

Technical Data

Pump Name

3E 80-160/9.2

Customer	Date 09.06.2024	Company
Contact	Item no.	Issued by
Phone	Project	Phone
E-mail	Project ID	E-mail

Requested data

1	Pump type	Inline vertical	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	3E 80-160/9.2	Frequency Hz	50
10	Design	Inline vertical	Installation type	With motor
11	Manufacturer	EBARA	Impeller Diameter	Max. mm 160
12	Speed rpm	2900		Designed mm 160
13	No. of Stage	1		Min. mm 160
14	Connection Suction side	EN 16k	Flow	Operating m³/h
15	Connection Discharge side	EN 16k		Max- m³/h 126
16	Max Working Pressure kPa	1600		Min- m³/h 42
17	Shut-off head kPa	329.06	Head	Operating m
18	Total weight kg	See the table of "Dimensions".		- (Qmax.) m 12.0
19	Shaft power kW			- (Qmin.) m 32.0
20			Max. Shaft Power at max. impeller kW	9.23
21	Required pump NPSH m		Efficiency %	

Materials

22	Impeller	AISI 316		
23	Casing	Cast iron		
24	Shaft	AISI 304(wet extension)		
25				
26				
27				

Motor

28	Manufacturer	EPE Standard	Insulation class	F
29	Type	TEFC_3E_2_9.2_400_1	Phases	3~
30	Specific design	TEFC / 50 Hz / Pole pairs 1	Frame size	
31	Rated power kW	9.2	Weight kg	
32	Number of poles	2	Electric voltage V	400
33	Speed rpm	2900	Electric current A	17.2
34	Degree of protection	IP55		
35				

Remarks

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Performance Curve

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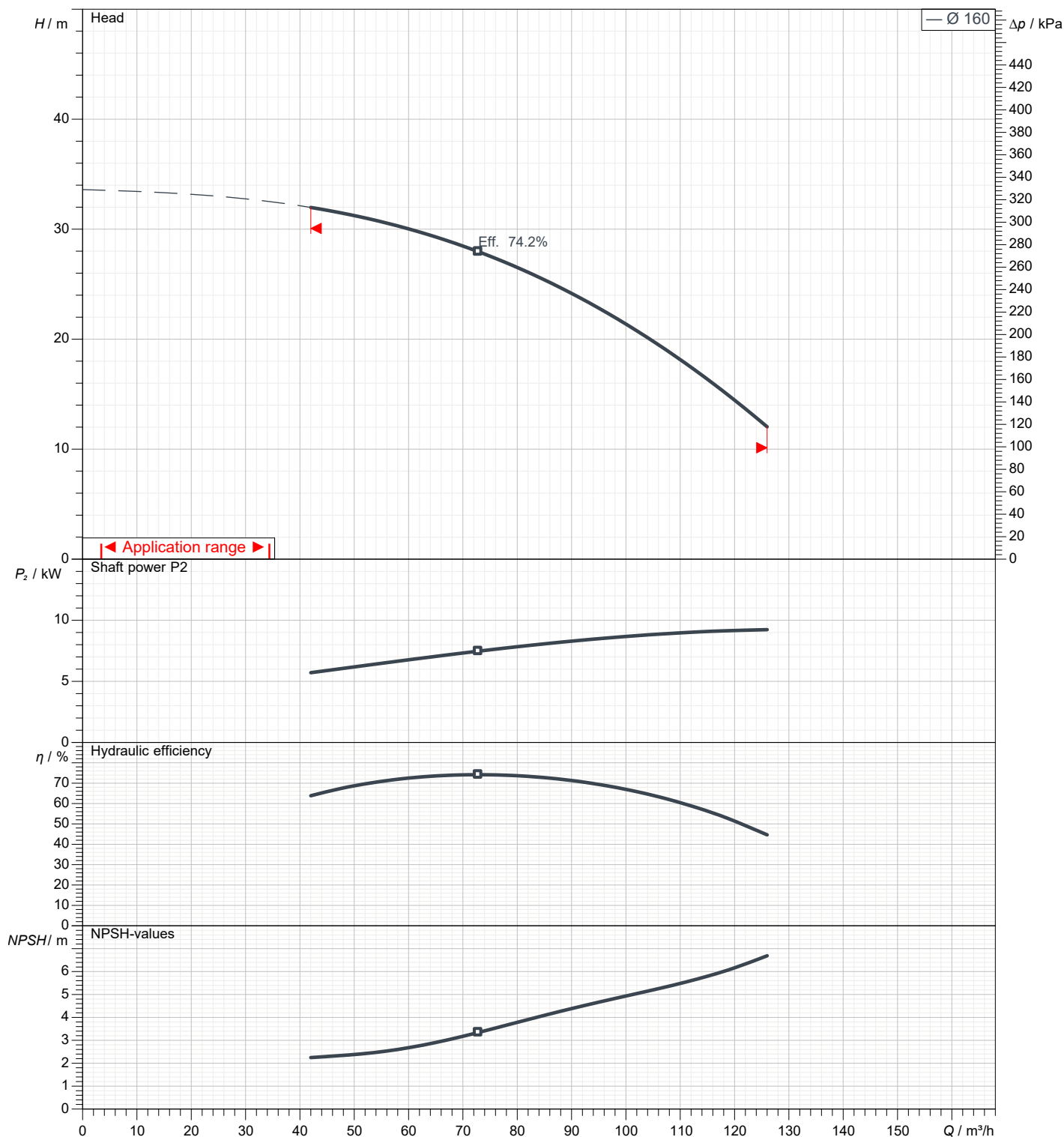
1	Flow	m³/h	
2	Head	m	
3	Geodetic head	m	

