



BINDER CLUTCHES & BRAKES

## SPRING-APPLIED SINGLE-DISC BRAKE

76 26E..B00 / 76 26G..B00

76 26N..B00 / 76 26 P..B00



POWER OF PARTNERSHIP AND MAGNETISM

EX  
LINE  
Z  
E

## Kendrion Power Transmission

## BINDER CLUTCHES & BRAKES

Our company's strength is measured by the delivery of products, performances, as well as a high degree of esteem towards our customers. KENDRION POWER TRANSMISSION is striving to develop a long-term relations-

hip with its customers and to cultivate this relationship under the motto "Power of Partnership". Ambitious aims can only be realised through a close and productive co-operation with our

customers. The development of high-quality standard products as well as optimised tailor made solutions is the foundation of all our actions.

Power of Partnership stands for a co-operation with the Kendrion employees without bureau-crazy, ensuring a long and successful partnership with our customers.

## Top Market Knowledge...

the realisation of market orientated products are the results of our competence in electromagnetism which has been achieved with decades of experience and knowledge. The development of most innovative concepts and the

use of the most modern technologies in our research department together with the use of the latest production and logistic processes are our strengths.

Our customers profit from the individual solutions for high volume as well as the availability of individual products on the basis of a standard platform.

Our know-how is growing steadily hand in hand with the constant optimisation of every business process.

## Optimal tailor made solutions...

are not empty promises. The profound understanding of the Power of Magnetism at KENDRION POWER TRANSMISSION is the source of the research/development of market orientated products. Continuous expansion of the technological possibilities

enables us to be in the position to offer optimal solutions of brakes and clutches for numerous applications. We lay great emphasis on being able to offer solutions for different applications such as:

**... SECURING**  
**... STOPPING**  
**... POSITIONING**  
**... ACCELERATING.**

## Important synergies as a basis for success...

KENDRION POWER TRANSMISSION is a European company with a local presence in all economic regions of the world. Integrated in and yielding performance to the Kendrion Holding N.V., which is noted on the Amsterdam stock exchange, as a successful company with an annual turnover of 1,8 billion EUR; and approx. 5500

employees all over the world. This is an excellent basis to realise, secure and enable our long-term goals and company objectives. A network of connected companies within Kendrion is another valuable factor for the success of KENDRION POWER TRANSMISSION. We live the

"Power of Partnership" in a firm exchange of expertise and business relationship within these companies.



Kendrion Power Transmission protects people and the environment

**General technical information**

**76 26E..B00/76 26G..B00**

**76 26N..B00/76 26P..B00**

### Product line information

### BINDER CLUTCHES & BRAKES



The EEX LINE is comprised of spring-applied single-disc brakes with explosion protection for use in potentially explosion hazards locations. The flame proofed spring-applied brake is suitable for use in underground mines where there is a danger of firedamp. Explosion proofed spring-applied brakes are characterised by the fact that all components which may ignite explosive mixtures are placed in an enclosure designed to withstand the specified test pressure and to prevent any mixtures outside the enclosure from being affected by the explosion. The brakes are equipped with four thermostiches and one microswitch. The microswitch prevents any unintentional motor start-up when the brake is not released. The thermostiches, which are connected in series with the microswitch, interrupt the control circuit as soon as the brake exceeds the permitted maximum temperature limits. The brakes are corrosion protected. Electromagnetic spring-applied brakes generate the required brake torque when voltage is removed. The hand release feature fitted to the brake allows the braking effect to be neutralised manually.

#### Applications

- DC motors
- Three-phase motors
- Gear motors
- Lifting and materials handling technology

#### Versions

76 26E..B00	torque range 10-270Nm DC explosion proofing type II as per ATEX 100a
76 26G..B00	torque range 10-270Nm AC (with rectifier) explosion proofing type II as per ATEX 100a
76 26N..B00	torque range 10-270Nm DC flame proofing type I as per ATEX 100a
76 26P..B00	torque range 10-270Nm AC (with rectifier) flame proofing type I as per ATEX 100a

#### Approvals:

explosion proofing type II  
II 2G EEx de II C T5  
II 2D IP67 T100°C  
DMT 02 ATEX E 122



flame proofing type I  
I M2 EEx de I  
II 2D IP67 T100°C  
DMT 02 ATEX E 122

Upon request, spring-applied single-disc brakes can be designed for lower rated torques and supplied without microswitch and hand release feature.

