

Technical Data

Pump Name

3LM 80-160/18.56

Customer	Date	2024-06-20	Company
Contact	Item no.		Issued by
Phone	Project		Phone
E-mail	Project ID	Proiect redenumit 2024-06-20 10:03:09	E-mail

Requested data

1	Pump type	CENTRIFUGAL PUMPS	Fluid	Water
2	Number of pumps / Reserve	1 / 0	Liquid temperature	°C 20
3	Flow m³/h		Kin. viscosity	mm²/s 1.005
4	Head m		Vapour pressure	bar 0.0234
5	Geodetic head m		PH value	
6	Inlet pressure (pin) bar	0	Density	kg/m³ 998.3
7	Available system NPSH		Solids	Weight % 0
8	Ambient temperature °C	20		

Pump

9	Pump Name	3LM 80-160/18.56	Frequency	Hz 60
10	Design	CENTRIFUGAL PUMPS	Installation type	STANDARD
11	Manufacturer	EBARA	Impeller Diameter	Max. mm 151
12	Speed rpm	3520		Designed mm 151
13	No. of Stage	1		Min. mm 151
14	Connection Suction side	DIN 2532	Flow	Operating m³/h
15	Connection Discharge side	DIN 2532		Max- m³/h 228
16	Max Working Pressure bar	10		Min- m³/h 84
17	Shut-off head bar	3.97	Head	Operating m
18	Total weight kg	See the table of "Dimensions".		- (Qmax.) m 22.0
19	Shaft power kW			- (Qmin.) m 38.8
20			Max. Shaft Power at max. impeller	kW 17.74
21	Required pump NPSH m		Efficiency	%

Materials

22	Impeller	CF8M		
23	Casing	CF8M		
24	Shaft	AISI 316L		
25				
26				
27				

Motor

28	Manufacturer	EPE Standard	Insulation class	F
29	Type	TEFC_3LM 80-160/18.56_380_Three Phase	Phases	3~
30	Specific design	IE2 / 60 Hz / Pole pairs 1	Frame size	
31	Rated power kW	18.5	Weight	kg
32	Number of poles	2	Electric voltage	V 380
33	Speed rpm	3500	Electric current	A 33.5
34	Degree of protection	IP 55		
35				

