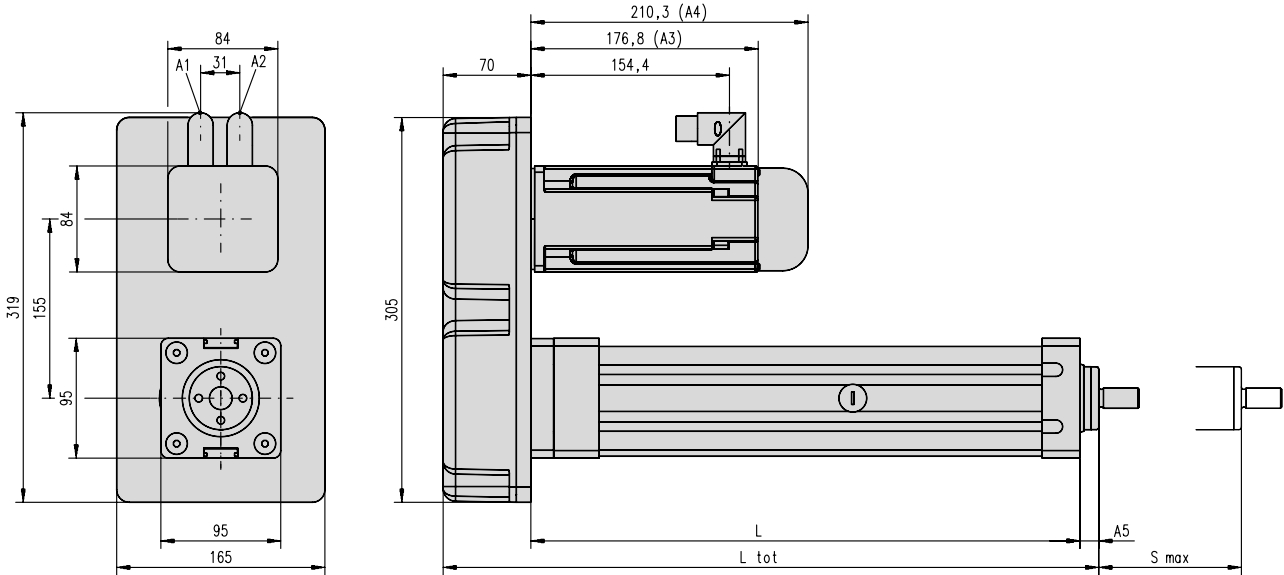


ECT90

Parallel B43 AC Servo Motor



S max: maximum stroke (ordering stroke in mm)
 L: cover tube length
 L tot: retracted length

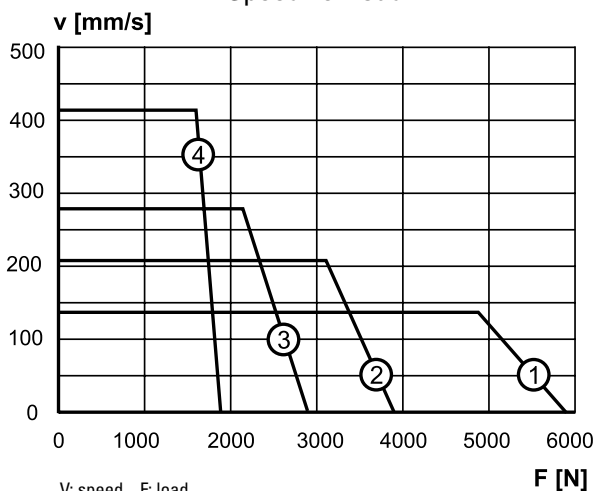
A1: power connector
 A2: resolver connector
 A3: without brake
 A4: with brake

A5: ECT09-B43 ••• PB-25 = 15 mm, ECT09-B43 ••• PB-32 = 12 mm

Cover tube length (L)	[mm]	ECT09-B43 ••• PB-25: L = S max + 195 ECT09-B43 ••• PB-32: L = S max + 230
Retracted length (L tot)	[mm]	ECT09-B43 ••• PB-25: L tot = S max + 280 ECT09-B43 ••• PB-32: L tot = S max + 312
Weight of unit	[kg]	ECT09-B43 •• PB-25: kg = 17,2 + 0,016 × S max ECT09-B43 •• PB-32: kg = 19,6 + 0,018 × S max

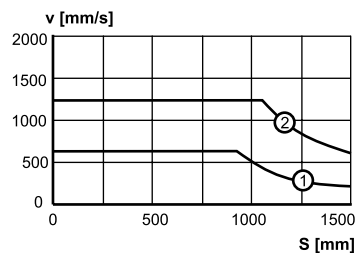
Performance Diagrams

Speed vs. Load



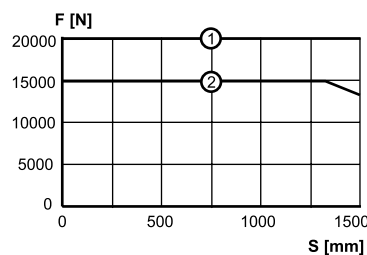
V: speed F: load
 1: ECT09-B43R03PB-2510
 2: ECT09-B43R02PB-2510
 3: ECT09-B43R03PB-3220
 4: ECT09-B43R02PB-3220

