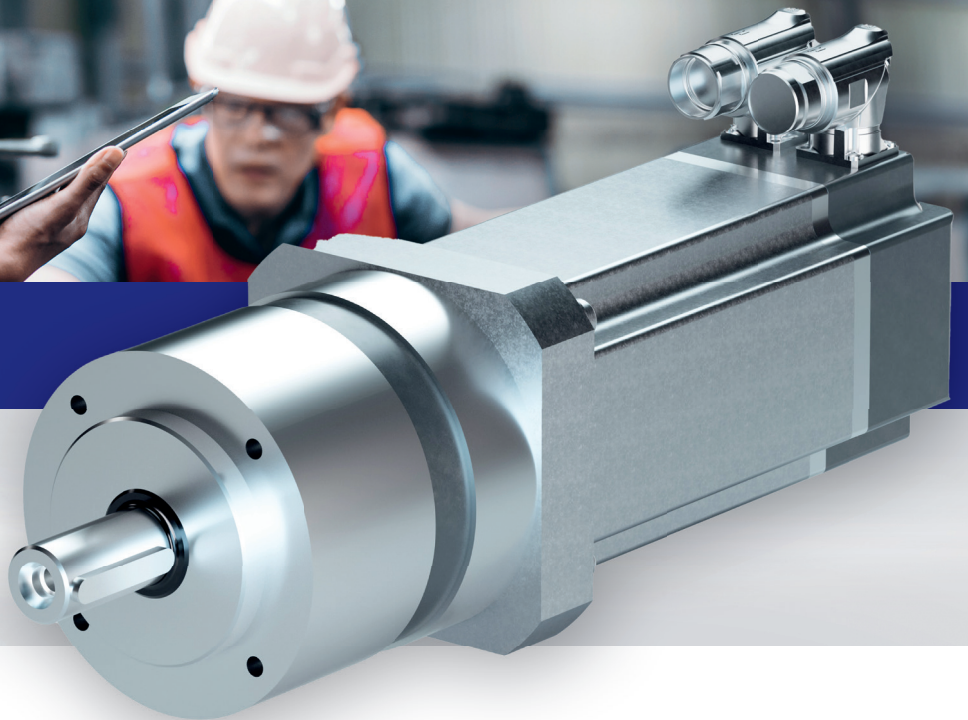
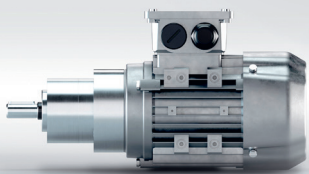


