Technical Data

Pump Name 3S4 50-160/1.1R

Customer	Date	2024-06-12	Company
Contact	Item no.		Issued by
Phone	Project		Phone
E-mail	Project ID	Proiect redenumit 2024-06-12 12:10:37	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	3S4 50-160/1.1R	Frequency		Hz	50
10	Design	CENTRIFUGAL PUMPS	Installation type			STANDARD
11	Manufacturer	EBARA	Impeller Diameter	Max.	mm	154
12	Speed rpm	1400		Designed	mm	154
13	No. of Stage	1		Min.	mm	154
14	Connection Suction side	DIN 2532	Flow	Operating	m³/h	
15	Connection Discharge side	DIN 2532		Max-	m³/h	39
16	Max Working Pressure bar	10		Min-	m³/h	12
17	Shut-off head bar	0.80	Head	Operating	m	
18	Total weight kg	See the table of "Dimensions".		- (Qmax.)	m	4.0
19	Shaft power kW			- (Qmin.)	m	7.8
20			Max. Shaft Power at max. impeller		kW	0.64
21	Required pump NPSH m		Efficiency		%	

Materials

22	Impeller	AISI 304		
23	Casing	AISI 304		
24	Shaft	AISI 304		
25				
26				
27				

Motor

28	Manufacturer	LAFERT	Insulation class		F
29	Type	TEFC_3S450-160/1.1R_230_Three Phase	Phases		3~
30	Specific design	IE3 / 50 Hz / Pole pairs 2	Frame size		90 S
31	Rated power kW	1.1	Weight	kg	
32	Number of poles	4	Electric voltage	V	230
33	Speed rpm	1400	Electric current	A	4.3
34	Degree of protection	IP 55			
35					

Remarks

EBARA

Performance Curve

Pump Name 3S4 50-160/1.1R

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Requested data

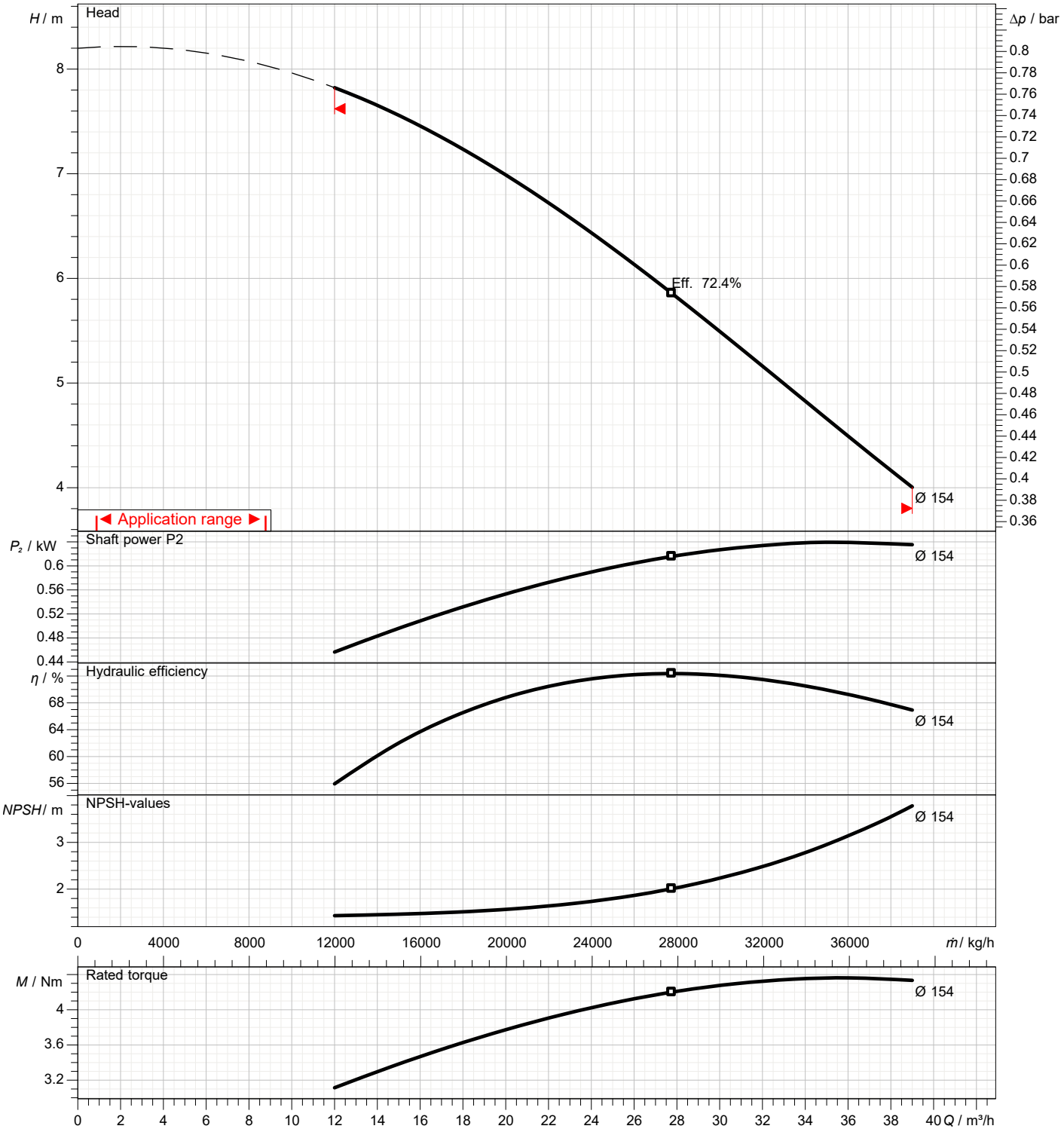
1	Flow	m³/h	
2	Head	m	
3	Geodetic head	m	

