

Technical Data

Pump Name

EVMSG1 20F6HQ1BEGE/1.5

Customer	Date	2024-07-02	Company
Contact	Item no.		Issued by
Phone	Project		Phone
E-mail	Project ID	Proiect redenumit 2024-07-02 22:34:28	E-mail

Requested data

1	Pump type	VERTICAL MULTISTAGE PUMP	Fluid	Water
2	Number of pumps / Reserve	1 / 0	Liquid temperature	°C
3	Flow	m³/h	Kin. viscosity	mm²/s
4	Head	m	Vapour pressure	bar
5	Geodetic head	m	PH value	
6	Inlet pressure (pin)	bar	Density	kg/m³
7	Available system NPSH		Solids	Weight %
8	Ambient temperature	°C		

Pump

9	Pump Name	EVMSG1 20F6HQ1BEGE/1.5	Frequency	Hz	60	
10	Design	VERTICAL MULTISTAGE PUMP	Installation type		Round flange (STANDARD)	
11	Manufacturer	EBARA	Impeller Diameter	Max.	mm	
12	Speed	rpm		3460	Designed	mm
13	No. of Stage			20	Min.	mm
14	Connection	Suction side	Flow	Operating	m³/h	
15	Connection	Discharge side		Max-	m³/h	
16	Max Working Pressure	bar		25	Min-	m³/h
17	Shut-off head	bar	16.49	Head	Operating	
18	Total weight	kg	See the table of "Dimensions".		- (Qmax.)	m
19	Shaft power	kW			- (Qmin.)	m
20			Max. Shaft Power at max. impeller	kW	1.49	
21	Required pump NPSH	m	Efficiency	%		

Materials

22	Impeller	AISI 304		
23	Intermediate casing	AISI 304		
24	Bottom casing	Cast iron		
25	Shaft	AISI 304		
26	O-ring	EPDM		
27				

Motor

28	Manufacturer	ETM	Insulation class	F	
29	Type	TEFC_EVMS1 20/1.56_220_Three Phase	Phases	3~	
30	Specific design	IE2 / 60 Hz / Pole pairs 1	Frame size	90	
31	Rated power	kW	1.5	Weight	kg
32	Number of poles		2	Electric voltage	V
33	Speed	rpm	3500	Electric current	A
34	Degree of protection		IP 55		
35					