# The b-drives **planetary gearbox modular system**



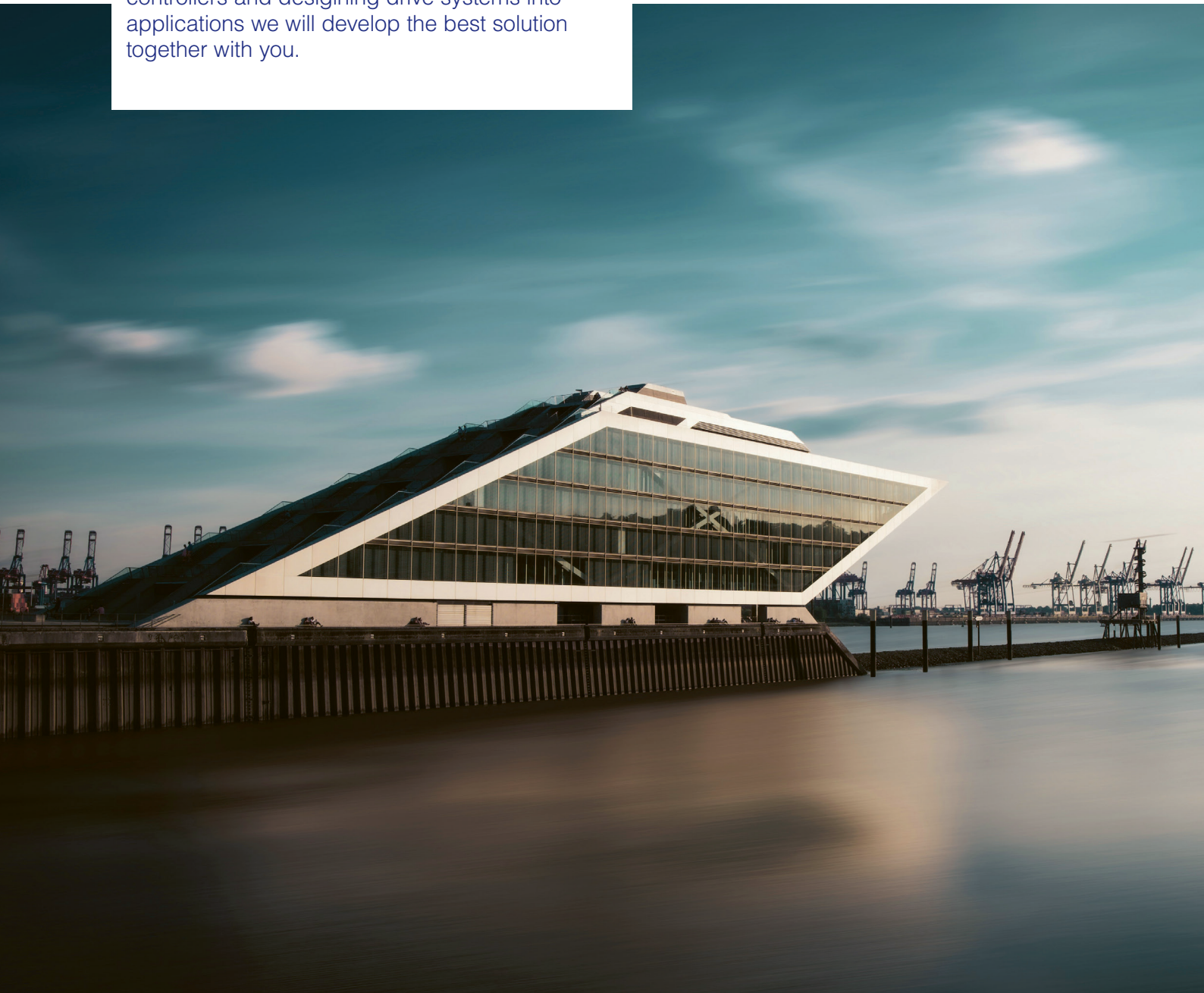
compact.  
complete.  
**b-drives.**

# Driven by passion

## What b-drives stands for

**Our motivation and our know-how is what makes b-drives a strong partner. We put in our highly specialised knowledge, experience and solid innovations to offer the drive solution thats best for you!**

We accompany your drive project from the very beginning. By taking your requirements regarding technical, logistical and economical matters and factoring in our experience and competence in calculating drives, programming controllers and designing drive systems into applications we will develop the best solution together with you.





# Always a perfect fit: the b-drives planetary gearbox modular system

No matter if you are looking for a cost efficient AC asynchronous motor, a highly dynamic servomotor or a compact BLDC motor, with our modular planetary gearbox system **you will find the perfect gearbox for every motor and every application.**

With sizes ranging **from 40mm to 150mm** in diameter, **gear ratios of 3:1 to 1000:1** and nominal torque of **more than 300 Nm** you get the whole world of planetary gearboxes in one place. Combine them with the three most common motor technologies and you get the right tool for every challenge in the world of industrial drives.

The system is scalable in fine steps and therefore can be adjusted to fit into almost all of your applications. By combining standard motors and our ability to customize our gearboxes in fast and highly cost efficient ways you get the perfect fit at optimal costs.

