



Hoogindsestraat 5  
 NL - 5447 PD Rijkevoort  
 Nederland  
 T : +31 (0) 485 - 371318  
 F : +31 (0) 485 - 371918  
 info@pompentechniek.nl  
 www.pompentechniek.nl

**HORIZONTAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS**  
 in AISI 304



Horizontal multistage centrifugal electric pumps in AISI 304. stainless steel.

**APPLICATIONS**

- Industrial washing
- Pressure boosting units
- Industrial plants
- Distribution and treatment of water
- Heating and air conditioning
- Cooling and chiller
- Irrigation
- Recovery of rain water

**TECHNICAL DETAILS**

- Strong and compact construction
- Available in various versions and models

**TECHNICAL DATA**

- Temperature of the liquid: from -15°C to +110°C
- Maximum working pressure: 10 bar
- Maximum chlorine content: 500 ppm
- Self-ventilated 2 pole asynchronous motor
- Class of insulation F
- IP55 Protection rating
- 230V ±10%, 50Hz single phase voltage, 230/400V ±10%, 50Hz three phase voltage
- Permanent capacitor inserted and thermo-ampereometric protection with automatic rearm incorporated for the single phase motor
- Protection under user's responsibility for the three phase version
- G1 suction connection for MATRIX 3, G1¼ for MATRIX 5, G1½ for MATRIX 10, G2 for MATRIX 18
- G1 discharge connection for MATRIX 3-5, G1¼ for MATRIX 10, G1½ for MATRIX 18

**MATERIALS**

- Pump body, impellers, intermediate stages, seal housing disc and shaft (part in contact with the liquid) in AISI 304
- Mechanical sealing in Carbon/Ceramic/EPDM
- Support and motor casing in aluminium

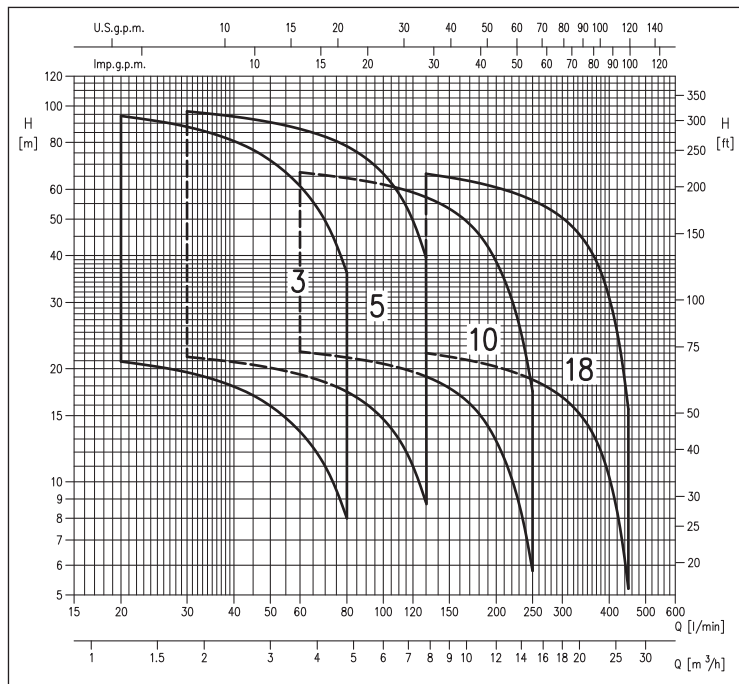
**CONTROL PANELS**

- 1EPBH (see page 68)

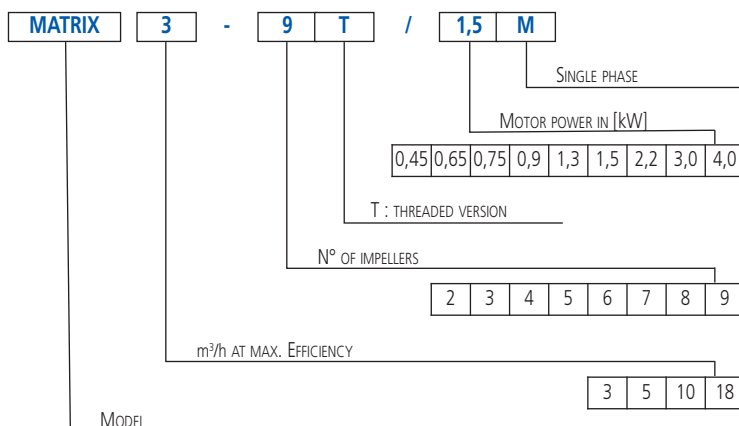
**ACCESSORIES (on request)**

- 5 litre 10 bar ¾ EPDM vessel
- 24 litre 8 bar 1" EPDM vessel
- 24 litre 10 bar 1" EPDM vessel
- 24 litre 16 bar 1" EPDM vessel
- PVC 5m key float with counter-weight
- PVC 10m key float with counter-weight
- SQUARE-D FSG-2 1.4÷4.6 bar G¼ F pressure switch
- FYG-22 2.8÷7 bar G¼ F pressure switch
- FYG-32 5.6÷10.5 bar G¼ F pressure switch
- Presscomfort - Pressure regulator (see page 70)
- Press•o•Matic - Variable speed control system (230V±10% power supply single phase - 220V three phase output - maximum motor power 2.2 kW - 3 HP - see page 71)

