



**EBARA**

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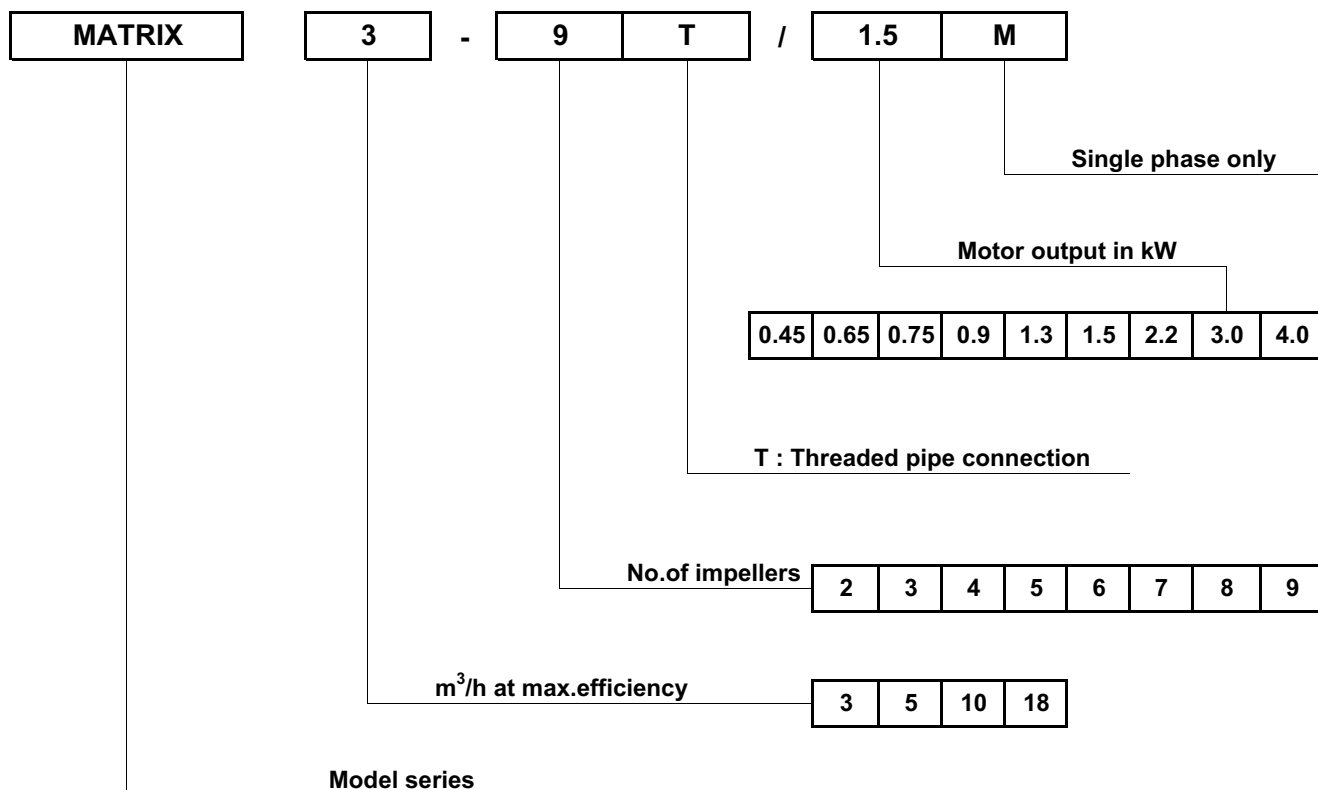
## SPECIFICATIONS

50Hz

PUMP			
Liquid Handled	Type of liquid	Water, moderate aggressive solutions glycol solutions, moderate viscous fluids	
	Max temperature	[°C] 110	
	Min temperature	[°C] -15	
	Max. chlorine content	500 ppm	
Maximum pressure		[MPa] 1	
Construction	Impeller	Closed centrifugal type	
	Motor bearings	Screened ball bearing - greased for life	
	Pump bearing	Type : Sleeve Shaft sleeve : Tungsten Carbide Bearing : Ceramic	
Pipe Connection	Suction/Discharge ( threads according ISO 228)	<b>MATRIX 3</b>	G 1" - G 1"
		<b>MATRIX 5</b>	G 1¼ - G 1"
		<b>MATRIX 10</b>	G 1½ - G 1¼
		<b>MATRIX 18</b>	G 2 - G 1½
Material	Casing	EN 1.4301 (AISI 304)	
	Impeller	EN 1.4301 (AISI 304)	
	Intermediate casing	EN 1.4301 (AISI 304)	
	O-Rings	EPDM	
	Casing cover	EN 1.4301 (AISI 304)	
	Shaft seal	Ceramic/Carbon/EPDM	
	Liner ring	EN 1.4301 (AISI 304) + PTFE	
	Shaft (wet extension)	EN 1.4301 (AISI 304)	
Bracket	EN AB-AISI11Cu2(Fe) (Die cast Aluminium)		
Applicable standard of test		ISO 9906 - Annex A	

MOTOR		
Type	Electric asynchronous TEFC	
	Single Phase	Three Phase
No. of Poles	2	
Insulation Class	F	
Max ambient temperature [°C]	40	
Protection degree	IP 55	
Power rating	[kW]	0.45 ÷ 2.2
	[HP]	0.6 ÷ 3.0
Frequency	[Hz]	50
Voltage	[V]	230 ±10%
Capacitor	Built in	-
Overload protection	Built in	Provided by the user
Casing material	Aluminium	
Base material/motor support	Aluminium	
Dimensions of cable entry	PG11 - M20x1.5	PG11 - PG13.5

**Type Key :**



**Curve specifications**

The specifications below qualify the curves shown on the following pages.

Tolerances according to ISO 9906 Annex A

The curves refer to effective speed of asynchronous motors at 50 Hz

Measurements were carried out with clean water at 20°C of temperature and with a kinematic viscosity of  $\nu = 1 \text{ mm}^2/\text{s}$  (1 cSt)

In order to avoid the risk of over-heating, the pumps should not be used at a flow rate below 10% of best efficiency point.

Symbols explanation:

- Q = volume flow rate
- H = total head
- $P_2$  = pump power input (shaft power)
- $\eta$  = pump efficiency
- NPSH = net positive suction head required by the pump