Pump

Operating flow	m³/h		Frequency	Hz	50
Operating head	m		Number of poles		4
Impeller diameter designed	mm	154	Speed	rpm	1400

Test standard: ISO 9906:2012 - Grade3B

Water; 20°C; 998.3kg/m³; 1mm²/s



EBARA

Dimensions

Pump Name 3S4 50-160/1.1R

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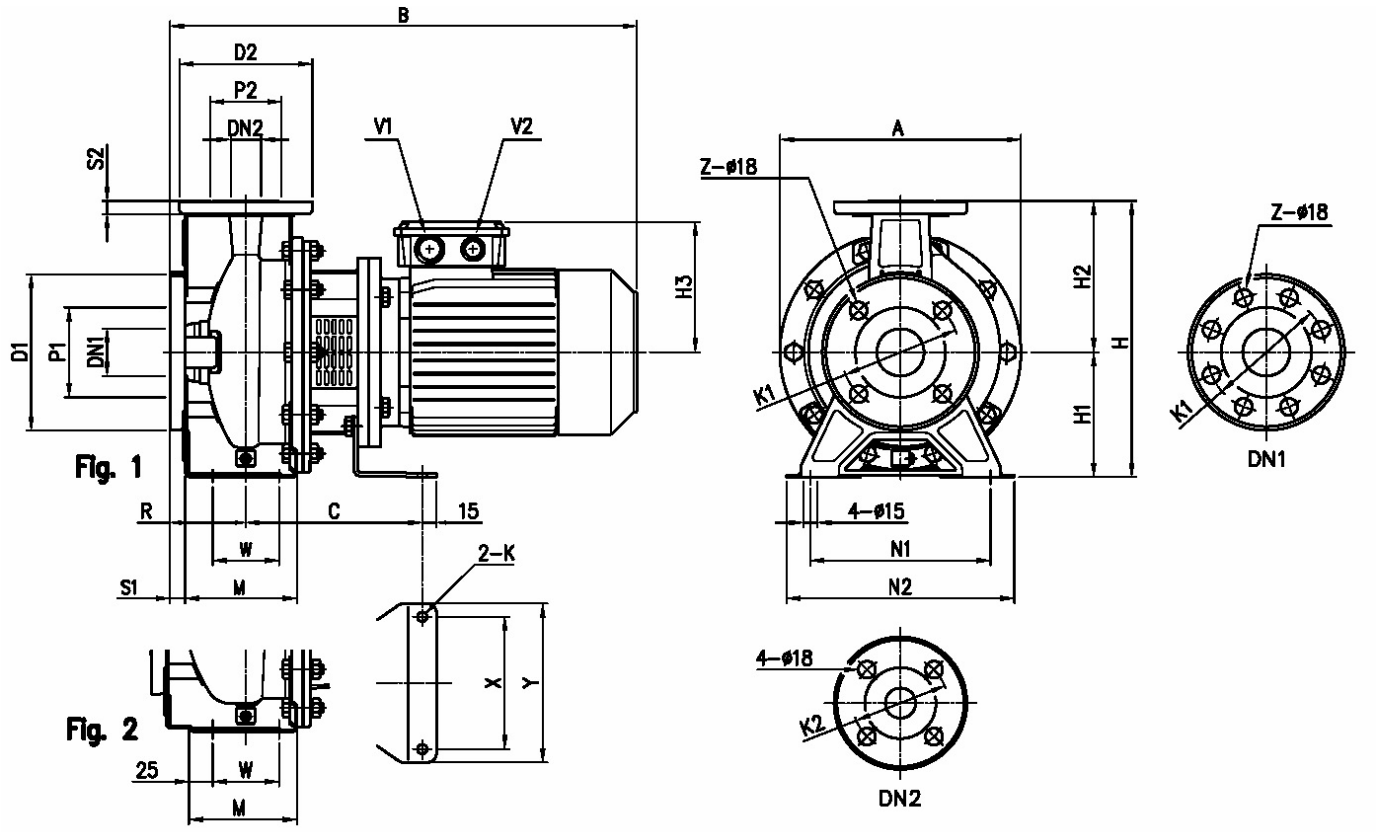

