

# Technical data

Pump name (\*See Product description)EVM64 4-1F6/3

Customer	Date	2024-07-01	Company
Contact	Item no.		Issued by
Phone	Project		Phone
E-mail	Project ID	Proiect redenumit 2024-07-01 19:11:	E-mail

## Requested data

1	Pump type	VERTICAL MULTISTAGE PUMPS	Fluid	Water
2	Number of pumps / Reserve	1 / 0	Liquid temperature °C	20
3	Flow m <sup>3</sup> /h		Kin. viscosity mm <sup>2</sup> /s	1.005
4	Head m		Vapour pressure bar	0.0234
5	Geodetic head m		PH value	
6	Inlet pressure (pin) bar	0	Density kg/m <sup>3</sup>	998.3
7	Available system NPSH		Solids Weight %	0
8	Ambient temperature °C	20		

## Pump

9	Pump name	(*See Product description)EVM64 4-1F6/37	Frequency	Hz	60
10	Design	VERTICAL MULTISTAGE PUMPS	Installation type		Round flange
11	Manufacturer	EBARA	Impeller Diameter	Max. mm	-
12	Speed rpm	3540		Designed mm	
13	No. of Stage	4		Min. mm	-
14	Connection Suction side		Flow	Operating m <sup>3</sup> /h	
15	Connection Discharge side			Max- m <sup>3</sup> /h	102
16	Max Working Pressure bar	16		Min- m <sup>3</sup> /h	36
17	Shut-off head bar	15.84	Head	Operating m	
18	Total weight kg	See the table of "Dimensions".		- (Qmax.) m	83.5
19	Shaft power kW			- (Qmin.) m	147.6
20			Max. Shaft Power at max. impeller	kW	34.41
21	Required pump NPSH m		Efficiency	%	

## Materials

22	Impeller	AISI 304		
23	Intermediate casing	AISI 304		
24	Bottom casing	ASTMCF8		
25	Shaft	AISI 316L		
26				
27				

## Motor

28	Manufacturer	ATB	Insulation class	F
29	Type	TEFC_EVM64 4-1F6/37_380_Three Phase	Phases	3~
30	Specific design	IE3 / 60 Hz / Pole pairs 1	Frame size	200
31	Rated power kW	37	Weight kg	260
32	Number of poles	2	Electric voltage V	380
33	Speed rpm	3555	Electric current A	66.8
34	Degree of protection	IP 55		
35				

