltage/Hz	380V/415:50Hz (or 400V:50Hz)					
	Flange mount (IEC motor)	IM B14 (up to 4kW)					
IM B5 (above 5.5kW)							
Optional Specifications							
Material of Construction	All wetted parts in SUS304 available upon request.						



STANDARD SPECIFICATION - EVM (L)

Model Type	3	5	10	18	32	45	64
Application	Water supply, R.O., D.I. Water, ultra-filter systems, process water, etc.						
Temperature range	-15 to +120°C						
Flow / head	80 m ³ /hr (max): 300m (max)						
Max. working pressure	1.6/2.5MPa (16Bar/25Bar)				1.6/2.5/3.0Mpa (16/25/30Bar)		
Sealing	Cartridge Mechanical-seal - according to DIN						
Connecting flange	OVAL or DIN TYPE			DIN TYPE			
Material	Impeller	EN 1.4401 (AISI 316)					
	Intermediate casing	EN 1.4401 (AISI 316)					
	Bottom casing	EN 1.4401 (AISI 316)					
	Casing cover	EN 1.4401 (AISI 316)					
	Outer casing	EN 1.4401 (AISI 316)					
	Shaft	EN 1.4401 (AISI 316)					
	Liner ring	PTFE/EN 1.4401 (AISI 316)					
	Motor bracket	Cast iron/EN 1.4401 (AISI 316)					
	Mechanical seal	Silicon Carbide/Carbon/FPM					
	O-ring	EPDM					
Motor	No. of Poles	2P (3000rpm:50Hz - Synchronous speed)					
	Phase	Three phase					
	Voltage/Hz	380V/415:50Hz (or 400V:50Hz)					
	Flange mount (IEC motor)	IM B14 (up to 4kW)					
IM B5 (above 5.5kW)							
Optional Specifications							
Connecting flange	Vitaalic coupling only for AISI 316 PUMP DIN round flange for 16 bar range						



EBARA Corporation was established in 1912 as a pump manufacturer and today EBARA is the world's foremost manufacturer of pump and pump system. EBARA is proudly presenting Vertical Multi-stage pump type EVM, manufactured with great experience of EBARA in design and production of stamped stainless steel pumps, EBARA EVM pumps offer technically advance designs to meet most market demands, including pumping of aggressive liquids.

Two standard pump options are available to satisfy most of the market requirements:

- EVM(G) : Bottom casing in cast iron, other liquid contact parts in SS304 stainless steel for general water supply usage.
- EVM(L) : All wetted contact upon parts in SS316 stainless steel for aggressive liquid pumping operation.

Optional materials available upon request: All wetted contact parts in SS304 stainless steel for industrial pumping applications.

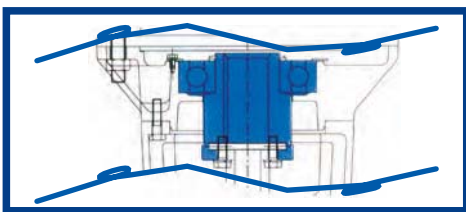
1. Quality motor used.

Standard IEC electrical motor used for EVM pump; thus ensuring easy replacement as standard motor is easily available in the market.

STANDARD IEC MOTOR WITH ALL BEARING

2. Spacer coupling for user-friendly servicing.

For 11kW & above models, uniquely designed 'split' type spacer coupling are used to permit easy assembly/disassembly works without dismantling pipe work and motor.



BALL BEARING

Heavy duty bearing set mounted on pump motor bracket, thus eliminating use of non-standard motors to ensure reliable pump operation.

3. Cartridge mechanical seal.

Cartridge mechanical seal is used for all pump models, except EVM 3-18 (16Bar). Thus permitting easy maintenance works at site.



4. Wide selection options.

Two (2) pump types are available as standard i.e. EVMG (Cast iron bottom casing; other wetted parts in SUS304) and EVML (All wetted parts in SUS316L).

- All wetted parts in SUS304 available as option.

