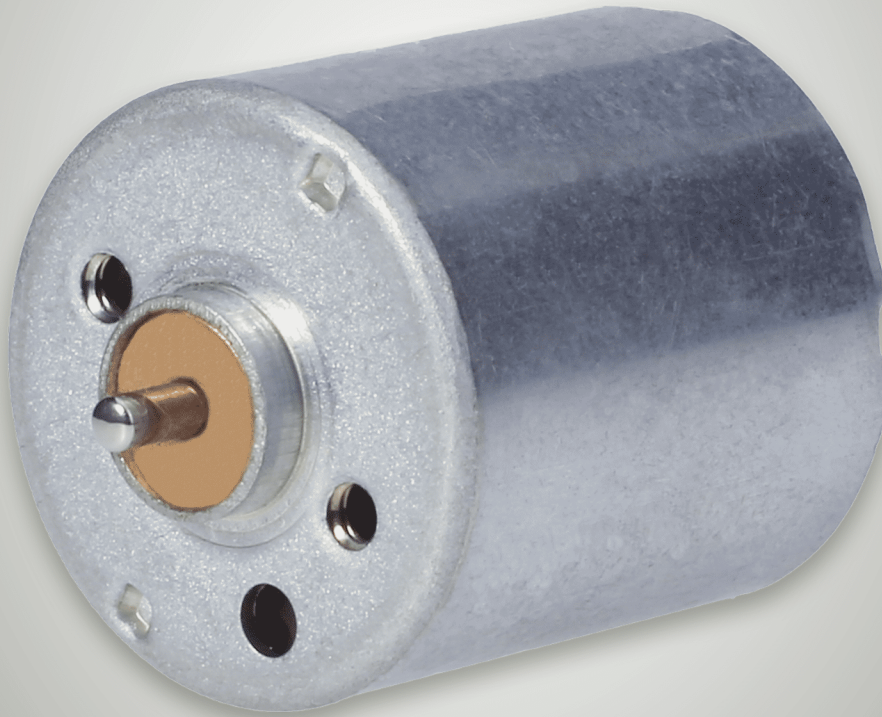




# Brushed DC Motors – Coreless Motors

# Brushed DC Motors – Coreless Motors

| Inhaltsverzeichnis   | Seite |
|----------------------|-------|
| 1025N5M              | 9     |
| 1025N5M02-130-6.0    | 10    |
| 1025N5M05-150-12.0   | 12    |
| 1025N5M03-92-3.0     | 14    |
| 1221N5M2B            | 16    |
| 1221N5M2B26-79-3.3   | 17    |
| 1221N5M2B27-120-6.0  | 19    |
| 1221N5M2B43-141-12.0 | 21    |
| 0615N5M              | 23    |
| 0615N5M01-122-3.0    | 24    |
| 0615N5M02-185-3.0    | 26    |
| 0615N5M03-295-6.0    | 28    |
| 1230N5M              | 30    |
| 1230N5M06-44-5.3     | 31    |
| 1230N5M15-113-12.0   | 33    |
| 0816N5M              | 35    |
| 0816N5M02-137-4.2    | 36    |
| 0816N5M11-148-6.0    | 38    |
| 0816N5M01-155-8.0    | 40    |
| 1230N7M              | 42    |
| 1230N7M04-160-6.0    | 43    |
| 1230N7M05-145-12.0   | 44    |
| 1331N5M              | 45    |
| 1331N5M02-39-4.5     | 46    |
| 1331N5M01-67-9.0     | 48    |
| 1331N5M09-87-12.0    | 50    |
| 1020N5M              | 52    |
| 1020N5M52-115-3.0    | 53    |
| 1020N5M14-125-6.0    | 55    |
| 1020N5M16-280-7.4    | 57    |
| 1331N7M              | 59    |
| 1331N7M02-110-6.0    | 60    |

|                    |     |
|--------------------|-----|
| 1331N7M03-148-12.0 | 62  |
| 1331N7M01-96-24.0  | 64  |
| 1625N5C            | 66  |
| 1625N5C01-150-12.0 | 67  |
| 1627N5M1           | 69  |
| 1627N5M07-101-4.5  | 70  |
| 1627N5M20-113-6.0  | 72  |
| 1627N5M14-118-12.0 | 74  |
| 1515N5M            | 76  |
| 1515N5M02-255-7.4  | 77  |
| 1515N5M10-240-12.0 | 79  |
| 1515N5M07-220-18.0 | 81  |
| 1620N5M            | 83  |
| 1620N5M32-48-3.0   | 84  |
| 1620N5M01-75-5.0   | 86  |
| 1620N5M30-160-6.0  | 88  |
| 1630N5M            | 90  |
| 1630N5M22-116-5.0  | 91  |
| 1630N5M29-78-7.4   | 93  |
| 1630N5M36-87-12.0  | 95  |
| 1630N5C            | 97  |
| 1630N5C06-195-6.0  | 98  |
| 1630N5C05-115-12.0 | 100 |
| 1630N5C08-93-24.0  | 102 |
| 1625N5M            | 104 |
| 1625N5M24-60-3.7   | 105 |
| 1625N5M25-88-6.0   | 107 |
| 1625N5M17-81-12.0  | 109 |
| 1635N5C            | 111 |
| 1635N5C04-115-6.0  | 112 |
| 1635N5C08-150-12.0 | 113 |
| 1635N5C10-150-24.0 | 114 |
| 1625N9M            | 115 |
| 1625N9M01-115-3.0  | 116 |
| 1625N9M02-96-6.0   | 118 |
| 1625N9M03-115-12.0 | 120 |
| 1735N5C2B          | 122 |

|                      |     |
|----------------------|-----|
| 1735N5C2B01-128-12.0 | 123 |
| 1735N5C2B02-90-24.0  | 125 |
| 1925N9M              | 127 |
| 1925N9M01-69-6.0     | 128 |
| 1925N9M02-80-12.0    | 130 |
| 1925N9M03-85-24.0    | 132 |
| 2225N5M              | 134 |
| 2225N5M01-161-7.2    | 135 |
| 2225N5M02-118-12.0   | 137 |
| 2232N5M2B            | 138 |
| 2232N5M2B03-81-6.0   | 139 |
| 2232N5M2B08-95-9.0   | 141 |
| 2232N5M2B04-100-12.0 | 143 |
| 2224N5M              | 145 |
| 2224N5M11-105-6.0    | 146 |
| 2224N5M09-158-12.0   | 148 |
| 2224N5M12-112-12.0   | 150 |
| 2232N9M              | 152 |
| 2232N9M03-68-6.0     | 153 |
| 2232N9Mxx-60-12.0    | 155 |
| 2232N9M01-110-24.0   | 157 |
| 3257N9C2B            | 159 |
| 3257N9C2B01-54-12.0  | 160 |
| 3257N9C2B02-64-24.0  | 162 |
| 3257N9C2B08-74-24.0  | 164 |
| 2233N5C              | 166 |
| 2233N5C18-180-12.0   | 167 |
| 2433N5M2B            | 168 |
| 2433N5M2B01-78-4.5   | 169 |
| 2543N9C2B            | 171 |
| 2543N9C2B03-65-24.0  | 172 |
| 2543N9C2B06-110-24.0 | 174 |
| 2543N9C2B05-65-48.0  | 176 |
| 2554N9C2B            | 178 |
| 2554N9C2B03-51-12.0  | 179 |
| 2554N9C2B04-82-24.0  | 181 |
| 2554N9C2B02-93-24.0  | 183 |



|                       |     |
|-----------------------|-----|
| 3068N9C2B             | 185 |
| 3068N9C2B01-85-24.0   | 186 |
| 3068N9C2B02-85-36.0   | 188 |
| 3068N9C2B04-87-48.0   | 190 |
| L0408N3M              | 192 |
| L0408N3M08-750-3.4    | 194 |
| L0408N3M32-580-3.4    | 195 |
| L0408N3M12-785-5.0    | 196 |
| L0408N3M70-650-3.4    | 197 |
| L0410N3M              | 198 |
| L0410N3M30-320-3.0    | 200 |
| L0410N3M30-820-3.0    | 201 |
| L0410N3M05-750-5.0    | 202 |
| L0412N3M              | 203 |
| L0412N3M71-680-3.4    | 205 |
| L0412N3M65-650-3.4    | 206 |
| L0412N3M60-600-3.4    | 207 |
| L0412N3M75-430-3.4    | 208 |
| L0816N7M              | 209 |
| L0816N7M55-40-3.0     | 211 |
| L0816N7M54-45-3.0     | 212 |
| L0816N7M006065-60-3.0 | 213 |
| L0820N5M              | 214 |
| L0820N5M10-380-3.2    | 216 |
| L0820N5M16-420-3.0    | 217 |
| L0820N5M37-460-3.4    | 218 |
| L8.520N5M             | 219 |
| L8.520N5M08-375-3.0   | 221 |
| L8.520N5M14-435-3.4   | 222 |
| L8.520N5M59-367-3.0   | 223 |
| L8.520N7M             | 224 |
| L8.520N7M11-240-3.0   | 226 |
| L8.520N7M01-300-7.0   | 227 |
| L8.520N7M02-200-5.0   | 228 |
| L8.523N5M             | 229 |
| L8.523N5M12-344-3.7   | 231 |
| L8.523N5M14-367-3.0   | 232 |

|                     |     |
|---------------------|-----|
| L8.523N5M31-460-3.0 | 233 |
| L1013N5M            | 234 |
| L1013N5M06-347-5.0  | 236 |
| L1013N5M07-295-5.5  | 237 |
| L1013N5M11-100-3.0  | 238 |
| L0510N3M            | 239 |
| L0510N3M01-500-3.5  | 240 |
| L0510N3M01-550-4.2  | 241 |
| L0510N3M10-900-5.0  | 242 |
| L1015N5M            | 243 |
| L1015N5M22-212-6.0  | 245 |
| L1015N5M93-213-3.7  | 246 |
| L1015N5M95-267-5.0  | 247 |
| L0609N3M            | 248 |
| L0609N3M58-340-3.0  | 250 |
| L0609N3M09-490-3.0  | 251 |
| L0609N3M10-435-3.0  | 252 |
| L1020N5M            | 253 |
| L1020N5M50-453-3.8  | 255 |
| L1020N5M66-336-7.4  | 256 |
| L1020N5M69-291-5.0  | 257 |
| L0610N5M            | 258 |
| L0610N5M11-585-5.0  | 260 |
| L0610N5M22-665-3.4  | 261 |
| L0610N5M05-550-3.2  | 262 |
| L1212N5M            | 263 |
| L1212N5M05-320-6.0  | 265 |
| L1212N5M01-335-6.0  | 266 |
| L1212N5M04-375-6.0  | 267 |
| L0612N3M            | 268 |
| L0612N3M08-550-4.5  | 270 |
| L0612N3M90-160-3.0  | 271 |
| L0612N3M63-250-4.5  | 272 |
| L1213N5M            | 273 |
| L1213N5M01-185-7.4  | 275 |
| L1213N5M02-300-6.0  | 276 |
| L1213N5M05-400-7.4  | 277 |

|                     |     |
|---------------------|-----|
| L0612N5M            | 278 |
| L0612N5M55-764-3.7  | 280 |
| L0612N5M20-500-3.2  | 281 |
| L0612N5M78-730-3.7  | 282 |
| L1215N5M            | 283 |
| L1215N5M43-230-6.0  | 285 |
| L1215N5M48-330-8.0  | 286 |
| L1215N5M34-280-6.0  | 287 |
| L1515N5M            | 288 |
| L1515N5M12-325-7.4  | 290 |
| L1515N5M13-250-12.0 | 291 |
| L1515N5M02-260-7.4  | 292 |
| L0614N5M            | 293 |
| L0614N5M44-125-3.0  | 295 |
| L0614N5M28-420-3.4  | 296 |
| L0614N5M67-500-3.2  | 297 |
| L0615N5M            | 298 |
| L0615N5M29-430-3.4  | 300 |
| L0615N5M35-387-2.5  | 301 |
| L0615N5M49-360-2.5  | 302 |
| L0710N5M            | 303 |
| L0710N5M61-780-8.0  | 305 |
| L0710N5M51-325-3.0  | 306 |
| L0710N5M08-618-5.0  | 307 |
| L0714N5M            | 308 |
| L0714N5M15-400-6.0  | 310 |
| L0714N5M18-304-7.4  | 311 |
| L0714N5M50-270-5.0  | 312 |
| L0716N5M            | 313 |
| L0716N5M64-250-3.4  | 315 |
| L0716N5M31-430-3.4  | 316 |
| L0716N5M94-430-3.2  | 317 |
| L0720N5M            | 318 |
| L0720N5M55-448-3.2  | 320 |
| L0720N5M33-423-3.0  | 321 |
| L0720N5M42-448-3.0  | 322 |
| L0816N5M            | 323 |

|                     |     |
|---------------------|-----|
| L0816N5M13-430-6.0  | 325 |
| L0816N5M06-243-3.4  | 326 |
| L0816N5M35-262-5.5  | 327 |
| L1620N5M            | 328 |
| L1620N5M33-85-5.0   | 330 |
| L1620N5M20-95-5.0   | 331 |
| L1620N5M29-80-5.0   | 332 |
| L1625N5M            | 333 |
| L1625N5M25-88-6.0   | 335 |
| L1625N5M35-60-5.0   | 336 |
| L1625N5M54-170-12.0 | 337 |
| L1630N5M            | 338 |
| L1630N5M11-76-5.0   | 340 |
| L1630N5M35-25-3.0   | 341 |
| L1630N5M22-120-6.0  | 342 |
| L1718N5M            | 343 |
| L1718N5M06-180-6.0  | 345 |
| L1718N5M67-185-6.5  | 346 |
| L1718N5M46-245-7.4  | 347 |
| L1718N5M57-260-7.4  | 348 |
| L1722N5M            | 349 |
| L1722N5M16-200-7.4  | 351 |
| L1722N5M08-218-7.4  | 352 |
| L1722N5M11-270-12.0 | 353 |

# 1025N5M

10mm micro DC coreless motor



<https://www.kocomotion.de/produkt/1025n5m/>



## Produkte:

Seite

1025N5M02-130-6.0

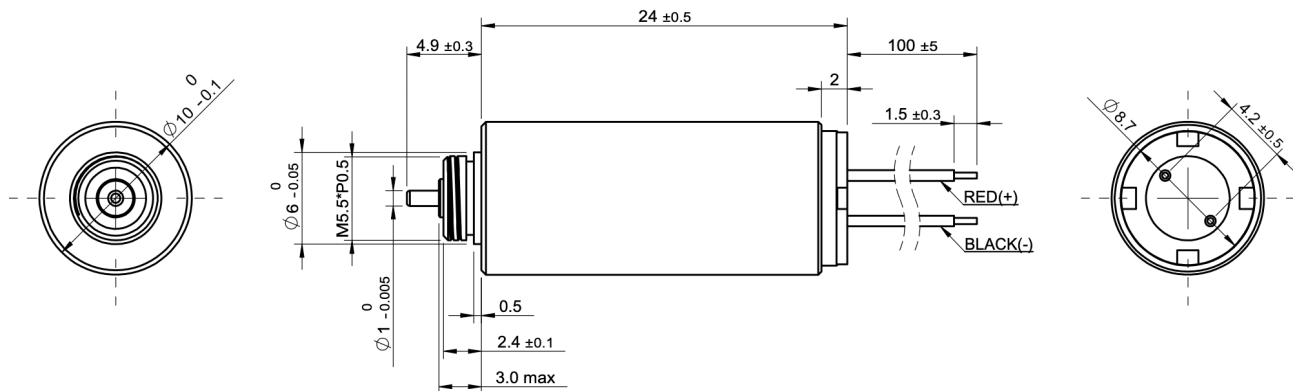
10

1025N5M05-150-12.0

12

1025N5M03-92-3.0

14



# 1025N5M02-130-6.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1025n5m02-130-6-0/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 6.0 V                  |
| Terminal resistance                | 6.5 $\Omega$           |
| No-load speed                      | 13000 rpm              |
| No-load current                    | 20 mA                  |
| Stall torque                       | 3.88 mNm               |
| Stall current                      | 920 mA                 |
| Nominal torque                     | 1.0 mNm                |
| Nominal speed                      | 9650 rpm               |
| Nominal current                    | 250 mA                 |
| Max. output power                  | 1.32 W                 |
| Max. efficiency                    | 73 %                   |
| Back-EMF constant                  | 0.5 mV/rpm             |
| Torque constant                    | 4.3 mNm/A              |
| Speed/torque gradient              | 3300 rpm/mNm           |
| Rotor inertia                      | 0.09 g·cm <sup>2</sup> |
| Weight                             | 7.0 g                  |
| Thermal resistance housing-ambient | 32.56 K/W              |
| Thermal resistance winding-housing | 36.8 K/W               |
| Thermal time constant motor        | 113 s                  |
| Thermal time constant winding      | 90 s                   |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | ≤0.15 mm               |
| Radial play                        | 0.012 mm               |



| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.15 N            |
| Axial load static                      | 15 N              |
| Radial load at 3 mm from mounting face | 0.4 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 40 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads
- encoder

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1025N5M05-150-12.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1025n5m05-150-12-0/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 12.0 V                 |
| Terminal resistance                | 22 $\Omega$            |
| No-load speed                      | 15000 rpm              |
| No-load current                    | 10 mA                  |
| Stall torque                       | 4.05 mNm               |
| Stall current                      | 550 mA                 |
| Nominal torque                     | 1.0 mNm                |
| Nominal speed                      | 11300 rpm              |
| Nominal current                    | 140 mA                 |
| Max. output power                  | 1.59 W                 |
| Max. efficiency                    | 75 %                   |
| Back-EMF constant                  | 0.8 mV/rpm             |
| Torque constant                    | 7.5 mNm/A              |
| Speed/torque gradient              | 3700 rpm/mNm           |
| Rotor inertia                      | 0.09 g·cm <sup>2</sup> |
| Weight                             | 7.0 g                  |
| Thermal resistance housing-ambient | 32.56 K/W              |
| Thermal resistance winding-housing | 36.8 K/W               |
| Thermal time constant motor        | 113 s                  |
| Thermal time constant winding      | 90 s                   |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | ≤0.15 mm               |
| Radial play                        | 0.012 mm               |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.15 N            |
| Axial load static                      | 15 N              |
| Radial load at 3 mm from mounting face | 0.4 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 40 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads
- encoder

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1025N5M03-92-3.0


<https://www.kocomotion.de/produkt/1025n5m03-92-3-0/>


| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 3.0 V                  |
| Terminal resistance                | 5.3 $\Omega$           |
| No-load speed                      | 9200 rpm               |
| No-load current                    | 20 mA                  |
| Stall torque                       | 1.65 mNm               |
| Stall current                      | 570 mA                 |
| Nominal torque                     | 1.0 mNm                |
| Nominal speed                      | 3630 rpm               |
| Nominal current                    | 350 mA                 |
| Max. output power                  | 0.40 W                 |
| Max. efficiency                    | 66 %                   |
| Back-EMF constant                  | 0.3 mV/rpm             |
| Torque constant                    | 3.0 mNm/A              |
| Speed/torque gradient              | 5600 rpm/mNm           |
| Rotor inertia                      | 0.09 g·cm <sup>2</sup> |
| Weight                             | 7.0 g                  |
| Thermal resistance housing-ambient | 32.56 K/W              |
| Thermal resistance winding-housing | 36.8 K/W               |
| Thermal time constant motor        | 113 s                  |
| Thermal time constant winding      | 90 s                   |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | ≤0.15 mm               |
| Radial play                        | 0.012 mm               |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.15 N            |
| Axial load static                      | 15 N              |
| Radial load at 3 mm from mounting face | 0.4 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 40 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads
- encoder

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

1221N5M2B

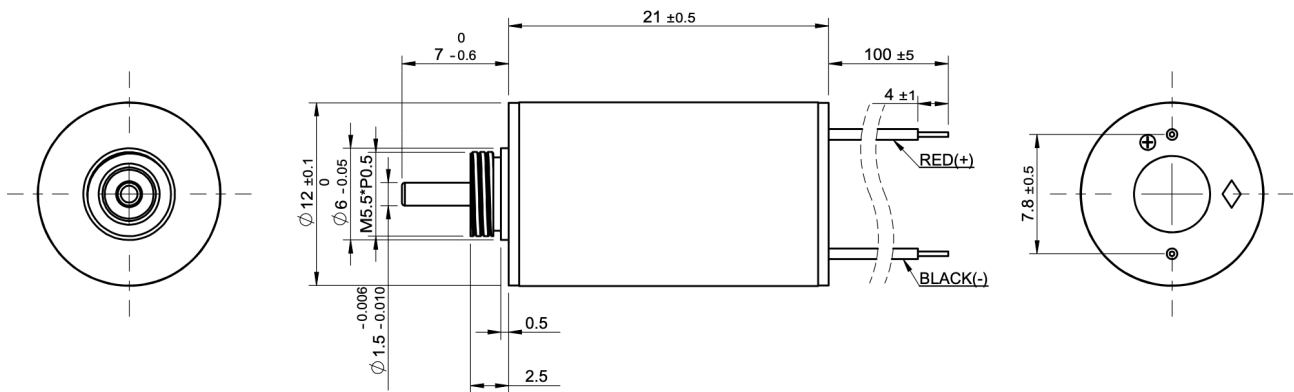
12mm micro DC coreless motor



<https://www.kocomotion.de/produkt/1221n5m2b/>



| Produkte:            | Seite |
|----------------------|-------|
| 1221N5M2B26-79-3.3   | 17    |
| 1221N5M2B27-120-6.0  | 19    |
| 1221N5M2B43-141-12.0 | 21    |



# 1221N5M2B26-79-3.3

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1221n5m2b26-79-3-3/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 3.3 V                  |
| Terminal resistance                | 6.9 $\Omega$           |
| No-load speed                      | 7900 rpm               |
| No-load current                    | 14 mA                  |
| Stall torque                       | 1.8 mNm                |
| Stall current                      | 480 mA                 |
| Nominal torque                     | 0.4 mNm                |
| Nominal speed                      | 6370 rpm               |
| Nominal current                    | 100 mA                 |
| Max. output power                  | 0.37 W                 |
| Max. efficiency                    | 69 %                   |
| Back-EMF constant                  | 0.4 mV/rpm             |
| Torque constant                    | 3.9 mNm/A              |
| Speed/torque gradient              | 4400 rpm/mNm           |
| Rotor inertia                      | 0.15 g·cm <sup>2</sup> |
| Weight                             | 10 g                   |
| Thermal resistance housing-ambient | 33.3 K/W               |
| Thermal resistance winding-housing | 35.3 K/W               |
| Thermal time constant motor        | 144 s                  |
| Thermal time constant winding      | 120 s                  |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | 0.02~0.15 mm           |
| Radial play                        | 0.025 mm               |

| Specification                          |                  |
|----------------------------------------|------------------|
| Axial load dynamic                     | 0.8 N            |
| Axial load static                      | 30 N             |
| Radial load at 3 mm from mounting face | 4 N              |
| No. of pole pairs                      | 1                |
| Bearings                               | 2 ball bearings  |
| Commutator                             | metal 5 segments |
| Protection class                       | 40 IP            |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation



# 1221N5M2B27-120-6.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1221n5m2b27-120-6-0/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 6.0 V                  |
| Terminal resistance                | 5.2 $\Omega$           |
| No-load speed                      | 12000 rpm              |
| No-load current                    | 30 mA                  |
| Stall torque                       | 5.2 mNm                |
| Stall current                      | 1150 mA                |
| Nominal torque                     | 2.3 mNm                |
| Nominal speed                      | 6700 rpm               |
| Nominal current                    | 520 mA                 |
| Max. output power                  | 1.64 W                 |
| Max. efficiency                    | 70 %                   |
| Back-EMF constant                  | 0.5 mV/rpm             |
| Torque constant                    | 4.7 mNm/A              |
| Speed/torque gradient              | 2300 rpm/mNm           |
| Rotor inertia                      | 0.15 g·cm <sup>2</sup> |
| Weight                             | 10 g                   |
| Thermal resistance housing-ambient | 33.3 K/W               |
| Thermal resistance winding-housing | 35.3 K/W               |
| Thermal time constant motor        | 144 s                  |
| Thermal time constant winding      | 120 s                  |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | 0.02~0.15 mm           |
| Radial play                        | 0.025 mm               |

| Specification                          |                  |
|----------------------------------------|------------------|
| Axial load dynamic                     | 0.8 N            |
| Axial load static                      | 30 N             |
| Radial load at 3 mm from mounting face | 4 N              |
| No. of pole pairs                      | 1                |
| Bearings                               | 2 ball bearings  |
| Commutator                             | metal 5 segments |
| Protection class                       | 40 IP            |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1221N5M2B43-141-12.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1221n5m2b43-141-12-0/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 12.0 V                 |
| Terminal resistance                | 17.9 $\Omega$          |
| No-load speed                      | 14100 rpm              |
| No-load current                    | 8 mA                   |
| Stall torque                       | 5.3 mNm                |
| Stall current                      | 670 mA                 |
| Nominal torque                     | 2.1 mNm                |
| Nominal speed                      | 8530 rpm               |
| Nominal current                    | 270 mA                 |
| Max. output power                  | 1.96 W                 |
| Max. efficiency                    | 79 %                   |
| Back-EMF constant                  | 0.8 mV/rpm             |
| Torque constant                    | 8.0 mNm/A              |
| Speed/torque gradient              | 2700 rpm/mNm           |
| Rotor inertia                      | 0.15 g·cm <sup>2</sup> |
| Weight                             | 10 g                   |
| Thermal resistance housing-ambient | 33.3 K/W               |
| Thermal resistance winding-housing | 35.3 K/W               |
| Thermal time constant motor        | 144 s                  |
| Thermal time constant winding      | 120 s                  |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | 0.02~0.15 mm           |
| Radial play                        | 0.025 mm               |

| Specification                          |                  |
|----------------------------------------|------------------|
| Axial load dynamic                     | 0.8 N            |
| Axial load static                      | 30 N             |
| Radial load at 3 mm from mounting face | 4 N              |
| No. of pole pairs                      | 1                |
| Bearings                               | 2 ball bearings  |
| Commutator                             | metal 5 segments |
| Protection class                       | 40 IP            |

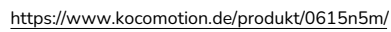
## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

6mm micro DC coreless motor

[illegible]

# 0615N5M01-122-3.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/0615n5m01-122-3-0/>



| Specification                      |                         |
|------------------------------------|-------------------------|
| Voltage                            | 3.0 V                   |
| Terminal resistance                | 19.0 $\Omega$           |
| No-load speed                      | 12200 rpm               |
| No-load current                    | 10 mA                   |
| Stall torque                       | 0.33 mNm                |
| Stall current                      | 160 mA                  |
| Nominal torque                     | 0.10 mNm                |
| Nominal speed                      | 8500 rpm                |
| Nominal current                    | 60 mA                   |
| Max. output power                  | 0.11 W                  |
| Max. efficiency                    | 56 %                    |
| Back-EMF constant                  | 0.2 mV/rpm              |
| Torque constant                    | 2.2 mNm/A               |
| Speed/torque gradient              | 37000 rpm/mNm           |
| Rotor inertia                      | 0.015 g·cm <sup>2</sup> |
| Weight                             | 2.5 g                   |
| Thermal resistance housing-ambient | 75.83 K/W               |
| Thermal resistance winding-housing | 42.08 K/W               |
| Thermal time constant motor        | 78 s                    |
| Thermal time constant winding      | 15 s                    |
| Operating temperature range        | -20~+85 °C              |
| Thermal class of winding           | 130 °C                  |
| Axial play                         | ≤0.3 mm                 |
| Radial play                        | 0.012 mm                |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.15 N            |
| Axial load static                      | 10 N              |
| Radial load at 3 mm from mounting face | 0.7 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 40 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 0615N5M02-185-3.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/0615n5m02-185-3-0/>



| Specification                      |                         |
|------------------------------------|-------------------------|
| Voltage                            | 3.0 V                   |
| Terminal resistance                | 18.5 $\Omega$           |
| No-load speed                      | 18500 rpm               |
| No-load current                    | 18 mA                   |
| Stall torque                       | 0.20 mNm                |
| Stall current                      | 160 mA                  |
| Nominal torque                     | 0.05 mNm                |
| Nominal speed                      | 13770 rpm               |
| Nominal current                    | 50 mA                   |
| Max. output power                  | 0.09 W                  |
| Max. efficiency                    | 44 %                    |
| Back-EMF constant                  | 0.1 mV/rpm              |
| Torque constant                    | 1.4 mNm/A               |
| Speed/torque gradient              | 94600 rpm/mNm           |
| Rotor inertia                      | 0.015 g·cm <sup>2</sup> |
| Weight                             | 2.5 g                   |
| Thermal resistance housing-ambient | 75.83 K/W               |
| Thermal resistance winding-housing | 42.08 K/W               |
| Thermal time constant motor        | 78 s                    |
| Thermal time constant winding      | 15 s                    |
| Operating temperature range        | -20~+85 °C              |
| Thermal class of winding           | 130 °C                  |
| Axial play                         | ≤0.3 mm                 |
| Radial play                        | 0.012 mm                |



| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.15 N            |
| Axial load static                      | 10 N              |
| Radial load at 3 mm from mounting face | 0.7 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 40 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 0615N5M03-295-6.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/0615n5m03-295-6-0/>



| Specification                      |                         |
|------------------------------------|-------------------------|
| Voltage                            | 6.0 V                   |
| Terminal resistance                | 10.1 $\Omega$           |
| No-load speed                      | 29500 rpm               |
| No-load current                    | 20 mA                   |
| Stall torque                       | 1.07 mNm                |
| Stall current                      | 590 mA                  |
| Nominal torque                     | 0.30 mNm                |
| Nominal speed                      | 21230 rpm               |
| Nominal current                    | 180 mA                  |
| Max. output power                  | 0.83 W                  |
| Max. efficiency                    | 67 %                    |
| Back-EMF constant                  | 0.2 mV/rpm              |
| Torque constant                    | 1.9 mNm/A               |
| Speed/torque gradient              | 27600 rpm/mNm           |
| Rotor inertia                      | 0.015 g·cm <sup>2</sup> |
| Weight                             | 2.5 g                   |
| Thermal resistance housing-ambient | 75.83 K/W               |
| Thermal resistance winding-housing | 42.08 K/W               |
| Thermal time constant motor        | 78 s                    |
| Thermal time constant winding      | 15 s                    |
| Operating temperature range        | -20~+85 °C              |
| Thermal class of winding           | 130 °C                  |
| Axial play                         | ≤0.3 mm                 |
| Radial play                        | 0.012 mm                |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.15 N            |
| Axial load static                      | 10 N              |
| Radial load at 3 mm from mounting face | 0.7 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 40 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1230N5M

12mm 12V micro DC coreless motor



<https://www.kocomotion.de/produkt/1230n5m/>



## Produkte:

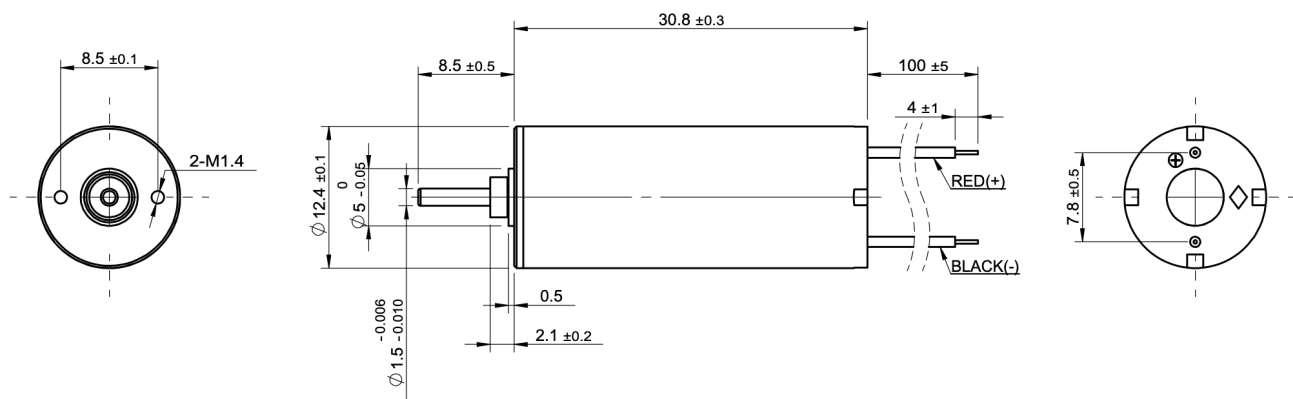
Seite

1230N5M06-44-5.3

31

1230N5M15-113-12.0

33



# 1230N5M06-44-5.3

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1230n5m06-44-5-3/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 5.3 V                  |
| Terminal resistance                | 12.9 $\Omega$          |
| No-load speed                      | 4450 rpm               |
| No-load current                    | 10 mA                  |
| Stall torque                       | 4.4 mNm                |
| Stall current                      | 410 mA                 |
| Nominal torque                     | 0.9 mNm                |
| Nominal speed                      | 3550 rpm               |
| Nominal current                    | 90 mA                  |
| Max. output power                  | 0.52 W                 |
| Max. efficiency                    | 71 %                   |
| Back-EMF constant                  | 1.2 mV/rpm             |
| Torque constant                    | 11.1 mNm/A             |
| Speed/torque gradient              | 1000 rpm/mNm           |
| Rotor inertia                      | 0.25 g·cm <sup>2</sup> |
| Weight                             | 17.7 g                 |
| Thermal resistance housing-ambient | 35.15 K/W              |
| Thermal resistance winding-housing | 12.49 K/W              |
| Thermal time constant motor        | 202 s                  |
| Thermal time constant winding      | 20 s                   |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | 0.02~0.15 mm           |
| Radial play                        | 0.014 mm               |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.8 N             |
| Axial load static                      | 30 N              |
| Radial load at 3 mm from mounting face | 1.4 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 40 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1230N5M15-113-12.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1230n5m15-113-12-0/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 12.0 V                 |
| Terminal resistance                | 10.4 $\Omega$          |
| No-load speed                      | 11300 rpm              |
| No-load current                    | 15 mA                  |
| Stall torque                       | 11.4 mNm               |
| Stall current                      | 1150 mA                |
| Nominal torque                     | 3.0 mNm                |
| Nominal speed                      | 8320 rpm               |
| Nominal current                    | 310 mA                 |
| Max. output power                  | 3.36 W                 |
| Max. efficiency                    | 79 %                   |
| Back-EMF constant                  | 1.0 mV/rpm             |
| Torque constant                    | 10.0 mNm/A             |
| Speed/torque gradient              | 990 rpm/mNm            |
| Rotor inertia                      | 0.25 g·cm <sup>2</sup> |
| Weight                             | 17.7 g                 |
| Thermal resistance housing-ambient | 35.15 K/W              |
| Thermal resistance winding-housing | 12.49 K/W              |
| Thermal time constant motor        | 202 s                  |
| Thermal time constant winding      | 20 s                   |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | 0.02~0.15 mm           |
| Radial play                        | 0.014 mm               |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.8 N             |
| Axial load static                      | 30 N              |
| Radial load at 3 mm from mounting face | 1.4 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 40 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation



# 0816N5M

8mm micro DC coreless motor



<https://www.kocomotion.de/produkt/0816n5m/>



## Produkte:

Seite

0816N5M02-137-4.2

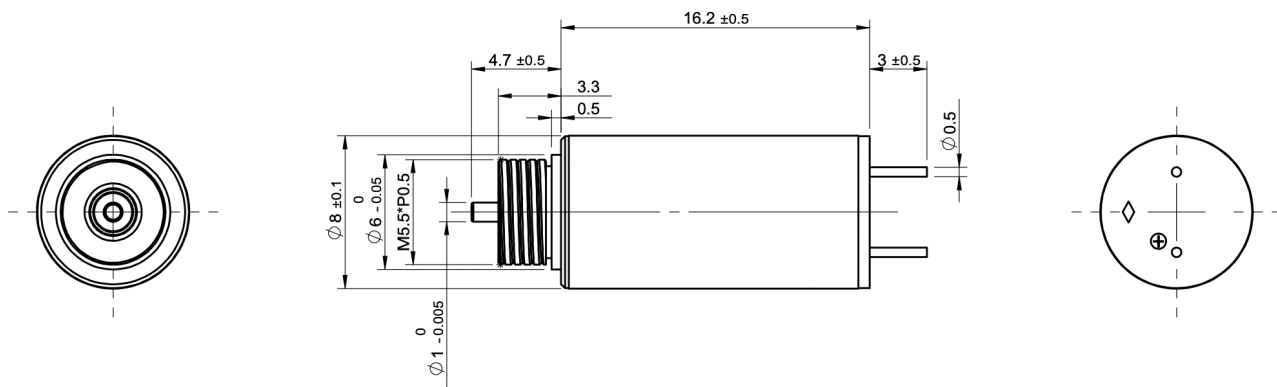
36

0816N5M11-148-6.0

38

0816N5M01-155-8.0

40



# 0816N5M02-137-4.2

Precious Metal Commutation



<https://www.kocomotion.de/produkt/0816n5m02-137-4-2/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 4.2 V                  |
| Terminal resistance                | 13.5 $\Omega$          |
| No-load speed                      | 13700 rpm              |
| No-load current                    | 15 mA                  |
| Stall torque                       | 0.82 mNm               |
| Stall current                      | 310 mA                 |
| Nominal torque                     | 0.25 mNm               |
| Nominal speed                      | 9530 rpm               |
| Nominal current                    | 100 mA                 |
| Max. output power                  | 0.30 W                 |
| Max. efficiency                    | 61 %                   |
| Back-EMF constant                  | 0.3 mV/rpm             |
| Torque constant                    | 2.8 mNm/A              |
| Speed/torque gradient              | 16700 rpm/mNm          |
| Rotor inertia                      | 0.04 g·cm <sup>2</sup> |
| Weight                             | 3.6 g                  |
| Thermal resistance housing-ambient | 66.15 K/W              |
| Thermal resistance winding-housing | 27.25 K/W              |
| Thermal time constant motor        | 104 s                  |
| Thermal time constant winding      | 21 s                   |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | ≤0.3 mm                |
| Radial play                        | 0.012 mm               |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.15 N            |
| Axial load static                      | 10 N              |
| Radial load at 3 mm from mounting face | 0.7 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 40 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- healthcare products
- automotive
- robotics
- industrial automation

# 0816N5M11-148-6.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/0816n5m11-148-6-0/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 6.0 V                  |
| Terminal resistance                | 25.3 $\Omega$          |
| No-load speed                      | 14800 rpm              |
| No-load current                    | 7 mA                   |
| Stall torque                       | 0.88 mNm               |
| Stall current                      | 240 mA                 |
| Nominal torque                     | 0.30 mNm               |
| Nominal speed                      | 9730 rpm               |
| Nominal current                    | 90 mA                  |
| Max. output power                  | 0.34 W                 |
| Max. efficiency                    | 69 %                   |
| Back-EMF constant                  | 0.4 mV/rpm             |
| Torque constant                    | 3.8 mNm/A              |
| Speed/torque gradient              | 16900 rpm/mNm          |
| Rotor inertia                      | 0.04 g·cm <sup>2</sup> |
| Weight                             | 3.6 g                  |
| Thermal resistance housing-ambient | 66.15 K/W              |
| Thermal resistance winding-housing | 27.25 K/W              |
| Thermal time constant motor        | 104 s                  |
| Thermal time constant winding      | 21 s                   |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | ≤0.3 mm                |
| Radial play                        | 0.012 mm               |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.15 N            |
| Axial load static                      | 10 N              |
| Radial load at 3 mm from mounting face | 0.7 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 40 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- healthcare products
- automotive
- robotics
- industrial automation

# 0816N5M01-155-8.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/0816n5m01-155-8-0/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 8.0 V                  |
| Terminal resistance                | 60.0 $\Omega$          |
| No-load speed                      | 15500 rpm              |
| No-load current                    | 6 mA                   |
| Stall torque                       | 0.58 mNm               |
| Stall current                      | 130 mA                 |
| Nominal torque                     | 0.15 mNm               |
| Nominal speed                      | 11520 rpm              |
| Nominal current                    | 40 mA                  |
| Max. output power                  | 0.24 W                 |
| Max. efficiency                    | 62 %                   |
| Back-EMF constant                  | 0.5 mV/rpm             |
| Torque constant                    | 4.7 mNm/A              |
| Speed/torque gradient              | 26600 rpm/mNm          |
| Rotor inertia                      | 0.04 g·cm <sup>2</sup> |
| Weight                             | 3.6 g                  |
| Thermal resistance housing-ambient | 66.15 K/W              |
| Thermal resistance winding-housing | 27.25 K/W              |
| Thermal time constant motor        | 104 s                  |
| Thermal time constant winding      | 21 s                   |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | ≤0.3 mm                |
| Radial play                        | 0.012 mm               |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.15 N            |
| Axial load static                      | 10 N              |
| Radial load at 3 mm from mounting face | 0.7 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 40 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- healthcare products
- automotive
- robotics
- industrial automation

# 1230N7M

12mm 12V micro coreless DC motor



<https://www.kocomotion.de/produkt/1230n7m/>



## Produkte:

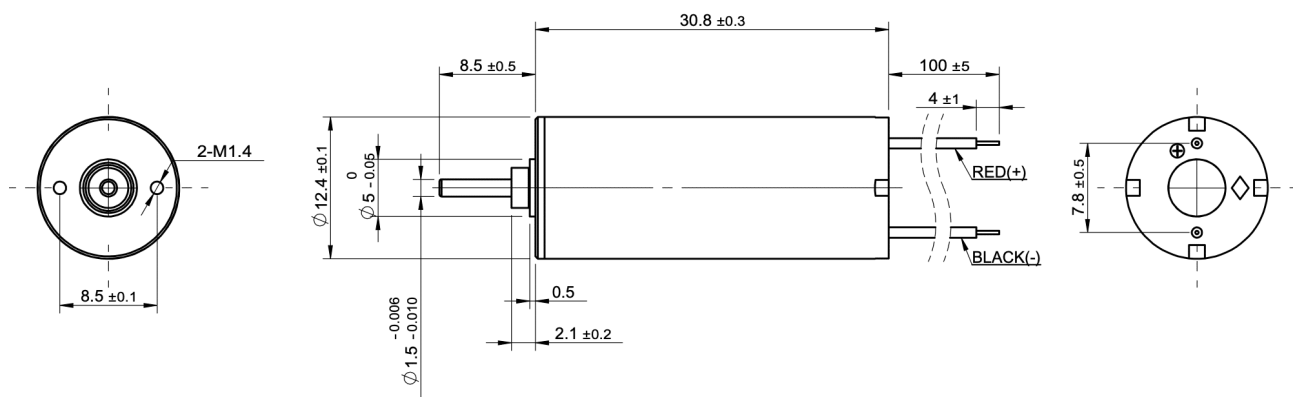
Seite

1230N7M04-160-6.0

43

1230N7M05-145-12.0

44





# 1230N7M04-160-6.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1230n7m04-160-6-0/>



| Specification         |                        |
|-----------------------|------------------------|
| Voltage               | 6.0 V                  |
| Terminal resistance   | 1.4 $\Omega$           |
| No-load speed         | 16000 rpm              |
| No-load current       | 70 mA                  |
| Stall torque          | 14.9 mNm               |
| Stall current         | 4290 mA                |
| Nominal torque        | 1.4 mNm                |
| Nominal speed         | 14490 rpm              |
| Nominal current       | 470 mA                 |
| Max. output power     | 6.23 W                 |
| Max. efficiency       | 76 %                   |
| Back-EMF constant     | 0.4 mV/rpm             |
| Torque constant       | 3.5 mNm/A              |
| Speed/torque gradient | 1080 rpm/mNm           |
| Rotor inertia         | 0.25 g·cm <sup>2</sup> |
| Weight                | 17.7 g                 |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1230N7M05-145-12.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1230n7m05-145-12-0/>



| Specification         |                        |
|-----------------------|------------------------|
| Voltage               | 12.0 V                 |
| Terminal resistance   | 12.0 $\Omega$          |
| No-load speed         | 14500 rpm              |
| No-load current       | 12 mA                  |
| Stall torque          | 15.1 mNm               |
| Stall current         | 1940 mA                |
| Nominal torque        | 1.4 mNm                |
| Nominal speed         | 13160 rpm              |
| Nominal current       | 190 mA                 |
| Max. output power     | 5.75 W                 |
| Max. efficiency       | 85 %                   |
| Back-EMF constant     | 0.8 mV/rpm             |
| Torque constant       | 7.9 mNm/A              |
| Speed/torque gradient | 960 rpm/mNm            |
| Rotor inertia         | 0.25 g·cm <sup>2</sup> |
| Weight                | 17.7 g                 |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

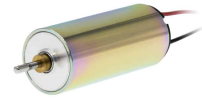
- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

1331N5M

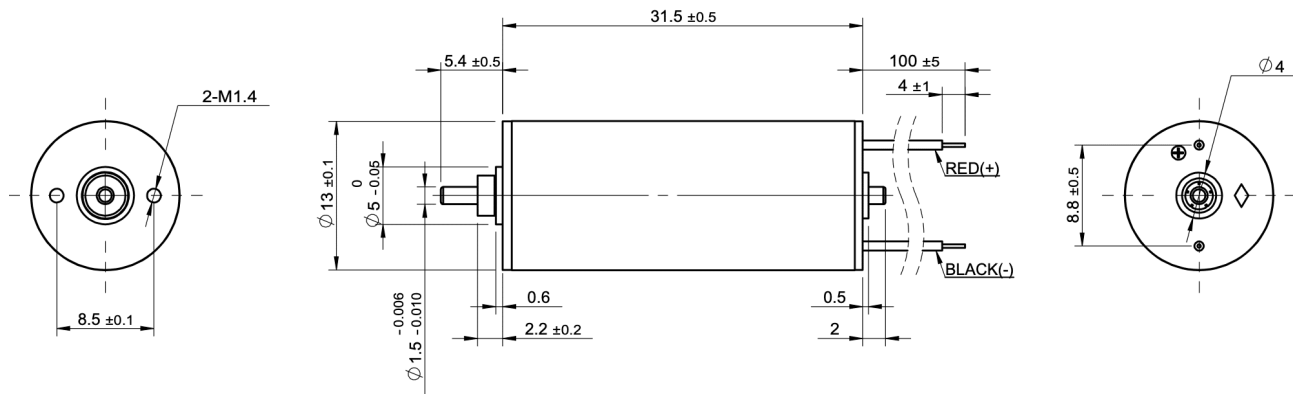
13mm micro brush coreless DC motor



<https://www.kocomotion.de/produkt/1331n5m/>



| Produkte:         | Seite |
|-------------------|-------|
| 1331N5M02-39-4.5  | 46    |
| 1331N5M01-67-9.0  | 48    |
| 1331N5M09-87-12.0 | 50    |

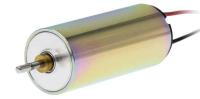


# 1331N5M02-39-4.5

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1331n5m02-39-4-5/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 4.5 V                  |
| Terminal resistance                | 10.3 $\Omega$          |
| No-load speed                      | 3900 rpm               |
| No-load current                    | 4 mA                   |
| Stall torque                       | 4.8 mNm                |
| Stall current                      | 440 mA                 |
| Nominal torque                     | 1.0 mNm                |
| Nominal speed                      | 3080 rpm               |
| Nominal current                    | 100 mA                 |
| Max. output power                  | 0.49 W                 |
| Max. efficiency                    | 82 %                   |
| Back-EMF constant                  | 1.1 mV/rpm             |
| Torque constant                    | 10.9 mNm/A             |
| Speed/torque gradient              | 820 rpm/mNm            |
| Rotor inertia                      | 0.52 g·cm <sup>2</sup> |
| Weight                             | 19 g                   |
| Thermal resistance housing-ambient | 34.8 K/W               |
| Thermal resistance winding-housing | 38.6 K/W               |
| Thermal time constant motor        | 211 s                  |
| Thermal time constant winding      | 163 s                  |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | 0.02~0.15 mm           |
| Radial play                        | 0.014 mm               |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.8 N             |
| Axial load static                      | 30 N              |
| Radial load at 3 mm from mounting face | 1.4 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

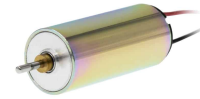
- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1331N5M01-67-9.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1331n5m01-67-9-0/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 9.0 V                  |
| Terminal resistance                | 17.7 $\Omega$          |
| No-load speed                      | 6700 rpm               |
| No-load current                    | 7 mA                   |
| Stall torque                       | 6.4 mNm                |
| Stall current                      | 510 mA                 |
| Nominal torque                     | 2.0 mNm                |
| Nominal speed                      | 4590 rpm               |
| Nominal current                    | 170 mA                 |
| Max. output power                  | 1.12 W                 |
| Max. efficiency                    | 78 %                   |
| Back-EMF constant                  | 1.3 mV/rpm             |
| Torque constant                    | 12.7 mNm/A             |
| Speed/torque gradient              | 1050 rpm/mNm           |
| Rotor inertia                      | 0.52 g·cm <sup>2</sup> |
| Weight                             | 19 g                   |
| Thermal resistance housing-ambient | 34.8 K/W               |
| Thermal resistance winding-housing | 38.6 K/W               |
| Thermal time constant motor        | 211 s                  |
| Thermal time constant winding      | 163 s                  |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | 0.02~0.15 mm           |
| Radial play                        | 0.014 mm               |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.8 N             |
| Axial load static                      | 30 N              |
| Radial load at 3 mm from mounting face | 1.4 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

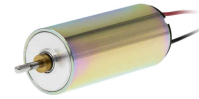
- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1331N5M09-87-12.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1331n5m09-87-12-0/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 12.0 V                 |
| Terminal resistance                | 15.7 $\Omega$          |
| No-load speed                      | 8700 rpm               |
| No-load current                    | 8 mA                   |
| Stall torque                       | 9.8 mNm                |
| Stall current                      | 760 mA                 |
| Nominal torque                     | 3.0 mNm                |
| Nominal speed                      | 6040 rpm               |
| Nominal current                    | 240 mA                 |
| Max. output power                  | 2.23 W                 |
| Max. efficiency                    | 81 %                   |
| Back-EMF constant                  | 1.4 mV/rpm             |
| Torque constant                    | 13.0 mNm/A             |
| Speed/torque gradient              | 890 rpm/mNm            |
| Rotor inertia                      | 0.52 g·cm <sup>2</sup> |
| Weight                             | 19 g                   |
| Thermal resistance housing-ambient | 34.8 K/W               |
| Thermal resistance winding-housing | 38.6 K/W               |
| Thermal time constant motor        | 211 s                  |
| Thermal time constant winding      | 163 s                  |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | 0.02~0.15 mm           |
| Radial play                        | 0.014 mm               |



| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.8 N             |
| Axial load static                      | 30 N              |
| Radial load at 3 mm from mounting face | 1.4 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1020N5M

