Technical Data

Pump Name 3LM 80-160/18.5

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		CENTRIFUGAL PUMPS	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		3LM 80-160/18.5	Frequency		Hz	50
10	Design		CENTRIFUGAL PUMPS	Installation type			STANDARD
11	Manufacturer		EBARA	Impeller Diameter	Max.	mm	174
12	Speed	rpm	2900		Designed	mm	174
13	No. of Stage		1		Min.	mm	174
14	Connection Suction side		DIN 2532	Flow	Operating	m³/h	
15	Connection Discharge side		DIN 2532		Max-	m³/h	240
16	Max Working Pressure	kPa	1000		Min-	m³/h	78
17	Shut-off head	kPa	391.76	Head	Operating	m	
18	Total weight	kg	See the table of "Dimensions".		- (Qmax.)	m	20.0
19	Shaft power	kW			- (Qmin.)	m	39.0
20				Max. Shaft Power at max. impeller		kW	18.64
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_3LM80-160/18.5_400_Three Phase	Phases		3~
30	Specific design	IE3 / 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	IP 55			
35					

Remarks

EBARA

Performance Curve

Pump Name 3LM 80-160/18.5

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Requested data

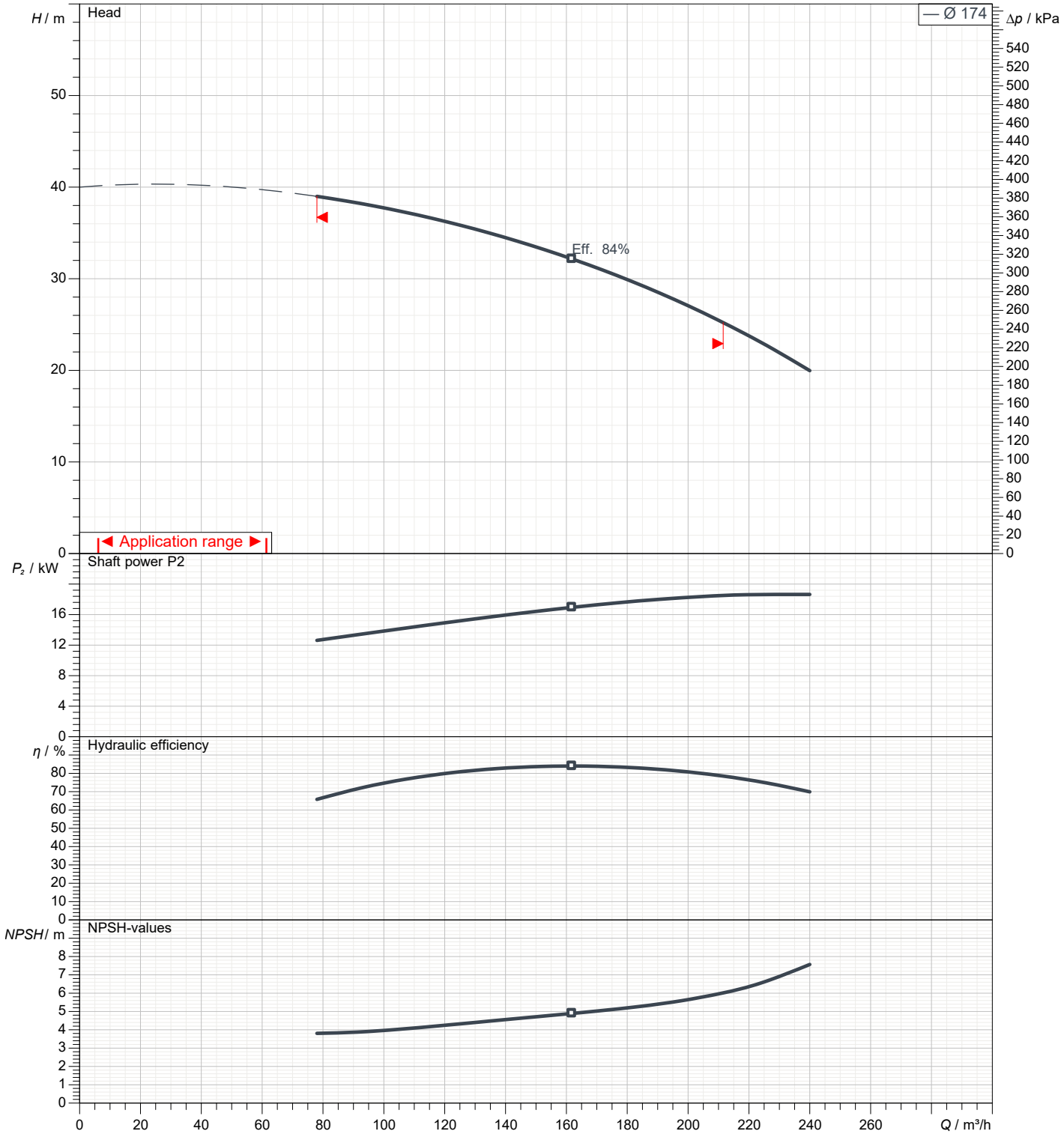
1	Flow	m³/h	
2	Head	m	
3	Geodetic head	m	

