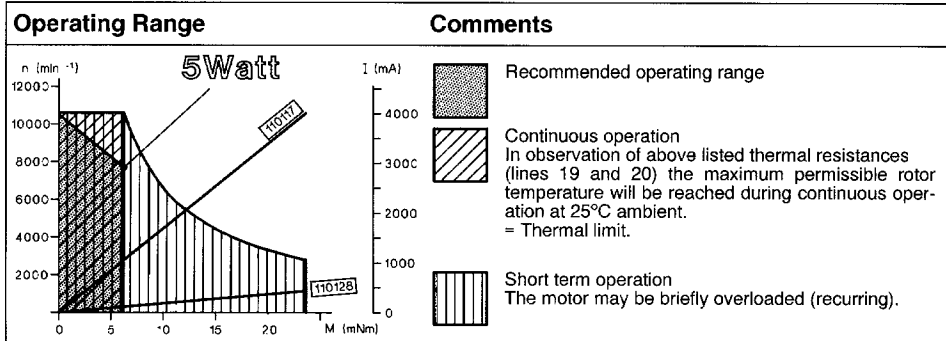


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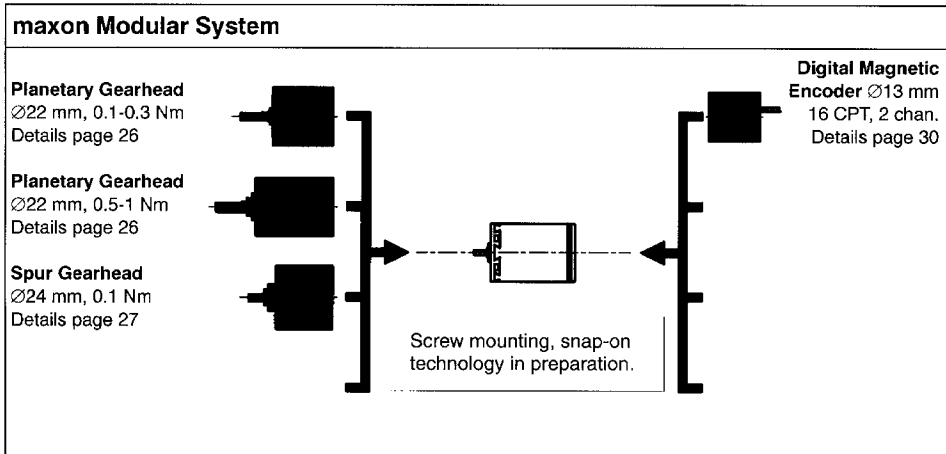
Motor Type:
maxon A-max Ø22 mm . . .

Order Number
Motor Data

| ... Metal brushes CLL, 5 W, sleeve bearings, 1 shaft | | 110117 | 110119 | 110120 | 110121 | 110122 | 110123 | 110124 | 110125 | 110126 | 110127 | 110128 | 110129 |
|--|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 Assigned power rating | W | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| 2 Nominal voltage | Volt | 6.00 | 9.00 | 9.00 | 12.00 | 12.00 | 15.00 | 18.00 | 24.00 | 30.00 | 36.00 | 48.00 | 48.00 |
| 3 No load speed | rpm | 9630 | 9970 | 8760 | 10400 | 9400 | 10300 | 9970 | 10700 | 10800 | 9800 | 9280 | 8370 |
| 4 Stall torque | mNm | 20.70 | 23.20 | 20.70 | 24.60 | 21.60 | 23.60 | 22.60 | 24.20 | 24.20 | 21.50 | 19.50 | 17.90 |
| 5 Speed/torque gradient | rpm/mNm | 469 | 433 | 426 | 428 | 438 | 438 | 444 | 445 | 451 | 460 | 480 | 472 |
| 6 No load current | mA | 29.60 | 20.90 | 16.90 | 16.90 | 14.20 | 13.10 | 10.40 | 8.83 | 7.20 | 5.07 | 3.48 | 2.94 |
| 7 Starting current | mA | 3510 | 2710 | 2130 | 2250 | 1790 | 1700 | 1320 | 1140 | 921 | 617 | 399 | 330 |
| 8 Terminal resistance | Ohm | 1.71 | 3.32 | 4.22 | 5.33 | 6.71 | 8.82 | 13.60 | 21.00 | 32.60 | 58.40 | 120.00 | 145.00 |
| 9 Max. permissible speed | rpm | 10600 | 10600 | 10600 | 10600 | 10600 | 10600 | 10600 | 10600 | 10600 | 10600 | 10600 | 10600 |
| 10 Max. continuous current | mA | 840 | 751 | 666 | 593 | 528 | 461 | 371 | 298 | 240 | 179 | 125 | 113 |
| 11 Max. continuous torque | mNm | 4.96 | 6.43 | 6.48 | 6.47 | 6.39 | 6.39 | 6.34 | 6.33 | 6.29 | 6.23 | 6.10 | 6.15 |
| 12 Max. power output at nominal voltage | mW | 5210 | 6030 | 4740 | 6680 | 5310 | 6320 | 5890 | 6780 | 6840 | 5490 | 4730 | 3910 |
| 13 Max. efficiency | % | 83.00 | 83.60 | 83.40 | 83.90 | 83.40 | 83.60 | 83.50 | 83.60 | 83.60 | 83.10 | 82.70 | 82.50 |
| 14 Torque constant | mNm/A | 5.90 | 8.55 | 9.73 | 10.90 | 12.10 | 13.90 | 17.10 | 21.20 | 26.30 | 34.80 | 49.00 | 54.30 |
| 15 Speed constant | rpm/V | 1620 | 1120 | 981 | 875 | 790 | 689 | 558 | 450 | 364 | 274 | 195 | 176 |
| 16 Mechanical time constant | ms | 19.00 | 18.60 | 18.50 | 18.50 | 18.50 | 18.50 | 18.50 | 18.50 | 18.50 | 18.50 | 18.60 | 18.50 |
| 17 Rotor inertia | gcm ² | 3.88 | 4.10 | 4.16 | 4.13 | 4.04 | 4.03 | 3.97 | 3.96 | 3.91 | 3.84 | 3.70 | 3.75 |
| 18 Terminal inductance | mH | 0.11 | 0.22 | 0.29 | 0.36 | 0.45 | 0.59 | 0.89 | 1.37 | 2.10 | 3.69 | 7.30 | 8.98 |
| 19 Thermal resistance housing-ambient | K/W | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 20 Thermal resistance rotor-housing | K/W | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 |



- Stock program**
Standard program
Special program (on request)
- Axial play 0.07 - 0.15 mm
 - Max. sleeve bearing loads
 - axial (dynamic) 1.0 N
 - radial (5 mm from flange) 2.8 N
 - Press-fit force (static) 80 N
 - Max. ball bearing loads
 - axial (dynamic) 3.3 N
 - radial (5 mm from flange) 12.3 N
 - Press-fit force (static) 45 N
 - Radial play sleeve bearings 0.012 mm
 - Radial play ball bearings 0.025 mm
 - Ambient temperature range -30/+85°C
 - Max. rotor temperature +85°C
 - Number of commutator segments 9
 - Weight of motor 54 g
 - Values listed in the table are nominal. For applicable tolerances and additional details please request our computer printout.
 - CLL = Capacitor Long Life



● Options: ball bearings in place of sleeve bearings and pigtailed instead of terminals, without CLL.