

Product range



## Power Transmission Group

Since the firm was established in the year 1911 by Wilhelm Binder, „the Power of Magnetism“ has always been the essential principle of our electromagnetic actuators. Our products are applied in numerous technological areas world wide.

In the division Power Transmission we develop and produce electromagnetic brakes and clutches for the industrial power transmission sector in order to slow down, place, hold and secure rotating parts and loads.

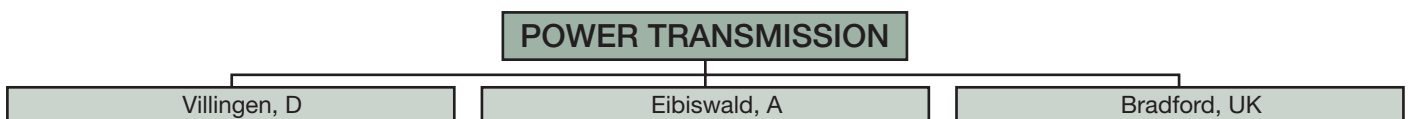
The main applications are located in robotics and automation, in machine-tools and production machines as well as in transportation and lift techniques.

Since decades BINDER brakes and clutches enjoy an excellent reputation with respect to robustness and reliability. A network of subsidiaries and sales partners guarantees worldwide availability and service.

Again and again, the innovative power, based on many years of experience in magnetism and tribology, leads us to new and intelligent solutions. Accompanied by deep application know-how, trend setting products are developed in close co-operation with our customers. That's how the Permanent-Magnet-Brake was created by BINDER as an integrated motor component and can be found inside the servo motors of the worlds leading manufacturers.

In the year 1997 Binder became a strong member of the Schuttersveld-Group, which operates today successful under the name Kendrion in the industrial and automotive business.

The leaflet in hand offers an overview of our wide product range and refers to further product descriptions with detailed technical data.



# Applications & Industries

	<p><b>Medical engineering</b></p> <ul style="list-style-type: none"> <li>■ PM Line</li> <li>■ High Torque</li> </ul>		<p><b>Packaging machines</b></p> <ul style="list-style-type: none"> <li>■ Active Clutch Line</li> <li>■ Active Brake Line</li> <li>■ PM Line</li> <li>■ High Torque</li> </ul>
	<p><b>Servo motors</b></p> <ul style="list-style-type: none"> <li>■ PM Line</li> <li>■ High Torque</li> </ul>		<p><b>Robotics</b></p> <ul style="list-style-type: none"> <li>■ PM Line</li> <li>■ High Torque</li> </ul>
	<p><b>Elevator drives</b></p> <ul style="list-style-type: none"> <li>■ Elevation Line</li> </ul>		<p><b>Crane building</b></p> <ul style="list-style-type: none"> <li>■ Vario Line</li> <li>■ Classic Line</li> </ul>
	<p><b>Machine tools</b></p> <ul style="list-style-type: none"> <li>■ Vario Line</li> <li>■ Classic Line</li> <li>■ PM Line</li> </ul>		<p><b>Paper and printing machines</b></p> <ul style="list-style-type: none"> <li>■ Vario Line</li> <li>■ Classic Line</li> <li>■ PM Line</li> </ul>
	<p><b>Wood-working machines</b></p> <ul style="list-style-type: none"> <li>■ Slim Line</li> <li>■ Compact Line</li> </ul>		<p><b>Explosion-hazardous areas</b></p> <ul style="list-style-type: none"> <li>■ EXX Line</li> </ul>



