Technical data

Pump name 3M 50-200/15

Customer	Date 23-June-2020	Company
Contact	Item no.	Issued by
Phone	Project	Phone
E-mail	Project ID	E-mail

Requested data

1	Pump type	CENTRIFUGAL PUMPS	Fluid		Water, clean
2	Number of pumps / Reserve	1 / 0	Liquid temperature	K	293
3	Flow m³/h	0	Kin. viscosity	mm²/s	1
4	Head m	0	Vapour pressure	kPa	2.2
5	Geodetic head m	0	PH value		7
6	Inlet pressure (pin) kPa	10	Density	kg/m³	1000
7	Available system NPSH	0	Solids	Weight %	0
8	Ambient temperature K	290			

Pump

9	Pump name	3M 50-200/15	Frequency		Hz	50
10	Design	CENTRIFUGAL PUMPS	Installation type			STANDARD
11	Manufacturer	EPE	Impeller Diameter	Max.	mm	224
12	Speed 1/min	2900		Designed	mm	224
13	No. of Stage	1		Min.	mm	224
14	Connection Suction side	DIN 2532	Flow	Operating	m³/h	
15	Connection Discharge side	DIN 2532		Max-	m³/h	72
16	Max Working Pressure kPa	1000		Min-	m³/h	30
17	Shut-off head kPa	705.12	Head	Operating	m	
18	Total weight kg	See the table of "Dimensions".		- (Qmax.)	m	57.0
19	Shaft power kW			- (Qmin.)	m	70.0
20			Max. Shaft Power at max. impeller		kW	15.96
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	EPE Standard	Insulation class		F
29	Type	TEFC_3M50-200/15_400_Three Phase	Phases		3~
30	Specific design	IE3 / 50 Hz / Pole pairs 1	Frame size		
31	Rated power kW	15	Weight	kg	0
32	Number of poles	2	Electric voltage	V	400
33	Speed 1/min	2900	Electric current	A	27.7
34	Degree of protection	IP 55			
35					

