



BMER SERIES HYDRAULIC MOTOR

BMER 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

BMER125 [118cm³/rev.]

Pressure (MPa)

| | 1.75 | 3.5 | 7 | 10.5 | 14 | 17.5 | 20.5 | 24 |
|--|------|-----|---|------|----|------|------|----|
|--|------|-----|---|------|----|------|------|----|

| Flow (L/min) | Max.cont. | | | | | | | | Max.int. | | | | | | | |
|--------------|-----------|----|-----|-----|-----|-----|-----|-----|----------|-----|-----|-----|-----|-----|-----|----|
| | 2 | 4 | 8 | 15 | 25 | 34 | 45 | 53 | 2 | 4 | 8 | 15 | 25 | 34 | 45 | 53 |
| 2 | 20 | 50 | 96 | 137 | | | | | 14 | 13 | 11 | 7 | | | | |
| 4 | 24 | 53 | 110 | 166 | 221 | | | | 28 | 26 | 24 | 19 | 13 | | | |
| 8 | | 55 | 113 | 174 | 225 | 266 | 294 | 336 | 60 | 54 | 50 | 45 | 39 | 35 | 26 | |
| 15 | | 53 | 114 | 180 | 234 | 275 | 326 | 348 | 115 | 110 | 100 | 96 | 90 | 84 | 76 | |
| 25 | | 48 | 110 | 164 | 226 | 272 | 323 | 352 | 194 | 185 | 173 | 168 | 160 | 155 | 149 | |
| 34 | | | 108 | 166 | 220 | 278 | 315 | 373 | 276 | 260 | 244 | 232 | 225 | 217 | | |
| 45 | | | 98 | 160 | 215 | 271 | 308 | 369 | 362 | 350 | 342 | 325 | 322 | 303 | | |
| 53 | | | 90 | 152 | 208 | 265 | 304 | | 423 | 418 | 404 | 399 | 371 | | | |
| 60 | | | 82 | 141 | 205 | 260 | 300 | | 488 | 472 | 455 | 442 | 421 | | | |

BMER160 [156cm³/rev.]

Pressure (MPa)

| | 1.75 | 3.5 | 7 | 10.5 | 14 | 17.5 | 20.5 | 24 |
|--|------|-----|---|------|----|------|------|----|
|--|------|-----|---|------|----|------|------|----|

| Flow (L/min) | Max.cont. | | | | | | | | Max.int. | | | | | | | |
|--------------|-----------|----|-----|-----|-----|-----|-----|-----|----------|-----|-----|-----|-----|-----|-----|----|
| | 2 | 4 | 8 | 15 | 25 | 34 | 45 | 53 | 2 | 4 | 8 | 15 | 25 | 34 | 45 | 53 |
| 2 | 35 | 74 | 146 | 218 | 298 | | | | 8 | 4 | 3 | 3 | 2 | | | |
| 4 | 29 | 78 | 157 | 235 | 316 | 370 | 424 | | 22 | 19 | 18 | 16 | 14 | 13 | 8 | |
| 8 | 35 | 78 | 158 | 236 | 312 | 373 | 450 | 526 | 47 | 44 | 42 | 40 | 37 | 34 | 32 | 27 |
| 15 | 37 | 74 | 155 | 234 | 310 | 368 | 440 | 517 | 93 | 90 | 86 | 84 | 82 | 79 | 75 | 69 |
| 25 | | 68 | 152 | 227 | 308 | 364 | 436 | 499 | 155 | 151 | 147 | 142 | 137 | 131 | 124 | |
| 34 | | 68 | 152 | 227 | 308 | 364 | 436 | 499 | 214 | 213 | 210 | 204 | 198 | 191 | 184 | |
| 45 | | 64 | 143 | 218 | 296 | 360 | 425 | 481 | 282 | 280 | 275 | 268 | 263 | 256 | 245 | |
| 53 | | | 135 | 216 | 293 | 357 | 421 | 476 | 330 | 327 | 322 | 315 | 306 | 296 | | |
| 60 | | | 122 | 207 | 284 | 350 | 416 | 467 | 379 | 376 | 368 | 362 | 356 | 345 | | |
| 68 | | | 109 | 196 | 273 | 345 | 396 | | 423 | 419 | 414 | 406 | 394 | | | |
| 75 | | | 104 | 188 | 270 | 337 | 390 | | 472 | 466 | 460 | 450 | 436 | | | |

BMER200 [196cm³/rev.]

Pressure (MPa)

| | 1.75 | 3.5 | 7 | 10.5 | 14 | 17.5 | 20.5 | 24 |
|--|------|-----|---|------|----|------|------|----|
|--|------|-----|---|------|----|------|------|----|

| Flow (L/min) | Max.cont. | | | | | | | | Max.int. | | | | | | | |
|--------------|-----------|----|-----|-----|-----|-----|-----|-----|----------|-----|-----|-----|-----|-----|-----|----|
| | 2 | 4 | 8 | 15 | 25 | 34 | 45 | 53 | 2 | 4 | 8 | 15 | 25 | 34 | 45 | 53 |
| 2 | 39 | 88 | 132 | 286 | 370 | | | | 8 | 4 | 4 | 3 | 2 | | | |
| 4 | 42 | 85 | 188 | 270 | 361 | 427 | 506 | | 16 | 14 | 13 | 11 | 10 | 9 | 6 | |
| 8 | 43 | 90 | 192 | 291 | 367 | 450 | 529 | 600 | 35 | 32 | 29 | 28 | 27 | 25 | 23 | 19 |
| 15 | 38 | 92 | 196 | 298 | 381 | 462 | 530 | 602 | 74 | 71 | 68 | 64 | 60 | 58 | 55 | 50 |
| 25 | | 82 | 188 | 283 | 377 | 456 | 528 | 605 | 124 | 121 | 117 | 113 | 108 | 103 | 92 | |
| 34 | | 79 | 183 | 270 | 362 | 447 | 515 | 591 | 170 | 169 | 167 | 160 | 154 | 146 | 135 | |
| 45 | | | 163 | 259 | 352 | 441 | 510 | 593 | 223 | 218 | 212 | 208 | 199 | 189 | | |
| 53 | | | 149 | 256 | 350 | 440 | 501 | 582 | 260 | 258 | 254 | 248 | 241 | 230 | | |
| 60 | | | 132 | 248 | 336 | 432 | 497 | 575 | 299 | 292 | 284 | 276 | 272 | 263 | | |
| 68 | | | 120 | 230 | 330 | 412 | 486 | 570 | 336 | 332 | 327 | 319 | 310 | 301 | | |
| 75 | | | 108 | 208 | 311 | 403 | 480 | | 375 | 372 | 365 | 358 | 350 | | | |
| 85 | | | 184 | 280 | 380 | 462 | | | 425 | 420 | 411 | 390 | | | | |

BMER230 [228cm³/rev.]

