

# Technical Data

Pump Name

3S 40-160/7.56

Customer	Date	2024-06-20	Company
Contact	Item no.		Issued by
Phone	Project		Phone
E-mail	Project ID	Proiect redenumit 2024-06-20 14:51:28	E-mail

## Requested data

1	Pump type	CENTRIFUGAL PUMPS	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	Density	kg/m³ 998.3
7	Available system NPSH		Solids	Weight % 0
8	Ambient temperature	°C 20		

## Pump

9	Pump Name	3S 40-160/7.56	Frequency	Hz	60
10	Design	CENTRIFUGAL PUMPS	Installation type		STANDARD
11	Manufacturer	EBARA	Impeller Diameter	Max.	mm 166
12	Speed	rpm 3480		Designed	mm 166
13	No. of Stage	1		Min.	mm 166
14	Connection	Suction side DIN 2532	Flow	Operating	m³/h
15	Connection	Discharge side DIN 2532		Max-	m³/h 50
16	Max Working Pressure	bar 10		Min-	m³/h 12
17	Shut-off head	bar 5.58	Head	Operating	m
18	Total weight	kg See the table of "Dimensions".		- (Qmax.)	m 38.0
19	Shaft power	kW		- (Qmin.)	m 56.2
20			Max. Shaft Power at max. impeller	kW	7.24
21	Required pump NPSH	m	Efficiency	%	

## Materials

22	Impeller	AISI 304		
23	Casing	AISI 304		
24	Shaft	AISI 304		
25				
26				
27				

## Motor

28	Manufacturer	LAFERT	Insulation class	F
29	Type	TEFC_3S 40-160/7.56_460_Three Phase	Phases	3~
30	Specific design	IE2 / 60 Hz / Pole pairs 1	Frame size	
31	Rated power	kW 7.5	Weight	kg
32	Number of poles	2	Electric voltage	V 460
33	Speed	rpm 3500	Electric current	A 11.4
34	Degree of protection	IP 55		
35				

## Remarks

# Performance Curve

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## Requested data

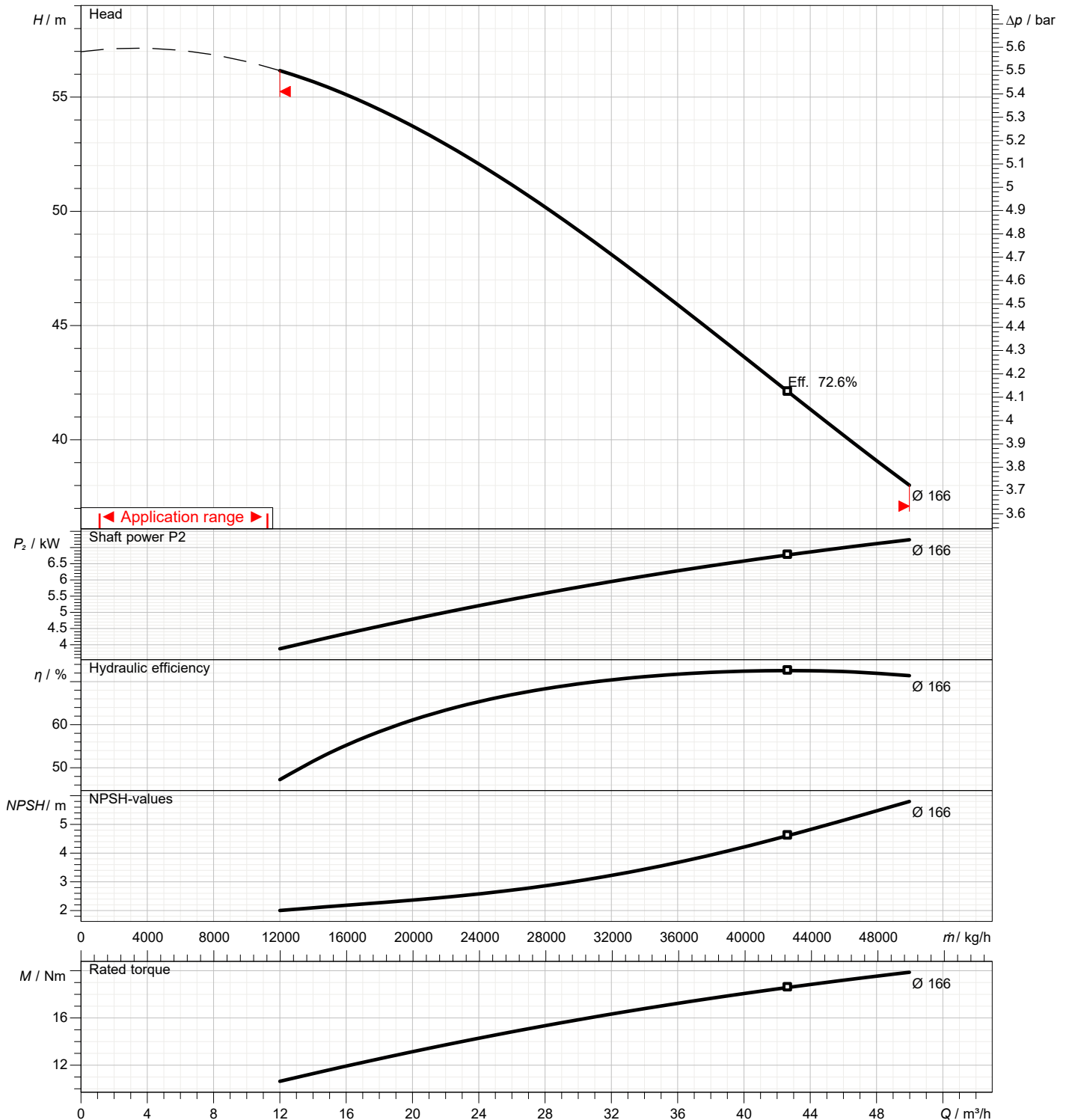
1	Flow	m³/h	
2	Head	m	
3	Geodetic head	m	