- Petrochemical industry
- Process technology for explosion protected and flammable areas

### Information on technical data included in the data sheets

The information provided in the operating instructions must be strictly adhered to when designing a machine (e.g. motor) and when using the brakes. The brakes are manufactured and tested in compliance with DIN VDE 0580 requirements. The insulation materials used conform with thermal class F norms. Operation of the brake as a pure holding brake without friction work is only permitted after prior consultation with the manufacturer. The specified times apply to the following conditions: separate switching of the brake, operating temperature, rated voltage, and rated air

gap. All values are mean values that are subject to variation. In the case of AC brake switching, the coupling time  $t_1$  is substantially longer.  $W_{max}$  (maximum switching energy) is the switching energy that must not be exceeded during braking operations at max. 1500 rpm. Braking operations at >1500 rpm lead to a substantial reduction in the maximum admissible switching energy per switching operation. Such operation is only permitted after prior consultation with the manufacturer. The maximum switching power  $P_{max}$  is the switching energy  $W$  that can be converted by the brake per

hour. In the case of applications where the number of switching operations per hour is greater than 1 ( $Z > 1$ ), the diagram ( $W_{max}$  as a function of the number of switching operations per hour  $Z$ ) shown in the operating instructions applies. The  $P_{max}$  and  $W_{max}$  values are approximate values; they apply to applications where the brake is fitted to a motor. The specified rated torques  $M_2$  characterise the torque level of the brakes. Depending on the application of the brake, the switching torque  $M_1$  and the transmissible torque  $M_4$  may differ from the specified  $M_2$  values. The switching torque  $M_1$  depends

on the speed (rpm). If the friction surfaces are contaminated with oil, grease or dirt the transferable torque  $M_4$  and the switching torque  $M_1$  may drop.

All technical data is subject to the running-in process of the brake being completed. Vertical operation of the brake is only permitted after prior consultation with the manufacturer.

## SPRING-APPLIED SINGLE-DISC BRAKE

Explosion proofing type II for DC or single-phase AC

<b>Versions</b>	76 26E..B00 - DC Gleichstrom
	76 26G..B00 - single-phase AC
<b>Standard rated voltages</b>	76 26E..B00 205V DC 76 26G..B00 230V AC, 50Hz
<b>Protection</b>	IP 67
<b>Thermal class</b>	T 5 (as per EN 50014)
<b>Rated torques</b>	10 - 270 Nm
<b>Accessories (options)</b>	mounting screws

Specification subject to change without notice.  
The "General technical information" and the "Operating instructions" 76 26E..B00 / 76 26G..B00 must be strictly observed.