Pressure (MPa)

| | 1.75 | 3.5 | 7 | 10.5 | 14 | 17.5 | 20.5 | 24 |
|--|------|-----|---|------|----|------|------|----|
|--|------|-----|---|------|----|------|------|----|

| Flow (L/min) | Max.cont. | | | | | | | | Max.int. | | | | | | | |
|--------------|-----------|-----|-----|-----|-----|-----|-----|-----|----------|-----|-----|-----|-----|-----|-----|----|
| | 2 | 4 | 8 | 15 | 25 | 34 | 45 | 53 | 2 | 4 | 8 | 15 | 25 | 34 | 45 | 53 |
| 2 | 44 | 90 | 182 | 291 | 374 | | | | 6 | 4 | 3 | 2 | 1 | | | |
| 4 | 48 | 100 | 216 | 310 | 405 | 484 | 549 | | 15 | 13 | 11 | 11 | 9 | 7 | 3 | |
| 8 | 50 | 104 | 212 | 320 | 421 | 518 | 603 | 700 | 31 | 29 | 27 | 25 | 23 | 20 | 16 | 10 |
| 15 | 44 | 106 | 207 | 318 | 426 | 529 | 623 | 712 | 63 | 61 | 58 | 55 | 52 | 47 | 41 | 34 |
| 25 | | 101 | 209 | 324 | 428 | 532 | 620 | 705 | 103 | 100 | 96 | 92 | 87 | 81 | 71 | |
| 34 | | 88 | 205 | 316 | 421 | 522 | 623 | 702 | 145 | 143 | 139 | 133 | 126 | 120 | 109 | |
| 45 | | | 186 | 294 | 422 | 507 | 595 | 688 | 192 | 187 | 182 | 176 | 170 | 160 | | |
| 53 | | | 175 | 290 | 393 | 496 | 584 | 678 | 226 | 221 | 215 | 208 | 203 | 194 | | |
| 60 | | | 152 | 270 | 390 | 485 | 569 | 661 | 256 | 253 | 248 | 242 | 235 | 222 | | |
| 68 | | | 140 | 265 | 351 | 482 | 563 | 642 | 292 | 288 | 283 | 278 | 273 | 256 | | |
| 75 | | | 124 | 235 | 344 | 448 | 552 | | 324 | 321 | 316 | 308 | 300 | | | |
| 85 | | | 207 | 335 | 442 | 546 | | | 366 | 360 | 351 | 338 | | | | |

Torque (N·m) 380
Speed (rpm) 411

cont.
int.

BMER250 [257cm³/rev.]

Pressure (MPa)

| | 1.75 | 3.5 | 7 | 10.5 | 14 | 17.5 | 20.5 | 24 |
|--|------|-----|---|------|----|------|------|----|
|--|------|-----|---|------|----|------|------|----|

| Flow (L/min) | Max.cont. | | Max.int. | | | | | |
|--------------|-----------|-----------|------------|------------|------------|------------|------------|------------|
| | 1.75 | 3.5 | 7 | 10.5 | 14 | 17.5 | 20.5 | 24 |
| 2 | 48 5 | 111 2 | | | | | | |
| 4 | 54 12 | 113 11 | 237 10 | 362 9 | 471 8 | 570 6 | 642 3 | |
| 8 | 54 27 | 115 26 | 244 24 | 366 22 | 482 20 | 587 18 | 688 14 | |
| 15 | 50 57 | 113 56 | 256 54 | 367 51 | 485 48 | 591 45 | 692 43 | 794 37 |
| 25 | 44 95 | 114 93 | 241 90 | 360 86 | 488 82 | 593 77 | 699 72 | 782 63 |
| 34 | | 95 129 | 226 125 | 348 121 | 481 116 | 590 111 | 686 106 | 774 96 |
| 45 | | 77 174 | 215 173 | 346 170 | 468 166 | 572 161 | 674 155 | 779 143 |
| 53 | | 66 203 | 200 202 | 325 200 | 448 196 | 564 190 | 657 184 | 756 175 |
| 60 | | | 180 232 | 296 229 | 438 225 | 550 220 | 642 215 | 741 202 |
| 68 | | | 162 262 | 294 261 | 415 257 | 548 250 | 637 241 | 730 228 |
| 75 | | | 137 290 | 274 289 | 388 285 | 520 280 | 618 273 | 726 260 |
| 85 | | | 130 328 | 261 326 | 370 322 | 509 316 | 604 307 | |
| 90 | | | 85 348 | 224 347 | 358 344 | 490 336 | | |

BMER300 [296cm³/rev.]

Pressure (MPa)

| | 1.75 | 3.5 | 7 | 10.5 | 14 | 17.5 | 20.5 | 24 |
|--|------|-----|---|------|----|------|------|----|
|--|------|-----|---|------|----|------|------|----|

| Flow (L/min) | Max.cont. | | Max.int. | | | | | |
|--------------|-----------|-----------|------------|------------|------------|------------|------------|------------|
| | 1.75 | 3.5 | 7 | 10.5 | 14 | 17.5 | 20.5 | 24 |
| 2 | 50 3 | 93 1 | | | | | | |
| 4 | 62 11 | 141 10 | 294 9 | 429 8 | 502 7 | 618 4 | | |
| 8 | 63 22 | 147 21 | 298 20 | 432 19 | 565 16 | 667 13 | 761 9 | 819 5 |
| 15 | 66 48 | 144 47 | 305 45 | 427 43 | 568 39 | 671 33 | 810 28 | 894 20 |
| 25 | 59 82 | 138 81 | 289 80 | 420 76 | 552 71 | 676 64 | 791 56 | 932 44 |
| 34 | | 48 113 | 130 112 | 297 110 | 393 107 | 562 102 | 689 96 | 805 86 |
| 45 | | | 96 150 | 268 149 | 385 148 | 527 143 | 636 135 | 753 124 |
| 53 | | | 76 177 | 242 176 | 383 175 | 524 173 | 631 165 | 758 152 |
| 60 | | | 64 200 | 225 199 | 362 198 | 506 193 | 627 186 | 753 174 |
| 68 | | | 200 225 | 333 224 | 470 222 | 630 212 | 750 201 | 882 194 |
| 75 | | | | 178 251 | 322 250 | 464 247 | 610 240 | 741 232 |
| 85 | | | | 140 285 | 316 284 | 455 278 | 570 270 | 728 257 |
| 95 | | | | 106 316 | 260 314 | 431 311 | 552 307 | 700 292 |

BMER350 [345cm³/rev.]

Pressure (MPa)

| | 1.75 | 3.5 | 7 | 10.5 | 14 | 17.5 | 20.5 | 24 |
|--|------|-----|---|------|----|------|------|----|
|--|------|-----|---|------|----|------|------|----|

| Flow (L/min) | Max.cont. | | Max.int. | | | | | |
|--------------|-----------|------------|------------|------------|------------|------------|------------|-------------|
| | 1.75 | 3.5 | 7 | 10.5 | 14 | 17.5 | 20.5 | 24 |
| 2 | 63 4 | 133 4 | | | | | | |
| 4 | 64 10 | 135 9 | 290 8 | 440 7 | | | | |
| 8 | 68 21 | 146 20 | 310 20 | 458 19 | 589 18 | 735 16 | 847 12 | |
| 15 | 72 42 | 150 41 | 314 40 | 468 39 | 627 37 | 769 35 | 880 32 | 984 26 |
| 25 | 63 70 | 148 69 | 313 68 | 470 66 | 628 63 | 765 60 | 892 55 | 1018 46 |
| 34 | 52 97 | 133 96 | 304 95 | 455 93 | 619 89 | 760 85 | 905 78 | 1034 68 |
| 45 | | 100 129 | 261 128 | 442 127 | 583 125 | 736 118 | 887 112 | 1028 101 |
| 53 | | 85 152 | 247 150 | 418 148 | 566 145 | 715 139 | 880 132 | 1024 118 |
| 60 | | 65 171 | 233 170 | 410 169 | 550 167 | 712 162 | 842 155 | 996 143 |
| 68 | | | 218 195 | 387 194 | 543 190 | 696 185 | 825 175 | 976 162 |
| 75 | | | 206 215 | 373 214 | 515 212 | 680 206 | 822 197 | 966 183 |
| 85 | | | 176 243 | 355 242 | 510 239 | 679 234 | 808 227 | |
| 95 | | | | 353 272 | 509 269 | 645 265 | | |

BMER375 [371cm³/rev.]

