



**EBARA**

# MATRIX

HORIZONTAL MULTISTAGE CENTRIFUGAL PUMPS

60 Hz



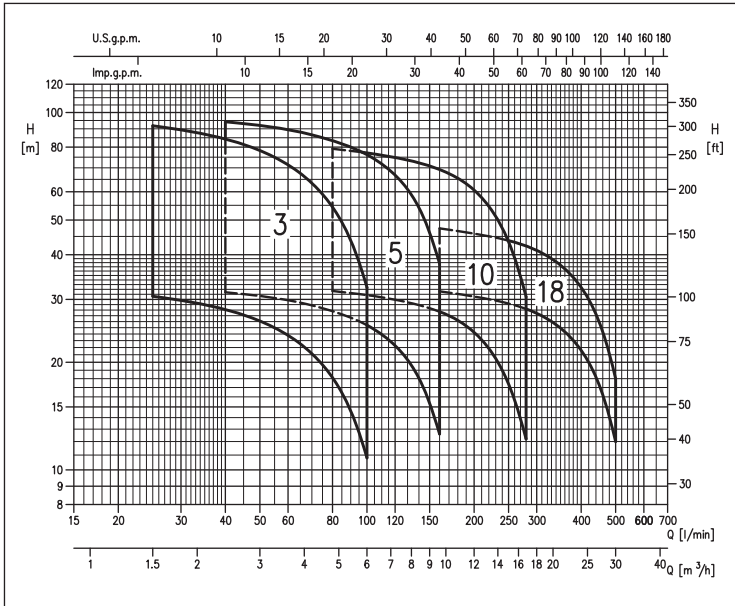
# MATRIX

## HORIZONTAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

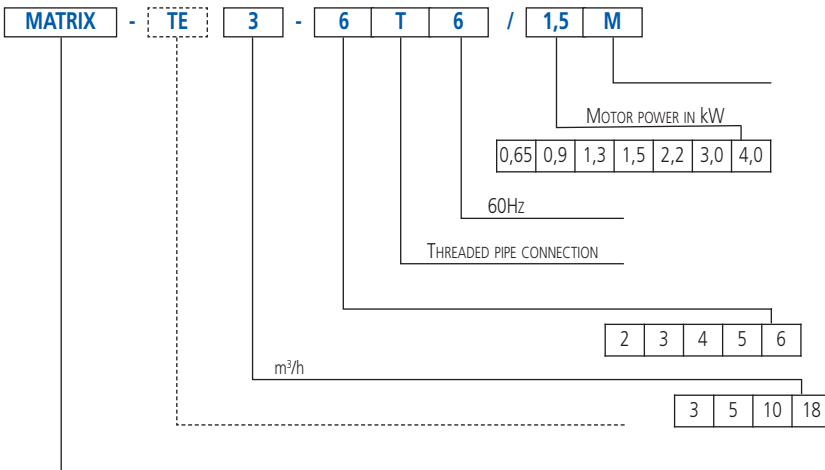


(according to ISO 9906 Attachment A)



Horizontal multistage centrifugal electric pumps in AISI 304 stainless steel.

- 가
- 
- 
- 
- 
- 
- 
- 가
- WRAS (85°C )
- 
- : +85°C ( )
- -15°C +110°C (TE )
- : 10bar
- : 500 ppm
- 2
- : F
- : IP55
- 220-230V ±6%, 60Hz , 220/380-460V -6%+10%, 60Hz
- : MATRIX3 - G1, MATRIX5 - G1½, MATRIX10 - G1½, MATRIX18 - G2
- : MATRIX3~5 - G1, MATRIX10 - G1½, MATRIX18 - G1½
- Pump body, impeller, intermediate stages, casing cover and shaft (part in contact with the liquid) in AISI 304
- Mechanical seal in Carbon/Ceramic/EPDM
- Bracket in EN AB-AISI11Cu2(Fe) (Die cast Aluminium)





# MATRIX

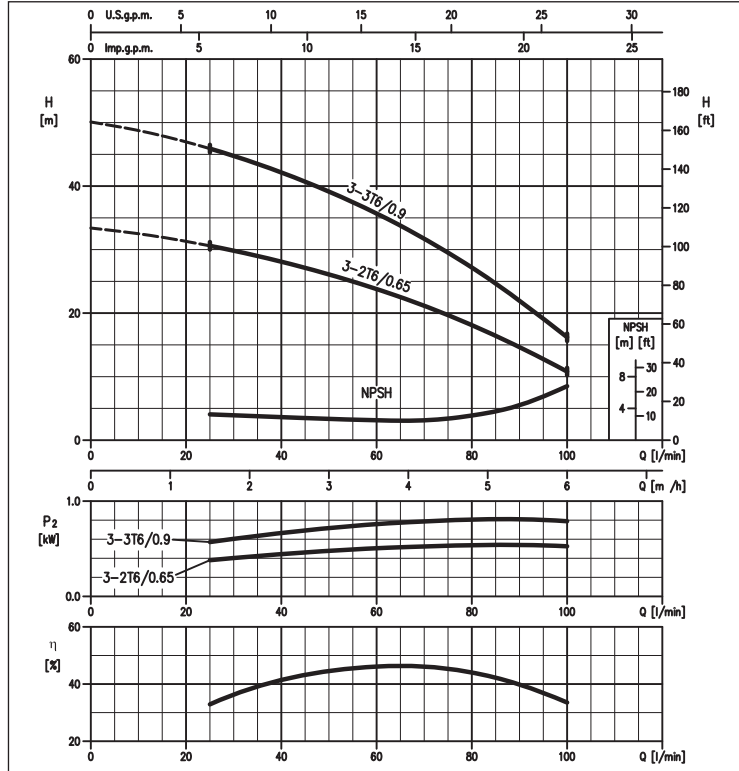
## HORIZONTAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

