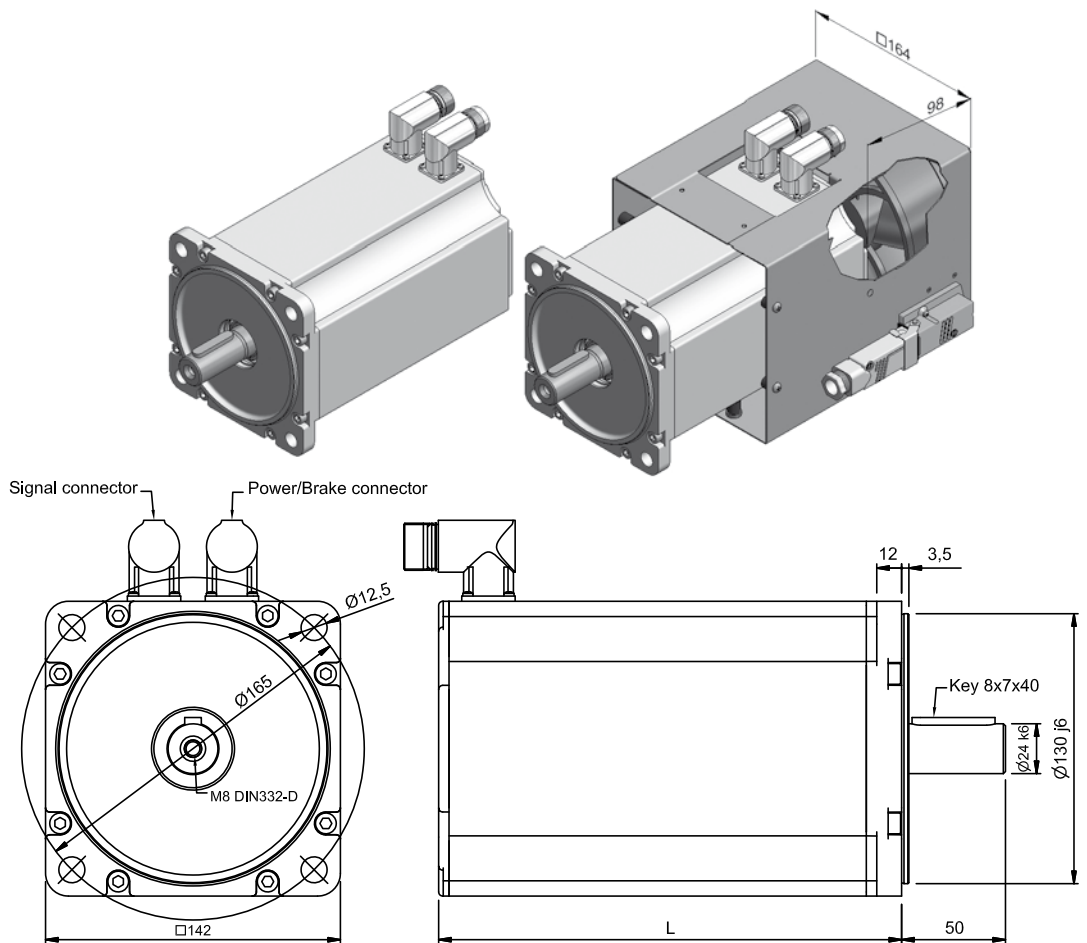


## TYPE B71Q - 8 POLES - 4.5 TO 26 Nm

FOR TYPE B71Q - 8 POLES - 29 TO 38 Nm, PLEASE REFER TO PAGE 64

FOR MAINS VOLTAGE  
400 V



### MECHANICAL DATA

| Type    | Torque<br>Nm | Length with RESOLVER |            | Maximum Length with ENCODER |            | Weight Kg     |            |
|---------|--------------|----------------------|------------|-----------------------------|------------|---------------|------------|
|         |              | Without brake        | With brake | Without brake               | With brake | Without brake | With brake |
| B71.04Q | 4.5          | 148                  | 183        | 159                         | 194        | 7.5           | 9.5        |
| B71.08Q | 9.0          | 173                  | 208        | 184                         | 219        | 9.5           | 11.5       |
| B71.12Q | 12.5         | 198                  | 228        | 209                         | 239        | 11.5          | 13.5       |
| B71.16Q | 16.0         | 223                  | 253        | 234                         | 264        | 13.5          | 15.5       |
| B71.20Q | 20.0         | 248                  | 273        | 259                         | 284        | 15.5          | 17.5       |
| B71.26Q | 26.0         | 298                  | 318        | 309                         | 329        | 19.5          | 21.5       |

### BRAKE DATA

| Brake data                | Symbol | Data | Unit              |
|---------------------------|--------|------|-------------------|
| Holding torque 20°C       | Mbr    | 15   | Nm                |
| Voltage                   | Ubr    | 24   | Vdc+/- 10%        |
| Resistance                | Rbr    | 24   | Ohm               |
| Electrical Power          | Pbr    | 24   | W                 |
| Current                   | Ibr    | 1.0  | Adc               |
| Additional* Rotor Inertia | Jbr    | 1.66 | kgcm <sup>2</sup> |
| Opening (release) time    | to max | 50   | ms                |
| Closing (fall in) time    | tc max | 30   | ms                |
| Additional* Motor weight  | mbr    | 1.5  | kg                |

\* Additional values are related to the motor data when the brake is mounted to the motor of the respective size, these values differ from the brake data in unmounted condition!

