Technical data

Pump name 3D 50-160/7.5

Customer	Date 23-June-2020	Company
Contact	Item no.	Issued by
Phone	Project	Phone
E-mail	Project ID	E-mail

Requested data

1	Pump type	CENTRIFUGAL PUMP	Fluid		Water, clean
2	Number of pumps / Reserve	1 / 0	Liquid temperature	K	293
3	Flow m³/h	0	Kin. viscosity	mm²/s	1
4	Head m	0	Vapour pressure	kPa	2.2
5	Geodetic head m	0	PH value		7
6	Inlet pressure (pin) kPa	10	Density	kg/m³	1000
7	Available system NPSH	0	Solids	Weight %	0
8	Ambient temperature K	290			

Pump

9	Pump name	3D 50-160/7.5	Frequency		Hz	50
10	Design	CENTRIFUGAL PUMP	Installation type			STANDARD
11	Manufacturer	EPE	Impeller Diameter	Max.	mm	166
12	Speed 1/min	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	72
16	Max Working Pressure kPa	1000		Min-	m³/h	24
17	Shut-off head kPa	386.85	Head	Operating	m	
18	Total weight kg	See the table of "Dimensions".		- (Qmax.)	m	26.7
19	Shaft power kW			- (Qmin.)	m	38.2
20			Max. Shaft Power at max. impeller		kW	6.76
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 50-160/7.5_400_Three Phase	Phases		3~
30	Specific design	IE3 / 50 Hz / Pole pairs 1	Frame size		
31	Rated power kW	7.5	Weight	kg	0
32	Number of poles	2	Electric voltage	V	400
33	Speed 1/min	2900	Electric current	A	13.6
34	Degree of protection	IP 55			
35					

Remarks

EBARA

Performance curve

Pump name 3D 50-160/7.5

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Requested data

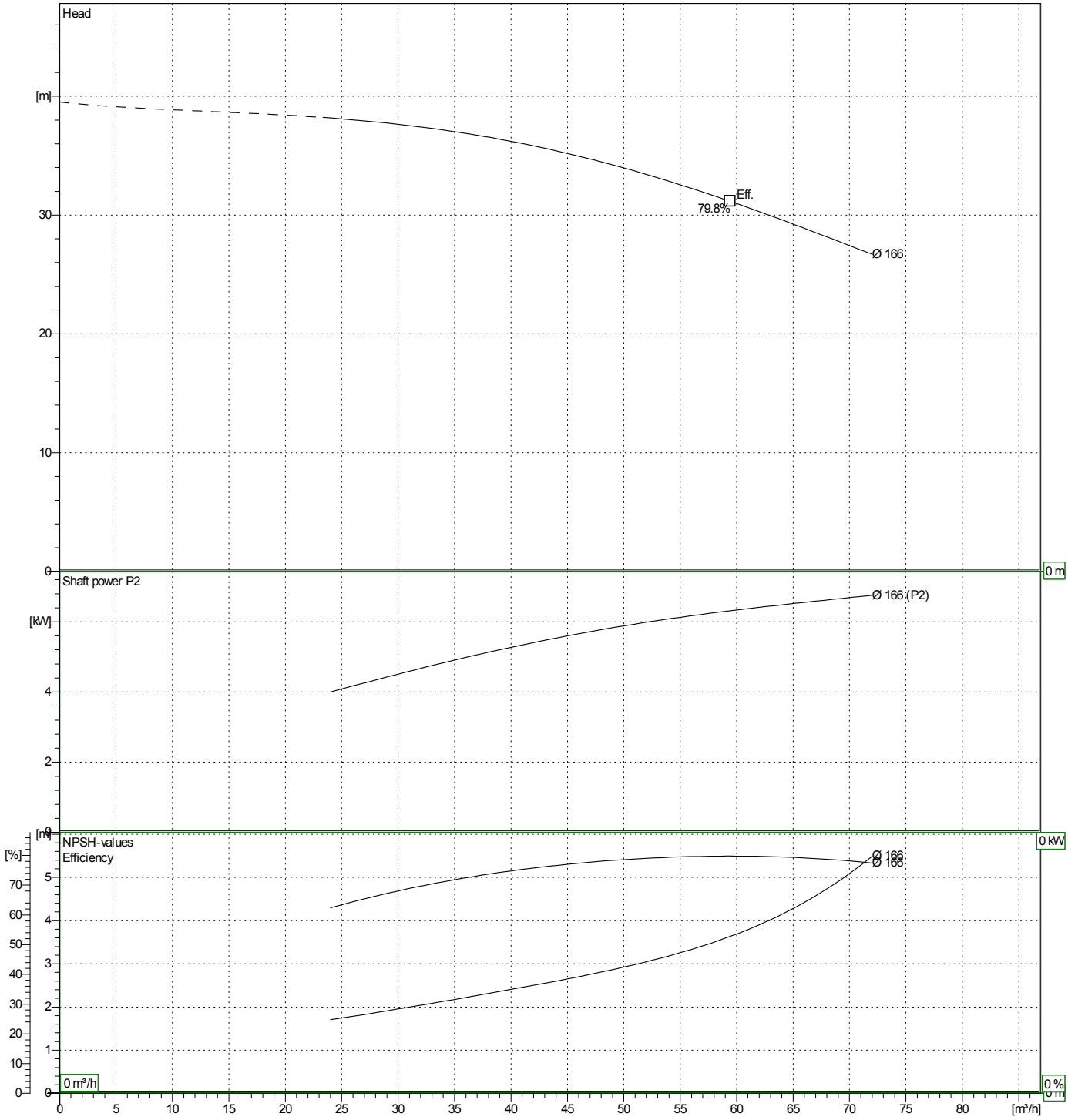
1	Flow	m³/h	0
2	Head	m	0
3	Geodetic head	m	0

