

# Technical data

Pump name (\*See Product description)EVM64 1-0F6/11

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 1-0F6/11	Frequency Hz	60	
10	Design	VERTICAL MULTISTAGE PUMPS	Installation type	Round flange	
11	Manufacturer	EBARA	Impeller Diameter	Max. mm	-
12	Speed rpm	3520		Designed mm	
13	No. of Stage	1		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	4.17	Head	Operating m	
18	Total weight kg	See the table of "Dimensions".		- (Qmax.) m	19.9
19	Shaft power kW			- (Qmin.) m	38.4
20			Max. Shaft Power at max. impeller kW	9.35	
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	ETM	Insulation class	F
29	Type	TEFC_EVM64 1-0F6/11_380_Three Phase	Phases	3~
30	Specific design	IE3 / 60 Hz / Pole pairs 1	Frame size	160
31	Rated power kW	11	Weight kg	62.5
32	Number of poles	2	Electric voltage V	380
33	Speed rpm	3535	Electric current A	20.3
34	Degree of protection	IP 55		
35				

## Remarks

# Performance curve

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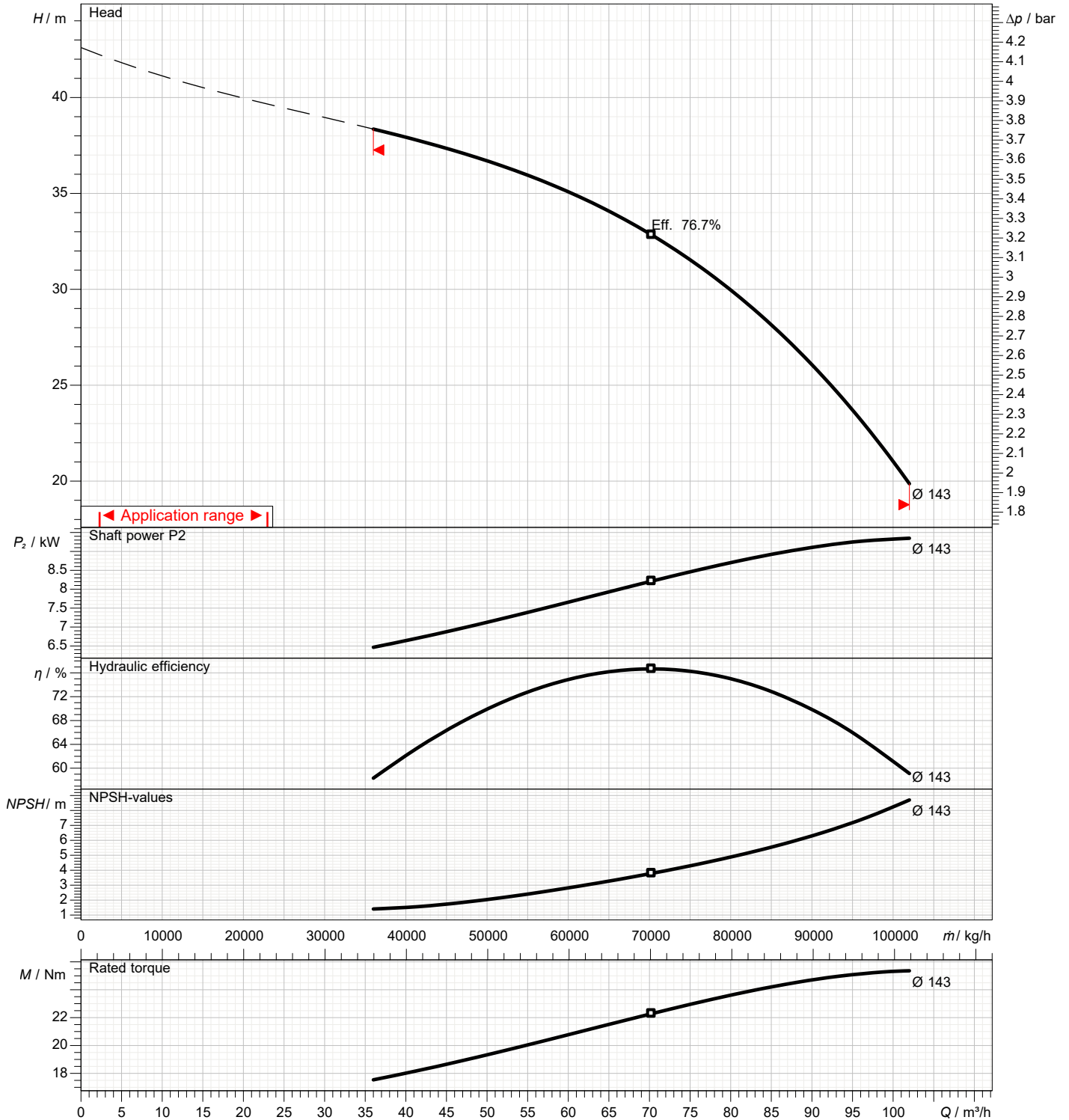
1	Flow	m <sup>3</sup> /h	
2	Head	m	
3	Geodetic head	m	