## Remarks

# Performance curve

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## Requested data

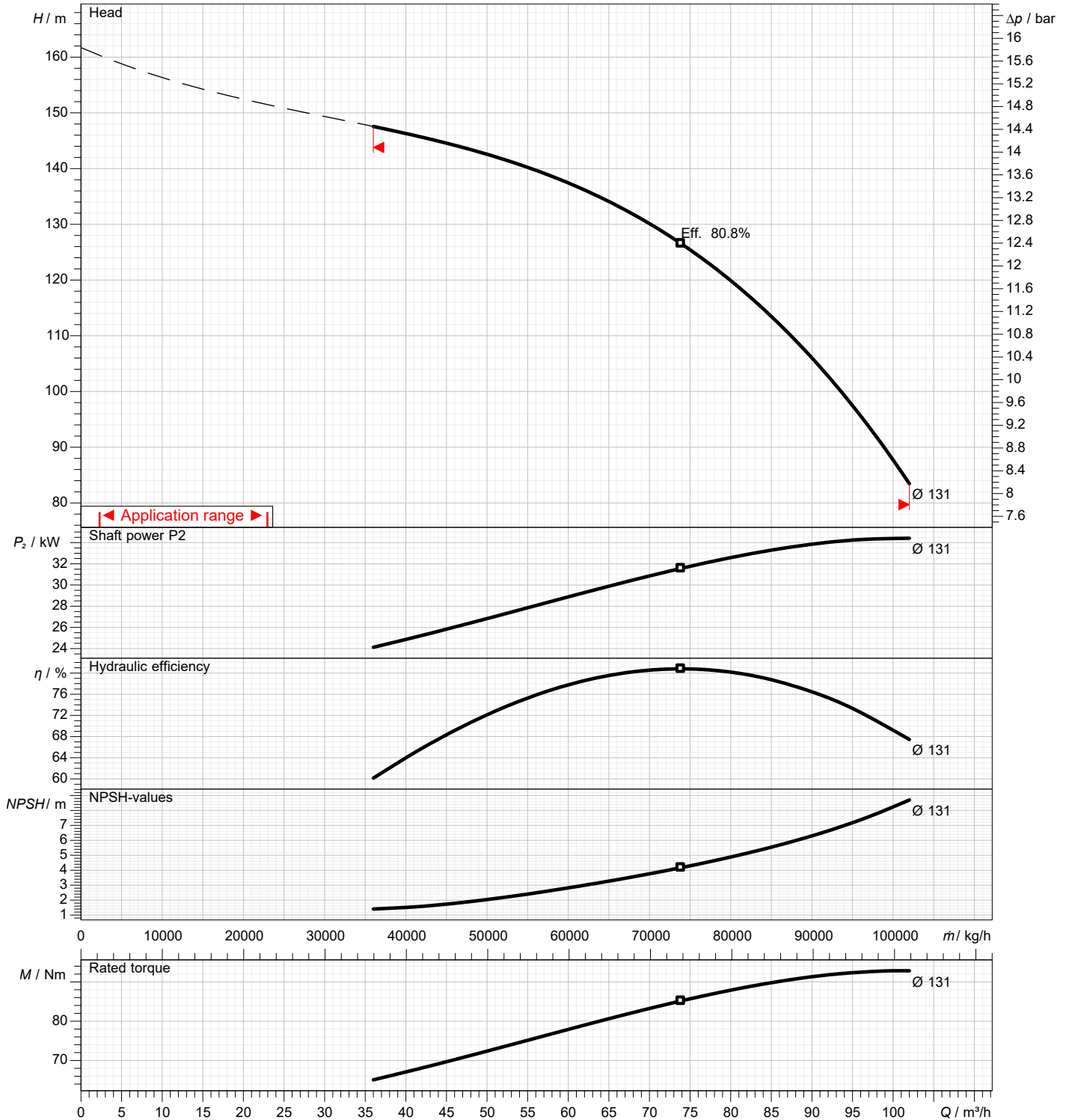
1	Flow	m <sup>3</sup> /h	
2	Head	m	
3	Geodetic head	m	

## Pump

Operating flow	m <sup>3</sup> /h		Impeller Diameter Designed	mm	
Operating head	m		Frequency	Hz	60
			Speed	rpm	3540

