

Technical data

Pump name

3D 32-160/2.2

Customer	Date	2021-05-12	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 m ³ /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/m ³ 998.3
7	Available system NPSH		Solids	Weight % 0
8	Ambient temperature °C	20		

Pump

9	Pump name	3D 32-160/2.2	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 m ³ /h
15	Connection Discharge side	EN 1092-2		Max- m ³ /h 20
16	Max Working Pressure kPa	1000		Min- m ³ /h 6
17	Shut-off head kPa	359.40	Head	Operating m
18	Total weight kg	See the table of "Dimensions".		- (Qmax.) m 25.5
19	Shaft power kW			- (Qmin.) m 35.4
20			Max. Shaft Power at max. impeller	kW 2.25
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_3D32-160/2.2M_230_Single Phase	Phases	1~
30	Specific design	- / 50 Hz / Pole pairs 1	Frame size	
31	Rated power kW	2.2	Weight	kg
32	Number of poles	2	Electric voltage	V 230
33	Speed rpm	2900	Electric current	A 13.3
34	Degree of protection	IP 55		
35				

Remarks

Performance curve

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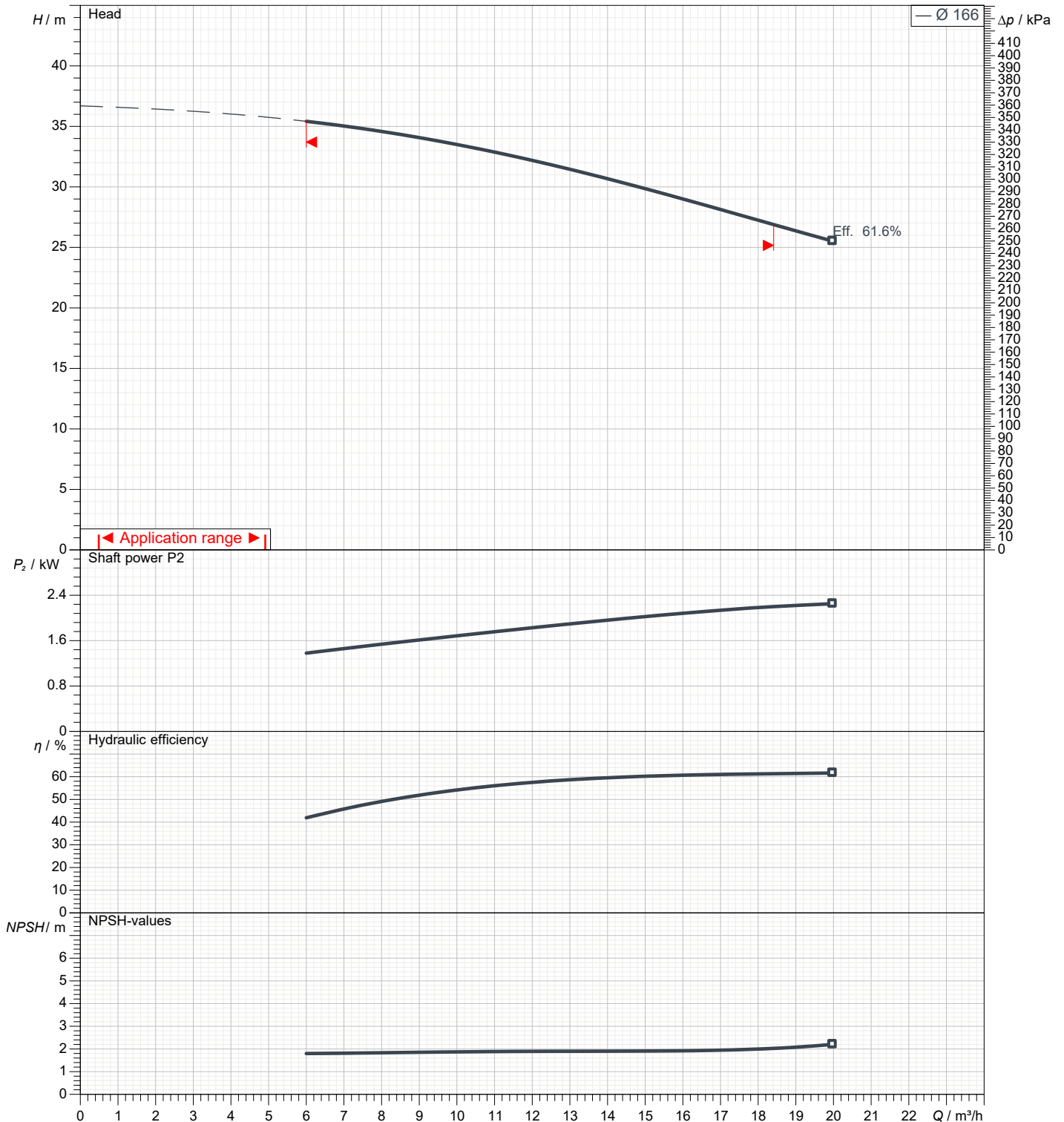
1	Flow	m ³ /h	
2	Head	m	
3	Geodetic head	m	

