

# Technical Data

Pump Name

MATRIX 3-5T/0.75M

Customer	Date	2024-06-16	Company
Contact	Item no.		Issued by
Phone	Project		Phone
E-mail	Project ID	Proiect redenumit 2024-06-16 15:45:44	E-mail

## Requested data

1	Pump type	HORIZONTAL MULTISTAGE 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	MATRIX 3-5T/0.75M	Frequency	Hz 50
10	Design	HORIZONTAL MULTISTAGE PUMPS	Installation type	STANDARD
11	Manufacturer	EBARA	Impeller Diameter	Max. mm 99
12	Speed rpm	2850		Designed mm 99
13	No. of Stage	5		Min. mm 99
14	Connection Suction side	UNI ISO 228	Flow	Operating m³/h
15	Connection Discharge side	UNI ISO 228		Max- m³/h 4.8
16	Max Working Pressure bar	10		Min- m³/h 1.2
17	Shut-off head bar	5.53	Head	Operating m
18	Total weight kg	See the table of "Dimensions".		- (Qmax.) m 20.0
19	Shaft power kW			- (Qmin.) m 52.2
20			Max. Shaft Power at max. impeller	kW 0.73
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 3-5T/0.75M_230_Single Phase	Phases	1~
30	Specific design	IE2 / 50 Hz / Pole pairs 1	Frame size	
31	Rated power kW	0.75	Weight	kg
32	Number of poles	2	Electric voltage	V 230
33	Speed rpm	2850	Electric current	A 4.4
34	Degree of protection	IP 55		
35				

## Remarks

# Performance Curve

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## Requested data

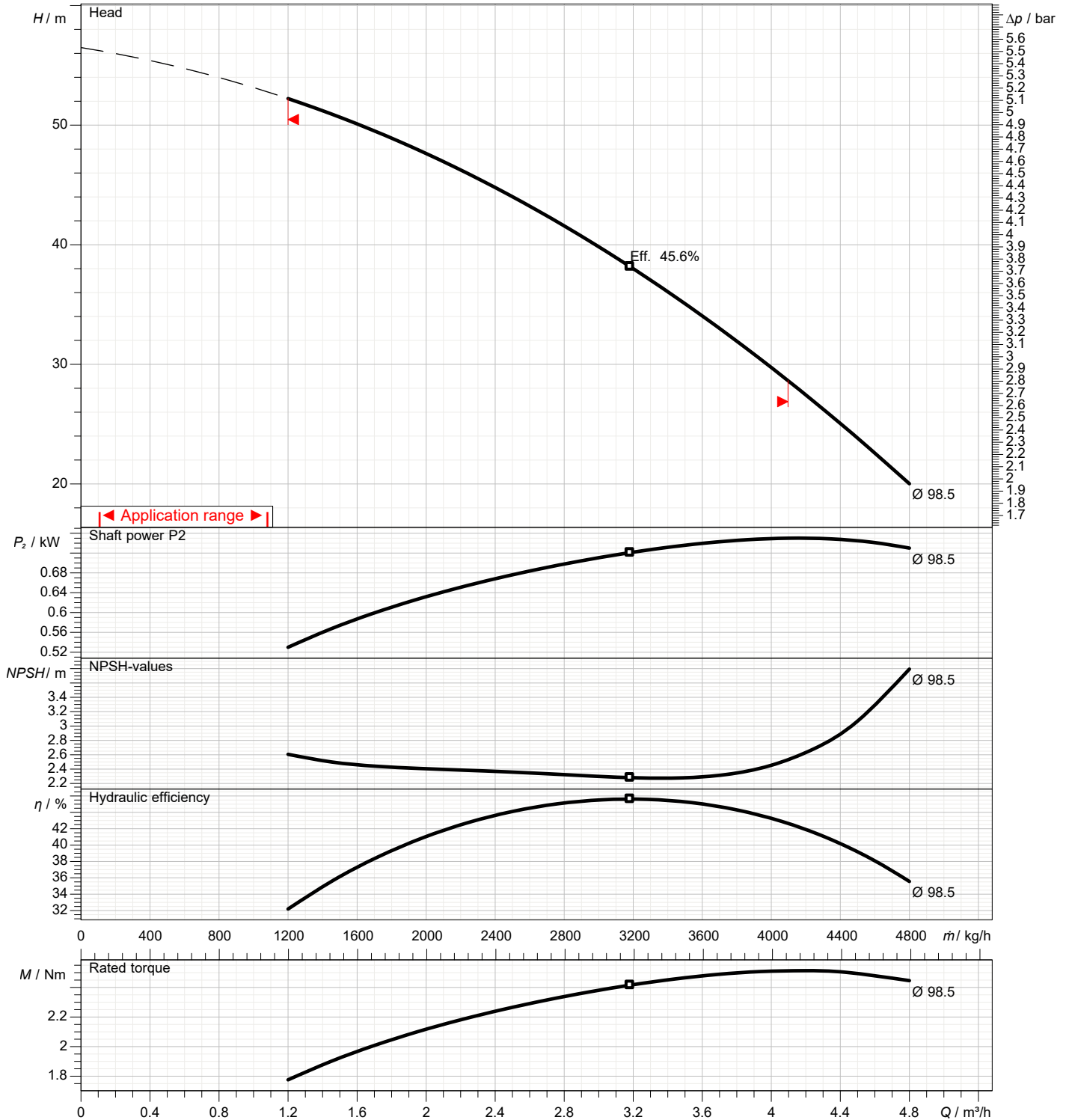
1	Flow	m³/h	
2	Head	m	
3	Geodetic head	m	

