

# MMB

*Morsbach Maschinen Bau GmbH.*

## MMB 6" SUBMERSIBLE MOTORS CATALOGUE 50 Hz



Our company MMB was established in 2008 in the city of Cologne, Germany. MMB has developed to have many branches around the world.

### SALIENT FEATURES

- ⊗ Mounting Diameters Are As Per NEMA Standard.
- ⊗ Motor portion covered with corrosive resistance Stainless Steel 304 shell.
- ⊗ Thread type motor construction ensures service feasibility.
- ⊗ Double Sand Guard Design.
- ⊗ Available With Mechanical Seal or Double Oil Seal.
- ⊗ All Casted Parts Are Available With Special Coated Paint & Also With CED Coating.
- ⊗ Rotors Are Dynamically Balanced at 2850+ RPM To Reduce Vibration & Noise.
- ⊗ Rotors Are Painted With Special Epoxy Paints To Prevent Rust.
- ⊗ Special Design for Wide Voltage Range.
- ⊗ Highly Efficient Motors.
- ⊗ High Quality Materials and CNC Machined Component Ensure more Reliability and Better Performance.
- ⊗ Fully SS pump sets are available in SS-304 Grade.
- ⊗ Design Available With Copper Rotor & Aluminium Rotor.
- ⊗ Customized Models Available As Per Request.

### TECHNICAL DETAILS

- Motor Rating With Power Rating:  
Rewindable 6" Submersible Motors:  
5.5HP To 60 HP.
- Voltage Range: 250 V To 440 V  
Voltage Tolerance:  $\pm 10\%$
- Frequency: 50 Hz / 60 Hz
- Protection Class: IP 68
- Insulation Class: Y
- Start Per Hours 20 Max
- Type Of Duty: S1
- Max Ambient Temp of 33°C  
with a minimum Cooling Flow 0.5m/s

| MATERIAL OF CONSTRUCTION |                       |
|--------------------------|-----------------------|
| PARTS NAME               | MATERIAL              |
| ROTOR SHAFT              | S.S. 420              |
| RUBBER SAND GUARD        | NBR                   |
| S.S. SEAL RING COVER     | S.S. 304              |
| CABLE 3 CORE / 4 CORE    | P.V.C. / EPR          |
| ALL FASTNERS             | S.S. 304              |
| MECHANICAL SEAL          | CERAMIC + CARBON      |
| OIL SEAL                 | NBR                   |
| BEARING BUSH             | CARBON                |
| BRACKET                  | GRADED CASTING        |
| UPPER HOUSING            | GRADED CASTING        |
| WINDING WIRE             | POLY WRAP COPPER WIRE |
| MOTOR SHELL              | S.S. 304              |
| LOWER HOUSING            | GRADED CASTING        |
| THRUST BEARING SET       | S.S. 420 + CARBON     |
| DIAPHRAGM                | NBR                   |
| MOTOR BASE               | GRADED CASTING        |
| MOTOR BASE COVER         | GRADED CASTING        |

| WEIGHT CHART |       |                       |   |
|--------------|-------|-----------------------|---|
| kW           | HP    | MOTOR NET WEIGHT (kg) | MOTOR GROSS WEIGHT (Including Packing) (kg) |
| 4.00         | 5.50  | 47.50                 | 50.50                                       |
| 5.50         | 7.50  | 48.50                 | 54.00                                       |
| 7.50         | 10.00 | 52.00                 | 57.00                                       |
| 9.20         | 12.50 | 59.50                 | 62.50                                       |
| 11.00        | 15.00 | 64.50                 | 70.00                                       |
| 13.00        | 17.50 | 68.50                 | 74.00                                       |
| 15.00        | 20.00 | 78.00                 | 84.00                                       |
| 18.50        | 25.00 | 84.50                 | 91.00                                       |
| 22.00        | 30.00 | 93.00                 | 101.00                                      |
| 26.00        | 35.00 | 105.00                | 113.00                                      |
| 30.00        | 40.00 | 112.30                | 121.00                                      |
| 37.00        | 50.00 | 123.50                | 132.00                                      |
| 45.00        | 60.00 | 142.00                | 150.00                                      |