Pressure (MPa)

| | 1.75 | 3.5 | 7 | 10.5 | 14 | 17.5 | 20.5 | 24 |
|--|------|-----|---|------|----|------|------|----|
|--|------|-----|---|------|----|------|------|----|

| Flow (L/min) | Max.cont. | | Max.int. | | | | | |
|--------------|-----------|------------|------------|------------|------------|------------|------------|-------------|
| | 1.75 | 3.5 | 7 | 10.5 | 14 | 17.5 | 20.5 | 24 |
| 2 | 75 3 | | | | | | | |
| 4 | 83 8 | 160 8 | 330 7 | 488 6 | 636 5 | 761 3 | | |
| 8 | 81 18 | 170 17 | 356 17 | 527 16 | 679 14 | 822 12 | 948 9 | 1060 5 |
| 15 | 76 39 | 162 38 | 356 37 | 533 35 | 683 32 | 845 29 | 978 25 | 1102 18 |
| 25 | 68 65 | 156 64 | 350 62 | 524 59 | 680 55 | 857 48 | 994 44 | 1138 35 |
| 34 | 58 90 | 148 89 | 339 87 | 506 83 | 690 77 | 841 71 | 993 63 | 1145 53 |
| 45 | | 121 120 | 302 119 | 478 117 | 650 113 | 813 108 | 972 100 | 1134 90 |
| 53 | | 95 141 | 282 140 | 466 138 | 628 134 | 785 128 | 934 120 | 1103 105 |
| 60 | | 75 161 | 264 161 | 428 160 | 592 158 | 766 155 | 925 151 | 1070 141 |
| 68 | | | 232 182 | 422 180 | 585 176 | 756 169 | 901 161 | 1066 148 |
| 75 | | | 207 201 | 380 200 | 556 197 | 738 190 | 865 181 | 1012 165 |
| 85 | | | | 175 228 | 370 226 | 526 221 | 700 216 | 832 206 |
| 90 | | | | 148 242 | 316 240 | 500 237 | 654 226 | |

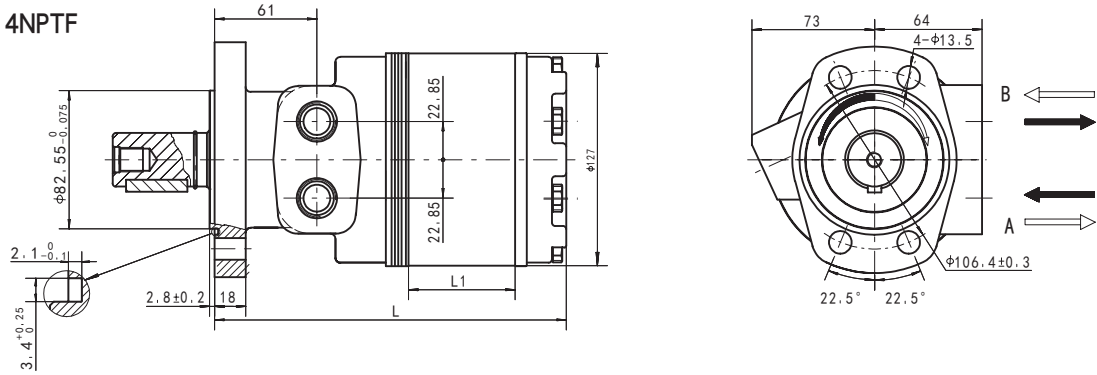
Torque (N·m) 645
Speed (rpm) 265

cont.
int.

