Technical data

Pump name MATRIX 5-2T/0.45M

Customer	Date 19-May-2020	Company
Contact	Item no.	Issued by
Phone	Project	Phone
E-mail	Project ID	E-mail

Requested data

1	Pump type	HORIZONTAL MULTISTAGE PUMPS	Fluid		Water, clean
2	Number of pumps / Reserve	1 / 0	Liquid temperature	K	293
3	Flow l/min	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	MATRIX 5-2T/0.45M	Frequency		Hz	50
10	Design	HORIZONTAL MULTISTAGE PUMPS	Installation type			STANDARD
11	Manufacturer	EPE	Impeller Diameter	Max.	mm	97
12	Speed 1/min	2850		Designed	mm	97
13	No. of Stage	2		Min.	mm	97
14	Connection Suction side	UNI ISO 228	Flow	Operating	l/min	
15	Connection Discharge side	UNI ISO 228		Max-	l/min	130
16	Max Working Pressure kPa	1000		Min-	l/min	30
17	Shut-off head kPa	225.30	Head	Operating	m	
18	Total weight kg	See the table of "Dimensions".		- (Qmax.)	m	8.8
19	Shaft power kW			- (Qmin.)	m	21.5
20			Max. Shaft Power at max. impeller		kW	0.43
21	Required pump NPSH m		Efficiency		%	

Materials

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

Motor

28	Manufacturer	EPE Standard	Insulation class		F
29	Type	TEFC_MATRIX 5-2T/0.45M_230_Single Phase	Phases		1~
30	Specific design	- / 50 Hz / Pole pairs 1	Frame size		
31	Rated power kW	0.45	Weight	kg	0
32	Number of poles	2	Electric voltage	V	230
33	Speed 1/min	2850	Electric current	A	3.2
34	Degree of protection	IP 55			
35					

Remarks

EBARA

Performance curve **Pump name** MATRIX 5-2T/0.45M

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Requested data

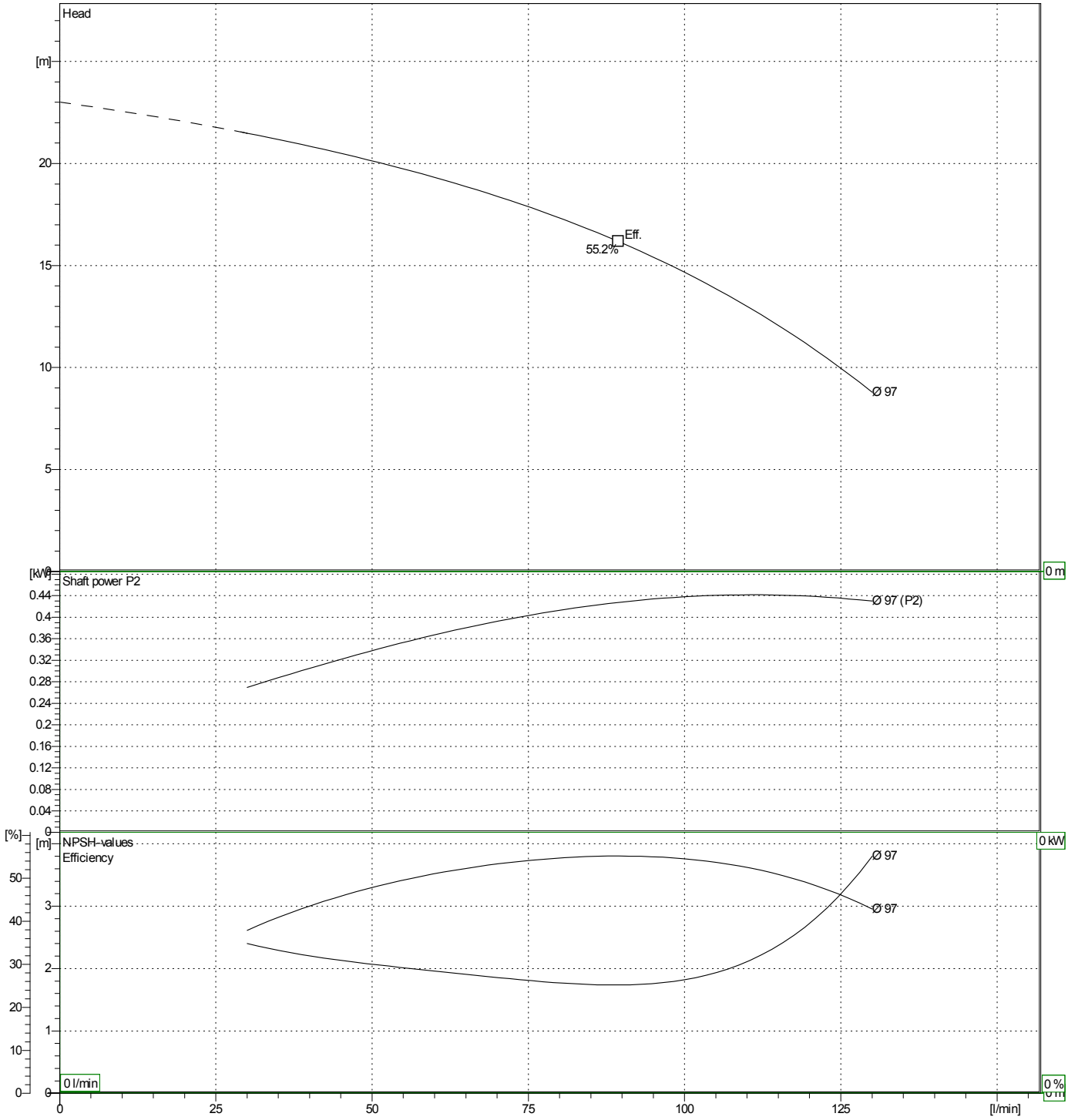
1	Flow	l/min	0
2	Head	m	0
3	Geodetic head	m	0

