

Technical data

Pump name EVMG45 1-0F5/4.0

Customer	Date	2024-06-13	Company
Contact	Item no.		Issued by
Phone	Project		Phone
E-mail	Project ID	Project 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 ³ /h		Kin. viscosity mm ² /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 ³	998.3
7	Available system NPSH		Solids Weight %	0
8	Ambient temperature °C	20		

Pump

9	Pump name	EVMG45 1-0F5/4.0	Frequency Hz	50	
10	Design	VERTICAL PUMPS	Installation type	STANDARD	
11	Manufacturer	EBARA	Impeller Diameter	Max. mm	-
12	Speed rpm	2900		Designed mm	
13	No. of Stage	1		Min. mm	-
14	Connection Suction side		Flow	Operating m ³ /h	
15	Connection Discharge side			Max- m ³ /h	60
16	Max Working Pressure bar	16		Min- m ³ /h	21
17	Shut-off head bar	2.65	Head	Operating m	
18	Total weight kg	See the table of "Dimensions".		- (Qmax.) m	13.3
19	Shaft power kW			- (Qmin.) m	25.7
20			Max. Shaft Power at max. impeller kW	3.64	
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	ETM	Insulation class	F
29	Type	TEFC_EVM45 1-0F5/4.0_230_Three Phase	Phases	3~
30	Specific design	IE3 / 50 Hz / Pole pairs 1	Frame size	112
31	Rated power kW	4	Weight kg	28.5
32	Number of poles	2	Electric voltage V	230
33	Speed rpm	2920	Electric current A	15.1
34	Degree of protection	IP 55		
35				

Remarks

Performance curve

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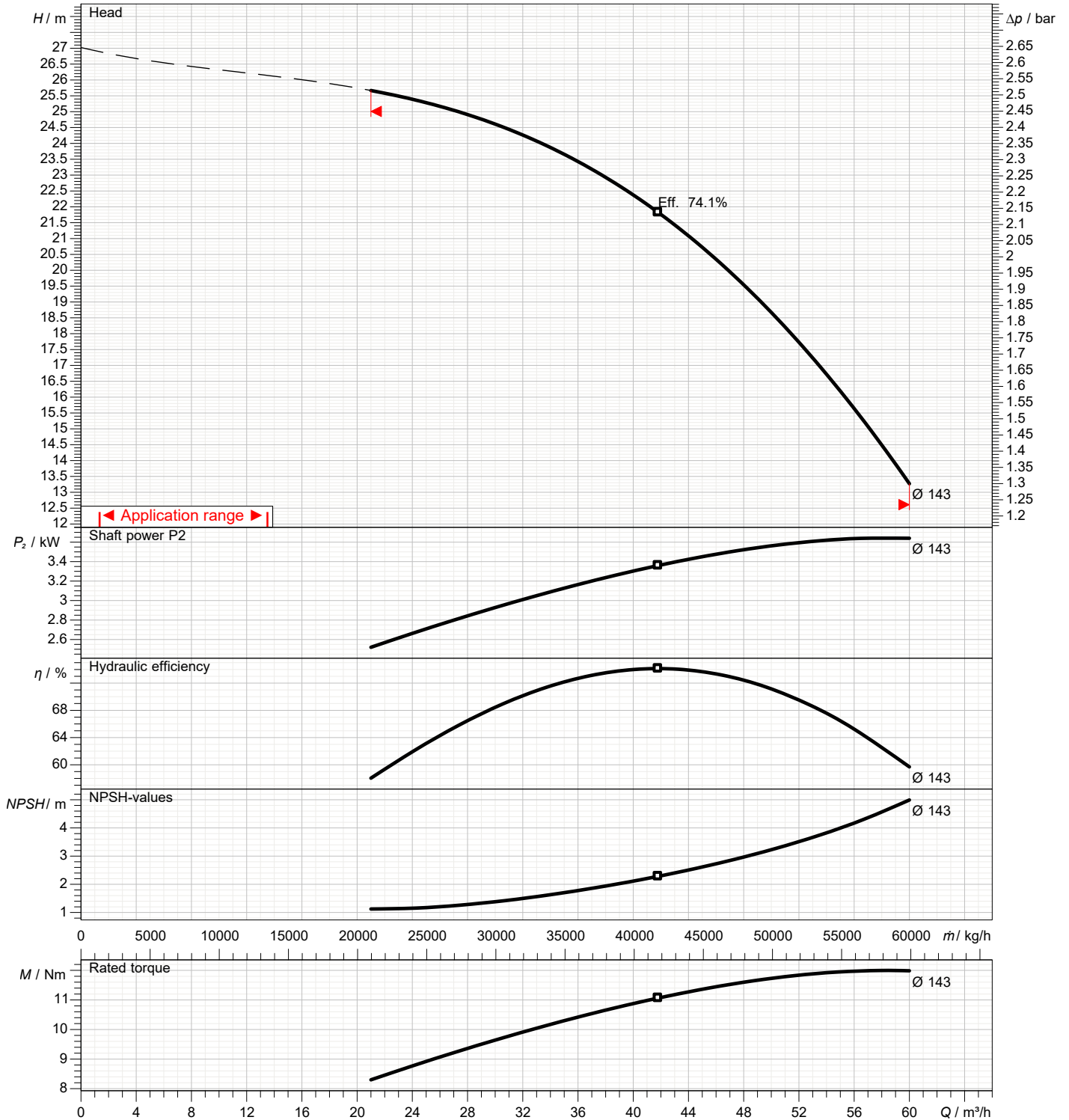
1	Flow	m ³ /h	
2	Head	m	
3	Geodetic head	m	

