

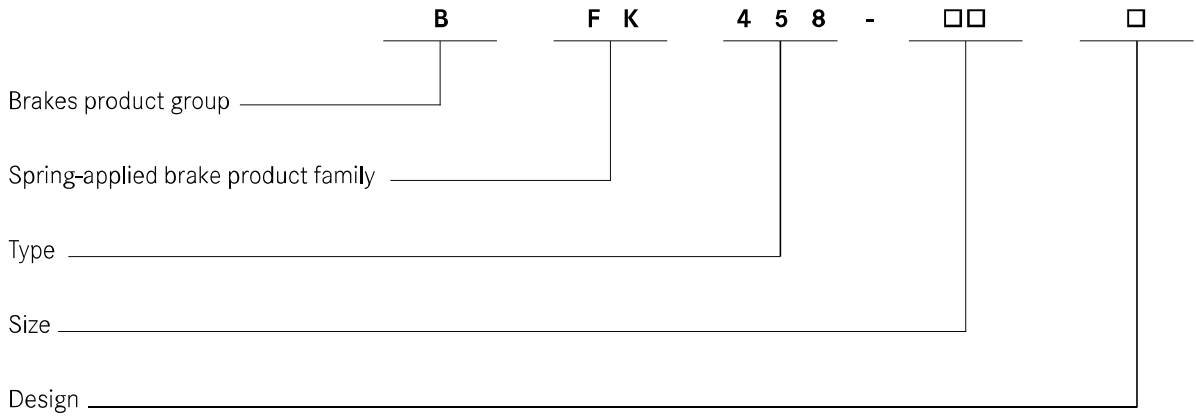


BFK458 spring-applied brake

The versatile modular system

1.5 – 600 Nm

INTORQ BFK458-□□□ product key



Size

06, 08, 10, 12, 14, 16, 18, 20, 25

Not coded:

