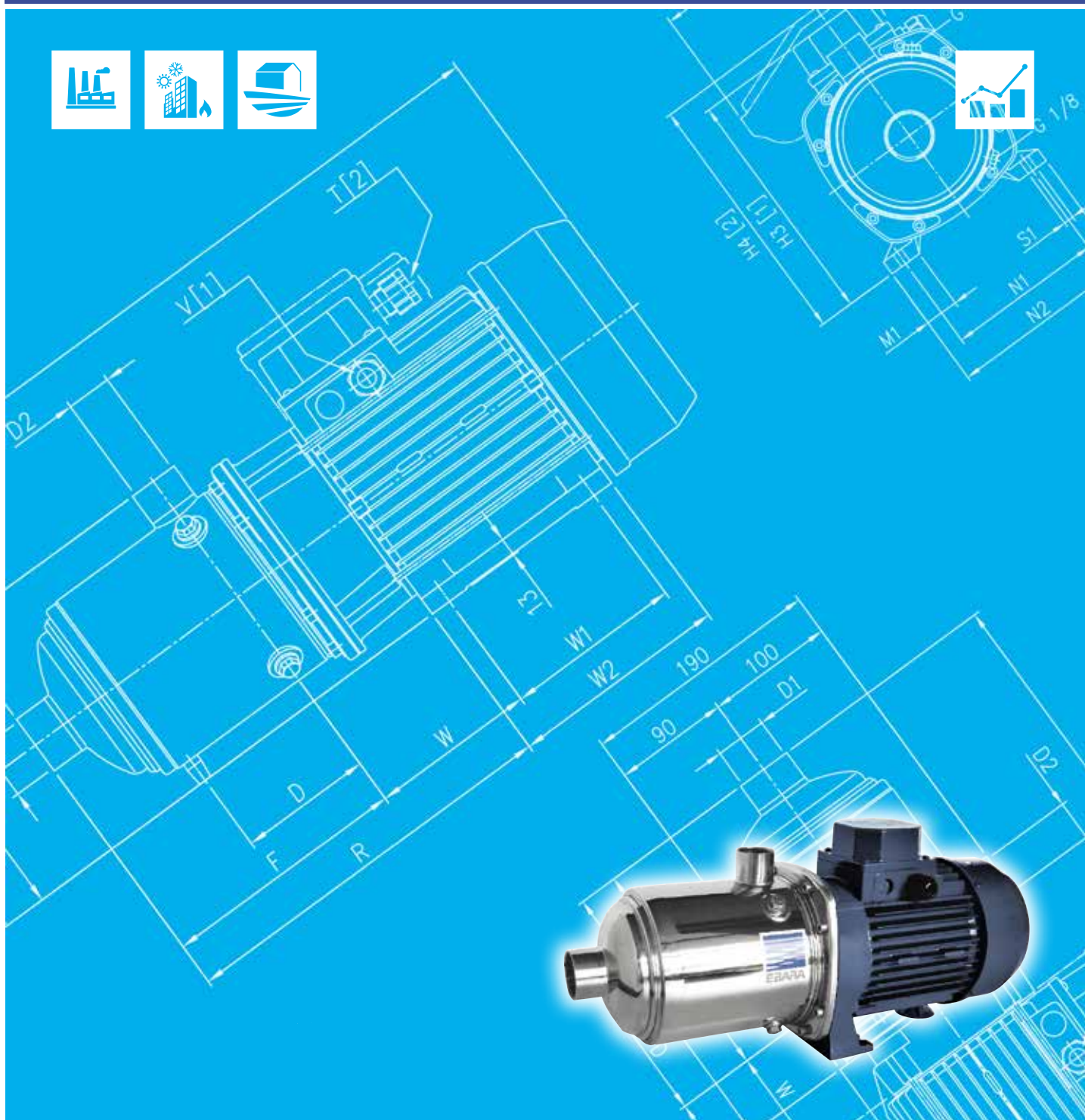




Japanese Technology since 1912

MATRIX

Data Book 60Hz



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SPECIFICATIONS

60Hz

Rev. L

PUMP		
Liquid Handled	Type of liquid	Water, moderate aggressive solutions , glycol solutions , moderate viscous fluids
	Temperature [°C]	min. -15 max. +110 For full details see section "FLUID TEMPERATURE RANGE"
Max chlorine content		500 ppm
Maximum working pressure [MPa]		1
Construction	Impeller	Closed centrifugal
	Bearing	Screened ball bearing – greased for life
Pipe Connection	Suction	G 1" (Matrix 3) UNI ISO 228 G 1"¼ (Matrix 5) UNI ISO 228 G 1"½ (Matrix 10) UNI ISO 228 G 2" (Matrix 18) UNI ISO 228
	Discharge	G 1" (Matrix 3) UNI ISO 228 G 1" (Matrix 5) UNI ISO 228 G 1"¼ (Matrix 10) UNI ISO 228 G 1"½ (Matrix 18) UNI ISO 228
Material	Casing	AISI 304 (EN 1.4301)
	Impeller	AISI 304 (EN 1.4301)
	Intermediate casing	AISI 304 (EN 1.4301)
	O-Rings	EPDM
	Shaft seal	Ceramic / Carbon / EPDM
	Liner ring	AISI 304 (EN 1.4301) + PPS
	Casing cover	AISI 304 (EN 1.4301)
	Shaft	AISI 304 wet extension (EN 1.4301)
	Bracket	EN AB-AISI11Cu2(Fe) (Die cast Aluminium)
Applicable standard of test		ISO 9906:2012 - Grade 3B

SPECIFICATIONS

60Hz

Rev. L

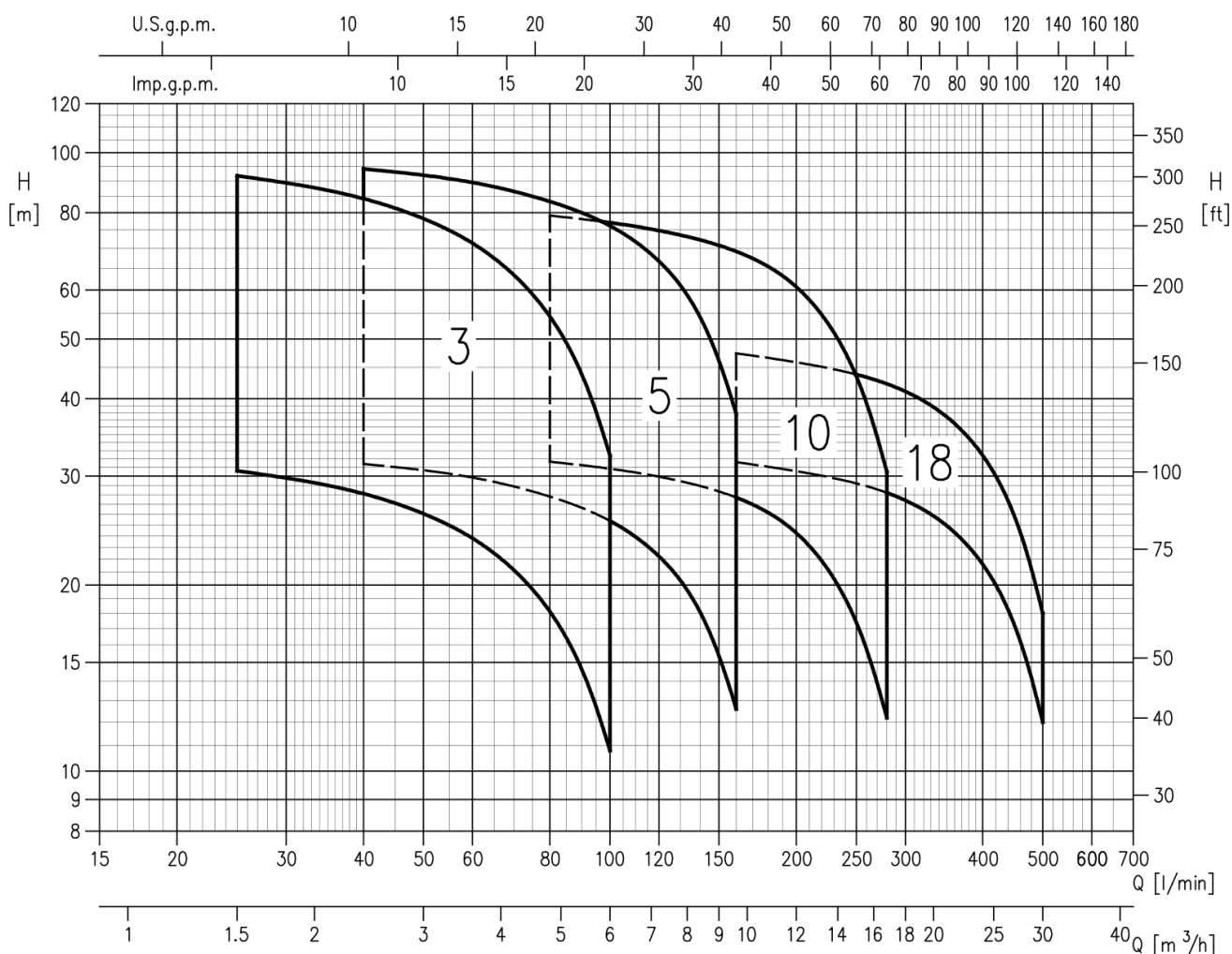
MOTOR			
Type	Electric - TEFC		
	Single Phase	Three Phase	
Efficiency Level (Reg. 1781/2019)	IE2***	IE3* from 0.9 to 4.0 kW	
No. of Poles	2		
Rotation speed [min ⁻¹]	≈ 3500		
Insulation Class	F		
Max temperature environment [°C]	40		
Protection degree	IP 55		
Power rating	[kW]	0.65 ÷ 1.5	0.65 ÷ 4.0
	[HP]	0.9 ÷ 2.0	0.9 ÷ 5.5
Frequency [Hz]	60		
Voltage [V]	220-230 ±6%	220/380-460** ±10%	
Capacitor	Built in	-	
Over load protection	Built in	Provided by the user	
Casing material	Aluminium		
Base material/Motor support	Aluminium		
Dimensions of cable entry	M20X1.5	PG11 - PG13.5 - PG16 -M16x1.5 - M20x1.5	