## Pump

Operating flow	m <sup>3</sup> /h		Impeller Diameter Designed	mm	
Operating head	m		Frequency	Hz	60
			Speed	rpm	3520

Test standard: ISO 9906:2012 - Grade3B

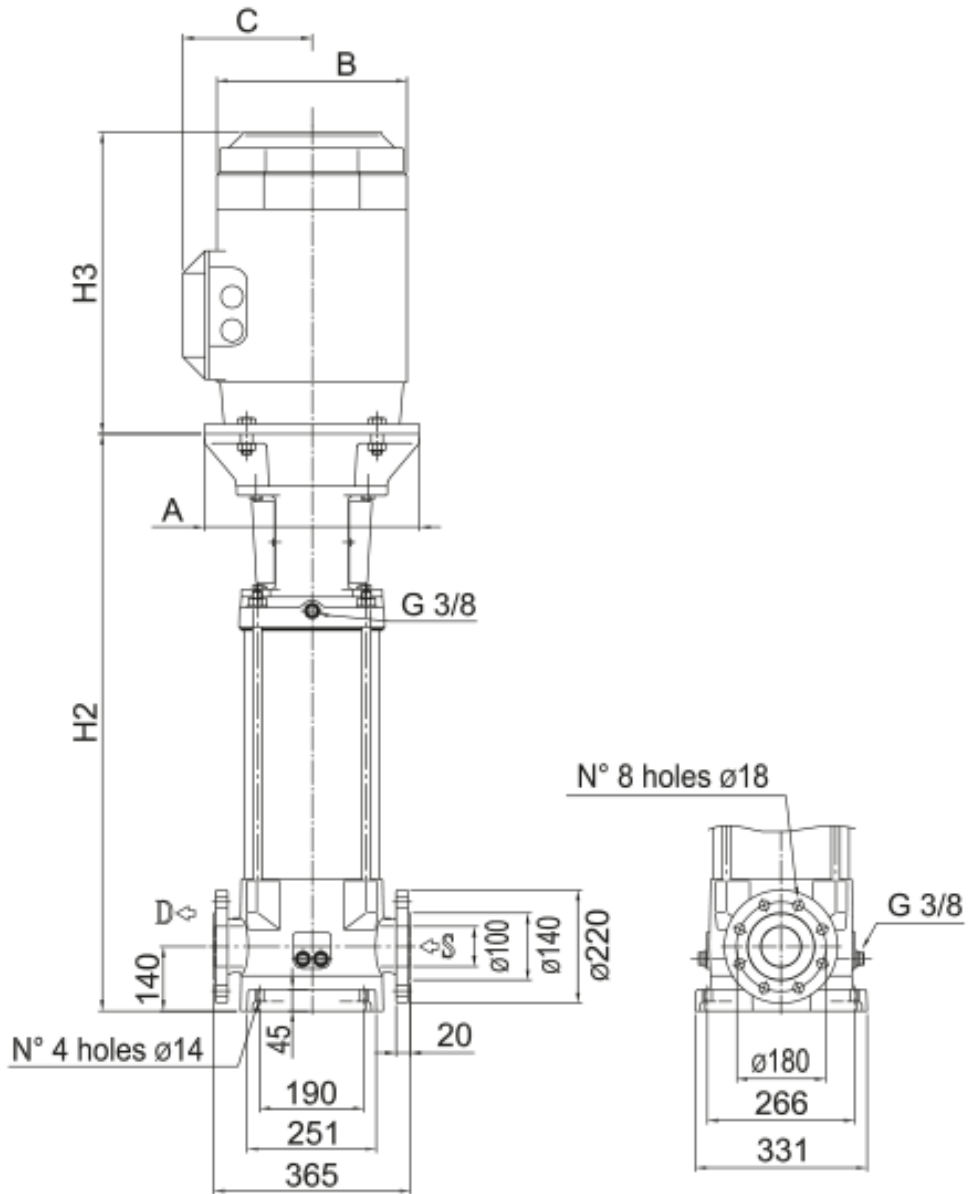
Water; 20°C; 998.3kg/m<sup>3</sup>; 1mm<sup>2</sup>/s