BMER-2 DIMENSIONS MOUNTING DATA

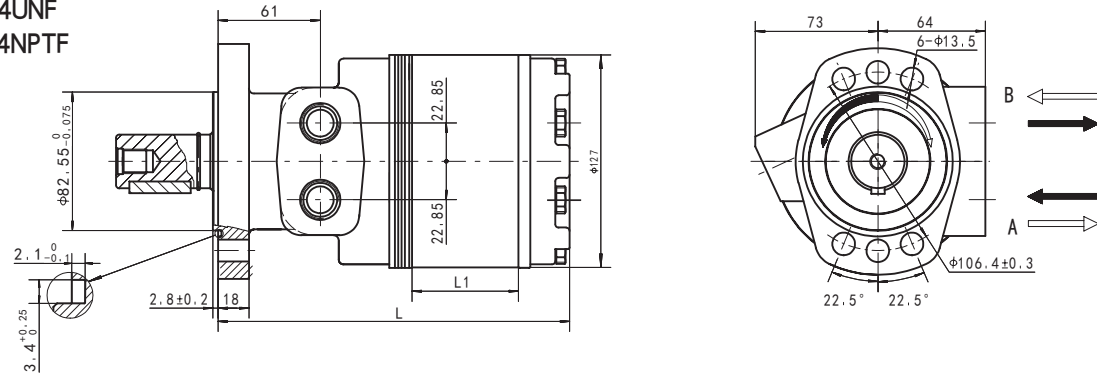
Magneto Mount 4-Hole

Code: Port A、B
MS 7/8-14UNF
MP 1/2-14NPTF
MD G1/2



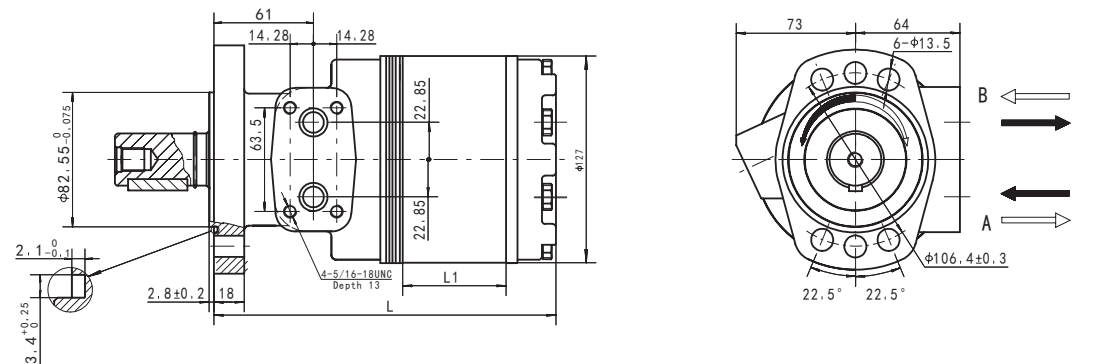
Magneto Mount 6-Hole

Code: Port A、B
FS 7/8-14UNF
FP 1/2-14NPTF
FD G1/2



Magneto Mount 6-Hole

Code: Manifold Port A、B
FH $\phi 12.7$

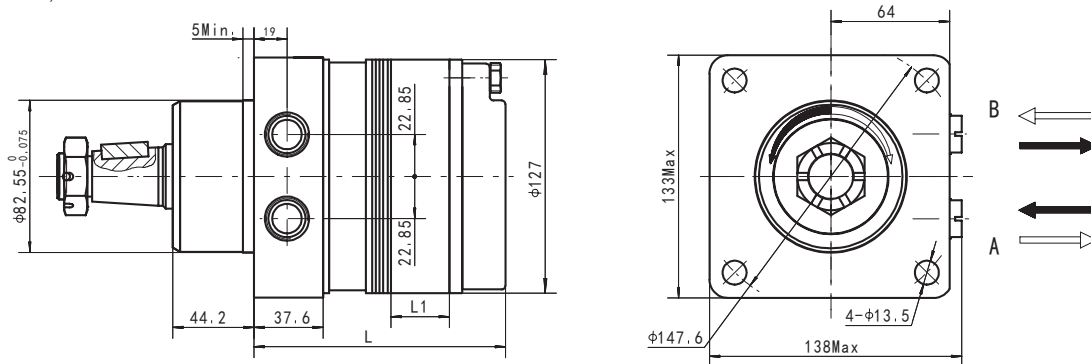


| Displacement (cm ³ /rev.) | 125 | 160 | 200 | 230 | 250 | 300 | 350 | 375 | 400 | 475 | 540 | 650 | 750 |
|--------------------------------------|------|------|-------|------|-------|------|------|-------|------|------|------|------|------|
| L1(mm) | 10.2 | 13.5 | 17 | 19.5 | 22 | 25.4 | 29.5 | 31.8 | 35.5 | 39.4 | 47.3 | 57 | 63.5 |
| L(mm) | 157 | 160 | 163.5 | 166 | 168.5 | 172 | 176 | 178.5 | 182 | 186 | 194 | 204 | 210 |
| Weight(kg) | 10.6 | 10.9 | 11.2 | 11.3 | 11.4 | 11.6 | 12 | 12.5 | 12.7 | 13 | 13.5 | 14.5 | 15 |

BMER-2 DIMENSIONS MOUNTING DATA

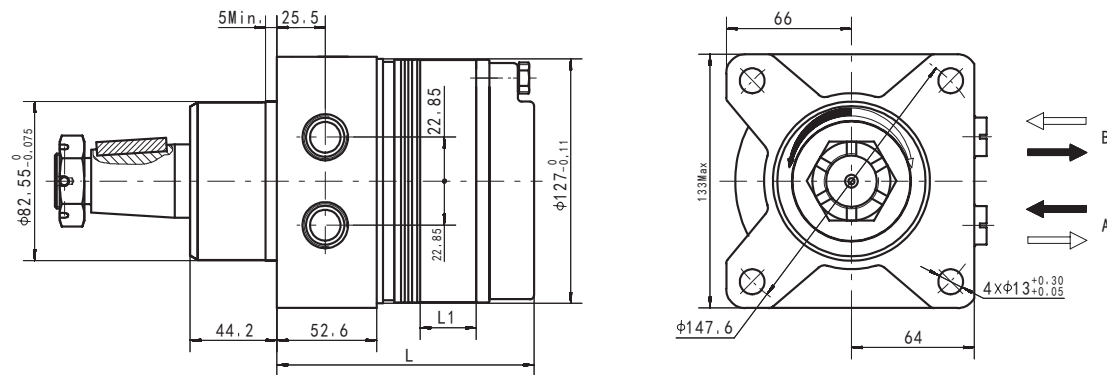
Wheel Mount

Code: Port A、B
WS 7/8-14UNF
WP 1/2-14NPTF
WD G1/2



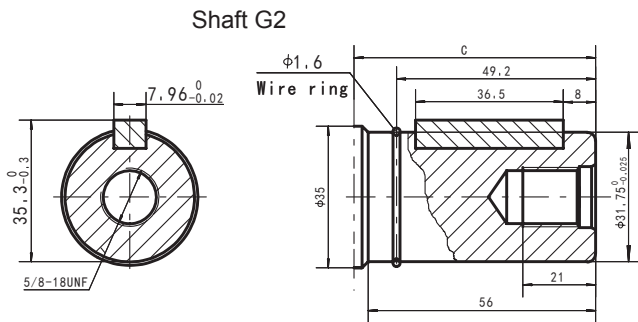
Wheel Mount

Code: Port A、B
TS 7/8-14UNF
TP 1/2-14NPTF
TD G1/2

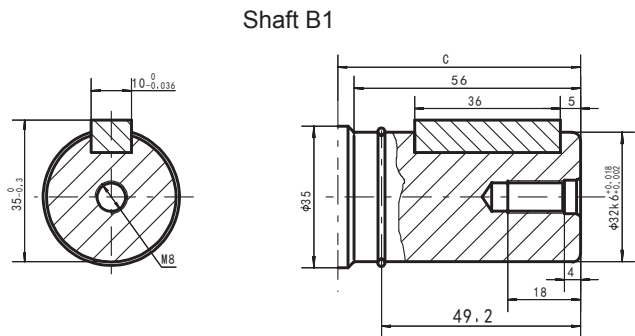


| | | | | | | | | | | | | | |
|--------------------------------------|------|------|-------|------|-------|-------|------|-------|------|------|------|------|------|
| Displacement (cm ³ /rev.) | 125 | 160 | 200 | 230 | 250 | 300 | 350 | 375 | 400 | 475 | 540 | 650 | 750 |
| L1(mm) | 10.2 | 13.5 | 17 | 19.5 | 22 | 25.4 | 29.5 | 31.8 | 35.5 | 39.4 | 47.3 | 57 | 63.5 |
| L(mm) | 119 | 122 | 125.5 | 128 | 130.5 | 134.5 | 138 | 140.5 | 144 | 148 | 156 | 166 | 173 |
| Weight(kg) | 12 | 12.1 | 12.3 | 12.4 | 12.6 | 13 | 13.2 | 13.5 | 13.7 | 14 | 14.6 | 15.5 | 16 |

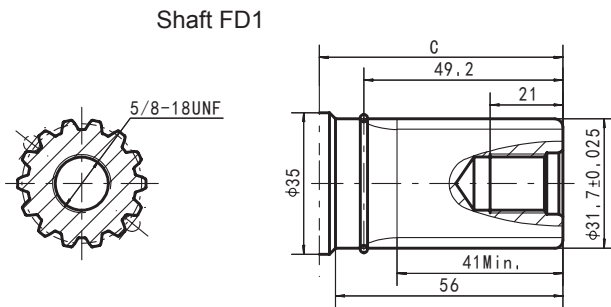
BMER-2 SHAFT EXTENSIONS DIMENSIONS DATA



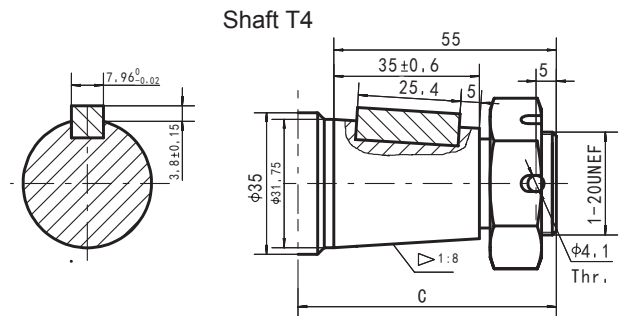
Shaft G2: Cylindrical shaft $\varnothing 31.75$
Parallel key 7.96x7x36.5