Critical Speed vs. Stroke



v: speed S: stroke length
 1: ECT09-B43R0 • PB-2510
 2: ECT09-B43R0 • PB-3220

Column Load Limit vs. Stroke



F: load S: stroke length
 1: ECT09-B43R0 • PB-2510
 2: ECT09-B43R0 • PB-3220

ECT90

Parallel B53 AC Servo Motor

- » Ordering Key - see page 92
- » Mounting Options - see page 78
- » Adapter Options - see page 80
- » Glossary - see page 96



Standard Features and Benefits

- Robust and reliable
- Brushless AC servo motor
- Belt gear
- Ball screw
- Hard chromed steel extension tube
- IP65 as standard
- Stroke up to 1500 mm
- Load up to 9800 N
- Speed up to 670 mm/s

General Specifications

Parameter	ECT90
Profile size (w × h)	90 × 92 mm
Screw type	ball screw
Gear box	belt gear
Motor type	brushless AC servo motor
Motor designation	AKM53K-CNCNR-00
Motor feedback	resolver
Motor connection	connector
Motor brake	no, optional
Lubrication	single point lubrication
Certificates	CE
Options	<ul style="list-style-type: none"> • motor brake (24 Vdc) • mounting options • adapter options

Performance Specifications

Parameter	ECT90
Stroke length (S), maximum [mm]	1500
Maximum dynamic load (Fx) ¹ [N]	ECT09-B53R03PB-2510 9800 ECT09-B53R02PB-2510 8000 ECT09-B53R03PB-3220 5900 ECT09-B53R02PB-3220 3900
Maximum load (Fy, Fz) ² [N]	500
Maximum load torque (My, Mz) [Nm]	150
Maximum speed [mm/s]	ECT09-B53R03PB-2510 220 ECT09-B53R02PB-2510 330 ECT09-B53R03PB-3220 440 ECT09-B53R02PB-3220 670
Operating temperature limits [°C]	-20 – 70
Screw diameters [mm]	25, 32
Screw leads ³ [mm]	10, 20
Backlash [mm]	Screw diameter = 25 mm 0,11 Screw diameter = 32 mm 0,18
Repeatability [± mm]	0,05
Protection class, standard	IP65

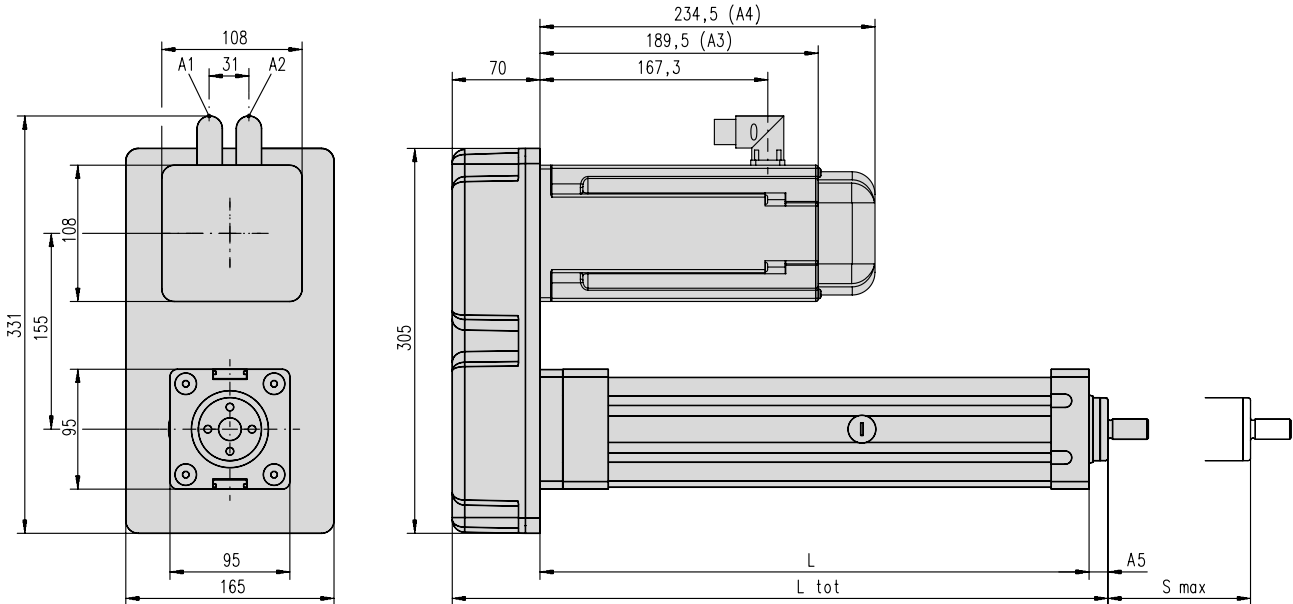
¹ At a 100% duty cycle.