EVM(G) Version
FC/SUS304

EVM (L) Version
SUS316

Option: EVM Version
SUS304

5. High efficiency hydraulic design

EBARA owned R&D has resulted in the newly developed hydraulic parts for EVM, particularly impellers and intermediate casing that provides high efficiency operation.



2D S/S impeller



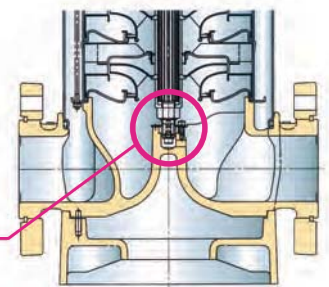
3D S/S impeller



Guide vane intermediate casing

6. Bottom casing support.

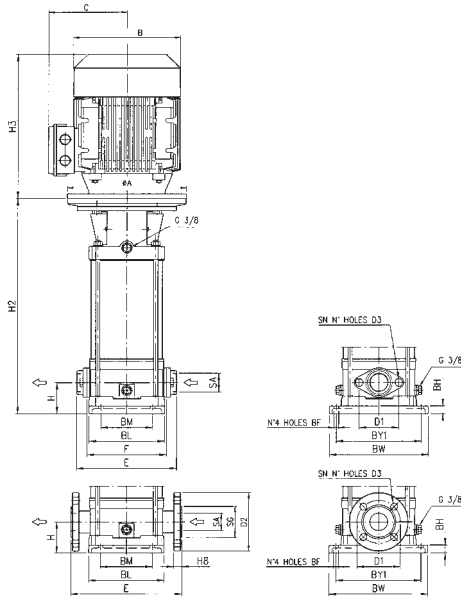
For EVM 45 and 64, unique bottom casing bearing is used to enhance longer operating life of the pumps.



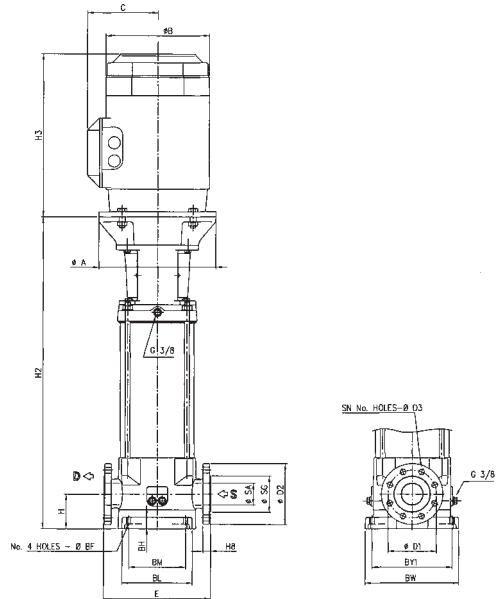
Tungsten carbide Bottom Bearing.