Photo: 76 26G11B00

### Technical data

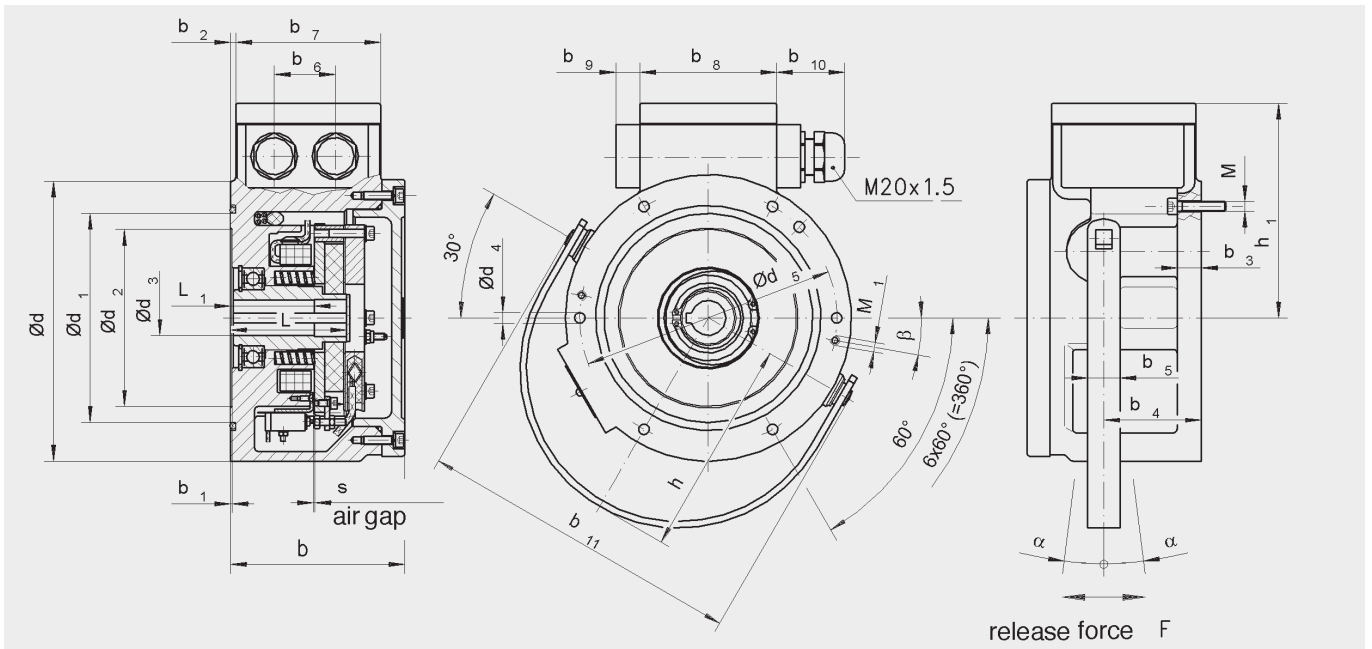
Size	Rated torque $M_2$ [Nm]	Max. speed $n_{max}$ [rpm]	Max. switching power $P_{max}$ [kJ/h]	Max. switching energy ( $Z = 1$ ) $W_{max}$ [kJ]	Rated power		Response times		Moment of inertia hub and friction disc $J$ [kgcm <sup>2</sup> ]	Weight $m$ [kg]
					$P_N$ [W]	$P_S$ [VA]	on $t_1$ [ms]	off $t_2$ [ms]		
10	10	6000	270	41	56	62	80	80	2.5	14.5
11	20	6000	270	41	56	62	70	110	2.5	14.5
13	50	3000	400	55	82	88	110	170	21.5	29
16	100	3000	400	55	82	88	90	230	21.5	29
19	150	3000	570	80	91	95	180	240	125	57
24	270	3000	570	80	91	95	140	350	125	57

### Ordering data (Ordering data (to be fully specified))

#### SPRING-APPLIED SINGLE-DISC BRAKE

Please specify requested version

<b>1</b>	<p>Size (10, 11, 13, 16, 19, 24)</p> <p>Size: _____</p>	<b>4</b>	<p>Pilot bore (standard), ve JS9 as per DIN 6885, sheet 1</p> <p>Size 10: Ø 15, Ø 16, Ø 19, Ø 20, Ø 22 mm Size 11: Ø 15, Ø 16, Ø 19, Ø 20, Ø 22 mm Size 13: Ø 22, Ø 25, Ø 28, Ø 32, Ø 35, Ø 38, Ø 40 mm Size 16: Ø 22, Ø 25, Ø 28, Ø 32, Ø 35, Ø 38, Ø 40 mm Size 19: Ø 40, Ø 42, Ø 50, Ø 60 mm Size 24: Ø 40, Ø 42, Ø 50, Ø 60 mm</p> <p>Bore diameter: _____ mm</p>
<b>2</b>	<p>Coil voltage (standard 205V DC, 230V AC)</p> <p>Voltage: _____ V      <input type="checkbox"/> DC   <input type="checkbox"/> AC</p>		
<b>3</b>	<p>Nominal voltage (standard 50 Hz)</p> <p>Frequency: _____ Hz (only with 76 26G..B00)</p>		