* only for 460V

** IE3

*** IE2 only for 3-2/3-3/5-2 models

PERFORMANCE RANGE



SELECTION CHART

60Hz

Rev. L

SELECTION CHART

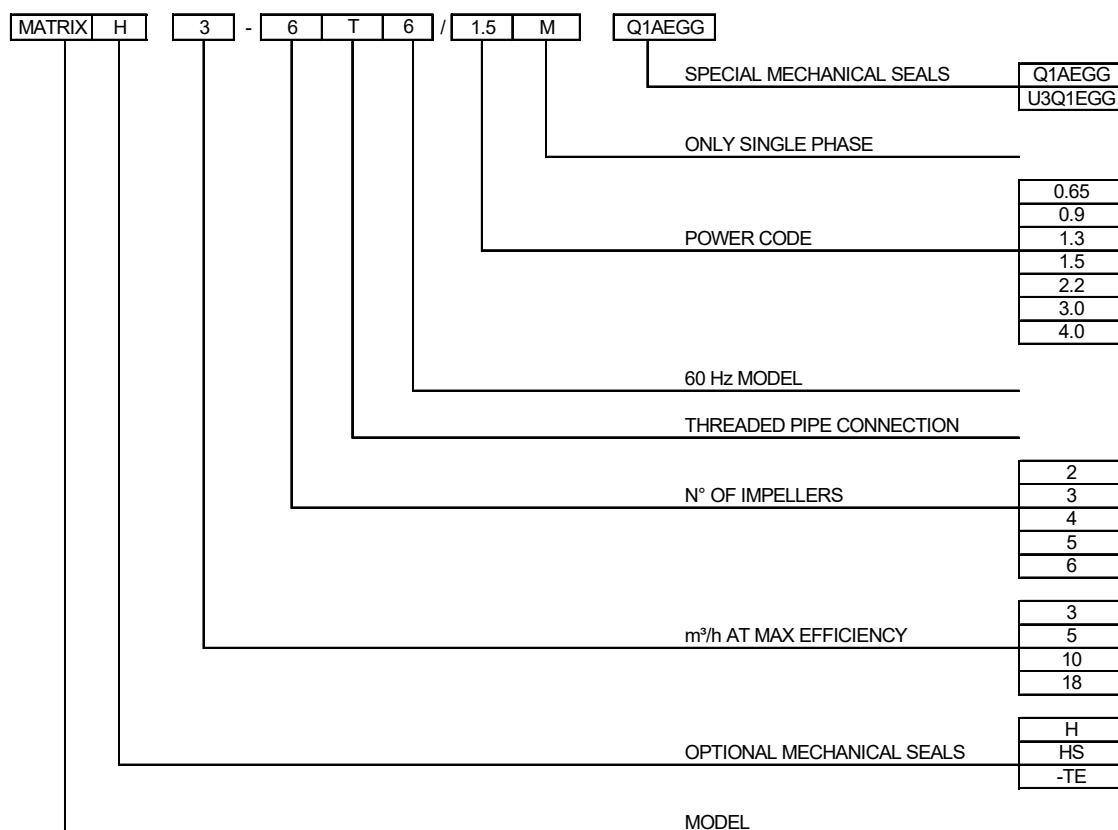
Pump type		Q=Capacity														
		l/min	0	25	40	60	80	100	130	160	220	280	340	400	460	500
Single phase	Three phase	m³/h	0	1.5	2.4	3.6	4.8	6	7.8	9.6	13.2	16.8	20.4	24	27.6	30
		H=Total manometric head in meters														
3-2T6/0.65M	3-2T6/0.65	33.4	30.6	28.1	23.8	18.1	10.8									
3-3T6/0.9M	3-3T6/0.9	50.0	46.0	42.0	35.7	27.2	16.2									
3-4T6/1.3M	3-4T6/1.3	67.0	61.0	56.0	47.5	36.2	21.6									
3-5T6/1.5M	3-5T6/1.5	83.5	76.5	70.5	59.5	45.5	27.0									
-	3-6T6/2.2	100.0	92.0	84.5	71.5	54.5	32.4									
5-2T6/0.9M	5-2T6/0.9	33.5	-	31.4	29.8	27.8	25.4	20.3	12.6							
5-3T6/1.3M	5-3T6/1.3	50.0	-	47.0	45.0	41.5	38.1	30.5	18.9							
-	5-4T6/2.2	67.0	-	63.0	59.5	55.5	51.0	40.5	25.2							
-	5-5T6/2.2	83.5	-	78.5	74.5	69.5	63.5	51.0	31.5							
-	5-6T6/3	100.0	-	94.0	89.5	83.5	76.0	61.0	37.8							
10-2T6/1.5M	10-2T6/1.5	34.4	-	-	-	31.7	30.8	29.4	27.7	21.9	12.2					
-	10-3T6/2.2	51.5	-	-	-	47.5	46.5	44.0	41.5	32.8	18.3					
-	10-4T6/3	69.0	-	-	-	63.5	61.5	59.0	55.5	43.5	24.4					
-	10-5T6/4	86.0	-	-	-	79.0	77.0	73.5	69.5	54.5	30.5					
-	18-2T6/3	34.6	-	-	-	-	-	-	31.6	30.0	28.2	25.5	21.6	16.2	12.0	
-	18-3T6/4	52.0	-	-	-	-	-	-	47.5	45.0	42.5	38.3	32.4	24.3	18.0	

TYPE KEY and CURVES SPECIFICATIONS

60Hz

Rev. L

TYPE KEY



CURVES SPECIFICATIONS

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

Tolerances according to ISO 9906:2012 - Grade 3B

The curves refer to effective speed of asynchronous motors at 60 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)

The continuous curves indicate the recommended working range. The dotted curve is only a guide.

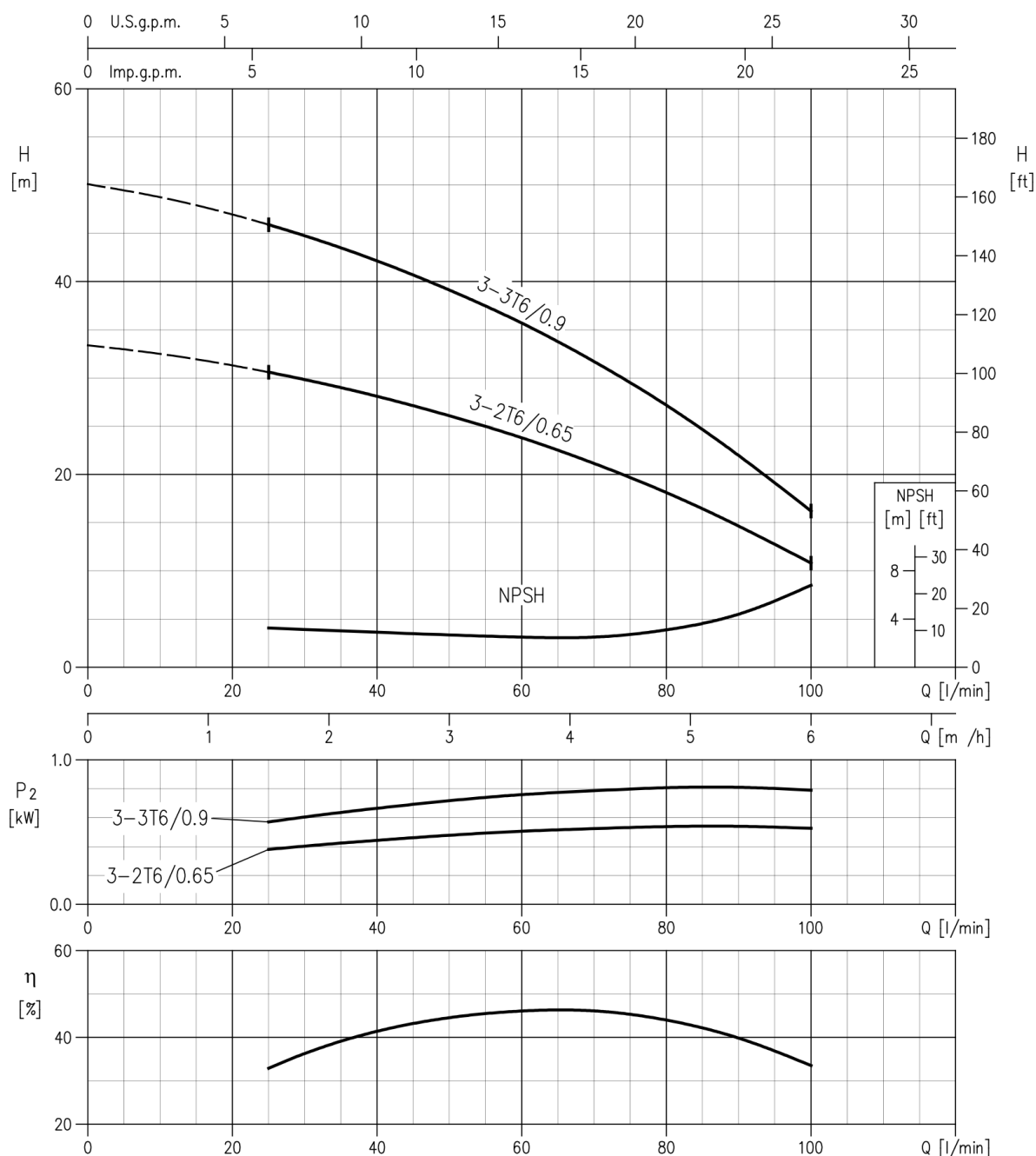
In order to avoid the risk of over-heating, the pumps should not be used at a flow rate below 10% of best efficiency point.

Symbols explanation:

- Q = volume flow rate
- H = total head
- P₂ = pump power input (shaft power)
- η = pump efficiency
- NPSH = net positive suction head required by the pump

