

Technical data

Pump name EVMG64 4-1F5/22

Customer	Date 05-June-2019	Company
Contact	Item no.	Issued by
Phone	Project	Phone
E-mail	Project ID	E-mail

Requested data

1	Pump type	VERTICAL PUMPS	Fluid	Water, clean
2	Number of pumps / Reserve	1 / 0	Liquid temperature °C	20
3	Flow m ³ /h	0	Kin. viscosity mm ² /s	1
4	Head m	0	Vapour pressure bar	0.022
5	Static head m	0	PH value	7
6	Inlet pressure bar	0.1	Density kg/dm ³	1
7	Available system NPSH	0	Solids Weight %	0
8	Environmental temperature °C	20		

Pump

9	Pump name	EVMG64 4-1F5/22	Frequency Hz	50
10	Design	VERTICAL PUMPS	Installation type	STANDARD
11	Manufacturer	EPE	Impeller Max. mm	-
12	Speed 1/min	2940	Diameter Designed mm	143(No.3) / 131(No.1)
13	No. of Stage	4	Min. mm	-
14	Connection Suction side		Flow Operating m ³ /h	
15	Connection Discharge side		Max- m ³ /h	84
16	Max Working Pressure bar	16	Min- m ³ /h	30
17	Shut-off head bar	10.95	Head Operating m	
18	Total weight kg	See the table of "Dimensions".	- (Qmax.) m	56.9
19	Shaft power kW		- (Qmin.) m	102.5
20			Max. Shaft Power at max. impeller kW	19.72
21	Required NPSH m		Efficiency %	

Materials

22	Impeller	AISI 304		
23	Intermediate casing	AISI 304		
24	Bottom casing	Cast iron		
25	Shaft	AISI 316		
26				
27				

Motor

28	Manufacturer	LAFERT	Insulation class	F
29	Type	TEFC_EVM64 4-1F5/22_400_Three Phase	Phases	3~
30	Specific design	IE3 / 50 Hz / Pole pairs 1	Frame size	180
31	Rated power kW	22	Weight kg	163
32	Number of poles	2	Electric voltage V	400
33	Speed 1/min	2900	Electric current A	38
34	Degree of protection	IP 55		
35				