Size	d	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub> (G7)	d <sub>4</sub>	d <sub>5</sub>	b	b <sub>1</sub>	b <sub>2</sub>	b <sub>3</sub>	b <sub>4</sub>	b <sub>5</sub>	b <sub>6</sub>	b <sub>7</sub>	b <sub>8</sub>	b <sub>9</sub>	b <sub>10</sub>	b <sub>11</sub>
10	178	130	110 <sup>3)</sup>	12 <sup>1)</sup> / 22 <sup>2)</sup>	6.6	160	108	1	2.5	15	60.7	20	38	90	85	15	ca.43	202
11	178	130	110 <sup>3)</sup>	12 <sup>1)</sup> / 22 <sup>2)</sup>	6.6	160	108	1	2.5	15	60.7	20	38	90	85	15	ca.43	202
13	245	180	160 <sup>3)</sup>	20 <sup>1)</sup> / 45 <sup>2)</sup>	8.4	225	132	1	14	20	77.2	20	38	90	85	15	ca.43	262
16	245	180	160 <sup>3)</sup>	24 <sup>1)</sup> / 45 <sup>2)</sup>	8.4	225	132	1	14	20	77.2	20	38	90	85	15	ca.43	262
19	330	260	240 <sup>3)</sup>	30 <sup>1)</sup> / 70 <sup>2)</sup>	10.5	305	143	1	16	20	79.8	25	38	90	85	15	ca.43	344
24	330	260	240 <sup>3)</sup>	34 <sup>1)</sup> / 70 <sup>2)</sup>	10.5	305	143	1	16	20	79.8	25	38	90	85	15	ca.43	344

Size	h	h <sub>1</sub>	L	L <sub>1</sub>	s	s <sub>max</sub>	M	M <sub>1</sub>	F [N]	α	β
10	134	133	70	52	0.25 <sup>+0.12</sup>	0.7	6xM6	2xM6	ca.18	ca. 19°	10°
11	134	133	70	52	0.25 <sup>+0.12</sup>	0.7	6xM6	2xM6	ca.35	ca. 19°	10°
13	164	161	90	83	0.25 <sup>+0.15</sup>	0.9	6xM8	3xM8	ca.45	ca. 19°	68°
16	164	161	90	83	0.25 <sup>+0.15</sup>	0.9	6xM8	3xM8	ca.90	ca. 19°	68°
19	215	205	100	92	0.25 <sup>+0.2</sup>	1.1	6xM10	3xM10	ca.85	ca. 19°	70°
24	215	205	100	92	0.25 <sup>+0.2</sup>	1.1	6xM10	3xM10	ca.170	ca. 19°	70°

<sup>1)</sup> Min. bore with keyway JS9 as per DIN 6885, sheet 1.  
<sup>2)</sup> Max. bore with keyway JS9 as per DIN 6885, sheet 1.

<sup>3)</sup> Undercut, no centering diameter  
 Supporting keyway over entire length. Shaft ISO fitting h6. (<sup>1)</sup>,<sup>2)</sup>)

Accessories

Size	Mounting screws			
	Screw	Nominal torque	Material number	Screws per brake
10	ISO 4762 - M6 x 30 - 8.8	9.7 Nm	304 046	6
11	ISO 4762 - M6 x 30 - 8.8	9.7 Nm	304 046	6
13	ISO 4762 - M8 x 35 - 8.8	24 Nm	304 071	6
16	ISO 4762 - M8 x 35 - 8.8	24 Nm	304 071	6
19	ISO 4762 - M10 x 40 - 8.8	45 Nm	304 107	6
24	ISO 4762 - M10 x 40 - 8.8	45 Nm	304 107	6