Test standard: ISO 9906:2012 - Grade3B

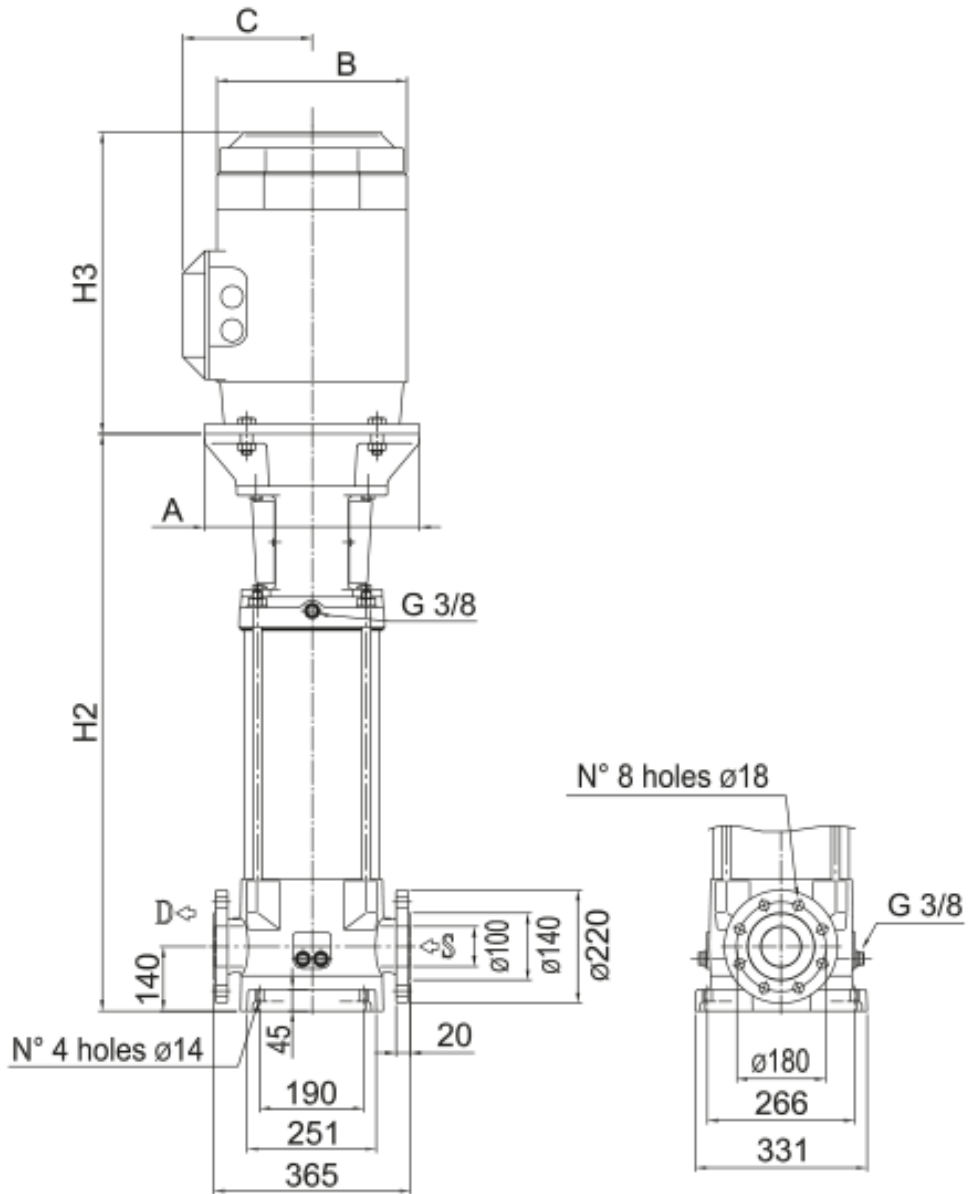
Water; 20°C; 998.3kg/m<sup>3</sup>; 1mm<sup>2</sup>/s



