Technical Data

Pump Name EVMS20 1N5Q1BEGE/1.5

Customer	Date 2024-06-14	Company	
Contact	Item no.	Issued by	
Phone	Project	Phone	
E-mail	Project ID Proiect redenumit 2024-06-14 09:53:20	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	EVMS20 1N5Q1BEGE/1.5	Frequency		Hz	50
10	Design	VERTICAL MULTISTAGE PUMP	Installation type			Oval flange (STANDARD)
11	Manufacturer	EBARA	Impeller Diameter	Max.	mm	113
12	Speed rpm	2850		Designed	mm	113
13	No. of Stage	1		Min.	mm	113
14	Connection Suction side		Flow	Operating	m³/h	
15	Connection Discharge side			Max-	m³/h	28.8
16	Max Working Pressure bar	16		Min-	m³/h	10.8
17	Shut-off head bar	1.67	Head	Operating	m	
18	Total weight kg	See the table of "Dimensions".		- (Qmax.)	m	2.3
19	Shaft power kW			- (Qmin.)	m	14.3
20			Max. Shaft Power at max. impeller		kW	1.25
21	Required pump NPSH m		Efficiency		%	

Materials

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

Motor

28	Manufacturer	ETM	Insulation class		F
29	Type	TEFC_EVMS20 1/1.5_230_Three Phase	Phases		3~
30	Specific design	IE3 / 50 Hz / Pole pairs 1	Frame size		90
31	Rated power kW	1.5	Weight	kg	13.5
32	Number of poles	2	Electric voltage	V	230
33	Speed rpm	2885	Electric current	A	5.8
34	Degree of protection	IP 55			
35					

Remarks

EBARA

Performance Curve

Pump Name EVMS20 1N5Q1BEGE/1.5

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Requested data

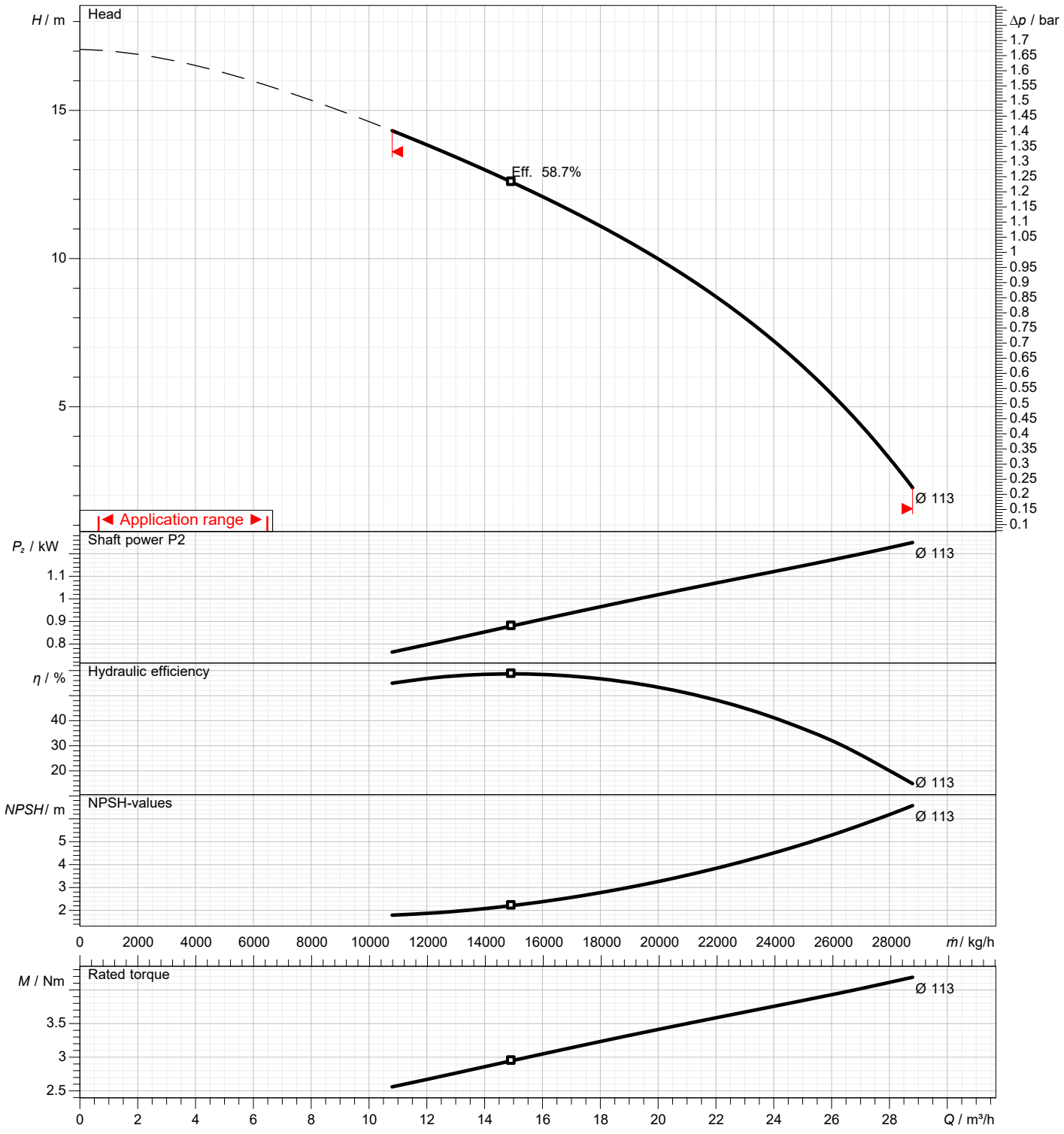
1	Flow	m³/h	
2	Head	m	
3	Geodetic head	m	