**PERFORMANCE CURVES** (according to ISO 9906 Attachment A)



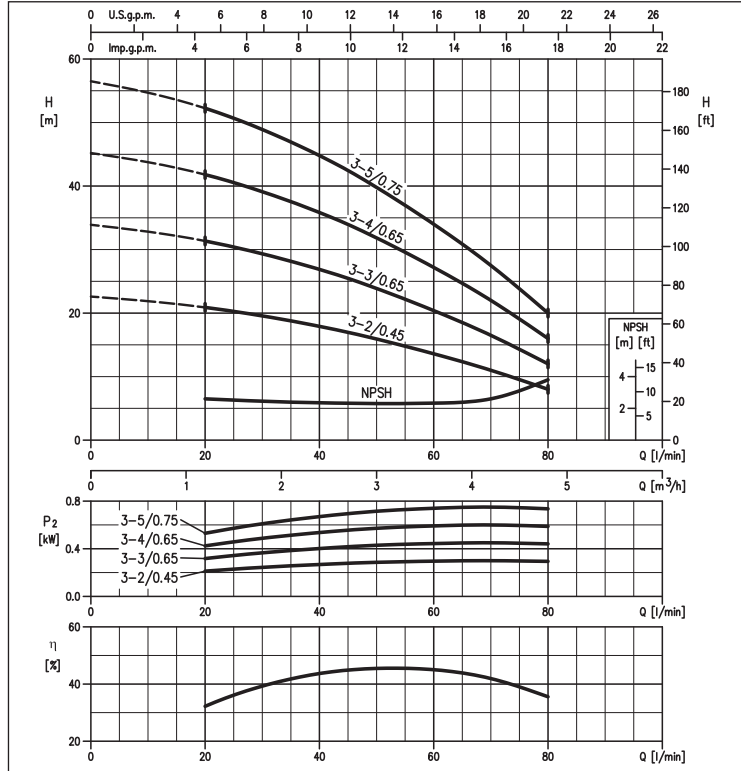
**IDENTIFICATION CODE**



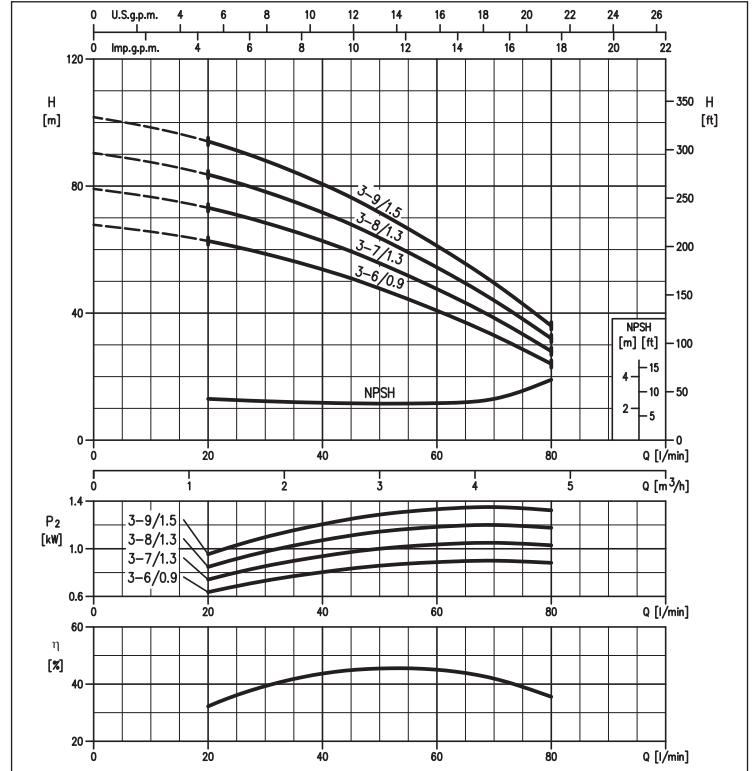
## HORIZONTAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

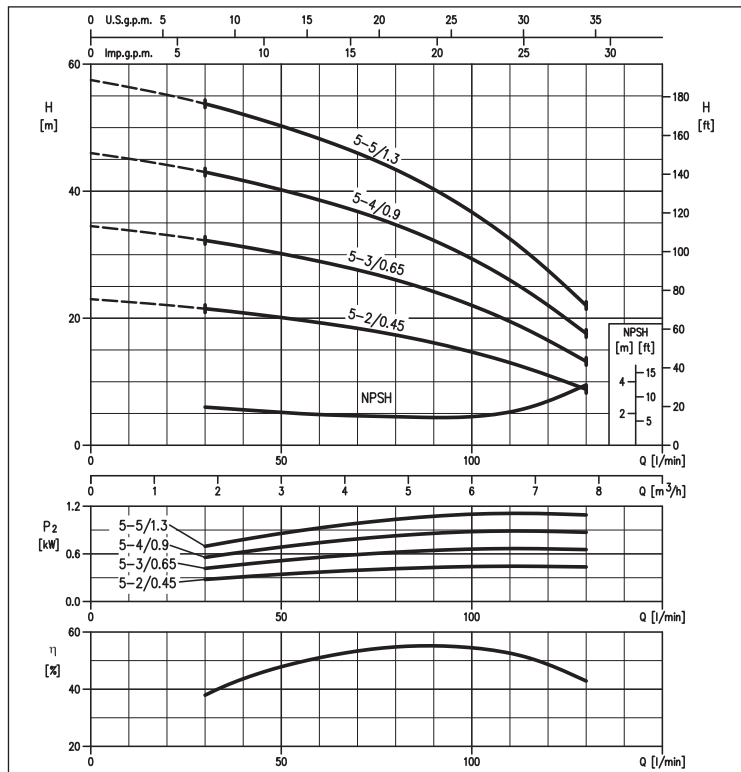
**MATRIX 3 range PERFORMANCE CURVES** (from 2 to 5 impellers)  
(according to ISO 9906 Attachment A)



