

Technical Data

Pump Name

3ES 100-160/11

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
3	Flow	m³/h	Kin. viscosity	cSt
4	Head	m	Vapour pressure	kPa
5	Geodetic head	m	PH value	
6	Inlet pressure (pin)	kPa	Density	kg/m³
7	Available system NPSH		Solids	Weight %
8	Ambient temperature	°C		

Pump

9	Pump Name	3ES 100-160/11	Frequency	Hz	50	
10	Design	Inline vertical	Installation type		with base, motor	
11	Manufacturer	EBARA	Impeller Diameter	Max.	mm	
12	Speed	rpm		2900	Designed	mm
13	No. of Stage	1		Min.	mm	154
14	Connection	Suction side	EN	16k	Flow	
15	Connection	Discharge side	EN	16k		Operating
16	Max Working Pressure	kPa	1600	Max-		m³/h
17	Shut-off head	kPa	280.58	Head	Operating	
18	Total weight	kg	See the table of "Dimensions".		- (Qmax.)	m
19	Shaft power	kW			- (Qmin.)	m
20				Max. Shaft Power at max. impeller	kW	
21	Required pump NPSH	m		Efficiency	%	

Materials

22	Impeller	AISI 316L		
23	Casing	Cast iron		
24	Shaft	AISI316L(wet extension)		
25				
26				
27				

Motor

28	Manufacturer	LAFERT	Insulation class	F	
29	Type	TEFC_3ES_2_11_400_1	Phases	3~	
30	Specific design	TEFC / 50 Hz / Pole pairs 1	Frame size	160M	
31	Rated power	kW	11	Weight	kg
32	Number of poles	2	Electric voltage	V	400
33	Speed	rpm	2900	Electric current	A
34	Degree of protection	IP55			
35					

Remarks

Performance Curve

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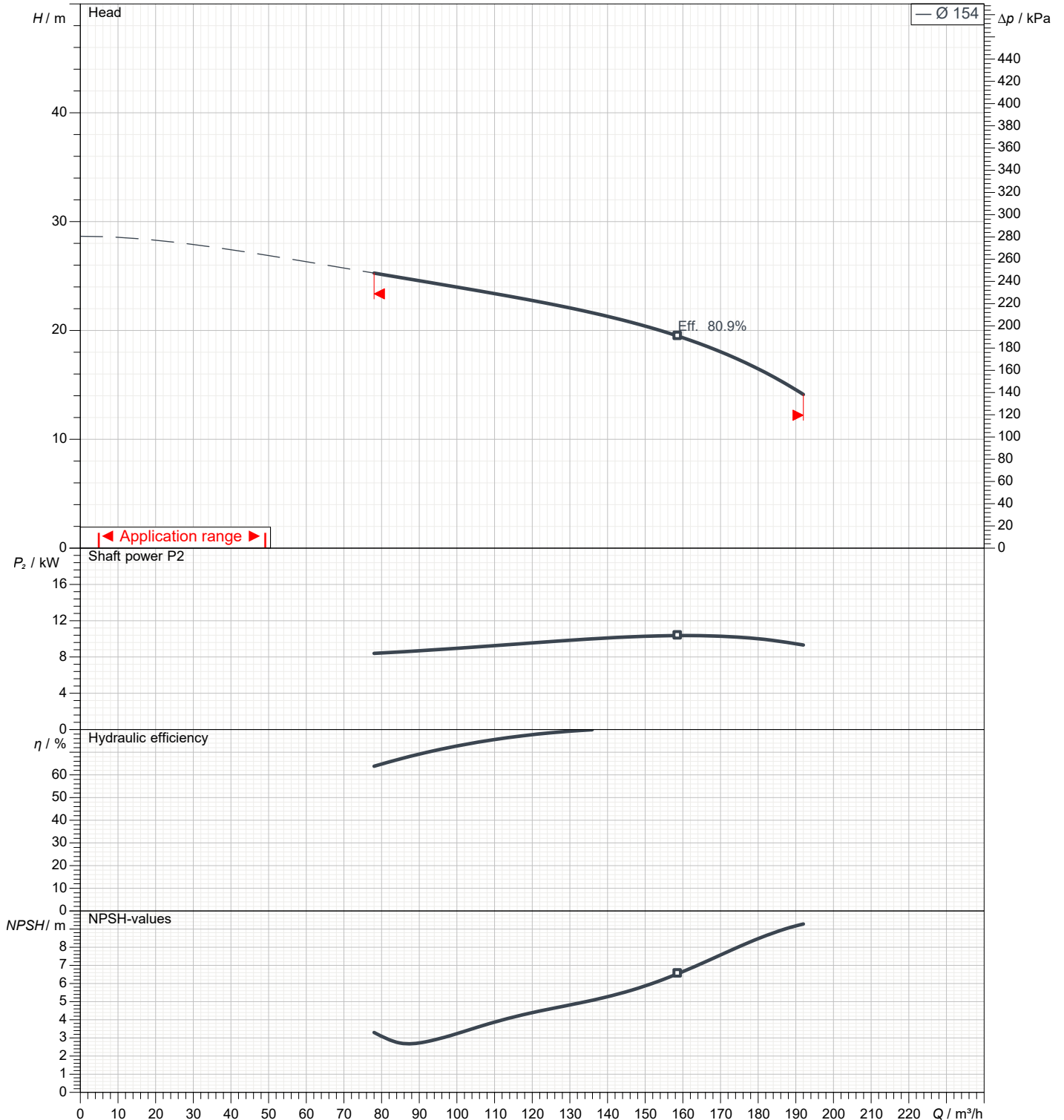
1	Flow	m³/h	
2	Head	m	
3	Geodetic head	m	