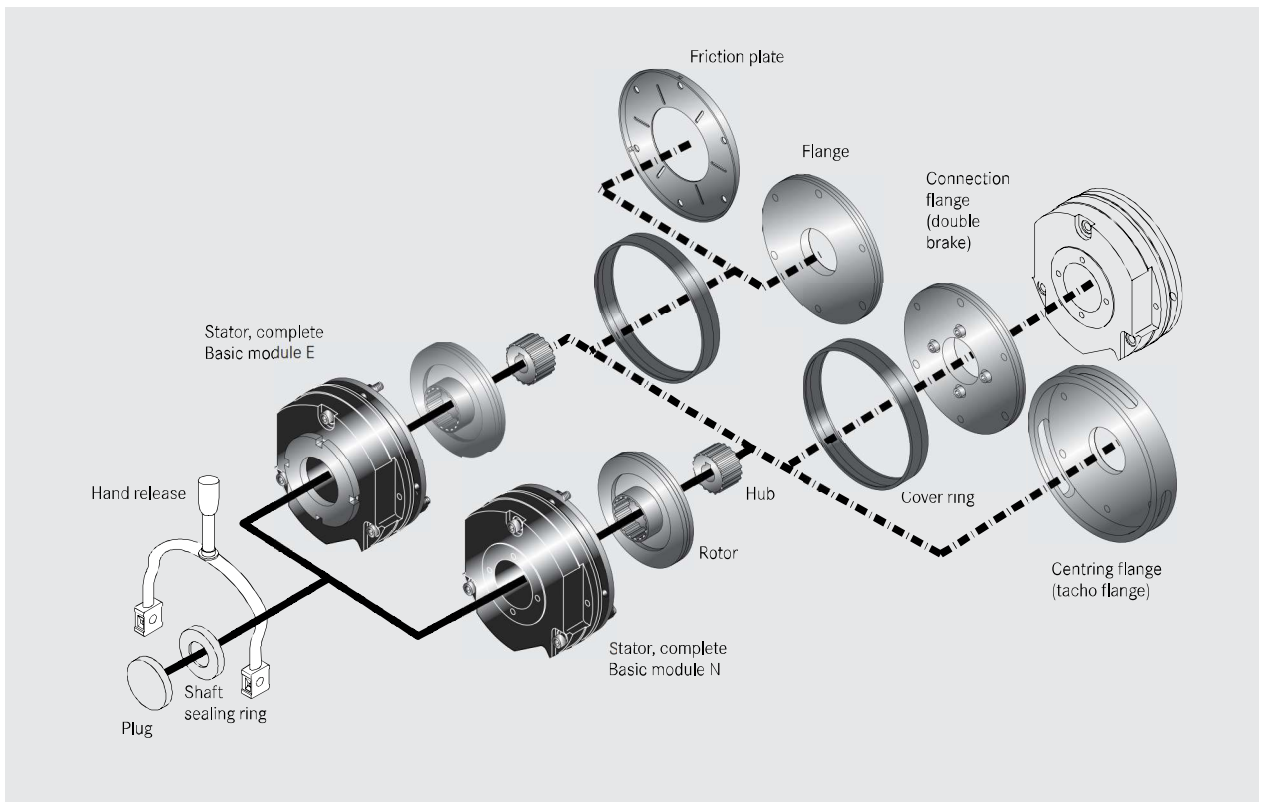
Supply voltage, hub bore, options

Stator design

E – Adjustable (braking torque can be reduced using torque adjustment ring)

N – Non-adjustable

L – Non-adjustable, LongLife design



Technical data

Rated torques

The basic modules E and N are available in the graduated torques listed below. A pole shim (brass film) must be placed between the stator and the armature plate if you want to achieve short engagement times at low torques. INTORQ brakes are dimensioned so that the specified rated torques can usually be achieved reliably after a short running-in period. However, as the organic friction linings used do not all have identical properties and because environmental conditions can vary, deviations from the specified braking

torques are possible. These must be taken into account in the form of appropriate dimensioning tolerances. Increased breakaway torque is common in particular after long downtimes in humid environments where temperatures vary. If the brake is being used on friction surfaces provided by the customer, the rated torque must be checked. If the brake is to be used solely as a holding brake without dynamic load, the friction lining must be reactivated at regular intervals.

| Size | 06 | 08 | 10 | 12 | 14 | 16 | 18 | 20 | 25 |
|------|----------------|----------------|-----------------|-----------------|---------------|---------------|----------------|----------------|----------------|
| | | | | | | | | 80 E | |
| | 1.5 E | 3.5 N/E/L | | | 25 N/E | 35 N/E | 65 N/E | 115 N/E | 175 N/E |
| | 2 N/E/L | 4 E | 7 N/E/L | 14 N/E/L | 35 N | 45 N/E | 80 N/E | 145 N/E | 220 N |
| | 2.5 N/E/L | 5 N/E/L | 9 N/E/L | 18 N/E/L | 40 N/E | 55 N/E | 100 N/E | 170 N/E | 265 N/E |
| | 3 N/E/L | 6 N/E/L | 11 N/E/L | 23 N/E/L | 45 N/E | 60 N/E | 115 N/E | 200 N/E | 300 N/E |
| | 3.5 N/E/L | 7 N/E/L | 14 N/E/L | 27 N/E/L | 55 N/E | 70 N/E | 130 N/E | 230 N/E | 350 N/E |
| | 4 N/E/L | 8 N/E/L | 16 N/E/L | 32 N/E/L | 60 N/E | 80 N/E | 150 N/E | 260 N/E | 400 N/E |
| | 4.5 N/E | 9 N/E | 18 N/E | 36 N/E | 65 N/E | 90 N/E | 165 N/E | 290 N/E | 445 N/E |
| | 5 E | 10 E | 20 E | 40 E | 75 N/E | 100 N/E | 185 N/E | 315 N/E | 490 N/E |
| | 5.5 E | 11 E | 23 N/E | 46 N/E | 80 N/E | 105 N/E | 200 N/E | 345 N/E | 530 N/E |
| | 6 N/E | 12 N/E | | | | 125 N/E | 235 N/E | 400 N/E | 600 N/E |