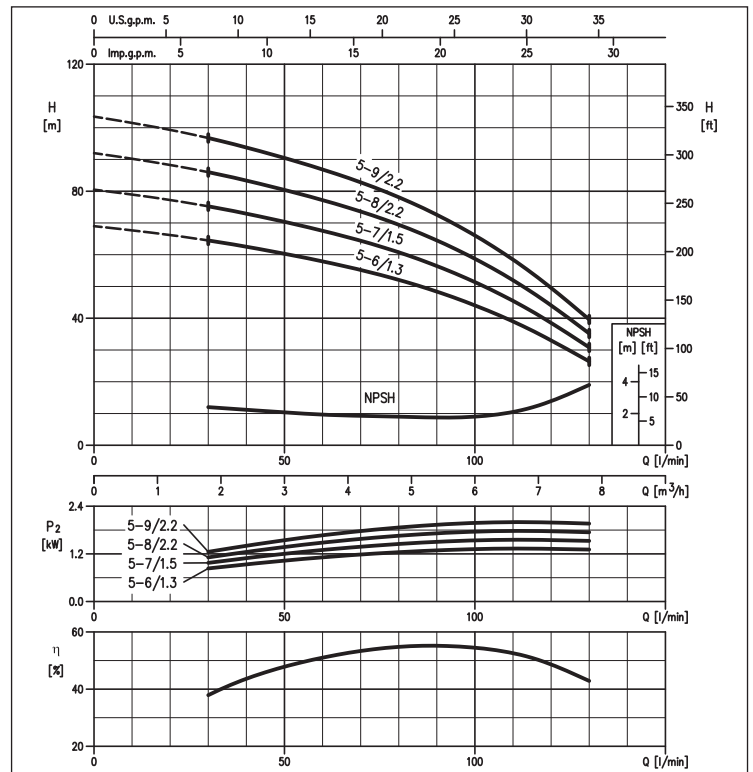
**MATRIX 3 range PERFORMANCE CURVES** (from 6 to 9 impellers)  
(according to ISO 9906 Attachment A)



**MATRIX 5 range PERFORMANCE CURVES** (from 2 to 5 impellers)  
(according to ISO 9906 Attachment A)



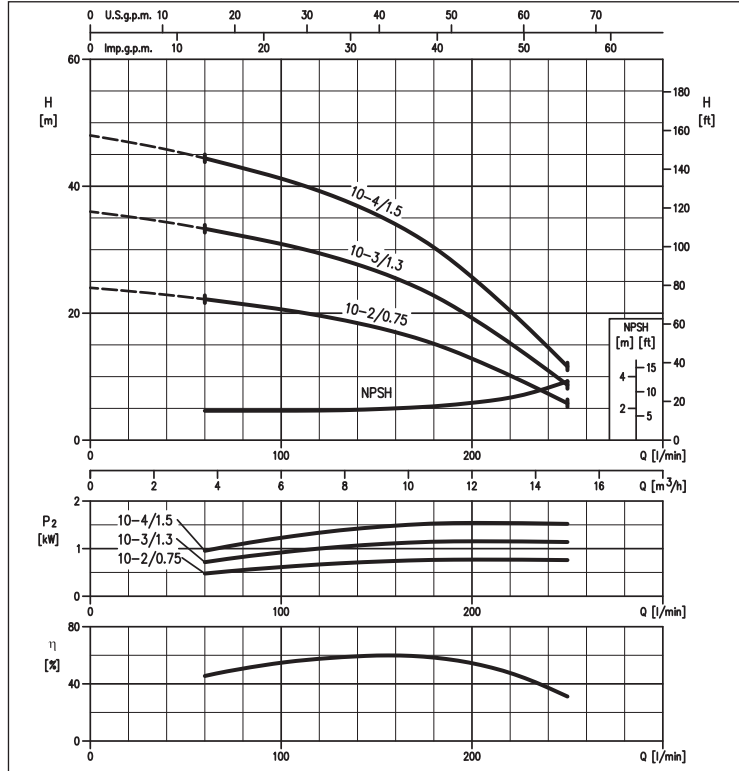
**MATRIX 5 range PERFORMANCE CURVES** (from 6 to 9 impellers)  
(according to ISO 9906 Attachment A)



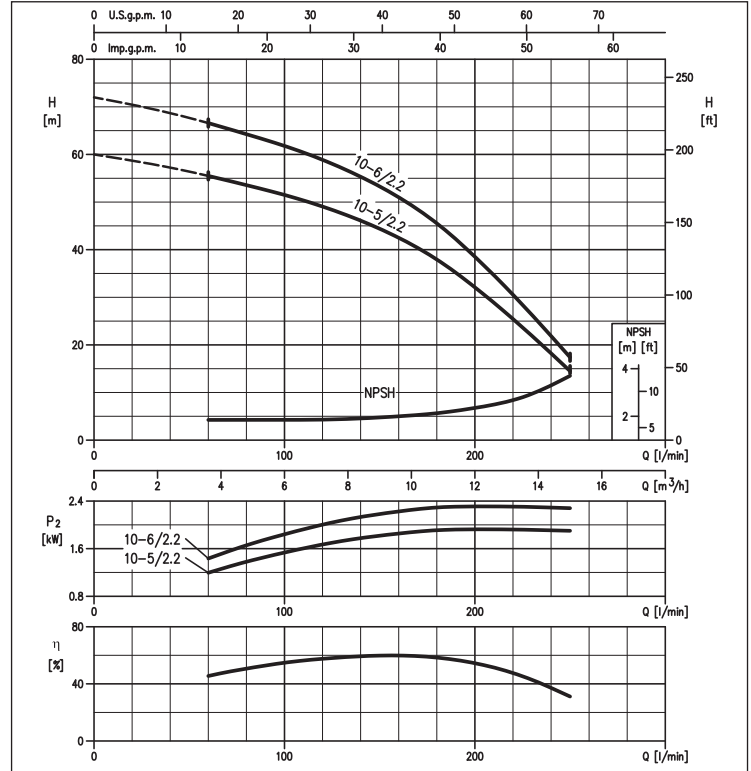
## HORIZONTAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