Pump

Operating flow	m³/h	Frequency	Hz	50	
Operating head	m	Number of poles		2	
Impeller diameter designed	mm	154	Speed	rpm	2900

Test standard: ISO 9906:2012 - Grade3B

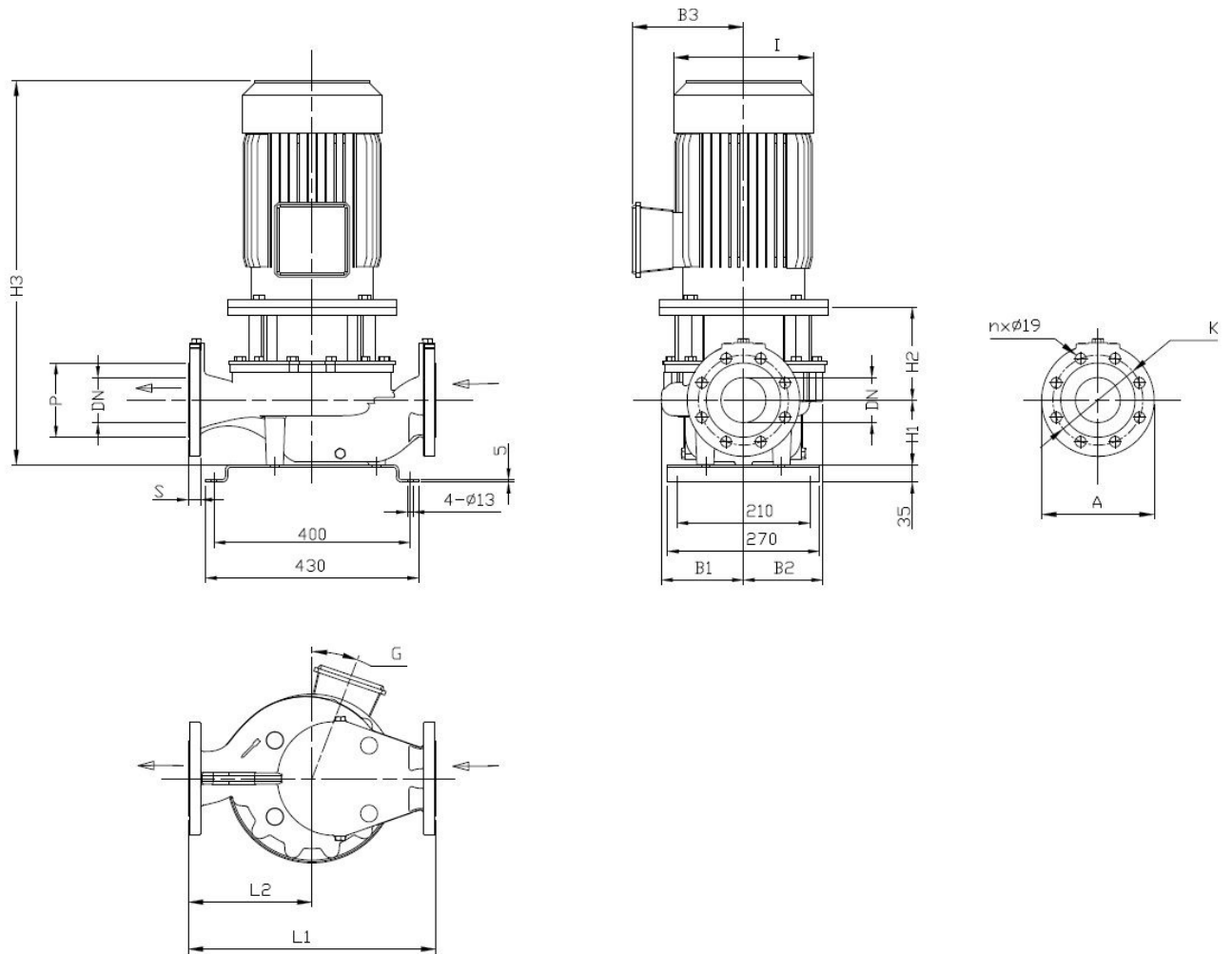
Water; 20°C; 998.3kg/m³; 1cSt



Dimensions

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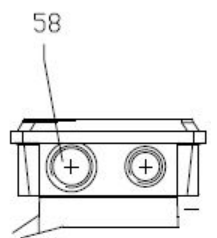