Pump

Operating Flow	l/min		Frequency	Hz	50
Operating Head	m		Number of poles		2
Impeller Diameter	Designed mm	97	Speed	1/min	

Test standard: ISO 9906:2012 - Grade3B

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

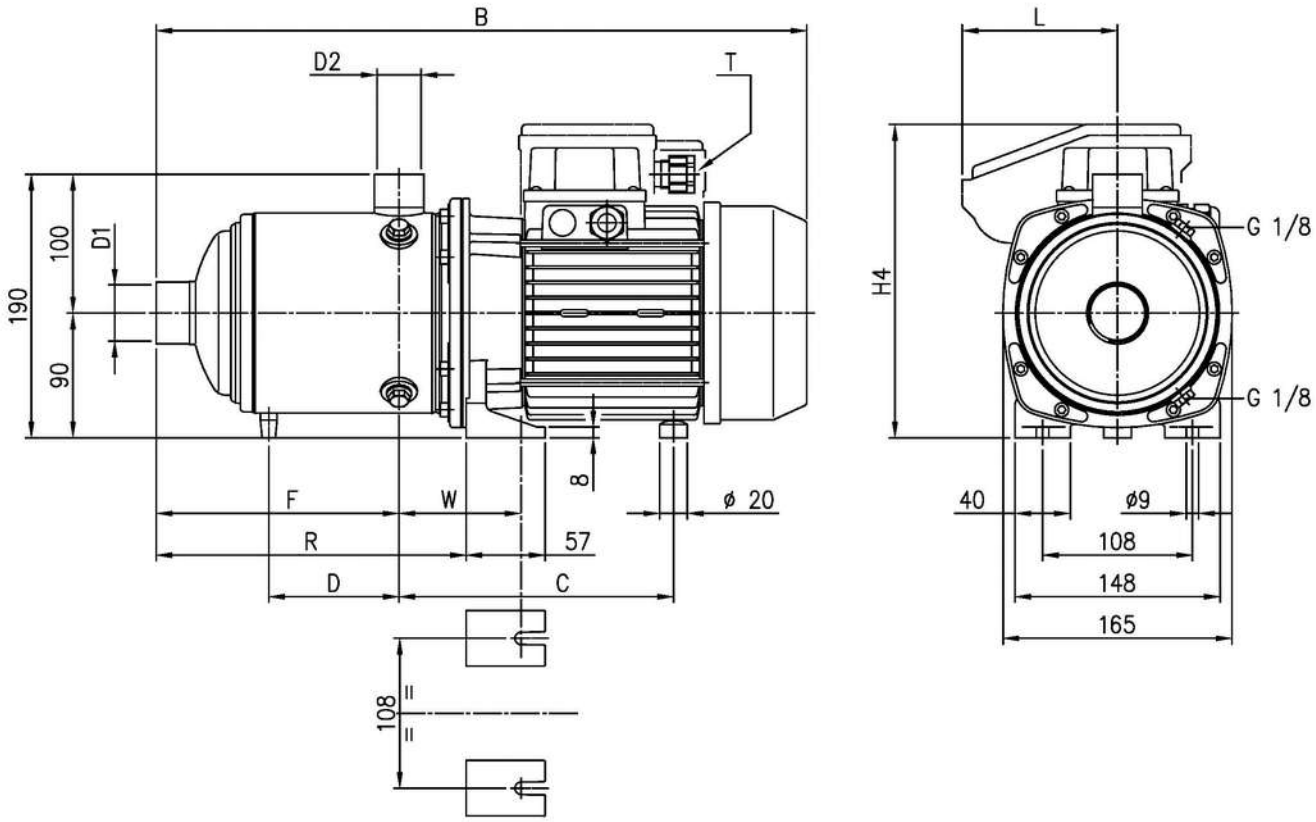


EBARA

Dimensions

Pump name MATRIX 5-2T/0.45M

