

DC Gear Motor · 1221N5M-12G- · 1231N5M-12G- · \varnothing 12 mm

Specifications Please consult your authorized sales representative for custom specifications.

| Type | | | 1221N5M-12G- | | 1231N5M-12G- | | |
|--------------------------------|-----------------------|------------------|--------------|--------------|--------------|------------|-------------|
| | | | 115-6.0-001 | 115-12.0-001 | 84-6.0-001 | 63-9.0-001 | 63-12.0-001 |
| Rated voltage | U | V | 6 | 12 | 6 | 9 | 12 |
| Terminal resistance | R | Ohm | 6.5 | 27 | 5 | 17 | 32 |
| No load speed | n_0 | rpm | 11500 | 11500 | 8400 | 6300 | 6300 |
| No load current | I_0 | mA | 30 | 8 | 12 | 8 | 6 |
| Stall torque | T_s | mNm | 4.3 | 4.3 | 8 | 7 | 6.6 |
| Rated torque | T | mNm | 1 | 1 | 2 | 2 | 1.7 |
| Rated speed | n | rpm | 8500 | 8500 | 6200 | 4400 | 4600 |
| Rated current | I | mA | 240 | 110 | 310 | 160 | 100 |
| Power | P_{max} | W | 1.38 | 1.33 | 1.8 | 1.2 | 1.1 |
| Max. efficiency | η | % | 67 | 75 | 81 | 77 | 76 |
| Back-EMF constant | K_E | mV/rpm | 0.51 | 1 | 0.71 | 1.41 | 1.88 |
| Torque constant | K_T | mNm/A | 4.83 | 9.8 | 6.76 | 13.44 | 17.91 |
| Rotor inertia | J_{Rotor} | gcm ² | 0.1 | 0.1 | 0.6 | 0.6 | 0.6 |
| Speed regulation constant | $\Delta n / \Delta T$ | rpm/mNm | 2700 | 2700 | 1050 | 900 | 950 |
| Length | L_1 | mm | 21 | 21 | 30.8 | 30.8 | 30.8 |
| Operational conditions* | | | | | | | |
| Temperature range | T | °C | -20 ~ +65 | | | -20 ~ +65 | |

*at 25° C

| Gearbox - type PGM12- | ratio | 4 | 16 | 64 | 256 | 1024 |
|-----------------------------------|------------------|------------|------|------|------|------|
| Output torque, continuous, max. | M_{2max} [mNm] | 80 | 120 | 160 | 180 | 200 |
| Output torque, intermittent, max. | M_{2max} [mNm] | 240 | 360 | 480 | 540 | 600 |
| Direction of rotation | | = | = | = | = | = |
| Efficiency | η [%] | 85 | 75 | 65 | 55 | 45 |
| Length L_2 | mm | 12.7 | 16.0 | 19.3 | 22.6 | 25.9 |
| Radial load [5 mm from flange] | N | ≤ 0.5 | | | | |
| Axial load | N | ≤ 0.5 | | | | |

Dimension (mm) · 1221N5M-12G and 1231N5M-12G:

