

# LINEAR MOTORS P10-54X180U



- ✓ 230VAC and 3 x 400VAC technology
- ✓ Peak forces up to 502 N
- ✓ LinMot Encoder or Incremental Encoder
- ✓ Extremely high dynamic
- ✓ Rotating push-pull TWIN connector for power and encoder cables
- ✓ Can also be controlled by standard third-party servo drives

**LINEAR MOTORS P10-54x180U****Technical Data** ..... **425****Motor Specifications**P10-54x180U/10 ..... **431**P10-54x180U/70 ..... **432**P10-54x180U/160 ..... **433**P10-54x180U/280 ..... **434**P10-54x180U/370 ..... **435**P10-54x180U/460 ..... **436**P10-54x180U/580 ..... **437**P10-54x180U/670 ..... **438**P10-54x180U/880 ..... **439**P10-54x180U/1060 ..... **440**P10-54x180U/1270 ..... **441**P10-54x180U/1480 ..... **442**P10-54x180U/1660 ..... **443****Accessories** ..... **444**

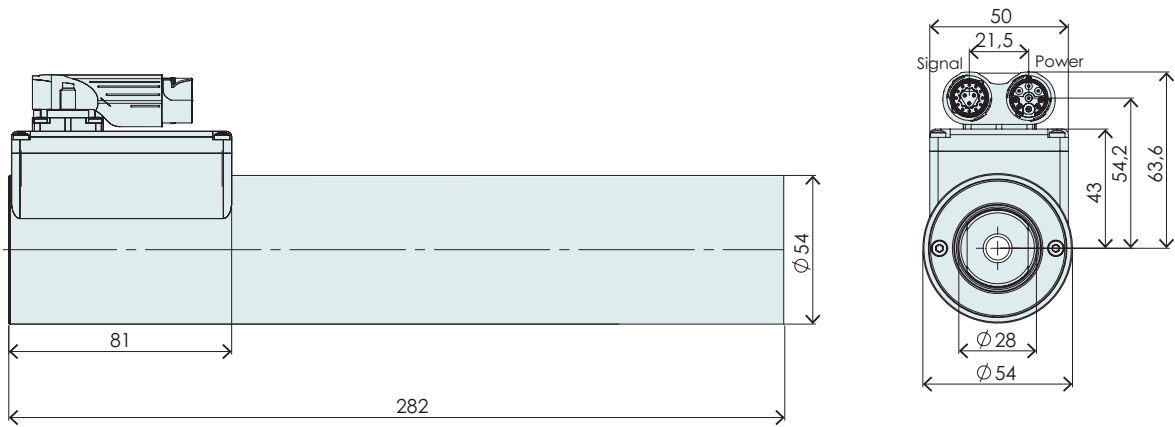


**MOTOR FAMILY P10-54x180U**

Technical Data				
<b>Stroke</b>				
Max. Stroke (ES)	mm (in)		1660 (65.4)	
<b>Force</b>				
Max. Force <sup>1</sup> @ 1x230VAC	N (lbf)		502 (113)	
Max. Force <sup>1</sup> @ 3x400VAC	N (lbf)		502 (113)	
Max. Cont. Force [Passive cooling/ Fan / Fluid]	N (lbf)		84 / 110 / 160	(19 / 26 / 36)
Max. Border Force relative	%		100	
Force Constant 1	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )		33	(7.42)
Force Constant 2	N/A <sub>rms</sub> (lbf/A <sub>rms</sub> )		46.7	(10.5)
<b>Velocity</b>				
Max. Velocity @ 1x230VAC	m/s (in/s)		5.4	(219.9)
Max. Velocity @ 3x400VAC	m/s (in/s)		9.5	(379.9)
<b>Position Detection</b>				
Position Resolution	mm (in)		0.007	(0.0003)
Repeatability	mm (in)		±0.05	(±0.002)
Position Resolution with ES	mm (in)		0.001	(0.00004)
Repeatability with ES	mm (in)		±0.01	(±0.0004)
Linearity with ES	mm (in)		±0.01	(±0.0004)
<b>Electrical Data</b>				
Max. Current <sup>1</sup> @ 1x230VAC	A <sub>pk</sub> / A <sub>rms</sub>		15.1 / 10.6	
Max. Current <sup>1</sup> @ 3x400VAC	A <sub>pk</sub> / A <sub>rms</sub>		15.1 / 10.6	
Max. Cont. Current 1 [Passive cooling / Fan / Fluid]	A <sub>pk</sub>		2.6 / 3.5 / 4.9	
Max. Cont. Current 2 [Passive cooling / Fan / Fluid]	A <sub>rms</sub>		1.8 / 2.4 / 3.5	
Back EMF Constant	V <sub>pk</sub> / (m/s) (V <sub>pk</sub> / (in/s))		38.1	(0.968)
Terminal Resistance 25 °C / 120 °C	Ohm		5.7 / 7.8	
Terminal Inductivity	mH		4.6	
Magnetic Period	mm (in)		60	(2.35)
<b>Thermal Data</b>				
Max. Winding Temperature (Sensor)	°C		90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		1.6 / 0.86 / 0.43	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		1200 / 650 / 320	
<b>Mechanical Data</b>				
Stator Diameter	mm (in)		54	(2.1)
Stator Length	mm (in)		282	(11)
Stator Mass	g (lb)		2220	(4.88)
Slider Diameter	mm (in)		28	(1.1)
Slider Length	mm (in)		350 - 2000	(14 - 79)
Slider Mass	g (lb)		1460 - 9140	(3.21 - 20.11)
IP Code			IP 65	
<b>Certification</b>				
UL	File-No.		E354430	

1) Real time calculation of motor winding temperature is required (including monitoring).  
If temperature monitoring is only based on temperature sensor signal (missing thermal model calculation), 70 % of the peak value has to be taken instead.

**STATOR**

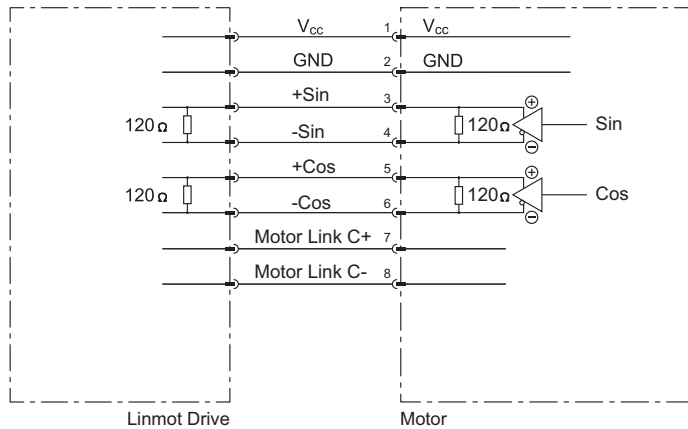
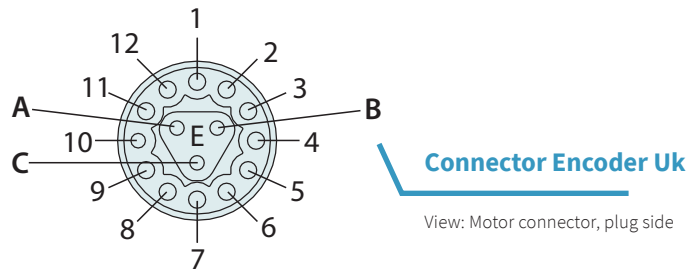


Item	Description	Item-No.	Comment
<b>PS10-54x180U-BL-TU</b>	Stator 3x400VAC, LinMot Encoder	<a href="#">0150-2723</a>	For use with LinMot Drives
<b>PS10-54x180U-BL-TU-D24</b>	Stator 3x400VAC, A/B Encoder, Pt1000	<a href="#">0150-2749</a>	For use with 3rd Party Drives
<b>PS10-54x180U-BL-TU-D24S</b>	Stator 3x400VAC, A/B Encoder 5µm, Pt1000	<a href="#">0150-4049</a>	For use with 3rd Party Drives
<b>PS10-54x180U-BL-TU-D25</b>	Stator 3x400VAC, A/B Encoder, PTC	<a href="#">0150-2753</a>	For use with 3rd Party Drives
<b>PS10-54x180U-BL-TU-D25S</b>	Stator 3x400VAC, A/B Encoder 5µm, PTC	<a href="#">0150-2783</a>	For use with 3rd Party Drives

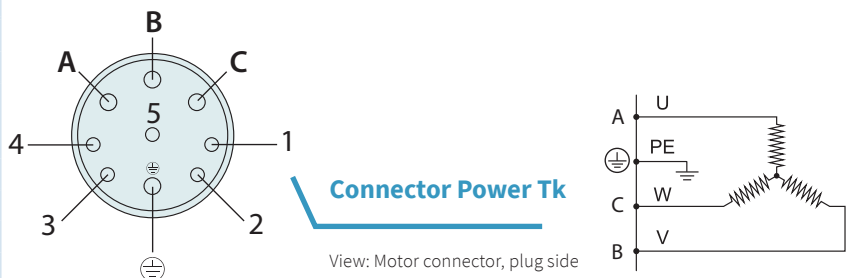
**CONNECTOR PS10-54x180U-BL-TU (INTERFACE FOR LINMOT DRIVES)**

Motor Connector Wiring	Connector Encoder Uk	Wire Color Motor Cable	
+Vcce*	Supply	1	red
GND	Supply	2	black
Sin+	Encoder	3	yellow
Sin-	Encoder	4	orange
Cos+	Encoder	5	green
Cos-	Encoder	6	blue
Mot. Link C+	Communication	7	pink
Mot. Link C-	Communication	8	grey
n. c.	n. c.	9	n. c.
n. c.	n. c.	10	n. c.
n. c.	n. c.	11	n. c.
n. c.	n. c.	12	n. c.
n. c.	n. c.	A	n. c.
n. c.	n. c.	B	n. c.
n. c.	n. c.	C	n. c.

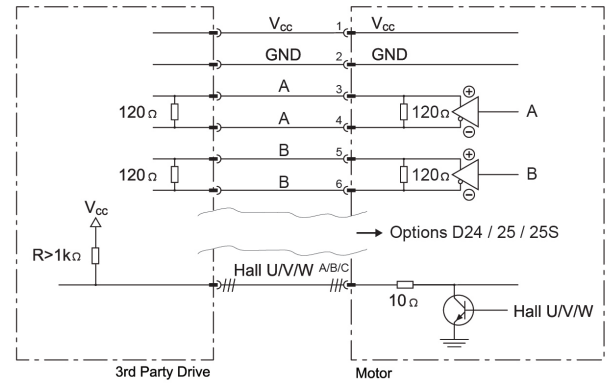
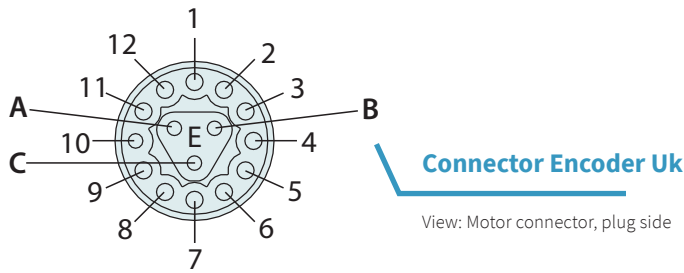
\* The supply voltage Vcc depends on the LinMot Drive type and is within 6...9V.



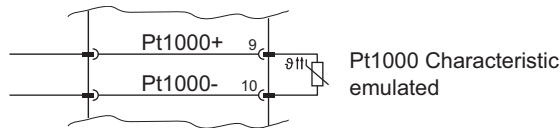
Motor Connector Wiring	Connector Power Tk	Wire Color Motor Cable
Phase U	A	red
PE	PE	yellow-green
Phase V	B	blue
Phase W	C	black (previously: green)
n. c.	1	n. c.
n. c.	2	n. c.
n. c.	3	n. c.
n. c.	4	n. c.
n. c.	5	n. c.



