# Technical data

## Model NCS 121-151 US

**Pump name** MATRIX 5-4T6/2.2

| | | |
|---|---|---|
| Customer | Date 20-October-2016 | Company |
| Contact | Item no. | Issued by |
| Phone | Project | Phone |
| E-mail | Project ID | E-mail |

**Requested data**

| | | | | | |
|---|---|---|---|---|---|
| 1 | Pump type | HORIZONTAL MULTISTAGE PUMP | Fluid | | Water, clean |
| 2 | Number of pumps / Reserve | 1 / 0 | Liquid temperature | °F | 68 |
| 3 | Flow US g.p.m. | 0 | Kin. viscosity | ft²/s | 1.08E-5 |
| 4 | Head ft | 0 | Vapour pressure | psi | 0.319 |
| 5 | Static head ft | 0 | PH value | | 7 |
| 6 | Inlet pressure psi | 1 | Density | lb/ft³ | 62 |
| 7 | Available system NPSH | 0 | Solids | Weight % | 0 |
| 8 | Environmental temperature °F | 68 | Altitude | ft | 3281 |

**Pump**

| | | | | | | |
|---|---|---|---|---|---|---|
| 9 | Pump name | MATRIX 5-4T6/2.2 | Frequency | | Hz | 60 |
| 10 | Design | HORIZONTAL MULTISTAGE PUMP | Installation type | | | STANDARD |
| 11 | Manufacturer | EPE | Impeller Diameter | Max. | inch | 4 |
| 12 | Speed rpm | 3500 | | Designed | inch | 4 |
| 13 | No. of Stage | 4 | | Min. | inch | 4 |
| 14 | Connection Suction side | | Flow | Operating | US g.p.m. | |
| 15 | Connection Discharge side | | | Max- | US g.p.m. | 42.3 |
| 16 | Max Working Pressure psi | | | Min- | US g.p.m. | 10.6 |
| 17 | Shut-off head psi | 95.30 | Head | Operating | ft | |
| 18 | Total weight lb | See the table of "Dimensions". | | - (Qmax.) | ft | 83.1 |
| 19 | Shaft power hp | | | - (Qmin.) | ft | 205.6 |
| 20 | | | Max. Shaft Power at max. impeller | | hp | 2.02 |
| 21 | Required NPSH ft | | Efficiency | | % | |

**Materials**

| | | | | |
|---|---|---|---|---|
| 22 | | | | |
| 23 | | | | |
| 24 | | | | |
| 25 | | | | |
| 26 | | | | |
| 27 | | | | |

**Motor**

| | | | | |
|---|---|---|---|---|
| 28 | Manufacturer | EPE Standard | Insulation class | F |
| 29 | Type | TEFC_MATRIX 5-4T6/2.2_460_Three Phase | Phases | 3~ |
| 30 | Specific design | - / 60 Hz / Pole pairs 1 | Frame size | |
| 31 | Rated power hp | 2.9502 | Weight lb | 0 |
| 32 | Number of poles | 2 | Electric voltage V | 460 |
| 33 | Speed rpm | 3500 | Electric current A | 4.3 |
| 34 | Degree of protection | IP 55 | | |
| 35 | | | | |

**Remarks**

# Performance curve

**Pump name** MATRIX 5-4T6/2.2

| | | |
|---|---|---|
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| Contact | Item no. | Issued by |
| Phone | Project | Phone |
| E-mail | Project ID | E-mail |