Remarks

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Performance curve

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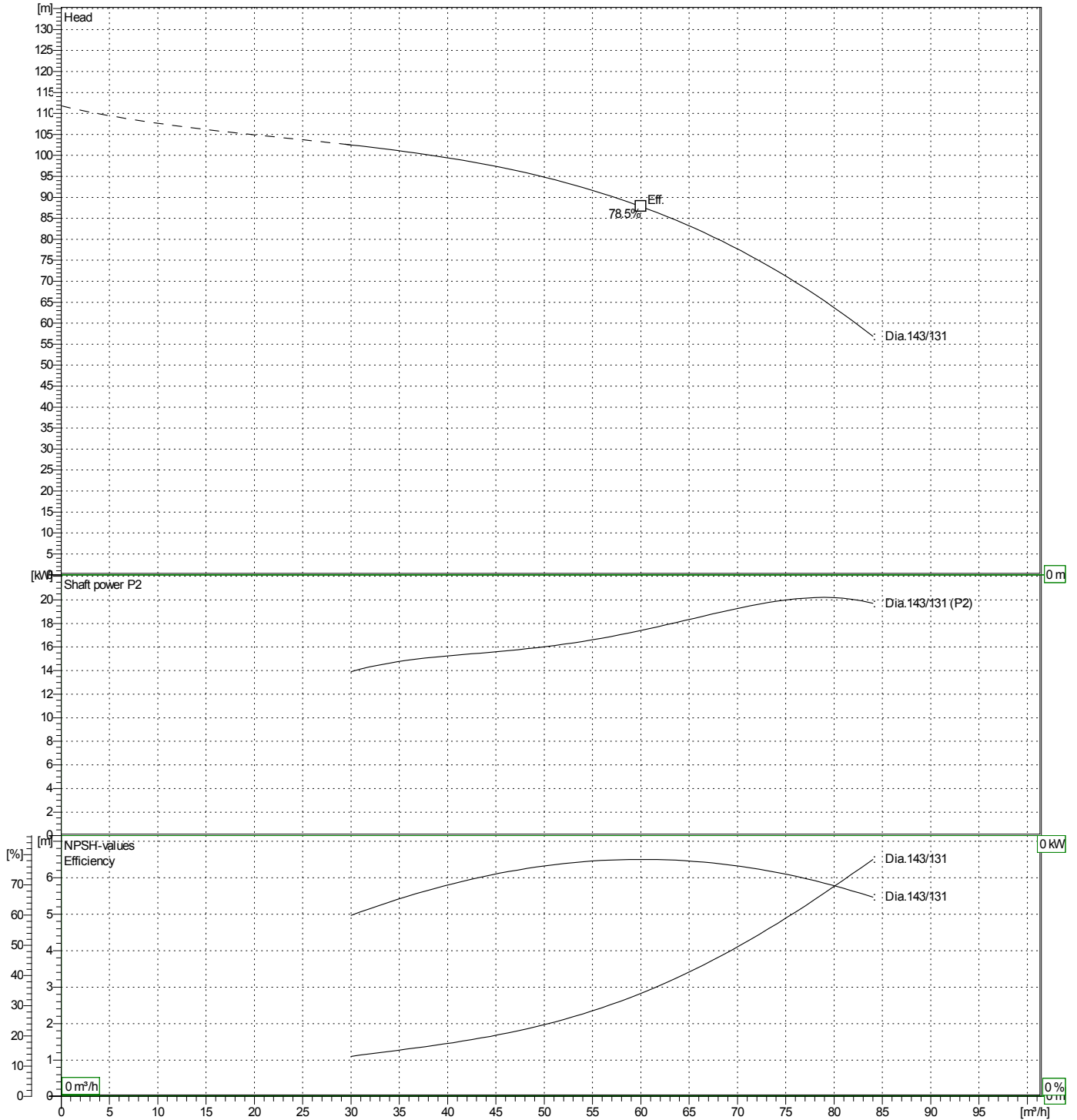
1	Flow	m ³ /h	0
2	Head	m	0
3	Static head	m	0

Pump

Operating Flow	m ³ /h	Impeller Diameter Designed	mm	143(No.3) / 131(No.1)
Operating Head	m	Frequency	Hz	50
		Speed	1/min	