10mm micro DC coreless motor



<https://www.kocomotion.de/produkt/1020n5m/>



## Produkte:

Seite

1020N5M52-115-3.0

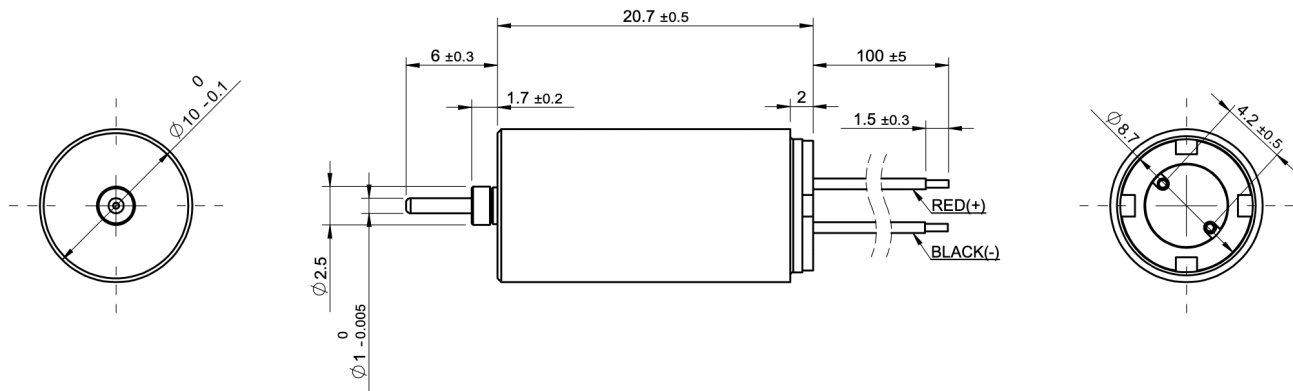
53

1020N5M14-125-6.0

55

1020N5M16-280-7.4

57



# 1020N5M52-115-3.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1020n5m52-115-3-0/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 3.0 V                  |
| Terminal resistance                | 3.8 $\Omega$           |
| No-load speed                      | 11500 rpm              |
| No-load current                    | 16 mA                  |
| Stall torque                       | 1.89 mNm               |
| Stall current                      | 790 mA                 |
| Nominal torque                     | 0.5 mNm                |
| Nominal speed                      | 8460 rpm               |
| Nominal current                    | 220 mA                 |
| Max. output power                  | 0.57 W                 |
| Max. efficiency                    | 74 %                   |
| Back-EMF constant                  | 0.26 mV/rpm            |
| Torque constant                    | 2.4 mNm/A              |
| Speed/torque gradient              | 6100 rpm/mNm           |
| Rotor inertia                      | 0.07 g·cm <sup>2</sup> |
| Weight                             | 6.1 g                  |
| Thermal resistance housing-ambient | 38.5 K/W               |
| Thermal resistance winding-housing | 33.2 K/W               |
| Thermal time constant motor        | 78 s                   |
| Thermal time constant winding      | 61 s                   |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | 0.01~0.15 mm           |
| Radial play                        | 0.012 mm               |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.15 N            |
| Axial load static                      | 15 N              |
| Radial load at 3 mm from mounting face | 0.4 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 40 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1020N5M14-125-6.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1020n5m14-125-6-0/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 6.0 V                  |
| Terminal resistance                | 11.7 $\Omega$          |
| No-load speed                      | 12500 rpm              |
| No-load current                    | 15 mA                  |
| Stall torque                       | 2.20 mNm               |
| Stall current                      | 510 mA                 |
| Nominal torque                     | 0.5 mNm                |
| Nominal speed                      | 9660 rpm               |
| Nominal current                    | 130 mA                 |
| Max. output power                  | 0.72 W                 |
| Max. efficiency                    | 69 %                   |
| Back-EMF constant                  | 0.47 mV/rpm            |
| Torque constant                    | 4.4 mNm/A              |
| Speed/torque gradient              | 6100 rpm/mNm           |
| Rotor inertia                      | 0.07 g·cm <sup>2</sup> |
| Weight                             | 6.1 g                  |
| Thermal resistance housing-ambient | 38.5 K/W               |
| Thermal resistance winding-housing | 33.2 K/W               |
| Thermal time constant motor        | 78 s                   |
| Thermal time constant winding      | 61 s                   |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | 0.01~0.15 mm           |
| Radial play                        | 0.012 mm               |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.15 N            |
| Axial load static                      | 15 N              |
| Radial load at 3 mm from mounting face | 0.4 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 40 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1020N5M16-280-7.4

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1020n5m16-280-7-4/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 7.4 V                  |
| Terminal resistance                | 3.3 $\Omega$           |
| No-load speed                      | 28000 rpm              |
| No-load current                    | 30 mA                  |
| Stall torque                       | 5.50 mNm               |
| Stall current                      | 2240 mA                |
| Nominal torque                     | 1.0 mNm                |
| Nominal speed                      | 22910 rpm              |
| Nominal current                    | 430 mA                 |
| Max. output power                  | 4.04 W                 |
| Max. efficiency                    | 78 %                   |
| Back-EMF constant                  | 0.26 mV/rpm            |
| Torque constant                    | 2.5 mNm/A              |
| Speed/torque gradient              | 6100 rpm/mNm           |
| Rotor inertia                      | 0.07 g·cm <sup>2</sup> |
| Weight                             | 6.1 g                  |
| Thermal resistance housing-ambient | 38.5 K/W               |
| Thermal resistance winding-housing | 33.2 K/W               |
| Thermal time constant motor        | 78 s                   |
| Thermal time constant winding      | 61 s                   |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | 0.01~0.15 mm           |
| Radial play                        | 0.012 mm               |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.15 N            |
| Axial load static                      | 15 N              |
| Radial load at 3 mm from mounting face | 0.4 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 40 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

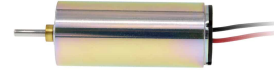


# 1331N7M

13mm 12V electric dental handpiece motor



<https://www.kocomotion.de/produkt/1331n7m/>



## Produkte:

Seite

1331N7M02-110-6.0

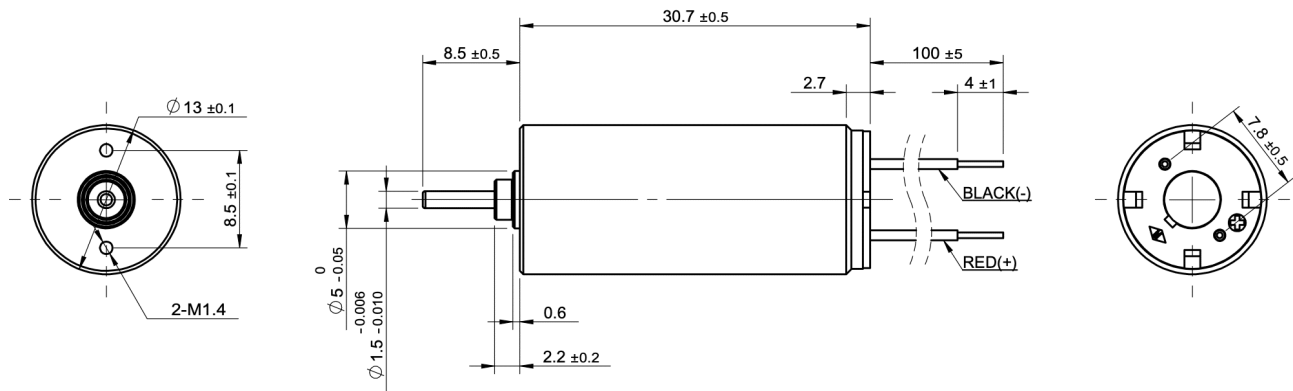
60

1331N7M03-148-12.0

62

1331N7M01-96-24.0

64

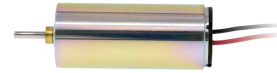


# 1331N7M02-110-6.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1331n7m02-110-6-0/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 6.0 V                  |
| Terminal resistance                | 2.6 $\Omega$           |
| No-load speed                      | 11000 rpm              |
| No-load current                    | 25 mA                  |
| Stall torque                       | 11.8 mNm               |
| Stall current                      | 2310 mA                |
| Nominal torque                     | 3.0 mNm                |
| Nominal speed                      | 8200 rpm               |
| Nominal current                    | 610 mA                 |
| Max. output power                  | 3.39 W                 |
| Max. efficiency                    | 80 %                   |
| Back-EMF constant                  | 0.5 mV/rpm             |
| Torque constant                    | 5.2 mNm/A              |
| Speed/torque gradient              | 930 rpm/mNm            |
| Rotor inertia                      | 0.52 g·cm <sup>2</sup> |
| Weight                             | 19 g                   |
| Thermal resistance housing-ambient | 34.8 K/W               |
| Thermal resistance winding-housing | 38.6 K/W               |
| Thermal time constant motor        | 211 s                  |
| Thermal time constant winding      | 163 s                  |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | 0.02~0.15 mm           |
| Radial play                        | 0.014 mm               |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.8 N             |
| Axial load static                      | 30 N              |
| Radial load at 3 mm from mounting face | 1.4 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 7 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

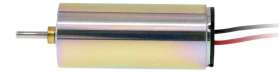
- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1331N7M03-148-12.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1331n7m03-148-12-0/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 12.0 V                 |
| Terminal resistance                | 5.0 $\Omega$           |
| No-load speed                      | 14800 rpm              |
| No-load current                    | 40 mA                  |
| Stall torque                       | 18.0 mNm               |
| Stall current                      | 2400 mA                |
| Nominal torque                     | 4.5 mNm                |
| Nominal speed                      | 11090 rpm              |
| Nominal current                    | 630 mA                 |
| Max. output power                  | 6.97 W                 |
| Max. efficiency                    | 76 %                   |
| Back-EMF constant                  | 0.8 mV/rpm             |
| Torque constant                    | 7.6 mNm/A              |
| Speed/torque gradient              | 820 rpm/mNm            |
| Rotor inertia                      | 0.52 g·cm <sup>2</sup> |
| Weight                             | 19 g                   |
| Thermal resistance housing-ambient | 34.8 K/W               |
| Thermal resistance winding-housing | 38.6 K/W               |
| Thermal time constant motor        | 211 s                  |
| Thermal time constant winding      | 163 s                  |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | 0.02~0.15 mm           |
| Radial play                        | 0.014 mm               |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.8 N             |
| Axial load static                      | 30 N              |
| Radial load at 3 mm from mounting face | 1.4 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 7 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

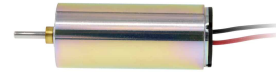
- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1331N7M01-96-24.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1331n7m01-96-24-0/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 24.0 V                 |
| Terminal resistance                | 39.8 $\Omega$          |
| No-load speed                      | 9600 rpm               |
| No-load current                    | 4 mA                   |
| Stall torque                       | 14.1 mNm               |
| Stall current                      | 600 mA                 |
| Nominal torque                     | 3.5 mNm                |
| Nominal speed                      | 7220 rpm               |
| Nominal current                    | 150 mA                 |
| Max. output power                  | 3.56 W                 |
| Max. efficiency                    | 84 %                   |
| Back-EMF constant                  | 2.5 mV/rpm             |
| Torque constant                    | 23.7 mNm/A             |
| Speed/torque gradient              | 680 rpm/mNm            |
| Rotor inertia                      | 0.52 g·cm <sup>2</sup> |
| Weight                             | 19 g                   |
| Thermal resistance housing-ambient | 34.8 K/W               |
| Thermal resistance winding-housing | 38.6 K/W               |
| Thermal time constant motor        | 211 s                  |
| Thermal time constant winding      | 163 s                  |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | 0.02~0.15 mm           |
| Radial play                        | 0.014 mm               |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.8 N             |
| Axial load static                      | 30 N              |
| Radial load at 3 mm from mounting face | 1.4 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 7 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

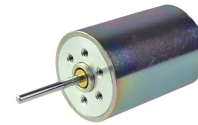
- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1625N5C

16mm 12V Graphite brush coreless motor



<https://www.kocomotion.de/produkt/1625n5c/>

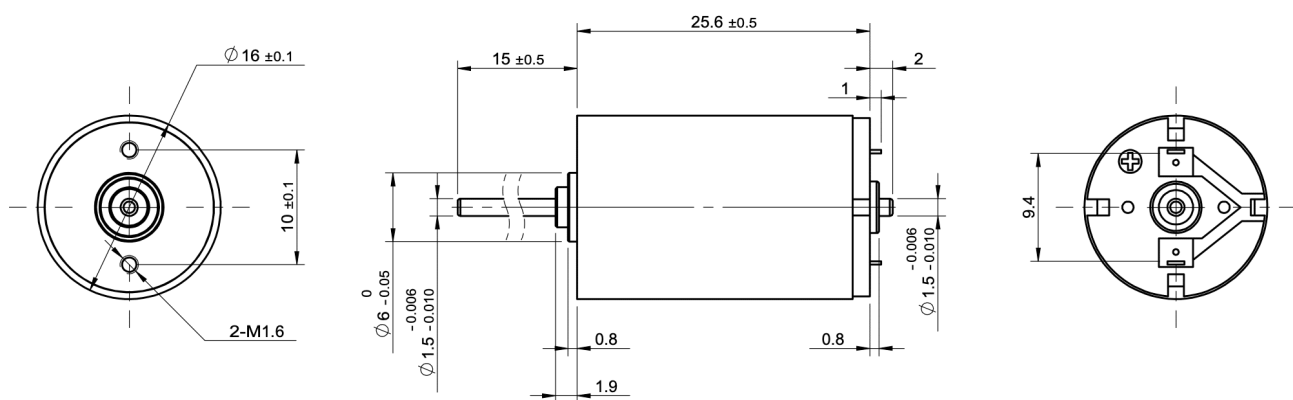


Produkte:

Seite

1625N5C01-150-12.0

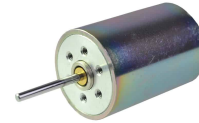
67





# 1625N5C01-150-12.0

Graphite Brush


<https://www.kocomotion.de/produkt/1625n5c01-150-12-0/>


| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 12.0 V                 |
| Terminal resistance                | 13.0 $\Omega$          |
| No-load speed                      | 15000 rpm              |
| No-load current                    | 25 mA                  |
| Stall torque                       | 6.7 mNm                |
| Stall current                      | 920 mA                 |
| Nominal torque                     | 3.3 mNm                |
| Nominal speed                      | 7560 rpm               |
| Nominal current                    | 470 mA                 |
| Max. output power                  | 2.6 W                  |
| Max. efficiency                    | 70 %                   |
| Back-EMF constant                  | 0.8 mV/rpm             |
| Torque constant                    | 7.4 mNm/A              |
| Speed/torque gradient              | 2250 rpm/mNm           |
| Rotor inertia                      | 0.95 g·cm <sup>2</sup> |
| Weight                             | 22.5 g                 |
| Thermal resistance housing-ambient | 25.04 K/W              |
| Thermal resistance winding-housing | 9.71 K/W               |
| Thermal time constant motor        | 190 s                  |
| Thermal time constant winding      | 147 s                  |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | 0.02~0.15 mm           |
| Radial play                        | 0.012 mm               |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.8 N             |
| Axial load static                      | 30 N              |
| Radial load at 3 mm from mounting face | 1.5 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1627N5M1

16mm 6V DC motor double shaft



<https://www.kocomotion.de/produkt/1627n5m1/>



## Produkte:

Seite

1627N5M07-101-4.5

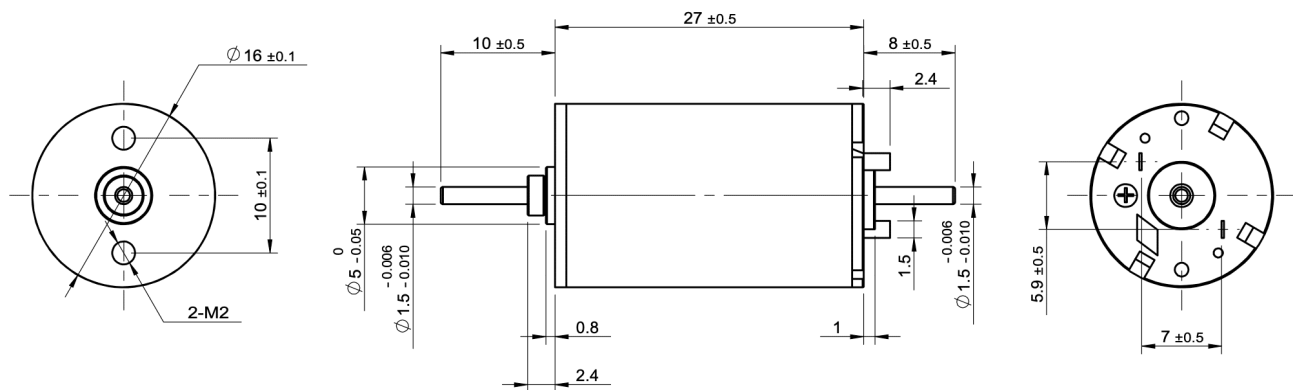
70

1627N5M20-113-6.0

72

1627N5M14-118-12.0

74



# 1627N5M07-101-4.5

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1627n5m07-101-4-5/>



| Specification                      |                       |
|------------------------------------|-----------------------|
| Voltage                            | 4.5 V                 |
| Terminal resistance                | 1.5 $\Omega$          |
| No-load speed                      | 10100 rpm             |
| No-load current                    | 50 mA                 |
| Stall torque                       | 12.3 mNm              |
| Stall current                      | 3000 mA               |
| Nominal torque                     | 3.0 mNm               |
| Nominal speed                      | 7640 rpm              |
| Nominal current                    | 770 mA                |
| Max. output power                  | 3.3 W                 |
| Max. efficiency                    | 76 %                  |
| Back-EMF constant                  | 0.4 mV/rpm            |
| Torque constant                    | 4.2 mNm/A             |
| Speed/torque gradient              | 820 rpm/mNm           |
| Rotor inertia                      | 0.6 g·cm <sup>2</sup> |
| Weight                             | 25 g                  |
| Thermal resistance housing-ambient | 24.88 K/W             |
| Thermal resistance winding-housing | 29.38 K/W             |
| Thermal time constant motor        | 228 s                 |
| Thermal time constant winding      | 176 s                 |
| Operating temperature range        | -20~+85 °C            |
| Thermal class of winding           | 130 °C                |
| Axial play                         | 0.02~0.15 mm          |
| Radial play                        | 0.014 mm              |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.8 N             |
| Axial load static                      | 30 N              |
| Radial load at 3 mm from mounting face | 1.4 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1627N5M20-113-6.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1627n5m20-113-6-0/>



| Specification                      |                       |
|------------------------------------|-----------------------|
| Voltage                            | 6.0 V                 |
| Terminal resistance                | 1.8 $\Omega$          |
| No-load speed                      | 11300 rpm             |
| No-load current                    | 50 mA                 |
| Stall torque                       | 16.4 mNm              |
| Stall current                      | 3330 mA               |
| Nominal torque                     | 4.0 mNm               |
| Nominal speed                      | 8540 rpm              |
| Nominal current                    | 850 mA                |
| Max. output power                  | 4.9 W                 |
| Max. efficiency                    | 77 %                  |
| Back-EMF constant                  | 0.5 mV/rpm            |
| Torque constant                    | 5.0 mNm/A             |
| Speed/torque gradient              | 690 rpm/mNm           |
| Rotor inertia                      | 0.6 g·cm <sup>2</sup> |
| Weight                             | 25 g                  |
| Thermal resistance housing-ambient | 24.88 K/W             |
| Thermal resistance winding-housing | 29.38 K/W             |
| Thermal time constant motor        | 228 s                 |
| Thermal time constant winding      | 176 s                 |
| Operating temperature range        | -20~+85 °C            |
| Thermal class of winding           | 130 °C                |
| Axial play                         | 0.02~0.15 mm          |
| Radial play                        | 0.014 mm              |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.8 N             |
| Axial load static                      | 30 N              |
| Radial load at 3 mm from mounting face | 1.4 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1627N5M14-118-12.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1627n5m14-118-12-0/>



| Specification                      |                       |
|------------------------------------|-----------------------|
| Voltage                            | 12.0 V                |
| Terminal resistance                | 8.7 $\Omega$          |
| No-load speed                      | 11800 rpm             |
| No-load current                    | 20 mA                 |
| Stall torque                       | 13.0 mNm              |
| Stall current                      | 1380 mA               |
| Nominal torque                     | 3.3 mNm               |
| Nominal speed                      | 8810 rpm              |
| Nominal current                    | 360 mA                |
| Max. output power                  | 4.0 W                 |
| Max. efficiency                    | 77 %                  |
| Back-EMF constant                  | 1.0 mV/rpm            |
| Torque constant                    | 9.6 mNm/A             |
| Speed/torque gradient              | 910 rpm/mNm           |
| Rotor inertia                      | 0.7 g·cm <sup>2</sup> |
| Weight                             | 25 g                  |
| Thermal resistance housing-ambient | 24.88 K/W             |
| Thermal resistance winding-housing | 29.38 K/W             |
| Thermal time constant motor        | 228 s                 |
| Thermal time constant winding      | 176 s                 |
| Operating temperature range        | -20~+85 °C            |
| Thermal class of winding           | 130 °C                |
| Axial play                         | 0.02~0.15 mm          |
| Radial play                        | 0.014 mm              |



| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.8 N             |
| Axial load static                      | 30 N              |
| Radial load at 3 mm from mounting face | 1.4 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1515N5M

15mm 7.4V DC coreless motor



<https://www.kocomotion.de/produkt/1515n5m/>



## Produkte:

Seite

1515N5M02-255-7.4

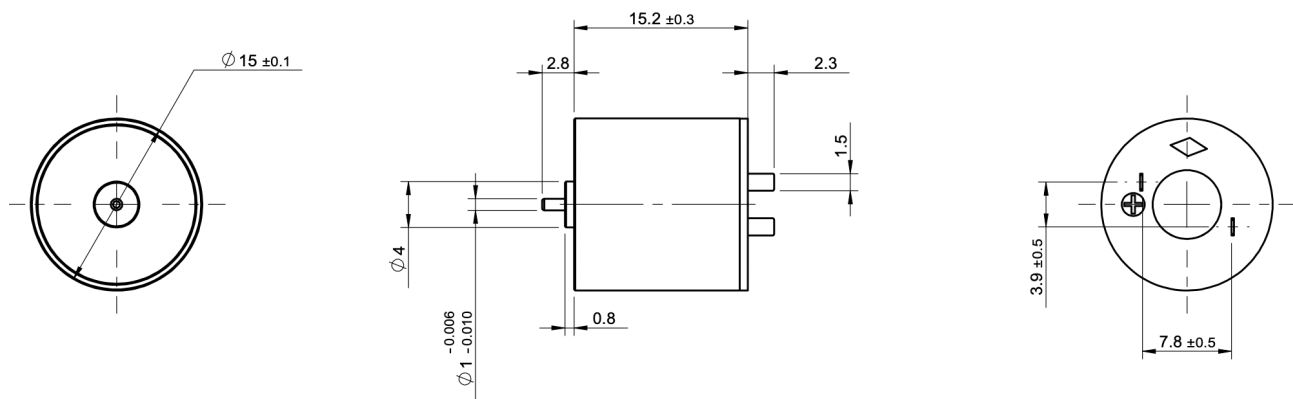
77

1515N5M10-240-12.0

79

1515N5M07-220-18.0

81



# 1515N5M02-255-7.4

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1515n5m02-255-7-4/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 7.4 V                  |
| Terminal resistance                | 2.5 $\Omega$           |
| No-load speed                      | 25500 rpm              |
| No-load current                    | 95 mA                  |
| Stall torque                       | 7.7 mNm                |
| Stall current                      | 2960 mA                |
| Nominal torque                     | 2.0 mNm                |
| Nominal speed                      | 18860 rpm              |
| Nominal current                    | 840 mA                 |
| Max. output power                  | 5.14 W                 |
| Max. efficiency                    | 67 %                   |
| Back-EMF constant                  | 0.3 mV/rpm             |
| Torque constant                    | 2.7 mNm/A              |
| Speed/torque gradient              | 3320 rpm/mNm           |
| Rotor inertia                      | 0.21 g·cm <sup>2</sup> |
| Weight                             | 14.2 g                 |
| Thermal resistance housing-ambient | 32.1 K/W               |
| Thermal resistance winding-housing | 26.3 K/W               |
| Thermal time constant motor        | 130 s                  |
| Thermal time constant winding      | 98 s                   |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | 0.3 mm                 |
| Radial play                        | 0.012 mm               |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.15 N            |
| Axial load static                      | 15 N              |
| Radial load at 3 mm from mounting face | 0.4 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1515N5M10-240-12.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1515n5m10-240-12-0/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 12.0 V                 |
| Terminal resistance                | 8.1 $\Omega$           |
| No-load speed                      | 24000 rpm              |
| No-load current                    | 50 mA                  |
| Stall torque                       | 6.6 mNm                |
| Stall current                      | 1480 mA                |
| Nominal torque                     | 1.5 mNm                |
| Nominal speed                      | 18540 rpm              |
| Nominal current                    | 380 mA                 |
| Max. output power                  | 4.15 W                 |
| Max. efficiency                    | 67 %                   |
| Back-EMF constant                  | 0.5 mV/rpm             |
| Torque constant                    | 4.6 mNm/A              |
| Speed/torque gradient              | 3640 rpm/mNm           |
| Rotor inertia                      | 0.21 g·cm <sup>2</sup> |
| Weight                             | 14.2 g                 |
| Thermal resistance housing-ambient | 32.1 K/W               |
| Thermal resistance winding-housing | 26.3 K/W               |
| Thermal time constant motor        | 130 s                  |
| Thermal time constant winding      | 98 s                   |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | 0.3 mm                 |
| Radial play                        | 0.012 mm               |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.15 N            |
| Axial load static                      | 15 N              |
| Radial load at 3 mm from mounting face | 0.4 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1515N5M07-220-18.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1515n5m07-220-18-0/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 18.0 V                 |
| Terminal resistance                | 30.8 $\Omega$          |
| No-load speed                      | 22000 rpm              |
| No-load current                    | 15 mA                  |
| Stall torque                       | 4.3 mNm                |
| Stall current                      | 580 mA                 |
| Nominal torque                     | 1.0 mNm                |
| Nominal speed                      | 16890 rpm              |
| Nominal current                    | 150 mA                 |
| Max. output power                  | 2.48 W                 |
| Max. efficiency                    | 71 %                   |
| Back-EMF constant                  | 0.8 mV/rpm             |
| Torque constant                    | 7.6 mNm/A              |
| Speed/torque gradient              | 5110 rpm/mNm           |
| Rotor inertia                      | 0.21 g·cm <sup>2</sup> |
| Weight                             | 14.2 g                 |
| Thermal resistance housing-ambient | 32.1 K/W               |
| Thermal resistance winding-housing | 26.3 K/W               |
| Thermal time constant motor        | 130 s                  |
| Thermal time constant winding      | 98 s                   |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | 0.3 mm                 |
| Radial play                        | 0.012 mm               |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.15 N            |
| Axial load static                      | 15 N              |
| Radial load at 3 mm from mounting face | 0.4 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation



# 1620N5M

16mm mirco coreless DC motor 5V



<https://www.kocomotion.de/produkt/1620n5m/>



## Produkte:

Seite

1620N5M32-48-3.0

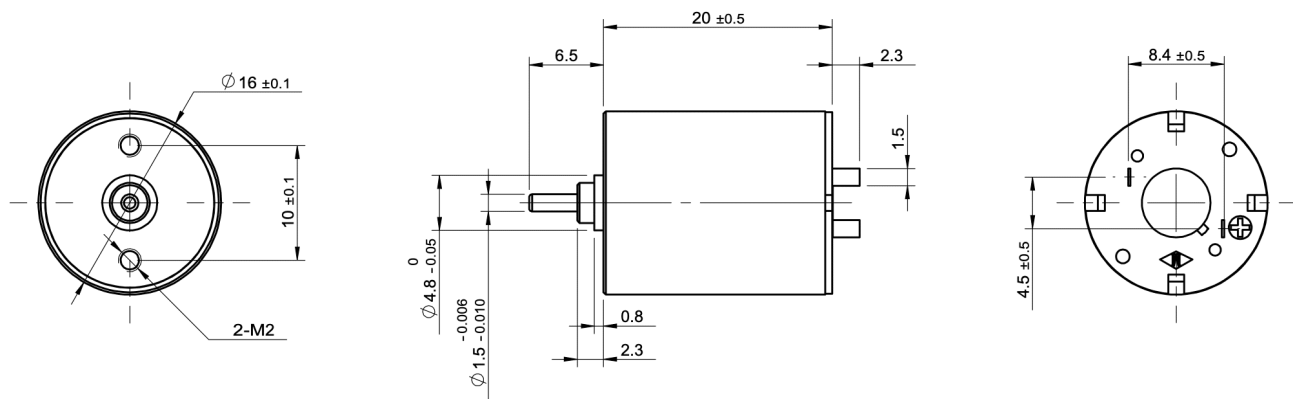
84

1620N5M01-75-5.0

86

1620N5M30-160-6.0

88



# 1620N5M32-48-3.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1620n5m32-48-3-0/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 3.0 V                  |
| Terminal resistance                | 6.5 $\Omega$           |
| No-load speed                      | 4850 rpm               |
| No-load current                    | 5 mA                   |
| Stall torque                       | 2.7 mNm                |
| Stall current                      | 460 mA                 |
| Nominal torque                     | 0.5 mNm                |
| Nominal speed                      | 3940 rpm               |
| Nominal current                    | 90 mA                  |
| Max. output power                  | 0.34 W                 |
| Max. efficiency                    | 80 %                   |
| Back-EMF constant                  | 0.6 mV/rpm             |
| Torque constant                    | 5.8 mNm/A              |
| Speed/torque gradient              | 1820 rpm/mNm           |
| Rotor inertia                      | 0.25 g·cm <sup>2</sup> |
| Weight                             | 16 g                   |
| Thermal resistance housing-ambient | 35.7 K/W               |
| Thermal resistance winding-housing | 25.6 K/W               |
| Thermal time constant motor        | 172 s                  |
| Thermal time constant winding      | 122 s                  |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | 0.02~0.15 mm           |
| Radial play                        | 0.014 mm               |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.8 N             |
| Axial load static                      | 30 N              |
| Radial load at 3 mm from mounting face | 1.4 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1620N5M01-75-5.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1620n5m01-75-5-0/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 5.0 V                  |
| Terminal resistance                | 13.3 $\Omega$          |
| No-load speed                      | 7500 rpm               |
| No-load current                    | 12 mA                  |
| Stall torque                       | 2.3 mNm                |
| Stall current                      | 380 mA                 |
| Nominal torque                     | 0.5 mNm                |
| Nominal speed                      | 5850 rpm               |
| Nominal current                    | 90 mA                  |
| Max. output power                  | 0.45 W                 |
| Max. efficiency                    | 68 %                   |
| Back-EMF constant                  | 0.6 mV/rpm             |
| Torque constant                    | 6.2 mNm/A              |
| Speed/torque gradient              | 3310 rpm/mNm           |
| Rotor inertia                      | 0.25 g·cm <sup>2</sup> |
| Weight                             | 16 g                   |
| Thermal resistance housing-ambient | 35.7 K/W               |
| Thermal resistance winding-housing | 25.6 K/W               |
| Thermal time constant motor        | 172 s                  |
| Thermal time constant winding      | 122 s                  |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | 0.02~0.15 mm           |
| Radial play                        | 0.014 mm               |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.8 N             |
| Axial load static                      | 30 N              |
| Radial load at 3 mm from mounting face | 1.4 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1620N5M30-160-6.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1620n5m30-160-6-0/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 6.0 V                  |
| Terminal resistance                | 2.5 $\Omega$           |
| No-load speed                      | 16000 rpm              |
| No-load current                    | 60 mA                  |
| Stall torque                       | 8.2 mNm                |
| Stall current                      | 2400 mA                |
| Nominal torque                     | 2.5 mNm                |
| Nominal speed                      | 11100 rpm              |
| Nominal current                    | 780 mA                 |
| Max. output power                  | 3.43 W                 |
| Max. efficiency                    | 71 %                   |
| Back-EMF constant                  | 0.4 mV/rpm             |
| Torque constant                    | 3.5 mNm/A              |
| Speed/torque gradient              | 1960 rpm/mNm           |
| Rotor inertia                      | 0.25 g·cm <sup>2</sup> |
| Weight                             | 16 g                   |
| Thermal resistance housing-ambient | 35.7 K/W               |
| Thermal resistance winding-housing | 25.6 K/W               |
| Thermal time constant motor        | 172 s                  |
| Thermal time constant winding      | 122 s                  |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | 0.02~0.15 mm           |
| Radial play                        | 0.014 mm               |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.8 N             |
| Axial load static                      | 30 N              |
| Radial load at 3 mm from mounting face | 1.4 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1630N5M

16mm precious metal brush DC motor 12V



<https://www.kocomotion.de/produkt/1630n5m/>



## Produkte:

Seite

1630N5M22-116-5.0

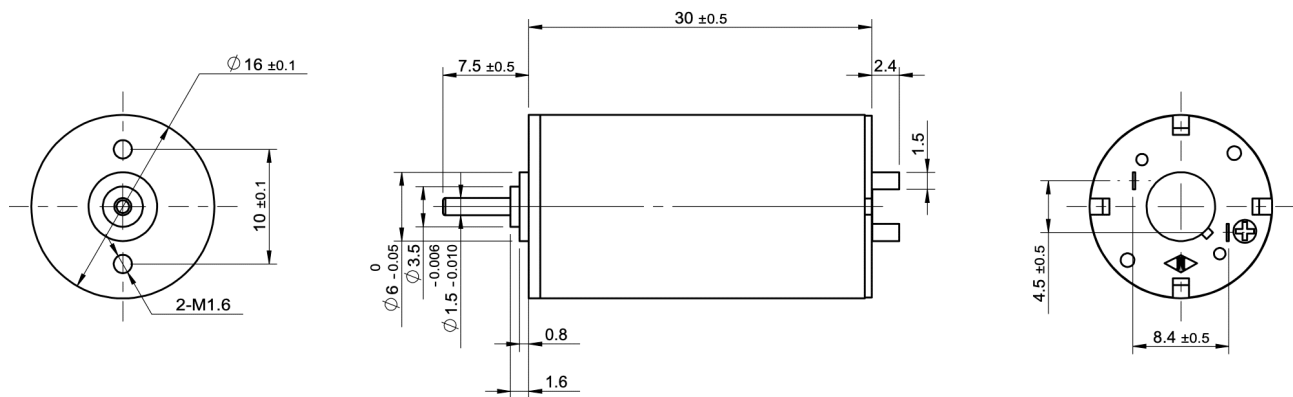
91

1630N5M29-78-7.4

93

1630N5M36-87-12.0

95





# 1630N5M22-116-5.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1630n5m22-116-5-0/>



| Specification                      |                       |
|------------------------------------|-----------------------|
| Voltage                            | 5.0 V                 |
| Terminal resistance                | 1.5 $\Omega$          |
| No-load speed                      | 11600 rpm             |
| No-load current                    | 36 mA                 |
| Stall torque                       | 13.4 mNm              |
| Stall current                      | 3330 mA               |
| Nominal torque                     | 3.0 mNm               |
| Nominal speed                      | 9010 rpm              |
| Nominal current                    | 770 mA                |
| Max. output power                  | 4.1 W                 |
| Max. efficiency                    | 80 %                  |
| Back-EMF constant                  | 0.4 mV/rpm            |
| Torque constant                    | 4.1 mNm/A             |
| Speed/torque gradient              | 860 rpm/mNm           |
| Rotor inertia                      | 0.6 g·cm <sup>2</sup> |
| Weight                             | 27 g                  |
| Thermal resistance housing-ambient | 26.79 K/W             |
| Thermal resistance winding-housing | 3.79 K/W              |
| Thermal time constant motor        | 242 s                 |
| Thermal time constant winding      | 232 s                 |
| Operating temperature range        | -20~+85 °C            |
| Thermal class of winding           | 130 °C                |
| Axial play                         | 0.02~0.15 mm          |
| Radial play                        | 0.025 mm              |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 2.2 N             |
| Axial load static                      | 30 N              |
| Radial load at 3 mm from mounting face | 8 N               |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1630N5M29-78-7.4

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1630n5m29-78-7-4/>



| Specification                      |                       |
|------------------------------------|-----------------------|
| Voltage                            | 7.4 V                 |
| Terminal resistance                | 6.3 $\Omega$          |
| No-load speed                      | 7800 rpm              |
| No-load current                    | 12 mA                 |
| Stall torque                       | 10.4 mNm              |
| Stall current                      | 1170 mA               |
| Nominal torque                     | 2.5 mNm               |
| Nominal speed                      | 5920 rpm              |
| Nominal current                    | 290 mA                |
| Max. output power                  | 2.1 W                 |
| Max. efficiency                    | 81 %                  |
| Back-EMF constant                  | 0.9 mV/rpm            |
| Torque constant                    | 9.0 mNm/A             |
| Speed/torque gradient              | 750 rpm/mNm           |
| Rotor inertia                      | 0.6 g·cm <sup>2</sup> |
| Weight                             | 27 g                  |
| Thermal resistance housing-ambient | 26.79 K/W             |
| Thermal resistance winding-housing | 3.79 K/W              |
| Thermal time constant motor        | 242 s                 |
| Thermal time constant winding      | 232 s                 |
| Operating temperature range        | -20~+85 °C            |
| Thermal class of winding           | 130 °C                |
| Axial play                         | 0.02~0.15 mm          |
| Radial play                        | 0.025 mm              |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 2.2 N             |
| Axial load static                      | 30 N              |
| Radial load at 3 mm from mounting face | 8 N               |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1630N5M36-87-12.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1630n5m36-87-12-0/>



| Specification                      |                       |
|------------------------------------|-----------------------|
| Voltage                            | 12.0 V                |
| Terminal resistance                | 9.4 $\Omega$          |
| No-load speed                      | 8700 rpm              |
| No-load current                    | 7 mA                  |
| Stall torque                       | 16.7 mNm              |
| Stall current                      | 1280 mA               |
| Nominal torque                     | 4.0 mNm               |
| Nominal speed                      | 6610 rpm              |
| Nominal current                    | 310 mA                |
| Max. output power                  | 3.8 W                 |
| Max. efficiency                    | 86 %                  |
| Back-EMF constant                  | 1.4 mV/rpm            |
| Torque constant                    | 13.1 mNm/A            |
| Speed/torque gradient              | 520 rpm/mNm           |
| Rotor inertia                      | 0.7 g·cm <sup>2</sup> |
| Weight                             | 27 g                  |
| Thermal resistance housing-ambient | 26.79 K/W             |
| Thermal resistance winding-housing | 3.79 K/W              |
| Thermal time constant motor        | 242 s                 |
| Thermal time constant winding      | 232 s                 |
| Operating temperature range        | -20~+85 °C            |
| Thermal class of winding           | 130 °C                |
| Axial play                         | 0.02~0.15 mm          |
| Radial play                        | 0.025 mm              |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 2.2 N             |
| Axial load static                      | 30 N              |
| Radial load at 3 mm from mounting face | 8 N               |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1630N5C

16mm 12V graphite brush corless DC motor



<https://www.kocomotion.de/produkt/1630n5c/>



## Produkte:

Seite

1630N5C06-195-6.0

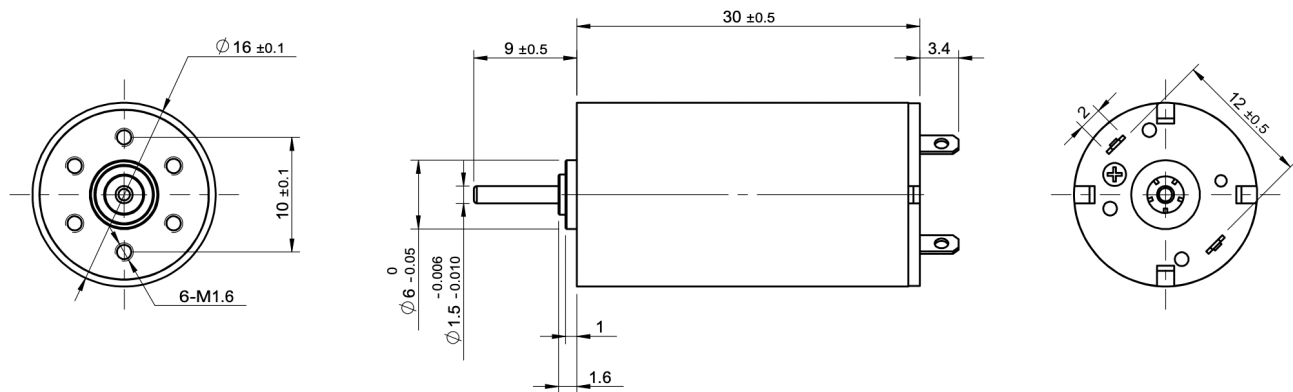
98

1630N5C05-115-12.0

100

1630N5C08-93-24.0

102



# 1630N5C06-195-6.0

Graphite Brush


<https://www.kocomotion.de/produkt/1630n5c06-195-6-0/>


| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 6.0 V                  |
| Terminal resistance                | 0.7 $\Omega$           |
| No-load speed                      | 19500 rpm              |
| No-load current                    | 150 mA                 |
| Stall torque                       | 24.3 mNm               |
| Stall current                      | 8570 mA                |
| Nominal torque                     | 5.0 mNm                |
| Nominal speed                      | 15490 rpm              |
| Nominal current                    | 1880 mA                |
| Max. output power                  | 12.4 W                 |
| Max. efficiency                    | 75 %                   |
| Back-EMF constant                  | 0.3 mV/rpm             |
| Torque constant                    | 2.9 mNm/A              |
| Speed/torque gradient              | 800 rpm/mNm            |
| Rotor inertia                      | 0.95 g·cm <sup>2</sup> |
| Weight                             | 22.5 g                 |
| Thermal resistance housing-ambient | 26.8 K/W               |
| Thermal resistance winding-housing | 30.6 K/W               |
| Thermal time constant motor        | 242 s                  |
| Thermal time constant winding      | 232 s                  |
| Operating temperature range        | -20~+85- °C            |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | 0.02~0.15- mm          |
| Radial play                        | 0.012 mm               |



| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.8 N             |
| Axial load static                      | 30 N              |
| Radial load at 3 mm from mounting face | 1.5 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- bearing type
- gear heads

## Anwendungen

- precision drives in medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1630N5C05-115-12.0

Graphite Brush



<https://www.kocomotion.de/produkt/1630n5c05-115-12-0/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 12.0 V                 |
| Terminal resistance                | 4.5 $\Omega$           |
| No-load speed                      | 11500 rpm              |
| No-load current                    | 50 mA                  |
| Stall torque                       | 25.6 mNm               |
| Stall current                      | 2670 mA                |
| Nominal torque                     | 5.0 mNm                |
| Nominal speed                      | 9260 rpm               |
| Nominal current                    | 560 mA                 |
| Max. output power                  | 7.7 W                  |
| Max. efficiency                    | 75 %                   |
| Back-EMF constant                  | 1.0 mV/rpm             |
| Torque constant                    | 9.8 mNm/A              |
| Speed/torque gradient              | 450 rpm/mNm            |
| Rotor inertia                      | 0.95 g·cm <sup>2</sup> |
| Weight                             | 22.5 g                 |
| Thermal resistance housing-ambient | 26.8 K/W               |
| Thermal resistance winding-housing | 30.6 K/W               |
| Thermal time constant motor        | 242 s                  |
| Thermal time constant winding      | 232 s                  |
| Operating temperature range        | -20~+85- °C            |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | 0.02~0.15- mm          |
| Radial play                        | 0.012 mm               |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.8 N             |
| Axial load static                      | 30 N              |
| Radial load at 3 mm from mounting face | 1.5 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- bearing type
- gear heads

## Anwendungen

- precision drives in medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1630N5C08-93-24.0

Graphite Brush



<https://www.kocomotion.de/produkt/1630n5c08-93-24-0/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 24.0 V                 |
| Terminal resistance                | 34.5 $\Omega$          |
| No-load speed                      | 9300 rpm               |
| No-load current                    | 30 mA                  |
| Stall torque                       | 15.8 mNm               |
| Stall current                      | 700 mA                 |
| Nominal torque                     | 4.0 mNm                |
| Nominal speed                      | 6950 rpm               |
| Nominal current                    | 200 mA                 |
| Max. output power                  | 3.9 W                  |
| Max. efficiency                    | 63 %                   |
| Back-EMF constant                  | 2.5 mV/rpm             |
| Torque constant                    | 23.6 mNm/A             |
| Speed/torque gradient              | 590 rpm/mNm            |
| Rotor inertia                      | 0.95 g·cm <sup>2</sup> |
| Weight                             | 22.5 g                 |
| Thermal resistance housing-ambient | 26.8 K/W               |
| Thermal resistance winding-housing | 30.6 K/W               |
| Thermal time constant motor        | 242 s                  |
| Thermal time constant winding      | 232 s                  |
| Operating temperature range        | -20~+85- °C            |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | 0.02~0.15- mm          |
| Radial play                        | 0.012 mm               |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.8 N             |
| Axial load static                      | 30 N              |
| Radial load at 3 mm from mounting face | 1.5 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- bearing type
- gear heads

## Anwendungen

- precision drives in medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1625N5M

16mm DC brushed coreless motor



<https://www.kocomotion.de/produkt/1625n5m/>



## Produkte:

Seite

1625N5M24-60-3.7

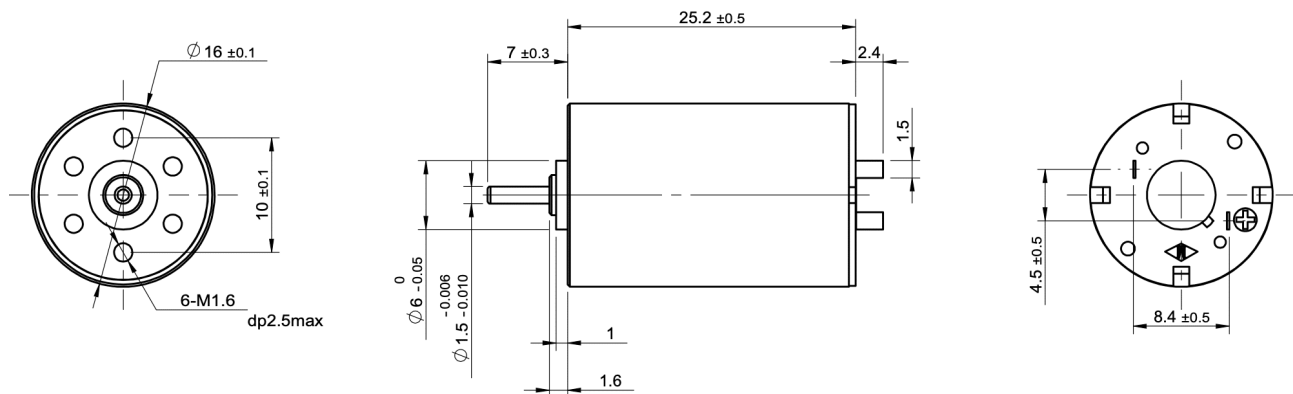
105

1625N5M25-88-6.0

107

1625N5M17-81-12.0

109



# 1625N5M24-60-3.7

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1625n5m24-60-3-7/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 3.7 V                  |
| Terminal resistance                | 7.6 $\Omega$           |
| No-load speed                      | 6000 rpm               |
| No-load current                    | 12 mA                  |
| Stall torque                       | 2.7 mNm                |
| Stall current                      | 490 mA                 |
| Nominal torque                     | 0.5 mNm                |
| Nominal speed                      | 4910 rpm               |
| Nominal current                    | 100 mA                 |
| Max. output power                  | 0.43 W                 |
| Max. efficiency                    | 71 %                   |
| Back-EMF constant                  | 0.6 mV/rpm             |
| Torque constant                    | 5.7 mNm/A              |
| Speed/torque gradient              | 2190 rpm/mNm           |
| Rotor inertia                      | 0.78 g·cm <sup>2</sup> |
| Weight                             | 21.8 g                 |
| Thermal resistance housing-ambient | 24.8 K/W               |
| Thermal resistance winding-housing | 30.3 K/W               |
| Thermal time constant motor        | 201 s                  |
| Thermal time constant winding      | 175 s                  |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | 0.02~0.15 mm           |
| Radial play                        | 0.014 mm               |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.8 N             |
| Axial load static                      | 30 N              |
| Radial load at 3 mm from mounting face | 1.4 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation



# 1625N5M25-88-6.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1625n5m25-88-6-0/>



| Specification                      |                       |
|------------------------------------|-----------------------|
| Voltage                            | 6.0 V                 |
| Terminal resistance                | 3.1 $\Omega$          |
| No-load speed                      | 8800 rpm              |
| No-load current                    | 6 mA                  |
| Stall torque                       | 12.6 mNm              |
| Stall current                      | 1940 mA               |
| Nominal torque                     | 3.0 mNm               |
| Nominal speed                      | 6700 rpm              |
| Nominal current                    | 470 mA                |
| Max. output power                  | 2.89 W                |
| Max. efficiency                    | 89 %                  |
| Back-EMF constant                  | 0.7 mV/rpm            |
| Torque constant                    | 6.5 mNm/A             |
| Speed/torque gradient              | 700 rpm/mNm           |
| Rotor inertia                      | 0.8 g·cm <sup>2</sup> |
| Weight                             | 21.8 g                |
| Thermal resistance housing-ambient | 24.8 K/W              |
| Thermal resistance winding-housing | 30.3 K/W              |
| Thermal time constant motor        | 201 s                 |
| Thermal time constant winding      | 175 s                 |
| Operating temperature range        | -20~+85 °C            |
| Thermal class of winding           | 130 °C                |
| Axial play                         | 0.02~0.15 mm          |
| Radial play                        | 0.014 mm              |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.8 N             |
| Axial load static                      | 30 N              |
| Radial load at 3 mm from mounting face | 1.4 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1625N5M17-81-12.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1625n5m17-81-12-0/>



| Specification                      |                       |
|------------------------------------|-----------------------|
| Voltage                            | 12.0 V                |
| Terminal resistance                | 16.5 $\Omega$         |
| No-load speed                      | 8100 rpm              |
| No-load current                    | 10 mA                 |
| Stall torque                       | 10.0 mNm              |
| Stall current                      | 730 mA                |
| Nominal torque                     | 3.0 mNm               |
| Nominal speed                      | 5680 rpm              |
| Nominal current                    | 230 mA                |
| Max. output power                  | 2.13 W                |
| Max. efficiency                    | 78 %                  |
| Back-EMF constant                  | 1.5 mV/rpm            |
| Torque constant                    | 14.0 mNm/A            |
| Speed/torque gradient              | 810 rpm/mNm           |
| Rotor inertia                      | 0.8 g·cm <sup>2</sup> |
| Weight                             | 21.8 g                |
| Thermal resistance housing-ambient | 24.8 K/W              |
| Thermal resistance winding-housing | 30.3 K/W              |
| Thermal time constant motor        | 201 s                 |
| Thermal time constant winding      | 175 s                 |
| Operating temperature range        | -20~+85 °C            |
| Thermal class of winding           | 130 °C                |
| Axial play                         | 0.02~0.15 mm          |
| Radial play                        | 0.014 mm              |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.8 N             |
| Axial load static                      | 30 N              |
| Radial load at 3 mm from mounting face | 1.4 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1635N5C

16mm 24V graphite brush coreless DC motor



<https://www.kocomotion.de/produkt/1635n5c/>



| Produkte:          | Seite |
|--------------------|-------|
| 1635N5C04-115-6.0  | 112   |
| 1635N5C08-150-12.0 | 113   |
| 1635N5C10-150-24.0 | 114   |

# 1635N5C04-115-6.0

Graphite Brush



<https://www.kocomotion.de/produkt/1635n5c04-115-6-0/>



| Specification         |                        |
|-----------------------|------------------------|
| Voltage               | 6.0 V                  |
| Terminal resistance   | 1.7 $\Omega$           |
| No-load speed         | 11500 rpm              |
| No-load current       | 110 mA                 |
| Stall torque          | 16.5 mNm               |
| Stall current         | 3530 mA                |
| Nominal torque        | 4.0 mNm                |
| Nominal speed         | 8710 rpm               |
| Nominal current       | 940 mA                 |
| Max. output power     | 5.0 W                  |
| Max. efficiency       | 68 %                   |
| Back-EMF constant     | 0.5 mV/rpm             |
| Torque constant       | 4.8 mNm/A              |
| Speed/torque gradient | 700 rpm/mNm            |
| Rotor inertia         | 0.95 g·cm <sup>2</sup> |
| Weight                | 22.5 g                 |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1635N5C08-150-12.0

Graphite Brush



<https://www.kocomotion.de/produkt/1635n5c08-150-12-0/>



| Specification         |                        |
|-----------------------|------------------------|
| Voltage               | 12.0 V                 |
| Terminal resistance   | 3.2 $\Omega$           |
| No-load speed         | 15000 rpm              |
| No-load current       | 75 mA                  |
| Stall torque          | 27.5 mNm               |
| Stall current         | 3750 mA                |
| Nominal torque        | 6.0 mNm                |
| Nominal speed         | 11730 rpm              |
| Nominal current       | 880 mA                 |
| Max. output power     | 10.8 W                 |
| Max. efficiency       | 74 %                   |
| Back-EMF constant     | 0.8 mV/rpm             |
| Torque constant       | 7.5 mNm/A              |
| Speed/torque gradient | 550 rpm/mNm            |
| Rotor inertia         | 0.95 g·cm <sup>2</sup> |
| Weight                | 22.5 g                 |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1635N5C10-150-24.0

Graphite Brush



<https://www.kocomotion.de/produkt/1635n5c10-150-24-0/>



| Specification         |                        |
|-----------------------|------------------------|
| Voltage               | 24.0 V                 |
| Terminal resistance   | 14.7 $\Omega$          |
| No-load speed         | 15000 rpm              |
| No-load current       | 30 mA                  |
| Stall torque          | 24.0 mNm               |
| Stall current         | 1630 mA                |
| Nominal torque        | 4.5 mNm                |
| Nominal speed         | 12190 rpm              |
| Nominal current       | 330 mA                 |
| Max. output power     | 9.4 W                  |
| Max. efficiency       | 75 %                   |
| Back-EMF constant     | 1.6 mV/rpm             |
| Torque constant       | 15.0 mNm/A             |
| Speed/torque gradient | 630 rpm/mNm            |
| Rotor inertia         | 0.95 g·cm <sup>2</sup> |
| Weight                | 22.5 g                 |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation