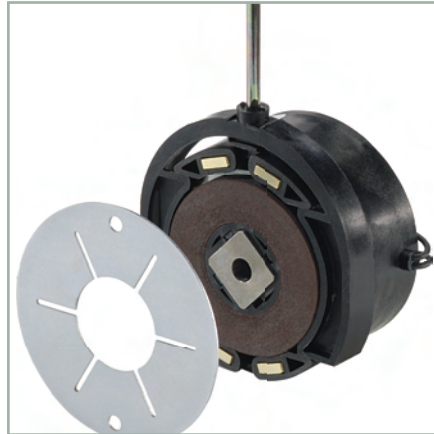
Series line	<b>PM LINE</b>	<b>HIGH TORQUE</b>
Design	Permanent magnet single surface brakes <ul style="list-style-type: none"> <li>▪ electrically released</li> <li>▪ holding brake</li> </ul>	Permanent magnet single surface brakes <ul style="list-style-type: none"> <li>▪ electrically released</li> <li>▪ holding brake</li> </ul>
Typical applications	<ul style="list-style-type: none"> <li>▪ servo motors</li> <li>▪ backlash-free drives</li> <li>▪ robotics</li> <li>▪ optics and medical engineering</li> </ul>	Application <ul style="list-style-type: none"> <li>▪ analogous to conventional permanent magnet brake</li> </ul>
Number of sizes	8	11*
Rated torque range $M_2$ (Nm)	0,4 Nm up to 240 Nm	0,1 Nm up to 500 Nm
Electrical supply (voltage)	DC 24 further on request	DC 24 V further on request
Degree of protection	IP 00	IP 00
Special features	<ul style="list-style-type: none"> <li>▪ torque transfer free of torsional backlash</li> <li>▪ zero residual torque at any mounting position</li> <li>▪ ambient temperature -5 to +120°C</li> <li>▪ wear-free axial movement of the armature</li> </ul>	<ul style="list-style-type: none"> <li>▪ higher torque with equal size and power consumption</li> <li>▪ high consistency of torque during full service life; extended temperature range</li> <li>▪ -15 to +120°C, optional -40°C</li> </ul>
Options and accessories	<ul style="list-style-type: none"> <li>▪ types of armatures</li> <li>▪ bridge and transformer rectifiers</li> <li>▪ tailor-made designs</li> </ul>	–
Approvals / certificates	–	–
Remarks	–	* technical details subject to change



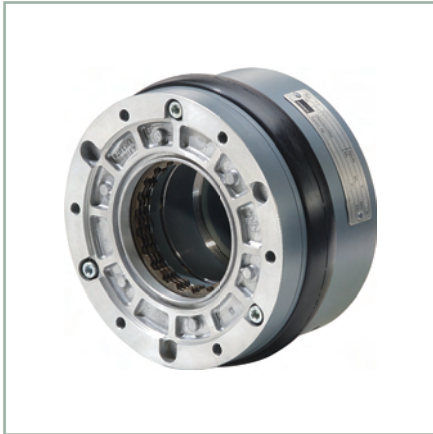
SLIM LINE
Spring applied single disc brakes and single surface brakes <ul style="list-style-type: none"> <li>▪ electrically released</li> </ul>
<ul style="list-style-type: none"> <li>▪ mini motors</li> <li>▪ servo motors</li> <li>▪ actuators</li> <li>▪ saws</li> <li>▪ wood-working machines</li> <li>▪ door drives</li> </ul>
2
0,25 Nm up to 3 Nm
DC 24, 102 V 1 ~ AC 230 V   50 or 60 Hz
IP 54*
<ul style="list-style-type: none"> <li>▪ built-in rectifier with protection circuits</li> <li>▪ mounting in any position</li> <li>▪ brake disc serves as motor fan</li> </ul>
<ul style="list-style-type: none"> <li>▪ half-wave rectifiers</li> </ul>
–
* if installed under fan cover

COMPACT LINE
Spring applied single disc brakes <ul style="list-style-type: none"> <li>▪ electrically released</li> </ul>
<ul style="list-style-type: none"> <li>▪ mini motors</li> <li>▪ wood-working machines</li> <li>▪ door drives</li> <li>▪ conveyor systems</li> </ul>
3
1 Nm up to 10 Nm
DC 24, 102, 178 V 1 ~ AC 230 V   50 Hz
IP 54*
<ul style="list-style-type: none"> <li>▪ very good value for money</li> <li>▪ easy assembly</li> <li>▪ air gap adjustment not required</li> </ul>
<ul style="list-style-type: none"> <li>▪ rectifiers</li> <li>▪ flange</li> </ul>
–
* if installed under fan cover

VARIO LINE
Spring applied single disc brakes <ul style="list-style-type: none"> <li>▪ electrically released</li> </ul>
<ul style="list-style-type: none"> <li>▪ industrial motors</li> <li>▪ servo motors</li> <li>▪ door drives</li> <li>▪ geared motors</li> <li>▪ conveying engineering</li> </ul>
9
1 Nm up to 600 Nm
DC 24, 102, 178, 205 V
IP 55*, IP 65**
<ul style="list-style-type: none"> <li>▪ steplessly and centrally adjustable torque</li> <li>▪ air gap adjustment not required</li> <li>▪ modular design</li> </ul>
<ul style="list-style-type: none"> <li>▪ rectifiers</li> <li>▪ current and voltage detection for high-speed switching-off</li> <li>▪ hand release</li> <li>▪ static friction disc</li> <li>▪ increased corrosion protection</li> <li>▪ without adjustment ring</li> </ul>
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* if installed under fan cover ** If installed under fan cover using accessories