Test standard: ISO 9906:2012 - Grade3B

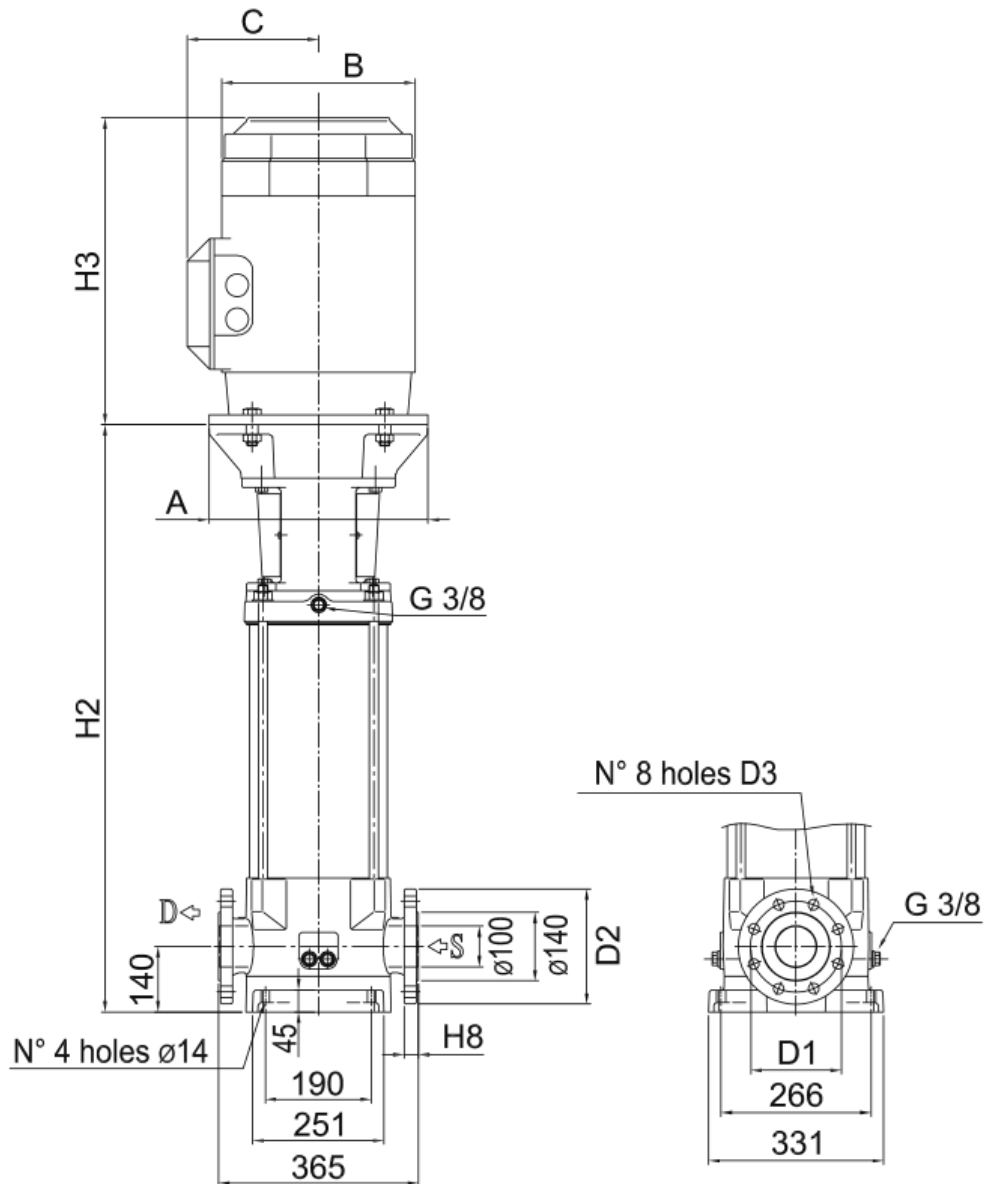
Water, clean [100%] ; 20°C; 0.9983kg/dm³; 1mm²/s