Pump

Operating Flow	m ³ /h	Frequency	Hz	50
Operating Head	m	Number of poles		2
ImpellerDiameter Designed	mm	166	Speed	rpm 2900

Test standard: ISO 9906:2012 - Grade3B

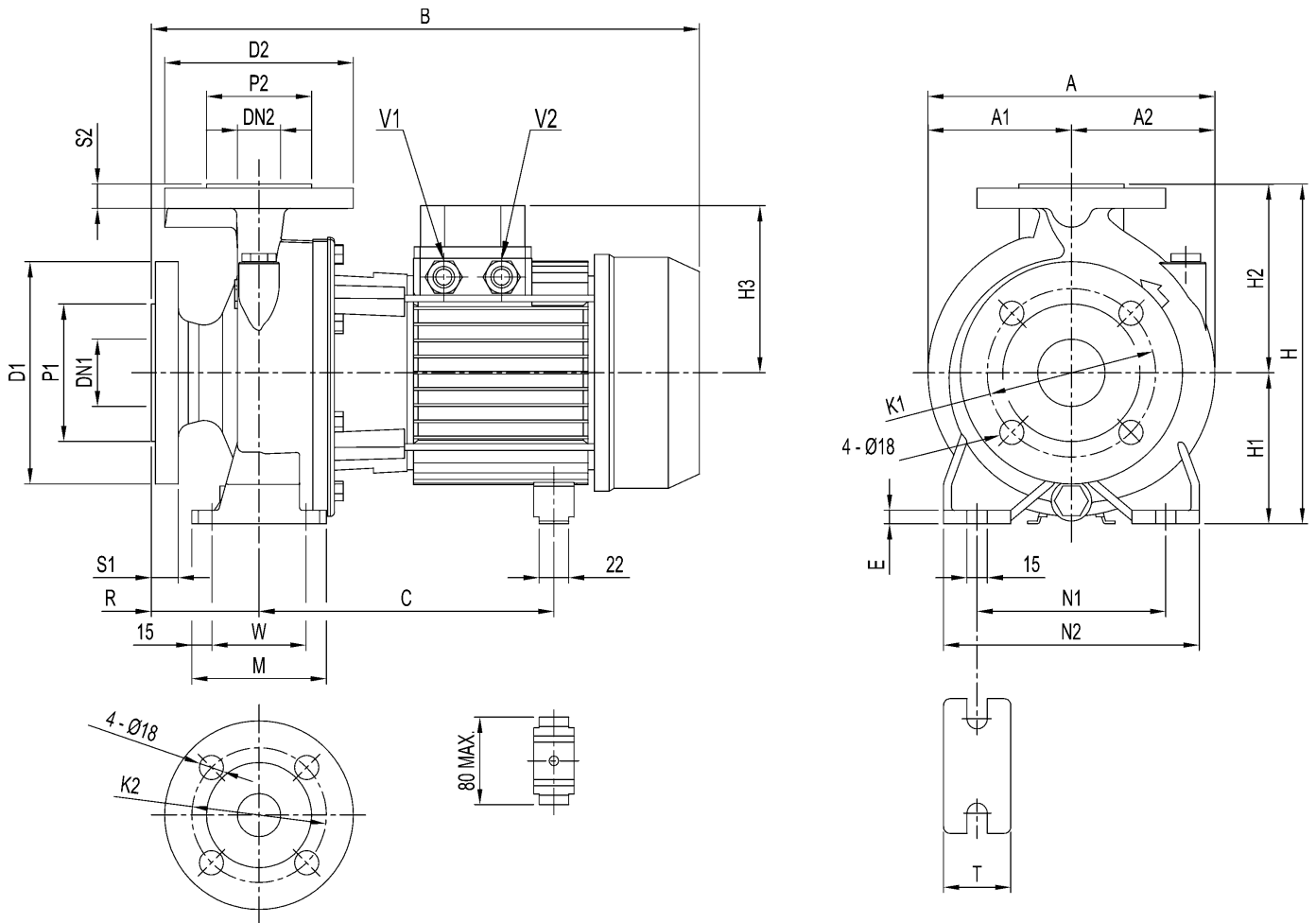
Water; 20°C; 998.3kg/m³; 1cSt



Dimensions

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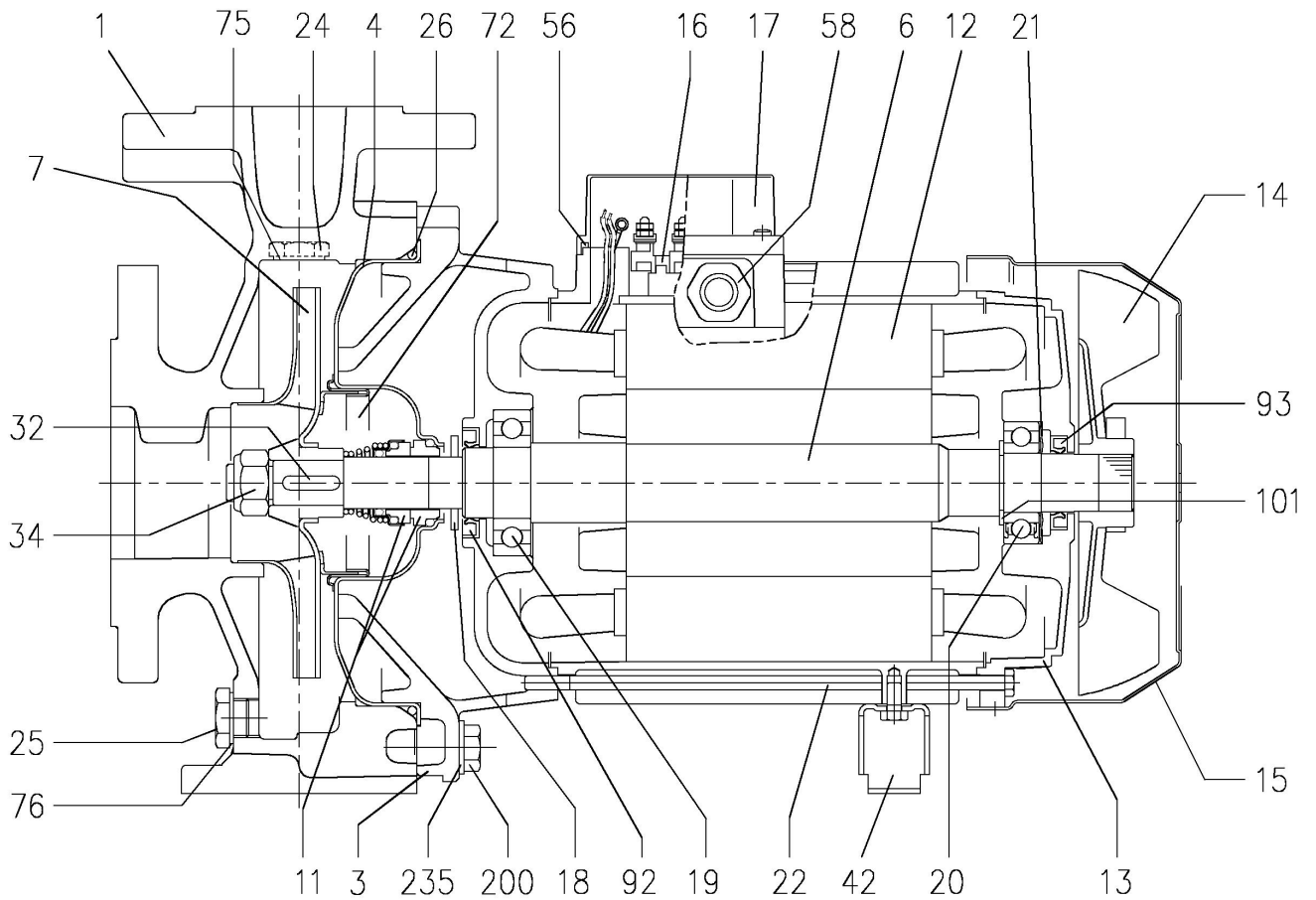
Dimensions in		mm		
1	A	254	H1	132
2	A1	127	H2	160
3	A2	127	H3	119
4	B	431	M	100
5	C	232	N1	190
6	Dia D1	165	N2	240
7	Dia D2	140	R	80
8	Dia DN1	50	S1	20
9	Dia DN2	32	S2	18
10	Dia K1	125	T	50
11	Dia K2	100	V2	M20X1,5
12	Dia P1	102	W	70
13	Dia P2	78	Weight P&M	36 kg
14	E	10		
15	H	292		

