

Technical data

Pump name

3D 40-160/4.0

Customer	Date 2021-05-13	Company
Contact	Item no.	Issued by
Phone	Project	Phone
E-mail	Project ID	E-mail

Requested data

1	Pump type	CENTRIFUGAL PUMP	Fluid	Water
2	Number of pumps / Reserve	1 / 0	Liquid temperature	°C 20
3	Flow m³/h		Kin. viscosity	cSt 1.005
4	Head m		Vapour pressure	kPa 2.34
5	Geodetic head m		PH value	
6	Inlet pressure (pin) kPa	0	Density	kg/m³ 998.3
7	Available system NPSH		Solids	Weight % 0
8	Ambient temperature °C	20		

Pump

9	Pump name	3D 40-160/4.0	Frequency	Hz 50
10	Design	CENTRIFUGAL PUMP	Installation type	STANDARD
11	Manufacturer	EBARA	Impeller Diameter	Max. mm 166
12	Speed rpm	2900		Designed mm 166
13	No. of Stage	1		Min. mm 166
14	Connection Suction side	EN 1092-2	Flow	Operating m³/h
15	Connection Discharge side	EN 1092-2		Max- m³/h 42
16	Max Working Pressure kPa	1000		Min- m³/h 12
17	Shut-off head kPa	379.97	Head	Operating m
18	Total weight kg	See the table of "Dimensions".		- (Qmax.) m 27.0
19	Shaft power kW			- (Qmin.) m 37.2
20			Max. Shaft Power at max. impeller	kW 4.03
21	Required pump NPSH m		Efficiency	%

Materials

22	Impeller	AISI 304		
23	Casing	Cast iron		
24	Shaft	AISI 304 (wet extension)		
25				
26				
27				

Motor

28	Manufacturer	EPE Standard	Insulation class	F
29	Type	TEFC_3D 40-160/4.0_230_Three Phase	Phases	3~
30	Specific design	IE3 / 50 Hz / Pole pairs 1	Frame size	
31	Rated power kW	4	Weight	kg
32	Number of poles	2	Electric voltage	V 230
33	Speed rpm	2900	Electric current	A 15.1
34	Degree of protection	IP 55		
35				