### MATRIX 3 range

(from 2 to 3 impellers)

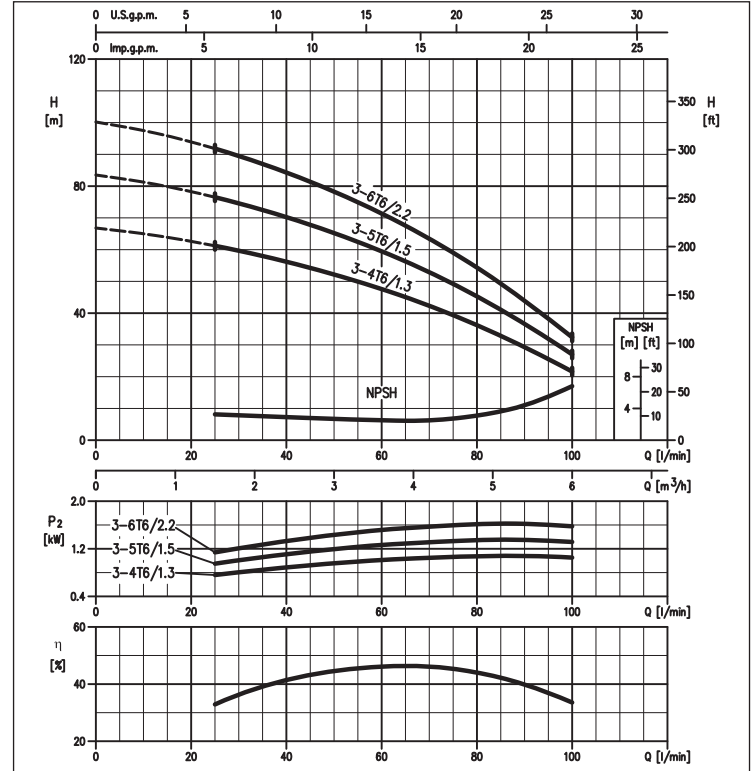
(according to ISO 9906 Attachment A)



### MATRIX 3 range

(from 4 to 6 impellers)

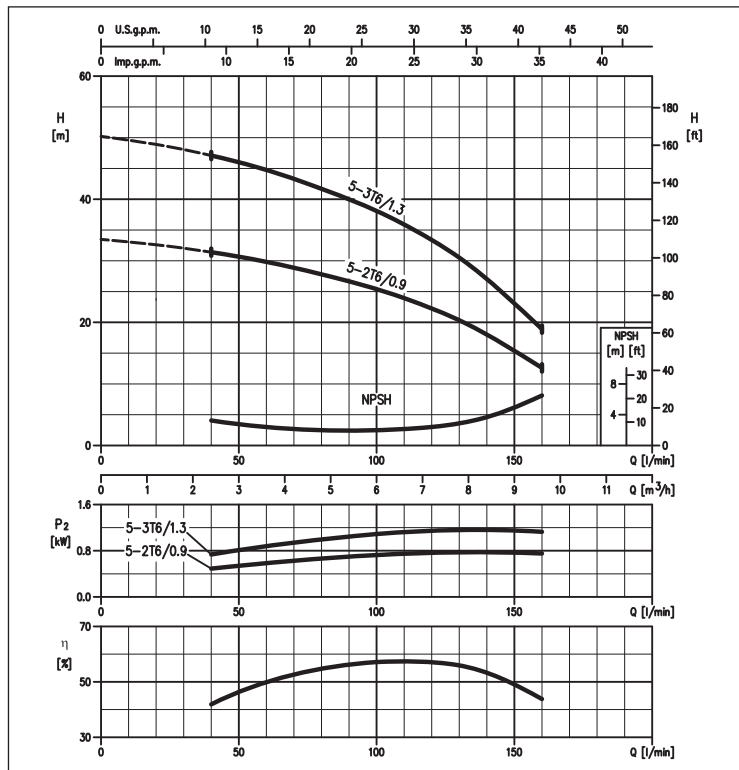
(according to ISO 9906 Attachment A)



### MATRIX 5 range

(from 2 to 3 impellers)