Dimensions

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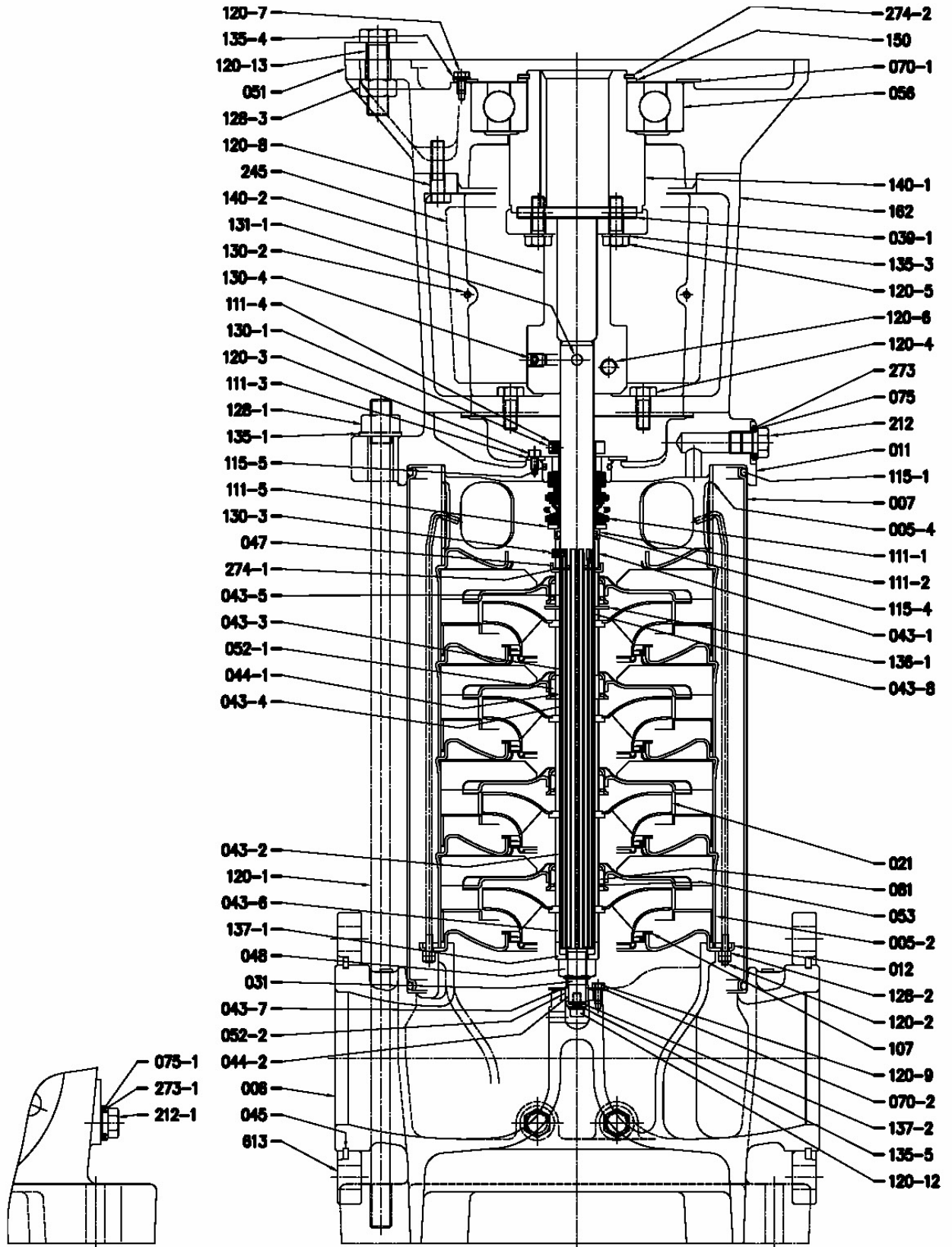