# TYPE B71Q - 8 POLES - 4.5 TO 26 Nm

FOR TYPE B71Q - 8 POLES - 29 TO 38 Nm, PLEASE REFER TO PAGE 64

## FOR MAINS VOLTAGE 400 V

| Type                                       | Stall torque<br>( $\Delta t=105^{\circ}\text{C}$ ) | Rated speed | Rated power | Rated torque<br>( $\Delta t=105^{\circ}\text{C}$ ) | Peak torque | Maximum speed | Moment of inertia        | Peak torque acceleration | Thermal time constant | Thermal protection threshold | Voltage constant | Torque constant | Resistance phase to phase<br>( $20^{\circ}\text{C}$ ) | Inductance phase to phase | B.E.M.F. at rated speed | Stall current | Rated current |
|--|--|-------------|-------------|--|-------------|---------------|--------------------------|--------------------------|-----------------------|------------------------------|------------------|-----------------|---|---------------------------|-------------------------|---------------|---------------|
|  | $M_o$  | n           | $P_n$       | $M_n$  | $M_{pk}$    | $n_{max}$     | J                        | $a_{pk}$                 | $T_{th}$              | $\vartheta_{max}$            | $k_e$            | $k_t$           | $R_w$   | $L_w$                     | $E_n$                   | $I_o$         | $I_n$         |
|  | Nm   | 1/min       | kW          | Nm   | Nm          | rpm           | $10^{-4} \text{ Kg m}^2$ | rad/sec <sup>2</sup>     | min                   | $^{\circ}\text{C}$           | Vs               | Nm/A            | $\Omega$  | mH                        | Vrms                    | Arms          | Arms          |
| <b>2000 min<sup>-1</sup> - Self Cooled</b> |  |             |             |  |             |               |                          |                          |                       |                              |                  |                 |   |                           |                         |               |               |
| B71.04Q                                    | 4.5  | 2000        | 0.9         | 4.2  | 13.8        | 9000          | 3.6                      | 38122                    | 33                    | 140                          | 1.41             | 2.44            | 11.3  | 99.0                      | 296                     | 1.8           | 1.7           |
| B71.08Q                                    | 9.0  | 2000        | 1.7         | 8.1  | 27.6        | 9000          | 6.0                      | 45695                    | 37                    | 140                          | 1.41             | 2.44            | 4.03  | 44.4                      | 296                     | 3.7           | 3.3           |
| B71.12Q                                    | 12.5   | 2000        | 2.5         | 11.8   | 41.4        | 9000          | 8.2                      | 50488                    | 40                    | 140                          | 1.41             | 2.44            | 2.51  | 24.5                      | 296                     | 5.1           | 4.8           |
| B71.16Q                                    | 16.0   | 2000        | 3.2         | 15.1   | 55.2        | 9000          | 10.7                     | 51589                    | 43                    | 140                          | 1.41             | 2.44            | 1.73  | 20.9                      | 296                     | 6.5           | 6.2           |
| B71.20Q                                    | 20.0   | 2000        | 3.9         | 18.5   | 69.0        | 9000          | 13.1                     | 52672                    | 46                    | 140                          | 1.41             | 2.44            | 1.18  | 14.2                      | 296                     | 8.2           | 7.6           |
| B71.26Q                                    | 26.0   | 2000        | 4.7         | 22.4   | 96.6        | 9000          | 18.4                     | 52500                    | 49                    | 140                          | 1.41             | 2.44            | 0.91  | 11.2                      | 296                     | 10.6          | 9.2           |
| <b>3000 min<sup>-1</sup> - Self Cooled</b> |  |             |             |  |             |               |                          |                          |                       |                              |                  |                 |   |                           |                         |               |               |
