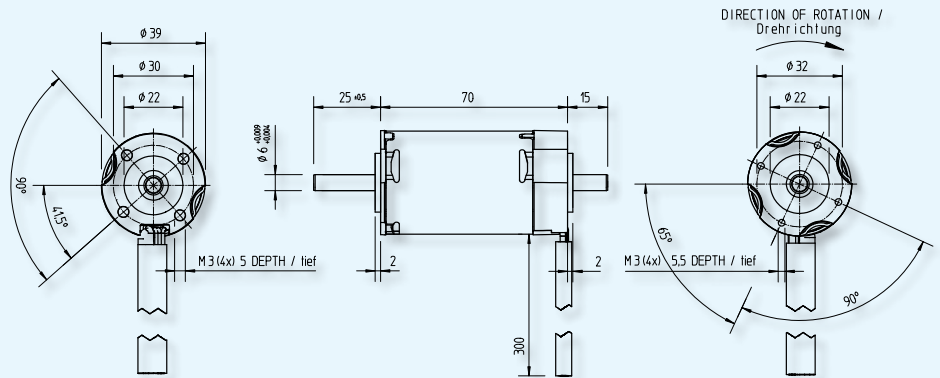


| CABLE IDENTIFICATION / Kabelbelegung |              |                 |                     |  |
|--------------------------------------|--------------|-----------------|---------------------|--|
| PIN / Pin                            | SIZE / Größe | COLOUR / Farbe  | FUNCTION / Funktion |  |
| 1                                    | 18 AWG       | BLACK / schwarz | PHASE C             |  |
| 2                                    | 18 AWG       | WHITE / weiß    | PHASE B             |  |
| 3                                    | 18 AWG       | RED / rot       | PHASE A             |  |
| 4                                    | 26 AWG       | BROWN / braun   | SUPPLY +            |  |
| 5                                    | 26 AWG       | GREY / grau     | HALL EFFECT C       |  |
| 6                                    | 26 AWG       | GREEN / grün    | HALL EFFECT B       |  |
| 7                                    | 26 AWG       | BLUE / blau     | HALL EFFECT A       |  |
| 8                                    | 26 AWG       | YELLOW / gelb   | SUPPLY -            |  |

**EC Motor 39 x 70**  
**1.25.037.2XX**



■ Type / Baureihe 1.25.037.XXX

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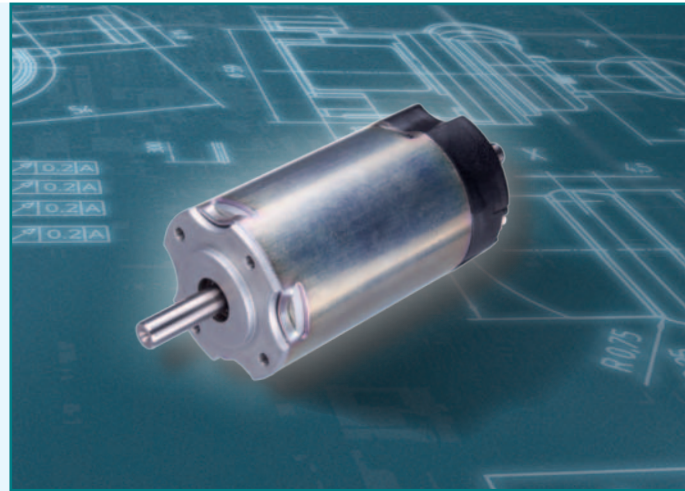
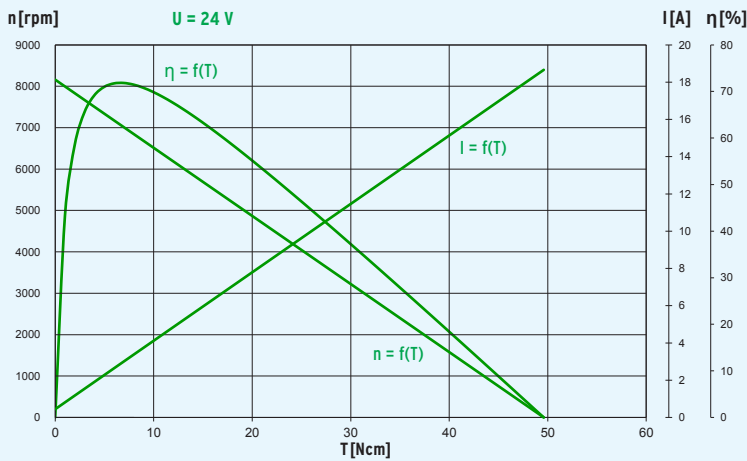
| Characteristics* | Nenndaten*      |           |                       |      |
|------------------|-----------------|-----------|-----------------------|------|
| Rated voltage    | Nennspannung    | U/V       | V                     | 24   |
| Rated power      | Nennleistung    | $P_N$     | W                     | 50   |
| Rated torque     | Nenn Drehmoment | $T_N/M_N$ | Ncm                   | 8.0  |
| Rated speed      | Nenn Drehzahl   | $n_N$     | rpm/min <sup>-1</sup> | 5700 |
| Rated current    | Nennstrom       | $I_N$     | A                     | 3.3  |