**Requested data**

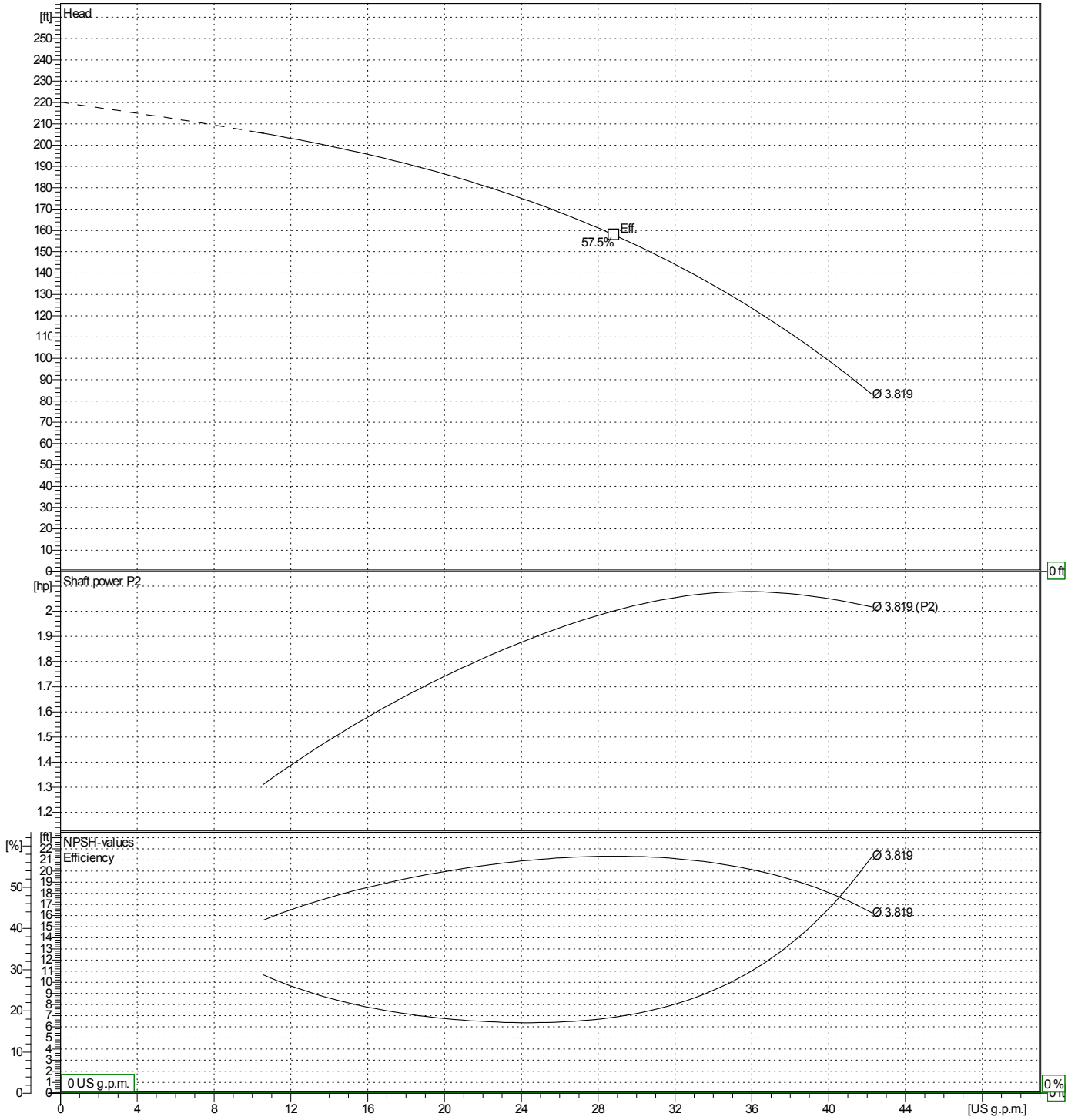
| | | | |
|---|---|---|---|
| 1 | Flow US g.p.m. | 0 |
| 2 | Head ft | 0 |
| 3 | Static head ft | 0 |

**Pump**

| | | | | | |
|---|---|---|---|---|---|
| Operating Flow US g.p.m. | | Impeller Diameter Designedinch | 4 |
| Operating Head ft | | Frequency Hz | 60 |
| | | Speed rpm | |