---

## b-drives key facts

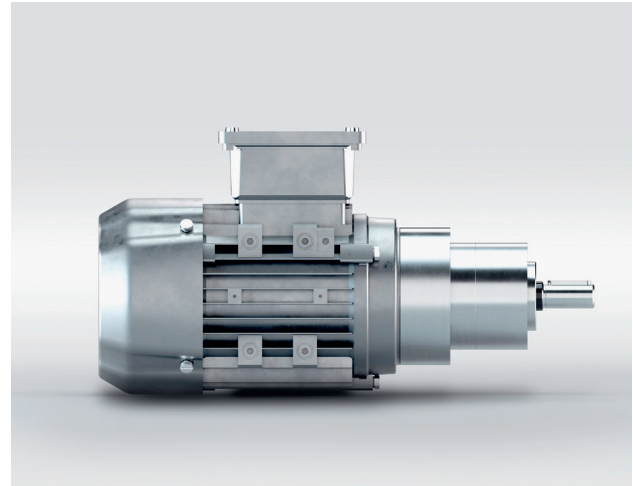
- **120** highly motivated and qualified employees
- in house research and development
- we deliver **more than 40k drives** into industries such as medical solutions, robotics, intralogistics, pharmacy and general automation



# AC asynchronous motors with planetary gearbox

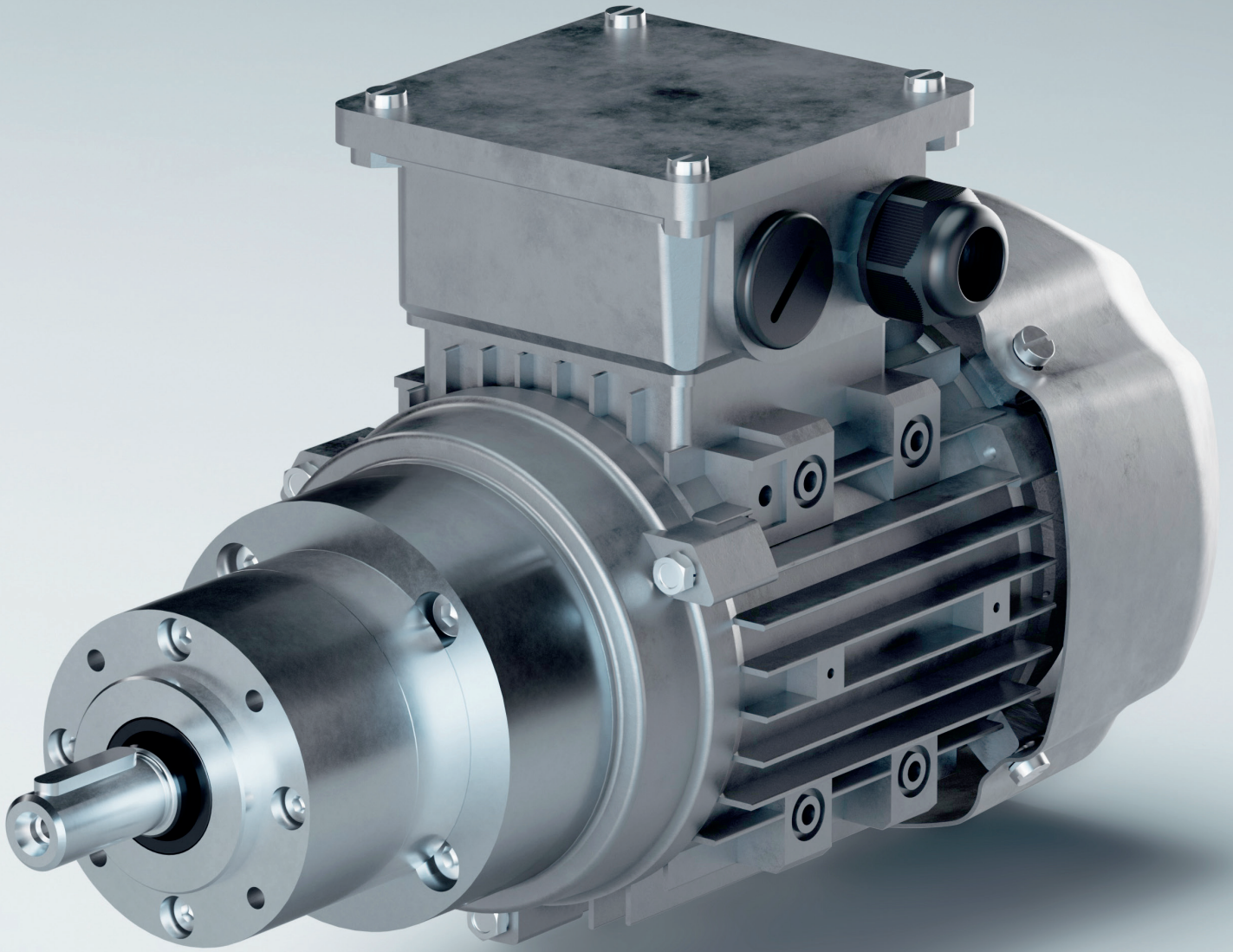
## Cost efficient and compact

Our AC asynchronous motors and planetary gearboxes provide you the perfect combination of a reliable low-cost motor and a compact and highly efficient gearbox that can take impressive torque at low diameters.



MOTOR SIZE	BG56	BG63	BG71	BG80	BG90
Nominal speed [rpm] of the motor	2700	2700	2700	2800	2800
nominal power [kW]	0,12	0,25	0,55	1,1	2,2
nominal voltage [V]	230/400	230/400	230/400	230/400	230/400
Below you find examples for operating points with the lowest (i min) and a high (i max) gear ratio. Almost anything in between is possible.					
<b>Gearbox size 52</b>					
Operating point @ i min	1,5 Nm at 700 RPM				
Operating point @ i max	28 Nm at 27 RPM				
<b>Gearbox size 62</b>					
Operating point @ i min	1,2 Nm at 900 RPM	2,4 Nm at 900 RPM			
Operating point @ i max	48 Nm at 22 RPM	50 Nm at 38 RPM			
<b>Gearbox size 72</b>					
Operating point @ i min		2,4 Nm at 900 RPM	5,7 Nm at 900 RPM		
Operating point @ i max		90 Nm at 22 RPM	90 Nm at 27 RPM		
<b>Gearbox size 81</b>					
Operating point @ i min			5,7 Nm at 900 RPM	10 Nm at 930 RPM	
Operating point @ i max			120 Nm at 27 RPM	120 Nm at 28 RPM	
<b>Gearbox size 120</b>					
Operating point @ i min				10 Nm at 930 RPM	21 Nm at 960 RPM
Operating point @ i max				300 Nm at 28 RPM	300 Nm at 28 RPM





The wide variety of gear ratios between 3:1 and 1000:1 will offer you the right solution for every application.

