Technical Data

Pump Name 3E 80-200/18.5

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 80-200/18.5	Frequency		Hz	50
10	Design	Inline vertical	Installation type			with base, motor
11	Manufacturer	EBARA	Impeller Diameter	Max.	mm	201
12	Speed rpm	2900		Designed	mm	201
13	No. of Stage	1		Min.	mm	201
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	543.33	Head	Operating	m	
18	Total weight kg	See the table of "Dimensions".		- (Qmax.)	m	29.3
19	Shaft power kW			- (Qmin.)	m	53.5
20			Max. Shaft Power at max. impeller		kW	17.00
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_18.5_400_1	Phases		3~
30	Specific design	TEFC / 50 Hz / Pole pairs 1	Frame size		
31	Rated power kW	18.5	Weight	kg	
32	Number of poles	2	Electric voltage	V	400
33	Speed rpm	2900	Electric current	A	35
34	Degree of protection	IP55			
35					

Remarks

EBARA

Performance Curve

Pump Name 3E 80-200/18.5

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Requested data

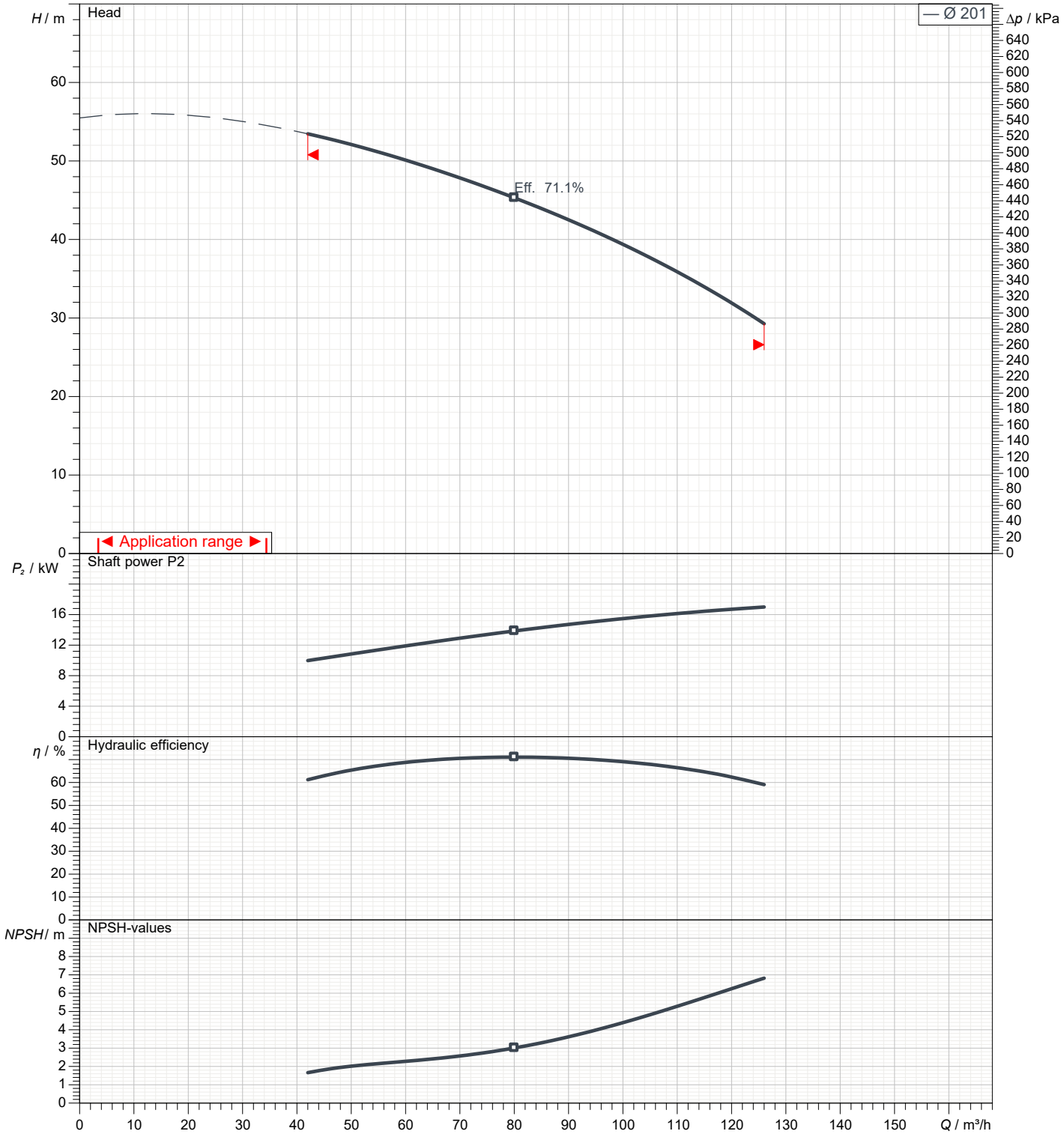
1	Flow	m³/h	
2	Head	m	
3	Geodetic head	m	