MATRIX 3-3T6/0.9 - Impeller diameter = 98.5 mm

MATRIX 3-2T6/0.65 - Impeller diameter = 98.5 mm

Rotation speed $\approx 3500 \text{ min}^{-1}$

Test standard: ISO 9906:2012 - Grade 3B

PERFORMANCE CURVES

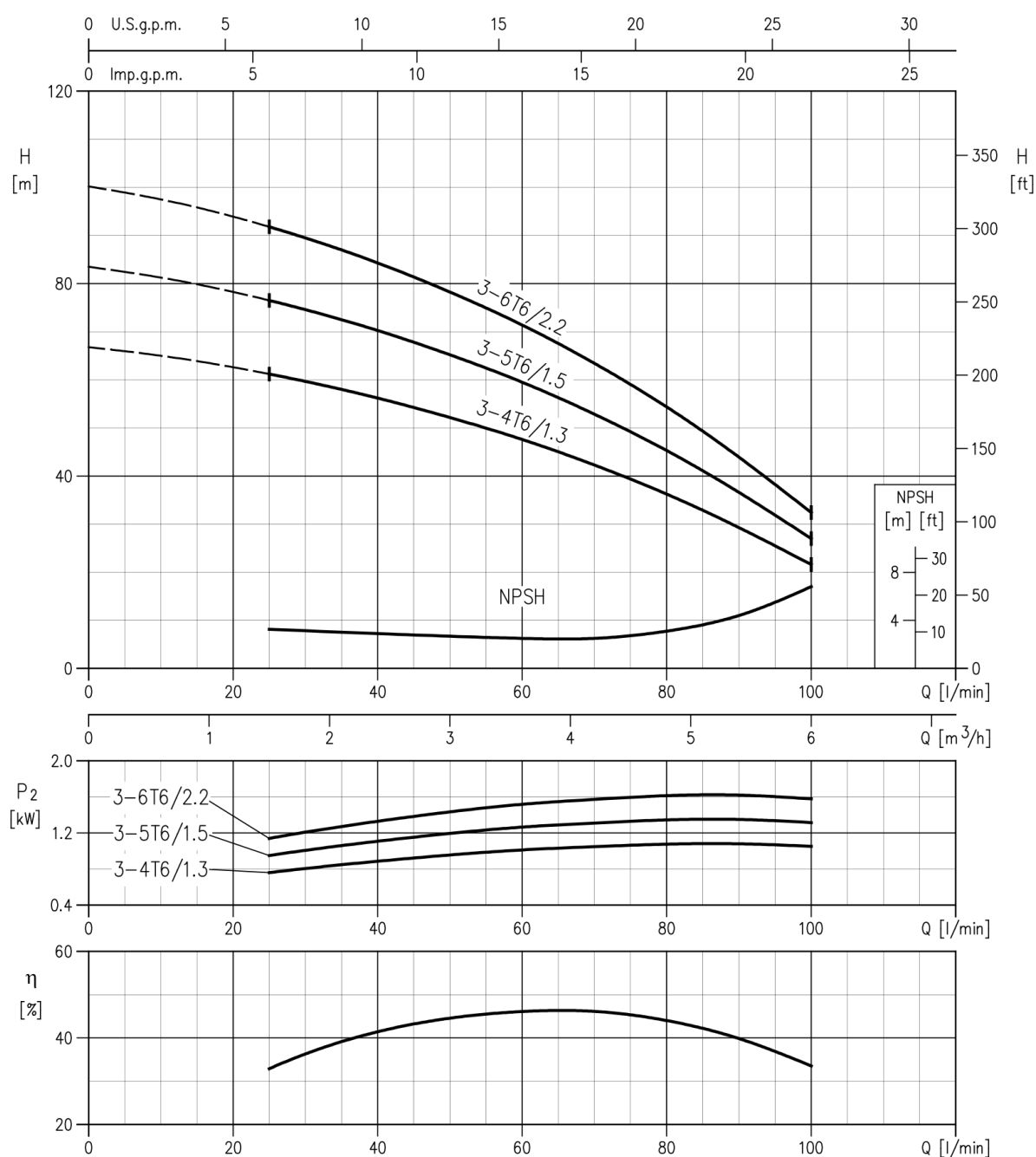
60Hz

Rev. L

MATRIX 3-6T6/2.2 - Impeller diameter = 98.5 mm

MATRIX 3-5T6/1.5 - Impeller diameter = 98.5 mm

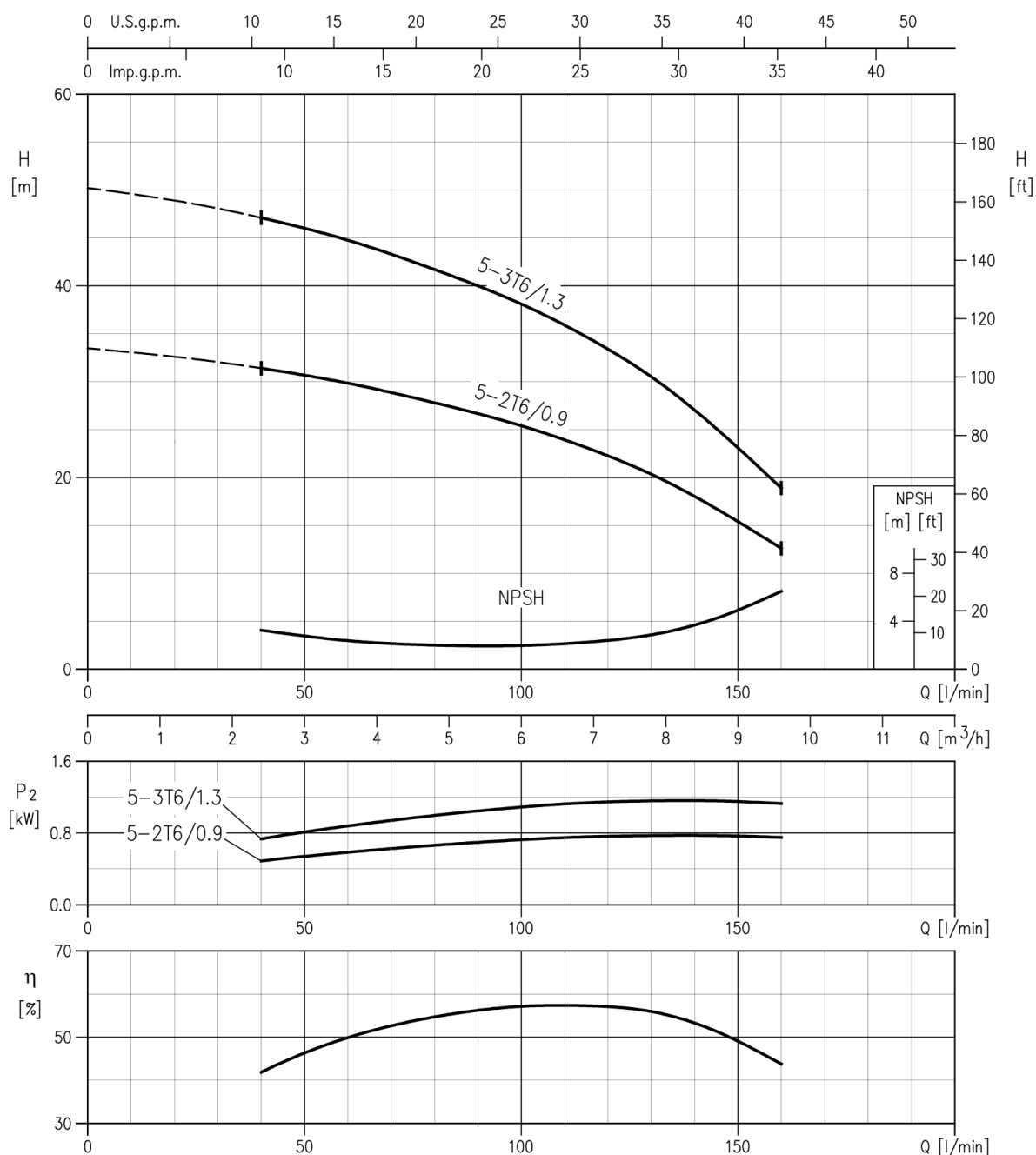
MATRIX 3-4T6/1.3 - Impeller diameter = 98.5 mm



Rotation speed $\approx 3500 \text{ min}^{-1}$
 Test standard: ISO 9906:2012 - Grade 3B