² Value at full retraction - decreases as the actuator extends.

³ 10 mm lead = diameter 25 mm. 20 mm lead = diameter 32 mm.

ECT90

Parallel B53 AC Servo Motor



S max: maximum stroke (ordering stroke in mm)
 L: cover tube length
 L tot: retracted length

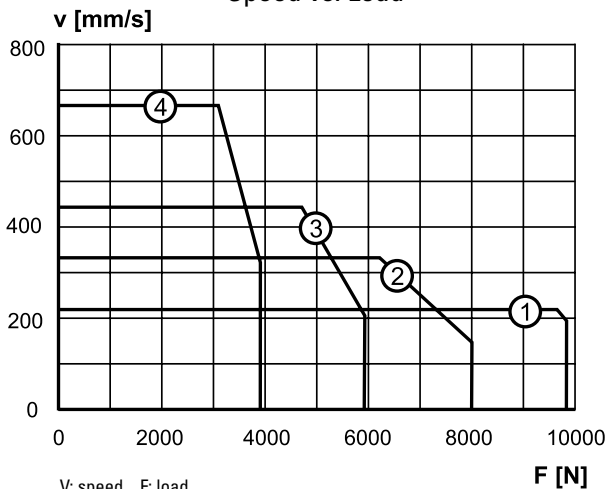
A1: power connector
 A2: resolver connector
 A3: without brake

A4: with brake
 A5: ECT09-B53•••PB-25 = 15 mm, ECT09-B53•••PB-32 = 12 mm

Cover tube length (L)	[mm]	ECT09-B53•••PB-25: $L = S_{max} + 195$ ECT09-B53•••PB-32: $L = S_{max} + 230$
Retracted length (L tot)	[mm]	ECT09-B53•••PB-25: $L_{tot} = S_{max} + 280$ ECT09-B53•••PB-32: $L_{tot} = S_{max} + 312$
Weight of unit	[kg]	ECT09-B53••PB-25: $kg = 20,2 + 0,016 \times S_{max}$ ECT09-B53••PB-32: $kg = 22,6 + 0,018 \times S_{max}$

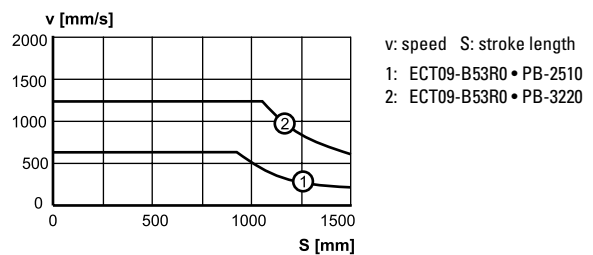
Performance Diagrams

Speed vs. Load



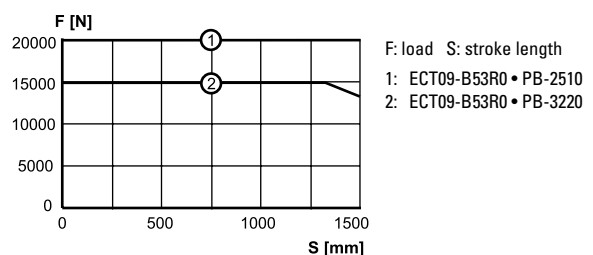
V: speed F: load
 1: ECT09-B53R03PB-2510
 2: ECT09-B53R02PB-2510
 3: ECT09-B53R03PB-3220
 4: ECT09-B53R02PB-3220

Critical Speed vs. Stroke



v: speed S: stroke length
 1: ECT09-B53R0•PB-2510
 2: ECT09-B53R0•PB-3220

Column Load Limit vs. Stroke



F: load S: stroke length
 1: ECT09-B53R0•PB-2510
 2: ECT09-B53R0•PB-3220

ECT90

Direct Drive, Inline B43 AC Servo Motor

- » Ordering Key - see page 93
- » Mounting Options - see page 78
- » Adapter Options - see page 80
- » Glossary - see page 96



Standard Features and Benefits

- Robust and reliable
- Brushless AC servo motor
- Direct drive
- Ball screw
- Hard chromed steel extension tube
- IP65 as standard
- Stroke up to 1500 mm
- Load up to 5300 N
- Speed up to 1600 mm/s