Remarks

Performance Curve

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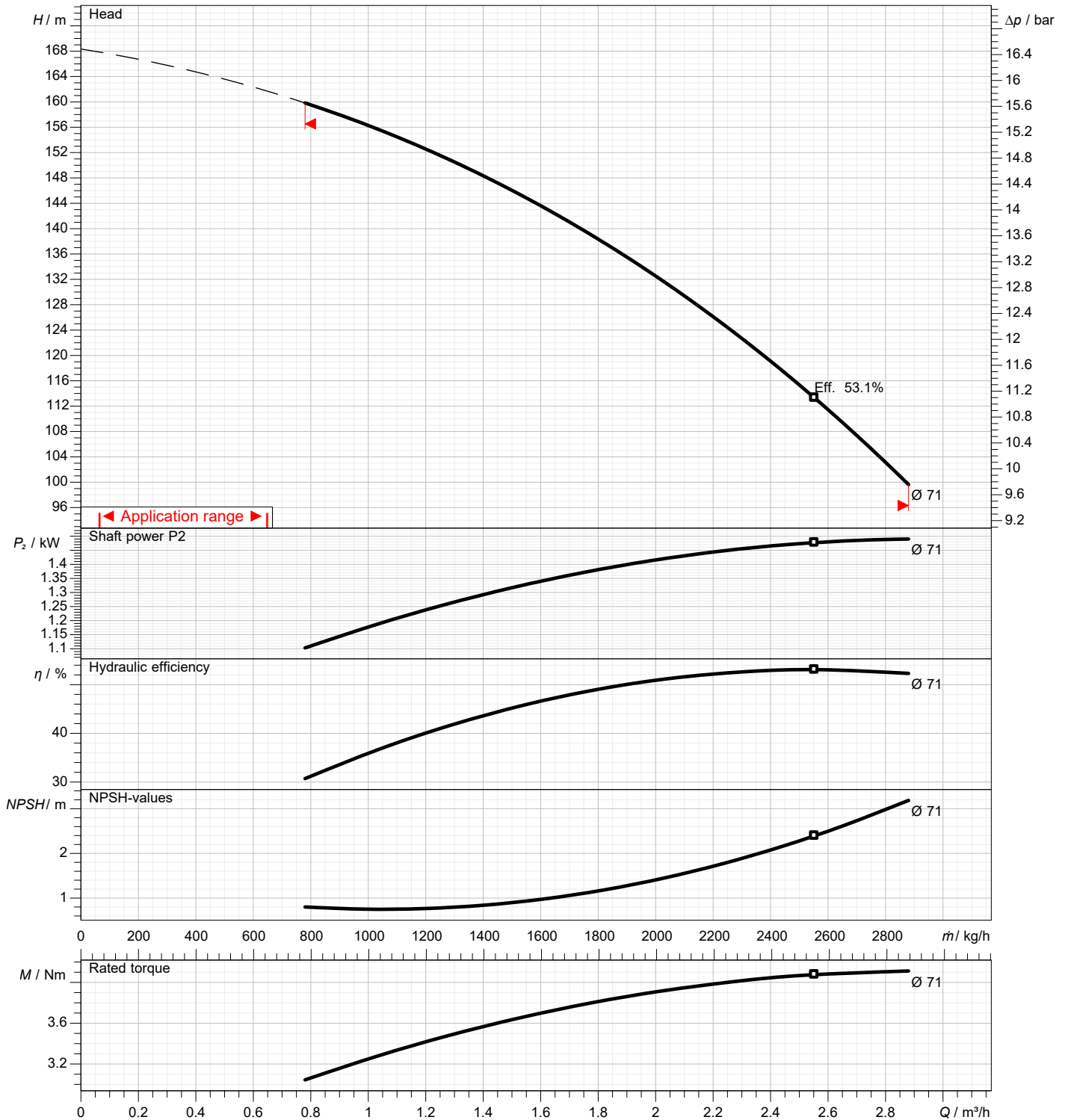
1	Flow	m³/h	
2	Head	m	
3	Geodetic head	m	

Pump

Operating flow	m³/h		Frequency	Hz	60
Operating head	m		Number of poles		2
Impeller diameter designed	mm	71	Speed	rpm	3460

