



# AUTOMATING POOL COVERS

Main catalogue for drives, control units and accessories **from Becker.**

QUALITY  
made in Germany



SUSTAINABLE



**BECKER**  
for you. forever.

# Your satisfaction is what drives us: For solutions you love to dive into.



## The best thing about our ideas is their flexibility

Developed and produced in Germany, our drive solutions can be integrated into almost any application with flexibility.

The wide range of applications and sectors in which our drives are already being successfully used proves just how versatile they are in terms of their technical usage possibilities: Whether in the area of smoke and fire protection, in agriculture, the caravanning sector or the shipping industry. Becker drives can be found wherever the associated technologies require power that is reliable, safe and above all compatible with the relevant components – and this also applies to the automation of pool covers.

## Quality to rely on

Even though we feel at home all around the world, as a family-owned company, we remain loyal to our founding

**QUALITY**  
made in Germany

location in Sinn, Hesse, and continue to manufacture our products in Germany. Each

drive is also subjected to extensive series testing on specially developed test benches. For quality you and your customers can rely on – for 100 years.

## Our drives taken one step further for your ideas



In line with our claim, we can provide you with a drive assembly kit system that is primarily intended for applications for which no standard drive solutions exist.

After all, our technology is tried and tested, giving you the security of an established, technically proven solution.

## Simply efficient

Being certified according to DIN EN ISO 9001 and continuously working to improve for our customers and

**SUSTAINABLE**

partners is a matter of course for us. What is crucial for us is also fulfilling our ecological

responsibility. To conserve resources, we place great emphasis on energy efficiency. For solutions that impress sustainably.

## Smart protection for every season

Our drive systems powered by direct current mean that pool covers can be moved with ease. This provides multiple benefits for swimmers to enjoy all year round.



**Clean:** Leaves, pollen and insects are kept out thanks to the pool cover. This keeps the pool cleaner, meaning that less cleaning is required. This saves both time and money.



**Economical:** Less dirt and heat loss from the pool also saves both time and energy.



**Temperature-controlled:** A pool cover provides insulation and prevents unnecessary cooling. This is convenient and also saves on heating costs.



**Safe:** An automated pool cover means that people or animals cannot accidentally fall into the water. The risk of accident is significantly reduced.

# Durable, forward-thinking and sustainable - through unbeatable quality



Maik Wiegelmann  
Managing Partner

Dear Customers,

I am very pleased to present to you our catalog for drives, controls, and accessories in the pool cover product segment. With this catalog, we aim not only to showcase our products but also to convey our vision and commitment to you.

At Becker, everything revolves around creating sustainable solutions that are "Made in Germany" and built to last a lifetime. Our products are designed to allow your customers to relax while we ensure that everything runs smoothly.

Our new claim, "for you. forever." perfectly encapsulates this vision. It represents our long-term dedication and our promise to always deliver the best solutions to you and your customers. We want you to trust that Becker products will remain consistently reliable and of the highest quality.

Thank you for your trust and partnership. Together, we will continue to succeed and meet the expectations of your customers.

Best regards,

Maik Wiegelmann  
Managing Partner

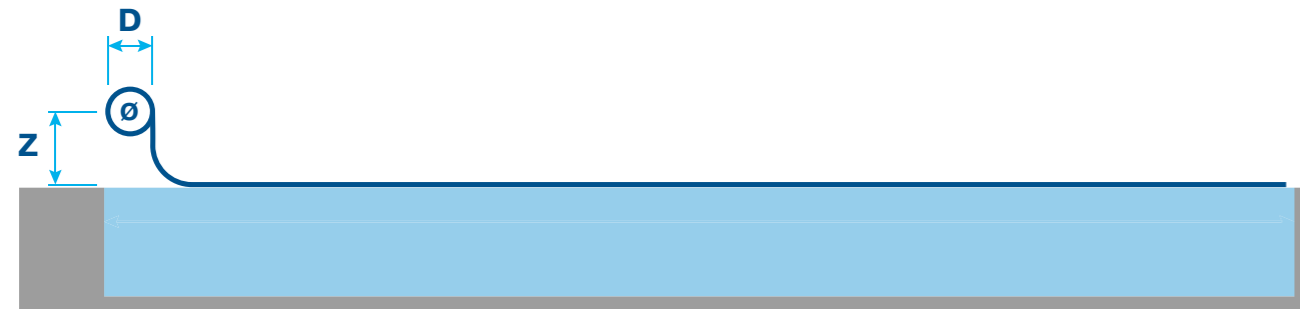
## Table of Contents

<b>Technical Information</b>	<b>6</b>
Drive torque requirements, load table, protection class	6 - 7
<b>Drives</b>	<b>8</b>
Drives 12/24 V, 35 - 200 Nm	8 - 15
<b>Control units</b>	<b>16</b>
DC control unit GS2, GS2-P and GSA	16
<b>Mechanical accessories</b>	<b>17</b>
Wall brackets and connecting pieces	18 - 20
Drive adapters and rings	21 - 22
Identification rings	22

# Technical Information

## Determining the drive torque requirements

To determine the required drive torque, various parameters need to be known. The load table below provides an initial overview and serves as a rough guide. We will gladly support you in calculating the drive torque requirements for your pool cover.