Series line	<b>AC LINE (1~)</b>	<b>AC LINE (3~)</b>
Design	Spring applied single disc brakes <ul style="list-style-type: none"> <li>▪ electrically released</li> </ul>	Spring applied single disc brakes in open and closed design <ul style="list-style-type: none"> <li>▪ electrically released</li> </ul>
Typical applications	<ul style="list-style-type: none"> <li>▪ AC motors for industrial applications</li> </ul>	<ul style="list-style-type: none"> <li>▪ cranes</li> <li>▪ conveyor systems</li> </ul>
Number of sizes	3	4
Rated torque range $M_2$ (Nm)	0,2 Nm up to 5 Nm	7,5 Nm up to 90 Nm
Electrical supply (voltage)	DC 24, 48, 90, 190 V Eibiswald 1 ~ AC 230 V   50 or 60 Hz	3 ~ AC 400 V   50 or 60 Hz
Degree of protection	IP 54**	IP 40*, IP 44**, IP 65***
Special features	<ul style="list-style-type: none"> <li>▪ direct connection to AC supply</li> </ul>	<ul style="list-style-type: none"> <li>▪ direct connection to three-phase AC supply</li> <li>▪ high switching frequency</li> <li>▪ extremely short response time</li> <li>▪ enhanced disk</li> </ul>
Options and accessories	<ul style="list-style-type: none"> <li>▪ hand release*</li> <li>▪ static friction disc</li> <li>▪ short switching time compared to DC spring applied brakes</li> </ul>	<ul style="list-style-type: none"> <li>▪ hand release*</li> <li>▪ static friction disc</li> <li>▪ flange</li> </ul>
Approvals/certificates	–	Atex Zone 2/22 pending
Remarks	* not for all sizes ** if installed under fan cover	* open design ** if installed under fan cover *** closed design with terminal box available



### CLASSIC LINE

Spring applied single disc and multiple disc brakes

- electrically released
- controlled industrial drives
- servo motors

9

4 Nm up to 1000 Nm

DC 24, 102, 178 V  
1 ~ AC 230, 400 V | 40 up to 60 Hz

IP 54, IP 55\*

- closed system
- ready for fitting
- steplessly and centrally adjustable torque
- spigot for speedometer installation

- hand release
- enhanced corrosion protection
- micro-switch
- rectifiers
- current and voltage detection for high-speed switching-off
- with special friction lining

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\* if installed under fan cover



### EEX LINE

Spring applied single disc brakes | explosion-proof design acc. Atex 100a

- electrically released
- industrial motors in safety areas

7

10 Nm up to 270 Nm

DC 24, 205, 342, 356 V  
1 ~ AC 230, 400 V | 40 up to 60 Hz

IP 54, IP 67 (dust protection)

- explosion or firedamp protection, dust protection
- varistor protection circuits against voltage peaks
- -20 to +50°C ambient temperature

- hub bore ready for fitting
- hand release
- micro-switch
- with special friction lining
- -20 up to 60°C in preparation
- additional sealings for offshore-applications

DMT 02 Atex E 122

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### MODULE LINE

Special spring applied brakes in modular design

- electrically released
- main spindle motors
- big servo motors
- industrial motors
- special applications
- conveying engineering

3

150 Nm up to 500 Nm

DC 24, 102, 178 V  
1 ~ AC 230 V | 50 or 60 Hz

IP 55

- for fitting to A-side motor flange
- adjustable torque

- rectifiers
- hand release
- micro-switch
- terminal box

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plug-in shaft on request



Series line	ELEVATION LINE	ACTIVE CLUTCH LINE
Design	Spring applied single disk brakes Spring applied double-disk brakes <ul style="list-style-type: none"> <li>▪ electrically released</li> </ul>	Electromagnetic single surface clutches <ul style="list-style-type: none"> <li>▪ electrically closed</li> </ul>
Typical applications	<ul style="list-style-type: none"> <li>▪ elevators</li> <li>▪ hoisting and conveying engineering</li> <li>▪ cranes</li> </ul>	<ul style="list-style-type: none"> <li>▪ industrial applications</li> <li>▪ precision mechanics</li> <li>▪ office machines</li> <li>▪ textile machinery</li> </ul>
Number of sizes	4	10
Rated torque range $M_2$ (Nm)	15 Nm up to 440 Nm	0,3 Nm up to 350 Nm*
Electrical supply (voltage)	DC 205 V	DC 24, 48, 90 V
Degree of protection	IP 44	IP 00
Special features	<ul style="list-style-type: none"> <li>▪ built-in micro-switch for remote enquiry of brake condition (armature position, wear, armature bearing)</li> <li>▪ patented safety concept</li> </ul>	<ul style="list-style-type: none"> <li>▪ different types of armatures</li> <li>▪ tailor-made designs</li> </ul>
Options and accessories	<ul style="list-style-type: none"> <li>▪ rectifiers</li> </ul>	<ul style="list-style-type: none"> <li>▪ rectifiers</li> </ul>
Approvals/certificates	EN 81-1	–
Remarks	–	* on request