Remarks

EBARA

Performance curve

Pump name 3M 50-200/15

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Requested data

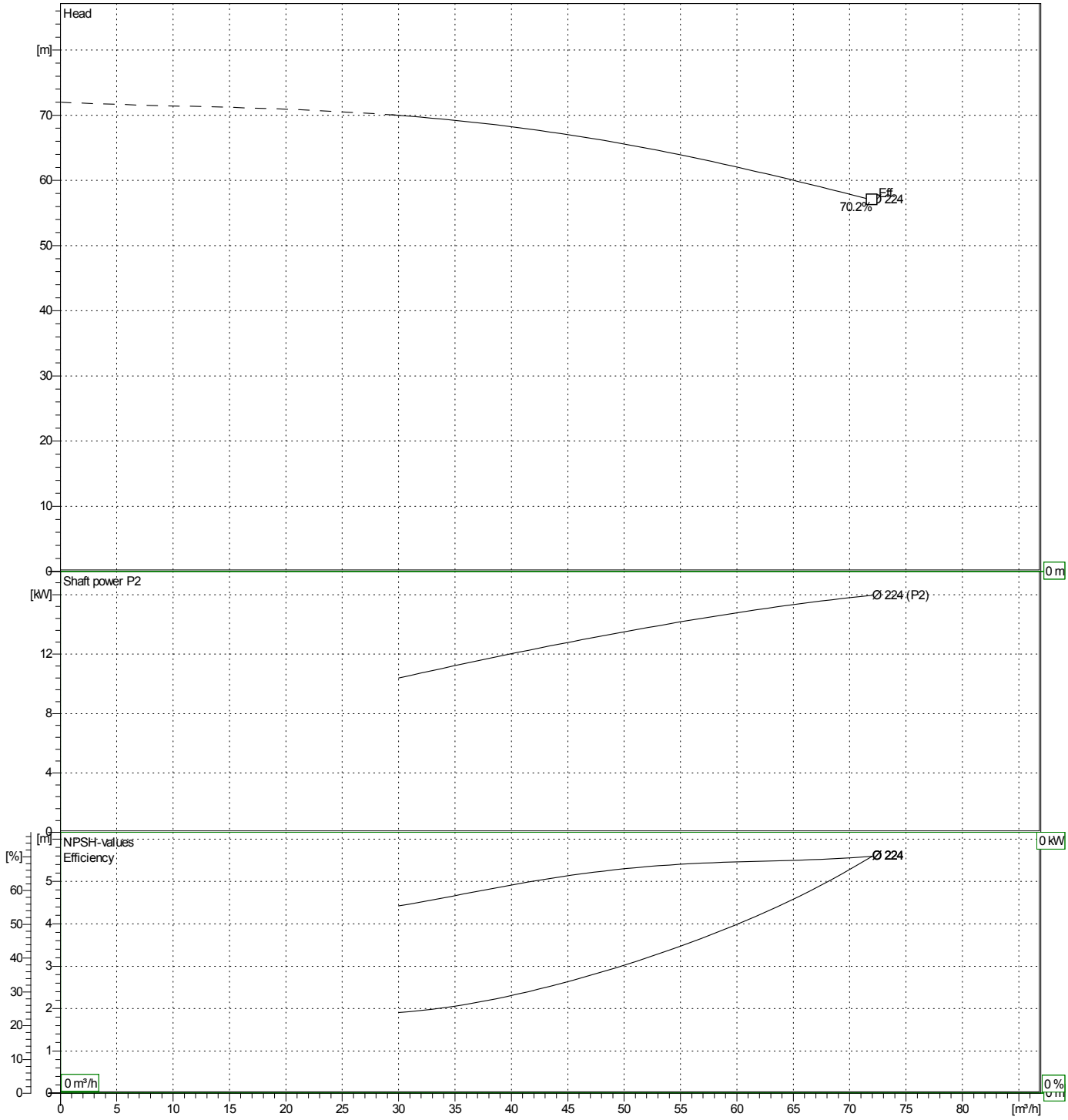
1	Flow	m³/h	0
2	Head	m	0
3	Geodetic head	m	0

Pump

Operating Flow	m³/h		Frequency	Hz	50
Operating Head	m		Number of poles		2
Impeller Diameter	Designed mm	224	Speed	1/min	