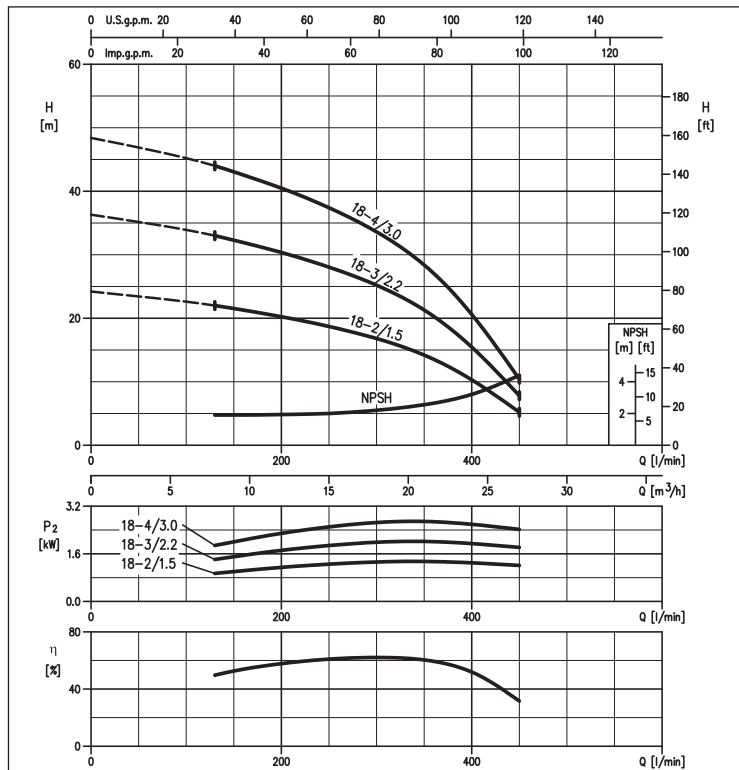
**MATRIX 10 range PERFORMANCE CURVES** (from 2 to 4 impellers)  
(according to ISO 9906 Attachment A)



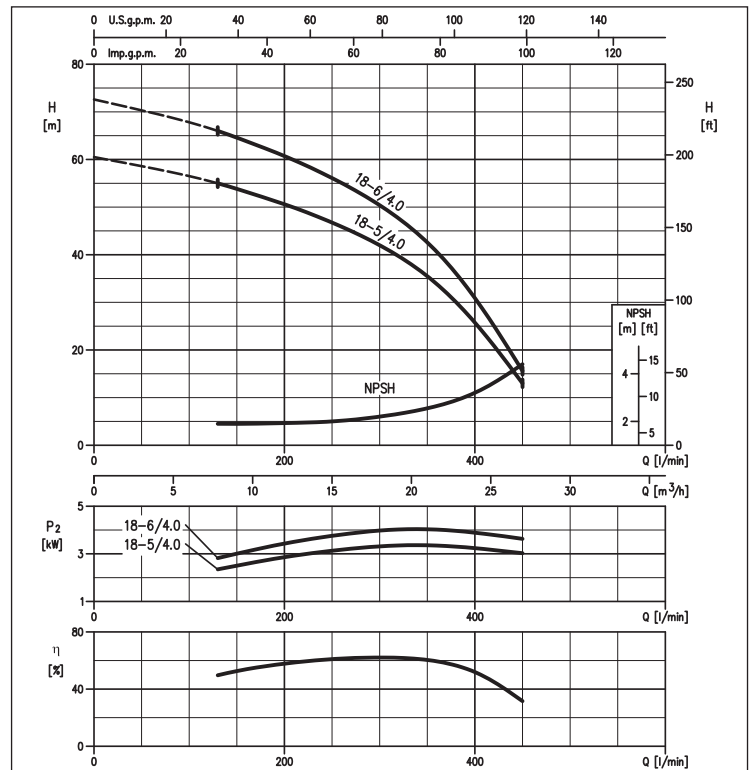
**MATRIX 10 range PERFORMANCE CURVES** (from 5 to 6 impellers)  
(according to ISO 9906 Attachment A)