Pump

Operating flow	m³/h		Frequency	Hz	50
Operating head	m		Number of poles		2
Impeller diameter designed	mm	113	Speed	rpm	2850

Test standard: ISO 9906:2012 - Grade3B

Water; 20°C; 998.3kg/m³; 1mm²/s



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Dimensions

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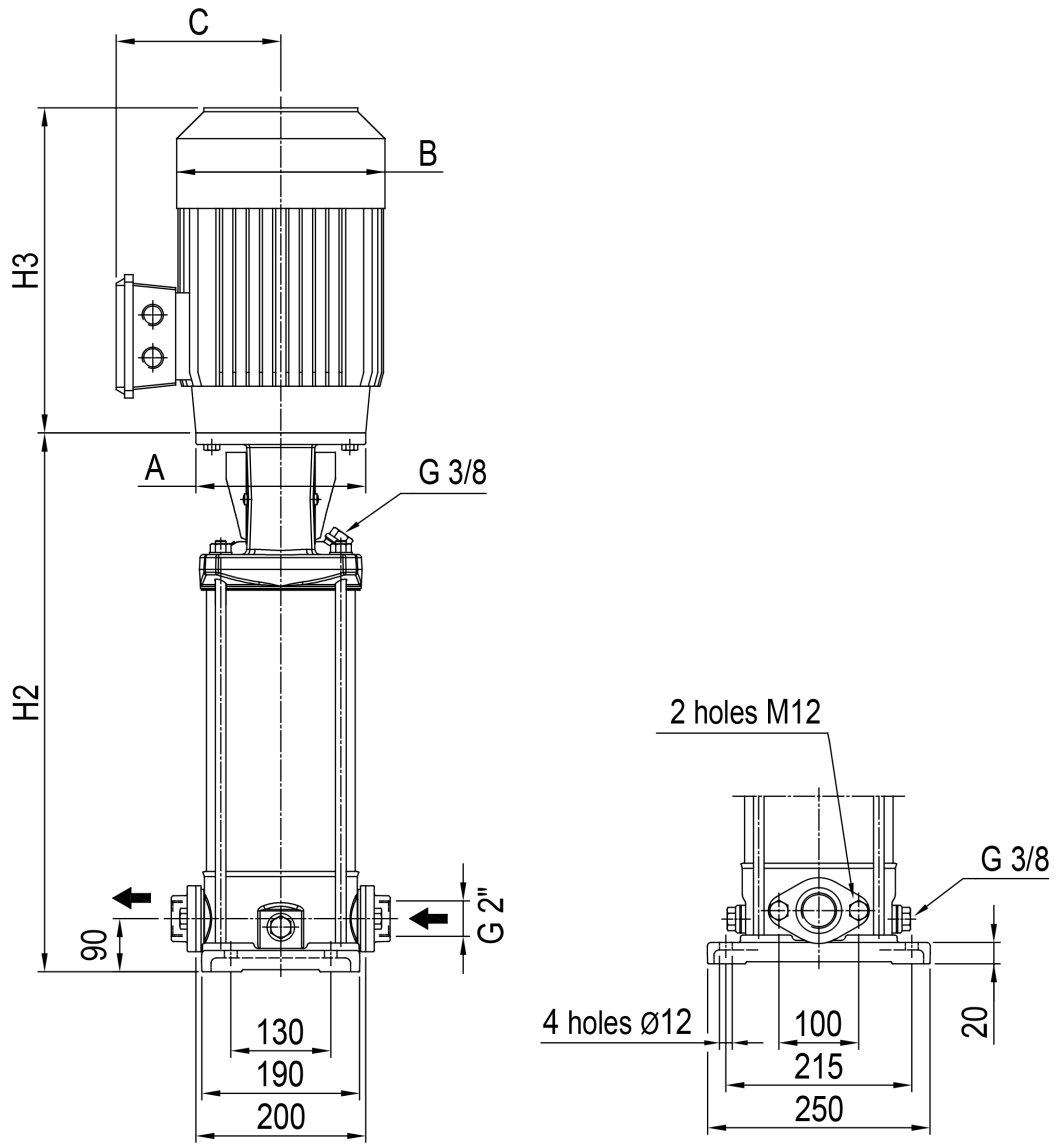
Oval flange (N)



