

# BECKHOFF

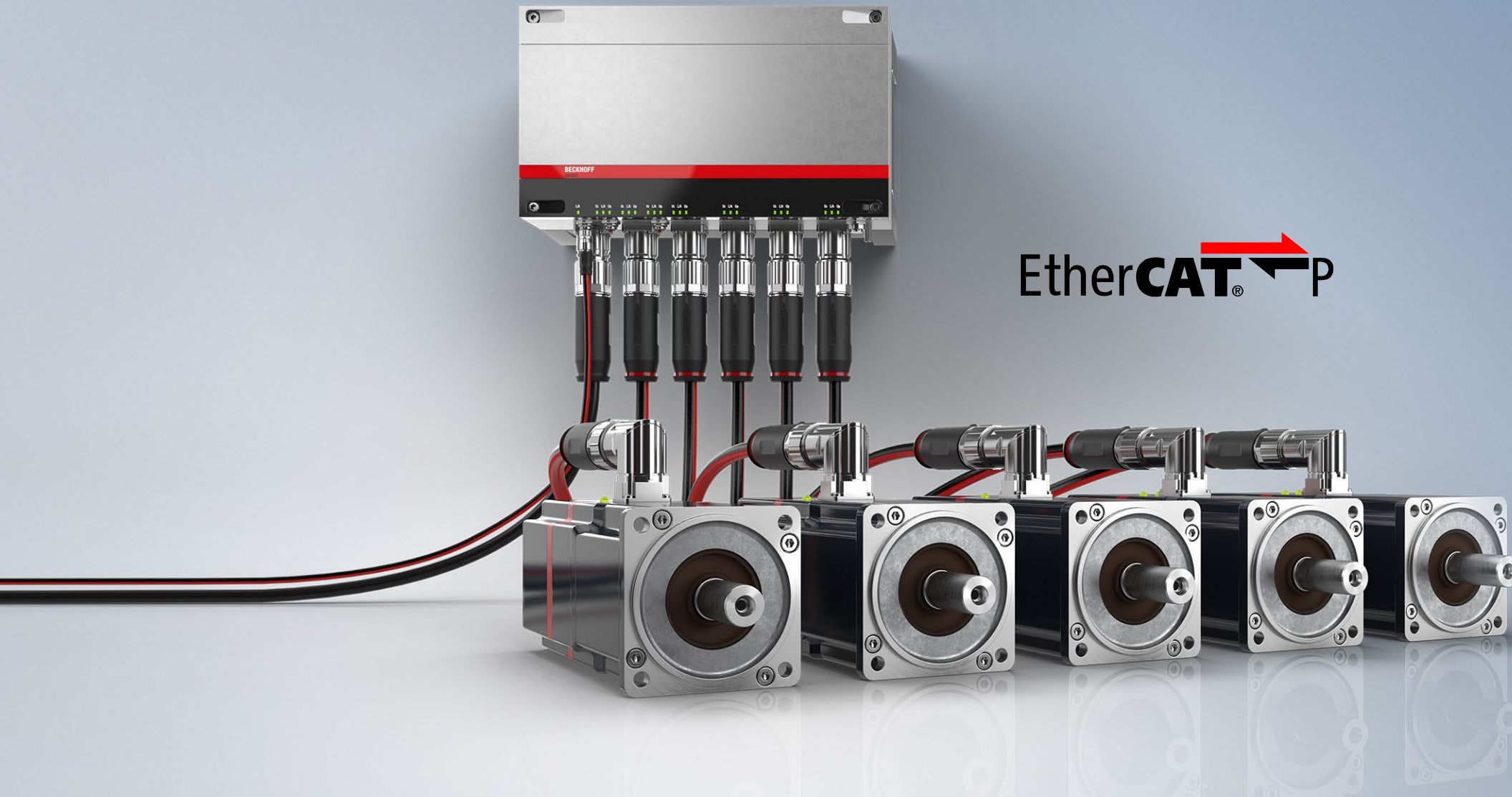
Motion update

Timo Anttila  
Ohjausjärjestelmäasiantuntija  
Beckhoff Automation Oy

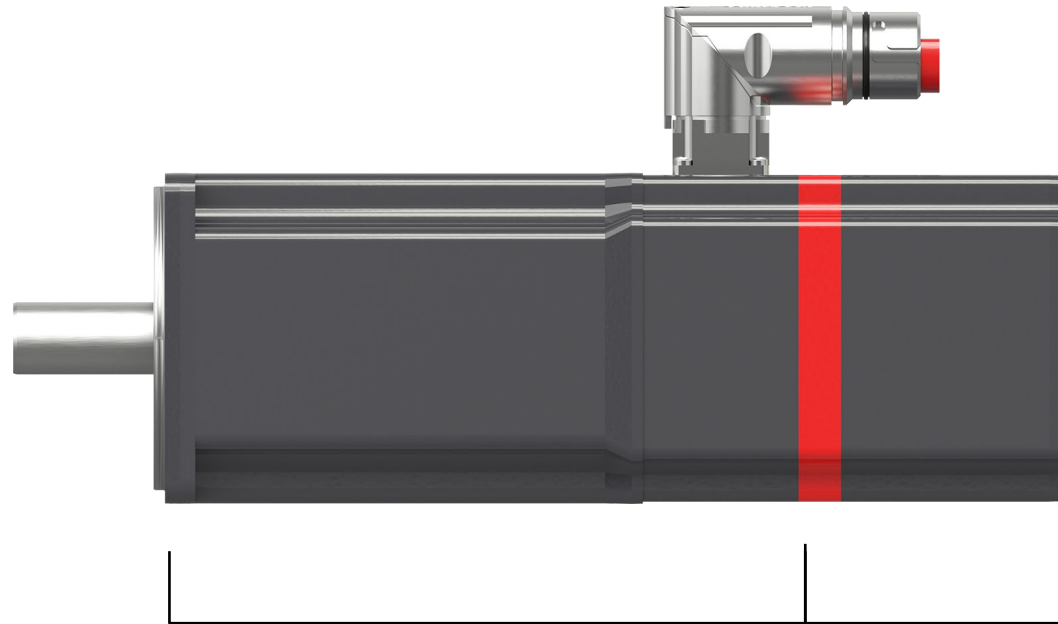
