Technical Data

Pump Name EVMSG10 16F5HQ1BEGE/7.5

Customer	Date 2024-06-14	Company
Contact	Item no.	Issued by
Phone	Project	Phone
E-mail	Project ID Proiect redenumit 2024-06-14 15:41:37	E-mail

Requested data

1	Pump type		VERTICAL MULTISTAGE PUMP	Fluid		Water
2	Number of pumps / Reserve		1 / 0	Liquid temperature	°C	20
3	Flow	m³/h		Kin. viscosity	mm²/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/m³	998.3
7	Available system NPSH			Solids	Weight %	0
8	Ambient temperature	°C	20			

Pump

9	Pump Name		EVMSG10 16F5HQ1BEGE/7.5	Frequency		Hz	50
10	Design		VERTICAL MULTISTAGE PUMP	Installation type			Round flange (STANDARD)
11	Manufacturer		EBARA	Impeller Diameter	Max.	mm	96
12	Speed	rpm	2910		Designed	mm	96
13	No. of Stage		16		Min.	mm	96
14	Connection Suction side			Flow	Operating	m³/h	
15	Connection Discharge side				Max-	m³/h	15
16	Max Working Pressure	bar	25		Min-	m³/h	4.5
17	Shut-off head	bar	17.19	Head	Operating	m	
18	Total weight	kg	See the table of "Dimensions".		- (Qmax.)	m	79.8
19	Shaft power	kW			- (Qmin.)	m	170.9
20				Max. Shaft Power at max. impeller		kW	5.74
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_EVMS10 16/7.5_400_Three Phase	Phases		3~
30	Specific design		IE3 / 50 Hz / Pole pairs 1	Frame size		132
31	Rated power	kW	7.5	Weight	kg	46
32	Number of poles		2	Electric voltage	V	400
33	Speed	rpm	2910	Electric current	A	13.6
34	Degree of protection		IP 55			
35						

Remarks

EBARA

Performance Curve

Pump Name EVMSG10 16F5HQ1BEGE/7.5

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Requested data

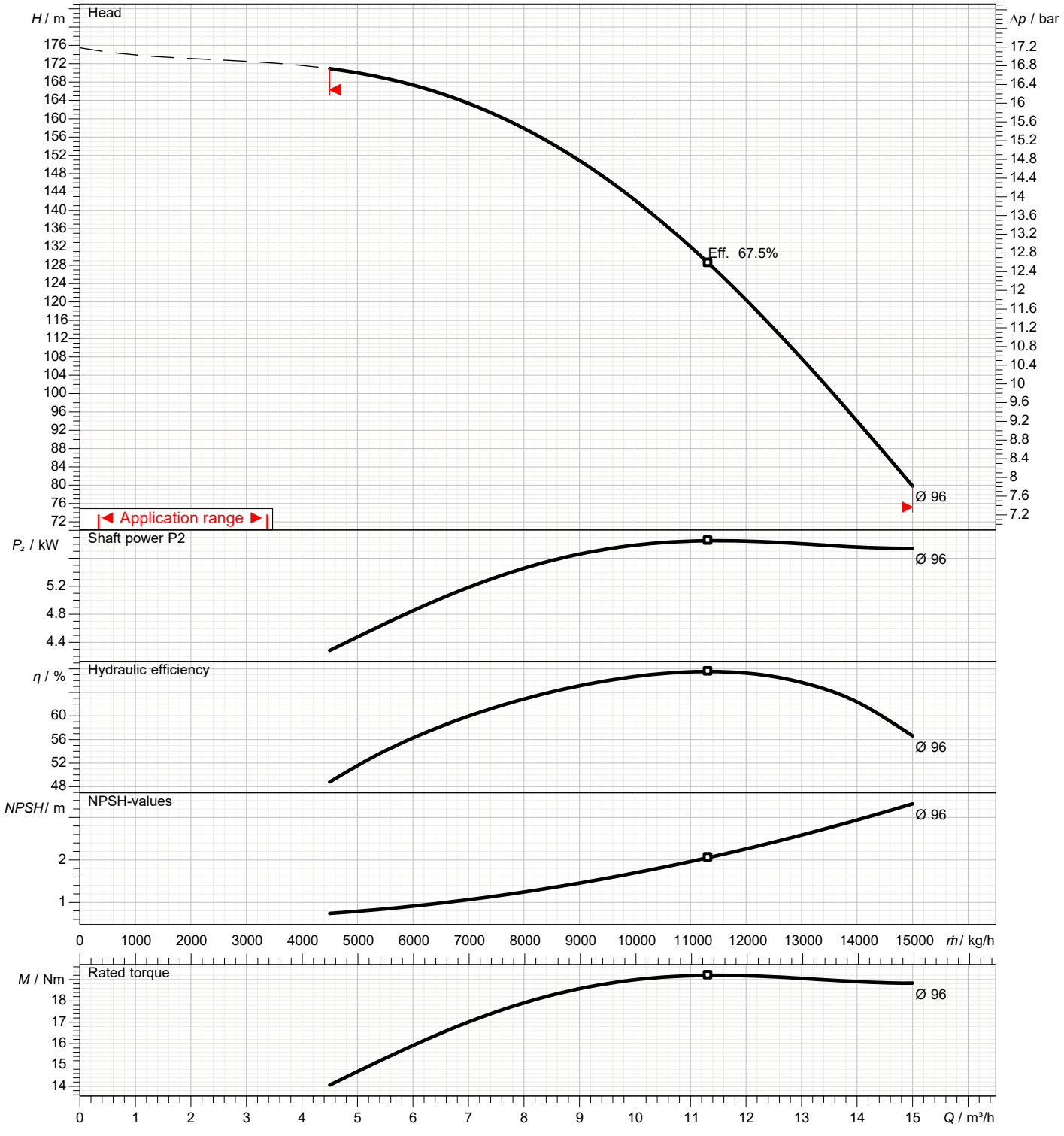
1	Flow	m³/h	
2	Head	m	
3	Geodetic head	m	

