

# Technical data

Pump name

EVMSG5 11F5Q1BEGE/2.2

Customer	Date 05-April-2018	Company
Contact	Item no. 1.1	Issued by
Phone	Project	Phone
E-mail	Project ID EBARA Pump Selector-2121621	E-mail

## Requested data

1	Pump type	VERTICAL MULTISTAGE PUMP	Fluid	Water, clean
2	Number of pumps / Reserve	1 / 0	Liquid temperature °C	20
3	Flow m³/h	0	Kin. viscosity m²/s	1E-6
4	Head m	0	Vapour pressure MPa	0.0022
5	Static head m	0	PH value	7
6	Inlet pressure MPa	0.01	Density kg/m³	1000
7	Available system NPSH	0	Solids Weight %	0
8	Environmental temperature °C	20	Altitude m	1000

## Pump

9	Pump name	EVMSG5 11F5Q1BEGE/2.2	Frequency Hz	50
10	Design	VERTICAL MULTISTAGE PUMP	Installation type	Round flange
11	Manufacturer	EPE	Impeller	Max. mm 91
12	Speed 1/min	2900	Diameter	Designed mm 91
13	No. of Stage	11		Min. mm 91
14	Connection Suction side		Flow	Operating m³/h
15	Connection Discharge side			Max- m³/h 7.8
16	Max Working Pressure MPa	1.6		Min- m³/h 2.4
17	Shut-off head MPa	1.02	Head	Operating m
18	Total weight kg	See the table of "Dimensions".		- (Qmax.) m 56.1
19	Shaft power kW			- (Qmin.) m 98.9
20			Max. Shaft Power at max. impeller	kW 2.15
21	Required 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_EVMS5 11/2.2_400_Three Phase	Phases	3~
30	Specific design	IE3 / 50 Hz / Pole pairs 1	Frame size	90
31	Rated power kW	2.2	Weight kg	15
32	Number of poles	2	Electric voltage V	400
33	Speed 1/min	2875	Electric current A	4.7
34	Degree of protection	IP 55		
35				

