



## Slim Line

Spring-applied single-surface brake

76 13105C00  
76 13111C00



## Kendrion – The brake experts

As a solution provider, Kendrion develops, produces and markets innovative and high-quality electromagnetic and mechatronic systems and components for industrial and automotive applications. Kendrion is very serious about its commitment to addressing the technical challenges of the future. Which is why the responsible use of resources along the entire value chain, and trustworthy business practices, are deeply ingrained in our corporate culture.

### The right brakes for every situation

The Industrial Drive Systems business unit develops and produces electromagnetic brakes and clutches for industrial drive engineering. They are used for the accelerating, braking, positioning, holding and securing of movable drive components and loads. The areas of application for our brakes and clutches are primarily in robotics and automation technology, machine tool and production machinery, as well as in medical technology and material handling.

'Servo Line', our newly designed spring-applied brake for servo motors, completes our product portfolio, enabling us to provide the ideal solution for any application.

### Worldwide availability

The headquarters of Industrial Drive Systems is located in Villingen within Germany's Black Forest. However, the business unit can also rely on additional production sites and subsidiaries in Aerzen (Germany), China, the UK and Italy, as well as numerous sales partners all over the world.

### Tradition and progress

It was the long-established BINDER brand that laid the foundations for the successful development of Industrial Drive Systems. Wilhelm Binder founded his company in 1911, and during the early 1920s he began developing and manufacturing electromagnetic components. In 1997, the business was taken over by Dutch group Schuttersveld N.V., today Kendrion N.V.

The former magneta GmbH & Co. KG has been part of the Kendrion Group since 2010. Now known as Kendrion (Aerzen) GmbH, this innovative company continues to develop and produce permanent magnet brakes for small motors, electromagnetic clutches and brakes at its site in Aerzen, along with magnetic particle clutches and brakes.

### Kendrion – We magnetise the world!

[www.kendrion-ids.com](http://www.kendrion-ids.com)



# About the Slim Line

The Slim Line is comprised of spring-applied single-disc brakes where the spring actuated brake-discs are attached to the shaft. The brake disc can be designed as a motor fan. Being designed as singlesurface brakes, Slim Line brakes are not only

extremely flat but are also released with zero residual torque. Electromagnetically operated spring-applied brakes generate the brake torque when voltage is removed.

Versions
<b>76 13105C00</b> torque 0.25 Nm, (0.5 Nm; 50% ED) DC, single-phase AC
<b>76 13111C00</b> torque 3 Nm DC high or low version fan

Applications
Machine tools, e.g. woodworking machinery
Flat motors
Building installations
Saws, e.g. circular saws
Wheelchairs...

## Data sheets – General information

The Operating Instructions must be strictly observed during the set-up of the machine (e.g. motor) and during the start-up, operation and maintenance of the brakes. The state-of-the-art brakes have been designed, built and tested in accordance with the requirements of DIN VDE 0580 concerning electromagnetic devices and components. Additional information on technical specifications given in the data sheets is included in the operating instructions.



# Spring-applied single-surface brake

## DC or single-phase AC

Versions	76 13105C00 DC / single-phase AC
Standard rated voltages	102 V DC 230 V AC, 50 Hz
Protection	IP 00
Thermal class	F
Rated torques	0.25 Nm
Note	Specification subject to change without notice. The „General technical information“ and the „Operating instructions“ 76 13105C00 must be strictly observed.