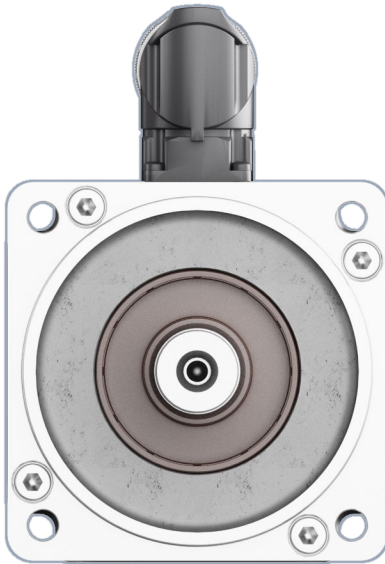


# AMP8000 | Distributed Servo Drive system

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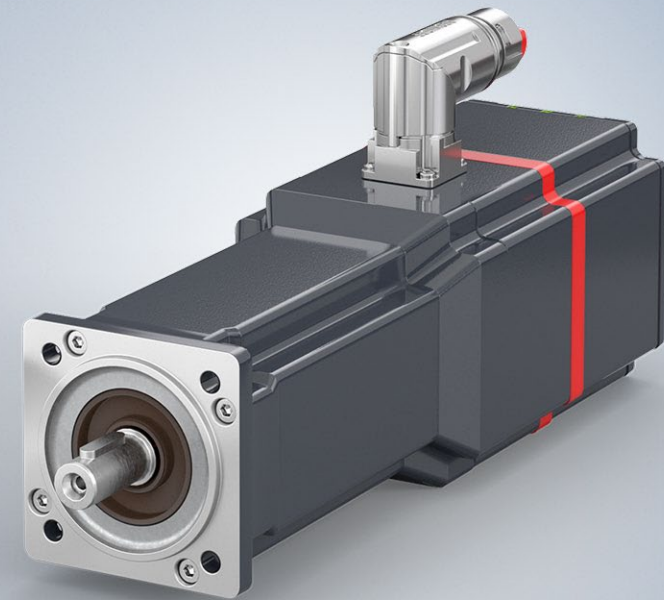
Exceptionally compact and slender design