Test standard: ISO 9906:2012 - Grade3B

Water, clean [100%] ; 68°F; 62.321690545307lb/ft³; 1.0764E-5ft²/s

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# Dimensions

**Pump name** MATRIX 5-4T6/2.2

| | | |
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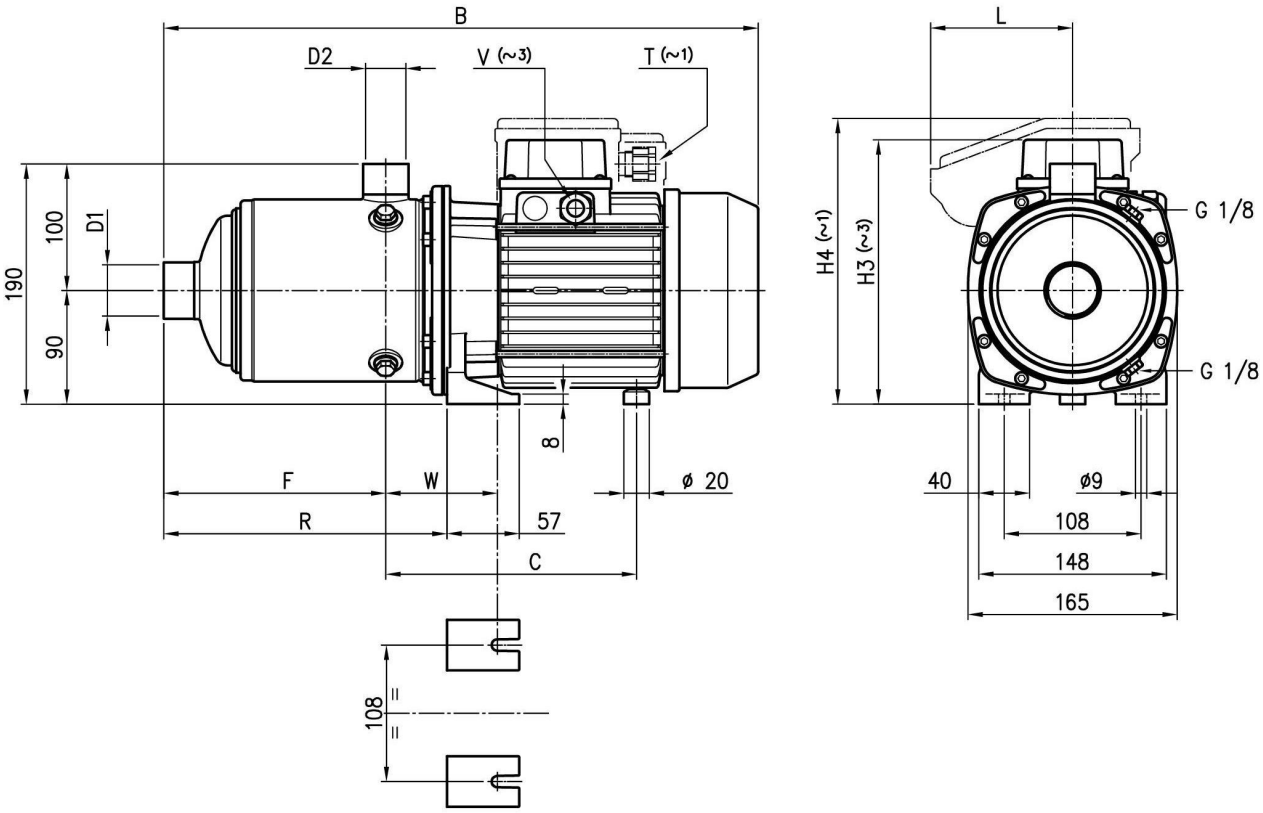
| Phone | Project | Phone |
| E-mail | Project ID | E-mail |




| Dimensions in inch | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | B | 17.087 | | | | | | |
| 2 | C | 7.7953 | | | | | | |
| 3 | D1 | 1 1/4" | | | | | | |
| 4 | D2 | 1" | | | | | | |
| 5 | F | 5 | | | | | | |
| 6 | H3 | 8.2283 | | | | | | |
| 7 | R | 6.9094 | | | | | | |
| 8 | V | PG11 | | | | | | |
| 9 | W | 88-97 | | | | | | |
| 10 | Weight kg | 16.7kg | | | | | | |

