

Additional Data/Spec Sheet

BMER-2 Series Geroler Gear Type – Hydraulic Orbital Motors – Disc Distribution Motors

Flange MD = Ø13.5 Magneto Mount, pilot Ø82.55x2.8 – Shaft G2 = Ø31.75 Cylindrical Shaft, parallel key 7.9x7x36.5

BMER-2 SERIES HYDRAULIC MOTOR

BMER-2 series motor adapt the advanced Geroler gear set designed with high speed distribution flow and high pressure, and have good stability in low speed , and can keep high volume efficiency. The unit can be supplied the individual variant in operating multifunction in accordance with requirement of applications.

Characteristic features:

- * Advanced manufacturing devices for the Geroler gear set, which use low pressure of start-up, provide smooth and reliable operation and high efficiency.
- * The output shaft adapts in needle roller bearings that permit high axial and radial forces. The case can offers capacities of high pressure and high torque in the wide of applications.
- * Advanced design in high speed distribution flow, which can automatically compensate in operating with high volume efficiency and long life , provide smooth and reliable operation.
- * Lowest leakage rate, most accurate timing methods. Commutator rotates 6x faster than shaft speed. It make the distribution in a high precision reduces life-cycle cost, maintain high volume efficiencies and can run very smoothly at low speed, gear box not required.

Main Specification

| Type | | BMER 125 | BMER 160 | BMER 200 | BMER 230 | BMER 250 | BMER 300 | BMER 350 | BMER 375 | BMER 400 | BMER 475 | BMER 540 | BMER 650 | BMER 750 |
|--|-------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Geometric displacement (cm ³ /rev.) | | 118 | 156 | 196 | 228 | 257 | 296 | 345 | 371 | 405 | 462 | 540 | 647 | 745 |
| Max. speed (rpm) | cont. | 360 | 375 | 330 | 290 | 290 | 250 | 220 | 200 | 185 | 160 | 140 | 115 | 100 |
| | int. | 490 | 470 | 425 | 365 | 350 | 315 | 270 | 240 | 220 | 195 | 170 | 138 | 120 |
| Max. torque (N•m) | cont. | 325 | 450 | 530 | 625 | 700 | 810 | 905 | 990 | 1010 | 1085 | 980 | 1015 | 1050 |
| | int. | 380 | 525 | 600 | 710 | 790 | 930 | 1035 | 1140 | 1180 | 1180 | 1240 | 1250 | 1180 |
| | peak | 450 | 590 | 750 | 870 | 980 | 1120 | 1285 | 1360 | 1360 | 1260 | 1380 | 1380 | 1370 |
| Max. output (kW) | cont. | 12.0 | 15.0 | 15.5 | 16.0 | 17.5 | 18.0 | 17.5 | 16.5 | 15.5 | 14.5 | 11.5 | 10.0 | 8.0 |
| | int. | 14.0 | 17.5 | 18.0 | 19.0 | 20.0 | 21.0 | 20.0 | 19.0 | 18.0 | 16.5 | 15.0 | 12.0 | 10.0 |
| Max. pressure drop (MPa) | cont. | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 19 | 17.5 | 14 | 12 | 10.5 |
| | int. | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 22.5 | 19 | 17.5 | 15.5 | 12 |
| | peak | 27.6 | 27.6 | 27.6 | 27.6 | 27.6 | 27.6 | 27.6 | 27.6 | 25 | 20.5 | 20.5 | 17.5 | 14 |
| Max. flow (L/min) | cont. | 45 | 60 | 70 | 70 | 75 | 80 | 80 | 75 | 75 | 75 | 75 | 75 | 75 |
| | int. | 60 | 75 | 85 | 85 | 90 | 95 | 95 | 90 | 90 | 90 | 90 | 90 | 90 |

*Continuous pressure:Max.value of operating motor continuously.

*Intermittent pressure:Max.value of operating motor in 6 seconds per minute .

*Peak pressure:Max.value of operating motor in 0.6 second per minute.

Performance Data

BMER475 [462cm³/rev.]

Pressure (MPa)

