

Product range



Business Unit Power Transmission

Since the firm was established in 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.

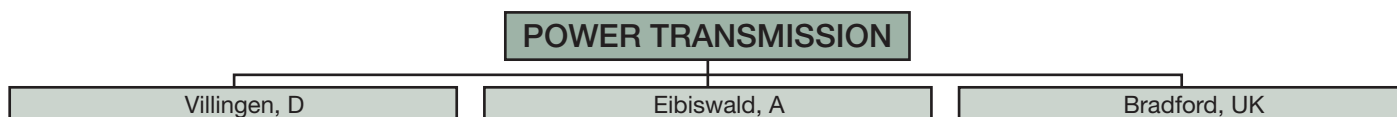
The main applications are located in robotics and automation, in machine-tools and production machines as well as in transportation and lift construction.

Since decades, BINDER brakes and clutches enjoy an excellent reputation with regard 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. Combined with in-depth application know-how, trend setting products are developed in close co-operation with our customers. That is how the Permanent-Magnet-Brake was created by BINDER, as an integrated motor component which can be found inside the servo motors of the world’s leading manufacturers.

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

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



Applications & Industries

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



Series line	PM LINE	HIGH TORQUE
Design	Permanent magnet single surface brakes <ul style="list-style-type: none"> ■ electrically released ■ holding brake 	Permanent magnet single surface brakes <ul style="list-style-type: none"> ■ electrically released ■ holding brake
Typical applications	<ul style="list-style-type: none"> ■ servo motors ■ backlash-free drives ■ robotics ■ optics and medical engineering 	Analogous to conventional permanent magnet brake (PM Line)
Number of sizes	8	11
Rated torque range M_2 (Nm)	0,4 Nm up to 240 Nm	0,1 Nm up to 300 Nm
Electrical supply (voltage)	24 VDC	24 VDC
Degree of protection	IP 00	IP 00
Special features	<ul style="list-style-type: none"> ■ torque transfer free of torsional backlash ■ zero residual torque at any mounting position ■ ambient temperature -5 to +120°C ■ wear-free axial movement of the armature 	<ul style="list-style-type: none"> ■ higher torque with equal size compared to PM Line ■ high consistency of torque during full service life; extended temperature range ■ -15 to +120°C, optional -40°C
Options and accessories	<ul style="list-style-type: none"> ■ types of armatures ■ bridge and transformer rectifiers ■ tailor-made designs 	<ul style="list-style-type: none"> ■ types of armatures ■ bridge rectifiers ■ tailor-made designs
Approvals / certificates	–	–
Remarks	–	–



SLIM LINE
Spring applied single disc brakes and single surface brakes <ul style="list-style-type: none"> ■ electrically released
<ul style="list-style-type: none"> ■ mini motors ■ servo motors ■ actuators ■ saws ■ wood-working machines ■ door drives
2
0,25 Nm up to 3 Nm
24, 102 VDC 1~230 VAC; 50 or 60 Hz
IP 54*
<ul style="list-style-type: none"> ■ with and without built-in rectifier with protection circuits ■ mounting in any position ■ brake disc serves as motor fan
<ul style="list-style-type: none"> ■ rectifiers
—
* if installed under fan cover

COMPACT LINE
Spring applied single disc brakes <ul style="list-style-type: none"> ■ electrically released
<ul style="list-style-type: none"> ■ mini motors ■ wood-working machines ■ door drives ■ conveyor systems
2
1 Nm up to 10 Nm
24, 102, 178 VDC 1~230 VAC; 50 Hz
IP 54*
<ul style="list-style-type: none"> ■ very good value for money ■ with and without built-in rectifier ■ easy assembly ■ air gap adjustment not required
<ul style="list-style-type: none"> ■ rectifiers ■ flange
—
* if installed under fan cover

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



Series line	AC LINE (1~)	AC LINE (3~)
Design	Spring applied single disc brakes <ul style="list-style-type: none"> electrically released 	Spring applied single disc brakes in open and closed design <ul style="list-style-type: none"> electrically released
Typical applications	<ul style="list-style-type: none"> AC motors for industrial applications 	<ul style="list-style-type: none"> cranes conveyor systems
Number of sizes	3	4
Rated torque range M_2 (Nm)	0,2 Nm up to 5 Nm	4,5 Nm up to 92,5 Nm
Electrical supply (voltage)	24, 48, 90, 190 VDC 1~230 VAC; 50 or 60 Hz	3~400 VAC; 50 or 60 Hz
Degree of protection	IP 54**	IP 40*, IP 44**, IP 65***
Special features	<ul style="list-style-type: none"> direct connection to AC supply short switching time compared to DC spring applied brakes 	<ul style="list-style-type: none"> direct connection to three-phase AC supply high switching frequency extremely short response time enhanced disk
Options and accessories	<ul style="list-style-type: none"> hand release* static friction disc 	<ul style="list-style-type: none"> hand release* static friction disc (open design) flange (open design)
Approvals/certificates	—	Atex Zone 2/22, size 13
Remarks	<p>* not for all sizes</p> <p>** if installed under fan cover</p>	<p>* open design</p> <p>** if installed under fan cover</p> <p>*** closed design with terminal box available</p>