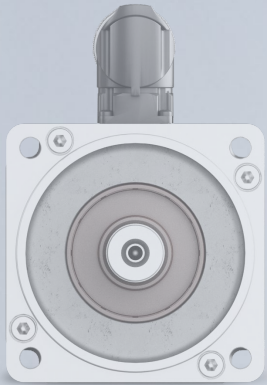


AM8000 with  
modified b-side

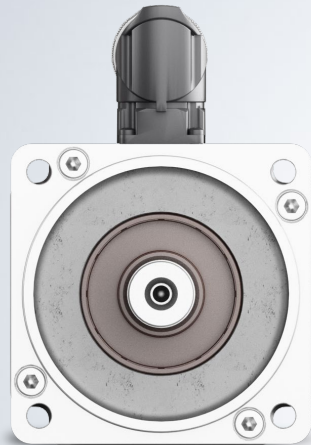
Power Module

- permanent magnet-excited three-phase synchronous motor with integrated servo drive
- optionally available with single-turn or multi-turn encoder
- one cable automation, EtherCAT P single cable solution
- flange size F3 (72 mm) and installation lengths 1 - 3 have a shaft diameter of  $b = 14\text{ k6}$  and an exposed shaft end measuring  $d = 30\text{ mm}$
- drive-integrated safety functions thanks to TwinSAFE

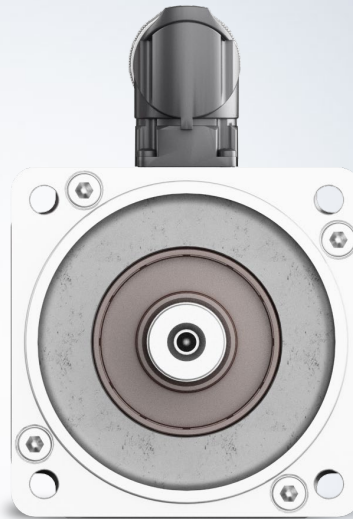




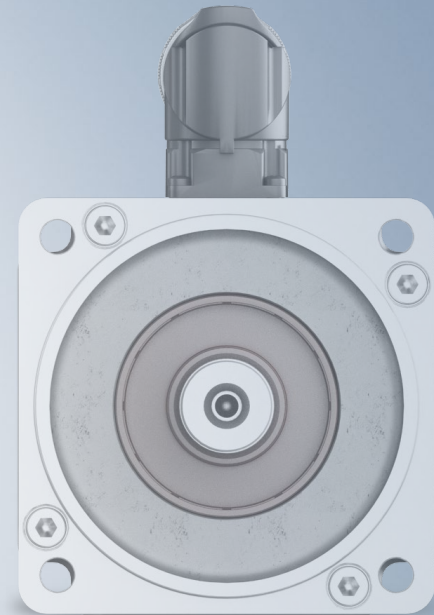
Flange size 3  
0.5 - 3 Nm,  
3000 - 9000 rpm



Flange size 4  
1 - 5 Nm,  
2500 - 7000 rpm



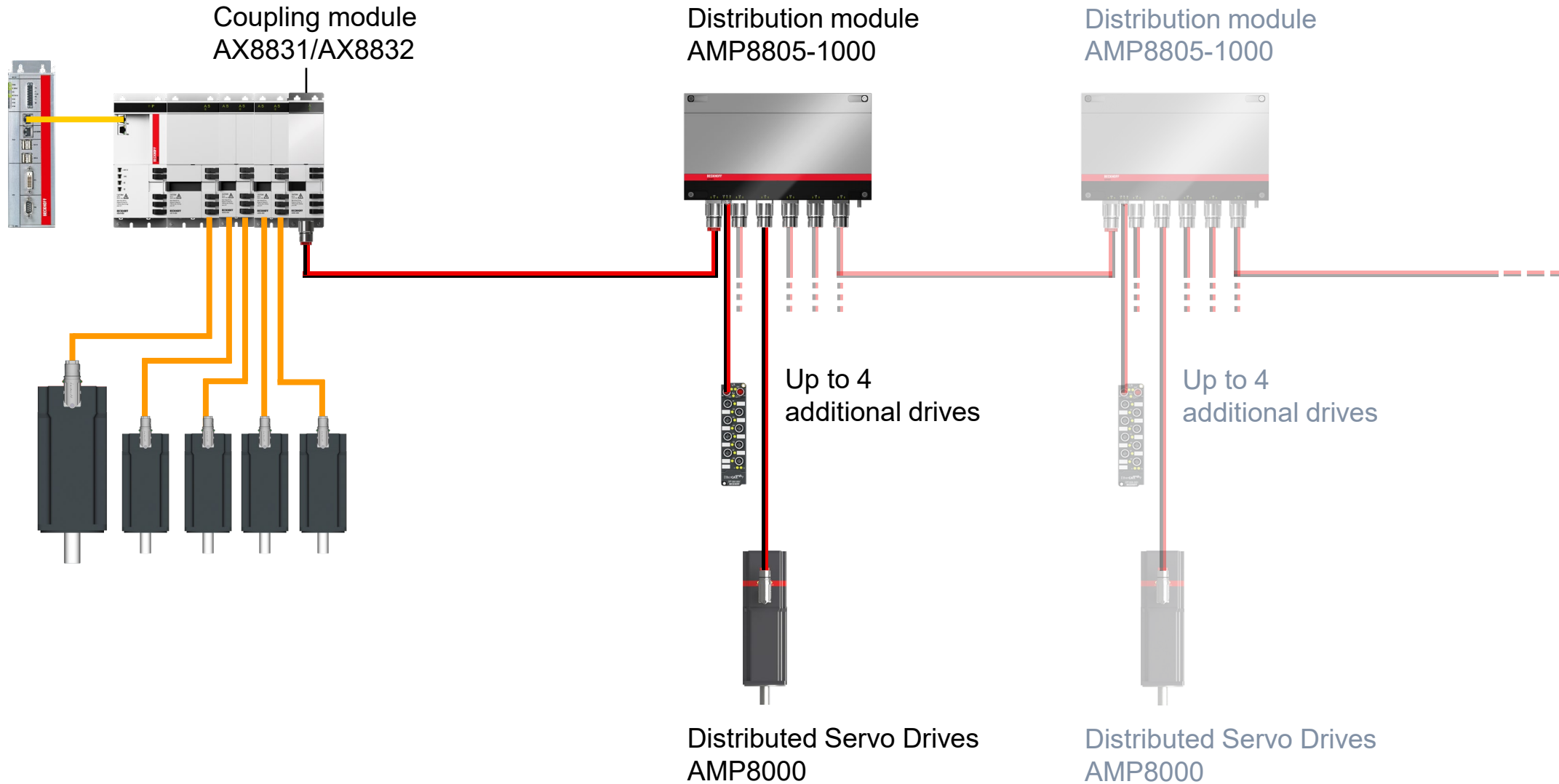
Flange size 5  
2.5 - 10 Nm,  
2000 - 8000 rpm