Dimensions in mm

1	A	Dia140
2	B	160
3	C	119
4	H2	387
5	H3	291
6	Weight P&M (kg)	31.7
7		
8		
9		
10		
11		
12		
13		
14		
15		

EBARA

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Construction

Pump name EVMS20 1N5Q1BEGE/1.5

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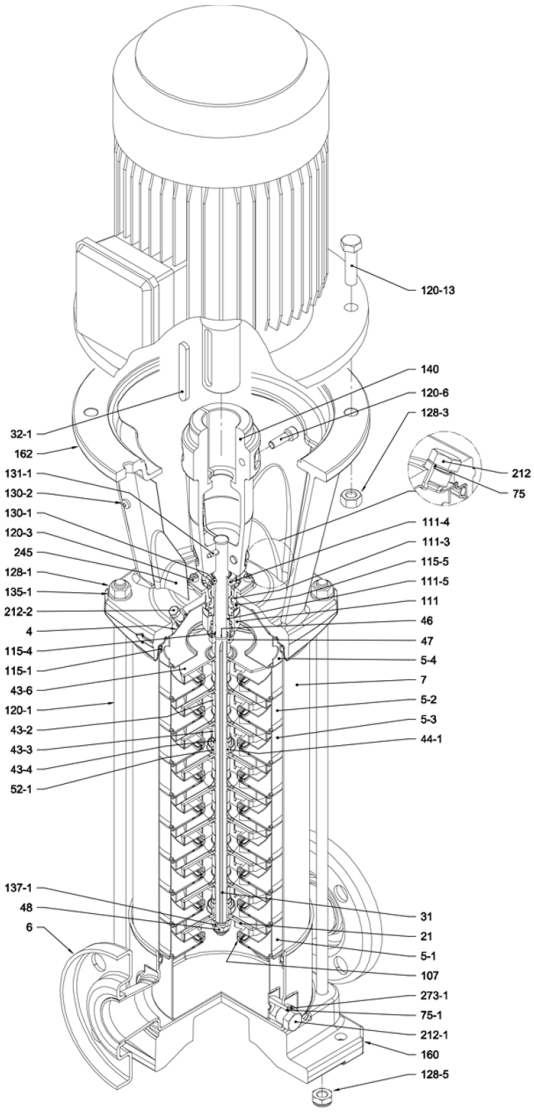
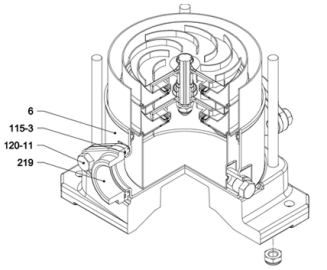
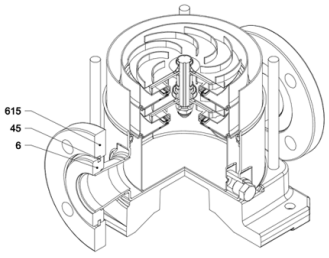
E-mail	Project ID	Proiect redenumit 2024-06-14 09:53:20	E-mail