| B71.04Q                                    | 4.5  | 3000        | 1.3         | 4.0  | 13.8        | 9000          | 3.6                      | 38122                    | 33                    | 140                          | 0.94             | 1.63            | 5.13  | 40.3                      | 296                     | 2.8           | 2.5           |
| B71.08Q                                    | 9.0  | 3000        | 2.4         | 7.7  | 27.6        | 9000          | 6.0                      | 45695                    | 37                    | 140                          | 0.94             | 1.63            | 2.16  | 21.5                      | 296                     | 5.5           | 4.7           |
| B71.12Q                                    | 12.5   | 3000        | 3.6         | 11.6   | 41.4        | 9000          | 8.2                      | 50488                    | 40                    | 140                          | 0.94             | 1.63            | 1.13  | 12.5                      | 296                     | 7.7           | 7.1           |
| B71.16Q                                    | 16.0   | 3000        | 4.4         | 13.9   | 55.2        | 9000          | 10.7                     | 51589                    | 43                    | 140                          | 0.94             | 1.63            | 0.75  | 8.2                       | 296                     | 9.8           | 8.5           |
| B71.20Q                                    | 20.0   | 3000        | 5.5         | 17.5   | 69.0        | 9000          | 13.1                     | 52672                    | 46                    | 140                          | 0.94             | 1.63            | 0.56  | 6.3                       | 296                     | 12.3          | 10.7          |
| B71.26Q                                    | 26.0   | 3000        | 5.9         | 18.9   | 96.6        | 9000          | 18.4                     | 52500                    | 49                    | 140                          | 0.94             | 1.63            | 0.41  | 5.0                       | 296                     | 16.0          | 11.6          |
| <b>4500 min<sup>-1</sup> - Self Cooled</b> |  |             |             |  |             |               |                          |                          |                       |                              |                  |                 |   |                           |                         |               |               |
| B71.04Q                                    | 4.5  | 4500        | 1.8         | 3.9  | 13.8        | 9000          | 3.6                      | 38122                    | 33                    | 140                          | 0.63             | 1.09            | 2.22  | 19.3                      | 296                     | 4.1           | 3.6           |
| B71.08Q                                    | 9.0  | 4500        | 3.4         | 7.3  | 27.6        | 9000          | 6.0                      | 45695                    | 37                    | 140                          | 0.63             | 1.09            | 0.79  | 8.7                       | 296                     | 8.3           | 6.7           |
| B71.12Q                                    | 12.5   | 4500        | 4.5         | 9.5  | 41.4        | 9000          | 8.2                      | 50488                    | 40                    | 140                          | 0.63             | 1.09            | 0.51  | 5.0                       | 296                     | 11.5          | 8.7           |
| B71.16Q                                    | 16.0   | 4500        | 6.0         | 12.7   | 55.2        | 9000          | 10.7                     | 51589                    | 43                    | 140                          | 0.63             | 1.09            | 0.34  | 4.1                       | 296                     | 14.7          | 11.7          |
| B71.20Q                                    | 20.0   | 4500        | 6.9         | 14.6   | 69.0        | 9000          | 13.1                     | 52672                    | 46                    | 140                          | 0.63             | 1.09            | 0.26  | 3.2                       | 296                     | 18.4          | 13.4          |
| B71.26Q                                    | 26.0   | 4500        | 6.9         | 14.7   | 96.6        | 9000          | 18.4                     | 52500                    | 49                    | 140                          | 0.63             | 1.09            | 0.19  | 2.4                       | 296                     | 23.9          | 13.5          |