Remarks

Performance curve

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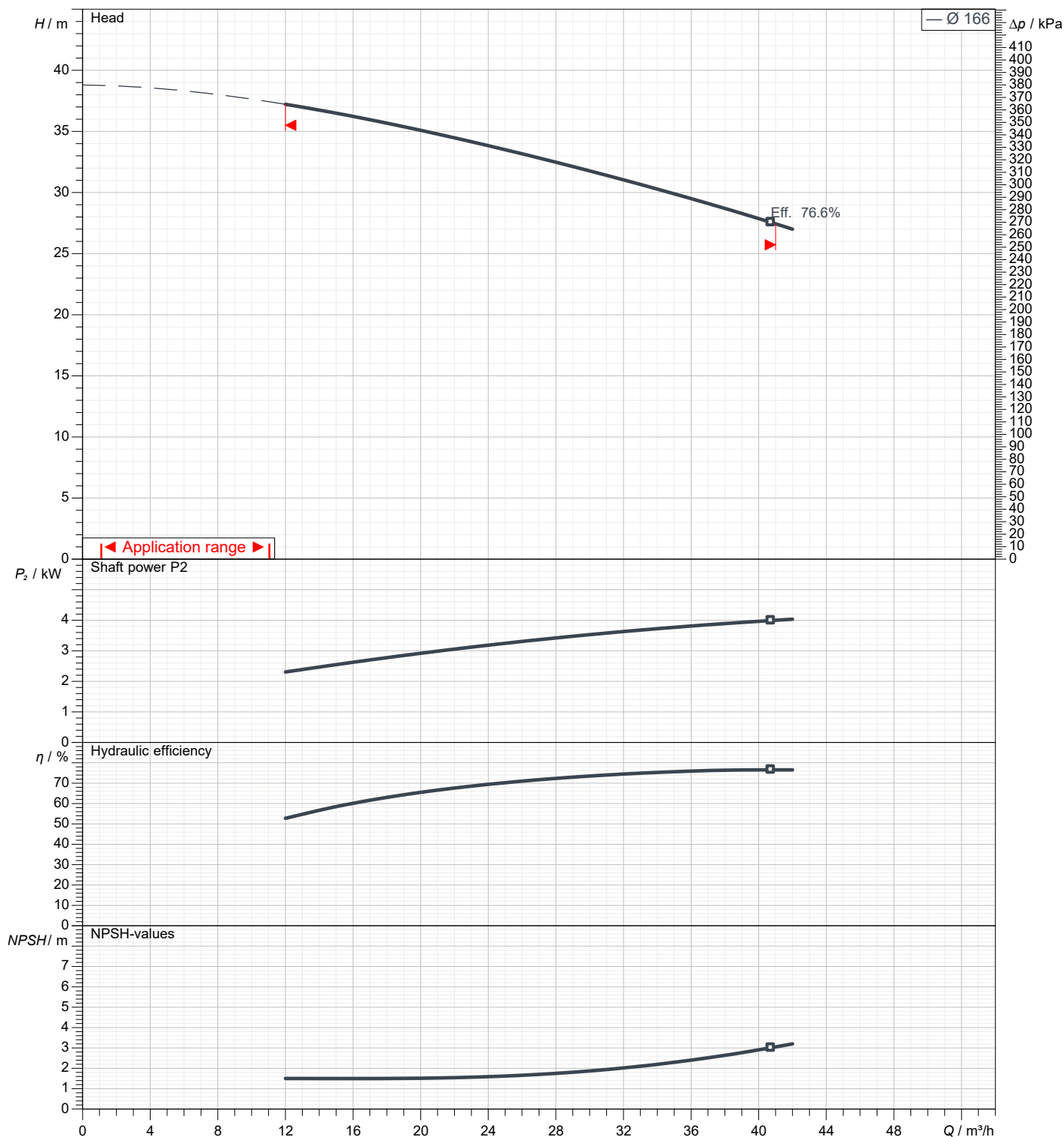
1	Flow	m³/h	
2	Head	m	
3	Geodetic head	m	

Pump

Operating Flow	m³/h		Frequency	Hz	50
Operating Head	m		Number of poles		2
Impeller Diameter Designed	mm	166	Speed	rpm	2900