Remarks

Performance Curve

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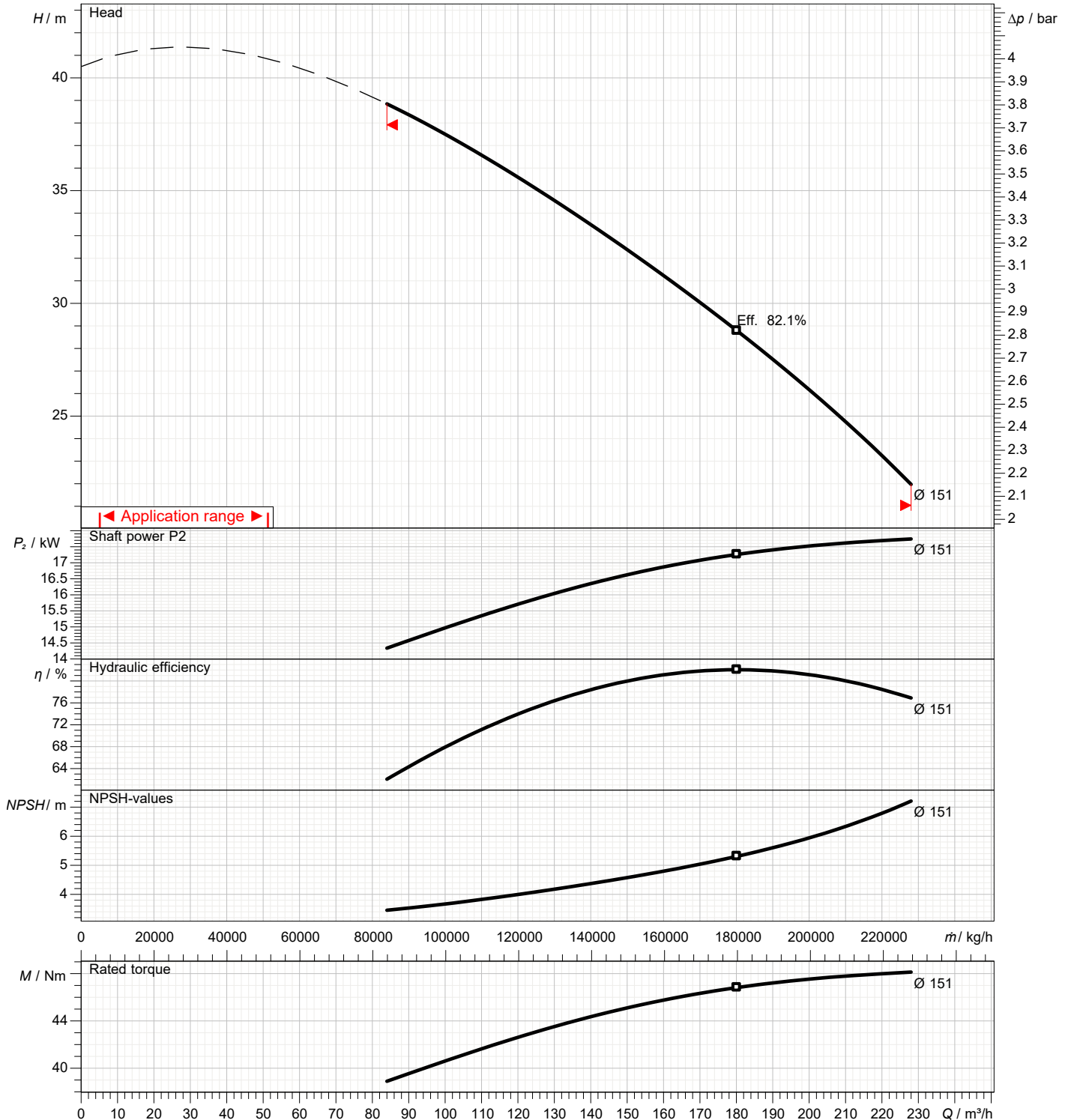
1	Flow	m³/h	
2	Head	m	
3	Geodetic head	m	

Pump

Operating flow	m³/h		Frequency	Hz	60
Operating head	m		Number of poles		2
Impeller diameter designed	mm	151	Speed	rpm	3520