Test standard: ISO 9906:2012 - Grade3B

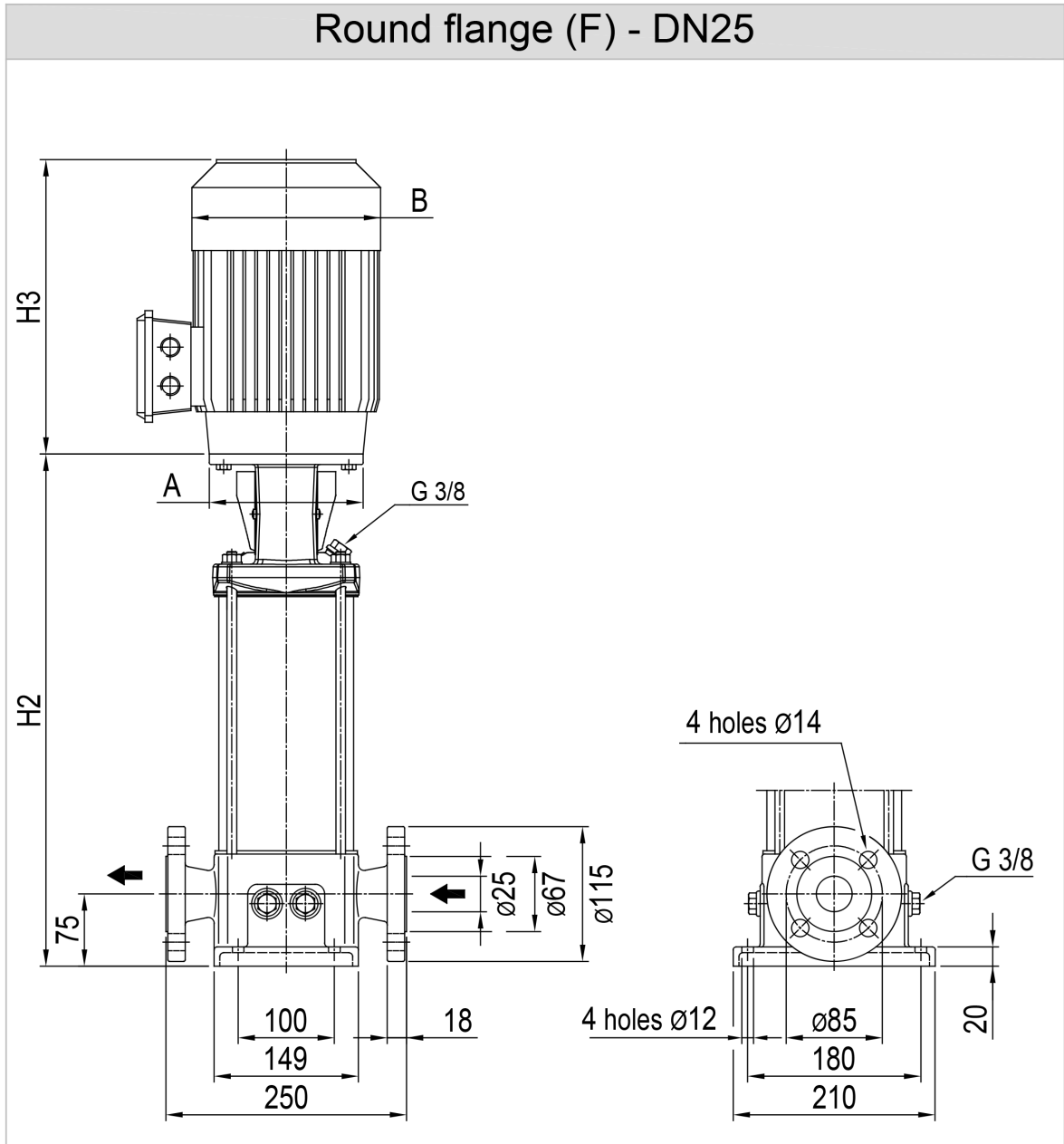
Water; 20°C; 998.3kg/m³; 1mm²/s



Dimensions

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Dimensions in		mm						
1	A	Dia 140						
2	B	160						
3	C	119						
4	H2	673						
5	H3	291						
6	Weight P&M (kg)	39.7						
7								
8								
9								
10								
11								
12								
13								
14								
15								