MATRIX 5-3T6/1.3 - Impeller diameter = 97 mm

MATRIX 5-2T6/0.9 - Impeller diameter = 97 mm

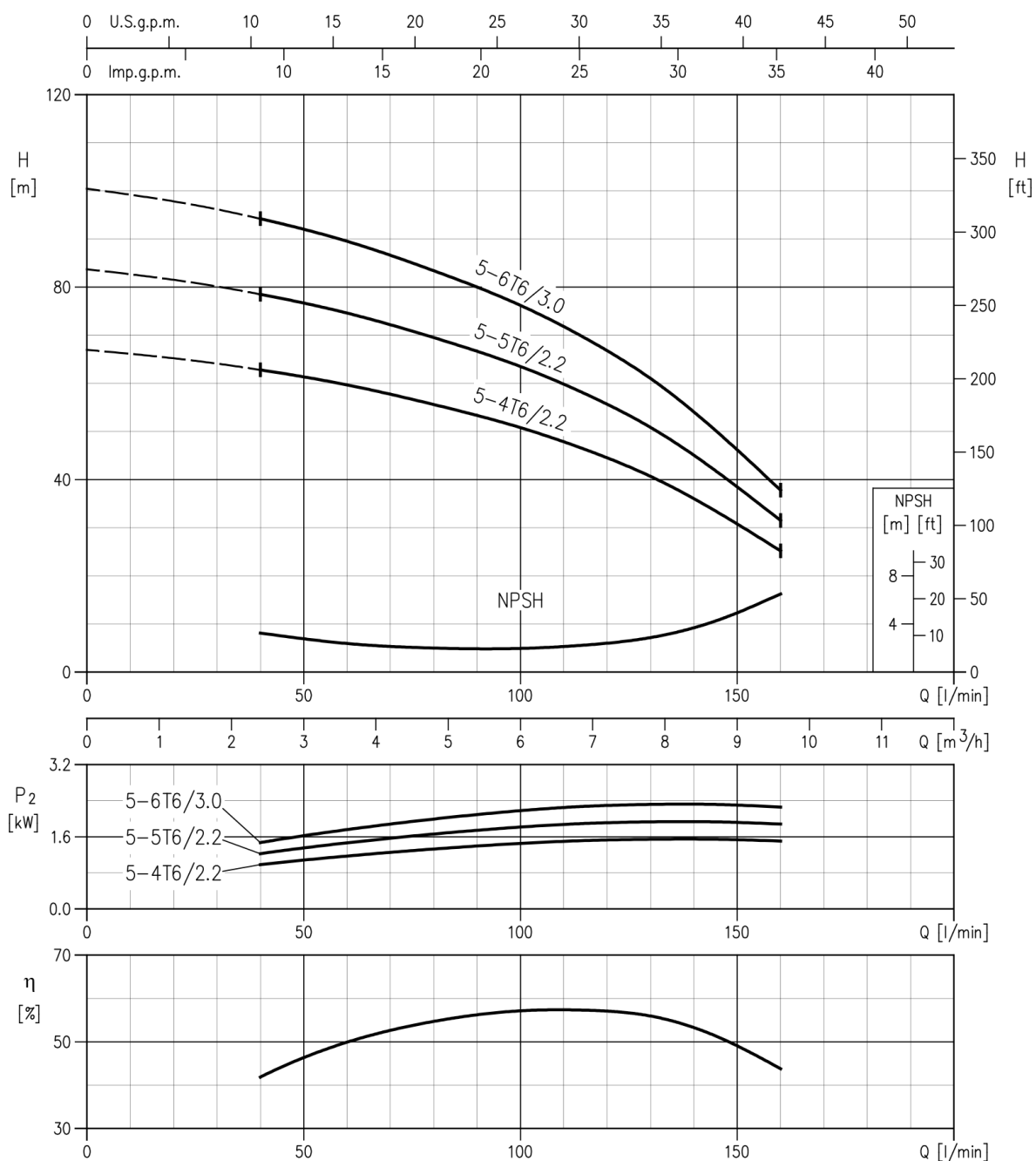
Rotation speed ≈ 3500 min⁻¹

Test standard: ISO 9906:2012 - Grade 3B

MATRIX 5-6T6/3.0 - Impeller diameter = 97 mm

MATRIX 5-5T6/2.2 - Impeller diameter = 97 mm

MATRIX 5-4T6/2.2 - Impeller diameter = 97 mm

Rotation speed ≈ 3500 min⁻¹

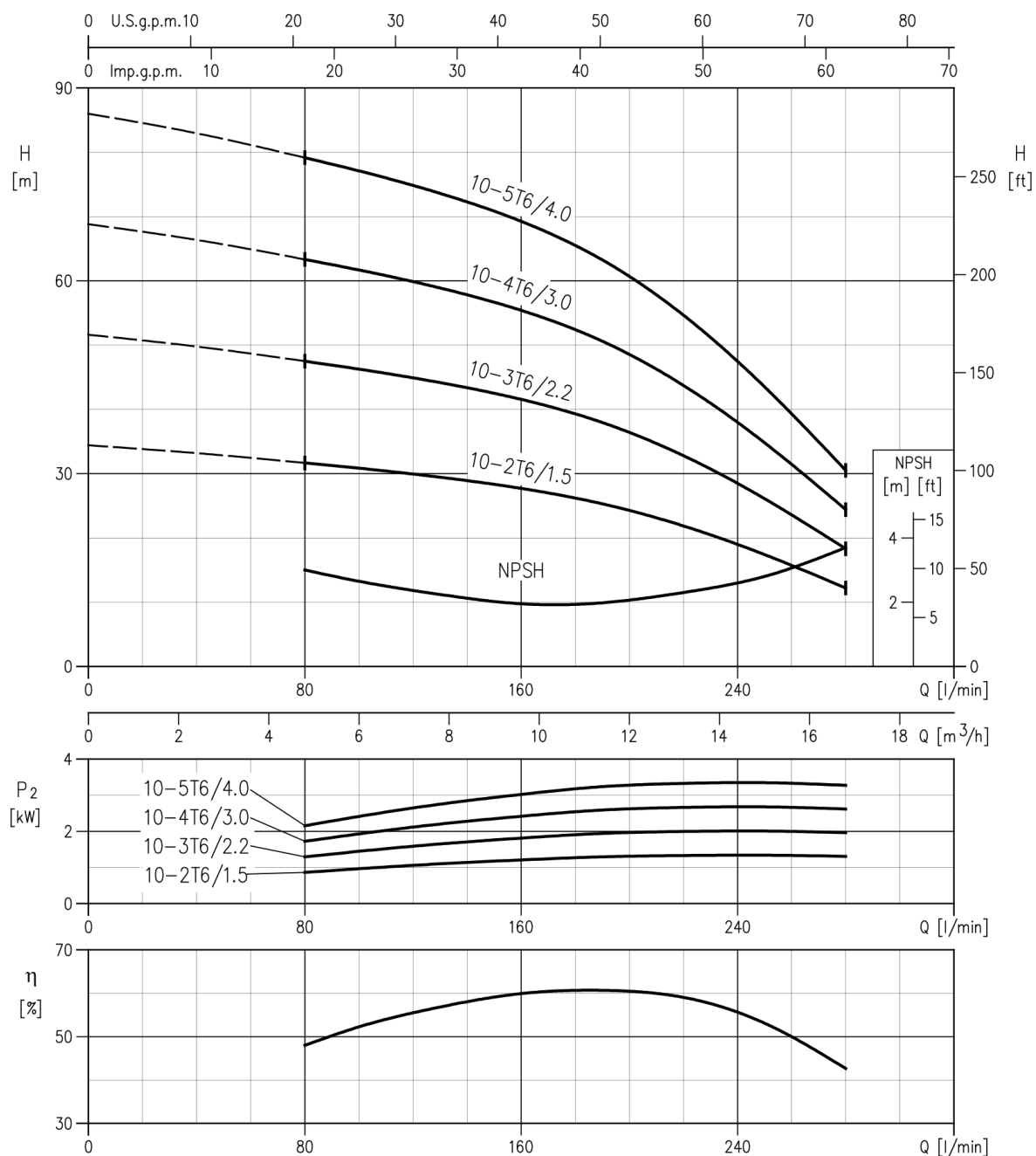
Test standard: ISO 9906:2012 - Grade 3B

MATRIX 10-5T6/4.0 - Impeller diameter = 100.5 mm

MATRIX 10-4T6/3.0 - Impeller diameter = 100.5 mm

MATRIX 10-3T6/2.2 - Impeller diameter = 100.5 mm

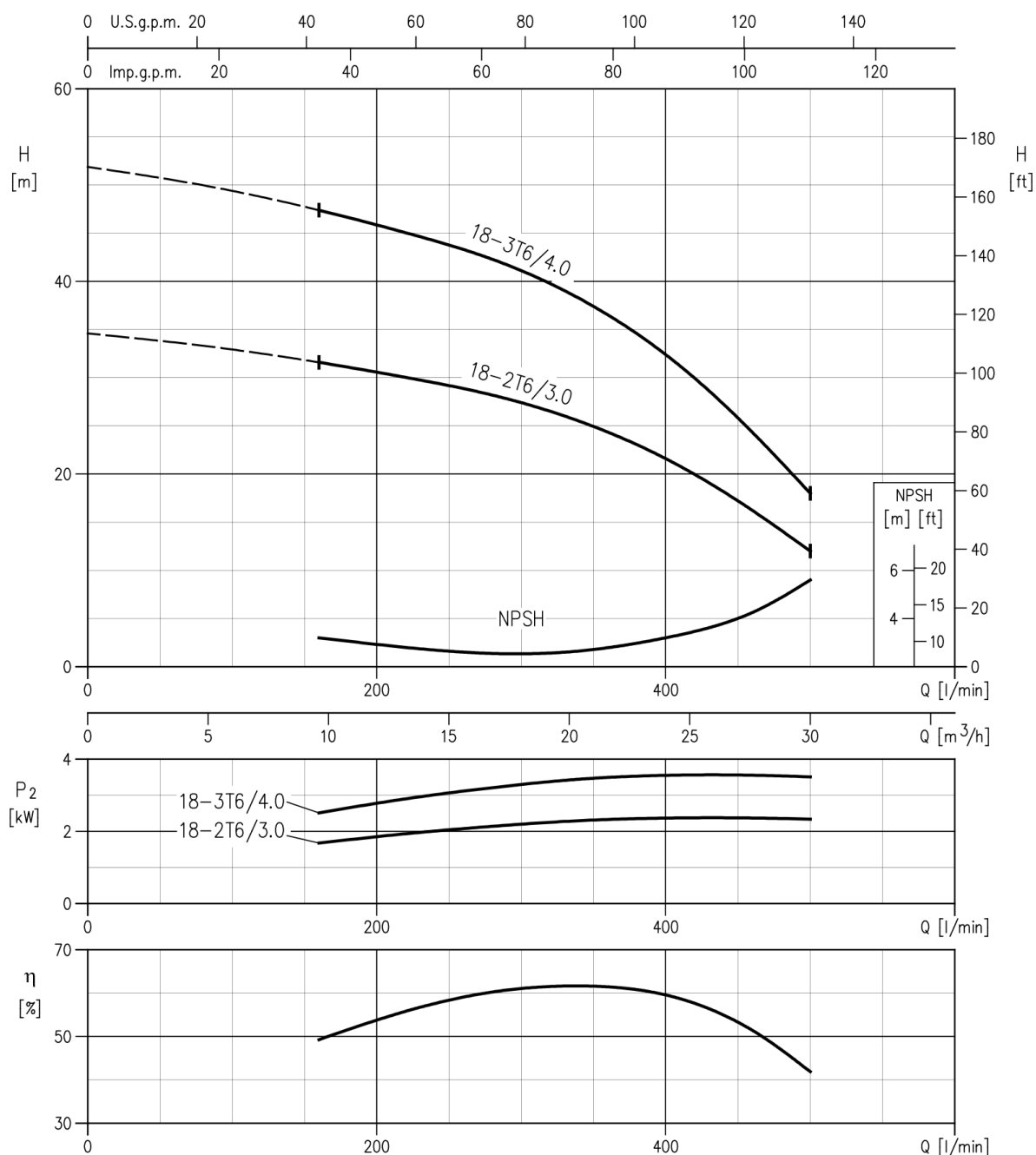
MATRIX 10-2T6/1.5 - Impeller diameter = 100.5 mm



Rotation speed $\approx 3500 \text{ min}^{-1}$
 Test standard: ISO 9906:2012 - Grade 3B

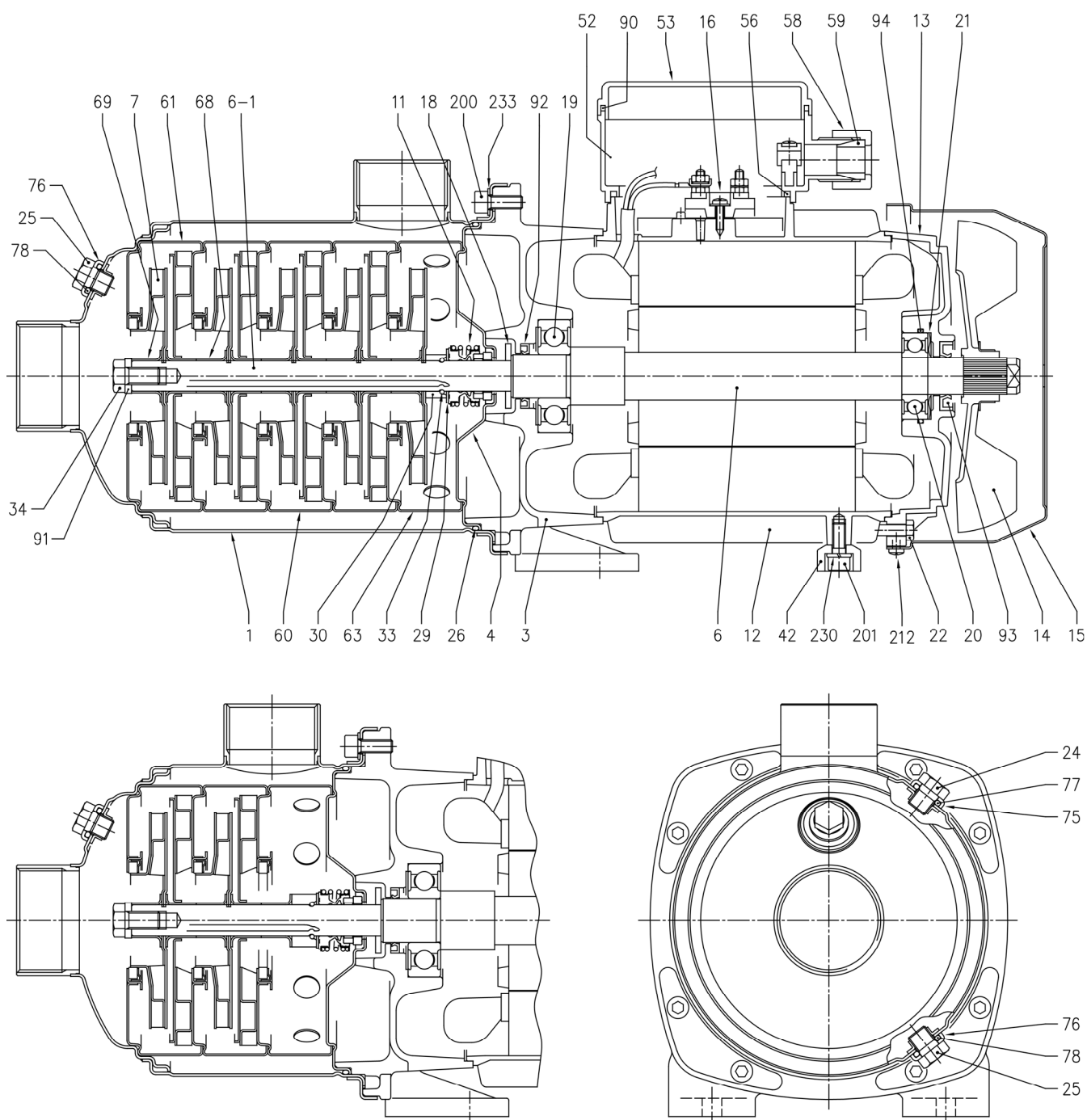
MATRIX 18-3T6/4.0 - Impeller diameter = 106.7 mm