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Construction

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N°	PART NAME	MATERIAL	DIMENSIONS	STANDARD	Q.TY
001	Casing	Cast iron EN-GJL-250-EN 1561			1
003	Motor bracket	[1]			1
004	Casing cover	EN 1.4301 (AISI 304)			1
006	Shaft with rotor - Wet extension	EN 1.4301 (AISI 304)			1
007	Impeller	[2]			1
011	Mechanical seal	[3]	[3]		1
012	Motor frame with stator	-			1
013	Motor cover	Aluminium			1
014	Fan	PA			1
015	Fan cover	Fe P04 Galvanized			1
016	Terminal	-			1
017	Terminal box cover	Aluminium (three phase version)			1
018	Splash ring	NBR	Up to 11 kW 40x21.5x2	EBARA DRAWING	1
	15 kW and above		50x29.5x3		
019	Bearing	-			1
020	Bearing	-			1
021	Adjusting ring	Steel C70			1
022	Tie rod	Fe 42 Galvanized	Up to 3 kW	EBARA DRAWING	4
			For 4 - 5.5 - 7.5 kW		
			9.2 e 11kW		
24	Screw	Gv. Steel 8.8 strenght class ISO 898-1	M10x40	UNI 5739	1
25	Priming plug	Brass	G 3/8" L=8		1
	Draing plug	Brass	G 3/8" L=8		1
026	"O" ring	NBR [4]	32-125, 40-125	OR 6625	1
			32-160, 40-160, 50-125, 65-125	OR 6720	
			32-200, 40-200, 50-160, 50-200, 65-160, 65-200	OR 6895	
			227.96x5.34		
032	Key	EN 1.4401 (AISI 316)	Up to 11 kW	UNI 6604	1
			50-200/15		
			15 kW and above		
034	Impeller nut	EN 1.4301 (AISI 304)	Up to 11kW	UNI 7474	1
			50-200/15		
			15 kW and above		
042	Foot	Aluminium / Galvanized steel		EBARA DRAWING	[5]
056	Box gasket	NBR			1
058	Cable gland	-			[6]
072	Casing ring [7]	EN 1.4301 (AISI 304)			1
075	Washer	Aluminium	22x17x1.5	EBARA DRAWING	1
076	Washer	Aluminium			1
092	Lip seal	-	Up to 3kW	DIN 3760 without spring	1
			From 4 to 7.5 kW		
			From 9.2 kW to 11 kW		
			From 15 kW to 22 kW		
093	Lip seal	-	Up to 4 kW	DIN 3760 without spring	1
			From 5.5 kW to 7.5 kW		
			From 9.2 kW to 11 kW		
			From 15 kW to 22 kW		
101	Snap ring [8]	Carbon tool steels TC 80	Ø 40	UNI 7435	1
200	Screw	Gv. Steel 8.8 strenght class ISO 898-1	32-125	UNI 5739	8
			40-125		
			32-160		
			40-160		
			50-125		
65-125		10			
			32-200, 40-200		12
			50-160, 50-200		
			65-160, 65-200		
235	Washer	Galvanized Steel	32-125	UNI 6592	8
			40-125		
			32-160		
			40-160		
			50-125		
65-125		10			
			32-200, 40-200		12
			50-160, 50-200		
			65-160, 65-200		