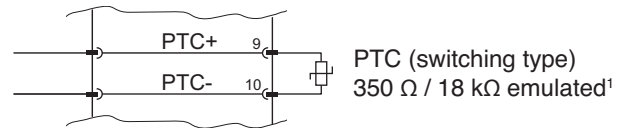
**CONNECTOR PS10-54x180U-BL-TU-D24 / 24S / 25 / 25S (INTERFACE FOR 3RD PARTY DRIVES)**



**PS10-54x180U-BL-TU-D24  
PS10-54x180U-BL-TU-D24S**

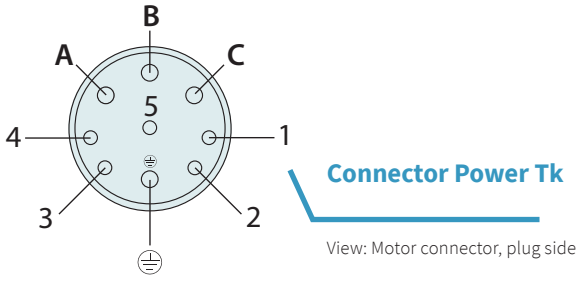


**PS10-54x180U-BL-TU-D25  
PS10-54x180U-BL-TU-D25S**



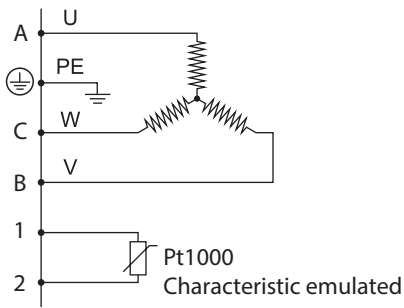
Motor Connector Wiring				
PS10-54x180U-BL-TU-D24 PS10-54x180U-BL-TU-D24S	PS10-54x180U-BL-TU-D25 PS10-54x180U-BL-TU-D25S	Function	Connector Encoder Uk	Wire Color Motor Cable
+Vcc	+Vcc	Supply	1	white
GND	GND	Supply	2	brown
A	A	Encoder	3	grey
/A	/A	Encoder	4	pink
B	B	Encoder	5	blue
/B	/B	Encoder	6	red
-	-	-	7	green (do not connect)
-	-	-	8	yellow (do not connect)
Pt1000+	PTC+	Temp. <sup>2</sup>	9	yellow-brown
Pt1000-	PTC-	Temp. <sup>2</sup>	10	white-yellow
REF+	REF+	Encoder	11	black
REF-	REF-	Encoder	12	purple
Hall U	Hall U	Encoder	A	grey-red
Hall V	Hall V	Encoder	B	red-blue
Hall W	Hall W	Encoder	C	white-green

1) under 350 Ohm = no fault, over 18 kOhm = Fault  
 2) The resistance of the temperature sensor is emulated and only correctly reproduces the temperature when the sensor power supply is active. The connection potentials of the temperature resistance must lie within a range of 0-16V with respect to the sensor GND. The encoder must have been powered on for at least 50 ms, before valid temperatures can be measured. If the encoder is powered off, 20k Ohms are measured between Pins 9 and 10.

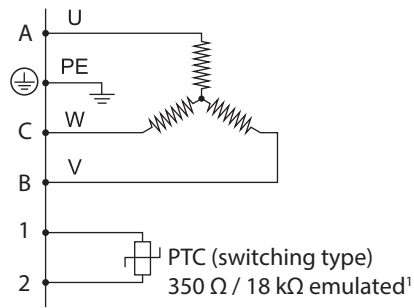


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**PS10-54x180U-BL-TU-D24**  
**PS10-54x180U-BL-TU-D24S**



**PS10-54x180U-BL-TU-D25**  
**PS10-54x180U-BL-TU-D25S**



Motor Connector Wiring			
PS10-54x180U-BL-TU-D24 PS10-54x180U-BL-TU-D24S	PS10-54x180U-BL-TU-D25 PS10-54x180U-BL-TU-D25S	Connector Power Tk	Wire Color Motor Cable
Phase U	Phase U	A	red
PE	PE	PE	yellow-green
Phase V	Phase V	B	blue
Phase W	Phase W	C	black (previously: green)
Pt1000+	PTC+	1	turquoise
Pt1000-	PTC-	2	grey
n. c.	n. c.	3	n. c.
n. c.	n. c.	4	n. c.
n. c.	n. c.	5	n. c.

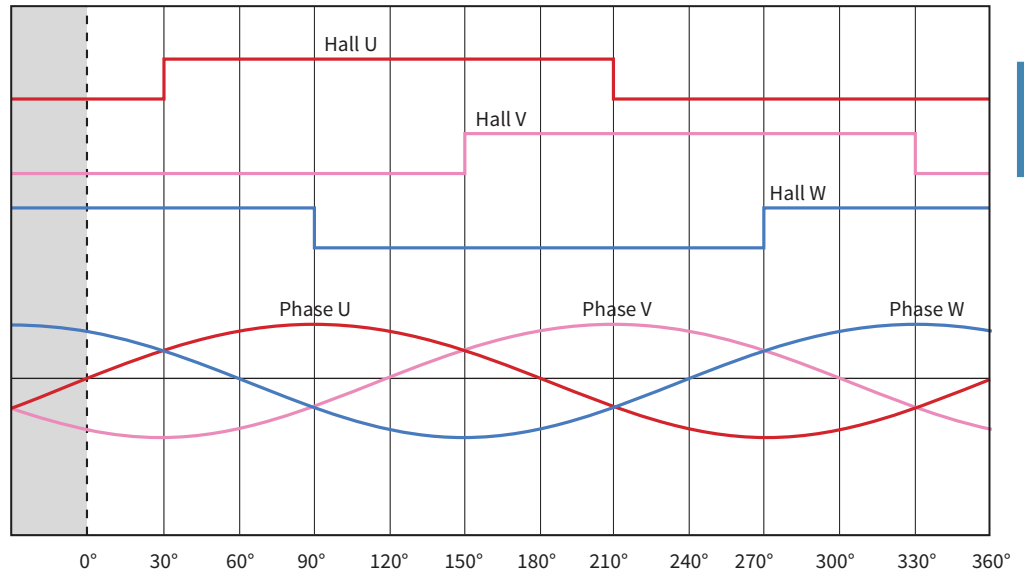
1) under 350 Ω = no fault, over 18 Ω = Fault

**D2X POSITION FEEDBACK (AB-INCREMENTAL INTERFACE FOR 3RD PARTY DRIVES)**

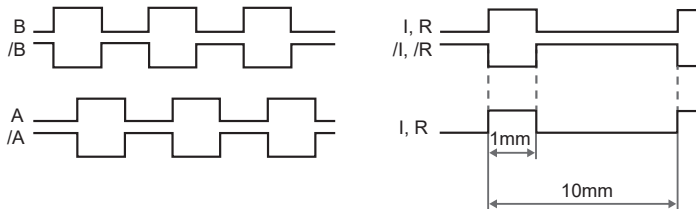
The Linear Motor Series P10-54 has noncontact, integral position feedback. No external encoder is required. Position output is industry standard AB-Incremental RS422 signal. The relation between the phase current and the position sensor output is shown on the right.



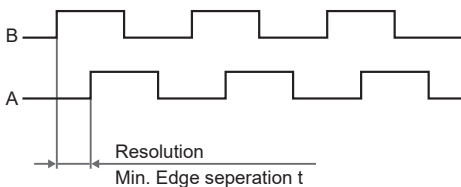
The arrows indicate the direction of movement of the slider. The stator is locked into position.



One magnetic period (360°) corresponds to 60mm stroke



The logical condition of signals A and B is not defined in reference to the index signal I or the reference signal R. It can deviate from the signal form.



Example: Pulse interval  $t = 100 \text{ ns}$   
(i.e., the downstream unit must be able to process 10 Mcounts)

Formula for signal frequency =  $1 / (100 \text{ ns} \times 4) = 2.5 \text{ MHz}$

		P10-54x...-D2x	P10-54x...-D2xS
Resolution	µm	1	5
Output type		RS422	RS422
Max. Output frequency A / B	MHz	2.5	2.5
Min. Edge separation t	ns	100	100
Supply voltage	Vdc	5-12	5-12
Max. Supply current	mA	300	300
Position repeatability <sup>1</sup>	µm	± 15	± 15
Linearity over 1m <sup>1</sup>	%	< ± 0.035	< ± 0.035

<sup>1</sup>) Dependent on the amplifier. Under constant operating and thermal conditions.

**D2X TEMPERATURE FEEDBACK (AB-INCREMENTAL INTERFACE FOR 3RD PARTY DRIVES)**

Overheat protection is provided by three internal thermistors embedded in the motor windings. These thermistors are monitored by the motor's electronics. A single thermistor is emulated based on the maximum of the measured temperature values. This is done to accurately monitor the temperature over the whole length of the stator and to react as fast as

possible to dynamic changes in a single motor phase. As the motor winding temperature reaches its absolute maximum value, the drive amplifier or servo controller must disable the motor in order to protect the motor from overheat damages.

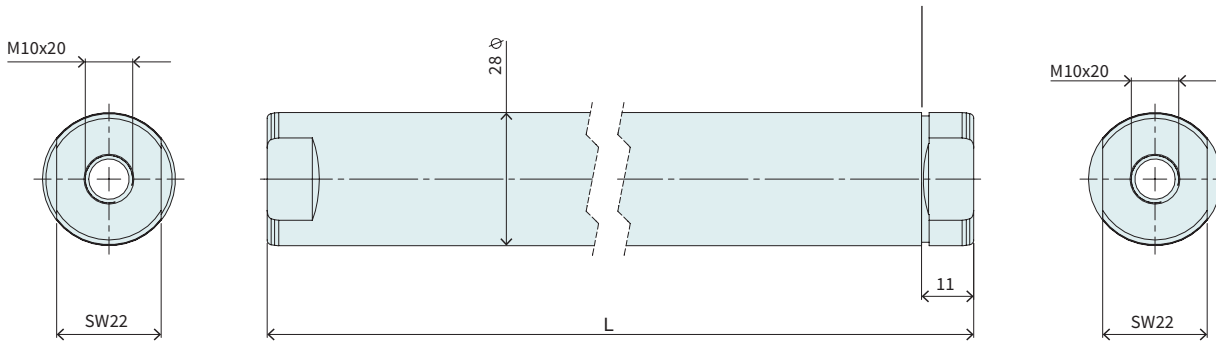


Attention: It is strongly recommended that the motor over-temperature sensor is connected to the drive amplifier or servo controller at all times in order to reduce the risk of damage to the motor due to excessive temperatures. The motor encoder has to be powered to ensure correct temperature read-outs.

**SLIDER**

**Slider Standard**

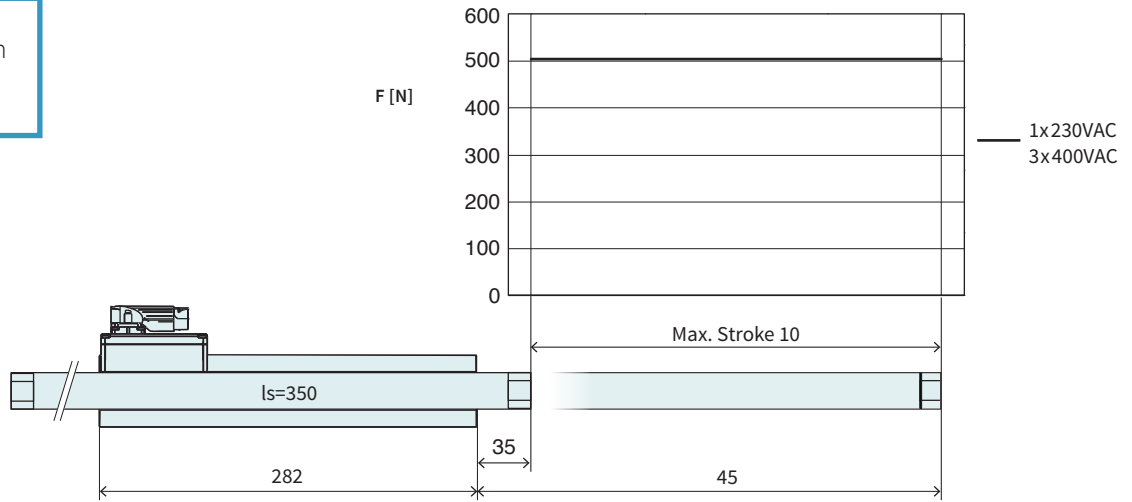
Number of grooves determines the slider type (see chapter 2 / slider) and marks the front end.