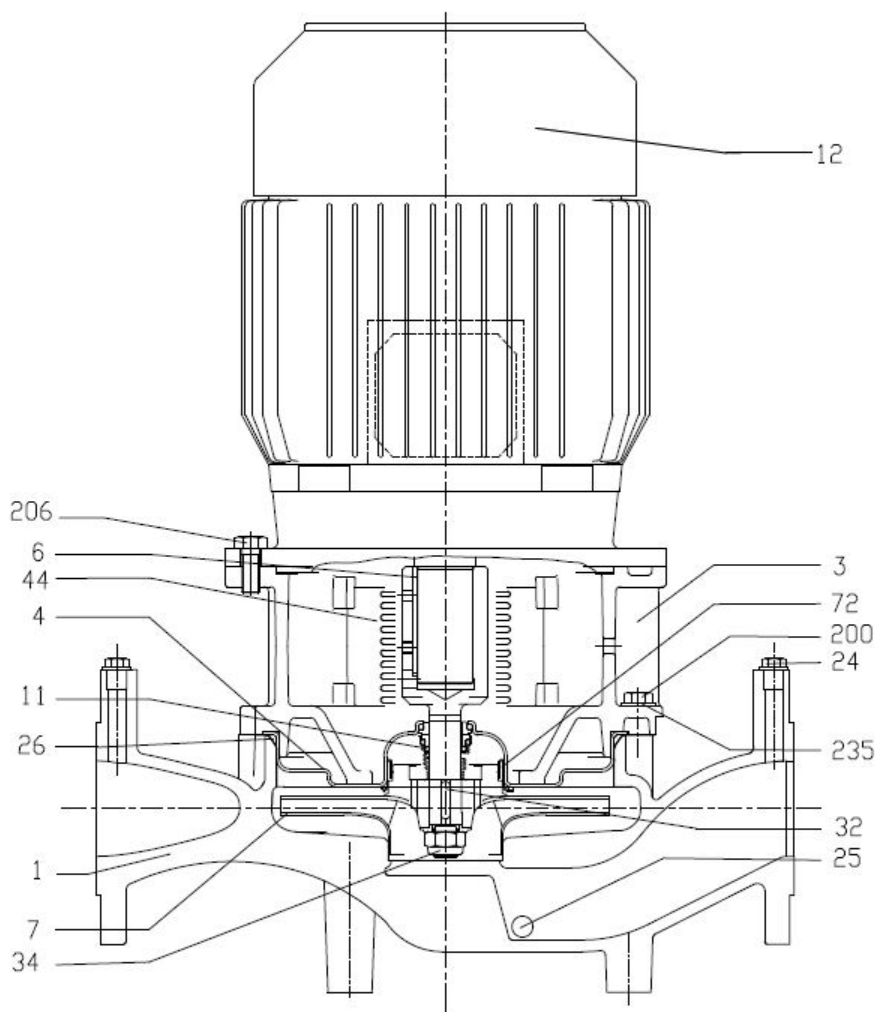
Dimensions in		mm						
1	A	230	Φ K	180				
2	B1	173	Φ P	156				
3	B2	141						
4	B3	238						
5	G	0						
6	H1	140						
7	H2	222						
8	H3	860						
9	I	317						
10	L1	550						
11	L2	275						
12	n	8(Num)						
13	S	24						
14	Weight P&M&B	149.3 kg						
15	Φ DN	100						