## Remarks

# Performance curve

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## Requested data

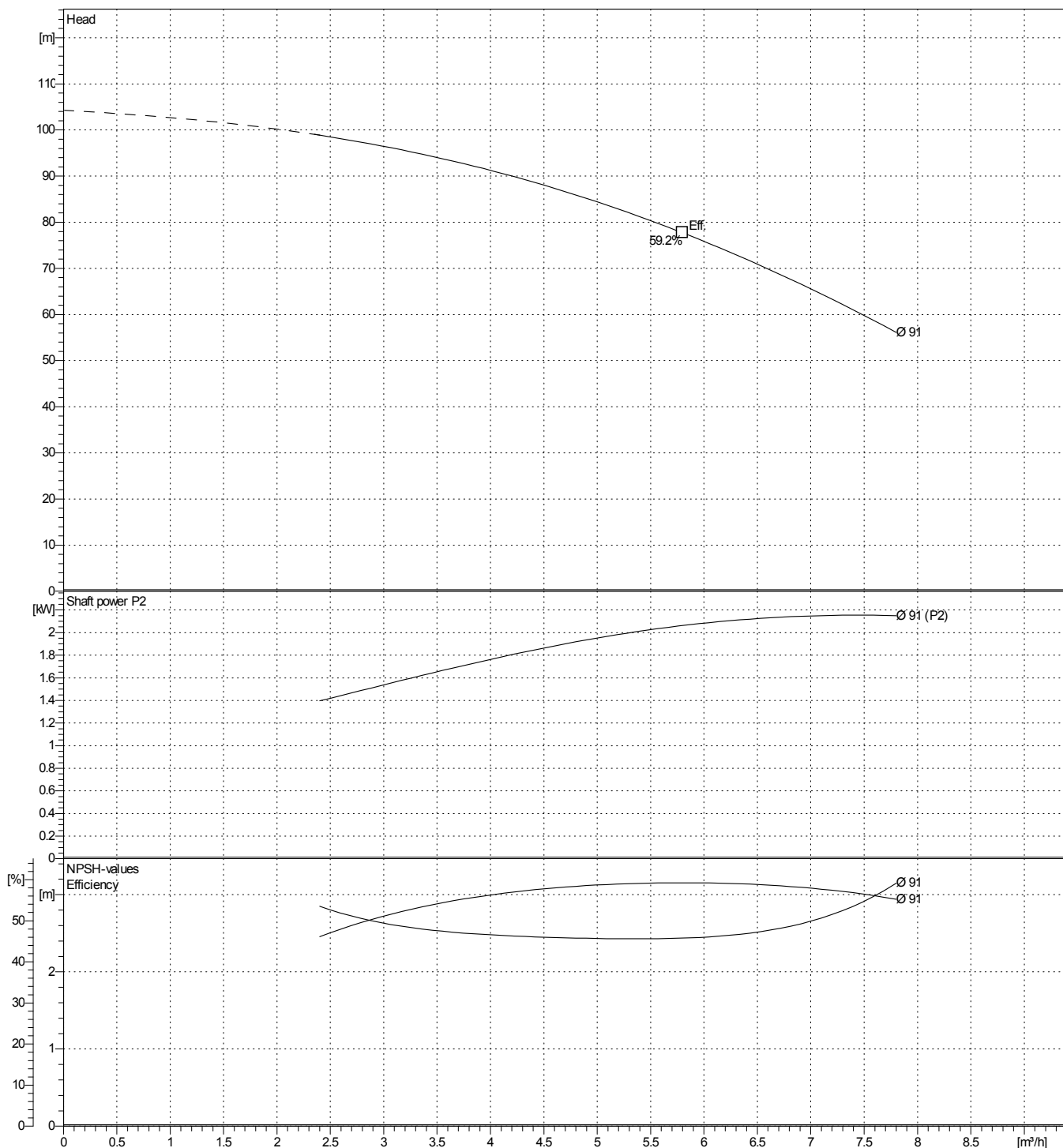
1	Flow	m³/h	0
2	Head	m	0
3	Static head	m	0

## Pump

Operating Flow	m³/h		Frequency	Hz	50