# 1625N9M

16mm brushed tattoo machine DC motor



<https://www.kocomotion.de/produkt/1625n9m/>



## Produkte:

Seite

1625N9M01-115-3.0

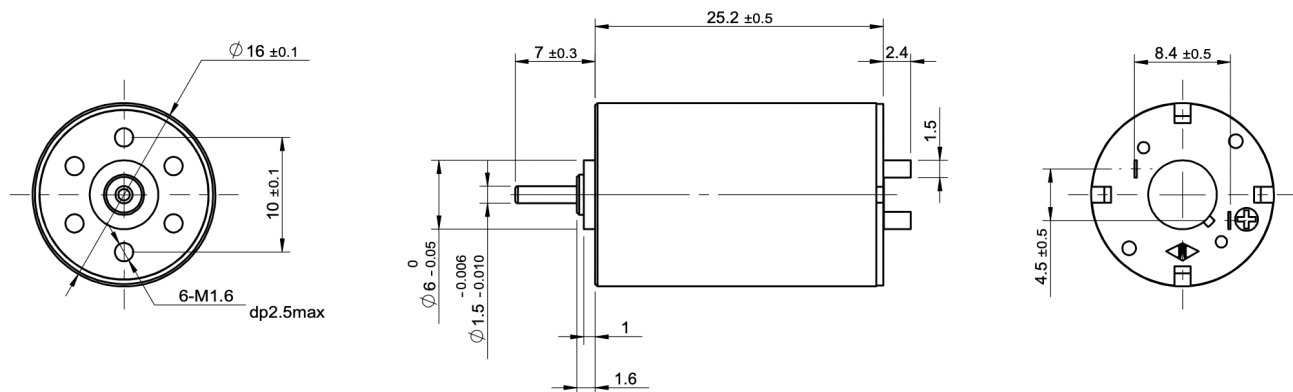
116

1625N9M02-96-6.0

118

1625N9M03-115-12.0

120



# 1625N9M01-115-3.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1625n9m01-115-3-0/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 3.0 V                  |
| Terminal resistance                | 1.1 $\Omega$           |
| No-load speed                      | 11500 rpm              |
| No-load current                    | 50 mA                  |
| Stall torque                       | 6.6 mNm                |
| Stall current                      | 2730 mA                |
| Nominal torque                     | 1.0 mNm                |
| Nominal speed                      | 9750 rpm               |
| Nominal current                    | 460 mA                 |
| Max. output power                  | 2.0 W                  |
| Max. efficiency                    | 75 %                   |
| Back-EMF constant                  | 0.3 mV/rpm             |
| Torque constant                    | 2.4 mNm/A              |
| Speed/torque gradient              | 1750 rpm/mNm           |
| Rotor inertia                      | 0.78 g·cm <sup>2</sup> |
| Weight                             | 21.8 g                 |
| Thermal resistance housing-ambient | 24.8 K/W               |
| Thermal resistance winding-housing | 30.3 K/W               |
| Thermal time constant motor        | 201 s                  |
| Thermal time constant winding      | 175 s                  |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | 0.02~0.15 mm           |
| Radial play                        | 0.014 mm               |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.8 N             |
| Axial load static                      | 30 N              |
| Radial load at 3 mm from mounting face | 1.4 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 9 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1625N9M02-96-6.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1625n9m02-96-6-0/>



| Specification                      |                       |
|------------------------------------|-----------------------|
| Voltage                            | 6.0 V                 |
| Terminal resistance                | 4.4 $\Omega$          |
| No-load speed                      | 9200 rpm              |
| No-load current                    | 20 mA                 |
| Stall torque                       | 8.2 mNm               |
| Stall current                      | 1360 mA               |
| Nominal torque                     | 1.2 mNm               |
| Nominal speed                      | 7860 rpm              |
| Nominal current                    | 220 mA                |
| Max. output power                  | 2.0 W                 |
| Max. efficiency                    | 77 %                  |
| Back-EMF constant                  | 0.6 mV/rpm            |
| Torque constant                    | 6.1 mNm/A             |
| Speed/torque gradient              | 1120 rpm/mNm          |
| Rotor inertia                      | 0.8 g·cm <sup>2</sup> |
| Weight                             | 21.8 g                |
| Thermal resistance housing-ambient | 24.8 K/W              |
| Thermal resistance winding-housing | 30.3 K/W              |
| Thermal time constant motor        | 201 s                 |
| Thermal time constant winding      | 175 s                 |
| Operating temperature range        | -20~+85 °C            |
| Thermal class of winding           | 130 °C                |
| Axial play                         | 0.02~0.15 mm          |
| Radial play                        | 0.014 mm              |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.8 N             |
| Axial load static                      | 30 N              |
| Radial load at 3 mm from mounting face | 1.4 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 9 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1625N9M03-115-12.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1625n9m03-115-12-0/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 12.0 V                 |
| Terminal resistance                | 13.4 $\Omega$          |
| No-load speed                      | 11500 rpm              |
| No-load current                    | 12 mA                  |
| Stall torque                       | 8.7 mNm                |
| Stall current                      | 900 mA                 |
| Nominal torque                     | 1.5 mNm                |
| Nominal speed                      | 9520 rpm               |
| Nominal current                    | 160 mA                 |
| Max. output power                  | 2.6 W                  |
| Max. efficiency                    | 78 %                   |
| Back-EMF constant                  | 1.0 mV/rpm             |
| Torque constant                    | 9.8 mNm/A              |
| Speed/torque gradient              | 1320 rpm/mNm           |
| Rotor inertia                      | 0.82 g·cm <sup>2</sup> |
| Weight                             | 21.8 g                 |
| Thermal resistance housing-ambient | 24.8 K/W               |
| Thermal resistance winding-housing | 30.3 K/W               |
| Thermal time constant motor        | 201 s                  |
| Thermal time constant winding      | 175 s                  |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | 0.02~0.15 mm           |
| Radial play                        | 0.014 mm               |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 0.8 N             |
| Axial load static                      | 30 N              |
| Radial load at 3 mm from mounting face | 1.4 N             |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 9 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1735N5C2B

17mm coreless DC motor



<https://www.kocomotion.de/produkt/1735n5c2b/>



## Produkte:

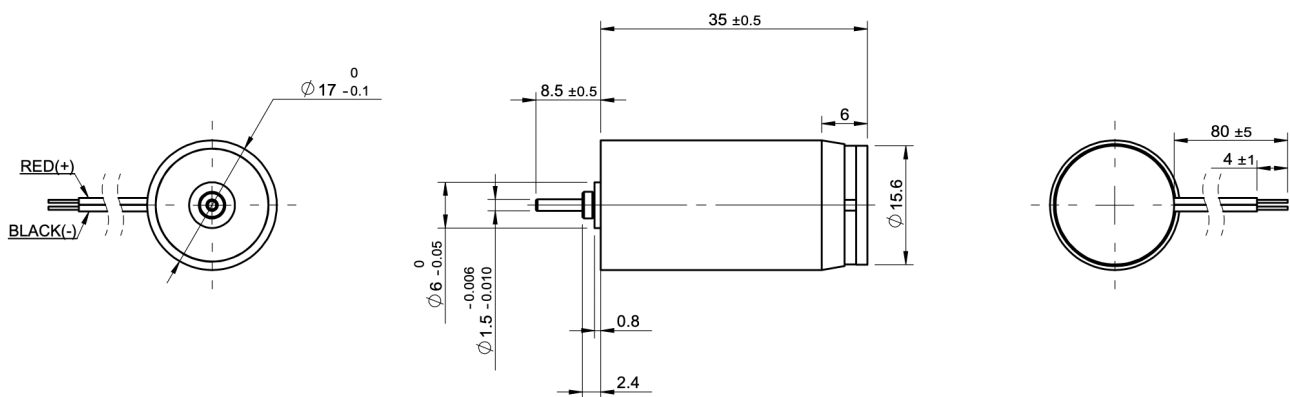
Seite

1735N5C2B01-128-12.0

123

1735N5C2B02-90-24.0

125



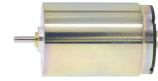


# 1735N5C2B01-128-12.0

Graphite Brush



<https://www.kocomotion.de/produkt/1735n5c2b01-128-12-0/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 12.0 V                 |
| Rotor resistance                   | 5.1 $\Omega$           |
| No-load speed                      | 12800 rpm              |
| No-load current                    | 20 mA                  |
| Stall torque                       | 20.7 mNm               |
| Stall current                      | 2350 mA                |
| Nominal torque                     | 5.0 mNm                |
| Nominal speed                      | 9710 rpm               |
| Nominal current                    | 580 mA                 |
| Max. output power                  | 6.9 W                  |
| Max. efficiency                    | 82 %                   |
| Back-EMF constant                  | 0.9 mV/rpm             |
| Torque constant                    | 8.9 mNm/A              |
| Speed/torque gradient              | 620 rpm/mNm            |
| Rotor inertia                      | 0.95 g·cm <sup>2</sup> |
| Weight                             | 34 g                   |
| Thermal resistance housing-ambient | 25.7 K/W               |
| Thermal resistance winding-housing | 30.4 K/W               |
| Thermal time constant motor        | 245 rpm                |
| Thermal time constant winding      | 232 s                  |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | 0.01~0.15 mm           |
| Radial play                        | 0.025 mm               |

| Specification                          |                  |
|----------------------------------------|------------------|
| Axial load dynamic                     | 2.2 N            |
| Axial load static                      | 30 N             |
| Radial load at 3 mm from mounting face | 8 N              |
| No. of pole pairs                      | 1                |
| Bearings                               | 2 ball bearings  |
| Commutator                             | metal 5 segments |
| Protection class                       | 30 IP            |

## Optionen

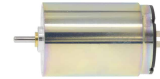
- lead wires length
- shaft length
- special coils
- gear heads
- encoder

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1735N5C2B02-90-24.0

Graphite Brush


<https://www.kocomotion.de/produkt/1735n5c2b02-90-24-0/>


| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 24.0 V                 |
| Rotor resistance                   | 34.5 $\Omega$          |
| No-load speed                      | 9000 rpm               |
| No-load current                    | 10 mA                  |
| Stall torque                       | 17.3 mNm               |
| Stall current                      | 700 mA                 |
| Nominal torque                     | 5.0 mNm                |
| Nominal speed                      | 6400 rpm               |
| Nominal current                    | 210 mA                 |
| Max. output power                  | 4.1 W                  |
| Max. efficiency                    | 78 %                   |
| Back-EMF constant                  | 2.6 mV/rpm             |
| Torque constant                    | 25.1 mNm/A             |
| Speed/torque gradient              | 520 rpm/mNm            |
| Rotor inertia                      | 0.95 g·cm <sup>2</sup> |
| Weight                             | 34 g                   |
| Thermal resistance housing-ambient | 25.7 K/W               |
| Thermal resistance winding-housing | 30.4 K/W               |
| Thermal time constant motor        | 245 rpm                |
| Thermal time constant winding      | 232 s                  |
| Operating temperature range        | -20~+85 °C             |
| Thermal class of winding           | 130 °C                 |
| Axial play                         | 0.01~0.15 mm           |
| Radial play                        | 0.025 mm               |

| Specification                          |                  |
|----------------------------------------|------------------|
| Axial load dynamic                     | 2.2 N            |
| Axial load static                      | 30 N             |
| Radial load at 3 mm from mounting face | 8 N              |
| No. of pole pairs                      | 1                |
| Bearings                               | 2 ball bearings  |
| Commutator                             | metal 5 segments |
| Protection class                       | 30 IP            |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads
- encoder

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1925N9M

19mm 24V DC coreless brush motor



<https://www.kocomotion.de/produkt/1925n9m/>



## Produkte:

Seite

1925N9M01-69-6.0

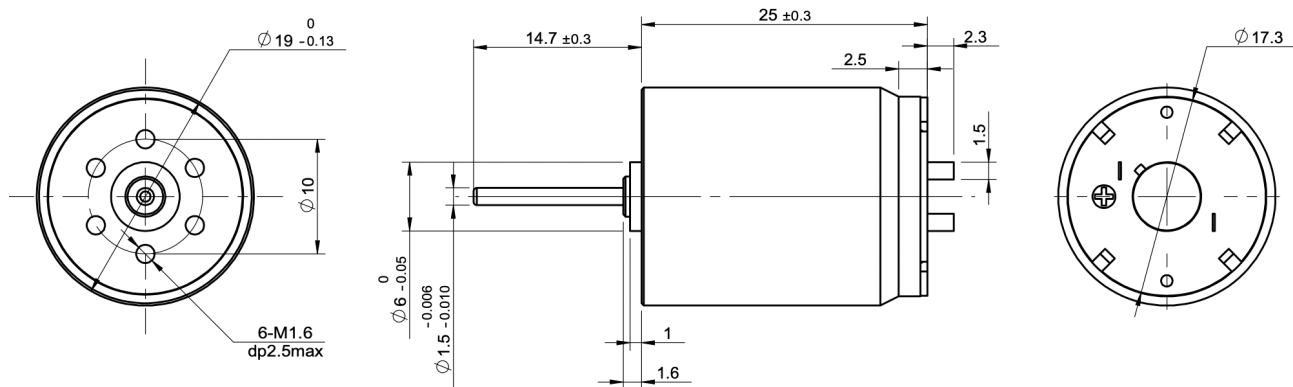
128

1925N9M02-80-12.0

130

1925N9M03-85-24.0

132



# 1925N9M01-69-6.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1925n9m01-69-6-0/>



| Specification                      |                       |
|------------------------------------|-----------------------|
| Voltage                            | 6.0 V                 |
| Terminal resistance                | 2.8 $\Omega$          |
| No-load speed                      | 6900 rpm              |
| No-load current                    | 25 mA                 |
| Stall torque                       | 17.4 mNm              |
| Stall current                      | 2140 mA               |
| Nominal torque                     | 4.0 mNm               |
| Nominal speed                      | 5310 rpm              |
| Nominal current                    | 510 mA                |
| Max. output power                  | 3.1 W                 |
| Max. efficiency                    | 80 %                  |
| Back-EMF constant                  | 0.9 mV/rpm            |
| Torque constant                    | 8.2 mNm/A             |
| Speed/torque gradient              | 400 rpm/mNm           |
| Rotor inertia                      | 0.6 g·cm <sup>2</sup> |
| Weight                             | 30 g                  |
| Thermal resistance housing-ambient | 22.4 K/W              |
| Thermal resistance winding-housing | 3.79 K/W              |
| Thermal time constant motor        | 267 s                 |
| Thermal time constant winding      | 232 s                 |
| Operating temperature range        | -20~+85 °C            |
| Thermal class of winding           | 130 °C                |
| Axial play                         | 0.02~0.15 mm          |
| Radial play                        | 0.025 mm              |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 2.2 N             |
| Axial load static                      | 30 N              |
| Radial load at 3 mm from mounting face | 8 N               |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 9 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1925N9M02-80-12.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1925n9m02-80-12-0/>



| Specification                      |                       |
|------------------------------------|-----------------------|
| Voltage                            | 12.0 V                |
| Terminal resistance                | 9.6 $\Omega$          |
| No-load speed                      | 8000 rpm              |
| No-load current                    | 15 mA                 |
| Stall torque                       | 17.5 mNm              |
| Stall current                      | 1250 mA               |
| Nominal torque                     | 4.0 mNm               |
| Nominal speed                      | 6170 rpm              |
| Nominal current                    | 300 mA                |
| Max. output power                  | 3.7 W                 |
| Max. efficiency                    | 79 %                  |
| Back-EMF constant                  | 1.5 mV/rpm            |
| Torque constant                    | 14.2 mNm/A            |
| Speed/torque gradient              | 460 rpm/mNm           |
| Rotor inertia                      | 0.6 g·cm <sup>2</sup> |
| Weight                             | 30 g                  |
| Thermal resistance housing-ambient | 22.4 K/W              |
| Thermal resistance winding-housing | 3.79 K/W              |
| Thermal time constant motor        | 267 s                 |
| Thermal time constant winding      | 232 s                 |
| Operating temperature range        | -20~+85 °C            |
| Thermal class of winding           | 130 °C                |
| Axial play                         | 0.02~0.15 mm          |
| Radial play                        | 0.025 mm              |



| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 2.2 N             |
| Axial load static                      | 30 N              |
| Radial load at 3 mm from mounting face | 8 N               |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 9 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 1925N9M03-85-24.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/1925n9m03-85-24-0/>



| Specification                      |                       |
|------------------------------------|-----------------------|
| Voltage                            | 24.0 V                |
| Terminal resistance                | 28.3 $\Omega$         |
| No-load speed                      | 8500 rpm              |
| No-load current                    | 9 mA                  |
| Stall torque                       | 22.4 mNm              |
| Stall current                      | 850 mA                |
| Nominal torque                     | 4.0 mNm               |
| Nominal speed                      | 6980 rpm              |
| Nominal current                    | 160 mA                |
| Max. output power                  | 5.0 W                 |
| Max. efficiency                    | 81 %                  |
| Back-EMF constant                  | 2.8 mV/rpm            |
| Torque constant                    | 26.7 mNm/A            |
| Speed/torque gradient              | 380 rpm/mNm           |
| Rotor inertia                      | 0.6 g·cm <sup>2</sup> |
| Weight                             | 30 g                  |
| Thermal resistance housing-ambient | 22.4 K/W              |
| Thermal resistance winding-housing | 3.79 K/W              |
| Thermal time constant motor        | 267 s                 |
| Thermal time constant winding      | 232 s                 |
| Operating temperature range        | -20~+85 °C            |
| Thermal class of winding           | 130 °C                |
| Axial play                         | 0.02~0.15 mm          |
| Radial play                        | 0.025 mm              |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 2.2 N             |
| Axial load static                      | 30 N              |
| Radial load at 3 mm from mounting face | 8 N               |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 9 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 2225N5M

22mm coreless DC motor for nail gun



<https://www.kocomotion.de/produkt/2225n5m/>



## Produkte:

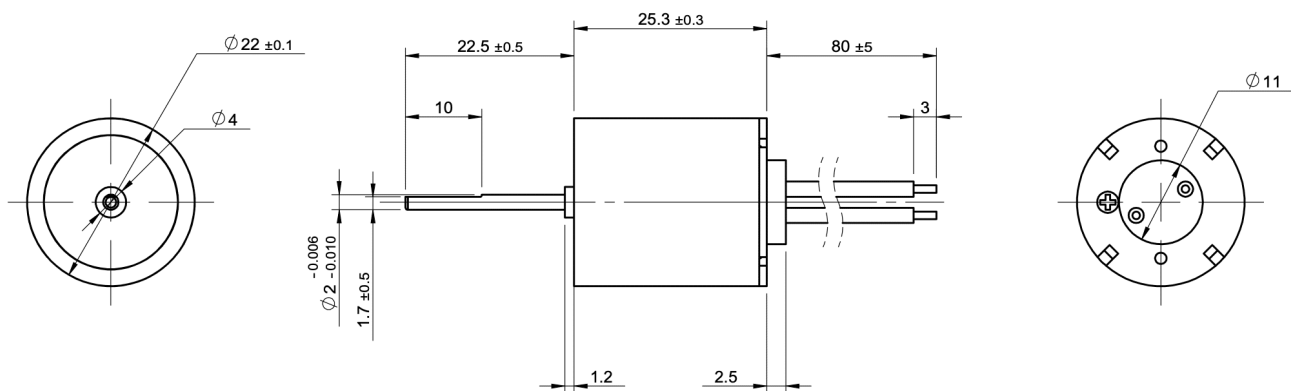
Seite

2225N5M01-161-7.2

135

2225N5M02-118-12.0

137



# 2225N5M01-161-7.2

Precious Metal Commutation



<https://www.kocomotion.de/produkt/2225n5m01-161-7-2/>



| Specification                      |                       |
|------------------------------------|-----------------------|
| Voltage                            | 7.2 V                 |
| Terminal resistance                | 1.9 $\Omega$          |
| No-load speed                      | 16100 rpm             |
| No-load current                    | 200 mA                |
| Stall torque                       | 14.5 mNm              |
| Stall current                      | 3790 mA               |
| Nominal torque                     | 2.5 mNm               |
| Nominal speed                      | 13330 rpm             |
| Nominal current                    | 820 mA                |
| Max. output power                  | 6.1 W                 |
| Max. efficiency                    | 59 %                  |
| Back-EMF constant                  | 0.4 mV/rpm            |
| Torque constant                    | 4.0 mNm/A             |
| Speed/torque gradient              | 1109 rpm/mNm          |
| Rotor inertia                      | 2.3 g·cm <sup>2</sup> |
| Weight                             | 42.5 g                |
| Thermal resistance housing-ambient | 22.3 K/W              |
| Thermal resistance winding-housing | 28.4 K/W              |
| Thermal time constant motor        | 313 s                 |
| Thermal time constant winding      | 218 s                 |
| Operating temperature range        | -20~+120 °C           |
| Thermal class of winding           | 155 °C                |
| Axial play                         | 0.02~0.15 mm          |
| Radial play                        | 0.012 mm              |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 2 N               |
| Axial load static                      | 150 N             |
| Radial load at 3 mm from mounting face | 4 N               |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 40 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 2225N5M02-118-12.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/2225n5m02-118-12-0/>



## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 2232N5M2B

22mm precious coreless DC motor



<https://www.kocomotion.de/produkt/2232n5m2b/>



| Produkte:            | Seite |
|----------------------|-------|
| 2232N5M2B03-81-6.0   | 139   |
| 2232N5M2B08-95-9.0   | 141   |
| 2232N5M2B04-100-12.0 | 143   |

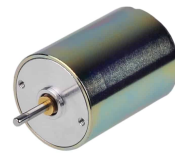


# 2232N5M2B03-81-6.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/2232n5m2b03-81-6-0/>



| Specification                      |                       |
|------------------------------------|-----------------------|
| Voltage                            | 6.0 V                 |
| Terminal resistance                | 2.0 $\Omega$          |
| No-load speed                      | 8100 rpm              |
| No-load current                    | 20 mA                 |
| Stall torque                       | 20.9 mNm              |
| Stall current                      | 3000 mA               |
| Nominal torque                     | 5.0 mNm               |
| Nominal speed                      | 6170 rpm              |
| Nominal current                    | 730 mA                |
| Max. output power                  | 4.4 W                 |
| Max. efficiency                    | 84 %                  |
| Back-EMF constant                  | 0.7 mV/rpm            |
| Torque constant                    | 7.0 mNm/A             |
| Speed/torque gradient              | 390 rpm/mNm           |
| Rotor inertia                      | 4.4 g·cm <sup>2</sup> |
| Weight                             | 55.8 g                |
| Thermal resistance housing-ambient | 19.4 K/W              |
| Thermal resistance winding-housing | 21.7 K/W              |
| Thermal time constant motor        | 383 s                 |
| Thermal time constant winding      | 329 s                 |
| Operating temperature range        | -20~+85 °C            |
| Thermal class of winding           | 130 °C                |
| Axial play                         | 0.02~0.15 mm          |
| Radial play                        | 0.025 mm              |

| Specification                          |                  |
|----------------------------------------|------------------|
| Axial load dynamic                     | 3.3 N            |
| Axial load static                      | 60 N             |
| Radial load at 3 mm from mounting face | 14 N             |
| No. of pole pairs                      | 1                |
| Bearings                               | 2 ball bearings  |
| Commutator                             | metal 5 segments |
| Protection class                       | 30 IP            |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

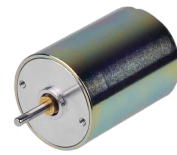
- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 2232N5M2B08-95-9.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/2232n5m2b08-95-9-0/>



| Specification                      |                       |
|------------------------------------|-----------------------|
| Voltage                            | 9.0 V                 |
| Terminal resistance                | 2.9 $\Omega$          |
| No-load speed                      | 9500 rpm              |
| No-load current                    | 20 mA                 |
| Stall torque                       | 27.7 mNm              |
| Stall current                      | 3100 mA               |
| Nominal torque                     | 7.0 mNm               |
| Nominal speed                      | 7100 rpm              |
| Nominal current                    | 800 mA                |
| Max. output power                  | 6.9 W                 |
| Max. efficiency                    | 85 %                  |
| Back-EMF constant                  | 0.9 mV/rpm            |
| Torque constant                    | 9.0 mNm/A             |
| Speed/torque gradient              | 340 rpm/mNm           |
| Rotor inertia                      | 4.4 g·cm <sup>2</sup> |
| Weight                             | 55.8 g                |
| Thermal resistance housing-ambient | 19.4 K/W              |
| Thermal resistance winding-housing | 21.7 K/W              |
| Thermal time constant motor        | 383 s                 |
| Thermal time constant winding      | 329 s                 |
| Operating temperature range        | -20~+85 °C            |
| Thermal class of winding           | 130 °C                |
| Axial play                         | 0.02~0.15 mm          |
| Radial play                        | 0.025 mm              |

| Specification                          |                  |
|----------------------------------------|------------------|
| Axial load dynamic                     | 3.3 N            |
| Axial load static                      | 60 N             |
| Radial load at 3 mm from mounting face | 14 N             |
| No. of pole pairs                      | 1                |
| Bearings                               | 2 ball bearings  |
| Commutator                             | metal 5 segments |
| Protection class                       | 30 IP            |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

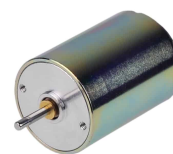
- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 2232N5M2B04-100-12.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/2232n5m2b04-100-12-0/>



| Specification                      |                       |
|------------------------------------|-----------------------|
| Voltage                            | 12.0 V                |
| Terminal resistance                | 4.3 $\Omega$          |
| No-load speed                      | 10000 rpm             |
| No-load current                    | 20 mA                 |
| Stall torque                       | 31.5 mNm              |
| Stall current                      | 2790 mA               |
| Nominal torque                     | 8.0 mNm               |
| Nominal speed                      | 7460 rpm              |
| Nominal current                    | 720 mA                |
| Max. output power                  | 8.3 W                 |
| Max. efficiency                    | 84 %                  |
| Back-EMF constant                  | 1.2 mV/rpm            |
| Torque constant                    | 11.4 mNm/A            |
| Speed/torque gradient              | 320 rpm/mNm           |
| Rotor inertia                      | 4.4 g·cm <sup>2</sup> |
| Weight                             | 55.8 g                |
| Thermal resistance housing-ambient | 19.4 K/W              |
| Thermal resistance winding-housing | 21.7 K/W              |
| Thermal time constant motor        | 383 s                 |
| Thermal time constant winding      | 329 s                 |
| Operating temperature range        | -20~+85 °C            |
| Thermal class of winding           | 130 °C                |
| Axial play                         | 0.02~0.15 mm          |
| Radial play                        | 0.025 mm              |

| Specification                          |                  |
|----------------------------------------|------------------|
| Axial load dynamic                     | 3.3 N            |
| Axial load static                      | 60 N             |
| Radial load at 3 mm from mounting face | 14 N             |
| No. of pole pairs                      | 1                |
| Bearings                               | 2 ball bearings  |
| Commutator                             | metal 5 segments |
| Protection class                       | 30 IP            |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

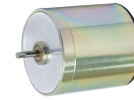
- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 2224N5M

22mm coreless DC motor



<https://www.kocomotion.de/produkt/2224n5m/>



## Produkte:

Seite

2224N5M11-105-6.0

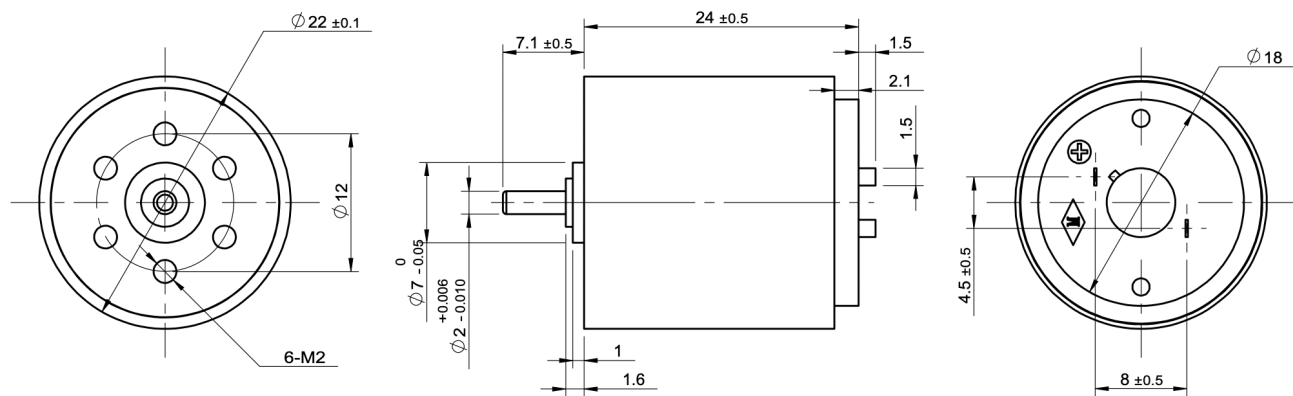
146

2224N5M09-158-12.0

148

2224N5M12-112-12.0

150

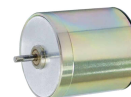


# 2224N5M11-105-6.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/2224n5m11-105-6-0/>



| Specification                      |                       |
|------------------------------------|-----------------------|
| Voltage                            | 6.0 V                 |
| Terminal resistance                | 1.3 $\Omega$          |
| No-load speed                      | 10500 rpm             |
| No-load current                    | 60 mA                 |
| Stall torque                       | 24.6 mNm              |
| Stall current                      | 4620 mA               |
| Nominal torque                     | 5.0 mNm               |
| Nominal speed                      | 8360 rpm              |
| Nominal current                    | 990 mA                |
| Max. output power                  | 6.8 W                 |
| Max. efficiency                    | 79 %                  |
| Back-EMF constant                  | 0.6 mV/rpm            |
| Torque constant                    | 5.4 mNm/A             |
| Speed/torque gradient              | 430 rpm/mNm           |
| Rotor inertia                      | 2.4 g·cm <sup>2</sup> |
| Weight                             | 36 g                  |
| Thermal resistance housing-ambient | 22.31 K/W             |
| Thermal resistance winding-housing | 6.06 K/W              |
| Thermal time constant motor        | 313 s                 |
| Thermal time constant winding      | 218 s                 |
| Operating temperature range        | -20~+85 °C            |
| Thermal class of winding           | 130 °C                |
| Axial play                         | 0.02~0.15 mm          |
| Radial play                        | 0.025 mm              |



| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 3.3 N             |
| Axial load static                      | 60 N              |
| Radial load at 3 mm from mounting face | 14 N              |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 40 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

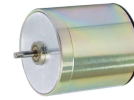
- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 2224N5M09-158-12.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/2224n5m09-158-12-0/>



| Specification                      |                       |
|------------------------------------|-----------------------|
| Voltage                            | 12.0 V                |
| Terminal resistance                | 2.0 $\Omega$          |
| No-load speed                      | 15800 rpm             |
| No-load current                    | 55 mA                 |
| Stall torque                       | 42.7 mNm              |
| Stall current                      | 6000 mA               |
| Nominal torque                     | 5.0 mNm               |
| Nominal speed                      | 13950 rpm             |
| Nominal current                    | 750 mA                |
| Max. output power                  | 17.7 W                |
| Max. efficiency                    | 82 %                  |
| Back-EMF constant                  | 0.8 mV/rpm            |
| Torque constant                    | 7.2 mNm/A             |
| Speed/torque gradient              | 370 rpm/mNm           |
| Rotor inertia                      | 2.4 g·cm <sup>2</sup> |
| Weight                             | 36 g                  |
| Thermal resistance housing-ambient | 22.31 K/W             |
| Thermal resistance winding-housing | 6.06 K/W              |
| Thermal time constant motor        | 313 s                 |
| Thermal time constant winding      | 218 s                 |
| Operating temperature range        | -20~+85 °C            |
| Thermal class of winding           | 130 °C                |
| Axial play                         | 0.02~0.15 mm          |
| Radial play                        | 0.025 mm              |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 3.3 N             |
| Axial load static                      | 60 N              |
| Radial load at 3 mm from mounting face | 14 N              |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 40 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

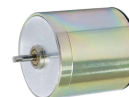
- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 2224N5M12-112-12.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/2224n5m12-112-12-0/>



| Specification                      |                       |
|------------------------------------|-----------------------|
| Voltage                            | 12.0 V                |
| Terminal resistance                | 5.9 $\Omega$          |
| No-load speed                      | 11200 rpm             |
| No-load current                    | 30 mA                 |
| Stall torque                       | 20.2 mNm              |
| Stall current                      | 2030 mA               |
| Nominal torque                     | 3.0 mNm               |
| Nominal speed                      | 9530 rpm              |
| Nominal current                    | 330 mA                |
| Max. output power                  | 5.9 W                 |
| Max. efficiency                    | 77 %                  |
| Back-EMF constant                  | 1.1 mV/rpm            |
| Torque constant                    | 10.1 mNm/A            |
| Speed/torque gradient              | 560 rpm/mNm           |
| Rotor inertia                      | 2.4 g·cm <sup>2</sup> |
| Weight                             | 36 g                  |
| Thermal resistance housing-ambient | 22.31 K/W             |
| Thermal resistance winding-housing | 6.06 K/W              |
| Thermal time constant motor        | 313 s                 |
| Thermal time constant winding      | 218 s                 |
| Operating temperature range        | -20~+85 °C            |
| Thermal class of winding           | 130 °C                |
| Axial play                         | 0.02~0.15 mm          |
| Radial play                        | 0.025 mm              |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 3.3 N             |
| Axial load static                      | 60 N              |
| Radial load at 3 mm from mounting face | 14 N              |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 5 segments  |
| Protection class                       | 40 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 2232N9M

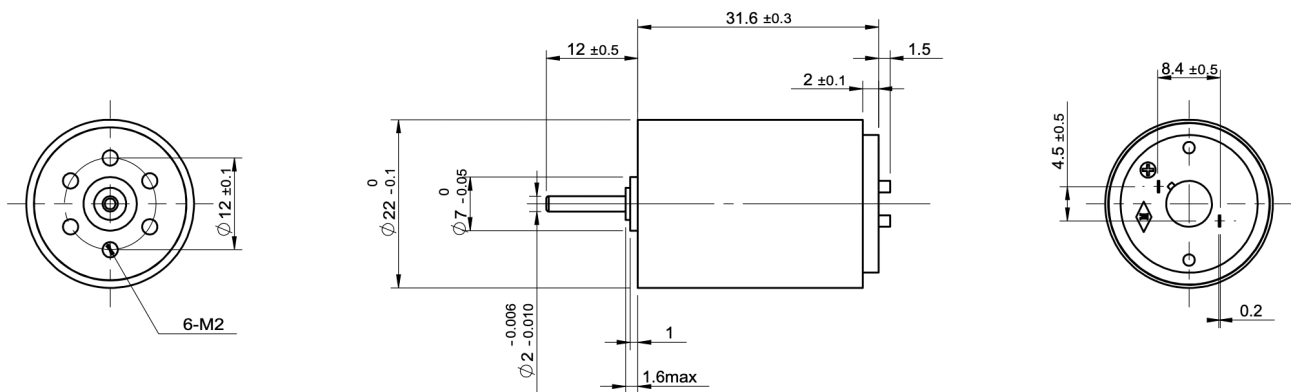
22mm coreless peristaltic pump motor



<https://www.kocomotion.de/produkt/2232n9m/>



| Produkte:          | Seite |
|--------------------|-------|
| 2232N9M03-68-6.0   | 153   |
| 2232N9Mxx-60-12.0  | 155   |
| 2232N9M01-110-24.0 | 157   |



# 2232N9M03-68-6.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/2232n9m03-68-6-0/>



| Specification                      |                       |
|------------------------------------|-----------------------|
| Voltage                            | 6.0 V                 |
| Terminal resistance                | 2.8 $\Omega$          |
| No-load speed                      | 6800 rpm              |
| No-load current                    | 25 mA                 |
| Stall torque                       | 17.6 mNm              |
| Stall current                      | 2140 mA               |
| Nominal torque                     | 3.0 mNm               |
| Nominal speed                      | 5640 rpm              |
| Nominal current                    | 390 mA                |
| Max. output power                  | 3.1 W                 |
| Max. efficiency                    | 80 %                  |
| Back-EMF constant                  | 0.9 mV/rpm            |
| Torque constant                    | 8.3 mNm/A             |
| Speed/torque gradient              | 390 rpm/mNm           |
| Rotor inertia                      | 4.4 g·cm <sup>2</sup> |
| Weight                             | 55.8 g                |
| Thermal resistance housing-ambient | 19.4 K/W              |
| Thermal resistance winding-housing | 21.7 K/W              |
| Thermal time constant motor        | 383 s                 |
| Thermal time constant winding      | 329 s                 |
| Operating temperature range        | -20~+85 °C            |
| Thermal class of winding           | 85 °C                 |
| Axial play                         | 0.02~0.15 mm          |
| Radial play                        | 0.025 mm              |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 3.3 N             |
| Axial load static                      | 60 N              |
| Radial load at 3 mm from mounting face | 14 N              |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 9 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation



# 2232N9Mxx-60-12.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/2232n9mxx-60-12-0/>



| Specification                      |                       |
|------------------------------------|-----------------------|
| Voltage                            | 12.0 V                |
| Terminal resistance                | 4.3 $\Omega$          |
| No-load speed                      | 11000 rpm             |
| No-load current                    | 20 mA                 |
| Stall torque                       | 28.6 mNm              |
| Stall current                      | 2790 mA               |
| Nominal torque                     | 4.0 mNm               |
| Nominal speed                      | 9460 rpm              |
| Nominal current                    | 410 mA                |
| Max. output power                  | 8.3 W                 |
| Max. efficiency                    | 84 %                  |
| Back-EMF constant                  | 1.1 mV/rpm            |
| Torque constant                    | 10.3 mNm/A            |
| Speed/torque gradient              | 380 rpm/mNm           |
| Rotor inertia                      | 4.4 g·cm <sup>2</sup> |
| Weight                             | 55.8 g                |
| Thermal resistance housing-ambient | 19.4 K/W              |
| Thermal resistance winding-housing | 21.7 K/W              |
| Thermal time constant motor        | 383 s                 |
| Thermal time constant winding      | 329 s                 |
| Operating temperature range        | -20~+85 °C            |
| Thermal class of winding           | 85 °C                 |
| Axial play                         | 0.02~0.15 mm          |
| Radial play                        | 0.025 mm              |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 3.3 N             |
| Axial load static                      | 60 N              |
| Radial load at 3 mm from mounting face | 14 N              |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 9 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 2232N9M01-110-24.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/2232n9m01-110-24-0/>



| Specification                      |                       |
|------------------------------------|-----------------------|
| Voltage                            | 24.0 V                |
| Terminal resistance                | 17.2 $\Omega$         |
| No-load speed                      | 11000 rpm             |
| No-load current                    | 8 mA                  |
| Stall torque                       | 28.8 mNm              |
| Stall current                      | 1400 mA               |
| Nominal torque                     | 7.0 mNm               |
| Nominal speed                      | 8330 rpm              |
| Nominal current                    | 350 mA                |
| Max. output power                  | 8.3 W                 |
| Max. efficiency                    | 86 %                  |
| Back-EMF constant                  | 2.2 mV/rpm            |
| Torque constant                    | 20.7 mNm/A            |
| Speed/torque gradient              | 380 rpm/mNm           |
| Rotor inertia                      | 4.4 g·cm <sup>2</sup> |
| Weight                             | 55.8 g                |
| Thermal resistance housing-ambient | 19.4 K/W              |
| Thermal resistance winding-housing | 21.7 K/W              |
| Thermal time constant motor        | 383 s                 |
| Thermal time constant winding      | 329 s                 |
| Operating temperature range        | -20~+85 °C            |
| Thermal class of winding           | 85 °C                 |
| Axial play                         | 0.02~0.15 mm          |
| Radial play                        | 0.025 mm              |

| Specification                          |                   |
|----------------------------------------|-------------------|
| Axial load dynamic                     | 3.3 N             |
| Axial load static                      | 60 N              |
| Radial load at 3 mm from mounting face | 14 N              |
| No. of pole pairs                      | 1                 |
| Bearings                               | 2 sleeve bearings |
| Commutator                             | metal 9 segments  |
| Protection class                       | 30 IP             |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

32mm 12V 24V coreless DC motor



# 3257N9C2B01-54-12.0

Graphite Brush


<https://www.kocomotion.de/produkt/3257n9c2b01-54-12-0/>


| Specification                      |                      |
|------------------------------------|----------------------|
| Voltage                            | 12.0 V               |
| Terminal resistance                | 0.44 $\Omega$        |
| No-load speed                      | 5440 rpm             |
| No-load current                    | 150 mA               |
| Stall torque                       | 568.1 mNm            |
| Stall current                      | 27270 mA             |
| Nominal torque                     | 45.5 mNm             |
| Nominal speed                      | 5000 rpm             |
| Nominal current                    | 2320 mA              |
| Max. output power                  | 81 W                 |
| Max. efficiency                    | 86 %                 |
| Back-EMF constant                  | 2.2 mV/rpm           |
| Torque constant                    | 20.9 mNm/A           |
| Speed/torque gradient              | 9.6 rpm/mNm          |
| Rotor inertia                      | 42 g·cm <sup>2</sup> |
| Weight                             | 230 g                |
| Thermal resistance housing-ambient | 7.57 K/W             |
| Thermal resistance winding-housing | 4.05 K/W             |
| Thermal time constant motor        | 725 s                |
| Thermal time constant winding      | 540 s                |
| Operating temperature range        | -20~+120 °C          |
| Thermal class of winding           | 155 °C               |
| Axial play                         | 0.02~0.15 mm         |
| Radial play                        | 0.025 mm             |

| Specification                          |                  |
|----------------------------------------|------------------|
| Axial load dynamic                     | 5.6 N            |
| Axial load static                      | 110 N            |
| Radial load at 3 mm from mounting face | 30 N             |
| No. of pole pairs                      | 1                |
| Bearings                               | 2 ball bearings  |
| Commutator                             | metal 9 segments |
| Protection class                       | 20 IP            |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads
- encoder

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 3257N9C2B02-64-24.0

Graphite Brush


<https://www.kocomotion.de/produkt/3257n9c2b02-64-24-0/>


| Specification                      |                      |
|------------------------------------|----------------------|
| Voltage                            | 24.0 V               |
| Terminal resistance                | 2.3 $\Omega$         |
| No-load speed                      | 6400 rpm             |
| No-load current                    | 100 mA               |
| Stall torque                       | 366.4 mNm            |
| Stall current                      | 10430 mA             |
| Nominal torque                     | 38.5 mNm             |
| Nominal speed                      | 5730 rpm             |
| Nominal current                    | 1190 mA              |
| Max. output power                  | 61 W                 |
| Max. efficiency                    | 81 %                 |
| Back-EMF constant                  | 3.7 mV/rpm           |
| Torque constant                    | 35.5 mNm/A           |
| Speed/torque gradient              | 17.5 rpm/mNm         |
| Rotor inertia                      | 42 g·cm <sup>2</sup> |
| Weight                             | 230 g                |
| Thermal resistance housing-ambient | 7.57 K/W             |
| Thermal resistance winding-housing | 4.05 K/W             |
| Thermal time constant motor        | 725 s                |
| Thermal time constant winding      | 540 s                |
| Operating temperature range        | -20~+120 °C          |
| Thermal class of winding           | 155 °C               |
| Axial play                         | 0.02~0.15 mm         |
| Radial play                        | 0.025 mm             |



| Specification                          |                  |
|----------------------------------------|------------------|
| Axial load dynamic                     | 5.6 N            |
| Axial load static                      | 110 N            |
| Radial load at 3 mm from mounting face | 30 N             |
| No. of pole pairs                      | 1                |
| Bearings                               | 2 ball bearings  |
| Commutator                             | metal 9 segments |
| Protection class                       | 20 IP            |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads
- encoder

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 3257N9C2B08-74-24.0

Graphite Brush


<https://www.kocomotion.de/produkt/3257n9c2b08-74-24-0/>


| Specification                      |                      |
|------------------------------------|----------------------|
| Voltage                            | 24.0 V               |
| Terminal resistance                | 1.84 $\Omega$        |
| No-load speed                      | 7400 rpm             |
| No-load current                    | 100 mA               |
| Stall torque                       | 397.7 mNm            |
| Stall current                      | 13040 mA             |
| Nominal torque                     | 31.8 mNm             |
| Nominal speed                      | 6810 rpm             |
| Nominal current                    | 1130 mA              |
| Max. output power                  | 77 W                 |
| Max. efficiency                    | 83 %                 |
| Back-EMF constant                  | 3.2 mV/rpm           |
| Torque constant                    | 30.7 mNm/A           |
| Speed/torque gradient              | 18.6 rpm/mNm         |
| Rotor inertia                      | 42 g·cm <sup>2</sup> |
| Weight                             | 230 g                |
| Thermal resistance housing-ambient | 7.57 K/W             |
| Thermal resistance winding-housing | 4.05 K/W             |
| Thermal time constant motor        | 725 s                |
| Thermal time constant winding      | 540 s                |
| Operating temperature range        | -20~+120 °C          |
| Thermal class of winding           | 155 °C               |
| Axial play                         | 0.02~0.15 mm         |
| Radial play                        | 0.025 mm             |

| Specification                          |                  |
|----------------------------------------|------------------|
| Axial load dynamic                     | 5.6 N            |
| Axial load static                      | 110 N            |
| Radial load at 3 mm from mounting face | 30 N             |
| No. of pole pairs                      | 1                |
| Bearings                               | 2 ball bearings  |
| Commutator                             | metal 9 segments |
| Protection class                       | 20 IP            |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads
- encoder

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 2233N5C

22mm graphite brush coreless DC motor



<https://www.kocomotion.de/produkt/2233n5c/>

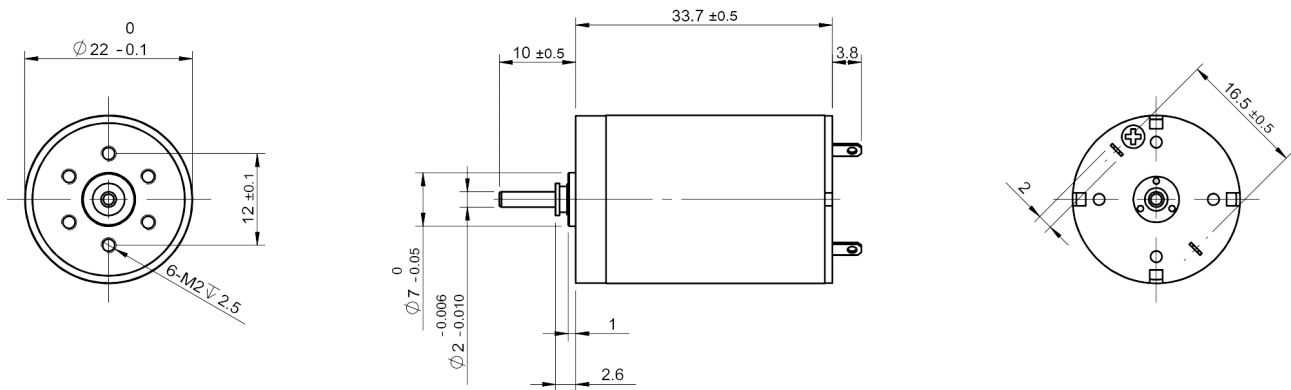


## Produkte:

Seite

2233N5C18-180-12.0

167



# 2233N5C18-180-12.0

Graphite Brush



<https://www.kocomotion.de/produkt/2233n5c18-180-12-0/>



| Specification         |                       |
|-----------------------|-----------------------|
| Voltage               | 12.0 V                |
| Terminal resistance   | 1.45 $\Omega$         |
| No-load speed         | 18000 rpm             |
| No-load current       | 100 mA                |
| Stall torque          | 51.4 mNm              |
| Stall current         | 8280 mA               |
| Nominal torque        | 12.3 mNm              |
| Nominal speed         | 13700 rpm             |
| Nominal current       | 2060 mA               |
| Max. output power     | 24.3 W                |
| Max. efficiency       | 79 %                  |
| Back-EMF constant     | 0.7 mV/rpm            |
| Torque constant       | 6.3 mNm/A             |
| Speed/torque gradient | 350 rpm/mNm           |
| Rotor inertia         | 2.5 g·cm <sup>2</sup> |
| Weight                | 52 g                  |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 2433N5M2B

24mm 4.5V coreless DC motor



<https://www.kocomotion.de/produkt/2433n5m2b/>

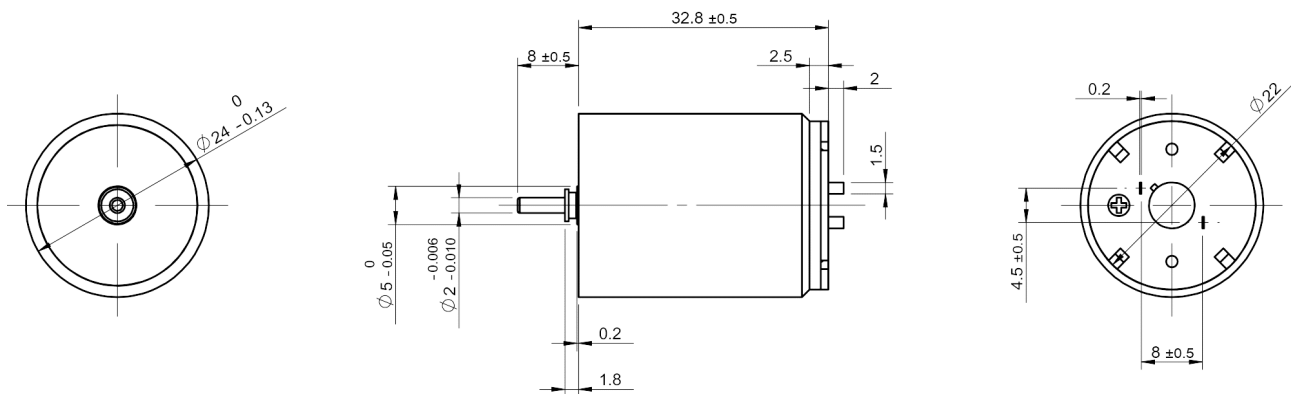


Produkte:

Seite

2433N5M2B01-78-4.5

169



# 2433N5M2B01-78-4.5

Precious Metal Commutation



<https://www.kocomotion.de/produkt/2433n5m2b01-78-4-5/>



| Specification                      |                       |
|------------------------------------|-----------------------|
| Voltage                            | 4.5 V                 |
| Terminal resistance                | 0.5 $\Omega$          |
| No-load speed                      | 8000 rpm              |
| No-load current                    | 35 mA                 |
| Stall torque                       | 48.0 mNm              |
| Stall current                      | 9000 mA               |
| Nominal torque                     | 3.0 mNm               |
| Nominal speed                      | 7500 rpm              |
| Nominal current                    | 600 mA                |
| Max. output power                  | 10.1 W                |
| Max. efficiency                    | 88 %                  |
| Back-EMF constant                  | 0.6 mV/rpm            |
| Torque constant                    | 5.4 mNm/A             |
| Speed/torque gradient              | 170 rpm/mNm           |
| Rotor inertia                      | 2.2 g·cm <sup>2</sup> |
| Weight                             | 68 g                  |
| Thermal resistance housing-ambient | 16.8 K/W              |
| Thermal resistance winding-housing | 22.1 K/W              |
| Thermal time constant motor        | 332 s                 |
| Thermal time constant winding      | 263 s                 |
| Operating temperature range        | -20~+85 °C            |
| Thermal class of winding           | 130 °C                |
| Axial play                         | 0.01~0.15- mm         |
| Radial play                        | 0.025 mm              |

| Specification                          |                  |
|----------------------------------------|------------------|
| Axial load dynamic                     | 3.3 N            |
| Axial load static                      | 60 N             |
| Radial load at 3 mm from mounting face | 14 N             |
| No. of pole pairs                      | 1-               |
| Bearings                               | 2 ball bearings  |
| Commutator                             | metal 5 segments |
| Protection class                       | 20 IP            |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation