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# (1/3)
# Construction

**Pump name** MATRIX 5-4T6/2.2

| | | |
|---|---|---|
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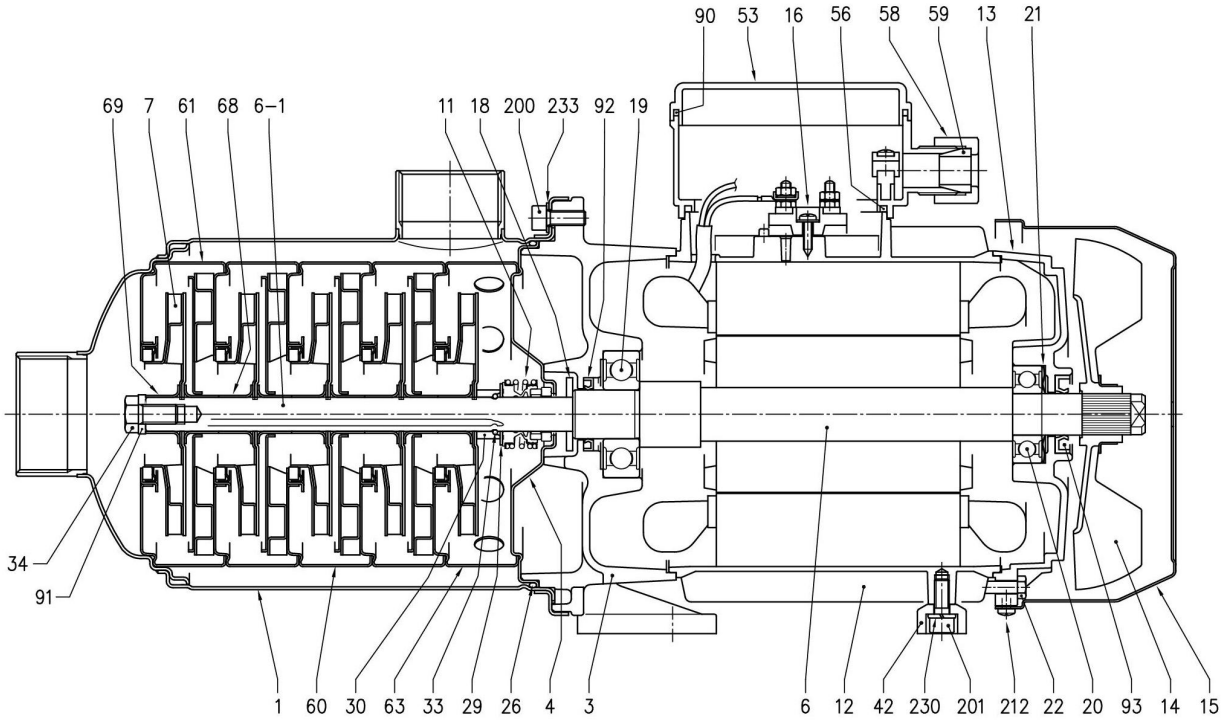
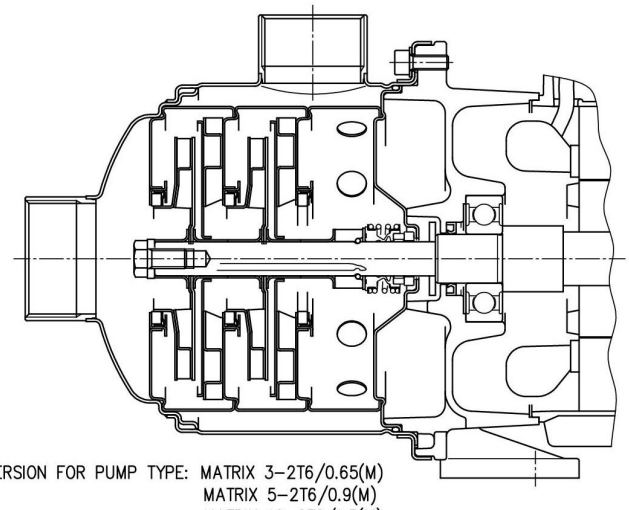
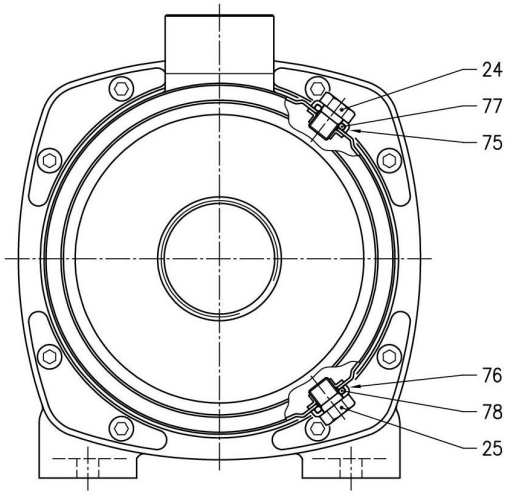
| Contact | Item no. | Issued by |
| Phone | Project | Phone |
| E-mail | Project ID | E-mail |






VERSION FOR PUMP TYPE: MATRIX 3–2T6/0.65(M)
MATRIX 5–2T6/0.9(M)
MATRIX 10–2T6/1.5(M)