Test standard: ISO 9906:2012 - Grade3B

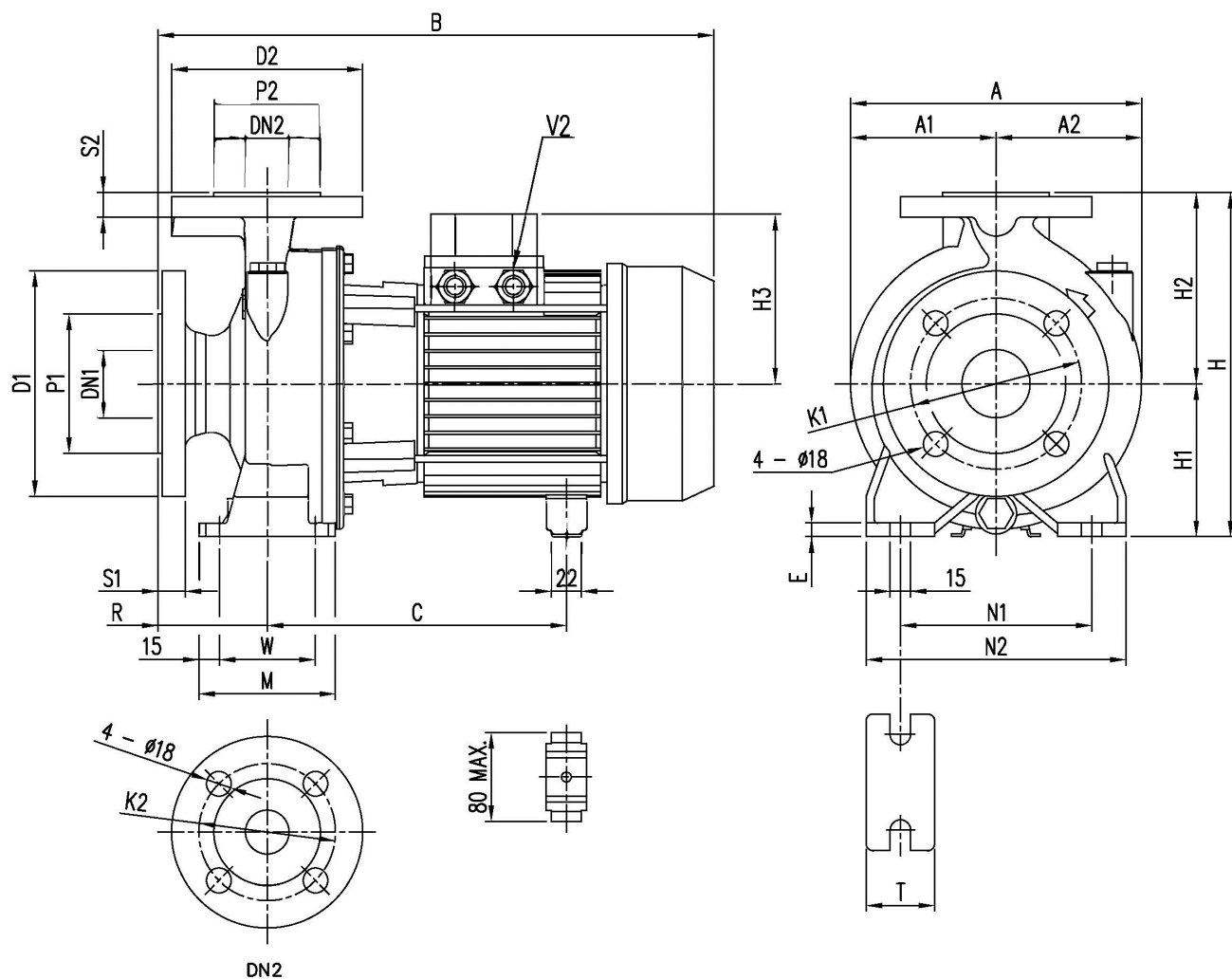
Water; 20°C; 998.3kg/m³; 1cSt



Dimensions

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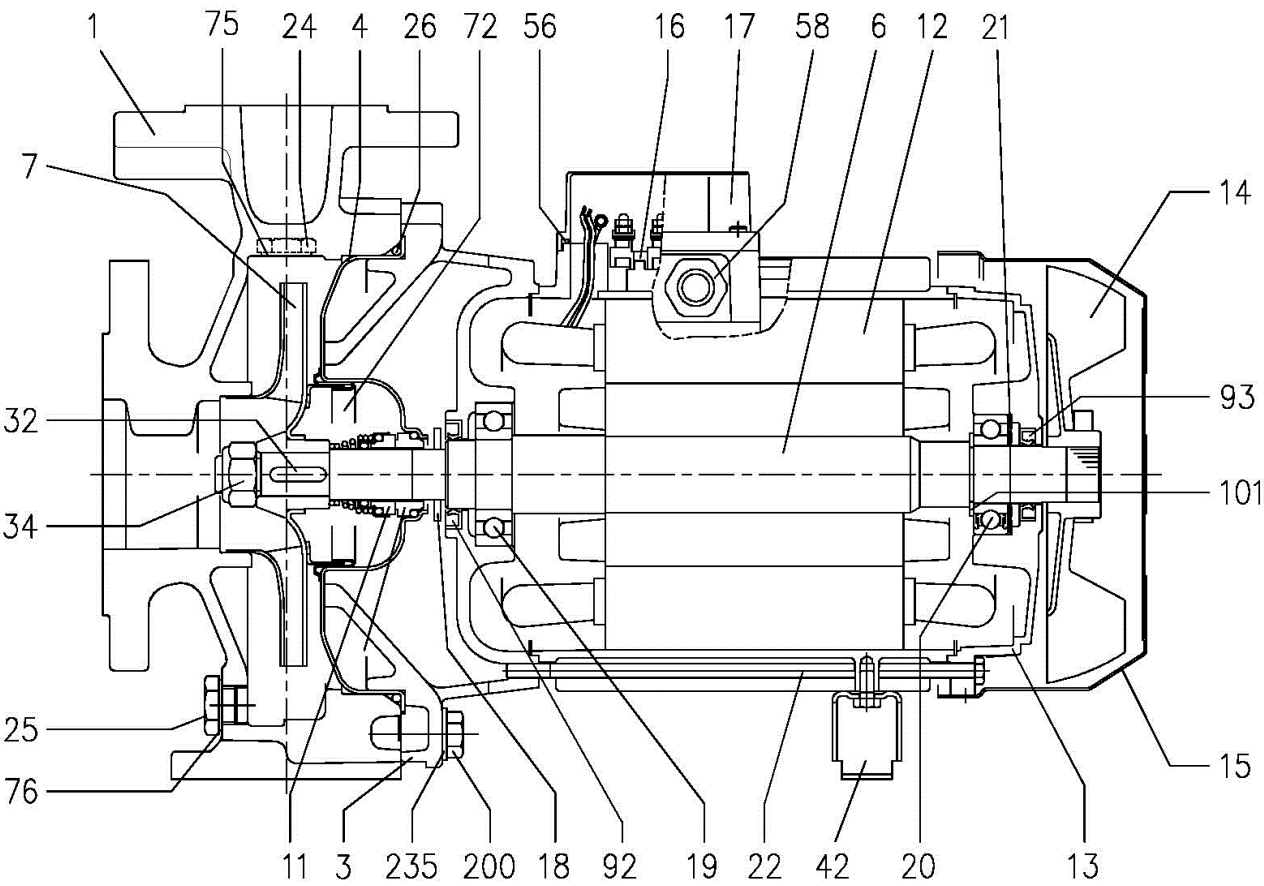