Max.cont. Peak

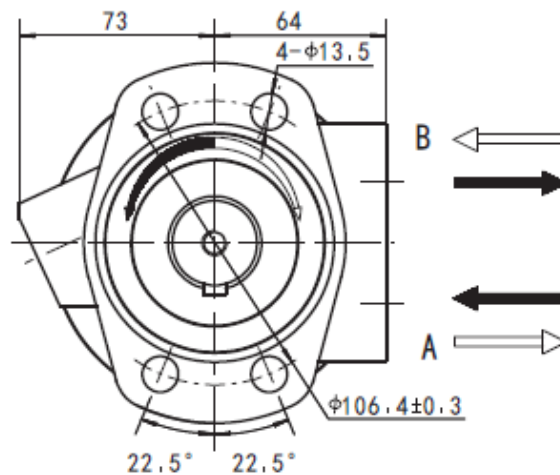
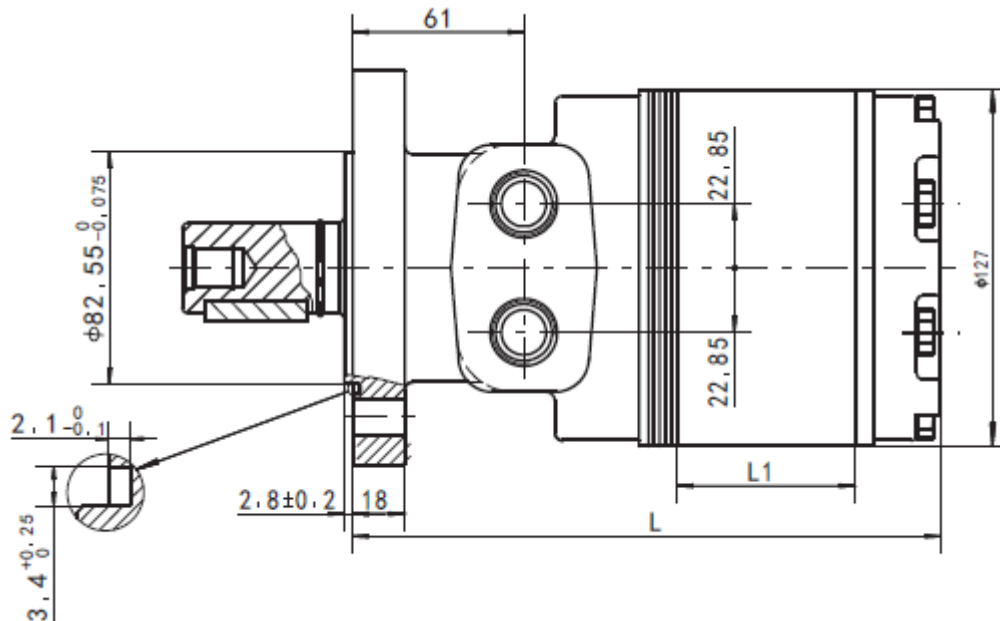
| | 1.75 | 3.5 | 7 | 10.5 | 14 | 17.5 | 20.5 | |
|--------------|-----------|----------|------------|------------|------------|------------|---------------------------|-------------|
| Flow (L/min) | 2 | 93 2 | 186 1 | | | | | |
| | 4 | 98 7 | 202 6 | 405 5 | 608 5 | 805 4 | | |
| | 8 | 98 15 | 206 14 | 430 13 | 652 13 | 844 12 | 1005 10 1180 8 | |
| | 15 | 94 31 | 202 30 | 441 28 | 654 28 | 875 26 | 1056 23 1238 20 | |
| | 25 | 94 52 | 202 51 | 441 48 | 654 45 | 875 43 | 1056 39 1238 35 | |
| | 34 | 75 72 | 180 71 | 420 68 | 660 65 | 850 61 | 1085 55 1266 44 | |
| | 45 | | 144 96 | 380 95 | 627 93 | 835 90 | 1062 84 1261 73 | |
| | 53 | | 116 113 | 346 112 | 573 111 | 795 107 | 1008 102 1212 90 | |
| | 60 | | 82 128 | 318 128 | 539 127 | 790 124 | 975 119 1186 110 | |
| | 68 | | 58 146 | 272 145 | 520 144 | 740 141 | 955 136 1156 125 | |
| | Max.cont. | 75 | | 230 161 | 480 160 | 702 158 | 920 153 | 1116 140 |
| | | 85 | | 200 182 | 454 180 | 662 177 | 876 168 | |
| | Max.int. | 90 | | 150 194 | 378 193 | 615 190 | 840 182 | |