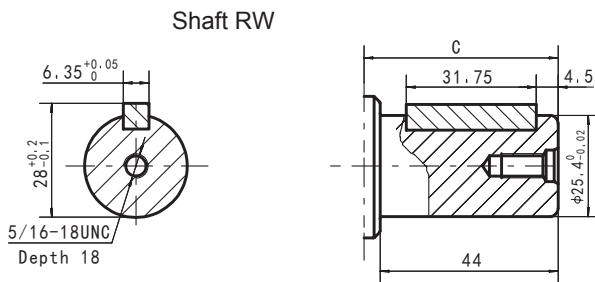
Shaft B1: Cylindrical shaft $\varnothing 32$
Parallel key 10x8x36



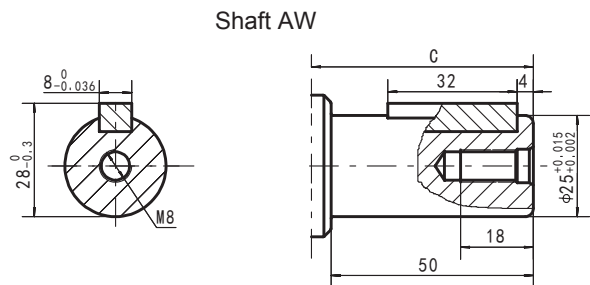
Shaft FD1: Splined 14-DP12/24
Flat root side fit
to fit ANSI B92.1 1996



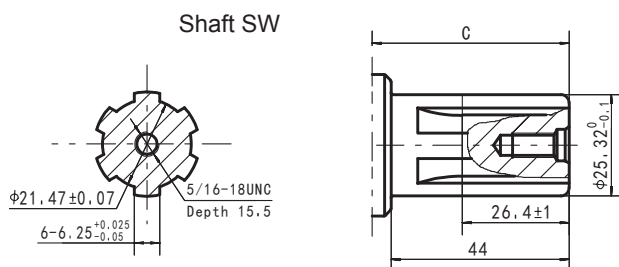
Shaft T4: Cone-shaft $\varnothing 31.75$
Parallel key 7.96x7.96x25.4
Tightening torque:200±10Nm



Shaft RW: Cylindrical shaft $\varnothing 25.4$
Parallel key 6.35x6.35x31.75



Shaft AW: Cylindrical shaft $\varnothing 25$
Parallel key 8x7x32



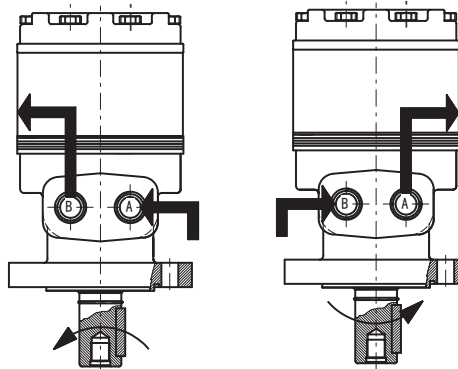
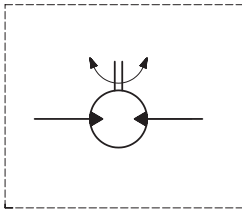
Shaft SW: Splined SAE 6B

| From Mounting Flange to Shaft End | | |
|-----------------------------------|--------------------|------------------|
| Dimension C | | |
| Shaft Code | Magneto Mount (mm) | Wheel Mount (mm) |
| G2 | 61 | 103 |
| B1 | 61 | 103 |
| FD1 | 61 | 103 |
| T4 | 65 | 107 |
| RW | 50 | 91 |
| AW | 56 | 97 |
| SW | 50 | 91 |

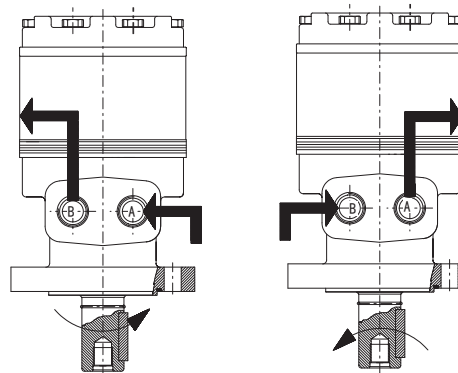
BMER-2 can be configured $\varnothing 38.1$ shaft seal. Shaft type T31 and M1 and G32. Please consult the sales manager.

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.



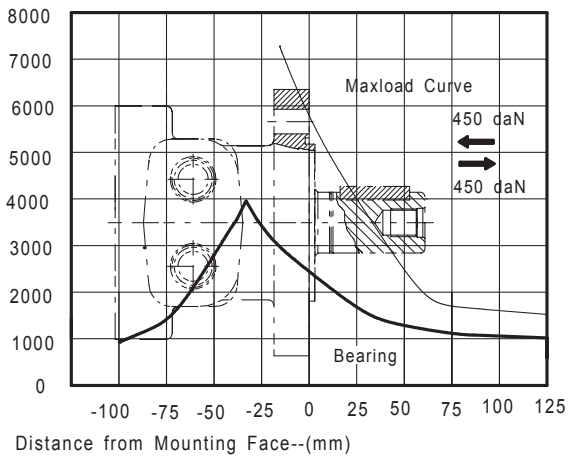
Direction of shaft rotation: Standard
When facing shaft end of motor, shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise when port "B" is pressurized.



Axial and Radial forces

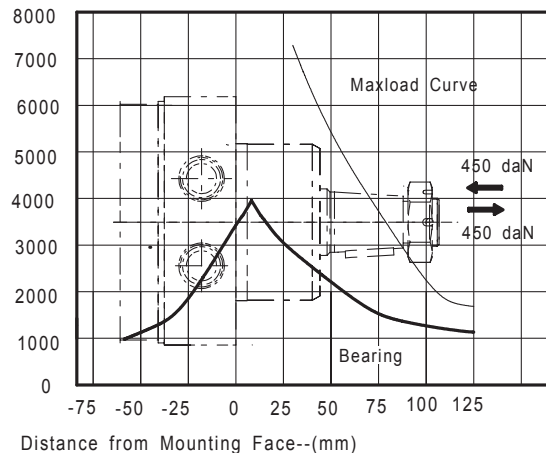
BMER-2 or M#/F# Mounting

Side Load-(daN)



BMER-2 for W# 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.