Pump

Operating flow	m ³ /h	Impeller Diameter Designed	mm	
Operating head	m	Frequency	Hz	50
		Speed	rpm	2900

Test standard: ISO 9906:2012 - Grade3B

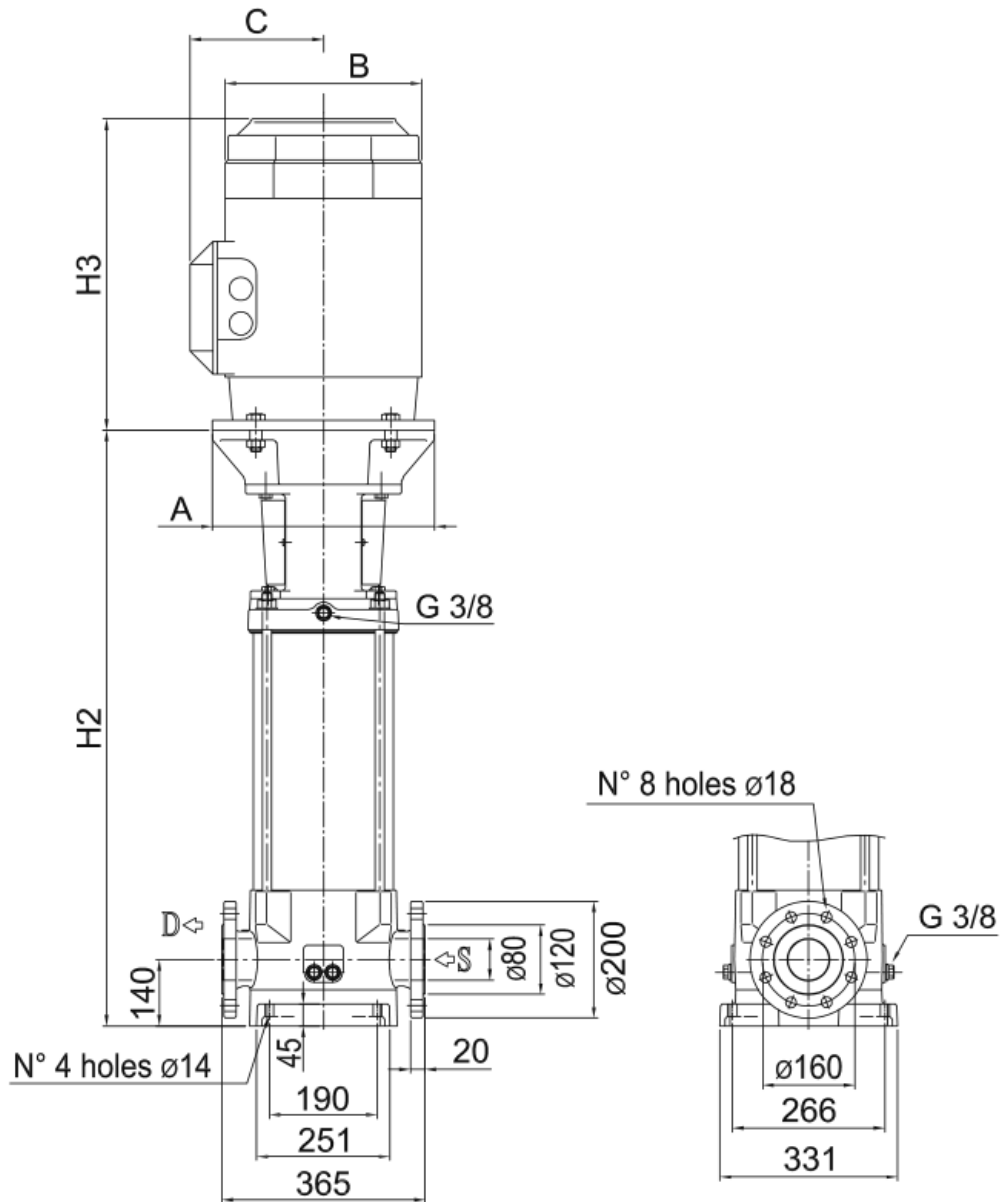
Water; 20°C; 998.3kg/m³; 1mm²/s



Dimensions