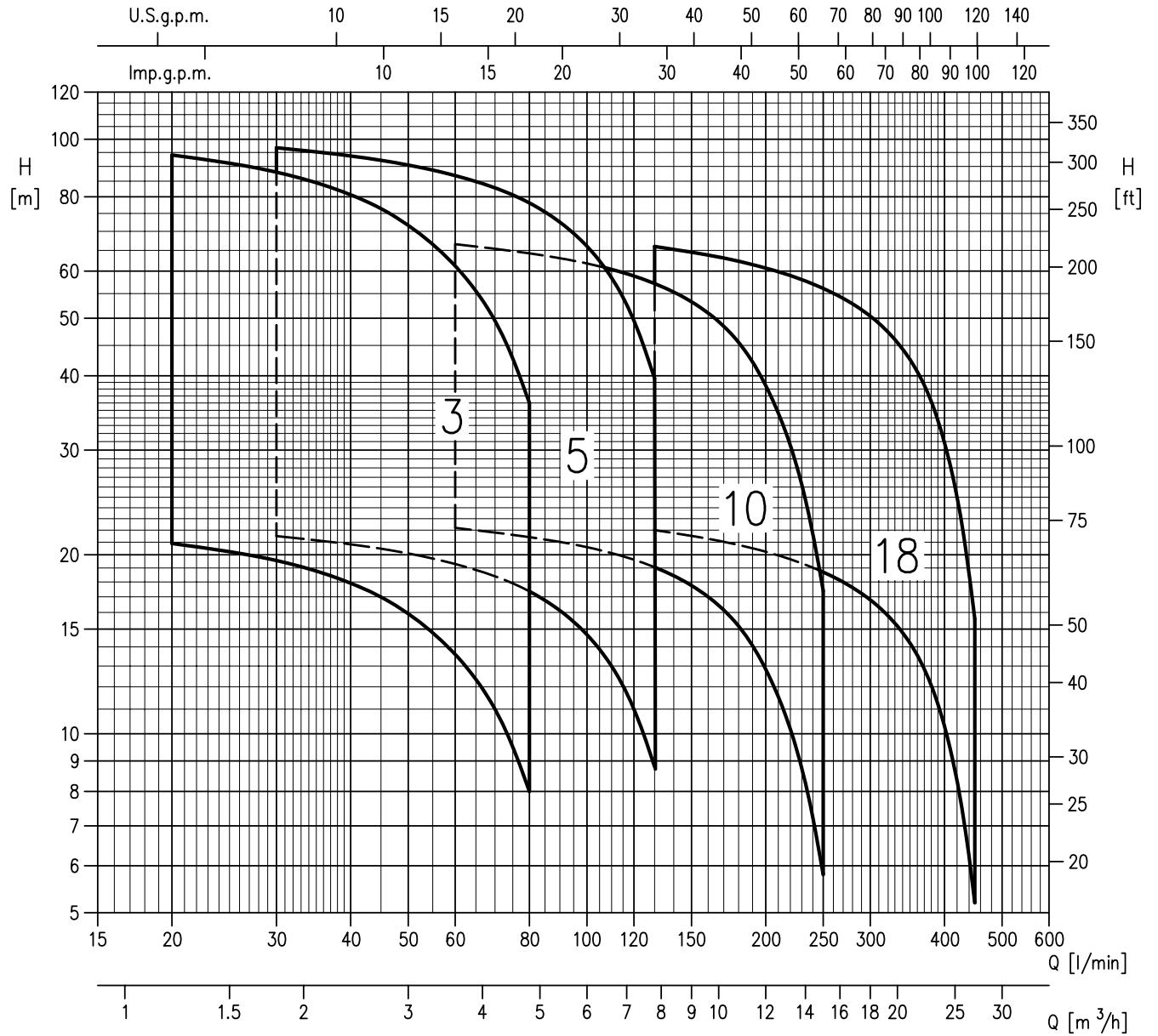
## SELECTION CHART

50Hz

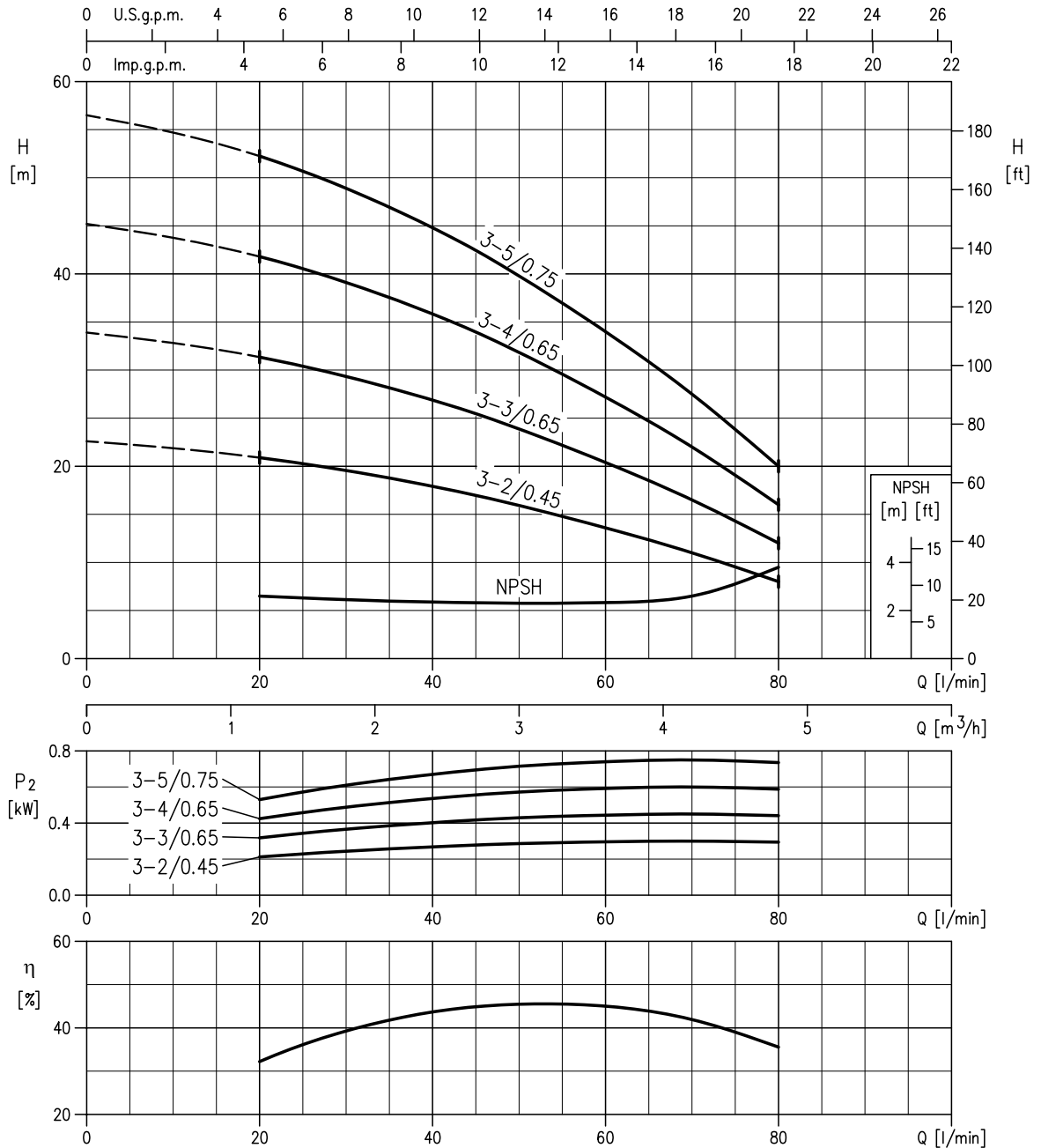
Pump type		Motor		Q=Capacity															
MATRIX		Power		0	20	30	45	60	80	100	130	160	200	250	300	350	400	450	
Single phase	Three phase	kW	HP	m <sup>3</sup> /h	0	1.2	1.8	2.7	3.6	4.8	6	7.8	9.6	12	15	18	21	24	27
				H=Total manometric head in meters															
3-2(.)0.45M	3-2(.)0.45	0.45	0.6	22.6	20.9	19.6	17.0	13.6	8.0										
3-3(.)0.65M	3-3(.)0.65	0.65	0.9	33.9	31.4	29.3	25.5	20.4	12.0										
3-4(.)0.65M	3-4(.)0.65	0.65	0.9	45.0	42.0	39.1	34.0	27.2	16.0										
3-5(.)0.75M	3-5(.)0.75	0.75	1.0	56.5	52.5	49.0	42.5	34.0	20.0										
3-6(.)0.9M	3-6(.)0.9	0.9	1.2	68.0	62.5	58.5	51.0	41.0	24.0										
3-7(.)1.3M	3-7(.)1.3	1.3	1.8	79.0	73.0	68.5	59.5	47.5	28.0										
3-8(.)1.3M	3-8(.)1.3	1.3	1.8	90.5	83.5	78.0	68.0	54.5	32.0										
3-9(.)1.5M	3-9(.)1.5	1.5	2.0	102.0	94.0	88.0	76.5	61.0	36.0										
5-2(.)0.45M	5-2(.)0.45	0.45	0.6	23.0	-	21.5	20.5	19.3	17.4	14.7	8.8								
5-3(.)0.65M	5-3(.)0.65	0.65	0.9	34.5	-	32.3	30.7	29.0	26.0	22.0	13.2								
5-4(.)0.9M	5-4(.)0.9	0.9	1.2	46.0	-	43.0	41.0	38.6	34.7	29.4	17.6								
5-5(.)1.3M	5-5(.)1.3	1.3	1.8	57.5	-	54.0	51.0	48.5	43.5	36.7	22.0								
5-6(.)1.3M	5-6(.)1.3	1.3	1.8	69.0	-	64.5	61.5	58.0	52.0	44.0	26.4								
5-7(.)1.5M	5-7(.)1.5	1.5	2.0	80.5	-	75.5	72.0	67.5	61.0	51.5	30.8								
5-8(.)2.2M	5-8(.)2.2	2.2	3.0	92.0	-	86.0	82.0	77.0	69.5	58.5	35.2								
5-9(.)2.2M	5-9(.)2.2	2.2	3.0	104.0	-	97.0	92.0	87.0	78.0	66.0	39.6								
10-2(.)0.75M	10-2(.)0.75	0.75	1.0	24.0	-	-	-	22.2	21.4	20.6	19.1	17.0	12.8	5.8					
10-3(.)1.3M	10-3(.)1.3	1.3	1.8	36.0	-	-	-	33.3	32.1	30.9	28.6	25.5	19.3	8.7					
10-4(.)1.5M	10-4(.)1.5	1.5	2.0	48.0	-	-	-	44.5	43.0	41.0	38.1	34.0	25.7	11.6					
10-5(.)2.2M	10-5(.)2.2	2.2	3.0	60.0	-	-	-	55.5	53.5	51.5	47.5	42.5	32.1	14.5					
10-6(.)2.2M	10-6(.)2.2	2.2	3.0	72.0	-	-	-	66.5	64.5	62.0	57.0	51.0	38.5	17.4					
18-2(.)1.5M	18-2(.)1.5	1.5	2.0	24.2	-	-	-	-	-	-	22.0	21.3	20.2	18.7	16.8	14.2	10.3	5.2	
18-3(.)2.2M	18-3(.)2.2	2.2	3.0	36.3	-	-	-	-	-	-	33.0	31.9	30.4	28.1	25.2	21.3	15.5	7.8	
-	18-4(.)3	3.0	4.0	48.5	-	-	-	-	-	-	44.0	42.5	40.5	37.4	33.6	28.4	20.6	10.4	
-	18-5(.)4	4	5.5	60.5	-	-	-	-	-	-	55.0	53.0	50.5	47.0	42.0	35.5	25.8	13.0	
-	18-6(.)4	4	5.5	72.5	-	-	-	-	-	-	66.0	64.0	60.5	56.0	50.5	42.5	30.9	15.6	

**SELECTION CHART**

50Hz



**MATRIX 3** -5/0.75 ( 0.75 kW )  
 -4/0.65 ( 0.65 kW )  
 -3/0.65 ( 0.65 kW )  
 -2/0.45 ( 0.45 kW )

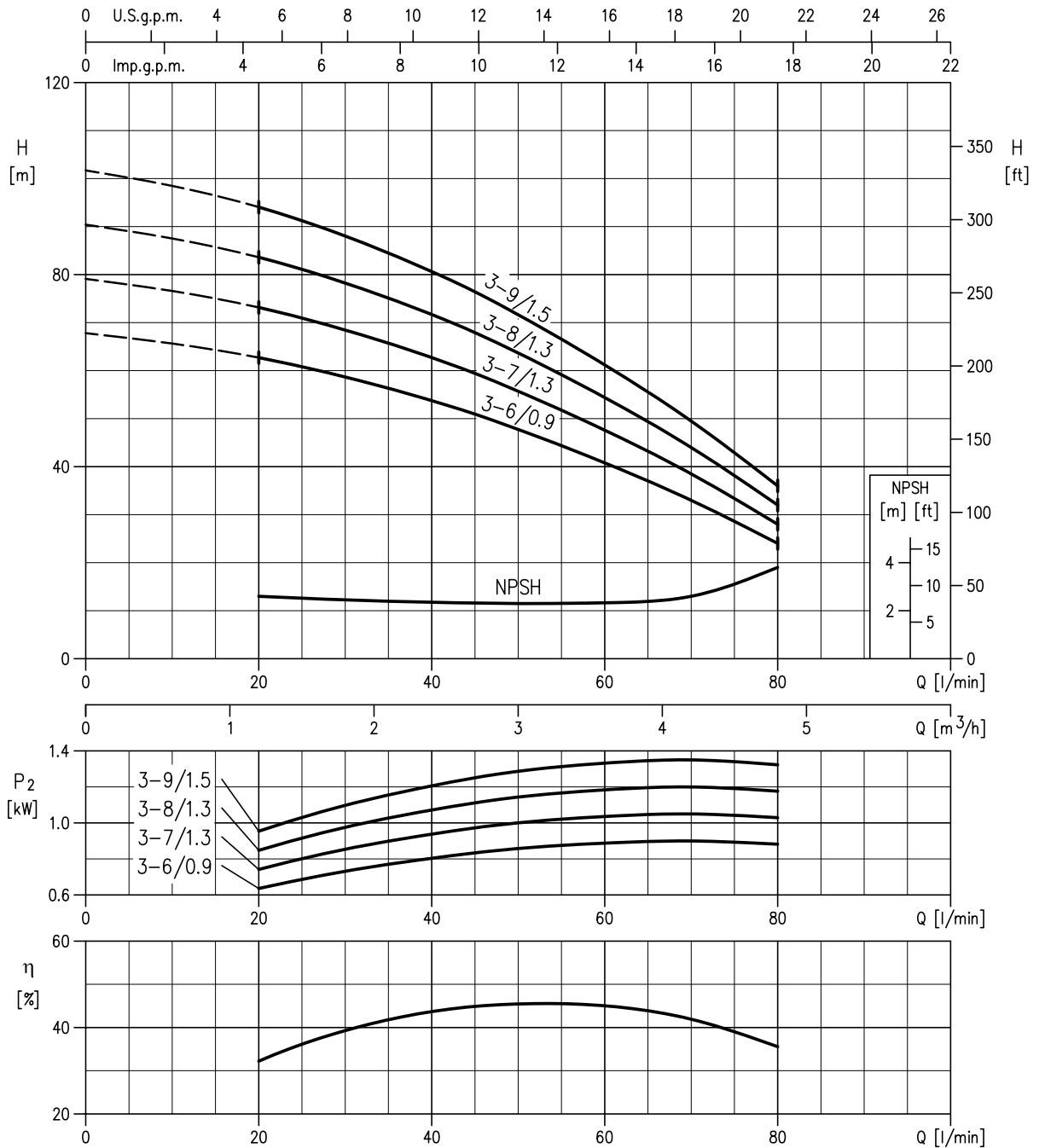


Impeller diameter : 98.5 mm  
 Rotation speed ≈ 2850 min<sup>-1</sup>  
 Tests standard : ISO 9906 Annex A