General Specifications

Parameter	ECT90
Profile size (w × h)	90 × 92 mm
Screw type	ball screw
Gear box	no, direct drive
Motor type	brushless AC servo motor
Motor designation	AKM43E-ANCNR-00
Motor feedback	resolver
Motor connection	connector
Motor brake	no, optional
Lubrication	single point lubrication
Certificates	CE
Options	<ul style="list-style-type: none"> • motor brake (24 Vdc) • mounting options • adapter options

Performance Specifications

Parameter	ECT90
Stroke length (S), maximum [mm]	1500
Maximum dynamic load (Fx) ¹ [N]	ECT09-B43R01LD-2510 2000 ECT09-B43R01LD-3220 900
Maximum load (Fy, Fz) ² [N]	500
Maximum load torque (My, Mz) [Nm]	150
Maximum speed [mm/s]	ECT09-B43R01LD-2510 410 ECT09-B43R01LD-3220 820
Operating temperature limits [°C]	-20 – 70
Screw diameters [mm]	25, 32
Screw leads ³ [mm]	10, 20
Backlash [mm]	Screw diameter = 25 mm 0,11 Screw diameter = 32 mm 0,18
Repeatability [± mm]	0,05
Protection class, standard	IP65

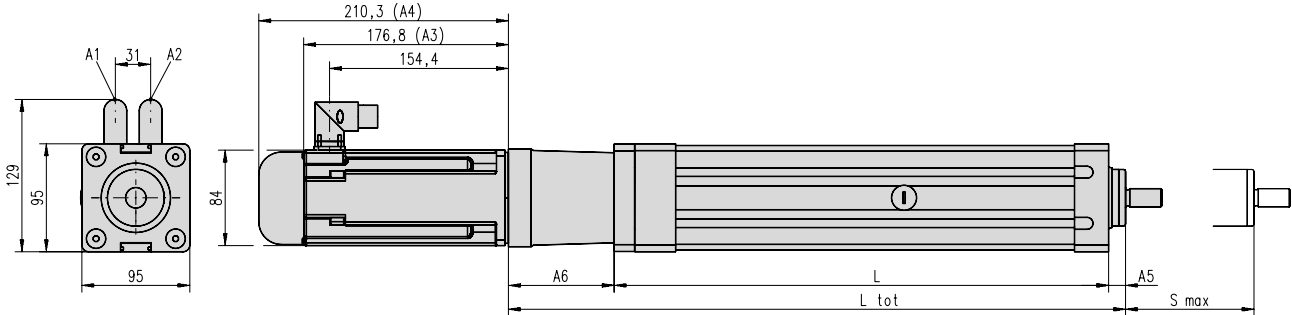
¹ At a 100% duty cycle.

² Value at full retraction - decreases as the actuator extends.

³ 10 mm lead = diameter 25 mm. 20 mm lead = diameter 32 mm.

ECT90

Direct Drive, Inline B43 AC Servo Motor



S max: maximum stroke (ordering stroke in mm)
 L: cover tube length
 L tot: retracted length

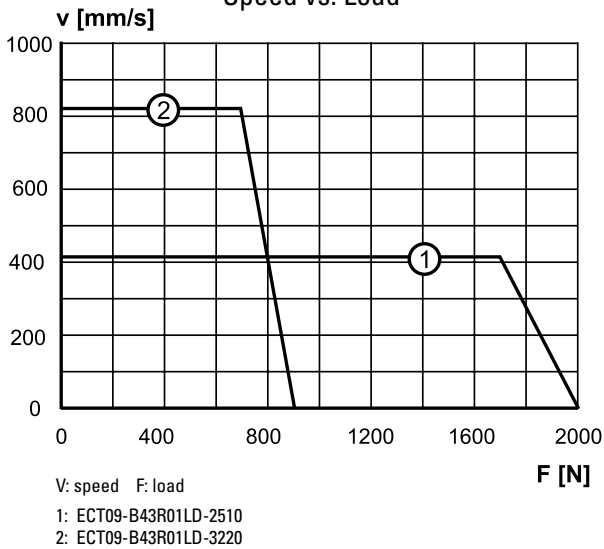
A1: power connector
 A2: resolver connector
 A3: without brake

A4: with brake
 A5: ECT09-B43 • 01LD-25 = 15 mm, ECT09-B43 • 01LD-32 = 12 mm
 A6: ECT09-B43 • 01LD-25 = 93 mm, ECT09-B43 • 01LD-32 = 103 mm