Flange size 6

# AMP8xxx | System expansion with small and large axes

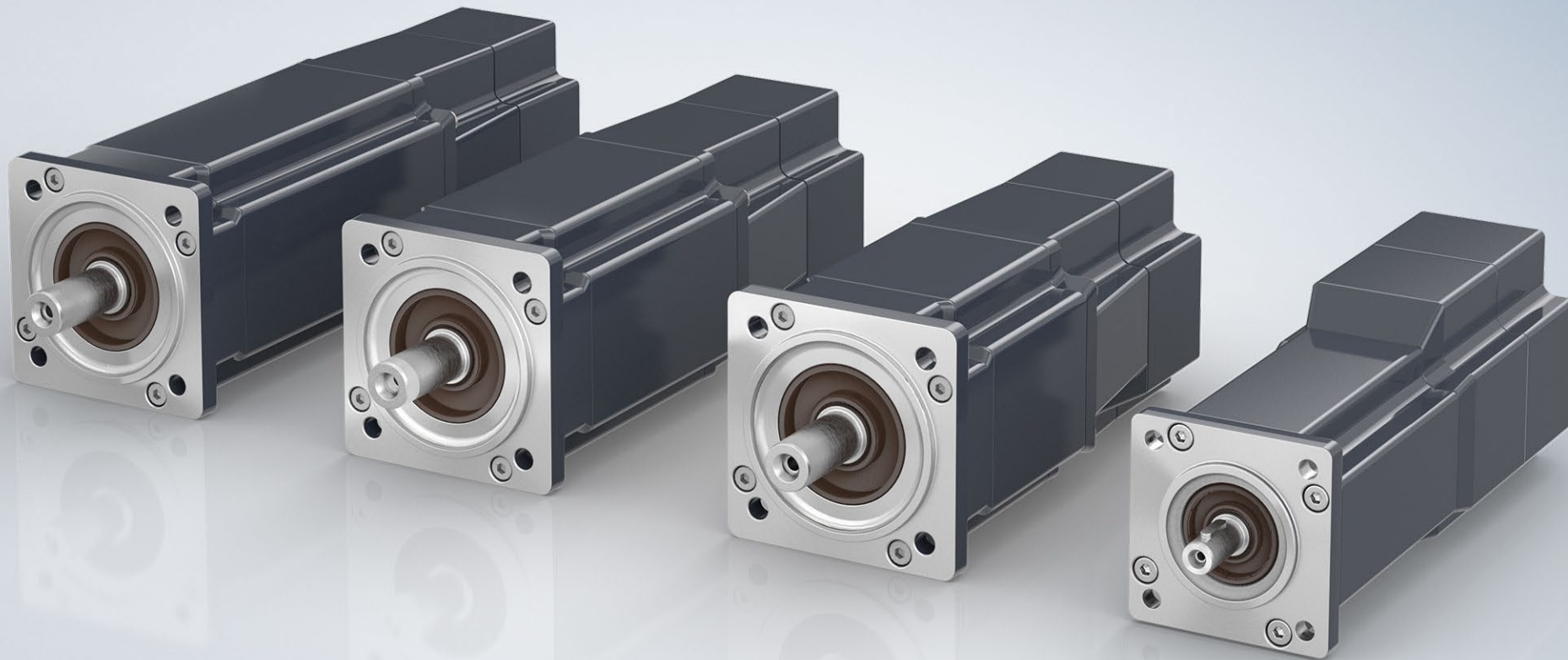
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## AMl813x | Compact integrated servo drives