Operating Head	m		Number of poles		2
Impeller Diameter	Designed mm	91	Speed	1/min	

Test standard: ISO 9906:2012 - Grade3B

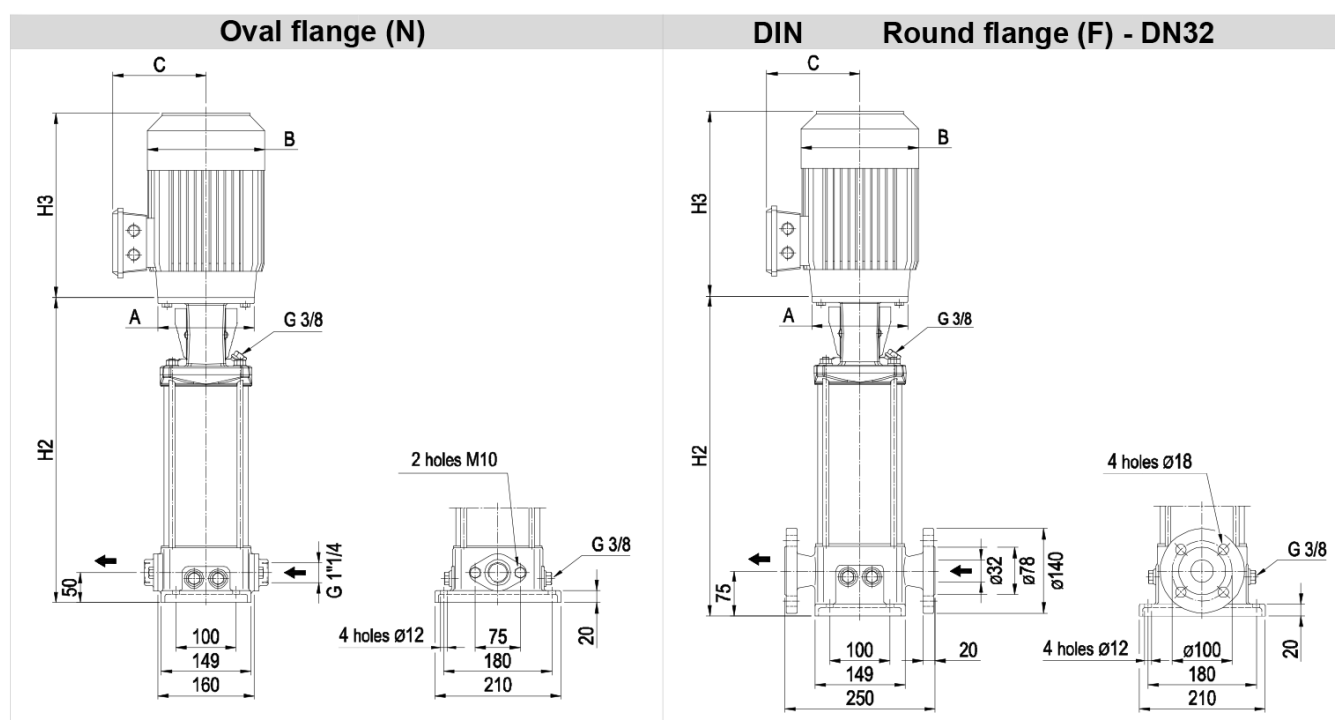
Water, clean [100%] ; 20°C; 998.3kg/m³; 1E-6m²/s