Vertical Multi-Stage Stainless Steel Pump

EVM



EVM 3-18



EVM 32 - 64

Pump Type EVM	Dimension [mm]																			Weight [kg]										
	Pmax. [MPa]	Motor [kW]	H	H2	H3		F	E	B		C		BM	BL	BY1	BW	SA	SG	D1	D2	H8	SN	D3	BF	BH	A	Pump		Pump + Motor	
					1-	3-			1-	3-	1-	3-															1-	3-	1-	3-
3 2N5/0.37	1.6	0.37	50	241	215	215	160	206	142	142	129	112	100	149	180	210	G 1"	-	75	-	-	2	M10	Ø12	20	Ø105	11.3	17.0	17.0	
3 3N5/0.37	1.6	0.37	50	262	215	215	160	206	142	142	129	112	100	149	180	210	G 1"	-	75	-	-	2	M10	Ø12	20	Ø105	11.8	17.5	17.5	
3 4N5/0.55	1.6	0.55	50	283	215	215	160	206	142	142	129	112	100	149	180	210	G 1"	-	75	-	-	2	M10	Ø12	20	Ø105	12.3	19.3	18.6	
3 5N5/0.55	1.6	0.55	50	304	215	215	160	206	142	142	129	112	100	149	180	210	G 1"	-	75	-	-	2	M10	Ø12	20	Ø105	12.8	19.8	19.1	
3 6N5/0.75	1.6	0.75	50	335	232	232	160	206	160	160	150	129	100	149	180	210	G 1"	-	75	-	-	2	M10	Ø12	20	Ø120	13.7	25.1	22.1	
3 7N5/0.75	1.6	0.75	50	356	232	232	160	206	160	160	150	129	100	149	180	210	G 1"	-	75	-	-	2	M10	Ø12	20	Ø120	13.9	25.3	22.3	
3 9N5/1.1	1.6	1.1	50	398	232	232	160	206	160	160	150	129	100	149	180	210	G 1"	-	75	-	-	2	M10	Ø12	20	Ø120	14.8	26.6	24.3	
3 11N5/1.1	1.6	1.1	50	440	232	232	160	206	160	160	150	129	100	149	180	210	G 1"	-	75	-	-	2	M10	Ø12	20	Ø120	16.2	28.0	25.7	
3 13N5/1.5	1.6	1.5	50	492	278	267	160	206	172	180	140	138	100	149	180	210	G 1"	-	75	-	-	2	M10	Ø12	20	Ø140	17.7	35.5	30.4	
3 15N5/1.5	1.6	1.5	50	534	278	267	160	206	172	180	140	138	100	149	180	210	G 1"	-	75	-	-	2	M10	Ø12	20	Ø140	19.2	37.0	31.9	
3 18F5/2.2	2.5	2.2	75	632	278	267	-	250	172	180	140	138	100	149	180	210	Ø25	Ø66	Ø85	Ø115	16	4	Ø14	Ø12	20	Ø140	24.8	44.3	40.8	
3 22F5/2.2	2.5	2.2	75	717	278	267	-	250	172	180	140	138	100	149	180	210	Ø25	Ø66	Ø85	Ø115	16	4	Ø14	Ø12	20	Ø140	27.2	46.7	43.2	
3 26F5/3.0	2.5	3.0	75	811	-	306	-	250	-	196	-	145	100	149	180	210	Ø25	Ø66	Ø85	Ø115	16	4	Ø14	Ø12	20	Ø160	30.8	-	50.1	
5 2N5/0.37	1.6	0.37	50	255	215	215	160	206	142	142	129	112	100	149	180	210	G 1" 1/4	-	75	-	-	2	M10	Ø12	20	Ø105	11.5	17.2	17.2	