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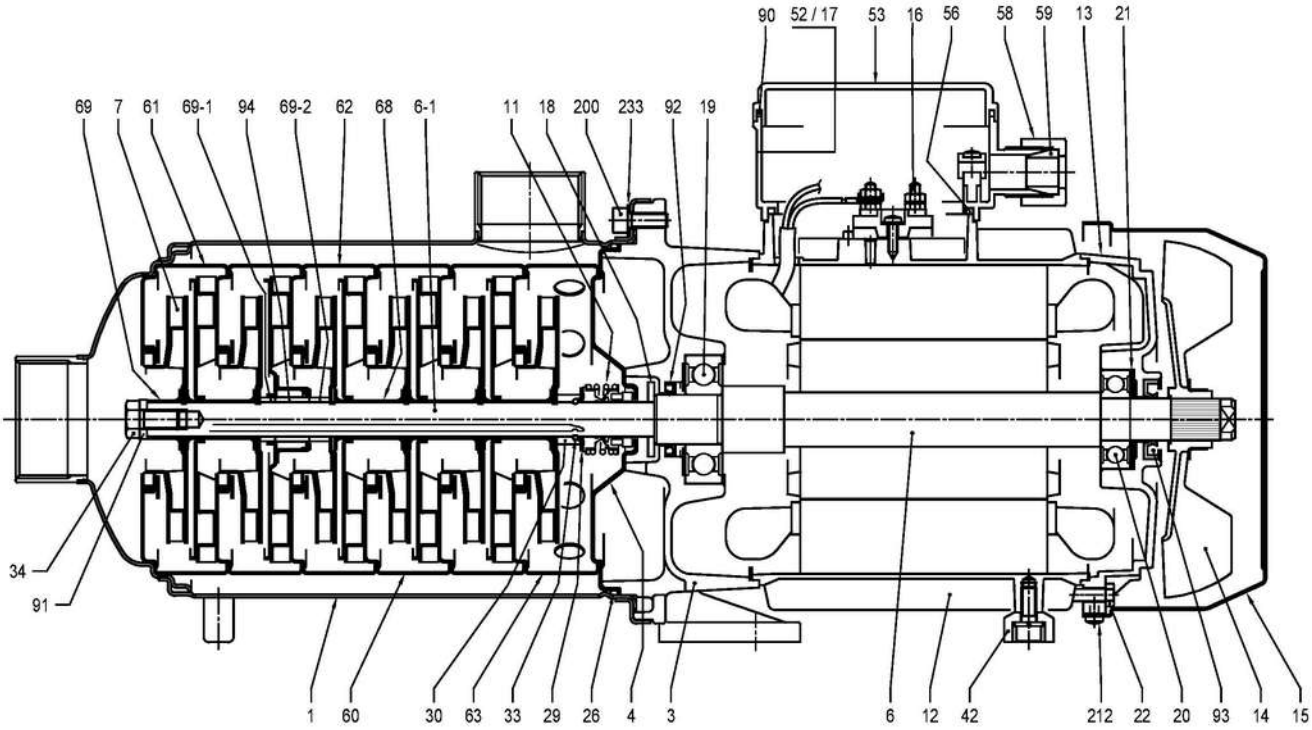
Dimensions in mm								
1	B	360						
2	C	171						
3	Dia D1	1" 1/4						
4	Dia D2	1"						
5	F	103						
6	H4	200						
7	L	86.5						
8	R	151.5						
9	T	PG 11						
10	W	88 + 97						
11	Weight P&M	8.5 kg						