Pump

Operating flow	m³/h		Frequency	Hz	50
Operating head	m		Number of poles		2
Impeller diameter designed	mm	201	Speed	rpm	2900

Test standard: ISO 9906:2012 - Grade3B

Water; 20°C; 998.3kg/m³; 1cSt



Dimensions

Pump Name 3E 80-200/18.5

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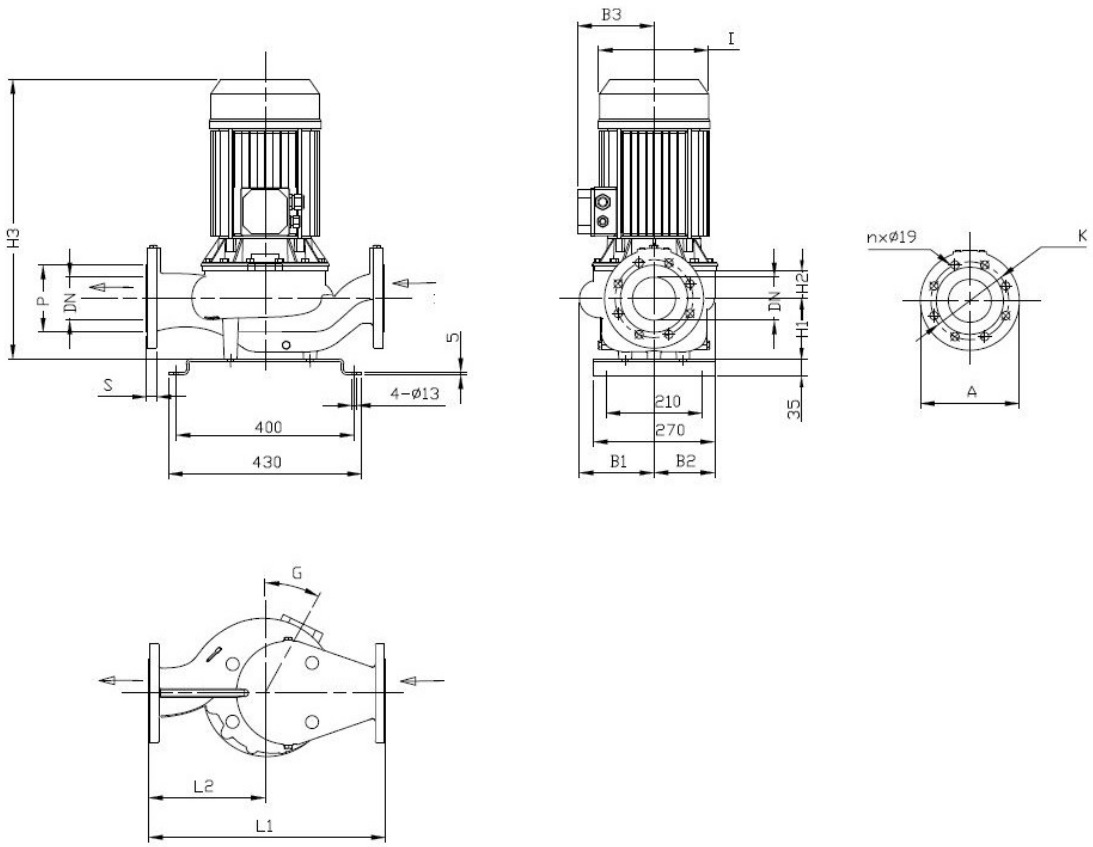

Dimensions in	mm							
1	A	200	Φ K	160				
2	B1	160	Φ P	132				
3	B2	141						
4	B3	223						
5	G	0						
6	H1	115						
7	H2	50						
8	H3	746						
9	I	309						
10	L1	500						
11	L2	250						
12	n	8(Num)						
13	S	22						
14	Weight P&M&B	152.7 kg						
15	Φ DN	80						