Test standard: ISO 9906:2012 - Grade3B

Water, clean [100%] ; 293K; 998.3kg/m³; 1mm²/s

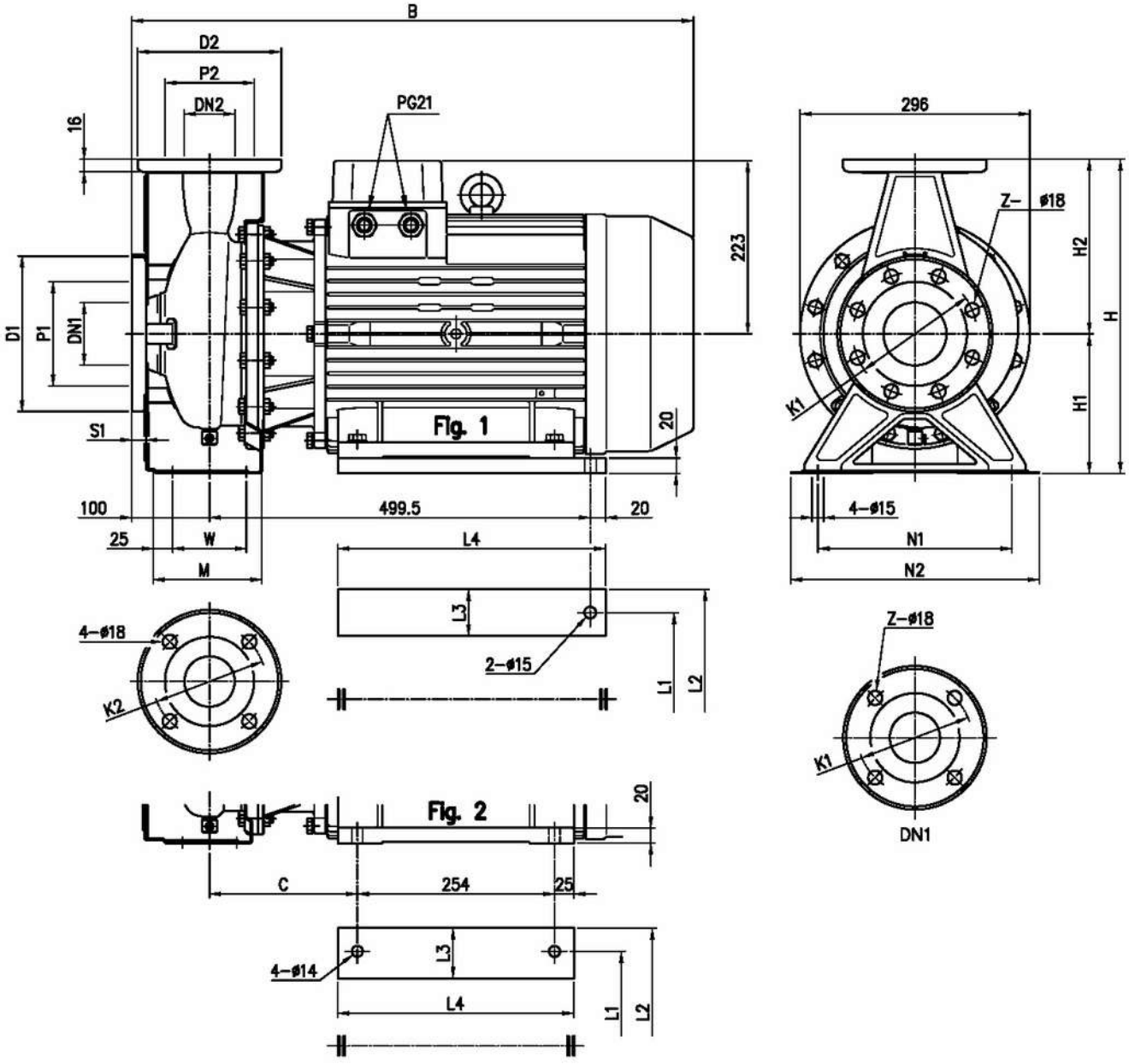


EBARA

Dimensions

Pump name 3M 50-200/15

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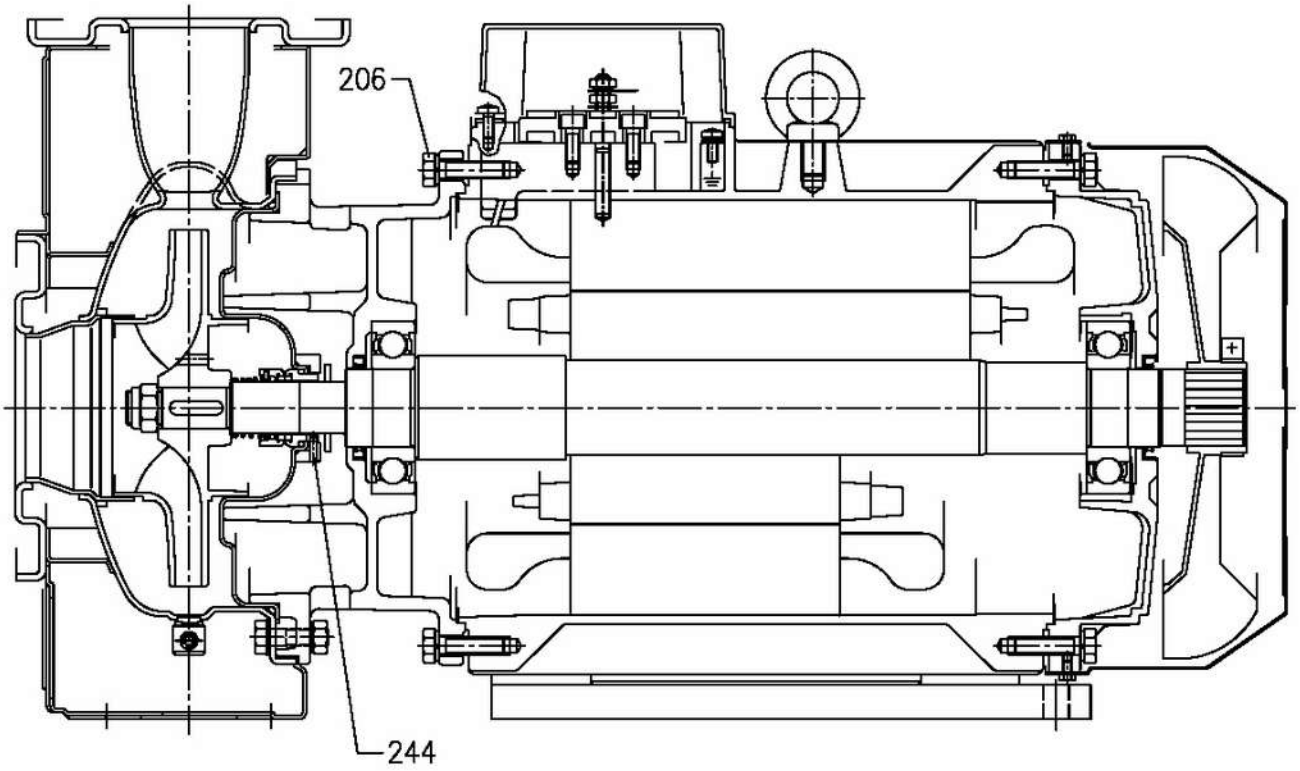
Dimensions in mm								
1	B	723	H2	200				
2	C	190.5	M	115				
3	Dia D1	185	N1	212				
4	Dia D2	165	N2	265				
5	Dia DN1	65	S1	16				
6	Dia DN2	50	W	70				
7	Dia K1	145	Weight P&M	105.1 kg				
8	Dia K2	125	Z	4				
9	Dia P1	115						
10	Dia P2	95						
11	Fig	2						
12	H	360						
13	H1	160						

