

# Technical data

Pump name EVMG45 7-2F5/30

Customer	Date 2024-06-13	Company
Contact	Item no.	Issued by
Phone	Project	Phone
E-mail	Project ID Proiect redenumit 2024-06-13 20:42:	E-mail

## Requested data

1	Pump type	VERTICAL 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	EVMG45 7-2F5/30	Frequency Hz	50
10	Design	VERTICAL PUMPS	Installation type	STANDARD
11	Manufacturer	EBARA	Impeller Diameter	Max. mm -
12	Speed rpm	2960		Designed mm
13	No. of Stage	7		Min. mm -
14	Connection Suction side		Flow	Operating m <sup>3</sup> /h
15	Connection Discharge side			Max- m <sup>3</sup> /h 60
16	Max Working Pressure bar	25		Min- m <sup>3</sup> /h 21
17	Shut-off head bar	17.35	Head	Operating m
18	Total weight kg	See the table of "Dimensions".		- (Qmax.) m 90.1
19	Shaft power kW			- (Qmin.) m 168.1
20			Max. Shaft Power at max. impeller kW	22.56
21	Required pump 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	ATB	Insulation class	F
29	Type	TEFC_EVM45 7-2F5/30_400_Three Phase	Phases	3~
30	Specific design	IE3 / 50 Hz / Pole pairs 1	Frame size	200
31	Rated power kW	30	Weight kg	168
32	Number of poles	2	Electric voltage V	400
33	Speed rpm	2945	Electric current A	51
34	Degree of protection	IP 55		
35				

## Remarks

# Performance curve

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## Requested data

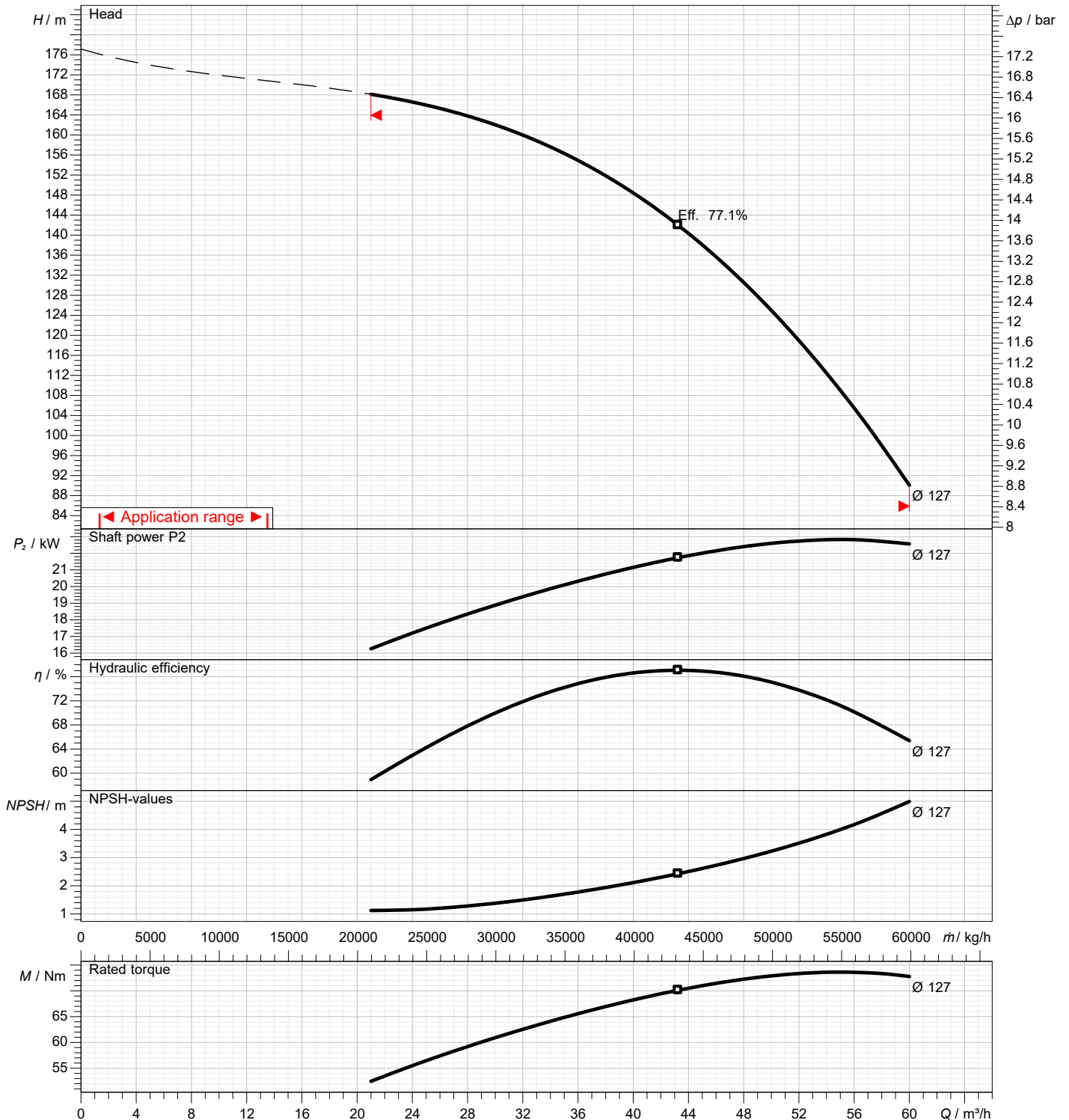
1	Flow	m <sup>3</sup> /h	
2	Head	m	
3	Geodetic head	m	