## Pump

Operating flow	m³/h		Frequency	Hz	50
Operating head	m		Number of poles		2
Impeller diameter designed	mm	99	Speed	rpm	2850

Test standard: ISO 9906:2012 - Grade3B

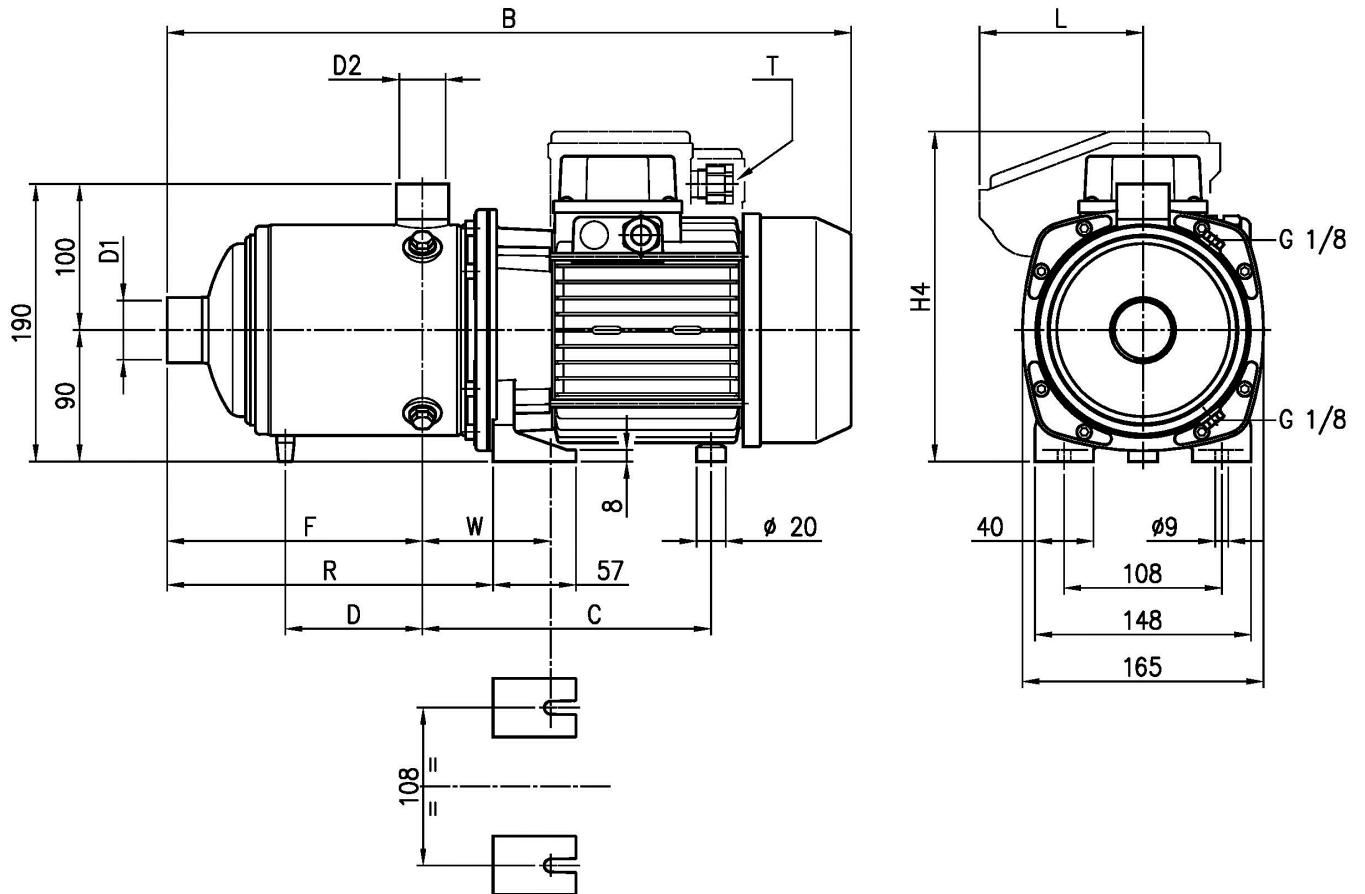
Water; 20°C; 998.3kg/m³; 1mm²/s



# Dimensions

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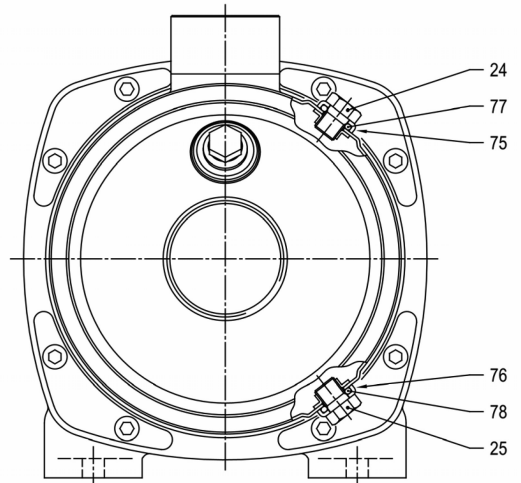
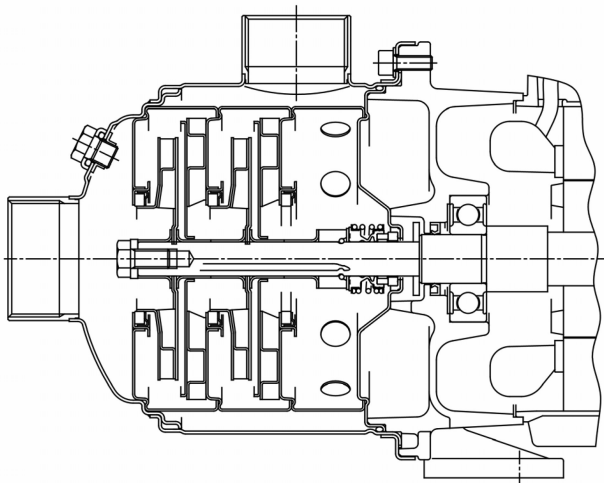
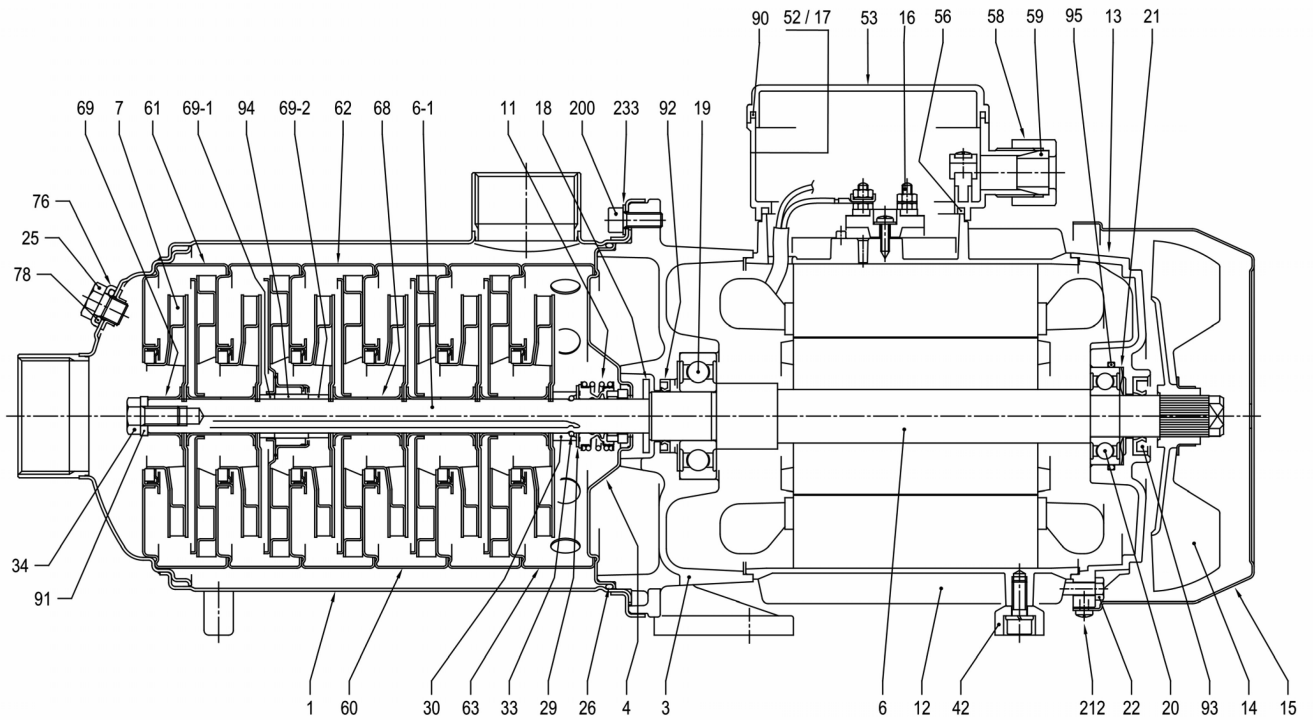
Dimensions in		mm						
1	B	408						
2	C	171						
3	Dia D1	1"						
4	Dia D2	1"						
5	F	151						
6	H4	200						
7	L	86.5						
8	R	199.5						
9	T	PG 11						
10	W	0						
11	Weight P&M	13 kg						
12								
13								
14								
15								

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# Construction

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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)