Pump

Operating flow	m³/h		Frequency	Hz	50
Operating head	m		Number of poles		2
Impeller diameter designed	mm	160	Speed	rpm	2900

Test standard: ISO 9906:2012 - Grade3B

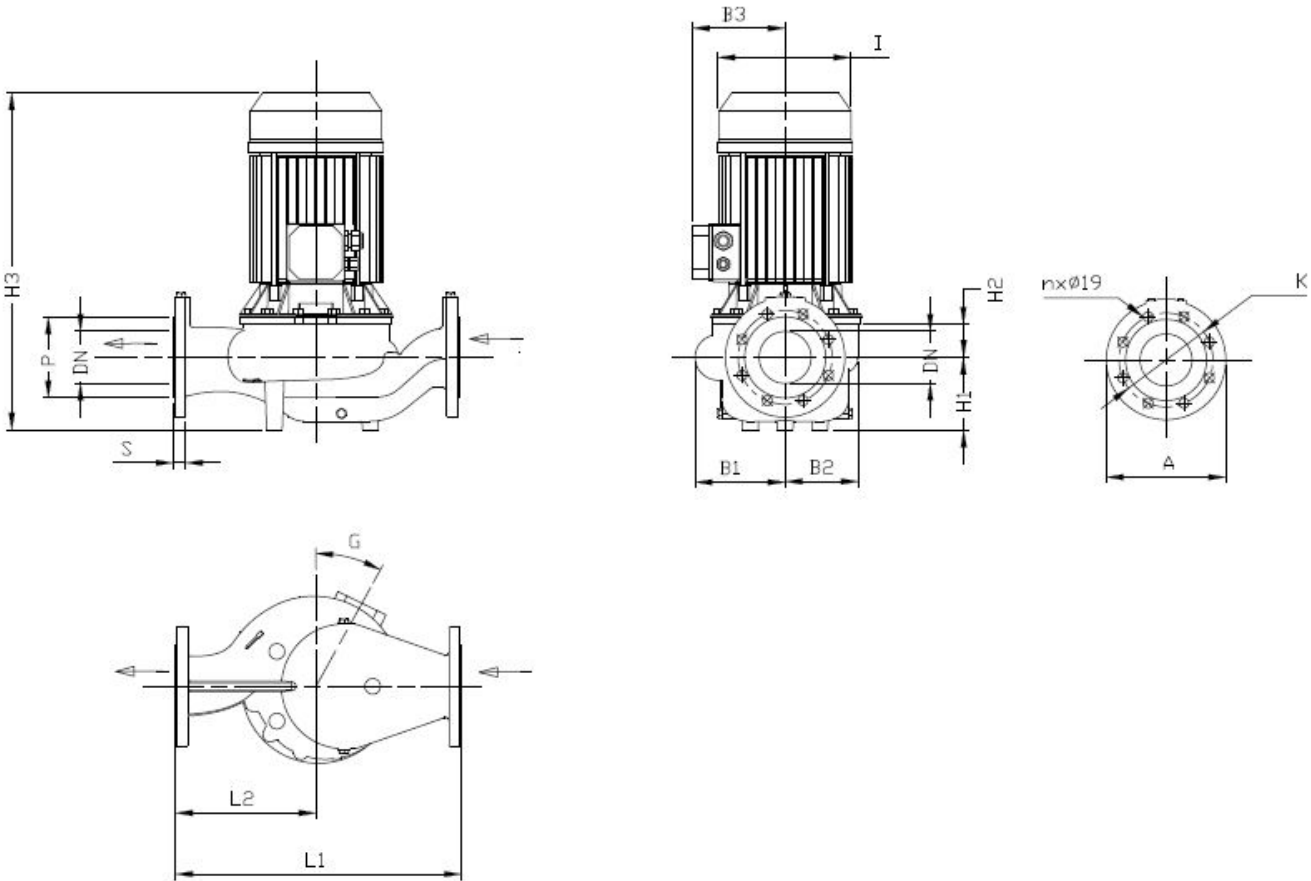
Water; 20°C; 998.3kg/m³; 1cSt



Dimensions

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Dimensions in mm								
1	A	200	Φ K	160				
2	B1	146	Φ P	132				