**MATRIX 18 range PERFORMANCE CURVES** (from 2 to 4 impellers)  
(according to ISO 9906 Attachment A)



**MATRIX 18 range PERFORMANCE CURVES** (from 5 to 6 impellers)  
(according to ISO 9906 Attachment A)



## HORIZONTAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

### PERFORMANCE TABLE

230V single phase	Model 230/400V three-phase	P <sub>2</sub> [HP] [kW]		Q=Flow rate H=Head [m]																											
				l/min		30		45		60		80		100		130		160		200		250		300		350		400		450	
				20	30	45	60	80	100	130	160	200	250	300	350	400	450	1,2	1,8	2,7	3,6	4,8	6	7,8	9,6	12	15	18	21	24	27
MATRIX 3-2T/0.45M	MATRIX 3-2T/0.45	0,6	0,45	20,9	19,6	17,0	13,6	8,0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MATRIX 3-3T/0.65M	MATRIX 3-3T/0.65	0,9	0,65	31,4	29,3	25,5	20,4	12,0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MATRIX 3-4T/0.65M	MATRIX 3-4T/0.65	0,9	0,65	42,0	39,1	34,0	27,2	16,0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MATRIX 3-5T/0.75M	MATRIX 3-5T/0.75	1	0,75	52,5	49,0	42,5	34,0	20,0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MATRIX 3-6T/0.9M	MATRIX 3-6T/0.9	1,2	0,9	62,5	58,5	51,0	41,0	24,0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MATRIX 3-7T/1.3M	MATRIX 3-7T/1.3	1,8	1,3	73,0	68,5	59,5	47,5	28,0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MATRIX 3-8T/1.3M	MATRIX 3-8T/1.3	1,8	1,3	83,5	78,0	68,0	54,5	32,0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MATRIX 3-9T/1.5M	MATRIX 3-9T/1.5	2	1,5	94,0	88,0	76,5	61,0	36,0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MATRIX 5-2T/0.45M	MATRIX 5-2T/0.45	0,6	0,45	-	21,5	20,5	19,3	17,4	14,7	8,8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MATRIX 5-3T/0.65M	MATRIX 5-3T/0.65	0,9	0,65	-	32,3	30,7	29,0	26,0	22,0	13,2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MATRIX 5-4T/0.9M	MATRIX 5-4T/0.9	1,2	0,9	-	43,0	41,0	38,6	34,7	29,4	17,6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MATRIX 5-5T/1.3M	MATRIX 5-5T/1.3	1,8	1,3	-	54,0	51,0	48,5	43,5	36,7	22,0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MATRIX 5-6T/1.3M	MATRIX 5-6T/1.3	1,8	1,3	-	64,5	61,5	58,0	52,0	44,0	26,4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MATRIX 5-7T/1.5M	MATRIX 5-7T/1.5	2	1,5	-	75,5	72,0	67,5	61,0	51,5	30,8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MATRIX 5-8T/2.2M	MATRIX 5-8T/2.2	3	2,2	-	86,0	82,0	77,0	69,5	58,5	35,2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MATRIX 5-9T/2.2M	MATRIX 5-9T/2.2	3	2,2	-	97,0	92,0	87,0	78,0	66,0	39,6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MATRIX 10-2T/0.75M	MATRIX 10-2T/0.75	1	0,75	-	-	-	22,2	21,4	20,6	19,1	17,0	12,8	5,8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MATRIX 10-3T/1.3M	MATRIX 10-3T/1.3	1,8	1,3	-	-	-	33,3	32,1	30,9	28,6	25,5	19,3	8,7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MATRIX 10-4T/1.5M	MATRIX 10-4T/1.5	2	1,5	-	-	-	44,5	43,0	41,0	38,1	34,0	25,7	11,6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MATRIX 10-5T/2.2M	MATRIX 10-5T/2.2	3	2,2	-	-	-	55,5	53,5	51,5	47,5	42,5	32,1	14,5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MATRIX 10-6T/2.2M	MATRIX 10-6T/2.2	3	2,2	-	-	-	66,5	64,5	62,0	57,0	51,0	38,5	17,4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MATRIX 18-2T/1.5M	MATRIX 18-2T/1.5	2	1,5	-	-	-	-	-	-	22,0	21,3	20,2	18,7	16,8	14,2	10,3	5,2	-	-	-	-	-	-	-	-	-	-	-	-	-	
MATRIX 18-3T/2.2M	MATRIX 18-3T/2.2	3	2,2	-	-	-	-	-	-	33,0	31,9	30,4	28,1	25,2	21,3	15,5	7,8	-	-	-	-	-	-	-	-	-	-	-	-	-	
	MATRIX 18-4T/3	4	3	-	-	-	-	-	-	44,0	42,5	40,5	37,4	33,6	28,4	20,6	10,4	-	-	-	-	-	-	-	-	-	-	-	-	-	
	MATRIX 18-5T/4	5,5	4	-	-	-	-	-	-	55,0	53,0	50,5	47,0	42,0	35,5	25,8	13,0	-	-	-	-	-	-	-	-	-	-	-	-	-	
	MATRIX 18-6T/4	5,5	4	-	-	-	-	-	-	66,0	64,0	60,5	56,0	50,5	42,5	30,9	15,6	-	-	-	-	-	-	-	-	-	-	-	-	-	



## HORIZONTAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

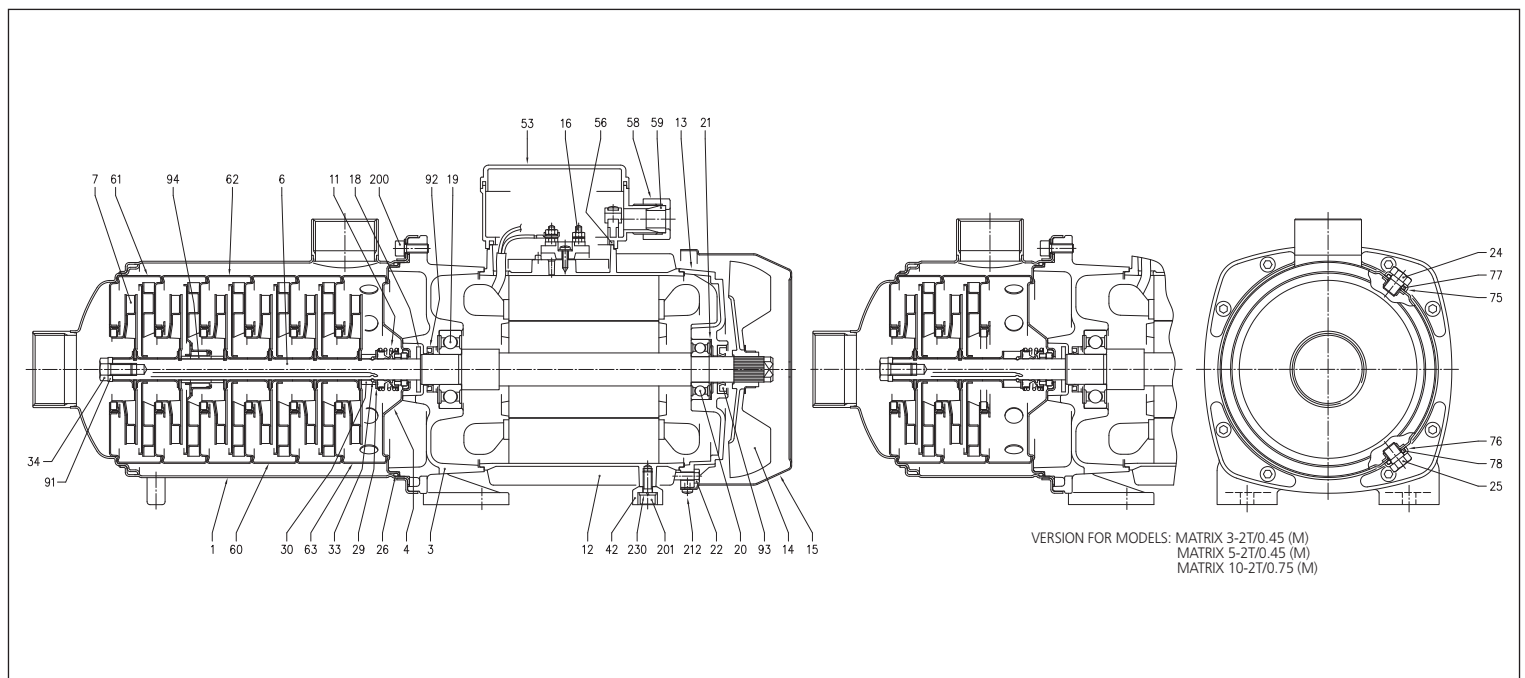
### DIMENSIONS TABLE

Model	Fig.	B	C	D	F	H3 [1]	H4 [2]	L	R	T [2]	V [1]	W	D1	D2	Weight [kg]
MATRIX 5-2T/0.45 M	1	360	171	-	103	-	200	84	151,5	PG11	-	88÷97	1"¼	1"	8,5
MATRIX 5-2T/0.45	1	360	171	-	103	192	-	-	151,5	-	PG11	88÷97	1"¼	1"	8,4
MATRIX 5-3T/0.65 M	1	360	171	-	103	-	200	84	151,5	PG11	-	88÷97	1"¼	1"	9,9
MATRIX 5-3T/0.65	1	360	171	-	103	192	-	-	151,5	-	PG11	88÷97	1"¼	1"	9,8
MATRIX 5-4T/0.9 M	1	384	171	-	127	-	219	106	175,5	M20x1,5	-	88÷97	1"¼	1"	12,2
MATRIX 5-4T/0.9	1	384	171	-	127	192	-	-	175,5	-	PG11	88÷97	1"¼	1"	12,1
MATRIX 5-5T/1.3 M	1	445	198	-	151	-	226	112	199,5	M20x1,5	-	88÷97	1"¼	1"	15,0
MATRIX 5-5T/1.3	1	445	198	-	151	209	-	-	199,5	-	PG11	88÷97	1"¼	1"	14,5
MATRIX 5-6T/1.3 M	1	469	198	-	175	-	226	112	223,5	M20x1,5	-	88÷97	1"¼	1"	15,2
MATRIX 5-6T/1.3	1	469	198	-	175	209	-	-	223,5	-	PG11	88÷97	1"¼	1"	15,6
MATRIX 5-7T/1.5 M	1	493	198	118	199	-	226	112	247,5	M20x1,5	-	88÷97	1"¼	1"	17,2
MATRIX 5-7T/1.5	1	493	198	118	199	209	-	-	247,5	-	PG11	88÷97	1"¼	1"	16,6
MATRIX 5-8T/2.2 M	2	565	-	142	223	-	231	112	325,5	M20x1,5	-	117,5	1"¼	1"	22,3
MATRIX 5-8T/2.2	1	530	198	142	223	209	-	-	271,5	-	PG11	88÷97	1"¼	1"	18,7
MATRIX 5-9T/2.2 M	2	589	-	166	247	-	231	112	349,5	M20x1,5	-	117,5	1"¼	1"	22,8
MATRIX 5-9T/2.2	1	554	198	166	247	209	-	-	295,5	-	PG11	88÷97	1"¼	1"	18,8
MATRIX 10-2T/0.75 M	1	379	175	-	118	-	200	84	170,5	PG11	-	92÷101	1"½	1"¼	11,3
MATRIX 10-2T/0.75	1	379	175	-	118	192	-	-	170,5	-	PG11	92÷101	1"½	1"¼	11,2
MATRIX 10-3T/1.3 M	1	416	202	-	118	-	226	112	170,5	M20x1,5	-	92÷101	1"½	1"¼	14,7
MATRIX 10-3T/1.3	1	416	202	-	118	209	-	-	170,5	-	PG11	92÷101	1"½	1"¼	13,9
MATRIX 10-4T/1.5 M	1	446	202	-	148	-	226	112	200,5	M20x1,5	-	92÷101	1"½	1"¼	15,6
MATRIX 10-4T/1.5	1	446	202	-	148	209	-	-	200,5	-	PG11	92÷101	1"½	1"¼	15,4
MATRIX 10-5T/2.2 M	2	524	-	-	178	-	231	112	284,5	M20x1,5	-	121,5	1"½	1"¼	21,3
MATRIX 10-5T/2.2	1	489	202	-	178	209	-	-	230,5	-	PG11	92÷101	1"½	1"¼	17,9
MATRIX 10-6T/2.2 M	2	554	-	126	208	-	231	112	314,5	M20x1,5	-	121,5	1"½	1"¼	22,4
MATRIX 10-6T/2.2	1	519	202	126	208	209	-	-	260,5	-	PG11	92÷101	1"½	1"¼	18,3
MATRIX 18-2T/1.5M	1	442	205	-	141	-	226	112	196,5	M20x1,5	-	95 ÷ 104	2"	1"½	14,5
MATRIX 18-2T/1.5M	1	442	205	-	141	209	-	-	196,5	-	PG11	95 ÷ 104	2"	1"½	14,3
MATRIX 18-3T/2.2M	2	490	-	-	141	-	231	112	205,5	M20x1,5	-	124,5	2"	1"½	20,6
MATRIX 18-3T/2.2	1	455	205	-	141	209	-	-	196,5	-	PG11	95 ÷ 104	2"	1"½	17,1
MATRIX 18-4T/3	2	527	-	-	178,5	214	-	-	288	-	PG13,5	124,5	2"	1"½	21,7
MATRIX 18-5T/4	2	609	-	130,5	216	214	-	-	325,5	-	PG13,5	124,5	2"	1"½	26,9
MATRIX 18-6T/4	2	646	-	168	253,5	214	-	-	363	-	PG13,5	124,5	2"	1"½	28,1