## PERFORMANCE CURVE

50Hz

**MATRIX 3** -9/1.5 ( 1.5 kW )  
 -8/1.3 ( 1.3 kW )  
 -7/1.3 ( 1.3 kW )  
 -6/0.9 ( 0.90 kW )



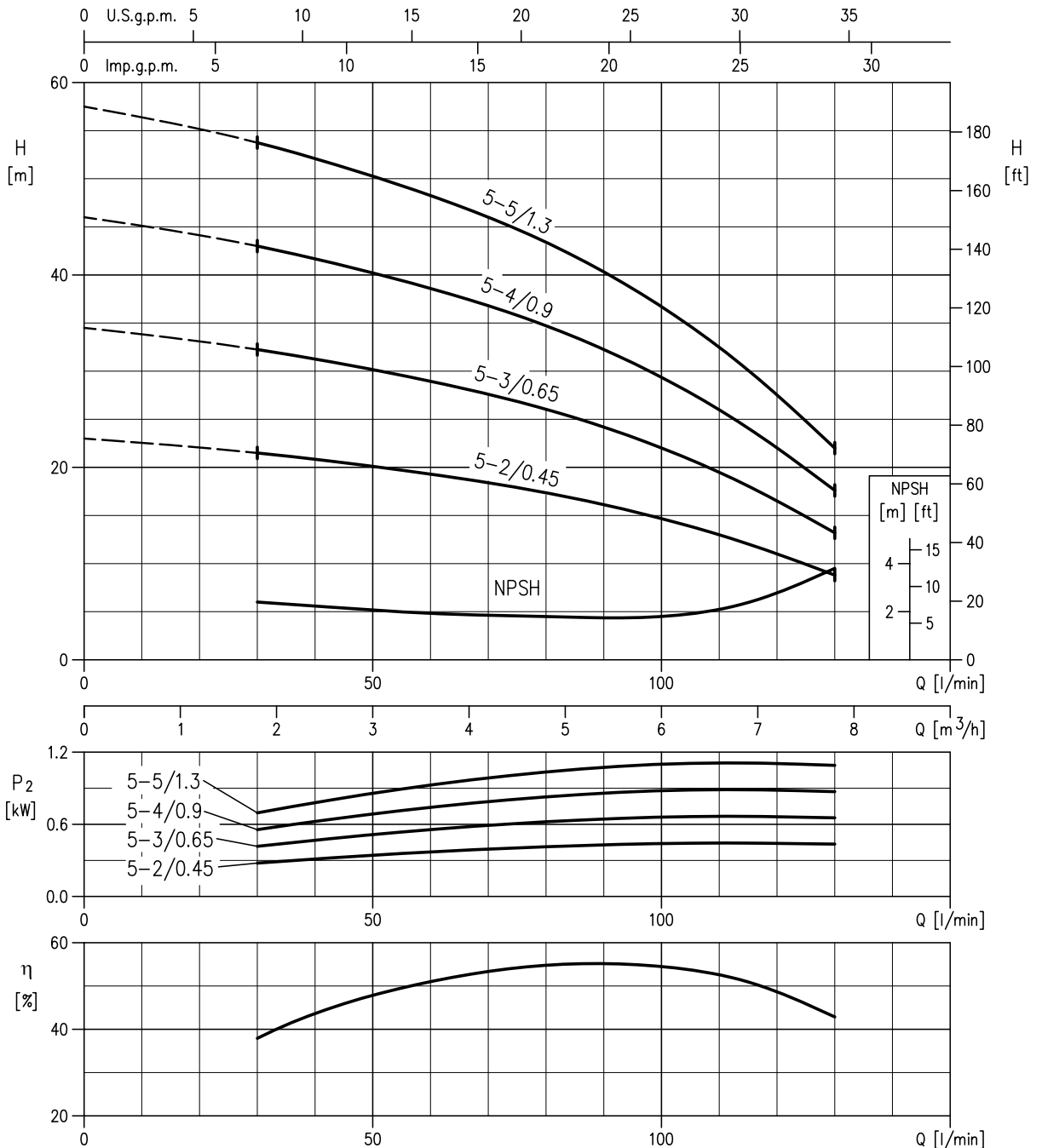
Impeller diameter : 98.5 mm  
 Rotation speed  $\approx 2850 \text{ min}^{-1}$   
 Tests standard : ISO 9906 Annex A



PERFORMANCE CURVE

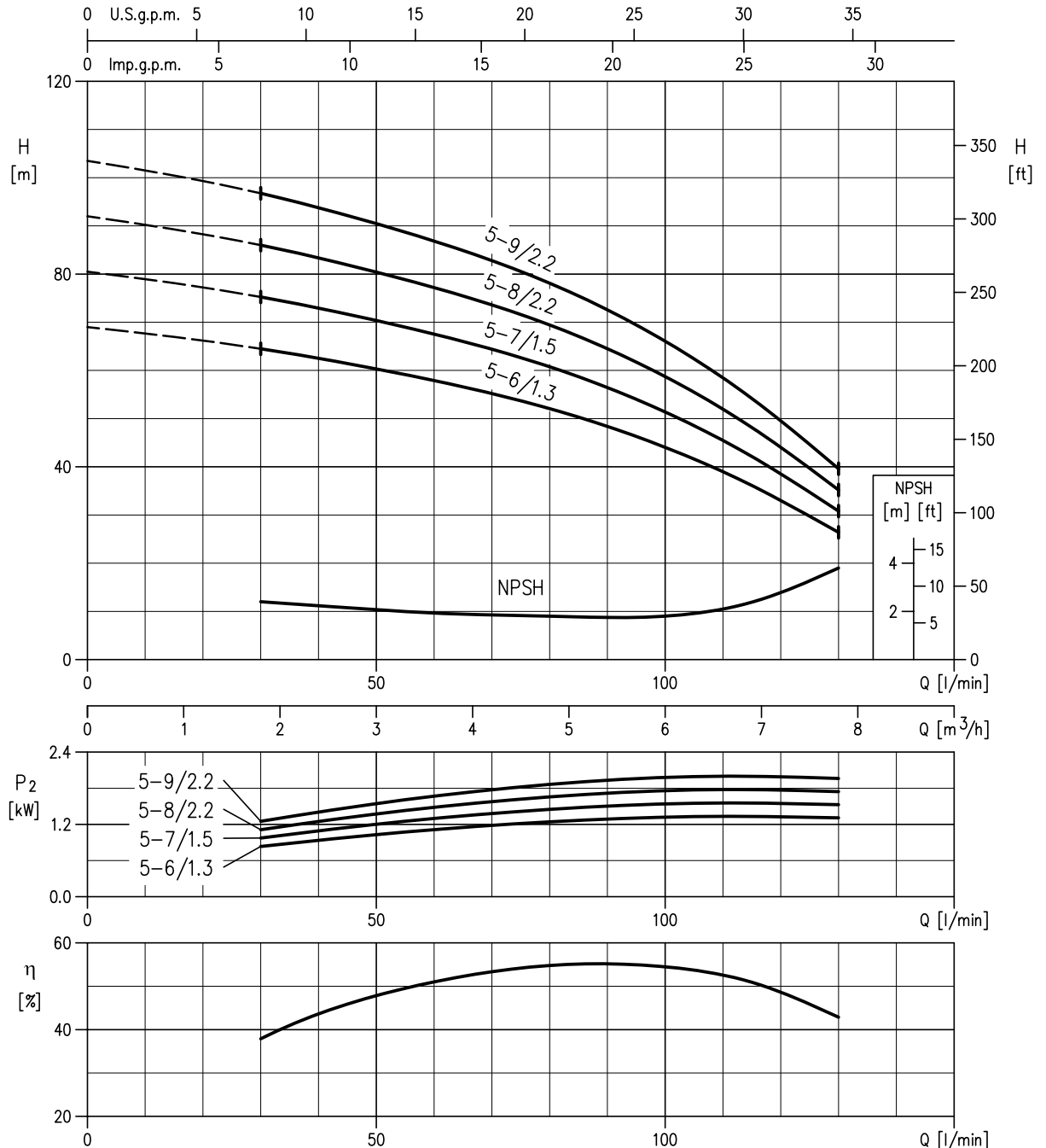
50Hz

MATRIX 5 -5/1.3 ( 1.3 kW )  
 -4/0.9 ( 0.90 kW )  
 -3/0.65 ( 0.65 kW )  
 -2/0.45 ( 0.45 kW )



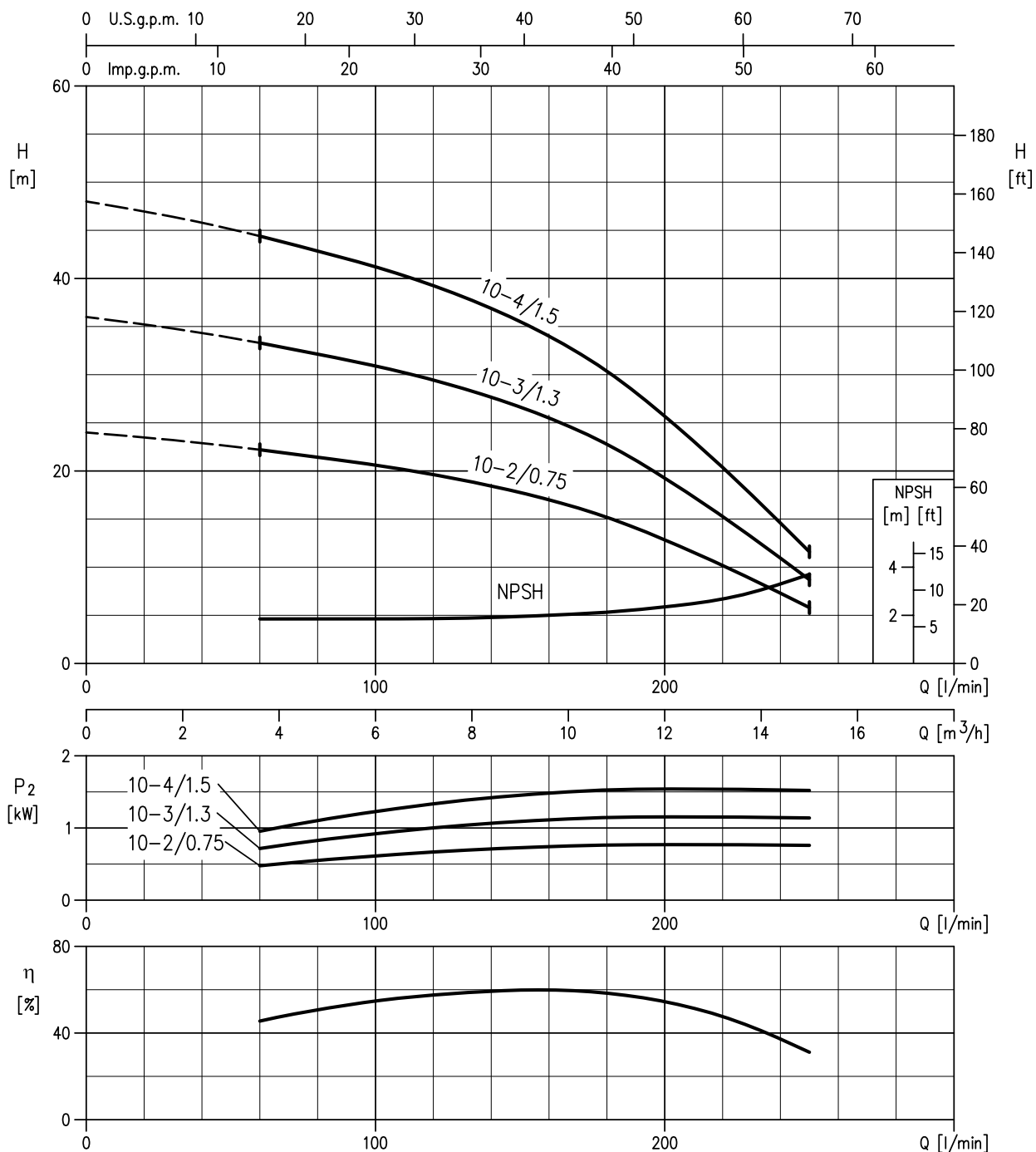
Impeller diameter : 97 mm  
 Rotation speed ≈ 2850 min<sup>-1</sup>  
 Tests standard : ISO 9906 Annex A