5 3N5/0.55	1.6	0.55	50	283	215	215	160	206	142	142	129	112	100	149	180	210	G 1" 1/4	-	75	-	-	2	M10	Ø12	20	Ø105	12.0	19.0	18.3	
5 4N5/0.75	1.6	0.75	50	321	232	232	160	206	160	160	150	129	100	149	180	210	G 1" 1/4	-	75	-	-	2	M10	Ø12	20	Ø120	12.9	24.3	21.3	
5 5N5/1.1	1.6	1.1	50	349	232	232	160	206	160	160	150	129	100	149	180	210	G 1" 1/4	-	75	-	-	2	M10	Ø12	20	Ø120	13.5	25.3	23.0	
5 6N5/1.1	1.6	1.1	50	377	232	232	160	206	160	160	150	129	100	149	180	210	G 1" 1/4	-	75	-	-	2	M10	Ø12	20	Ø120	14.1	25.9	23.6	
5 7N5/1.5	1.6	1.5	50	415	278	267	160	206	172	180	140	138	100	149	180	210	G 1" 1/4	-	75	-	-	2	M10	Ø12	20	Ø140	14.9	32.7	27.6	
5 8N5/1.5	1.6	1.5	50	443	278	267	160	206	172	180	140	138	100	149	180	210	G 1" 1/4	-	75	-	-	2	M10	Ø12	20	Ø140	15.5	33.3	28.2	
5 10N5/2.2	1.6	2.2	50	509	278	267	160	206	172	180	140	138	100	149	180	210	G 1" 1/4	-	75	-	-	2	M10	Ø12	20	Ø140	17.9	37.4	33.9	
5 11N5/2.2	1.6	2.2	50	537	278	267	160	206	172	180	140	138	100	149	180	210	G 1" 1/4	-	75	-	-	2	M10	Ø12	20	Ø140	19.0	38.5	35.0	
5 12N5/2.2	1.6	2.2	50	565	278	267	160	206	172	180	140	138	100	149	180	210	G 1" 1/4	-	75	-	-	2	M10	Ø12	20	Ø140	19.7	39.2	35.7	
5 14N5/3.0	1.6	3.0	50	631	-	306	160	206	-	196	-	145	100	149	180	210	G 1" 1/4	-	75	-	-	2	M10	Ø12	20	Ø160	22.0	-	41.3	
5 16N5/3.0	1.6	3.0	50	688	-	306	160	206	-	196	-	145	100	149	180	210	G 1" 1/4	-	75	-	-	2	M10	Ø12	20	Ø160	23.3	-	42.6	
5 18F5/4.0	2.5	4.0	75	769	-	306	-	250	-	196	-	145	100	149	180	210	Ø32	Ø76	Ø100	Ø140	20	4	Ø14	Ø12	20	Ø160	28.7	-	56.1	
5 19F5/4.0	2.5	4.0	75	797	-	306	-	250	-	196	-	145	100	149	180	210	Ø32	Ø76	Ø100	Ø140	20	4	Ø14	Ø12	20	Ø160	29.4	-	56.8	
5 22F5/4.0	2.5	4.0	75	881	-	306	-	250	-	196	-	145	100	149	180	210	Ø32	Ø76	Ø100	Ø140	20	4	Ø14	Ø12	20	Ø160	31.2	-	58.6	
5 24F5/5.5	2.5	5.5	75	948	-	370	-	250	-	270	-	198	100	149	180	210	Ø32	Ø76	Ø100	Ø140	20	4	Ø14	Ø12	20	Ø300	35.4	-	75.4	
10 2N5/0.75	1.6	0.75	80	333	232	232	200	252	160	160	150	129	130	190	215	250	G 1" 1/2	-	100	-	-	2	M12	Ø12	20	Ø120	18.0	29.4	26.4	
10 3N5/1.1	1.6	1.1	80	363	232	232	200	252	160	160	150	129	130	190	215	250	G 1" 1/2	-	100	-	-	2	M12	Ø12	20	Ø120	19.5	31.3	29.0	