| No load characteristics* | Leerlaufdaten*    |       |                       |      |
|--------------------------|-------------------|-------|-----------------------|------|
| No load speed            | Leerlauf Drehzahl | $n_0$ | rpm/min <sup>-1</sup> | 8200 |
| No load current          | Leerlaufstrom     | $I_0$ | A                     | 0.5  |

| Stall characteristics* | Anlaufdaten* |           |     |    |
|------------------------|--------------|-----------|-----|----|
| Stall torque           | Anlaufmoment | $T_s/M_H$ | Ncm | 50 |
| Stall current          | Anlaufstrom  | $I_s/I_H$ | A   | 18 |

| Performance characteristics* | Leistungsdaten*       |                   |     |      |
|------------------------------|-----------------------|-------------------|-----|------|
| max. Output power            | max. Abgabeleistung   | $P_{max}$         | W   | 105  |
| max. Constant torque         | max. Dauer Drehmoment | $T_{max}/M_{max}$ | Ncm | 10.5 |

| Motor parameters*     | Motorparameter*          |             |                  |                               |
|-----------------------|--------------------------|-------------|------------------|-------------------------------|
| Weight                | Gewicht                  | G           | g                | 400                           |
| Rotor inertia         | Läuferträgheitsmoment    | J           | gcm <sup>2</sup> | 30                            |
| Thermal resistance    | Thermischer Widerstand   | $R_{th}$    | K/W              | -                             |
| Thermal time constant | Thermische Zeitkonstante | $\tau_{th}$ | min              | -                             |
| Axial play            | Axialspiel               |             | mm               | < 0.01                        |
| Direction of rotation | Drehrichtung             |             |                  | bidirectional / bidirektional |



| Design                  |  |
|-------------------------|--|
| Commutation             | 3 Hall sensors                         |
| Protection class        | IP 40                                  |
| Rotor                   | 4 pole-pairs, bonded NdFeB magnets     |
| Bearings                | 2 preloaded ball bearings              |
| Stator                  | 3 phase, star connection               |
| Housing                 | Steel, corrosion protected             |
| End shields             | B-side plastic drive end zinc die-cast |
| Typical life expectancy | 15000 h                                |

| Aufbau               |  |
|----------------------|--|
| Kommutierung         | 3 Hallsensoren                                   |
| Schutzart            | IP40   |
| Rotor                | 4 pol-paarig, kunststoffgebundene NdFeB Magnete  |
| Motorlager           | 2 vorgespannte Kugellager                        |
| Stator               | 3 phasig, Sternschaltung                         |
| Gehäuse              | Stahl, korrosionsgeschützt                       |
| Lagerschilde         | B-Seite Kunststoff, abtriebsseitig Zinkdruckguss |
| Typische Lebensdauer | 15000 h  |

| Operational conditions*                   | Einsatzbedingungen*                   |                |    |           |
|---|---------------------------------------|----------------|----|-----------|
| Temperature range                         | Temperaturbereich                     | T              | °C | -20 - +65 |
| Axial force                               | Axialkraft                            | F <sub>A</sub> | N  | 50        |
| Radial force, 15 mm from mounting surface | Radialkraft, 15 mm ab Anschraubfläche | F <sub>R</sub> | N  | 120       |

\* at 25 °C

\* bezogen auf 25 °C

### Customized Bühler drives / Maßgeschneiderte Bühler Antriebe

- ▶ Variants: p. 84 / Varianten: S. 84
- ▶ Customer specific developments: p. 88 / Kundenspezifische Entwicklungen: S. 88

### Application Examples / Applikationsbeispiele

- ▶ Banking machines / Geldausgabeautomaten