# Dimensions

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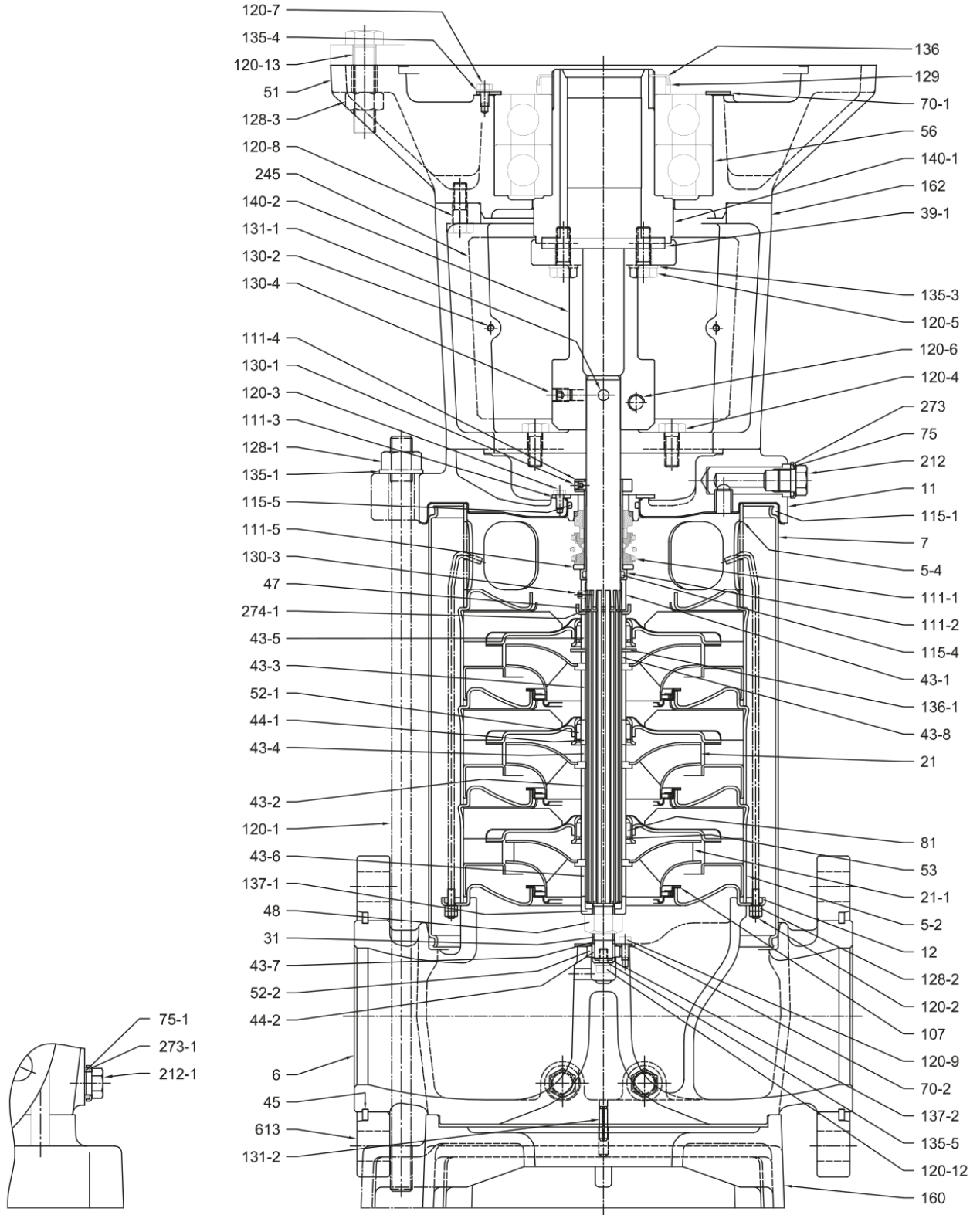
Dimensions in		mm						
1	A	400						
2	B	382						
3	C	295						
4	H2	909						
5	H3	680						
6	Weight P&M	350 kg						
7								
8								
9								
10								
11								
12								
13								
14								
15								

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# Construction

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Pump with double ball bearing