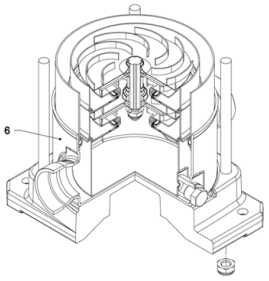
with Round flange (F)



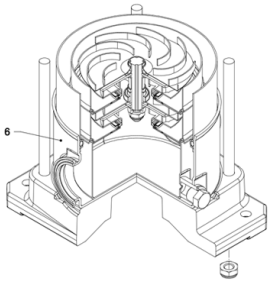
with Oval flange (N)



with Loose round flange (LF)



with Victaulic® connection (V)



with Clamp connection (C)

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Construction

Pump name EVMS20 1N5Q1BEGE/1.5

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E-mail		Project ID	Proiect redenumit 2024-06-14 09:53:20	E-mail	

N°	PART NAME		MATERIAL		DIMENSIONS	STANDARD
			EVMS	EVMSL		
4	Casing cover		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
5-1	Suction casing		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
5-2	Intermediate casing		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
5-3	Intermediate casing with bearing		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
5-4	Discharge casing		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
6	Bottom casing		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
7	Outer casing		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
21	Impeller		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
31	Shaft		EN 1.4301 (AISI 304) - EN 1.4462 (AISI 329A)	EN 1.4404 (AISI 316L) - EN 1.4462 (AISI 329A)		
32-1	Adjuster key		EN 1.4301 (AISI 304)			
43-2	Shaft sleeve (intermediate)		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
43-3	Shaft sleeve (bearing+discharge casing)		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
43-4	Shaft sleeve (adjustment)		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
43-6	Washer		EN 1.4404 (AISI 316L)		Ø26x2.5	
44-1	Shaft sleeve bearing		Tungsten carbide			
45	Flange holder		EN 1.4301 (AISI 304)			
46	Ring (mechanical seal)		EN 1.4404 (AISI 316L)			
47	Ring holder		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
48	Impeller nut		EN 1.4301 (AISI 304) with inox insert	EN 1.4401 (AISI 316) 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	EN 1.4404 (AISI 316L) + PPS		
111	Mechanical seal		- - - **			
111-3	Mechanical seal seat		EN 1.4301 (AISI 304)	EN 1.4401 (AISI 316)		
111-4	Seal holder		EN 1.4301 (AISI 304)			
111-5	Mechanical seal cartridge sleeve		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
115-1	O-Ring (outer casing)		EPDM / FPM *		Ø164.46x5.34	OR 6945
115-3	O-Ring		EPDM / FPM *			
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
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 90-100-112	Galvanized steel 8.8 strength class ISO 898/1		M8x20	ISO 4017
		MEC 132			M12x40	ISO 4017
		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
128-5	Nut (tie rod)		A2-70		M12	UNI 7474
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)	EN 1.4404 (AISI 316L)		
140	Coupling	up to 4.0 kW	Die cast Aluminium EN AB-AISI11 Cu2 (Fe)			
		above 5.5 kW	Cast Iron			
160	Base		Die cast Aluminium EN AB-AISI11 Cu2 (Fe)			
162	Motor bracket		Cast iron EN-GJL-250			
212	Priming plug		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)	G 3/8	
212-1	Drainage plug		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)	G 3/8	
212-2	Venting plug		EN 1.4404 (AISI 316L)			
219	Counter flange		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
245	Coupling guard		EN 1.4301 (AISI 304)			
273-1	Washer (drainage plug)		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
615	Flange		Carbon Steel			

