

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 **421**

Motor Specifications

P10-54x180U/10 **426**

P10-54x180U/70 **427**

P10-54x180U/160 **428**

P10-54x180U/280 **429**

P10-54x180U/370 **430**

P10-54x180U/460 **431**

P10-54x180U/580 **432**

P10-54x180U/670 **433**

P10-54x180U/880 **434**

P10-54x180U/1060 **435**

P10-54x180U/1270 **436**

P10-54x180U/1480 **437**

P10-54x180U/1660 **438**

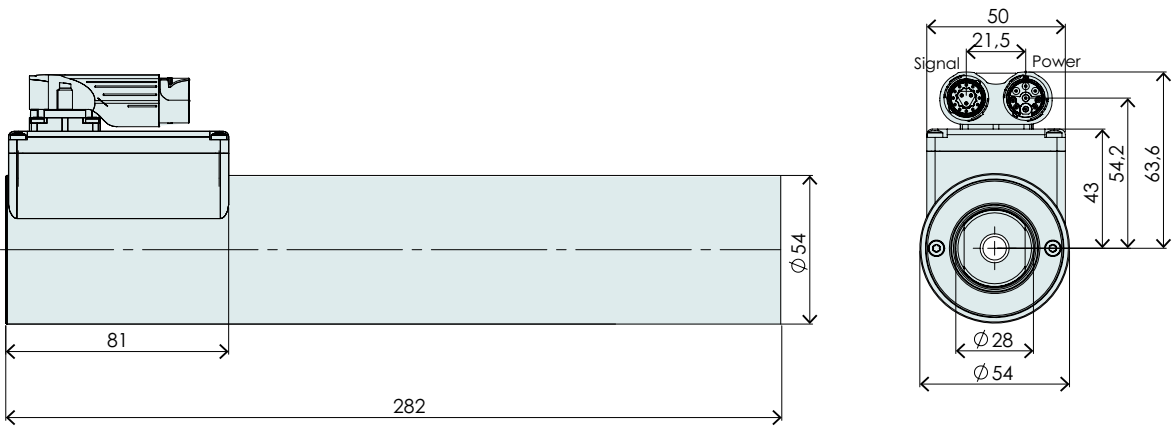
Accessories **439**



MOTOR FAMILY P10-54x180U

Technical Data				
Stroke				
Max. Stroke (ES)	mm	(in)	1660	(65.4)
Force				
Max. Force @ 1x230VAC	N	(lbf)	502	(113)
Max. Force @ 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 _{pk}	(lbf/A _{pk})	33	(7.42)
Force Constant 2	N/A _{rms}	(lbf/A _{rms})	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	(379.9)
Position Detection				
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)
Electrical Data				
Max. Current @ 1x230VAC	A _{pk} / A _{rms}		15.1 / 10.6	
Max. Current @ 3x400VAC	A _{pk} / A _{rms}		15.1 / 10.6	
Max. Cont. Current 1 [Passive cooling / Fan / Fluid]	A _{pk}		2.6 / 3.5 / 4.9	
Max. Cont. Current 2 [Passive cooling / Fan / Fluid]	A _{rms}		1.8 / 2.4 / 3.5	
Back EMF Constant	V _{pk} / (m/s)	(V _{pk} / (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)
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				
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	

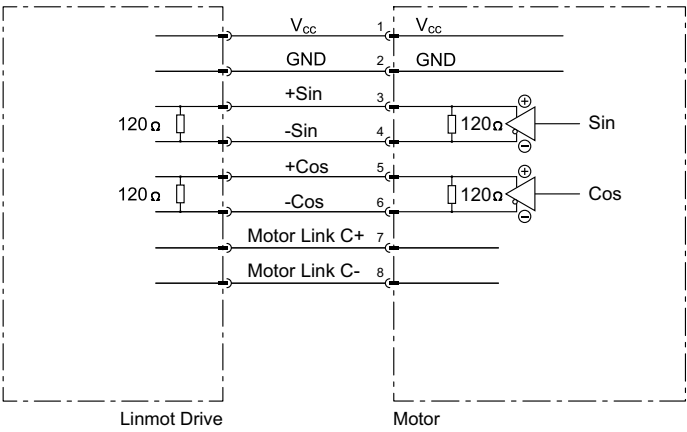
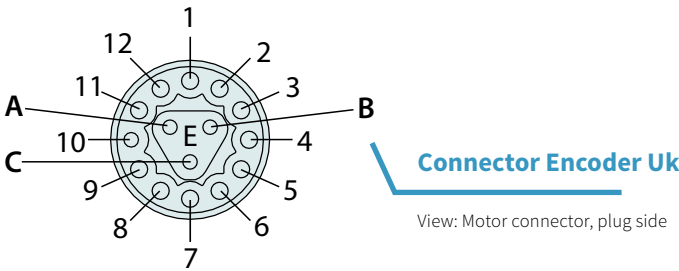
STATOR



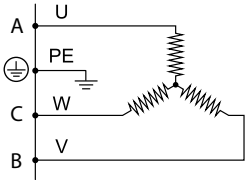
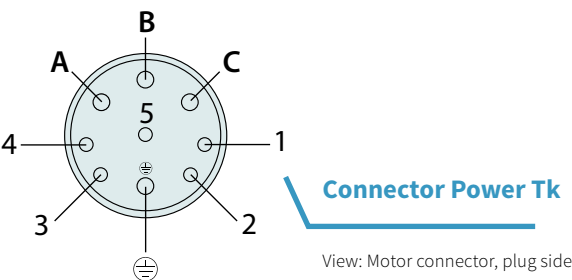
Item	Description	Item-No.
PS10-54x180U-BL-TU	Stator 3x400VAC, LinMot Encoder	0150-2723
PS10-54x180U-BL-TU-D24	Stator 3x400VAC, A/B Encoder, Pt1000	0150-2749
PS10-54x180U-BL-TU-D25	Stator 3x400VAC, A/B Encoder, PTC	0150-2753
PS10-54x180U-BL-TU-D25S	Stator 3x400VAC, A/B Encoder 5um, PTC	0150-2783

CONNECTOR PS10-54x180U-BL-TU

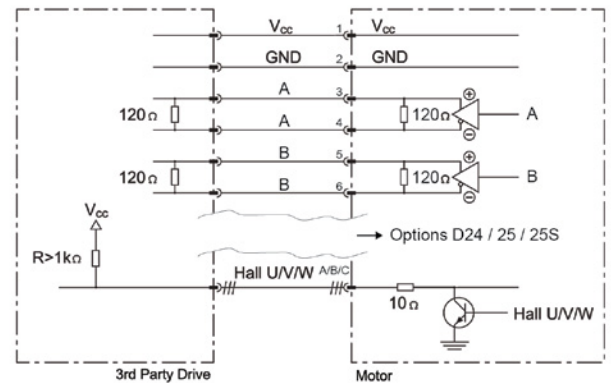
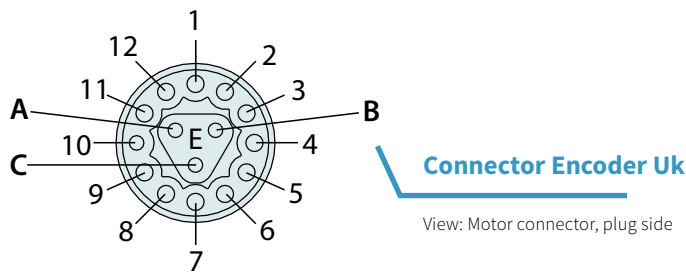
Motor Connector Wiring		Connector Encoder Uk	Wire Color Motor Cable
+Vcc	Supply	1	red
GND	Supply	2	black
Sin+	Encoder	3	yellow
Sin-	Encoder	4	orange
Cos+	Encoder	5	green
Cos-	Encoder	6	blue
Mot. Link C+	Communication	7	pink
Mot. Link C-	Communication	8	grey
n. c.	n. c.	9	n. c.
n. c.	n. c.	10	n. c.
n.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



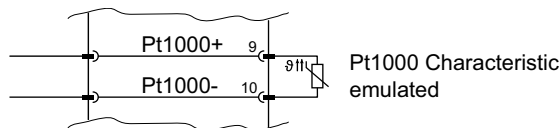
Motor Connector Wiring	Connector Power Tk	Wire Color Motor Cable
Phase U	A	red
PE	PE	yellow-green
Phase V	B	blue
Phase W	C	green
n. c.	1	n. c.
n. c.	2	n. c.
n. c.	3	n. c.
n. c.	4	n. c.
n. c.	5	n. c.