# Dimensions

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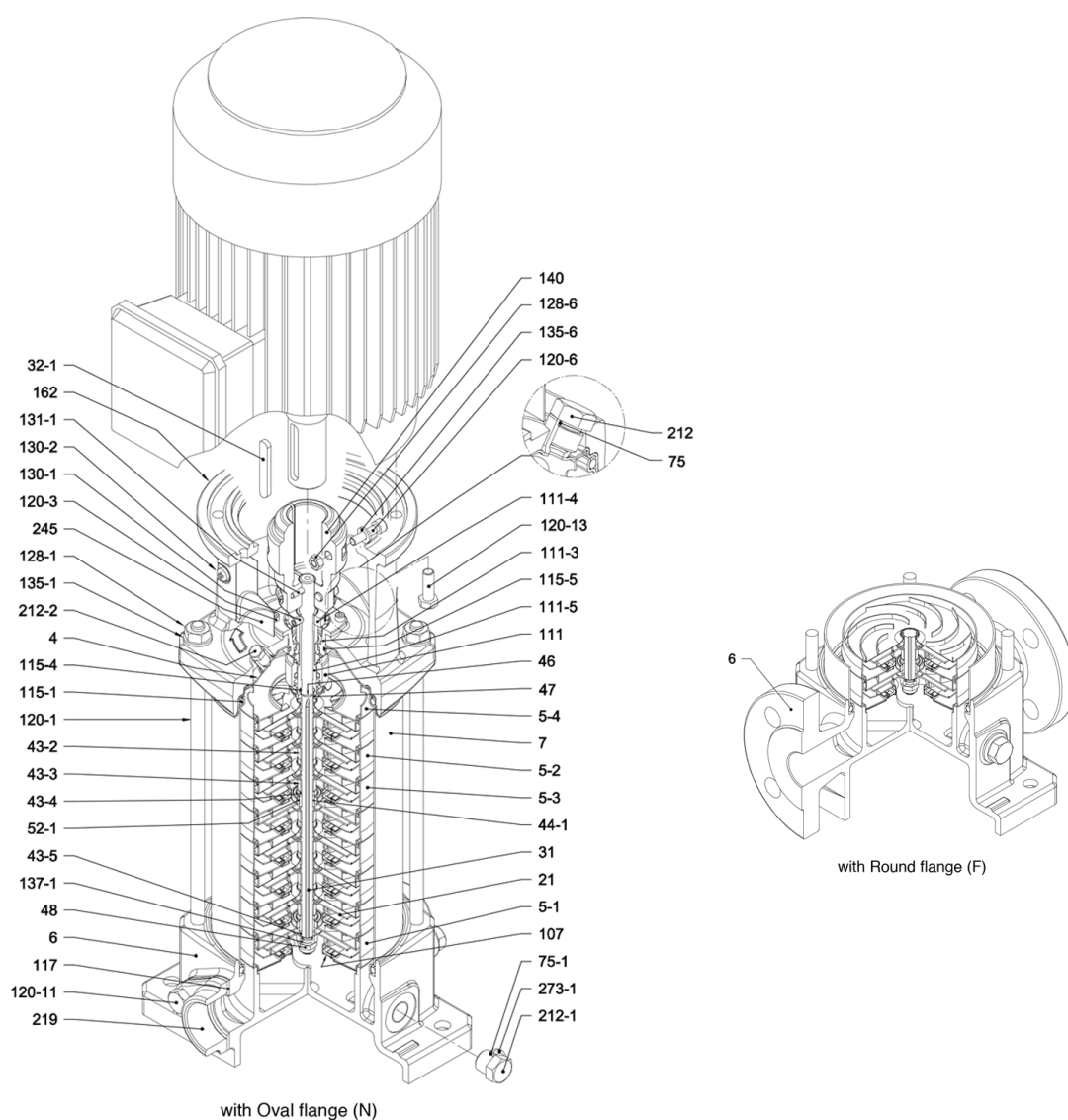