* EPDM (standard)
FPM (option)

** see CONSTRUCTION 4/4

(3/4)
Construction

Pump name EVMS20 1N5Q1BEGE/1.5

Customer		Date	2024-06-14	Company	
Contact		Item no.		Issued by	
Phone		Project		Phone	
E-mail		Project ID	Proiect redenumit 2024-06-14 09:53:20	E-mail	

EVMS(L)20

Pump Type	N°																														
	4	5-1	5-2	5-3	5-4	6	7	21	31***	32-1	43-2	43-3	43-4	43-6	44-1	45**	46	47	48	52-1	75	75-1	107	111	111-3	111-4	111-5	115-1	115-3*	115-4	115-5
EVMS(L)20 1/1.5	1	1	/	1	1	1	1	1	1	1	/	2	1	1	1	4	2	1	1	1	1	2	1	1	1	1	1	2	2	1	1
EVMS(L)20 2/3.0	1	1	/	1	1	1	1	2	1	1	/	2	1	/	1	4	2	1	1	1	1	2	2	1	1	1	1	2	2	1	1
EVMS(L)20 3/4.0	1	1	1	1	1	1	1	3	1	1	1	2	1	/	1	4	2	1	1	1	1	2	3	1	1	1	1	2	2	1	1
EVMS(L)20 4/5.5	1	1	2	1	1	1	1	4	1	1	2	2	1	/	1	4	2	1	1	1	1	2	4	1	1	1	1	2	2	1	1
EVMS(L)20 5/7.5	1	1	3	1	1	1	1	5	1	1	3	2	1	/	1	4	2	1	1	1	1	2	5	1	1	1	1	2	2	1	1
EVMS(L)20 6/7.5	1	1	4	1	1	1	1	6	1	1	4	2	1	/	1	4	2	1	1	1	1	2	6	1	1	1	1	2	2	1	1
EVMS(L)20 7/11	1	1	4	2	1	1	1	7	1	1	4	3	2	/	2	4	2	1	1	2	1	2	7	1	1	1	1	2	2	1	1
EVMS(L)20 8/11	1	1	5	2	1	1	1	8	1	1	5	3	2	/	2	4	2	1	1	2	1	2	8	1	1	1	1	2	2	1	1
EVMS(L)20 9/11	1	1	6	2	1	1	1	9	1	1	6	3	2	/	2	4	2	1	1	2	1	2	9	1	1	1	1	2	2	1	1
EVMS(L)20 10/11	1	1	7	2	1	1	1	10	1	1	7	3	2	/	2	4	2	1	1	2	1	2	10	1	1	1	1	2	/	1	1
EVMS(L)20 11/15	1	1	8	2	1	1	1	11	1	1	8	3	2	/	2	4	2	1	1	2	1	2	11	1	1	1	1	2	/	1	1
EVMS(L)20 12/15	1	1	9	2	1	1	1	12	1	1	9	3	2	/	2	4	2	1	1	2	1	2	12	1	1	1	1	2	/	1	1
EVMS(L)20 13/15	1	1	10	2	1	1	1	13	1	1	10	3	2	/	2	4	2	1	1	2	1	2	13	1	1	1	1	2	/	1	1
EVMS(L)20 14/18.5	1	1	11	2	1	1	1	14	1	1	11	3	2	/	2	4	2	1	1	2	1	2	14	1	1	1	1	2	/	1	1
EVMS(L)20 15/18.5	1	1	12	2	1	1	1	15	1	1	12	3	2	/	2	4	2	1	1	2	1	2	15	1	1	1	1	2	/	1	1
EVMS(L)20 16/18.5	1	1	13	2	1	1	1	16	1	1	13	3	2	/	2	4	2	1	1	2	1	2	16	1	1	1	1	2	/	1	1