# Servomotors with planetary gearbox

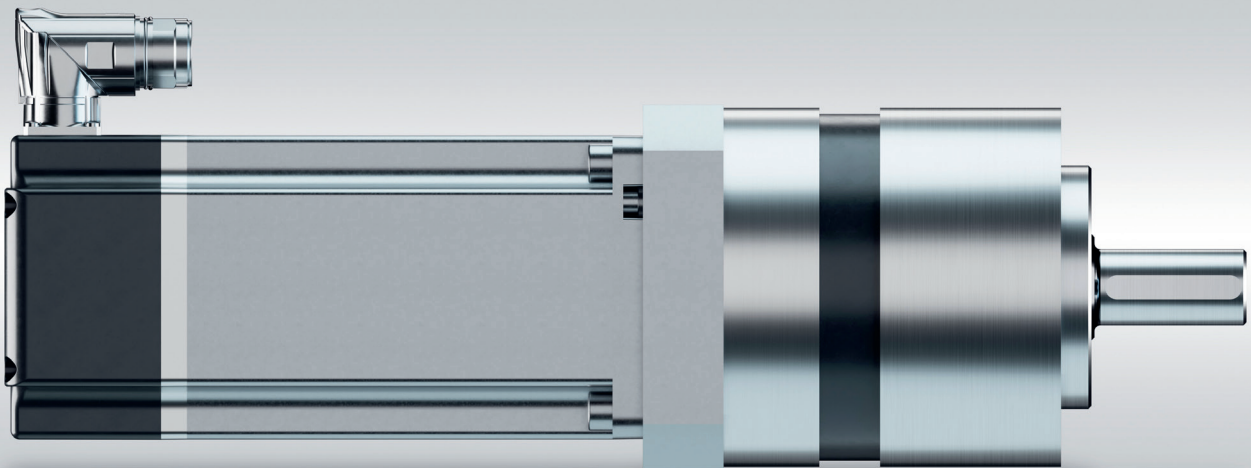
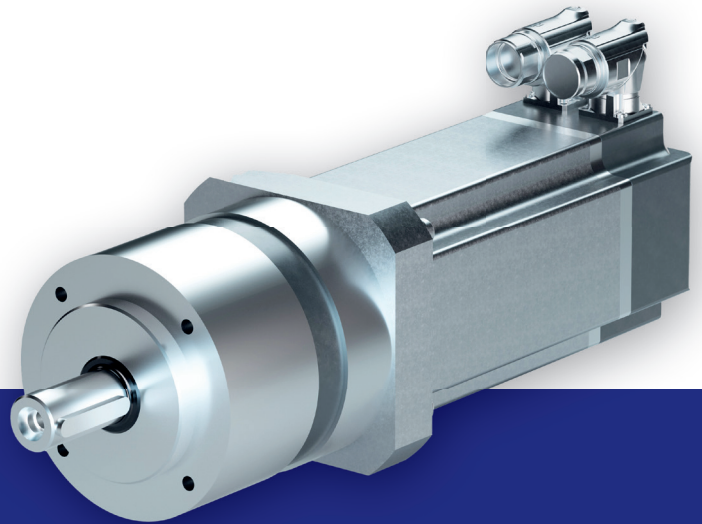
## High dynamics and plenty of options

SERVO MOTOR SIZE	SR04 M	SR06 M	SR08 L / G	B05 S / M / L	B07 S / M / L G	B10 S / N / M L / G	B14 K / S / N M / L / G X
Nominal speed [rpm] of the motor	3000	3000	3000	3000	3000	3000	3000
nominal power [kW]	0,1	0,4	1	0,36	1	2,9	9,8
nominal voltage [V]	60 VDC / 230 AC	60VDC / 230 / 400 V AC	230 / 400 V AC	60 VDC / 230V AC	230 / 400 V AC	230 / 400 V AC	230 / 400 V AC
brake available	•	•	•	•	•	•	•
brake and feedback system	•	•	•	•	•	•	•

Below you find examples for operating points  
with the lowest (i min) and a high (i max) gear ratio.  
Almost anything in between is possible.

<b>Gearbox size 40</b>							
Operating point @ i min	0,9 Nm at 1000 RPM						
Operating point @ i max	12 Nm at 60 RPM						
<b>Gearbox size 64</b>							
Operating point @ i min	0,9 Nm at 1000 RPM	3 Nm at 1000 RPM		3 Nm at 1000 RPM	10 Nm at 1000 RPM		
Operating point @ i max	42 Nm at 18 RPM	44 Nm at 85 RPM		35 Nm at 85 RPM	42 Nm at 87 RPM		
<b>Gearbox size 84</b>							
Operating point @ i min		3 Nm at 1000 RPM	9 Nm at 1000 RPM	3 Nm at 1000 RPM	10 Nm at 1000 RPM		
Operating point @ i max		90 Nm at 40 RPM	100 Nm at 85 RPM	100 Nm at 25 RPM	100 Nm at 85 RPM		
<b>Gearbox size 118</b>							
Operating point @ i min			9 Nm at 1000 RPM			28 Nm at 1000 RPM	
Operating point @ i max			210 Nm at 40 RPM			210 Nm at 120 RPM	
<b>Gearbox size 150</b>							
Operating point @ i min						28 Nm at 1000 RPM	93 Nm at 1000 RPM
Operating point @ i max						340 Nm at 60 RPM	360 Nm at 250 RPM