EBARA

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Construction

Pump Name 3E 80-200/18.5

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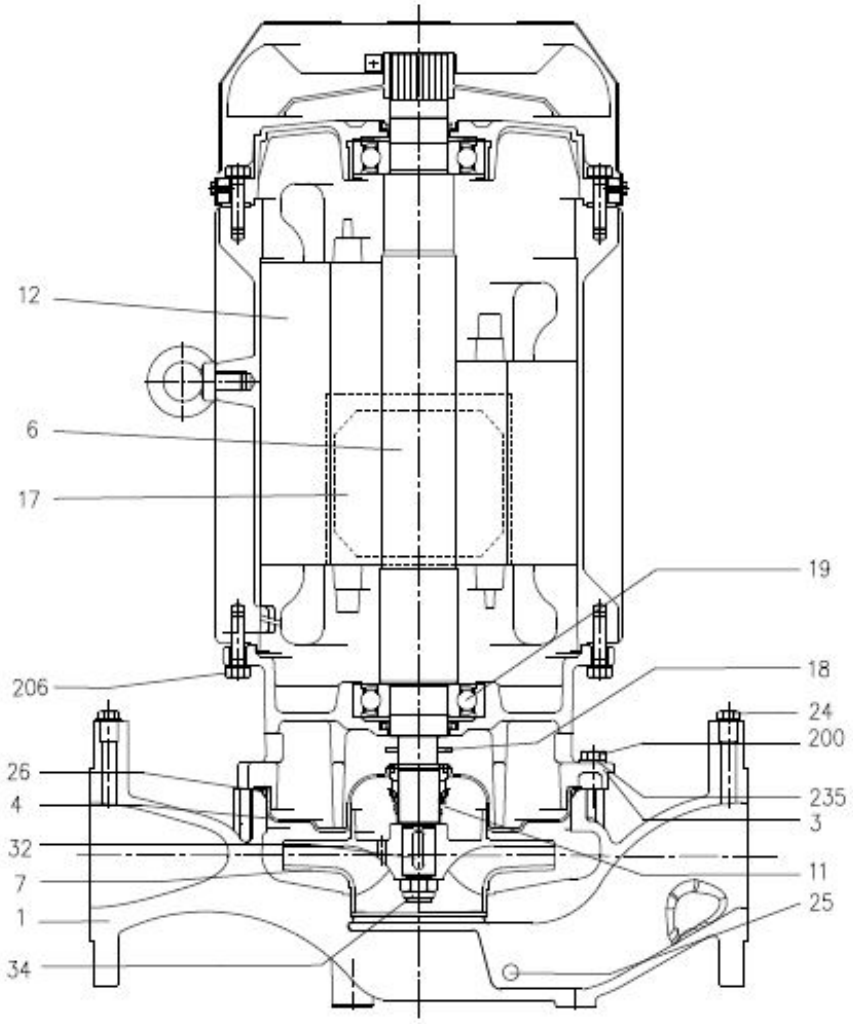

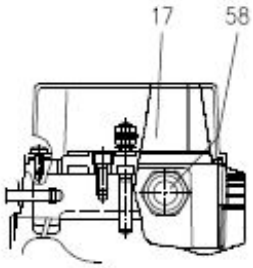

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Construction

Pump Name 3E 80-200/18.5

Customer	Date 09.06.2024	Company
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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		25x14.5x2.5	EBARA DRAWING	1
		Up to11kW		40x21.5x2		
		15 kW and above		50x29.5x3		
19	Bearing		•			1
20	Bearing		•			1
21	Adjusting ring		Steel C70			1
22	Tie rod	For 4 - 5.5 - 7.5 kW	Fe 42 Galvanized	M6	EBARA DRAWING	4
		For 9.2 to 11kW		M8		
	Screw	15kW and above	Gv. Steel 8.8 strength class ISO 898-1	M10x40	UNI 5739	
24	Plug		Brass	G 1/4		2
25	Drain plug	50-200	Brass	G 1/4		4
		65-200,80-160,80-200,100-160				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	EN 1.4401(AISI 316)	A 6x6x25	UNI 6604	1
		80-160/15,80-200,100-160		A 8x7x30		
34	Impeller nut	50-200,65-200,80-160/9.2,80-160/11	EN 1.4301(AISI 304)	M16x1.5	UNI 7474	1
		65-200/11		M18x1.5		
		80-160/15,80-200,100-160		M20x1.5		
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		30x47X7	DIN 3760 without spring	1
		From 9.2 to 11		40x55x7		
		From 15kW to 22kW		45x60x7		
93	Lip seal	From 5.5 kW to 7.5 kW		30x47X7	DIN 3760 without spring	1
		From 9.2 to 11		40x55x7		
		From 15kW to 22kW		45x60x7		
101	Snap Ring [6]		Carbon tool steels TC 80	Ø40	UNI 7435	1
200	Screw	50-200,65-200,80-160,80-200	Gv. Steel 8.8 strength class ISO 898-1	M10x35		12
		100-160				10
235	Washer		Galvanized Steel	10.5x21x2	UNI 6592	12
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 80,100series(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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Construction

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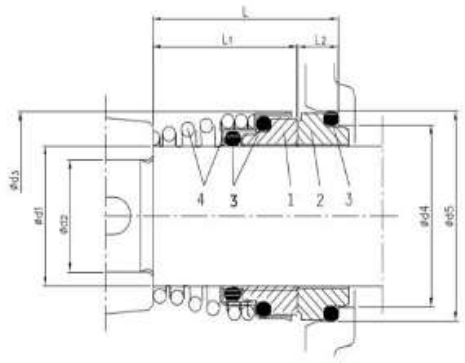

Version	Pump type	Dimensions [mm]								Material			
		d1	d2	d3	d4	d5	L	L1	L2	1 Rotary seal ring	2 Stationary seal ring	3 Rubber	4 Frame + Spring
Standard (Q1AEGG)	32-125/160/200 50-100 65-100/0.55-0.75	15	12	26	21	26.9	29	22	7	Silicon Carbide	Metarialised Carbon	EPDM	EN 1.4401 (AISI 316)
	40-160/200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