Pump

Operating flow	m³/h		Frequency	Hz	50
Operating head	m		Number of poles		2
Impeller diameter designed	mm	96	Speed	rpm	2910

Test standard: ISO 9906:2012 - Grade3B

Water; 20°C; 998.3kg/m³; 1mm²/s



EBARA

Dimensions

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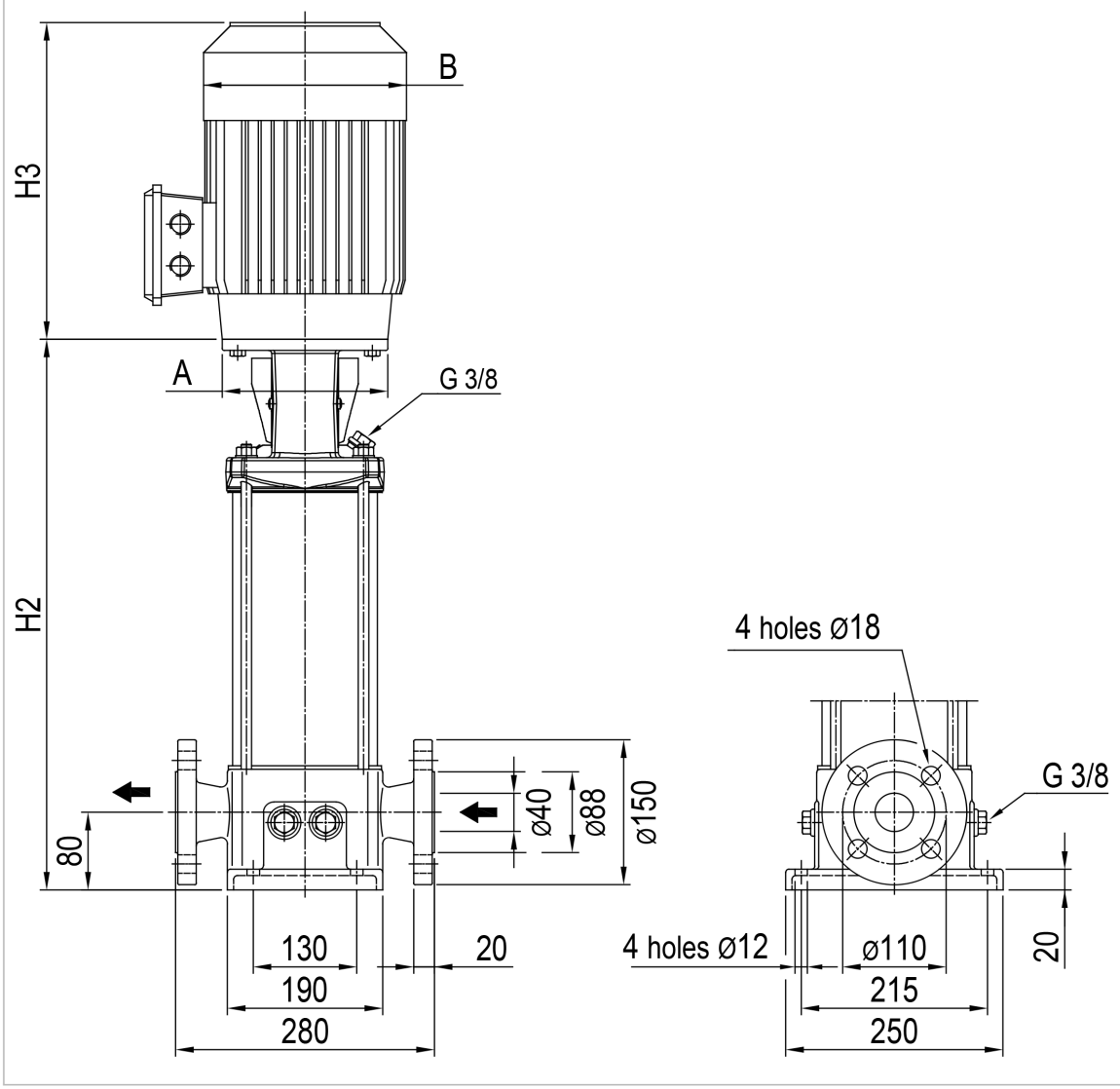
Round flange (F) - DN40