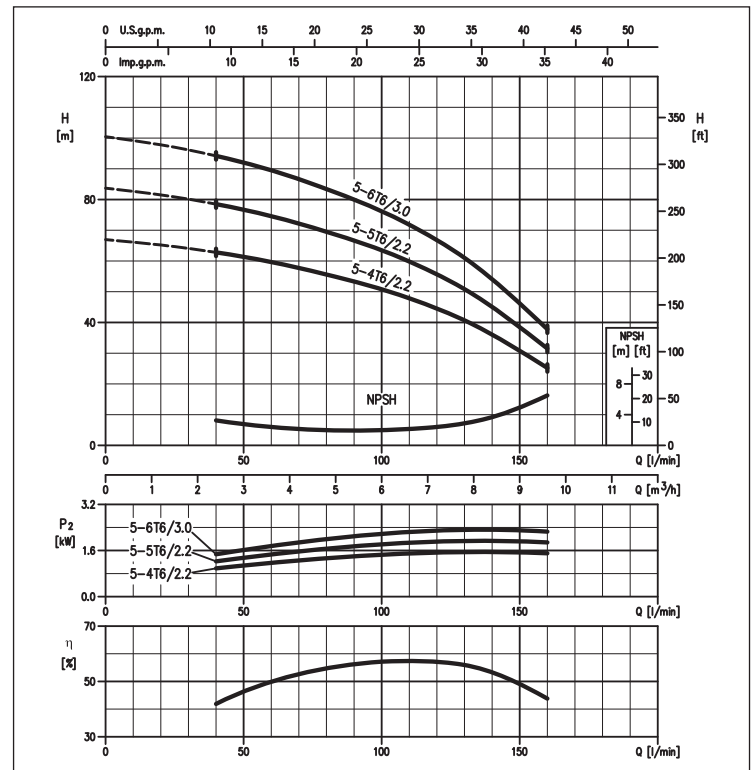
(according to ISO 9906 Attachment A)



### MATRIX 5 range

(from 4 to 6 impellers)

(according to ISO 9906 Attachment A)



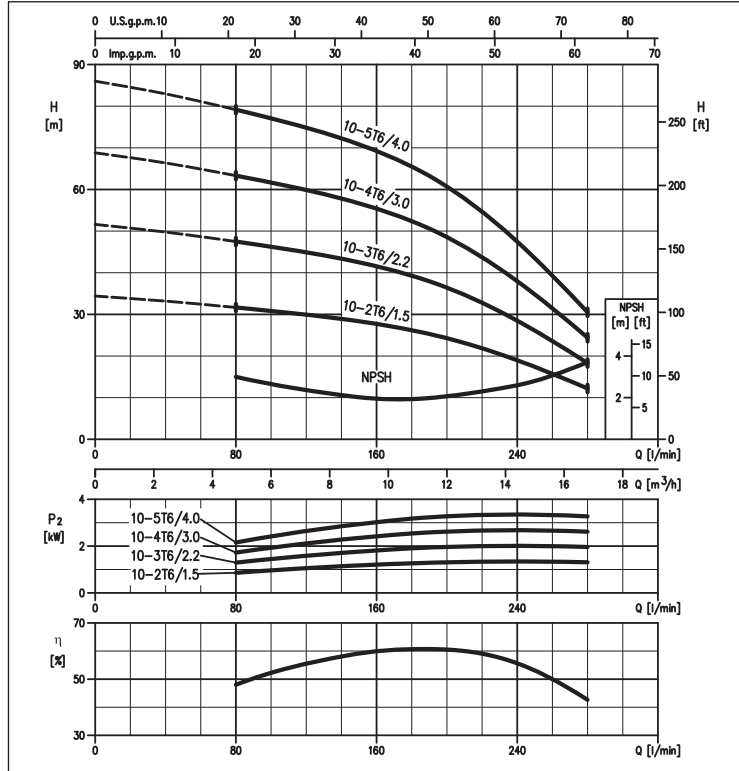
## HORIZONTAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

### MATRIX 10 range

(according to ISO 9906 Attachment A)

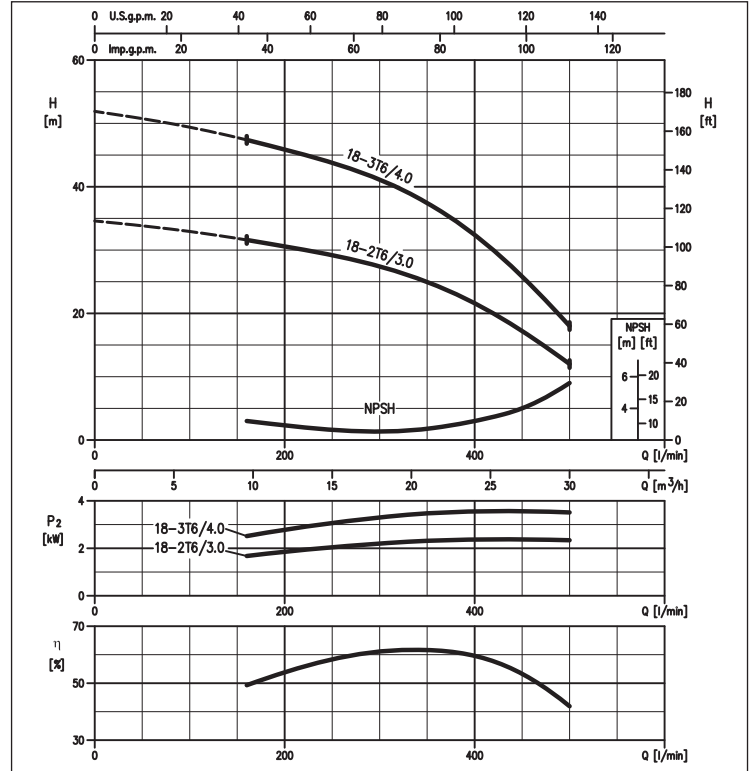
(from 2 to 5 impellers)