## Pump

Operating flow	m <sup>3</sup> /h		Impeller Diameter Designed	mm	
Operating head	m		Frequency	Hz	50
			Speed	rpm	2960

Test standard: ISO 9906:2012 - Grade3B

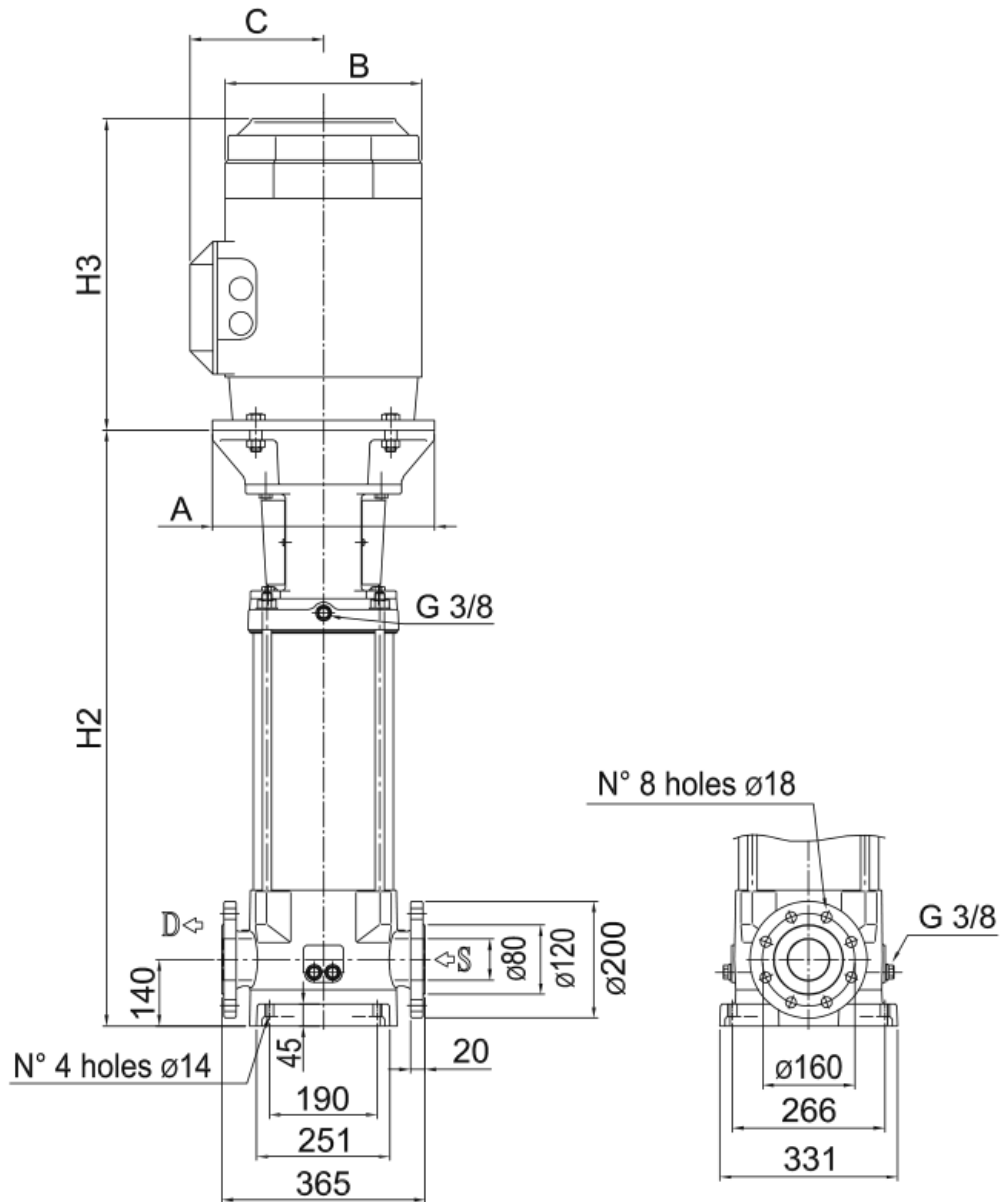
Water; 20°C; 998.3kg/m<sup>3</sup>; 1mm<sup>2</sup>/s