Pump Type	N°																														
	120-1	120-3	120-6	120-11*	120-13	128-1	128-3	128-5	128-6	130-1	130-2	131-1	135-1	135-6	137-1	140	160	162	212	212-1	212-2	219*	245	273-1	615**
EVMS(L)20 1/1.5	4	4	4	4	4	4	/	4	4	3	4	1	4	4	1	2	1	1	1	2	1	2	2	2	2
EVMS(L)20 2/3.0	4	4	4	4	4	4	/	4	4	3	4	1	4	4	1	2	1	1	1	2	1	2	2	2	2
EVMS(L)20 3/4.0	4	4	4	4	4	4	/	4	4	3	4	1	4	4	1	2	1	1	1	2	1	2	2	2	2
EVMS(L)20 4/5.5	4	4	4	4	4	4	4	4	/	3	4	1	4	/	1	2	1	1	1	2	1	2	2	2	2
EVMS(L)20 5/7.5	4	4	4	4	4	4	4	4	/	3	4	1	4	/	1	2	1	1	1	2	1	2	2	2	2
EVMS(L)20 6/7.5	4	4	4	4	4	4	4	4	/	3	4	1	4	/	1	2	1	1	1	2	1	2	2	2	2
EVMS(L)20 7/11	4	4	4	4	4	4	4	4	/	3	4	1	4	/	1	2	1	1	1	2	1	2	2	2	2
EVMS(L)20 8/11	4	4	4	4	4	4	4	4	/	3	4	1	4	/	1	2	1	1	1	2	1	2	2	2	2
EVMS(L)20 9/11	4	4	4	4	4	4	4	4	/	3	4	1	4	/	1	2	1	1	1	2	1	2	2	2	2
EVMS(L)20 10/11	4	4	4	/	4	4	4	4	/	3	4	1	4	/	1	2	1	1	1	2	1	/	2	2	2
EVMS(L)20 11/15	4	4	4	/	4	4	4	4	/	3	4	1	4	/	1	2	1	1	1	2	1	/	2	2	2
EVMS(L)20 12/15	4	4	4	/	4	4	4	4	/	3	4	1	4	/	1	2	1	1	1	2	1	/	2	2	2
EVMS(L)20 13/15	4	4	4	/	4	4	4	4	/	3	4	1	4	/	1	2	1	1	1	2	1	/	2	2	2
EVMS(L)20 14/18.5	4	4	4	/	4	4	4	4	/	3	4	1	4	/	1	2	1	1	1	2	1	/	2	2	2
EVMS(L)20 15/18.5	4	4	4	/	4	4	4	4	/	3	4	1	4	/	1	2	1	1	1	2	1	/	2	2	2
EVMS(L)20 16/18.5	4	4	4	/	4	4	4	4	/	3	4	1	4	/	1	2	1	1	1	2	1	/	2	2	2

* only for Oval flange (N)
** only for Loose round flange (LF)
*** ☐ shaft in EN 1.4462 (AISI 329A)
128-6 / 135-6: with Aluminium coupling

EBARA

(4/4)
Construction

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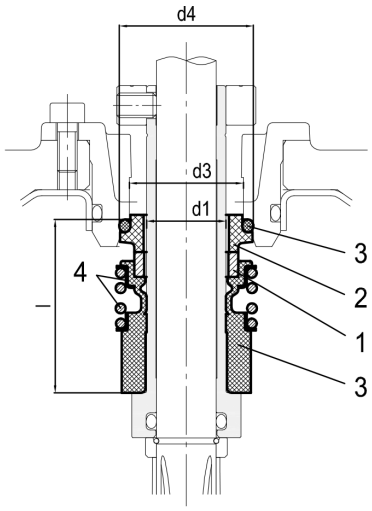

● : Standard

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	
up to 16 bar	- 30℃ to + 120℃	●		SiC	(Q_1)	Carbon	(B)	EPDM	(E)	AISI 316		(G)	Q_1BEG

Max operating pressure	d1 [mm]	d2 [mm]	d3 [mm]	d4 [mm]	l [mm]
16 bar	20	-	29	35	37.5