MATRIX 5 -9/2.2 ( 2.2 kW )  
 -8/2.2 ( 2.2 kW )  
 -7/1.5 ( 1.5 kW )  
 -6/1.3 ( 1.3 kW )



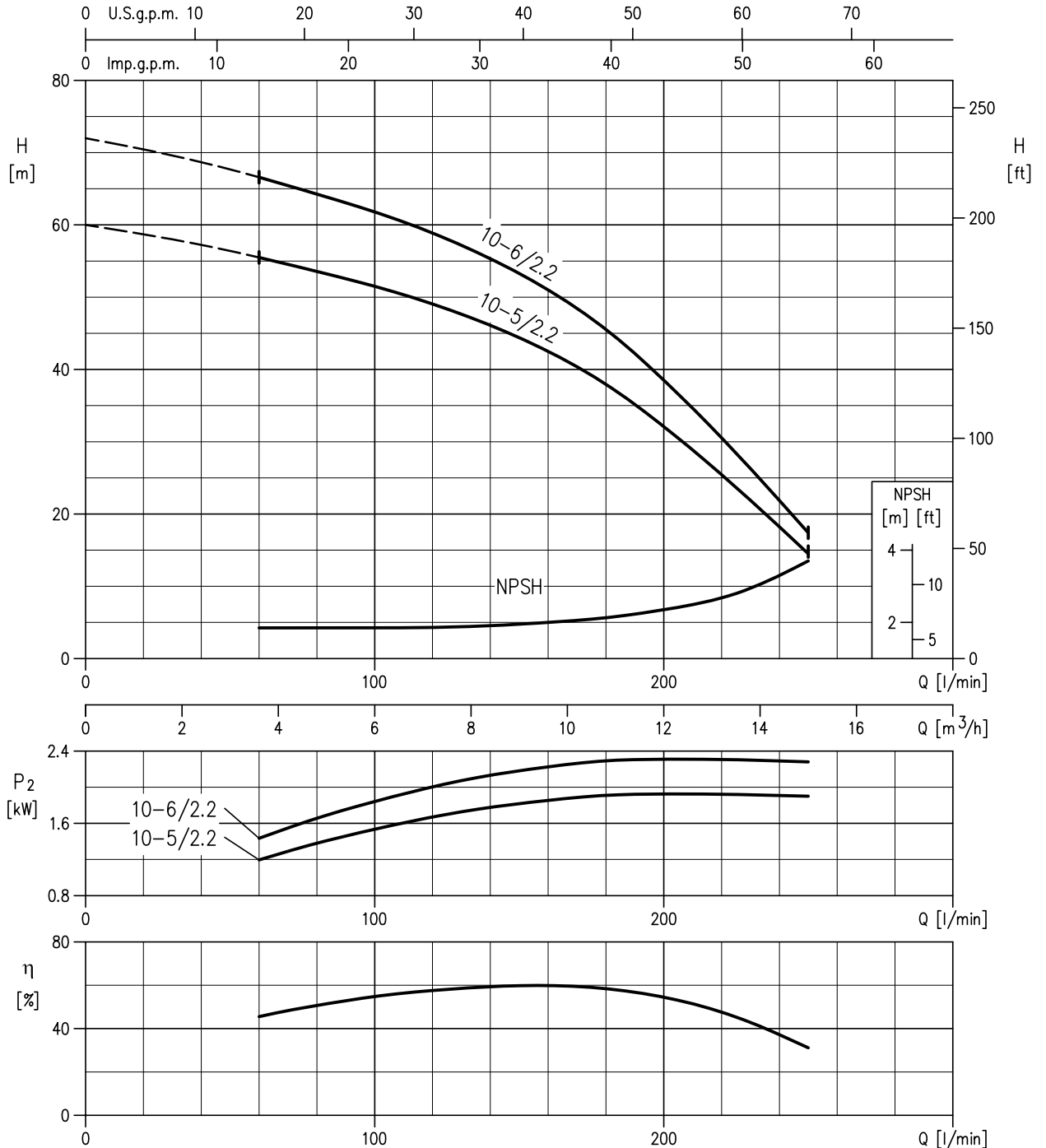
Impeller diameter : 97 mm  
 Rotation speed ≈2850 min<sup>-1</sup>  
 Tests standard : ISO 9906 Annex A

MATRIX 10 -4/1.5 ( 1.5 kW )  
 -3/1.3 ( 1.3 kW )  
 -2/0.75 ( 0.75 kW )



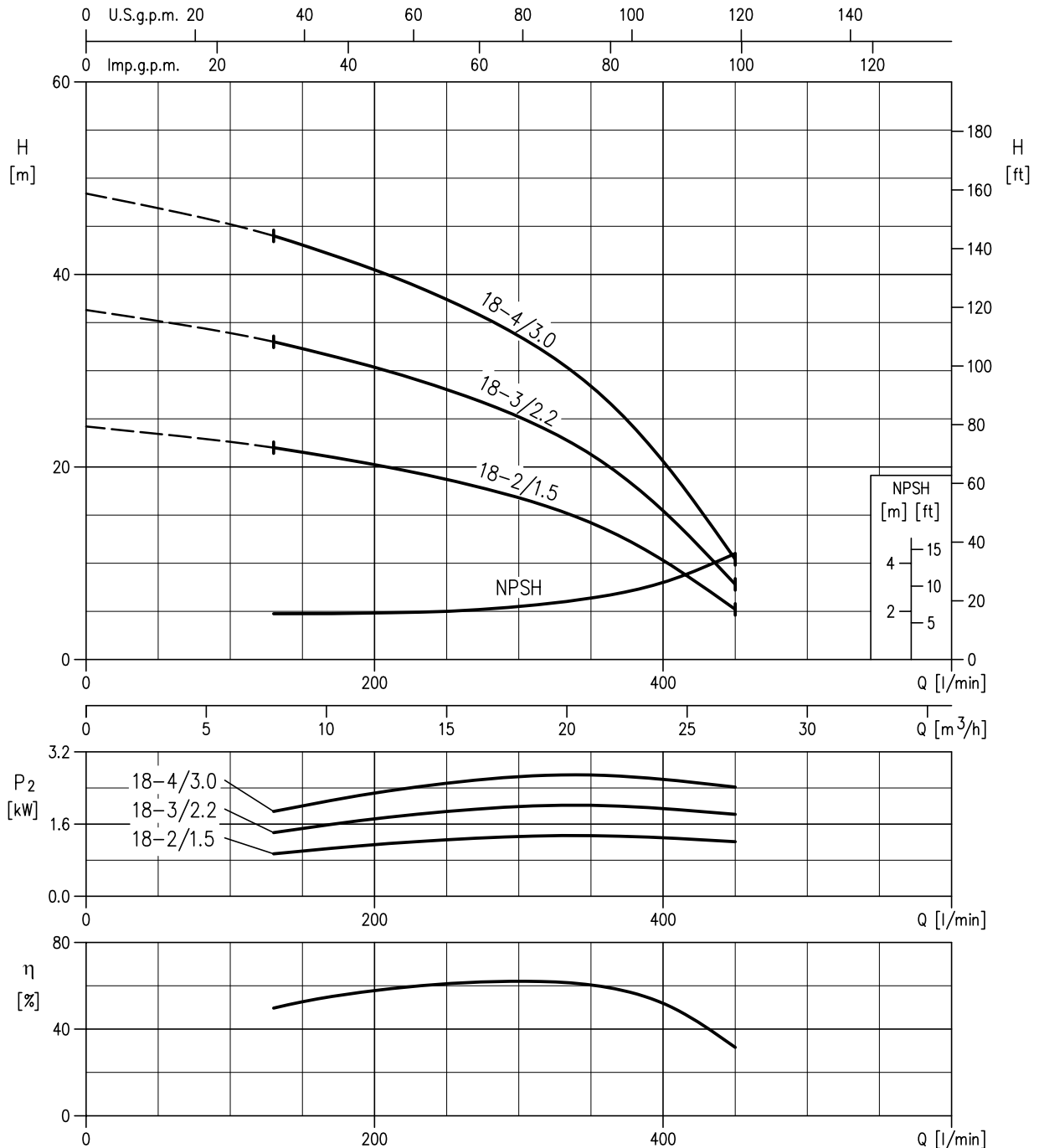
Impeller diameter : 100.5 mm  
 Rotation speed  $\approx 2850 \text{ min}^{-1}$   
 Tests standard : ISO 9906 Annex A