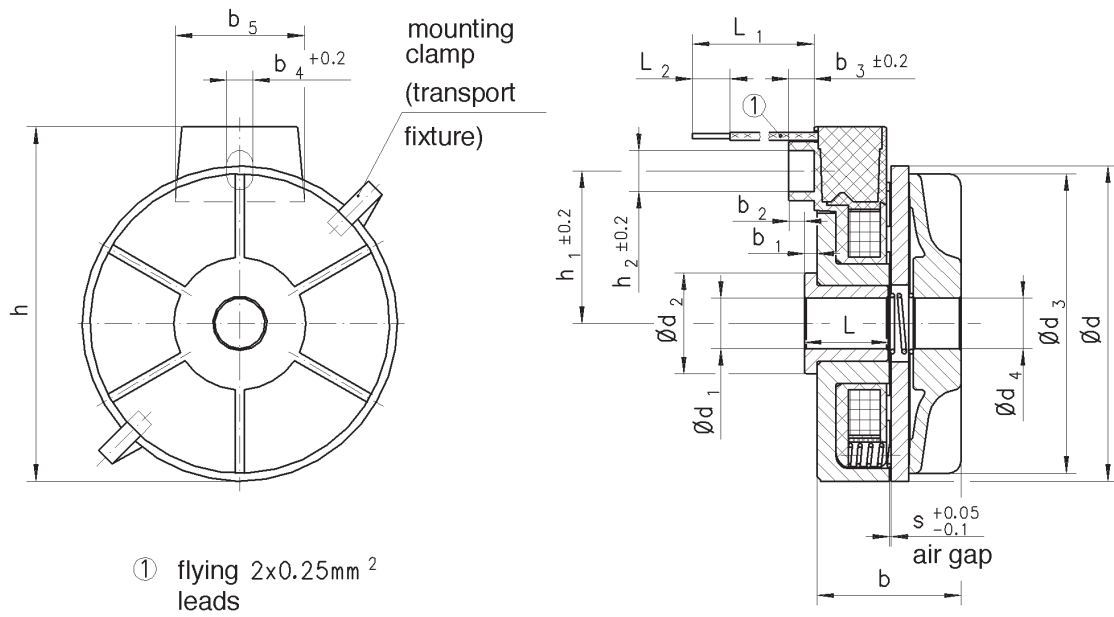
### Technical data

Size	Rated torque	Max. speed	Max. switching power	Max. switching energy (Z = 1)	Rated power		Response times		Moment of inertia friction disc (fan)	Weight
					DC	AC	Coupling time	Disconnection time		
	$M_2$ [Nm]	$n_{max}$ [rpm]	$P_{max}$ [kJ/h]	$W_{max}$ [kJ]	$P_N$ [W]	$P_s$ [VA]	$t_1$ [ms]	$t_2$ [ms]	$J$ [kgcm <sup>2</sup> ]	$m$ [kg]
05	0.25	3600	22	16	9	22	26	5	0.044	0.16

<sup>1)</sup> If operated with bridge rectifier.

<sup>2)</sup> If operated with half-wave rectifier with recovery diode.

Dimensions [mm]



Type	d	d <sub>1</sub> (G7) <sup>3)</sup>	d <sub>2</sub> <sup>3)</sup>	d <sub>3</sub>	d <sub>4</sub> (S6) <sup>3)</sup>	b	b <sub>1</sub> <sup>3)</sup>	b <sub>2</sub> <sup>3)</sup>	b <sub>3</sub> <sup>3)</sup>
76 13105C00	50	8	16	47.5	8	23	2	2.5	4
76 13105C05	50	8	16	47.5	8	23	2	6.5	8
76 13105C06	50	6	16	47.5	6	23	2	6.5	8
76 13105C07	50	5	14	47.5	5	23	1.4	7.1	8

Type	b <sub>4</sub>	b <sub>5</sub>	h	h <sub>1</sub>	h <sub>2</sub>	L	L <sub>1</sub>	L <sub>2</sub>	s	s <sub>max</sub>
76 13105C00	4.1	20.5	56.3	24.2	6.5	13.3	200	6	0.25	0.4 <sup>1)</sup> / 0.8 <sup>2)</sup>
76 13105C05	4.1	20.5	56.3	24.2	6.5	13.3	200	6	0.25	0.4 <sup>1)</sup> / 0.8 <sup>2)</sup>
76 13105C06	4.1	20.5	56.3	24.2	6.5	13.3	200	6	0.25	0.4 <sup>1)</sup> / 0.8 <sup>2)</sup>
76 13105C07	4.1	20.5	56.3	24.2	6.5	13.3	200	6	0.25	0.4 <sup>1)</sup> / 0.8 <sup>2)</sup>

<sup>1)</sup> Max. air gap up to fan replacement if operated with bridge rectifier.

<sup>2)</sup> Max. air gap up to fan replacement if operated with half-wave rectifier with recovery diode

<sup>3)</sup> Options.

# Spring-applied single-surface brake

## DC

Versions	76 13111C00
Standard rated voltages	102 V DC
Protection	IP 54 (if installed under motor fan hood)
Thermal class	F
Rated torques	3 Nm
Note	Specification subject to change without notice. The „General technical information“ and the „Operating instructions“ 76 13111C00 must be strictly observed.