### MATRIX 18 range

(according to ISO 9906 Attachment A)

(from 2 to 3 impellers)



220-230V	220/380-460V	P <sub>2</sub>		Q=														
		[HP]	[kW]	l/min 25	40	60	80	100	130	160	220	280	340	400	460	500		
				m³/h 1,5	2,4	3,6	4,8	6	7,8	9,6	13,2	16,8	20,4	24	27,6	30		
MATRIX 3-2T6/0.65M	MATRIX 3-2T6/0.65	0,9	0,65	30,6	28,1	23,8	18,1	10,8	-	-	-	-	-	-	-	-	-	
MATRIX 3-3T6/0.9M	MATRIX 3-3T6/0.9	1,2	0,9	46,0	42,0	35,7	27,2	16,2	-	-	-	-	-	-	-	-	-	
MATRIX 3-4T6/1.3M	MATRIX 3-4T6/1.3	1,8	1,3	61,0	56,0	47,5	36,2	21,6	-	-	-	-	-	-	-	-	-	
MATRIX 3-5T6/1.5M	MATRIX 3-5T6/1.5	2	1,5	76,5	70,5	59,5	45,5	27,0	-	-	-	-	-	-	-	-	-	
-	MATRIX 3-6T6/2.2	3	2,2	92,0	84,5	71,5	54,5	32,4	-	-	-	-	-	-	-	-	-	
MATRIX 5-2T6/0.9M	MATRIX 5-2T6/0.9	1,2	0,9	-	31,4	29,8	27,8	25,4	20,3	12,6	-	-	-	-	-	-	-	
MATRIX 5-3T6/1.3M	MATRIX 5-3T6/1.3	1,8	1,3	-	47,0	45,0	41,5	38,1	30,5	18,9	-	-	-	-	-	-	-	
-	MATRIX 5-4T6/2.2	3	2,2	-	63,0	59,5	55,5	51,0	40,5	25,2	-	-	-	-	-	-	-	
-	MATRIX 5-5T6/2.2	3	2,2	-	78,5	74,5	69,5	63,5	51,0	31,5	-	-	-	-	-	-	-	
-	MATRIX 5-6T6/3	4	3	-	94,0	89,5	83,5	76,0	61,0	37,8	-	-	-	-	-	-	-	
MATRIX 10-2T6/1.5M	MATRIX 10-2T6/1.5	2	1,5	-	-	-	31,7	30,8	29,4	27,7	21,9	12,2	-	-	-	-	-	
-	MATRIX 10-3T6/2.2	3	2,2	-	-	-	47,5	46,5	44,0	41,5	32,8	18,3	-	-	-	-	-	
-	MATRIX 10-4T6/3	4	3	-	-	-	63,5	61,5	59,0	55,5	43,5	24,4	-	-	-	-	-	
-	MATRIX 10-5T6/4	5,5	4	-	-	-	79,0	77,0	73,5	69,5	54,5	30,5	-	-	-	-	-	
-	MATRIX 18-2T6/3	4	3	-	-	-	-	-	-	31,6	30,0	28,2	25,5	21,6	16,2	12,0	-	
-	MATRIX 18-3T6/4	5,5	4	-	-	-	-	-	-	47,5	45,0	42,5	38,3	32,4	24,3	18,0	-	

## HORIZONTAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

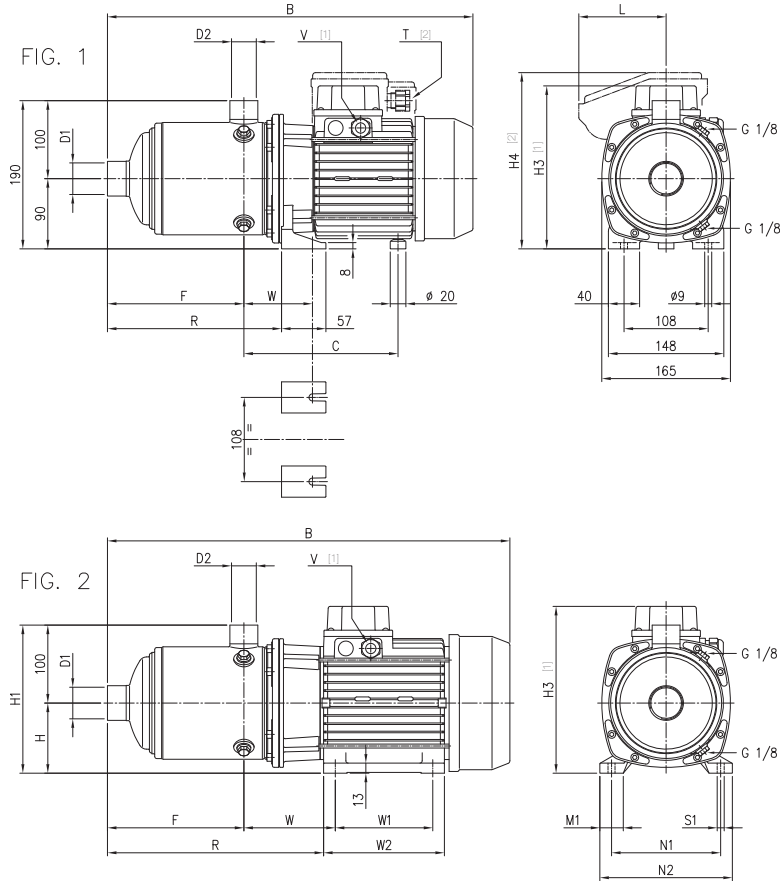
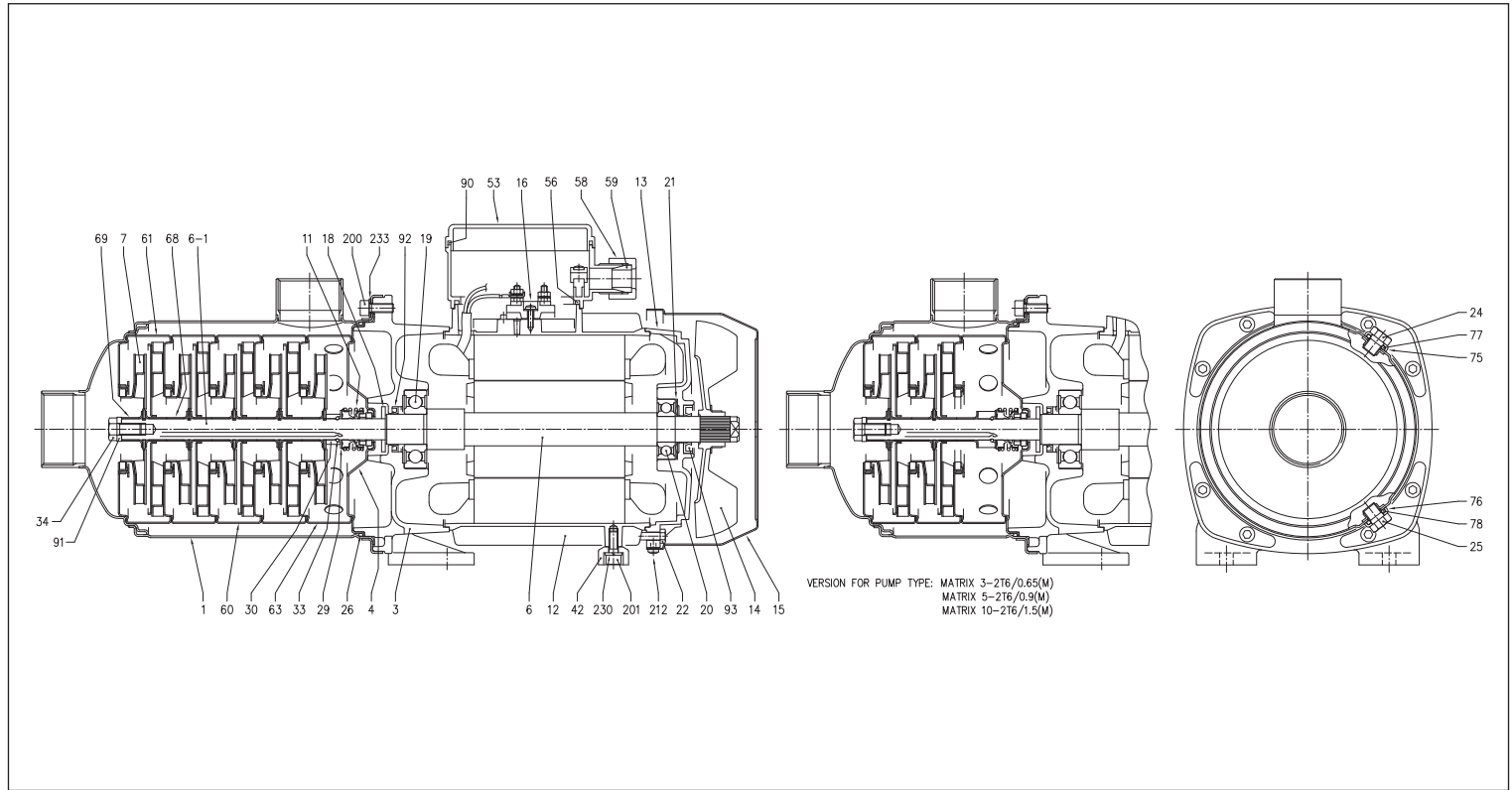