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Construction

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N°	PART NAME	MATERIAL EVMSG	DIMENSIONS	STANDARD
4	Casing cover	EN 1.4301 (AISI 304)		
5-1	Suction casing	EN 1.4301 (AISI 304)		
5-2	Intermediate casing	EN 1.4301 (AISI 304)		
5-3	Intermediate casing with bearing	EN 1.4301 (AISI 304)		
5-4	Discharge casing	EN 1.4301 (AISI 304)		
6	Bottom casing	Cast Iron EN GJL-250-EN1561		
7	Outer casing	EN 1.4301 (AISI 304)		
21	Impeller	EN 1.4301 (AISI 304)		
31	Shaft	EN 1.4301 (AISI 304)		
32-1	Adjuster key	EN 1.4301 (AISI 304)		
43-2	Shaft sleeve (intermediate)	EN 1.4301 (AISI 304)		
43-3	Shaft sleeve (bearing)	EN 1.4301 (AISI 304)		
43-5	Shaft sleeve (last stage)	EN 1.4301 (AISI 304)		
43-7	Spacer	EN 1.4301 (AISI 304)		
44-1	Shaft sleeve bearing	Tungsten carbide		
46	Ring (mechanical seal)	EN 1.4404 (AISI 316L)		
47	Ring holder	EN 1.4404 (AISI 316L)		
48	Impeller nut	EN 1.4301 (AISI 304) with inox insert	M8	
52-1	Sleeve bearing	Tungsten carbide		
75	O-Ring (priming plug)	EPDM / FPM *	Ø12.37x2.62	OR 3050
75-1	O-Ring (drainage plug)	EPDM / FPM *		
107	Liner ring	EN 1.4301 (AISI 304) + PPS		
111	Mechanical seal	- - - **		
111-3	Mechanical seal seat	EN 1.4308 (ASTM CF8)		
111-4	Seal holder	EN 1.4301 (AISI 304)		
111-5	Mechanical seal cartridge sleeve	EN 1.4301 (AISI 304)		
115-1	O-Ring (outer casing)	EPDM / FPM *	Ø129.54x5.34	OR 6945
115-4	O-Ring (cartridge sleeve)	EPDM / FPM *	Ø11.91x2.62	OR 4093
115-5	O-Ring (seal flange)	EPDM / FPM *	Ø32.99x2.62	OR 4175
117	Flange gasket	EPDM / FPM *		
120-1	Tie-rod	EN 1.4057 (AISI 431)	M10	
120-3	Screw (seal flange)	A2-70	M4x10	ISO 4762
120-6	Screw (pump coupling)	Galvanized steel	M6x25	ISO 4762
120-11	Screw (counterflange)	A2-70		
120-13	Screw for motor	MEC 71-80 MEC 90	Galvanized steel 8.8 strength class ISO 898/1	M6x20 ISO 4017 M8x20 ISO 4017
128-1	Nut (tie rod)	A2-70	M10	ISO 4032
128-6	Nut (aluminium coupling)	MEC 71-80-90	Galvanized steel	M6 ISO 4032
130-1	Set screw	EN 1.4301 (AISI 304)	M5x8	ISO 4026
130-2	Screw for coupling guard	A2-70	M5x6	UNI 7687
131-1	Pin for shaft	Carbon Steel	Ø4x32	ISO 2338
135-1	Washer (tie rod)	EN 1.4301 (AISI 304)	Ø10.5x21x2	ISO 7089
135-6	Washer (aluminium coupling)	up to 4.0 kW	Carbon Steel	Ø6
137-1	Impeller spacer	EN 1.4301 (AISI 304)		
140	Coupling	up to 4.0 kW	Die cast Aluminium EN AB-AISI11Cu2 (Fe)	
162	Motor bracket	Cast iron EN-GJL-250		
212	Priming plug	EN 1.4301 (AISI 304)	G 3/8	
212-1	Drainage plug	EN 1.4301 (AISI 304)	G 3/8	
212-2	Venting plug	EN 1.4404 (AISI 316L)		
219	Counter flange	Galvanized steel		
245	Coupling guard	EN 1.4301 (AISI 304)		
273-1	Washer (drainage plug)	EN 1.4301 (AISI 304)		

* EPDM (standard)
FPM (option)

** see CONSTRUCTION 4/4

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E-mail	Project ID	Proiect redenumit 2024-07-02 22:34:28	E-mail