10 4N5/1.5	1.6	1.5	80	403	278	267	200	252	172	180	140	138	130	190	215	250	G 1" 1/2	-	100	-	-	2	M12	Ø12	20	Ø140	21.9	39.7	34.6	
10 5N5/2.2	1.6	2.2	80	443	278	267	200	252	172	180	140	138	130	190	215	250	G 1" 1/2	-	100	-	-	2	M12	Ø12	20	Ø140	22.5	42.0	38.5	
10 6N5/2.2	1.6	2.2	80	473	278	267	200	252	172	180	140	138	130	190	215	250	G 1" 1/2	-	100	-	-	2	M12	Ø12	20	Ø140	24.0	43.5	40.0	
10 8N5/3.0	1.6	3.0	80	543	-	306	200	252	-	196	-	145	130	190	215	250	G 1" 1/2	-	100	-	-	2	M12	Ø12	20	Ø160	30.6	-	49.9	
10 10N5/4.0	1.6	4.0	80	603	-	306	200	252	-	196	-	145	130	190	215	250	G 1" 1/2	-	100	-	-	2	M12	Ø12	20	Ø160	31.5	-	58.9	
10 11N5/4.0	1.6	4.0	80	633	-	306	200	252	-	196	-	145	130	190	215	250	G 1" 1/2	-	100	-	-	2	M12	Ø12	20	Ø160	34.0	-	61.4	
10 12N5/5.5	1.6	5.5	80	674	-	370	200	252	-	270	-	198	130	190	215	250	G 1" 1/2	-	100	-	-	2	M12	Ø12	20	Ø300	39.3	-	79.3	
10 14N5/5.5	1.6	5.5	80	734	-	370	200	252	-	270	-	198	130	190	215	250	G 1" 1/2	-	100	-	-	2	M12	Ø12	20	Ø300	41.8	-	81.8	
10 15F5/5.5	2.5	5.5	80	764	-	370	-	280	-	270	-	198	130	190	215	250	Ø40	Ø88	Ø110	Ø150	20	4	Ø18	Ø12	20	Ø300	45.8	-	85.8	
10 16F5/7.5	2.5	7.5	80	794	-	370	-	280	-	270	-	198	130	190	215	250	Ø40	Ø88	Ø110	Ø150	20	4	Ø18	Ø12	20	Ø300	47.8	-	92.8	
10 18F5/7.5	2.5	7.5	80	854	-	370	-	280	-	270	-	198	130	190	215	250	Ø40	Ø88	Ø110	Ø150	20	4	Ø18	Ø12	20	Ø300	49.8	-	94.8	
10 20F5/7.5	2.5	7.5	80	915	-	370	-	280	-	270	-	198	130	190	215	250	Ø40	Ø88	Ø110	Ø150	20	4	Ø18	Ø12	20	Ø300	49.8	-	94.8	
10 22F5/11	2.5	11	80	1005	-	503	-	280	-	335	-	246	130	190	215	250	Ø40	Ø88	Ø110	Ø150	20	4	Ø18	Ø12	20	Ø350	55.5	-	136.5	
18 2F5/2.2	1.6	2.2	90	373	278	267	-	300	172	180	140	138	130	190	215	250	Ø50	Ø102	Ø125	Ø165	20	4	Ø18	Ø12	20	Ø140	27.4	46.9	43.4	
18 3F5/3.0	1.6	3.0	90	423	-	306	-	300	-	196	-	145	130	190	215	250	Ø50	Ø102	Ø125	Ø165	20	4	Ø18	Ø12	20	Ø160	28.9	28.9	48.2	
18 4F5/4.0	1.6	4.0	90	473	-	306	-	300	-	196	-	145	130	190	215	250	Ø50	Ø102	Ø125	Ø165	20	4	Ø18	Ø12	20	Ø160	31.4	-	58.8	
18 5F5/5.5	1.6	5.5	90	524	-	370	-	300	-	270	-	198	130	190	215	250	Ø50	Ø102	Ø125	Ø165	20	4	Ø18	Ø12	20	Ø300	38.4	-	78.4	
1																														