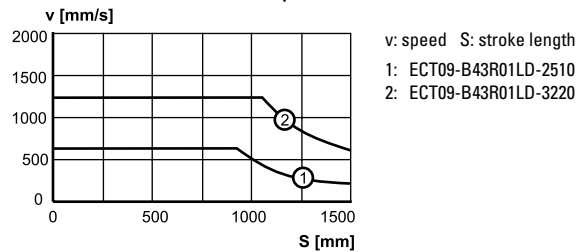
Cover tube length (L)	[mm]	ECT09-B43 • 01LD-25: L = S max + 195 ECT09-B43 • 01LD-32: L = S max + 230
Retracted length (L tot)	[mm]	ECT09-B43 • 01LD-25: L tot = S max + 303 ECT09-B43 • 01LD-32: L tot = S max + 345
Weight of unit	[kg]	ECT09-B43 • 01LD-25: kg = 13,7 + 0,016 × S max ECT09-B43 • 01LD-32: kg = 16,2 + 0,018 × S max

Performance Diagrams

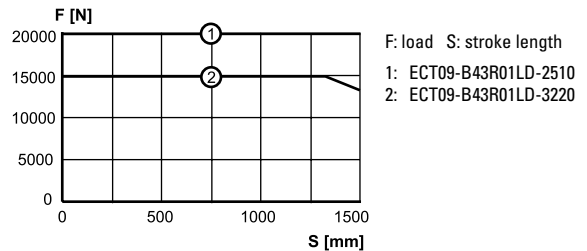
Speed vs. Load



Critical Speed vs. Stroke



Column Load Limit vs. Stroke



ECT90

Direct Drive, Inline B53 AC Servo Motor

- » Ordering Key - see page 93
- » Mounting Options - see page 78
- » Adapter Options - see page 80
- » Glossary - see page 96



Standard Features and Benefits

- Robust and reliable
- Brushless AC servo motor
- Direct drive
- Ball screw
- Hard chromed steel extension tube
- IP65 as standard
- Stroke up to 1500 mm
- Load up to 5300 N
- Speed up to 1600 mm/s

General Specifications

Parameter	ECT90
Profile size (w × h)	90 × 92 mm
Screw type	ball screw
Gear box	no, direct drive
Motor type	brushless AC servo motor
Motor designation	AKM53K-ANCNR-00
Motor feedback	resolver
Motor connection	connector
Motor brake	no, optional
Lubrication	single point lubrication
Certificates	CE
Options	<ul style="list-style-type: none"> • motor brake (24 Vdc) • mounting options • adapter options

Performance Specifications

Parameter	ECT90
Stroke length (S), maximum [mm]	1500
Maximum dynamic load (Fx) ¹ [N]	ECT09-B53R01LD-2510 5300 ECT09-B53R01LD-3220 2600 ECT09-B53R01LD-3232 1500
Maximum load (Fy, Fz) ² [N]	500
Maximum load torque (My, Mz) [Nm]	150
Maximum speed [mm/s]	ECT09-B53R01LD-2510 450 ECT09-B53R01LD-3220 1000 ECT09-B53R01LD-3232 1600
Operating temperature limits [°C]	-20 – 70
Screw diameters [mm]	25, 32
Screw leads ³ [mm]	10, 20, 32
Backlash [mm]	Screw diameter = 25 mm 0,11 Screw diameter = 32 mm 0,18
Repeatability [± mm]	0,05
Protection class, standard	IP65

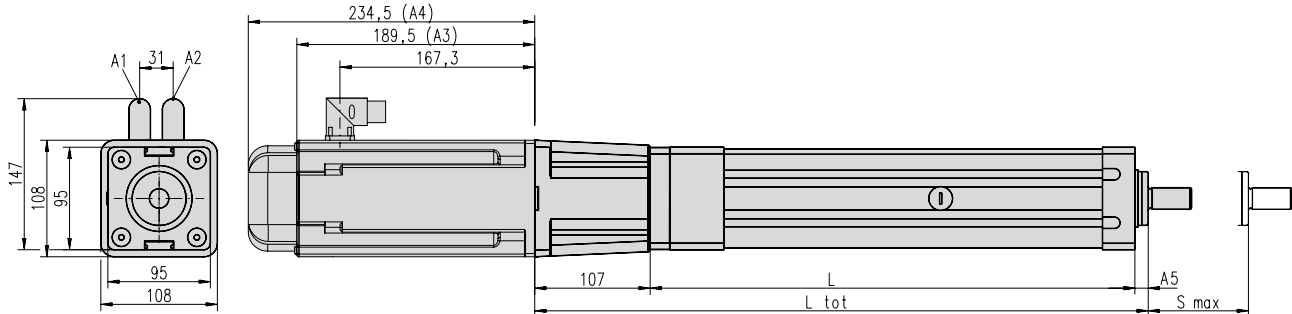
¹ At a 100% duty cycle.

² Value at full retraction - decreases as the actuator extends.

³ 10 mm lead = diameter 25 mm. 20 and 32 mm leads = diameter 32 mm.