Pump Type	N°																												
	4	5-1	52	53	54	6	7	21	31	32-1	43-2	43-3	43-5	43-7	44-1	46	47	48	52-1	75	75-1	107	111	111-3	111-4	111-5	115-1	115-4	115-5
EVMSG1 2/0.37	1	1	/	1	1	1	1	2	1	1	1	1	/	/	1	2	1	1	1	1	4	2	1	1	1	1	2	1	1
EVMSG1 3/0.37	1	1	1	1	1	1	1	3	1	1	3	1	/	/	1	2	1	1	1	1	4	3	1	1	1	1	2	1	1
EVMSG1 4/0.37	1	1	2	1	1	1	1	4	1	1	5	1	/	/	1	2	1	1	1	1	4	4	1	1	1	1	2	1	1
EVMSG1 5/0.37	1	1	3	1	1	1	1	5	1	1	7	1	/	/	1	2	1	1	1	1	4	5	1	1	1	1	2	1	1
EVMSG1 6/0.37	1	1	4	1	1	1	1	6	1	1	9	1	/	/	1	2	1	1	1	1	4	6	1	1	1	1	2	1	1
EVMSG1 7/0.37	1	1	5	1	1	1	1	7	1	1	11	1	/	/	1	2	1	1	1	1	4	7	1	1	1	1	2	1	1
EVMSG1 8/0.37	1	1	6	1	1	1	1	8	1	1	13	1	/	/	1	2	1	1	1	1	4	8	1	1	1	1	2	1	1
EVMSG1 9/0.55	1	1	7	1	1	1	1	9	1	1	15	1	/	/	1	2	1	1	1	1	4	9	1	1	1	1	2	1	1
EVMSG1 10/0.55	1	1	8	1	1	1	1	10	1	1	17	1	/	/	1	2	1	1	1	1	4	10	1	1	1	1	2	1	1
EVMSG1 11/0.55	1	1	9	1	1	1	1	11	1	1	19	1	/	/	1	2	1	1	1	1	4	11	1	1	1	1	2	1	1
EVMSG1 12/0.55	1	1	10	1	1	1	1	12	1	1	21	1	/	/	1	2	1	1	1	1	4	12	1	1	1	1	2	1	1
EVMSG1 13/0.55	1	1	10	2	1	1	1	13	1	1	20	2	1	1	2	2	1	1	2	1	4	13	1	1	1	1	2	1	1
EVMSG1 14/0.75	1	1	11	2	1	1	1	14	1	1	22	2	/	1	2	2	1	1	2	1	4	14	1	1	1	1	2	1	1
EVMSG1 16/0.75	1	1	13	2	1	1	1	16	1	1	26	2	/	1	2	2	1	1	2	1	4	16	1	1	1	1	2	1	1
EVMSG1 18/1.1	1	1	15	2	1	1	1	18	1	1	30	2	/	1	2	2	1	1	2	1	4	18	1	1	1	1	2	1	1
EVMSG1 20/1.1	1	1	17	2	1	1	1	20	1	1	34	2	/	1	2	2	1	1	2	1	4	20	1	1	1	1	2	1	1
EVMSG1 22/1.1	1	1	19	2	1	1	1	22	1	1	38	2	/	1	2	2	1	1	2	1	4	22	1	1	1	1	2	1	1
EVMSG1 24/1.1	1	1	21	2	1	1	1	24	1	1	42	2	/	1	2	2	1	1	2	1	4	24	1	1	1	1	2	1	1
EVMSG1 26/1.1	1	1	23	2	1	1	1	26	1	1	46	2	/	1	2	2	1	1	2	1	4	26	1	1	1	1	2	1	1
EVMSG1 27/1.5	1	1	24	2	1	1	1	27	1	1	48	2	/	1	2	2	1	1	2	1	4	27	1	1	1	1	2	1	1
EVMSG1 29/1.5	1	1	26	2	1	1	1	29	1	1	52	2	/	1	2	2	1	1	2	1	4	29	1	1	1	1	2	1	1
EVMSG1 32/1.5	1	1	29	2	1	1	1	32	1	1	58	2	/	1	2	2	1	1	2	1	4	32	1	1	1	1	2	1	1
EVMSG1 34/1.5	1	1	31	2	1	1	1	34	1	1	62	2	/	1	2	2	1	1	2	1	4	34	1	1	1	1	2	1	1
EVMSG1 37/2.2	1	1	34	2	1	1	1	37	1	1	68	2	/	1	2	2	1	1	2	1	4	37	1	1	1	1	2	1	1
EVMSG1 39/2.2	1	1	36	2	1	1	1	39	1	1	72	2	/	1	2	2	1	1	2	1	4	39	1	1	1	1	2	1	1