	Fig.	B	C	F	H	H1	H3 [1]	H4 [2]	L	R	T [2]	[mm] V [1]	W	W1	W2	M1	N1	N2	S1	D1	D2	[kg]
MATRIX 3-2T6/0.65M	1	360	171	103	-	-	-	200	86,5	151,5	PG11	-	88±97	-	-	-	-	-	-	1"	1"	9,8
MATRIX 3-2T6/0.65	1	360	171	103	-	-	192	-	-	151,5	-	PG11	88±97	-	-	-	-	-	-	1"	1"	9,7
MATRIX 3-3T6/0.9M	1	360	171	103	-	-	-	219	106	151,5	M20x1,5	-	88±97	-	-	-	-	-	-	1"	1"	11,7
MATRIX 3-3T6/0.9	1	372	171	103	-	-	192	-	-	151,5	-	PG11	88±97	-	-	-	-	-	-	1"	1"	12,4
MATRIX 3-4T6/1.3M	1	421	198	127	-	-	-	226	112	175,5	M20x1,5	-	88±97	-	-	-	-	-	-	1"	1"	14,7
MATRIX 3-4T6/1.3	1	421	198	127	-	-	209	-	-	175,5	-	PG11	88±97	-	-	-	-	-	-	1"	1"	14,4
MATRIX 3-5T6/1.5M	1	458	198	151	-	-	-	226	112	199,5	M20x1,5	-	88±97	-	-	-	-	-	-	1"	1"	16,0
MATRIX 3-5T6/1.5	1	458	198	151	-	-	209	-	-	199,5	-	PG11	88±97	-	-	-	-	-	-	1"	1"	17,8
MATRIX 3-6T6/2.2	1	482	198	175	-	-	209	-	-	223,5	-	PG11	88±97	-	-	-	-	-	-	1"	1"	18,3
MATRIX 5-2T6/0.9M	1	360	171	103	-	-	-	219	106	151,5	M20x1,5	-	88±97	-	-	-	-	-	-	1 1/4"	1"	11,6
MATRIX 5-2T6/0.9	1	372	171	103	-	-	192	-	-	151,5	-	PG11	88±97	-	-	-	-	-	-	1 1/4"	1"	12,3
MATRIX 5-3T6/1.3M	1	397	198	103	-	-	-	226	112	151,5	M20x1,5	-	88±97	-	-	-	-	-	-	1 1/4"	1"	14,0
MATRIX 5-3T6/1.3	1	397	198	103	-	-	209	-	-	151,5	-	PG11	88±97	-	-	-	-	-	-	1 1/4"	1"	13,8
MATRIX 5-4T6/2.2	1	434	198	127	-	-	209	-	-	175,5	-	PG11	88±97	-	-	-	-	-	-	1 1/4"	1"	16,7
MATRIX 5-5T6/2.2	1	458	198	151	-	-	209	-	-	199,5	-	PG11	88±97	-	-	-	-	-	-	1 1/4"	1"	16,9
MATRIX 5-6T6/3	2	554	-	175	90	90	214	-	-	277,5	-	PG13,5	117,5	125	155	30	140	170	9	1 1/4"	1"	22,4
MATRIX 10-2T6/1.5M	1	429	202	118	-	-	-	226	112	170,5	M20x1,5	-	92±101	-	-	-	-	-	-	1 1/2"	1 1/4"	14,8
MATRIX 10-2T6/1.5	1	429	202	118	-	-	209	-	-	170,5	-	PG11	92±101	-	-	-	-	-	-	1 1/2"	1 1/4"	16,5
MATRIX 10-3T6/2.2	1	429	202	118	-	-	209	-	-	170,5	-	PG11	92±101	-	-	-	-	-	-	1 1/2"	1 1/4"	16,3
MATRIX 10-4T6/3	2	531	-	148	90	190	214	-	-	254,5	-	PG13,5	121,5	125	155	30	140	170	9	1 1/2"	1 1/4"	22,7
MATRIX 10-5T6/4	2	574	-	178	100	200	241	-	-	274	-	PG16	111	140	170	35	160	192	11	1 1/2"	1 1/4"	26,2
MATRIX 18-2T6/3	2	527	-	141	90	190	214	-	-	250,5	-	PG13,5	124,5	125	155	30	140	170	9	2"	1 1/2"	21,6
MATRIX 18-3T6/4	2	540	-	141	100	200	241	-	-	240	-	PG16	114	140	170	35	160	192	11	2"	1 1/2"	25,4