# 2543N9C2B

25mm 24V dual shaft DC motor



<https://www.kocomotion.de/produkt/2543n9c2b/>



## Produkte:

Seite

2543N9C2B03-65-24.0

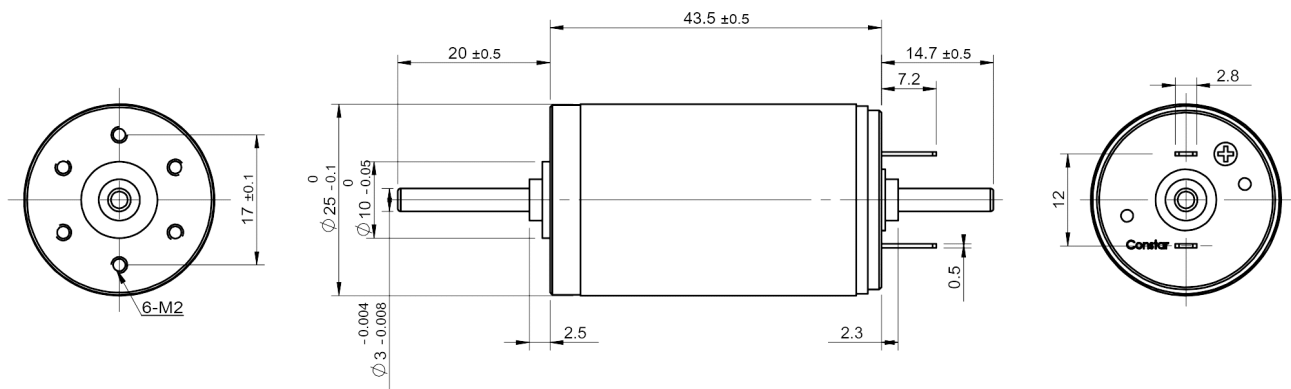
172

2543N9C2B06-110-24.0

174

2543N9C2B05-65-48.0

176



# 2543N9C2B03-65-24.0

Graphite Brush


<https://www.kocomotion.de/produkt/2543n9c2b03-65-24-0/>


| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 24.0 V                 |
| Terminal resistance                | 6.3 $\Omega$           |
| No-load speed                      | 6500 rpm               |
| No-load current                    | 25 mA                  |
| Stall torque                       | 132.6 mNm              |
| Stall current                      | 3810 mA                |
| Nominal torque                     | 37.6 mNm               |
| Nominal speed                      | 4660 rpm               |
| Nominal current                    | 1100 mA                |
| Max. output power                  | 22.6 W                 |
| Max. efficiency                    | 85 %                   |
| Back-EMF constant                  | 3.7 mV/rpm             |
| Torque constant                    | 35.0 mNm/A             |
| Speed/torque gradient              | 49.0 rpm/mNm           |
| Rotor inertia                      | 13.2 g·cm <sup>2</sup> |
| Weight                             | 98 g                   |
| Thermal resistance housing-ambient | 11.04 K/W              |
| Thermal resistance winding-housing | 4.67 K/W               |
| Thermal time constant motor        | 266 s                  |
| Thermal time constant winding      | 123 s                  |
| Operating temperature range        | -20~+120 °C            |
| Thermal class of winding           | 155 °C                 |
| Axial play                         | 0.025 mm               |
| Radial play                        | 0.02~0.15 mm           |

| Specification                          |                  |
|----------------------------------------|------------------|
| Axial load dynamic                     | 20 N             |
| Axial load static                      | 60 N             |
| Radial load at 3 mm from mounting face | 40 N             |
| No. of pole pairs                      | 1                |
| Bearings                               | 2 ball bearings  |
| Commutator                             | metal 9 segments |
| Protection class                       | 20 IP            |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads
- encoder

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 2543N9C2B06-110-24.0

Graphite Brush



<https://www.kocomotion.de/produkt/2543n9c2b06-110-24-0/>



| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 24.0 V                 |
| Terminal resistance                | 2.7 $\Omega$           |
| No-load speed                      | 11000 rpm              |
| No-load current                    | 45 mA                  |
| Stall torque                       | 183.4 mNm              |
| Stall current                      | 8890 mA                |
| Nominal torque                     | 20.2 mNm               |
| Nominal speed                      | 9790 rpm               |
| Nominal current                    | 1020 mA                |
| Max. output power                  | 52.9 W                 |
| Max. efficiency                    | 86 %                   |
| Back-EMF constant                  | 2.2 mV/rpm             |
| Torque constant                    | 20.7 mNm/A             |
| Speed/torque gradient              | 60.0 rpm/mNm           |
| Rotor inertia                      | 13.2 g·cm <sup>2</sup> |
| Weight                             | 98 g                   |
| Thermal resistance housing-ambient | 11.04 K/W              |
| Thermal resistance winding-housing | 4.67 K/W               |
| Thermal time constant motor        | 266 s                  |
| Thermal time constant winding      | 123 s                  |
| Operating temperature range        | -20~+120 °C            |
| Thermal class of winding           | 155 °C                 |
| Axial play                         | 0.025 mm               |
| Radial play                        | 0.02~0.15 mm           |

| Specification                          |                  |
|----------------------------------------|------------------|
| Axial load dynamic                     | 20 N             |
| Axial load static                      | 60 N             |
| Radial load at 3 mm from mounting face | 40 N             |
| No. of pole pairs                      | 1                |
| Bearings                               | 2 ball bearings  |
| Commutator                             | metal 9 segments |
| Protection class                       | 20 IP            |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads
- encoder

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 2543N9C2B05-65-48.0

Graphite Brush


<https://www.kocomotion.de/produkt/2543n9c2b05-65-48-0/>


| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 48.0 V                 |
| Terminal resistance                | 23.0 $\Omega$          |
| No-load speed                      | 6500 rpm               |
| No-load current                    | 20 mA                  |
| Stall torque                       | 144.6 mNm              |
| Stall current                      | 2090 mA                |
| Nominal torque                     | 42.6 mNm               |
| Nominal speed                      | 4580 rpm               |
| Nominal current                    | 630 mA                 |
| Max. output power                  | 24.6 W                 |
| Max. efficiency                    | 81 %                   |
| Back-EMF constant                  | 7.3 mV/rpm             |
| Torque constant                    | 69.8 mNm/A             |
| Speed/torque gradient              | 45.0 rpm/mNm           |
| Rotor inertia                      | 13.2 g·cm <sup>2</sup> |
| Weight                             | 98 g                   |
| Thermal resistance housing-ambient | 11.04 K/W              |
| Thermal resistance winding-housing | 4.67 K/W               |
| Thermal time constant motor        | 266 s                  |
| Thermal time constant winding      | 123 s                  |
| Operating temperature range        | -20~+120 °C            |
| Thermal class of winding           | 155 °C                 |
| Axial play                         | 0.025 mm               |
| Radial play                        | 0.02~0.15 mm           |

| Specification                          |                  |
|----------------------------------------|------------------|
| Axial load dynamic                     | 20 N             |
| Axial load static                      | 60 N             |
| Radial load at 3 mm from mounting face | 40 N             |
| No. of pole pairs                      | 1                |
| Bearings                               | 2 ball bearings  |
| Commutator                             | metal 9 segments |
| Protection class                       | 20 IP            |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads
- encoder

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 2554N9C2B

25mm 24V carbon brush DC motor



<https://www.kocomotion.de/produkt/2554n9c2b/>



## Produkte:

Seite

2554N9C2B03-51-12.0

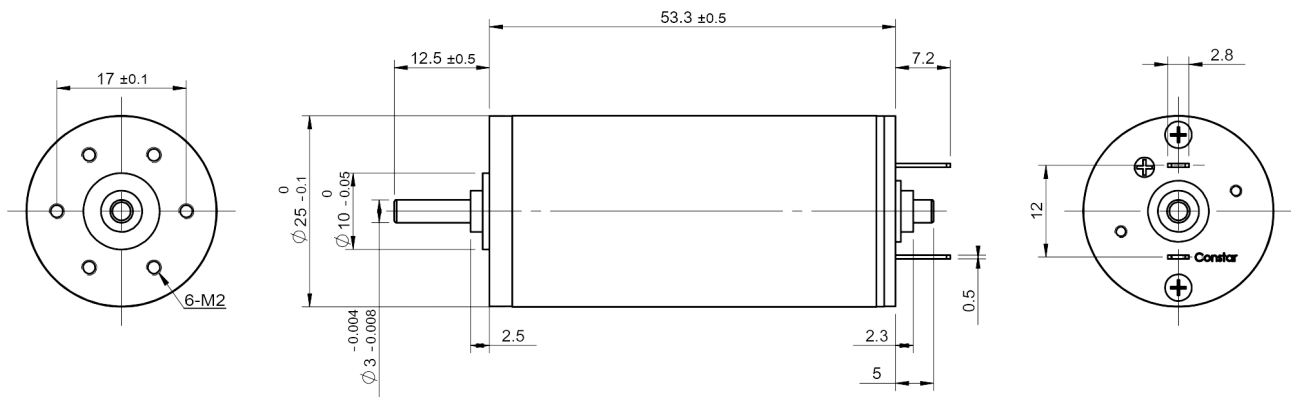
179

2554N9C2B04-82-24.0

181

2554N9C2B02-93-24.0

183





# 2554N9C2B03-51-12.0

Graphite Brush


<https://www.kocomotion.de/produkt/2554n9c2b03-51-12-0/>


| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 12.0 V                 |
| Terminal resistance                | 1.92 $\Omega$          |
| No-load speed                      | 5100 rpm               |
| No-load current                    | 20 mA                  |
| Stall torque                       | 139.5 mNm              |
| Stall current                      | 6250 mA                |
| Nominal torque                     | 42.0 mNm               |
| Nominal speed                      | 3560 rpm               |
| Nominal current                    | 1900 mA                |
| Max. output power                  | 18.6 W                 |
| Max. efficiency                    | 89 %                   |
| Back-EMF constant                  | 2.3 mV/rpm             |
| Torque constant                    | 22.4 mNm/A             |
| Speed/torque gradient              | 36.6 rpm/mNm           |
| Rotor inertia                      | 14.2 g·cm <sup>2</sup> |
| Weight                             | 120 g                  |
| Thermal resistance housing-ambient | 10.8 K/W               |
| Thermal resistance winding-housing | 4 K/W                  |
| Thermal time constant motor        | 284 s                  |
| Thermal time constant winding      | 157 s                  |
| Operating temperature range        | -20~+120 °C            |
| Thermal class of winding           | 120 °C                 |
| Axial play                         | 0.02~0.15 mm           |
| Radial play                        | 0.025 mm               |

| Specification                          |                  |
|----------------------------------------|------------------|
| Axial load dynamic                     | 20 N             |
| Axial load static                      | 60 N             |
| Radial load at 3 mm from mounting face | 40 N             |
| No. of pole pairs                      | 1                |
| Bearings                               | 2 ball bearings  |
| Commutator                             | metal 9 segments |
| Protection class                       | 20 IP            |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 2554N9C2B04-82-24.0

Graphite Brush


<https://www.kocomotion.de/produkt/2554n9c2b04-82-24-0/>


| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 24.0 V                 |
| Terminal resistance                | 3.1 $\Omega$           |
| No-load speed                      | 8200 rpm               |
| No-load current                    | 35 mA                  |
| Stall torque                       | 214.4 mNm              |
| Stall current                      | 7740 mA                |
| Nominal torque                     | 32.4 mNm               |
| Nominal speed                      | 6960 rpm               |
| Nominal current                    | 1200 mA                |
| Max. output power                  | 46.1 W                 |
| Max. efficiency                    | 87 %                   |
| Back-EMF constant                  | 2.9 mV/rpm             |
| Torque constant                    | 27.8 mNm/A             |
| Speed/torque gradient              | 38.3 rpm/mNm           |
| Rotor inertia                      | 14.2 g·cm <sup>2</sup> |
| Weight                             | 120 g                  |
| Thermal resistance housing-ambient | 10.8 K/W               |
| Thermal resistance winding-housing | 4 K/W                  |
| Thermal time constant motor        | 284 s                  |
| Thermal time constant winding      | 157 s                  |
| Operating temperature range        | -20~+120 °C            |
| Thermal class of winding           | 120 °C                 |
| Axial play                         | 0.02~0.15 mm           |
| Radial play                        | 0.025 mm               |

| Specification                          |                  |
|----------------------------------------|------------------|
| Axial load dynamic                     | 20 N             |
| Axial load static                      | 60 N             |
| Radial load at 3 mm from mounting face | 40 N             |
| No. of pole pairs                      | 1                |
| Bearings                               | 2 ball bearings  |
| Commutator                             | metal 9 segments |
| Protection class                       | 20 IP            |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 2554N9C2B02-93-24.0

Graphite Brush


<https://www.kocomotion.de/produkt/2554n9c2b02-93-24-0/>


| Specification                      |                        |
|------------------------------------|------------------------|
| Voltage                            | 24.0 V                 |
| Terminal resistance                | 2.5 $\Omega$           |
| No-load speed                      | 9300 rpm               |
| No-load current                    | 65 mA                  |
| Stall torque                       | 233.4 mNm              |
| Stall current                      | 9600 mA                |
| Nominal torque                     | 28.0 mNm               |
| Nominal speed                      | 8180 rpm               |
| Nominal current                    | 1210 mA                |
| Max. output power                  | 56.9 W                 |
| Max. efficiency                    | 84 %                   |
| Back-EMF constant                  | 2.6 mV/rpm             |
| Torque constant                    | 24.5 mNm/A             |
| Speed/torque gradient              | 39.8 rpm/mNm           |
| Rotor inertia                      | 14.2 g·cm <sup>2</sup> |
| Weight                             | 120 g                  |
| Thermal resistance housing-ambient | 10.8 K/W               |
| Thermal resistance winding-housing | 4 K/W                  |
| Thermal time constant motor        | 284 s                  |
| Thermal time constant winding      | 157 s                  |
| Operating temperature range        | -20~+120 °C            |
| Thermal class of winding           | 120 °C                 |
| Axial play                         | 0.02~0.15 mm           |
| Radial play                        | 0.025 mm               |

| Specification                          |                  |
|----------------------------------------|------------------|
| Axial load dynamic                     | 20 N             |
| Axial load static                      | 60 N             |
| Radial load at 3 mm from mounting face | 40 N             |
| No. of pole pairs                      | 1                |
| Bearings                               | 2 ball bearings  |
| Commutator                             | metal 9 segments |
| Protection class                       | 20 IP            |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 3068N9C2B

30mm 36V coreless DC motor



<https://www.kocomotion.de/produkt/3068n9c2b/>



## Produkte:

Seite

3068N9C2B01-85-24.0

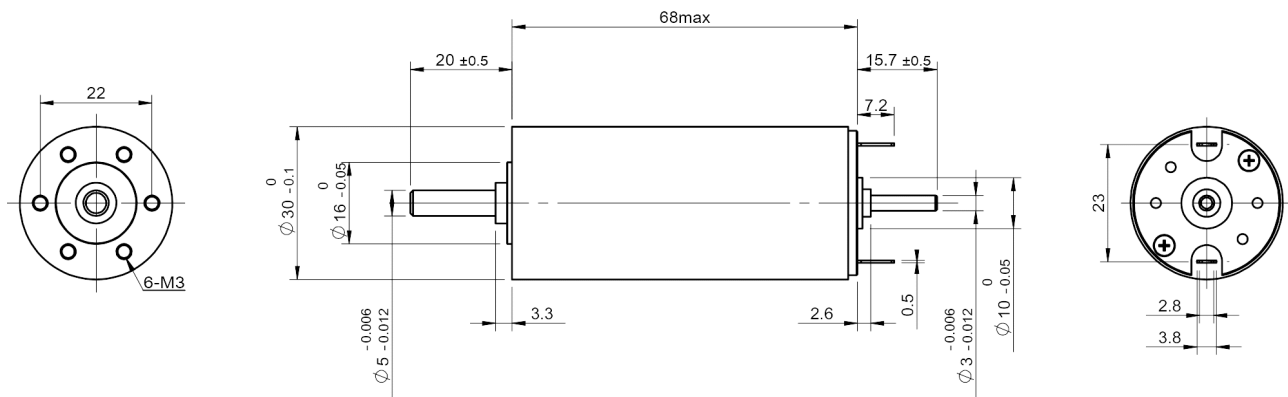
186

3068N9C2B02-85-36.0

188

3068N9C2B04-87-48.0

190



# 3068N9C2B01-85-24.0

Graphite Brush


<https://www.kocomotion.de/produkt/3068n9c2b01-85-24-0/>


| Specification                      |                      |
|------------------------------------|----------------------|
| Voltage                            | 24.0 V               |
| Terminal resistance                | 0.9 $\Omega$         |
| No-load speed                      | 8500 rpm             |
| No-load current                    | 150 mA               |
| Stall torque                       | 711.0 mNm            |
| Stall current                      | 26670 mA             |
| Nominal torque                     | 60.0 mNm             |
| Nominal speed                      | 7780 rpm             |
| Nominal current                    | 2390 mA              |
| Max. output power                  | 158 W                |
| Max. efficiency                    | 86 %                 |
| Back-EMF constant                  | 2.8 mV/rpm           |
| Torque constant                    | 26.8 mNm/A           |
| Speed/torque gradient              | 12.0 rpm/mNm         |
| Rotor inertia                      | 33 g·cm <sup>2</sup> |
| Weight                             | 250 g                |
| Thermal resistance housing-ambient | 6.2 K/W              |
| Thermal resistance winding-housing | 3.8 K/W              |
| Thermal time constant motor        | 225 s                |
| Thermal time constant winding      | 7.8 s                |
| Operating temperature range        | -20~+120 °C          |
| Thermal class of winding           | 155 °C               |
| Axial play                         | 0.02~0.15 mm         |
| Radial play                        | 0.025 mm             |



| Specification                          |                  |
|----------------------------------------|------------------|
| Axial load dynamic                     | 5.6 N            |
| Axial load static                      | 110 N            |
| Radial load at 3 mm from mounting face | 30 N             |
| No. of pole pairs                      | 1                |
| Bearings                               | 2 ball bearings  |
| Commutator                             | metal 9 segments |
| Protection class                       | 20 IP            |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 3068N9C2B02-85-36.0

Graphite Brush


<https://www.kocomotion.de/produkt/3068n9c2b02-85-36-0/>


| Specification                      |                      |
|------------------------------------|----------------------|
| Voltage                            | 36.0 V               |
| Terminal resistance                | 1.5 $\Omega$         |
| No-load speed                      | 8500 rpm             |
| No-load current                    | 130 mA               |
| Stall torque                       | 960.2 mNm            |
| Stall current                      | 24000 mA             |
| Nominal torque                     | 86.0 mNm             |
| Nominal speed                      | 7740 rpm             |
| Nominal current                    | 2270 mA              |
| Max. output power                  | 214 W                |
| Max. efficiency                    | 86 %                 |
| Back-EMF constant                  | 4.2 mV/rpm           |
| Torque constant                    | 40.2 mNm/A           |
| Speed/torque gradient              | 8.9 rpm/mNm          |
| Rotor inertia                      | 33 g·cm <sup>2</sup> |
| Weight                             | 250 g                |
| Thermal resistance housing-ambient | 6.2 K/W              |
| Thermal resistance winding-housing | 3.8 K/W              |
| Thermal time constant motor        | 225 s                |
| Thermal time constant winding      | 7.8 s                |
| Operating temperature range        | -20~+120 °C          |
| Thermal class of winding           | 155 °C               |
| Axial play                         | 0.02~0.15 mm         |
| Radial play                        | 0.025 mm             |

| Specification                          |                  |
|----------------------------------------|------------------|
| Axial load dynamic                     | 5.6 N            |
| Axial load static                      | 110 N            |
| Radial load at 3 mm from mounting face | 30 N             |
| No. of pole pairs                      | 1                |
| Bearings                               | 2 ball bearings  |
| Commutator                             | metal 9 segments |
| Protection class                       | 20 IP            |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# 3068N9C2B04-87-48.0

Graphite Brush


<https://www.kocomotion.de/produkt/3068n9c2b04-87-48-0/>


| Specification                      |                      |
|------------------------------------|----------------------|
| Voltage                            | 48.0 V               |
| Terminal resistance                | 3.65 $\Omega$        |
| No-load speed                      | 8700 rpm             |
| No-load current                    | 50 mA                |
| Stall torque                       | 687.6 mNm            |
| Stall current                      | 13150 mA             |
| Nominal torque                     | 30.0 mNm             |
| Nominal speed                      | 8320 rpm             |
| Nominal current                    | 620 mA               |
| Max. output power                  | 157 W                |
| Max. efficiency                    | 88 %                 |
| Back-EMF constant                  | 5.5 mV/rpm           |
| Torque constant                    | 52.5 mNm/A           |
| Speed/torque gradient              | 12.7 rpm/mNm         |
| Rotor inertia                      | 33 g·cm <sup>2</sup> |
| Weight                             | 250 g                |
| Thermal resistance housing-ambient | 6.2 K/W              |
| Thermal resistance winding-housing | 3.8 K/W              |
| Thermal time constant motor        | 225 s                |
| Thermal time constant winding      | 7.8 s                |
| Operating temperature range        | -20~+120 °C          |
| Thermal class of winding           | 155 °C               |
| Axial play                         | 0.02~0.15 mm         |
| Radial play                        | 0.025 mm             |

| Specification                          |                  |
|----------------------------------------|------------------|
| Axial load dynamic                     | 5.6 N            |
| Axial load static                      | 110 N            |
| Radial load at 3 mm from mounting face | 30 N             |
| No. of pole pairs                      | 1                |
| Bearings                               | 2 ball bearings  |
| Commutator                             | metal 9 segments |
| Protection class                       | 20 IP            |

## Optionen

- lead wires length
- shaft length
- special coils
- gear heads

## Anwendungen

- medical equipment and devices
- healthcare products
- automotive
- robotics
- industrial automation

# L0408N3M

4mm mini coreless motor



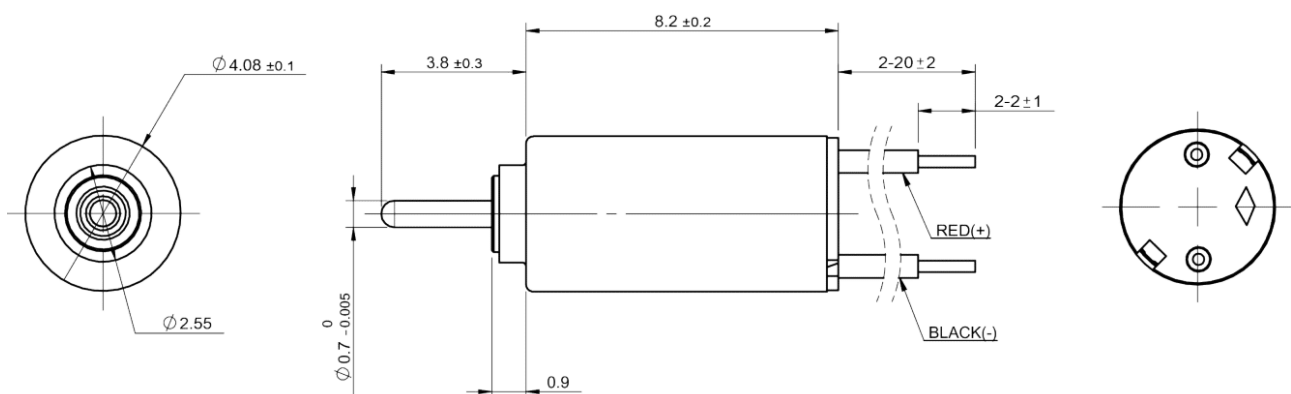
<https://www.kocomotion.de/produkt/l0408n3m/>

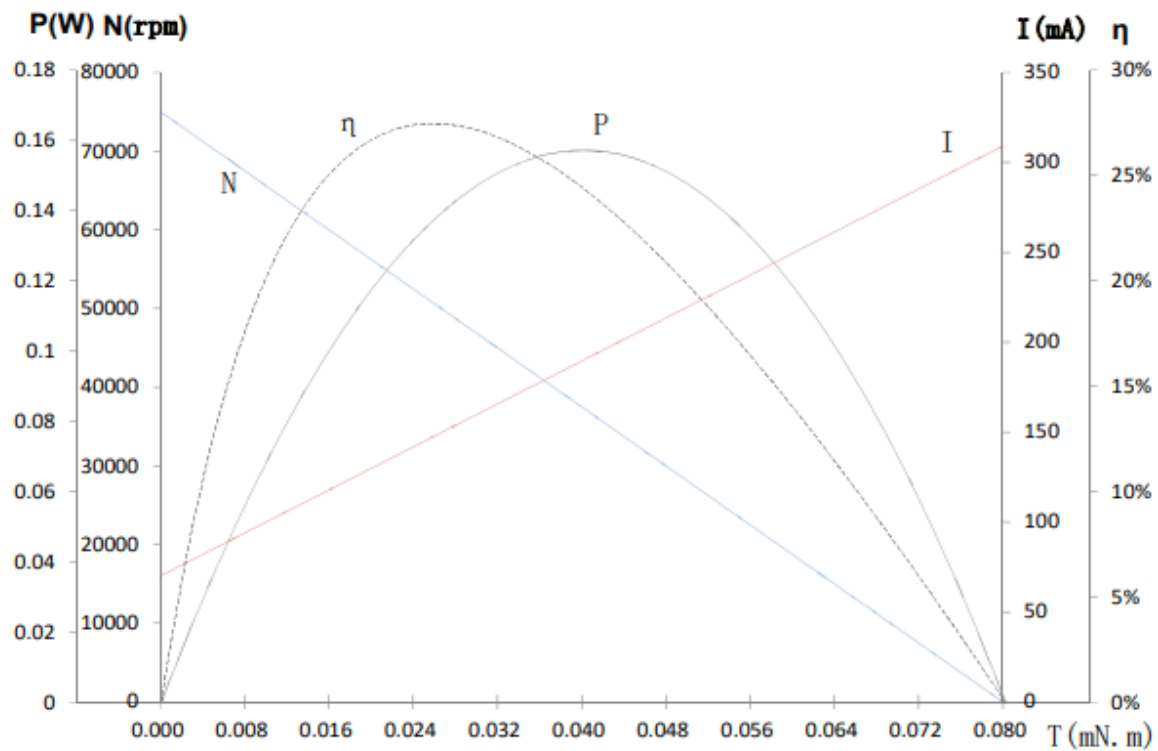


## Produkte:

Seite

|                    |     |
|--------------------|-----|
| L0408N3M08-750-3.4 | 194 |
| L0408N3M32-580-3.4 | 195 |
| L0408N3M12-785-5.0 | 196 |
| L0408N3M70-650-3.4 | 197 |





型号 / Model L0408N3M08-750-3.4

# L0408N3M08-750-3.4

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0408n3m08-750-3-4/>



| Specification               |                         |
|-----------------------------|-------------------------|
| Voltage                     | 3.4 V                   |
| Terminal resistance         | 11.0 $\Omega$           |
| No-load speed               | 75000 rpm               |
| No-load current             | 70 mA                   |
| Stall torque                | 0.08 mNm                |
| Stall current               | 309 mA                  |
| Load torque                 | 0.03 mNm                |
| Load speed                  | 46880 rpm               |
| Load current                | 160 mA                  |
| Max. output power           | 0.16 W                  |
| Max. efficiency             | 27.5 %                  |
| Back-EMF constant           | 0.04 mV/rpm             |
| Torque constant             | 0.33 mNm/A              |
| Speed/torque gradient       | 937500 rpm/mNm          |
| Rotor inertia               | 0.003 g·cm <sup>2</sup> |
| Weight                      | 0.5 g                   |
| Operating temperature range | -20~+65                 |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances



# L0408N3M32-580-3.4

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0408n3m32-580-3-4/>



| Specification               |                         |
|-----------------------------|-------------------------|
| Voltage                     | 3.4 V                   |
| Terminal resistance         | 22.0 $\Omega$           |
| No-load speed               | 58000 rpm               |
| No-load current             | 40 mA                   |
| Stall torque                | 0.05 mNm                |
| Stall current               | 155 mA                  |
| Load torque                 | 0.03 mNm                |
| Load speed                  | 21750 rpm               |
| Load current                | 110 mA                  |
| Max. output power           | 0.07 W                  |
| Max. efficiency             | 24.4 %                  |
| Back-EMF constant           | 0.04 mV/rpm             |
| Torque constant             | 0.41 mNm/A              |
| Speed/torque gradient       | 1208333 rpm/mNm         |
| Rotor inertia               | 0.003 g·cm <sup>2</sup> |
| Weight                      | 0.5 g                   |
| Operating temperature range | -20~+65                 |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0408N3M12-785-5.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0408n3m12-785-5-0/>



| Specification               |                         |
|-----------------------------|-------------------------|
| Voltage                     | 5.0 V                   |
| Terminal resistance         | 25.0 $\Omega$           |
| No-load speed               | 78500 rpm               |
| No-load current             | 50 mA                   |
| Stall torque                | 0.07 mNm                |
| Stall current               | 200 mA                  |
| Load torque                 | 0.03 mNm                |
| Load speed                  | 43870 rpm               |
| Load current                | 120 mA                  |
| Max. output power           | 0.14 W                  |
| Max. efficiency             | 24.9 %                  |
| Back-EMF constant           | 0.05 mV/rpm             |
| Torque constant             | 0.46 mNm/A              |
| Speed/torque gradient       | 1154412 rpm/mNm         |
| Rotor inertia               | 0.003 g·cm <sup>2</sup> |
| Weight                      | 0.5 g                   |
| Operating temperature range | -20~+65                 |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0408N3M70-650-3.4

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0408n3m70-650-3-4/>



| Specification               |                         |
|-----------------------------|-------------------------|
| Voltage                     | 3.4 V                   |
| Terminal resistance         | 13.2 $\Omega$           |
| No-load speed               | 65000 rpm               |
| No-load current             | 60 mA                   |
| Stall torque                | 0.08 mNm                |
| Stall current               | 258 mA                  |
| Load torque                 | 0.03 mNm                |
| Load speed                  | 39340 rpm               |
| Load current                | 140 mA                  |
| Max. output power           | 0.13 W                  |
| Max. efficiency             | 26.9 %                  |
| Back-EMF constant           | 0.04 mV/rpm             |
| Torque constant             | 0.38 mNm/A              |
| Speed/torque gradient       | 855263 rpm/mNm          |
| Rotor inertia               | 0.003 g·cm <sup>2</sup> |
| Weight                      | 0.5 g                   |
| Operating temperature range | -20~+65                 |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0410N3M

4mm 3V micro coreless motor



<https://www.kocomotion.de/produkt/l0410n3m/>



## Produkte:

Seite

L0410N3M30-320-3.0

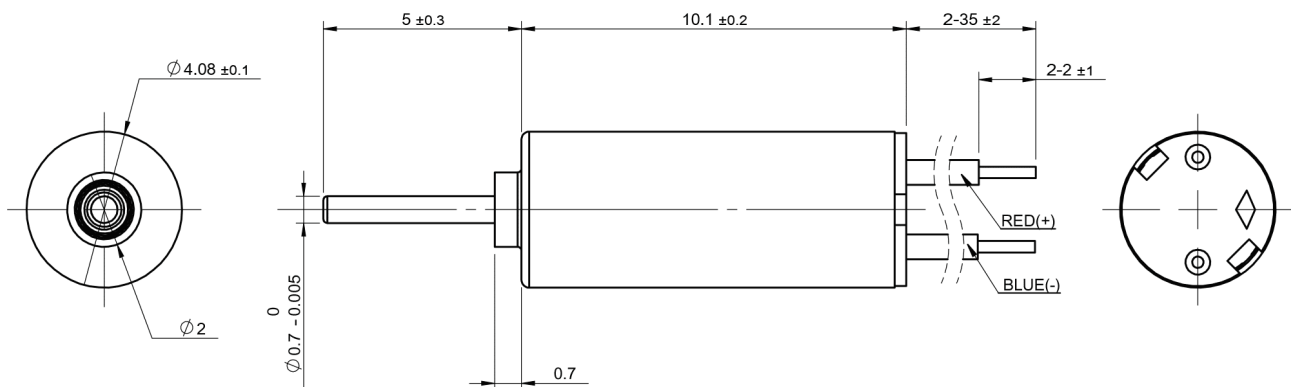
200

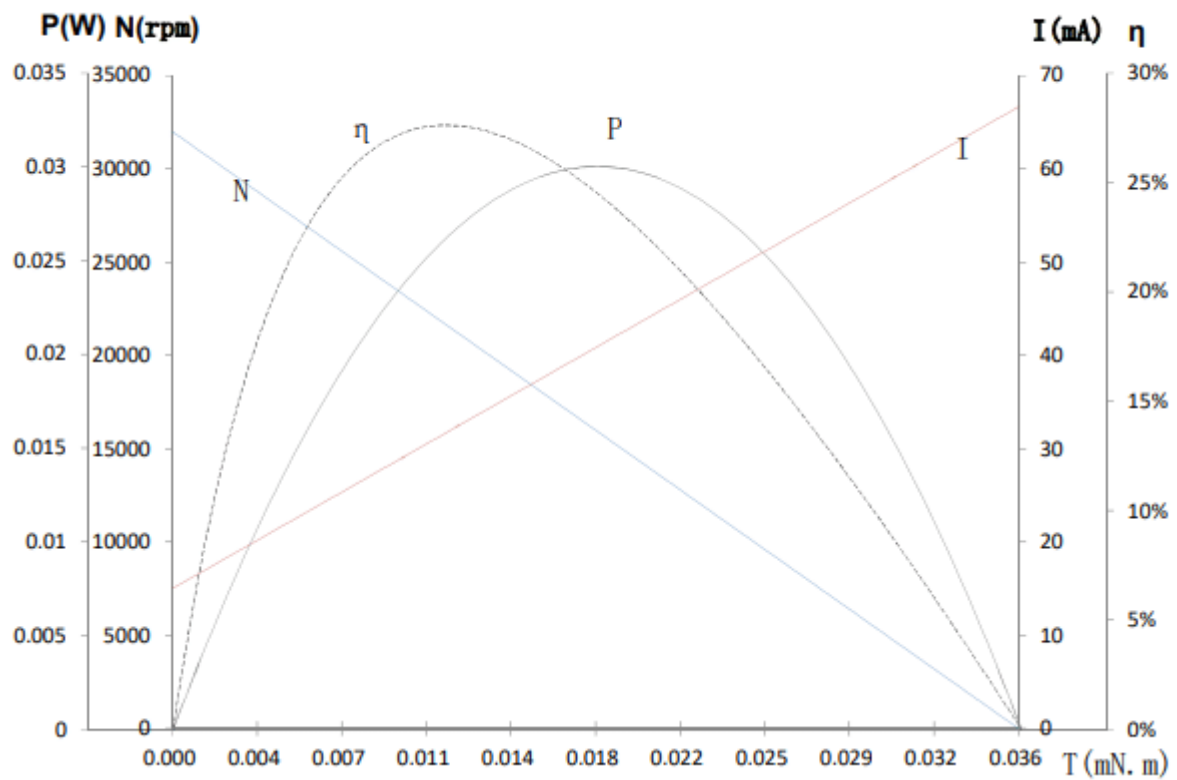
L0410N3M30-820-3.0

201

L0410N3M05-750-5.0

202





# L0410N3M30-320-3.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0410n3m30-320-3-0/>



| Specification               |                         |
|-----------------------------|-------------------------|
| Voltage                     | 3.0 V                   |
| Terminal resistance         | 45 $\Omega$             |
| No-load speed               | 32000 rpm               |
| No-load current             | 15 mA                   |
| Stall torque                | 0.04 mNm                |
| Stall current               | 67 mA                   |
| Load torque                 | 0.01 mNm                |
| Load speed                  | 23110 rpm               |
| Load current                | 30 mA                   |
| Max. output power           | 0.03 W                  |
| Max. efficiency             | 27.8 %                  |
| Back-EMF constant           | 0.07 mV/rpm             |
| Torque constant             | 0.69 mNm/A              |
| Speed/torque gradient       | 888889 rpm/mNm          |
| Rotor inertia               | 0.004 g·cm <sup>2</sup> |
| Weight                      | 0.6 g                   |
| Operating temperature range | -20~+65                 |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0410N3M30-820-3.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0410n3m30-820-3-0/>



| Specification               |                         |
|-----------------------------|-------------------------|
| Voltage                     | 3.0 V                   |
| Terminal resistance         | 8.6 $\Omega$            |
| No-load speed               | 82000 rpm               |
| No-load current             | 50 mA                   |
| Stall torque                | 0.09 mNm                |
| Stall current               | 349 mA                  |
| Load torque                 | 0.01 mNm                |
| Load speed                  | 72790 rpm               |
| Load current                | 80 mA                   |
| Max. output power           | 0.19 W                  |
| Max. efficiency             | 38.5 %                  |
| Back-EMF constant           | 0.03 mV/rpm             |
| Torque constant             | 921348 mNm/A            |
| Speed/torque gradient       | 921348 rpm/mNm          |
| Rotor inertia               | 0.004 g·cm <sup>2</sup> |
| Weight                      | 0.6 g                   |
| Operating temperature range | -20~+65                 |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0410N3M05-750-5.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0410n3m05-750-5-0/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 5.0 V                  |
| Terminal resistance         | 17.6 $\Omega$          |
| No-load speed               | 74000 rpm              |
| No-load current             | 45 mA                  |
| Stall torque                | 0.13 mNm               |
| Stall current               | 280 mA                 |
| Load torque                 | 0.01 mNm               |
| Load speed                  | 68310 rpm              |
| Load current                | 60 mA                  |
| Max. output power           | 0.25 W                 |
| Max. efficiency             | 36.7 %                 |
| Back-EMF constant           | 0.06 mV/rpm            |
| Torque constant             | 0.54 mNm/A             |
| Speed/torque gradient       | 569231 rpm/mNm         |
| Rotor inertia               | 0.004 gcm <sup>3</sup> |
| Weight                      | 0.55 g                 |
| Operating temperature range | -20~+65                |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances



# L0412N3M

3.4V mini coreless motor



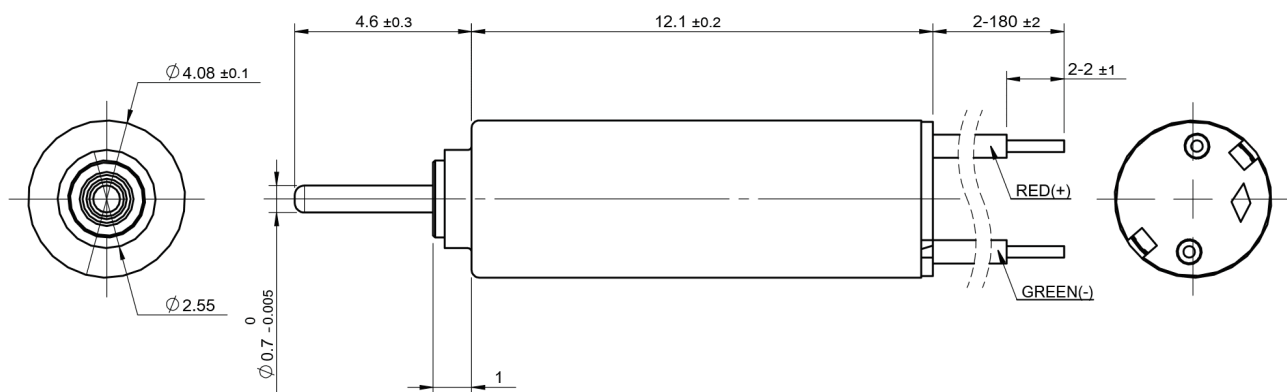
<https://www.kocomotion.de/produkt/l0412n3m/>

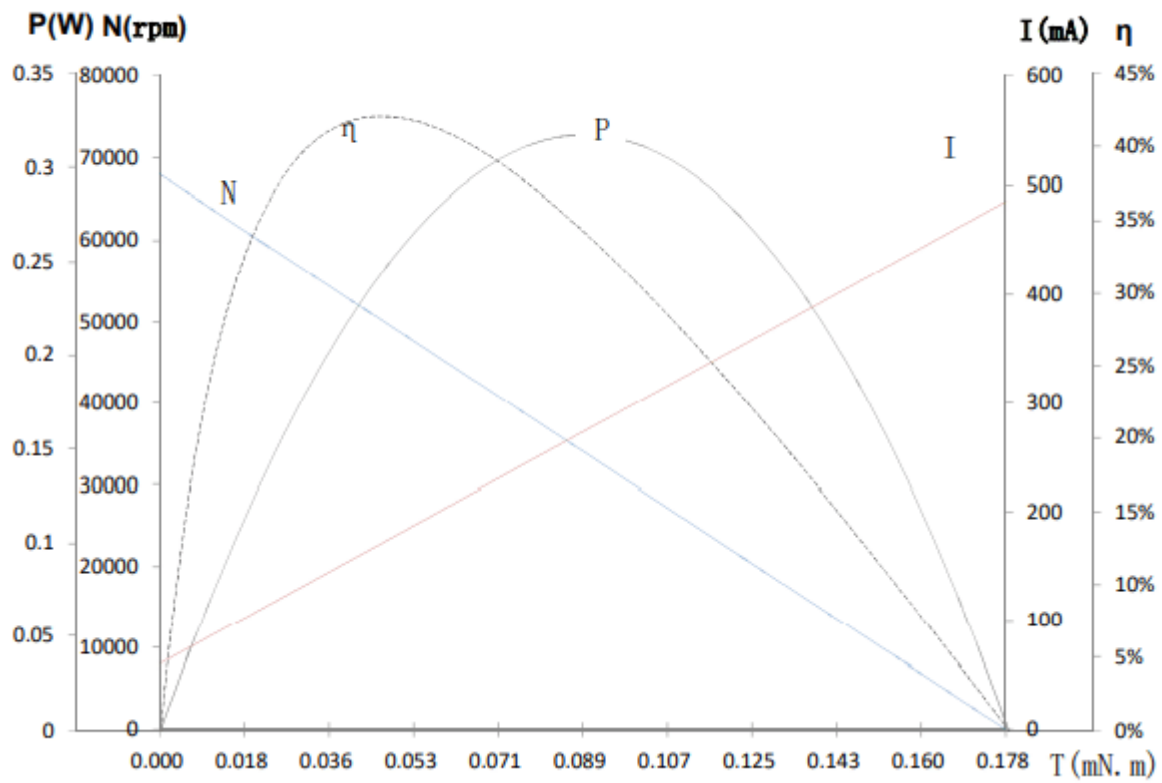


## Produkte:

Seite

|                    |     |
|--------------------|-----|
| L0412N3M71-680-3.4 | 205 |
| L0412N3M65-650-3.4 | 206 |
| L0412N3M60-600-3.4 | 207 |
| L0412N3M75-430-3.4 | 208 |





# L0412N3M71-680-3.4

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0412n3m71-680-3-4/>



| Specification               |                         |
|-----------------------------|-------------------------|
| Voltage                     | 3.4 V                   |
| Terminal resistance         | 7.00 $\Omega$           |
| No-load speed               | 68000 rpm               |
| No-load current             | 60 mA                   |
| Stall torque                | 0.18 mNm                |
| Stall current               | 486 mA                  |
| Load torque                 | 0.03 mNm                |
| Load speed                  | 56540 rpm               |
| Load current                | 130 mA                  |
| Max. output power           | 0.32 W                  |
| Max. efficiency             | 42.1 %                  |
| Back-EMF constant           | 0.04 mV/rpm             |
| Torque constant             | 0.42 mNm/A              |
| Speed/torque gradient       | 382022 rpm/mNm          |
| Rotor inertia               | 0.005 g·cm <sup>2</sup> |
| Weight                      | 0.8 g                   |
| Operating temperature range | -20~+65                 |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0412N3M65-650-3.4

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0412n3m65-650-3-4/>



| Specification               |                         |
|-----------------------------|-------------------------|
| Voltage                     | 3.4 V                   |
| Terminal resistance         | 8.30 $\Omega$           |
| No-load speed               | 65000 rpm               |
| No-load current             | 55 mA                   |
| Stall torque                | 0.15 mNm                |
| Stall current               | 410 mA                  |
| Load torque                 | 0.03 mNm                |
| Load speed                  | 52250 rpm               |
| Load current                | 120 mA                  |
| Max. output power           | 0.26 W                  |
| Max. efficiency             | 40.1 %                  |
| Back-EMF constant           | 0.05 mV/rpm             |
| Torque constant             | 0.43 mNm/A              |
| Speed/torque gradient       | 424837 rpm/mNm          |
| Rotor inertia               | 0.005 g·cm <sup>2</sup> |
| Weight                      | 0.8 g                   |
| Operating temperature range | -20~+65                 |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0412N3M60-600-3.4

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0412n3m60-600-3-4/>



| Specification               |                         |
|-----------------------------|-------------------------|
| Voltage                     | 3.4 V                   |
| Terminal resistance         | 8.70 $\Omega$           |
| No-load speed               | 60000 rpm               |
| No-load current             | 50 mA                   |
| Stall torque                | 0.16 mNm                |
| Stall current               | 391 mA                  |
| Load torque                 | 0.03 mNm                |
| Load speed                  | 48820 rpm               |
| Load current                | 110 mA                  |
| Max. output power           | 0.25 W                  |
| Max. efficiency             | 41.3 %                  |
| Back-EMF constant           | 0.05 mV/rpm             |
| Torque constant             | 0.47 mNm/A              |
| Speed/torque gradient       | 372671 rpm/mNm          |
| Rotor inertia               | 0.005 g·cm <sup>2</sup> |
| Weight                      | 0.7 g                   |
| Operating temperature range | -20~+65                 |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0412N3M75-430-3.4

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0412n3m75-430-3-4/>



| Specification               |                         |
|-----------------------------|-------------------------|
| Voltage                     | 3.4 V                   |
| Terminal resistance         | 20.00 $\Omega$          |
| No-load speed               | 43000 rpm               |
| No-load current             | 30 mA                   |
| Stall torque                | 0.09 mNm                |
| Stall current               | 170 mA                  |
| Load torque                 | 0.03 mNm                |
| Load speed                  | 28170 rpm               |
| Load current                | 80 mA                   |
| Max. output power           | 0.10 W                  |
| Max. efficiency             | 33.6 %                  |
| Back-EMF constant           | 0.07 mV/rpm             |
| Torque constant             | 0.62 mNm/A              |
| Speed/torque gradient       | 494253 rpm/mNm          |
| Rotor inertia               | 0.005 g·cm <sup>2</sup> |
| Weight                      | 0.7 g                   |
| Operating temperature range | -20~+65                 |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0816N7M

8mm micro DC coreless motor



<https://www.kocomotion.de/produkt/l0816n7m/>



## Produkte:

Seite

L0816N7M55-40-3.0

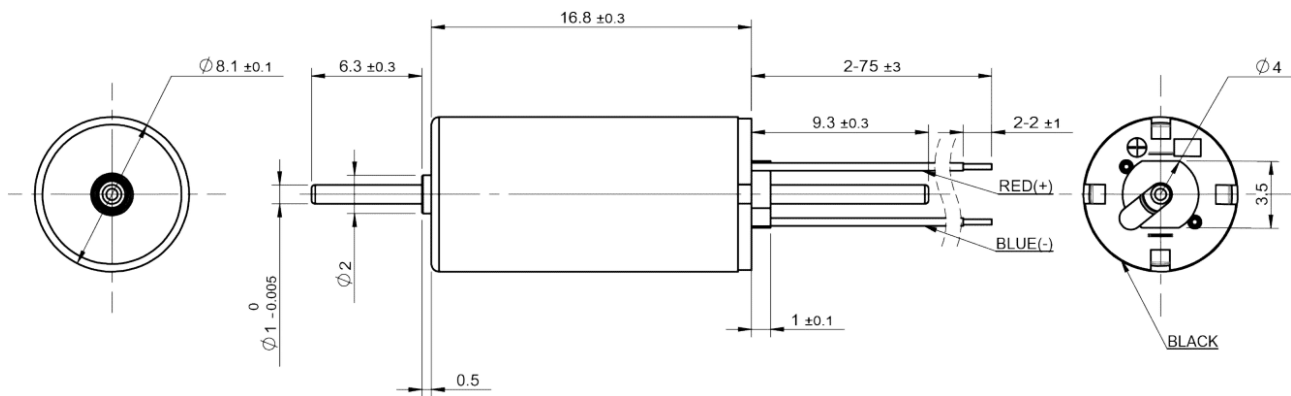
211

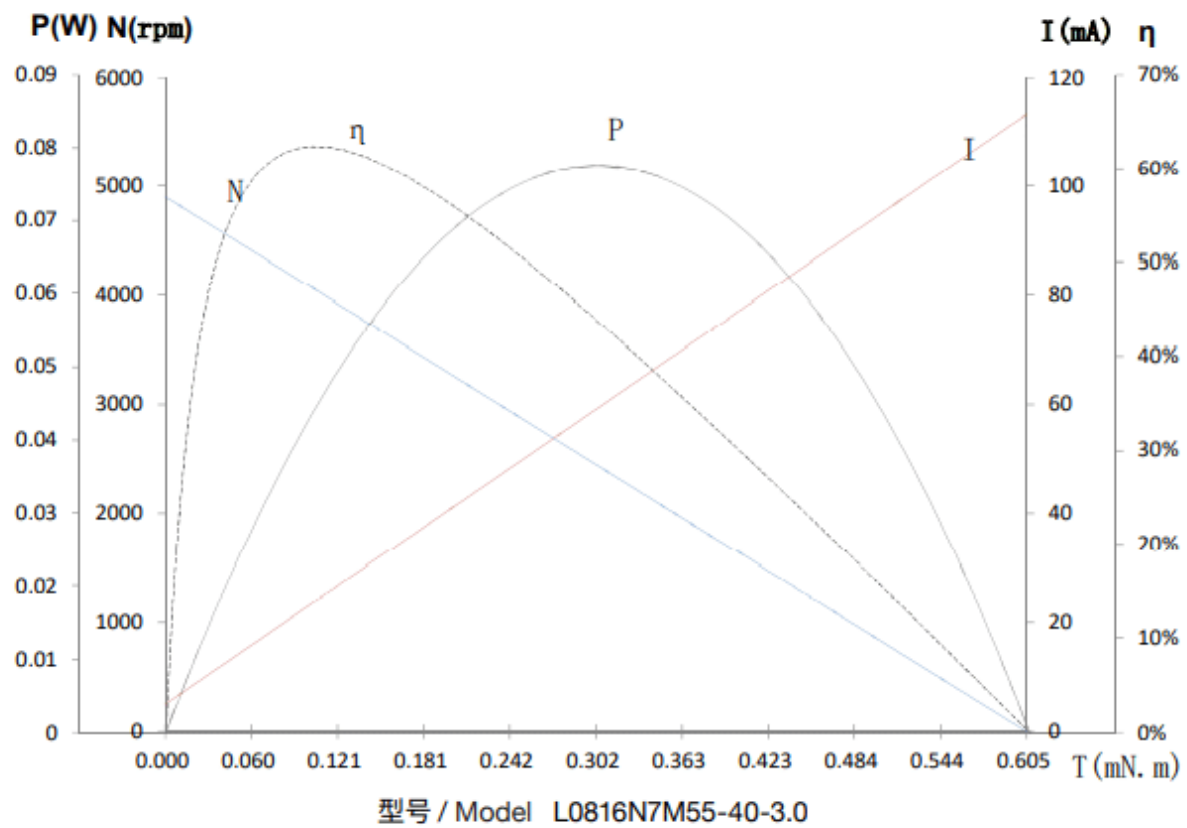
L0816N7M54-45-3.0

212

L0816N7M006065-60-3.0

213







# L0816N7M55-40-3.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0816n7m55-40-3-0/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 3.0 V                  |
| Terminal resistance         | 26.5 $\Omega$          |
| No-load speed               | 4900 rpm               |
| No-load current             | 5 mA                   |
| Stall torque                | 0.60 mNm               |
| Stall current               | 113 mA                 |
| Load torque                 | 0.30 mNm               |
| Load speed                  | 2450 rpm               |
| Load current                | 60 mA                  |
| Max. output power           | 0.1 W                  |
| Max. efficiency             | 62.0 %                 |
| Back-EMF constant           | 0.59 mV/rpm            |
| Torque constant             | 5.59 mNm/A             |
| Speed/torque gradient       | 8167 rpm/mNm           |
| Rotor inertia               | 0.01 g·cm <sup>2</sup> |
| Weight                      | 3.7 g                  |
| Operating temperature range | -20~+80 °C             |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV's
- remote control hobby products
- small household appliances

# L0816N7M54-45-3.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0816n7m54-45-3-0/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 3.0 V                  |
| Terminal resistance         | 36.0 $\Omega$          |
| No-load speed               | 4500 rpm               |
| No-load current             | 5 mA                   |
| Stall torque                | 0.47 mNm               |
| Stall current               | 83 mA                  |
| Load torque                 | 0.30 mNm               |
| Load speed                  | 1630 rpm               |
| Load current                | 60 mA                  |
| Max. output power           | 0.1 W                  |
| Max. efficiency             | 57.2 %                 |
| Back-EMF constant           | 0.63 mV/rpm            |
| Torque constant             | 5.98 mNm/A             |
| Speed/torque gradient       | 9574 rpm/mNm           |
| Rotor inertia               | 0.01 g·cm <sup>2</sup> |
| Weight                      | 3.7 g                  |
| Operating temperature range | -20~+80 °C             |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV's
- remote control hobby products
- small household appliances

# L0816N7M006065-60-3.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0816n7m006065-60-3-0/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 3.0 V                  |
| Terminal resistance         | 21.5 $\Omega$          |
| No-load speed               | 6000 rpm               |
| No-load current             | 8 mA                   |
| Stall torque                | 0.60 mNm               |
| Stall current               | 140 mA                 |
| Load torque                 | 0.30 mNm               |
| Load speed                  | 3000 rpm               |
| Load current                | 70 mA                  |
| Max. output power           | 0.1 W                  |
| Max. efficiency             | 58.7 %                 |
| Back-EMF constant           | 0.47 mV/rpm            |
| Torque constant             | 4.50 mNm/A             |
| Speed/torque gradient       | 10000 rpm/mNm          |
| Rotor inertia               | 0.01 g·cm <sup>2</sup> |
| Weight                      | 3.7 g                  |
| Operating temperature range | -20~+80 °C             |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV's
- remote control hobby products
- small household appliances