Slider Standard			
Item	Description	Max. Stroke [mm]	Item-No.
PL01-28x350/270	Slider 'standard'	10	<a href="#">0150-1380</a>
PL01-28x410/330	Slider 'standard'	70	<a href="#">0150-1381</a>
PL01-28x500/420	Slider 'standard'	160	<a href="#">0150-1382</a>
PL01-28x620/540	Slider 'standard'	280	<a href="#">0150-1383</a>
PL01-28x710/630	Slider 'standard'	370	<a href="#">0150-1384</a>
PL01-28x800/720	Slider 'standard'	460	<a href="#">0150-1385</a>
PL01-28x920/840	Slider 'standard'	580	<a href="#">0150-1386</a>
PL01-28x1010/930	Slider 'standard'	670	<a href="#">0150-1387</a>
PL01-28x1220/1140	Slider 'standard'	880	<a href="#">0150-1388</a>
PL01-28x1400/1320	Slider 'standard'	1060	<a href="#">0150-1389</a>
PL01-28x1610/1530	Slider 'standard'	1270	<a href="#">0150-1390</a>
PL01-28x1820/1740	Slider 'standard'	1480	<a href="#">0150-1395</a>
PL01-28x2000/1920	Slider 'standard'	1660	<a href="#">0150-1396</a>

**P10-54x180U/10-BL-TU**

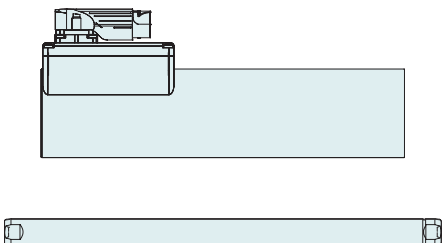
**Max. Stroke:** 10 mm  
**Peak Force:** 502 N



Dimensions in mm

Technical Data P10-54x180U/10				
<b>Stroke</b>				
Max. Stroke	mm	(in)	10	(0.39)
<b>Force</b>				
Max. Force <sup>1</sup> @ 1x230VAC	N	(lbf)	502	(113)
Max. Force <sup>1</sup> @ 3x400VAC	N	(lbf)	502	(113)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	84 / 110 / 160	(19 / 26 / 36)
Max. Border Force relative	%		100	
Force Constant 1	N/A <sub>pk</sub>	(lbf/A <sub>pk</sub> )	33	(7.42)
Force Constant 2	N/A <sub>rms</sub>	(lbf/A <sub>rms</sub> )	46.7	(10.5)
<b>Velocity</b>				
Max. Velocity @ 1x230VAC	m/s	(in/s)	5.4	(219.9)
Max. Velocity @ 3x400VAC	m/s	(in/s)	9.5	(9.5)
<b>Position Detection</b>				
Repeatability	mm	(in)	±0.05	(±0.002)
Linearity	%		± 7.6	
<b>Electrical Data</b>				
Max. Current <sup>1</sup> @ 1x230VAC	A <sub>pk</sub> / A <sub>rms</sub>		15.1 / 10.6	
Max. Current <sup>1</sup> @ 3x400VAC	A <sub>pk</sub> / A <sub>rms</sub>		15.1 / 10.6	
Max. Cont. Current 1 [Passive cooling / Fan / Fluid]	A <sub>pk</sub>		2.6 / 3.5 / 4.9	
Max. Cont. Current 2 [Passive cooling / Fan / Fluid]	A <sub>rms</sub>		1.8 / 2.4 / 3.5	
<b>Thermal Data</b>				
Max. Winding Temperature (Sensor)	°C		90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		1.6 / 0.86 / 0.43	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		1200 / 650 / 320	
<b>Mechanical Data</b>				
Slider Length	mm	(in)	350	(14)
Slider Mass	g	(lb)	1460	(3.21)

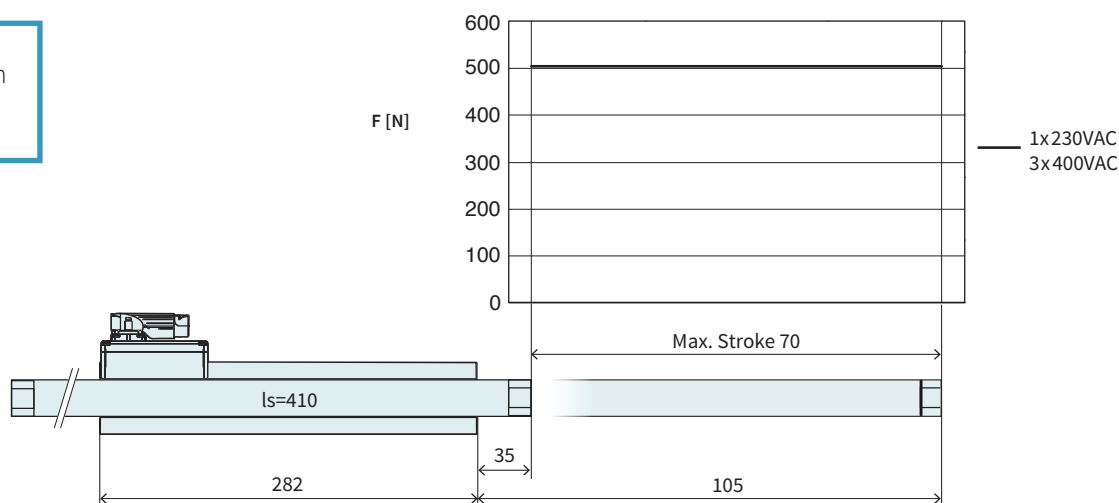
1) Real time calculation of motor winding temperature is required (including monitoring).  
 If temperature monitoring is only based on temperature sensor signal (missing thermal model calculation), 70 % of the peak value has to be taken instead.



Item	Description	Item-No.
<b>PS10-54x180U-BL-TU</b>	Stator 3x400VAC, LinMot Encoder	<a href="#">0150-2723</a>
<b>PS10-54x180U-BL-TU-D24</b>	Stator 3x400VAC, A/B Encoder, Pt1000	<a href="#">0150-2749</a>
<b>PS10-54x180U-BL-TU-D24S</b>	Stator 3x400VAC, A/B Encoder 5µm, Pt1000	<a href="#">0150-4049</a>
<b>PS10-54x180U-BL-TU-D25</b>	Stator 3x400VAC, A/B Encoder, PTC	<a href="#">0150-2753</a>
<b>PS10-54x180U-BL-TU-D25S</b>	Stator 3x400VAC, A/B Encoder 5µm, PTC	<a href="#">0150-2783</a>
<b>PL01-28x350/270</b>	Slider 'standard'	<a href="#">0150-1380</a>

**P10-54x180U/70-BL-TU**

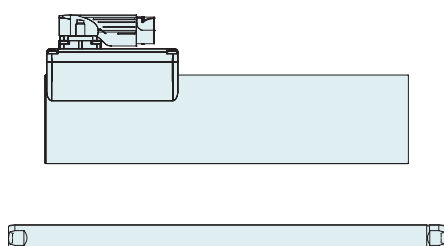
**Max. Stroke:** 70 mm  
**Peak Force:** 502 N



Dimensions in mm

Technical Data P10-54x180U/70			
<b>Stroke</b>			
Max. Stroke	mm (in)		70 (2.75)
<b>Force</b>			
Max. Force <sup>1</sup> @ 1x230VAC	N (lbf)		502 (113)
Max. Force <sup>1</sup> @ 3x400VAC	N (lbf)		502 (113)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		84 / 110 / 160 (19 / 26 / 36)
Max. Border Force relative	%		100
Force Constant 1	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )		33 (7.42)
Force Constant 2	N/A <sub>rms</sub> (lbf/A <sub>rms</sub> )		46.7 (10.5)
<b>Velocity</b>			
Max. Velocity @ 1x230VAC	m/s (in/s)		5.4 (219.9)
Max. Velocity @ 3x400VAC	m/s (in/s)		9.5 (9.5)
<b>Position Detection</b>			
Repeatability	mm (in)		±0.05 (±0.002)
Linearity	%		± 1.15
<b>Electrical Data</b>			
Max. Current <sup>1</sup> @ 1x230VAC	A <sub>pk</sub> / A <sub>rms</sub>		15.1 / 10.6
Max. Current <sup>1</sup> @ 3x400VAC	A <sub>pk</sub> / A <sub>rms</sub>		15.1 / 10.6
Max. Cont. Current 1 [Passive cooling / Fan / Fluid]	A <sub>pk</sub>		2.6 / 3.5 / 4.9
Max. Cont. Current 2 [Passive cooling / Fan / Fluid]	A <sub>rms</sub>		1.8 / 2.4 / 3.5
<b>Thermal Data</b>			
Max. Winding Temperature (Sensor)	°C		90
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		1.6 / 0.86 / 0.43
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		1200 / 650 / 320
<b>Mechanical Data</b>			
Slider Length	mm (in)		410 (16)
Slider Mass	g (lb)		1740 (3.83)

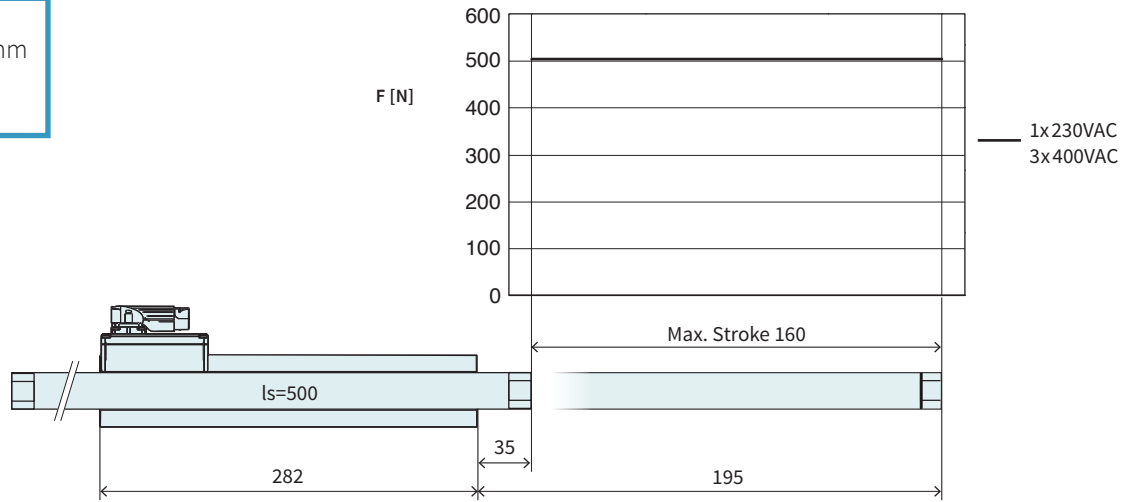
<sup>1</sup>) Real time calculation of motor winding temperature is required (including monitoring).  
 If temperature monitoring is only based on temperature sensor signal (missing thermal model calculation), 70 % of the peak value has to be taken instead.



Item	Description	Item-No.
<b>PS10-54x180U-BL-TU</b>	Stator 3x400VAC, LinMot Encoder	<a href="#">0150-2723</a>
<b>PS10-54x180U-BL-TU-D24</b>	Stator 3x400VAC, A/B Encoder, Pt1000	<a href="#">0150-2749</a>
<b>PS10-54x180U-BL-TU-D24S</b>	Stator 3x400VAC, A/B Encoder 5µm, Pt1000	<a href="#">0150-4049</a>
<b>PS10-54x180U-BL-TU-D25</b>	Stator 3x400VAC, A/B Encoder, PTC	<a href="#">0150-2753</a>
<b>PS10-54x180U-BL-TU-D25S</b>	Stator 3x400VAC, A/B Encoder 5µm, PTC	<a href="#">0150-2783</a>
<b>PL01-28x410/330</b>	Slider 'standard'	<a href="#">0150-1381</a>

**P10-54x180U/160-BL-TU**

**Max. Stroke:** 160 mm  
**Peak Force:** 502 N

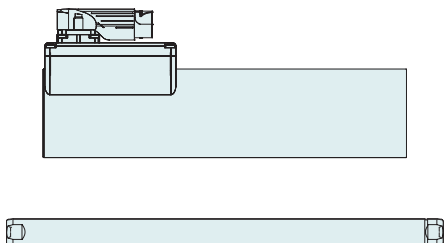


Dimensions in mm

Technical Data P10-54x180U/160

Stroke			
Max. Stroke	mm (in)	160 (6.29)	
Force			
Max. Force <sup>1</sup> @ 1x230VAC	N (lbf)	502 (113)	
Max. Force <sup>1</sup> @ 3x400VAC	N (lbf)	502 (113)	
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	84 / 110 / 160 (19 / 26 / 36)	
Max. Border Force relative	%	100	
Force Constant 1	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )	33 (7.42)	
Force Constant 2	N/A <sub>rms</sub> (lbf/A <sub>rms</sub> )	46.7 (10.5)	
Velocity			
Max. Velocity @ 1x230VAC	m/s (in/s)	5.4 (219.9)	
Max. Velocity @ 3x400VAC	m/s (in/s)	9.5 (9.5)	
Position Detection			
Repeatability	mm (in)	±0.05 (±0.002)	
Linearity	%	± 0.55	
Electrical Data			
Max. Current <sup>1</sup> @ 1x230VAC	A <sub>pk</sub> / A <sub>rms</sub>	15.1 / 10.6	
Max. Current <sup>1</sup> @ 3x400VAC	A <sub>pk</sub> / A <sub>rms</sub>	15.1 / 10.6	
Max. Cont. Current 1 [Passive cooling / Fan / Fluid]	A <sub>pk</sub>	2.6 / 3.5 / 4.9	
Max. Cont. Current 2 [Passive cooling / Fan / Fluid]	A <sub>rms</sub>	1.8 / 2.4 / 3.5	
Thermal Data			
Max. Winding Temperature (Sensor)	°C	90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	1.6 / 0.86 / 0.43	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	1200 / 650 / 320	
Mechanical Data			
Slider Length	mm (in)	500 (20)	
Slider Mass	g (lb)	2160 (4.75)	