MATRIX 18-2T6/3.0 - Impeller diameter = 106.7 mm

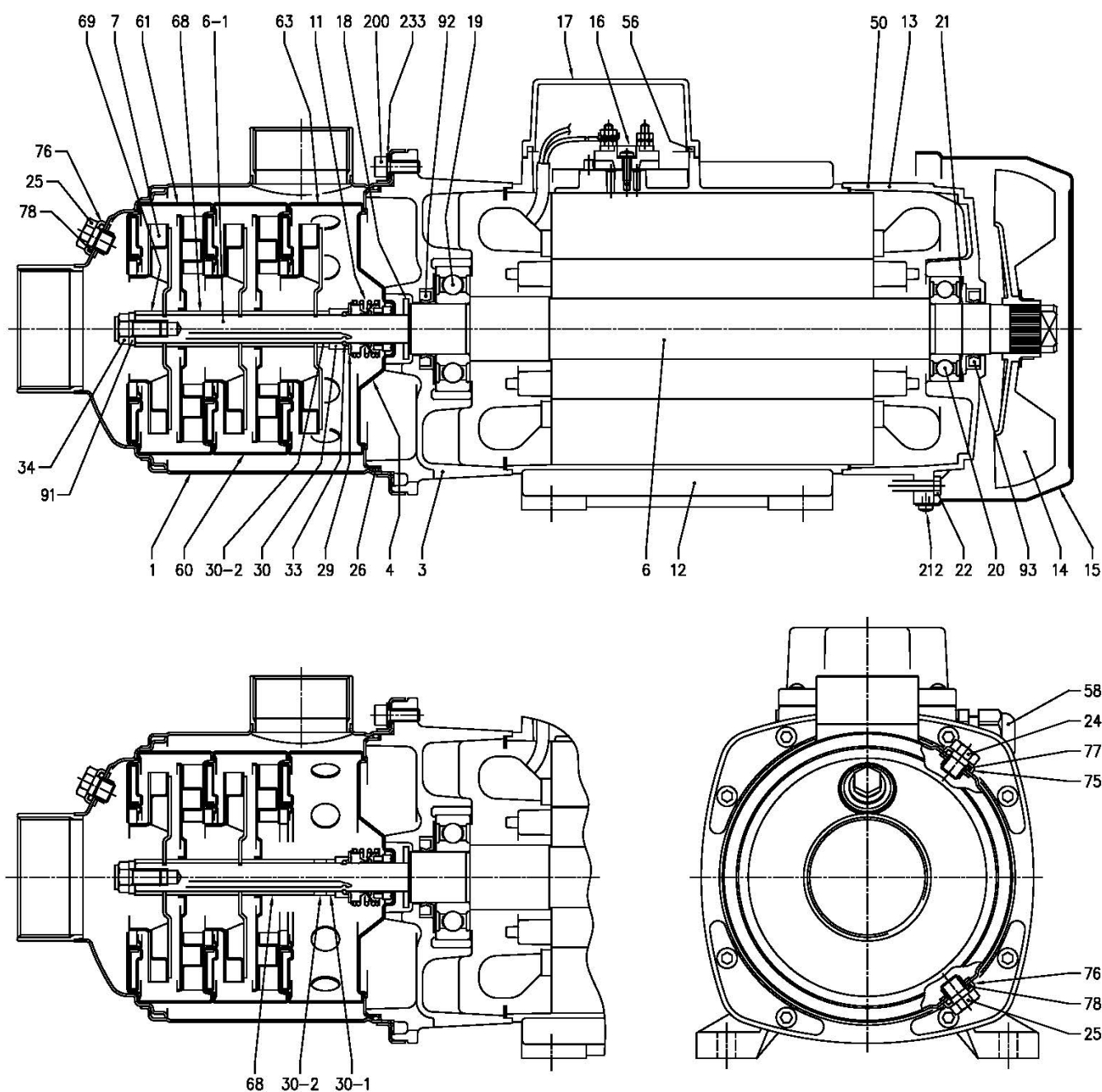


Rotation speed $\approx 3500 \text{ min}^{-1}$
Test standard: ISO 9906:2012 - Grade 3B

SECTIONAL VIEW DRAWING MATRIX 3/5/10



SECTIONAL VIEW DRAWING MATRIX 18



SECTIONAL VIEW TABLE

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 [2]	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)			2
26	O-ring	EPDM	133.02X2.62		1
29	Washer	EN 1.4401 (AISI 316)	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 [4]	ABS class V-0			1
53	Capacitor box cover [4] [5]	ABS class V-0			1
56	Box gasket	NBR			1
58	Ring nut	-			[1]
59	Conic gasket [4]	NBR			1
60	Intermediate casing	EN 1.4301 (AISI 304)+PPS			[1]
61	Intermediate casing (suction)	EN 1.4301 (AISI 304)+PPS			1
63	Intermediate casing (discharge)	EN 1.4301 (AISI 304)+PPS			1
68	Shaft sleeve (intermediate)	EN 1.4404 (AISI 316L)			[1]
69	Impeller spacer	EN 1.4301 (AISI 304)			1
75	Washer (plug)	EN 1.4301 (AISI 304)			1
76	Washer (plug)	EN 1.4301 (AISI 304)			2
77	O-ring	EPDM	9.19x2.62		1
78	O-ring	EPDM	9.19x2.62		2
90	Cover box gasket [4]	NBR	-		1
91	Shaft washer	EN 1.4301 (AISI 304)			1
92	Lip seal	0.65-0.75-0.9 kW	17x32x6		1
		1.3-1.5-2.2 kW	20x30x4		1
		3.0-4.0 kW	25x40x7		1
93	Lip seal	0.65-0.75-0.9 kW	15x30x5		1
		1.3-1.5-2.2 kW	17x32x7		1
		3.0-4.0 kW	25x40x7		1
94	O-ring [7]	NBR	34.65x1.78		1
200	Screw	EN 1.4301 (AISI 304)	M6x16	UNI 5931	8
201	Screw	Steel 8.8 strenght class ISO 898/1	M6x20	UNI 5931	[1]
212	Screw	Zincate Steel			4
230	Washer	Steel C70	Ø 6.4	UNI 1751	[1]
233	Plate	EN 1.4301 (AISI 304)			4

[1] See **QUANTITY FOR MODEL** page 303

[2] Only for three-phase

[3] Only for 10-5T6/4 and 18-3T6/4

[4] Only for single-phase

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

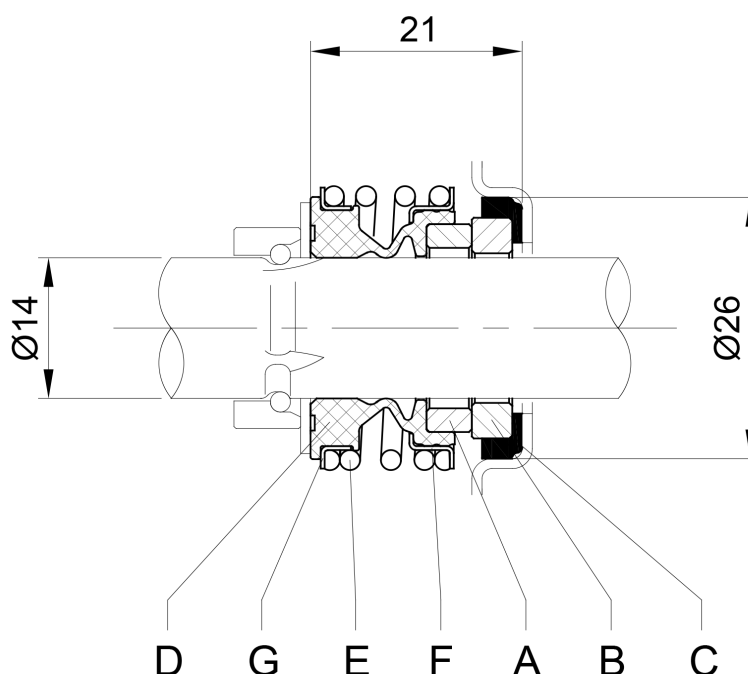
[6] See **MECHANICAL SEAL** pages 304 - 306

[7] Only for 3-3T6/0.9 and 5-2T6/0.9 models

QUANTITY FOR MODEL

Pump type	7	30-1	30-2	42	60	68	90	201	230
MATRIX 3-2T6/0.65M	2	-	-	1	1	4	1	1	1
MATRIX 3-2T6/0.65		-	-	1	1	4	-	1	1
MATRIX 3-3T6/0.9M	3	-	-	1	1	4	1	1	1
MATRIX 3-3T6/0.9		-	-	1	1	4	-	1	1
MATRIX 3-4T6/1.3M	4	-	-	1	2	6	1	1	1
MATRIX 3-4T6/1.3		-	-	1	2	6	-	1	1
MATRIX 3-5T6/1.5M	5	-	-	1	3	8	1	1	1
MATRIX 3-5T6/1.5		-	-	1	3	8	-	1	1
MATRIX 3-6T6/2.2	6	-	-	1	4	10	-	1	1
MATRIX 5-2T6/0.9M	2	-	-	1	1	4	1	1	1
MATRIX 5-2T6/0.9		-	-	1	1	4	-	1	1
MATRIX 5-3T6/1.3M	3	-	-	1	1	4	1	1	1
MATRIX 5-3T6/1.3		-	-	1	1	4	-	1	1
MATRIX 5-4T6/2.2	4	-	-	1	2	6	-	1	1
MATRIX 5-5T6/2.2	5	-	-	1	3	8	-	1	1
MATRIX 5-6T6/3	6	-	-	-	4	10	-	-	-
MATRIX 10-2T6/1.5M	2	-	-	1	1	4	1	1	1
MATRIX 10-2T6/1.5		-	-	1	1	4	-	1	1
MATRIX 10-3T6/2.2	3	-	-	1	1	4	-	1	1
MATRIX 10-4T6/3	4	-	-	-	2	6	-	-	-
MATRIX 10-5T6/4	5	-	-	-	3	8	-	-	-
MATRIX 18-2T6/3	3	1	1	-	1	2	-	-	-
MATRIX 18-3T6/4	4	-	1	-	1	2	-	-	-