# Dimensions

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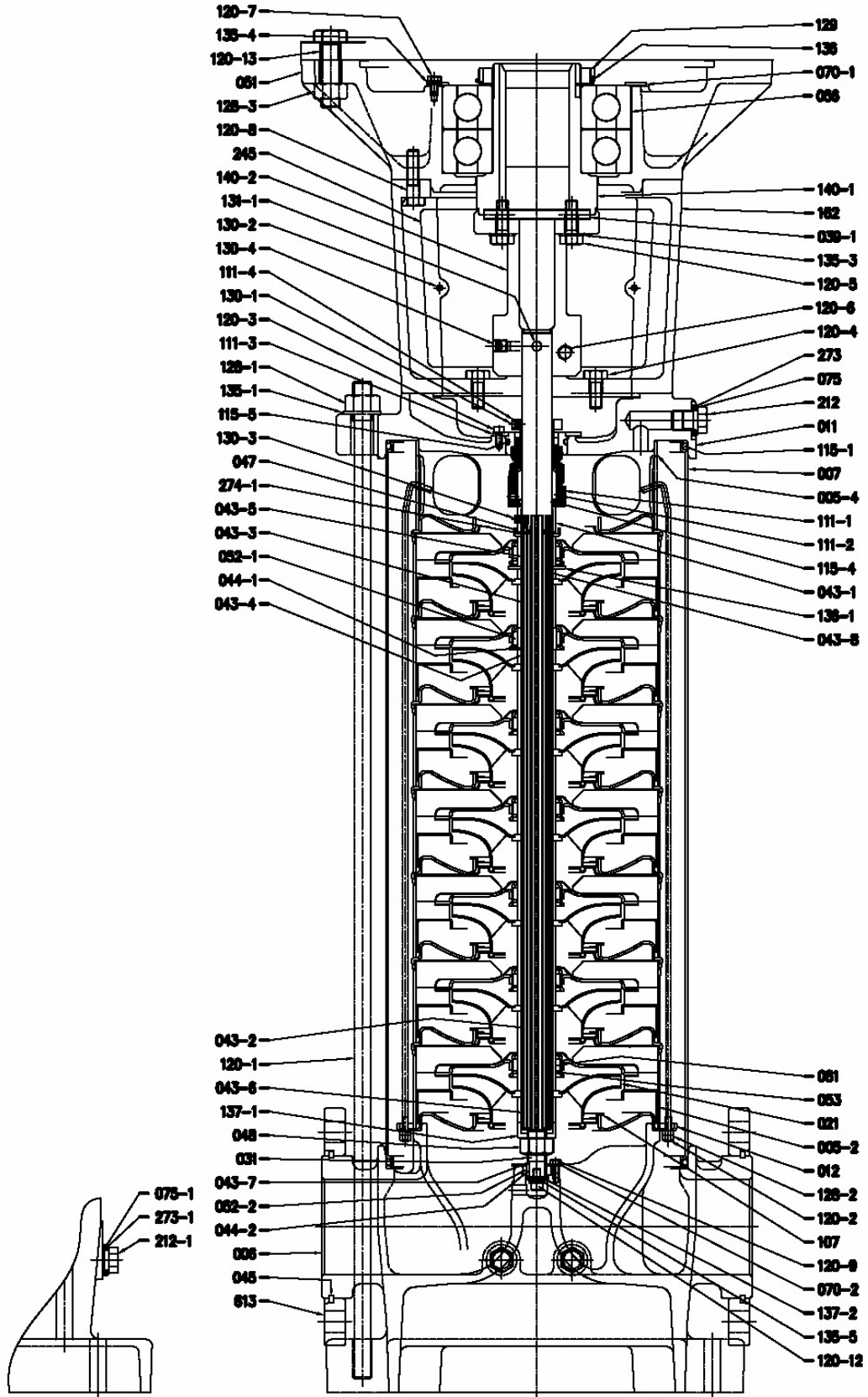
Dimensions in		mm						
1	A	400						
2	B	354						
3	C	280						
4	H2	1124						
5	H3	552						
6	Weight P&M	304 kg						
7								
8								
9								
10								
11								
12								
13								
14								
15								