## ACTIVE BRAKE LINE

Electromagnetic single surface brakes

- electrically closed

- industrial applications
- precision mechanics
- office machines
- textile machinery

9

0,3 Nm up to 150 Nm | 360 Nm\*

DC 24, 48, 90 V

IP 00

- different types of armatures
- tailor-made designs

- rectifiers

—

\* on request



Series line	<b>LEAN COLLECTION</b>	<b>UNIVERSAL COLLECTION</b>
Features	<ul style="list-style-type: none"> <li>extremely small size</li> <li>cost-effective</li> <li>manifold mounting and connecting options</li> </ul>	<ul style="list-style-type: none"> <li>all types of rectifiers and switches can be combined in one housing</li> <li>manifold mounting and connecting options</li> </ul>
Applications	<ul style="list-style-type: none"> <li>for use with Slim Line, Compact Line and Vario Line brakes up to size 16</li> <li>for applications with low requirements to dynamics</li> <li>mounting into small motor terminal boxes</li> </ul>	<ul style="list-style-type: none"> <li>universal application with all brakes up to size 16 depending on power input</li> <li>drives with high clock rates</li> <li>operation of brakes with longer maintenance cycles and less warming</li> <li>installation into Classic Line</li> <li>separate use with brakes and magnets</li> </ul>
Types	32 0710.B..   32 0730.B.. 32 0731.B..	32 07.2.B..   32 17.2.B.. 32 4730.B..   32 57303B.. 32 67.04B..   32 77303B..
Nominal input voltage VAC	max. 500 V	max. 415 (575) V
Max. output current ADC	half wave: 1,0 A full wave: 2,0 A	half wave: 0,7 to 2,0 A full wave: 0,7 to 2,0 A overexcitation: 1,4/0,7 to 3,0/1,5
Overexcitation	no	depending on model 2:1
High-speed switching-off	depending on type external	external or internal with voltage or current detection
Standards	CE   EN60529   HD625.1 S1 NSRL   IP 00	CE   EN60529   HD625.1 S1 NSRL, EMVRL   IP 00
Options and accessories	<ul style="list-style-type: none"> <li>mounting rail clip</li> <li>adhesive pad</li> <li>leads for motor connection M4</li> </ul>	<ul style="list-style-type: none"> <li>mounting rail clip</li> <li>adhesive pad, mounting clip</li> <li>leads for motor connection M4</li> </ul>



### μPOWER COLLECTION

- all types of rectifiers and switches can be combined
  - wide voltage ranges, medium-sized power, potted housing
  - different mounting and connecting options
- generally used for brakes with higher power beginning from size 19, especially for Classic Line holding brakes
  - by mounting from outside applicable for very small motor terminal boxes
  - drives for use in difficult ambient conditions

32 07350A.. | 32 17.5.E..  
32 4710.A.. | 32 57103A..

max. 525 (700) V

half wave: 1,0 to 1,4 A  
full wave: 1,4 to 5,0 A  
overexcitation: 2,4/1,2 to 6,0/3,0

depending on model 2:1

external or internal with voltage or current detection

CE | EN60529 | HD625.1 S1  
NSRL, EMVRL | IP 00 | IP 65

- DIN rail mounting
- screw terminal housing
- leads for motor connection M4



### POWER COLLECTION

- overexcitation rectifier with adjustable holding voltage for high performance
  - plug-in screw terminals allow for easy contacting
- for use with large brakes and magnets
  - holding power can be optimized
  - high-speed switching-off
  - fixing with mounting rail
  - open circuit board

33 433 1.A..

max. 415 V

overexcitation: 4 to 12 A  
holding excitation : 2 to 9 A

yes

external

CE | EN60529 | HD625.1 S1  
NSRL, EMVRL | IP 00

- DIN rail mounting
- open circuit board
- plug-in screw terminals



## POWER TRANSMISSION

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