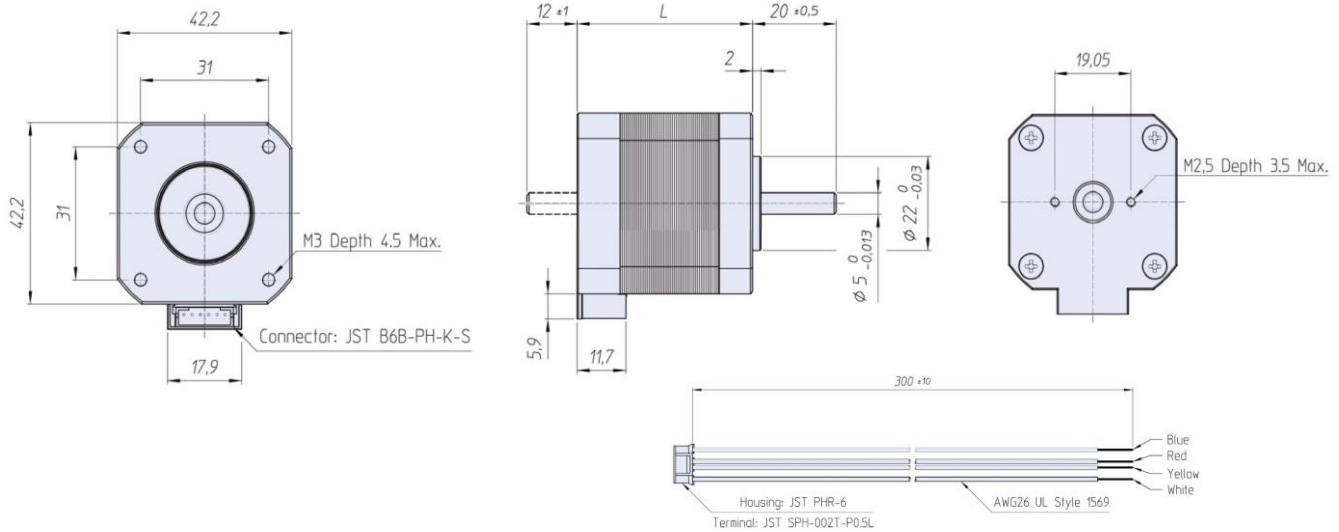


**Abmessungen / Dimensions**



Anmerkungen / Notes: Alle Abmessungen in mm / All dimensions in mm

Der Motor ist an einem Flansch angebaut und die Wicklungstemperaturanstieg  $\Delta T = 90^{\circ}\text{C}$ , Widerstand gemessen bei Wicklungstemperatur von  $20^{\circ}\text{C}$   
The motor is mounted, and winding temperature rise  $\Delta T = 90^{\circ}\text{C}$ . Resistance is with winding  $20^{\circ}\text{C}$

| HL1x-xxx-000401<br>(2 = rear shaft)                                 |          |                            | 1-004 | 1-010 | 1-015 | 2-004 | 2-010 | 2-020 | 3-004 | 3-010 | 3-020 | 4-004 | 4-010 | 4-020 |
|---|----------|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Haltemoment bipolar, parallel zwei Phasen bestromt / Holding Torque | $M_H$    | Nm                         | 0,28  | 0,28  | 0,28  | 0,42  | 0,42  | 0,42  | 0,58  | 0,58  | 0,58  | 0,77  | 0,77  | 0,77  |
| Nennstrom pro Phase / Rated Phase Current                           | I        | A                          | 0,4   | 1,0   | 1,5   | 0,4   | 1,0   | 2,0   | 0,4   | 1,0   | 2,0   | 0,4   | 1,0   | 2,0   |
| <b>Tech. Daten / Tech. Data</b>                                     |          |                            |       |       |       |       |       |       |       |       |       |       |       |       |
| Systematische Winkeltoleranz /                                      |          | %                          | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     |
| Widerstand pro Phase / Phase Resistance                             | $R_{ph}$ | $\Omega$                   | 16,34 | 3,45  | 1,4   | 20,1  | 3,38  | 0,86  | 24,88 | 3,88  | 1,09  | 28,50 | 4,6   | 1,24  |
| Induktivität pro Phase / Phase Inductance                           | $L_{ph}$ | mH                         | 21,80 | 4,82  | 1,60  | 37,18 | 6,35  | 1,49  | 43,80 | 7,05  | 1,64  | 62,20 | 10,8  | 2,52  |
| Restdrehmoment / Detent Torque                                      | $M_P$    | Ncm                        | 0,01  | 0,01  | 0,01  | 0,02  | 0,02  | 0,02  | 0,025 | 0,25  | 0,25  | 0,03  | 0,03  | 0,03  |
| Isolationsklasse / Insulation class                                 |          |                            | B     | B     | B     | B     | B     | B     | B     | B     | B     | B     | B     | B     |
| Max. Versorgungsspannung / Max. Supply Voltage DC                   | U        | $V_{DC}$                   | 50    | 50    | 50    | 50    | 50    | 50    | 50    | 50    | 50    | 50    | 50    | 50    |
| <b>Mech. Daten / Mech. Data</b>                                     |          |                            |       |       |       |       |       |       |       |       |       |       |       |       |
| Rotorträgheitsmoment / Rotor Inertia                                | J        | $\text{g}\cdot\text{cm}^2$ | 40    | 40    | 40    | 57    | 57    | 57    | 83    | 83    | 83    | 114   | 114   | 114   |
| Masse / Mass  | m        | kg                         | 0,25  | 0,25  | 0,25  | 0,31  | 0,31  | 0,31  | 0,42  | 0,42  | 0,42  | 0,47  | 0,47  | 0,47  |
| Länge / +/- 0,6mm Length +/- 0,6mm                                  | L        | mm                         | 35,0  | 35,0  | 35,0  | 41,1  | 41,1  | 41,1  | 53    | 53    | 53    | 62,0  | 62,0  | 62,0  |
| Wellendurchmesser / Shaft diameter                                  | A        | mm                         | 5,0   | 5,0   | 5,0   | 5,0   | 5,0   | 5,0   | 5,0   | 5,0   | 5,0   | 5,0   | 5,0   | 5,0   |
| Radial Belastung / 5mm vom Frontflansch                             |          | N                          | 50    | 50    | 50    | 50    | 50    | 50    | 50    | 50    | 50    | 50    | 50    | 50    |
| Axiale Belastung vom Frontflansch /                                 |          | N                          | 40    | 40    | 40    | 40    | 40    | 40    | 40    | 40    | 40    | 40    | 40    | 40    |
| Anzahl Anschlussleitungen / Number of Leads                         | z        |                            | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     |