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# Construction

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# Construction

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N°	PART NAME	MATERIAL	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	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 (bottom bearing)	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 (AISI316)			[1]	
111-1	Mechanical seal	Silicon carbide /Carbon/PPM			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	
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)			2	
120-3	Screw	A2-70 UNI 7323	M5x10	UNI 5931	4	
120-4	Screw	Zincate steel 8.8 strenght class ISO 898/1	M10x25	UNI 5739	[1]	
120-5	Screw for coupling	EVM45 1-0 and 1-1 EVM45 3 to 10	Zincate steel 8.8 strenght class ISO 898/1	M8x20 M10x30	UNI 5931 UNI 5739	[1]
120-6	Screw for coupling	EVM45 1 to 2 EVM45 3 to 10	Zincate steel 8.8 strenght class ISO 898/1	M8x20 M12x30	UNI 5931 UNI 5931	2
120-7	Screw		Zincate steel 8.8 strenght class ISO 898/1	M6x10	UNI 5739	[1]
120-8	Screw	EVM45 2 -0 and 2-2 EVM45 3 to 10	Zincate steel 8.8 strenght class ISO 898/1	M12x25 M10x30	UNI 5739 UNI 5739	[1]
120-9	Screw	EVMG	EN 1.4301 (AISI 304)	M5x8	UNI 5739	4
120-12	Screw		EN 1.4301 (AISI 304)	M6x20	UNI 5931	1
120-13	Screw	EVM45 1-0, 1-1 EVM45 2-0, 2-2 EVM45 9-0, 10-0, 10-2 EVM45 9-0, 10-0, 10-2 EVM45 3-0 to 9-2	Zincate steel 8.8 strenght class ISO 898/1	M8x20 M12x30 M6x10 M16x55 M16x65	UNI 5739 UNI 5739 UNI 5739 UNI 5737 UNI 5739	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]	
129	Lock nut	Carbon steel	M75x2		[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	A2- 70 UNI 7323	M6x6	UNI 5923	1	
130-4	Set screw	Carbon 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)			1	
136	Bearing washer	Carbon steel			[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]	
162	Mator bracket	Cast iron EN-GJL-200 EN1561			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	UNI 7435	1	
613	Flange	Carbon steel			2	

[1] See table on CONSTRUCTION 3

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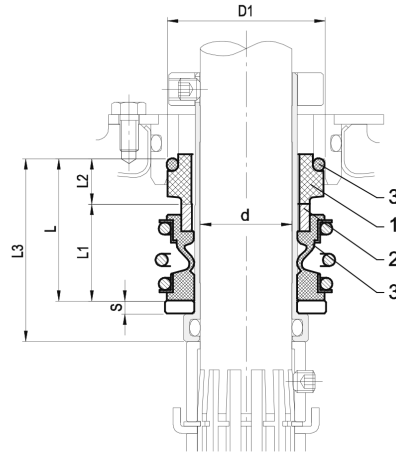
Pump Type EVM(.)	Quantity for model																														
	005-2	011	021	021-1	039-1	043-2	043-3	043-4	044-1	051	052-1	053	056	070-1	081	107	120-4	120-5	120-7	120-8	128-3	129	135-3	135-4	136	140	140-1	140-2	150	274-2	274-3
45 7-2F5/30	7	1	5	2	1	5	1	1	1	1	1	7	1	1	6	7	4	4	3	4	4	1	4	3	1	/	1	1	/	/	/
45 7-0F5/30	7	1	7	/	1	5	1	1	1	1	1	7	1	1	6	7	4	4	3	4	4	1	4	3	1	/	1	1	/	/	/
45 8-2F5/30	8	1	6	2	1	6	1	1	1	1	1	8	1	1	7	8	4	4	3	4	4	1	4	3	1	/	1	1	/	/	/
45 8-0F5/30	8	1	8	/	1	6	1	1	1	1	1	8	1	1	7	8	4	4	3	4	4	1	4	3	1	/	1	1	/	/	/
45 9-2F5/30	9	1	7	2	1	7	1	1	1	1	1	9	1	1	8	9	4	4	3	4	4	1	4	3	1	/	1	1	/	/	/
45 9-0F5/37	9	1	9	/	1	7	1	1	1	1	1	9	1	1	8	9	4	4	3	4	4	1	4	3	1	/	1	1	/	/	/
45 10-2F5/37	10	1	8	2	1	8	1	1	1	1	1	10	1	1	9	10	4	4	3	4	4	1	4	3	1	/	1	1	/	/	/
45 10-0F5/37	10	1	10	/	1	8	1	1	1	1	1	10	1	1	9	10	4	4	3	4	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