[1] Cast iron EN-GJL-200-EN 1561 for 3D 32-200/3 and models with 15, 18.5, 22 kW motor
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] For special version and dimensions see

CONSTRUCTION 3

[4] FPM for H, HS, HW, HSW version;
EPDM for E version

[5] 1 for pumps up to 11 kW

[6] 1 for pumps with motor up to 11 kW

[7] Only for: 32-200, 40-200, 50-160, 50-200/9.2, 50-200/11

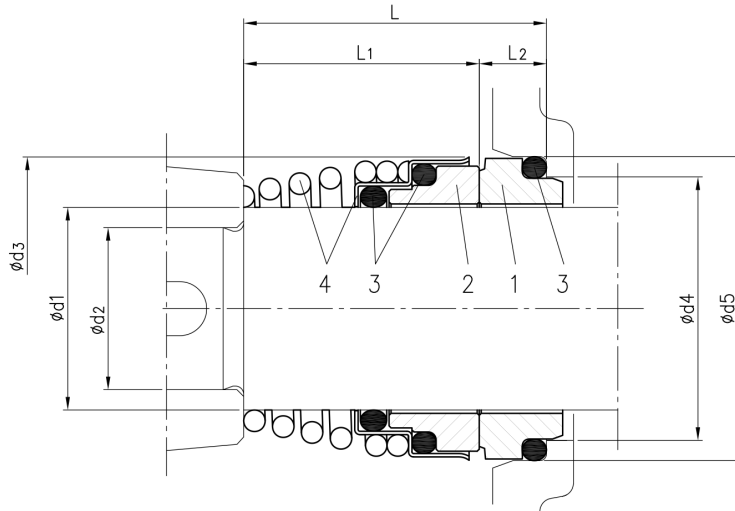
[8] Only for pumps with 9.2 and 11 kW motor

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Version	Pump type	Dimensions							Material				
		d1	d2	d3	d4	d5	L	L1	L2	1 Stationary seal ring	2 Rotary seal ring	3 Rubber	4 Frame + Spring
Standard	32-125/160/200												
	40-125/160/200												
	50-125/160/200	22	19	38	31	37	37.5	27.5	10	Carbon	Ceramic	NBR	EN 1.4401 (AISI 316)
	65-125												
	65-160/7.5-9.2-11												
65.160/15	30	24	46	39	45	42.5	32.5	10					
65-200													