# L0820N5M

0820 DC coreless motor



<https://www.kocomotion.de/produkt/l0820n5m/>



## Produkte:

Seite

L0820N5M10-380-3.2

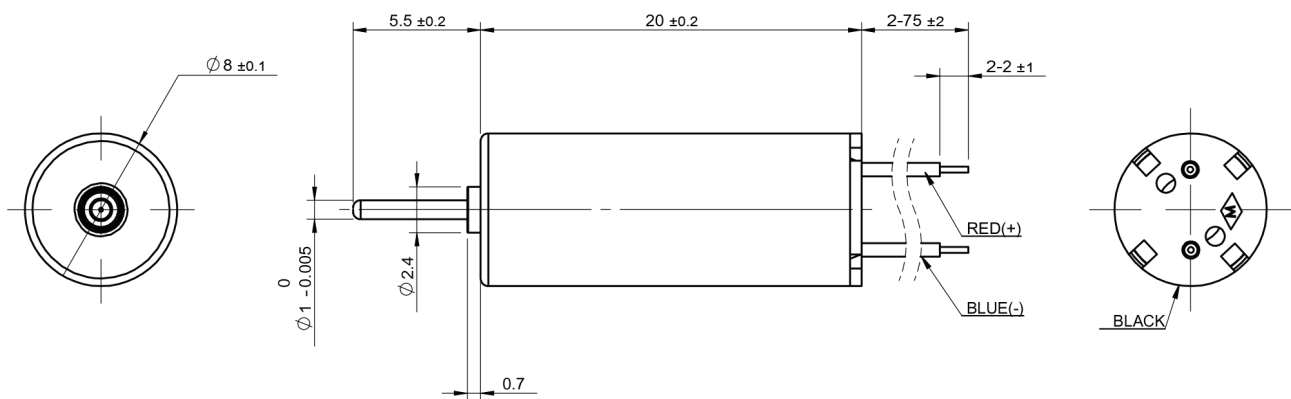
216

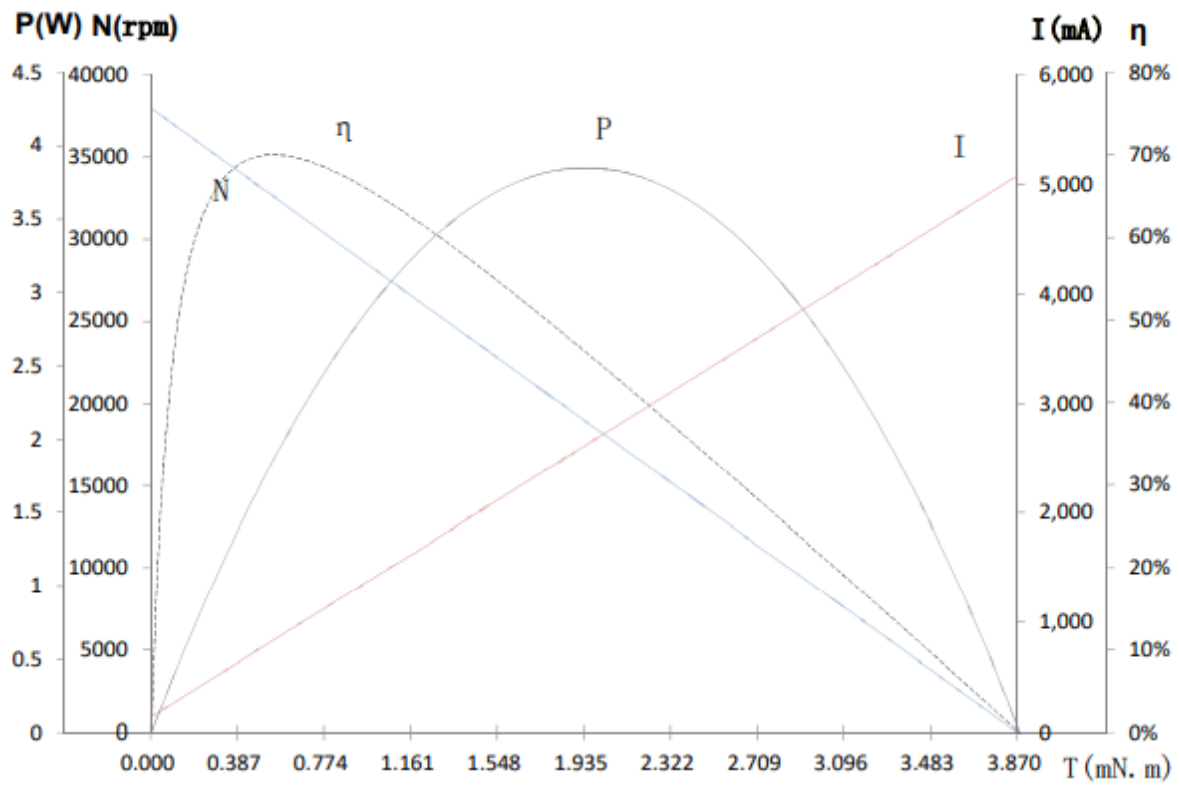
L0820N5M16-420-3.0

217

L0820N5M37-460-3.4

218





# L0820N5M10-380-3.2

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0820n5m10-380-3-2/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 3.2 V                  |
| Terminal resistance         | 0.63 $\Omega$          |
| No-load speed               | 38000 rpm              |
| No-load current             | 135 mA                 |
| Stall torque                | 3.9 mNm                |
| Stall current               | 5080 mA                |
| Load torque                 | 0.5 mNm                |
| Load speed                  | 33090 rpm              |
| Load current                | 770 mA                 |
| Max. output power           | 3.85 W                 |
| Max. efficiency             | 70.1 %                 |
| Back-EMF constant           | 0.08 mV/rpm            |
| Torque constant             | 0.78 mNm/A             |
| Speed/torque gradient       | 9819 rpm/mNm           |
| Rotor inertia               | 0.07 g·cm <sup>2</sup> |
| Weight                      | 4.2 g                  |
| Operating temperature range | -20~+120               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0820N5M16-420-3.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0820n5m16-420-3-0/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 3.0 V                  |
| Terminal resistance         | 0.4 $\Omega$           |
| No-load speed               | 42000 rpm              |
| No-load current             | 160 mA                 |
| Stall torque                | 4.9 mNm                |
| Stall current               | 7500 mA                |
| Load torque                 | 0.5 mNm                |
| Load speed                  | 37710 rpm              |
| Load current                | 910 mA                 |
| Max. output power           | 5.39 W                 |
| Max. efficiency             | 73.0 %                 |
| Back-EMF constant           | 0.07 mV/rpm            |
| Torque constant             | 0.67 mNm/A             |
| Speed/torque gradient       | 8571 rpm/mNm           |
| Rotor inertia               | 0.07 g·cm <sup>2</sup> |
| Weight                      | 4.2 g                  |
| Operating temperature range | -20~+120               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0820N5M37-460-3.4

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0820n5m37-460-3-4/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 3.4 V                  |
| Terminal resistance         | 0.39 $\Omega$          |
| No-load speed               | 46000 rpm              |
| No-load current             | 200 mA                 |
| Stall torque                | 5.9 mNm                |
| Stall current               | 8720 mA                |
| Load torque                 | 0.5 mNm                |
| Load speed                  | 42080 rpm              |
| Load current                | 930 mA                 |
| Max. output power           | 7.08 W                 |
| Max. efficiency             | 72.1 %                 |
| Back-EMF constant           | 0.07 mV/rpm            |
| Torque constant             | 0.69 mNm/A             |
| Speed/torque gradient       | 7831 rpm/mNm           |
| Rotor inertia               | 0.07 g·cm <sup>2</sup> |
| Weight                      | 4.2 g                  |
| Operating temperature range | -20~+120               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances



# L8.520N5M

8520 mini coreless motor



<https://www.kocomotion.de/produkt/l8-520n5m/>



## Produkte:

Seite

L8.520N5M08-375-3.0

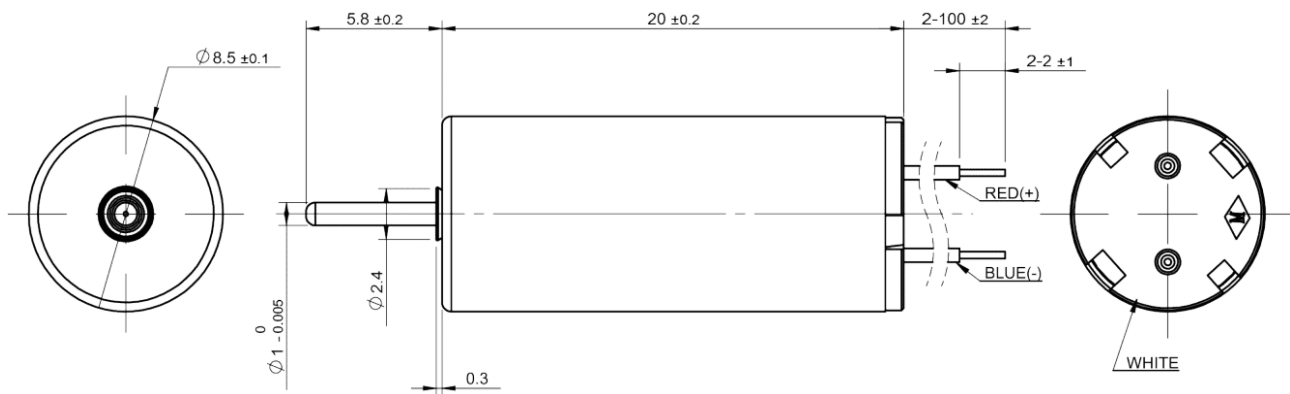
221

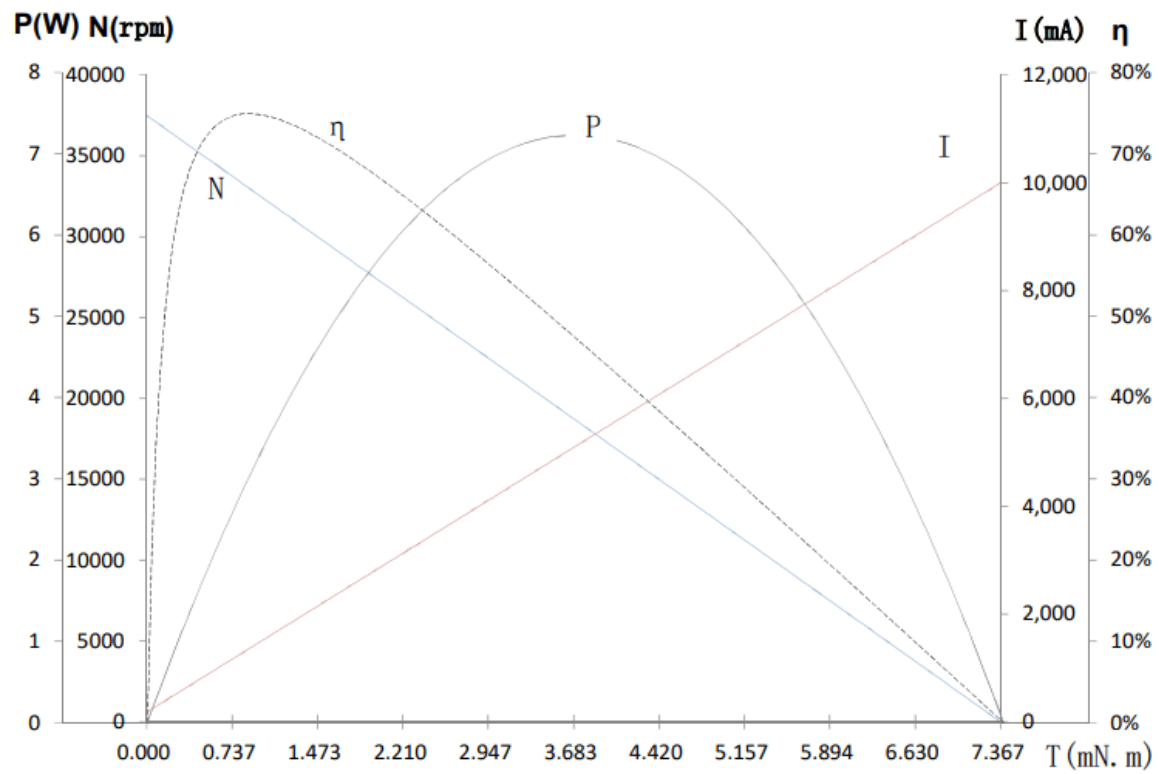
L8.520N5M14-435-3.4

222

L8.520N5M59-367-3.0

223





# L8.520N5M08-375-3.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l8-520n5m08-375-3-0/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 3.0 V                  |
| Terminal resistance         | 0.3 $\Omega$           |
| No-load speed               | 37500 rpm              |
| No-load current             | 180 mA                 |
| Stall torque                | 7.4 mNm                |
| Stall current               | 10000 mA               |
| Load torque                 | 0.5 mNm                |
| Load speed                  | 34950 rpm              |
| Load current                | 850 mA                 |
| Max. output power           | 7.24 W                 |
| Max. efficiency             | 75.0 %                 |
| Back-EMF constant           | 0.08 mV/rpm            |
| Torque constant             | 0.75 mNm/A             |
| Speed/torque gradient       | 5090 rpm/mNm           |
| Rotor inertia               | 0.07 g·cm <sup>2</sup> |
| Weight                      | 4.2 g                  |
| Operating temperature range | -20~+120               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L8.520N5M14-435-3.4

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l8-520n5m14-435-3-4/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 3.4 V                  |
| Terminal resistance         | 0.35 $\Omega$          |
| No-load speed               | 43500 rpm              |
| No-load current             | 200 mA                 |
| Stall torque                | 7.0 mNm                |
| Stall current               | 9710 mA                |
| Load torque                 | 0.5 mNm                |
| Load speed                  | 40370 rpm              |
| Load current                | 880 mA                 |
| Max. output power           | 7.93 W                 |
| Max. efficiency             | 73.5 %                 |
| Back-EMF constant           | 0.08 mV/rpm            |
| Torque constant             | 0.73 mNm/A             |
| Speed/torque gradient       | 6254 rpm/mNm           |
| Rotor inertia               | 0.07 g·cm <sup>2</sup> |
| Weight                      | 4.2 g                  |
| Operating temperature range | -20~+120               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L8.520N5M59-367-3.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l8-520n5m59-367-3-0/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 3.0 V                  |
| Terminal resistance         | 0.45 $\Omega$          |
| No-load speed               | 36700 rpm              |
| No-load current             | 130 mA                 |
| Stall torque                | 5.0 mNm                |
| Stall current               | 6670 mA                |
| Load torque                 | 1.0 mNm                |
| Load speed                  | 29360 rpm              |
| Load current                | 1440 mA                |
| Max. output power           | 4.81 W                 |
| Max. efficiency             | 74.1 %                 |
| Back-EMF constant           | 0.08 mV/rpm            |
| Torque constant             | 0.77 mNm/A             |
| Speed/torque gradient       | 7336 rpm/mNm           |
| Rotor inertia               | 0.08 g·cm <sup>2</sup> |
| Weight                      | 5.2 g                  |
| Operating temperature range | -20~+120               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L8.520N7M

8.5mm mini coreless motor



<https://www.kocomotion.de/produkt/l8-520n7m/>



## Produkte:

Seite

L8.520N7M11-240-3.0

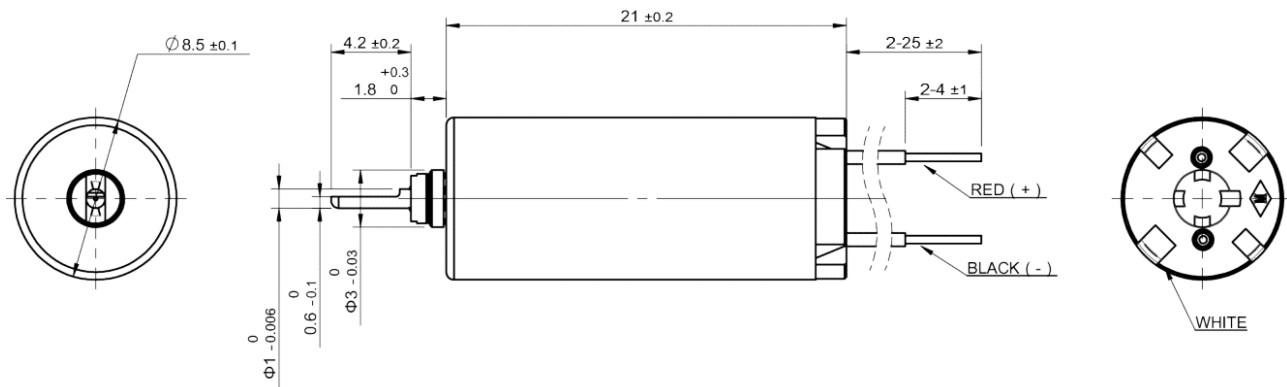
226

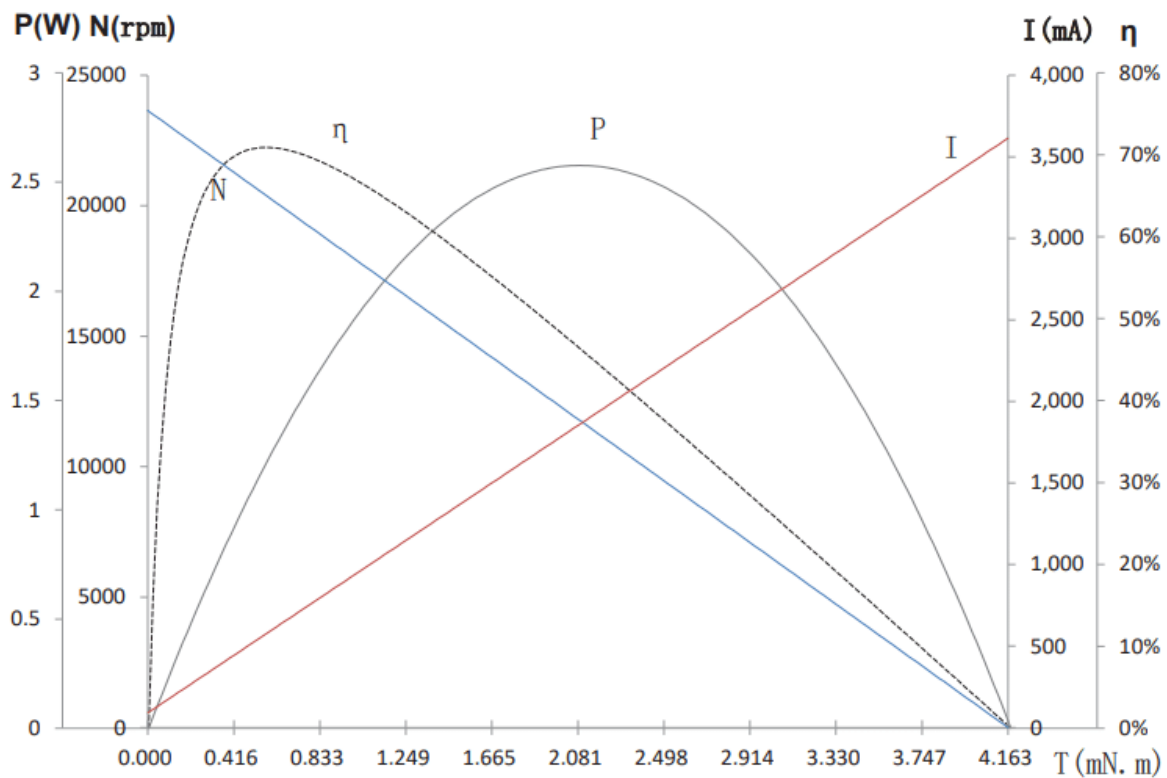
L8.520N7M01-300-7.0

227

L8.520N7M02-200-5.0

228





# L8.520N7M11-240-3.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l8-520n7m11-240-3-0/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 3.0 V                  |
| Terminal resistance         | 0.83 $\Omega$          |
| No-load speed               | 23650 rpm              |
| No-load current             | 90 mA                  |
| Stall torque                | 4.2 mNm                |
| Stall current               | 3610 mA                |
| Load torque                 | 0.5 mNm                |
| Load speed                  | 20810 rpm              |
| Load current                | 510 mA                 |
| Max. output power           | 2.58 W                 |
| Max. efficiency             | 71.1 %                 |
| Back-EMF constant           | 0.12 mV/rpm            |
| Torque constant             | 1.18 mNm/A             |
| Speed/torque gradient       | 5681 rpm/mNm           |
| Rotor inertia               | 0.07 g·cm <sup>2</sup> |
| Weight                      | 4.87 g                 |
| Operating temperature range | -20~+120 °C            |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV's
- remote control hobby products
- small household appliances



# L8.520N7M01-300-7.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l8-520n7m01-300-7-0/>



| Specification               |                       |
|-----------------------------|-----------------------|
| Voltage                     | 7.0 V                 |
| Terminal resistance         | 2.3 $\Omega$          |
| No-load speed               | 30300 rpm             |
| No-load current             | 70 mA                 |
| Stall torque                | 6.4 mNm               |
| Stall current               | 3040 mA               |
| Load torque                 | 1.0 mNm               |
| Load speed                  | 25570 rpm             |
| Load current                | 530 mA                |
| Max. output power           | 5.1 W                 |
| Max. efficiency             | 72 %                  |
| Back-EMF constant           | 0.2 mV/rpm            |
| Torque constant             | 2.2 mNm/A             |
| Speed/torque gradient       | 4730 rpm/mNm          |
| Rotor inertia               | 0.8 g·cm <sup>2</sup> |
| Weight                      | 5 g                   |
| Operating temperature range | -20~+80 °C            |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV's
- remote control hobby products
- small household appliances

# L8.520N7M02-200-5.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l8-520n7m02-200-5-0/>



| Specification               |                       |
|-----------------------------|-----------------------|
| Voltage                     | 5.0 V                 |
| Terminal resistance         | 2.9 $\Omega$          |
| No-load speed               | 20000 rpm             |
| No-load current             | 70 mA                 |
| Stall torque                | 3.8 mNm               |
| Stall current               | 1720 mA               |
| Load torque                 | 1.0 mNm               |
| Load speed                  | 14710 rpm             |
| Load current                | 510 mA                |
| Max. output power           | 2.0 W                 |
| Max. efficiency             | 64 %                  |
| Back-EMF constant           | 0.2 mV/rpm            |
| Torque constant             | 2.3 mNm/A             |
| Speed/torque gradient       | 5290 rpm/mNm          |
| Rotor inertia               | 0.8 g·cm <sup>2</sup> |
| Weight                      | 4.9 g                 |
| Operating temperature range | -20~+80 °C            |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV's
- remote control hobby products
- small household appliances

# L8.523N5M

8.5mm mini coreless motor



<https://www.kocomotion.de/produkt/l8-523n5m/>



## Produkte:

Seite

L8.523N5M12-344-3.7

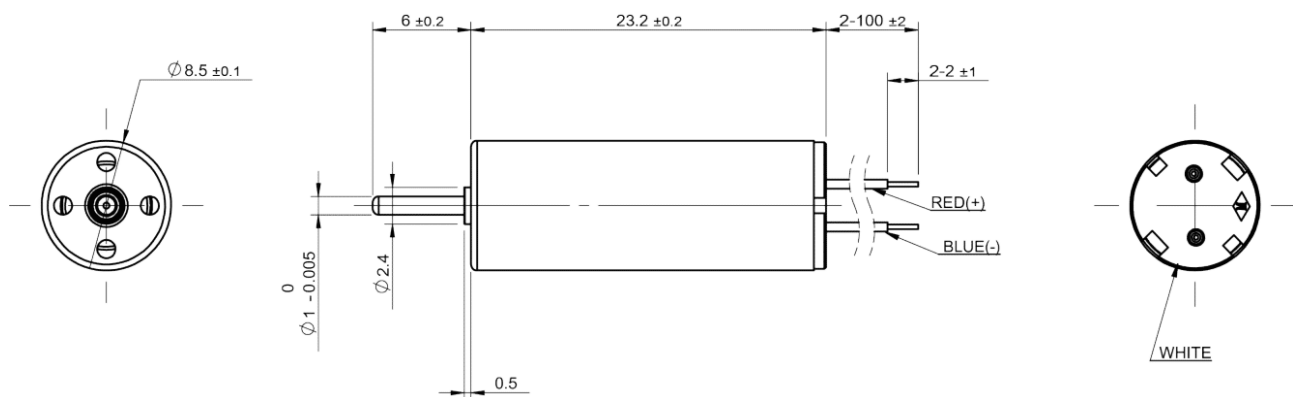
231

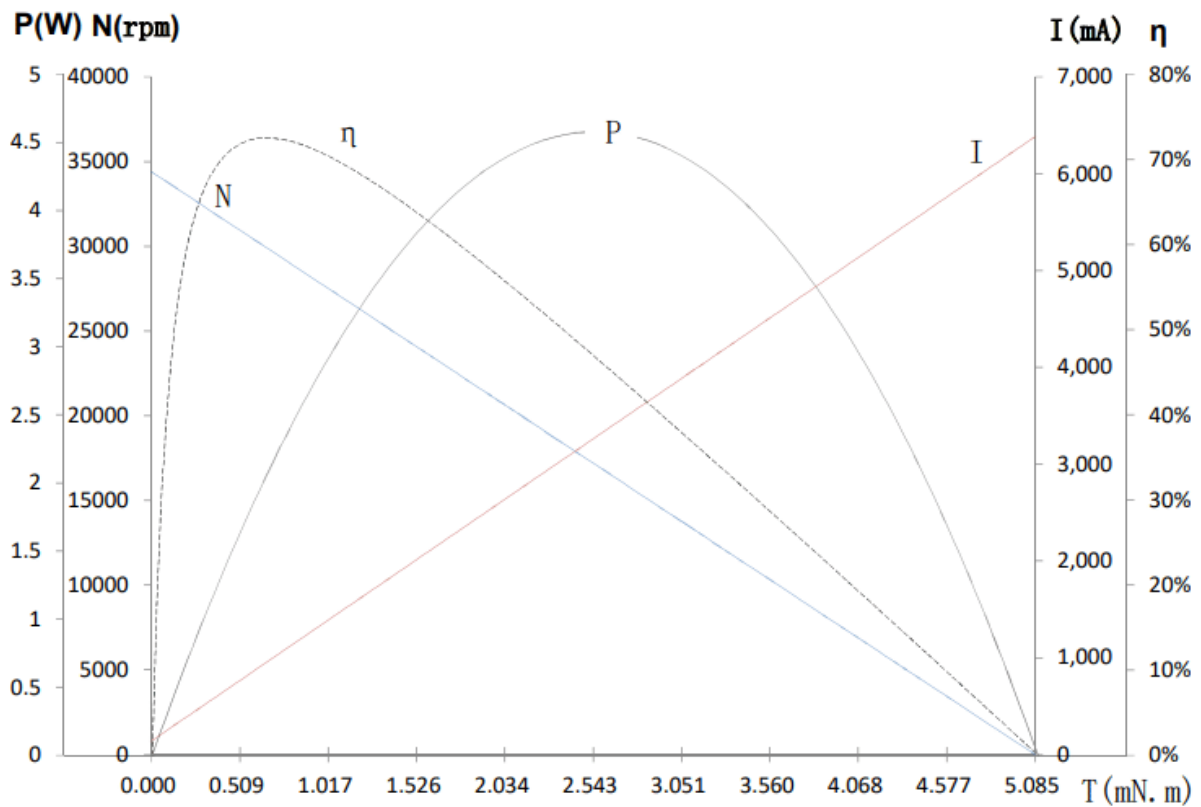
L8.523N5M14-367-3.0

232

L8.523N5M31-460-3.0

233





# L8.523N5M12-344-3.7

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l8-523n5m12-344-3-7/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 3.0 V                  |
| Terminal resistance         | 0.47 $\Omega$          |
| No-load speed               | 34400 rpm              |
| No-load current             | 140 mA                 |
| Stall torque                | 5.1 mNm                |
| Stall current               | 6380 mA                |
| Load torque                 | 1.0 mNm                |
| Load speed                  | 27640 rpm              |
| Load current                | 1370 mA                |
| Max. output power           | 4.58 W                 |
| Max. efficiency             | 72.7 %                 |
| Back-EMF constant           | 0.09 mV/rpm            |
| Torque constant             | 0.81 mNm/A             |
| Speed/torque gradient       | 6765 rpm/mNm           |
| Rotor inertia               | 0.09 g·cm <sup>2</sup> |
| Weight                      | 5.6 g                  |
| Operating temperature range | -20~+120               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L8.523N5M14-367-3.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l8-523n5m14-367-3-0/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 3.0 V                  |
| Terminal resistance         | 0.45 $\Omega$          |
| No-load speed               | 36700 rpm              |
| No-load current             | 160 mA                 |
| Stall torque                | 5.0 mNm                |
| Stall current               | 6670 mA                |
| Load torque                 | 1.0 mNm                |
| Load speed                  | 29300 rpm              |
| Load current                | 1470 mA                |
| Max. output power           | 4.77 W                 |
| Max. efficiency             | 71.5 %                 |
| Back-EMF constant           | 0.08 mV/rpm            |
| Torque constant             | 0.76 mNm/A             |
| Speed/torque gradient       | 7404 rpm/mNm           |
| Rotor inertia               | 0.09 g·cm <sup>2</sup> |
| Weight                      | 5.6 g                  |
| Operating temperature range | -20~+120               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L8.523N5M31-460-3.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l8-523n5m31-460-3-0/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 3.0 V                  |
| Terminal resistance         | 0.36 $\Omega$          |
| No-load speed               | 46000 rpm              |
| No-load current             | 200 mA                 |
| Stall torque                | 4.9 mNm                |
| Stall current               | 8330 mA                |
| Load torque                 | 1.0 mNm                |
| Load speed                  | 36700 rpm              |
| Load current                | 1840 mA                |
| Max. output power           | 5.96 W                 |
| Max. efficiency             | 71.5 %                 |
| Back-EMF constant           | 0.06 mV/rpm            |
| Torque constant             | 0.61 mNm/A             |
| Speed/torque gradient       | 9304 rpm/mNm           |
| Rotor inertia               | 0.09 g·cm <sup>2</sup> |
| Weight                      | 5.7 g                  |
| Operating temperature range | -20~+120               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1013N5M

10mm mini coreless motor



<https://www.kocomotion.de/produkt/l1013n5m/>



## Produkte:

Seite

L1013N5M06-347-5.0

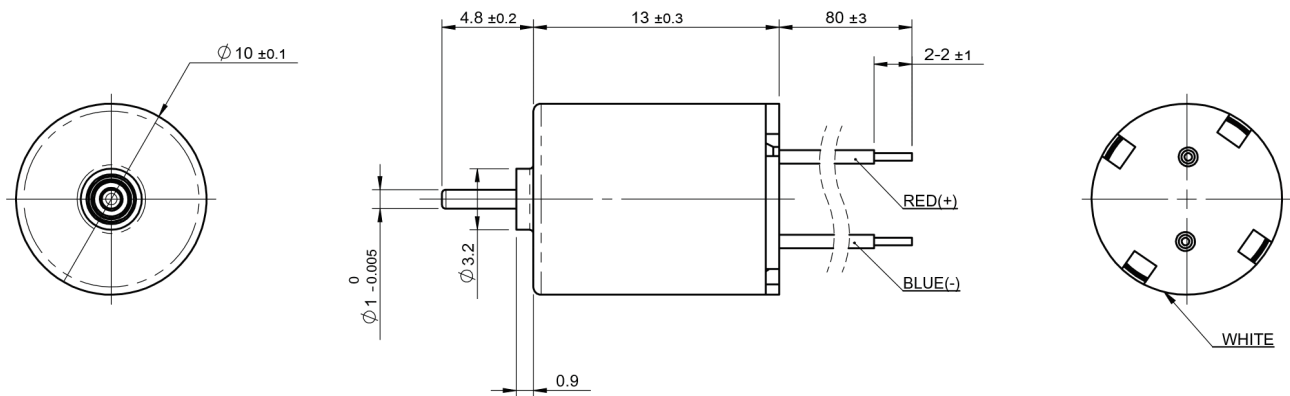
236

L1013N5M07-295-5.5

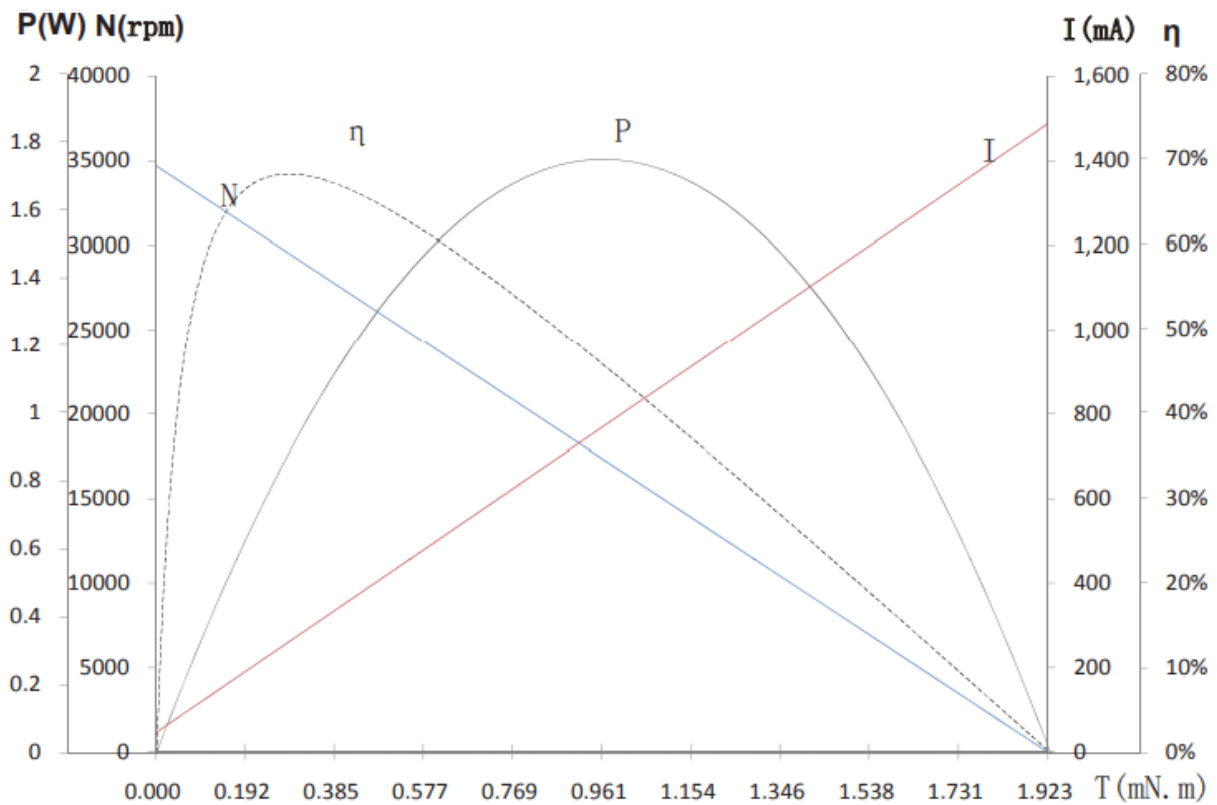
237

L1013N5M11-100-3.0

238







# L1013N5M06-347-5.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1013n5m06-347-5-0/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 5.0 V                  |
| Terminal resistance         | 3.4 $\Omega$           |
| No-load speed               | 34750 rpm              |
| No-load current             | 45 mA                  |
| Stall torque                | 1.9 mNm                |
| Stall current               | 1488 mA                |
| Load torque                 | 0.3 mNm                |
| Load speed                  | 29330 rpm              |
| Load current                | 270 mA                 |
| Max. output power           | 1.8 W                  |
| Max. efficiency             | 68 %                   |
| Back-EMF constant           | 0.1 mV/rpm             |
| Torque constant             | 1.3 mNm/A              |
| Speed/torque gradient       | 18070 rpm/mNm          |
| Rotor inertia               | 0.06 g·cm <sup>2</sup> |
| Weight                      | 4.1 g                  |
| Operating temperature range | -20~+65                |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1013N5M07-295-5.5

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1013n5m07-295-5-5/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 5.5 V                  |
| Terminal resistance         | 3.9 $\Omega$           |
| No-load speed               | 29500 rpm              |
| No-load current             | 37 mA                  |
| Stall torque                | 2.4 mNm                |
| Stall current               | 1421 mA                |
| Load torque                 | 0.3 mNm                |
| Load speed                  | 25810 rpm              |
| Load current                | 210 mA                 |
| Max. output power           | 1.9 W                  |
| Max. efficiency             | 70 %                   |
| Back-EMF constant           | 0.2 mV/rpm             |
| Torque constant             | 1.7 mNm/A              |
| Speed/torque gradient       | 12290 rpm/mNm          |
| Rotor inertia               | 0.06 g·cm <sup>2</sup> |
| Weight                      | 4.1 g                  |
| Operating temperature range | -20~+65                |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1013N5M11-100-3.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1013n5m11-100-3-0/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 3.0 V                  |
| Terminal resistance         | 15.5 $\Omega$          |
| No-load speed               | 10000 rpm              |
| No-load current             | 10 mA                  |
| Stall torque                | 0.5 mNm                |
| Stall current               | 194 mA                 |
| Load torque                 | 0.3 mNm                |
| Load speed                  | 4000 rpm               |
| Load current                | 120 mA                 |
| Max. output power           | 0.1 W                  |
| Max. efficiency             | 60 %                   |
| Back-EMF constant           | 0.3 mV/rpm             |
| Torque constant             | 2.7 mNm/A              |
| Speed/torque gradient       | 20000 rpm/mNm          |
| Rotor inertia               | 0.06 g·cm <sup>2</sup> |
| Weight                      | 4.1 g                  |
| Operating temperature range | -20~+65                |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0510N3M

5mm mini coreless motor



<https://www.kocomotion.de/produkt/l0510n3m/>



## Produkte:

Seite

L0510N3M01-500-3.5

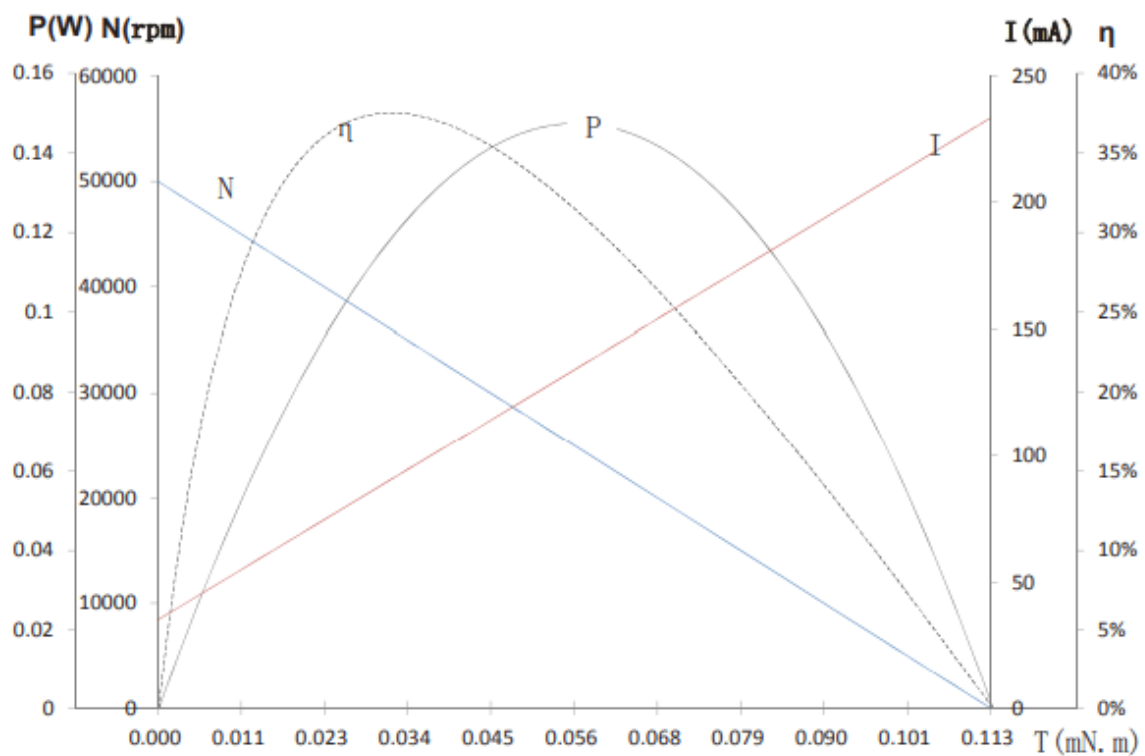
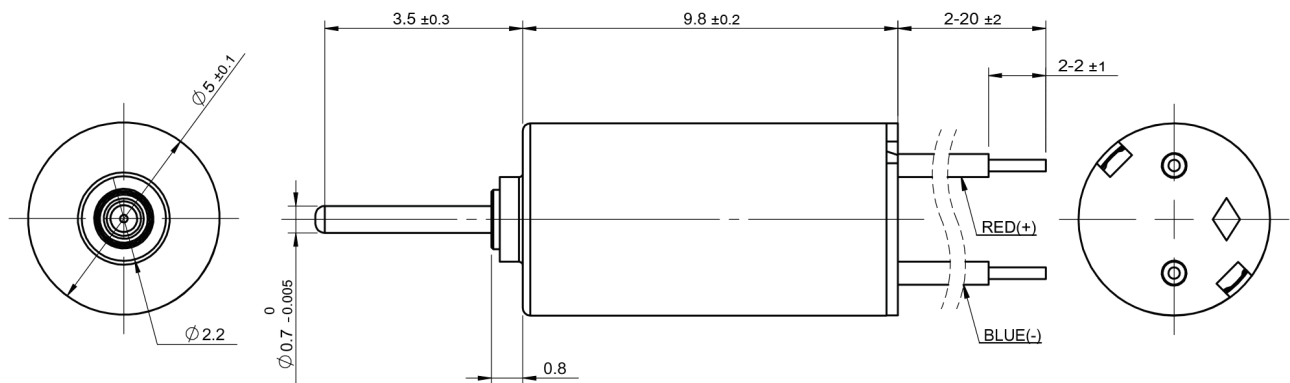
240

L0510N3M01-550-4.2

241

L0510N3M10-900-5.0

242



# L0510N3M01-500-3.5

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0510n3m01-500-3-5/>



| Specification               |                         |
|-----------------------------|-------------------------|
| Voltage                     | 3.5 V                   |
| Terminal resistance         | 15.0 $\Omega$           |
| No-load speed               | 50000 rpm               |
| No-load current             | 35 mA                   |
| Stall torque                | 0.11 mNm                |
| Stall current               | 233 mA                  |
| Load torque                 | 0.03 mNm                |
| Load speed                  | 36730 rpm               |
| Load current                | 90 mA                   |
| Max. output power           | 0.15 W                  |
| Max. efficiency             | 37.7 %                  |
| Back-EMF constant           | 0.06 mV/rpm             |
| Torque constant             | 0.57 mNm/A              |
| Speed/torque gradient       | 442478 rpm/mNm          |
| Rotor inertia               | 0.006 g·cm <sup>2</sup> |
| Weight                      | 0.8 g                   |
| Operating temperature range | -20~+65                 |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0510N3M01-550-4.2

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0510n3m01-550-4-2/>



| Specification               |                         |
|-----------------------------|-------------------------|
| Voltage                     | 4.2 V                   |
| Terminal resistance         | 15.0 $\Omega$           |
| No-load speed               | 55000 rpm               |
| No-load current             | 40 mA                   |
| Stall torque                | 0.15 mNm                |
| Stall current               | 280 mA                  |
| Load torque                 | 0.03 mNm                |
| Load speed                  | 44000 rpm               |
| Load current                | 90 mA                   |
| Max. output power           | 0.22 W                  |
| Max. efficiency             | 38.7 %                  |
| Back-EMF constant           | 0.07 mV/rpm             |
| Torque constant             | 0.63 mNm/A              |
| Speed/torque gradient       | 366667 rpm/mNm          |
| Rotor inertia               | 0.006 g·cm <sup>2</sup> |
| Weight                      | 0.8 g                   |
| Operating temperature range | -20~+65                 |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0510N3M10-900-5.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0510n3m10-900-5-0/>



| Specification               |                         |
|-----------------------------|-------------------------|
| Voltage                     | 5.0 V                   |
| Terminal resistance         | 7.6 $\Omega$            |
| No-load speed               | 87000 rpm               |
| No-load current             | 70 mA                   |
| Stall torque                | 0.28 mNm                |
| Stall current               | 660 mA                  |
| Load torque                 | 0.03 mNm                |
| Load speed                  | 77680 rpm               |
| Load current                | 130 mA                  |
| Max. output power           | 0.64 W                  |
| Max. efficiency             | 44.0 %                  |
| Back-EMF constant           | 0.05 mV/rpm             |
| Torque constant             | 0.49 mNm/A              |
| Speed/torque gradient       | 310714 rpm/mNm          |
| Rotor inertia               | 0.006 g·cm <sup>2</sup> |
| Weight                      | 0.8 g                   |
| Operating temperature range | -20~+65                 |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances



# L1015N5M

1015 3.7V micro DC motor



<https://www.kocomotion.de/produkt/l1015n5m/>



## Produkte:

Seite

L1015N5M22-212-6.0

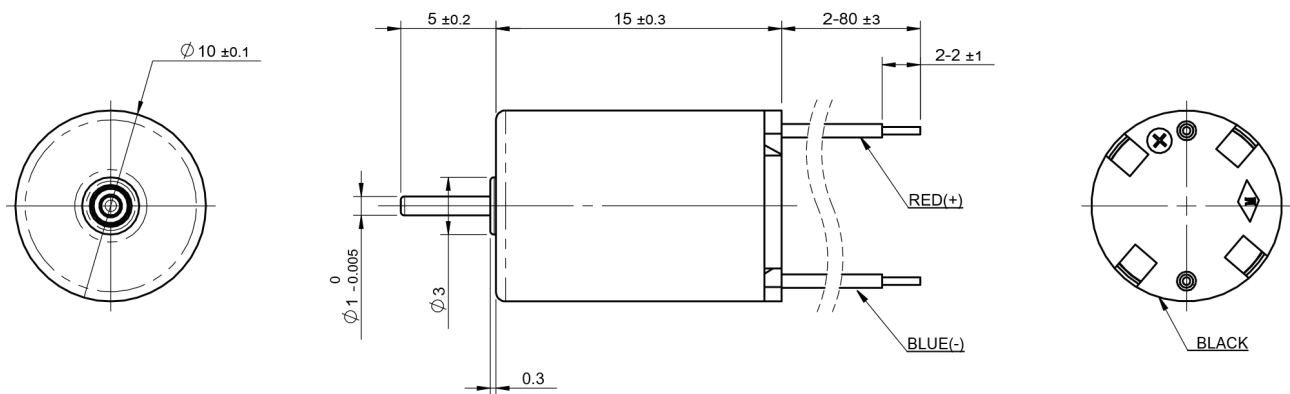
245

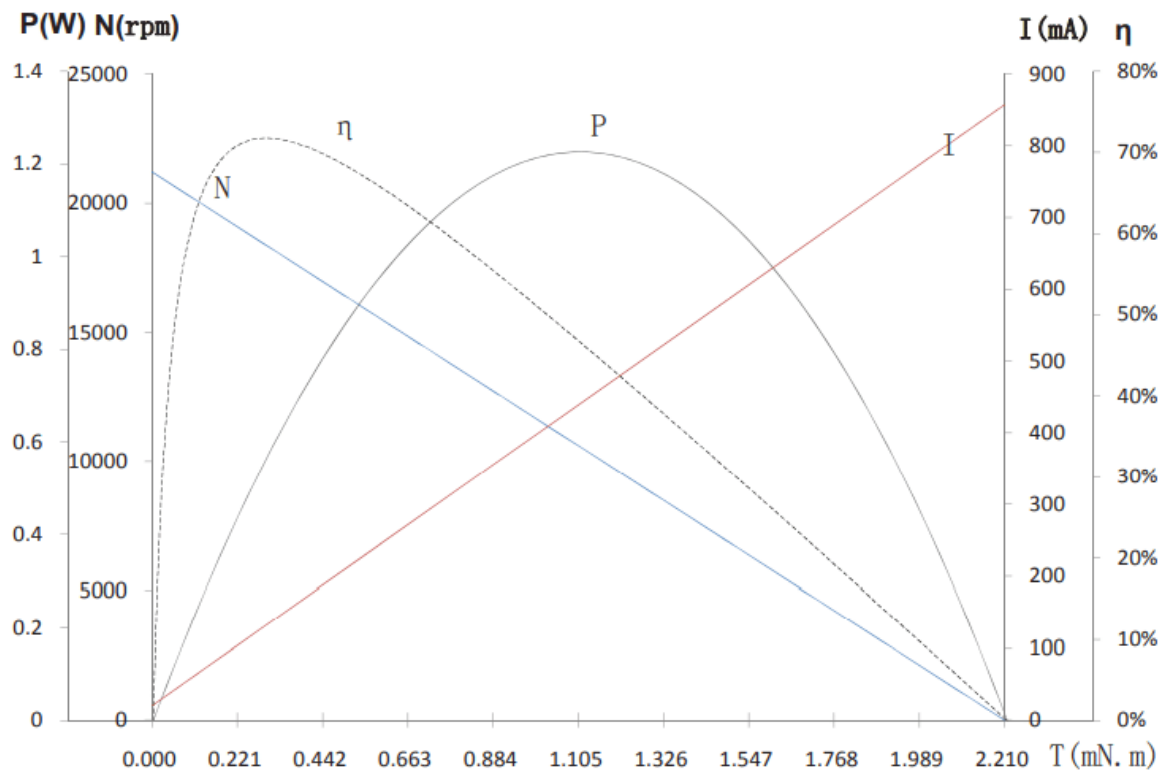
L1015N5M93-213-3.7

246

L1015N5M95-267-5.0

247





# L1015N5M22-212-6.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1015n5m22-212-6-0/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 6.0 V                  |
| Terminal resistance         | 7.0 $\Omega$           |
| No-load speed               | 21200 rpm              |
| No-load current             | 20 mA                  |
| Stall torque                | 2.21 mNm               |
| Stall current               | 860 mA                 |
| Load torque                 | 0.5 mNm                |
| Load speed                  | 16400 rpm              |
| Load current                | 210 mA                 |
| Max. output power           | 1.23 W                 |
| Max. efficiency             | 72 %                   |
| Back-EMF constant           | 0.3 mV/rpm             |
| Torque constant             | 2.6 mNm/A              |
| Speed/torque gradient       | 9590 rpm/mNm           |
| Rotor inertia               | 0.07 g·cm <sup>2</sup> |
| Weight                      | 5.1 g                  |
| Operating temperature range | -20~+65                |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1015N5M93-213-3.7

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1015n5m93-213-3-7/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 3.7 V                  |
| Terminal resistance         | 2.5 $\Omega$           |
| No-load speed               | 21300 rpm              |
| No-load current             | 35 mA                  |
| Stall torque                | 2.32 mNm               |
| Stall current               | 1470 mA                |
| Load torque                 | 0.5 mNm                |
| Load speed                  | 16710 rpm              |
| Load current                | 340 mA                 |
| Max. output power           | 1.3 W                  |
| Max. efficiency             | 72 %                   |
| Back-EMF constant           | 0.2 mV/rpm             |
| Torque constant             | 1.6 mNm/A              |
| Speed/torque gradient       | 9180 rpm/mNm           |
| Rotor inertia               | 1.17 g·cm <sup>2</sup> |
| Weight                      | 5.1 g                  |
| Operating temperature range | -20~+65                |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1015N5M95-267-5.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1015n5m95-267-5-0/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 5.0 V                  |
| Terminal resistance         | 3.9 $\Omega$           |
| No-load speed               | 26700 rpm              |
| No-load current             | 35 mA                  |
| Stall torque                | 2.17 mNm               |
| Stall current               | 1280 mA                |
| Load torque                 | 1.5 mNm                |
| Load speed                  | 8240 rpm               |
| Load current                | 900 mA                 |
| Max. output power           | 1.52 W                 |
| Max. efficiency             | 70 %                   |
| Back-EMF constant           | 0.2 mV/rpm             |
| Torque constant             | 1.7 mNm/A              |
| Speed/torque gradient       | 12310 rpm/mNm          |
| Rotor inertia               | 0.07 g·cm <sup>2</sup> |
| Weight                      | 5.1 g                  |
| Operating temperature range | -20~+65                |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0609N3M