## Load table

Calculation basis:

- Height above water (Z): 550 mm
- Specific shutter weight: 5 kg/m<sup>2</sup>
- Barrel diameter (D): 150 mm
- Shutter thickness: 16 mm
- Friction and water resistance: 20 %

		Length of the pool [m]																			
		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Width of the pool [m]	2,0	8	10	11	12	12	13	14	15	15	16	17	17	18	18	19	19	20	20	21	Type XL35
	2,5	10	12	13	14	15	16	17	18	19	20	21	22	22	23	24	24	25	26	26	
	3,0	12	14	16	17	18	20	20	22	23	24	25	26	27	27	28	29	30	31	31	
	3,5	14	17	18	20	21	23	24	26	27	28	29	30	31	32	33	34	35	36	37	Type XL60
	4,0	16	19	21	23	24	26	27	29	30	31	34	35	36	37	38	39	40	41	42	
	4,5	18	21	24	26	27	30	31	33	34	35	38	39	40	41	42	44	45	46	47	
	5,0	20	24	26	29	30	33	34	37	38	39	42	43	45	46	47	48	50	51	52	Type XL120
	5,5	22	26	29	32	33	36	38	40	42	43	46	48	49	50	52	53	55	56	58	
6,0	24	29	32	35	36	39	41	44	46	47	50	52	53	55	57	58	60	61	63		
6,5	26	31	34	38	39	43	44	48	49	51	55	56	58	60	61	63	65	66	68		
7,0	28	33	37	41	42	46	48	52	53	55	59	60	62	64	66	68	70	71	73		
7,5	30	36	40	43	45	49	51	55	57	59	63	65	67	69	71	73	75	77	78		
8,0	32	38	42	46	48	53	55	59	61	63	67	69	71	73	75	77	80	82	84		
Winding bale diameter [m]	0,26	0,29	0,33	0,36	0,39	0,41	0,44	0,45	0,49	0,50	0,52	0,53	0,57	0,58	0,60	0,61	0,63	0,65	0,66		

Attention: Values below the red line exceed BECKER's maximum permissible total weight of 150 kg drawbar load on the drive head.

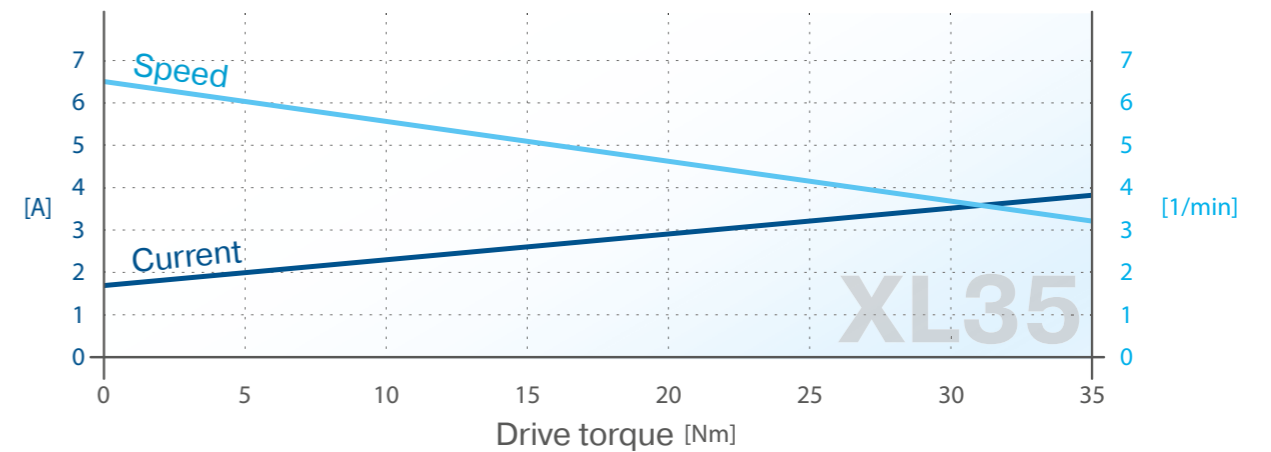
**Disclaimer:**  
All specifications are calculated values based on physical parameters and are dependent on the respective system and external factors. This load table has been created with the utmost care. Becker-Antriebe GmbH assumes no liability for incorrect drive designs resulting from the use of the load table. Becker-Antriebe GmbH reserves the right to make changes to the load table at any time and without prior notice.

## INFO

Permissible cable lengths and cross-sections must be observed. During the initiation of the unwinding process, a generator effect may occur. This must be taken into account when selecting the control system.

## Torque - Speed - Current Consumption Relationship using the example of an XL35/3G 4A

Due to physical principles, the speed decreases linearly as the torque increases. At the same time, the current consumption increases linearly.



## Protection against water

The different IP classifications ensure that electrical operating devices are reliably protected against external influences. This is particularly important for exposure to weather conditions, dust, or moisture.