Dimensions in	mm						
1	A	296	H3	148			
2	B	497	K	10			
3	C	186	M	115			
4	Dia D1	185	N1	212			
5	Dia D2	165	N2	265			
6	Dia DN1	65	R	100			
7	Dia DN2	50	S1	16			
8	Dia K1	145	S2	16			
9	Dia K2	125	V1	M25x1.5			
10	Dia P1	115	V2	M20x1.5			
11	Dia P2	95	W	70			
12	Fig	2	Weight P&M	31,8 kg			
13	H	340	X	140			
14	H1	160	Y	168			
15	H2	180	Z	4			

(1/3)
Construction

Pump Name 3S4 50-160/1.1R

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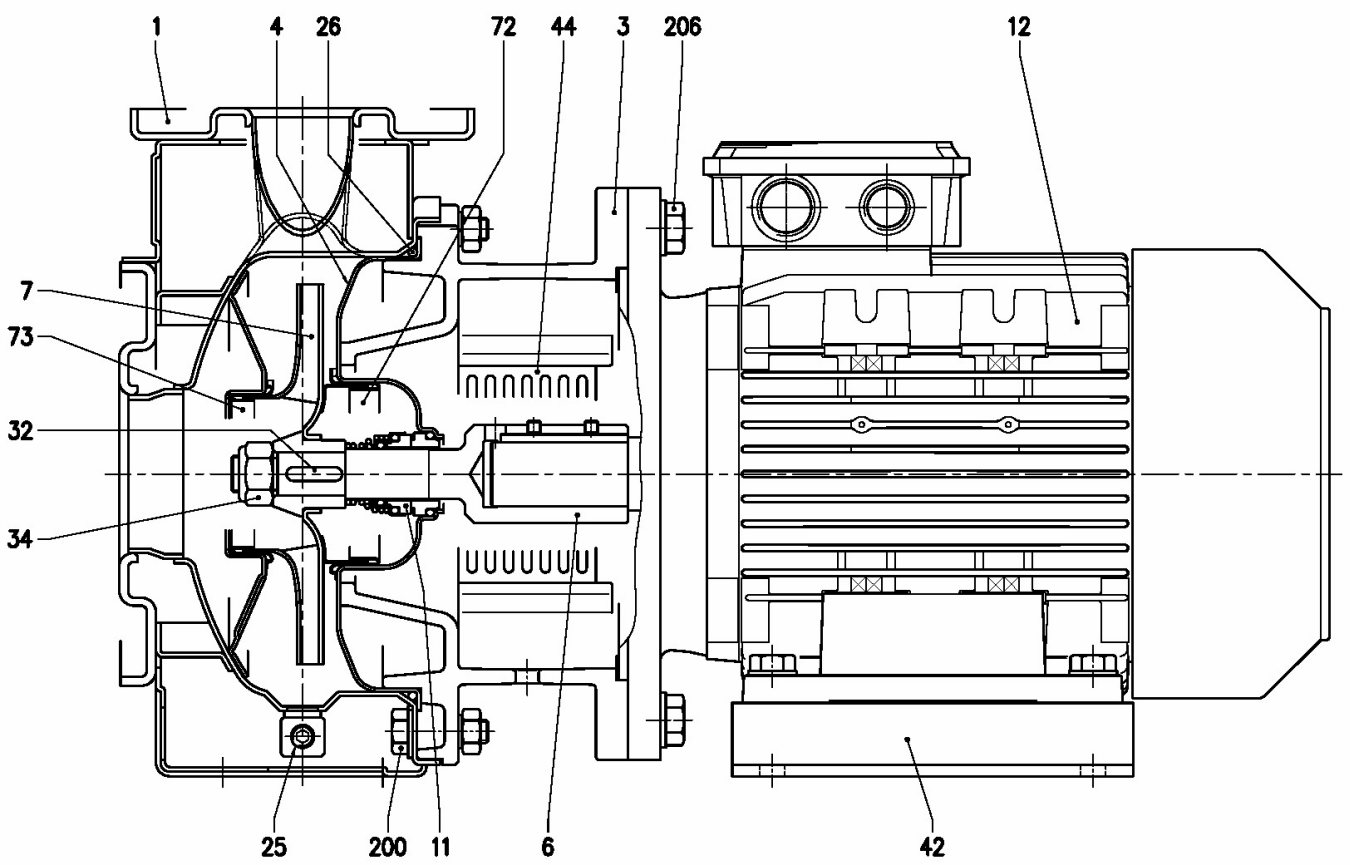