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N°	PART NAME	MATERIAL	DIMENSION	STANDARD	Q.TY
1	Casing	EN 1.4301 (AISI 304)			1
3	Bracket	EN AB-AISI11Cu2(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
			1.3-1.5-2.2 kW	20x30x4	1
			2.2M-3-4 kW	25x40x7	1
93	Lip seal	-	0.45-0.65-0.75-0.9 kW	15x30x5	1
			1.3-1.5-2.2 kW	17x32x7	1
			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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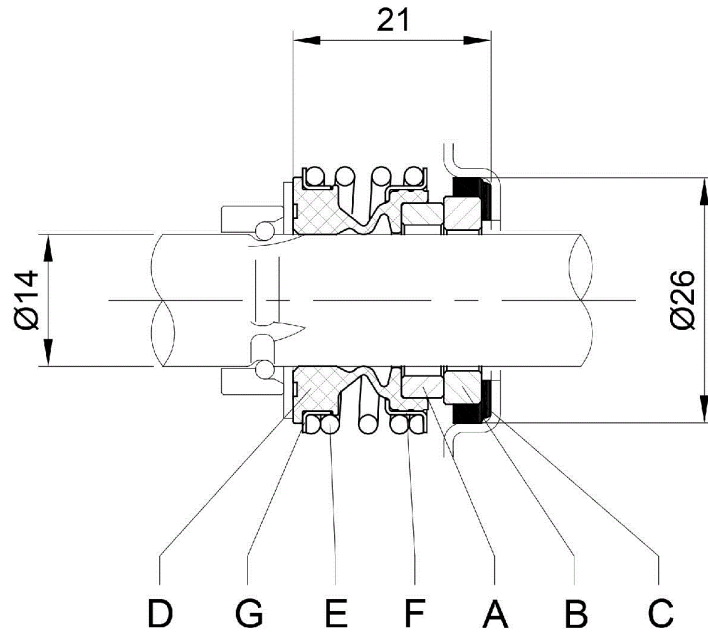
Pump type	N° 7 Impeller	N° 17 Terminal box cover	N° 30-1 Shaft sleeve (adjustment)	N° 30-2 Shaft sleeve (adjustment)	N° 42 Foot	N° 58 Ring nut	N° 59 Conic gasket	N° 60 Intermediate casing	N° 62 Intermediate casing (bearing)	N° 68 Shaft sleeve (intermediate)	N° 69-1 Shaft sleeve (adjustment)	N° 69-2 Shaft sleeve (adjustment)	N° 90 Terminal box cover gasket	N° 94 Shaft sleeve (adjustment)
MATRIX 3-2T/0.45M	2	-	-	-	1	1	1	1	-	4	-	-	1	-
MATRIX 3-2T/0.45		1	-	-	1	-	-	1	-	4	-	-	-	-
MATRIX 3-3T/0.65M	3	-	-	-	1	1	1	1	-	4	-	-	1	-
MATRIX 3-3T/0.65		1	-	-	1	-	-	1	-	4	-	-	-	-
MATRIX 3-4T/0.65M	4	-	-	-	1	1	1	2	-	6	-	-	1	-
MATRIX 3-4T/0.65		1	-	-	1	-	-	2	-	6	-	-	-	-
MATRIX 3-5T/0.75M	5	-	-	-	1	1	1	3	-	8	-	-	1	-
MATRIX 3-5T/0.75		1	-	-	1	-	-	3	-	8	-	-	-	-
MATRIX 3-6T/0.9M	6	-	-	-	1	1	1	4	-	10	-	-	1	-
MATRIX 3-6T/0.9		1	-	-	1	-	-	4	-	10	-	-	-	-
MATRIX 3-7T/1.3M	7	-	-	-	1	1	1	4	1	10	1	1	1	1
MATRIX 3-7T/1.3		1	-	-	1	-	-	4	1	10	1	1	-	1
MATRIX 3-8T/1.3M	8	-	-	-	1	1	1	5	1	12	1	1	1	1
MATRIX 3-8T/1.3		1	-	-	1	-	-	5	1	12	1	1	-	1
MATRIX 3-9T/1.5M	9	-	-	-	1	1	1	6	1	14	1	1	1	1
MATRIX 3-9T/1.5		1	-	-	1	-	-	6	1	14	1	1	-	1

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A	B	C	D	E	F	G
Rotary seal ring	Stationary seal ring	Gasket	Bellows	Spring	Frame	Retainer ring
Carbon	Ceramic	EPDM	EPDM	EN 1.4402 (AISI 316)	EN 1.4402 (AISI 316)	EN 1.4402 (AISI 316)