**MATRIX 10 -6/2.2 ( 2.2 kW )**  
**-5/2.2 ( 2.2 kW )**



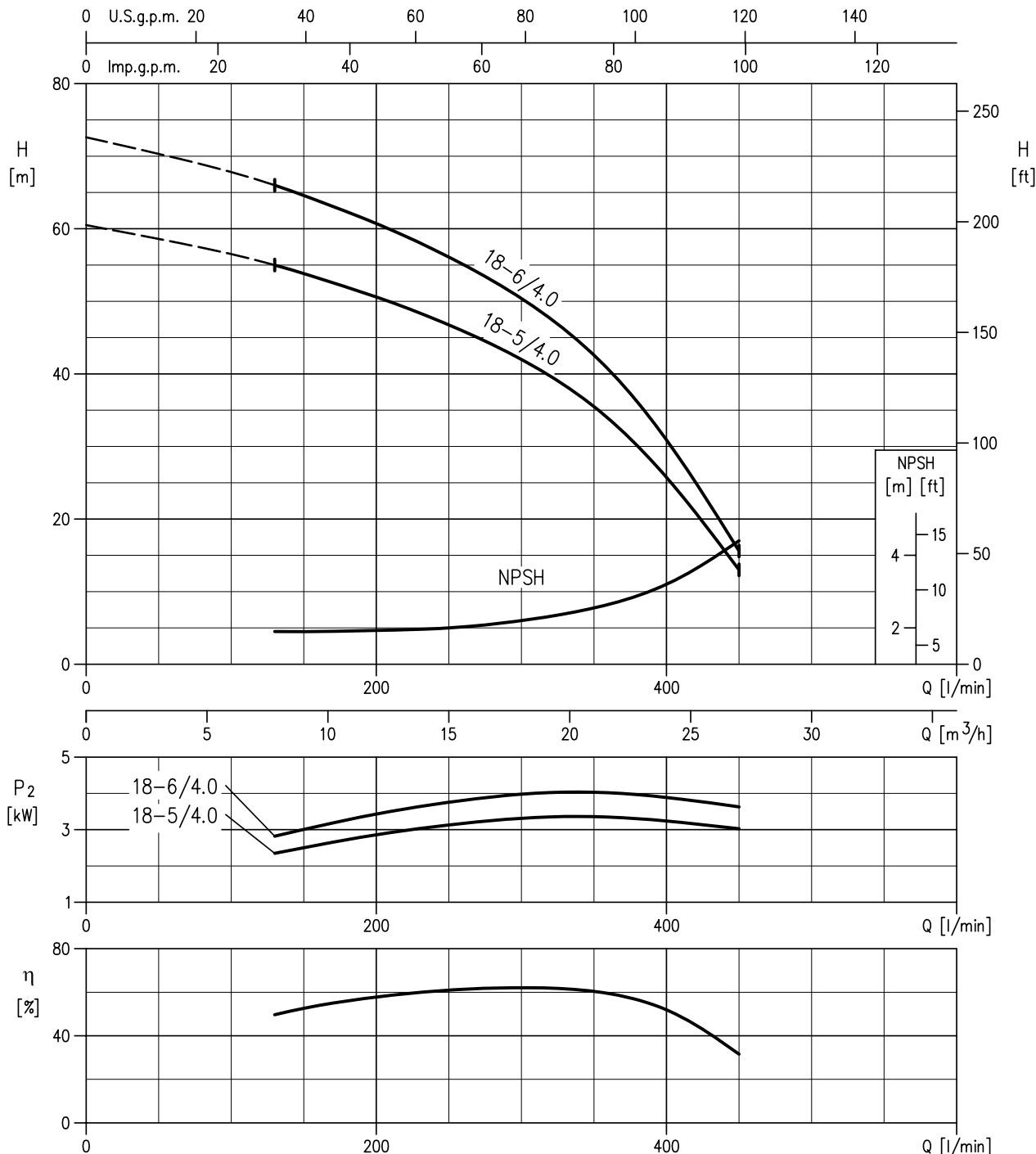
Impeller diameter : 100.5 mm  
 Rotation speed  $\approx 2850 \text{ min}^{-1}$   
 Tests standard : ISO 9906 Annex A

MATRIX 18 -4/3.0 ( 3.0 kW )  
 -3/2.2 ( 2.2 kW )  
 -2/1.5 ( 1.5 kW )



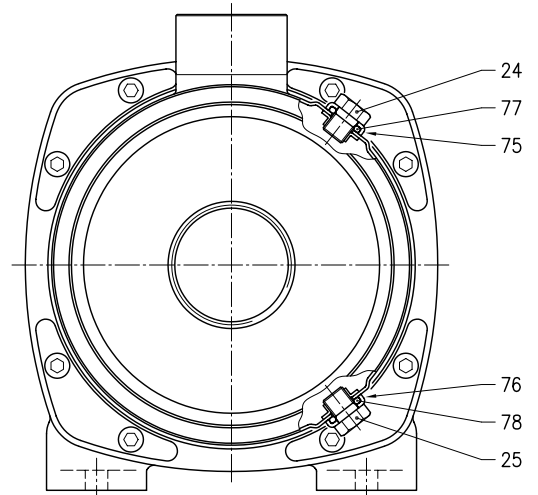
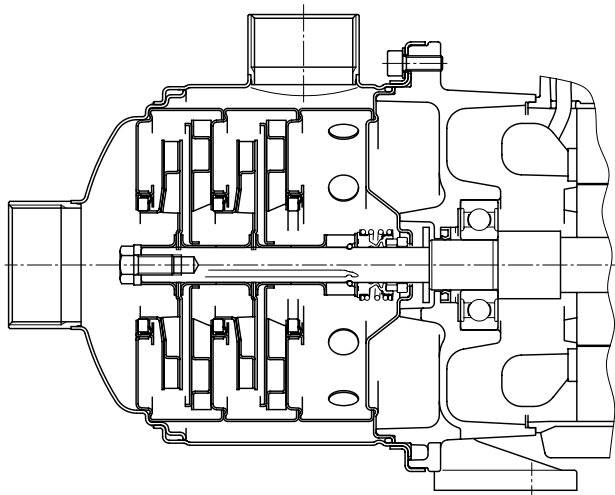
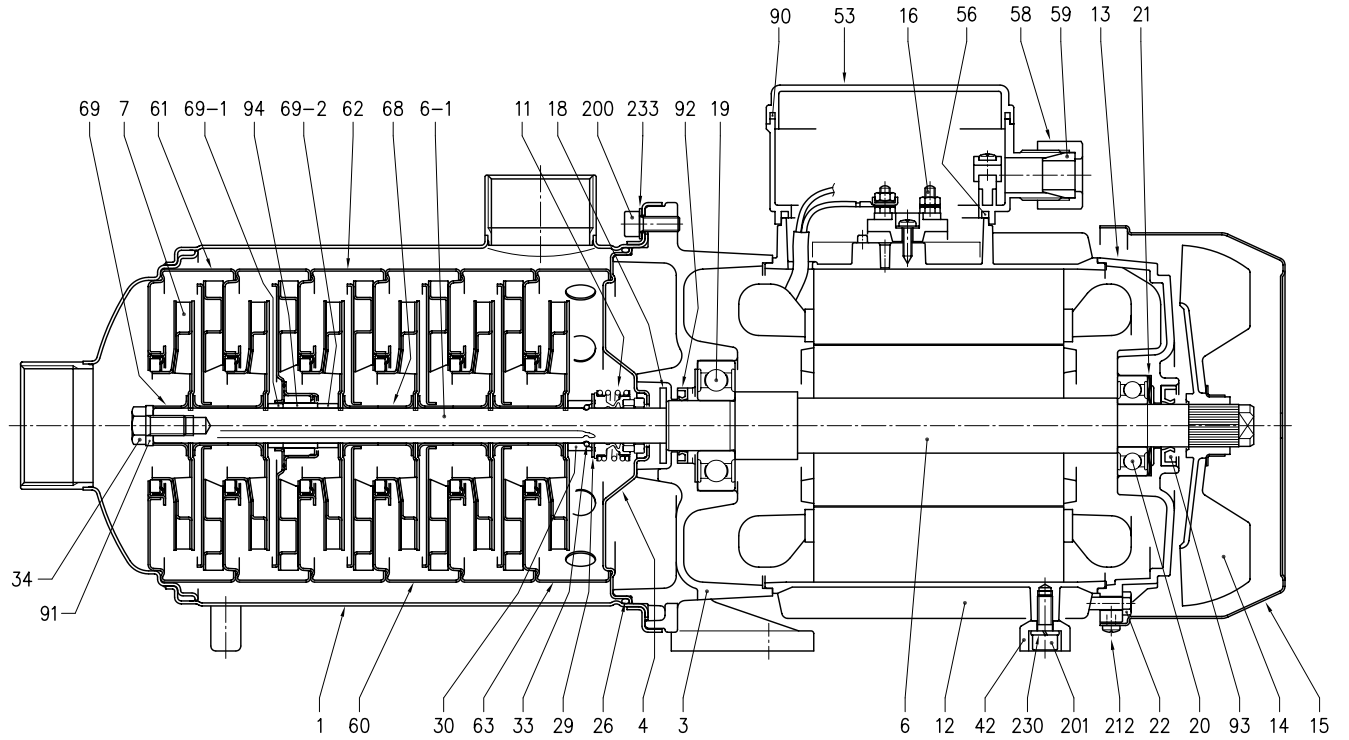
Impeller diameter : 106.7 mm  
 Rotation speed ≈ 2875 min<sup>-1</sup>  
 Tests standard : ISO 9906 Annex A

**MATRIX 18 -6/4.0 ( 4.0 kW )**  
**-5/4.0 ( 4.0 kW )**



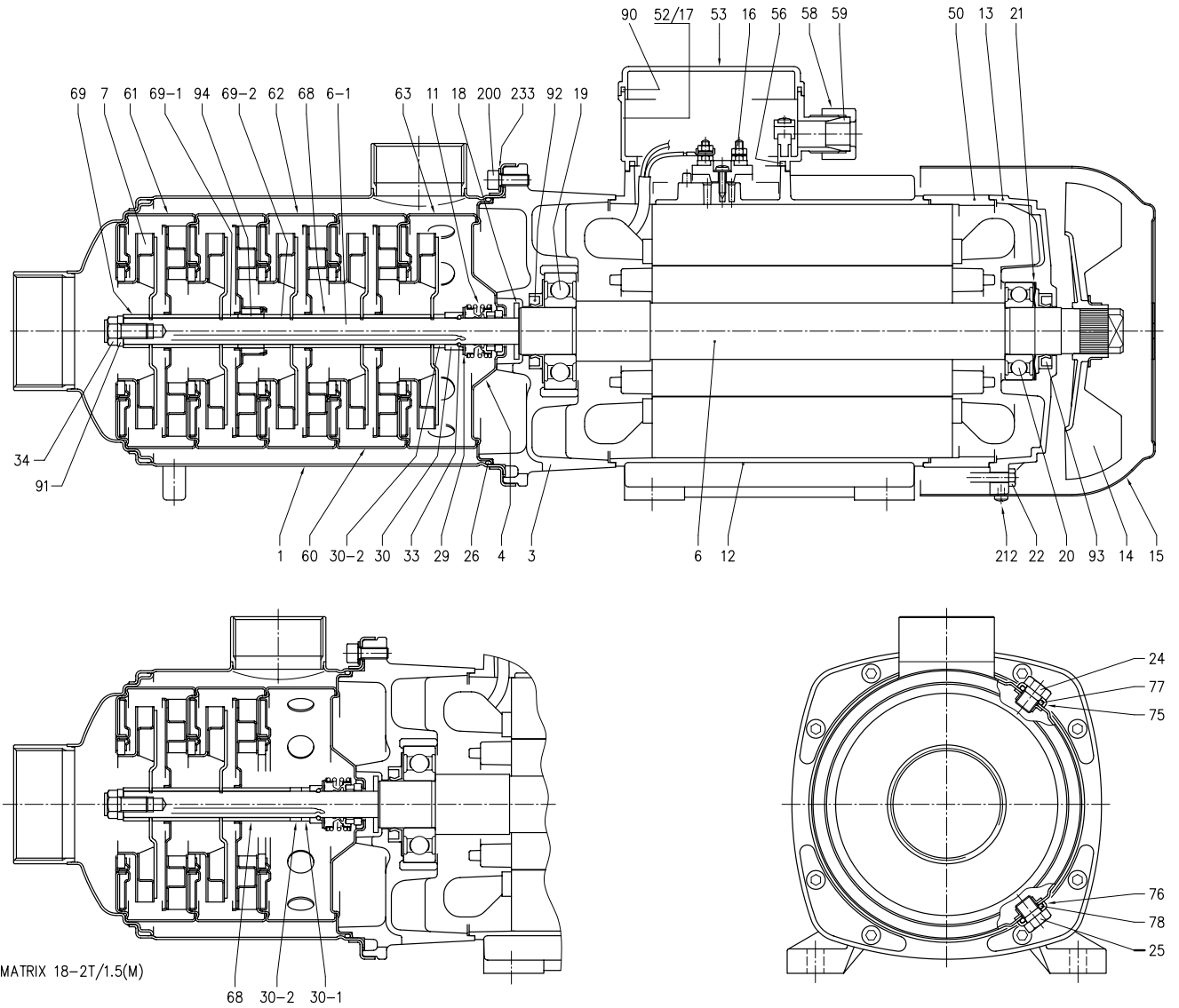
Impeller diameter : 106.7 mm  
 Rotation speed  $\approx 2850 \text{ min}^{-1}$   
 Tests standard : ISO 9906 Annex A