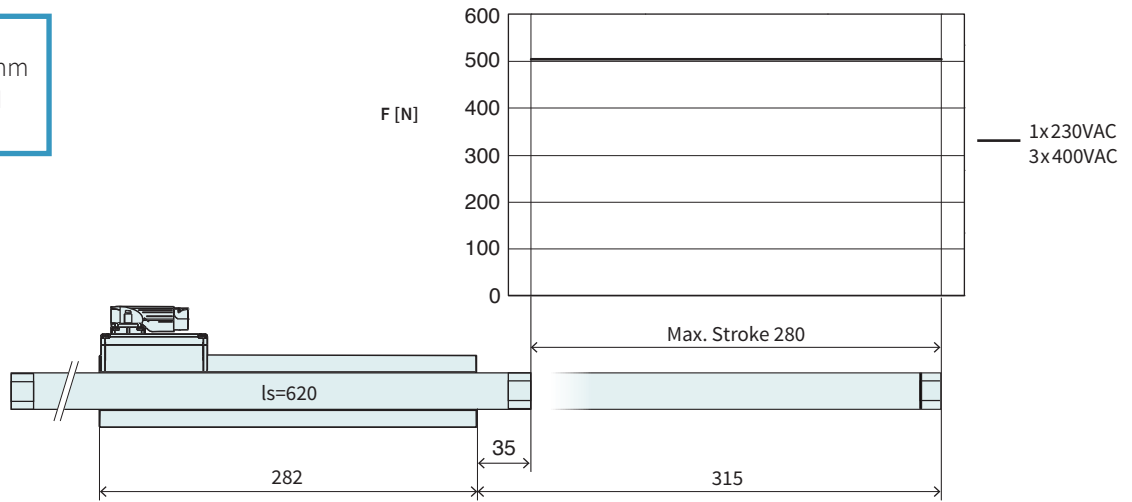
1) Real time calculation of motor winding temperature is required (including monitoring).  
 If temperature monitoring is only based on temperature sensor signal (missing thermal model calculation), 70 % of the peak value has to be taken instead.



Item	Description	Item-No.
<b>PS10-54x180U-BL-TU</b>	Stator 3x400VAC, LinMot Encoder	<a href="#">0150-2723</a>
<b>PS10-54x180U-BL-TU-D24</b>	Stator 3x400VAC, A/B Encoder, Pt1000	<a href="#">0150-2749</a>
<b>PS10-54x180U-BL-TU-D24S</b>	Stator 3x400VAC, A/B Encoder 5µm, Pt1000	<a href="#">0150-4049</a>
<b>PS10-54x180U-BL-TU-D25</b>	Stator 3x400VAC, A/B Encoder, PTC	<a href="#">0150-2753</a>
<b>PS10-54x180U-BL-TU-D25S</b>	Stator 3x400VAC, A/B Encoder 5µm, PTC	<a href="#">0150-2783</a>
<b>PL01-28x500/420</b>	Slider 'standard'	<a href="#">0150-1382</a>

**P10-54x180U/280-BL-TU**

**Max. Stroke:** 280 mm  
**Peak Force:** 502 N



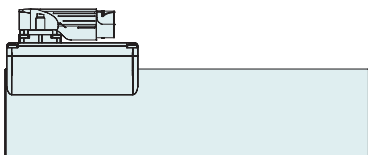
Dimensions in mm

Technical Data P10-54x180U/280

Stroke			
Max. Stroke	mm (in)	280	(10.99)
Force			
Max. Force <sup>1</sup> @ 1x230VAC	N (lbf)	502	(113)
Max. Force <sup>1</sup> @ 3x400VAC	N (lbf)	502	(113)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	84 / 110 / 160	(19 / 26 / 36)
Max. Border Force relative	%	100	
Force Constant 1	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )	33	(7.42)
Force Constant 2	N/A <sub>rms</sub> (lbf/A <sub>rms</sub> )	46.7	(10.5)
Velocity			
Max. Velocity @ 1x230VAC	m/s (in/s)	5.4	(219.9)
Max. Velocity @ 3x400VAC	m/s (in/s)	9.5	(9.5)
Position Detection			
Repeatability	mm (in)	±0.05	(±0.002)
Linearity	%	± 0.35	
Electrical Data			
Max. Current <sup>1</sup> @ 1x230VAC	A <sub>pk</sub> / A <sub>rms</sub>	15.1 / 10.6	
Max. Current <sup>1</sup> @ 3x400VAC	A <sub>pk</sub> / A <sub>rms</sub>	15.1 / 10.6	
Max. Cont. Current 1 [Passive cooling / Fan / Fluid]	A <sub>pk</sub>	2.6 / 3.5 / 4.9	
Max. Cont. Current 2 [Passive cooling / Fan / Fluid]	A <sub>rms</sub>	1.8 / 2.4 / 3.5	
Thermal Data			
Max. Winding Temperature (Sensor)	°C	90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	1.6 / 0.86 / 0.43	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	1200 / 650 / 320	
Mechanical Data			
Slider Length	mm (in)	620	(24)
Slider Mass	g (lb)	2720	(5.98)

1) Real time calculation of motor winding temperature is required (including monitoring).

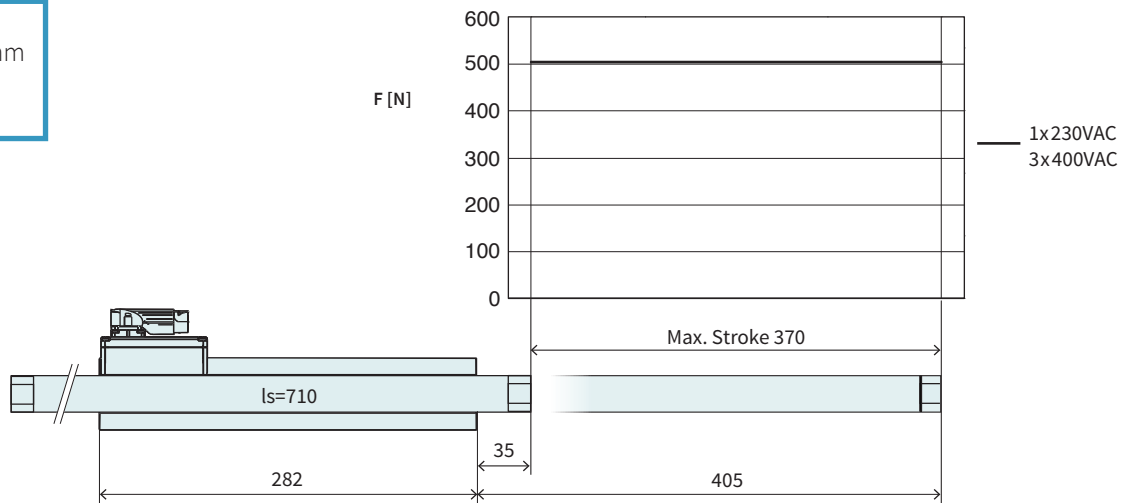
If temperature monitoring is only based on temperature sensor signal (missing thermal model calculation), 70 % of the peak value has to be taken instead.



Item	Description	Item-No.
<b>PS10-54x180U-BL-TU</b>	Stator 3x400VAC, LinMot Encoder	<a href="#">0150-2723</a>
<b>PS10-54x180U-BL-TU-D24</b>	Stator 3x400VAC, A/B Encoder, Pt1000	<a href="#">0150-2749</a>
<b>PS10-54x180U-BL-TU-D24S</b>	Stator 3x400VAC, A/B Encoder 5µm, Pt1000	<a href="#">0150-4049</a>
<b>PS10-54x180U-BL-TU-D25</b>	Stator 3x400VAC, A/B Encoder, PTC	<a href="#">0150-2753</a>
<b>PS10-54x180U-BL-TU-D25S</b>	Stator 3x400VAC, A/B Encoder 5µm, PTC	<a href="#">0150-2783</a>
<b>PL01-28x620/540</b>	Slider 'standard'	<a href="#">0150-1383</a>

**P10-54x180U/370-BL-TU**

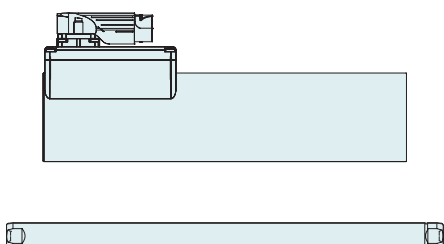
**Max. Stroke:** 370 mm  
**Peak Force:** 502 N



Dimensions in mm

Technical Data P10-54x180U/370				
<b>Stroke</b>				
Max. Stroke	mm (in)		370	(14.59)
<b>Force</b>				
Max. Force <sup>1</sup> @ 1x230VAC	N (lbf)		502	(113)
Max. Force <sup>1</sup> @ 3x400VAC	N (lbf)		502	(113)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		84 / 110 / 160	(19 / 26 / 36)
Max. Border Force relative	%		100	
Force Constant 1	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )		33	(7.42)
Force Constant 2	N/A <sub>rms</sub> (lbf/A <sub>rms</sub> )		46.7	(10.5)
<b>Velocity</b>				
Max. Velocity @ 1x230VAC	m/s (in/s)		5.4	(219.9)
Max. Velocity @ 3x400VAC	m/s (in/s)		9.5	(9.5)
<b>Position Detection</b>				
Repeatability	mm (in)		±0.05	(±0.002)
Linearity	%		± 0.3	
<b>Electrical Data</b>				
Max. Current <sup>1</sup> @ 1x230VAC	A <sub>pk</sub> / A <sub>rms</sub>		15.1 / 10.6	
Max. Current <sup>1</sup> @ 3x400VAC	A <sub>pk</sub> / A <sub>rms</sub>		15.1 / 10.6	
Max. Cont. Current 1 [Passive cooling / Fan / Fluid]	A <sub>pk</sub>		2.6 / 3.5 / 4.9	
Max. Cont. Current 2 [Passive cooling / Fan / Fluid]	A <sub>rms</sub>		1.8 / 2.4 / 3.5	
<b>Thermal Data</b>				
Max. Winding Temperature (Sensor)	°C		90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		1.6 / 0.86 / 0.43	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		1200 / 650 / 320	
<b>Mechanical Data</b>				
Slider Length	mm (in)		710	(28)
Slider Mass	g (lb)		3140	(6.91)

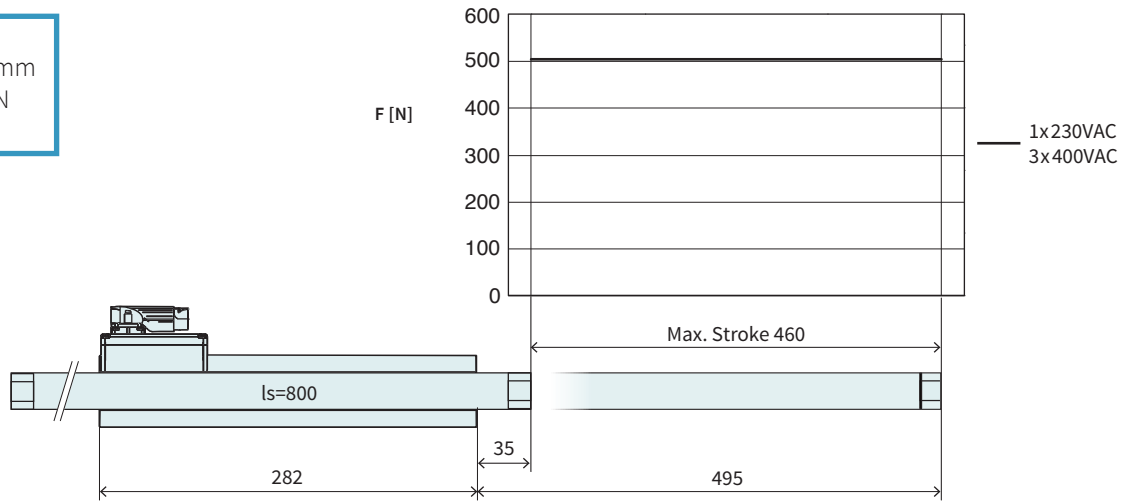
1) Real time calculation of motor winding temperature is required (including monitoring).  
 If temperature monitoring is only based on temperature sensor signal (missing thermal model calculation), 70 % of the peak value has to be taken instead.