[1]= Three-phase only

[2]= Single phase only

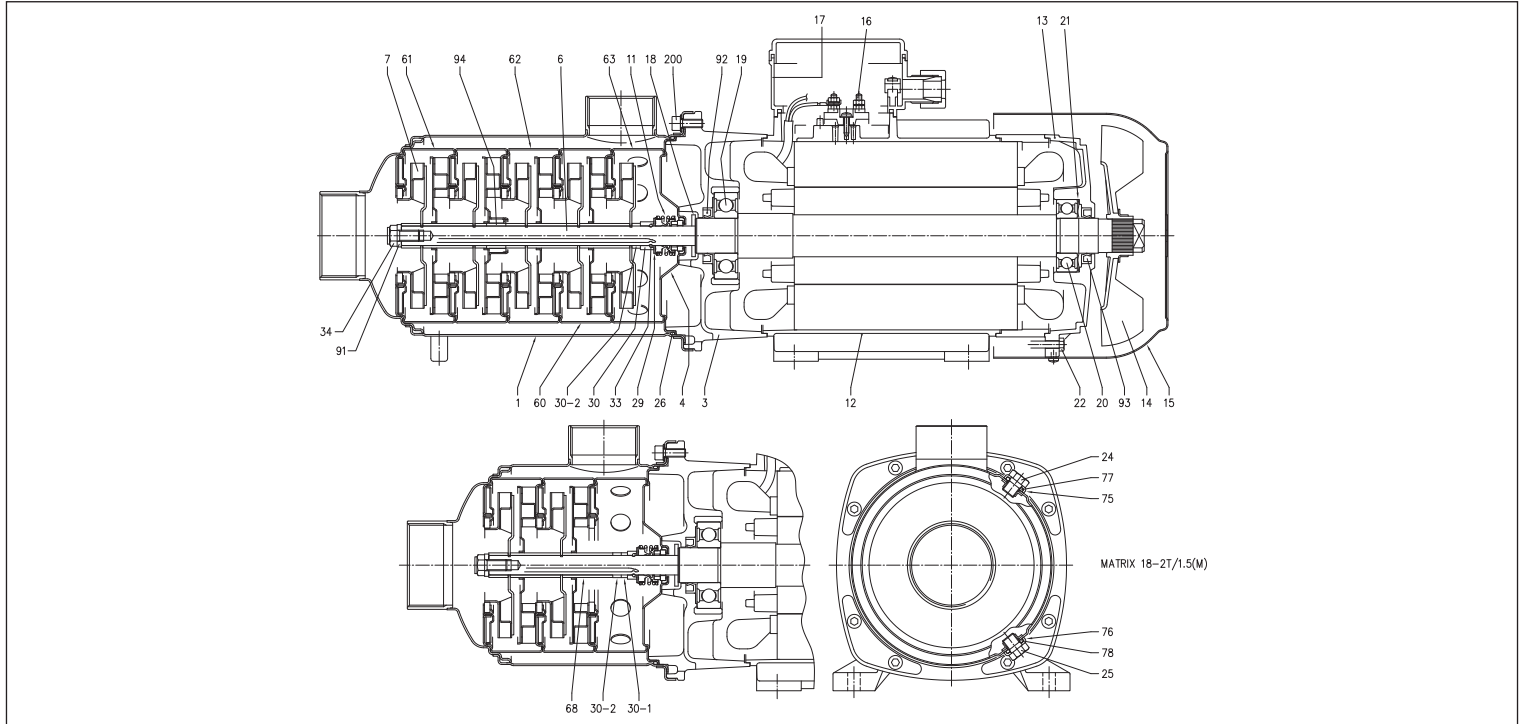
### MATRIX 3-5-10 SECTIONAL VIEW



## HORIZONTAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

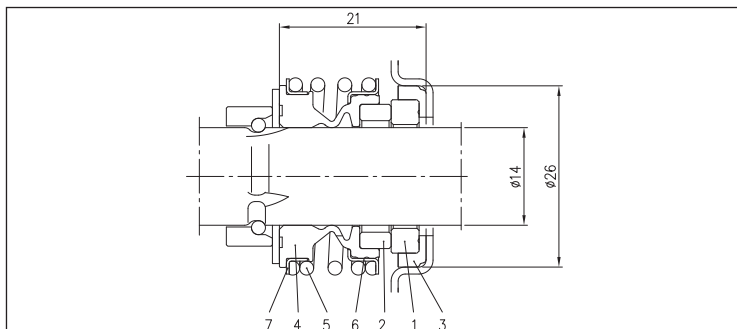
### MATRIX 18 SECTIONAL VIEW



### MATERIALS TABLE

Ref.	Name	Material	Ref.	Name	Material
1	Pump body	EN 1.4301 (AISI 304)	26	O-Ring	EPDM
3	Motor support	Die-cast aluminium	29	Washer	EN 1.4301 (AISI 304)
4	Seal housing disc	EN 1.4301 (AISI 304)	30	Holding ring	EN 1.4301 (AISI 304)
6	Shaft	EN 1.4301 (AISI 304)	30-1/2	Shaft casing	EN 1.4301 (AISI 304)
7	Impeller	EN 1.4301 (AISI 304)	33	Ring	EN 1.4301 (AISI 304)
11	Mechanical seal	Ceramic/Carbon/EPDM	34	Screw	EN 1.4301 (AISI 304)
12	Motor case	-	60	Intermediate stage	EN 1.4301 (AISI 304)+PTFE
13	Motor cover	Aluminium	61	Intermediate stage (suction)	EN 1.4301 (AISI 304)+PTFE
14	Fan	Polyamide	62	Intermediate stage (bearing)	EN 1.4301 (AISI 304) + PTFE + Ceramic
15	Fan cover	Galvanised Fe P04	63	Intermediate stage (discharge)	EN 1.4301 (AISI 304) + PTFE
16	Terminal box	-	75	Washer	EN 1.4301 (AISI 304)
17	Terminal box cover	Aluminium	76	Washer	EN 1.4301 (AISI 304)
18	Spray protector ring	NBR	77	O-Ring	EPDM
19	Bearing (pump side)	-	78	O-Ring	EPDM
20	Bearing (motor side)	-	91	Shaft washer	EN 1.4301 (AISI 304)
21	Adjusting ring	Steel C70	92	Sealing ring	-
22	Tie-rod	Galvanised Fe 42	93	Sealing ring	-
24	Filler cap	EN 1.4301 (AISI 304)	94	Guide bush	WC - Tungsten carbide
25	Drain plug	EN 1.4301 (AISI 304)	200	Screw (pump body)	EN 1.4301 (AISI 304)