Pump Type	N°																					
	117*	120-1	120-3	120-6	120-11*	120-13	128-1	128-6	130-1	130-2	131-1	135-1	135-6	137-1	140	162	212	212-1	212-2	219*	245	273-1
EVMSG1 2/0.37	2	4	4	4	4	4	4	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4
EVMSG1 3/0.37	2	4	4	4	4	4	4	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4
EVMSG1 4/0.37	2	4	4	4	4	4	4	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4
EVMSG1 5/0.37	2	4	4	4	4	4	4	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4
EVMSG1 6/0.37	2	4	4	4	4	4	4	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4
EVMSG1 7/0.37	2	4	4	4	4	4	4	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4
EVMSG1 8/0.37	2	4	4	4	4	4	4	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4
EVMSG1 9/0.55	2	4	4	4	4	4	4	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4
EVMSG1 10/0.55	2	4	4	4	4	4	4	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4
EVMSG1 11/0.55	2	4	4	4	4	4	4	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4
EVMSG1 12/0.55	2	4	4	4	4	4	4	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4
EVMSG1 13/0.55	2	4	4	4	4	4	4	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4
EVMSG1 14/0.75	2	4	4	4	4	4	4	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4
EVMSG1 16/0.75	2	4	4	4	4	4	4	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4
EVMSG1 18/1.1	2	4	4	4	4	4	4	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4
EVMSG1 20/1.1	2	4	4	4	4	4	4	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4
EVMSG1 22/1.1	2	4	4	4	4	4	4	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4
EVMSG1 24/1.1	2	4	4	4	4	4	4	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4
EVMSG1 26/1.1	2	4	4	4	4	4	4	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4
EVMSG1 27/1.5	/	4	4	4	/	4	4	4	3	4	1	4	4	1	2	1	1	4	1	/	2	4
EVMSG1 29/1.5	/	4	4	4	/	4	4	4	3	4	1	4	4	1	2	1	1	4	1	/	2	4
EVMSG1 32/1.5	/	4	4	4	/	4	4	4	3	4	1	4	4	1	2	1	1	4	1	/	2	4
EVMSG1 34/1.5	/	4	4	4	/	4	4	4	3	4	1	4	4	1	2	1	1	4	1	/	2	4
EVMSG1 37/2.2	/	4	4	4	/	4	4	4	3	4	1	4	4	1	2	1	1	4	1	/	2	4
EVMSG1 39/2.2	/	4	4	4	/	4	4	4	3	4	1	4	4	1	2	1	1	4	1	/	2	4

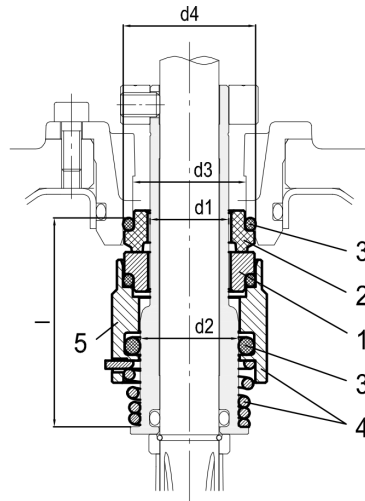
* only for Oval flange (N)

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● : Standard

Pump model	Max operating temperature	Shaft seal type		Shaft seal material								Type key		
		Cartridge		1		2		3		4			5	
		Unbalanced	Balanced	Rotating Part	Code	Stationary Part	Code	Elastomers	Code	Compression spring	Collar		Code	
from 16 bar to 25 bar	- 30°C to + 140°C		●	SiC	(Q1)	Carbon	(B)	EPDM	(E)	AISI 316		(G)	HQ1BEG	

Max operating pressure	d1	d2	d3	d4	l
	[mm]	[mm]	[mm]	[mm]	[mm]
25 bar	16	20	23	27	42.5