Pump

Operating flow	m³/h		Frequency	Hz	50
Operating head	m		Number of poles		2
Impeller diameter designed	mm	174	Speed	rpm	2900

Test standard: ISO 9906:2012 - Grade3B

Water; 20°C; 998.3kg/m³; 1cSt



Dimensions

Pump Name 3LM 80-160/18.5

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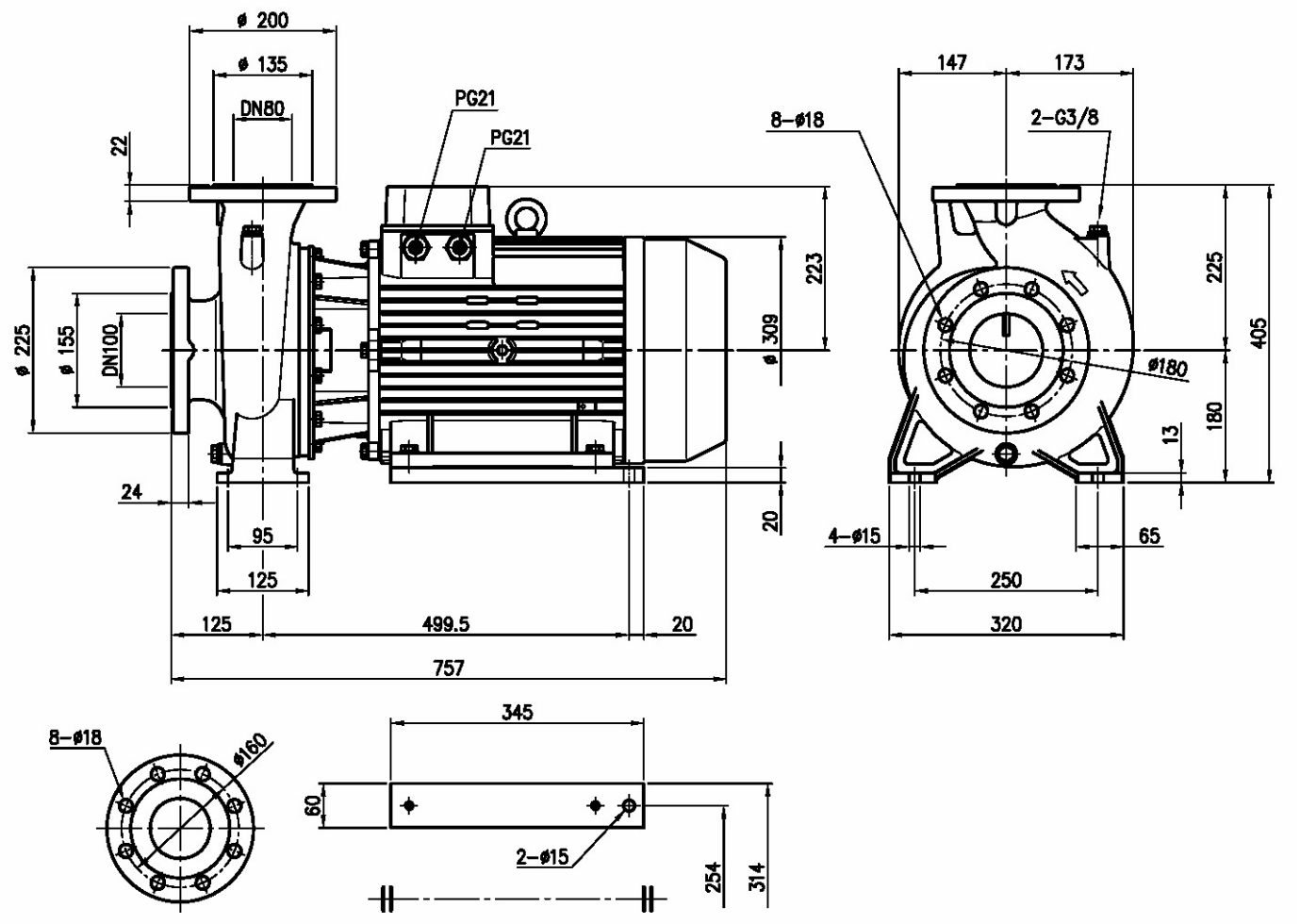