Pump

Operating Flow	m³/h		Frequency	Hz	50
Operating Head	m		Number of poles		2
Impeller Diameter	Designed mm	166	Speed	1/min	

Test standard: ISO 9906:2012 - Grade3B

Water, clean [100%] ; 293K; 998.3kg/m³; 1mm²/s

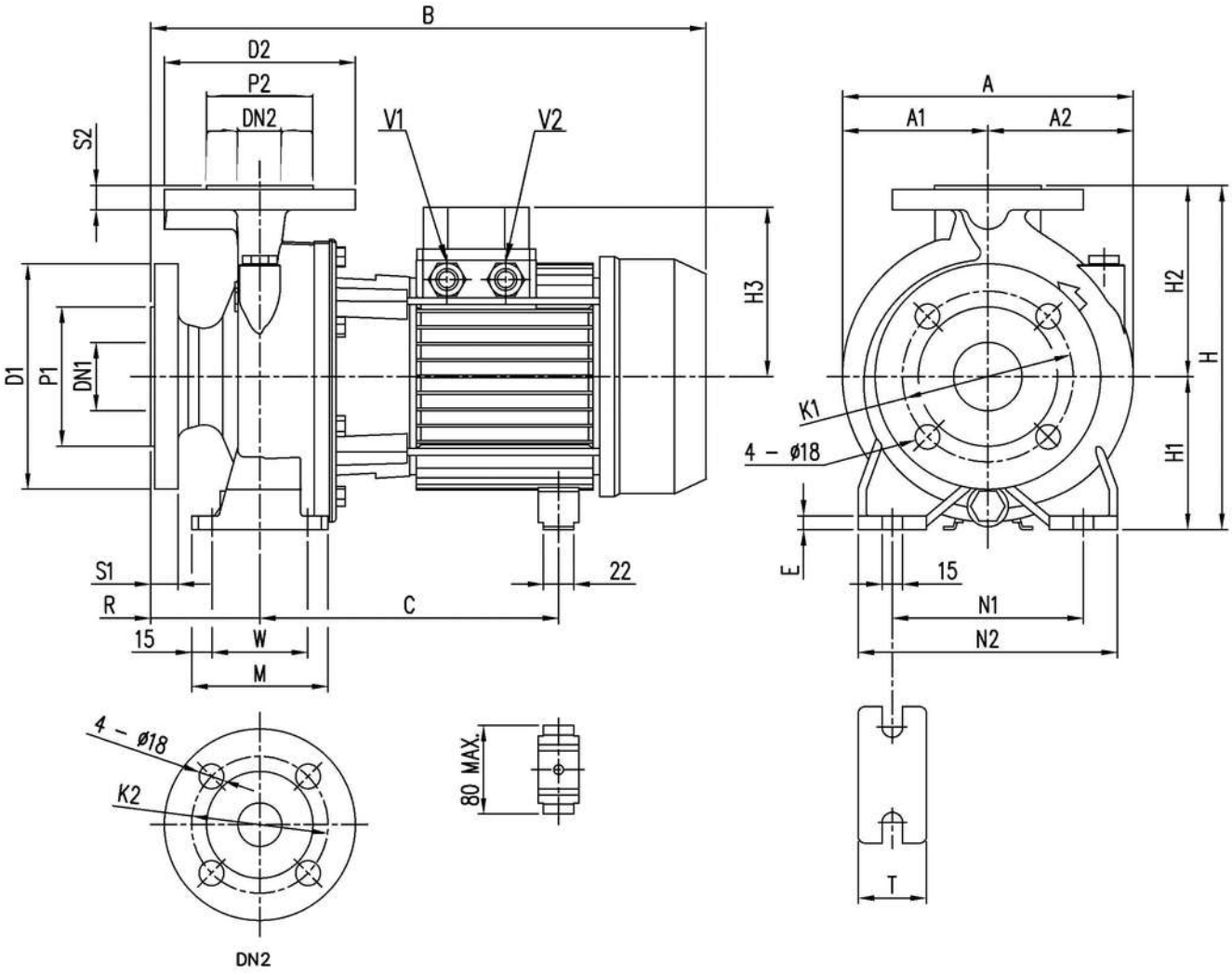


EBARA

Dimensions

Pump name 3D 50-160/7.5

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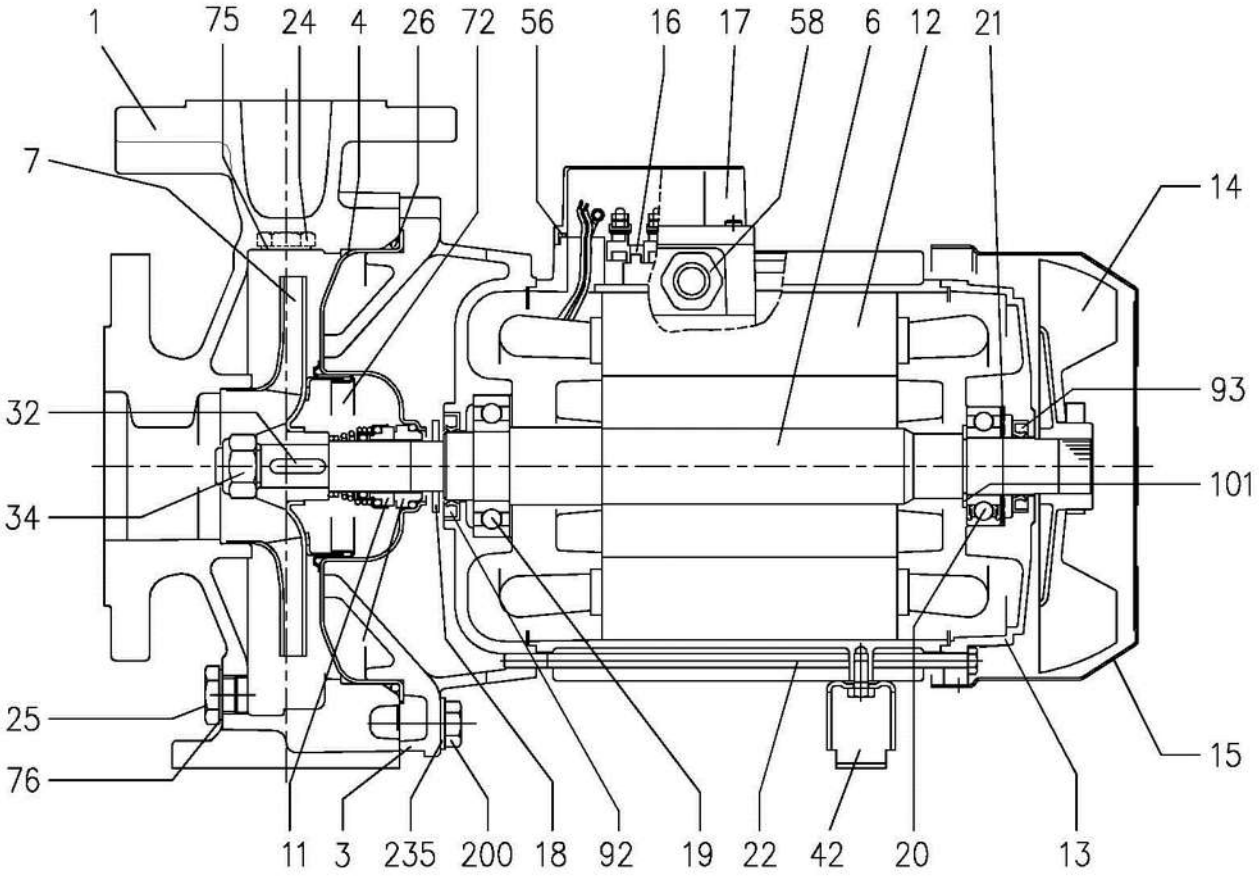
Dimensions in mm								
1	A	296	E	10	V2	PG 16		
2	A1	148	H	340	W	70		
3	A2	148	H1	160	Weight P&M	67.1 kg		
4	B	559	H2	180				
5	C	275	H3	150				
6	Dia D1	185	M	100				
7	Dia D2	165	N1	212				
8	Dia DN1	65	N2	265				
9	Dia DN2	50	R	100				
10	Dia K1	145	S1	20				
11	Dia K2	125	S2	20				
12	Dia P1	122	T	50				
13	Dia P2	102	V1	PG 13,5				