### International Protection **IP 55**

Protection against the ingress of foreign objects:	0	1	2	3	4	5	6
no protection	0	1	2	3	4	5	6
> 50 mm		1	2	3	4	5	6
> 12,5 mm			2	3	4	5	6
> 2,5 mm				3	4	5	6
> 1 mm					4	5	6
protected against dust in harmful quantities						5	6
dust-tight							6

Protection against the ingress of water:	0	1	2	3	4	5	6	7	8
no protection	0	1	2	3	4	5	6	7	8
vertically falling dripping water		1	2	3	4	5	6	7	8
dripping water at an angle (15°)			2	3	4	5	6	7	8
spraying water up to 60° from the vertical				3	4	5	6	7	8
water splashing from all sides					4	5	6	7	8
jet water from any angle						5	6	7	8
powerful jet water							6	7	8
temporary submersion								7	8
permanent submersion									8



# DC drives

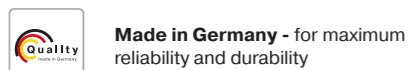
for barrels with 63 mm or larger diameter

## XL35/3G 4A

### Suitable for:

- Above-ground pool covers

### Advantages for the application



**Made in Germany** - for maximum reliability and durability

### Advantages in planning



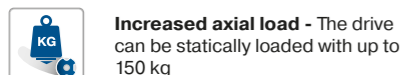
**Mechanical limit switching**



**4-wire connecting cable**



**Integrated holding current brake** - Keeps the drive in position when de-energized. Safety factor: 2x safety



**Increased axial load** - The drive can be statically loaded with up to 150 kg

### Advantages during installation



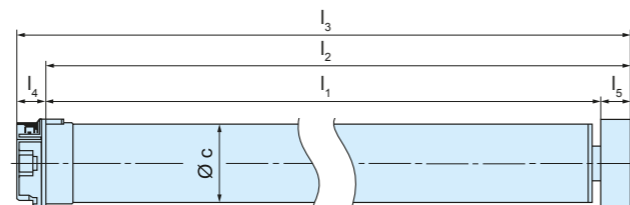
**End position adjustment:** Fixed point end position programming for top and bottom

### Technical data

Designation	XL35/3G 4A
Item number	2035 096 010 0
Drive torque (Nm)	35
Speed (rpm)	3
Rated voltage (V DC)	12
Nominal current (A)	3,6
Power consumption (W)	43
IP class of protection	IP55
Class of protection	III
Operating mode	S2 8min
Cable length (m)	4
Cable type	Rubber - S05RN-F 4x1 white

### Dimensions (in mm)

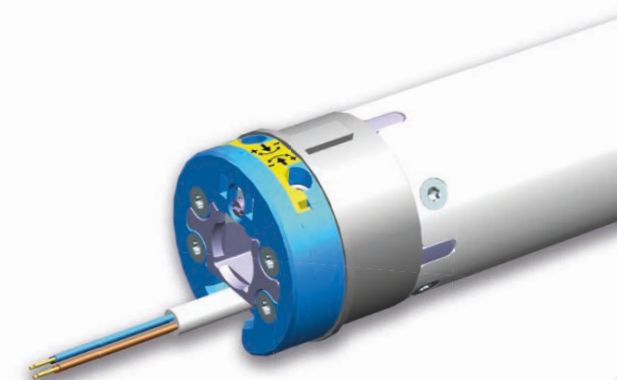
L1	L2	L3	L4	L5	ØC
582,5	612,5	632,5	20	30	58



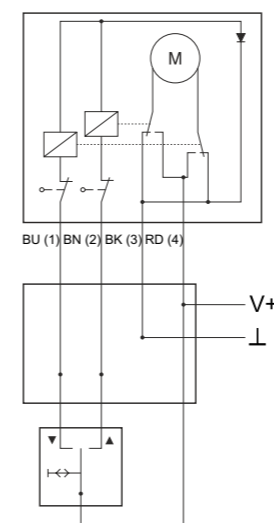
\*Drive adapter width of "Drive adapter 98x2" (4931 300 115 0), if a different drive adapter is selected, the dimensions L2, L3 and L5 will be different