ECT90

Direct Drive, Inline B53 AC Servo Motor



S max: maximum stroke (ordering stroke in mm)
 L: cover tube length
 L tot: retracted length

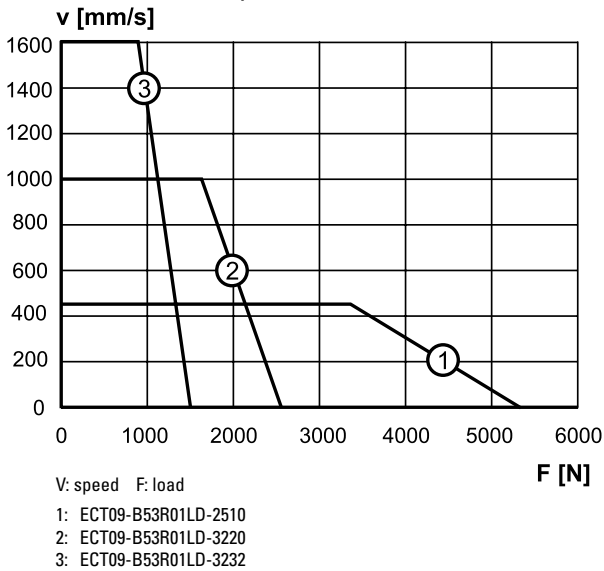
A1: power connector
 A2: resolver connector
 A3: without brake

A4: with brake
 A5: ECT09-B53 • 01LD-25 = 15 mm, ECT09-B53 • 01LD-32 = 12 mm

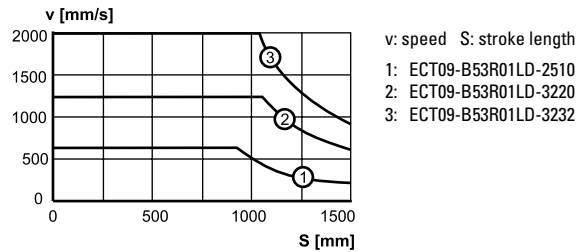
Cover tube length (L)	[mm]	ECT09-B53 • 01LD-25: L = S max + 195 ECT09-B53 • 01LD-32: L = S max + 230
Retracted length (L tot)	[mm]	ECT09-B53 • 01LD-25: L tot = S max + 303 ECT09-B53 • 01LD-32: L tot = S max + 344
Weight of unit	[kg]	ECT09-B53 •• 01LD-25: kg = 17,2 + 0,016 × S max ECT09-B53 •• 01LD-32: kg = 19,6 + 0,018 × S max

Performance Diagrams

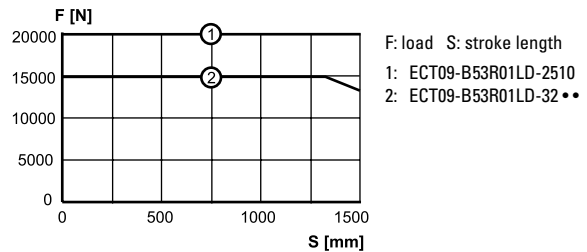
Speed vs. Load



Critical Speed vs. Stroke



Column Load Limit vs. Stroke



ECT90

Planetary Gear, Inline B43 AC Servo Motor

- » Ordering Key - see page 93
- » Mounting Options - see page 78
- » Adapter Options - see page 80
- » Glossary - see page 96



Standard Features and Benefits

- Robust and reliable
- Brushless AC servo motor
- Planetary gear
- Ball screw
- Hard chromed steel extension tube
- IP65 as standard
- Stroke up to 1500 mm
- Load up to 10000 N
- Speed up to 160 mm/s

General Specifications

Parameter	ECT90
Profile size (w × h)	90 × 92 mm
Screw type	ball screw
Gear box	planetary gear
Motor type	brushless AC servo motor
Motor designation	AKM43E-ANCNR-00
Motor feedback	resolver
Motor connection	connector
Motor brake	no, optional
Lubrication	single point lubrication
Certificates	CE
Options	<ul style="list-style-type: none"> • motor brake (24 Vdc) • mounting options • adapter options