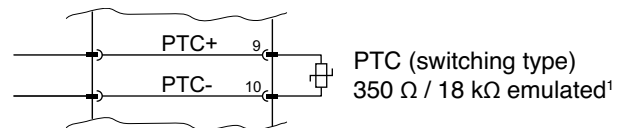
CONNECTOR PS10-54x180U-BL-TU-D24 / 25 / 25S



PS10-54x180U-BL-TU-D24



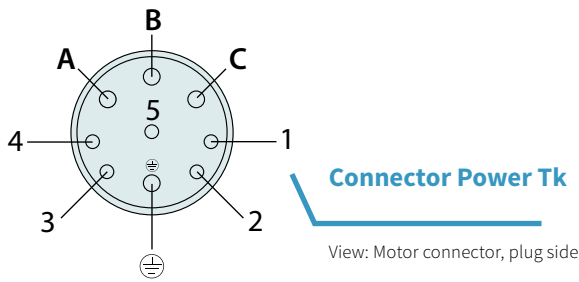
PS10-54x180U-BL-TU-D25 PS10-54x180U-BL-TU-D25S



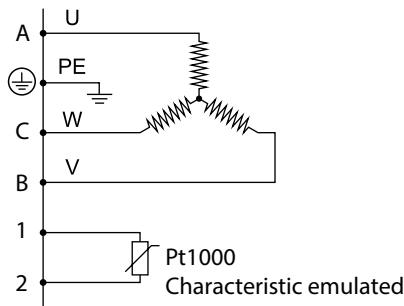
Motor Connector Wiring				
PS10-54x180U-BL-TU-D24	PS10-54x180U-BL-TU-D25 PS10-54x180U-BL-TU-D25S	Function	Connector Encoder Uk	Wire Color Motor Cable
+Vcc	+Vcc	Supply	1	white
GND	GND	Supply	2	brown
A	A	Encoder	3	grey
/A	/A	Encoder	4	pink
B	B	Encoder	5	blue
/B	/B	Encoder	6	red
-	-	-	7	green (do not connect)
-	-	-	8	yellow (do not connect)
Pt1000+	PTC+	Temp. ²	9	yellow-brown
Pt1000-	PTC-	Temp. ²	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 Ω = no fault, over 18 k Ω = Fault

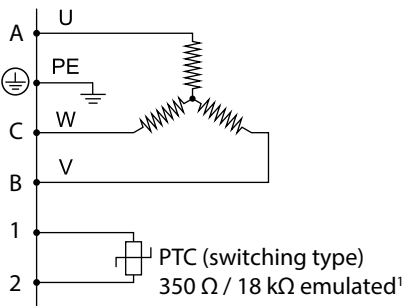
2) The temperature evaluation circuit must be powered from the encoder supply and must be at the same potential. The grounds of the temperature evaluation circuit and the encoder have to be connected. The encoder must have been powered on for at least 50 ms, before valid temperatures can be measured. If the encoder is powered off, 20k Ohms are measured between Pins 9 and 10.



PS10-54x180U-BL-TU-D24



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



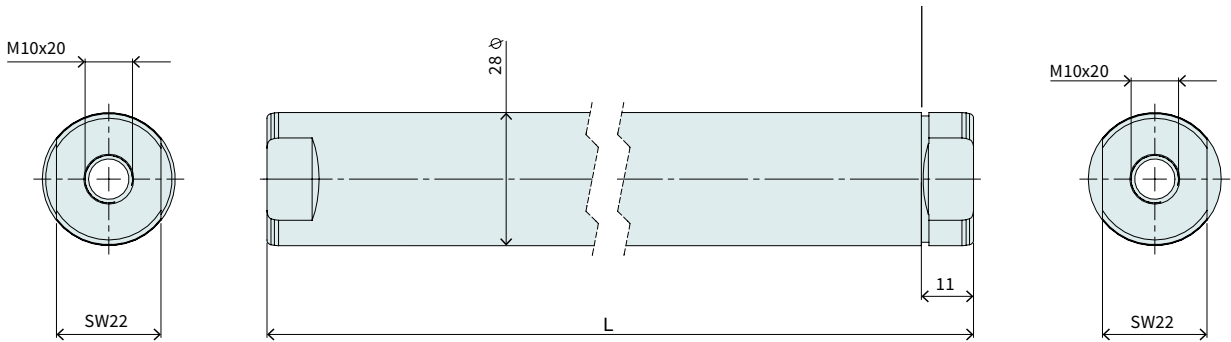
Motor Connector Wiring			
PS10-54x180U-BL-TU-D24	PS10-54x180U-BL-TU-D25 PS10-54x180U-BL-TU-D25S	Connector Power Tk	Wire Color Motor Cable
Phase U	Phase U	A	red
PE	PE	PE	yellow-green
Phase V	Phase V	B	blue
Phase W	Phase W	C	green
Pt1000+	PTC+	1	turquoise
Pt1000-	PTC-	2	grey
n. c.	n. c.	3	n. c.
n. c.	n.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

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

SLIDER

Slider Standard

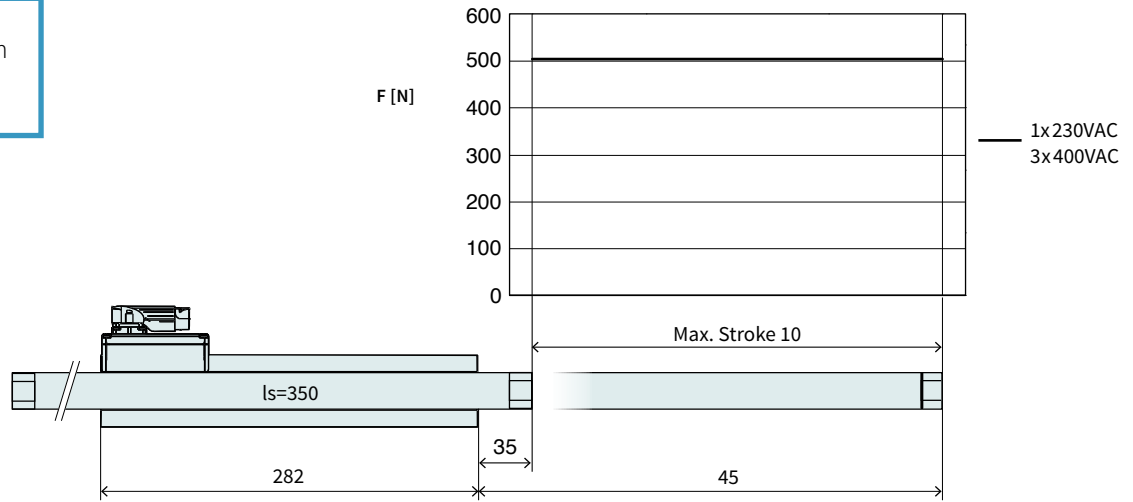
Number of grooves determines the slider type (see chapter 2 / slider) and marks the front end.