**QUALITY**  
made in Germany

**SUSTAINABLE**



### Wiring diagram



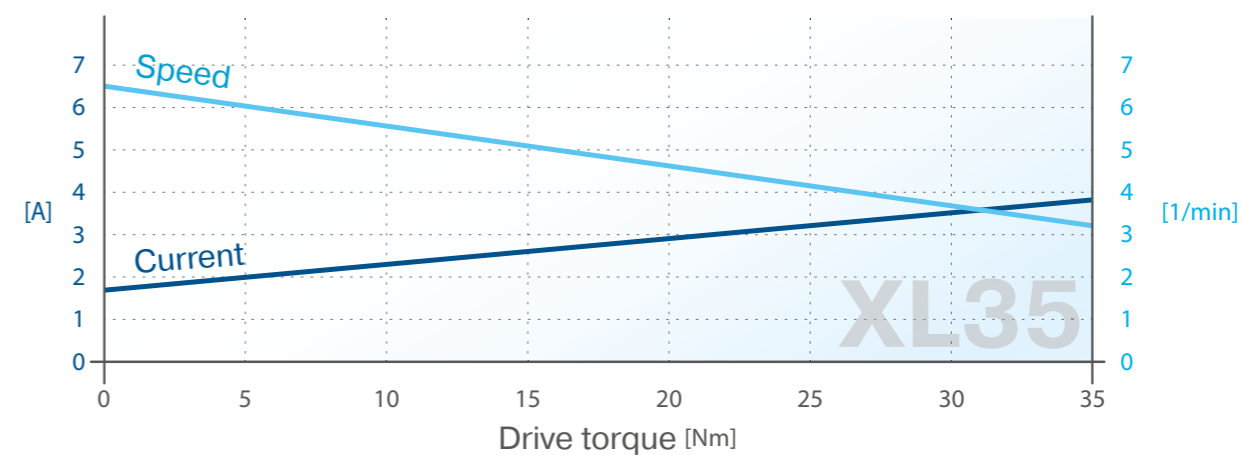
**Top highlight**

**XL35/3G 4A**



**Protected against water jets**  
Increased protection against the ingress of water

### Drive torque-speed-current diagram\*\*



\*\*See also the technical information on page 6 - 7

# DC drives

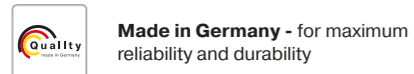
for barrels with 63 mm or larger diameter

## XL60/4G 4A

### Suitable for:

- Above-ground pool covers

### Advantages for the application



### Advantages in planning



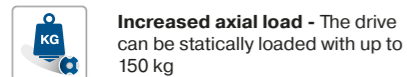
**Mechanical limit switching**



**4-wire connecting cable**



**Integrated holding current brake** - Keeps the drive in position when de-energized. Safety factor: 2x safety



**Increased axial load** - The drive can be statically loaded with up to 150 kg

### Advantages during installation



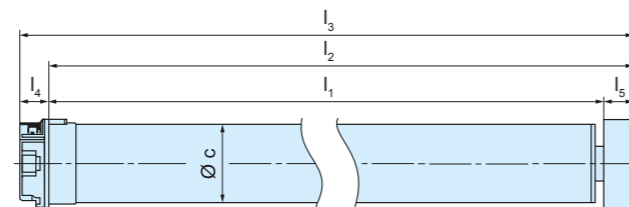
**End position adjustment:** Fixed point end position programming for top and bottom

### Technical data

Designation	XL60/4G 4A
Item number	2060 096 108 0
Drive torque (Nm)	60
Speed (rpm)	4
Rated voltage (V DC)	24
Nominal current (A)	4
Power consumption (W)	160
IP class of protection	IP55
Class of protection	III
Operating mode	S2 8min
Cable length (m)	4
Cable type	Rubber - S05RN-F 4x1 white

### Dimensions (in mm)

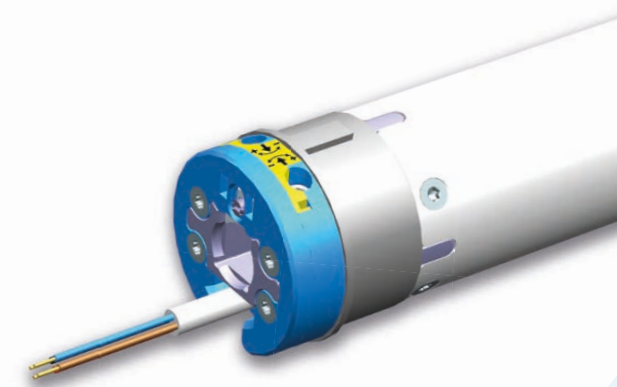
L1	L2	L3	L4	L5	ØC
582	612	632	20	30	58



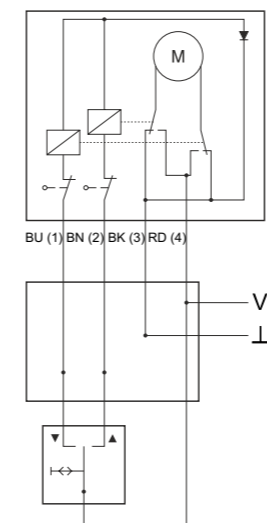
\*Drive adapter width of "Drive adapter 98x2" (4931 300 115 0), if a different drive adapter is selected, the dimensions L2, L3 and L5 will be different