Performance Specifications

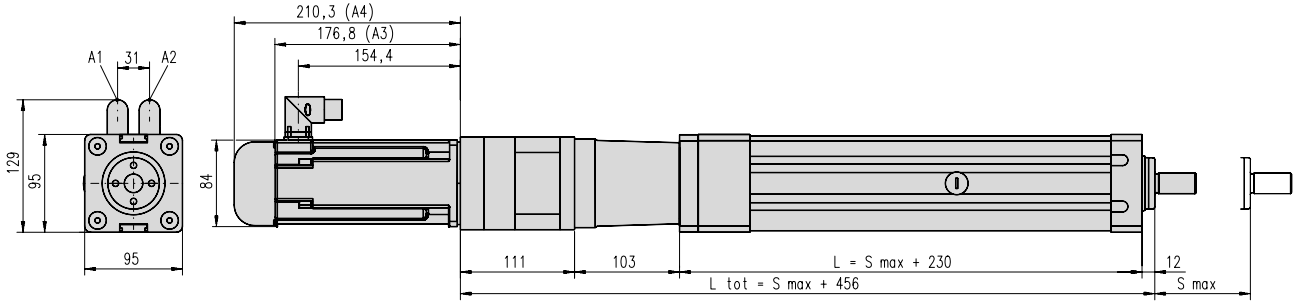
Parameter	ECT90
Stroke length (S), maximum [mm]	1500
Maximum dynamic load (Fx) ¹ [N]	ECT09-B43R10LP-3220 10000 ECT09-B43R05LP-3220 5000
Maximum load (Fy, Fz) ² [N]	500
Maximum load torque (My, Mz) [Nm]	150
Maximum speed [mm/s]	ECT09-B43R10LP-3220 80 ECT09-B43R05LP-3220 160
Operating temperature limits [°C]	-20 – 70
Screw diameters [mm]	32
Screw leads [mm]	20
Backlash [mm]	Screw diameter = 25 mm 0,11 Screw diameter = 32 mm 0,18
Repeatability [± mm]	0,05
Protection class, standard	IP65

¹ At a 100% duty cycle.

² Value at full retraction - decreases as the actuator extends.

ECT90

Planetary Gear, Inline B43 AC Servo Motor



S max: maximum stroke (ordering stroke in mm)
 L: cover tube length
 L tot: retracted length

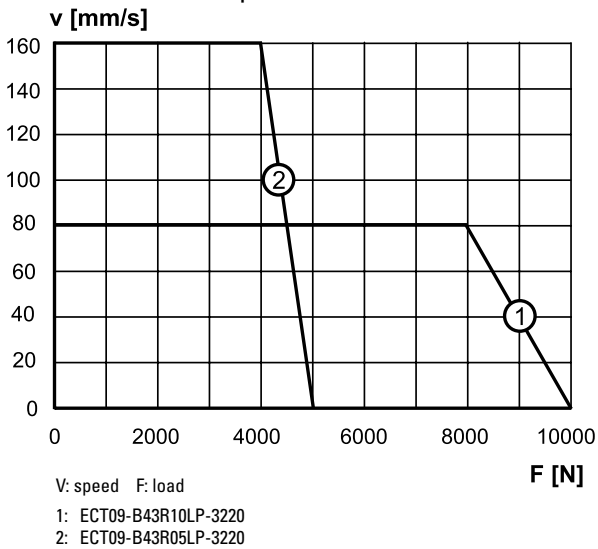
A1: power connector
 A2: resolver connector
 A3: without brake

A4: with brake

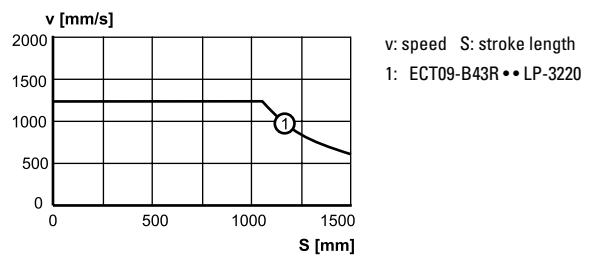
Cover tube length (L)	[mm]	$L = S_{max} + 230$
Retracted length (L tot)	[mm]	$L_{tot} = S_{max} + 456$
Weight of unit	[kg]	$kg = 19,2 + 0,018 \times S_{max}$

Performance Diagrams

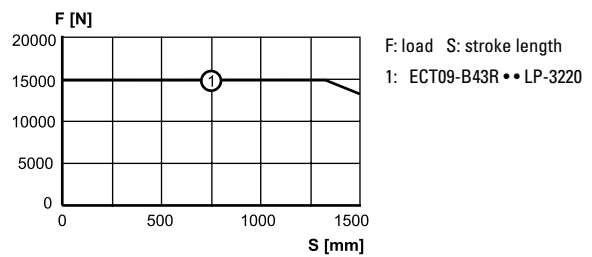
Speed vs. Load



Critical Speed vs. Stroke



Column Load Limit vs. Stroke



ECT90

Planetary Gear, Inline B53 AC Servo Motor

- » Ordering Key - see page 93
- » Mounting Options - see page 78
- » Adapter Options - see page 80
- » Glossary - see page 96



Standard Features and Benefits

- Robust and reliable
- Brushless AC servo motor
- Planetary gear
- Ball screw
- Hard chromed steel extension tube
- IP65 as standard
- Stroke up to 1500 mm
- Load up to 20000 N
- Speed up to 270 mm/s