## Pump

Operating flow	m³/h		Frequency	Hz	60
Operating head	m		Number of poles		2
Impeller diameter designed	mm	166	Speed	rpm	3480

Test standard: ISO 9906:2012 - Grade3B

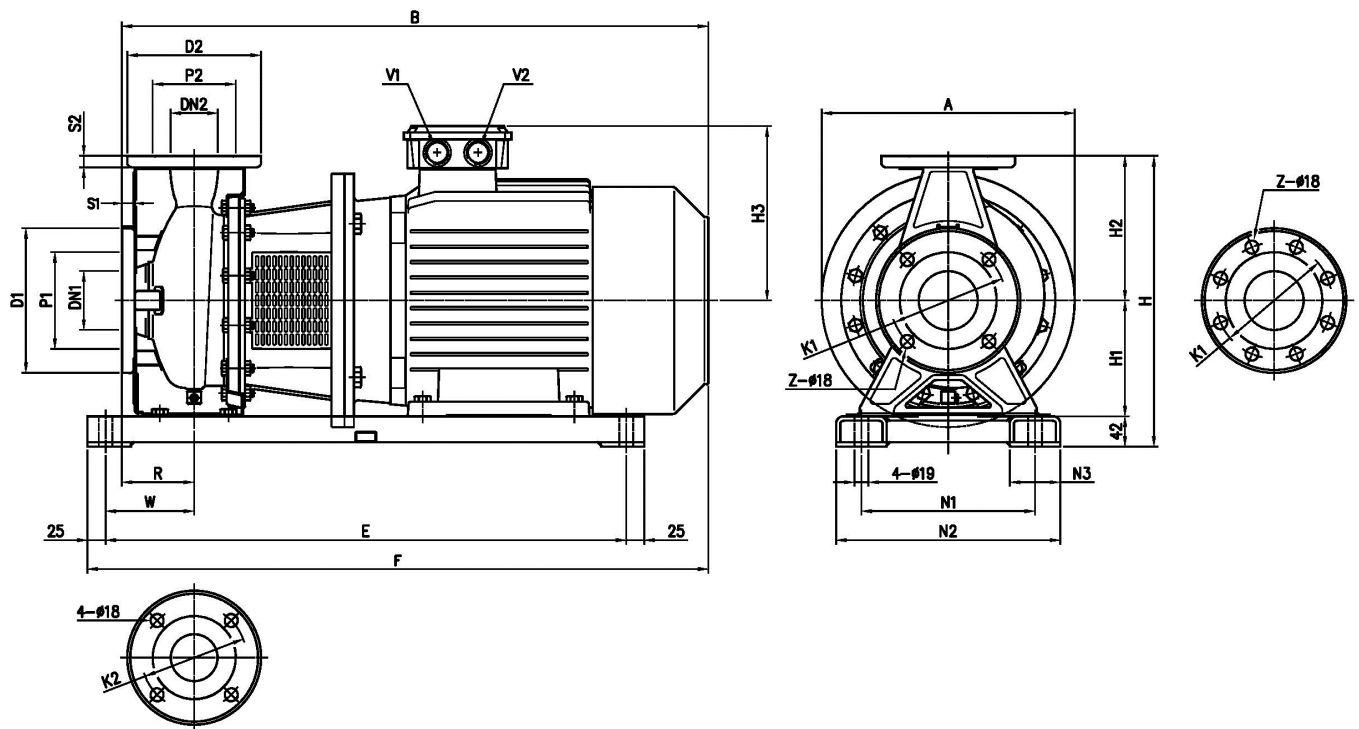
Water; 20°C; 998.3kg/m³; 1mm²/s



# Dimensions

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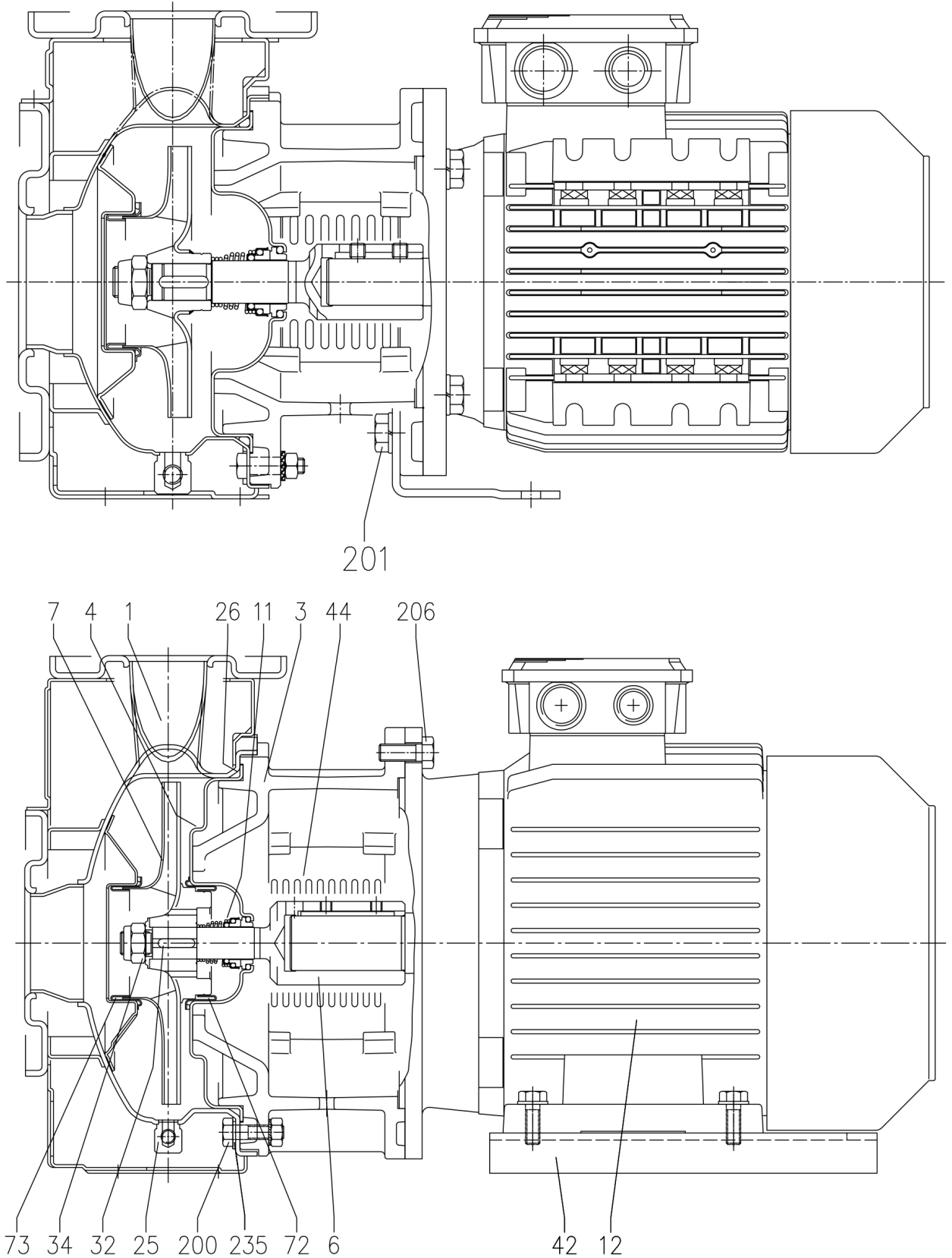
Dimensions in		mm	
1	A	300	H3 198
2	B	607	N1 210
3	Dia D1	185	N2 270
4	Dia D2	150	N3 60
5	Dia DN1	65	R 80
6	Dia DN2	40	S1 16
7	Dia K1	145	S2 14
8	Dia K2	110	V1 M32x1,5
9	Dia P1	115	V2 M32x1,5
10	Dia P2	80	W 110
11	E	600	Weight P&M 81 kg
12	F	661	Z 4
13	H	334	
14	H1	132	
15	H2	160	