6mm microcoreless DC motor



<https://www.kocomotion.de/produkt/l0609n3m/>



## Produkte:

Seite

L0609N3M58-340-3.0

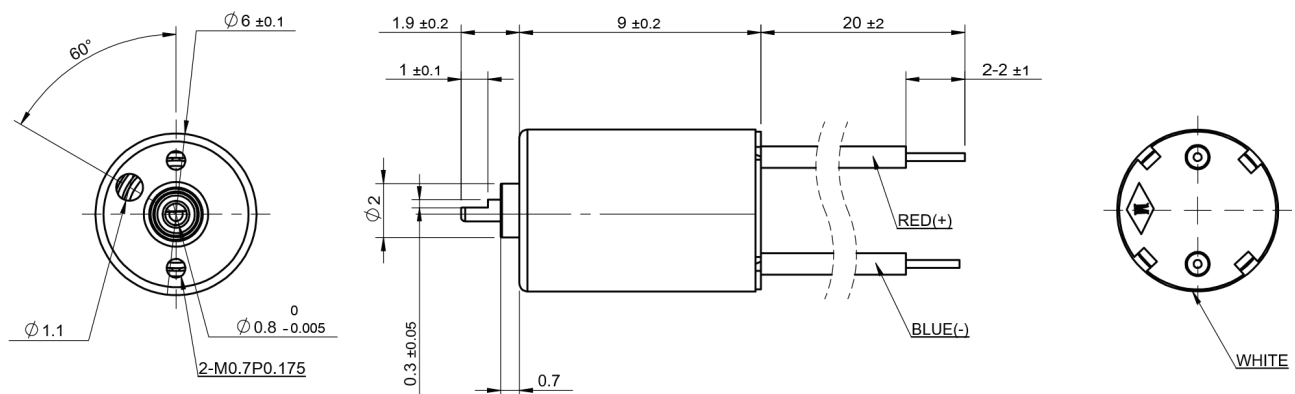
250

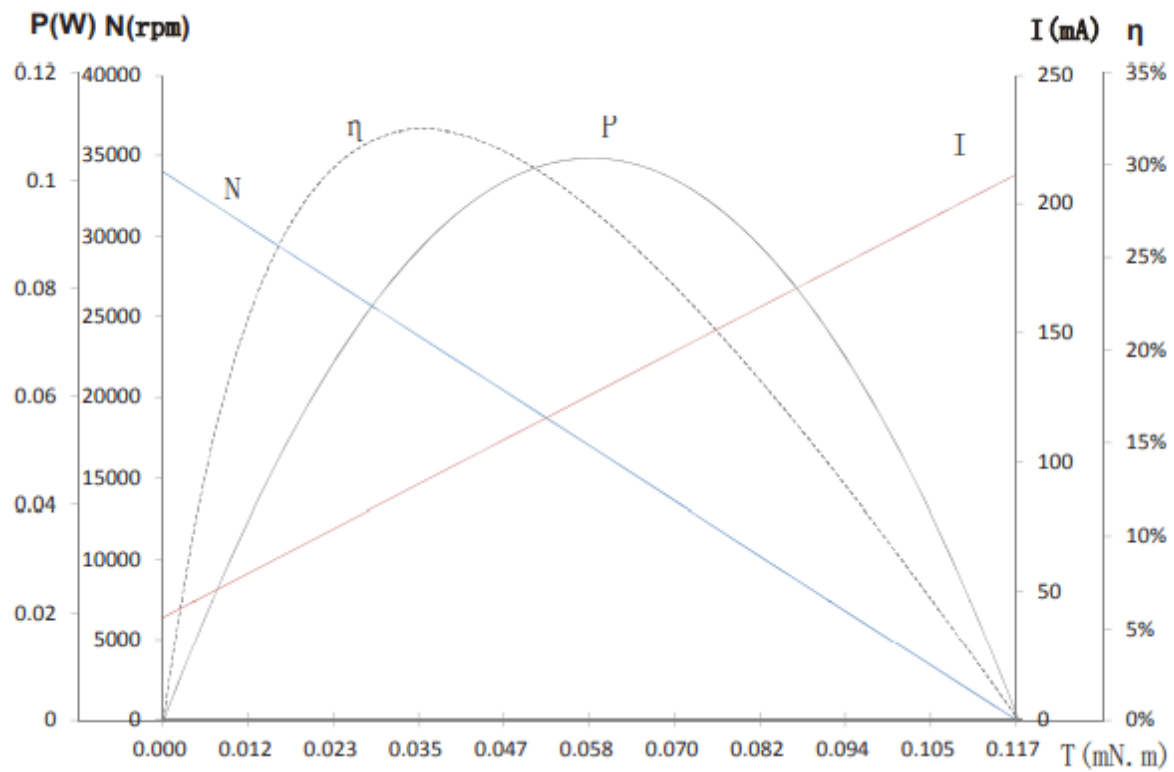
L0609N3M09-490-3.0

251

L0609N3M10-435-3.0

252





# L0609N3M58-340-3.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0609n3m58-340-3-0/>



| Specification               |                         |
|-----------------------------|-------------------------|
| Voltage                     | 3.0 V                   |
| Terminal resistance         | 14.2 $\Omega$           |
| No-load speed               | 34000 rpm               |
| No-load current             | 40 mA                   |
| Stall torque                | 0.12 mNm                |
| Stall current               | 211 mA                  |
| Load torque                 | 0.05 mNm                |
| Load speed                  | 19470 rpm               |
| Load current                | 110 mA                  |
| Max. output power           | 0.10 W                  |
| Max. efficiency             | 31.9 %                  |
| Back-EMF constant           | 0.07 mV/rpm             |
| Torque constant             | 0.68 mNm/A              |
| Speed/torque gradient       | 290598 rpm/mNm          |
| Rotor inertia               | 0.008 g·cm <sup>2</sup> |
| Weight                      | 1 g                     |
| Operating temperature range | -20~+65                 |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances



# L0609N3M09-490-3.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0609n3m09-490-3-0/>



| Specification               |                         |
|-----------------------------|-------------------------|
| Voltage                     | 3.0 V                   |
| Terminal resistance         | 7.8 $\Omega$            |
| No-load speed               | 49000 rpm               |
| No-load current             | 50 mA                   |
| Stall torque                | 0.17 mNm                |
| Stall current               | 385 mA                  |
| Load torque                 | 0.05 mNm                |
| Load speed                  | 34590 rpm               |
| Load current                | 150 mA                  |
| Max. output power           | 0.22 W                  |
| Max. efficiency             | 40.9 %                  |
| Back-EMF constant           | 0.05 mV/rpm             |
| Torque constant             | 0.51 mNm/A              |
| Speed/torque gradient       | 288235 rpm/mNm          |
| Rotor inertia               | 0.008 g·cm <sup>2</sup> |
| Weight                      | 1 g                     |
| Operating temperature range | -20~+65                 |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0609N3M10-435-3.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0609n3m10-435-3-0/>



| Specification               |                         |
|-----------------------------|-------------------------|
| Voltage                     | 3.0 V                   |
| Terminal resistance         | 7.7 $\Omega$            |
| No-load speed               | 43500 rpm               |
| No-load current             | 65 mA                   |
| Stall torque                | 0.18 mNm                |
| Stall current               | 390 mA                  |
| Load torque                 | 0.05 mNm                |
| Load speed                  | 31280 rpm               |
| Load current                | 160 mA                  |
| Max. output power           | 0.20 W                  |
| Max. efficiency             | 35.0 %                  |
| Back-EMF constant           | 0.06 mV/rpm             |
| Torque constant             | 0.55 mNm/A              |
| Speed/torque gradient       | 244382 rpm/mNm          |
| Rotor inertia               | 0.008 g·cm <sup>2</sup> |
| Weight                      | 1 g                     |
| Operating temperature range | -20~+65                 |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1020N5M

1020 3.8V mini coreless motor



<https://www.kocomotion.de/produkt/l1020n5m/>



## Produkte:

Seite

L1020N5M50-453-3.8

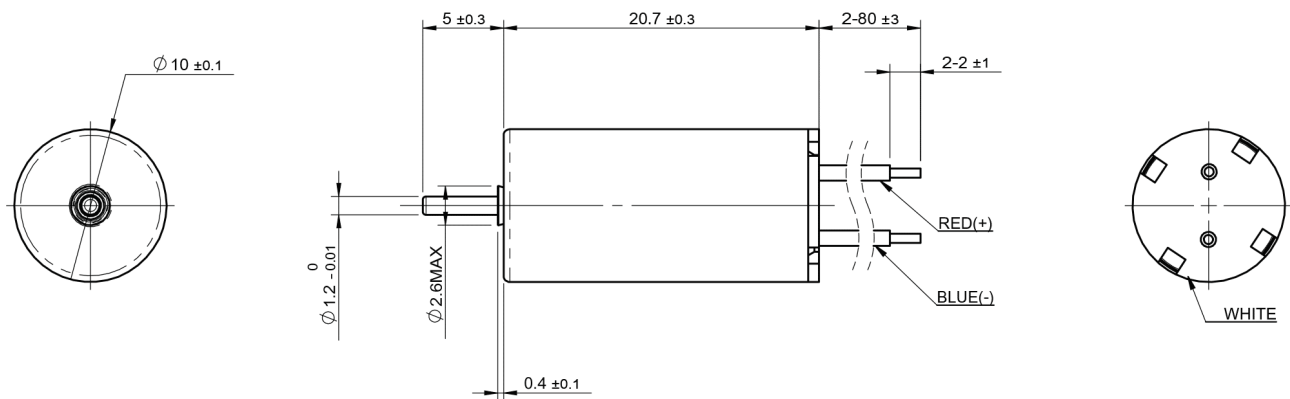
255

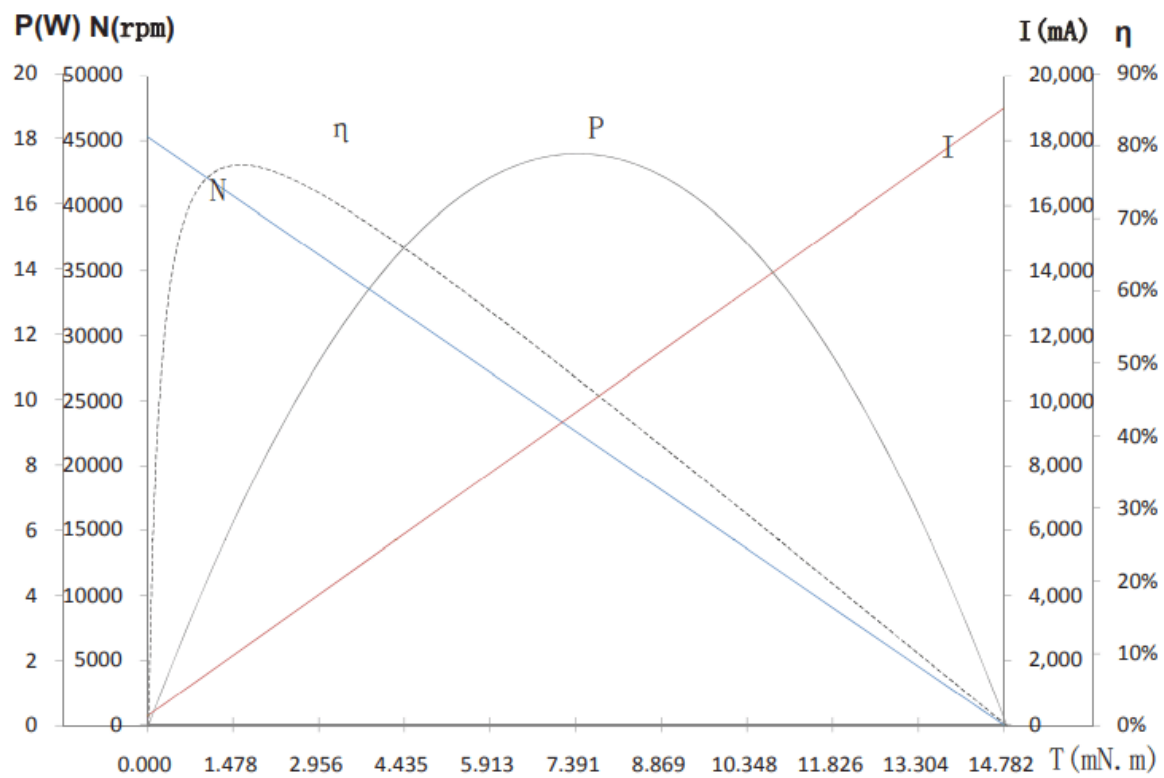
L1020N5M66-336-7.4

256

L1020N5M69-291-5.0

257





# L1020N5M50-453-3.8

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1020n5m50-453-3-8/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 3.8 V                  |
| Terminal resistance         | 0.2 $\Omega$           |
| No-load speed               | 45300 rpm              |
| No-load current             | 275 mA                 |
| Stall torque                | 14.8 mNm               |
| Stall current               | 18095 mA               |
| Load torque                 | 2.0 mNm                |
| Load speed                  | 39170 rpm              |
| Load current                | 2690 mA                |
| Max. output power           | 17.5 W                 |
| Max. efficiency             | 81 %                   |
| Back-EMF constant           | 0.1 mV/rpm             |
| Torque constant             | 0.8 mNm/A              |
| Speed/torque gradient       | 3060 rpm/mNm           |
| Rotor inertia               | 0.15 g·cm <sup>2</sup> |
| Weight                      | 7.5 g                  |
| Operating temperature range | -20~+85                |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1020N5M66-336-7.4

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1020n5m66-336-7-4/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 7.4 V                  |
| Terminal resistance         | 1.8 $\Omega$           |
| No-load speed               | 33600 rpm              |
| No-load current             | 65 mA                  |
| Stall torque                | 8.4 mNm                |
| Stall current               | 4111 mA                |
| Load torque                 | 2.0 mNm                |
| Load speed                  | 25580 rpm              |
| Load current                | 1030 mA                |
| Max. output power           | 7.4 W                  |
| Max. efficiency             | 77 %                   |
| Back-EMF constant           | 0.2 mV/rpm             |
| Torque constant             | 2.1 mNm/A              |
| Speed/torque gradient       | 4010 rpm/mNm           |
| Rotor inertia               | 0.15 g·cm <sup>2</sup> |
| Weight                      | 7.5 g                  |
| Operating temperature range | -20~+85                |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1020N5M69-291-5.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1020n5m69-291-5-0/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 5.0 V                  |
| Terminal resistance         | 1.4 $\Omega$           |
| No-load speed               | 29100 rpm              |
| No-load current             | 32 mA                  |
| Stall torque                | 5.8 mNm                |
| Stall current               | 3597 mA                |
| Load torque                 | 2.0 mNm                |
| Load speed                  | 18990 rpm              |
| Load current                | 1270 mA                |
| Max. output power           | 4.4 W                  |
| Max. efficiency             | 82 %                   |
| Back-EMF constant           | 0.2 mV/rpm             |
| Torque constant             | 1.6 mNm/A              |
| Speed/torque gradient       | 5060 rpm/mNm           |
| Rotor inertia               | 0.12 g·cm <sup>2</sup> |
| Weight                      | 6.8 g                  |
| Operating temperature range | -20~+85                |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0610N5M

6mm mini coreless DC motor



<https://www.kocomotion.de/produkt/l0610n5m/>



## Produkte:

Seite

L0610N5M11-585-5.0

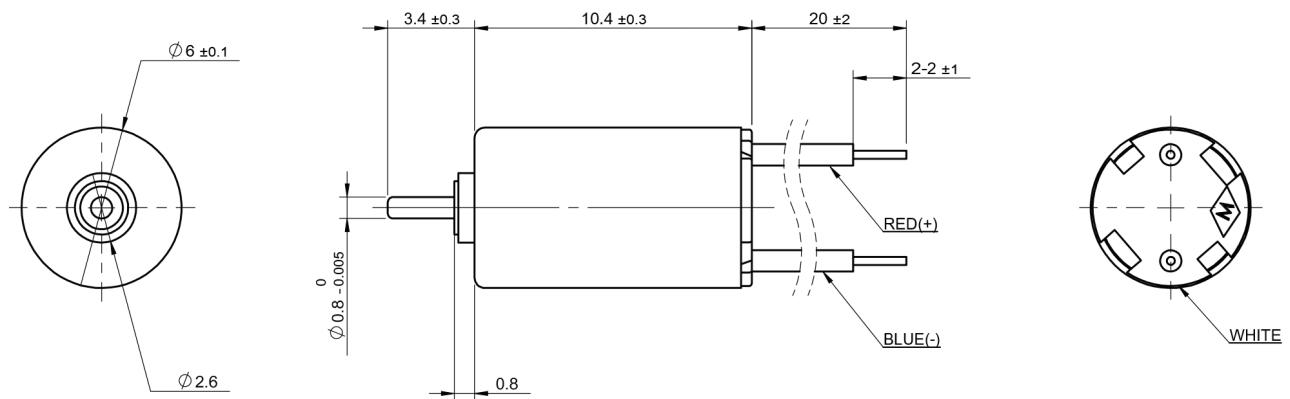
260

L0610N5M22-665-3.4

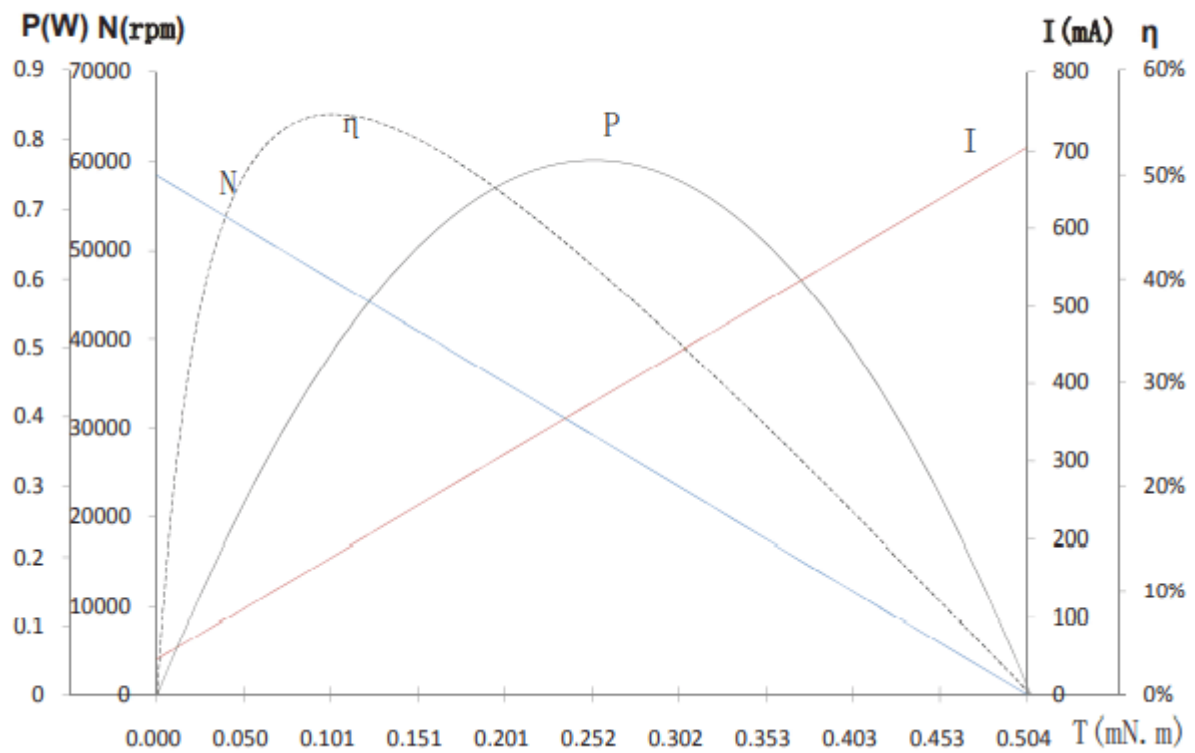
261

L0610N5M05-550-3.2

262







# L0610N5M11-585-5.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0610n5m11-585-5-0/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 5.0 V                  |
| Terminal resistance         | 7.1 $\Omega$           |
| No-load speed               | 58500 rpm              |
| No-load current             | 45 mA                  |
| Stall torque                | 0.50 mNm               |
| Stall current               | 704 mA                 |
| Load torque                 | 0.05 mNm               |
| Load speed                  | 52700 rpm              |
| Load current                | 110 mA                 |
| Max. output power           | 0.8 W                  |
| Max. efficiency             | 55.9 %                 |
| Back-EMF constant           | 0.08 mV/rpm            |
| Torque constant             | 0.76 mNm/A             |
| Speed/torque gradient       | 116071 rpm/mNm         |
| Rotor inertia               | 0.01 g·cm <sup>2</sup> |
| Weight                      | 1.2 g                  |
| Operating temperature range | -20~+80                |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0610N5M22-665-3.4

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0610n5m22-665-3-4/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 3.4 V                  |
| Terminal resistance         | 2.7 $\Omega$           |
| No-load speed               | 66500 rpm              |
| No-load current             | 100 mA                 |
| Stall torque                | 0.52 mNm               |
| Stall current               | 1259 mA                |
| Load torque                 | 0.05 mNm               |
| Load speed                  | 60120 rpm              |
| Load current                | 210 mA                 |
| Max. output power           | 0.9 W                  |
| Max. efficiency             | 51.6 %                 |
| Back-EMF constant           | 0.05 mV/rpm            |
| Torque constant             | 0.45 mNm/A             |
| Speed/torque gradient       | 127639 rpm/mNm         |
| Rotor inertia               | 0.01 g·cm <sup>2</sup> |
| Weight                      | 1.2 g                  |
| Operating temperature range | -20~+80                |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0610N5M05-550-3.2

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0610n5m05-550-3-2/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 3.2 V                  |
| Terminal resistance         | 3.8 $\Omega$           |
| No-load speed               | 55000 rpm              |
| No-load current             | 85 mA                  |
| Stall torque                | 0.38 mNm               |
| Stall current               | 842 mA                 |
| Load torque                 | 0.05 mNm               |
| Load speed                  | 47720 rpm              |
| Load current                | 190 mA                 |
| Max. output power           | 0.5 W                  |
| Max. efficiency             | 46.6 %                 |
| Back-EMF constant           | 0.05 mV/rpm            |
| Torque constant             | 0.50 mNm/A             |
| Speed/torque gradient       | 145503 rpm/mNm         |
| Rotor inertia               | 0.01 g·cm <sup>2</sup> |
| Weight                      | 1.3 g                  |
| Operating temperature range | -20~+80                |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1212N5M

12mm mini coreless motor



<https://www.kocomotion.de/produkt/l1212n5m/>



## Produkte:

Seite

L1212N5M05-320-6.0

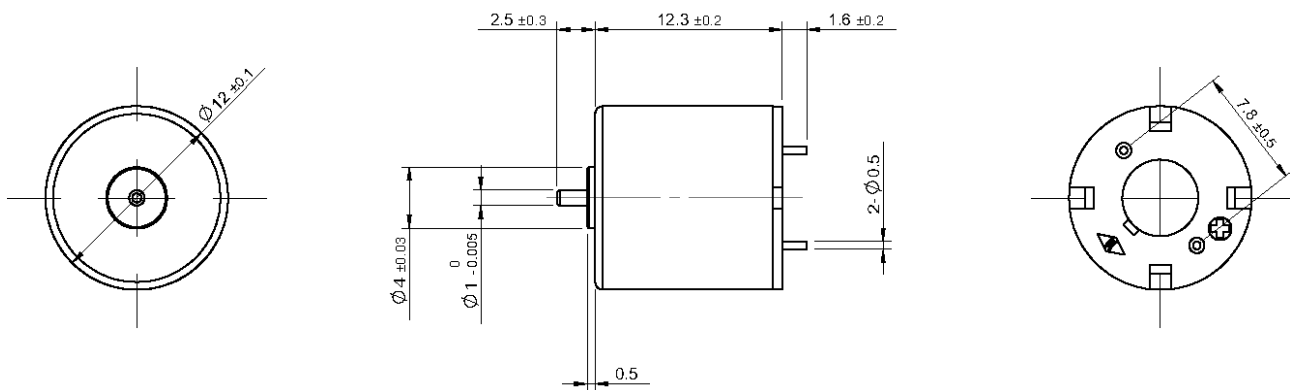
265

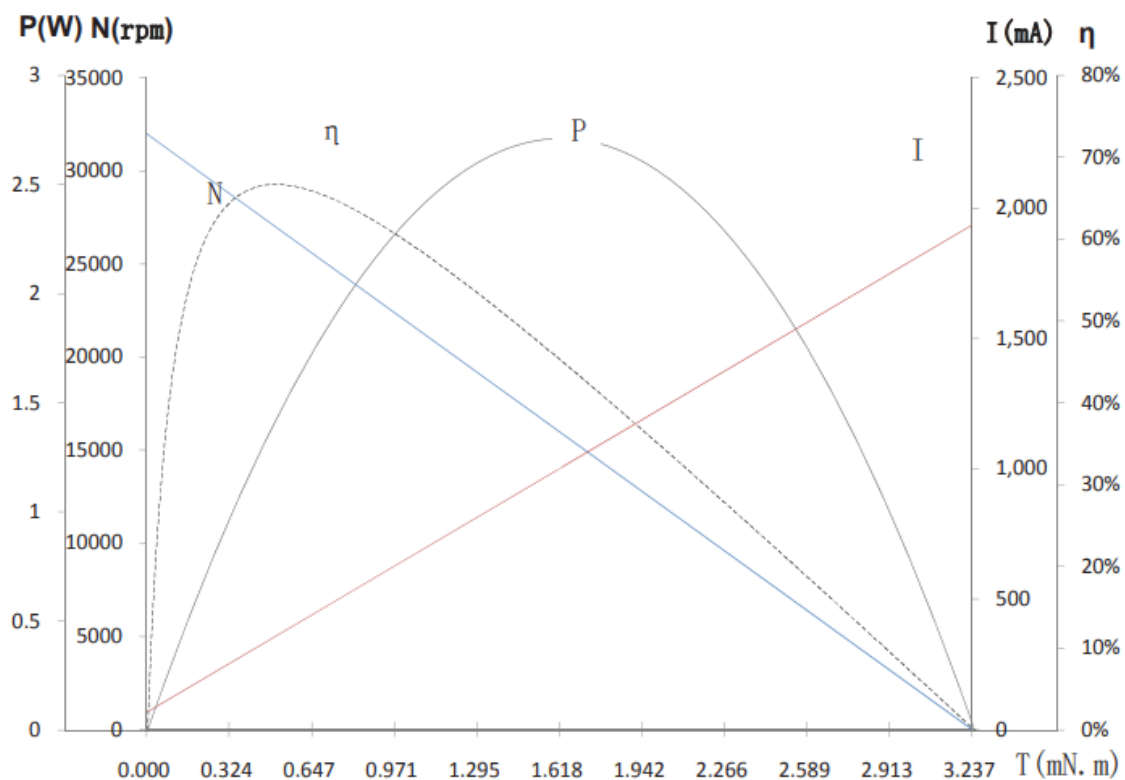
L1212N5M01-335-6.0

266

L1212N5M04-375-6.0

267





# L1212N5M05-320-6.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1212n5m05-320-6-0/>



| Specification               |                       |
|-----------------------------|-----------------------|
| Voltage                     | 6.0 V                 |
| Terminal resistance         | 3.1 $\Omega$          |
| No-load speed               | 32000 rpm             |
| No-load current             | 65 mA                 |
| Stall torque                | 3.2 mNm               |
| Stall current               | 1940 mA               |
| Load torque                 | 0.5 mNm               |
| Load speed                  | 27070 rpm             |
| Load current                | 350 mA                |
| Max. output power           | 2.7 W                 |
| Max. efficiency             | 67 %                  |
| Back-EMF constant           | 0.2 mV/rpm            |
| Torque constant             | 1.7 mNm/A             |
| Speed/torque gradient       | 9860 rpm/mNm          |
| Rotor inertia               | 0.1 g·cm <sup>2</sup> |
| Weight                      | 5.5 g                 |
| Operating temperature range | -20~+85               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1212N5M01-335-6.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1212n5m01-335-6-0/>



| Specification               |                       |
|-----------------------------|-----------------------|
| Voltage                     | 6.0 V                 |
| Terminal resistance         | 3.9 $\Omega$          |
| No-load speed               | 33500 rpm             |
| No-load current             | 65 mA                 |
| Stall torque                | 2.4 mNm               |
| Stall current               | 1540 mA               |
| Load torque                 | 0.5 mNm               |
| Load speed                  | 26570 rpm             |
| Load current                | 370 mA                |
| Max. output power           | 2.1 W                 |
| Max. efficiency             | 63 %                  |
| Back-EMF constant           | 0.2 mV/rpm            |
| Torque constant             | 1.6 mNm/A             |
| Speed/torque gradient       | 13870 rpm/mNm         |
| Rotor inertia               | 0.1 g·cm <sup>2</sup> |
| Weight                      | 5.5 g                 |
| Operating temperature range | -20~+85               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances



# L1212N5M04-375-6.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1212n5m04-375-6-0/>



| Specification               |                       |
|-----------------------------|-----------------------|
| Voltage                     | 6.0 V                 |
| Terminal resistance         | 5.1 $\Omega$          |
| No-load speed               | 37500 rpm             |
| No-load current             | 65 mA                 |
| Stall torque                | 1.6 mNm               |
| Stall current               | 1180 mA               |
| Load torque                 | 0.5 mNm               |
| Load speed                  | 15850 rpm             |
| Load current                | 410 mA                |
| Max. output power           | 1.6 W                 |
| Max. efficiency             | 59 %                  |
| Back-EMF constant           | 0.2 mV/rpm            |
| Torque constant             | 1.4 mNm/A             |
| Speed/torque gradient       | 23300 rpm/mNm         |
| Rotor inertia               | 0.1 g·cm <sup>2</sup> |
| Weight                      | 5.5 g                 |
| Operating temperature range | -20~+85               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0612N3M

6mm 4.5V micro DC coreless motor



<https://www.kocomotion.de/produkt/l0612n3m/>



## Produkte:

Seite

L0612N3M08-550-4.5

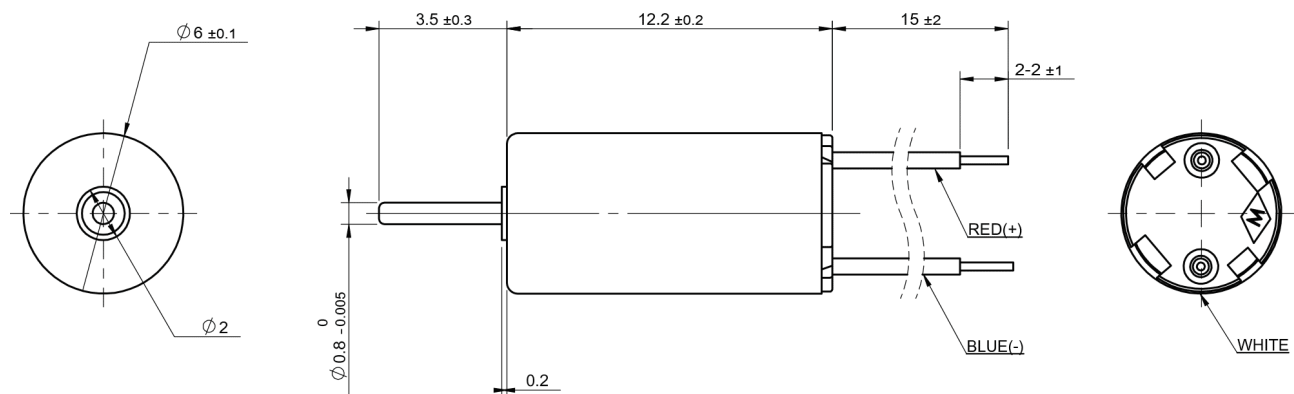
270

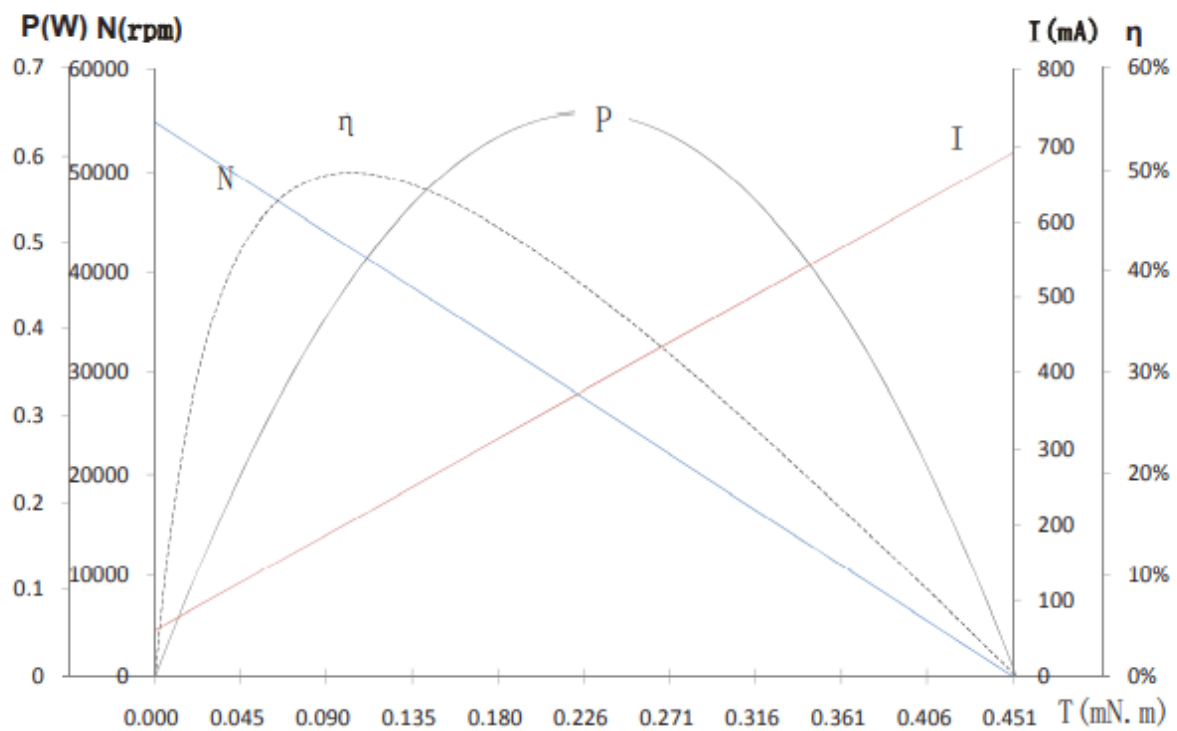
L0612N3M90-160-3.0

271

L0612N3M63-250-4.5

272





# L0612N3M08-550-4.5

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0612n3m08-550-4-5/>



| Specification               |                         |
|-----------------------------|-------------------------|
| Voltage                     | 4.5 V                   |
| Terminal resistance         | 6.50 $\Omega$           |
| No-load speed               | 55000 rpm               |
| No-load current             | 60 mA                   |
| Stall torque                | 0.45 mNm                |
| Stall current               | 692 mA                  |
| Load torque                 | 0.05 mNm                |
| Load speed                  | 48900 rpm               |
| Load current                | 130 mA                  |
| Max. output power           | 0.7 W                   |
| Max. efficiency             | 49.8 %                  |
| Back-EMF constant           | 0.07 mV/rpm             |
| Torque constant             | 0.71 mNm/A              |
| Speed/torque gradient       | 121951 rpm/mNm          |
| Rotor inertia               | 0.014 g·cm <sup>2</sup> |
| Weight                      | 1.3 g                   |
| Operating temperature range | -20~+80                 |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0612N3M90-160-3.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0612n3m90-160-3-0/>



| Specification               |                         |
|-----------------------------|-------------------------|
| Voltage                     | 3.0 V                   |
| Terminal resistance         | 39.00 $\Omega$          |
| No-load speed               | 16030 rpm               |
| No-load current             | 8 mA                    |
| Stall torque                | 0.11 mNm                |
| Stall current               | 77 mA                   |
| Load torque                 | 0.05 mNm                |
| Load speed                  | 8740 rpm                |
| Load current                | 40 mA                   |
| Max. output power           | 0.05 W                  |
| Max. efficiency             | 45.8 %                  |
| Back-EMF constant           | 0.17 mV/rpm             |
| Torque constant             | 1.60 mNm/A              |
| Speed/torque gradient       | 145727 rpm/mNm          |
| Rotor inertia               | 0.014 g·cm <sup>2</sup> |
| Weight                      | 1.3 g                   |
| Operating temperature range | -20~+65                 |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0612N3M63-250-4.5

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0612n3m63-250-4-5/>



| Specification               |                         |
|-----------------------------|-------------------------|
| Voltage                     | 4.5 V                   |
| Terminal resistance         | 23.30 $\Omega$          |
| No-load speed               | 25000 rpm               |
| No-load current             | 20 mA                   |
| Stall torque                | 0.27 mNm                |
| Stall current               | 193 mA                  |
| Load torque                 | 0.05 mNm                |
| Load speed                  | 20320 rpm               |
| Load current                | 50 mA                   |
| Max. output power           | 0.17 W                  |
| Max. efficiency             | 46.1 %                  |
| Back-EMF constant           | 0.16 mV/rpm             |
| Torque constant             | 1.54 mNm/A              |
| Speed/torque gradient       | 93633 rpm/mNm           |
| Rotor inertia               | 0.014 g·cm <sup>2</sup> |
| Weight                      | 1.3 g                   |
| Operating temperature range | -20~+65                 |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1213N5M

12mm micro DC coreless motor



<https://www.kocomotion.de/produkt/l1213n5m/>



## Produkte:

Seite

L1213N5M01-185-7.4

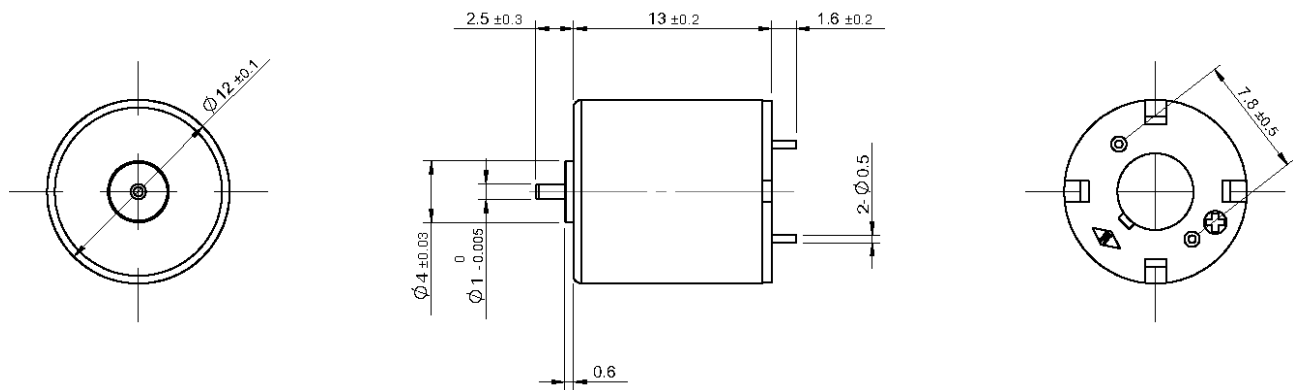
275

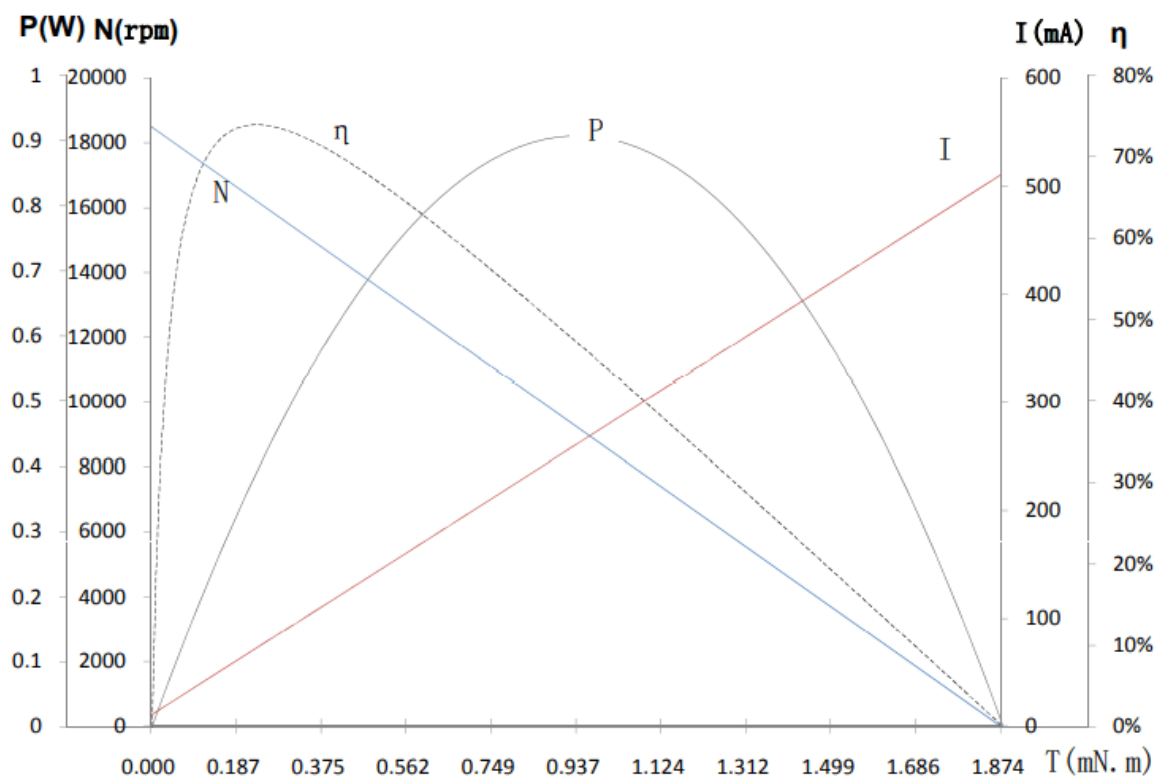
L1213N5M02-300-6.0

276

L1213N5M05-400-7.4

277







# L1213N5M01-185-7.4

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1213n5m01-185-7-4/>



| Specification               |                       |
|-----------------------------|-----------------------|
| Voltage                     | 7.4 V                 |
| Terminal resistance         | 14.5 $\Omega$         |
| No-load speed               | 18500 rpm             |
| No-load current             | 10 mA                 |
| Stall torque                | 1.9 mNm               |
| Stall current               | 510 mA                |
| Load torque                 | 0.5 mNm               |
| Load speed                  | 13560 rpm             |
| Load current                | 140 mA                |
| Max. output power           | 0.9 W                 |
| Max. efficiency             | 74 %                  |
| Back-EMF constant           | 0.4 mV/rpm            |
| Torque constant             | 3.7 mNm/A             |
| Speed/torque gradient       | 9880 rpm/mNm          |
| Rotor inertia               | 0.1 g·cm <sup>2</sup> |
| Weight                      | 6.5 g                 |
| Operating temperature range | -20~+85               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1213N5M02-300-6.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1213n5m02-300-6-0/>



| Specification               |                       |
|-----------------------------|-----------------------|
| Voltage                     | 6.0 V                 |
| Terminal resistance         | 4.0 $\Omega$          |
| No-load speed               | 30000 rpm             |
| No-load current             | 25 mA                 |
| Stall torque                | 2.8 mNm               |
| Stall current               | 1500 mA               |
| Load torque                 | 0.5 mNm               |
| Load speed                  | 24590 rpm             |
| Load current                | 290 mA                |
| Max. output power           | 2.2 W                 |
| Max. efficiency             | 76 %                  |
| Back-EMF constant           | 0.2 mV/rpm            |
| Torque constant             | 1.9 mNm/A             |
| Speed/torque gradient       | 10830 rpm/mNm         |
| Rotor inertia               | 0.1 g·cm <sup>2</sup> |
| Weight                      | 6.5 g                 |
| Operating temperature range | -20~+85               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1213N5M05-400-7.4

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1213n5m05-400-7-4/>



| Specification               |                       |
|-----------------------------|-----------------------|
| Voltage                     | 7.4 V                 |
| Terminal resistance         | 3.2 $\Omega$          |
| No-load speed               | 40500 rpm             |
| No-load current             | 120 mA                |
| Stall torque                | 3.7 mNm               |
| Stall current               | 2350 mA               |
| Load torque                 | 0.5 mNm               |
| Load speed                  | 35020 rpm             |
| Load current                | 420 mA                |
| Max. output power           | 3.9 W                 |
| Max. efficiency             | 60 %                  |
| Back-EMF constant           | 0.2 mV/rpm            |
| Torque constant             | 1.7 mNm/A             |
| Speed/torque gradient       | 10970 rpm/mNm         |
| Rotor inertia               | 0.1 g·cm <sup>2</sup> |
| Weight                      | 5.6 g                 |
| Operating temperature range | -20~+85               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0612N5M

6mm 3.2V mini coreless motor



<https://www.kocomotion.de/produkt/l0612n5m/>



## Produkte:

Seite

L0612N5M55-764-3.7

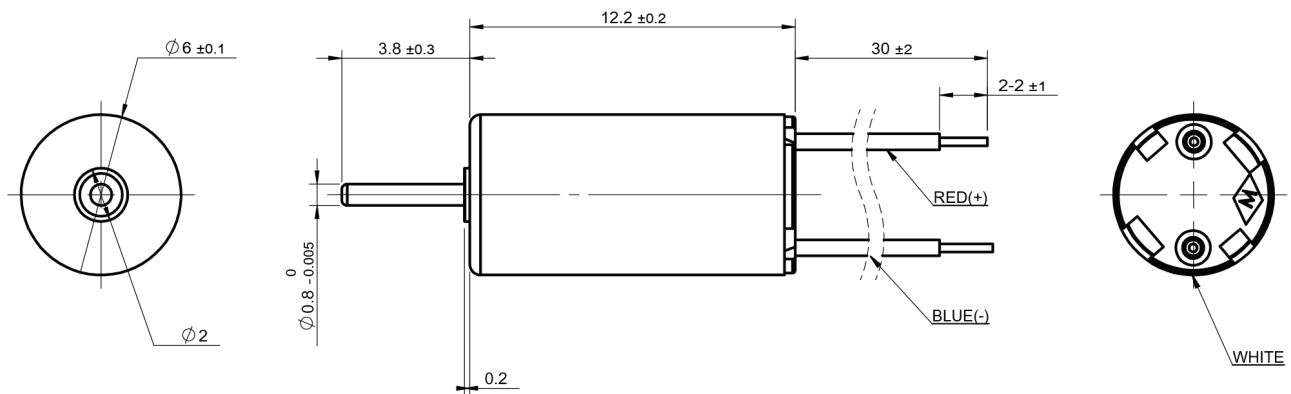
280

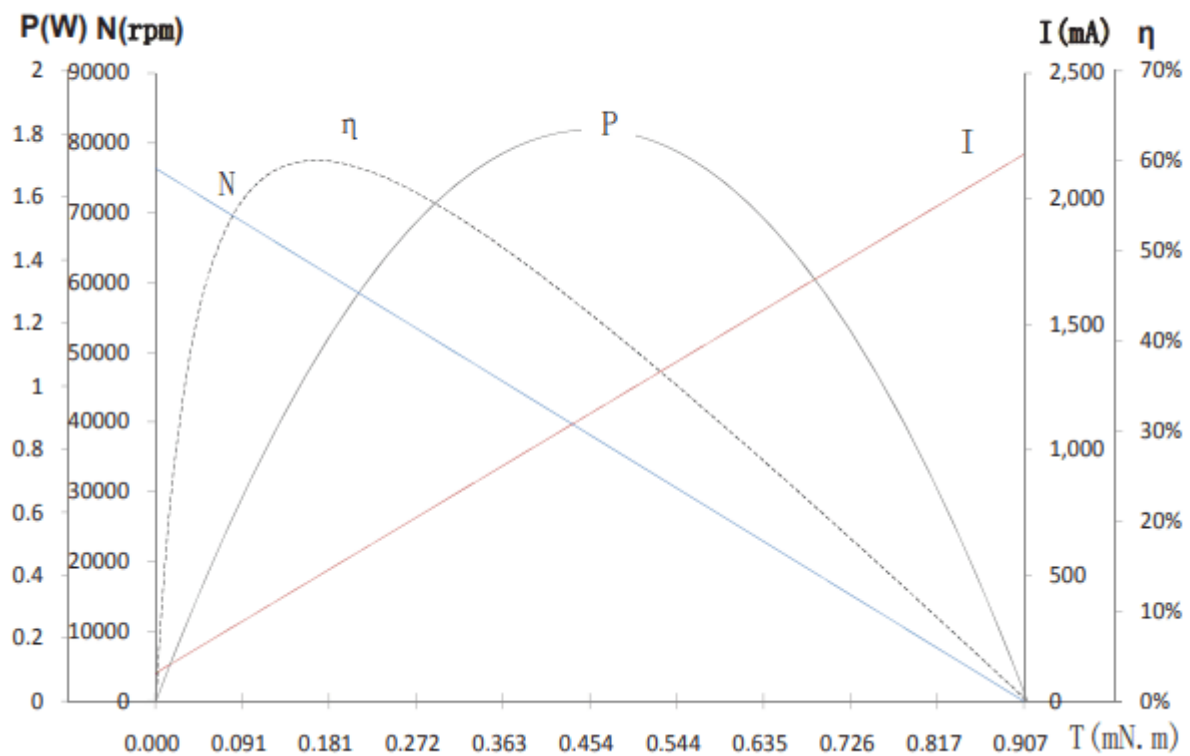
L0612N5M20-500-3.2

281

L0612N5M78-730-3.7

282





# L0612N5M55-764-3.7

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0612n5m55-764-3-7/>



| Specification               |                         |
|-----------------------------|-------------------------|
| Voltage                     | 3.7 V                   |
| Terminal resistance         | 1.7 $\Omega$            |
| No-load speed               | 76400 rpm               |
| No-load current             | 110 mA                  |
| Stall torque                | 0.91 mNm                |
| Stall current               | 2176 mA                 |
| Load torque                 | 0.05 mNm                |
| Load speed                  | 72190 rpm               |
| Load current                | 220 mA                  |
| Max. output power           | 1.8 W                   |
| Max. efficiency             | 60.1 %                  |
| Back-EMF constant           | 0.05 mV/rpm             |
| Torque constant             | 0.44 mNm/A              |
| Speed/torque gradient       | 84234 rpm/mNm           |
| Rotor inertia               | 0.014 g·cm <sup>2</sup> |
| Weight                      | 1.3 g                   |
| Operating temperature range | -20~+100                |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0612N5M20-500-3.2

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0612n5m20-500-3-2/>



| Specification               |                         |
|-----------------------------|-------------------------|
| Voltage                     | 3.2 V                   |
| Terminal resistance         | 2.2 $\Omega$            |
| No-load speed               | 50000 rpm               |
| No-load current             | 80 mA                   |
| Stall torque                | 0.79 mNm                |
| Stall current               | 1455 mA                 |
| Load torque                 | 0.05 mNm                |
| Load speed                  | 46850 rpm               |
| Load current                | 170 mA                  |
| Max. output power           | 1.0 W                   |
| Max. efficiency             | 58.7 %                  |
| Back-EMF constant           | 0.06 mV/rpm             |
| Torque constant             | 0.58 mNm/A              |
| Speed/torque gradient       | 62972 rpm/mNm           |
| Rotor inertia               | 0.014 g·cm <sup>2</sup> |
| Weight                      | 1.3 g                   |
| Operating temperature range | -20~+100                |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0612N5M78-730-3.7

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0612n5m78-730-3-7/>



| Specification               |                         |
|-----------------------------|-------------------------|
| Voltage                     | 3.7 V                   |
| Terminal resistance         | 2.0 $\Omega$            |
| No-load speed               | 73000 rpm               |
| No-load current             | 90 mA                   |
| Stall torque                | 0.81 mNm                |
| Stall current               | 1850 mA                 |
| Load torque                 | 0.05 mNm                |
| Load speed                  | 68490 rpm               |
| Load current                | 200 mA                  |
| Max. output power           | 1.5 W                   |
| Max. efficiency             | 60.8 %                  |
| Back-EMF constant           | 0.05 mV/rpm             |
| Torque constant             | 0.46 mNm/A              |
| Speed/torque gradient       | 90123 rpm/mNm           |
| Rotor inertia               | 0.014 g·cm <sup>2</sup> |
| Weight                      | 1.3 g                   |
| Operating temperature range | -20~+100                |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances



# L1215N5M

1215 8V micro DC coreless motor



<https://www.kocomotion.de/produkt/l1215n5m/>



## Produkte:

Seite

L1215N5M43-230-6.0

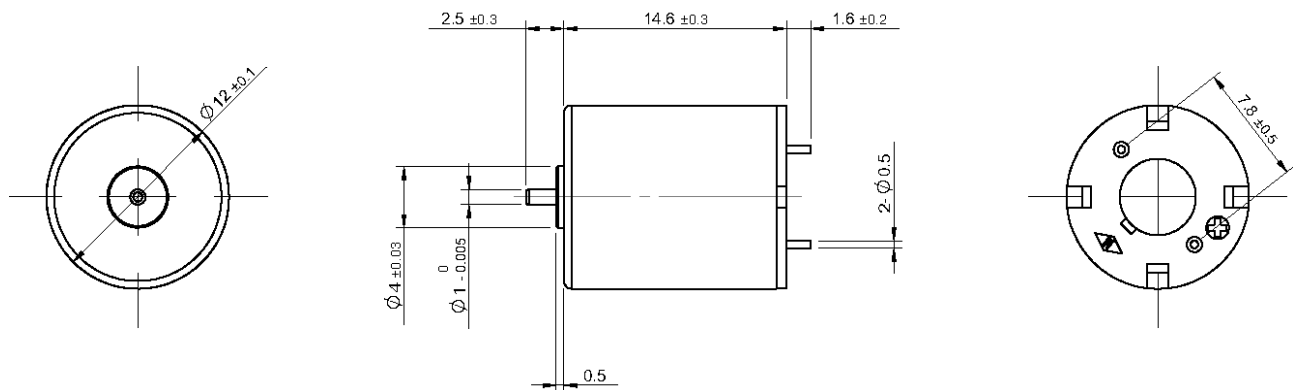
285

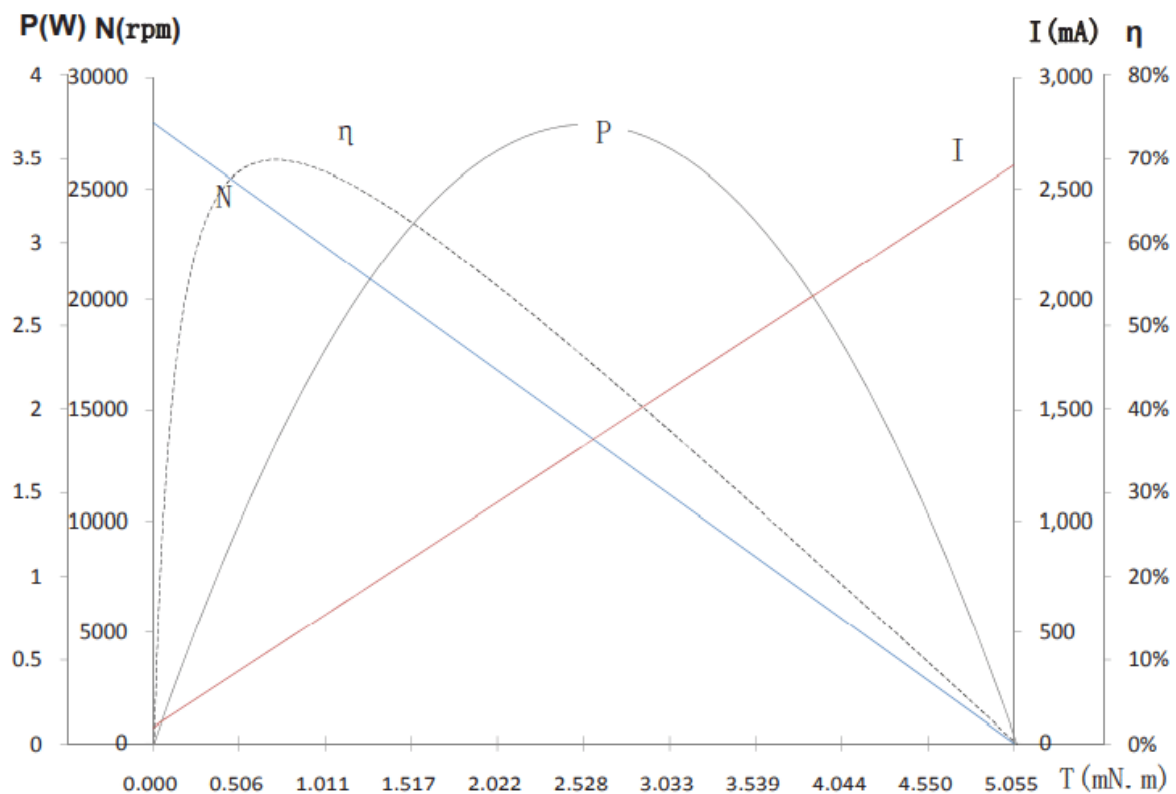
L1215N5M48-330-8.0

286

L1215N5M34-280-6.0

287





# L1215N5M43-230-6.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1215n5m43-230-6-0/>



| Specification               |                       |
|-----------------------------|-----------------------|
| Voltage                     | 6.0 V                 |
| Terminal resistance         | 3.4 $\Omega$          |
| No-load speed               | 23000 rpm             |
| No-load current             | 50 mA                 |
| Stall torque                | 4.1 mNm               |
| Stall current               | 1760 mA               |
| Load torque                 | 1 mNm                 |
| Load speed                  | 20220 rpm             |
| Load current                | 260 mA                |
| Max. output power           | 2 W                   |
| Max. efficiency             | 69.2 %                |
| Back-EMF constant           | 0.3 mV/rpm            |
| Torque constant             | 2.4 mNm/A             |
| Speed/torque gradient       | 5560 rpm/mNm          |
| Rotor inertia               | 0.1 g·cm <sup>2</sup> |
| Weight                      | 7 g                   |
| Operating temperature range | -20~+85               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1215N5M48-330-8.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1215n5m48-330-8-0/>



| Specification               |                       |
|-----------------------------|-----------------------|
| Voltage                     | 8.0 V                 |
| Terminal resistance         | 3.3 $\Omega$          |
| No-load speed               | 33000 rpm             |
| No-load current             | 80 mA                 |
| Stall torque                | 5.2 mNm               |
| Stall current               | 2420 mA               |
| Load torque                 | 1 mNm                 |
| Load speed                  | 29850 rpm             |
| Load current                | 300 mA                |
| Max. output power           | 5 W                   |
| Max. efficiency             | 67 %                  |
| Back-EMF constant           | 0.2 mV/rpm            |
| Torque constant             | 2.2 mNm/A             |
| Speed/torque gradient       | 6300 rpm/mNm          |
| Rotor inertia               | 0.1 g·cm <sup>2</sup> |
| Weight                      | 7 g                   |
| Operating temperature range | -20~+85               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1215N5M34-280-6.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1215n5m34-280-6-0/>



| Specification               |                       |
|-----------------------------|-----------------------|
| Voltage                     | 6.0 V                 |
| Terminal resistance         | 2.3 $\Omega$          |
| No-load speed               | 28000 rpm             |
| No-load current             | 70 mA                 |
| Stall torque                | 5.1 mNm               |
| Stall current               | 2610 mA               |
| Load torque                 | 0.5 mNm               |
| Load speed                  | 25230 rpm             |
| Load current                | 320 mA                |
| Max. output power           | 3.7 W                 |
| Max. efficiency             | 70 %                  |
| Back-EMF constant           | 0.2 mV/rpm            |
| Torque constant             | 2.0 mNm/A             |
| Speed/torque gradient       | 5540 rpm/mNm          |
| Rotor inertia               | 0.1 g·cm <sup>2</sup> |
| Weight                      | 6.5 g                 |
| Operating temperature range | -20~+85               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1515N5M

15mm micro DC coreless motor



<https://www.kocomotion.de/produkt/l1515n5m/>



## Produkte:

Seite

L1515N5M12-325-7.4

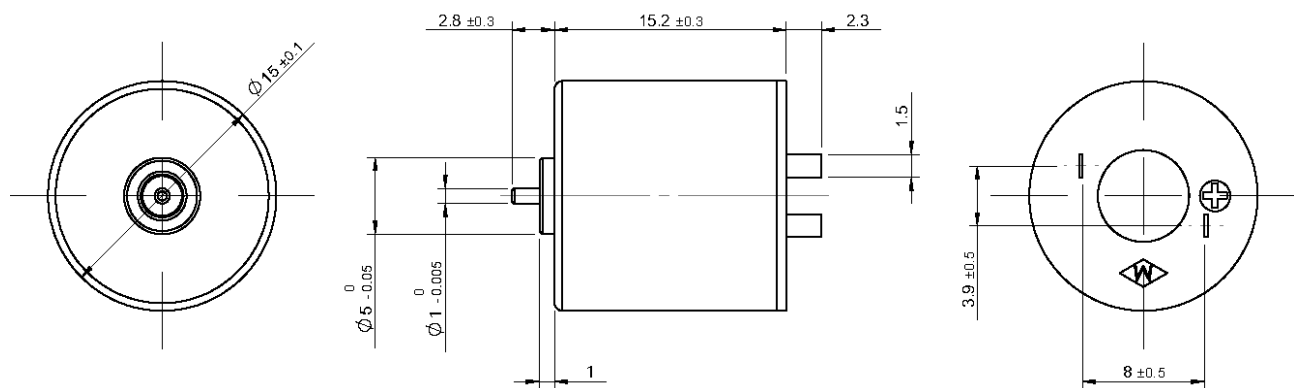
290

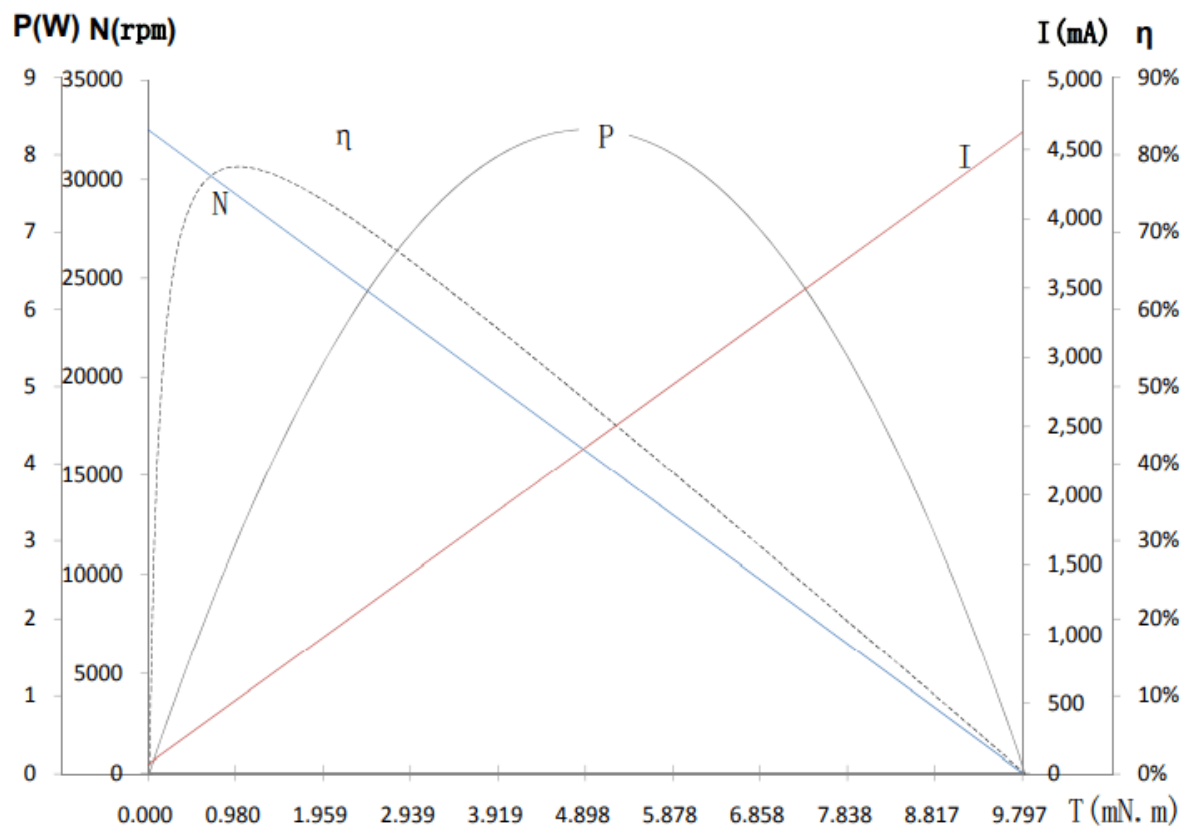
L1515N5M13-250-12.0

291

L1515N5M02-260-7.4

292





# L1515N5M12-325-7.4

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1515n5m12-325-7-4/>



| Specification               |                       |
|-----------------------------|-----------------------|
| Voltage                     | 7.4 V                 |
| Terminal resistance         | 1.6 $\Omega$          |
| No-load speed               | 32500 rpm             |
| No-load current             | 60 mA                 |
| Stall torque                | 9.8 mNm               |
| Stall current               | 4625 mA               |
| Load torque                 | 1.0 mNm               |
| Load speed                  | 29180 rpm             |
| Load current                | 526 mA                |
| Max. output power           | 8.3 W                 |
| Max. efficiency             | 79 %                  |
| Back-EMF constant           | 0.22 mV/rpm           |
| Torque constant             | 2.15 mNm/A            |
| Speed/torque gradient       | 3320 rpm/mNm          |
| Rotor inertia               | 0.7 g·cm <sup>2</sup> |
| Weight                      | 12 g                  |
| Operating temperature range | -20~+85               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances



# L1515N5M13-250-12.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1515n5m13-250-12-0/>



| Specification               |                       |
|-----------------------------|-----------------------|
| Voltage                     | 12 V                  |
| Terminal resistance         | 7.7 $\Omega$          |
| No-load speed               | 25000 rpm             |
| No-load current             | 35 mA                 |
| Stall torque                | 6.8 mNm               |
| Stall current               | 1558 mA               |
| Load torque                 | 1.0 mNm               |
| Load speed                  | 21340 rpm             |
| Load current                | 260 mA                |
| Max. output power           | 4.5 W                 |
| Max. efficiency             | 72 %                  |
| Back-EMF constant           | 0.47 mV/rpm           |
| Torque constant             | 4.48 mNm/A            |
| Speed/torque gradient       | 3660 rpm/mNm          |
| Rotor inertia               | 0.7 g·cm <sup>2</sup> |
| Weight                      | 12 g                  |
| Operating temperature range | -20~+85               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1515N5M02-260-7.4

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1515n5m02-260-7-4/>



| Specification               |                       |
|-----------------------------|-----------------------|
| Voltage                     | 7.4 V                 |
| Terminal resistance         | 2.5 $\Omega$          |
| No-load speed               | 26000 rpm             |
| No-load current             | 70 mA                 |
| Stall torque                | 7.7 mNm               |
| Stall current               | 2960 mA               |
| Load torque                 | 1.0 mNm               |
| Load speed                  | 22610 rpm             |
| Load current                | 600 mA                |
| Max. output power           | 5.2 W                 |
| Max. efficiency             | 72 %                  |
| Back-EMF constant           | 0.28 mV/rpm           |
| Torque constant             | 2.65 mNm/A            |
| Speed/torque gradient       | 3390 rpm/mNm          |
| Rotor inertia               | 0.7 g·cm <sup>2</sup> |
| Weight                      | 12.1 g                |
| Operating temperature range | -20~+85               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0614N5M

6mm 3V mini coreless DC motor



<https://www.kocomotion.de/produkt/l0614n5m/>



## Produkte:

Seite

L0614N5M44-125-3.0

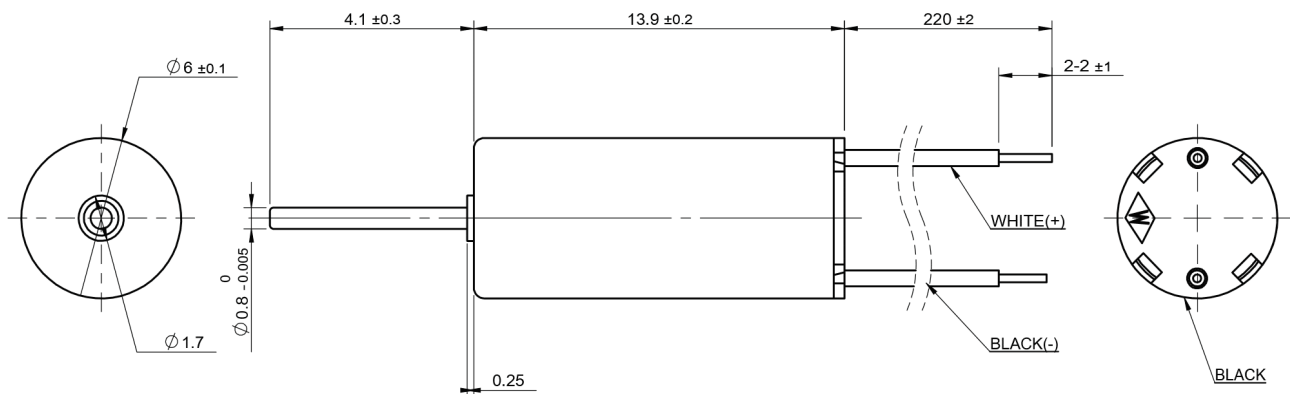
295

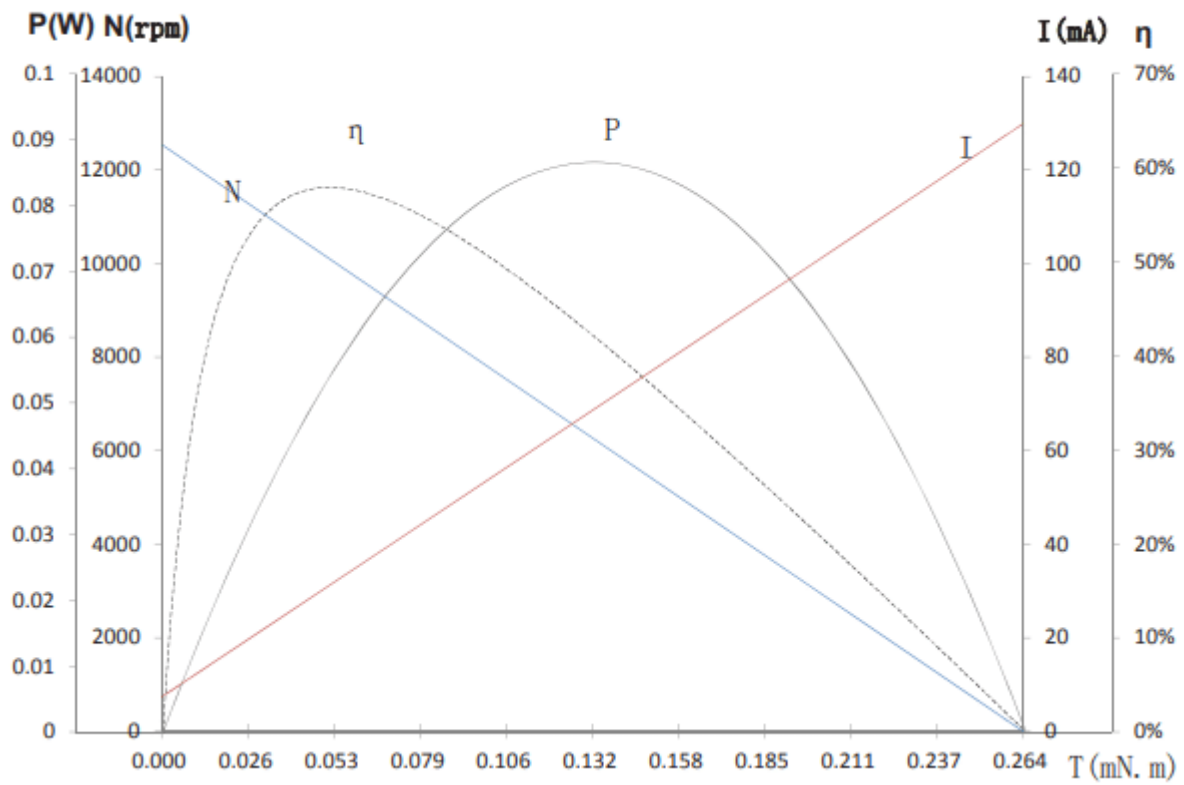
L0614N5M28-420-3.4

296

L0614N5M67-500-3.2

297





# L0614N5M44-125-3.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0614n5m44-125-3-0/>



| Specification               |                         |
|-----------------------------|-------------------------|
| Voltage                     | 3.0 V                   |
| Terminal resistance         | 23.1 $\Omega$           |
| No-load speed               | 12540 rpm               |
| No-load current             | 7.4 mA                  |
| Stall torque                | 0.26 mNm                |
| Stall current               | 130 mA                  |
| Load torque                 | 0.05 mNm                |
| Load speed                  | 10170 rpm               |
| Load current                | 30 mA                   |
| Max. output power           | 0.09 W                  |
| Max. efficiency             | 58.1 %                  |
| Back-EMF constant           | 0.23 mV/rpm             |
| Torque constant             | 2.15 mNm/A              |
| Speed/torque gradient       | 47500 rpm/mNm           |
| Rotor inertia               | 0.016 g·cm <sup>2</sup> |
| Weight                      | 1.7 g                   |
| Operating temperature range | -20~+65                 |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0614N5M28-420-3.4

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0614n5m28-420-3-4/>



| Specification               |                         |
|-----------------------------|-------------------------|
| Voltage                     | 3.4 V                   |
| Terminal resistance         | 2.60 $\Omega$           |
| No-load speed               | 42000 rpm               |
| No-load current             | 60 mA                   |
| Stall torque                | 0.9 mNm                 |
| Stall current               | 1308 mA                 |
| Load torque                 | 0.1 mNm                 |
| Load speed                  | 37430 rpm               |
| Load current                | 200 mA                  |
| Max. output power           | 1.0 W                   |
| Max. efficiency             | 61.8 %                  |
| Back-EMF constant           | 0.08 mV/rpm             |
| Torque constant             | 0.74 mNm/A              |
| Speed/torque gradient       | 45652 rpm/mNm           |
| Rotor inertia               | 0.016 g·cm <sup>2</sup> |
| Weight                      | 1.7 g                   |
| Operating temperature range | -20~+80                 |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0614N5M67-500-3.2

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0614n5m67-500-3-2/>



| Specification               |                         |
|-----------------------------|-------------------------|
| Voltage                     | 3.2 V                   |
| Terminal resistance         | 1.70 $\Omega$           |
| No-load speed               | 50000 rpm               |
| No-load current             | 80 mA                   |
| Stall torque                | 1.1 mNm                 |
| Stall current               | 1882 mA                 |
| Load torque                 | 0.1 mNm                 |
| Load speed                  | 45260 rpm               |
| Load current                | 250 mA                  |
| Max. output power           | 1.4 W                   |
| Max. efficiency             | 63.1 %                  |
| Back-EMF constant           | 0.06 mV/rpm             |
| Torque constant             | 0.59 mNm/A              |
| Speed/torque gradient       | 47393 rpm/mNm           |
| Rotor inertia               | 0.016 g·cm <sup>2</sup> |
| Weight                      | 1.7 g                   |
| Operating temperature range | -20~+120                |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

L0615N5M

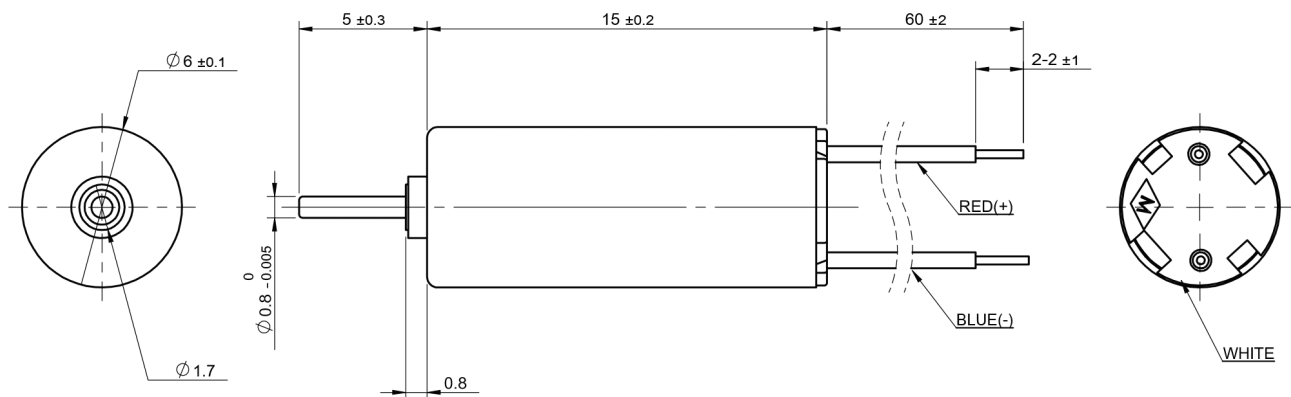
6mm DC coreless motor



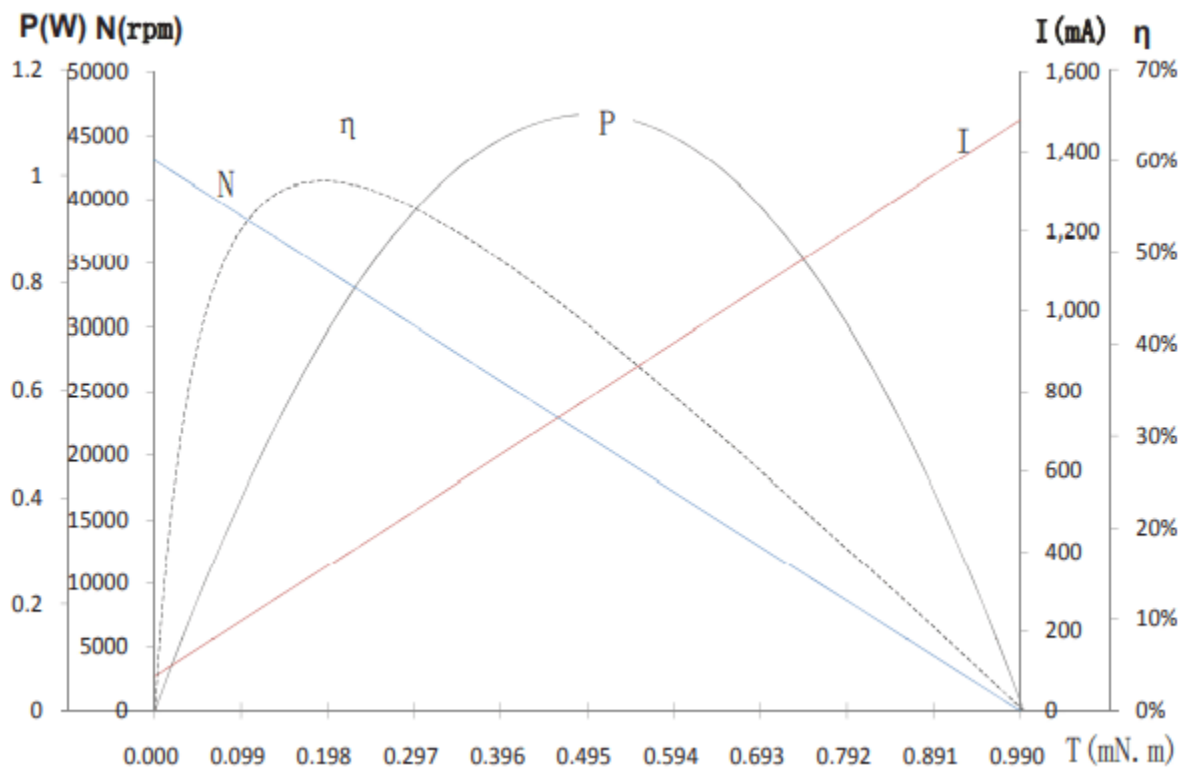
<https://www.kocomotion.de/produkt/l0615n5m/>



| Produkte:          | Seite |
|--------------------|-------|
| L0615N5M29-430-3.4 | 300   |
| L0615N5M35-387-2.5 | 301   |
| L0615N5M49-360-2.5 | 302   |







# L0615N5M29-430-3.4

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0615n5m29-430-3-4/>



| Specification               |                         |
|-----------------------------|-------------------------|
| Voltage                     | 3.4 V                   |
| Terminal resistance         | 2.30 $\Omega$           |
| No-load speed               | 43050 rpm               |
| No-load current             | 85 mA                   |
| Stall torque                | 1.0 mNm                 |
| Stall current               | 1478 mA                 |
| Load torque                 | 0.15 mNm                |
| Load speed                  | 36530 rpm               |
| Load current                | 300 mA                  |
| Max. output power           | 1.1 W                   |
| Max. efficiency             | 57.8 %                  |
| Back-EMF constant           | 0.07 mV/rpm             |
| Torque constant             | 0.71 mNm/A              |
| Speed/torque gradient       | 43485 rpm/mNm           |
| Rotor inertia               | 0.016 g·cm <sup>2</sup> |
| Weight                      | 1.8 g                   |
| Operating temperature range | -20~+120                |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0615N5M35-387-2.5

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0615n5m35-387-2-5/>



| Specification               |                         |
|-----------------------------|-------------------------|
| Voltage                     | 2.5 V                   |
| Terminal resistance         | 1.45 $\Omega$           |
| No-load speed               | 38700 rpm               |
| No-load current             | 80 mA                   |
| Stall torque                | 1.0 mNm                 |
| Stall current               | 1724 mA                 |
| Load torque                 | 0.15 mNm                |
| Load speed                  | 32700 rpm               |
| Load current                | 340 mA                  |
| Max. output power           | 1.0 W                   |
| Max. efficiency             | 61.6 %                  |
| Back-EMF constant           | 0.06 mV/rpm             |
| Torque constant             | 0.59 mNm/A              |
| Speed/torque gradient       | 40021 rpm/mNm           |
| Rotor inertia               | 0.016 g·cm <sup>2</sup> |
| Weight                      | 1.8 g                   |
| Operating temperature range | -20~+120                |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0615N5M49-360-2.5

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0615n5m49-360-2-5/>



| Specification               |                         |
|-----------------------------|-------------------------|
| Voltage                     | 2.5 V                   |
| Terminal resistance         | 1.40 $\Omega$           |
| No-load speed               | 36000 rpm               |
| No-load current             | 75 mA                   |
| Stall torque                | 1.1 mNm                 |
| Stall current               | 1786 mA                 |
| Load torque                 | 0.15 mNm                |
| Load speed                  | 31030 rpm               |
| Load current                | 310 mA                  |
| Max. output power           | 1.0 W                   |
| Max. efficiency             | 63.3 %                  |
| Back-EMF constant           | 0.07 mV/rpm             |
| Torque constant             | 0.64 mNm/A              |
| Speed/torque gradient       | 33119 rpm/mNm           |
| Rotor inertia               | 0.016 g·cm <sup>2</sup> |
| Weight                      | 1.8 g                   |
| Operating temperature range | -20~+120                |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0710N5M

7mm micro coreless DC motor



<https://www.kocomotion.de/produkt/l0710n5m/>



## Produkte:

Seite

L0710N5M61-780-8.0

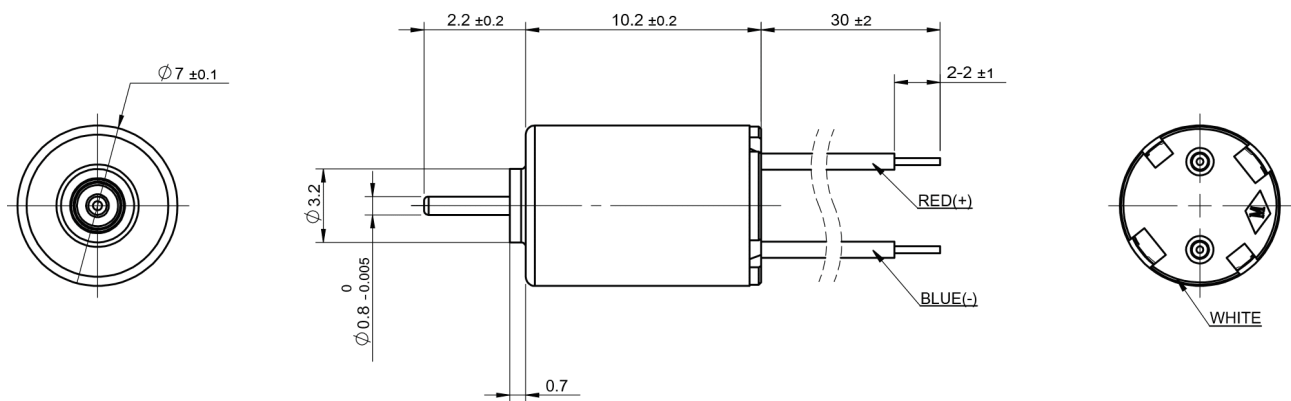
305

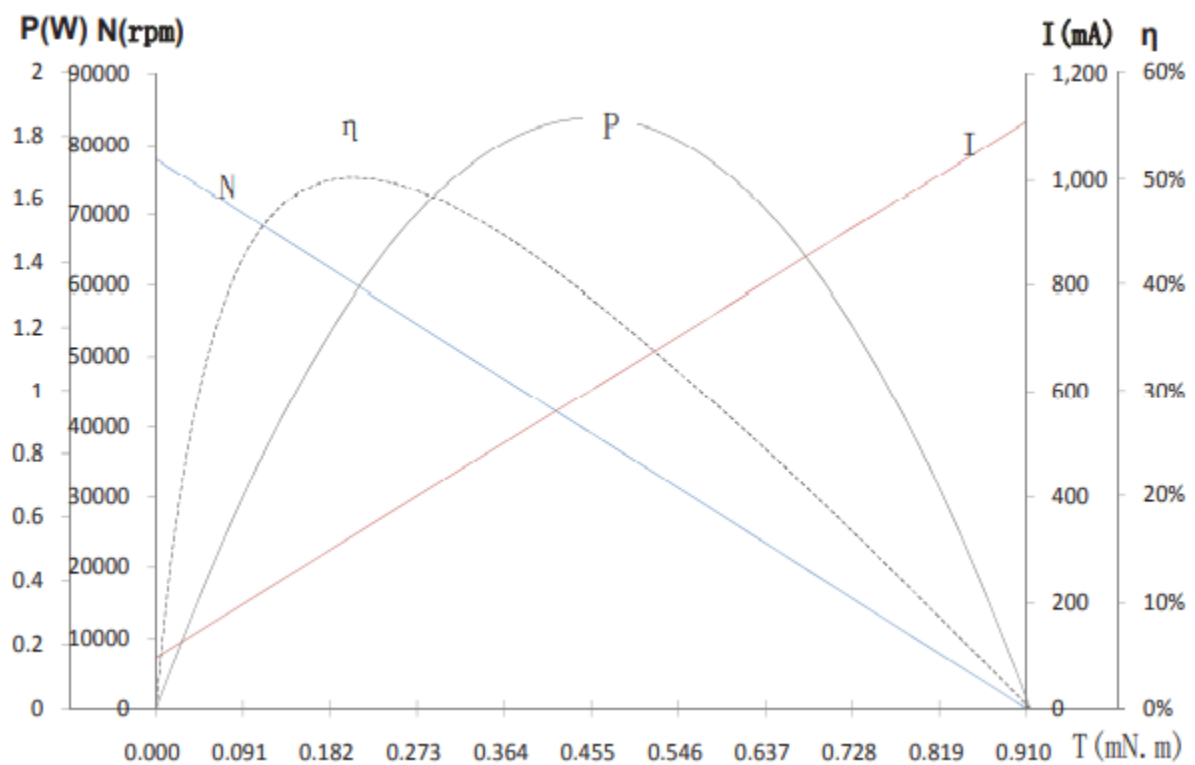
L0710N5M51-325-3.0

306

L0710N5M08-618-5.0

307





# L0710N5M61-780-8.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0710n5m61-780-8-0/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 8.0 V                  |
| Terminal resistance         | 7.2 $\Omega$           |
| No-load speed               | 78050 rpm              |
| No-load current             | 95 mA                  |
| Stall torque                | 0.9 mNm                |
| Stall current               | 1110 mA                |
| Load torque                 | 0.55 mNm               |
| Load speed                  | 30880 rpm              |
| Load current                | 710 mA                 |
| Max. output power           | 1.9 W                  |
| Max. efficiency             | 50.2 %                 |
| Back-EMF constant           | 0.09 mV/rpm            |
| Torque constant             | 0.90 mNm/A             |
| Speed/torque gradient       | 85769 rpm/mNm          |
| Rotor inertia               | 0.02 g·cm <sup>2</sup> |
| Weight                      | 1.6 g                  |
| Operating temperature range | -20~+100               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0710N5M51-325-3.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0710n5m51-325-3-0/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 3.0 V                  |
| Terminal resistance         | 6.3 $\Omega$           |
| No-load speed               | 32500 rpm              |
| No-load current             | 50 mA                  |
| Stall torque                | 0.3 mNm                |
| Stall current               | 480 mA                 |
| Load torque                 | 0.12 mNm               |
| Load speed                  | 20890 rpm              |
| Load current                | 200 mA                 |
| Max. output power           | 0.29 W                 |
| Max. efficiency             | 45.4 %                 |
| Back-EMF constant           | 0.08 mV/rpm            |
| Torque constant             | 0.79 mNm/A             |
| Speed/torque gradient       | 96726 rpm/mNm          |
| Rotor inertia               | 0.02 g·cm <sup>2</sup> |
| Weight                      | 1.6 g                  |
| Operating temperature range | -20~+100               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances



# L0710N5M08-618-5.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0710n5m08-618-5-0/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 5.0 V                  |
| Terminal resistance         | 3.4 $\Omega$           |
| No-load speed               | 61800 rpm              |
| No-load current             | 80 mA                  |
| Stall torque                | 1.0 mNm                |
| Stall current               | 1470 mA                |
| Load torque                 | 0.12 mNm               |
| Load speed                  | 54500 rpm              |
| Load current                | 240 mA                 |
| Max. output power           | 1.65 W                 |
| Max. efficiency             | 58.9 %                 |
| Back-EMF constant           | 0.08 mV/rpm            |
| Torque constant             | 0.73 mNm/A             |
| Speed/torque gradient       | 60827 rpm/mNm          |
| Rotor inertia               | 0.02 g·cm <sup>2</sup> |
| Weight                      | 1.6 g                  |
| Operating temperature range | -20~+100               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0714N5M

7mm 5V mini coreless motor



<https://www.kocomotion.de/produkt/l0714n5m/>



## Produkte:

Seite

L0714N5M15-400-6.0

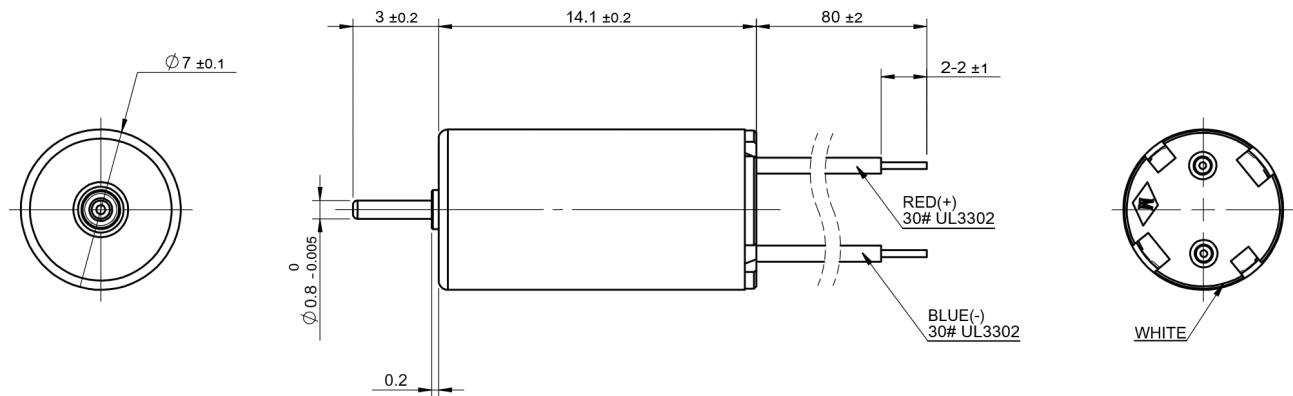
310

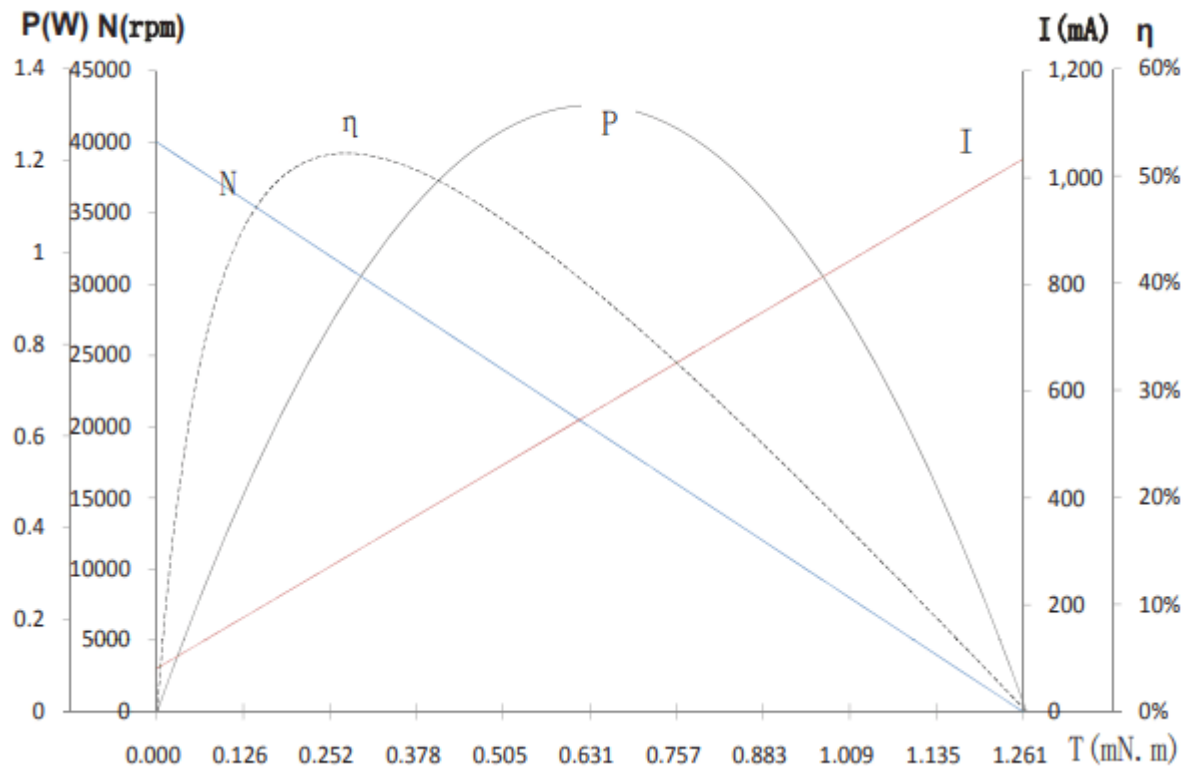
L0714N5M18-304-7.4

311

L0714N5M50-270-5.0

312





# L0714N5M15-400-6.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0714n5m15-400-6-0/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 6.0 V                  |
| Terminal resistance         | 5.8 $\Omega$           |
| No-load speed               | 40000 rpm              |
| No-load current             | 80 mA                  |
| Stall torque                | 1.3 mNm                |
| Stall current               | 1030 mA                |
| Load torque                 | 0.50 mNm               |
| Load speed                  | 24140 rpm              |
| Load current                | 460 mA                 |
| Max. output power           | 1.3 W                  |
| Max. efficiency             | 52.3 %                 |
| Back-EMF constant           | 0.14 mV/rpm            |
| Torque constant             | 1.32 mNm/A             |
| Speed/torque gradient       | 31721 rpm/mNm          |
| Rotor inertia               | 0.04 g·cm <sup>2</sup> |
| Weight                      | 2.2 g                  |
| Operating temperature range | -20~+100               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0714N5M18-304-7.4

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0714n5m18-304-7-4/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 7.4 V                  |
| Terminal resistance         | 12.1 $\Omega$          |
| No-load speed               | 30450 rpm              |
| No-load current             | 30 mA                  |
| Stall torque                | 1.3 mNm                |
| Stall current               | 610 mA                 |
| Load torque                 | 0.50 mNm               |
| Load speed                  | 18580 rpm              |
| Load current                | 260 mA                 |
| Max. output power           | 1.0 W                  |
| Max. efficiency             | 60.8 %                 |
| Back-EMF constant           | 0.23 mV/rpm            |
| Torque constant             | 2.21 mNm/A             |
| Speed/torque gradient       | 23733 rpm/mNm          |
| Rotor inertia               | 0.04 g·cm <sup>2</sup> |
| Weight                      | 2.2 g                  |
| Operating temperature range | -20~+100               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0714N5M50-270-5.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0714n5m50-270-5-0/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 5.0 V                  |
| Terminal resistance         | 5.7 $\Omega$           |
| No-load speed               | 27000 rpm              |
| No-load current             | 30 mA                  |
| Stall torque                | 1.4 mNm                |
| Stall current               | 880 mA                 |
| Load torque                 | 0.50 mNm               |
| Load speed                  | 17670 rpm              |
| Load current                | 320 mA                 |
| Max. output power           | 1.0 W                  |
| Max. efficiency             | 66.3 %                 |
| Back-EMF constant           | 0.18 mV/rpm            |
| Torque constant             | 1.71 mNm/A             |
| Speed/torque gradient       | 18659 rpm/mNm          |
| Rotor inertia               | 0.04 g·cm <sup>2</sup> |
| Weight                      | 2.2 g                  |
| Operating temperature range | -20~+100               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0716N5M

3.4V 716 DC coreless motor



<https://www.kocomotion.de/produkt/l0716n5m/>



## Produkte:

Seite

L0716N5M64-250-3.4

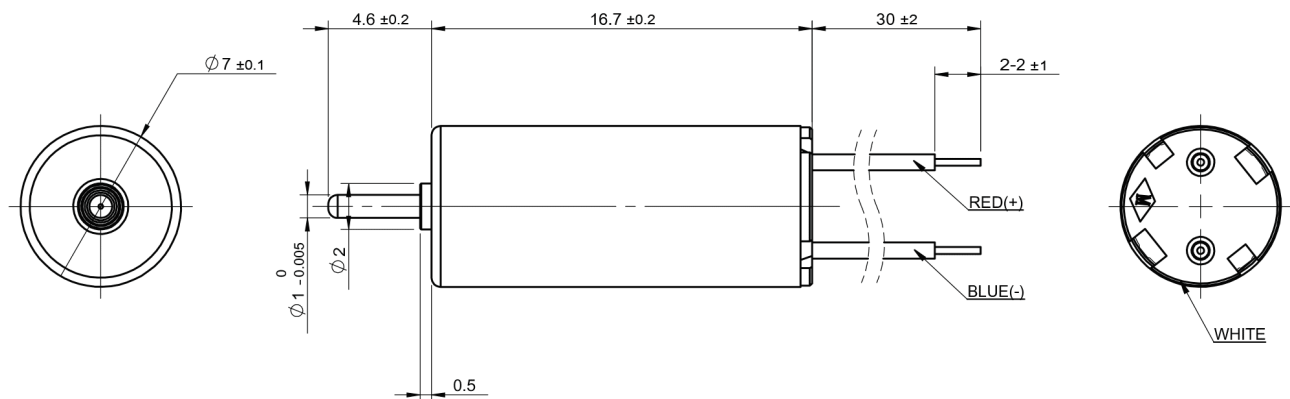
315

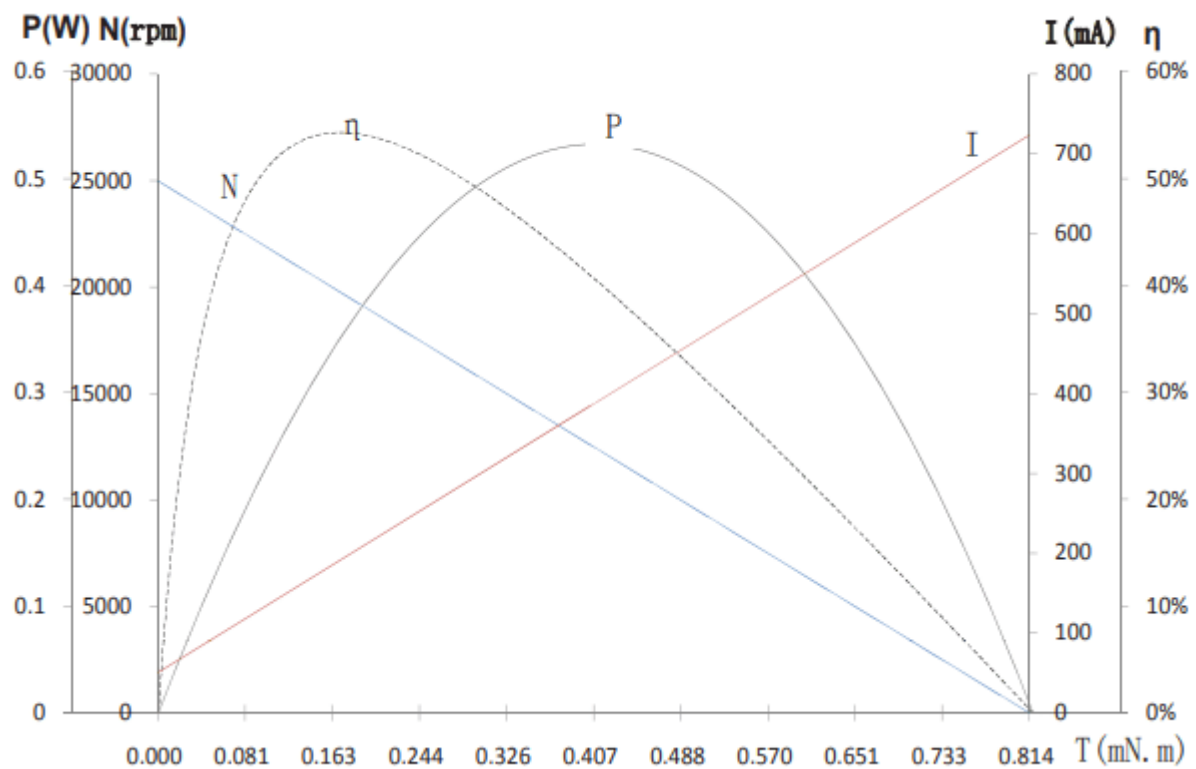
L0716N5M31-430-3.4

316

L0716N5M94-430-3.2

317







# L0716N5M64-250-3.4

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0716n5m64-250-3-4/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 3.4 V                  |
| Terminal resistance         | 4.7 $\Omega$           |
| No-load speed               | 25000 rpm              |
| No-load current             | 50 mA                  |
| Stall torque                | 0.81 mNm               |
| Stall current               | 720 mA                 |
| Load torque                 | 0.50 mNm               |
| Load speed                  | 9640 rpm               |
| Load current                | 460 mA                 |
| Max. output power           | 0.53 W                 |
| Max. efficiency             | 54.6 %                 |
| Back-EMF constant           | 0.13 mV/rpm            |
| Torque constant             | 1.21 mNm/A             |
| Speed/torque gradient       | 30713 rpm/mNm          |
| Rotor inertia               | 0.05 g·cm <sup>2</sup> |
| Weight                      | 2.5 g                  |
| Operating temperature range | -20~+100               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0716N5M31-430-3.4

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0716n5m31-430-3-4/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 3.4 V                  |
| Terminal resistance         | 0.66 $\Omega$          |
| No-load speed               | 43000 rpm              |
| No-load current             | 90 mA                  |
| Stall torque                | 3.8 mNm                |
| Stall current               | 5150 mA                |
| Load torque                 | 0.50 mNm               |
| Load speed                  | 37270 rpm              |
| Load current                | 760 mA                 |
| Max. output power           | 4.2 W                  |
| Max. efficiency             | 75.4 %                 |
| Back-EMF constant           | 0.08 mV/rpm            |
| Torque constant             | 0.74 mNm/A             |
| Speed/torque gradient       | 11451 rpm/mNm          |
| Rotor inertia               | 0.05 g·cm <sup>2</sup> |
| Weight                      | 2.5 g                  |
| Operating temperature range | -20~+100               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0716N5M94-430-3.2

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0716n5m94-430-3-2/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 3.2 V                  |
| Terminal resistance         | 1.1 $\Omega$           |
| No-load speed               | 43000 rpm              |
| No-load current             | 90 mA                  |
| Stall torque                | 1.9 mNm                |
| Stall current               | 2910 mA                |
| Load torque                 | 0.50 mNm               |
| Load speed                  | 31920 rpm              |
| Load current                | 820 mA                 |
| Max. output power           | 2.2 W                  |
| Max. efficiency             | 68.0 %                 |
| Back-EMF constant           | 0.05 mV/rpm            |
| Torque constant             | 0.69 mNm/A             |
| Speed/torque gradient       | 22154 rpm/mNm          |
| Rotor inertia               | 0.05 g·cm <sup>2</sup> |
| Weight                      | 2.5 g                  |
| Operating temperature range | -20~+100               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0720N5M