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# (2/3)
# Construction

**Pump name** MATRIX 5-4T6/2.2

| | | |
|---|---|---|
| Customer | Date 20-October-2016 | Company |
| Contact | Item no. | Issued by |
| Phone | Project | Phone |
| E-mail | Project ID | E-mail |

| N° | PART NAME | | MATERIAL | DIMENSION | STANDARD | Q.TY |
|---|---|---|---|---|---|---|
| 1 | Casing | | EN 1.4301 (AISI304) | | | 1 |
| 3 | Bracket | | EN AB-AlSi11Cu2(Fe) | | | 1 |
| 4 | Casing cover | | EN 1.4301 (AISI304) | | | 1 |
| 6 | Shaft with rotor | | - | | | 1 |
| 6-1 | Pump Shaft | | EN 1.4301 (AISI304) | | | 1 |
| 7 | Impeller | | EN 1.4301 (AISI304) | | | [1] |
| 11 | Standard mechanical seal | | Ceramic/Carbon/EPDM | | | 1 |
| | High temperature mechanical seal | | Ceramic/Carbon/EPDM | | | |
| 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 [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 (AISI304) | | | 1 |
| 25 | Plug | | EN 1.4301 (AISI304) | | | 1 |
| 26 | O-ring | | EPDM | 133.02X2.62 | | 1 |
| 29 | Washer | | EN 1.4301 (AISI304) | 25.1x14x1 | | 1 |
| 30 | Ring holder | | EN 1.4301 (AISI304) | | | 1 |
| 30-1 | Shaft sleeve (adjustment) | | EN 1.4301 (AISI304) | | | [1] |
| 30-2 | Shaft sleeve (adjustment) | | EN 1.4301 (AISI304) | | | [1] |
| 33 | Ring | | EN 1.4301 (AISI304) | | | 2 |
| 34 | Screw | | EN 1.4301 (AISI304) | M 8x16 | UNI5739 | 1 |
| 42 | Foot | | Aluminium | | | [1] |
| 50 | Motor spacer [3] | | Aluminium | | | 1 |
| 52 | Capacitor box [4] | | ABS | | | 1 |
| 53 | Capacitor box cover [4] [5] | | ABS [5] | | | 1 |
| 56 | Box gasket | | NBR | | | 1 |
| 58 | Ring nut | | - | | | [1] |
| 59 | Conic gasket [4] | | NBR | | | 1 |
| 60 | Intermediate casing | | EN 1.4301 (AISI304)+PTFE | | | [1] |
| 61 | Intermediate casing (suction) | | EN 1.4301 (AISI304)+PTFE | | | 1 |
| 63 | Intermediate casing (discharge) | | EN 1.4301 (AISI304)+PTFE | | | 1 |
| 68 | Shaft sleeve (intermediate) | | EN 1.4301 (AISI304) | | | [1] |
| 69 | Impeller spacer | | EN 1.4301 (AISI304) | | | 1 |
| 75 | Washer (plug) | | EN 1.4301 (AISI304) | | | 1 |
| 76 | Washer (plug) | | EN 1.4301 (AISI304) | | | 1 |
| 77 | O-ring | | EPDM | 9.19x2.62 | | 1 |
| 78 | O-ring | | EPDM | 9.19x2.62 | | 1 |
| 90 | Cover box gasket [4] | | NBR | - | | 1 |
| 91 | Shaft washer | | EN 1.4301 (AISI304) | | | 1 |
| 92 | Lip seal | 0.65-0.75-0.9 kW | | 17x32x6 | | 1 |
| | | 1.3-1.5-2.2 kW | | 20x30x4 | | 1 |
| | | 3-4 kW | | 25x40x7 | | 1 |
| 93 | Lip seal | 0.65-0.75-0.9 kW | | 15x30x5 | | 1 |
| | | 1.3-1.5-2.2 kW | | 17x32x7 | | 1 |
| | | 3-4 kW | | 25x40x7 | | 1 |
| 200 | Screw | | EN 1.4301 (AISI304) | M 6x16 | UNI5931 | 8 |
| 201 | Screw | | Steel 8.8 strenght class ISO 898/1 | M 6x20 | UNI5931 | [1] |
| 230 | Washer | | Steel C70 | Ø 6.4 | UNI1751 | [1] |
| 233 | Plate | | EN 1.4301 (AISI304) | | | 4 |

[1] See "CONSTRUCTION 3"
[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

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# (3/3)
# Construction

**Pump name** MATRIX 5-4T6/2.2

| | | |
|---|---|---|
| Customer | Date 20-October-2016 | Company |
| Contact | Item no. | Issued by |
| Phone | Project | Phone |
| E-mail | Project ID | E-mail |

| 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 | – | – | – |