Item	Description	Item-No.
<b>PS10-54x180U-BL-TU</b>	Stator 3x400VAC, LinMot Encoder	<a href="#">0150-2723</a>
<b>PS10-54x180U-BL-TU-D24</b>	Stator 3x400VAC, A/B Encoder, Pt1000	<a href="#">0150-2749</a>
<b>PS10-54x180U-BL-TU-D24S</b>	Stator 3x400VAC, A/B Encoder 5µm, Pt1000	<a href="#">0150-4049</a>
<b>PS10-54x180U-BL-TU-D25</b>	Stator 3x400VAC, A/B Encoder, PTC	<a href="#">0150-2753</a>
<b>PS10-54x180U-BL-TU-D25S</b>	Stator 3x400VAC, A/B Encoder 5µm, PTC	<a href="#">0150-2783</a>
<b>PL01-28x710/630</b>	Slider 'standard'	<a href="#">0150-1384</a>

**P10-54x180U/460-BL-TU**

**Max. Stroke:** 460 mm  
**Peak Force:** 502 N

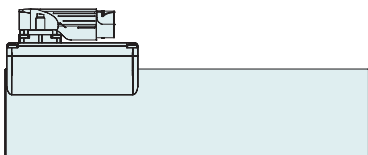


Dimensions in mm

Technical Data P10-54x180U/460

Stroke			
Max. Stroke	mm (in)	460	(18.1)
Force			
Max. Force <sup>1</sup> @ 1x230VAC	N (lbf)	502	(113)
Max. Force <sup>1</sup> @ 3x400VAC	N (lbf)	502	(113)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	84 / 110 / 160	(19 / 26 / 36)
Max. Border Force relative	%	100	
Force Constant 1	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )	33	(7.42)
Force Constant 2	N/A <sub>rms</sub> (lbf/A <sub>rms</sub> )	46.7	(10.5)
Velocity			
Max. Velocity @ 1x230VAC	m/s (in/s)	5.4	(219.9)
Max. Velocity @ 3x400VAC	m/s (in/s)	9.5	(9.5)
Position Detection			
Repeatability	mm (in)	±0.05	(±0.002)
Linearity	%	± 0.25	
Electrical Data			
Max. Current <sup>1</sup> @ 1x230VAC	A <sub>pk</sub> / A <sub>rms</sub>	15.1 / 10.6	
Max. Current <sup>1</sup> @ 3x400VAC	A <sub>pk</sub> / A <sub>rms</sub>	15.1 / 10.6	
Max. Cont. Current 1 [Passive cooling / Fan / Fluid]	A <sub>pk</sub>	2.6 / 3.5 / 4.9	
Max. Cont. Current 2 [Passive cooling / Fan / Fluid]	A <sub>rms</sub>	1.8 / 2.4 / 3.5	
Thermal Data			
Max. Winding Temperature (Sensor)	°C	90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	1.6 / 0.86 / 0.43	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	1200 / 650 / 320	
Mechanical Data			
Slider Length	mm (in)	800	(31)
Slider Mass	g (lb)	3560	(7.83)

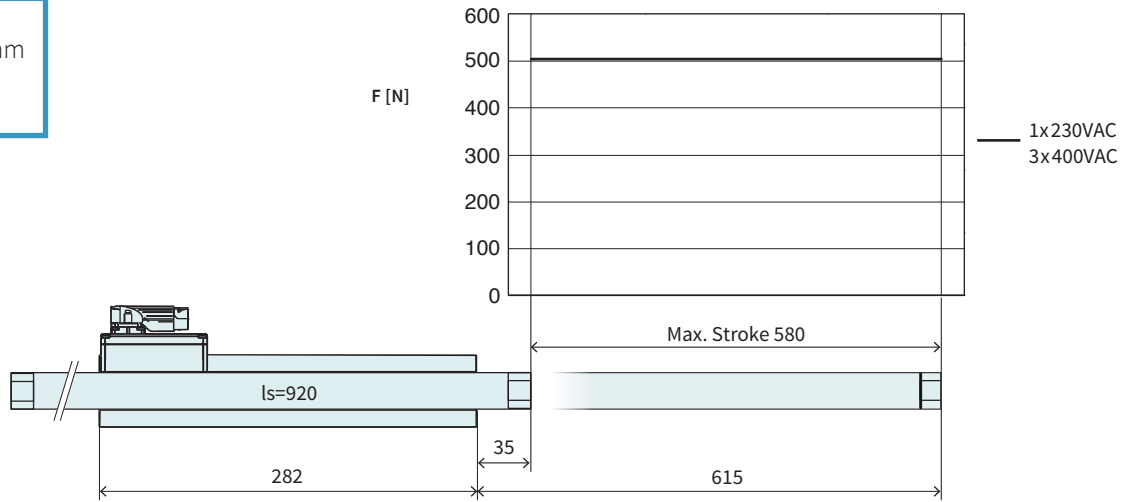
<sup>1</sup>) Real time calculation of motor winding temperature is required (including monitoring).  
 If temperature monitoring is only based on temperature sensor signal (missing thermal model calculation), 70 % of the peak value has to be taken instead.



Item	Description	Item-No.
<b>PS10-54x180U-BL-TU</b>	Stator 3x400VAC, LinMot Encoder	<a href="#">0150-2723</a>
<b>PS10-54x180U-BL-TU-D24</b>	Stator 3x400VAC, A/B Encoder, Pt1000	<a href="#">0150-2749</a>
<b>PS10-54x180U-BL-TU-D24S</b>	Stator 3x400VAC, A/B Encoder 5µm, Pt1000	<a href="#">0150-4049</a>
<b>PS10-54x180U-BL-TU-D25</b>	Stator 3x400VAC, A/B Encoder, PTC	<a href="#">0150-2753</a>
<b>PS10-54x180U-BL-TU-D25S</b>	Stator 3x400VAC, A/B Encoder 5µm, PTC	<a href="#">0150-2783</a>
<b>PL01-28x800/720</b>	Slider 'standard'	<a href="#">0150-1385</a>

**P10-54x180U/580-BL-TU**

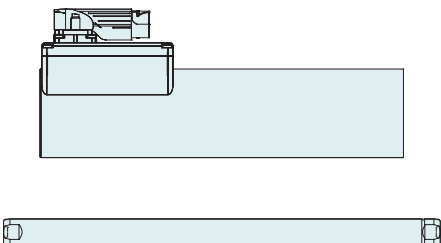
**Max. Stroke:** 580 mm  
**Peak Force:** 502 N



Dimensions in mm

Technical Data P10-54x180U/580				
<b>Stroke</b>				
Max. Stroke	mm	(in)	580	(22.8)
<b>Force</b>				
Max. Force <sup>1</sup> @ 1x230VAC	N	(lbf)	502	(113)
Max. Force <sup>1</sup> @ 3x400VAC	N	(lbf)	502	(113)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	84 / 110 / 160	(19 / 26 / 36)
Max. Border Force relative	%		100	
Force Constant 1	N/A <sub>pk</sub>	(lbf/A <sub>pk</sub> )	33	(7.42)
Force Constant 2	N/A <sub>rms</sub>	(lbf/A <sub>rms</sub> )	46.7	(10.5)
<b>Velocity</b>				
Max. Velocity @ 1x230VAC	m/s	(in/s)	5.4	(219.9)
Max. Velocity @ 3x400VAC	m/s	(in/s)	9.5	(9.5)
<b>Position Detection</b>				
Repeatability	mm	(in)	±0.05	(±0.002)
Linearity	%		± 0.25	
<b>Electrical Data</b>				
Max. Current <sup>1</sup> @ 1x230VAC	A <sub>pk</sub> / A <sub>rms</sub>		15.1 / 10.6	
Max. Current <sup>1</sup> @ 3x400VAC	A <sub>pk</sub> / A <sub>rms</sub>		15.1 / 10.6	
Max. Cont. Current 1 [Passive cooling / Fan / Fluid]	A <sub>pk</sub>		2.6 / 3.5 / 4.9	
Max. Cont. Current 2 [Passive cooling / Fan / Fluid]	A <sub>rms</sub>		1.8 / 2.4 / 3.5	
<b>Thermal Data</b>				
Max. Winding Temperature (Sensor)	°C		90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		1.6 / 0.86 / 0.43	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		1200 / 650 / 320	
<b>Mechanical Data</b>				
Slider Length	mm	(in)	920	(36)
Slider Mass	g	(lb)	4120	(9.06)

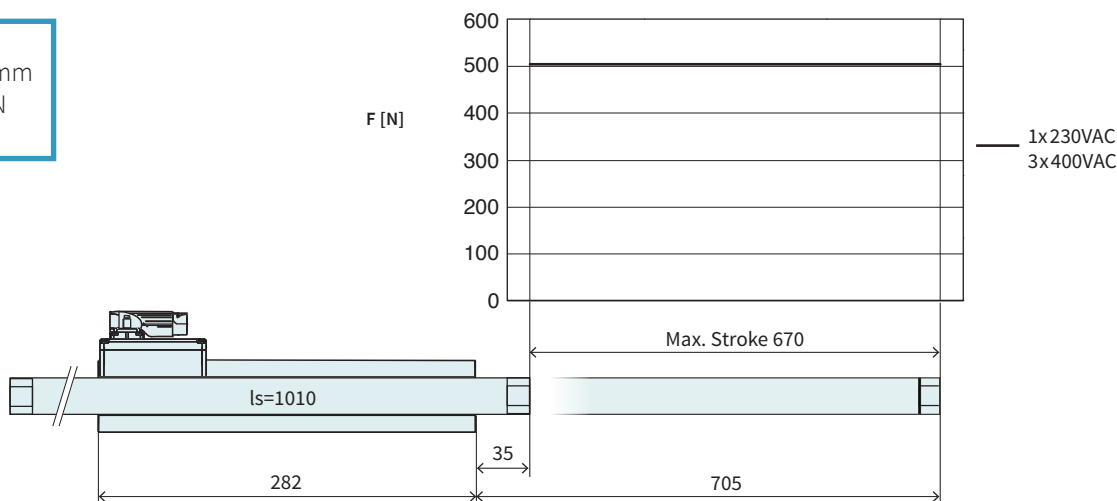
1) Real time calculation of motor winding temperature is required (including monitoring).  
 If temperature monitoring is only based on temperature sensor signal (missing thermal model calculation), 70 % of the peak value has to be taken instead.



Item	Description	Item-No.
<b>PS10-54x180U-BL-TU</b>	Stator 3x400VAC, LinMot Encoder	<a href="#">0150-2723</a>
<b>PS10-54x180U-BL-TU-D24</b>	Stator 3x400VAC, A/B Encoder, Pt1000	<a href="#">0150-2749</a>
<b>PS10-54x180U-BL-TU-D24S</b>	Stator 3x400VAC, A/B Encoder 5µm, Pt1000	<a href="#">0150-4049</a>
<b>PS10-54x180U-BL-TU-D25</b>	Stator 3x400VAC, A/B Encoder, PTC	<a href="#">0150-2753</a>
<b>PS10-54x180U-BL-TU-D25S</b>	Stator 3x400VAC, A/B Encoder 5µm, PTC	<a href="#">0150-2783</a>
<b>PL01-28x920/840</b>	Slider 'standard'	<a href="#">0150-1386</a>

**P10-54x180U/670-BL-TU**

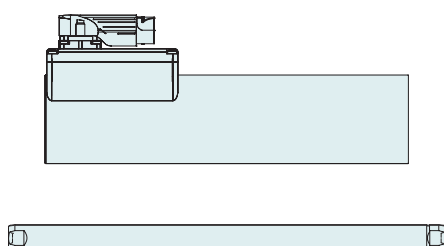
**Max. Stroke:** 670 mm  
**Peak Force:** 502 N



Dimensions in mm

Technical Data P10-54x180U/670			
<b>Stroke</b>			
Max. Stroke	mm (in)	670	(26.39)
<b>Force</b>			
Max. Force <sup>1</sup> @ 1x230VAC	N (lbf)	502	(113)
Max. Force <sup>1</sup> @ 3x400VAC	N (lbf)	502	(113)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	84 / 110 / 160	(19 / 26 / 36)
Max. Border Force relative	%	100	
Force Constant 1	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )	33	(7.42)
Force Constant 2	N/A <sub>rms</sub> (lbf/A <sub>rms</sub> )	46.7	(10.5)
<b>Velocity</b>			
Max. Velocity @ 1x230VAC	m/s (in/s)	5.4	(219.9)
Max. Velocity @ 3x400VAC	m/s (in/s)	9.5	(9.5)
<b>Position Detection</b>			
Repeatability	mm (in)	±0.05	(±0.002)
Linearity	%	± 0.2	
<b>Electrical Data</b>			
Max. Current <sup>1</sup> @ 1x230VAC	A <sub>pk</sub> / A <sub>rms</sub>	15.1 / 10.6	
Max. Current <sup>1</sup> @ 3x400VAC	A <sub>pk</sub> / A <sub>rms</sub>	15.1 / 10.6	
Max. Cont. Current 1 [Passive cooling / Fan / Fluid]	A <sub>pk</sub>	2.6 / 3.5 / 4.9	
Max. Cont. Current 2 [Passive cooling / Fan / Fluid]	A <sub>rms</sub>	1.8 / 2.4 / 3.5	
<b>Thermal Data</b>			
Max. Winding Temperature (Sensor)	°C	90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	1.6 / 0.86 / 0.43	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	1200 / 650 / 320	
<b>Mechanical Data</b>			
Slider Length	mm (in)	1010	(40)
Slider Mass	g (lb)	4540	(10)