EBARA

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Construction

Pump name 3D 50-160/7.5

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EBARA

(2/3)
Construction

Pump name 3D 50-160/7.5

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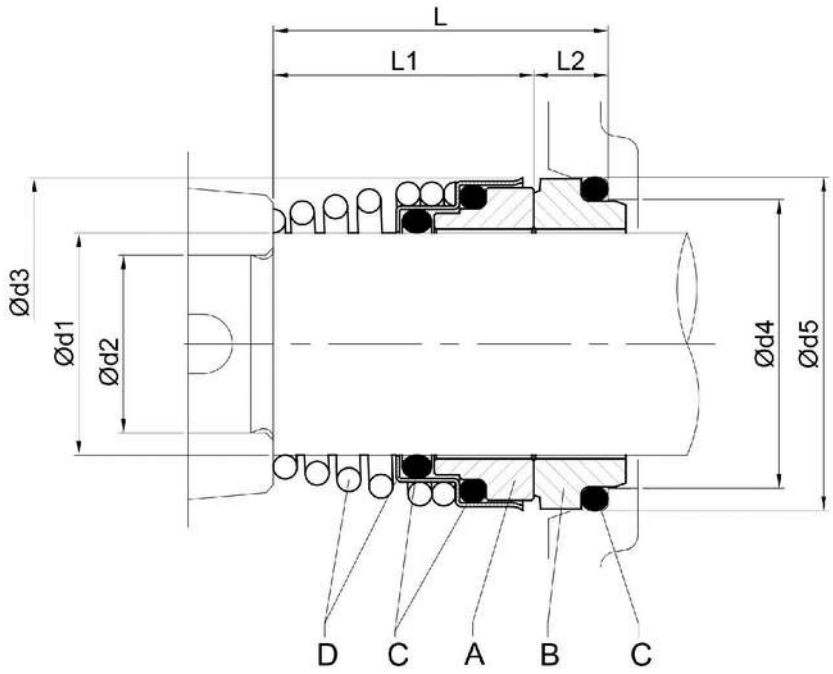
N°	PART NAME	MATERIAL	DIMENSIONS	STANDARD	Q.TY
1	Casing	Cast iron EN-GJL-250-EN 1561			1
3	Motor bracket [1]	-			1
4	Casing cover	EN 1.4301 (AISI 304)			1
6	Shaft with rotor - Wet extension	EN 1.4301 (AISI 304)			1
7	Impeller [2]	-			1
11	Mechanical seal [3]	-			1
12	Motor frame with stator	-			1
13	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	Fe 42 Galvanized	M5	EBARA DRAWING	4
	Tie rod For 4 - 5.5 - 7.5 kW		M6		
	Tie rod 9.2 e 11 kW		M8		
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 [4]	NBR/FPM/EPDM	158.11x5.34	OR 6625	1
	O-ring 32-160, 40-160, 50-125, 65-125 [4]		183.52x5.34	OR 6720	
	O-ring 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]		227.96x5.34	OR 6895	
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	Aluminum	22x17x1.5	EBARA DRAWING	1
76	Washer	Aluminum			1
92	Lip seal Up to 3 kW	-	25x40x7	DIN 3760 without spring	1
	Lip seal From 4 to 7.5 kW		30x47X7		
	Lip seal From 9.2 kW to 11 kW		40x55x7		
93	Lip seal Up to 4 kW	-	25x40x7	DIN 3760 without spring	1
	Lip seal From 5.5 kW to 7.5 kW		30x47X7		
	Lip seal From 9.2 kW to 11 kW		40x55x7		
101	Snap ring [6]	Carbon tool steels TC 80	Ø 40	UNI 7435	1
200	Screw 32-125, 40-125	Gv. Steel 8.8 strenght class ISO 898-1	M 8x30	UNI 5739	8
	Screw 32-160, 40-160, 50-125, 65-125		M 10x35		10
	Screw 32-200, 40-200, 50-160, 50-200/9.2, 50-200/11, 65-160/7.5, 65-160/9.2, 65-160/11				12
235	Washer 32-125, 40-125	Galvanized Steel	8.4x17	UNI 6592	8
	Washer 32-160, 40-160, 50-125, 65-125		10.5x21		10
	Washer 32-200, 40-200, 50-160, 50-200/9.2, 50-200/11, 65-160/7.5, 65-160/9.2, 65-160/11				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

Pump name 3D 50-160/7.5

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Pump type	Dimensions [mm]								Material Standard			
	d1	d2	d3	d4	d5	L	L1	L2	A Rotary seal ring	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)