Dimensions in		mm						
1	A	350						
2	B	360						
3	C	268						
4	Dia D1	180						
5	Dia D2	220						
6	Dia D3	18						
7	H2	893						
8	H3	577						
9	H8	20						
10	Weight P&M	279 kg						

(1/4) Construction

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(2/4) Construction

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N°		MATERIAL EVMG	DIMENSIONS	STANDARD	Q.TY	
005-2	Intermediate casing	EN 1.4301 (AISI 304)			[1]	
005-4	Discharge casing	EN 1.4301 (AISI 304)			1	
006	Bottom casing	Cast iron EN GJL-250 - EN 1561			1	
007	Outer casing	EN 1.4301 (AISI 304)			1	
011	Casing cover	Cast iron EN GJL-250 - EN 1561			[1]	
012	Suction cover	EN 1.4301 (AISI 304)			1	
021	Impeller	EN 1.4301 (AISI 304)			[1]	
031	Shaft	EN 1.4401 (AISI 316)			1	
039-1	Key	Carbon steel	12x8x90	UNI 6604	[1]	
043-1	Shaft sleeve (mechanical seal)	EN 1.4301 (AISI 304)			1	
043-2	Shaft sleeve (intermediate)	EN 1.4301 (AISI 304)			[1]	
043-3	Shaft sleeve (bearing)	EN 1.4301 (AISI 304)			[1]	
043-4	Shaft sleeve (adjustment)	EN 1.4301 (AISI 304)			[1]	
043-5	Shaft sleeve (last stage)	EN 1.4301 (AISI 304)			1	
043-6	Shaft sleeve (adjustment)	EN 1.4301 (AISI 304)			1	
043-7	Shaft sleeve (bottom bearing)	EN 1.4301 (AISI 304)			1	
043-8	Shaft sleeve (discharge/lower)	EN 1.4301 (AISI 304)			1	
044-1	Shaft sleeve bearing	Tungsten carbide			[1]	
044-2	Bearing sleeve	Tungsten carbide			1	
045	Flange holder	EN 1.402 (AISI 420)			4	
047	Ring holder	EN 1.4301 (AISI 304)			1	
048	Impeller nut	A2-70 UNI 7323 with inox insert	M16		1	
051	Motor adapter	Cast iron EN-GJL-200-EN 1561			[1]	
052-1	Bearing	Tungsten carbide			[1]	
052-2	Bearing	Tungsten carbide			1	
053	Bush holder	EN 1.4301 (AISI 304)			[1]	
056	Ball bearing				[1]	
070-1	Ring for bearing	EN 1.4301 (AISI 304)			[1]	
070-2	Ring for bearing	EN 1.4301 (AISI 304)			1	
075	O-Ring (plug)	EPDM			1	
075-1	O-Ring (plug)	EPDM			4	
081	Bush	PTFE			[1]	
107	Liner ring	PTFE / EN 1.4401 (AISI 316)			[1]	
111-1	Mechanical seal	Silicon carbide / Carbon / FPM			1	
111-2	Mechanical seal cartridge	EN 1.4301 (AISI 304)			1	
111-3	Mechanical seal seat	EN 1.4301 (AISI 304)			1	
111-4	Seal holder	Brass OT 58 UNI 5705			1	
111-5	Adjusting ring	EN 1.4301 (AISI 304)			1	
115-1	O-Ring (outer casing)	EPDM	D.240.66x5.34		2	
115-4	O-Ring (cartridge sleeve)	EPDM	D.24.99x3.53		1	
115-5	O-Ring (seal cover)	EPDM	D.44.04x3.53		1	
120-1	Tie-rod	Zincate steel 6.8 Strenght class ISO 898/1			4	
120-2	Tie-rod	EN 1.4301 (AISI 304)			1	
120-3	Screw (mechanical seal)	A2-70 UNI 7323	M5x8	UNI 5931	4	
120-4	Screw (casing cover)	Zincate steel 8.8 Strenght class ISO 898/1	M10x25	UNI 5739	[1]	
120-5	Screw for coupling	EVM64 1-1 EVM64 2 and higher	Zincate steel 8.8 Strenght class ISO 898/1	M8x20 M10x30	UNI 5931 UNI 5739	[1]
120-6	Screw for coupling	EVM64 1-0, 1-1, 2-2 EVM64 2 and higher	Zincate steel 8.8 Strenght class ISO 898/1	M8x20 M12x30	UNI 5931 UNI 5931	2
120-7	Screw	EVM64 1-0, 2-2	Zincate steel	M6x10	UNI 5739	[1]
120-8	Screw	EVM64 1-0, 2-2	Zincate steel 8.8 Strenght class ISO 898/1	M6x10 M10x30	UNI 5739 UNI 5739	[1]
120-9	Screw	EVMG	EN 1.4301 (AISI 304)	M5x8	UNI 5739	4
120-12	Screw	EVM64 1-1 EVM64 1-0, 2-2 EVM64 6 to 7 EVM64 2 to 5	EN 1.4301 (AISI 304)	M6x20 M8x20 M12x30 M16x55 M16x65	UNI 5931 UNI 5739 UNI 5739 UNI 5737 UNI 5739	1 4
128-1	Nut for tie rod	Zincate steel	M16	UNI 5588	4	
128-2	Nut	Carbon steel	M5	UNI 5588	4	
128-3	Nut	Zincate steel	M16	UNI 5588	[1]	
130-1	Set screw	A2-70 UNI 7323	M6x8	UNI 5923	3	
130-2	Screw for coupling guard	A2-70 UNI 7323	M5x6	UNI 7687	4	
130-3	Set screw	EN 1.4301 (AISI 304)	M6x6	UNI 5923	1	
130-4	Set screw	Zincate steel	M10x10	UNI 5923	1	
131-1	Pin for shaft	Carbon steel			1	
135-1	Washer	Zincate steel	17x30x3	UNI 6592	4	
135-3	Washer	Zincate steel	10.5x17.5x2.2	UNI 1751	[1]	
135-4	Washer	Plated carbon steel	6.4	UNI 1751	[1]	
135-5	Washer	EN 1.4301 (AISI 304)	D.6		1	
136-1	Stopper ring	EN 1.4301 (AISI 304)			1	
137-1	Impeller spacer	EN 1.4301 (AISI 304)			1	
137-2	Shaft spacer	EN 1.4301 (AISI 304)			1	
140-1	Motor coupling	Carbon steel			[1]	
140-2	Coupling (pump side)	Carbon steel			[1]	
150	Spacer	Carbon steel			[1]	
162	Motor bracket	Cast iron EN-GJL-200-EN 1561			1	
212	Plug	EN 1.4301 (AISI 304)			1	
212-1	Plug	EN 1.4301 (AISI 304)			4	
245	Coupling guard	EN 1.4301 (AISI 304)			2	
273	Plug washer	EN 1.4301 (AISI 304)			1	
273-1	Plug washer	EN 1.4301 (AISI 304)			4	
274-1	C-Type snap ring	EN 1.4301 (AISI 304)		D.26 D.50	UNI 7435 UNI 7435	1
274-2	C-Type snap ring	EVM64 1-0, 2-2 EVM64 2 to 4-3 EVM64 4-0, 4-1	Carbon steel TC80	D.65 D.75	UNI 7435 UNI 7535	[1]
613	Flange	Carbon steel			2	