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# Construction

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N°	PART NAME	MATERIAL		DIMENSIONS	STANDARD
		EVM	EVML		
5-2	Intermediate casing	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
5-4	Discharge casing	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
6	Bottom casing	EN 1.4308 (ASTM CF8)	EN 1.4308 (ASTM CF8)		
7	Outer casing	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
11	Casing cover	Cast iron + EN 1.4301 (AISI 304)	Cast iron + EN 1.4404 (AISI 316L)		
12	Suction cover	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
21	Impeller	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
21-1	Reduced impeller	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
31	Shaft	EN 1.4404 (AISI 316L)			
39-1	Key	Carbon steel		12X8X90	UNI 6604
43-1	Shaft sleeve (mechanical seal)	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
43-2	Shaft sleeve (intermediate)	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
43-3	Shaft sleeve (bearing)	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
43-4	Shaft sleeve (adjustment)	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
43-5	Shaft sleeve (last stage)	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
43-6	Shaft sleeve (adjustment)	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
43-7	Shaft sleeve (bottom bearing)	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
43-8	Shaft sleeve (discharge/lower)	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
44-1	Shaft sleeve bearing	Tungsten carbide			
44-2	Bearing sleeve	Tungsten carbide			
45	Flange holder	EN 1.402 (AISI 420)			
47	Ring holder	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
48	Impeller nut	A2-70 UNI 7323 with inox insert	A4-70 UNI 7323 with inox insert	M16	
51	Motor adapter	Cast iron EN-GJL-200-EN 1561			
52-1	Bearing	Tungsten carbide			
52-2	Bearing	Tungsten carbide			
53	Bush holder	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
56	Ball bearing	[1]			
70-1	Ring for bearing	EN 1.4301 (AISI 304)			
70-2	Ring for bearing	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
75	O-Ring (plug)	EPDM	FPM		
75-1	O-Ring (plug)	EPDM	FPM		
81	Bush	PTFE			
107	Liner ring	PTFE / EN 1.4401 (AISI 316)			
111-1	Mechanical seal	[2]			
111-2	Mechanical seal cartridge	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
111-3	Mechanical seal seat	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
111-4	Seal holder	Brass OT 58 UNI 5705	EN 1.4404 (AISI 316L)		
111-5	Adjusting ring	EN 1.4301 (AISI 304)	EN 1.4401 (AISI 316)		
115-1	O-Ring (outer casing)	EPDM	FPM	D.240,66X5,34	
115-4	O-Ring (cartridge sleeve)	EPDM	FPM	D.24,99X3,53	
115-5	O-Ring (seal cover)	EPDM	FPM	D.44,04X3,53	
120-1	Tie-rod	Galvanized steel 6.8 Strenght class ISO 898/1			
120-2	Tie-rod	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
120-3	Screw (mechanical seal)	A2-70 UNI 7323		M5X10	UNI 5931
120-4	Screw (casing cover)	Galvanized steel 8.8 Strenght class ISO 898/1		M10X25	UNI 5739
120-5	Screw for coupling	Galvanized steel 8.8 Strenght class ISO 898/1		M10X30	UNI 5739
120-6	Screw for coupling	EVM64 1-1	Galvanized steel 8.8 Strenght class ISO 898/1	M 8X20	UNI 5931
120-7	Screw	EVM64 1-0 and higher	Galvanized steel	M12X30	UNI 5931
120-8	Screw	EVM 64 1-0 to 4-3	Galvanized steel	M 6X10	UNI 5739
120-8	Screw	EVM64 1-1	Galvanized steel 8.8 Strenght class ISO 898/1	M10X30	UNI 5739
120-8	Screw	EVM64 1-1	Galvanized steel 8.8 Strenght class ISO 898/1	M12X35	UNI 5739
120-9	Screw	EVML	EN 1.4301 (AISI 304)	M5X8	UNI 5737
120-9	Screw	EVM	EN 1.4401 (AISI 316)	M5X8	UNI 5739
120-12	Screw	EN 1.4301 (AISI 304)	EN 1.4401 (AISI 316)	M 6X20	UNI 5931
120-13	Screw	EVM 64 1-1	Galvanized steel 8.8 Strenght class ISO 898/1	M12X30	UNI 5739
120-13	Screw	EVM 64 4-1, 4-2	Galvanized steel 8.8 Strenght class ISO 898/1	M16X55	UNI 5737
120-13	Screw	EVM 64 1-0 to 4-3	Galvanized steel 8.8 Strenght class ISO 898/1	M16X65	UNI 5739
128-1	Nut for tie rod	Galvanized steel		M16	UNI 5588
128-2	Nut	Carbon steel	EN 1.4401 (AISI 316)	M5	UNI 5588
128-3	Nut	Galvanized steel		M16	UNI 5588
129	Lock nut	Carbon steel			
130-1	Set screw	A2-70 UNI 7323		M6X8	UNI 5923
130-2	Screw for coupling guard	A2-70 UNI 7323		M5X6	UNI 7687
130-3	Set screw	EN 1.4301 (AISI 304)	EN 1.4401 (AISI 316)	M6X6	UNI 5923
130-4	Set screw	Galvanized steel		M10X10	UNI 5923
131-1	Pin for shaft	Carbon steel			
131-2	Elastic pin	Galvanized steel		6X25	UNI 6873
135-1	Washer	Galvanized steel		17x30X3	UNI 6592
135-3	Washer	Galvanized steel		10,5X17,5X2,2	UNI 1751
135-4	Washer	Plated carbon steel		6,4	UNI 1751
135-5	Washer	EN 1.4301 (AISI 304)	EN 1.4401 (AISI 316)	D.6	
136	Bearing washer	Carbon steel			
136-1	Stopper ring	EN 1.4301 (AISI 304)	EN 1.4401 (AISI 316)		
137-1	Impeller spacer	EN 1.4301 (AISI 304)	EN 1.4401 (AISI 316)		
137-2	Shaft spacer	EN 1.4301 (AISI 304)	EN 1.4401 (AISI 316)		
140-1	Motor coupling	Carbon steel			
140-2	Coupling (pump side)	Carbon steel			
160	Base	Cast iron EN-GJL-200 EN 1561			
162	Motor bracket	Cast iron EN-GJL-200-EN 1561			
212	Plug	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
212-1	Plug	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
245	Coupling guard	EN 1.4301 (AISI 304)			
273	Plug washer	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
273-1	Plug washer	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
274-1	C-Type snap ring	EN 1.4301 (AISI 304)	EN 1.4401 (AISI 316)	D.26	UNI 7435
613	Flange	Carbon steel			