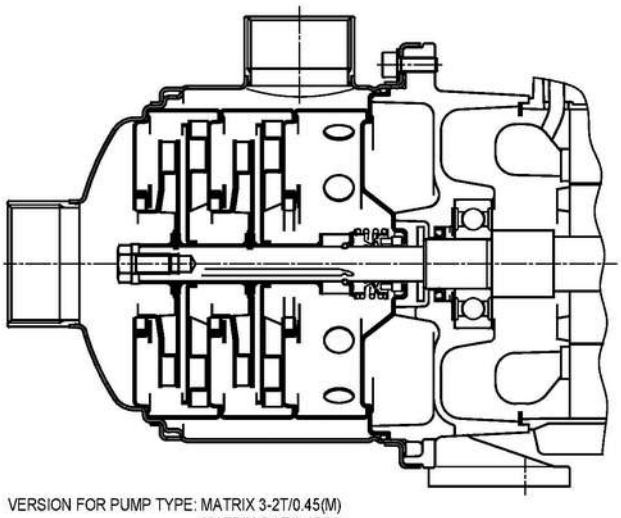
EBARA

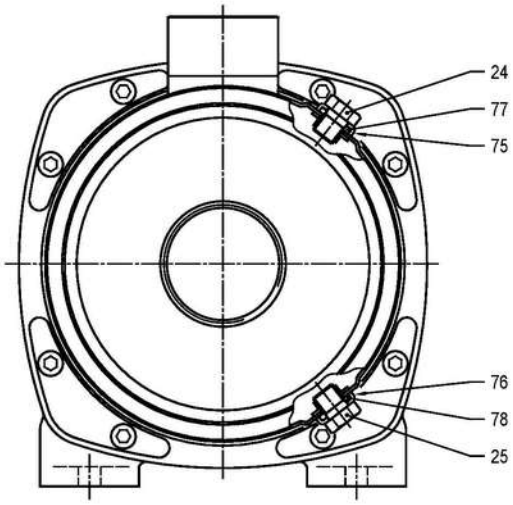
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Construction

Pump name MATRIX 5-2T/0.45M

Customer	Date 19-May -2020	Company
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VERSION FOR PUMP TYPE: MATRIX 3-2T/0.45(M)
MATRIX 5-2T/0.45(M)
MATRIX 10-2T/0.75(M)

EBARA

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Construction

Pump name MATRIX 5-2T/0.45M

Customer	Date	19-May -2020	Company
Contact	Item no.		Issued by
Phone	Project		Phone
E-mail	Project ID		E-mail