Dimensions in mm

1	A	Dia300						
2	B	220						
3	C	152						
4	H2	881						
5	H3	419						
6	Weight P&M (kg)	92.3						
7								
8								
9								
10								
11								
12								
13								
14								
15								

EBARA

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Construction

Pump name EVMSG10 16F5HQ1BEGE/7.5

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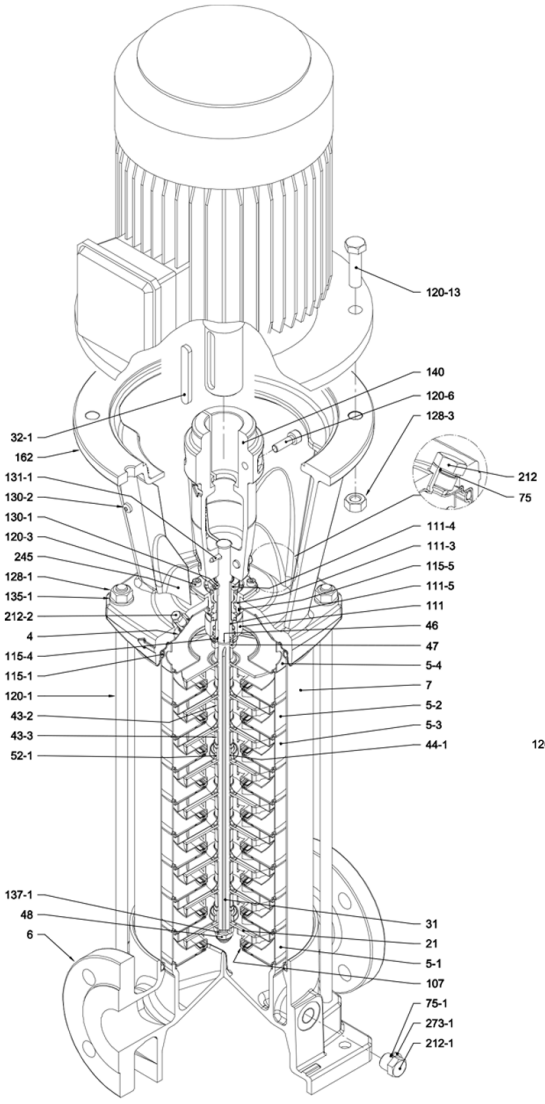
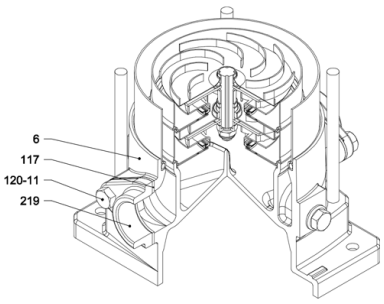


with Round flange (F)



with Oval flange (N)