When choosing our **DC- and AC servomotors** you get highly dynamic and precise drive technologie in the most compact way. The motors range from 100W to 10 kW. They come with or without a brake and can be combined with any common feedback system available on the market including 16bit multiturn encoder. Combine any of these motors with our planetary gearboxes ranging from 40mm of diameter to 150mm and nominal torque up to 360 Nm.



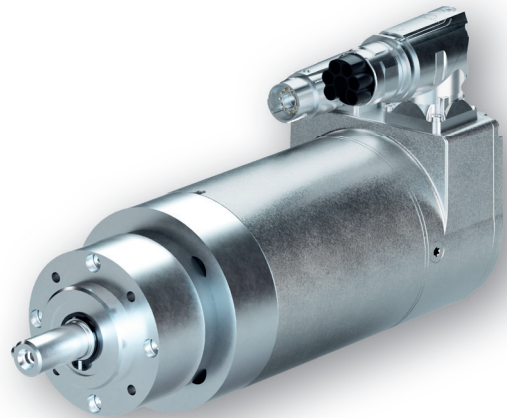
In addition to those rich motor options we can offer a **suitable servo controller** for every motor. The controllers can be equipped either with **CANbus, EtherCAT or ProfiNet Fieldbus**.

Voltage	60VDC	230VAC	460VAC
max. power [kW]	0,9	3	120
CANbus	•	•	•
EtherCAT	•	•	•
ProfiNet	•	•	•
STO		•	•
Absolute Encoder SSI / BissC	•	•	•



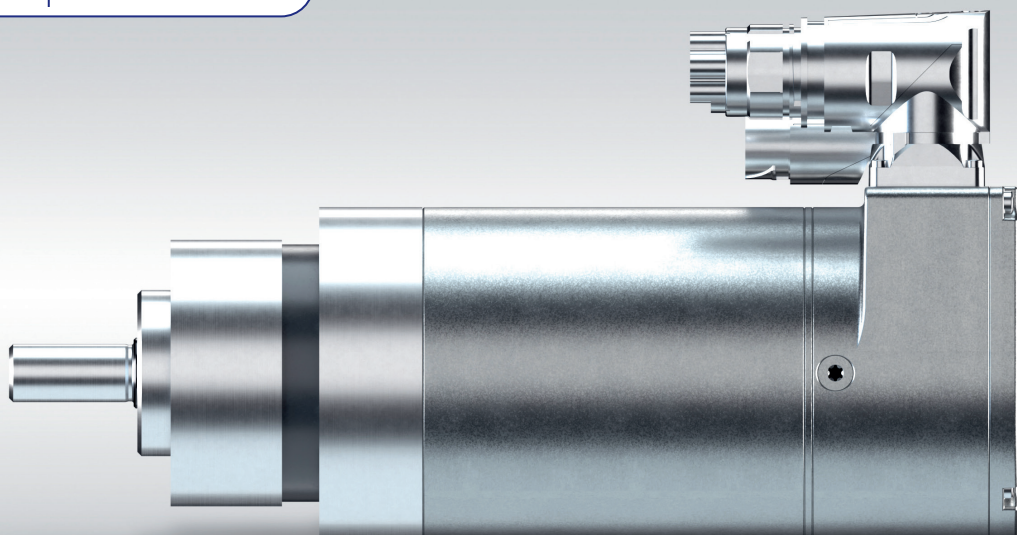
# BLDC motors with planetary gearbox

Compact drive solutions  
in protective extra low voltage



Voltage	24 – 60 VDC
max. power [kW]	3
CANbus	•
EtherCAT	•
ProfiNet	•
STO	•
Absolute Encoder SSI / BissC	•

We can also offer DC servo controllers with the common fieldbus options. EtherCAT and CANbus can also be integrated into the motor.