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

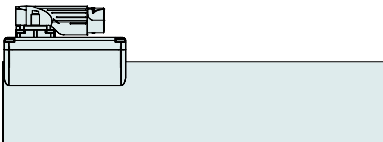
P10-54x180U/10-BL-TU

Max. Stroke: 10 mm
Peak Force: 502 N



Technical Data P10-54x180U/10

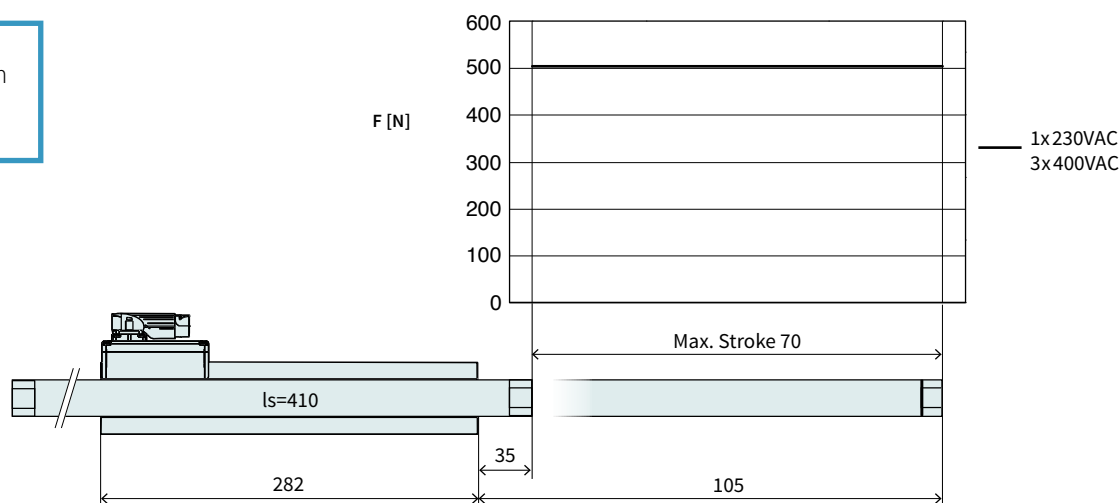
Stroke				
Max. Stroke	mm	(in)	10	(0.39)
Force				
Max. Force @ 1x230VAC	N	(lbf)	502	(113)
Max. Force @ 3x400VAC	N	(lbf)	502	(113)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	84 / 110 / 160	(19 / 26 / 36)
Max. Border Force relative	%		100	
Force Constant 1	N/A _{pk}	(lbf/A _{pk})	33	(7.42)
Force Constant 2	N/A _{rms}	(lbf/A _{rms})	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	%		± 7.6	
Electrical Data				
Max. Current @ 1x230VAC	A _{pk} / A _{rms}		15.1 / 10.6	
Max. Current @ 3x400VAC	A _{pk} / A _{rms}		15.1 / 10.6	
Max. Cont. Current 1 [Passive cooling / Fan / Fluid]	A _{pk}		2.6 / 3.5 / 4.9	
Max. Cont. Current 2 [Passive cooling / Fan / Fluid]	A _{rms}		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)	350	(14)
Slider Mass	g	(lb)	1460	(3.21)



Item	Description	Item-No.
PS10-54x180U-BL-TU	Stator 3x400VAC, LinMot Encoder	0150-2723
PS10-54x120U-BL-TU-D24	Stator 3x400VAC, A/B Encoder, Pt1000	0150-2749
PS10-54x120U-BL-TU-D25	Stator 3x400VAC, A/B Encoder, PTC	0150-2753
PS10-54x120U-BL-TU-D25S	Stator 3x400VAC, A/B Encoder Sum, PTC	0150-2783
PL01-28x350/270	Slider 'standard'	0150-1380

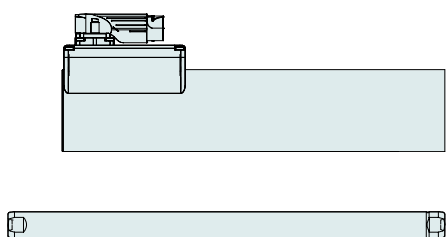
P10-54x180U/70-BL-TU

Max. Stroke: 70 mm
Peak Force: 502 N



Dimensions in mm

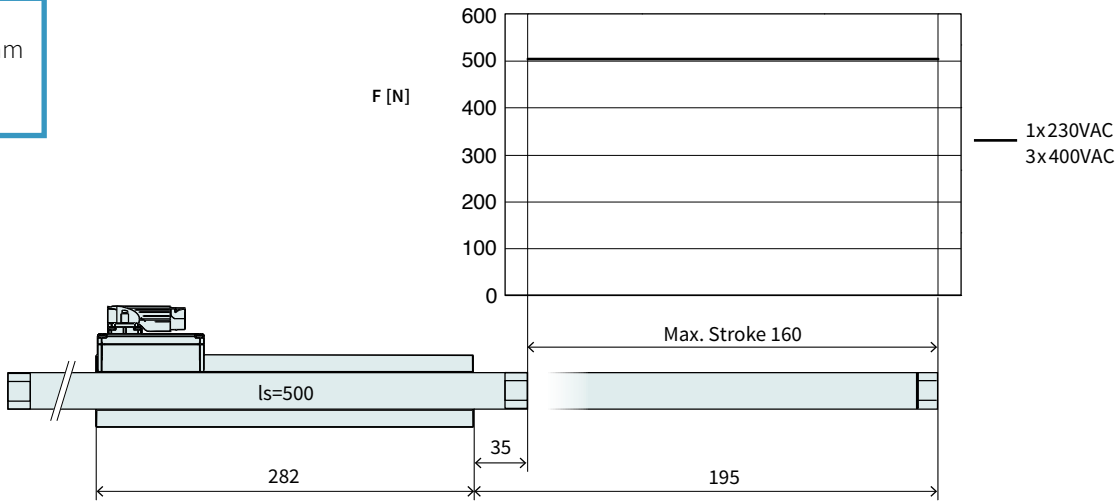
Technical Data P10-54x180U/70				
Stroke				
Max. Stroke	mm	(in)	70	(2.75)
Force				
Max. Force @ 1x230VAC	N	(lbf)	502	(113)
Max. Force @ 3x400VAC	N	(lbf)	502	(113)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	84 / 110 / 160	(19 / 26 / 36)
Max. Border Force relative	%		100	
Force Constant 1	N/A _{pk}	(lbf/A _{pk})	33	(7.42)
Force Constant 2	N/A _{rms}	(lbf/A _{rms})	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	%		± 1.15	
Electrical Data				
Max. Current @ 1x230VAC	A _{pk} / A _{rms}		15.1 / 10.6	
Max. Current @ 3x400VAC	A _{pk} / A _{rms}		15.1 / 10.6	
Max. Cont. Current 1 [Passive cooling / Fan / Fluid]	A _{pk}		2.6 / 3.5 / 4.9	
Max. Cont. Current 2 [Passive cooling / Fan / Fluid]	A _{rms}		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)	410	(16)
Slider Mass	g	(lb)	1740	(3.83)



Item	Description	Item-No.
PS10-54x180U-BL-TU	Stator 3x400VAC, LinMot Encoder	0150-2723
PS10-54x120U-BL-TU-D24	Stator 3x400VAC, A/B Encoder, Pt1000	0150-2749
PS10-54x120U-BL-TU-D25	Stator 3x400VAC, A/B Encoder, PTC	0150-2753
PS10-54x120U-BL-TU-D25S	Stator 3x400VAC, A/B Encoder 5um, PTC	0150-2783
PL01-28x410/330	Slider 'standard'	0150-1381