Rated torque M_k [Nm]
of the brake, rated value at a
relative speed of 100 r/min

- N ... Braking torque for the N design
(without torque adjustment ring)
- E ... Braking torque for the E design
(with torque adjustment ring)
- L ... LongLife design

Operating brake
(s_{Lmax} approx. $2.5 \times s_{LN}$)

Standard braking torque

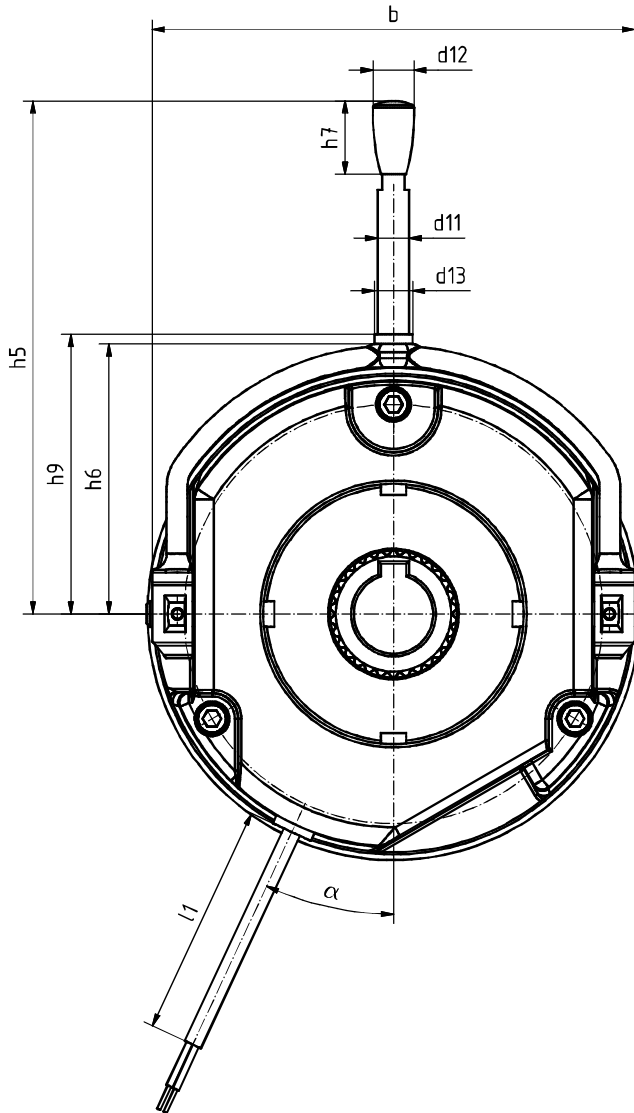
Holding brake with emergency
stop (s_{Lmax} approx. $1.5 \times s_{LN}$)

Basic module L, LongLife design

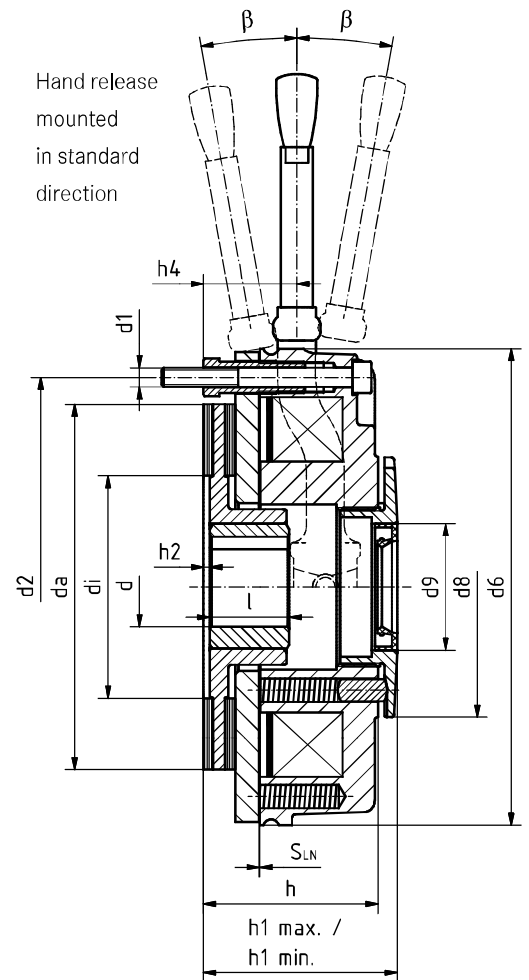
The LongLife design can be configured for sizes 06 to 12 in combination with the specified rated torques in the modular system. The stator corresponds to design N; bores and built-on accessories are not possible at the rear side. It is not possible to configure a microswitch for size 12.