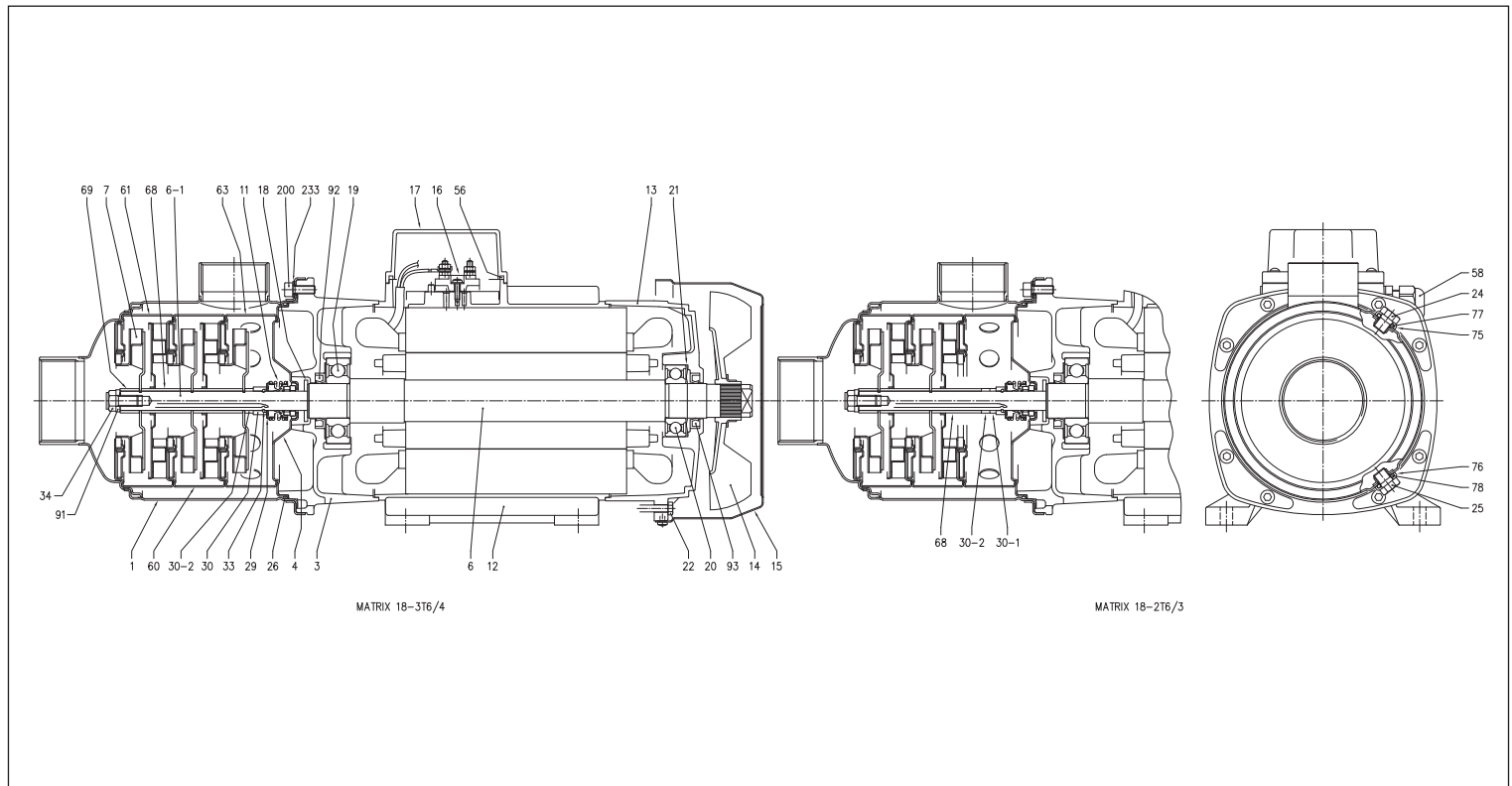
[1]= Three phase only  
[2]= Single phase only

## HORIZONTAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS in AISI 304

### MATRIX 3-5-10



### MATRIX 18 S



## HORIZONTAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS

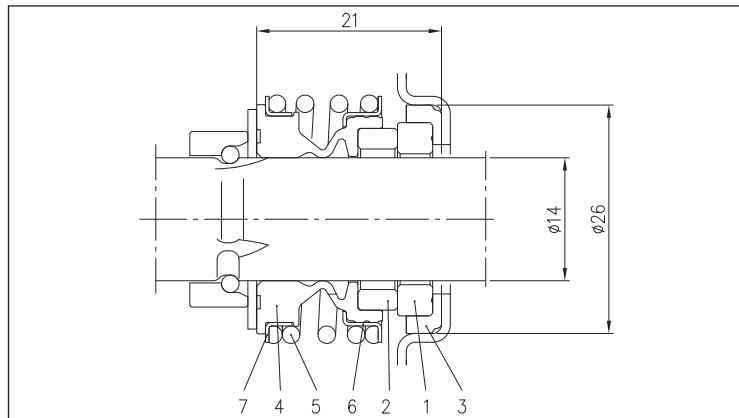
in AISI 304

Ref.			Ref.		
1	Pump body	EN 1.4301 (AISI 304)	34	Screw	EN 1.4301 (AISI 304)
3	Bracket	EN AB-AISI11Cu2(Fe)	42	Foot	Aluminium
4	Casing cover	EN 1.4301 (AISI 304)	50	Motor spacer [3]	Aluminium
6	Shaft with rotor	-	52	Capacitor box [2]	ABS
6-1	Pump shaft	EN 1.4301 (AISI 304)	53	Capacitor box cover [2] [4]	ABS
7	Impeller	EN 1.4301 (AISI 304)	56	Box gasket	NBR
11	Mechanical seal	Ceramic/Carbon/EPDM	58	Ring nut	-
	High temperature mechanical seal	Ceramic/Carbon/EPDM	59	Conic gasket [2]	NBR
12	Motor frame with stator	-	60	Intermediate casing	EN 1.4301 (AISI 304)+PTFE
13	Motor cover	Aluminium	61	Intermediate casing (suction)	EN 1.4301 (AISI 304)+PTFE
14	Fan	PA6	63	Intermediate casing (discharge)	EN 1.4301 (AISI 304)+PTFE
15	Fan cover	Galvanised Fe P04	68	Shaft sleeve (intermediate)	EN 1.4301 (AISI 304)
16	Terminal board	-	69	Impeller spacer	EN 1.4301 (AISI 304)
17	Terminal box cover [1]	Aluminium	75	Washer	EN 1.4301 (AISI 304)
18	Splash ring	NBR	76	Washer	EN 1.4301 (AISI 304)
19	Bearing (pump side)	-	77	O-Ring	EPDM
20	Bearing (motor side)	-	78	O-Ring	EPDM
21	Adjusting ring	Steel C70	90	Cover box gasket [2]	NBR
22	Tie rod	Galvanised Fe 42	91	Shaft washer	EN 1.4301 (AISI 304)
24	Filler cap	EN 1.4301 (AISI 304)	92	Lip seal	-
25	Drain plug	EN 1.4301 (AISI 304)	93	Lip seal	-
26	O-Ring	EPDM	200	Screw (pump body)	EN 1.4301 (AISI 304)
29	Washer	EN 1.4301 (AISI 304)	201	Screw	Steel 8.8 strenght class ISO 898/1
30	Ring holder	EN 1.4301 (AISI 304)	230	Washer	Steel C70
30-1/2	Shaft sleeve	EN 1.4301 (AISI 304)	233	Plate	EN 1.4301 (AISI 304)
33	Ring	EN 1.4301 (AISI 304)			