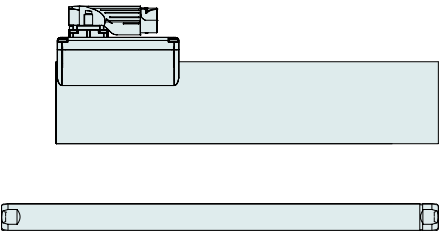
P10-54x180U/160-BL-TU

Max. Stroke: 160 mm
Peak Force: 502 N



Dimensions in mm

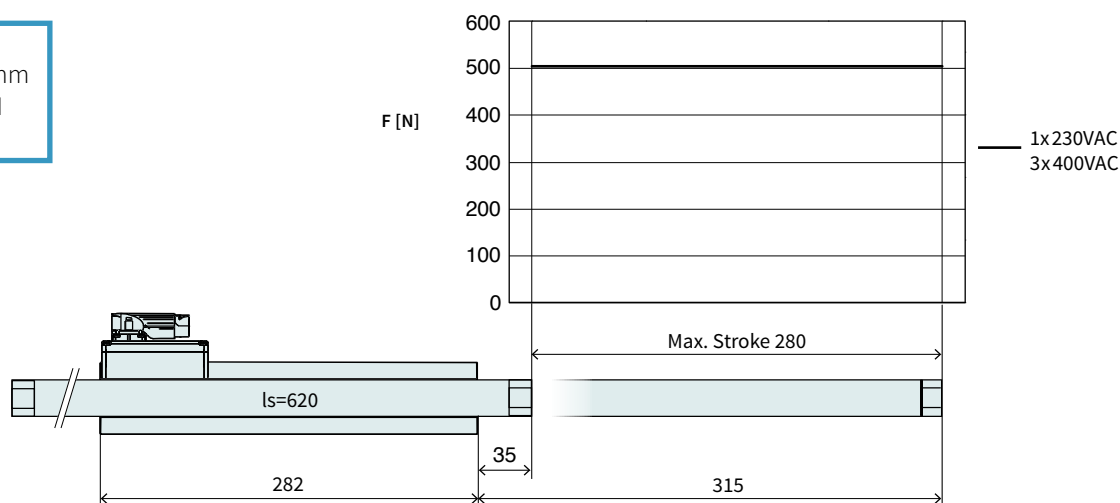
Technical Data P10-54x180U/160				
Stroke				
Max. Stroke	mm	(in)	160	(6.29)
Force				
Max. Force @ 1x230VAC	N	(lbf)	502	(113)
Max. Force @ 3x400VAC	N	(lbf)	502	(113)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	84 / 110 / 160	(19 / 26 / 36)
Max. Border Force relative	%		100	
Force Constant 1	N/A _{pk}	(lbf/A _{pk})	33	(7.42)
Force Constant 2	N/A _{rms}	(lbf/A _{rms})	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 @ 1x230VAC	A _{pk} / A _{rms}		15.1 / 10.6	
Max. Current @ 3x400VAC	A _{pk} / A _{rms}		15.1 / 10.6	
Max. Cont. Current 1 [Passive cooling / Fan / Fluid]	A _{pk}		2.6 / 3.5 / 4.9	
Max. Cont. Current 2 [Passive cooling / Fan / Fluid]	A _{rms}		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)



Item	Description	Item-No.
PS10-54x180U-BL-TU	Stator 3x400VAC, LinMot Encoder	0150-2723
PS10-54x120U-BL-TU-D24	Stator 3x400VAC, A/B Encoder, Pt1000	0150-2749
PS10-54x120U-BL-TU-D25	Stator 3x400VAC, A/B Encoder, PTC	0150-2753
PS10-54x120U-BL-TU-D25S	Stator 3x400VAC, A/B Encoder Sum, PTC	0150-2783
PL01-28x500/420	Slider 'standard'	0150-1382

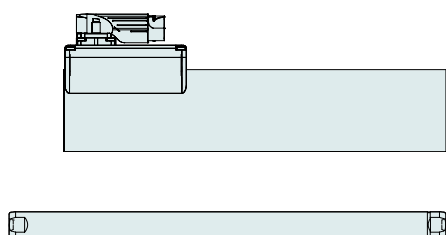
P10-54x180U/280-BL-TU

Max. Stroke: 280 mm
Peak Force: 502 N



Technical Data P10-54x180U/280

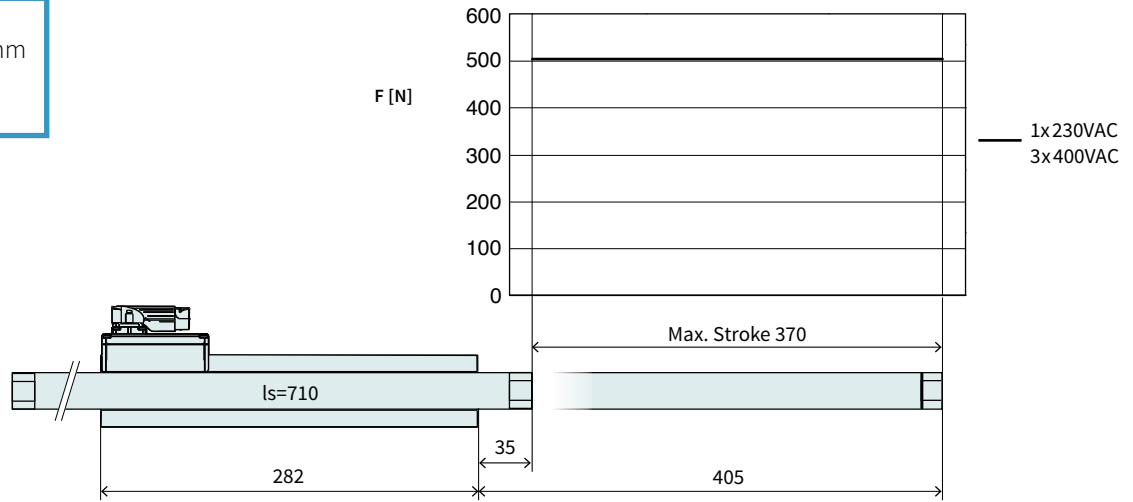
Stroke			
Max. Stroke	mm (in)	280	(10.99)
Force			
Max. Force @ 1x230VAC	N (lbf)	502	(113)
Max. Force @ 3x400VAC	N (lbf)	502	(113)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	84 / 110 / 160	(19 / 26 / 36)
Max. Border Force relative	%	100	
Force Constant 1	N/A _{pk} (lbf/A _{pk})	33	(7.42)
Force Constant 2	N/A _{rms} (lbf/A _{rms})	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 @ 1x230VAC	A _{pk} / A _{rms}	15.1 / 10.6	
Max. Current @ 3x400VAC	A _{pk} / A _{rms}	15.1 / 10.6	
Max. Cont. Current 1 [Passive cooling / Fan / Fluid]	A _{pk}	2.6 / 3.5 / 4.9	
Max. Cont. Current 2 [Passive cooling / Fan / Fluid]	A _{rms}	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)



Item	Description	Item-No.
PS10-54x180U-BL-TU	Stator 3x400VAC, LinMot Encoder	0150-2723
PS10-54x120U-BL-TU-D24	Stator 3x400VAC, A/B Encoder, Pt1000	0150-2749
PS10-54x120U-BL-TU-D25	Stator 3x400VAC, A/B Encoder, PTC	0150-2753
PS10-54x120U-BL-TU-D25S	Stator 3x400VAC, A/B Encoder 5um, PTC	0150-2783
PL01-28x620/540	Slider 'standard'	0150-1383

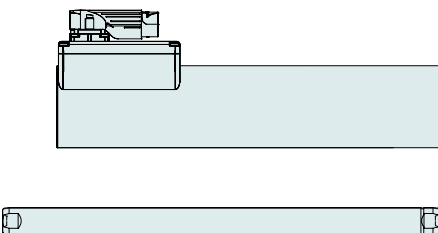
P10-54x180U/370-BL-TU

Max. Stroke: 370 mm
Peak Force: 502 N



Dimensions in mm

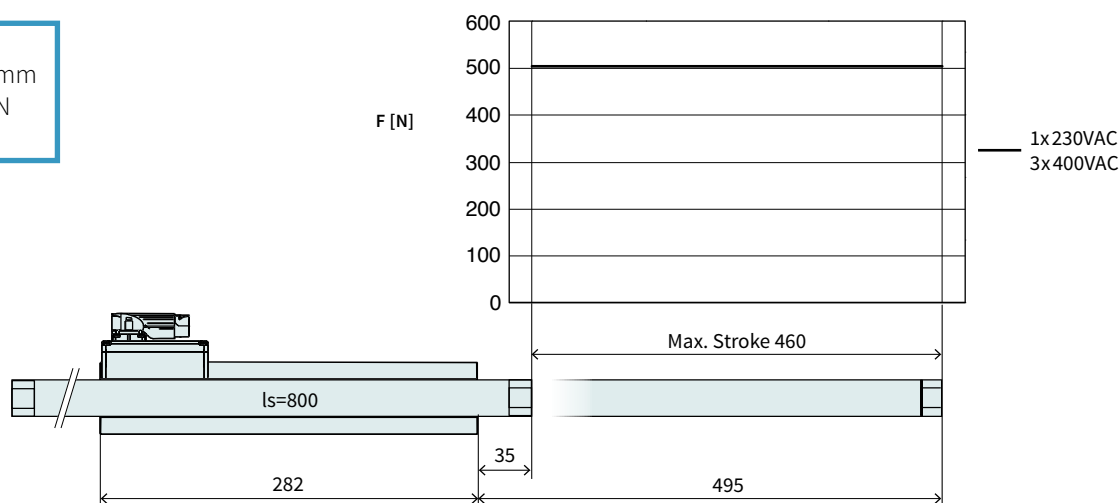
Technical Data P10-54x180U/370				
Stroke				
Max. Stroke	mm	(in)	370	(14.59)
Force				
Max. Force @ 1x230VAC	N	(lbf)	502	(113)
Max. Force @ 3x400VAC	N	(lbf)	502	(113)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	84 / 110 / 160	(19 / 26 / 36)
Max. Border Force relative	%		100	
Force Constant 1	N/A _{pk}	(lbf/A _{pk})	33	(7.42)
Force Constant 2	N/A _{rms}	(lbf/A _{rms})	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	%		± 0.3	
Electrical Data				
Max. Current @ 1x230VAC	A _{pk} / A _{rms}		15.1 / 10.6	
Max. Current @ 3x400VAC	A _{pk} / A _{rms}		15.1 / 10.6	
Max. Cont. Current 1 [Passive cooling / Fan / Fluid]	A _{pk}		2.6 / 3.5 / 4.9	
Max. Cont. Current 2 [Passive cooling / Fan / Fluid]	A _{rms}		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)	710	(28)
Slider Mass	g	(lb)	3140	(6.91)