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NEW

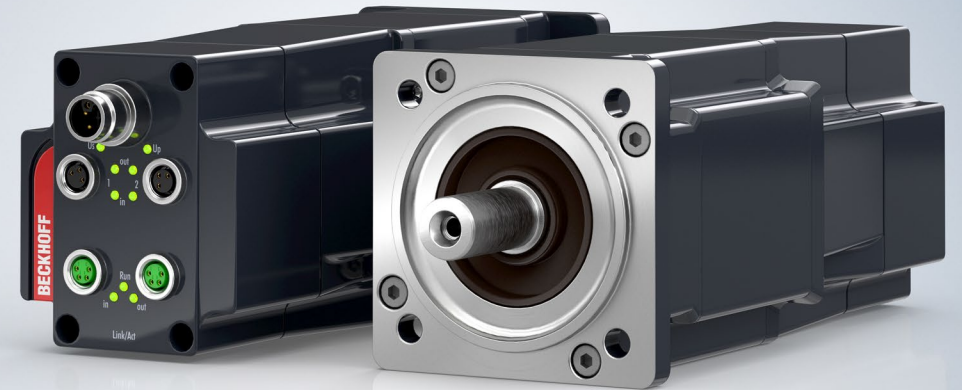


## AMI813x | Series release for flange size 3

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NEW

- flange size 3 in three lengths
- peak torque: 2.88...6.48 Nm
- stall torque: 1.25...2.85 Nm
- rated speed: 800...1800 rpm
- motor options such as backlash-free holding brake or key are available
- STO as electronic option is also available
- DS402 profile available as option