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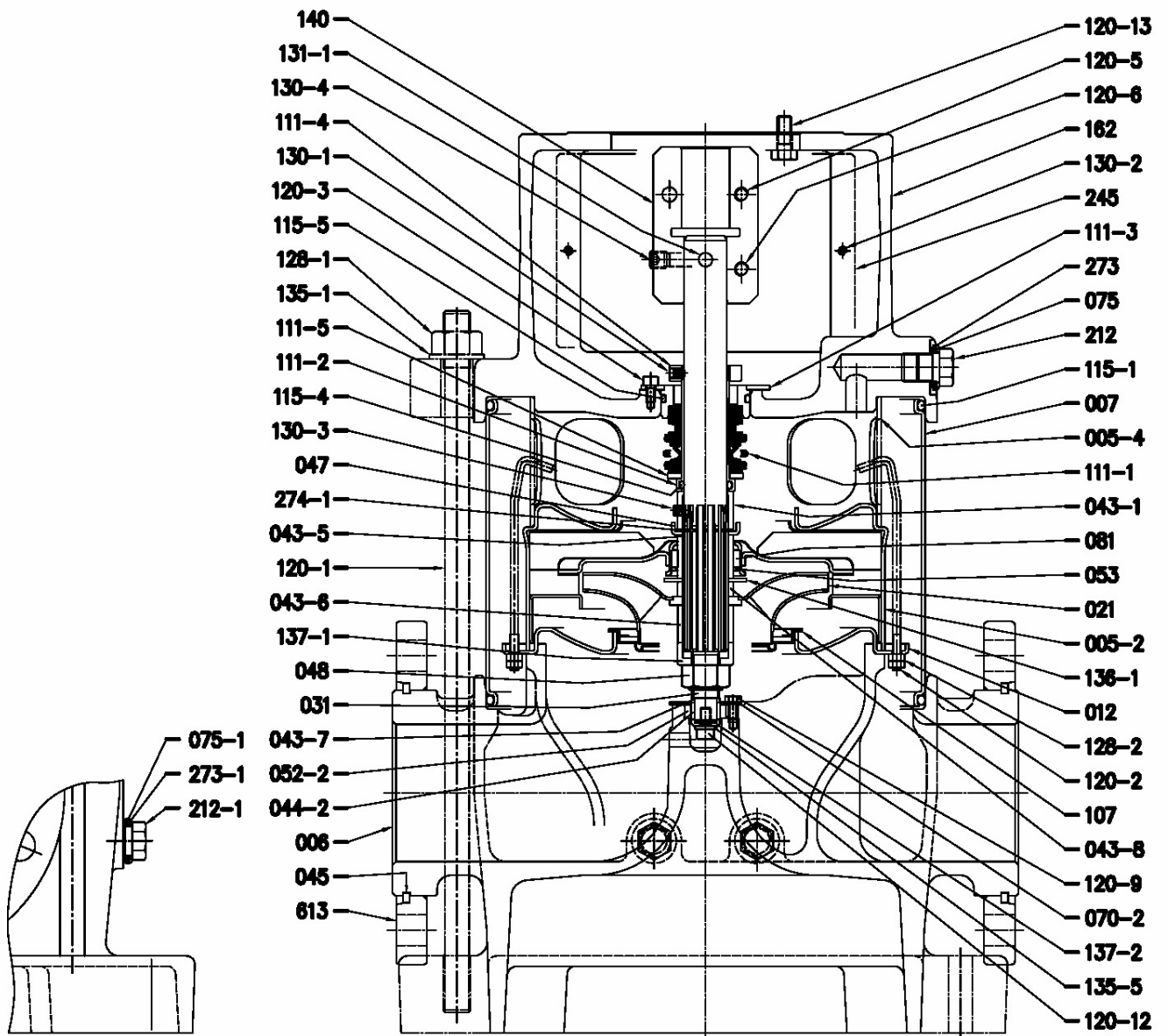
Dimensions in		mm						
1	A	160						
2	B	193						
3	C	138						
4	H2	525						
5	H3	364						
6	Weight P&M	100 kg						
7								
8								
9								
10								
11								
12								
13								
14								
15								