Order Information



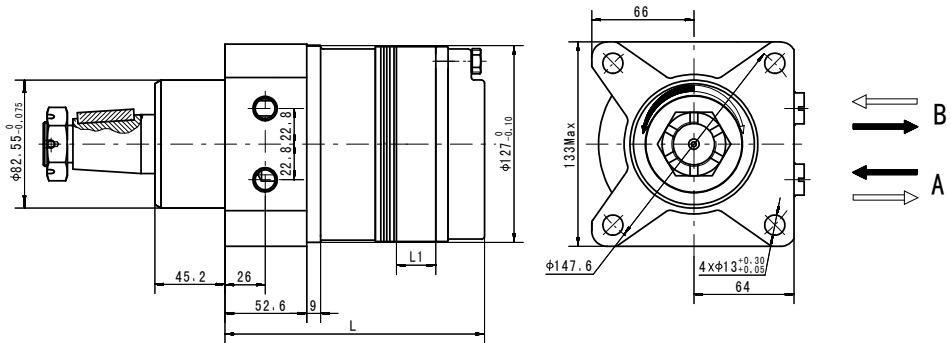
| Pos.1 | 2 | 3 | 4 | 5 | 6 | 7 | |
|-------|-------|---|--|--------------------|-------|----------------------|--------------------------------------|
| Code | Disp. | Flange , Pilot , Ports | Output Shaft | Rotation direction | Paint | Unusually function | |
| 2 | MS | 4-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports 7/8-14 O-ring | G2 Shaft Ø31.75 , parallel key 7.96x7x36.5 B1 ShaftØ32, Parallel key 10×8×36 FD1 Shaft Ø31.75, splined key 14-DP 12/24 T4 Cone-Shaft Ø31.75, Parallel key 7.96×7.96×25.4 RW Shaft Ø25.4 , parallel key 6.35×6.35×31.75 AW Shaft Ø25 , parallel key 8×7×32 SW Shaft Ø25.4 ,splined key SAE 6B M1 ShaftØ35, Parallel key 10×8×45 T31 Cone-Shaft Ø38.1, Parallel key 7.96×7×36.5 G32 Shaft Ø38.1 , parallel key 9.525×9.525×42 | None | R | 00 None B S | None Standard Reverse Timed |
| | 125 | 4-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports 7/8-14 O-ring | | | | | |
| | 160 | 4-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports 1/2-14NPTF | | | | | |
| | 200 | 4-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports G1/2 | | | | | |
| | 230 | 6-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports 7/8-14 O-ring | | | | | |
| | 250 | 6-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports 1/2-14NPTF | | | | | |
| | 300 | 6-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports 1/2-14NPTF | | | | | |
| | 350 | 6-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports G1/2 | | | | | |
| | 375 | 6-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports G1/2 | | | | | |
| | 400 | 6-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Manifolds Ports 1/2 | | | | | |
| | 475 | 4-Ø13.5 Wheel Mount, Pilot Ø82.55×5, Ports 7/8-14 O-ring | | | | | |
| | 540 | 4-Ø13.5 Wheel Mount, Pilot Ø82.55×5, Ports 1/2-14NPTF | | | | | |
| | 650 | 4-Ø13.5 Wheel Mount, Pilot Ø82.55×5, Ports G1/2 | | | | | |
| | 750 | 4-Ø13.5 Wheel Mount, Pilot Ø82.55×5, Ports 7/8-14 O-ring | | | | | |
| | | 4-Ø13.5 Wheel Mount, Pilot Ø82.55×5, Ports 1/2-14NPTF | | | | | |
| | | 4-Ø13.5 Wheel Mount, Pilot Ø82.55×5, Ports G1/2 | | | | | |

Note: When the table is used, please fill the code of left rows in dash area and give us, which the code information is consists of construction, displacement, mounting flange, output shaft and ports. If the specification is not in the table or you have specific requirements, please contact us.

BMER-2 Motor: The dimensions 44.2 is replaced by 45.7 with shaft M1、T31、G32 of Ø38.1 shaft seal in flange w# and T#.

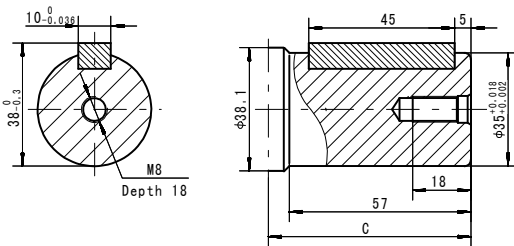
BMER-3 SHAFT EXTENSIONS DIMENSIONS DATA

Wheel Mount
Code : Port A、B
WS 7/8-14UNF
WP 1/2-14NPTF
WD G1/2



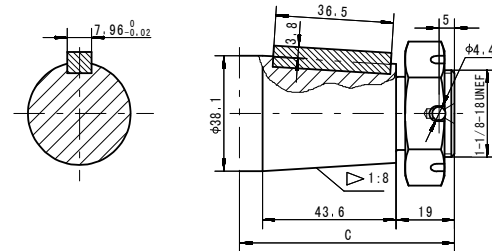
| Displacement (cm ³ /rev.) | 125 | 160 | 200 | 230 | 250 | 300 | 350 | 375 | 400 | 475 | 540 | 650 | 750 |
|--------------------------------------|------|------|-------|------|-------|------|------|-------|------|------|------|-------|------|
| L1(mm) | 10.2 | 13.5 | 17 | 19.5 | 22 | 25.4 | 29.5 | 31.8 | 35.5 | 39.4 | 47.3 | 57 | 63.5 |
| L(mm) | 153 | 156 | 159.5 | 162 | 164.5 | 168 | 172 | 174.5 | 178 | 182 | 190 | 199.5 | 206 |
| Weight(kg) | 13.2 | 13.5 | 13.8 | 14 | 14.2 | 14.5 | 14.9 | 15.2 | 15.5 | 15.7 | 16.5 | 17.3 | 17.8 |

Shaft M31



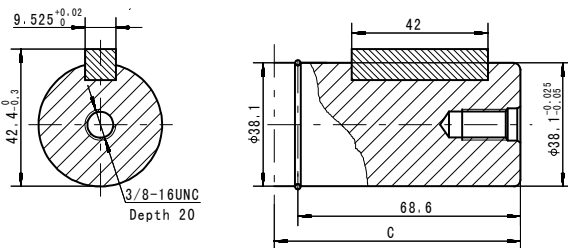
Shaft M31:Cylindrical shaft $\phi 35$
Parallel key 10x8x45

Shaft T31



Shaft T31:Cone-shaft $\phi 38.1$
Parallel key 7.96x7x36.5
Tightening torque:410~510Nm

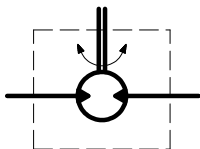
Shaft G31



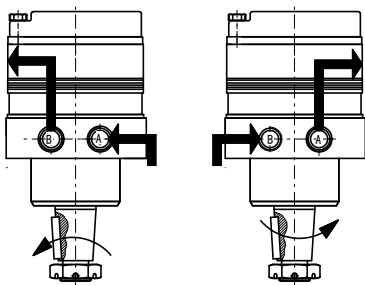
Shaft G31:Cylindrical shaft $\phi 38.1$
Parallel key 9.525x9.525x42

| From Mounting Flange to Shaft End Dimension C | | |
|--|--------------------|------------------|
| Shaft Code | Magneto Mount (mm) | Wheel Mount (mm) |
| M31 | — | 105 |
| T31 | — | 117 |
| G31 | — | 119 |