MECHANICAL SEAL



STANDARD *	Material						
	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)

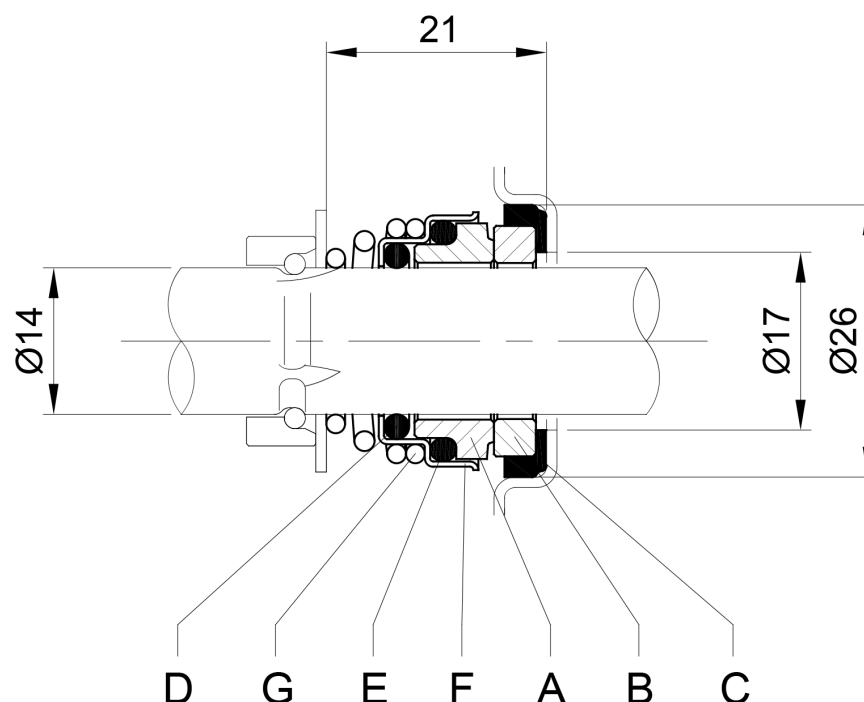
OPTIONAL **	Material						
	Version	A	B	C	D	E	G
		Rotary seal ring	Stationary seal ring	Gasket	Bellows	Spring	Retainer ring
	H	Ceramic	Carbon	FPM	FPM	EN 1.4402 (AISI 316)	EN 1.4402 (AISI 316)
	HS	Silicon Carbide	Silicon Carbide	FPM	FPM	EN 1.4402 (AISI 316)	EN 1.4402 (AISI 316)

* Approval for drinking water application
WRAS Approval product

** Approval for drinking water application
DM174/2004



MECHANICAL SEAL



OPTIONAL**

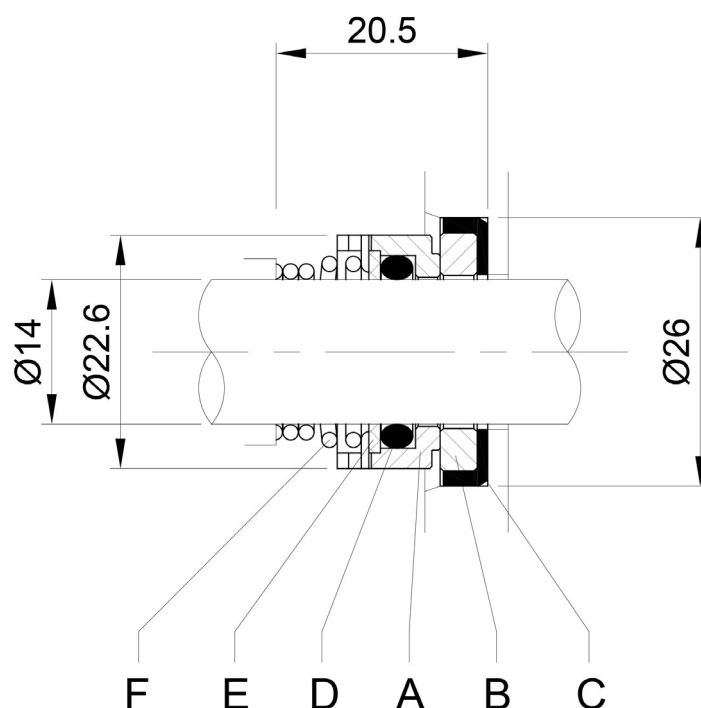
Version	A Rotary seal ring	B Stationary seal ring	C Gasket	Material D O-ring	E O-ring	F Spring	G Retainer ring
-TE	Carbon	Ceramic	EPDM	EPDM	EN 1.4402 (AISI 316)	EN 1.4402 (AISI 316)	EN 1.4402 (AISI 316)

SPECIAL

Version	A Rotary seal ring	B Stationary seal ring	C Gasket	Material D O-ring	E O-ring	F Spring	G Retainer ring
Q1AEGG	Metalized Carbon	Silicon Carbide	EPDM	EPDM	EN 1.4402 (AISI 316)	EN 1.4402 (AISI 316)	EN 1.4402 (AISI 316)

** Approval for drinking water application
DM174/2004

MECHANICAL SEAL



Version	Material					
	A Rotary seal ring	B Stationary seal ring	C Stationary Gasket	D O-Ring	E Washer	F Spring
SPECIAL** U3Q1EGG	Tungsten Carbide	Silicon Carbide	EPDM	EPDM	EN 1.4402 (AISI 316)	EN 1.4402 (AISI 316)

** Approval for drinking water application
DM174/2004

FLUID TEMPERATURE RANGE

The fluid temperature range depends on:

- Material of the elastomers
- Type of fluid pumped
- Material of the sealing faces

for each combination of these parameters the fluid temperature range may be different.

		SEALING FACES MATERIAL			
ELASTOMER		CERAMIC-CARBON		ALL (except ceramic-carbon)	
	NBR	-15 °C	90°C	-15 °C	90°C
	EPDM	-15 °C	85°C	-15 °C	110°C
	FPM	-15 °C	75°C	-15 °C	75°C ¹
		MIN	MAX	MIN	MAX
FLUID TEMPERATURE RANGE					

¹In case of fluids not containing water, the temperature limit could be increased to 110°C

Therefore, the fluid temperature range is related to the choice of the mechanical seal and its materials.

STANDARD mechanical seal	TEMPERATURE	
	MIN	MAX
STANDARD	-15 °C	85 °C

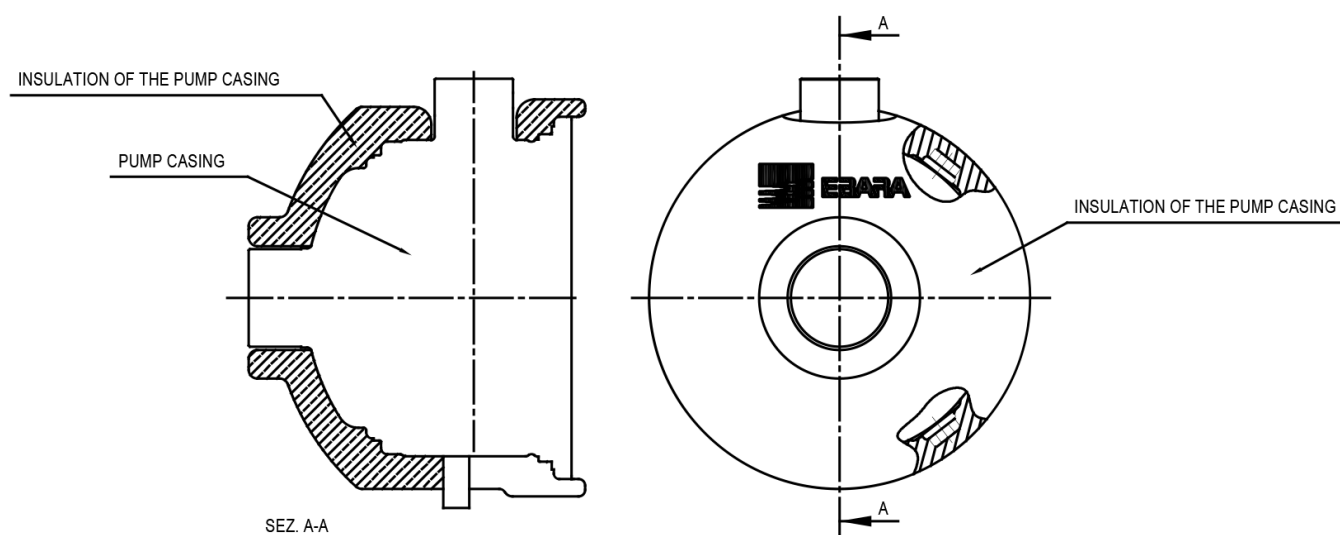
OPTIONAL mechanical seal	TEMPERATURE	
	MIN	MAX
H	-15 °C	75 °C
HS	-15 °C	75 °C
-TE	-15 °C	90 °C

SPECIAL mechanical seal	TEMPERATURE	
	MIN	MAX
Q1AEGG	-15 °C	110 °C
U3Q1EGG	-15°C	110° C

BEARINGS

Pump Type	Ball Bearing			
	Pump side		Fan side	
	[1~]	[3~]	[1~]	[3~]
MATRIX 3-2T6/0.65M	6203	-	6202	-
MATRIX 3-2T6/0.65	-	6203	-	6203
MATRIX 3-3T6/0.9M	6203	-	6202	-
MATRIX 3-3T6/0.9	-	6203	-	6202
MATRIX 3-4T6/1.3M	6204	-	6203	-
MATRIX 3-4T6/1.3	-	6304	-	6203
MATRIX 3-5T6/1.5M	6304	-	6203	-
MATRIX 3-5T6/1.5	-	6304	-	6203
MATRIX 3-6T6/2.2	-	6304	-	6203
MATRIX 5-2T6/0.9M	6203	-	6202	-
MATRIX 5-2T6/0.9	-	6203	-	6202
MATRIX 5-3T6/1.3M	6304	-	6203	-
MATRIX 5-3T6/1.3	-	6304	-	6203
MATRIX 5-4T6/2.2	-	6304	-	6203
MATRIX 5-5T6/2.2	-	6304	-	6203
MATRIX 5-6T6/3	-	6305	-	6205
MATRIX 10-2T6/1.5M	6304	-	6203	-
MATRIX 10-2T6/1.5	-	6304	-	6203
MATRIX 10-3T6/2.2	-	6304	-	6203
MATRIX 10-4T6/3	-	6305	-	6205
MATRIX 10-5T6/4	-	6305	-	6205
MATRIX 18-2T6/3	-	6305	-	6205
MATRIX 18-3T6/4	-	6305	-	6205