Pump Type EVM	Dimension [mm]																			Weight [kg]				
	Pmax. [MPa]	Motor [kW]	H	H2	H3 3~	E	B 3~	C 3~	BM	BL	BY1	BW	SA	SG	D1	D2	H8	SN	D3	BF	BH	A	Pump	Pump + Motor
32 1-0F5/2.2	1.6	2.2	105	493	267	320	180	138	170	210	240	280	Ø65	Ø110	Ø145	Ø185	23	4	Ø18	Ø14	35	140	56	72
32 2-2F5/3.0	1.6	3.0	105	503	306	320	196	145	170	210	240	280	Ø65	Ø110	Ø145	Ø185	23	4	Ø18	Ø14	35	160	58	77.3
32 2-0F5/4.0	1.6	4.0	105	503	306	320	196	145	170	210	240	280	Ø65	Ø110	Ø145	Ø185	23	4	Ø18	Ø14	35	160	58	85.4
32 3-3F5/5.5	1.6	5.5	105	572	370	320	270	198	170	210	240	280	Ø65	Ø110	Ø145	Ø185	23	4	Ø18	Ø14	35	300	74	114
32 3-0F5/5.5	1.6	5.5	105	572	370	320	270	198	170	210	240	280	Ø65	Ø110	Ø145	Ø185	23	4	Ø18	Ø14	35	300	74	114
32 4-3F5/7.5	1.6	7.5	105	620	370	320	270	198	170	210	240	280	Ø65	Ø110	Ø145	Ø185	23	4	Ø18	Ø14	35	300	77	122
32 4-0F5/7.5	1.6	7.5	105	620	370	320	270	198	170	210	240	280	Ø65	Ø110	Ø145	Ø185	23	4	Ø18	Ø14	35	300	77	122
32 5-3F5/11	2.5	11	105	799	503	320	335	246	170	210	240	280	Ø65	Ø110	Ø145	Ø185	23	4	Ø18	Ø14	35	350	96	177
32 5-0F5/11	2.5	11	105	799	503	320	335	246	170	210	240	280	Ø65	Ø110	Ø145	Ø185	23	4	Ø18	Ø14	35	350	96	177
32 6-3F5/11	2.5	11	105	847	503	320	335	246	170	210	240	280	Ø65	Ø110	Ø145	Ø185	23	4	Ø18	Ø14	35	350	99	180
32 6-0F5/11	2.5	11	105	847	503	320	335	246	170	210	240	280	Ø65	Ø110	Ø145	Ø185	23	4	Ø18	Ø14	35	350	99	180
32 7-3F5/15	2.5	15	105	895	503	320	335	246	170	210	240	280	Ø65	Ø110	Ø145	Ø185	23	4	Ø18	Ø14	35	350	102	195
32 7-0F5/15	2.5	15	105	895	503	320	335	246	170	210	240	280	Ø65	Ø110	Ø145	Ø185	23	4	Ø18	Ø14	35	350	102	195
32 8-3F5/15	2.5	15	105	943	503	320	335	246	170	210	240	280	Ø65	Ø110	Ø145	Ø185	23	8	Ø18	Ø14	35	350	105	198
32 8-0F5/15	2.5	15	105	943	503	320	335	246	170	210	240	280	Ø65	Ø110	Ø145	Ø185	23	8	Ø18	Ø14	35	350	105	198
32 9-3F5/18.5	2.5	18.5	105	991	547	320	335	246	170	210	240	280	Ø65	Ø110	Ø145	Ø185	23	8	Ø18	Ø14	35	350	108	209
32 9-0F5/18.5	2.5	18.5	105	991	547	320	335	246	170	210	240	280	Ø65	Ø110	Ø145	Ø185	23	8	Ø18	Ø14	35	350	108	209
32 10-3F5/18.5	2.5	18.5	105	1039	547	320	335	246	170	210	240	280	Ø65	Ø110	Ø145	Ø185	23	8	Ø18	Ø14	35	350	112	213
32 10-0F5/18.5	2.5	18.5	105	1039	547	320	335	246	170	210	240	280	Ø65	Ø110	Ø145	Ø185	23	8	Ø18	Ø14	35	350	112	213
32 11-3F5/22	2.5	22	105	1087	602	320	366	266	170	210	240	280	Ø65	Ø110	Ø145	Ø185	23	8	Ø18	Ø14	35	350	116	246
32 11-0F5/22	2.5	22	105	1087	602	320	366	266	170	210	240	280	Ø65	Ø110	Ø145	Ø185	23	8	Ø18	Ø14	35	350	116	246
32 12-3F5/22	2.5	22	105	1135	602	320	366	266	170	210	240	280	Ø65	Ø110	Ø145	Ø185	23	8	Ø18	Ø14	35	350	119	249
32 12-0F5/22	3.0	22	105	1135	602	320	366	266	170	210	240	280	Ø65	Ø110	Ø145	Ø185	23	8	Ø18	Ø14	35	350	119	249
32 13-3F5/30	3.0	30	105	1198	669	320	405	341	170	210	240	280	Ø65	Ø110	Ø145	Ø185	23	8	Ø18	Ø14	35	400	129	301
32 13-0F5/30	3.0	30	105	1198	669	320	405	341	170	210	240	280	Ø65	Ø110	Ø145	Ø185	23	8	Ø18	Ø14	35	400	129	301
32 14-3F5/30	3.0	30	105	1246	669	320	405	341	170	210	240	280	Ø65	Ø110	Ø145	Ø185	23	8	Ø18	Ø14	35	400	133	305
32 14-0F5/30	3.0	30	105	1246	669	320	405	341	170	210	240	280	Ø65	Ø110	Ø145	Ø185	23	8	Ø18	Ø14	35	400	133	305
45 1-1F5/3.0	1.6	3.0	140	525	306	365	196	145	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	160	71	90.3