Item	Description	Item-No.
PS10-54x180U-BL-TU	Stator 3x400VAC, LinMot Encoder	0150-2723
PS10-54x120U-BL-TU-D24	Stator 3x400VAC, A/B Encoder, Pt1000	0150-2749
PS10-54x120U-BL-TU-D25	Stator 3x400VAC, A/B Encoder, PTC	0150-2753
PS10-54x120U-BL-TU-D25S	Stator 3x400VAC, A/B Encoder 5um, PTC	0150-2783
PL01-28x710/630	Slider 'standard'	0150-1384

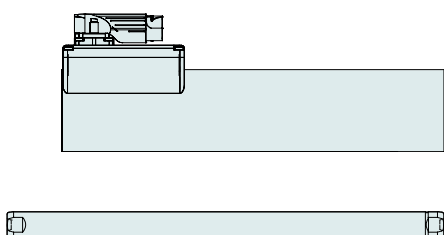
P10-54x180U/460-BL-TU

Max. Stroke: 460 mm
Peak Force: 502 N



Dimensions in mm

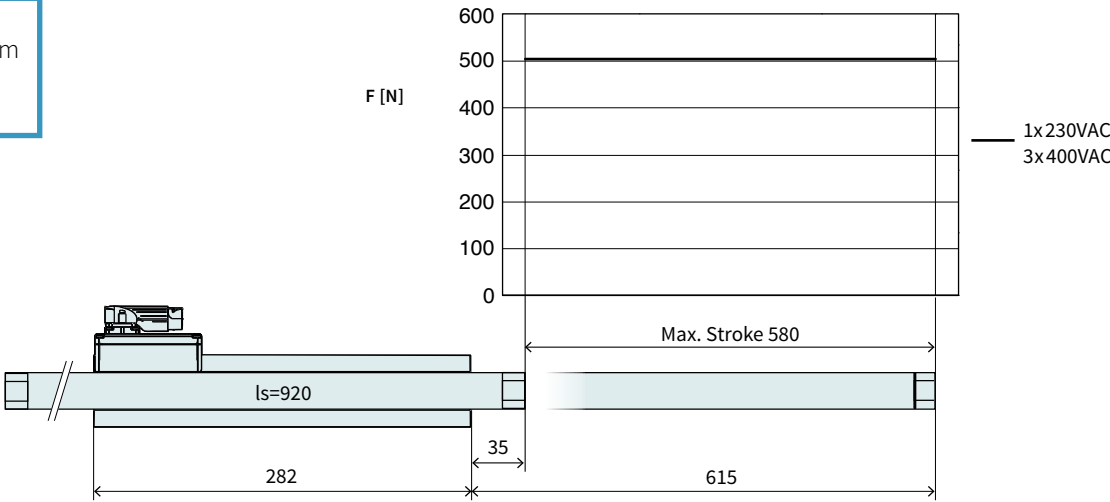
Technical Data P10-54x180U/460			
Stroke			
Max. Stroke	mm (in)	460	(18.1)
Force			
Max. Force @ 1x230VAC	N (lbf)	502	(113)
Max. Force @ 3x400VAC	N (lbf)	502	(113)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	84 / 110 / 160	(19 / 26 / 36)
Max. Border Force relative	%	100	
Force Constant 1	N/A _{pk} (lbf/A _{pk})	33	(7.42)
Force Constant 2	N/A _{rms} (lbf/A _{rms})	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 @ 1x230VAC	A _{pk} / A _{rms}	15.1 / 10.6	
Max. Current @ 3x400VAC	A _{pk} / A _{rms}	15.1 / 10.6	
Max. Cont. Current 1 [Passive cooling / Fan / Fluid]	A _{pk}	2.6 / 3.5 / 4.9	
Max. Cont. Current 2 [Passive cooling / Fan / Fluid]	A _{rms}	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)



Item	Description	Item-No.
PS10-54x180U-BL-TU	Stator 3x400VAC, LinMot Encoder	0150-2723
PS10-54x120U-BL-TU-D24	Stator 3x400VAC, A/B Encoder, Pt1000	0150-2749
PS10-54x120U-BL-TU-D25	Stator 3x400VAC, A/B Encoder, PTC	0150-2753
PS10-54x120U-BL-TU-D25S	Stator 3x400VAC, A/B Encoder 5um, PTC	0150-2783
PL01-28x800/720	Slider 'standard'	0150-1385

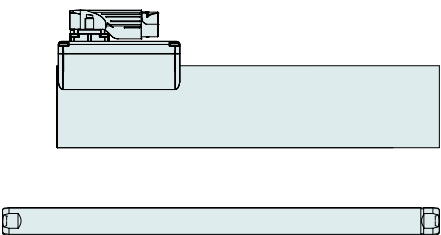
P10-54x180U/580-BL-TU

Max. Stroke: 580 mm
Peak Force: 502 N



Technical Data P10-54x180U/580

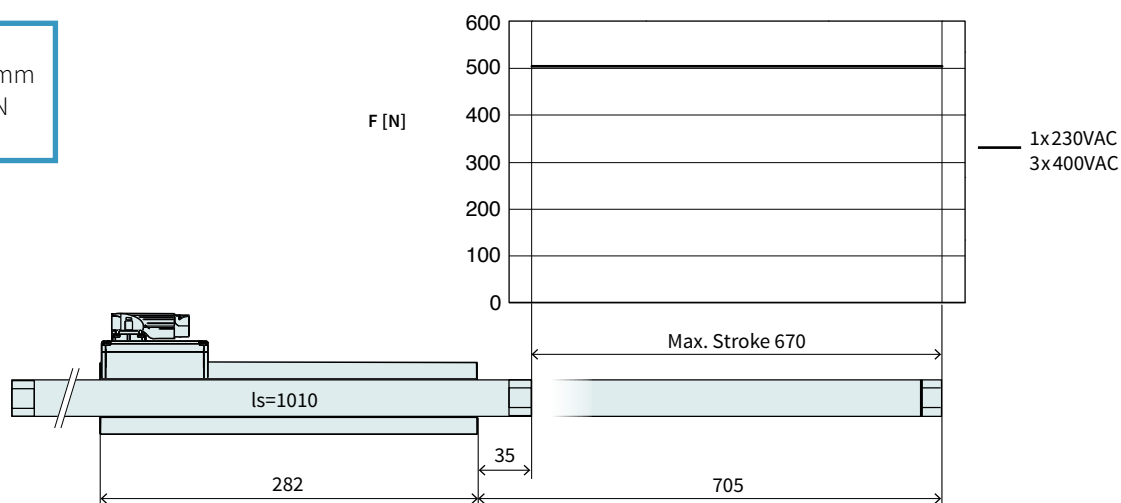
Stroke				
Max. Stroke	mm	(in)	580	(22.8)
Force				
Max. Force @ 1x230VAC	N	(lbf)	502	(113)
Max. Force @ 3x400VAC	N	(lbf)	502	(113)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	84 / 110 / 160	(19 / 26 / 36)
Max. Border Force relative	%		100	
Force Constant 1	N/A _{pk}	(lbf/A _{pk})	33	(7.42)
Force Constant 2	N/A _{rms}	(lbf/A _{rms})	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 @ 1x230VAC	A _{pk} / A _{rms}		15.1 / 10.6	
Max. Current @ 3x400VAC	A _{pk} / A _{rms}		15.1 / 10.6	
Max. Cont. Current 1 [Passive cooling / Fan / Fluid]	A _{pk}		2.6 / 3.5 / 4.9	
Max. Cont. Current 2 [Passive cooling / Fan / Fluid]	A _{rms}		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)	920	(36)
Slider Mass	g	(lb)	4120	(9.06)



