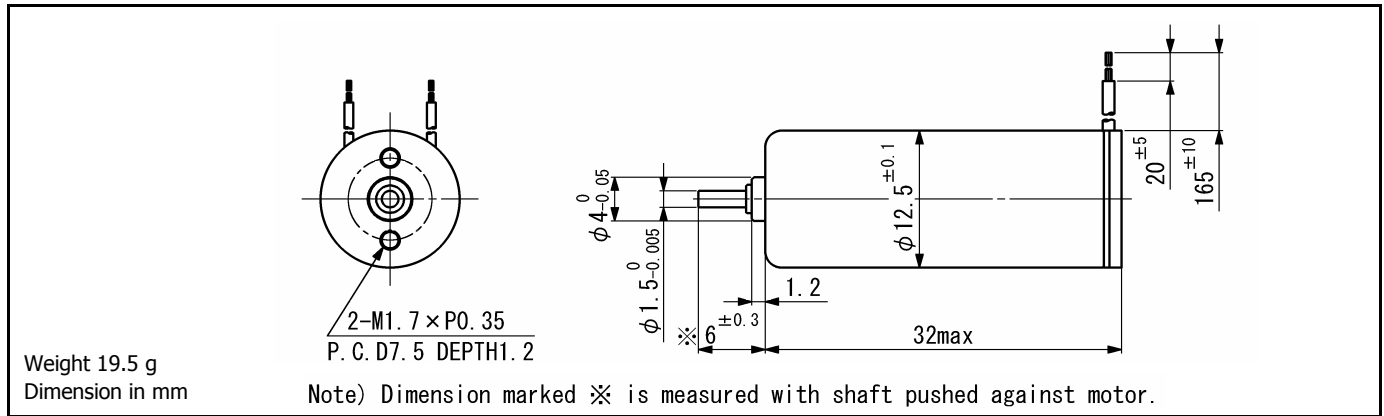


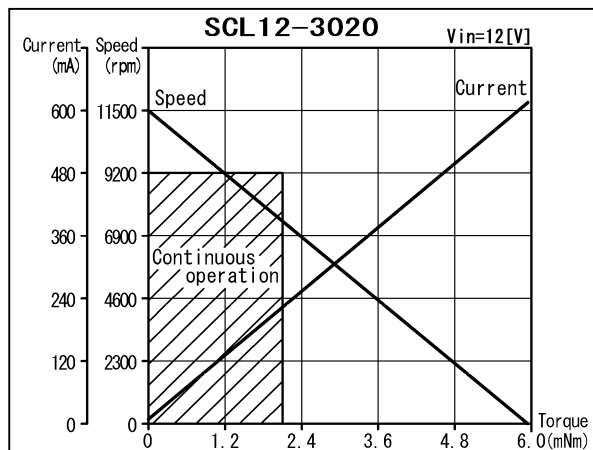
SCL12-30

Precious metal commutation



For combination with gearheads: **SSG12, SPG12**

| Ordering number | SCL12 | | | | | |
|-----------------------------|-------|-------|-------|-------|-------|-----------------------|
| | -3002 | -3005 | -3003 | -3010 | -3020 | -3043 |
| 1 Nominal voltage | 4.5 | 6 | 6 | 9 | 12 | 15 V |
| 2 Terminal resistance | 2.5 | 4.6 | 2.9 | 9.6 | 20 | 43 Ω |
| 3 Output power | 2.0 | 1.9 | 3.0 | 2.1 | 1.8 | 1.3 W |
| 4 Efficiency | 80 | 80 | 81 | 80 | 77 | 72 % |
| 5 No-load speed | 11640 | 11640 | 13750 | 12420 | 11500 | 12840 rpm |
| 6 No-load current | 20 | 15 | 21 | 11 | 9 | 8 mA |
| 7 Stall torque | 6.5 | 6.3 | 8.4 | 6.4 | 6.0 | 3.7 mNm |
| 8 Friction torque | 0.073 | 0.073 | 0.088 | 0.073 | 0.088 | 0.087 mNm |
| 9 Back-EMF constant | 0.38 | 0.51 | 0.43 | 0.72 | 1.0 | 1.1 mV/rpm |
| 10 Torque constant | 3.6 | 4.9 | 4.1 | 6.8 | 9.8 | 10.9 mNm/A |
| 11 Slope of N-T curve | 1800 | 1860 | 1650 | 1950 | 1930 | 3460 rpm/mNm |
| 12 Coil inductance | 0.053 | 0.095 | 0.063 | 0.19 | 0.38 | 0.79 mH |
| 13 Mechanical time constant | 9 | 9 | 8 | 9 | 7 | 8 ms |
| 14 Rotor inertia | 0.47 | 0.45 | 0.47 | 0.43 | 0.33 | 0.21 gcm ² |
| Continuous operation | | | | | | |
| 15 Max. torque | 2.2 | 2.1 | 2.3 | 2.1 | 2.1 | 1.5 mNm |



General specifications

| | | |
|----------------------------------|------------------------------|-----|
| 16 Operating temperature | -20...+60 | °C |
| 17 Max. coil temperature | +80 | °C |
| 18 Thermal resistances | $R_{th1} = 10, R_{th2} = 37$ | K/W |
| 19 Bearings type | Sintered sleeves | |
| 20 Max. shaft radial load | 1.2 (5 mm) | N |
| 21 Max. shaft axial load | 0.2 | N |
| 22 Max. axial load at standstill | 9.8 | N |
| 23 Shaft radial play | 0.05 | mm |
| 24 Shaft axial play | 0.03...0.2 | mm |

Options: Lead wires length, terminals instead of lead wires, shaft length, special coils, commutator with capacitors.

V01