[1]= Three phase only  
[3]= Only for 10-5T6/4 and 18-3T6/4

[2]= Single phase only  
[4]= With gasket in NBR only for 3-2T6/0.65M, 3-3T6/0.9M, 5-2T6/0.9M single phase version

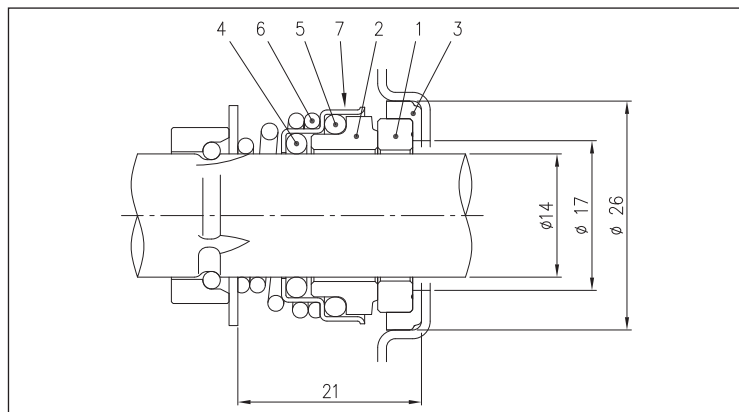
standard



standard

Ref.		
1	Fixed part	Ceramic
2	Rotating part	Carbon
3	Gasket	EPDM
4	Bellows	EPDM
5	Spring	EN 1.4402 (AISI 316)
6	Structure/frame	EN 1.4402 (AISI 316)
7	Retainer ring	EN 1.4402 (AISI 316)

TE version (high temperature)



TE version (high temperature)

Ref.		
1	Fixed part	Ceramic
2	Rotating part	Carbon
3	Gasket	EPDM
4	O-Ring	EPDM
5	O-Ring	EPDM
6	Spring	EN 1.4402 (AISI 316)
7	Retainer ring	EN 1.4301 (AISI 304)



# MATRIX

## HORIZONTAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

220-230V	220/380-460V	P <sub>2</sub>		Capacitor		P <sub>1</sub>		Absorbed Current [A]			
		[HP]	[kW]	μF	V <sub>c</sub>	[kW]	[kW]	220-230V	220V	380V	460V
MATRIX 3-2T6/0.65M	MATRIX 3-2T6/0.65	0,9	0,65	14	450	0,97	0,90	4,7	2,8	1,6	1,5
MATRIX 3-3T6/0.9M	MATRIX 3-3T6/0.9	1,2	0,9	25	450	1,34	1,50	6,3	3,8	2,2	2,2
MATRIX 3-4T6/1.3M	MATRIX 3-4T6/1.3	1,8	1,3	35	450	1,70	2,00	7,7	5,7	3,3	2,9
MATRIX 3-5T6/1.5M	MATRIX 3-5T6/1.5	2	1,5	35	450	1,88	2,90	8,7	8,1	4,7	4,3
-	MATRIX 3-6T6/2.2	3	2,2	-	-	-	2,90	-	8,1	4,7	4,3
MATRIX 5-2T6/0.9M	MATRIX 5-2T6/0.9	1,2	0,9	25	450	1,34	1,50	6,3	3,8	2,2	2,2
MATRIX 5-3T6/1.3M	MATRIX 5-3T6/1.3	1,8	1,3	35	450	1,70	2,00	7,7	5,7	3,3	2,9
-	MATRIX 5-4T6/2.2	3	2,2	-	-	-	2,90	-	8,1	4,7	4,3
-	MATRIX 5-5T6/2.2	3	2,2	-	-	-	2,90	-	8,1	4,7	4,3
-	MATRIX 5-6T6/3	4	3	-	-	-	3,90	-	10,5	6,1	5,6
MATRIX 10-2T6/1.5M	MATRIX 10-2T6/1.5	2	1,5	35	450	1,88	2,90	8,7	8,1	4,7	4,3
-	MATRIX 10-3T6/2.2	3	2,2	-	-	-	2,90	-	8,1	4,7	4,3
-	MATRIX 10-4T6/3	4	3	-	-	-	3,90	-	10,5	6,1	5,6
-	MATRIX 10-5T6/4	5,5	4	-	-	-	5,10	-	14,7	8,5	8,0
-	MATRIX 18-2T6/3	4	3	-	-	-	3,90	-	10,5	6,1	5,6
-	MATRIX 18-3T6/4	5,5	4	-	-	-	5,10	-	14,7	8,5	8,0





**EBARA**