[1] See CONSTRUCTION 3  
[2] See CONSTRUCTION 4

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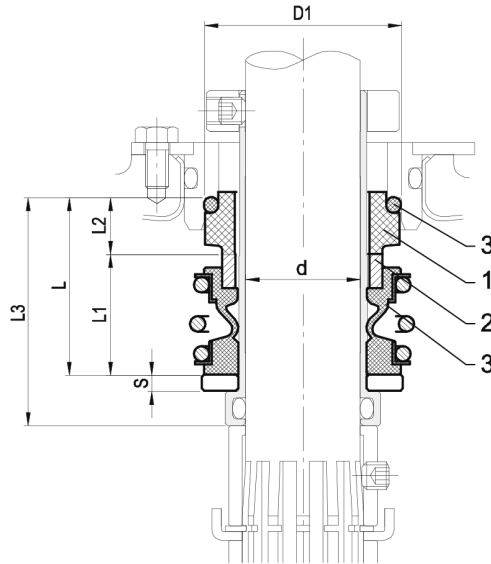
Pump Type	N°																												
	5-2	11	21	21-1	39-1	43-2	43-3	43-4	44-1	52-1	53	56	70-1	81	107	120-4	120-5	120-7	128-3	129	135-3	135-4	136	140	140-1	140-2	150	274-2	274-3
EVM(L)64 3-2F6/30	3	1	1	2	1	2	/	/	/	/	3	1	1	3	3	4	4	3	4	1	4	3	1	/	1	1	/	/	/
EVM(L)64 3-1F6/30	3	1	2	1	1	2	/	/	/	/	3	1	1	3	3	4	4	3	4	1	4	3	1	/	1	1	/	/	/
EVM(L)64 3-0F6/30	3	1	3	/	1	2	/	/	/	/	3	1	1	3	3	4	4	3	4	1	4	3	1	/	1	1	/	/	/
EVM(L)64 4-3F6/30	4	1	1	3	1	2	1	1	1	1	4	1	1	3	4	4	4	3	4	1	4	3	1	/	1	1	/	/	/
EVM(L)64 4-2F6/37	4	1	2	2	1	2	1	1	1	1	4	1	1	3	4	4	4	3	4	1	4	3	1	/	1	1	/	/	/
EVM(L)64 4-1F6/37	4	1	3	1	1	2	1	1	1	1	4	1	1	3	4	4	4	3	4	1	4	3	1	/	1	1	/	/	/

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Size [mm]	Max operating pressure [bar]	d [mm]	D1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	S [mm]	Material		
									1 Stationary Seal Ring	2 Rotary Seal Ring	3 Rubber
25	25	25	43	39	26.5	12.5	50	3.5	Carbon graphite	Silicon carbide	FPM