CLASSIC LINE
<p>Spring applied single disc and multi disc brakes</p> <ul style="list-style-type: none"> ■ electrically released
<ul style="list-style-type: none"> ■ controlled industrial drives ■ servo motors
9
4 Nm up to 1000 Nm
24, 102, 178 VDC 1~230, 400, 525 VAC; 40 up to 60 Hz
IP 54, IP 55*, IP 66**
<ul style="list-style-type: none"> ■ closed system ■ ready for fitting ■ steplessly and centrally adjustable torque ■ spigot for speedometer installation
<ul style="list-style-type: none"> ■ hand release, micro-switch ■ enhanced corrosion protection ■ rectifiers, overexcitation rectifiers ■ current and voltage detection for high-speed switching-off ■ with special friction lining ■ stand-by heater
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<p>* if installed under fan cover</p> <p>** tailor-made designs</p>

EEX LINE
<p>Spring applied single disc brakes; explosion-proof design acc. to Atex 100a (94/9/EG), EN 60079-0</p> <ul style="list-style-type: none"> ■ electrically released
<ul style="list-style-type: none"> ■ industrial motors in safety areas
6
10 Nm up to 270 Nm
24, 205, 342, 356 VDC 1~230, 400 VAC; 40 up to 60 Hz
IP 56, IP 67*
<ul style="list-style-type: none"> ■ explosion or firedamp protection, dust protection ■ varistor protection circuits against voltage peaks ■ -20 to +40°C ambient temperature
<ul style="list-style-type: none"> ■ hub bore ready for fitting ■ hand release ■ micro-switch ■ with special friction lining ■ additional sealings for offshore-applications ■ rectifiers
II 2G Ex de IIC T5**
<p>* tailor-made designs</p> <p>** tailor-made designs available with approval II 2D Ex tD A21 T100°C</p>

MODULE LINE
<p>Special spring applied brakes in modular design</p> <ul style="list-style-type: none"> ■ electrically released
<ul style="list-style-type: none"> ■ main spindle motors ■ big servo motors ■ industrial motors ■ special applications ■ conveying engineering
4
60 Nm up to 500 Nm
24, 102, 178 VDC 1~230 VAC; 50 or 60 Hz
IP 55
<ul style="list-style-type: none"> ■ for fitting to A-side motor flange ■ adjustable torque
<ul style="list-style-type: none"> ■ rectifiers ■ hand release ■ micro-switch ■ terminal box
—
plug-in shaft on request



Series line
Design
Typical applications
Number of sizes
Rated torque range M_2 (Nm)
Electrical supply (voltage)
Degree of protection
Special features
Options and accessories
Approvals/certificates
Remarks

ACTIVE CLUTCH LINE
Electromagnetic single surface clutches <ul style="list-style-type: none"> ▪ electrically closed
<ul style="list-style-type: none"> ▪ industrial applications ▪ precision mechanics ▪ office machines ▪ textile machinery
10
0,2 Nm up to 150 Nm/350 Nm*
24, 48 VDC
IP 00
<ul style="list-style-type: none"> ▪ different types of armatures ▪ tailor-made designs
<ul style="list-style-type: none"> ▪ rectifiers
—
* on request

ACTIVE BRAKE LINE
Electromagnetic single surface brakes <ul style="list-style-type: none"> ▪ electrically closed
<ul style="list-style-type: none"> ▪ industrial applications ▪ precision mechanics ▪ office machines ▪ textile machinery
9
0,2 Nm up to 150 Nm/350 Nm*
24, 48 VDC
IP 00
<ul style="list-style-type: none"> ▪ different types of armatures ▪ tailor-made designs
<ul style="list-style-type: none"> ▪ rectifiers
—
* on request