3	B2	141						
4	B3	178						
5	G	0						
6	H1	115						
7	H2	50						
8	H3	609						
9	I	259						
10	L1	440						
11	L2	220						
12	n	8(Num)						
13	S	22						
14	Weight P&M	86.2 kg						
15	Φ DN	80						

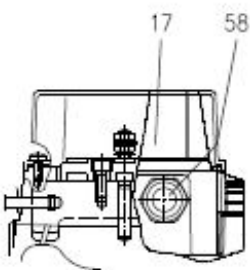
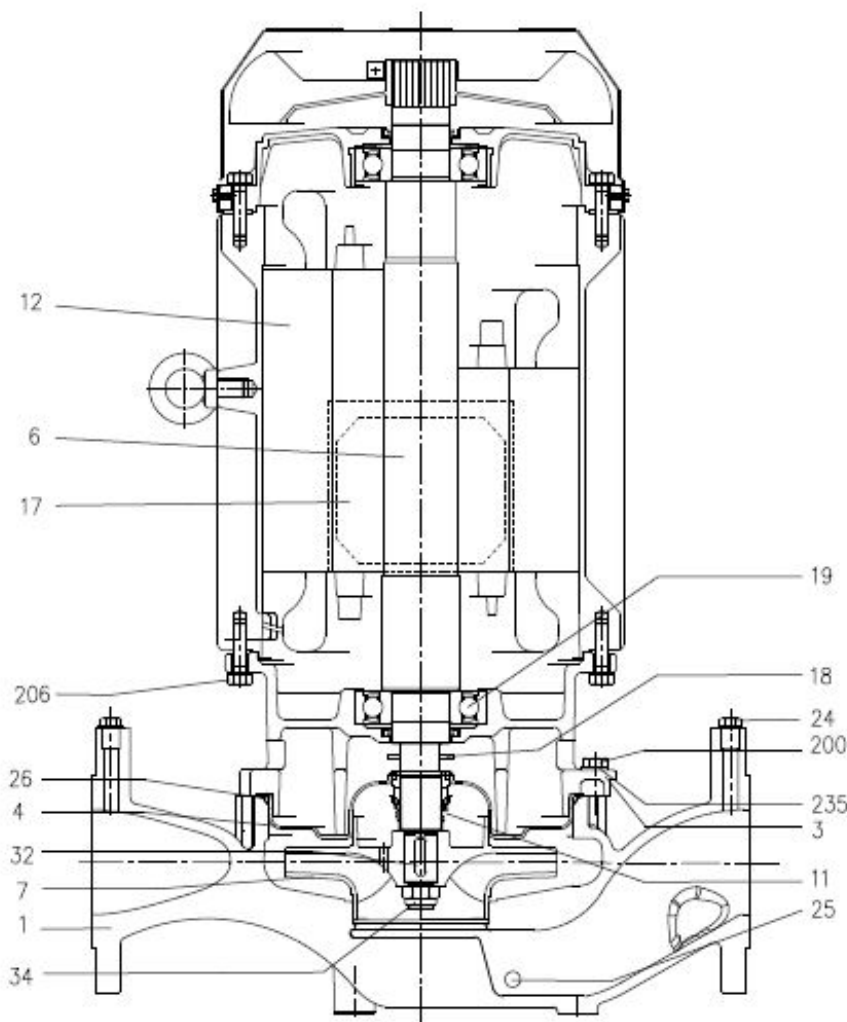
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Construction