Technical data

Basic module E (with torque adjustment ring)



Without counter friction surface, hand release (as option)



| Size | b | dj ¹⁾ spec. | dH7 ²⁾ standard | d ₁ | d ₂ | d ₅ | d _{6j7} | d ₇ | d ₈ | d ₉ | d ₁₀ | d ₁₁ | d ₁₂ | d ₁₃ | d ₁₆ | d ₁₇ | d ₁₈ | d _i | d _a |
|------|-------|------------------------|------------------------------------|----------------|----------------|----------------|------------------|----------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|--------------------|-----------------|-----------------|----------------|----------------|
| 06 | 88 | 10 | 10/11/12/14/15 | 3xM4 | 72 | 91 | 87 | 87 | 52 | 24 H9 | 31 | 8 | 13 | 9.6 | 3x4.4 | 86 | 36 | 40 | 60 |
| 08 | 106.5 | 10 | 11/12/14/15/20 | 3xM5 | 90 | 109 | 105 | 105 | 60 | 26 H9 | 41 | 10 | 13 | 9.6 | 3x5.5 | 106 | 45 | 56.1 | 76.5 |
| 10 | 132 | 10 | 11/12/14/15/20 | 3xM6 | 112 | 135.4 | 130 | 130 | 68 | 35 H9 | 45 | 10 | 13 | 12 | 3x6.6 | 132 | 52 | 66.1 | 95 |
| 12 | 152 | 14 | 20/25 | 3xM6 | 132 | 155 | 150 | 150 | 82 | 40 H9 | 52 | 10 | 13 | 12 | 3x6.6 | 153 | 68 | 70.1 | 115 |
| 14 | 169 | 14 | 20/25/30 | 3xM8 | 145 | 171 | 165 | 165 | 92 | 52 H9 | 55 | 12 | 24 | 14 | 3x9 | 169 | 78 | 80.1 | 124 |
| 16 | 187.6 | 15 | 25/30/35/38 ³⁾ | 3xM8 | 170 | 196 | 190 | 190 | 102 | 52 H9 | 70 | 12 | 24 | 14 | 3x9 | 194 | 90 | 104.1 | 149 |
| 18 | 218.6 | 20 | 30/35/40/45 | 6xM8 | 196 | 223 | 217 | 217 | 116 | 62 H9 | 77 | 14 | 24 | 15 | 4x9 ⁶⁾ | - | - | 129.1 | 174 |
| 20 | 252.6 | 25 | 35/40/45/50 | 6xM10 | 230 | 259 | 254 | 254 | 135 | 72 H8 | 90 | 14 | 24 | 17 | 4x11 ⁶⁾ | - | - | 148.1 | 206 |
| 25 | 297.6 | 30 | 40/45/50/55/60/65/70 ³⁾ | 6xM10 | 278 | 308 | 302 | 302 | 165 | 85 H8 | 120 | 16 | 24 | 18.4 | 6x11 | - | - | 199.1 | 254 |

¹⁾ Pilot bored without keyway

²⁾ Standard keyway in accordance with DIN 6885/1 P9, selection of the shaft diameter dependent upon type of load (see the operating instructions)

³⁾ Ø 38 and Ø 70 mm, keyway in accordance with DIN 6885/3 P9

⁴⁾ Hand release angle tolerance +3°

⁵⁾ Recommended lever length for 1.5 M_k

⁶⁾ The thread in the mounting surface is offset by 30° in relation to the centre axis of the manual release lever

Recommended ISO shaft tolerances: up to Ø 50 mm = k6
over Ø 50 mm = m6

Dimensions in mm