CUSTOMIZED SOLUTIONS

Customized Applications

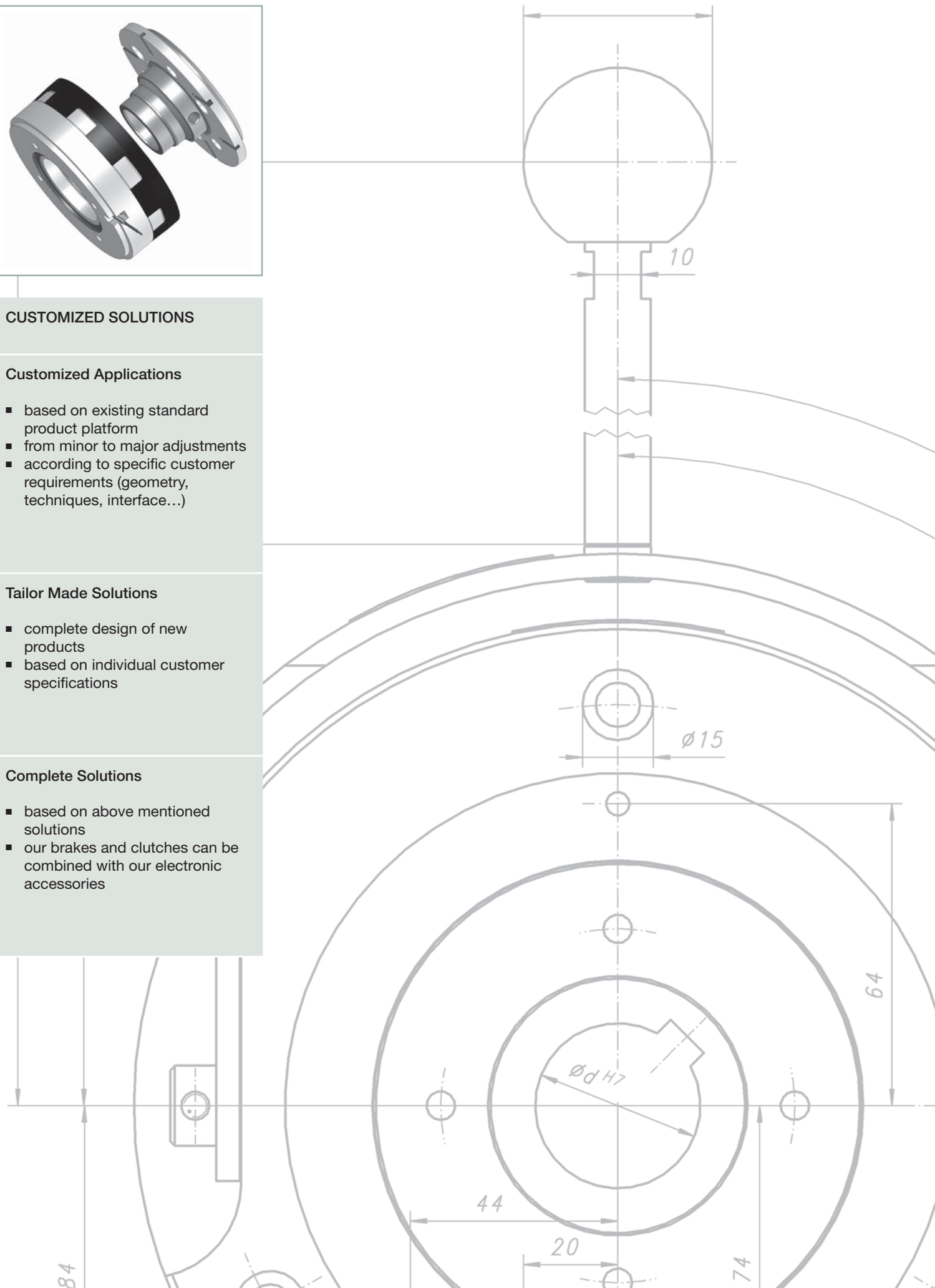
- based on existing standard product platform
- from minor to major adjustments
- according to specific customer requirements (geometry, techniques, interface...)

Tailor Made Solutions

- complete design of new products
- based on individual customer specifications

Complete Solutions

- based on above mentioned solutions
- our brakes and clutches can be combined with our electronic accessories





Series line	LEAN COLLECTION	UNIVERSAL COLLECTION
Features	<ul style="list-style-type: none"> extremely small size cost-effective manifold mounting and connecting options 	<ul style="list-style-type: none"> all types of rectifiers and switches can be combined in one housing manifold mounting and connecting options
Applications	<ul style="list-style-type: none"> for use with Slim Line, Compact Line and Vario Line brakes up to size 16 for applications with low requirements to dynamics mounting into small motor terminal boxes 	<ul style="list-style-type: none"> universal application with all brakes up to size 16 depending on power input drives with high clock rates operation of brakes with longer maintenance cycles and less heating installation into Classic Line brakes separate use with brakes and magnets
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. 500 (575) V
Max. output current ADC	half wave: 1,0 full wave: 2,0	half wave: 0,7 to 2,0 full wave: 0,7 to 2,0 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"> mounting rail clip adhesive pad leads for motor connection M4 	<ul style="list-style-type: none"> mounting rail clip adhesive pad, mounting clip leads for motor connection M4



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
- mounting from outside also 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
full wave: 1,4 to 5,0
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

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



POWER COLLECTION

- overexcitation rectifier with adjustable holding voltage for high performance
- plug-in screw terminals allow easy assembling
- 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
holding excitation : 2 to 9

yes

external

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

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



POWER TRANSMISSION

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