Item	Description	Item-No.
PS10-54x180U-BL-TU	Stator 3x400VAC, LinMot Encoder	0150-2723
PS10-54x120U-BL-TU-D24	Stator 3x400VAC, A/B Encoder, Pt1000	0150-2749
PS10-54x120U-BL-TU-D25	Stator 3x400VAC, A/B Encoder, PTC	0150-2753
PS10-54x120U-BL-TU-D25S	Stator 3x400VAC, A/B Encoder Sum, PTC	0150-2783
PL01-28x920/840	Slider 'standard'	0150-1386

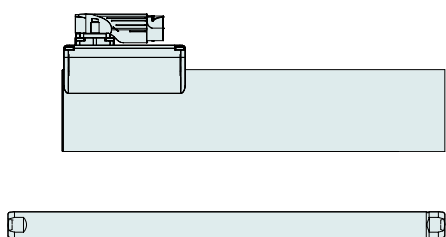
P10-54x180U/670-BL-TU

Max. Stroke: 670 mm
Peak Force: 502 N



Technical Data P10-54x180U/670

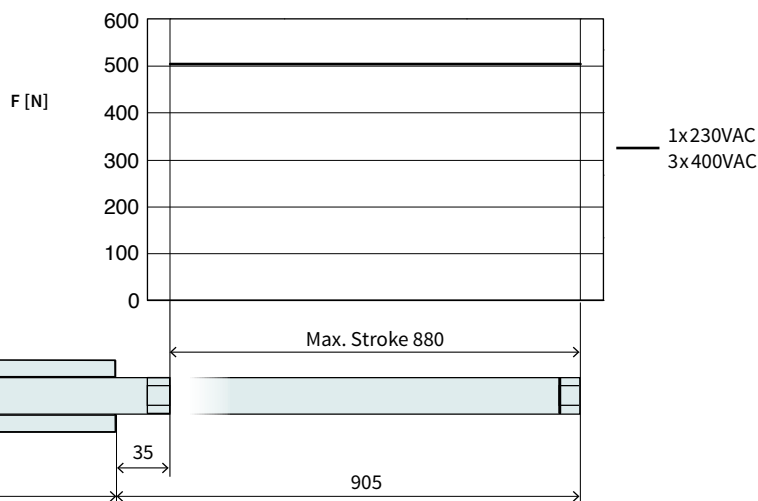
Technical Data P10-54x180U/670			
Stroke			
Max. Stroke	mm (in)	670	(26.39)
Force			
Max. Force @ 1x230VAC	N (lbf)	502	(113)
Max. Force @ 3x400VAC	N (lbf)	502	(113)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	84 / 110 / 160	(19 / 26 / 36)
Max. Border Force relative	%	100	
Force Constant 1	N/A _{pk} (lbf/A _{pk})	33	(7.42)
Force Constant 2	N/A _{rms} (lbf/A _{rms})	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	%	± 0.2	
Electrical Data			
Max. Current @ 1x230VAC	A _{pk} / A _{rms}	15.1 / 10.6	
Max. Current @ 3x400VAC	A _{pk} / A _{rms}	15.1 / 10.6	
Max. Cont. Current 1 [Passive cooling / Fan / Fluid]	A _{pk}	2.6 / 3.5 / 4.9	
Max. Cont. Current 2 [Passive cooling / Fan / Fluid]	A _{rms}	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)	1010	(40)
Slider Mass	g (lb)	4540	(10)



Item	Description	Item-No.
PS10-54x180U-BL-TU	Stator 3x400VAC, LinMot Encoder	0150-2723
PS10-54x120U-BL-TU-D24	Stator 3x400VAC, A/B Encoder, Pt1000	0150-2749
PS10-54x120U-BL-TU-D25	Stator 3x400VAC, A/B Encoder, PTC	0150-2753
PS10-54x120U-BL-TU-D25S	Stator 3x400VAC, A/B Encoder 5um, PTC	0150-2783
PL01-28x1010/930	Slider 'standard'	0150-1387

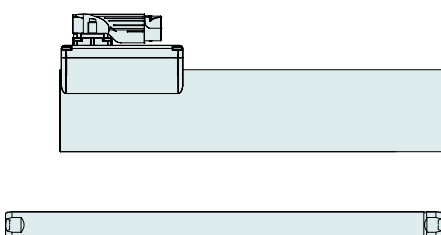
P10-54x180U/880-BL-TU

Max. Stroke: 880 mm
Peak Force: 502 N



Technical Data P10-54x180U/880

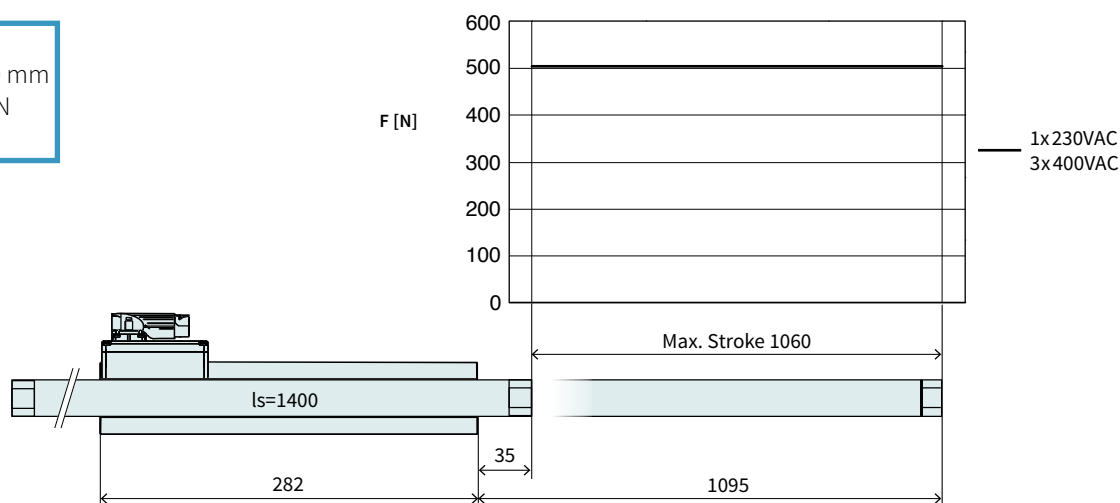
Stroke			
Max. Stroke	mm	(in)	880 (34.6)
Force			
Max. Force @ 1x230VAC	N	(lbf)	502 (113)
Max. Force @ 3x400VAC	N	(lbf)	502 (113)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	84 / 110 / 160 (19 / 26 / 36)
Max. Border Force relative	%		100
Force Constant 1	N/A _{pk}	(lbf/A _{pk})	33 (7.42)
Force Constant 2	N/A _{rms}	(lbf/A _{rms})	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	%		± 0.2
Electrical Data			
Max. Current @ 1x230VAC	A _{pk} / A _{rms}		15.1 / 10.6
Max. Current @ 3x400VAC	A _{pk} / A _{rms}		15.1 / 10.6
Max. Cont. Current 1 [Passive cooling / Fan / Fluid]	A _{pk}		2.6 / 3.5 / 4.9
Max. Cont. Current 2 [Passive cooling / Fan / Fluid]	A _{rms}		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)	1220 (48)
Slider Mass	g	(lb)	5510 (12.12)



Item	Description	Item-No.
PS10-54x180U-BL-TU	Stator 3x400VAC, LinMot Encoder	0150-2723
PS10-54x120U-BL-TU-D24	Stator 3x400VAC, A/B Encoder, Pt1000	0150-2749
PS10-54x120U-BL-TU-D25	Stator 3x400VAC, A/B Encoder, PTC	0150-2753
PS10-54x120U-BL-TU-D25S	Stator 3x400VAC, A/B Encoder 5um, PTC	0150-2783
PL01-28x1220/1140	Slider 'standard'	0150-1388