QUALITY  
made in Germany

SUSTAINABLE



### Wiring diagram



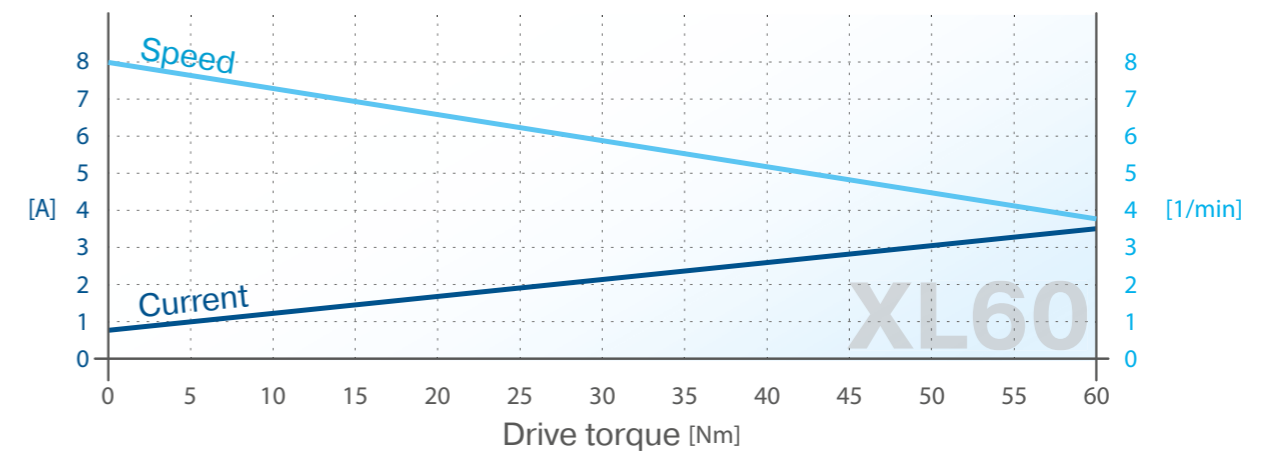
Top  
highlight

XL60/4G 4A



**Protected against water jets**  
Increased protection against the ingress of water

### Drive torque-speed-current diagram\*\*



\*\*See also the technical information on page 6 - 7

# DC drives

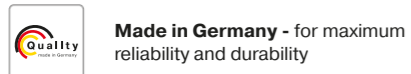
for barrels with 63 mm or larger diameter

## XL120/3G 4A

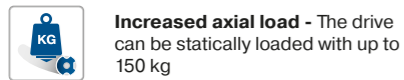
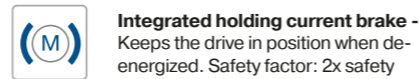
### Suitable for:

- Above-ground pool covers

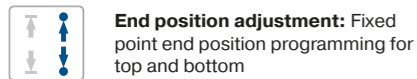
### Advantages for the application



### Advantages in planning



### Advantages during installation

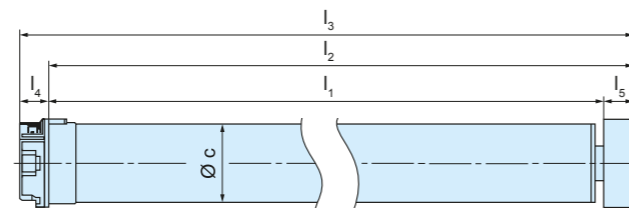


### Technical data

Designation	XL120/3G 4A
Item number	2120 096 105 0
Drive torque (Nm)	120
Speed (rpm)	3
Rated voltage (V DC)	24
Nominal current (A)	5
Power consumption (W)	120
IP class of protection	55
Class of protection	III
Operating mode	S2 8min
Cable length (m)	4
Cable type	Rubber - S05RN-F 4x1 white

### Dimensions (in mm)

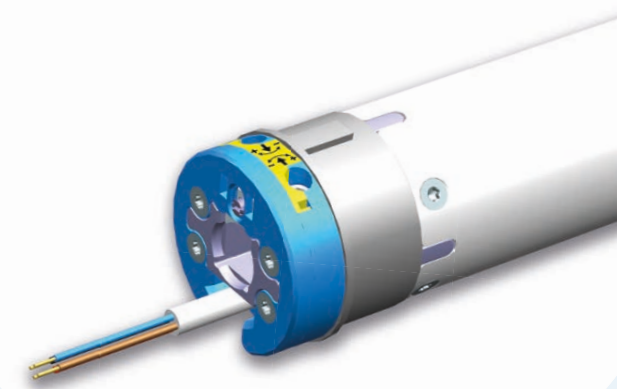
L1	L2	L3	L4	L5	ØC
582	612	632	20	30	58



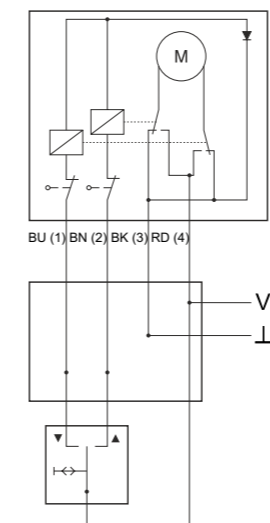
\*Drive adapter width of "Drive adapter 98x2" (4931 300 115 0), if a different drive adapter is selected, the dimensions L2, L3 and L5 will be different