### MECHANICAL SEAL



### MATERIALS TABLE

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

## HORIZONTAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

### ELECTRIC DATA TABLE

Model	P <sub>2</sub>		Motor Mec	Single phase Capacitor		P <sub>1</sub> [kW]	Absorbed Current [A]	
	[HP]	[kW]		μF	V <sub>c</sub>		230V	400V
MATRIX 3-2T/0.45M	0,6	0,45	71	12,5	450	0,73	3,2	-
MATRIX 3-2T/0.45	0,6	0,45	71	-	-	0,72	2,3	1,3
MATRIX 3-3T/0.65M	0,9	0,65	71	16	450	0,97	4,5	-
MATRIX 3-3T/0.65	0,9	0,65	71	-	-	0,85	2,8	1,6
MATRIX 3-4T/0.65M	0,9	0,65	71	16	450	0,97	4,5	-
MATRIX 3-4T/0.65	0,9	0,65	71	-	-	0,85	2,8	1,6
MATRIX 3-5T/0.75M	1	0,75	71	25	450	1,14	5,4	-
MATRIX 3-5T/0.75	1	0,75	71	-	-	1,12	4,4	2,5
MATRIX 3-6T/0.9M	1,2	0,9	71	31,5	450	1,28	5,7	-
MATRIX 3-6T/0.9	1,2	0,9	71	-	-	1,24	4,5	2,6
MATRIX 3-7T/1.3M	1,8	1,3	80	31,5	450	1,75	7,8	-
MATRIX 3-7T/1.3	1,8	1,3	80	-	-	1,7	6,1	3,5
MATRIX 3-8T/1.3M	1,8	1,3	80	31,5	450	1,75	7,8	-
MATRIX 3-8T/1.3	1,8	1,3	80	-	-	1,7	6,1	3,5
MATRIX 3-9T/1.5M	2	1,5	80	35	450	1,95	8,7	-
MATRIX 3-9T/1.5	2	1,5	80	-	-	1,85	5,9	3,4
MATRIX 5-2T/0.45M	0,6	0,45	71	12,5	450	0,73	3,2	-
MATRIX 5-2T/0.45	0,6	0,45	71	-	-	0,72	2,3	1,3
MATRIX 5-3T/0.65M	0,9	0,65	71	16	450	0,97	4,5	-
MATRIX 5-3T/0.65	0,9	0,65	71	-	-	0,85	2,8	1,6
MATRIX 5-4T/0.9M	1,2	0,9	71	31,5	450	1,28	5,7	-
MATRIX 5-4T/0.9	1,2	0,9	71	-	-	1,24	4,5	2,6
MATRIX 5-5T/1.3M	1,8	1,3	80	31,5	450	1,75	7,8	-
MATRIX 5-5T/1.3	1,8	1,3	80	-	-	1,7	6,1	3,5
MATRIX 5-6T/1.3M	1,8	1,3	80	31,5	450	1,75	7,8	-
MATRIX 5-6T/1.3	1,8	1,3	80	-	-	1,7	6,1	3,5
MATRIX 5-7T/1.5M	2	1,5	80	35	450	1,95	8,7	-
MATRIX 5-7T/1.5	2	1,5	80	-	-	1,85	5,9	3,4
MATRIX 5-8T/2.2M	3	2,2	90	50	450	2,92	13	-
MATRIX 5-8T/2.2	3	2,2	80	-	-	2,65	8	4,6
MATRIX 5-9T/2.2M	3	2,2	90	50	450	2,92	13	-
MATRIX 5-9T/2.2	3	2,2	80	-	-	2,65	8	4,6
MATRIX 10-2T/0.75M	1	0,75	71	25	450	1,14	5,4	-
MATRIX 10-2T/0.75	1	0,75	71	-	-	1,12	4,4	2,5
MATRIX 10-3T/1.3M	1,8	1,3	80	31,5	450	1,75	7,8	-
MATRIX 10-3T/1.3	1,8	1,3	80	-	-	1,7	6,1	3,5
MATRIX 10-4T/1.5M	2	1,5	80	35	450	1,95	8,7	-
MATRIX 10-4T/1.5	2	1,5	80	-	-	1,85	5,9	3,4
MATRIX 10-5T/2.2M	3	2,2	90	50	450	2,92	13	-
MATRIX 10-5T/2.2	3	2,2	80	-	-	2,65	8	4,6
MATRIX 10-6T/2.2M	3	2,2	90	50	450	2,92	13	-
MATRIX 10-6T/2.2	3	2,2	80	-	-	2,65	8	4,6
MATRIX 18-2T/1.5M	2	1,5	80	31,5	450	1,95	8,7	-
MATRIX 18-2T/1.5	2	1,5	80	-	-	1,85	5,9	3,4
MATRIX 18-3T/2.2M	3	2,2	90	50	450	2,92	13	-
MATRIX 18-3T/2.2	3	2,2	80	-	-	2,65	8	4,6
MATRIX 18-4T/3	4	3	90	-	-	3,7	10,9	6,3
MATRIX 18-5T/4	5,5	4	90	-	-	4,7	14	8,1
MATRIX 18-6T/4	5,5	4	90	-	-	4,7	14	8,1