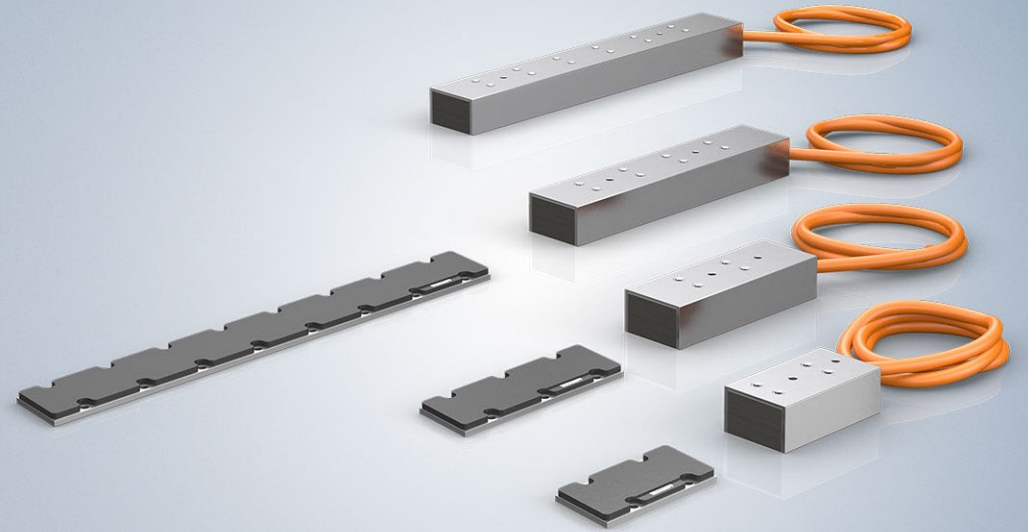


# AL8100 | Linear servomotors for compact drive technology

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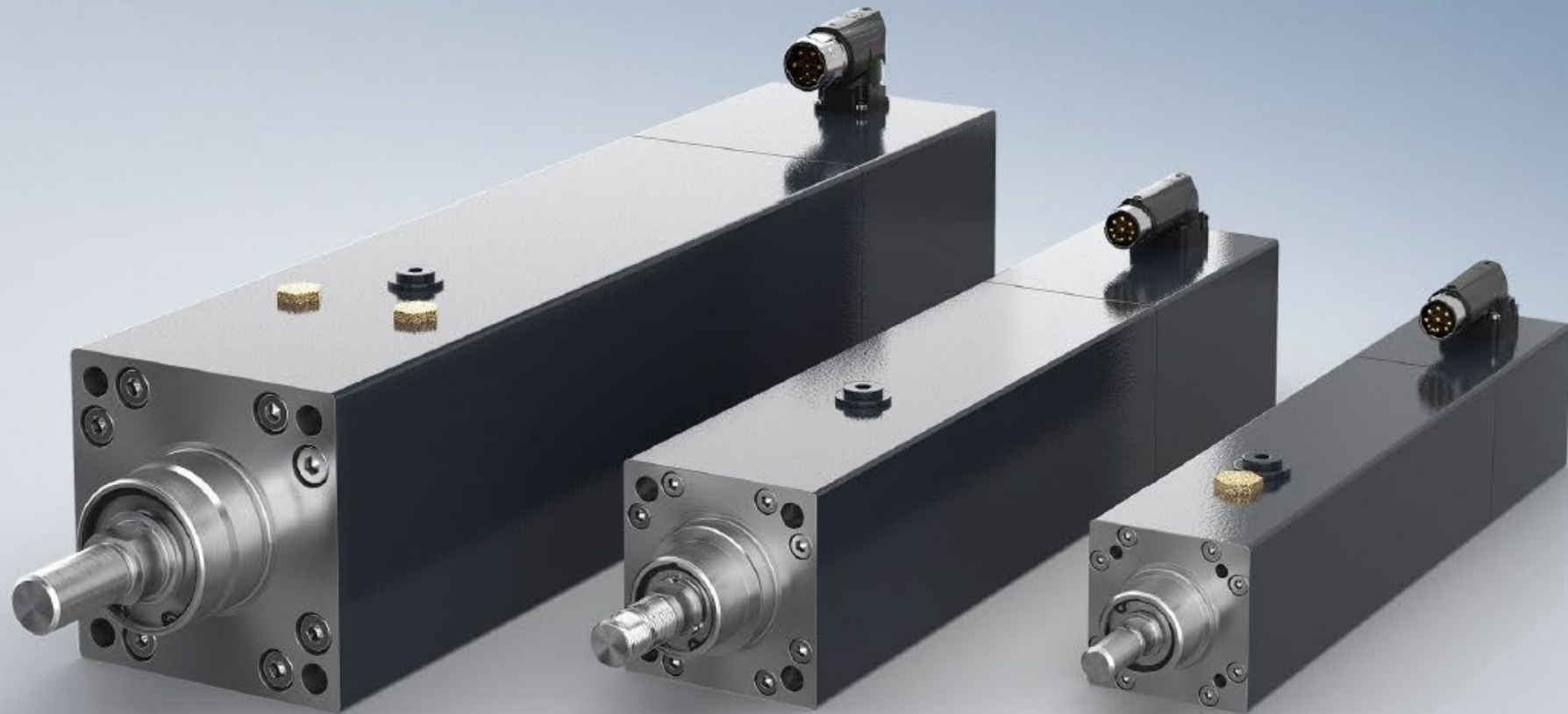


- linear servomotors for 48 V DC
- W2 construction type (50 mm)
  - AL812x primary parts
  - AL852x secondary parts
- optimally adapted to servo terminals
  - ELM721x
  - ELM722x
  - ELM7231



## Introduction | AA3000 the Electric cylinder from Beckhoff

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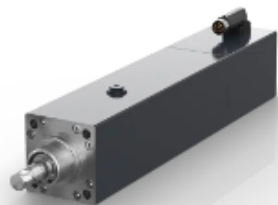




**AA3023 | Electric cylinder 3125...6250 N ( $F_{\max}$ ), 0.5...1.0 m/s ( $v_{\max}$ )**

Max. acceleration: 10 m/s<sup>2</sup>, 20 m/s<sup>2</sup>   Continuous force: 700 N/1400 N   Max. movement: 150 mm