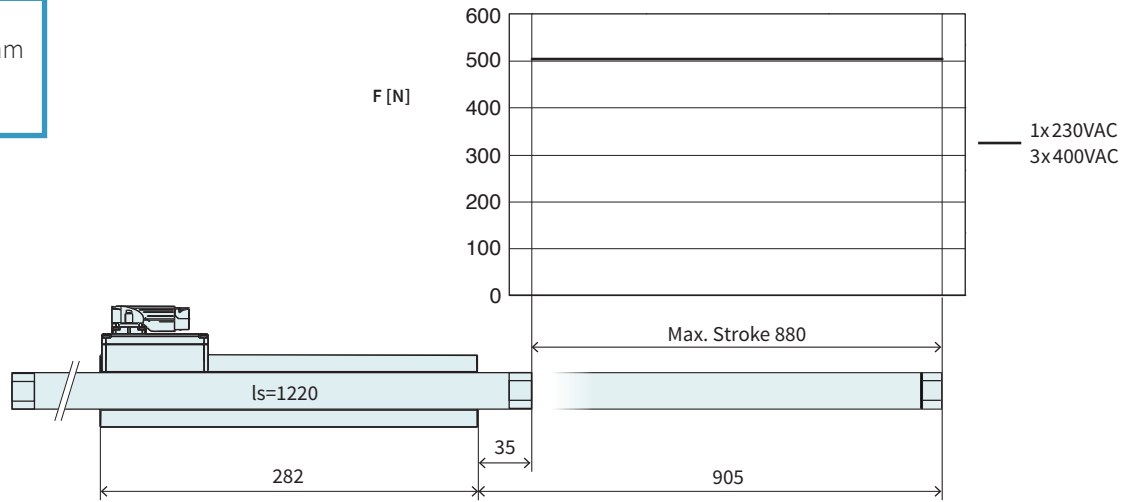
1) Real time calculation of motor winding temperature is required (including monitoring).  
 If temperature monitoring is only based on temperature sensor signal (missing thermal model calculation), 70 % of the peak value has to be taken instead.



Item	Description	Item-No.
<b>PS10-54x180U-BL-TU</b>	Stator 3x400VAC, LinMot Encoder	<a href="#">0150-2723</a>
<b>PS10-54x180U-BL-TU-D24</b>	Stator 3x400VAC, A/B Encoder, Pt1000	<a href="#">0150-2749</a>
<b>PS10-54x180U-BL-TU-D24S</b>	Stator 3x400VAC, A/B Encoder 5µm, Pt1000	<a href="#">0150-4049</a>
<b>PS10-54x180U-BL-TU-D25</b>	Stator 3x400VAC, A/B Encoder, PTC	<a href="#">0150-2753</a>
<b>PS10-54x180U-BL-TU-D25S</b>	Stator 3x400VAC, A/B Encoder 5µm, PTC	<a href="#">0150-2783</a>
<b>PL01-28x1010/930</b>	Slider 'standard'	<a href="#">0150-1387</a>

**P10-54x180U/880-BL-TU**

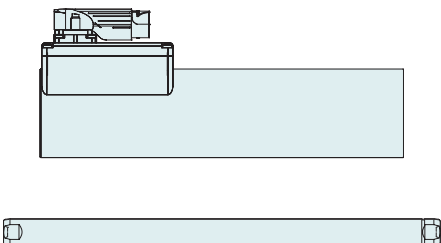
**Max. Stroke:** 880 mm  
**Peak Force:** 502 N



Dimensions in mm

Technical Data P10-54x180U/880				
<b>Stroke</b>				
Max. Stroke	mm	(in)	880	(34.6)
<b>Force</b>				
Max. Force <sup>1</sup> @ 1x230VAC	N	(lbf)	502	(113)
Max. Force <sup>1</sup> @ 3x400VAC	N	(lbf)	502	(113)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	84 / 110 / 160	(19 / 26 / 36)
Max. Border Force relative	%		100	
Force Constant 1	N/A <sub>pk</sub>	(lbf/A <sub>pk</sub> )	33	(7.42)
Force Constant 2	N/A <sub>rms</sub>	(lbf/A <sub>rms</sub> )	46.7	(10.5)
<b>Velocity</b>				
Max. Velocity @ 1x230VAC	m/s	(in/s)	5.4	(219.9)
Max. Velocity @ 3x400VAC	m/s	(in/s)	9.5	(9.5)
<b>Position Detection</b>				
Repeatability	mm	(in)	±0.05	(±0.002)
Linearity	%		± 0.2	
<b>Electrical Data</b>				
Max. Current <sup>1</sup> @ 1x230VAC	A <sub>pk</sub> / A <sub>rms</sub>		15.1 / 10.6	
Max. Current <sup>1</sup> @ 3x400VAC	A <sub>pk</sub> / A <sub>rms</sub>		15.1 / 10.6	
Max. Cont. Current 1 [Passive cooling / Fan / Fluid]	A <sub>pk</sub>		2.6 / 3.5 / 4.9	
Max. Cont. Current 2 [Passive cooling / Fan / Fluid]	A <sub>rms</sub>		1.8 / 2.4 / 3.5	
<b>Thermal Data</b>				
Max. Winding Temperature (Sensor)	°C		90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		1.6 / 0.86 / 0.43	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		1200 / 650 / 320	
<b>Mechanical Data</b>				
Slider Length	mm	(in)	1220	(48)
Slider Mass	g	(lb)	5510	(12.12)

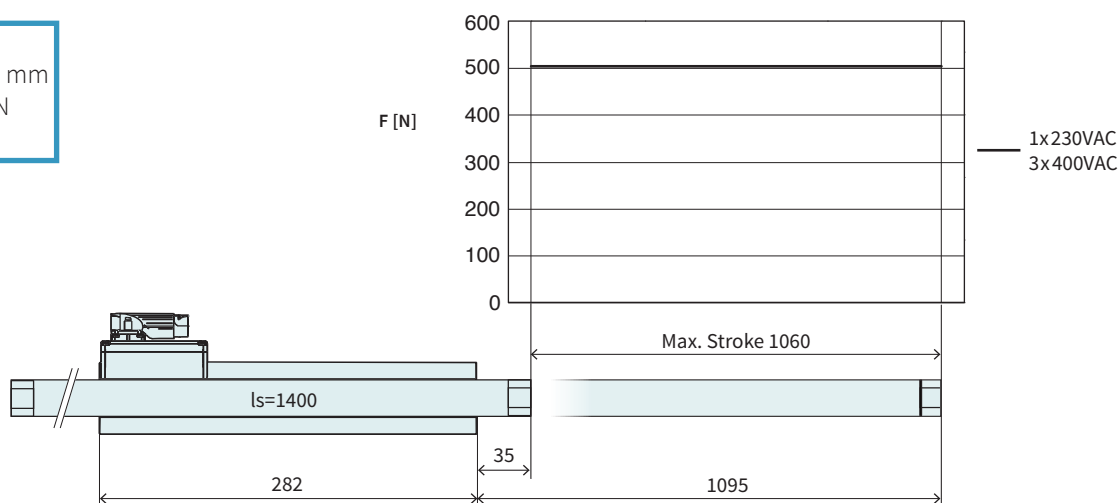
1) Real time calculation of motor winding temperature is required (including monitoring).  
 If temperature monitoring is only based on temperature sensor signal (missing thermal model calculation), 70 % of the peak value has to be taken instead.



Item	Description	Item-No.
<b>PS10-54x180U-BL-TU</b>	Stator 3x400VAC, LinMot Encoder	<a href="#">0150-2723</a>
<b>PS10-54x180U-BL-TU-D24</b>	Stator 3x400VAC, A/B Encoder, Pt1000	<a href="#">0150-2749</a>
<b>PS10-54x180U-BL-TU-D24S</b>	Stator 3x400VAC, A/B Encoder 5µm, Pt1000	<a href="#">0150-4049</a>
<b>PS10-54x180U-BL-TU-D25</b>	Stator 3x400VAC, A/B Encoder, PTC	<a href="#">0150-2753</a>
<b>PS10-54x180U-BL-TU-D25S</b>	Stator 3x400VAC, A/B Encoder 5µm, PTC	<a href="#">0150-2783</a>
<b>PL01-28x1220/1140</b>	Slider 'standard'	<a href="#">0150-1388</a>

**P10-54x180U/1060-BL-TU**

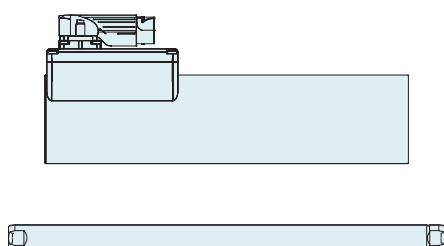
**Max. Stroke:** 1060 mm  
**Peak Force:** 502 N



Dimensions in mm

Technical Data P10-54x180U/1060			
<b>Stroke</b>			
Max. Stroke	mm (in)	1060 (41.7)	
<b>Force</b>			
Max. Force <sup>1</sup> @ 1x230VAC	N (lbf)	502 (113)	
Max. Force <sup>1</sup> @ 3x400VAC	N (lbf)	502 (113)	
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	84 / 110 / 160 (19 / 26 / 36)	
Max. Border Force relative	%	100	
Force Constant 1	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )	33 (7.42)	
Force Constant 2	N/A <sub>rms</sub> (lbf/A <sub>rms</sub> )	46.7 (10.5)	
<b>Velocity</b>			
Max. Velocity @ 1x230VAC	m/s (in/s)	5.4 (219.9)	
Max. Velocity @ 3x400VAC	m/s (in/s)	9.5 (9.5)	
<b>Position Detection</b>			
Repeatability	mm (in)	±0.05 (±0.002)	
Linearity	%	± 0.15	
<b>Electrical Data</b>			
Max. Current <sup>1</sup> @ 1x230VAC	A <sub>pk</sub> / A <sub>rms</sub>	15.1 / 10.6	
Max. Current <sup>1</sup> @ 3x400VAC	A <sub>pk</sub> / A <sub>rms</sub>	15.1 / 10.6	
Max. Cont. Current 1 [Passive cooling / Fan / Fluid]	A <sub>pk</sub>	2.6 / 3.5 / 4.9	
Max. Cont. Current 2 [Passive cooling / Fan / Fluid]	A <sub>rms</sub>	1.8 / 2.4 / 3.5	
<b>Thermal Data</b>			
Max. Winding Temperature (Sensor)	°C	90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	1.6 / 0.86 / 0.43	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	1200 / 650 / 320	
<b>Mechanical Data</b>			
Slider Length	mm (in)	1400 (55)	
Slider Mass	g (lb)	6350 (13.97)	

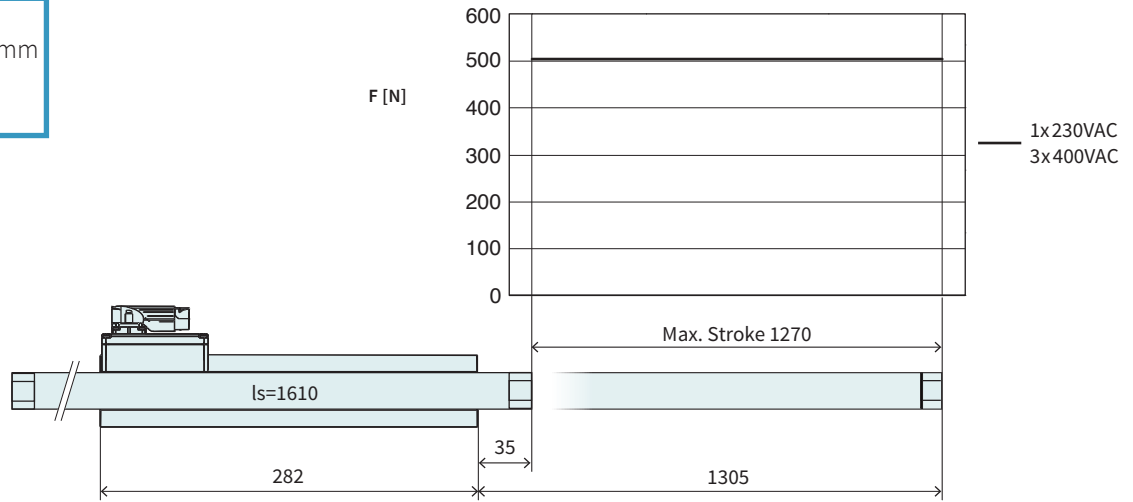
<sup>1</sup>) Real time calculation of motor winding temperature is required (including monitoring).  
 If temperature monitoring is only based on temperature sensor signal (missing thermal model calculation), 70 % of the peak value has to be taken instead.