EBARA

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Construction

Pump name 3M 50-200/15

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EBARA

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Construction

Pump name 3M 50-200/15

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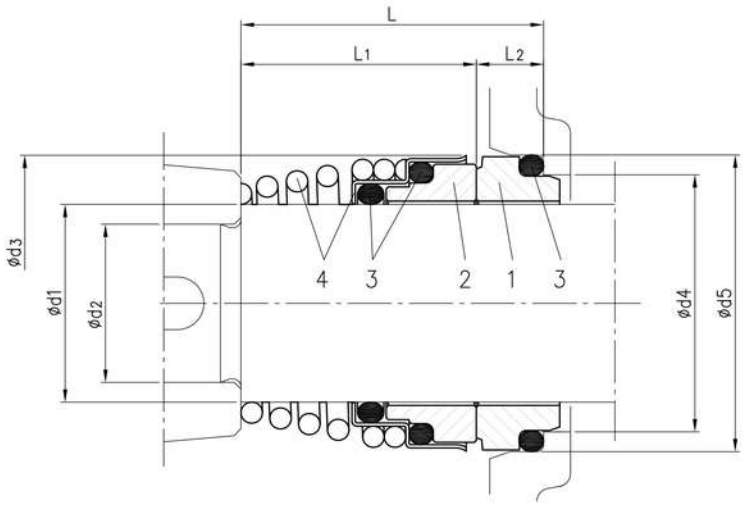
N°	PART NAME		MATERIAL 3M	MATERIAL 3LM	DIMENSIONS	STANDARD	Q.TY
1	Casing		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
3	Motor bracket		[9]				1
4	Casing cover		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
6	Shaft with rotor-Part in contact with liquid		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
7	Impeller		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
11	Mechanical seal		Carbon/Ceramic/NBR	SiC/SiC/FPM	[8]		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	Up to 11 kW	NBR	/	40x21.5x3	EBARA DRAWING	1
		15 kW and above			50x29.5x3		
19	Bearing		-		See table p.324		1
20	Bearing		-		See table p.324		1
21	Adjusting ring		Steel C70				1
22	Tie rod	Up to 3 kW	Fe 42 Galvanized		M5	EBARA DRAWING	4
		For 4 - 5.5 - 7.5 kW			M6		
		9.2 e 11kW			M8		
	Screw	15 kW and above	Galvanized Steel 8.8 strenght class ISO 898-1		M10x40	UNI 5739	
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 [7]	FPM	158.11x5.34	OR 6625	1
		32-160, 40-160, 50-125			183.52x5.34	OR 6720	
		32-200, 40-200, 50-160, 50-200, 65-160, 65-200			227.96x5.34	OR 6895	
32	Key	Up to 11 kW	EN 1.4401 (AISI 316)		A 6x6x25	UNI 6604	1
		15 kW and above			A 8x7x30		
34	Impeller nut	Up to 11kW	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)	M16x1.5	UNI 7474	1
		50-200/15			M18x1.5		
		15 kW and above			M20x1.5		
42	Foot		Aluminium / Galvanized steel			EBARA DRAWING	[1]
56	Box gasket		NBR				1
58	Fasting nut		-				[2]
72	Casing ring [3]		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
73	Casing ring		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)			1
92	Lip seal	Up to 3kW	-	-	25x40x7	DIN 3760 without spring	1
		From 4 to 7.5 kW			30x47X7		
		From 9.2 kW to 11 kW			40x55x7		
		From 15 kW to 22 kW			45x60x7		
093	Lip seal	Up to 4 kW	-	-	25x40x7	DIN 3760 without spring	1
		From 5.5 kW to 7.5 kW			30x47X7		
		From 9.2 kW to 11 kW			40x55x7		
		From 15 kW to 22 kW			45x60x7		
101	Snap ring (only 9.2 and 11kW)		Carbon tool steels TC 80		Ø 40	UNI 7435	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		[4]
235	Washer	32-125, 40-125	EN 1.4301 (AISI 304)		8.4x17	UNI 6592	8
		40-160, 40-200, 50-125, 50-160, 50-200, 65-125, 65-160, 65-201			10.5x21		[4]
206	Screw for bracket [5]		Galvanized Steel 8.8 strenght class ISO 898-1		M 10x40	UNI 5739	4
244	Pin [6]		-	EN 1.4301 (AISI 304)	4x15		1

[1] Quantity =0 for 65-160/15
Quantity =1 for 32-40-50 and 65 up to 11kW
Quantity =2 for 65-200/15, 65-200/18.5, 65-200/22
[2] Quantity =1 up to 11kW
Quantity =2 from 15kW to 22kW
[3] For version 32-200/3, 32-200/4, 32-200/5.5, 40-200/5.5, 40-200/7.5, 40-200/11, 50-160/5.5, 50-160/7.5, 50-200/9.2, 50-200/11, 50-200/15
[4] 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
[5] For 15kW and above
[6] Only for 65-160/15 and 65-200
[7] FPM for H-HS-HW-HSW version
EPDM for E version, Q1AEGG, Q1Q1EGG, Q1U3EGG, U3CEGG, U3U3EGG (U3U3EGG not available for model 65-160/15 and 65-200)
[8] Special version: see CONSTRUCTION 3
[9] Cast iron EN-GJL-200-EN 1561 for 32-200/3 and models with 15, 18.5, 22 kW motor
Aluminum AL-EN-1706-AC-46000-D for all the others.

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Construction

Pump name 3M 50-200/15

Customer	Date 23-June-2020	Company
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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 65-160/7.5-9.2-11	22	19	38	31	37	37.5	27.5	10	Carbon	Ceramic	NBR	EN 1.4401 (AISI 316)
	65-160/15 65-200	30	24	46	39	45	42.5	32.5	10				