N°	PART NAME	MATERIAL	DIMENSION	STANDARD	Q.TY
1	Casing	EN 1.4301 (AISI 304)			1
3	Bracket	EN AB-AlSi11Cu2(Fe)			1
4	Casing cover	EN 1.4301 (AISI 304)			1
6	Shaft with rotor	-			1
6-1	Pump Shaft	EN 1.4301 (AISI 304)			1
7	Impeller	EN 1.4301 (AISI 304)			[1]
11	Mechanical seal [3]	Carbon/Ceramic/EPDM			1
12	Motor frame with stator	-			1
13	Motor cover	Aluminium			1
14	Fan	PA6			1
15	Fan cover	Fe P04 Zinc-coated			1
16	Terminal board	-			1
17	Terminal box cover	Aluminium			[1]
18	Splash ring	NBR	30x13.5x2.5		1
19	Bearing	-			1
20	Bearing	-			1
21	Adjusting ring	Steel C70			1
22	Tie rod	Fe 42 Zinc-coated			4
24	Plug	EN 1.4301 (AISI 304)			1
25	Plug	EN 1.4301 (AISI 304)			1
26	O-ring	EPDM			1
29	Washer	EN 1.4301 (AISI 304)	25.1x14x1		1
30	Ring holder	EN 1.4301 (AISI 304)			1
33	Ring	EN 1.4301 (AISI 304)			2
34	Screw	EN 1.4301 (AISI 304)	M 8x16	UNI 5739	1
42	Foot	Aluminium			[1]
52	Capacitor box [2]	ABS class V-0			1
53	Capacitor box cover [2]	ABS class V-0			1
56	Box gasket	NBR			1
58	Ring nut	-			[1]
59	Conic gasket	NBR			[1]
60	Intermediate casing	EN 1.4301 (AISI 304)+PPS			[1]
61	Intermediate casing (suction)	EN 1.4301 (AISI 304)+PPS			1
62	Intermediate casing (bearing)	EN 1.4301 (AISI 304)+PPS + Ceramic			[1]
63	Intermediate casing (discharge)	EN 1.4301 (AISI 304)+PPS			1
68	Shaft sleeve (intermediate)	EN 1.4301 (AISI 304)			[1]
69	Impeller spacer	EN 1.4301 (AISI 304)			1
69-1	Shaft sleeve (adjustment)	EN 1.4301 (AISI 304)			[1]
69-2	Shaft sleeve (adjustment)	EN 1.4301 (AISI 304)			[1]
75	Washer (plug)	EN 1.4301 (AISI 304)			1
76	Washer (plug)	EN 1.4301 (AISI 304)			1
77	O-ring	EPDM	9.19x2.62		1
78	O-ring	EPDM	9.19x2.62		1
90	Terminal box cover gasket [2]	NBR	-		[1]
91	Shaft washer	EN 1.4301 (AISI 304)			1
92	Lip seal 0.45-0.65-0.75-0.9 kW	-	17x32x6		1
	Lip seal 1.3-1.5-2.2 kW		20x30x4		1
	Lip seal 2.2M-3-4 kW		25x40x7		1
93	Lip seal 0.45-0.65-0.75-0.9 kW	-	15x30x5		1
	Lip seal 1.3-1.5-2.2 kW		17x32x7		1
	Lip seal 2.2M-3-4 kW		25x40x7		1
94	Shaft sleeve (bearing)	WC - Tungsten carbide			[1]
200	Screw	EN 1.4301 (AISI 304)	M6x16	UNI 5931	8
212	Screw	Zincate Steel			4
233	Plate	EN 1.4301 (AISI 304)			4