(2/3)
Construction

Pump Name 3S4 50-160/1.1R

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N°	PART NAME		MATERIAL 3S4	MATERIAL 3LS4	DIMENSIONS	STANDARD	Q.TY
1	Casing		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
3	Motor bracket		Cast iron EN-GJL-200-EN 1561				1
4	Casing cover		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
6	Coupling - Part in contact with liquid		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
7	Impeller	32, 40, 50	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
		65-125/160/200	EN 1.4401 (AISI 316)				
11	Mechanical seal [4]		Carbon/Ceramic/NBR	SiC/SiC/FPM			1
12	Motor		-				1
25	Draing plug		EN 1.4401 (AISI 316) / PTFE		R 1/8" L=8	DIN 906	1
26	O ring	32-125, 40-125	NBR [5]	FPM	158.11x5.34	OR 6625	1
		32-160, 40-160, 50-125, 65-125			183.52x5.34	OR 6720	
		32-200, 40-200, 50-160, 50-200, 65-160, 65-200			227.96x5.34	OR 6895	
32	Key		EN 1.4401 (AISI 316)		6x6x25	UNI 6604	1
34	Impeller nut	Other model	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)	M16x1.5	UNI 7474	1
		50-200/2.2			M18x1.5		
42	Foot		Galvanized steel				[1]
44	Protection		EN 1.4301 (AISI 304)			EBARA DRAWING	2
72	Casing ring (not for 65 version) [2]		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
73	Casing ring (not for 65 version)		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
200	Screw	32-125, 40-125	Stainless steel A2 70 class ISO 3506/1		M 8x30	UNI 5739	8
		40-160, 40-200, 50-125, 50-160, 50-200, 65-125, 65-160, 65-200			M 10x35	UNI 5739	[3]
206	Screw	up to 0.37kW	Gv. Steel 8.8 strenght class ISO 898/1		M 8x20	UNI 5739	4
		from 0.55 to 1.5kW			M 10x25		
		for 2.2 and 3kW			M 12x30		

[1] Quantity = 1 up to 1.5kW
Quantity = 2 for 2.2 and 3kW
[2] Only for version 32-200, 40-200, 50-160, 50-200
[3] Quantity = 10 for 32-160, 40-160, 50-125, 65-125
Quantity = 12 for 32-200, 40-200, 50-160, 50-200, 65-160, 65-200
[4] Special version: see CONSTRUCTION 3
[5] FPM for H-HS-HW-HSW version
EPDM for E version, Q1AEGG, U3U3EGG, Q1Q1EGG, Q1U3EGG, U3CEGG

(3/3)
Construction

Pump Name 3S4 50-160/1.1R

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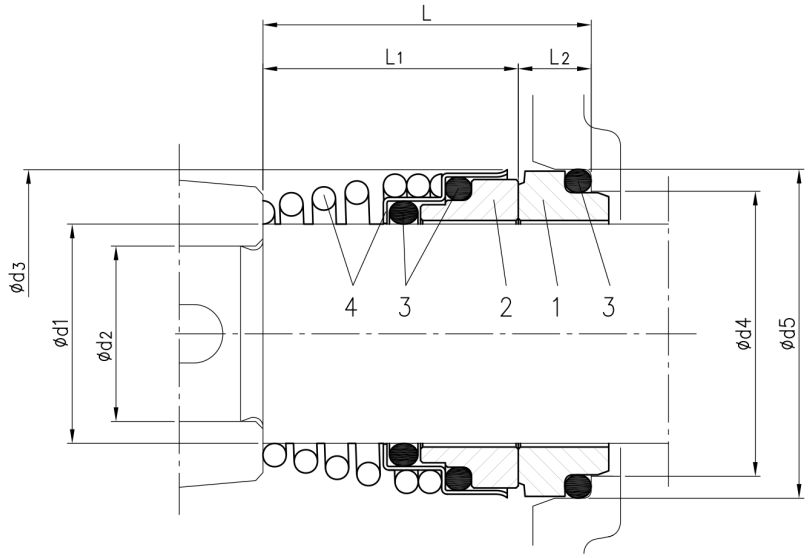

Version	Pump type	Dimensions								Material			
		d1	d2	d3	d4	d5	L	L1	L2	**1** Stationary seal ring	**2** Rotary seal ring	**3** Rubber	**4** Frame + spring
Standard	32-125/160/200 40-125/160/200 50-125/160/200 65-125/160/200	22	19	38	31	37	37.5	27.5	10	Carbon	Ceramic	NBR	EN 1.4401 (AISI 316)