Dimensions in	mm							
1	Weight P&M	[145].3 kg						
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								

EBARA

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Construction

Pump Name 3LM 80-160/18.5

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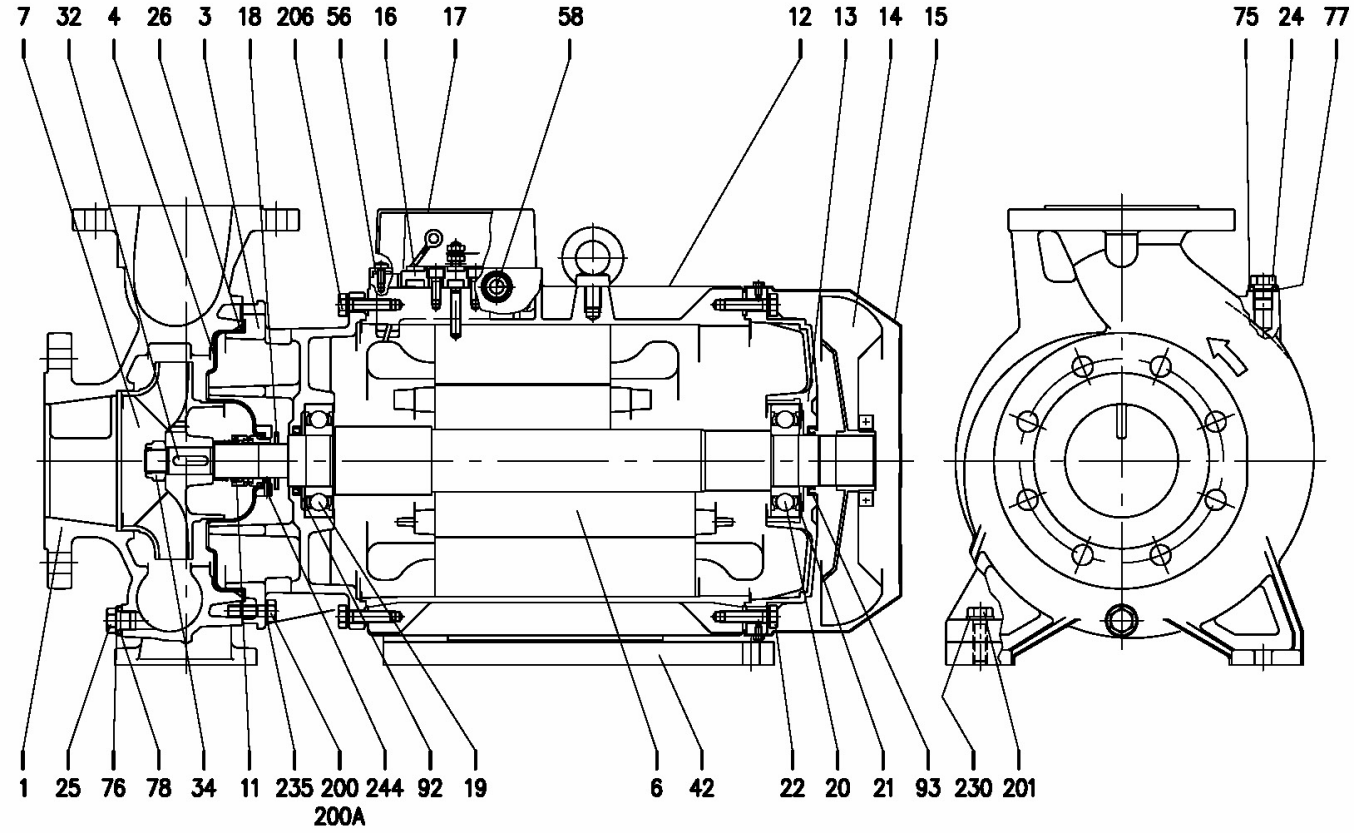