P10-54x180U/1060-BL-TU

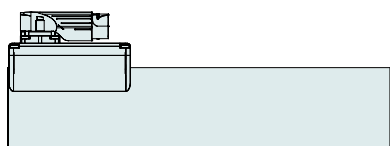
Max. Stroke: 1060 mm
Peak Force: 502 N



Dimensions in mm

Technical Data P10-54x180U/1060

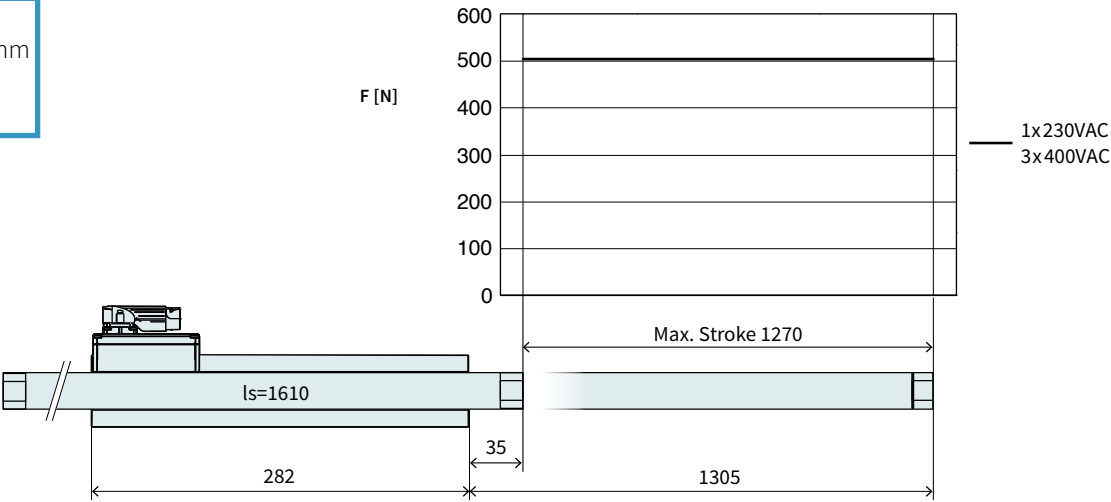
Stroke			
Max. Stroke	mm (in)	1060	(41.7)
Force			
Max. Force @ 1x230VAC	N (lbf)	502	(113)
Max. Force @ 3x400VAC	N (lbf)	502	(113)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	84 / 110 / 160	(19 / 26 / 36)
Max. Border Force relative	%	100	
Force Constant 1	N/A _{pk} (lbf/A _{pk})	33	(7.42)
Force Constant 2	N/A _{rms} (lbf/A _{rms})	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	%	±0.15	
Electrical Data			
Max. Current @ 1x230VAC	A _{pk} / A _{rms}	15.1 / 10.6	
Max. Current @ 3x400VAC	A _{pk} / A _{rms}	15.1 / 10.6	
Max. Cont. Current 1 [Passive cooling / Fan / Fluid]	A _{pk}	2.6 / 3.5 / 4.9	
Max. Cont. Current 2 [Passive cooling / Fan / Fluid]	A _{rms}	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)	1400	(55)
Slider Mass	g (lb)	6350	(13.97)



Item	Description	Item-No.
PS10-54x180U-BL-TU	Stator 3x400VAC, LinMot Encoder	0150-2723
PS10-54x120U-BL-TU-D24	Stator 3x400VAC, A/B Encoder, Pt1000	0150-2749
PS10-54x120U-BL-TU-D25	Stator 3x400VAC, A/B Encoder, PTC	0150-2753
PS10-54x120U-BL-TU-D25S	Stator 3x400VAC, A/B Encoder 5um, PTC	0150-2783
PL01-28x1400/1320	Slider 'standard'	0150-1389

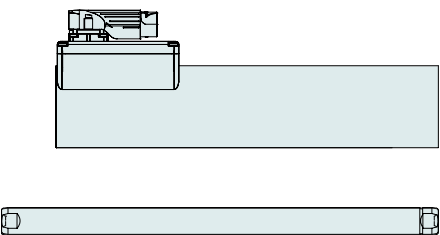
P10-54x180U/1270-BL-TU

Max. Stroke: 1270 mm
Peak Force: 502 N



Dimensions in mm

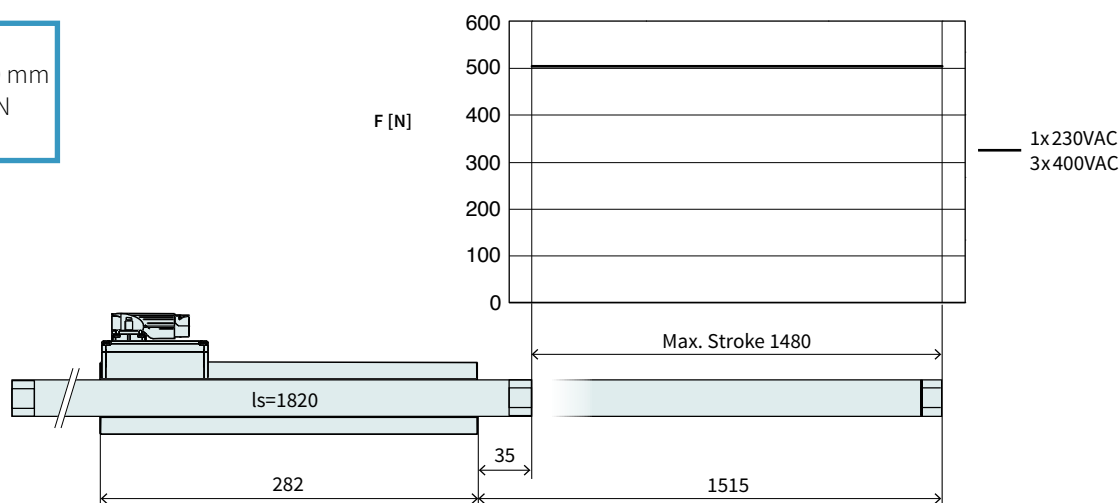
Technical Data P10-54x180U/1270				
Stroke				
Max. Stroke	mm	(in)	1270	(49.99)
Force				
Max. Force @ 1x230VAC	N	(lbf)	502	(113)
Max. Force @ 3x400VAC	N	(lbf)	502	(113)
Max. Cont. Force [Passive cooling/ Fan / Fluid]	N	(lbf)	84 / 110 / 160	(19 / 26 / 36)
Max. Border Force relative	%		100	
Force Constant 1	N/A _{pk}	(lbf/A _{pk})	33	(7.42)
Force Constant 2	N/A _{rms}	(lbf/A _{rms})	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	%		± 0.15	
Electrical Data				
Max. Current @ 1x230VAC	A _{pk} / A _{rms}		15.1 / 10.6	
Max. Current @ 3x400VAC	A _{pk} / A _{rms}		15.1 / 10.6	
Max. Cont. Current 1 [Passive cooling / Fan / Fluid]	A _{pk}		2.6 / 3.5 / 4.9	
Max. Cont. Current 2 [Passive cooling / Fan / Fluid]	A _{rms}		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)	1610	(63)
Slider Mass	g	(lb)	7330	(16.13)



Item	Description	Item-No.
PS10-54x180U-BL-TU	Stator 3x400VAC, LinMot Encoder	0150-2723
PS10-54x120U-BL-TU-D24	Stator 3x400VAC, A/B Encoder, Pt1000	0150-2749
PS10-54x120U-BL-TU-D25	Stator 3x400VAC, A/B Encoder, PTC	0150-2753
PS10-54x120U-BL-TU-D25S	Stator 3x400VAC, A/B Encoder 5um, PTC	0150-2783
PL01-28x1610/1530	Slider 'standard'	0150-1390