Test standard: ISO 9906:2012 - Grade3B

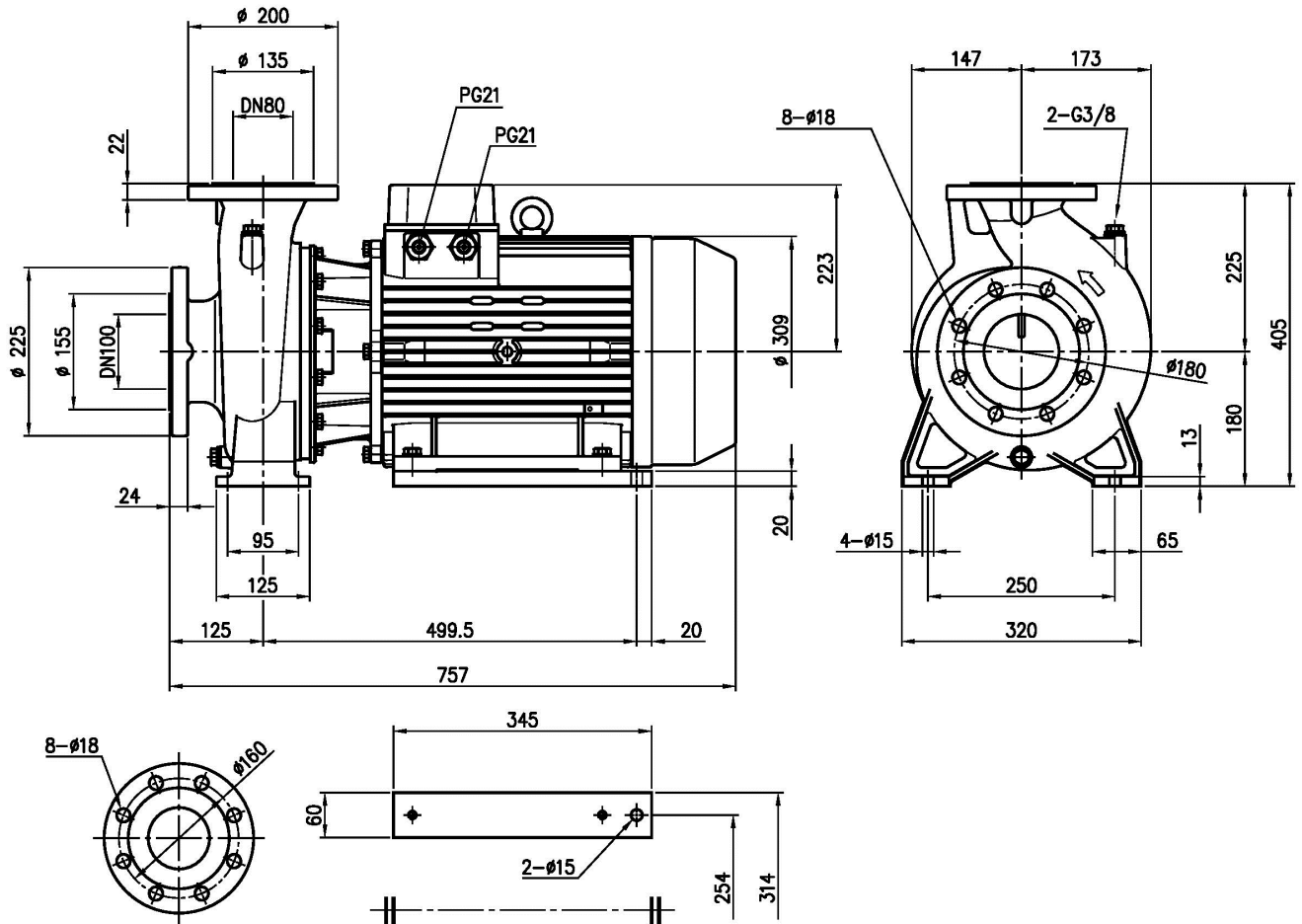
Water; 20°C; 998.3kg/m³; 1mm²/s



Dimensions

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