THERMAL INSULATION

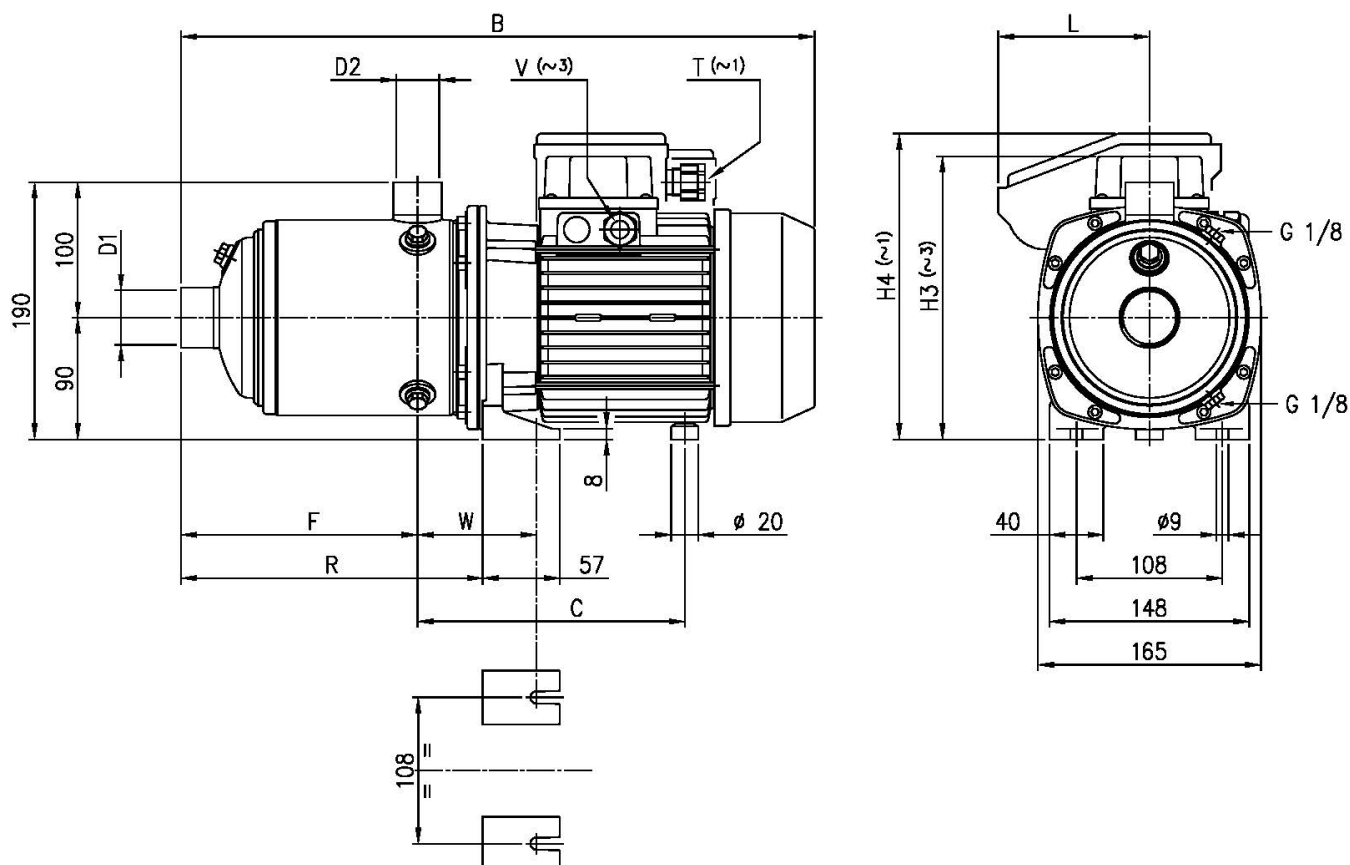


Pump type		INSULATION OF PUMP CASING
Single phase	Three phase	
3-2T6/0.65M	3-2T6/0.65	ON REQUEST
3-3T6/0.9M	3-3T6/0.9	
3-4T6/1.3M	3-4T6/1.3	
3-5T6/1.5M	3-5T6/1.5	
-	3-6T6/2.2	
5-2T6/0.9M	5-2T6/0.9	
5-3T6/1.3M	5-3T6/1.3	
-	5-4T6/2.2	
-	5-5T6/2.2	
-	5-6T6/3	
10-2T6/1.5M	10-2T6/1.5	
-	10-3T6/2.2	
-	10-4T6/3	
-	10-5T6/4	
-	18-2T6/3	
-	18-3T6/4	

DIMENSIONS and WEIGHT

60Hz

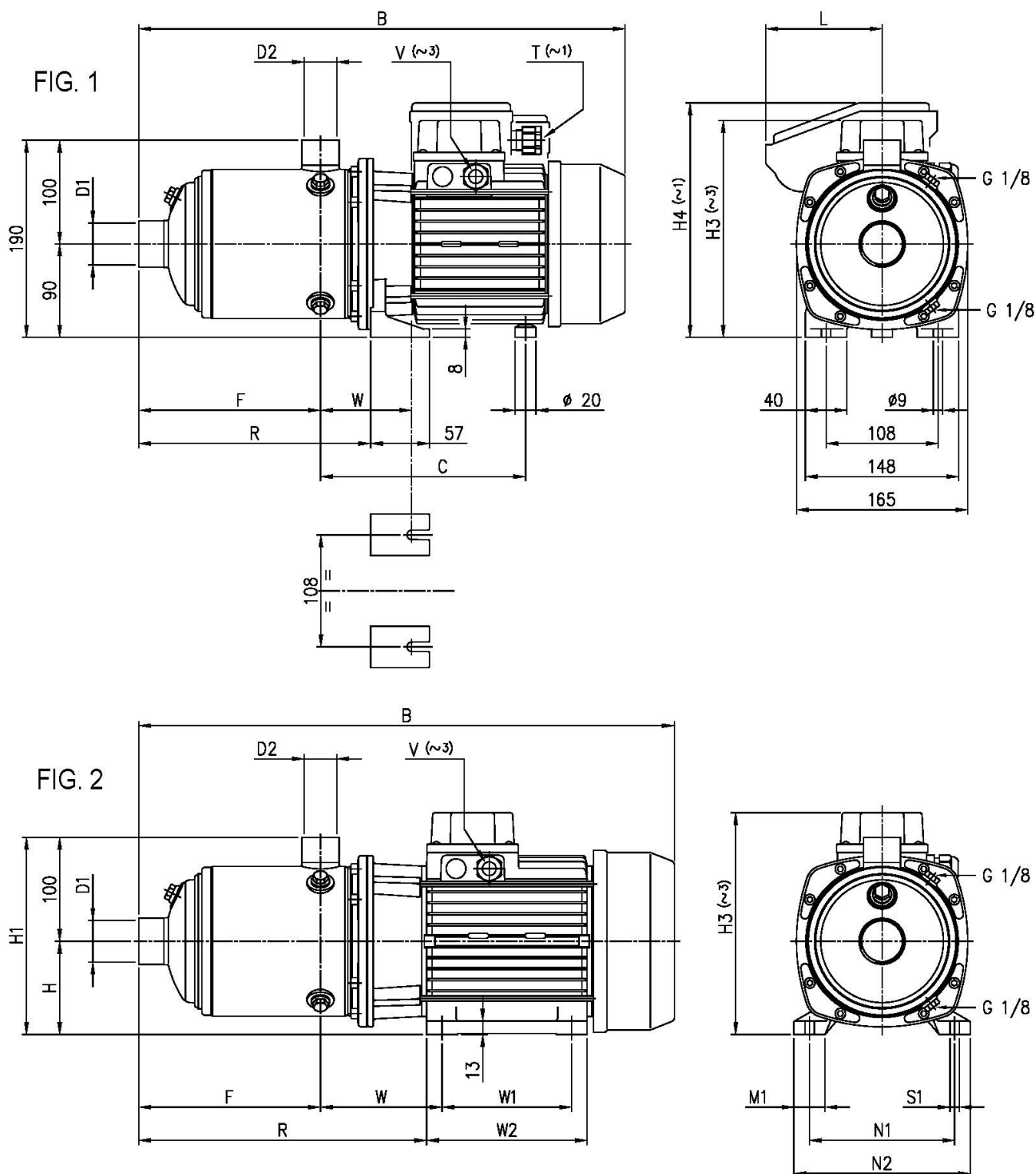
Rev. L

PUMP DRAWING
MATRIX 3PUMP TABLE
MATRIX 3

Pump Type	D1	D2	B	C	F	Dimensions [mm]					V [3~]	W	Weight [kgf]
						H4 [1~]	H3 [3~]	L	R	I [1~]			
MATRIX 3-2T6/0.65M	1"	1"	360	171	103	198	-	85	151.5	PG11	-	88 ÷ 97	11
MATRIX 3-2T6/0.65			360	171	103	-	192	-	151.5	-	M16x1.5	88 ÷ 97	9.7
MATRIX 3-3T6/0.9M			360	171	103	198	-	85	151.5	M20x1.5	-	88 ÷ 97	12.5
MATRIX 3-3T6/0.9			372	171	103	-	192	-	151.5	-	M16x1.5	88 ÷ 97	12.4
MATRIX 3-4T6/1.3M			419	198	127	223	-	114	175.5	M20x1.5	-	88 ÷ 97	14.7
MATRIX 3-4T6/1.3			432	198	127	-	209	-	175.5	-	M16x1.5	88 ÷ 97	15.3
MATRIX 3-5T6/1.5M			443	198	151	223	-	114	199.5	M20x1.5	-	88 ÷ 97	16
MATRIX 3-5T6/1.5			468	198	151	-	209	-	199.5	-	M16x1.5	88 ÷ 97	18.7
MATRIX 3-6T6/2.2			492	198	175	-	209	-	223.5	-	M16x1.5	88 ÷ 97	19.2