7mm 3V DC coreless motor



<https://www.kocomotion.de/produkt/l0720n5m/>



## Produkte:

Seite

L0720N5M55-448-3.2

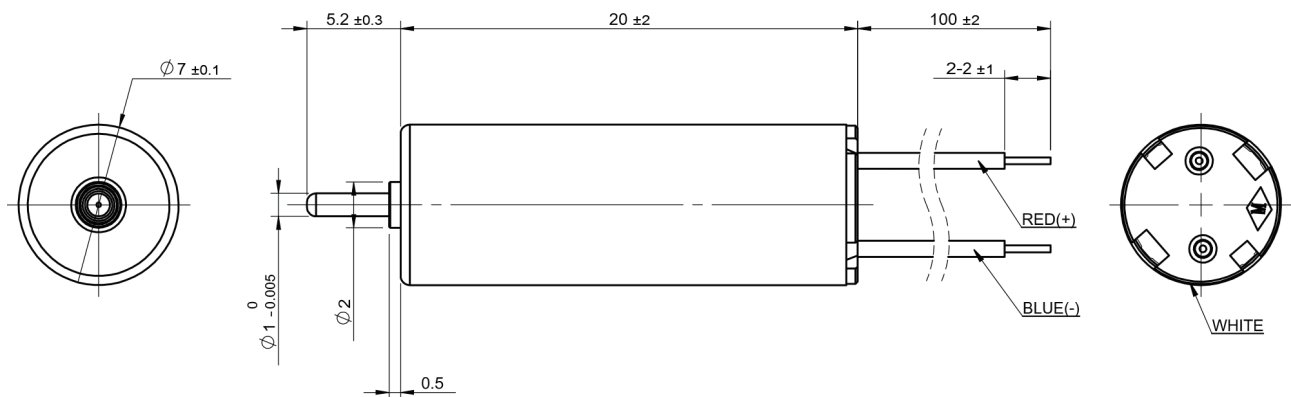
320

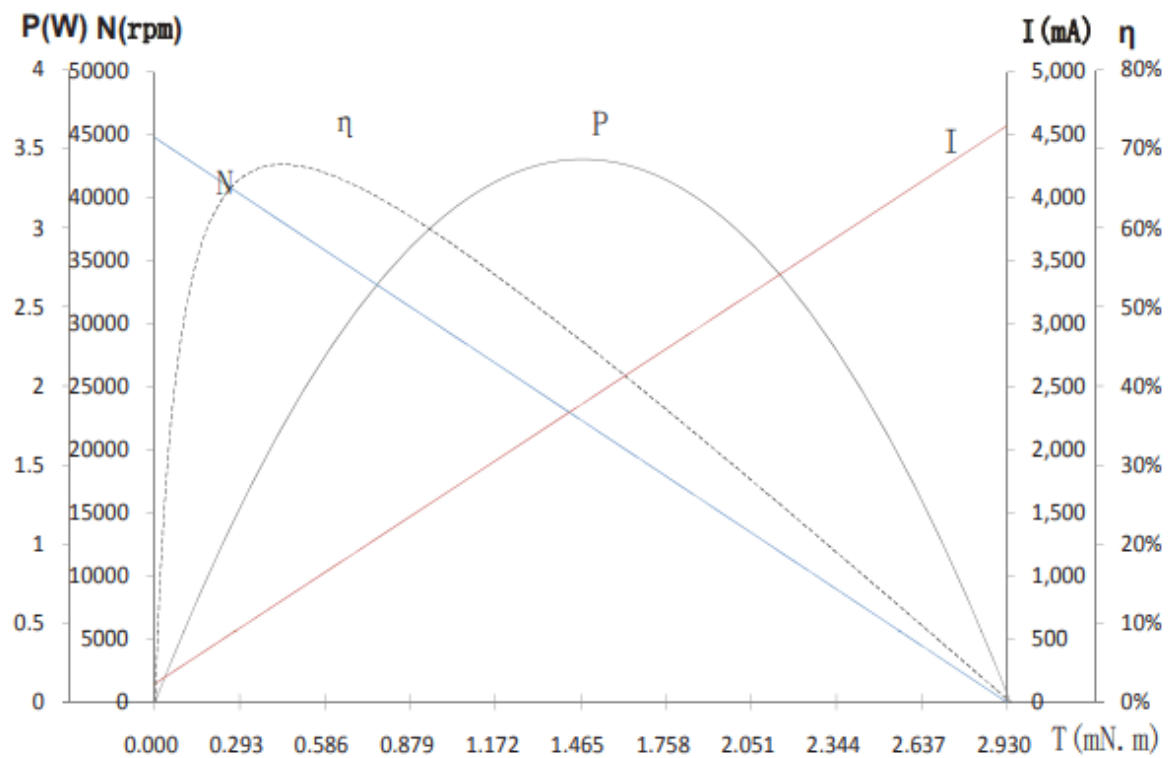
L0720N5M33-423-3.0

321

L0720N5M42-448-3.0

322





# L0720N5M55-448-3.2

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0720n5m55-448-3-2/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 3.2 V                  |
| Terminal resistance         | 0.7 $\Omega$           |
| No-load speed               | 44800 rpm              |
| No-load current             | 140 mA                 |
| Stall torque                | 2.9 mNm                |
| Stall current               | 4570 mA                |
| Load torque                 | 0.50 mNm               |
| Load speed                  | 37150 rpm              |
| Load current                | 900 mA                 |
| Max. output power           | 3.4 W                  |
| Max. efficiency             | 68.1 %                 |
| Back-EMF constant           | 0.07 mV/rpm            |
| Torque constant             | 0.66 mNm/A             |
| Speed/torque gradient       | 15290 rpm/mNm          |
| Rotor inertia               | 0.06 g·cm <sup>2</sup> |
| Weight                      | 3.3 g                  |
| Operating temperature range | -20~+120               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0720N5M33-423-3.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0720n5m33-423-3-0/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 3.0 V                  |
| Terminal resistance         | 0.67 $\Omega$          |
| No-load speed               | 42370 rpm              |
| No-load current             | 100 mA                 |
| Stall torque                | 2.9 mNm                |
| Stall current               | 4480 mA                |
| Load torque                 | 0.50 mNm               |
| Load speed                  | 35050 rpm              |
| Load current                | 860 mA                 |
| Max. output power           | 3.2 W                  |
| Max. efficiency             | 72.4 %                 |
| Back-EMF constant           | 0.07 mV/rpm            |
| Torque constant             | 0.66 mNm/A             |
| Speed/torque gradient       | 14641 rpm/mNm          |
| Rotor inertia               | 0.66 g·cm <sup>2</sup> |
| Weight                      | 3.9 g                  |
| Operating temperature range | -20~+120               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0720N5M42-448-3.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0720n5m42-448-3-0/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 3.0 V                  |
| Terminal resistance         | 0.51 $\Omega$          |
| No-load speed               | 44860 rpm              |
| No-load current             | 190 mA                 |
| Stall torque                | 3.5 mNm                |
| Stall current               | 5880 mA                |
| Load torque                 | 0.50 mNm               |
| Load speed                  | 38480 rpm              |
| Load current                | 1000 mA                |
| Max. output power           | 4.1 W                  |
| Max. efficiency             | 67.4 %                 |
| Back-EMF constant           | 0.06 mV/rpm            |
| Torque constant             | 0.62 mNm/A             |
| Speed/torque gradient       | 12752 rpm/mNm          |
| Rotor inertia               | 0.06 g·cm <sup>2</sup> |
| Weight                      | 3.9 g                  |
| Operating temperature range | -20~+120               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances



# L0816N5M

8mm micro DC coreless motor



<https://www.kocomotion.de/produkt/l0816n5m/>



## Produkte:

Seite

L0816N5M13-430-6.0

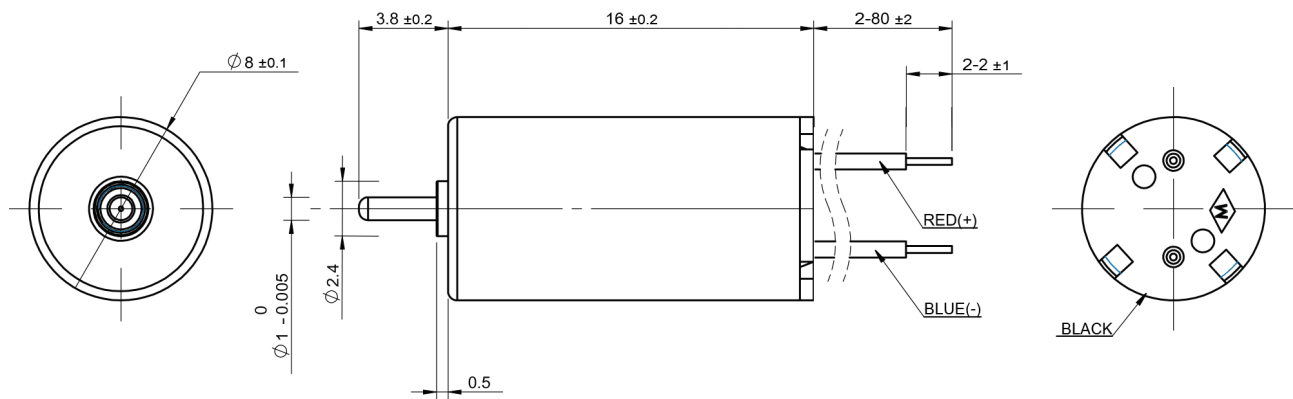
325

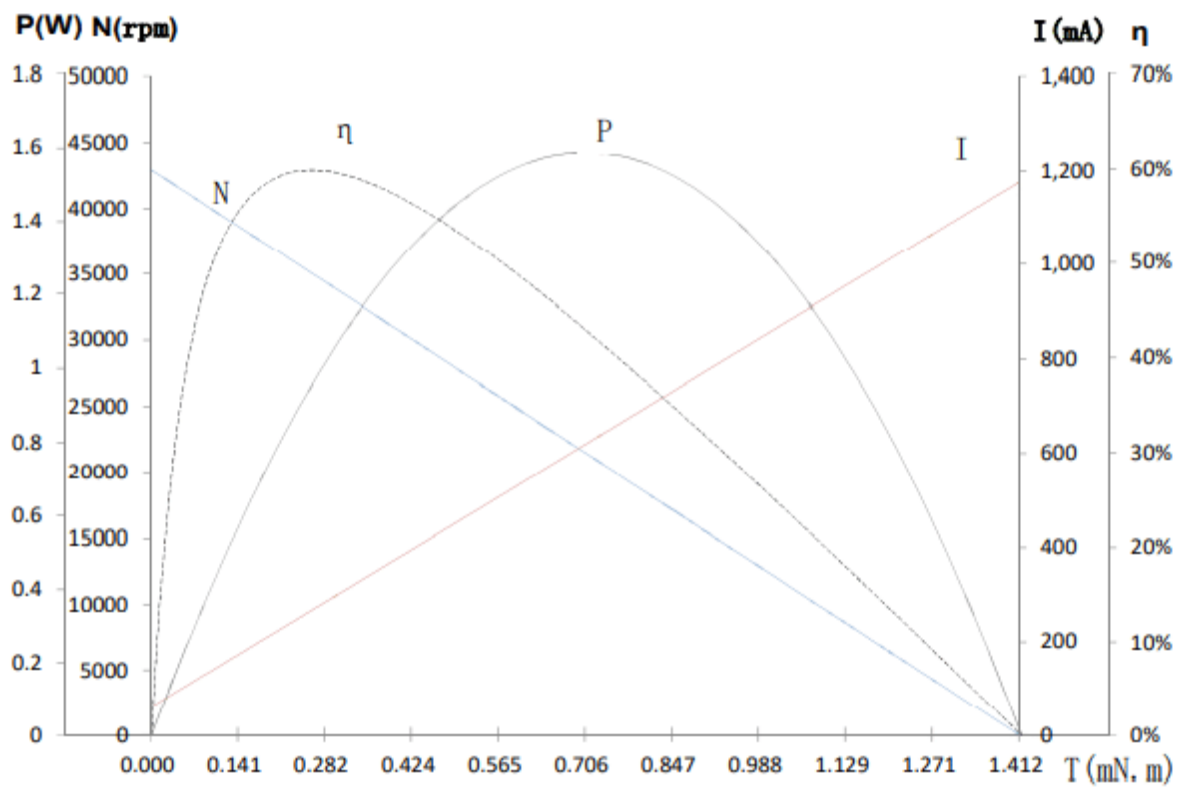
L0816N5M06-243-3.4

326

L0816N5M35-262-5.5

327





# L0816N5M13-430-6.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0816n5m13-430-6-0/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 6.0 V                  |
| Terminal resistance         | 5.1 $\Omega$           |
| No-load speed               | 43000 rpm              |
| No-load current             | 60 mA                  |
| Stall torque                | 1.4 mNm                |
| Stall current               | 1180 mA                |
| Load torque                 | 0.5 mNm                |
| Load speed                  | 27770 rpm              |
| Load current                | 460 mA                 |
| Max. output power           | 1.59 W                 |
| Max. efficiency             | 59.9 %                 |
| Back-EMF constant           | 0.13 mV/rpm            |
| Torque constant             | 1.26 mNm/A             |
| Speed/torque gradient       | 30453 rpm/mNm          |
| Rotor inertia               | 0.07 g·cm <sup>2</sup> |
| Weight                      | 3.1 g                  |
| Operating temperature range | -20~+80                |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0816N5M06-243-3.4

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0816n5m06-243-3-4/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 3.4 V                  |
| Terminal resistance         | 2.7 $\Omega$           |
| No-load speed               | 24300 rpm              |
| No-load current             | 40 mA                  |
| Stall torque                | 1.6 mNm                |
| Stall current               | 1260 mA                |
| Load torque                 | 0.5 mNm                |
| Load speed                  | 16600 rpm              |
| Load current                | 430 mA                 |
| Max. output power           | 1 W                    |
| Max. efficiency             | 67.6 %                 |
| Back-EMF constant           | 0.14 mV/rpm            |
| Torque constant             | 1.29 mNm/A             |
| Speed/torque gradient       | 15409 rpm/mNm          |
| Rotor inertia               | 0.07 g·cm <sup>2</sup> |
| Weight                      | 3.1 g                  |
| Operating temperature range | -20~+80                |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L0816N5M35-262-5.5

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l0816n5m35-262-5-5/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 5.5 V                  |
| Terminal resistance         | 4.95 $\Omega$          |
| No-load speed               | 26200 rpm              |
| No-load current             | 60 mA                  |
| Stall torque                | 1.99 mNm               |
| Stall current               | 1100 mA                |
| Load torque                 | 0.5 mNm                |
| Load speed                  | 19620 rpm              |
| Load current                | 320 mA                 |
| Max. output power           | 1.37 W                 |
| Max. efficiency             | 59.4 %                 |
| Back-EMF constant           | 0.20 mV/rpm            |
| Torque constant             | 1.90 mNm/A             |
| Speed/torque gradient       | 13166 rpm/mNm          |
| Rotor inertia               | 0.07 g·cm <sup>2</sup> |
| Weight                      | 3.4 g                  |
| Operating temperature range | -20~+80                |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1620N5M

16mm micro DC coreless motor



<https://www.kocomotion.de/produkt/l1620n5m/>



## Produkte:

Seite

L1620N5M33-85-5.0

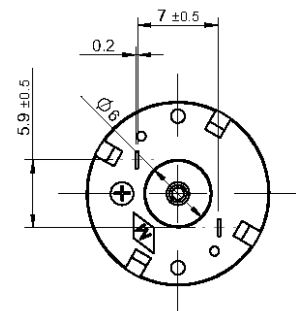
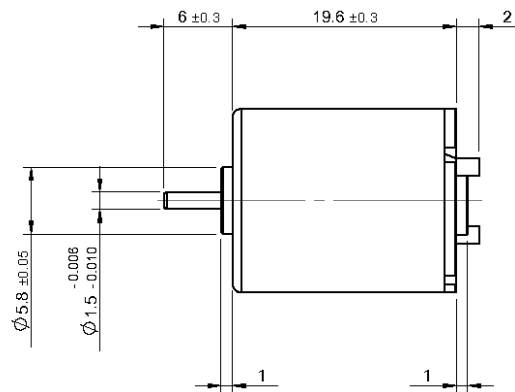
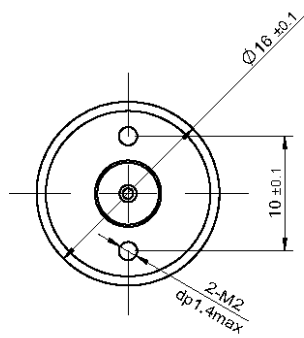
330

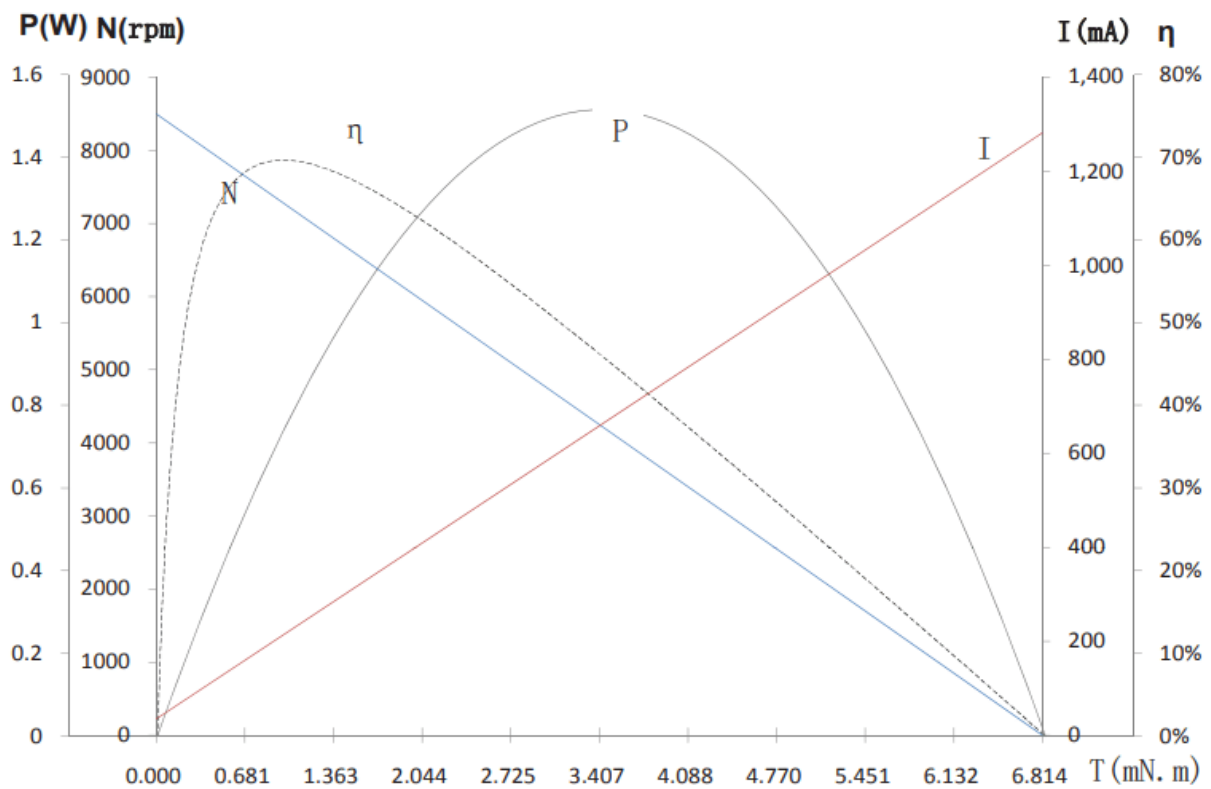
L1620N5M20-95-5.0

331

L1620N5M29-80-5.0

332





# L1620N5M33-85-5.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1620n5m33-85-5-0/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 5.0 V                  |
| Terminal resistance         | 3.9 $\Omega$           |
| No-load speed               | 8550 rpm               |
| No-load current             | 35 mA                  |
| Stall torque                | 6.8 mNm                |
| Stall current               | 1280 mA                |
| Load torque                 | 1.0 mNm                |
| Load speed                  | 7290 rpm               |
| Load current                | 220 mA                 |
| Max. output power           | 1.5 W                  |
| Max. efficiency             | 70 %                   |
| Back-EMF constant           | 0.6 mV/rpm             |
| Torque constant             | 5.4 mNm/A              |
| Speed/torque gradient       | 1260 rpm/mNm           |
| Rotor inertia               | 0.45 g·cm <sup>2</sup> |
| Weight                      | 15.8 g                 |
| Operating temperature range | -20~+85                |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances



# L1620N5M20-95-5.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1620n5m20-95-5-0/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 5.0 V                  |
| Terminal resistance         | 4.1 $\Omega$           |
| No-load speed               | 9500 rpm               |
| No-load current             | 35 mA                  |
| Stall torque                | 5.78 mNm               |
| Stall current               | 1220 mA                |
| Load torque                 | 1.0 mNm                |
| Load speed                  | 7860 rpm               |
| Load current                | 240 mA                 |
| Max. output power           | 1.4 W                  |
| Max. efficiency             | 69 %                   |
| Back-EMF constant           | 0.5 mV/rpm             |
| Torque constant             | 4.9 mNm/A              |
| Speed/torque gradient       | 1640 rpm/mNm           |
| Rotor inertia               | 0.45 g·cm <sup>2</sup> |
| Weight                      | 15.8 g                 |
| Operating temperature range | -20~+85                |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1620N5M29-80-5.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1620n5m29-80-5-0/>



| Specification               |                        |
|-----------------------------|------------------------|
| Voltage                     | 5.0 V                  |
| Terminal resistance         | 3.7 $\Omega$           |
| No-load speed               | 8000 rpm               |
| No-load current             | 25 mA                  |
| Stall torque                | 7.8 mNm                |
| Stall current               | 1350 mA                |
| Load torque                 | 1.0 mNm                |
| Load speed                  | 6970 rpm               |
| Load current                | 200 mA                 |
| Max. output power           | 1.6 W                  |
| Max. efficiency             | 75 %                   |
| Back-EMF constant           | 0.6 mV/rpm             |
| Torque constant             | 5.9 mNm/A              |
| Speed/torque gradient       | 1030 rpm/mNm           |
| Rotor inertia               | 0.45 g·cm <sup>2</sup> |
| Weight                      | 15.8 g                 |
| Operating temperature range | -20~+85                |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1625N5M

1625 6V micro DC coreless motor



<https://www.kocomotion.de/produkt/l1625n5m/>



## Produkte:

Seite

L1625N5M25-88-6.0

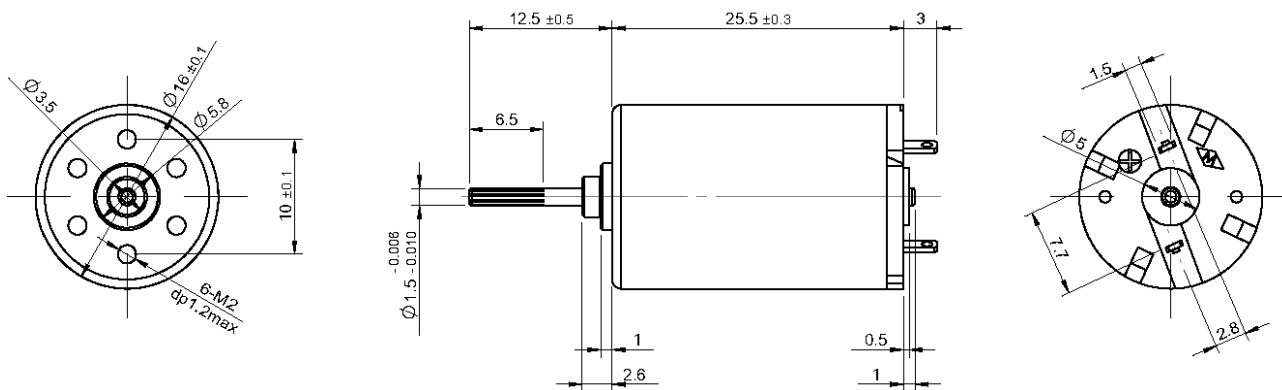
335

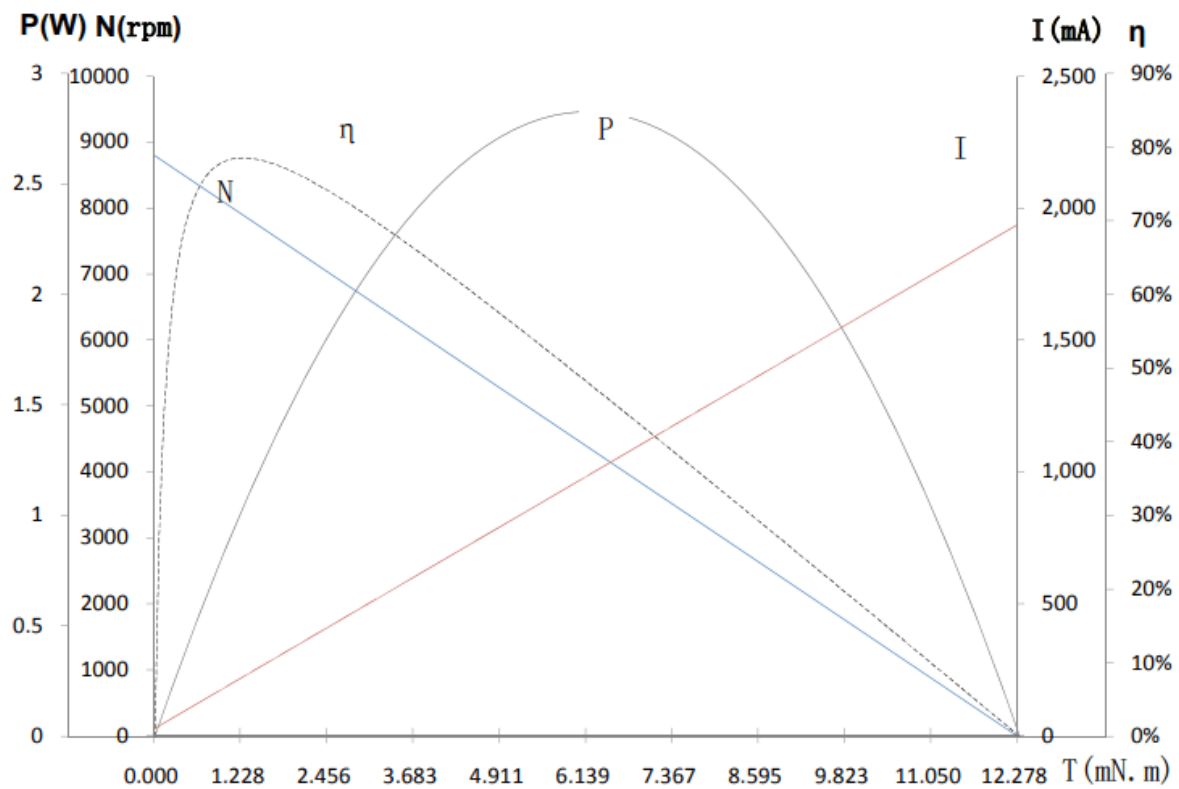
L1625N5M35-60-5.0

336

L1625N5M54-170-12.0

337





# L1625N5M25-88-6.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1625n5m25-88-6-0/>



| Specification               |                       |
|-----------------------------|-----------------------|
| Voltage                     | 6.0 V                 |
| Terminal resistance         | 3.1 $\Omega$          |
| No-load speed               | 8800 rpm              |
| No-load current             | 25 mA                 |
| Stall torque                | 12.3 mNm              |
| Stall current               | 1935 mA               |
| Load torque                 | 3.5 mNm               |
| Load speed                  | 6290 rpm              |
| Load current                | 570 mA                |
| Max. output power           | 2.8 W                 |
| Max. efficiency             | 79 %                  |
| Back-EMF constant           | 0.67 mV/rpm           |
| Torque constant             | 6.43 mNm/A            |
| Speed/torque gradient       | 720 rpm/mNm           |
| Rotor inertia               | 0.7 g·cm <sup>2</sup> |
| Weight                      | 20.5 g                |
| Operating temperature range | -20~+85               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1625N5M35-60-5.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1625n5m35-60-5-0/>



| Specification               |                       |
|-----------------------------|-----------------------|
| Voltage                     | 5.0 V                 |
| Terminal resistance         | 4.4 $\Omega$          |
| No-load speed               | 6000 rpm              |
| No-load current             | 25 mA                 |
| Stall torque                | 8.6 mNm               |
| Stall current               | 1136 mA               |
| Load torque                 | 1.0 mNm               |
| Load speed                  | 5310 rpm              |
| Load current                | 153 mA                |
| Max. output power           | 1.4 W                 |
| Max. efficiency             | 73 %                  |
| Back-EMF constant           | 0.82 mV/rpm           |
| Torque constant             | 7.78 mNm/A            |
| Speed/torque gradient       | 690 rpm/mNm           |
| Rotor inertia               | 0.7 g·cm <sup>2</sup> |
| Weight                      | 20.5 g                |
| Operating temperature range | -20~+85               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1625N5M54-170-12.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1625n5m54-170-12-0/>



| Specification               |                       |
|-----------------------------|-----------------------|
| Voltage                     | 12.0 V                |
| Terminal resistance         | 3.2 $\Omega$          |
| No-load speed               | 18700 rpm             |
| No-load current             | 60 mA                 |
| Stall torque                | 22.3 mNm              |
| Stall current               | 3750 mA               |
| Load torque                 | 3.8 mNm               |
| Load speed                  | 15470 rpm             |
| Load current                | 679 mA                |
| Max. output power           | 10.9 W                |
| Max. efficiency             | 76 %                  |
| Back-EMF constant           | 0.63 mV/rpm           |
| Torque constant             | 6.03 mNm/A            |
| Speed/torque gradient       | 840 rpm/mNm           |
| Rotor inertia               | 0.7 g·cm <sup>2</sup> |
| Weight                      | 20.5 g                |
| Operating temperature range | -20~+85               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1630N5M

16mm 3V micro DC coreless motor



<https://www.kocomotion.de/produkt/l1630n5m/>



## Produkte:

Seite

L1630N5M11-76-5.0

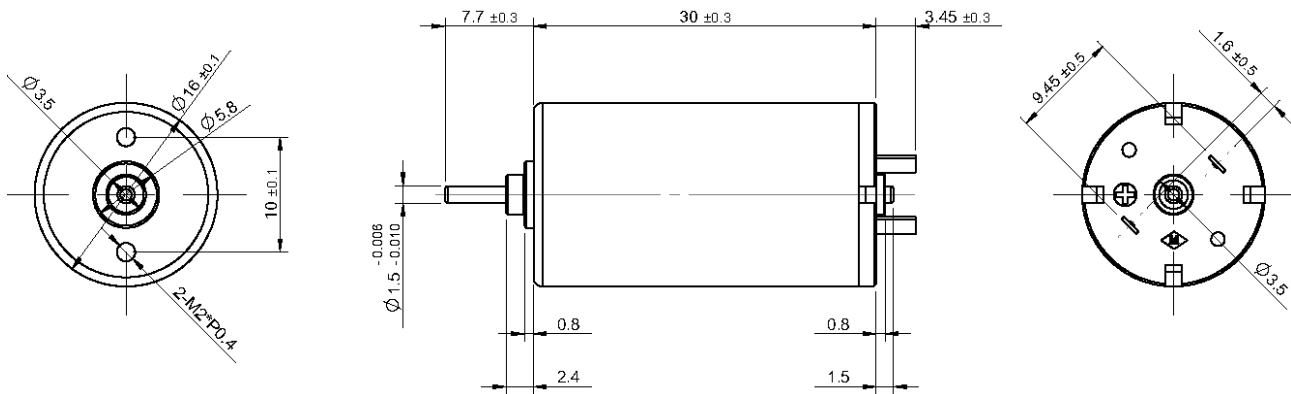
340

L1630N5M35-25-3.0

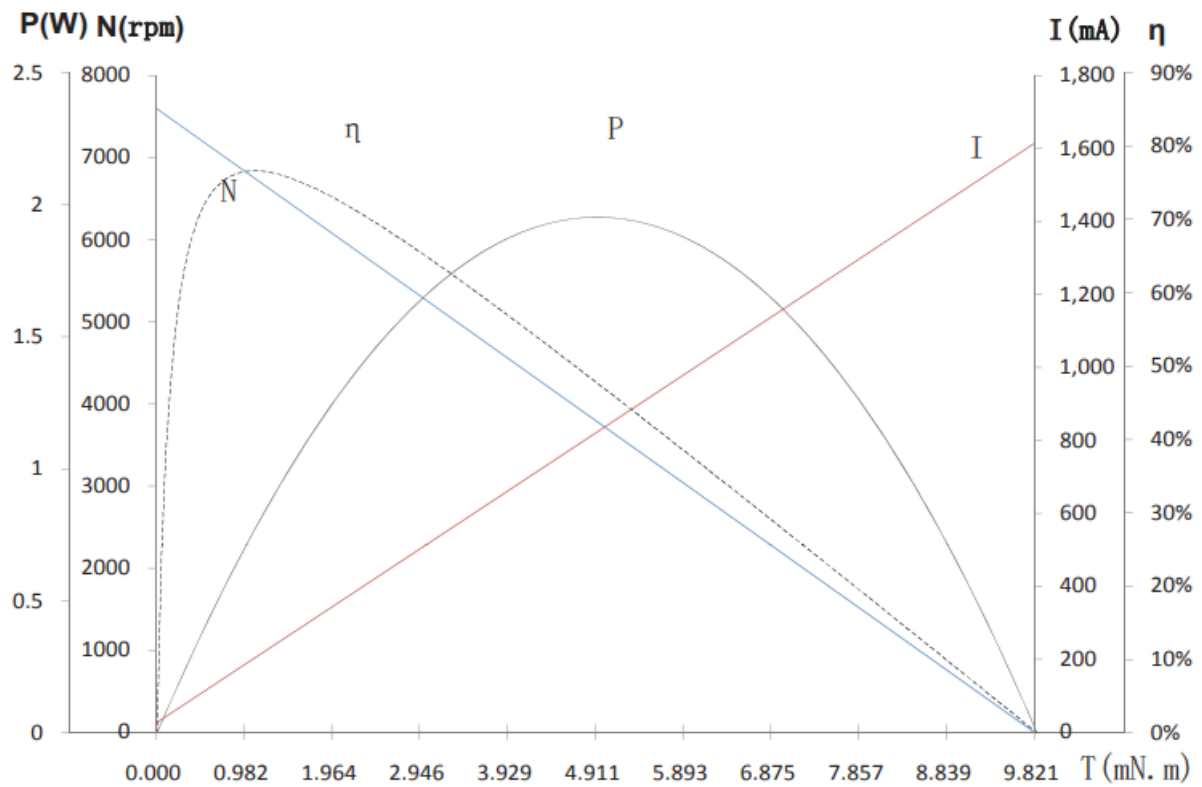
341

L1630N5M22-120-6.0

342







# L1630N5M11-76-5.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1630n5m11-76-5-0/>



| Specification               |                       |
|-----------------------------|-----------------------|
| Voltage                     | 5.0 V                 |
| Terminal resistance         | 3.1 $\Omega$          |
| No-load speed               | 7700 rpm              |
| No-load current             | 25 mA                 |
| Stall torque                | 9.8 mNm               |
| Stall current               | 1610 mA               |
| Load torque                 | 0.5 mNm               |
| Load speed                  | 7310 rpm              |
| Load current                | 110 mA                |
| Max. output power           | 2.0 W                 |
| Max. efficiency             | 78 %                  |
| Back-EMF constant           | 0.6 mV/rpm            |
| Torque constant             | 6.1 mNm/A             |
| Speed/torque gradient       | 780 rpm/mNm           |
| Rotor inertia               | 0.7 g·cm <sup>2</sup> |
| Weight                      | 25.2 g                |
| Operating temperature range | -20~+85               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1630N5M35-25-3.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1630n5m35-25-3-0/>



| Specification               |                       |
|-----------------------------|-----------------------|
| Voltage                     | 3.0 V                 |
| Terminal resistance         | 7.2 $\Omega$          |
| No-load speed               | 2500 rpm              |
| No-load current             | 15 mA                 |
| Stall torque                | 4.5 mNm               |
| Stall current               | 420 mA                |
| Load torque                 | 1.0 mNm               |
| Load speed                  | 1940 rpm              |
| Load current                | 110 mA                |
| Max. output power           | 0.3 W                 |
| Max. efficiency             | 66 %                  |
| Back-EMF constant           | 1.2 mV/rpm            |
| Torque constant             | 11 mNm/A              |
| Speed/torque gradient       | 560 rpm/mNm           |
| Rotor inertia               | 0.7 g·cm <sup>2</sup> |
| Weight                      | 25.2 g                |
| Operating temperature range | -20~+85               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1630N5M22-120-6.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1630n5m22-120-6-0/>



| Specification               |                       |
|-----------------------------|-----------------------|
| Voltage                     | 6.0 V                 |
| Terminal resistance         | 1.4 $\Omega$          |
| No-load speed               | 12000 rpm             |
| No-load current             | 30 mA                 |
| Stall torque                | 20.2 mNm              |
| Stall current               | 4290 mA               |
| Load torque                 | 2.0 mNm               |
| Load speed                  | 10810 rpm             |
| Load current                | 450 mA                |
| Max. output power           | 6.4 W                 |
| Max. efficiency             | 84 %                  |
| Back-EMF constant           | 0.5 mV/rpm            |
| Torque constant             | 4.7 mNm/A             |
| Speed/torque gradient       | 590 rpm/mNm           |
| Rotor inertia               | 0.7 g·cm <sup>2</sup> |
| Weight                      | 25.2 g                |
| Operating temperature range | -20~+85               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1718N5M

17mm micro DC coreless motor



<https://www.kocomotion.de/produkt/l1718n5m/>



## Produkte:

Seite

L1718N5M06-180-6.0

345

L1718N5M67-185-6.5

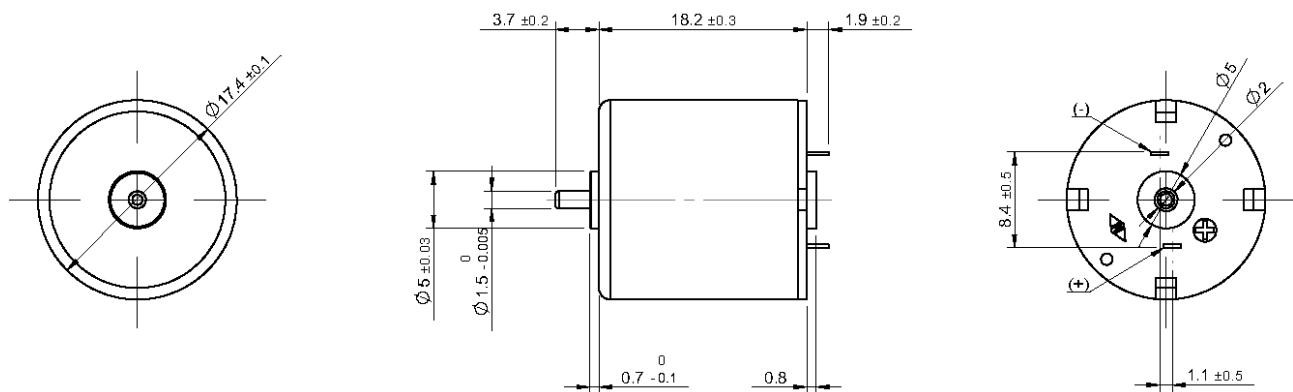
346

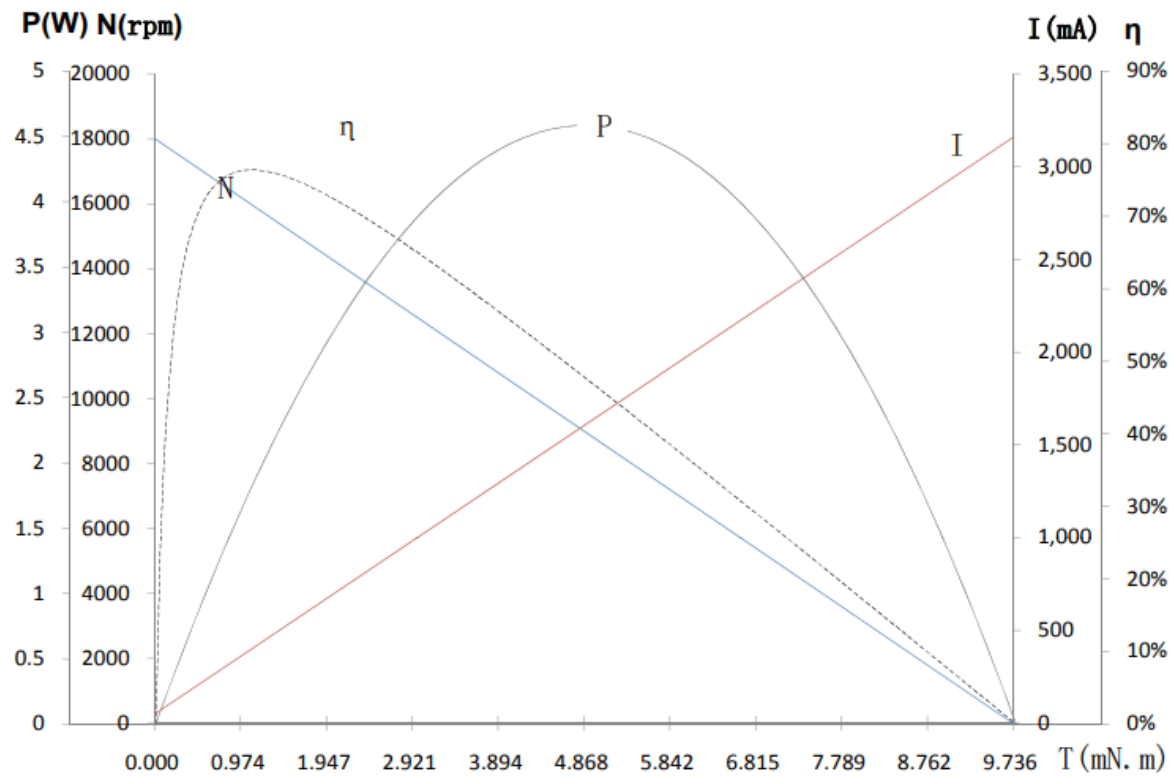
L1718N5M46-245-7.4

347

L1718N5M57-260-7.4

348





# L1718N5M06-180-6.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1718n5m06-180-6-0/>



| Specification               |                       |
|-----------------------------|-----------------------|
| Voltage                     | 6.0 V                 |
| Terminal resistance         | 1.9 $\Omega$          |
| No-load speed               | 18000 rpm             |
| No-load current             | 50 mA                 |
| Stall torque                | 9.7 mNm               |
| Stall current               | 3160 mA               |
| Load torque                 | 1.0 mNm               |
| Load speed                  | 16150 rpm             |
| Load current                | 370 mA                |
| Max. output power           | 4.6 W                 |
| Max. efficiency             | 77 %                  |
| Back-EMF constant           | 0.3 mV/rpm            |
| Torque constant             | 3.1 mNm/A             |
| Speed/torque gradient       | 1850 rpm/mNm          |
| Rotor inertia               | 0.8 g·cm <sup>2</sup> |
| Weight                      | 18.3 g                |
| Operating temperature range | -20~+85               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1718N5M67-185-6.5

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1718n5m67-185-6-5/>



| Specification               |                       |
|-----------------------------|-----------------------|
| Voltage                     | 6.5 V                 |
| Terminal resistance         | 1.7 $\Omega$          |
| No-load speed               | 18500 rpm             |
| No-load current             | 50 mA                 |
| Stall torque                | 12.5 mNm              |
| Stall current               | 3820 mA               |
| Load torque                 | 1.0 mNm               |
| Load speed                  | 17020 rpm             |
| Load current                | 350 mA                |
| Max. output power           | 6.1 W                 |
| Max. efficiency             | 79 %                  |
| Back-EMF constant           | 0.3 mV/rpm            |
| Torque constant             | 3.3 mNm/A             |
| Speed/torque gradient       | 1480 rpm/mNm          |
| Rotor inertia               | 0.8 g·cm <sup>2</sup> |
| Weight                      | 18.3 g                |
| Operating temperature range | -20~+85               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances



# L1718N5M46-245-7.4

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1718n5m46-245-7-4/>



| Specification               |                       |
|-----------------------------|-----------------------|
| Voltage                     | 7.4 V                 |
| Terminal resistance         | 1.2 $\Omega$          |
| No-load speed               | 24500 rpm             |
| No-load current             | 40 mA                 |
| Stall torque                | 17.6 mNm              |
| Stall current               | 6170 mA               |
| Load torque                 | 1.0 mNm               |
| Load speed                  | 23110 rpm             |
| Load current                | 390 mA                |
| Max. output power           | 11.3 W                |
| Max. efficiency             | 85 %                  |
| Back-EMF constant           | 0.3 mV/rpm            |
| Torque constant             | 2.9 mNm/A             |
| Speed/torque gradient       | 1390 rpm/mNm          |
| Rotor inertia               | 0.8 g·cm <sup>2</sup> |
| Weight                      | 18.5 g                |
| Operating temperature range | -20~+85               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1718N5M57-260-7.4

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1718n5m57-260-7-4/>



| Specification               |                       |
|-----------------------------|-----------------------|
| Voltage                     | 7.4 V                 |
| Terminal resistance         | 1.3 $\Omega$          |
| No-load speed               | 26000 rpm             |
| No-load current             | 60 mA                 |
| Stall torque                | 15.1 mNm              |
| Stall current               | 5690 mA               |
| Load torque                 | 2.0 mNm               |
| Load speed                  | 22570 rpm             |
| Load current                | 800 mA                |
| Max. output power           | 10.3 W                |
| Max. efficiency             | 81 %                  |
| Back-EMF constant           | 0.3 mV/rpm            |
| Torque constant             | 2.7 mNm/A             |
| Speed/torque gradient       | 1720 rpm/mNm          |
| Rotor inertia               | 0.8 g·cm <sup>2</sup> |
| Weight                      | 20.5 g                |
| Operating temperature range | -20~+85               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1722N5M

1722 12V micro DC coreless motor



<https://www.kocomotion.de/produkt/l1722n5m/>



## Produkte:

Seite

L1722N5M16-200-7.4

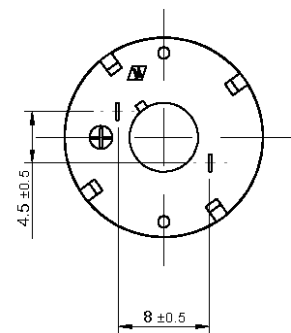
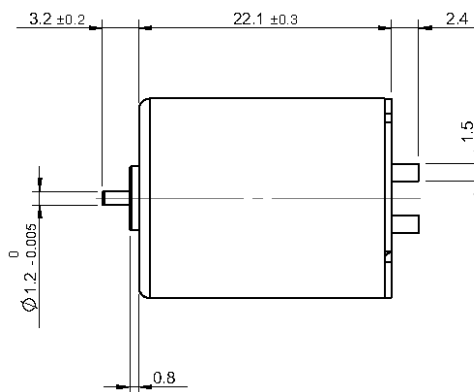
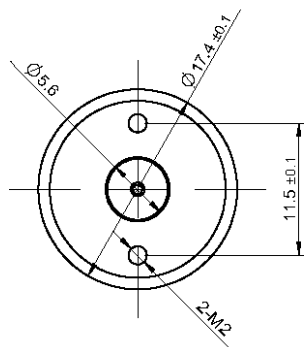
351

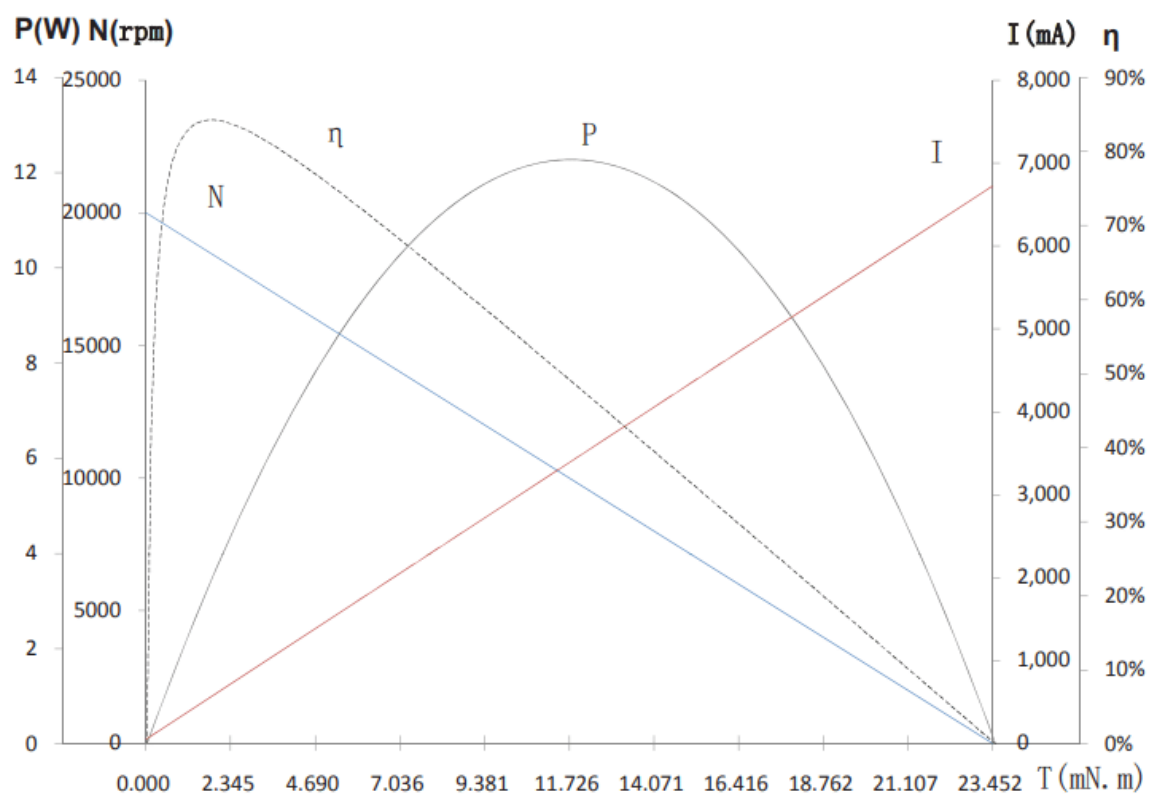
L1722N5M08-218-7.4

352

L1722N5M11-270-12.0

353





# L1722N5M16-200-7.4

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1722n5m16-200-7-4/>



| Specification               |                       |
|-----------------------------|-----------------------|
| Voltage                     | 7.4 V                 |
| Terminal resistance         | 1.1 $\Omega$          |
| No-load speed               | 20000 rpm             |
| No-load current             | 45 mA                 |
| Stall torque                | 23.5 mNm              |
| Stall current               | 6730 mA               |
| Load torque                 | 1.0 mNm               |
| Load speed                  | 19150 rpm             |
| Load current                | 330 mA                |
| Max. output power           | 12.3 W                |
| Max. efficiency             | 84 %                  |
| Back-EMF constant           | 0.4 mV/rpm            |
| Torque constant             | 3.5 mNm/A             |
| Speed/torque gradient       | 850 rpm/mNm           |
| Rotor inertia               | 0.8 g·cm <sup>2</sup> |
| Weight                      | 24.5 g                |
| Operating temperature range | -20~+85               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1722N5M08-218-7.4

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1722n5m08-218-7-4/>



| Specification               |                       |
|-----------------------------|-----------------------|
| Voltage                     | 7.4 V                 |
| Terminal resistance         | 1.2 $\Omega$          |
| No-load speed               | 21800 rpm             |
| No-load current             | 40 mA                 |
| Stall torque                | 19.7 mNm              |
| Stall current               | 6170 mA               |
| Load torque                 | 2.0 mNm               |
| Load speed                  | 19590 rpm             |
| Load current                | 660 mA                |
| Max. output power           | 11.3 W                |
| Max. efficiency             | 85 %                  |
| Back-EMF constant           | 0.3 mV/rpm            |
| Torque constant             | 3.2 mNm/A             |
| Speed/torque gradient       | 1100 rpm/mNm          |
| Rotor inertia               | 0.8 g·cm <sup>2</sup> |
| Weight                      | 24.5 g                |
| Operating temperature range | -20~+85               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances

# L1722N5M11-270-12.0

Precious Metal Commutation



<https://www.kocomotion.de/produkt/l1722n5m11-270-12-0/>



| Specification               |                       |
|-----------------------------|-----------------------|
| Voltage                     | 12.0 V                |
| Terminal resistance         | 1.8 $\Omega$          |
| No-load speed               | 27000 rpm             |
| No-load current             | 50 mA                 |
| Stall torque                | 27.9 mNm              |
| Stall current               | 6670 mA               |
| Load torque                 | 2.0 mNm               |
| Load speed                  | 25060 rpm             |
| Load current                | 520 mA                |
| Max. output power           | 19.7 W                |
| Max. efficiency             | 84 %                  |
| Back-EMF constant           | 0.4 mV/rpm            |
| Torque constant             | 4.2 mNm/A             |
| Speed/torque gradient       | 970 rpm/mNm           |
| Rotor inertia               | 0.8 g·cm <sup>2</sup> |
| Weight                      | 24.5 g                |
| Operating temperature range | -20~+85               |

## Optionen

- lead wires length
- shaft length
- special coils
- gearheads

## Anwendungen

- mini UAV
- remote control hobby products
- small household appliances



## **KOCO MOTION GmbH**

Niedereschacher Straße 54  
78083 Dauchingen  
Deutschland

+49 7720 995858-0  
[info@kocomotion.de](mailto:info@kocomotion.de)  
[www.kocomotion.de](http://www.kocomotion.de)