### 50Hz - Three Phase

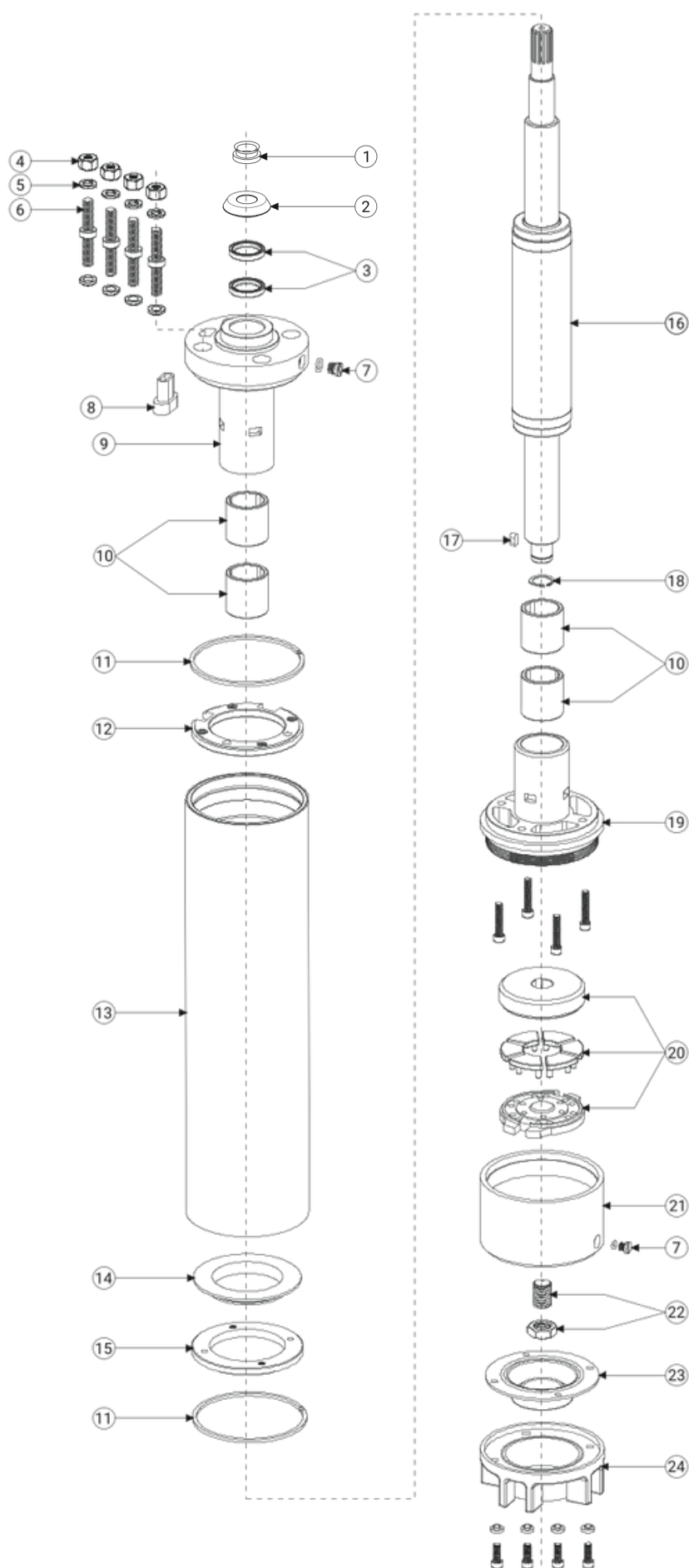
Technical Data Sheet For 6" Motors - 50 Hz