## SPRING-APPLIED SINGLE-DISC BRAKE

Flame proofing type I for DC or single-phase AC

<b>Versions</b>	76 26N..B00 - DC
	76 26P..B00 - single-phase AC
<b>Standard rated voltages</b>	76 26N..B00 205V DC 76 26P..B00 230V AC, 50Hz
<b>Protection</b>	IP 67
<b>Thermal class</b>	T 5 (as per EN 50014)
<b>Rated torques</b>	10 - 270 Nm
<b>Accessories (options)</b>	mounting screws

Specification subject to change without notice.  
The "General technical information" and the "Operating instructions" 76 N..B00 / 76 P..B00 must be strictly observed.

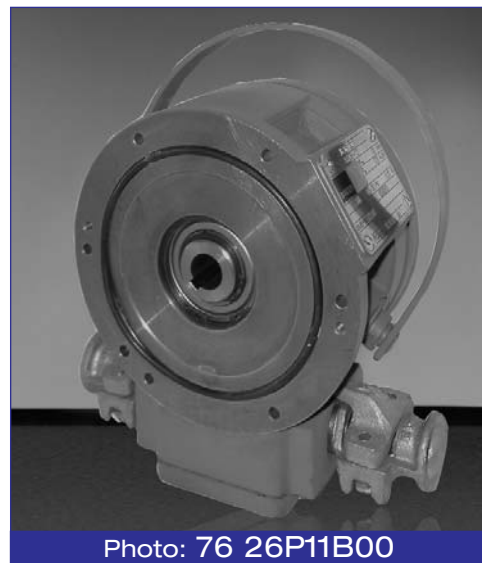


Photo: 76 26P11B00

### Technical data

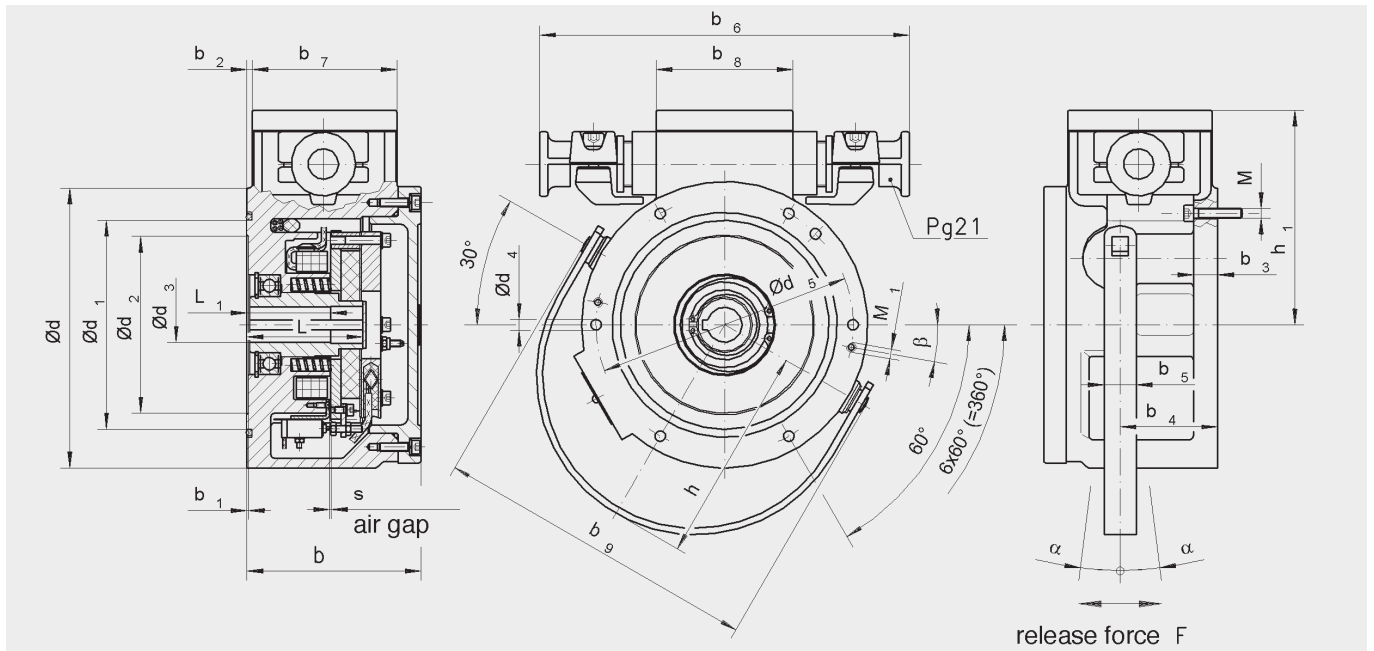
Size	Rated torque $M_2$ [Nm]	Max. speed $n_{max}$ [rpm]	Max. switching power $P_{max}$ [kJ/h]	Max. switching energy (Z = 1) $W_{max}$ [kJ]	Rated power		Response times		Moment of inertia hub and friction disc J [kgcm <sup>2</sup> ]	weight m [kg]
					$P_N$ [W]	$P_S$ [VA]	on $t_1$ [ms]	off $t_2$ [ms]		
10	10	6000	270	41	56	62	80	80	2.5	14.5
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### Ordering data (to be fully specified)