Dimensions in mm							
1	A	Dia140					
2	B	160					
3	C	119					
4	H2	561					
5	H3	291					
6	Weight P&M	37.9kg					

# (1/4) Construction

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# (2/4) Construction

Pump name EVMSG5 11F5Q1BEGE/2.2

Customer	Date 05-April-2018	Company
Contact	Item no.	Issued by
Phone	Project	Phone
E-mail	Project ID EBARA Pump Selector-2121621	E-mail

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 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) - EN 1.4462 (AISI 329A)		
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)		
43-4	Shaft sleeve (adjustment)	EN 1.4404 (AISI 316L)		
43-5	Shaft sleeve (last stage)	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 1.4301 (AISI 304)		
48	Impeller nut	A2-70 UNI 7323 with inox insert	M8	
52-1	Bearing	Tungsten carbide		
75	O-Ring (plug)	EPDM / FPM *	D. 12.37x2.62	OR 3050
75-1	O-Ring (plug)	EPDM / FPM *		
107	Liner ring	EN 1.4301 (AISI 304) + PPS		
111	Mechanical Seal	--- **		
111-3	Mechanical seal seat	EN 1.4301 (AISI 304)		
111-4	Seal holder	EN 1.4301 (AISI 304)		
111-5	Mechanical seal cartridge	EN 1.4301 (AISI 304)		
115-1	O-Ring (outer casing)	EPDM / FPM *	D. 129.54x5.34	OR 6510
115-4	O-Ring (cartridge sleeve)	EPDM / FPM *	D. 11.91x2.62	OR 115
115-5	O-Ring (seal cover)	EPDM / FPM *	D. 32.99x2.62	OR 3131
117	Flange gasket	EPDM / FPM *		
120-1	Tie-rod	Galvanized steel 6.8 strength class ISO 898/1	M10	
120-3	Screw	A2-70 UNI 7323	M4x10	ISO 4762
120-6	Screw for coupling	Galvanized steel	M6x25	ISO 4762
	up to 4.0 kW above 5.5 kW		M8x20	ISO 4762
120-11	Screw for counterflange	A2-70 UNI 7323		
120-13	Screw for motor	Galvanized steel 8.8 strength class ISO 898/1	M6x20	ISO 4017
	MEC 71-80		M8x20	ISO 4017
	MEC 90-100-112 MEC 132		M12x40	ISO 4017
128-1	Nut for tie rod	Galvanized steel	M10	UNI 5588
128-3	Nut (motor)	Galvanized steel	M12	ISO 4032
128-6	Nut for coupling	Galvanized steel	M6	ISO 4032
130-1	Set screw	A2-70 UNI 7323	M5x8	UNI 5923
130-2	Screw for coupling guard	A2-70 UNI 7323	M5x6	UNI 7687
131-1	Pin for shaft	Carbon Steel	D. 4x32	UNI 4838
135-1	Washer	Galvanized steel	D. 10.5x21x2	UNI 6592
135-6	Washer	Carbon Steel	Ø6	
137-1	Impeller spacer	EN 1.4301 (AISI 304)		
140	Coupling	Die cast aluminium EN AB-AISI11Cu2 (Fe)		
	up to 4.0 kW above 5.5 kW	Cast Iron		
162	Motor bracket	Cast iron EN-GJL-200-EN 1561		
212	Plug	EN 1.4301 (AISI 304)	G 3/8	
212-1	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	Plug Washer	EN 1.4301 (AISI 304)		