BMER-2 DIMENSIONS AND MOUNTING DATA

Magneto Mount 4-Hole

Code: Port A, B

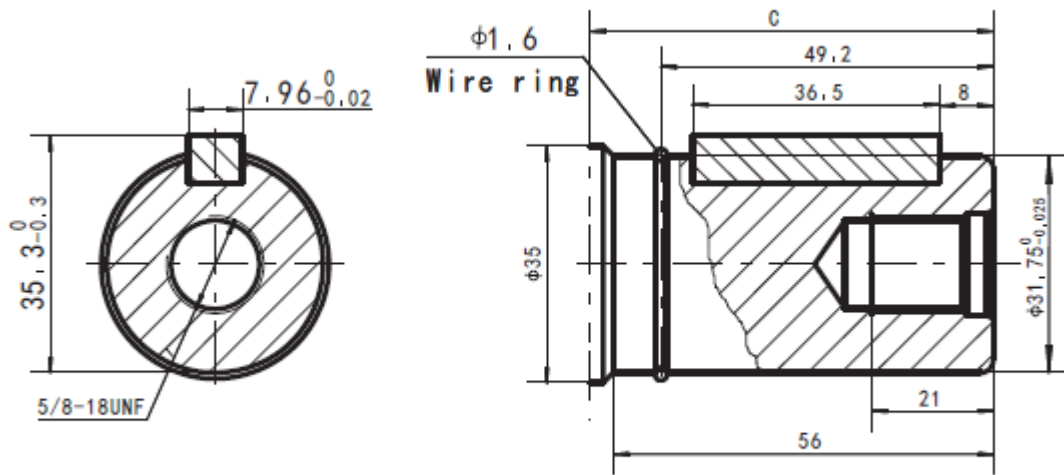
MD G1/2



| | |
|--------------------------------------|------|
| Displacement (cm ³ /rev.) | 475 |
| L1(mm) | 39.4 |
| L(mm) | 186 |
| Weight(kg) | 13 |

BMT SHAFT EXTENSIONS DIMENSIONS DATA

Shaft G2



Shaft G2: Cylindrical shaft $\phi 31.75$
Parallel key 7.96x7x36.5

| From Mounting Flange to Shaft End Dimension C | |
|--|-----------------------|
| Shaft Code | Magneto Mount (mm) |
| G2 | 61 |

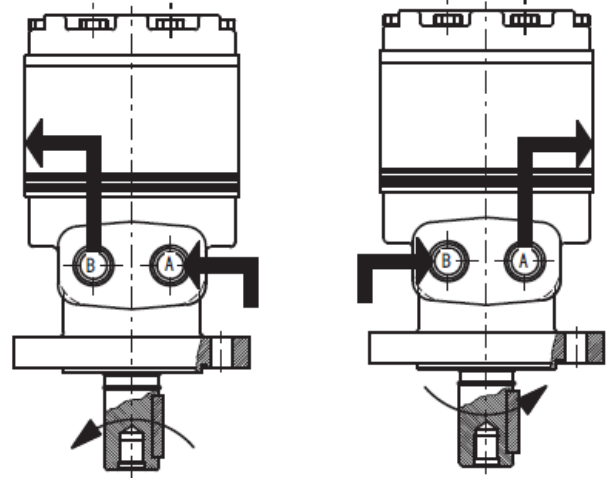
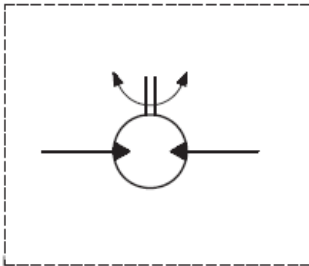
BMER-2 Series Hydraulic Motor

Direction of shaft rotation: Reverse timed

When facing shaft end of motor, shaft to rotate:

Clockwise when port "B" is pressurized.

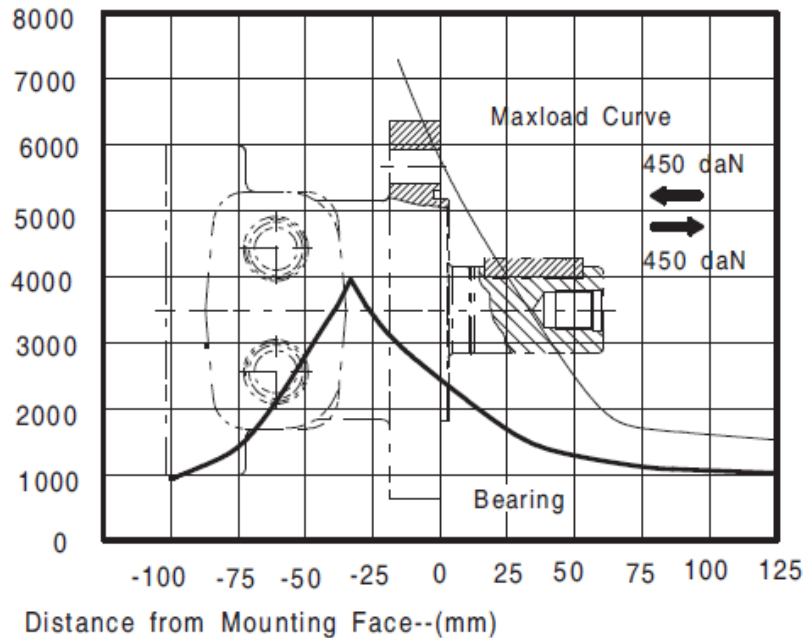
Counter-clockwise when port "A" is pressurized.



Axial and Radial forces

BMER-2 or M#/F# Mounting

Side Load-(daN)



The bearing curve represents allowable bearing loads for an L_{10} bearing life at 12×10^6 revolutions. The maximum load curve is defined by bearing static load capacity. This curve should not be exceeded at any time including shock loads.