BMER-3 Series Hydraulic Motors

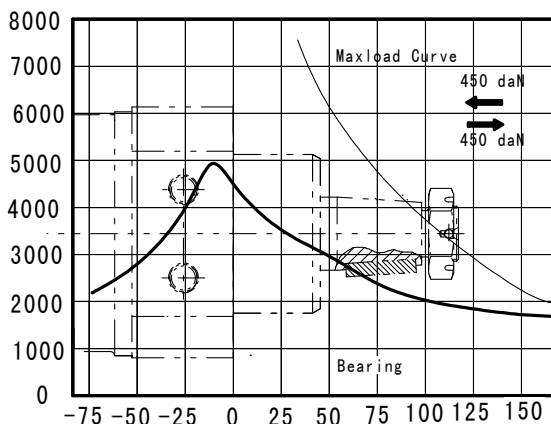


Direction of shaft rotation: Reverse timed
When facing shaft end of motor, shaft to rotate:
Clockwise when port " B " is pressurized.
Counter-clockwise when port " A " is pressurized.



BMER-3 for W# 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.

Order Information

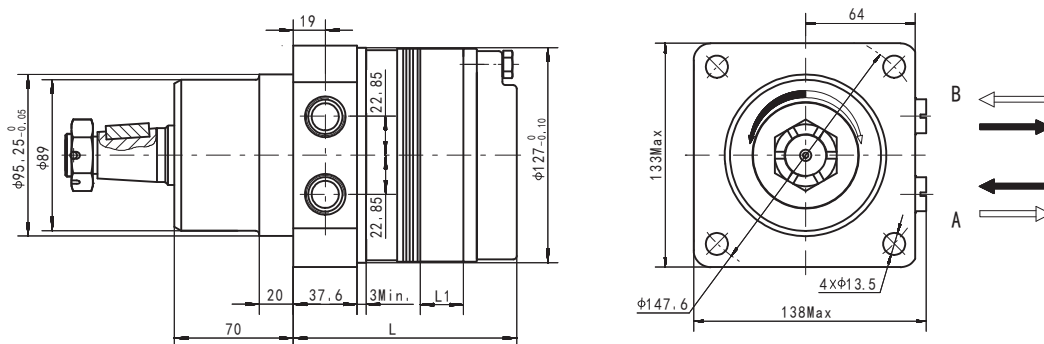
1 2 3 4 5 6 7
 F

| Pos.1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-------|-------|---|---|--|--|--------------------|
| Code | Disp. | Mount Flange, Pilot, Port | Output Shaft | Rotation direction | Paint | Unusually function |
| 3 | 125 | WS 4- ϕ 13.5 Wheel Mount, Pilot ϕ 82.55, Ports 7/8-14 O-ring WP 4- ϕ 13.5 Wheel Mount, Pilot ϕ 82.55, Ports 1/2-14NPTF WD 4- ϕ 13.5 Wheel Mount, Pilot ϕ 82.55, Ports G1/2 | Shaft ϕ 35, Parallel key 10 \times 8 \times 45 Cone-Shaft ϕ 38.1, Parallel key 7.96 \times 7 \times 36.5 Shaft ϕ 38.1, parallel key 9.525 \times 9.525 \times 42 | None Standard Reverse timed | No paint Blue Black Silver Grey | None Standard |
| | 160 | | | | | |
| | 200 | | | | | |
| | 230 | | | | | |
| 250 | M31 | Shaft ϕ 35, Parallel key 10 \times 8 \times 45 Cone-Shaft ϕ 38.1, Parallel key 7.96 \times 7 \times 36.5 Shaft ϕ 38.1, parallel key 9.525 \times 9.525 \times 42 | None Standard Reverse timed | No paint Blue Black Silver Grey | None Standard | |
| 300 | | | | | | |
| 350 | | | | | | |
| 375 | T31 | Shaft ϕ 35, Parallel key 10 \times 8 \times 45 Cone-Shaft ϕ 38.1, Parallel key 7.96 \times 7 \times 36.5 Shaft ϕ 38.1, parallel key 9.525 \times 9.525 \times 42 | None Standard Reverse timed | No paint Blue Black Silver Grey | None Standard | |
| 400 | | | | | | |
| 475 | G31 | Shaft ϕ 35, Parallel key 10 \times 8 \times 45 Cone-Shaft ϕ 38.1, Parallel key 7.96 \times 7 \times 36.5 Shaft ϕ 38.1, parallel key 9.525 \times 9.525 \times 42 | None Standard Reverse timed | No paint Blue Black Silver Grey | None Standard | |
| 540 | | | | | | |
| 650 | | | | | | |
| 750 | | | | | | |

Note: When the table is used, please fill the code of left rows in dash area and give us, which the code information is consists of construction, displacement, mounting flange, output shaft and ports. If the specification is not in the table or you have specific requirements, please contact us.

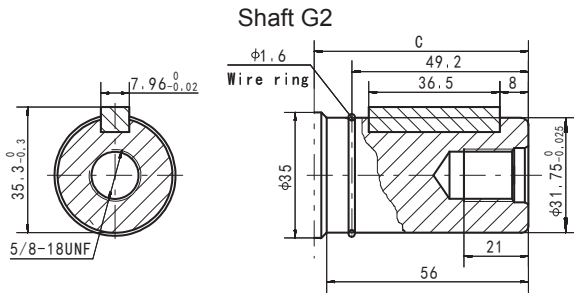
BMER-4 DIMENSIONS MOUNTING DATA

Wheel Mount
Code : Port A、B
WS 7/8-14UNF
WP 1/2-14NPTF
WD G1/2

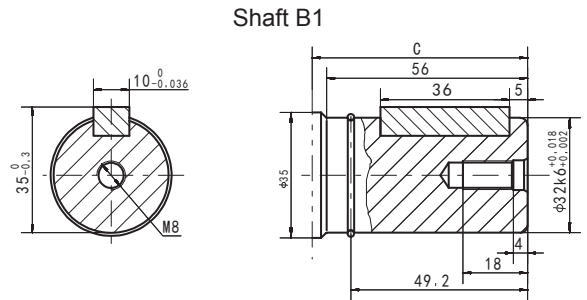


| | | | | | | | | | | | | | |
|--------------------------------------|------|------|-------|------|-------|-------|------|-------|-------|------|------|-------|------|
| Displacement (cm ³ /rev.) | 125 | 160 | 200 | 230 | 250 | 300 | 350 | 375 | 400 | 475 | 540 | 650 | 750 |
| L1(mm) | 10.2 | 13.5 | 17 | 19.5 | 22 | 25.4 | 29.5 | 31.8 | 35.5 | 39.4 | 47.3 | 57 | 63.5 |
| L(mm) | 119 | 122 | 125.5 | 128 | 130.5 | 134.5 | 138 | 140.5 | 144.5 | 148 | 156 | 165.5 | 172 |
| Weight(kg) | 12.8 | 13.1 | 13.4 | 13.6 | 13.8 | 14.1 | 14.5 | 14.8 | 15.2 | 15.6 | 16.1 | 16.9 | 17.4 |