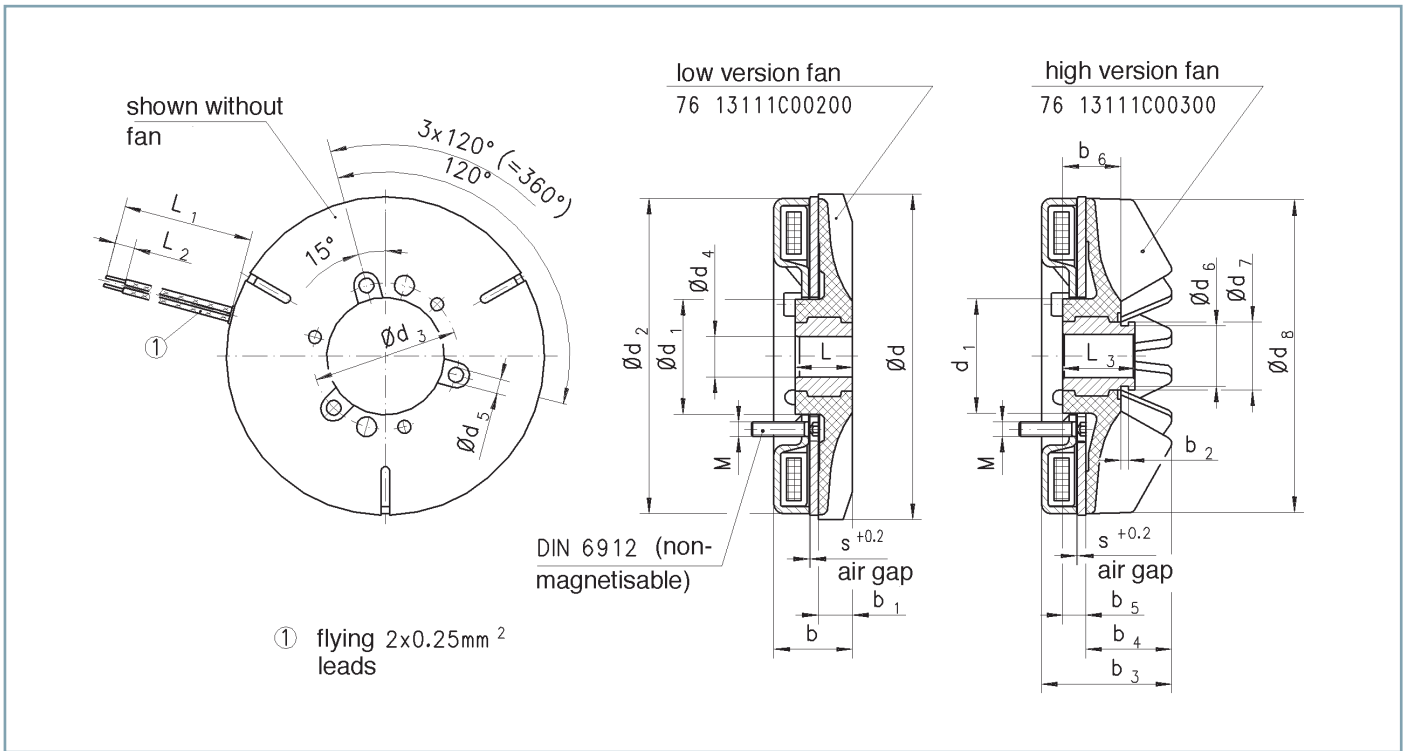
### Technical data

Size	Rated torque	Max. speed	Max. switching power		Max. switching energy (Z = 1)	Rated power	Response times		Moment of inertiafan		Weight
			1)	2)			Coupling time	Disconnection time	1)	2)	
	$M_2$ [Nm]	$n_{max}$ [rpm]	$P_{max}$ [kJ/h]	$P_{max}$ [kJ/h]	$W_{max}$ [kJ]	$P_N$ [W]	$t_1$ [ms]	$t_2$ [ms]	J [kgcm <sup>2</sup> ]	J [kgcm <sup>2</sup> ]	m [kg]
11	3	3000	260	350	13	40	20	30	1.5	1.8	0.7

<sup>1)</sup> Low version fan without ring groove for pull-off device (type 76 13111C00200).

<sup>2)</sup> High version fan with ring groove for pull-off device (type 76 13111C01300).

Dimensions [mm]



Type	d	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub> (H7)	d <sub>5</sub>	d <sub>6</sub>	d <sub>7</sub>	d <sub>8</sub>	b	b <sub>1</sub>	b <sub>2</sub>
11	113	40	110	51	15 <sup>1)</sup> / 20 <sup>2)</sup>	5.2	21	24	110	27.5	12	2.5

Type	b <sub>3</sub>	b <sub>4</sub>	b <sub>5</sub>	b <sub>6</sub>	L	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	s	s <sub>max</sub>	M
11	45.5	30	8	20.2	20	400	7	25	380	0.2	0.6	3xM5

<sup>1)</sup> Min. bore.

<sup>2)</sup> Max. bore.

Shaft ISO fitting f7 with necking for tolerance ring.



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