| Type   | Rated Output |       | Axial Thrust Load (N) | Rated Voltage (V) | RPM  | Full Load Current (A) | Starting Current (A) | Efficiency At Diff. Load % |       |       | Power Factor At Diff. Load % |      |      | Full Load Torque | Starting Torque |
|--------|--------------|-------|-----------------------|-------------------|------|-----------------------|----------------------|----------------------------|-------|-------|------------------------------|------|------|------------------|-----------------|
|        | H.P.         | kW    |                       |                   |      |                       |                      | 50                         | 75    | 100   | 50                           | 75   | 100  |                  |                 |
| 6TA 05 | 5.50         | 4.00  | 15500                 | 380               | 2865 | 10.00                 | 47.00                | 71.00                      | 74.00 | 76.00 | 0.60                         | 0.72 | 0.78 | 13.00            | 17.20           |
| 6TA 07 | 7.50         | 5.50  | 15500                 | 380               | 2870 | 14.00                 | 47.00                | 73.00                      | 76.00 | 76.00 | 0.69                         | 0.80 | 0.84 | 18.50            | 23.80           |
| 6TA 10 | 10.00        | 7.50  | 15500                 | 380               | 2865 | 18.00                 | 58.00                | 77.00                      | 78.00 | 78.00 | 0.71                         | 0.79 | 0.82 | 25.00            | 32.30           |
| 6TA 12 | 12.50        | 9.20  | 15500                 | 380               | 2870 | 22.00                 | 75.00                | 79.00                      | 80.00 | 79.00 | 0.70                         | 0.80 | 0.84 | 31.00            | 41.20           |
| 6TA 15 | 15.00        | 11.00 | 15500                 | 380               | 2870 | 26.00                 | 93.00                | 77.00                      | 80.00 | 78.00 | 0.72                         | 0.81 | 0.84 | 36.50            | 49.70           |
| 6TA 17 | 17.50        | 13.00 | 15500                 | 380               | 2880 | 30.00                 | 117.00               | 79.00                      | 81.00 | 80.00 | 0.70                         | 0.80 | 0.80 | 43.30            | 45.20           |
| 6TA 20 | 20.00        | 15.00 | 15500                 | 380               | 2880 | 34.00                 | 140.00               | 80.00                      | 82.00 | 81.00 | 0.73                         | 0.82 | 0.85 | 49.80            | 53.90           |
| 6TA 25 | 25.00        | 18.05 | 15500                 | 380               | 2880 | 42.00                 | 171.00               | 80.00                      | 82.00 | 81.00 | 0.80                         | 0.84 | 0.84 | 61.80            | 75.30           |
| 6TA 30 | 30.00        | 22.00 | 15500                 | 380               | 2880 | 49.00                 | 217.00               | 82.00                      | 83.00 | 84.00 | 0.70                         | 0.79 | 0.84 | 72.70            | 91.20           |
| 6TA 35 | 35.00        | 26.00 | 15500                 | 380               | 2880 | 58.00                 | 267.00               | 82.00                      | 84.00 | 83.00 | 0.69                         | 0.79 | 0.85 | 86.00            | 120.50          |
| 6TA 40 | 40.00        | 30.00 | 27500                 | 380               | 2880 | 65.00                 | 329.00               | 81.00                      | 84.00 | 83.00 | 0.68                         | 0.77 | 0.84 | 98.90            | 135.10          |
| 6TA 50 | 50.00        | 37.00 | 27500                 | 380               | 2880 | 80.00                 | 406.00               | 82.00                      | 83.00 | 83.00 | 0.68                         | 0.80 | 0.84 | 122.20           | 192.70          |
| 6TA 60 | 60.00        | 45.00 | 27500                 | 380               | 2880 | 93.00                 | 456.00               | 83.00                      | 84.00 | 84.00 | 0.69                         | 0.81 | 0.84 | 149.00           | 218.00          |

\* Model 6TB with Cast Iron Ends



#### CLOSE WINDING TYPE



| SR NO | PART NAME                  |
|-------|----------------------------|
| 1     | RUBBER SAND GUARD          |
| 2     | SAND GUARD                 |
| 3     | OIL SEAL                   |
| 4     | HEX NUT                    |
| 5     | SPRING WASHER              |
| 6     | STUD                       |
| 7     | DRAIN PLUG                 |
| 8     | CABLE GROMMET              |
| 9     | UPPER HOUSING              |
| 10    | CARBON BUSH                |
| 11    | STATOR LOCK                |
| 12    | UPPER STUD RING            |
| 13    | STATOR                     |
| 14    | WINDING CAP                |
| 15    | LOWER STUD RING            |
| 16    | ROTOR (COPPER / ALUMINIUM) |
| 17    | KEY                        |
| 18    | CIRCLIP                    |
| 19    | LOWER HOUSING              |
| 20    | THRUST BEARING SET         |
| 21    | MOTOR BASE                 |
| 22    | ROCKER SUPPORT WITH NUT    |
| 23    | DIAPHRAGM                  |
| 24    | MOTOR BASE COVER           |