Dimensions in		mm						
1	A	254	H1	132				
2	A1	127	H2	160				
3	A2	127	H3	141				
4	B	494	M	100				
5	C	253	N1	190				
6	Dia D1	185	N2	240				
7	Dia D2	150	R	80				
8	Dia DN1	65	S1	20				
9	Dia DN2	40	S2	18				
10	Dia K1	145	T	50				
11	Dia K2	110	V2	M20X1,5				
12	Dia P1	122	W	70				
13	Dia P2	88	Weight P&M	48 kg				
14	E	12						
15	H	292						

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Construction

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N°	PART NAME	MATERIAL	DIMENSIONS	STANDARD	Q.TY
1	Casing	Cast iron EN-GJL-250-EN 1561			1
3	Motor bracket [1]	-			1
4	Casing cover	EN 1.4301 (AISI 304)			1
6	Shaft with rotor - Wet extension	EN 1.4301 (AISI 304)			1
7	Impeller [2]	-			1
11	Mechanical seal [3]	-			1
12	Motor frame with stator	-			1
13	Motor cover	Aluminium			1
14	Fan	PA			1
15	Fan cover	Fe P04 Galvanized			1
16	Terminal	-			1
17	Terminal box cover	Aluminium (three phase version)			1
18	Splash ring Up to 11 kW	NBR	40x21.5x2	EBARA DRAWING	1
19	Bearing [10]	-			1
20	Bearing [10]	-			1
21	Adjusting ring	Steel C70			1
22	Tie rod Up to 3 kW For 4 - 5.5 - 7.5 kW 9.2 e 11 kW	Fe 42 Galvanized	M5 M6 M8	EBARA DRAWING	4
24	Priming plug	Brass	G 3/8" L=8		1
25	Draing plug	Brass	G 3/8" L=8		1
26	O-ring 32-125, 40-125 32-160, 40-160, 50-125, 65-125 32-200, 40-200, 50-160, 50-200/9.2, 50-200/11, 65-160/7.5, 65-160/9.2, 65-160/11 [4]	NBR/FPM/EPDM	158.11x5.34 183.52x5.34 227.96x5.34	OR 6625 OR 6720 OR 6895	1
32	Key Up to 11 kW	EN 1.4401 (AISI 316)	A 6x6x25	UNI 6604	1
34	Impeller nut Up to 11 kW	EN 1.4301 (AISI 304)	M16x1.5	UNI 7474	1
42	Foot	Aluminium / Galvanized steel		EBARA DRAWING	1
56	Box gasket	NBR			1
58	Cable gland	-			1
72	Casing ring [5]	EN 1.4301 (AISI 304)			1
75	Washer	Aluminium	22x17x1.5	EBARA DRAWING	1
76	Washer	Aluminium			1
92	Lip seal Up to 3 kW From 4 to 7.5 kW From 9.2 kW to 11 kW	-	25x40x7 30x47X7 40x55x7	DIN 3760 without spring	1
93	Lip seal Up to 4 kW From 5.5 kW to 7.5 kW From 9.2 kW to 11 kW	-	25x40x7 30x47X7 40x55x7	DIN 3760 without spring	1
101	Snap ring [6]	Carbon tool steels TC 80	Ø 40	UNI 7435	1
200	Screw 32-125, 40-125 32-160, 40-160, 50-125, 65-125 32-200, 40-200, 50-160, 50-200/9.2, 50-200/11, 65-160/7.5, 65-160/9.2, 65-160/11	Gv. Steel 8.8 strenght class ISO 898-1	M 8x30 M 10x35	UNI 5739	8 10 12
235	Washer 32-125, 40-125 32-160, 40-160, 50-125, 65-125 32-200, 40-200, 50-160, 50-200/9.2, 50-200/11, 65-160/7.5, 65-160/9.2, 65-160/11	Galvanized Steel	8.4x17 10.5x21	UNI 6592	8 10 12