Item	Description	Item-No.
<b>PS10-54x180U-BL-TU</b>	Stator 3x400VAC, LinMot Encoder	<a href="#">0150-2723</a>
<b>PS10-54x180U-BL-TU-D24</b>	Stator 3x400VAC, A/B Encoder, Pt1000	<a href="#">0150-2749</a>
<b>PS10-54x180U-BL-TU-D24S</b>	Stator 3x400VAC, A/B Encoder 5µm, Pt1000	<a href="#">0150-4049</a>
<b>PS10-54x180U-BL-TU-D25</b>	Stator 3x400VAC, A/B Encoder, PTC	<a href="#">0150-2753</a>
<b>PS10-54x180U-BL-TU-D25S</b>	Stator 3x400VAC, A/B Encoder 5µm, PTC	<a href="#">0150-2783</a>
<b>PL01-28x1400/1320</b>	Slider 'standard'	<a href="#">0150-1389</a>

**P10-54x180U/1270-BL-TU**

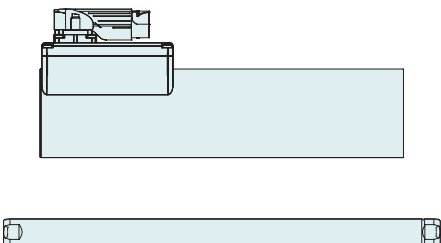
**Max. Stroke:** 1270 mm  
**Peak Force:** 502 N



Dimensions in mm

Technical Data P10-54x180U/1270				
<b>Stroke</b>				
Max. Stroke	mm	(in)	1270	(49.99)
<b>Force</b>				
Max. Force <sup>1</sup> @ 1x230VAC	N	(lbf)	502	(113)
Max. Force <sup>1</sup> @ 3x400VAC	N	(lbf)	502	(113)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	84 / 110 / 160	(19 / 26 / 36)
Max. Border Force relative	%		100	
Force Constant 1	N/A <sub>pk</sub>	(lbf/A <sub>pk</sub> )	33	(7.42)
Force Constant 2	N/A <sub>rms</sub>	(lbf/A <sub>rms</sub> )	46.7	(10.5)
<b>Velocity</b>				
Max. Velocity @ 1x230VAC	m/s	(in/s)	5.4	(219.9)
Max. Velocity @ 3x400VAC	m/s	(in/s)	9.5	(9.5)
<b>Position Detection</b>				
Repeatability	mm	(in)	±0.05	(±0.002)
Linearity	%		±0.15	
<b>Electrical Data</b>				
Max. Current <sup>1</sup> @ 1x230VAC	A <sub>pk</sub> / A <sub>rms</sub>		15.1 / 10.6	
Max. Current <sup>1</sup> @ 3x400VAC	A <sub>pk</sub> / A <sub>rms</sub>		15.1 / 10.6	
Max. Cont. Current 1 [Passive cooling / Fan / Fluid]	A <sub>pk</sub>		2.6 / 3.5 / 4.9	
Max. Cont. Current 2 [Passive cooling / Fan / Fluid]	A <sub>rms</sub>		1.8 / 2.4 / 3.5	
<b>Thermal Data</b>				
Max. Winding Temperature (Sensor)	°C		90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		1.6 / 0.86 / 0.43	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		1200 / 650 / 320	
<b>Mechanical Data</b>				
Slider Length	mm	(in)	1610	(63)
Slider Mass	g	(lb)	7330	(16.13)

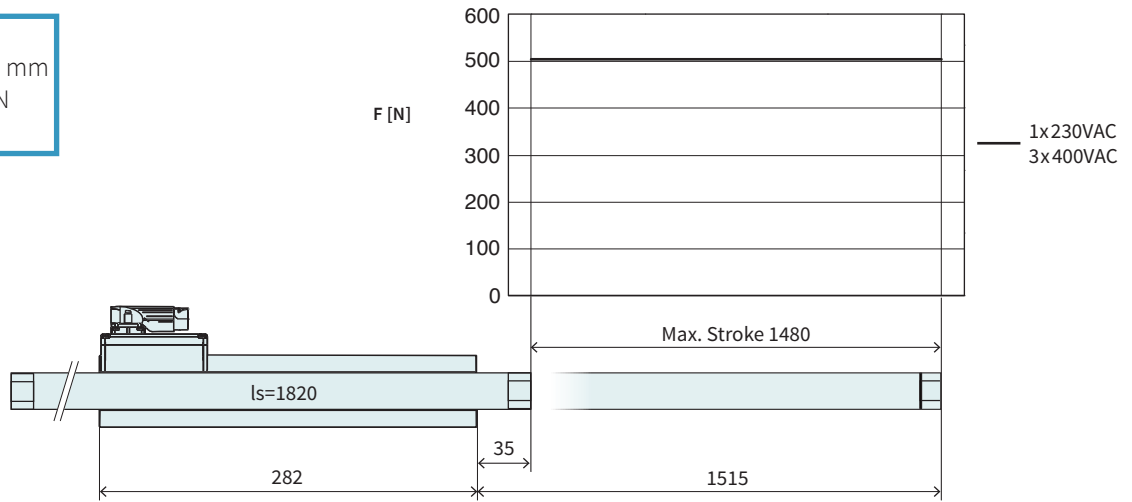
1) Real time calculation of motor winding temperature is required (including monitoring).  
 If temperature monitoring is only based on temperature sensor signal (missing thermal model calculation), 70 % of the peak value has to be taken instead.



Item	Description	Item-No.
<b>PS10-54x180U-BL-TU</b>	Stator 3x400VAC, LinMot Encoder	<a href="#">0150-2723</a>
<b>PS10-54x180U-BL-TU-D24</b>	Stator 3x400VAC, A/B Encoder, Pt1000	<a href="#">0150-2749</a>
<b>PS10-54x180U-BL-TU-D24S</b>	Stator 3x400VAC, A/B Encoder 5µm, Pt1000	<a href="#">0150-4049</a>
<b>PS10-54x180U-BL-TU-D25</b>	Stator 3x400VAC, A/B Encoder, PTC	<a href="#">0150-2753</a>
<b>PS10-54x180U-BL-TU-D25S</b>	Stator 3x400VAC, A/B Encoder 5µm, PTC	<a href="#">0150-2783</a>
<b>PL01-28x1610/1530</b>	Slider 'standard'	<a href="#">0150-1390</a>

**P10-54x180U/1480-BL-TU**

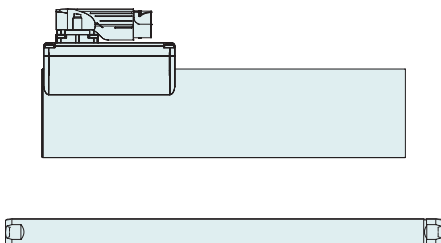
**Max. Stroke:** 1480 mm  
**Peak Force:** 502 N



Dimensions in mm

Technical Data P10-54x180U/1480			
<b>Stroke</b>			
Max. Stroke	mm (in)	1480	(58.29)
<b>Force</b>			
Max. Force <sup>1</sup> @ 1x230VAC	N (lbf)	502	(113)
Max. Force <sup>1</sup> @ 3x400VAC	N (lbf)	502	(113)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	84 / 110 / 160	(19 / 26 / 36)
Max. Border Force relative	%	100	
Force Constant 1	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )	33	(7.42)
Force Constant 2	N/A <sub>rms</sub> (lbf/A <sub>rms</sub> )	46.7	(10.5)
<b>Velocity</b>			
Max. Velocity @ 1x230VAC	m/s (in/s)	5.4	(219.9)
Max. Velocity @ 3x400VAC	m/s (in/s)	9.5	(9.5)
<b>Position Detection</b>			
Repeatability	mm (in)	±0.05	(±0.002)
Linearity	%	± 0.15	
<b>Electrical Data</b>			
Max. Current <sup>1</sup> @ 1x230VAC	A <sub>pk</sub> / A <sub>rms</sub>	15.1 / 10.6	
Max. Current <sup>1</sup> @ 3x400VAC	A <sub>pk</sub> / A <sub>rms</sub>	15.1 / 10.6	
Max. Cont. Current 1 [Passive cooling / Fan / Fluid]	A <sub>pk</sub>	2.6 / 3.5 / 4.9	
Max. Cont. Current 2 [Passive cooling / Fan / Fluid]	A <sub>rms</sub>	1.8 / 2.4 / 3.5	
<b>Thermal Data</b>			
Max. Winding Temperature (Sensor)	°C	90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	1.6 / 0.86 / 0.43	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	1200 / 650 / 320	
<b>Mechanical Data</b>			
Slider Length	mm (in)	1820	(72)
Slider Mass	g (lb)	8300	(18.26)

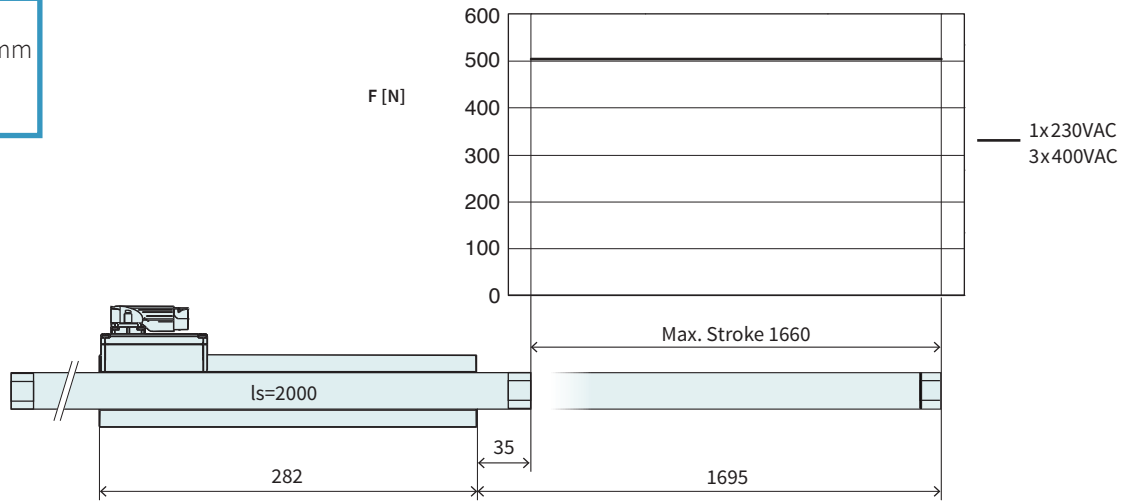
<sup>1</sup>) Real time calculation of motor winding temperature is required (including monitoring).  
 If temperature monitoring is only based on temperature sensor signal (missing thermal model calculation), 70 % of the peak value has to be taken instead.