SECTIONAL VIEW MATRIX 3/5/10



VERSION FOR PUMP TYPE: MATRIX 3-2T/0.45(M)  
 MATRIX 5-2T/0.45(M)  
 MATRIX 10-2T/0.75(M)

SECTIONAL VIEW MATRIX 18





N°	PART NAME	MATERIAL	DIMENSION	STANDARD	N. FOR 1 UNIT
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	Ceramic/Carbon/EPDM	see table pag 304		1
12	Motor frame with stator	-			1
13	Motor cover	Aluminium			1
14	Fan	Polyamide			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
30-1	Shaft sleeve (adjustment)	EN 1.4301 (AISI 304)			[1]
30-2	Shaft sleeve (adjustment)	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]
50	Motor spacer [3]	Aluminium			1
52	Capacitor box [2]	Polypropylene			1
53	Cover box	Polypropylene			1
56	Box gasket	NBR			1
58	Ring nut	-			[1]
59	Conic gasket	NBR			[1]
60	Intermediate casing	EN 1.4301 (AISI 304)+PTFE			[1]
61	Intermediate casing (suction)	EN 1.4301 (AISI 304)+PTFE			1
62	Intermediate casing (bearing)	EN 1.4301 (AISI 304)+PTFE + Ceramic			[1]
63	Intermediate casing (discharge)	EN 1.4301 (AISI 304)+PTFE			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) [1]	EN 1.4301 (AISI 304)			[1]
69-2	Shaft sleeve (adjustment) [1]	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	Cover box gasket	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
233	Plate	EN 1.4301 (AISI 304)			4

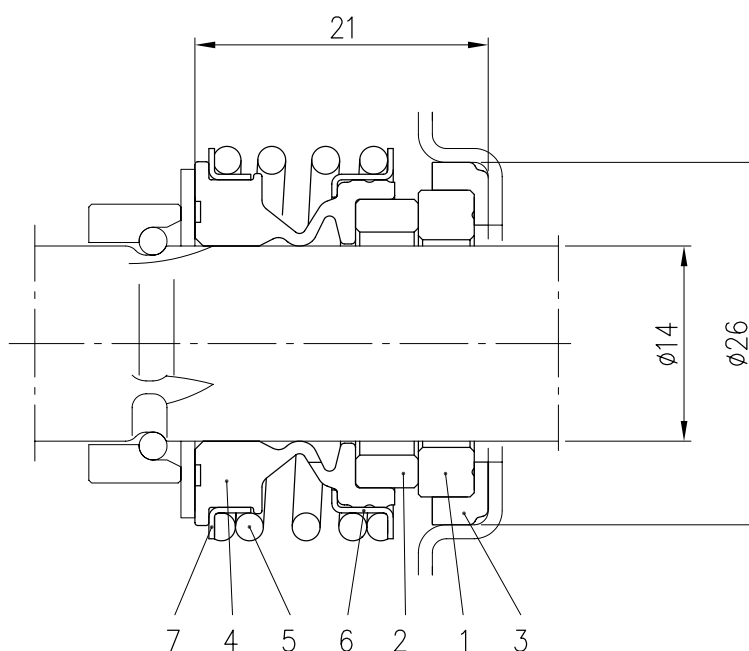
[1] See table pag.303

[2] Only for single-phase

[3] Only for 18-5T/4 and 18-6T/4

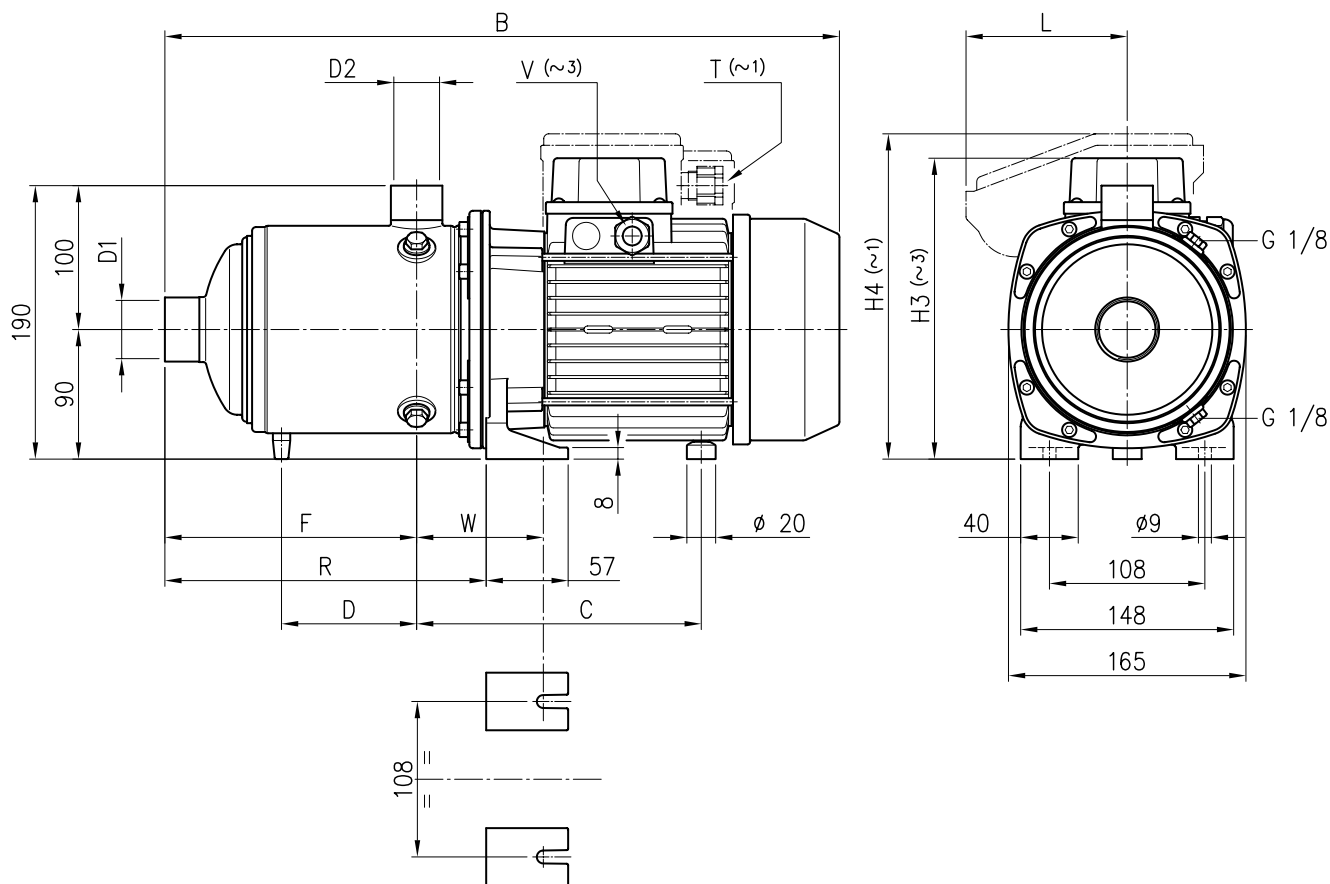
Pump type	Quantity for model													
	7	17	30-1	30-2	42	58	59	60	62	68	69-1	69-2	90	94
MATRIX 3-2T/0,45M	2	-	-	-	1	1	1	1	-	4	-	-	1	-
MATRIX 3-2T/0,45		1	-	-	1	-	-	1	-	4	-	-	-	-
MATRIX 3-3T/0,65M	3	-	-	-	1	1	1	1	-	4	-	-	1	-
MATRIX 3-3T/0,65		1	-	-	1	-	-	1	-	4	-	-	-	-
MATRIX 3-4T/0,65M	4	-	-	-	1	1	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
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
MATRIX 10-2T/0,75M	2	-	-	-	1	1	1	1	-	4	-	-	1	-
MATRIX 10-2T/0,75		1	-	-	1	-	-	1	-	4	-	-	-	-
MATRIX 10-3T/1,3M	3	-	-	-	1	1	1	1	-	4	-	-	1	-
MATRIX 10-3T/1,3		1	-	-	1	-	-	1	-	4	-	-	-	-
MATRIX 10-4T/1,5M	4	-	-	-	1	1	1	2	-	6	-	-	1	-
MATRIX 10-4T/1,5		1	-	-	1	-	-	2	-	6	-	-	-	-
MATRIX 10-5T/2,2M	5	-	-	-	-	1	1	3	-	8	-	-	1	-
MATRIX 10-5T/2,2		1	-	-	1	-	-	3	-	8	-	-	-	-
MATRIX 10-6T/2,2M	6	-	-	-	-	1	1	3	1	8	1	1	1	1
MATRIX 10-6T/2,2		1	-	-	1	-	-	3	1	8	1	1	-	1
MATRIX 18-2T/1,5M	2	-	1	1	1	1	1	1	-	2	-	-	1	-
MATRIX 18-2T/1,5		1	1	1	1	-	-	1	-	2	-	-	-	-
MATRIX 18-3T/2,2M	3	-	-	1	-	1	1	1	-	2	-	-	1	-
MATRIX 18-3T/2,2		1	-	1	1	-	-	1	-	2	-	-	-	-
MATRIX 18-4T/3	4	1	-	1	-	-	-	2	-	3	-	-	-	-
MATRIX 18-5T/4	5	1	-	1	-	-	-	2	1	3	1	1	-	1
MATRIX 18-6T/4	6	1	-	1	-	-	-	3	1	4	1	1	-	1