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Construction

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No	PART NAME	MATERIAL	DIMENSIONS	STANDARD	Q.TY
1	Casing	Cast iron EN-GJL200-EN 1561			1
3	Motor bracket	Cast iron EN-GJL-200-EN 1561			1
4	Casing cover	EN 1.4301(AISI 304)			1
6	Coupling - Wet extensions	EN 1.4301(AISI 304)[7]			1
7	Impeller [1]	-			1
11	Mechanical seal [2]	-			1
12	Motor				1
24	Priming plug	Brass	G 1/4		2
25	Drain plug	50-200			4
		Other models	Brass	G 1/4	2
26	O-ring	EPDM[3]	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	6x6x25	UNI 6604	1
			8x7x30		
34	Impeller nut	Up to11kW [4] 65-200/15 15 kW and above	M16x1.5	UNI 7474	1
			M18x1.5		
			M20x1.5		
44	Protection	EN 1.4301(AISI 304)		EBARA	1
72	Casing ring [5]	EN 1.4301(AISI 304)			1
200	Screw	50-200,65-200,80-160,80-200	M10x35	UNI 5739	12
		100-160			Gv. Steel 8.8 strength class ISO 898-1
206	Screw for bracket	From 5.5kW to 9.2kW	M12x30	UNI 5739	4
		From 11kW to 18.5kW	M16x35		
		From 22kW to 37kW	M16x45		
235	Washer	Galvanized Steel	10.5x21	UNI 6592	12

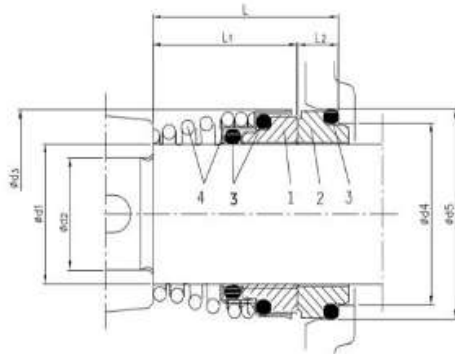
- [1] EN 1.4301 (AISI 304) for 50,65 series;
EN 1.4401(AISI 316) for 80,100 series
- [2] See MECHANICAL SEAL pages
- [3] FPM for Q1AVGG
EPDM for Q1AEGG,Q4Q1EGG
- [4] Except for 100-160/11kW :M20x1.5
- [5] Only for: 65-200
- [6] See 3DS COUPLING page
- [7] EN 1.4404 (AISI 316L) for 100 series

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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	Materialised 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	30	24	46	39	45	42.5	32.5	10				
	80-200 100-160												