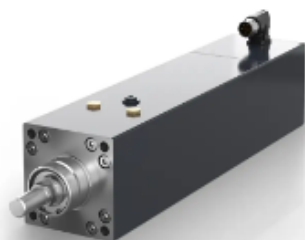
[Learn more →](#)



**AA3033 | Electric cylinder 6250...12,500 N ( $F_{\max}$ ), 0.5...1.0 m/s ( $v_{\max}$ )**

Max. acceleration: 10 m/s<sup>2</sup>, 20 m/s<sup>2</sup>   Continuous force: 1850 N/3700 N   Max. movement: 200 mm

[Learn more →](#)



**AA3053 | Electric cylinder 12,500...25,000 N ( $F_{\max}$ ), 0.5...1.0 m/s ( $v_{\max}$ )**

Max. acceleration: 10 m/s<sup>2</sup>, 20 m/s<sup>2</sup>   Continuous force: 3200 N/6400 N   Max. movement: 250 mm

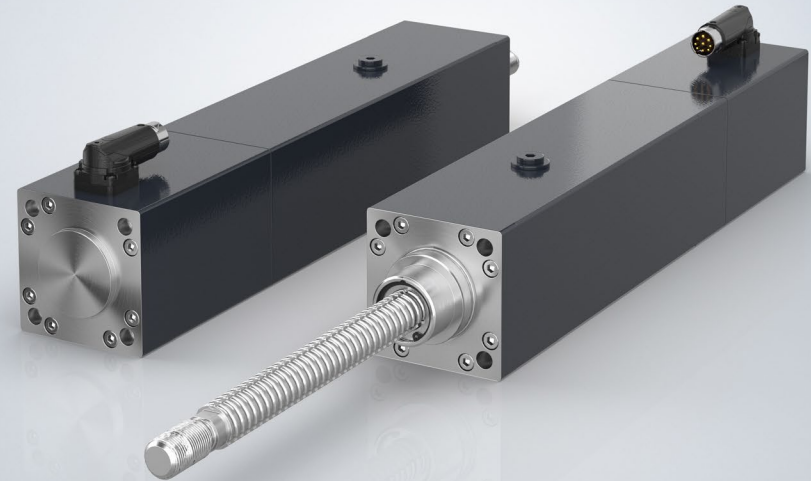
[Learn more →](#)

## AA3100 | Series release for 48 V DC version of the electric cylinder

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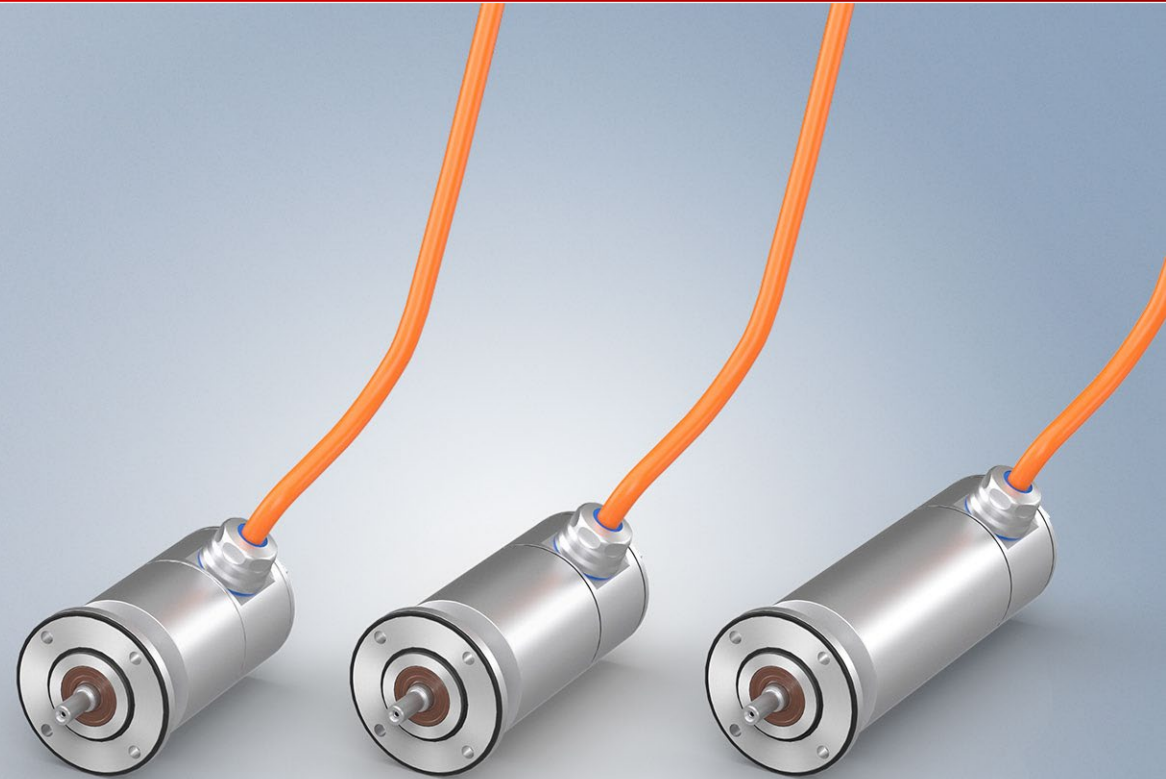
NEW