**MECHANICAL SEAL**



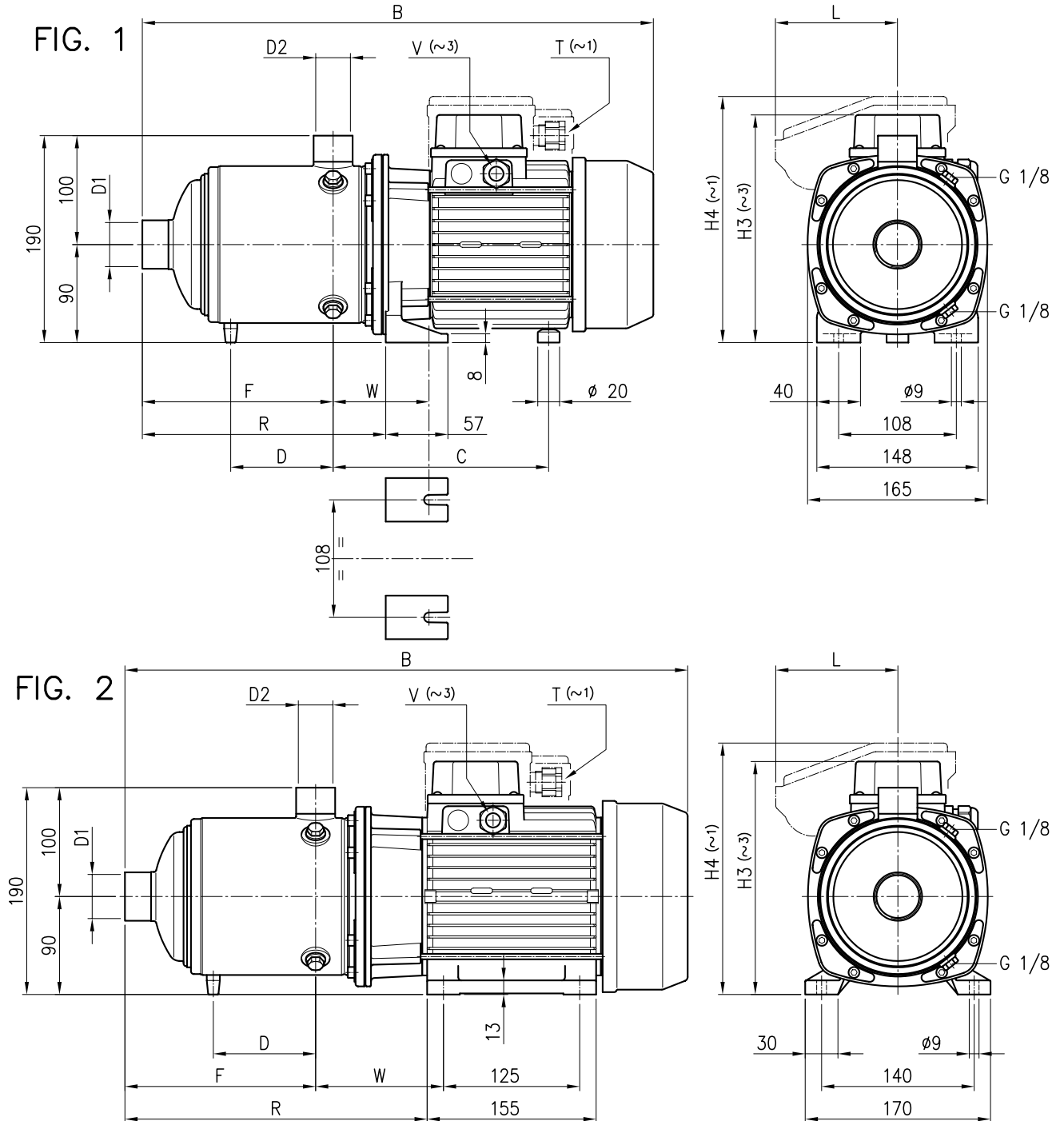
Manufacturer reference	Version	Material						
		1 Stationary seal ring	2 Rotary seal ring	3 Gasket	4 Bellows	5 Spring	6 Frame	7 Retainer ring
BT Burgmann	Standard	Ceramic	Carbon	EPDM	EPDM	EN 1.4402 (AISI 316)	EN 1.4402 (AISI 316)	EN 1.4402 (AISI 316)

### MATRIX 3



Pump Type	Dimensions [mm]												Weight [kgf]	
	D1	D2	B	C	D	F	H3 (~3)	H4 (~1)	L	R	T (~1)	V (~3)		W
MATRIX 3-2T/0,45M	1"	1"	360	171	-	103	-	200	84	151.5	Pg11	-	88 + 97	8.5
MATRIX 3-2T/0,45			360	171	-	103	192	-	-	151.5	-	Pg11	88 + 97	8.4
MATRIX 3-3T/0,65M			360	171	-	103	-	200	84	151.5	Pg11	-	88 + 97	9.9
MATRIX 3-3T/0,65			360	171	-	103	192	-	-	151.5	-	Pg11	88 + 97	9.8
MATRIX 3-4T/0,65M			384	171	-	127	-	200	84	175.5	Pg11	-	88 + 97	10.6
MATRIX 3-4T/0,65			384	171	-	127	192	-	-	175.5	-	Pg11	88 + 97	10.4
MATRIX 3-5T/0,75M			408	171	-	151	-	200	84	199.5	Pg11	-	88 + 97	12.5
MATRIX 3-5T/0,75			408	171	-	151	192	-	-	199.5	-	Pg11	88 + 97	12.4
MATRIX 3-6T/0,9M			432	171	-	175	-	219	106	223.5	M20x1,5	-	88 + 97	13.7
MATRIX 3-6T/0,9			432	171	-	175	192	-	-	223.5	-	Pg11	88 + 97	13.7
MATRIX 3-7T/1,3M			493	198	118	199	-	226	112	247.5	M20x1,5	-	88 + 97	16.3
MATRIX 3-7T/1,3			493	198	118	199	209	-	-	247.5	-	Pg11	88 + 97	16.1
MATRIX 3-8T/1,3M			517	198	142	223	-	226	112	271.5	M20x1,5	-	88 + 97	16.3
MATRIX 3-8T/1,3			517	198	142	223	209	-	-	271.5	-	Pg11	88 + 97	16.8
MATRIX 3-9T/1,5M			541	198	166	247	-	226	112	295.5	M20x1,5	-	88 + 97	18.3
MATRIX 3-9T/1,5			541	198	166	247	209	-	-	295.5	-	Pg11	88 + 97	17.7

MATRIX 5-10-18



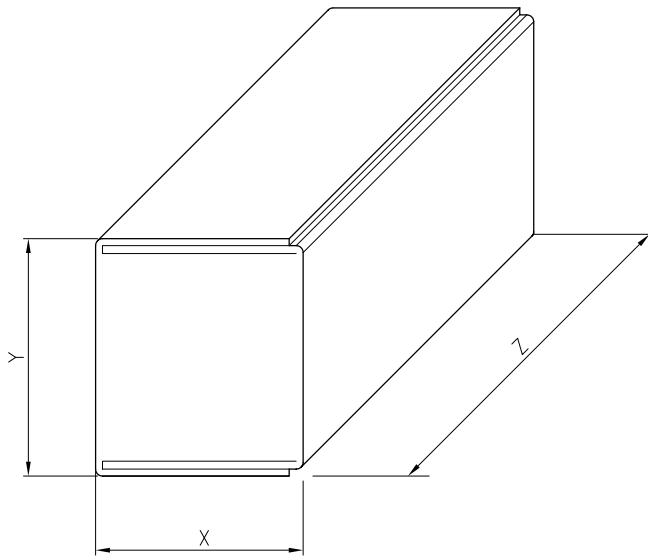
**MATRIX 5-10-18**

Pump Type	Fig.	D1	D2	Dimensions [mm]											Weight [kgf]			
				B	C	D	F	H3 (~3)	H4 (~1)	L	R	T (~1)	V (~3)	W				
MATRIX 5-2T/0.45 M	1	1 1/4"	1"	360	171	-	103	-	200	84	151.5	Pg11	-	88+97	8.5			
MATRIX 5-2T/0.45				360	171	-	103	192	-	-	151.5	-	Pg11	88+97	8.4			
MATRIX 5-3T/0.65 M				360	171	-	103	-	200	84	151.5	Pg11	-	88+97	9.9			
MATRIX 5-3T/0.65				360	171	-	103	192	-	-	151.5	-	Pg11	88+97	9.8			
MATRIX 5-4T/0.9 M				384	171	-	127	-	219	106	175.5	M20x1.5	-	88+97	12.2			
MATRIX 5-4T/0.9				384	171	-	127	192	-	-	175.5	-	Pg11	88+97	12.1			
MATRIX 5-5T/1.3 M				445	198	-	151	-	226	112	199.5	M20x1.5	-	88+97	15.0			
MATRIX 5-5T/1.3				445	198	-	151	209	-	-	199.5	-	Pg11	88+97	14.5			
MATRIX 5-6T/1.3 M				469	198	-	175	-	226	112	223.5	M20x1.5	-	88+97	15.2			
MATRIX 5-6T/1.3				469	198	-	175	209	-	-	223.5	-	Pg11	88+97	15.6			
MATRIX 5-7T/1.5 M				493	198	118	199	-	226	112	247.5	M20x1.5	-	88+97	17.2			
MATRIX 5-7T/1.5				493	198	118	199	209	-	-	247.5	-	Pg11	88+97	16.6			
MATRIX 5-8T/2.2 M				2	1 1/2"	1 1/4"	565	-	142	223	-	231	112	325.5	M20x1.5	-	117.5	22.3
MATRIX 5-8T/2.2				1			530	198	142	223	209	-	-	271.5	-	Pg11	88+97	18.7
MATRIX 5-9T/2.2 M	2	589	-	166			247	-	231	112	349.5	M20x1.5	-	117.5	22.8			
MATRIX 5-9T/2.2	1	554	198	166			247	209	-	-	295.5	-	Pg11	88+97	18.8			
MATRIX 10-2T/0.75 M	1	1 1/2"	1 1/4"	379			175	-	118	-	200	84	170.5	Pg11	-	92+101	11.3	
MATRIX 10-2T/0.75				379			175	-	118	192	-	-	170.5	-	Pg11	92+101	11.2	
MATRIX 10-3T/1.3 M				416			202	-	118	-	226	112	170.5	M20x1.5	-	92+101	14.7	
MATRIX 10-3T/1.3				416			202	-	118	209	-	-	170.5	-	Pg11	92+101	13.9	
MATRIX 10-4T/1.5 M				446	202	-	148	-	226	112	200.5	M20x1.5	-	92+101	15.6			
MATRIX 10-4T/1.5				446	202	-	148	209	-	-	200.5	-	Pg11	92+101	15.4			
MATRIX 10-5T/2.2 M				2	524	-	-	178	-	231	112	284.5	M20x1.5	-	121.5	21.3		
MATRIX 10-5T/2.2				1	489	202	-	178	209	-	-	230.5	-	Pg11	92+101	17.9		
MATRIX 10-6T/2.2 M				2	554	-	126	208	-	231	112	314.5	M20x1.5	-	121.5	22.4		
MATRIX 10-6T/2.2				1	519	202	126	208	209	-	-	260.5	-	Pg11	92+101	18.3		
MATRIX 18-2T/1.5M	1	2"	1 1/2"	442	205	-	141	-	226	112	196.5	M20x1.5	-	95 + 104	14.5			
MATRIX 18-2T/1.5M				442	205	-	141	209	-	-	196.5	-	Pg11	95 + 104	14.3			
MATRIX 18-3T/2.2M	2			490	-	-	141	-	231	112	205.5	M20x1.5	-	124.5	20.6			
MATRIX 18-3T/2.2	1			455	205	-	141	209	-	-	196.5	-	Pg11	95 + 104	17.1			
MATRIX 18-4T/3	2			527	-	-	178.5	214	-	-	288	-	Pg13.5	124.5	21.7			
MATRIX 18-5T/4				609	-	130.5	216	214	-	-	325.5	-	Pg13.5	124.5	26.9			
MATRIX 18-6T/4				646	-	168	253.5	214	-	-	363	-	Pg13.5	124.5	28.1			