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Construction

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Construction

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N°	PART NAME	MATERIAL 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
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
043-1	Shaft sleeve (mechanical seal)	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
044-2	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
052-2	Bearing	Tungsten carbide			1
053	Bush holder	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/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)			2
120-3	Screw	A2-70 UNI 7323	M5x10	UNI 5931	4
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 UNI 5931 M10x30 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 UNI 5931 M12x30 UNI 5931	2
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 UNI 5739 M12x30 UNI 5739 M6x10 UNI 5739 M16x55 UNI 5737 M16x65 UNI 5739	4
128-1	Nut for tie rod	Zincate steel	M16	UNI 5588	4
128-2	Nut	Carbon steel	M5	UNI 5588	4
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
135-5	Washer	EN 1.4301 (AISI 304)			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	Coupling	Brass OT 58 UNI 5705			[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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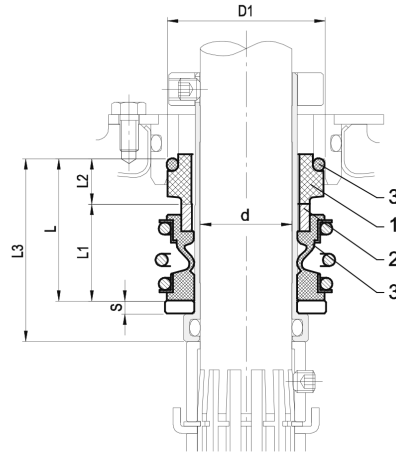
Pump Type EVM(.)	Quantity for model																														
	005-2	011	021	021-1	039-1	043-2	043-3	043-4	044-1	051	052-1	053	056	070-1	081	107	120-4	120-5	120-7	120-8	128-3	129	135-3	135-4	136	140	140-1	140-2	150	274-2	274-3
45 1-1F5/3.0	1	/	/	1	/	/	/	/	/	/	/	1	/	/	1	1	/	2	/	/	/	/	/	/	1	1	/	/	/	/	/
45 1-0F5/4.0	1	/	1	/	/	/	/	/	/	/	/	1	/	/	1	1	/	2	/	/	/	/	/	/	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