# Dimensions

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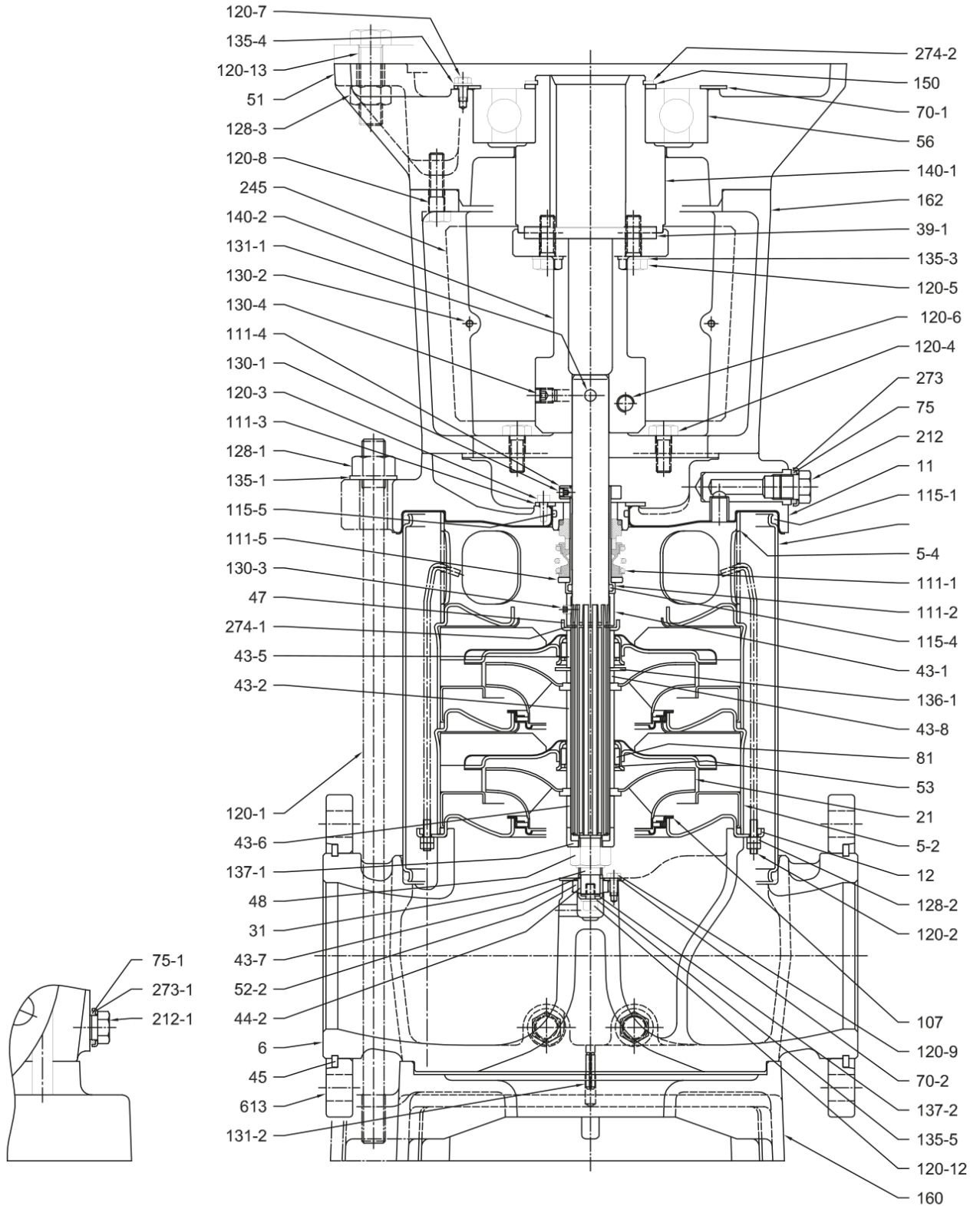