[1] See **CONSTRUCTION 3**
[2] Only for Single Phase
[3] See **CONSTRUCTION 4**

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Construction

Pump name MATRIX 5-2T/0.45M

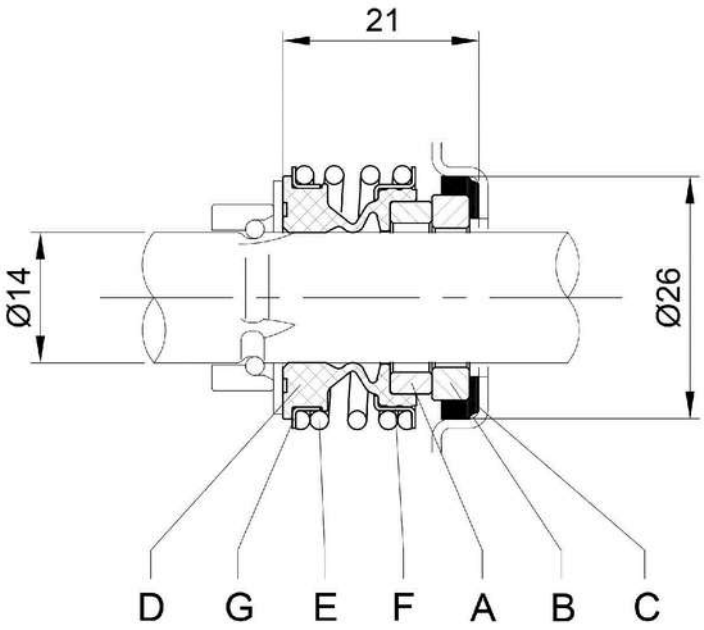
Customer	Date 19-May -2020	Company
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Pump type	N°. 7 Impeller	N°. 17 Terminal box cover	N°. 30-1 Shaft sleeve (adjustment)	N°. 30-2 Shaft sleeve (adjustment)	N°. 42 Foot	N°. 58 Ring nut	N°. 59 Conic gasket	N°. 60 Intermediate casing	N°. 62 Intermediate casing (bearing)	N°. 68 Shaft sleeve (intermediate)	N°. 69-1 Shaft sleeve (adjustment)	N°. 69-2 Shaft sleeve (adjustment)	N°. 90 Terminal box cover gasket	N°. 94 Shaft sleeve (adjustment)
MATRIX 5-2T/0.45M	2	-	-	-	1	1	1	1	-	4	-	-	1	-
MATRIX 5-2T/0.45		1	-	-	1	-	-	1	-	4	-	-	-	-
MATRIX 5-3T/0.65M	3	-	-	-	1	1	1	1	-	4	-	-	1	-
MATRIX 5-3T/0.65		1	-	-	1	-	-	1	-	4	-	-	-	-
MATRIX 5-4T/0.9M	4	-	-	-	1	1	1	2	-	6	-	-	1	-
MATRIX 5-4T/0.9		1	-	-	1	-	-	2	-	6	-	-	-	-
MATRIX 5-5T/1.3M	5	-	-	-	1	1	1	3	-	8	-	-	1	-
MATRIX 5-5T/1.3		1	-	-	1	-	-	3	-	8	-	-	-	-
MATRIX 5-6T/1.3M	6	-	-	-	1	1	1	4	-	10	-	-	1	-
MATRIX 5-6T/1.3		1	-	-	1	-	-	4	-	10	-	-	-	-
MATRIX 5-7T/1.5M	7	-	-	-	1	1	1	4	1	10	1	1	1	1
MATRIX 5-7T/1.5		1	-	-	1	-	-	4	1	10	1	1	-	1
MATRIX 5-8T/2.2M	8	-	-	-	-	1	1	5	1	12	1	1	1	1
MATRIX 5-8T/2.2		1	-	-	1	-	-	5	1	12	1	1	-	1
MATRIX 5-9T/2.2M	9	-	-	-	-	1	1	6	1	14	1	1	1	1
MATRIX 5-9T/2.2		1	-	-	1	-	-	6	1	14	1	1	-	1

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Construction

Pump name MATRIX 5-2T/0.45M

Customer	Date 19-May-2020	Company
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Material Standard						
A Rotary seal ring	B Stationary seal ring	C Gasket	D Bellows	E Spring	F Frame	G Retainer ring
Carbon	Ceramic	EPDM	EPDM	EN 1.4402 (AISI 316)	EN 1.4402 (AISI 316)	EN 1.4402 (AISI 316)