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Construction

Pump name EVMSG10 16F5HQ1BEGE/7.5

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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-250EN1551		
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)		
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	M10	
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 *	Ø164.46x5.34	OR 6945
115-4	O-Ring (cartridge sleeve)		EPDM / FPM *	Ø15.88x2.62	OR 4093
115-5	O-Ring (seal flange)		EPDM / FPM *	Ø37.77x2.62	OR 4175
117	Flange gasket		EPDM / FPM *		
120-1	Tie-rod		EN 1.4057 (AISI 431)	M12	
120-3	Screw (seal flange)		A2-70	M5x12	ISO 4762
120-6	Screw (pump coupling)	up to 4.0 kW	Galvanized steel	M6x25	ISO 4762
		from 5.5 kw to 7.5 kW		M8x20	ISO 4762
		above 11 kW		M10x30	ISO 4762
120-11	Screw (counterflange)		A2-70		
120-13	Screw for motor	MEC 80	Galvanized steel 8.8 strength class ISO 898/1	M6x20	ISO 4017
		MEC 90-100-112		M8x20	ISO 4017
		MEC 132		M12x40	UNI 5739
		MEC 160		M16x50	ISO 4017
128-1	Nut (tie rod)		A2-70	M12	ISO 4032
128-3	Nut (motor)	MEC 132	Galvanized steel	M12	ISO 4032
		MEC 160		M16	ISO 4032
128-6	Nut (aluminium coupling)	MEC 71-80-90-100-112	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	Ø5x35	ISO 2338
135-1	Washer (tie rod)		EN 1.4301 (AISI 304)	Ø13x24x2.5	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)		
		above 5.5 kW	Cast Iron		
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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Construction

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E-mail	Project ID	Proiect redenumit 2024-06-14 15:41:37	E-mail

Pump Type	N°																												
	4	5-1	5-2	5-3	5-4	6	7	21	31	32-1	43-2	43-3	44-1	46	47	48	52-1	75	75-1	107	111	111-3	111-4	111-5	115-1	115-4	115-5	115-4	115-5
EVMSG10 2/0.75	1	1	/	1	1	1	1	2	1	1	/	2	1	2	1	1	1	1	4	2	1	1	1	1	2	1	1	1	1
EVMSG10 3/1.5	1	1	1	1	1	1	1	3	1	1	1	2	1	2	1	1	1	1	4	3	1	1	1	1	2	1	1	1	1
EVMSG10 4/2.2	1	1	2	1	1	1	1	4	1	1	2	2	1	2	1	1	1	1	4	4	1	1	1	1	2	1	1	1	1
EVMSG10 5/2.2	1	1	3	1	1	1	1	5	1	1	3	2	1	2	1	1	1	1	4	5	1	1	1	1	2	1	1	1	1
EVMSG10 6/2.2	1	1	4	1	1	1	1	6	1	1	4	2	1	2	1	1	1	1	4	6	1	1	1	1	2	1	1	1	1
EVMSG10 7/3.0	1	1	5	1	1	1	1	7	1	1	5	2	1	2	1	1	1	1	4	7	1	1	1	1	2	1	1	1	1
EVMSG10 8/3.0	1	1	6	1	1	1	1	8	1	1	6	2	1	2	1	1	1	1	4	8	1	1	1	1	2	1	1	1	1
EVMSG10 9/4.0	1	1	7	1	1	1	1	9	1	1	7	2	1	2	1	1	1	1	4	9	1	1	1	1	2	1	1	1	1
EVMSG10 10/4.0	1	1	8	1	1	1	1	10	1	1	8	2	1	2	1	1	1	1	4	10	1	1	1	1	2	1	1	1	1
EVMSG10 11/4.0	1	1	9	1	1	1	1	11	1	1	9	2	1	2	1	1	1	1	4	11	1	1	1	1	2	1	1	1	1
EVMSG10 12/5.5	1	1	9	2	1	1	1	12	1	1	9	3	2	2	1	1	2	1	4	12	1	1	1	1	2	1	1	1	1
EVMSG10 14/5.5	1	1	11	2	1	1	1	14	1	1	11	3	2	2	1	1	2	1	4	14	1	1	1	1	2	1	1	1	1
EVMSG10 15/5.5	1	1	12	2	1	1	1	15	1	1	12	3	2	2	1	1	2	1	4	15	1	1	1	1	2	1	1	1	1
EVMSG10 16/7.5	1	1	13	2	1	1	1	16	1	1	13	3	2	2	1	1	2	1	4	16	1	1	1	1	2	1	1	1	1
EVMSG10 18/7.5	1	1	15	2	1	1	1	18	1	1	15	3	2	2	1	1	2	1	4	18	1	1	1	1	2	1	1	1	1
EVMSG10 19/7.5	1	1	16	2	1	1	1	19	1	1	16	3	2	2	1	1	2	1	4	19	1	1	1	1	2	1	1	1	1
EVMSG10 21/7.5	1	1	18	2	1	1	1	21	1	1	18	3	2	2	1	1	2	1	4	21	1	1	1	1	2	1	1	1	1
EVMSG10 22/11	1	1	19	2	1	1	1	22	1	1	19	3	2	2	1	1	2	1	4	22	1	1	1	1	2	1	1	1	1
EVMSG10 23/11	1	1	19	3	1	1	1	23	1	1	19	4	3	2	1	1	3	1	4	23	1	1	1	1	2	1	1	1	1