Dimensions in		mm						
1	A	350						
2	B	259						
3	C	180						
4	H2	677						
5	H3	440						
6	Weight P&M	[139].5 kg						
7								
8								
9								
10								
11								
12								
13								
14								
15								

# (1/4) Construction

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Pump with single 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)		
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)		
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)		
43-5	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)		
44-2	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			
52-2	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 EVM64 1-0 and higher	Galvanized steel 8.8 Strenght class ISO 898/1	M 8X20 M12X30	UNI 5931 UNI 5931
120-7	Screw	Galvanized steel		M 6X10	UNI 5739
120-8	Screw	EVM 64 1-0 to 4-3 EVM64 1-1	Galvanized steel 8.8 Strenght class ISO 898/1	M10X30 M12X35	UNI 5739 UNI 5739
120-9	Screw	EVML EVM	EN 1.4301 (AISI 304)	EN 1.4401 (AISI 316)	M5X8 M5X8 UNI 5737 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 EVM 64 4-1, 4-2 EVM 64 1-0 to 4-3	Galvanized steel 8.8 Strenght class ISO 898/1	M12X30 M16X55 M16X65	UNI 5739 UNI 5737 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
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	
136-1	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			
150	Spacer	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
274-2	C-Type snap ring	EVM64 1-1 EVM64 1-0 to 2-2 EVM64 2-0, 3-3	Carbon steel TC80	D.50 D.65 D.75	UNI 7435 UNI 7435 UNI 7535
613	Flange	Carbon steel			

[1] See CONSTRUCTION 3

[2] See CONSTRUCTION 4

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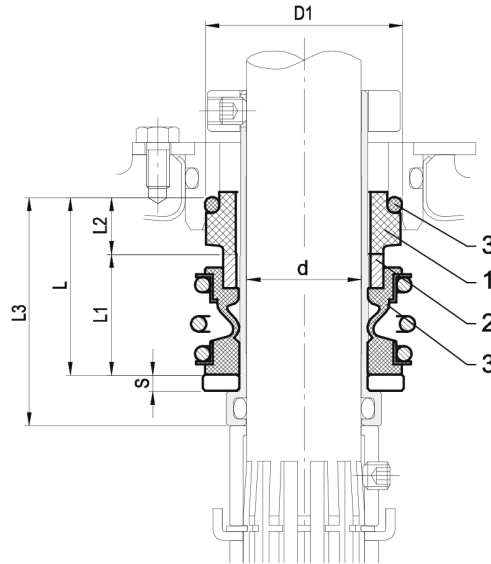
Pump Type	N°																												
	5-2	11	21	21-1	39-1	43-2	43-3	43-4	44-1	52-1	53	56	70-1	81	107	120-4	120-5	120-7	128-3	129	135-3	135-4	136	140	140-1	140-2	150	274-2	274-3
EVM(L)64 1-0F6/11	1	1	1	/	1	/	/	/	/	/	1	1	1	1	1	4	4	3	4	/	4	3	/	/	1	1	1	1	/
EVM(L)64 2-2F6/15	2	1	/	2	1	1	/	/	/	/	2	1	1	2	2	4	4	3	4	/	4	3	/	/	1	1	1	1	/
EVM(L)64 2-1F6/18.5	2	1	1	1	1	1	/	/	/	/	2	1	1	2	2	4	4	3	4	/	4	3	/	/	1	1	1	1	/
EVM(L)64 2-0F6/22	2	1	2	/	1	1	/	/	/	/	2	1	1	2	2	4	4	3	4	/	4	3	/	/	1	1	1	1	/
EVM(L)64 3-3F6/22	3	1	/	3	1	2	/	/	/	/	3	1	1	3	3	4	4	3	4	/	4	3	/	/	1	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