- two installation sizes: AA3123 and AA3133
- matched to the ELM7xxx Terminals
- 650 ... 2,800 N constant force at 8 A  
→ ELM7221 and ELM7222
- 2650...12,000 N peak force at 32 A  
→ ELM7231
- 0.12...0.56 m/s max. speed
- Max travel distance 150-200 mm

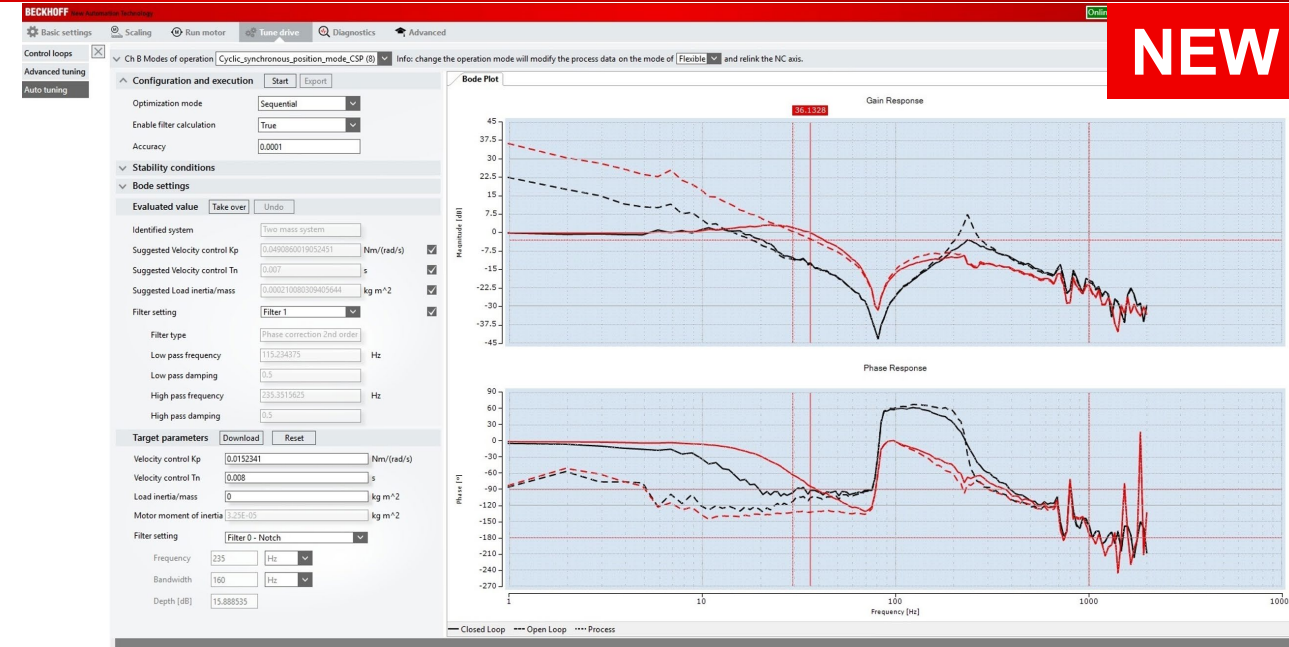


### AM872x compact anodized aluminum motor in HD design

- For drive solutions for the tiniest installation spaces
- high protection class
- perfect for food and pharma applications
- 3 stack lengths with a standstill torque of 0.5 to 1.2 nm
- holding brake optional



- easy commissioning and optimization of servo axes
- automatic determination of all significant parameters
- integrated into TwinCAT 3 Drive Manager 2
- Bode plot based, but 100x faster
- automatic interpretation of the Bode plot and generation of the control parameters and filters



Thank you!

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