[1] See table on CONSTRUCTION 3

(3/4) Construction

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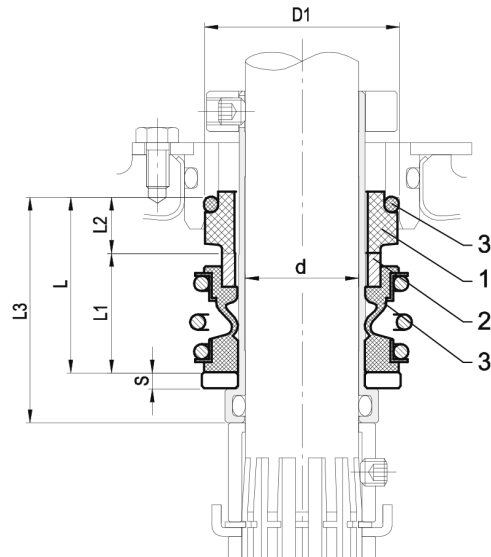
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Pump Type EVM(.)	Quantity for model																														
	005-2	011	021	021-1	039-1	043-2	043-3	043-4	044-1	051	052-1	053	056	070-1	081	107	120-4	120-5	120-7	120-8	128-3	129	135-3	135-4	136	140	140-1	140-2	150	274-2	274-3
64 1-0F5/5.5	1	/	1	/	/	/	/	/	/	1	/	1	1	/	1	1	/	/	/	4	/	/	/	/	1	1	/	/	1	1	1
64 2-2F5/7.5	2	/	/	2	/	1	/	/	/	1	/	2	1	/	2	2	/	/	/	4	/	/	/	/	1	1	/	/	1	1	1
64 2-1F5/11	2	1	1	1	1	1	/	/	/	1	/	2	1	1	2	2	4	4	3	4	4	/	4	3	1	/	1	1	1	1	/
64 2-0F5/11	2	1	2	/	1	1	/	/	/	1	/	2	1	1	2	2	4	4	3	4	4	/	4	3	1	/	1	1	1	1	/
64 3-3F5/15	3	1	/	3	1	2	/	/	/	1	/	3	1	1	3	3	4	4	3	4	4	/	4	3	1	/	1	1	1	1	/
64 3-2F5/15	3	1	1	2	1	2	/	/	/	1	/	3	1	1	3	3	4	4	3	4	4	/	4	3	1	/	1	1	1	1	/
64 3-1F5/15	3	1	2	1	1	2	/	/	/	1	/	3	1	1	3	3	4	4	3	4	4	/	4	3	1	/	1	1	1	1	/
64 3-0F5/18.5	3	1	3	/	1	2	/	/	/	1	/	3	1	1	3	3	4	4	3	4	4	/	4	3	1	/	1	1	1	1	/
64 4-3F5/18.5	4	1	1	3	1	2	1	1	1	1	1	4	1	1	3	4	4	4	3	4	4	/	4	3	1	/	1	1	1	1	/
64 4-2F5/18.5	4	1	2	2	1	2	1	1	1	1	1	4	1	1	3	4	4	4	3	4	4	/	4	3	1	/	1	1	1	1	/
64 4-1F5/22	4	1	3	1	1	2	1	1	1	1	1	4	1	1	3	4	4	4	3	4	4	/	4	3	1	/	1	1	1	1	/
64 4-0F5/22	4	1	4	/	1	2	1	1	1	1	1	4	1	1	3	4	4	4	3	4	4	/	4	3	1	/	1	1	1	1	/

(4/4) Construction

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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