Item	Description	Item-No.
<b>PS10-54x180U-BL-TU</b>	Stator 3x400VAC, LinMot Encoder	<a href="#">0150-2723</a>
<b>PS10-54x180U-BL-TU-D24</b>	Stator 3x400VAC, A/B Encoder, Pt1000	<a href="#">0150-2749</a>
<b>PS10-54x180U-BL-TU-D24S</b>	Stator 3x400VAC, A/B Encoder 5µm, Pt1000	<a href="#">0150-4049</a>
<b>PS10-54x180U-BL-TU-D25</b>	Stator 3x400VAC, A/B Encoder, PTC	<a href="#">0150-2753</a>
<b>PS10-54x180U-BL-TU-D25S</b>	Stator 3x400VAC, A/B Encoder 5µm, PTC	<a href="#">0150-2783</a>
<b>PL01-28x1820/1740</b>	Slider 'standard'	<a href="#">0150-1395</a>

**P10-54x180U/1660-BL-TU**

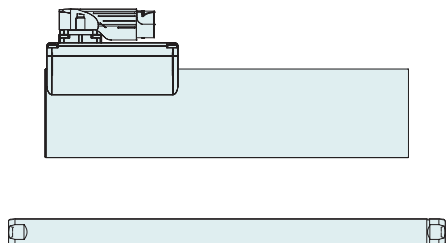
**Max. Stroke:** 1660 mm  
**Peak Force:** 502 N



Dimensions in mm

Technical Data P10-54x180U/1660			
<b>Stroke</b>			
Max. Stroke	mm (in)	1660	(65.4)
<b>Force</b>			
Max. Force <sup>1</sup> @ 1x230VAC	N (lbf)	502	(113)
Max. Force <sup>1</sup> @ 3x400VAC	N (lbf)	502	(113)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	84 / 110 / 160	(19 / 26 / 36)
Max. Border Force relative	%	100	
Force Constant 1	N/A <sub>pk</sub> (lbf/A <sub>pk</sub> )	33	(7.42)
Force Constant 2	N/A <sub>rms</sub> (lbf/A <sub>rms</sub> )	46.7	(10.5)
<b>Velocity</b>			
Max. Velocity @ 1x230VAC	m/s (in/s)	5.4	(219.9)
Max. Velocity @ 3x400VAC	m/s (in/s)	9.5	(9.5)
<b>Position Detection</b>			
Repeatability	mm (in)	±0.05	(±0.002)
Linearity	%	±0.15	
<b>Electrical Data</b>			
Max. Current <sup>1</sup> @ 1x230VAC	A <sub>pk</sub> / A <sub>rms</sub>	15.1 / 10.6	
Max. Current <sup>1</sup> @ 3x400VAC	A <sub>pk</sub> / A <sub>rms</sub>	15.1 / 10.6	
Max. Cont. Current 1 [Passive cooling / Fan / Fluid]	A <sub>pk</sub>	2.6 / 3.5 / 4.9	
Max. Cont. Current 2 [Passive cooling / Fan / Fluid]	A <sub>rms</sub>	1.8 / 2.4 / 3.5	
<b>Thermal Data</b>			
Max. Winding Temperature (Sensor)	°C	90	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	1.6 / 0.86 / 0.43	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	1200 / 650 / 320	
<b>Mechanical Data</b>			
Slider Length	mm (in)	2000	(79)
Slider Mass	g (lb)	9140	(20.11)

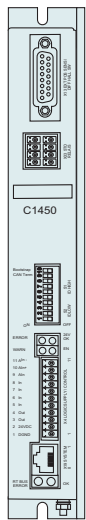
1) Real time calculation of motor winding temperature is required (including monitoring).  
 If temperature monitoring is only based on temperature sensor signal (missing thermal model calculation), 70 % of the peak value has to be taken instead.



Item	Description	Item-No.
<b>PS10-54x180U-BL-TU</b>	Stator 3x400VAC, LinMot Encoder	<a href="#">0150-2723</a>
<b>PS10-54x180U-BL-TU-D24</b>	Stator 3x400VAC, A/B Encoder, Pt1000	<a href="#">0150-2749</a>
<b>PS10-54x180U-BL-TU-D24S</b>	Stator 3x400VAC, A/B Encoder 5µm, Pt1000	<a href="#">0150-4049</a>
<b>PS10-54x180U-BL-TU-D25</b>	Stator 3x400VAC, A/B Encoder, PTC	<a href="#">0150-2753</a>
<b>PS10-54x180U-BL-TU-D25S</b>	Stator 3x400VAC, A/B Encoder 5µm, PTC	<a href="#">0150-2783</a>
<b>PL01-28x2000/1920</b>	Slider 'standard'	<a href="#">0150-1396</a>

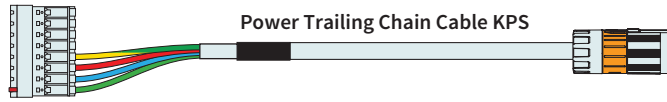
**Motor Cable**

4



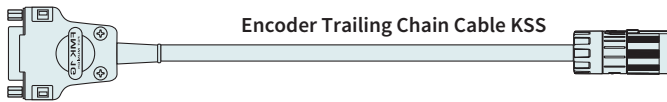
**C1400**

**B** Connector MC10-B/m



Power Trailing Chain Cable KPS

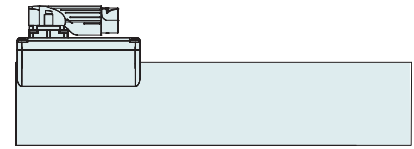
**Tk** Connector MC10-Tk/f



Encoder Trailing Chain Cable KSS

**D15s** Connector MC01-D15s-45°/f

**Uk** Connector MC10-Uk/f

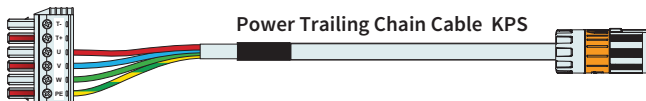


**P10-54x180U**



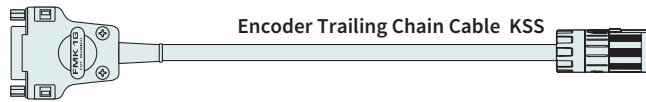
**E1400**

**L** Connector MC10-L/m



Power Trailing Chain Cable KPS

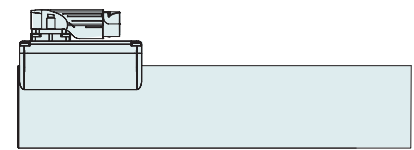
**Tk** Connector MC10-Tk/f



Encoder Trailing Chain Cable KSS

**D15s** Connector MC01-D15s-45°/f

**Uk** Connector MC10-Uk/f



**P10-54x180U**

**ORDERING INFORMATION**

TRAILING CHAIN CABLE FOR LINMOT DRIVES

Item	Description	Item-No.
<b>KPS07-04/02-L/Tk-3</b>	Power Trailing Chain Cable E1400/P10-54, 3 m	<a href="#">0150-2670</a>
<b>KPS07-04/02-L/Tk-5</b>	Power Trailing Chain Cable E1400/P10-54, 5 m	<a href="#">0150-2671</a>
<b>KPS07-04/02-L/Tk-8</b>	Power Trailing Chain Cable E1400/P10-54, 8 m	<a href="#">0150-2672</a>
<b>KPS07-04/02-L/Tk-12</b>	Power Trailing Chain Cable E1400/P10-54, 12 m	<a href="#">0150-2673</a>
<b>KPS07-04/02-B/Tk-3</b>	Power Trailing Chain Cable C1400/P10-54, 3 m	<a href="#">0150-3648</a>
<b>KPS07-04/02-B/Tk-5</b>	Power Trailing Chain Cable C1400/P10-54, 5 m	<a href="#">0150-3657</a>
<b>KPS07-04/02-B/Tk-8</b>	Power Trailing Chain Cable C1400/P10-54, 8 m	<a href="#">0150-3658</a>
<b>KPS07-04/02-B/Tk-12</b>	Power Trailing Chain Cable C1400/P10-54, 12 m	<a href="#">0150-3659</a>
<b>KSS 05-02/08-D15s/Uk-3</b>	Encoder Trailing Chain Cable D15s/Uk, 3 m	<a href="#">0150-2650</a>
<b>KSS 05-02/08-D15s/Uk-5</b>	Encoder Trailing Chain Cable D15s/Uk, 5 m	<a href="#">0150-2651</a>
<b>KSS 05-02/08-D15s/Uk-8</b>	Encoder Trailing Chain Cable D15s/Uk, 8 m	<a href="#">0150-2652</a>
<b>KSS 05-02/08-D15s/Uk-12</b>	Encoder Trailing Chain Cable D15s/Uk, 12 m	<a href="#">0150-2653</a>

## TRAILING CHAIN CABLES FOR THIRD PARTY DRIVES

Item	Description	Item-No.
<b>KPS07-04/02-./Tk-10</b>	Power Trailing Chain Cable .../Tk, 10 m	<a href="#">0150-3626</a>
<b>KPS07-04/02-./Tk-</b>	Power Trailing Chain Cable .../Tk, Custom length	<a href="#">0150-3622</a>
<b>KSS 05-02/13-./Uk-10</b>	Encoder Trailing Chain Cable ./Uk, 10 m	<a href="#">0150-3627</a>
<b>KSS 05-02/13-./Uk-</b>	Encoder Trailing Chain Cable ./Uk, Custom length	<a href="#">0150-3619</a>

## CONNECTOR &amp; CABLE (INDIVIDUAL)

Item	Description	Item-No.
<b>MC10-L/m</b>	Connector Power E1400/X2	<a href="#">0150-3382</a>
<b>MC01-D15/f</b>	Motor Connector D15 (f)	<a href="#">0150-3136</a>
<b>MC10-Tk/f</b>	Connector Power PS10-54	<a href="#">0150-3482</a>
<b>MC10-Uk/f</b>	Connector Encoder PS10-54	<a href="#">0150-3483</a>
<b>KPS07-04/02</b>	Power Trailing Chain Cable P10-54 (per m)	<a href="#">0150-2372</a>
<b>KSS05-02/08</b>	Trailing Chain Cable Encoder LinMot (per m)	<a href="#">0150-2258</a>
<b>KSS05-02/13</b>	Trailing Chain Cable Encoder P10-...-Dxx (per m)	<a href="#">0150-2259</a>

**MOTOR FLANGES**

4



Item	Description	Item-No.
PF10-54x200	Flange for PS10-54x180	<a href="#">0150-2734</a>

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

**FANS**



Item	Description	Item-No.
HV01-37/48	Fan cooling for H01-37/48 & PF02-37/48	<a href="#">0150-5051</a>

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

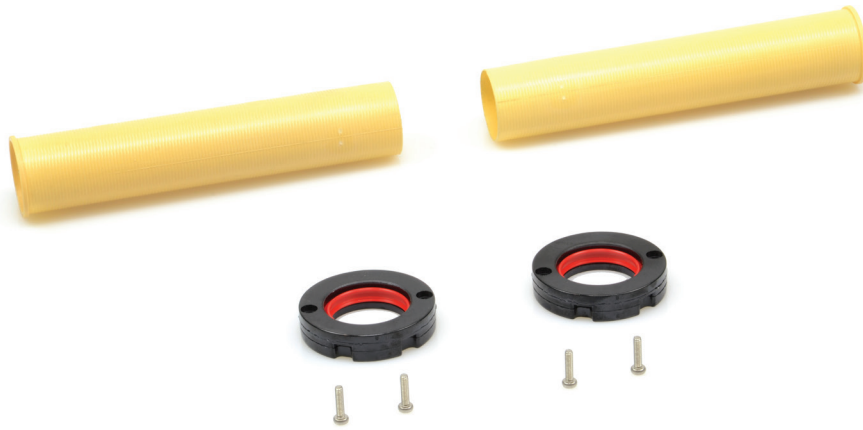
**SLIDER MOUNTING**



Item	Description	Item-No.
PLF01-28	Fixed Bearing Set for 27/28 mm sliders	<a href="#">0150-3087</a>
PLF01-28-SS	Fixed Bearing Set for 27/28 mm sliders, stainless steel	<a href="#">0150-3297</a>
PLL01-28	Floating Bearing for 28 mm sliders	<a href="#">0150-3094</a>
PLM01-28-MK	Mounting Kit for 28 mm sliders	<a href="#">0150-3095</a>

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

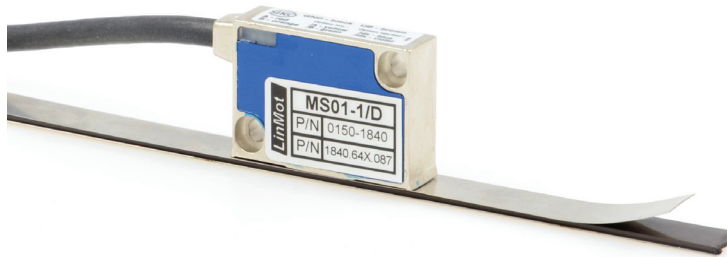
**BEARING KIT**



Item	Description	Item-No.
<b>PB10-54x180-L</b>	Bearing Kit for PS10-54x180	<a href="#">0150-3672</a>

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

**EXTERNAL POSITION SENSORS**



Item	Description	Item-No.
<b>MS01-1/D</b>	Linear Encoder 1µm, A/B (for incremental strip)	<a href="#">0150-1840</a>
<b>MB01-1000</b>	Magnetic incremental strip for MS01-1/D, per cm	<a href="#">0150-1963</a>
<b>KS025-D15/D-Encoder</b>	Encoder Cable (Length in m)	<a href="#">0150-3168</a>

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".



Item	Description	Item-No.
<b>MS01-1/D-SSI</b>	Linear Encoder 1µm, A/B (for absolute strip)	<a href="#">0150-2095</a>
<b>MB01-1000-ABS</b>	Magnetic absolute strip for MS01-1/D-SSI (per cm)	<a href="#">0150-2096</a>
<b>EC01-ABS/ENC-12-S</b>	MS01-1/D-SSI Encoder connector straight	<a href="#">0150-3616</a>
<b>KSS01-12-D15/ABS-ENC</b>	Special cable for MS01-1/D-SSI on C1100/C1200/C1400/E1200/E1400 Drives	<a href="#">0150-3652</a>

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