**BLDC motors with planetary gearbox provide high performance and high dynamics in the smallest space.** Diameters ranging from 40mm to 120mm and performance starting at 90W going up to 750W will get you the right solution for almost any application.

These drives are extremely compact, show lots of different variations and have a peak torque that is 4–5 times their nominal torque. Just like the servo drives our BLDC motors are available with or without a brake and can be combined with different feedback systems.

BLDC MOTOR SIZE	ECI 42. 20/40	ECI 63. 20/40/60	ECI 80. 20/40/60
Nominal speed [rpm] of the motor	4000	4000	4000
nominal power [kW]	0,09	0,37	0,75
nominal voltage [V]	24 / 48	24 / 48	24 / 48
brake available	•	•	•
brake and feedback system	•	•	•
P&P w/ SIEMENS MicroDrive	•	•	• (only 48 V)
Below you find examples for operating points with the lowest (i min) and a high (i max) gear ratio. Almost anything in between is possible.			
<b>Gearbox size 40</b>			
Operating point @ i min	0,6 Nm at 1333 RPM		
Operating point @ i max	14 Nm at 50 RPM		
<b>Gearbox size 64</b>			
Operating point @ i min	0,6 Nm at 1333 RPM	2,4 Nm at 1333 RPM	
Operating point @ i max	40 Nm at 20 RPM	40 Nm at 80 RPM	
<b>Gearbox size 84</b>			
Operating point @ i min		2,4 Nm at 1333 RPM	5 Nm at 1333 RPM
Operating point @ i max		100 Nm at 33 RPM	100 Nm at 57 RPM
<b>Gearbox size 118</b>			
Operating point @ i min			5 Nm at 1333 RPM
Operating point @ i max			210 Nm at 33 RPM



# Beyond the standard modular system: Customizing

Our b-drives planetary gearbox modular system offers a wide variety of standard drive components which can be combined to be a perfect fit for almost any application.

**In case our standard components will not be the perfect fit for you we can easily customize most of our parts according to your needs.**

Customizations like centring collars, shafts or pitch circles, to only name some possibilities, can be done quickly and cost efficient.

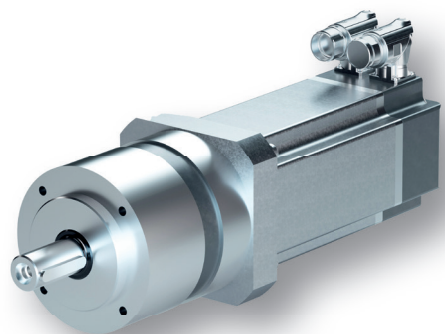






---

We hope our modular planetary gearbox system will draw your attention and we are looking forward to hearing from you and to provide you with the perfect solution for your drive application.





## Feel free to contact us!

### **Axel Schwab**

Sales

+49 172 63 89 150

[schwab@b-drives.com](mailto:schwab@b-drives.com)

### **Robert Nohr**

Sales

+49 172 769 25 71

[nohr@b-drives.com](mailto:nohr@b-drives.com)

## Imprint

### **b-drives GmbH**

Gutenbergstraße 17

21465 Reinbek

[www.b-drives.com](http://www.b-drives.com)

[info@b-drives.com](mailto:info@b-drives.com)

Tel.: +49 40 / 53 80 92 - 430

Fax: +49 40 / 53 80 92 - 84

Managing Director

Dipl.-Ing. Reinhard Breuell,

Ing. Dirk Kahl

Amtsgericht Lübeck HRB 19830

USt. -IdNr.: DE 322 841 014

Steuer-Nr. 50/706/01135