**DIMENSIONS**

50Hz

**PACKING AND WEIGHT**



Pump Type	Packing [mm]			Weight [kgf]			
	X	Y	Z				
MATRIX 3-2T/0.45M	180	210	420	9.1			
MATRIX 3-2T/0.45				9			
MATRIX 3-3T/0.65M				10.5			
MATRIX 3-3T/0.65				10.4			
MATRIX 3-4T/0.65M				11.2			
MATRIX 3-4T/0.65				11			
MATRIX 3-5T/0.75M	210	240	550	13.1			
MATRIX 3-5T/0.75				13			
MATRIX 3-6T/0.9M				14.5			
MATRIX 3-6T/0.9				14.5			
MATRIX 3-7T/1.3M				17.1			
MATRIX 3-7T/1.3				16.9			
MATRIX 3-8T/1.3M	210	240	550	17.1			
MATRIX 3-8T/1.3				17.6			
MATRIX 3-9T/1.5M				19.1			
MATRIX 3-9T/1.5				18.5			
MATRIX 5-2T/0.45M				180	210	420	9.1
MATRIX 5-2T/0.45							9
MATRIX 5-3T/0.65M	10.5						
MATRIX 5-3T/0.65	10.4						
MATRIX 5-4T/0.9M	210	240	550	13			
MATRIX 5-4T/0.9	180	210	420	12.7			
MATRIX 5-5T/1.3M	210	240	550	15.8			
MATRIX 5-5T/1.3				15.3			
MATRIX 5-6T/1.3M				16			
MATRIX 5-6T/1.3				16.4			
MATRIX 5-7T/1.5M				18			
MATRIX 5-7T/1.5				17.4			
MATRIX 5-8T/2.2M	210	240	660	23.3			
MATRIX 5-8T/2.2	210	240	550	19.5			
MATRIX 5-9T/2.2M	210	240	660	23.8			
MATRIX 5-9T/2.2				19.8			
MATRIX 10-2T/0.75M	180	210	420	11.9			
MATRIX 10-2T/0.75				11.8			
MATRIX 10-3T/1.3M	210	240	550	15.5			
MATRIX 10-3T/1.3				14.7			
MATRIX 10-4T/1.5M				16.4			
MATRIX 10-4T/1.5				16.2			
MATRIX 10-5T/2.2M				22.1			
MATRIX 10-5T/2.2				18.7			
MATRIX 10-6T/2.2M	210	240	660	23.4			
MATRIX 10-6T/2.2	210	240	550	19.1			
MATRIX 18-2T/1.5M				15.3			
MATRIX 18-2T/1.5				15.1			
MATRIX 18-3T/2.2M				21.4			
MATRIX 18-3T/2.2				17.9			
MATRIX 18-4T/3				22.5			
MATRIX 18-5T/4	210	240	660	27.9			
MATRIX 18-6T/4				29.1			

Pump Type	Power		size	Motor		Capacitor		Input power [kW]	Full load current [A]		Locked rotor current [A]	
	kW	HP		Bearing		mF	Vc		230 V	400 V	230 V	400 V
				pump side	fan side							
MATRIX 3-2T/0.45M	0.45	0.6	71	6203-2RSH-C3	6202-2RSH	12.5	450	0.73	3.2	-	8	-
MATRIX 3-2T/0.45	0.45	0.6	71			-	-	0.72	2.3	1.3	11.5	6.5
MATRIX 3-3T/0.65M	0.65	0.9	71			16	450	0.97	4.5	-	16.2	-
MATRIX 3-3T/0.65	0.65	0.9	71			-	-	0.85	2.8	1.6	16	9.1
MATRIX 3-4T/0.65M	0.65	0.9	71			16	450	0.97	4.5	-	16.2	-
MATRIX 3-4T/0.65	0.65	0.9	71			-	-	0.85	2.8	1.6	16	9.1
MATRIX 3-5T/0.75M	0.75	1.0	71			25	450	1.14	5.4	-	26.5	-
MATRIX 3-5T/0.75	0.75	1.0	71			-	-	1.12	4.4	2.5	26.1	14.5
MATRIX 3-6T/0.9M	0.9	1.2	71			31.5	450	1.28	5.7	-	21.7	-
MATRIX 3-6T/0.9	0.9	1.2	71	-	-	1.24	4.5	2.6	24.8	14.3		
MATRIX 3-7T/1.3M	1.3	1.8	80	6304-2RSH-C3	6203-2RSH	31.5	450	1.75	7.8	-	39	-
MATRIX 3-7T/1.3	1.3	1.8	80			-	-	1.70	6.1	3.5	25.5	14.7
MATRIX 3-8T/1.3M	1.3	1.8	80			31.5	450	1.75	7.8	-	39	-
MATRIX 3-8T/1.3	1.3	1.8	80			-	-	1.70	6.1	3.5	25.5	14.7
MATRIX 3-9T/1.5M	1.5	2.0	80			35	450	1.95	8.7	-	40.9	-
MATRIX 3-9T/1.5	1.5	2.0	80			-	-	1.85	5.9	3.4	36	20.8
MATRIX 5-2T/0.45M	0.45	0.6	71	6203-2RSH-C3	6202-2RSH	12.5	450	0.73	3.2	-	8	-
MATRIX 5-2T/0.45	0.45	0.6	71			-	-	0.72	2.3	1.3	11.5	6.5
MATRIX 5-3T/0.65M	0.65	0.9	71			16	450	0.97	4.5	-	16.2	-
MATRIX 5-3T/0.65	0.65	0.9	71			-	-	0.85	2.8	1.6	16	9.1
MATRIX 5-4T/0.9M	0.9	1.2	71			31.5	450	1.28	5.7	-	21.7	-
MATRIX 5-4T/0.9	0.9	1.2	71			-	-	1.24	4.5	2.6	24.8	14.3
MATRIX 5-5T/1.3M	1.3	1.8	80	6304-2RSH-C3	6203-2RSH	31.5	450	1.75	7.8	-	39	-
MATRIX 5-5T/1.3	1.3	1.8	80			-	-	1.70	6.1	3.5	25.5	14.7
MATRIX 5-6T/1.3M	1.3	1.8	80			31.5	450	1.75	7.8	-	39	-
MATRIX 5-6T/1.3	1.3	1.8	80			-	-	1.70	6.1	3.5	25.5	14.7
MATRIX 5-7T/1.5M	1.5	2.0	80			35	450	1.95	8.7	-	40.9	-
MATRIX 5-7T/1.5	1.5	2.0	80			-	-	1.85	5.9	3.4	36	20.8
MATRIX 5-8T/2.2M	2.2	3.0	90	6305-2RSH1-C3	6205-2RSH-C3	50	450	2.92	13	-	62.4	-
MATRIX 5-8T/2.2	2.2	3.0	80	6304-2RSH-C3	6203-2RSH	-	-	2.65	8	4.6	43.2	24.9
MATRIX 5-9T/2.2M	2.2	3.0	90	6305-2RSH1-C3	6205-2RSH-C3	50	450	2.92	13	-	62.4	-
MATRIX 5-9T/2.2	2.2	3.0	80	6304-2RSH-C3	6203-2RSH	-	-	2.65	8	4.6	43.2	24.9
MATRIX 10-2T/0.75M	0.75	1.0	71	6203-2RSH-C3	6202-2RSH	25	450	1.14	5.4	-	26.5	-
MATRIX 10-2T/0.75	0.75	1.0	71			-	-	1.12	4.4	2.5	25.5	14.5
MATRIX 10-3T/1.3M	1.3	1.8	80			31.5	450	1.75	7.8	-	39	-
MATRIX 10-3T/1.3	1.3	1.8	80			-	-	1.70	6.1	3.5	25.5	14.7
MATRIX 10-4T/1.5M	1.5	2.0	80			35	450	1.95	8.7	-	40.9	-
MATRIX 10-4T/1.5	1.5	2.0	80			-	-	1.85	5.9	3.4	36	20.8
MATRIX 10-5T/2.2M	2.2	3.0	90	6305-2RSH1-C3	6205-2RSH-C3	50	450	2.92	13	-	62.4	-
MATRIX 10-5T/2.2	2.2	3.0	80	6304-2RSH-C3	6203-2RSH	-	-	2.65	8	4.6	43.2	24.9
MATRIX 10-6T/2.2M	2.2	3.0	90	6305-2RSH1-C3	6205-2RSH-C3	50	450	2.92	13	-	62.4	-
MATRIX 10-6T/2.2	2.2	3.0	80	6304-2RSH-C3	6203-2RSH	-	-	2.65	8	4.6	43.2	24.9
MATRIX 18-2T/1.5M	1.5	2.0	80	6304-2RSH-C3	6203-2RSH	31.5	450	1.95	8.7	-	40.9	-
MATRIX 18-2T/1.5	1.5	2.0	80			-	-	1.85	5.9	3.4	36	20.8
MATRIX 18-3T/2.2M	2.2	3.0	90	6305-2RSH1-C3	6205-2RSH-C3	50	450	2.92	13	-	62.4	-
MATRIX 18-3T/2.2	2.2	3.0	80	6304-2RSH-C3	6203-2RSH	-	-	2.65	8	4.6	43.2	24.9
MATRIX 18-4T/3	3.0	4.0	90	6305-2RSH1-C3	6205-2RSH-C3	-	-	3.70	10.9	6.3	83	47.9
MATRIX 18-5T/4	4.0	5.5	90			-	-	4.70	14	8.1	92.4	53.5
MATRIX 18-6T/4	4.0	5.5	90			-	-	4.70	14	8.1	92.4	53.5



NOISE DATA					
Pump Type		Motor			LpA-dB(A)*
Single phase	Three phase	kW	HP	size	
MATRIX 3-2T/0.45M	MATRIX 3-2T/0.45	0.45	0.6	71	61
MATRIX 5-2T/0.45M	MATRIX 5-2T/0.45				
MATRIX 3-3T/0.65M	MATRIX 3-3T/0.65	0.65	0.9	71	62
MATRIX 3-4T/0.65M	MATRIX 3-4T/0.65				
MATRIX 5-3T/0.65M	MATRIX 5-3T/0.65				
MATRIX 3-5T/0.75M	MATRIX 3-5T/0.75	0.75	1.0	71	62
MATRIX 10-2T/0.75M	MATRIX 10-2T/0.75				
MATRIX 3-6T/0.9M	MATRIX 3-6T/0.9	0.9	1.2	71	62
MATRIX 5-4T/0.9M	MATRIX 5-4T/0.9				
MATRIX 3-7T/1.3M	MATRIX 3-7T/1.3	1.3	1.8	80	64
MATRIX 3-8T/1.3M	MATRIX 3-8T/1.3				
MATRIX 5-5T/1.3M	MATRIX 5-5T/1.3				
MATRIX 5-6T/1.3M	MATRIX 5-6T/1.3				
MATRIX 10-3T/1.3M	MATRIX 10-3T/1.3				
MATRIX 3-9T/1.5M	MATRIX 3-9T/1.5	1.5	2.0	80	64
MATRIX 5-7T/1.5M	MATRIX 5-7T/1.5				
MATRIX 10-4T/1.5M	MATRIX 10-4T/1.5				
MATRIX 18-2T/1.5M	MATRIX 18-2T/1.5				
-	MATRIX 5-8T/2.2	2.2	3.0	80	65
-	MATRIX 5-9T/2.2				
-	MATRIX 10-5T/2.2				
-	MATRIX 10-6T/2.2				
-	MATRIX 18-3T/2.2				
MATRIX 5-8T/2.2M	-				
MATRIX 5-9T/2.2M	-	90	68		
MATRIX 10-5T/2.2M	-				
MATRIX 10-6T/2.2M	-				
MATRIX 18-3T/2.2M	-				
-	MATRIX 18-4T/3			3.0	4.0
-	MATRIX 18-5T/4	4.0	5.5	69	
-	MATRIX 18-6T/4				

\*Mean value of several measures at 1 m distance around the pump.  
Tolerance  $\pm 2.5$  dB.