- [1] Cast iron EN-GJL-200-EN 1561 for 3D 32-200/3
Aluminum AL-EN-1706-AC-46000-D for all the others
- [2] EN 1.4301 (AISI 304) for 32, 40, 50 series
EN 1.4401 (AISI 316) for 65 series
- [3] See **CONSTRUCTION 3**
- [4] See **CONSTRUCTION 3**, "O-ring" column
- [5] Only for: 32-200, 40-200, 50-160, 50-200/9.2, 50-200/11
- [6] Only for pumps with 9.2 and 11 kW motor

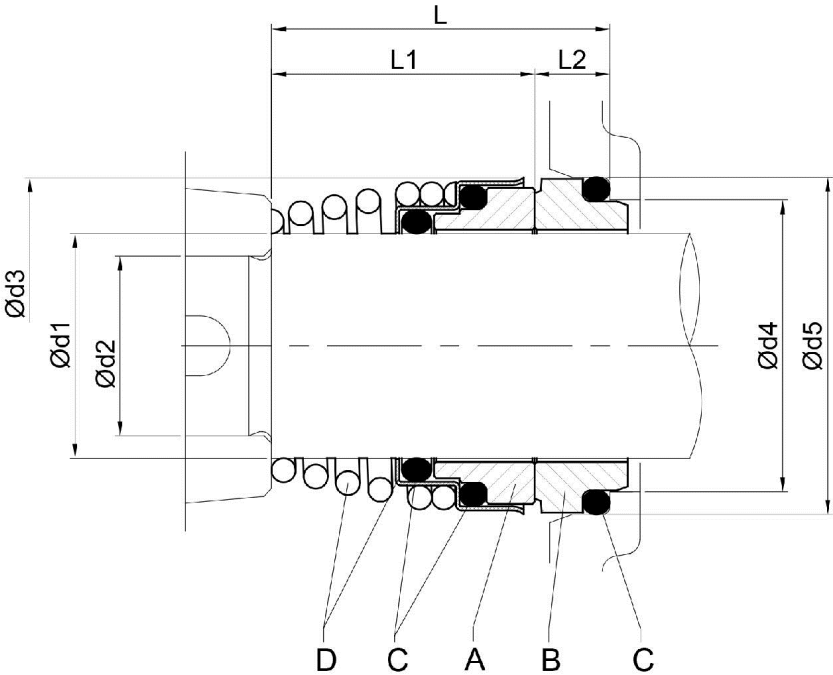
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Construction

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Pump type	Dimensions [mm]								Material			
	d1	d2	d3	d4	d5	L	L1	L2	A Rotary seal ring	Standard B Stationary seal ring	C O-ring	D Frame + Spring
32-125/160/200 40-125/160/200 50-125/160/200 65-125 65-160/7.5-9.2-11	22	19	38	31	37	37.5	27.5	10	Ceramic	Carbon	NBR	EN 1.4301 (AISI 304)