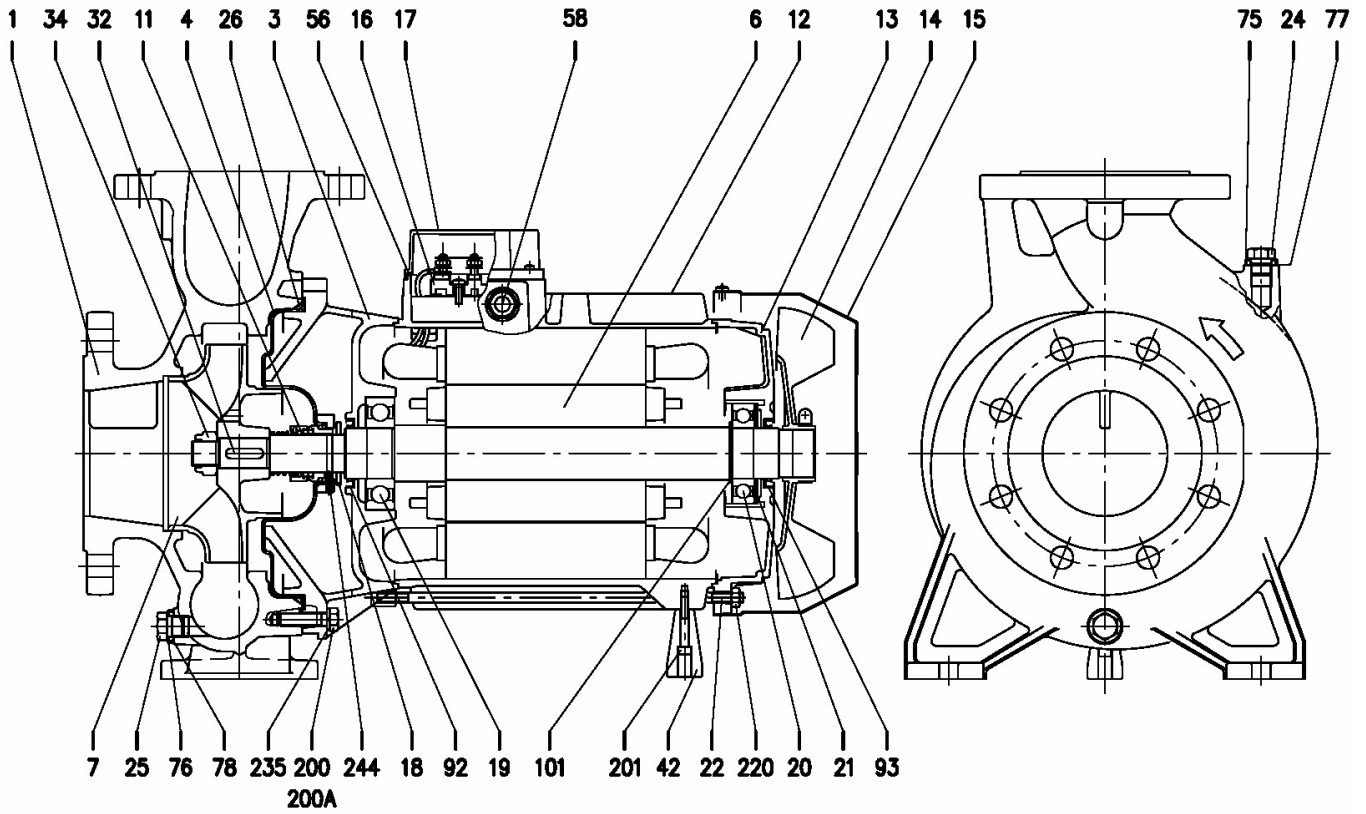
Dimensions in mm							
1	Weight P&M	145,3 kg					
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							