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No	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)[9]			1
7	Impeller [2]	EN 1.4301(AISI 304)			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	0.37 kW to 0.75 kW Up to 11kW 15 kW and above	25x14.5x2.5 40x21.5x2 50x29.5x3	EBARA DRAWING	1
19	Bearing	*			1
20	Bearing	*			1
21	Adjusting ring	Steel C70			1
22	Tie rod	For 4 - 5.5 - 7.5 kW For 9.2 to 11kW	M6 M8	EBARA DRAWING	4
	Screw	15kW and above	Gv. Steel 8.8 strength class ISO 898-1	UNI 5739	2
24	Plug	Brass	G 1/4		4
25	Drain plug	50-200 65-200,80-160,80-200,100-160	Brass G 1/4		2
26	O-ring	EPDM[4]	227.96x5.34	OR 6895	1
32	Key	50-200,65-200,80-160/9.2,80-160/11 80-160/15,80-200,100-160	EN 1.4401(AISI 316) A 6x6x25 A 8x7x30	UNI 6604	1
34	Impeller nut	50-200,65-200,80-160/9.2,80-160/11 65-200/11 80-160/15,80-200,100-160	EN 1.4301(AISI 304) M16x1.5 M18x1.5 M20x1.5	UNI 7474	1
56	Box gasket	NBR			1
58	Cable gland	-			[5]
72	Casing ring	EN 1.4301 (AISI 304)			1
92	Lip seal	From 5.5 kW to 7.5 kW From 9.2 to 11 From 15kW to 22kW	30x47x7 40x55x7 45x60x7	DIN 3760 without spring	1
93	Lip seal	From 5.5 kW to 7.5 kW From 9.2 to 11 From 15kW to 22kW	30x47x7 40x55x7 45x60x7	DIN 3760 without spring	1
101	Snap Ring	[6]	Carbon tool steels TC 80 Ø40	UNI 7435	1
200	Screw	50-200,65-200,80-160,80-200 100-160	Gv. Steel 8.8 strength class ISO 898-1 M10x35		12
235	Washer	Galvanized Steel	10.5x21x2	UNI 6592	10
206	Screw for Bracket (15kW and above)	[7]	Gv. Steel 8.8 strength class ISO 898-1 M10x40	UNI 5739	4

[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 50, 65
EN 1.4401(AISI 316) for 80, 100 series (except 80-100)

[3] See MECHANICAL SEAL page

[4] FPM for Q1AVGG
EPDM for Q1AEGG, Q4Q1EGG

[5] 1 for pumps with motor up to 11 kW
2 for pumps with 15 kW motor and above

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

[7] Only for pumps with 15 kW motor and above

[8] See 3D BEARINGS page

[9] EN1.4404(AISI316L) for 100-160

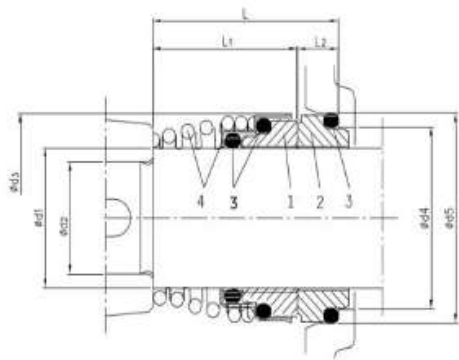
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Version	Pump type	Dimensions [mm]								Material			
		d1	d2	d3	d4	d5	L	L1	L2	1 Rotary seal ring	2 Stationary seal ring	3 Rubber	4 Frame + Spring
Standard (Q1AEGG)	32-125/160/200 50-100 65-100/0.55-0.75 40-160/200	15	12	26	21	26.9	29	22	7	Silicon Carbide	Metarialsed Carbon	EPDM	EN 1.4401 (AISI 316)
	50-125/160/200 65-100/1.1-1.5 65-125/160/200	22	19	36	31	37	37.5	27.5	10				
	80-100 80-160/9.2-11												
	80-160/15												
	80-200 100-160	30	24	46	39	45	42.5	32.5	10				