

# Brakes



## Properties:

Brakes are used to shorten the braking process or to secure during standstill. AC operated brakes, which are turned on and off together with the motor winding, are usually used for AC polyphase motors. DC operated brakes are for use with DC motors. These brakes should be switched on and off separately from the motor current in order to prevent a considerable delay.

## Fail-safe brakes:

This is an Fail-safe operated spring-applied single-disc brake. The braking power is created by spring pressure and lifted by an electro-magnetic field. This means the brakes are effective when the current is off or during a power failure.

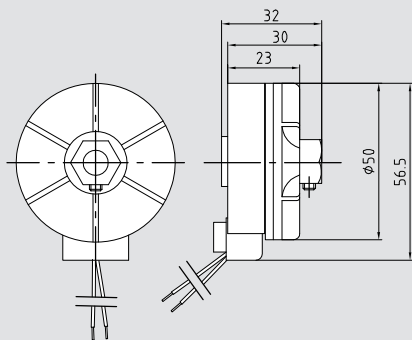
## Technical data:

Designation Item	Design	Voltage Volt	Braking torque cNm	Switch times ms		Power consumption Watt	Weight Gram
				On	Off		
<b>B 50</b>	Fail-safe	380 AC 230 AC 120 AC 24 DC	50	5	26	22	160
<b>BFK 457-01</b> <b>BFK 457-02</b> <b>BFK 457-03</b> <b>BFK 457-04</b> <b>BFK 457-05</b>	Fail-safe	24 DC 205 DC	12 25 50 100 200	11 8 12.5 18 26	17 17 18 23 35	5 6.6 9 11.5 13	
<b>B 77</b>	Fail-safe	230 AC 24 DC	80	16	20	12	350
<b>B 3</b>	Fail-safe	230 AC	20	16	20	8	350

# Dimensional drawings of the brakes



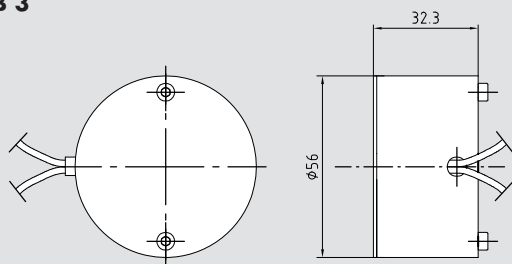
For motors Pg, Eg, Dg, Es and U:  
B 50



Protection Type IP 00  
Kind of contact: loose wires

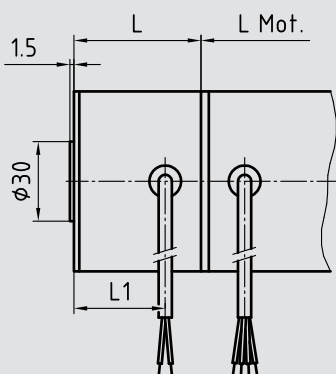
Protection Type IP 00  
Kind of contact: loose wires

B 77  
B 3



Protection Type IP 00  
Kind of contact: loose wires

For motors K, D, KD and G - in the motor housing:  
B 77, BFK 457

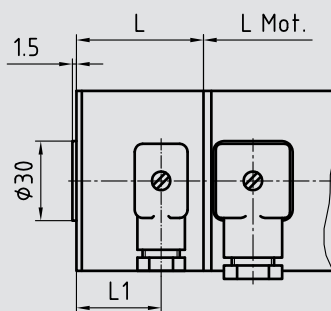


K, D, M	L / mm	L1 / mm
Bg. 53	34	19,5
Bg. 68	49	34,5
Bg. 83	43,5	29
Bg. 95	44,5	31

G	L / mm	L1 / mm
Bg. 53	33	19,5
Bg. 68	48	34,5
Bg. 83	42,5	29

Protection Type IP 40  
Kind of contact: loose wires



K, D, M	L / mm	L1 / mm
Bg. 53	34	17
Bg. 68	49	32
Bg. 83	43,5	26,5
Bg. 95	44,5	29

G	L / mm	L1 / mm
Bg. 53	33	17
Bg. 68	48	32
Bg. 83	42,5	26,5

Protection Type IP 44 (Option: IP 55)  
Kind of contact: connectors including matching part

**Please note:**

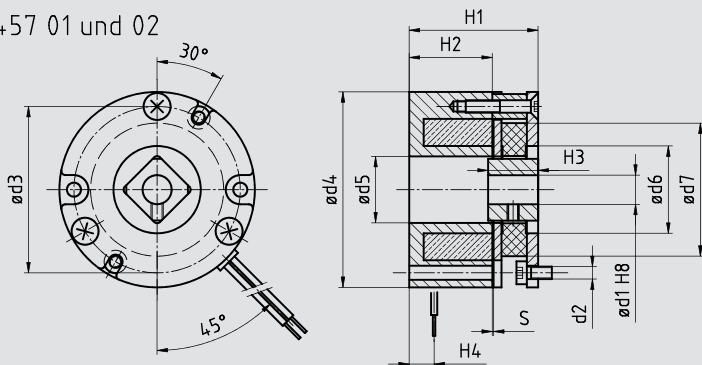
B77 suitable for 68, 83, 95 mm diameter motors

# Dimensional drawings of the brakes

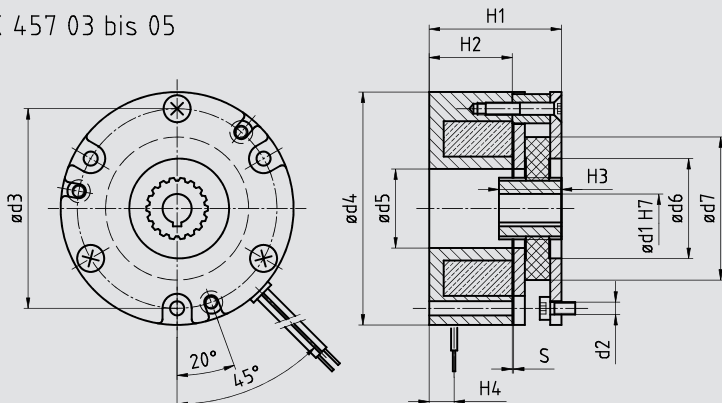


## BFK

BFK 457 01 und 02



BFK 457 03 bis 05



Größe	01	02	03	04	05
MK (Nm)	0,12	0,25	0,5	1	2
MK max. (Nm)	0,24	0,5	1,0	2,0	4,0
P 20 (W)	5	6,6	9	11,5	13
d1 (mm)	6,0	7,0	6,0	7,0	8,0
d1 (mm)			7,0	8,0	10,0
d1 (mm)			9,0	10,0	12,0
d2 (mm)	M2,5	M3	M3	M3	M3
d3 (mm)	32	40	48	58	66
d4 (mm)	37	47	56	65	75
d5 (mm)	13,5	16	19	24	28
d6 (mm)	18,2	21	24		
d7 (mm)	25	32	38,5	47,5	55
H1 (mm)	31,3	31	31,8	33,8	35,9
H2 (mm)	22,5	20	20		
H3 (mm)	9	12	15	15	15
H4 (mm)	5	5,5	6		
S min. (mm)	0,1	0,15	0,15	0,15	0,15
S max. (mm)	0,35	0,35	0,4	0,4	0,4
n max. (rpm)	5000	5000	5000	5000	5000
QE max. (J)	200	400	800	1200	1800

Betriebsspannung (V) 24; 205  
 MK bezogen auf n = 100 rpm  
 P20 bei Spulentemperatur 20°C  
 Litzenlänge 400mm  
 Standardpassfedernunt nach DIN 6885/1-P9