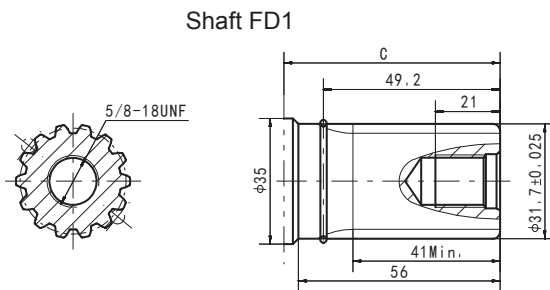
Shaft Extensions For BMER-4 Motors



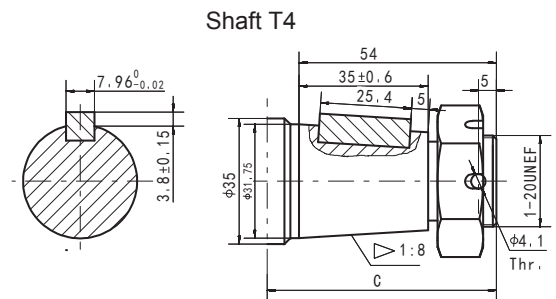
Shaft G2:Cylindrical shaft $\varnothing 31.75$
Parallel key 7x96x7x36x5



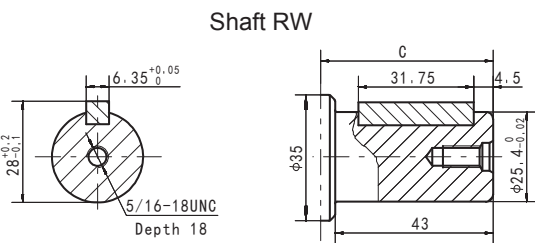
Shaft B1:Cylindrical shaft $\varnothing 32$
Parallel key 10x8x36



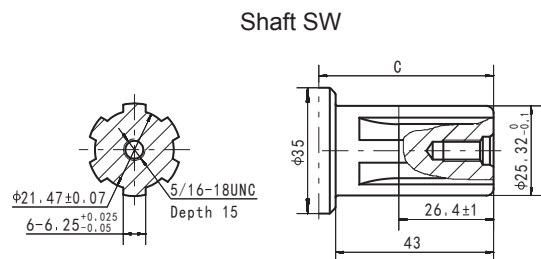
Shaft FD1:Splined 14-DP12/24
Flat root side fit
to fit ANSI B92.1 1996



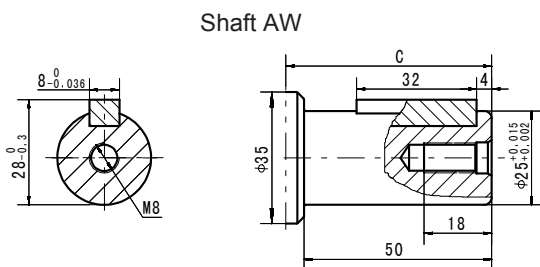
Shaft T4:Cone-shaft $\varnothing 31.75$
Parallel key 7.96x7.96x25.4
Tightening torque:200±10Nm



Shaft RW:Cylindrical shaft $\varnothing 25.4$
Parallel key 6.35x6.35x31.75



Shaft SW:Splined SAE B6

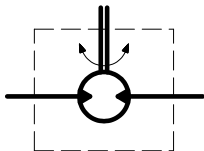


Shaft AW:Cylindrical shaft $\varnothing 25$
Parallel key 8x7x32

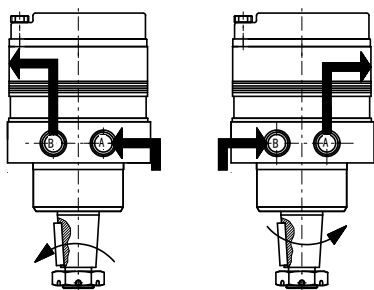
| From Mounting Flange to Shaft End | |
|-----------------------------------|------------------|
| Dimension C | |
| Shaft Code | Wheel Mount (mm) |
| G2 | 131 |
| B1 | 130 |
| FD1 | 131 |
| T4 | 135 |
| RW | 119 |
| SW | 119 |
| AW | 125 |

BMER-4 can be configured Shaft type of $\varnothing 38.1$ shaft seal. Please consult the sales manager.

BMER-4 Series Hydraulic Motors

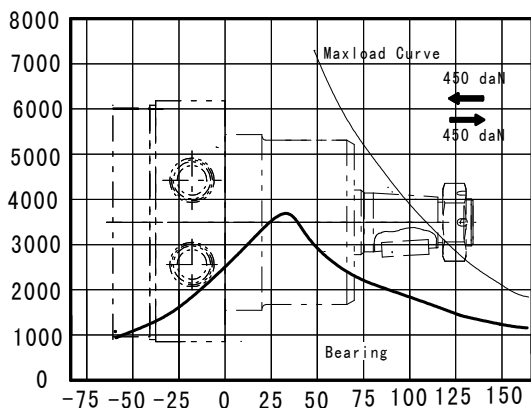


Direction of shaft rotation: Reverse timed
When facing shaft end of motor, shaft to rotate:
Clockwise when port " B " is pressurized.
Counter-clockwise when port " A " is pressurized.



BMER-4 for W# 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.

Order Information

1 2 3 4 5 6 7

F

| Pos.1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-------|-------|---|--|-----------------------------|--|--------------------|
| Code | Disp. | Mount Flange, Pilot, Port | Output Shaft | Rotation direction | Paint | Unusually function |
| 4 | 125 | WS 4- ϕ 13.5 Wheel Mount, Pilot ϕ 82.55x5, Ports 7/8-14 O-ring WP 4- ϕ 13.5 Wheel Mount, Pilot ϕ 82.55x5, Ports 1/2-14NPTF WD 4- ϕ 13.5 Wheel Mount, Pilot ϕ 82.55x5, Ports G1/2 | G2 Shaft ϕ 31.75 , parillel key 7.96x7x36.5 B1 Shaft ϕ 32, Parallel key 10x8x36 FD1 Shaft ϕ 31.75, splined key 14-DP12/24 T4 Cone-Shaft ϕ 31.75, Parallel key 7.96x7.96x25.4 RW Shaft ϕ 25.4 , parillel key 6.35x6.35x31.75 SW Shaft ϕ 25.4 ,splined key SAE 6B AW Shaft ϕ 25 , parillel key 8x7x32 | None Standard Reverse timed | 00 No paint None Blue B Black S Sliver Grey | None Standard |
| | 160 | | | | | |
| | 200 | | | | | |
| | 230 | | | | | |
| | 250 | | | | | |
| | 300 | | | | | |
| | 350 | | | | | |
| 375 | | | | | | |
| 400 | | | | | | |
| 475 | | | | | | |
| 540 | | | | | | |
| 650 | | | | | | |
| 750 | | | | | | |

Note: When the table is used, please fill the code of left rows in dash area and give us, which the code information is consists of construction, displacement, mounting flange, output shaft and ports. If the specification is not in the table or you have specific requirements, please contact us.

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