| Type                                      | Stall torque<br>( $\Delta t=105^{\circ}\text{C}$ ) | Rated speed | Rated power | Rated torque<br>( $\Delta t=105^{\circ}\text{C}$ ) | Peak torque | Maximum speed | Moment of inertia        | Peak torque acceleration | Thermal time constant | Thermal protection threshold | Voltage constant | Torque constant | Resistance phase to phase<br>( $20^{\circ}\text{C}$ ) | Inductance phase to phase | B.E.M.F. at rated speed | Stall current | Rated current |
|---|--|-------------|-------------|--|-------------|---------------|--------------------------|--------------------------|-----------------------|------------------------------|------------------|-----------------|---|---------------------------|-------------------------|---------------|---------------|
|   | $M_o$  | n           | $P_n$       | $M_n$  | $M_{pk}$    | $n_{max}$     | J                        | $a_{pk}$                 | $T_{th}$              | $\vartheta_{max}$            | $k_e$            | $k_t$           | $R_w$   | $L_w$                     | $E_n$                   | $I_o$         | $I_n$         |
|   | Nm   | 1/min       | kW          | Nm   | Nm          | rpm           | $10^{-4} \text{ Kg m}^2$ | rad/sec <sup>2</sup>     | min                   | $^{\circ}\text{C}$           | Vs               | Nm/A            | $\Omega$  | mH                        | Vrms                    | Arms          | Arms          |
| <b>2000 min<sup>-1</sup> - Air Cooled</b> |  |             |             |  |             |               |                          |                          |                       |                              |                  |                 |   |                           |                         |               |               |
| B71.04Q                                   | 6.0  | 2000        | 1.2         | 5.6  | 13.8        | 9000          | 3.6                      | 38122                    | 33                    | 140                          | 1.41             | 2.44            | 11.3  | 99.0                      | 296                     | 2.5           | 2.3           |
| B71.08Q                                   | 12.0   | 2000        | 2.3         | 11.0   | 27.6        | 9000          | 6.0                      | 45695                    | 37                    | 140                          | 1.41             | 2.44            | 4.03  | 44.4                      | 296                     | 4.9           | 4.5           |
| B71.12Q                                   | 17.0   | 2000        | 3.3         | 15.8   | 41.4        | 9000          | 8.2                      | 50488                    | 40                    | 140                          | 1.41             | 2.44            | 2.51  | 24.5                      | 296                     | 7.0           | 6.5           |
| B71.16Q                                   | 22.0   | 2000        | 4.3         | 20.5   | 55.2        | 9000          | 10.7                     | 51589                    | 43                    | 140                          | 1.41             | 2.44            | 1.73  | 20.9                      | 296                     | 9.0           | 8.4           |
| B71.20Q                                   | 27.5   | 2000        | 5.3         | 25.5   | 69.0        | 9000          | 13.1                     | 52672                    | 46                    | 140                          | 1.41             | 2.44            | 1.18  | 14.2                      | 296                     | 11.3          | 10.4          |
| B71.26Q                                   | 35.5   | 2000        | 7.0         | 33.5   | 96.6        | 9000          | 18.4                     | 52500                    | 49                    | 140                          | 1.41             | 2.44            | 0.91  | 11.2                      | 296                     | 14.5          | 13.7          |
| <b>3000 min<sup>-1</sup> - Air Cooled</b> |  |             |             |  |             |               |                          |                          |                       |                              |                  |                 |   |                           |                         |               |               |
| B71.04Q                                   | 6.0  | 3000        | 1.7         | 5.3  | 13.8        | 9000          | 3.6                      | 38122                    | 33                    | 140                          | 0.94             | 1.63            | 5.13  | 40.3                      | 296                     | 3.7           | 3.3           |