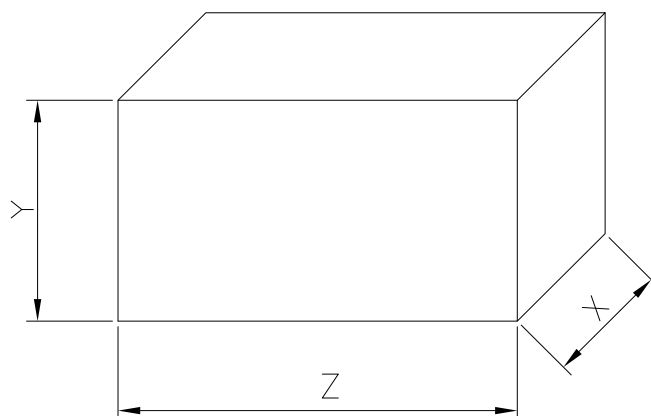
[1~] Single phase
[3~] Three phase

**PUMP DRAWING
MATRIX 5/10/18**



PUMP TABLE
MATRIX 5/10/18

Pump Type	Fig.	D1	D2	Dimensions [mm]																		Weight [kgf]	
				H	H1	B	C	F	H4	H3	L	R	T	V	W	W1	W2	M1	N1	N2	S1		
									[1~]	[3~]			[1~]	[3~]									
MATRIX 5-2T6/0.9M	1	1" 1/4	1"	-	-	372	171	103	198	-	85	151.5	M20x1.5	-	88÷97	-	-	-	-	-	-	12.5	
MATRIX 5-2T6/0.9				-	-	372	171	103	-	191	-	151.5	-	M16x1.5	88÷97	-	-	-	-	-	-	12.3	
MATRIX 5-3T6/1.3M				-	-	395	198	103	223	-	114	151.5	M20x1.5	-	88÷97	-	-	-	-	-	-	14	
MATRIX 5-3T6/1.3				-	-	408	198	103	-	209	-	151.5	-	M16x1.5	88÷97	-	-	-	-	-	-	14.7	
MATRIX 5-4T6/2.2				-	-	444	198	127	-	209	-	175.5	-	M16x1.5	88÷97	-	-	-	-	-	-	-	17.6
MATRIX 5-5T6/2.2				-	-	468	198	151	-	209	-	199.5	-	M16x1.5	88÷97	-	-	-	-	-	-	-	17.8
MATRIX 5-6T6/3	2	1" 1/2	1" 1/4	90	190	554	-	175	-	214	-	277.5	-	M20x1.5	117.5	125	155	30	140	170	9	22.4	
MATRIX 10-2T6/1.5M	1			-	-	414	202	118	223	-	114	170.5	M20x1.5	-	92÷101	-	-	-	-	-	-	14.8	
MATRIX 10-2T6/1.5				-	-	439	202	118	-	209	-	170.5	-	M16x1.5	92÷101	-	-	-	-	-	-	17.4	
MATRIX 10-3T6/2.2				-	-	439	202	118	-	209	-	170.5	-	M16x1.5	92÷101	-	-	-	-	-	-	17.2	
MATRIX 10-4T6/3	2			90	190	531	-	148	-	214	-	254.5	-	M20x1.5	121.5	125	155	30	140	170	9	22.7	
MATRIX 10-5T6/4				100	200	574	-	178	-	241	-	274	-	M20x1.5	111	140	170	35	160	192	11	26	
MATRIX 18-2T6/3	2	2"	1" 1/2	90	190	527	-	141	-	214	-	250.5	-	M20x1.5	124.5	125	155	30	140	170	9	21.6	
MATRIX 18-3T6/4				100	200	540	-	141	-	241	-	240	-	M20x1.5	114	140	170	35	160	192	11	25.4	

PACKING

Pump Type	Packing [mm]			Weight [kgf]
	X	Y	Z	
MATRIX 3-2T6/0.65M	220	260	560	12
MATRIX 3-2T6/0.65	220	260	560	10.3
MATRIX 3-3T6/0.9M	220	260	560	13.5
MATRIX 3-3T6/0.9	220	260	560	13
MATRIX 3-4T6/1.3M	220	260	580	15.5
MATRIX 3-4T6/1.3	220	260	580	15.8
MATRIX 3-5T6/1.5M	220	260	580	16.8
MATRIX 3-5T6/1.5	220	260	580	19.2
MATRIX 3-6T6/2.2	220	260	670	19.7
MATRIX 5-2T6/0.9M	220	260	560	13.5
MATRIX 5-2T6/0.9	220	260	560	12.9
MATRIX 5-3T6/1.3M	220	260	560	14.8
MATRIX 5-3T6/1.3	220	260	560	15.2
MATRIX 5-4T6/2.2	220	260	580	18.1
MATRIX 5-5T6/2.2	220	260	670	18.3
MATRIX 5-6T6/3	220	260	670	23.2
MATRIX 10-2T6/1.5M	220	260	580	15.6
MATRIX 10-2T6/1.5	220	260	580	18
MATRIX 10-3T6/2.2	220	260	580	17.7
MATRIX 10-4T6/3	220	260	670	23.5
MATRIX 10-5T6/4	220	260	670	33.5
MATRIX 18-2T6/3	220	260	670	22.4
MATRIX 18-3T6/4	220	260	670	32.5

TECHNICAL DATA

60Hz

Rev. L

MOTOR DATA

Pump type	Power		Efficiency	Capacitor		Efficiency (% load) and power factor				Input	Full load current		Locked rotor current	
Single Phase	[kW]	[HP]	[IE2 / IE3]	[μF]	[V]	η %			cos-φ	[kW]	[A]		[A]	
						50%	75%	100%			110 V	220 V	110 V	220 V
MATRIX 3-2T6/0.65M	0,75	1,0	IE2	60	250	72,3	77,3	80,7	0,92	0,93	9,3	-	60,5	-
				25	450	63,1	69,8	78,3	0,94	0,96	-	4,7	-	32,3
MATRIX 3-3T6/0.9M	0,9	1,2	IE2	31,5	450	64,1	73,2	79,4	0,86	1,17	-	5,9	-	45,3
MATRIX 3-4T6/1.3M	1,7	2,3	-	31,5	450	-	-	-	0,97	2,08	-	9,7	-	55,0
MATRIX 3-5T6/1.5M	1,8	2,4	-	40	450	-	-	-	0,95	2,29	-	10,5	-	69,0
MATRIX 5-2T6/0.9M	0,9	1,2	IE2	31,5	450	64,1	73,2	79,4	0,86	1,17	-	5,9	-	45,3
MATRIX 5-3T6/1.3M	1,7	2,3	-	31,5	450	-	-	-	0,97	2,08	-	9,7	-	55,0
MATRIX 10-2T6/1.5M	1,8	2,4	-	40	450	-	-	-	0,95	2,29	-	10,5	-	69,0

Pump type	Power		Efficiency [IE2/IE3]	Efficiency (% load) Three phase (380 V)			Efficiency (% load) Three phase (460 V)			Input [kW] Three Phase	Full load current [A] Three Phase			Locked rotor current [A] Three Phase		
	[kW]	[HP]		η %			η %				Three Phase			Three Phase		
				50%	75%	100%	50%	75%	100%		220 V	380 V	460 V	220 V	380 V	460 V
MATRIX 3-2T6/0.65	0.65	0.9	IE3	-	-	-	-	-	-	0.9	2.8	1.6	1.5	16.1	9.3	11.3
MATRIX 3-3T6/0.9	0.9	1.2	IE3	84.8	84.5	82.7	82.0	84.4	84.5	1.30	4.0	2.3	2.2	24.6	14.2	17.2
MATRIX 3-4T6/1.3	1.3	1.8	IE3	84.2	84.7	84.5	83.2	84.7	85.7	1.75	5.3	3.1	2.9	40.2	23.2	28.1
MATRIX 3-5T6/1.5	1.5	2.0	IE3	86.5	86.8	86.2	86.9	87.8	87.4	2.48	7.5	4.3	4.1	55.7	32.2	38.9
MATRIX 3-6T6/2.2	2.2	3.0	IE3	86.5	86.8	86.2	86.9	87.8	87.4	2.48	7.5	4.3	4.1	55.7	32.2	38.9
MATRIX 5-2T6/0.9	0.9	1.2	IE3	84.8	84.5	82.7	82.0	84.4	84.5	1.30	4.0	2.3	2.2	24.6	14.2	17.2
MATRIX 5-3T6/1.3	1.3	1.8	IE3	84.2	84.7	84.5	83.2	84.7	85.7	1.75	5.3	3.1	2.9	40.2	23.2	28.1
MATRIX 5-4T6/2.2	2.2	3.0	IE3	86.5	86.8	86.2	86.9	87.8	87.4	2.48	7.5	4.3	4.1	55.7	32.2	38.9
MATRIX 5-5T6/2.2	2.2	3.0	IE3	86.5	86.8	86.2	86.9	87.8	87.4	2.48	7.5	4.3	4.1	55.7	32.2	38.9
MATRIX 5-6T6/3	3.0	4.0	IE3	86.8	87.0	87.5	87.0	87.9	88.5	3.42	10.2	5.9	5.6	75.7	43.7	52.8
MATRIX 10-2T6/1.5	1.5	2.0	IE3	86.5	86.8	86.2	86.9	87.8	87.4	2.48	7.5	4.3	4.1	55.7	32.2	38.9
MATRIX 10-3T6/2.2	2.2	3.0	IE3	86.5	86.8	86.2	86.9	87.8	87.4	2.48	7.5	4.3	4.1	55.7	32.2	38.9
MATRIX 10-4T6/3	3.0	4.0	IE3	86.8	87.0	87.5	87.0	87.9	88.5	3.42	10.2	5.9	5.6	75.7	43.7	52.8
MATRIX 10-5T6/4	4.0	5.5	IE3	89.7	89.6	88.6	86.1	88.4	88.5	4.52	13.5	7.8	7.6	107.1	61.8	74.9
MATRIX 18-2T6/3	3.0	4.0	IE3	86.8	87.0	87.5	87.0	87.9	88.5	3.42	10.2	5.9	5.6	75.7	43.7	52.8
MATRIX 18-3T6/4	4.0	5.5	IE3	89.7	89.6	88.6	86.1	88.4	88.5	4.52	13.5	7.8	7.6	107.1	61.8	74.9

NOISE DATA

Pump type		LpA-dB(A)*
Single Phase	Three Phase	
MATRIX 3-2T6/0.65M	MATRIX 3-2T6/0.65	65
MATRIX 3-3T6/0.9M	MATRIX 3-3T6/0.9	
MATRIX 3-4T6/1.3M	MATRIX 3-4T6/1.3	
MATRIX 3-5T6/1.5M	MATRIX 3-5T6/1.5	68
-	MATRIX 3-6T6/2.2	
MATRIX 5-2T6/0.9M	MATRIX 5-2T6/0.9	65
MATRIX 5-3T6/1.3M	MATRIX 5-3T6/1.3	68
-	MATRIX 5-4T6/2.2	69
-	MATRIX 5-5T6/2.2	
-	MATRIX 5-6T6/3	72
MATRIX 10-2T6/1.5M	MATRIX 10-2T6/1.5	68
-	MATRIX 10-3T6/2.2	69
-	MATRIX 10-4T6/3	72
-	MATRIX 10-5T6/4	73
-	MATRIX 18-2T6/3	72
-	MATRIX 18-3T6/4	73

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



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