\* EPDM (standard)

FPM (option)

\*\* see Construction (4/4)

# (3/4) Construction


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E-mail	Project ID EBARA Pump Selector-2121621	E-mail

Pump Type	N°																												
	4	5-1	5-2	5-3	5-4	6	7	21	31****	32-1	43-2	43-3	43-4	43-5	44-1	46	47	48	52-1	75	75-1	107	111	111-3	111-4	111-5	115-1	115-4	115-5
EVMSG5 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
EVMSG5 3/0.55	1	1	1	1	1	1	1	3	1	1	3	1	1	1	1	2	1	1	1	1	4	3	1	1	1	1	2	1	1
EVMSG5 4/0.75	1	1	2	1	1	1	1	4	1	1	5	1	1	/	1	2	1	1	1	1	4	4	1	1	1	1	2	1	1
EVMSG5 5/1.1	1	1	3	1	1	1	1	5	1	1	7	1	1	/	1	2	1	1	1	1	4	5	1	1	1	1	2	1	1
EVMSG5 6/1.5	1	1	4	1	1	1	1	6	1	1	9	1	1	1	1	2	1	1	1	1	4	6	1	1	1	1	2	1	1
EVMSG5 7/1.5	1	1	5	1	1	1	1	7	1	1	11	1	1	/	1	2	1	1	1	1	4	7	1	1	1	1	2	1	1
EVMSG5 8/2.2	1	1	6	1	1	1	1	8	1	1	13	1	1	/	1	2	1	1	1	1	4	8	1	1	1	1	2	1	1
EVMSG5 9/2.2	1	1	7	1	1	1	1	9	1	1	15	1	1	1	1	2	1	1	1	1	4	9	1	1	1	1	2	1	1
EVMSG5 10/2.2	1	1	8	1	1	1	1	10	1	1	17	1	1	/	1	2	1	1	1	1	4	10	1	1	1	1	2	1	1
EVMSG5 11/2.2	1	1	8	2	1	1	1	11	1	1	17	2	2	/	2	2	1	1	2	1	4	11	1	1	1	1	2	1	1
EVMSG5 12/3.0	1	1	9	2	1	1	1	12	1	1	19	2	2	1	2	2	1	1	2	1	4	12	1	1	1	1	2	1	1
EVMSG5 13/3.0	1	1	10	2	1	1	1	13	1	1	21	2	2	/	2	2	1	1	2	1	4	13	1	1	1	1	2	1	1
EVMSG5 14/3.0	1	1	11	2	1	1	1	14	1	1	23	2	2	/	2	2	1	1	2	1	4	14	1	1	1	1	2	1	1
EVMSG5 15/3.0	1	1	12	2	1	1	1	15	1	1	25	2	2	1	2	2	1	1	2	1	4	15	1	1	1	1	2	1	1
EVMSG5 17/4.0	1	1	14	2	1	1	1	17	1	1	29	2	2	/	2	2	1	1	2	1	4	17	1	1	1	1	2	1	1
EVMSG5 19/4.0	1	1	16	2	1	1	1	19	1	1	33	2	2	/	2	2	1	1	2	1	4	19	1	1	1	1	2	1	1
EVMSG5 20/4.0	1	1	17	2	1	1	1	20	1	1	35	2	2	/	2	2	1	1	2	1	4	20	1	1	1	1	2	1	1
EVMSG5 23/5.5	1	1	20	2	1	1	1	23	1	1	41	2	2	/	2	2	1	1	2	1	4	23	1	1	1	1	2	1	1
EVMSG5 25/5.5	1	1	22	2	1	1	1	25	1	1	45	2	2	/	2	2	1	1	2	1	4	25	1	1	1	1	2	1	1
EVMSG5 27/5.5	1	1	23	3	1	1	1	27	1	1	47	3	2	/	3	2	1	1	3	1	4	27	1	1	1	1	2	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		
EVMSG5 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		
EVMSG5 3/0.55	2	4	4	4	4	4	4	/	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4		
EVMSG5 4/0.75	2	4	4	4	4	4	4	/	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4		
EVMSG5 5/1.1	2	4	4	4	4	4	4	/	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4		
EVMSG5 6/1.5	2	4	4	4	4	4	4	/	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4		
EVMSG5 7/1.5	2	4	4	4	4	4	4	/	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4		
EVMSG5 8/2.2	2	4	4	4	4	4	4	/	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4		
EVMSG5 9/2.2	2	4	4	4	4	4	4	/	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4		
EVMSG5 10/2.2	2	4	4	4	4	4	4	/	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4		
EVMSG5 11/2.2	2	4	4	4	4	4	4	/	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4		
EVMSG5 12/3.0	2	4	4	4	4	4	4	/	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4		
EVMSG5 13/3.0	2	4	4	4	4	4	4	/	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4		
EVMSG5 14/3.0	2	4	4	4	4	4	4	/	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4		
EVMSG5 15/3.0	2	4	4	4	4	4	4	/	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4		
EVMSG5 17/4.0	2	4	4	4	4	4	4	/	4	3	4	1	4	4	1	2	1	1	4	1	2	2	4		
EVMSG5 19/4.0	/	4	4	4	/	4	4	/	4	3	4	1	4	4	1	2	1	1	4	1	/	2	4		
EVMSG5 20/4.0	/	4	4	4	/	4	4	/	4	3	4	1	4	4	1	2	1	1	4	1	/	2	4		
EVMSG5 23/5.5	/	4	4	4	/	4	4	4	/	3	4	1	4	/	1	2	1	1	4	1	/	2	4		
EVMSG5 25/5.5	/	4	4	4	/	4	4	4	/	3	4	1	4	/	1	2	1	1	4	1	/	2	4		
EVMSG5 27/5.5	/	4	4	4	/	4	4	4	/	3	4	1	4	/	1	2	1	1	4	1	/	2	4		

\* only for Oval flange (N)

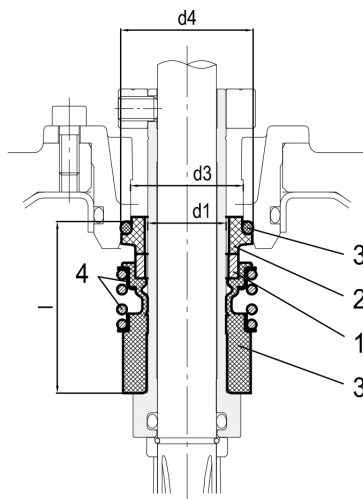
\*\*\*  shaft in EN 1.4462 (AISI 329A)

128-3: only for motor up to 5.5 kW

# (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°C to + 120°C	●		SiC	(Q1)	Carbon	(B)	EPDM	(E)	AISI 316		(G)	Q1BEG	

Max operating pressure	d1	d2	d3	d4	l
	[mm]	[mm]	[mm]	[mm]	[mm]
16 bar	16	-	23	27	35