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Construction

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Construction

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N°	PART NAME	MATERIAL	DIMENSIONS	STANDARD	Q.TY
1	Casing	CF8M - EN 1.4408 (AISI 316)			1
3	Motor bracket	Cast iron EN-GJL-200-EN 1561			1
4	Casing cover	EN 1.4404 (AISI 316L)			1
6	Shaft with rotor	EN 1.4404(AISI 316L) Part in contact with liquid			1
7	Impeller	CF8M - EN 1.4408 (AISI 316)			1
11	Mechanical seal [3]	SiC/SiC/FPM			1
12	Motor frame with stator	-			1
13	Motor cover	Aluminium			1
14	Fan	PA			1
15	Fan cover	Fe P04 Zincate			1
16	Terminal	-			1
17	Terminal box cover	Aluminium			1
18	Splash ring	NBR	50x29.5x3	EPE DRAWING	1
19	Bearing [4]	-			1
20	Bearing	-			1
21	Adjusting ring	Steel C70			1
22	Screw	Zn. Steel 8.8 strenght class ISO 898/1		UNI 5739	4
24	Plug	EN 1.4404 (AISI 316L)	G 3/8	EPE DRAWING	1
25	Plug	EN 1.4404 (AISI 316L)	G 3/8	EPE DRAWING	1
26	O-ring	FPM	227.96x5.34	OR 6895	1
32	Key	EN 1.4401 (AISI 316)	8x7x30	UNI 6604	1
34	Impeller nut	EN 1.4404 (AISI 316L)	M20x1.5	UNI 7474	1
42	Foot	Aluminium		EPE DRAWING	2
56	Box gasket	NBR			1
58	Fasting nut	-			2
75	Washer (plug)	EN 1.4404 (AISI 316L)			1
76	Washer (plug)				1
77	O-ring (plug)				1
78	O-ring (plug) [2]	FPM/EPDM			1
92	Lip seal	-	45x60x7	DIN 3760 without spring	1
93	Lip seal	-	45x60x7	DIN 3760 without spring	1
200	Screw	Stainless steel A2-70 class ISO 3506/1	M 10x35	UNI 5739	10
200A	Screw		M 10x30		2
201	Screw	Zincate steel 8.8 strenght class ISO 898/1	M 12x40	UNI 5739	4
206	Screw for bracket	Zincate steel 8.8 strenght class ISO 898/1	M 10x40	UNI 5739	4
230	Washer	Zincate steel	13x24x2.5	UNI 6592	4
235	Washer	EN 1.4301(AISI 304)	10.5	UNI 6592	12
244	Pin [1]	EN 1.4301(AISI 304)	4x15		1

[1] Not for H, HW, HSW, E version

[2] See **MECHANICAL SEAL**, "O-ring" column, see CONSTRUCTION 3

[3] See **MECHANICAL SEAL**, see CONSTRUCTION 3

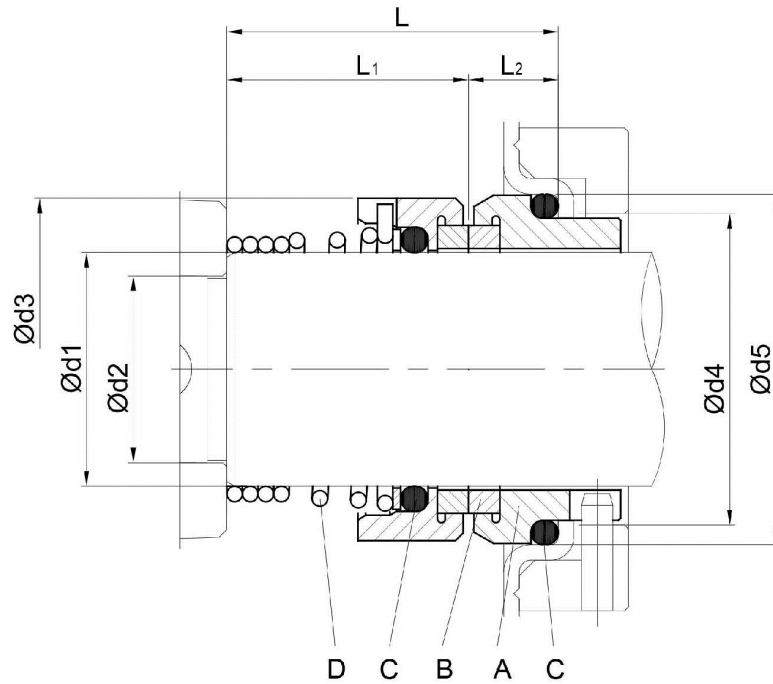
[4] See **BEARINGS**

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Version	Pump type	Dimensions [mm]									Material Standard			
		d1	d2	d3	d4	d5	L	L1	L2	A Stationary seal ring	B Rotary seal ring	C O-ring	D Frame + spring	
L	65-160/156 65-200 65-250 80-160/200	30	24	44	39	45	42.5	31	11	SiC	SiC	FPM	EN 1.4401 (AISI 316)	