#### SPRING-APPLIED SINGLE-DISC BRAKE

Please specify requested version

<b>1</b>	Size (10, 11, 13, 16, 19, 24)	<b>4</b>	<b>Bore diameter (standard), groove JS9 as per DIN 6885, sheet 1</b>  Size 10: Ø 15, Ø 16, Ø 19, Ø 20, Ø 22 mm Size 11: Ø 15, Ø 16, Ø 19, Ø 20, Ø 22 mm Size 13: Ø 22, Ø 25, Ø 28, Ø 32, Ø 35, Ø 38, Ø 40 mm Size 16: Ø 22, Ø 25, Ø 28, Ø 32, Ø 35, Ø 38, Ø 40 mm Size 19: Ø 40, Ø 42, Ø 50, Ø 60 mm Size 24: Ø 40, Ø 42, Ø 50, Ø 60 mm  Bore diameter: _____ mm
	Size: _____		
Coil voltage (standard 205V DC, 230V AC)			
<b>2</b> Voltage: _____ V <input type="checkbox"/> DC <input type="checkbox"/> AC			
<b>3</b>	Nominal voltage (standard 50 Hz)		
	Frequency: _____ Hz (only with 76 26P..B00)		



Size	d	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub> (G7)	d <sub>4</sub>	d <sub>5</sub>	b	b <sub>1</sub>	b <sub>2</sub>	b <sub>3</sub>	b <sub>4</sub>	b <sub>5</sub>	b <sub>6</sub>	b <sub>7</sub>	b <sub>8</sub>	b <sub>9</sub>
10	178	130	110 <sup>3)</sup>	12 <sup>1)</sup> / 22 <sup>2)</sup>	6.6	160	108	1	2.5	15	60.7	20	230	90	85	202
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<sup>1)</sup> Min. Min. bore with keyway JS9 as per DIN 6885, sheet 1.

<sup>2)</sup> Max. bore with keyway JS9 as per DIN 6885, sheet 1.

<sup>3)</sup> Undercut, no centering diameter

Supporting keyway over entire length. Shaft ISO fitting h6. <sup>(1), 2)</sup>

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16	ISO 4762 - M8 x 35 - 8.8	24 Nm	304 071	6
19	ISO 4762 - M10 x 40 - 8.8	45 Nm	304 107	6
24	ISO 4762 - M10 x 40 - 8.8	45 Nm	304 107	6





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Contact details of our subsidiaries and  
distributors can be found on our website.



EEX LINE

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POWER OF PARTNERSHIP AND MAGNETISM