General Specifications

Parameter	ECT90
Profile size (w × h)	90 × 92 mm
Screw type	ball screw
Gear box	planetary gear
Motor type	brushless AC servo motor
Motor designation	AKM53K-ANCNR-00
Motor feedback	resolver
Motor connection	connector
Motor brake	no, optional
Lubrication	single point lubrication
Certificates	CE
Options	<ul style="list-style-type: none"> • motor brake (24 Vdc) • mounting options • adapter options

Performance Specifications

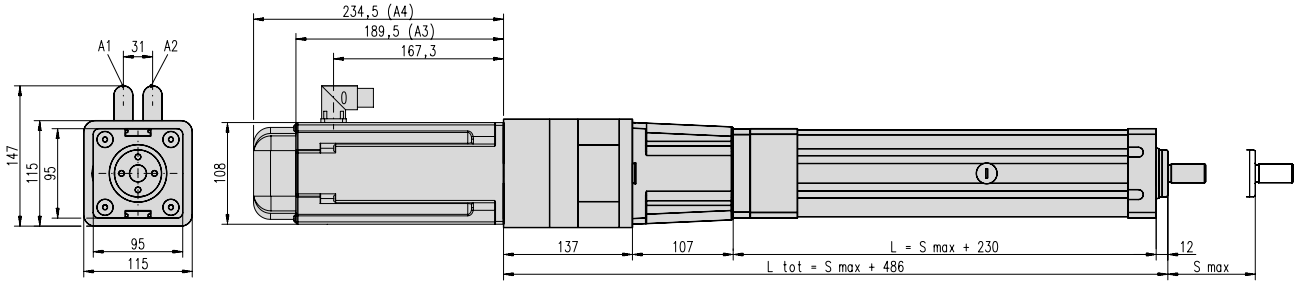
Parameter	ECT90
Stroke length (S), maximum [mm]	1500
Maximum dynamic load (Fx) ¹ [N]	20000 ECT09-B53R10LP-3220 13000 ECT09-B53R05LP-3220
Maximum load (Fy, Fz) ² [N]	500
Maximum load torque (My, Mz) [Nm]	150
Maximum speed [mm/s]	130 ECT09-B53R10LP-3220 270 ECT09-B53R05LP-3220
Operating temperature limits [°C]	-20 – 70
Screw diameters [mm]	32
Screw leads [mm]	20
Backlash [mm]	0,11 Screw diameter = 25 mm 0,18 Screw diameter = 32 mm
Repeatability [± mm]	0,05
Protection class, standard	IP65

¹ At a 100% duty cycle.

² Value at full retraction - decreases as the actuator extends.

ECT90

Planetary Gear, Inline B53 AC Servo Motor



S max: maximum stroke (ordering stroke in mm)
 L: cover tube length
 L tot: retracted length

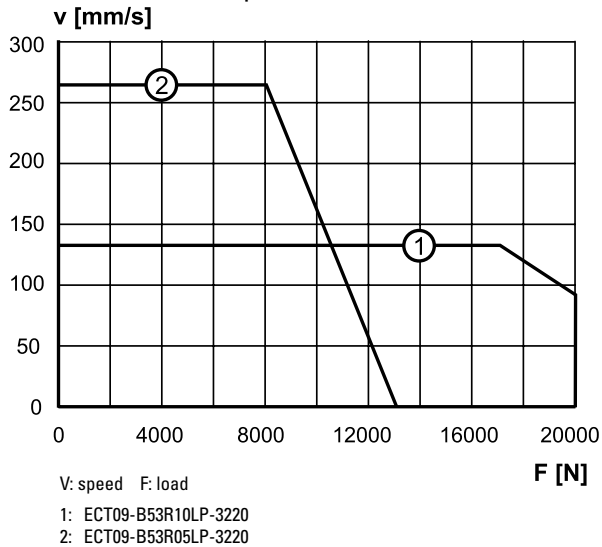
A1: power connector
 A2: resolver connector
 A3: without brake

A4: with brake

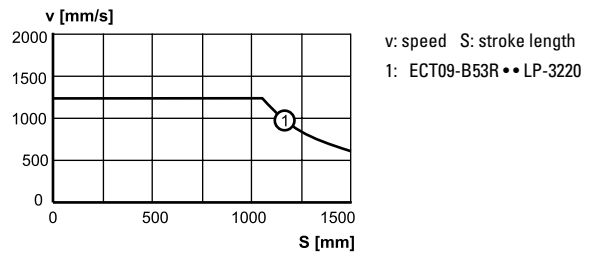
Cover tube length (L)	[mm]	$L = S_{max} + 230$
Retracted length (L tot)	[mm]	$L_{tot} = S_{max} + 486$
Weight of unit	[kg]	$kg = 24,8 + 0,018 \times S_{max}$

Performance Diagrams

Speed vs. Load



Critical Speed vs. Stroke



Column Load Limit vs. Stroke