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Construction

Pump Name 3LM 80-160/18.5

Customer	Date 09.06.2024	Company
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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) - Wet extension			1
7	Impeller		CF8M - EN 1.4408 (AISI 316)			1
11	Mechanical seal		SiC/SiC/FPM	[5]		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			1
18	Splash ring		NBR	50x29.5x3	EPE DRAWING	1
19	Bearing		-			1
20	Bearing		-			1
21	Adjusting ring		Steel C70			1
22	Screw		Galvanized Steel 8.8 strenght class ISO 898/1		EPE DRAWING	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 1.4404 (AISI 316L)	8x7x30	UNI 6604	1
34	Impeller nut		Aluminium	M20x1.5	UNI 7474	1
42	Foot		Aluminium		EPE DRAWING	[1]
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)		FPM [4]			1
78	O-ring (plug)					1
92	Lip seal	11 kW	-	40x55x7	DIN 3760	1
		15 - 18.5 kW		45x60x7	without spring	1
93	Lip seal	11 kW	-	40x55x7	DIN 3760	1
		15 - 18.5 kW		45x60x7	without spring	1
101	Snap ring (only 11 kW)		Carbon tool steels TC 80	Ø 40	UNI 7435	1
200	Screw		Stainless steel A2-70 class ISO 3506/1	M 10x35	UNI 5739	10
200 A	Screw			M 10x30		2
201	Screw	11 kW	Stainless steel A2-70 class ISO 3506/1	M 6x40	UNI 5739	1
		15 - 18.5 kW		M 12x40		4
206	Screw for bracket (only 15 - 18.5 kW)		Galvanized steel 8.8 strenght class ISO 898/1	M 10x40	UNI 5739	4
220	Nut for tie rod (only 11 kW)		Galvanized steel	M10		4
230	Washer	11 kW	-	-	-	-
		15 - 18.5 kW	Galvanized steel	13x24x2.5	UNI 6592	4
235	Washer		EN 1.4301(AISI 304)	10.5	UNI 6592	12
244	Pin [3]		EN 1.4301(AISI 304)	4x15		1

[1] Quantity =1 for version 80-160/11
Quantity =2 for version 80-160/15R, 80-160/15 and 80-160/18.5
[2] Quantity =1 for version 80-160/11
Quantity =2 for version 80-160/15R, 80-160/15 and 80-16018.5
[3] Not for H and E version
[4] FPM for H, HW, HSW version
EPDM for E version, Q1AEGG, Q1Q1EGG, Q1U3EGG, U3CEGG
[5] Special version: see Contruction 3

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Construction

Pump Name 3LM 80-160/18.5

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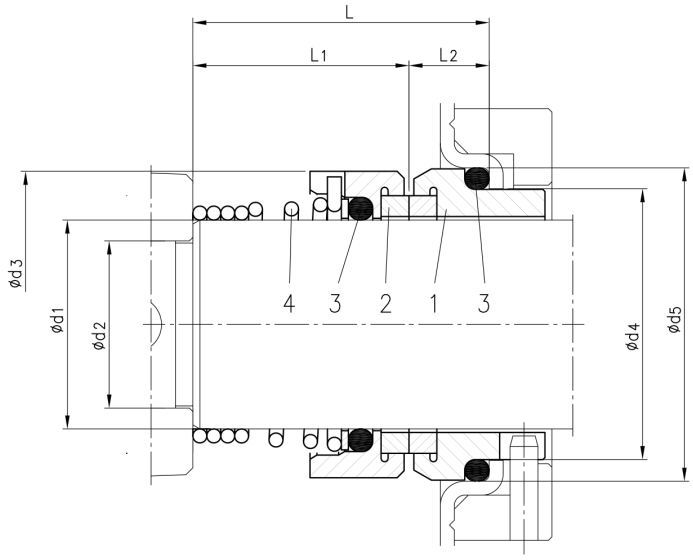

Version	Pump type	Dimensions								Material			
		d1	d2	d3	d4	d5	L	L1	L2	1 Stationary seal ring	2 Rotary seal ring	3 Rubber	4 Frame + spring
L ⌀30	65-160/15 65-200/250 80-160/200	30	24	44	39	45	42.5	31	11.5	SiC	SiC	FPM	EN 1.4571 (AISI 316Ti)
L ⌀35	80-250	35	29	49	44	50	42.5	31	11.5				

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