Pump Type	N°																							
	117*	120-1	120-3	120-6	120-11*	120-13	128-1	128-3	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
EVMSG10 2/0.75	2	4	4	4	4	4	4	/	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4
EVMSG10 3/1.5	2	4	4	4	4	4	4	/	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4
EVMSG10 4/2.2	2	4	4	4	4	4	4	/	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4
EVMSG10 5/2.2	2	4	4	4	4	4	4	/	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4
EVMSG10 6/2.2	2	4	4	4	4	4	4	/	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4
EVMSG10 7/3.0	2	4	4	4	4	4	4	/	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4
EVMSG10 8/3.0	2	4	4	4	4	4	4	/	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4
EVMSG10 9/4.0	2	4	4	4	4	4	4	/	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4
EVMSG10 10/4.0	2	4	4	4	4	4	4	/	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4
EVMSG10 11/4.0	2	4	4	4	4	4	4	/	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4
EVMSG10 12/5.5	2	4	4	4	4	4	4	4	/	3	4	1	4	/	1	2	1	1	4	1	2	2	4
EVMSG10 14/5.5	2	4	4	4	4	4	4	4	/	3	4	1	4	/	1	2	1	1	4	1	2	2	4
EVMSG10 15/5.5	2	4	4	4	4	4	4	4	/	3	4	1	4	/	1	2	1	1	4	1	2	2	4
EVMSG10 16/7.5	/	4	4	4	/	4	4	4	/	3	4	1	4	/	1	2	1	1	4	1	/	2	4
EVMSG10 18/7.5	/	4	4	4	/	4	4	4	/	3	4	1	4	/	1	2	1	1	4	1	/	2	4
EVMSG10 19/7.5	/	4	4	4	/	4	4	4	/	3	4	1	4	/	1	2	1	1	4	1	/	2	4
EVMSG10 21/7.5	/	4	4	4	/	4	4	4	/	3	4	1	4	/	1	2	1	1	4	1	/	2	4
EVMSG10 22/11	/	4	4	4	/	4	4	4	/	3	4	1	4	/	1	2	1	1	4	1	/	2	4
EVMSG10 23/11	/	4	4	4	/	4	4	4	/	3	4	1	4	/	1	2	1	1	4	1	/	2	4

* only for Oval flange (N)
128-6 / 135-6: with Aluminium coupling

(4/4)
Construction

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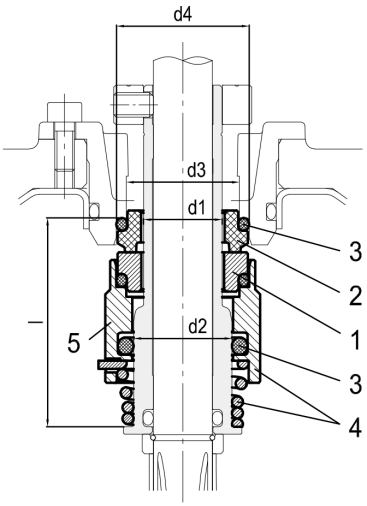

● : Standard

Pump model	Max operating temperature	Shaft seal type		Shaft seal material									Type key
Max operating pressure		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℃ to + 140℃		●	SiC	(Q_1)	Carbon	(B)	EPDM	(E)	AISI 316		(G)	HQ_1BEG

Max operating pressure	d1 [mm]	d2 [mm]	d3 [mm]	d4 [mm]	l [mm]
25 bar	20	24	29	35	45