| B71.08Q                                   | 12.0   | 3000        | 3.3         | 10.5   | 27.6        | 9000          | 6.0                      | 45695                    | 37                    | 140                          | 0.94             | 1.63            | 2.16  | 21.5                      | 296                     | 7.4           | 6.4           |
| B71.12Q                                   | 17.0   | 3000        | 4.7         | 15.0   | 41.4        | 9000          | 8.2                      | 50488                    | 40                    | 140                          | 0.94             | 1.63            | 1.13  | 12.5                      | 296                     | 10.4          | 9.2           |
| B71.16Q                                   | 22.0   | 3000        | 6.1         | 19.5   | 55.2        | 9000          | 10.7                     | 51589                    | 43                    | 140                          | 0.94             | 1.63            | 0.75  | 8.2                       | 296                     | 13.5          | 12.0          |
| B71.20Q                                   | 27.5   | 3000        | 7.7         | 24.5   | 69.0        | 9000          | 13.1                     | 52672                    | 46                    | 140                          | 0.94             | 1.63            | 0.56  | 6.3                       | 296                     | 16.9          | 15.0          |
| B71.26Q                                   | 35.5   | 3000        | 10.1        | 32.0   | 96.6        | 9000          | 18.4                     | 52500                    | 49                    | 140                          | 0.94             | 1.63            | 0.41  | 5.0                       | 296                     | 21.8          | 19.7          |
| <b>4500 min<sup>-1</sup> - Air Cooled</b> |  |             |             |  |             |               |                          |                          |                       |                              |                  |                 |   |                           |                         |               |               |
| B71.04Q                                   | 6.0  | 4500        | 2.3         | 4.8  | 13.8        | 9000          | 3.6                      | 38122                    | 33                    | 140                          | 0.63             | 1.09            | 2.22  | 19.3                      | 296                     | 5.5           | 4.4           |
| B71.08Q                                   | 12.0   | 4500        | 4.5         | 9.5  | 27.6        | 9000          | 6.0                      | 45695                    | 37                    | 140                          | 0.63             | 1.09            | 0.79  | 8.7                       | 296                     | 11.0          | 8.7           |
| B71.12Q                                   | 17.0   | 4500        | 6.3         | 13.3   | 41.4        | 9000          | 8.2                      | 50488                    | 40                    | 140                          | 0.63             | 1.09            | 0.51  | 5.0                       | 296                     | 15.6          | 12.2          |
| B71.16Q                                   | 22.0   | 4500        | 8.0         | 17.0   | 55.2        | 9000          | 10.7                     | 51589                    | 43                    | 140                          | 0.63             | 1.09            | 0.34  | 4.1                       | 296                     | 20.2          | 15.6          |
| B71.20Q                                   | 27.5   | 4500        | 10.1        | 21.5   | 69.0        | 9000          | 13.1                     | 52672                    | 46                    | 140                          | 0.63             | 1.09            | 0.26  | 3.2                       | 296                     | 25.3          | 19.8          |
| B71.26Q                                   | 32.7   | 4500        | 13.0        | 27.5   | 96.6        | 9000          | 18.4                     | 52500                    | 49                    | 140                          | 0.63             | 1.09            | 0.19  | 2.4                       | 296                     | 30.0          | 25.3          |