45 1-0F5/4.0	1.6	4.0	140	525	306	365	196	145	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	160	73	100.4
45 2-2F5/5.5	1.6	5.5	140	618	370	365	270	198	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	300	81	121
45 2-0F5/7.5	1.6	7.5	140	618	370	365	270	198	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	300	81	126
45 3-2F5/11	1.6	11	140	821	503	365	335	246	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	350	99	180
45 3-0F5/11	1.6	11	140	821	503	365	335	246	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	350	99	180
45 4-2F5/15	2.5	15	140	893	503	365	335	246	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	350	108	189
45 4-0F5/15	2.5	15	140	893	503	365	335	246	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	350	108	189
45 5-2F5/18.5	2.5	18.5	140	965	547	365	335	246	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	350	128	229
45 5-0F5/18.5	2.5	18.5	140	965	547	365	335	246	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	350	128	229
45 6-2F5/22	2.5	22	140	1037	602	365	366	266	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	350	133	263
45 6-0F5/22	2.5	22	140	1037	602	365	366	266	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	350	133	263
45 7-2F5/30	2.5	30	140	1124	669	365	405	341	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	400	139	311
45 7-0F5/30	2.5	30	140	1124	669	365	405	341	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	400	139	311
45 8-2F5/30	2.5	30	140	1196	669	365	405	341	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	400	146	318
45 8-0F5/30	2.5	30	140	1196	669	365	405	341	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	400	146	318
45 9-2F5/30	2.5	30	140	1269	669	365	405	341	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	400	151	323
45 9-0F5/37	2.5	37	140	1269	669	365	405	341	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	400	151	341
45 10-2F5/37	3.0	37	140	1341	669	365	405	341	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	400	156	346
45 10-0F5/37	3.0	37	140	1341	669	365	405	341	190	251	266	331	Ø80	Ø120	Ø160	Ø200	20	8	Ø18	Ø14	45	400	156	346
64 1-1F5/4.0	1.6	4.0	140	525	306	365	196	145	190	251	266	331	Ø100	Ø140	Ø180	Ø220	20	8	Ø18	Ø14	45	160	70.4	97.8
64 1-0F5/5.5	1.6	5.5	140	546	370	365	270	198	190	251	266	331	Ø100	Ø140	Ø180	Ø220	20	8	Ø18	Ø14	45	300	77	117
64 2-2F5/7.5	1.6	7.5	140	618	370	365	270	198	190	251	266	331	Ø100	Ø140	Ø180	Ø220	20	8	Ø18	Ø14	45	300	81.4	126.4
64 2-1F5/11	1.6	11	140	749	503	365	335	246	190	251	266	331	Ø100	Ø140	Ø180	Ø220	20	8	Ø18	Ø14	45	350	93.5	174.5
64 2-0F5/11	1.6	11	140	749	503	365	335	246	190	251	266	331	Ø100	Ø140	Ø180	Ø220	20	8	Ø18	Ø14	45	350	93.5	174.5
64 3-3F5/15	1.6	15	140	821	503	365	335	246	190	251	266	331	Ø100	Ø140	Ø180	Ø220	20	8	Ø18	Ø14	45	350	99	192
64 3-2F5/15	1.6	15	140	821	503	365	335	246	190	251	266	331	Ø100	Ø140	Ø180	Ø220	20	8	Ø18	Ø14	45	350	99	192
64 3-1F5/15	1.6	15	140	821	503	365	335	246	190	251	266	331	Ø100	Ø140	Ø180	Ø220	20	8	Ø18	Ø14	45	350	99	192
64 3-0F5/18.5	1.6	18.5	140	821	547	365	335	246	190	251	266	331	Ø100	Ø140	Ø180	Ø220	20	8	Ø18	Ø14	45	350	99	200
64 4-3F5/18.5	1.6	18.5	140	893	547	365	335	246	190	251	266	331	Ø100</											