**QUALITY**  
made in Germany

**SUSTAINABLE**



### Wiring diagram



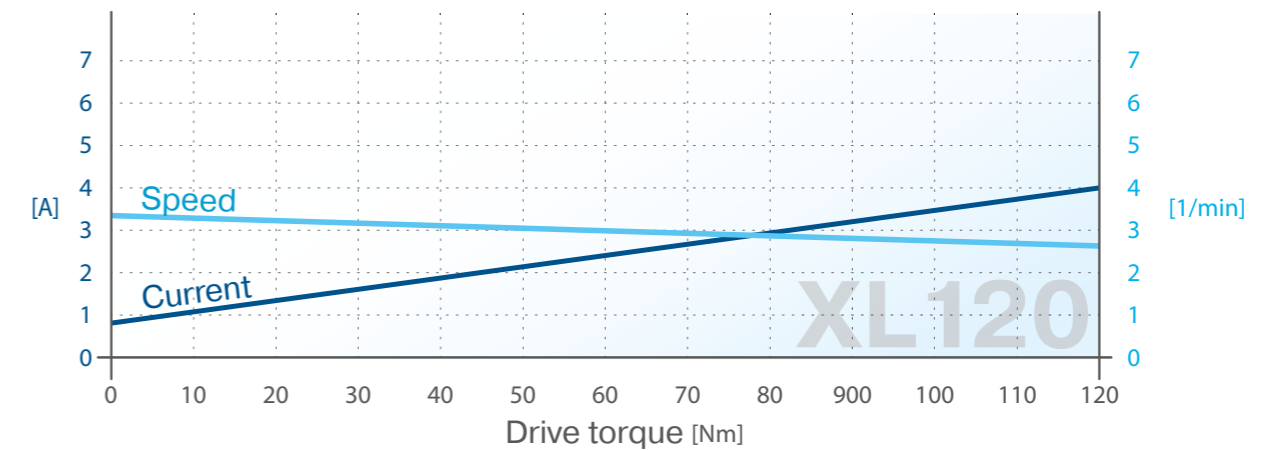
**Top highlight**

**XL120/3G 4A**



**Protected against water jets**  
Increased protection against the ingress of water

### Drive torque-speed-current diagram\*\*



\*\*See also the technical information on page 6 - 7

# DC drives

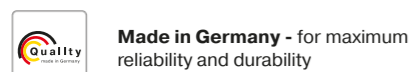
for barrels with 63 mm or larger diameter

## XL200/3G 4A

### Suitable for:

- Above-ground pool covers

### Advantages for the application



### Advantages in planning



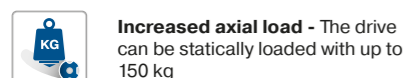
**Mechanical limit switching**



**4-wire connecting cable**



**Integrated holding current brake** - Keeps the drive in position when de-energized. Safety factor: 2x safety



**Increased axial load** - The drive can be statically loaded with up to 150 kg

### Advantages during installation



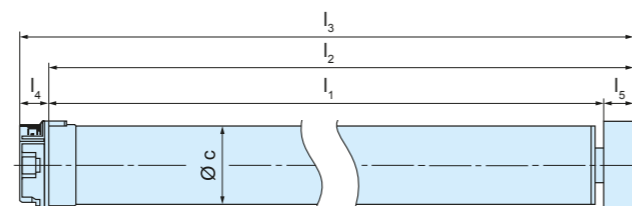
**End position adjustment:** Fixed point end position programming for top and bottom

### Technical data

Designation	XL200/3G 4A
Item number	2200 096 003 0
Drive torque (Nm)	200
Speed (rpm)	3
Rated voltage (V DC)	24
Nominal current (A)	6,8
Power consumption (W)	163
IP class of protection	55
Class of protection	III
Operating mode	S2 8min
Cable length (m)	4
Cable type	Rubber - S05RN-F 4x1 white

### Dimensions (in mm)

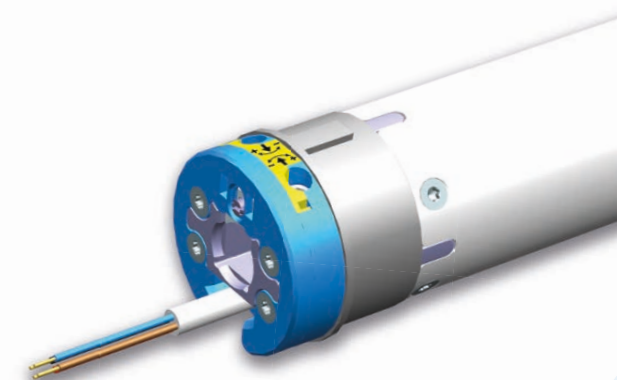
L1	L2*	L3*	L4	L5*	ØC
752	782	802	20	30	58



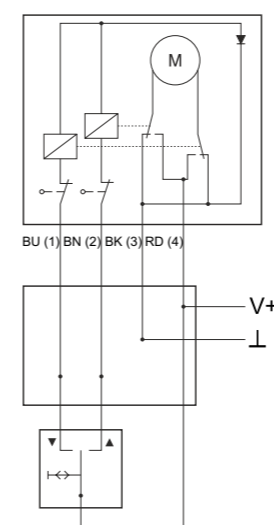
\*Drive adapter width of "Drive adapter 98x2" (4931 300 115 0), if a different drive adapter is selected, the dimensions L2, L3 and L5 will be different