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# Construction

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N°	PART NAME	MATERIAL		DIMENSIONS	STANDARD	Q.TY	
		3S	3LS				
1	Casing	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1	
3	Motor bracket	Cast iron EN-GJL-200-EN 1561				1	
4	Casing cover	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1	
6	Coupling - Part in contact with liquid	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1	
7	Impeller	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1	
11	Mechanical seal [4]	-	-			1	
12	Motor	-				1	
25	Draing plug	EN 1.4401 (AISI 316) / PTFE		R 1/8" L=8	DIN 906	1	
26	O-ring [5]	NBR/FPM/EPDM	FPM/EPDM	158.11x5.34	OR 6625	1	
				183.52x5.34	OR 6720		
				227.96x5.34	OR 6895		
32	Key	Up to 11 kW 15 kW and above	EN 1.4401 (AISI 316)	6x6x25	UNI 6604	1	
				8x7x30			
34	Impeller nut	Up to 11kW 15 kW and above	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)	M16x1.5	UNI 7474	1
					M20x1.5		
42	Foot	Aluminium / Zinc-coated steel				1	
44	Protection	EN 1.4301 (AISI 304)			EBARA DRAWING	1	
72	Casing ring [1]	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1	
73	Casing ring	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1	
200	Screw	32-125, 40-125 32-160, 32-200, 40-160, 40-200, 50-125, 50-160	Stainless steel A2 70 class ISO 3506/1	M8x30	UNI 5739	8	
				M10x35	UNI 5739	[2]	
201	Screw		Zn. Steel 8.8 strenght class ISO 898/1	M10x16	UNI 5739	[3]	
206	Screw for bracket		Zn. Steel 8.8 strenght class ISO 898/1	M10x40	UNI 5739	4	
235	Washer	32-125, 40-125 32-160, 32-200, 40-160, 40-200, 50-125, 50-160	Stainless steel A2 70 class ISO 3506/1	M8.4x17	UNI 6592	8	
				M10.5x21	UNI 6592	[2]	

[1] Only for version 32-200, 40-200, 50-160

[2] Quantity = 10 for 32-160, 40-160, 50-125

Quantity = 12 for 32-200, 40-200, 50-160

[3] Only for version 32-125, 32-160, 40-125

[4] See **CONSTRUCTION 3**

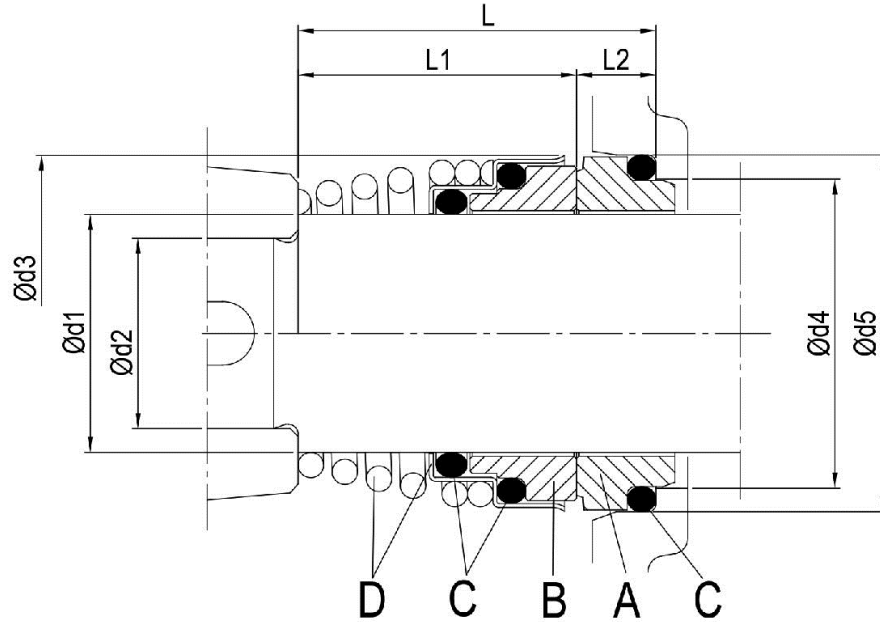
[5] See **CONSTRUCTION 3**, "O-ring" column

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Pump type	Dimensions [mm]								Material Standard			
	d1	d2	d3	d4	d5	L	L1	L2	A Stationary seal ring	B Rotary seal ring	C O-ring	D Frame + spring
32-125/160/200 40-125/160/200 50-125/160 65-125 65-160/7.56-9.26-116	22	19	38	31	37	37.5	27.5	10	Carbon	Ceramic	NBR	EN 1.4301 (AISI 304)