QUALITY  
made in Germany

SUSTAINABLE



### Wiring diagram



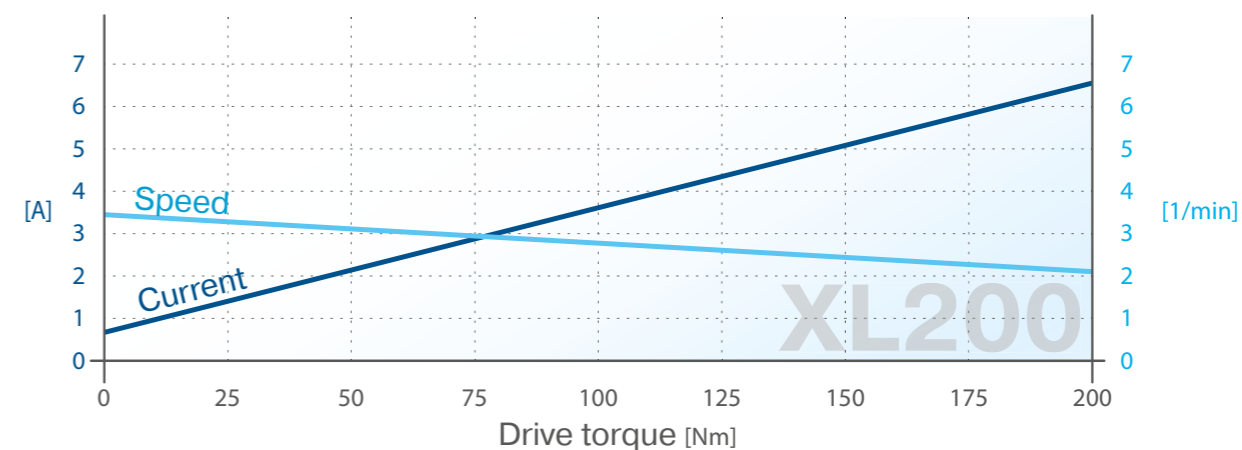
Top  
highlight

XL200/3G 4A



**Protected against water jets**  
Increased protection against the ingress of water

### Drive torque-speed-current diagram\*\*



\*\*See also the technical information on page 6 - 7



## Control units

### DC control unit GS2 / GS2-P

For controlling DC drives



- Outputs interlocked with each other
- Push button input UP / DOWN
- Defined travel commands possible
- External battery connectable
- In a plastic housing

Item no. 4007 000 023 0 (GS2 12 V)	
Item no. 4007 000 016 0 (GS2 24 V)	
Item no. 4007 000 021 0 (GS2-P, excl. connection cable)	
Colour	Grey
Dimensions W x H x D	180 x 182 x 90 mm
Mains connection	230 V / 50 Hz
Degree of protection	IP65
Loading capacity	9 A (12 V) / 7,5 A (24 V)
Type of mounting	In surface-mounted housing
Class of protection	I

### DC control unit GSA 24 V / 7,5 A

For controlling DC drives



- Outputs interlocked with each other
- Push button input UP / DOWN
- Defined travel commands possible
- Overcurrent shutdown
- In a plastic housing

Item no. 4007 000 017 0	
Colour	Grey
Dimensions W x H x D	94 x 94 x 58 mm
Mains connection	24 V DC
Degree of protection	IP65
Loading capacity	7,5 A / 24 V
Type of mounting	In surface-mounted housing
Class of protection	I

### DC control unit GSA 24 V / 2,5 - 6,5 A

For controlling DC drives



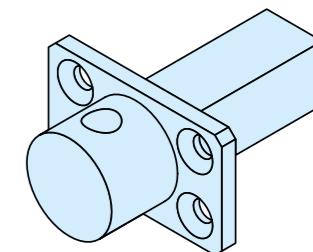
- Outputs interlocked with each other
- Push button input UP / DOWN
- Defined travel commands possible
- Adjustable overcurrent shutdown
- In a plastic housing

Item no. 4007 000 018 0	
Colour	Grey
Dimensions W x H x D	94 x 94 x 58 mm
Mains connection	24 V DC
Degree of protection	IP65
Loading capacity	2,5 - 6,5 A / 24 V
Type of mounting	In surface-mounted housing
Class of protection	I

## Mechanical accessories

### 3 steps to the right accessories.

To power your application, please select the combination that best suits your needs. We are happy to assist you.



1

**Wall bracket:** Select a suitable wall bracket based on the structural features and the required drive torque.

2

**Connecting piece:**  
The connecting piece is attached to the drive and forms the connection to the wall bracket. Select a connecting piece that is compatible with the wall bracket.

3

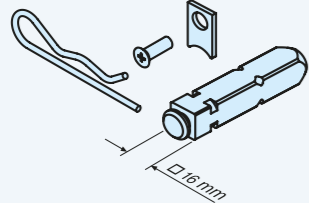

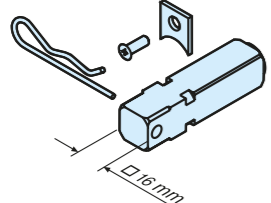

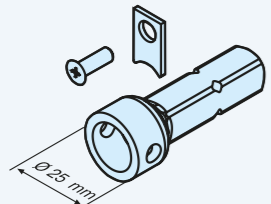

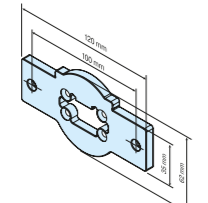

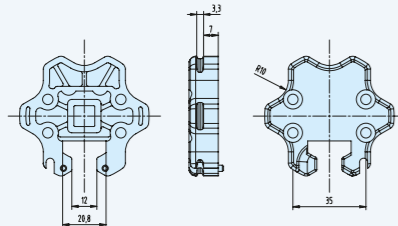

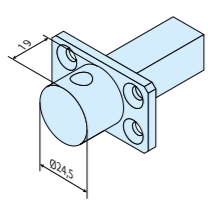

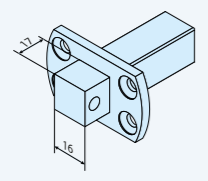

**Drive adapter + ring:** To establish the connection to the barrel, select the matching adaptation. This consists of a drive adapter and a ring.





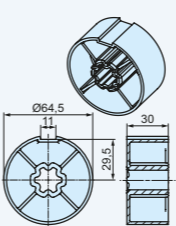
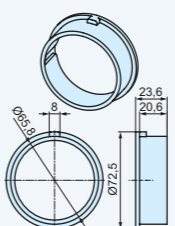
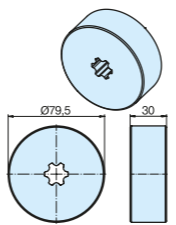
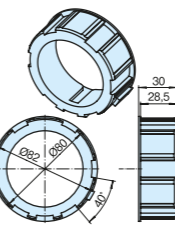
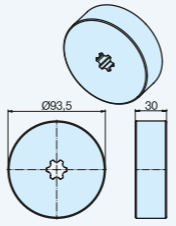
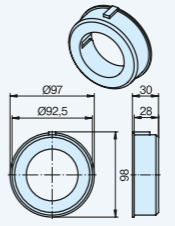
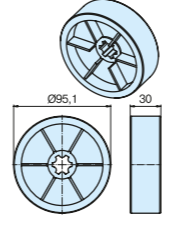
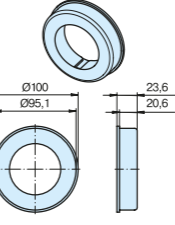
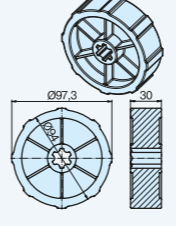
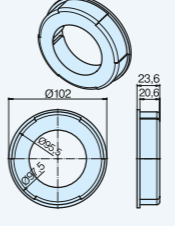
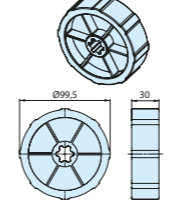
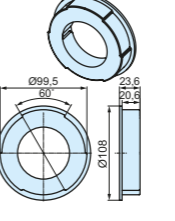
## Connecting piece

Tubular drives XL35 – XL200

Connecting piece	Designation	Use for drive type	Item number
	Mounting pin 1/16, square, 16 mm Material: Galvanised steel	 XL35 - XL120	4931 200 040 0
	Mounting pin 2/16, square, 16 mm Material: Galvanised steel	 XL35 - XL120	4931 200 034 0
		Note: For wall brackets with 16 mm square receptacle (4931...)	
	Mounting pin 3/25 round 25mm Material: Galvanised steel	 XL35 - XL200	4931 200 035 0
	B-strip L Material: Diecast zinc	 XL35 - XL60	4931 300 169 0
	Star adapter L Material: Plastic	 XL35 - XL120	4931 300 416 0
	Mounting pin 3/25, with screw-on bracket 50 x 30 mm Material: Stainless steel	 XL35 - XL200	4931 200 105 0
	Mounting pin with screw-on bracket, square, 16 x 13 mm Material: Galvanised steel	 XL35 - XL120	4931 200 109 0

## Drive adapters and rings

Round tube

Drive adapter	Ring	Designation	Item number
		Drive adapter 70x2	4931 300 085 0
		Ring 70x2	4931 060 707 4
		Drive adapter 83x1.5 / 85x2.5	4931 300 119 0
		Ring 83x1.5 / 85x2.5	4931 300 125 0
		Drive adapter 98x2	4931 300 115 0
		Ring 98x2	4931 300 126 0
		R7 - R25 Drive adapter 100x2	4931 300 167 0
		Ring 100x2	4931 300 160 0
		Ring 63x1.5	
		Drive adapter 102x2	4931 300 104 0
		Ring 102x2	4931 300 049 0
		Drive adapter 108x3.6	4931 300 155 0
		Ring 108x3.6	4931 300 043 0

## Drive adapters and rings

Round tube

Drive adapter	Ring	Designation	Item number
		Drive adapter 133 x 2	4931 300 120 0
		Ring 133 x 2	4931 300 127 0
		Drive adapter 140x5	4931 300 438 0
		Ring 140x5	4931 300 439 0
		Drive adapter 159 x 4	4931 300 172 0
		Ring 159 x 4	4931 300 173 0

## Identification rings

For drives with a diameter of 58mm

Identification rings	Item number
White	2060 370 066 0
Grey	2060 370 067 0
Red	2060 370 068 0
Blue	2060 370 069 0
Black	2060 370 085 0
Light blue	2060 370 095 0

- Compatible with drive type XL35 - XL200
- Various colours for individual marking and identification
- For plugging onto the motor head
- Covers the mechanical adjustment spindles



## ADDITIONAL REQUIREMENTS? JUST GET IN TOUCH!

Do you have requirements or preferences that extend beyond the scope of this catalogue?

We will gladly help with these and can design a customised solution for you. Whether you need different cable lengths, different drive torques or special functions. We will also gladly help you by providing CAD data during your design and development phase.



## General conditions of sale

Please note our general conditions of sale.  
You can find these online at  
[www.becker-antriebe.com/en/general-conditions-of-sale/](http://www.becker-antriebe.com/en/general-conditions-of-sale/)





**BECKER-Antriebe GmbH**

Drives and control units for  
roller shutters, sun protection  
and extended applications

Friedrich-Ebert-Straße 2–4  
D-35764 Sinn

Tel.: 0 27 72 / 507-0  
Fax: 0 27 72 / 507-110

[www.becker-antriebe.com](http://www.becker-antriebe.com)  
[info@becker-antriebe.com](mailto:info@becker-antriebe.com)