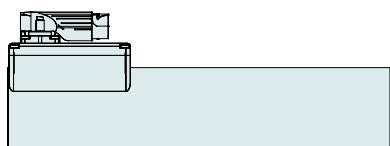
P10-54x180U/1480-BL-TU

Max. Stroke: 1480 mm
Peak Force: 502 N



Dimensions in mm

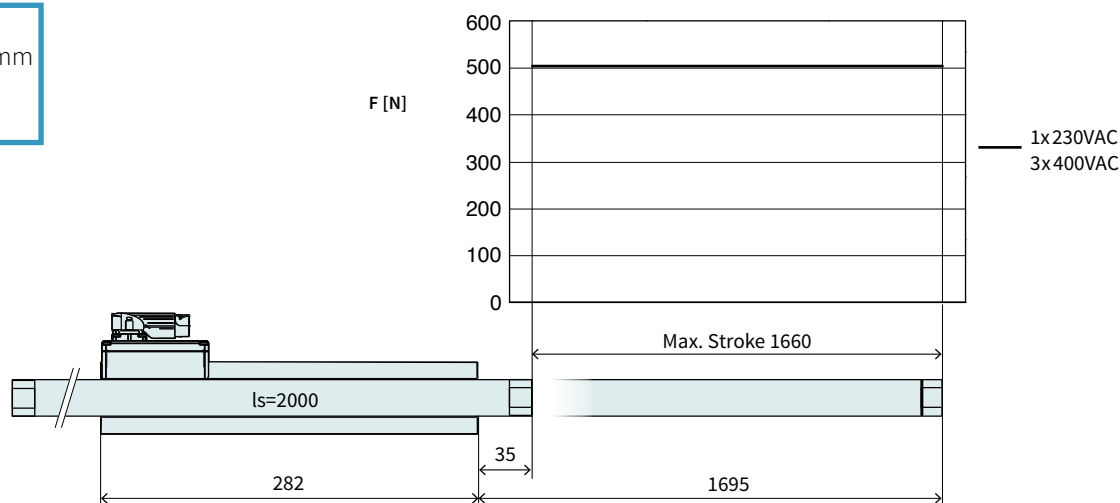
Technical Data P10-54x180U/1480				
Stroke				
Max. Stroke	mm	(in)	1480	(58.29)
Force				
Max. Force @ 1x230VAC	N	(lbf)	502	(113)
Max. Force @ 3x400VAC	N	(lbf)	502	(113)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	84 / 110 / 160	(19 / 26 / 36)
Max. Border Force relative	%		100	
Force Constant 1	N/A _{pk}	(lbf/A _{pk})	33	(7.42)
Force Constant 2	N/A _{rms}	(lbf/A _{rms})	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	%		±0.15	
Electrical Data				
Max. Current @ 1x230VAC	A _{pk} / A _{rms}		15.1 / 10.6	
Max. Current @ 3x400VAC	A _{pk} / A _{rms}		15.1 / 10.6	
Max. Cont. Current 1 [Passive cooling / Fan / Fluid]	A _{pk}		2.6 / 3.5 / 4.9	
Max. Cont. Current 2 [Passive cooling / Fan / Fluid]	A _{rms}		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)	1820	(72)
Slider Mass	g	(lb)	8300	(18.26)



Item	Description	Item-No.
PS10-54x180U-BL-TU	Stator 3x400VAC, LinMot Encoder	0150-2723
PS10-54x120U-BL-TU-D24	Stator 3x400VAC, A/B Encoder, Pt1000	0150-2749
PS10-54x120U-BL-TU-D25	Stator 3x400VAC, A/B Encoder, PTC	0150-2753
PS10-54x120U-BL-TU-D25S	Stator 3x400VAC, A/B Encoder 5um, PTC	0150-2783
PL01-28x1820/1740	Slider 'standard'	0150-1395

P10-54x180U/1660-BL-TU

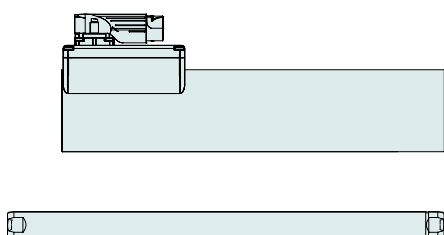
Max. Stroke: 1660 mm
Peak Force: 502 N



Dimensions in mm

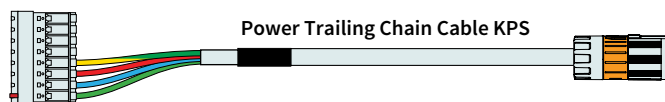
Technical Data P10-54x180U/1660

Stroke			
Max. Stroke	mm (in)	1660	(65.4)
Force			
Max. Force @ 1x230VAC	N (lbf)	502	(113)
Max. Force @ 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 _{pk} (lbf/A _{pk})	33	(7.42)
Force Constant 2	N/A _{rms} (lbf/A _{rms})	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	%	± 0.15	
Electrical Data			
Max. Current @ 1x230VAC	A _{pk} / A _{rms}	15.1 / 10.6	
Max. Current @ 3x400VAC	A _{pk} / A _{rms}	15.1 / 10.6	
Max. Cont. Current 1 [Passive cooling / Fan / Fluid]	A _{pk}	2.6 / 3.5 / 4.9	
Max. Cont. Current 2 [Passive cooling / Fan / Fluid]	A _{rms}	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)	2000	(79)
Slider Mass	g (lb)	9140	(20.11)

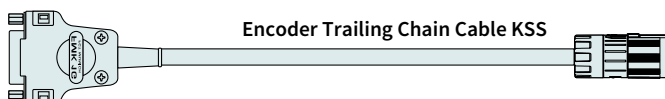


Item	Description	Item-No.
PS10-54x180U-BL-TU	Stator 3x400VAC, LinMot Encoder	0150-2723
PS10-54x120U-BL-TU-D24	Stator 3x400VAC, A/B Encoder, Pt1000	0150-2749
PS10-54x120U-BL-TU-D25	Stator 3x400VAC, A/B Encoder, PTC	0150-2753
PS10-54x120U-BL-TU-D25S	Stator 3x400VAC, A/B Encoder Sum, PTC	0150-2783
PL01-28x2000/1920	Slider 'standard'	0150-1396

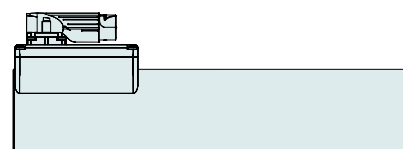
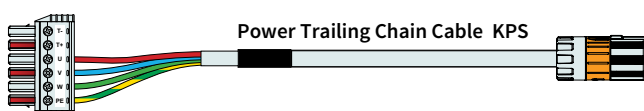
Motor Cable

**C1400****E1400****B** Connector MC10-B/m**Tk** Connector MC10-Tk/f

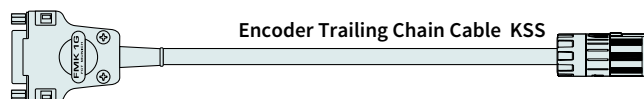
Power Trailing Chain Cable KPS



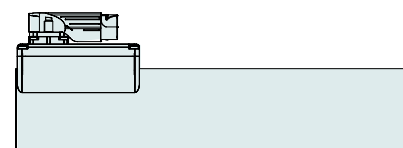
Encoder Trailing Chain Cable KSS

**P10-54x180U****D15s** Connector MC01-D15s-45°/f**Uk** Connector MC10-Uk/f**L** Connector MC10-L/m**Tk** Connector MC10-Tk/f

Power Trailing Chain Cable KPS



Encoder Trailing Chain Cable KSS

**P10-54x180U****D15s** Connector MC01-D15s-45°/f**Uk** Connector MC10-Uk/f

ORDERING INFORMATION

TRAILING CHAIN CABLE FOR LINMOT DRIVES

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

TRAILING CHAIN CABLES FOR THIRD PARTY DRIVES

Item	Description	Item-No.
KPS07-04/02-./Tk-10	Power Trailing Chain Cable .../Tk, 10 m	0150-3626
KPS07-04/02-./Tk-	Power Trailing Chain Cable .../Tk, Custom length	0150-3622
KSS 05-02/13-./Uk-10	Encoder Trailing Chain Cable ./Uk, 10 m	0150-3627
KSS 05-02/13-./Uk-	Encoder Trailing Chain Cable ./Uk, Custom length	0150-3619

CONNECTOR & CABLE (INDIVIDUAL)

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

MOTOR FLANGES



Item	Description	Item-No.
PF10-54x200	Flange for PS10-54x180	0150-2734

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	0150-5051

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

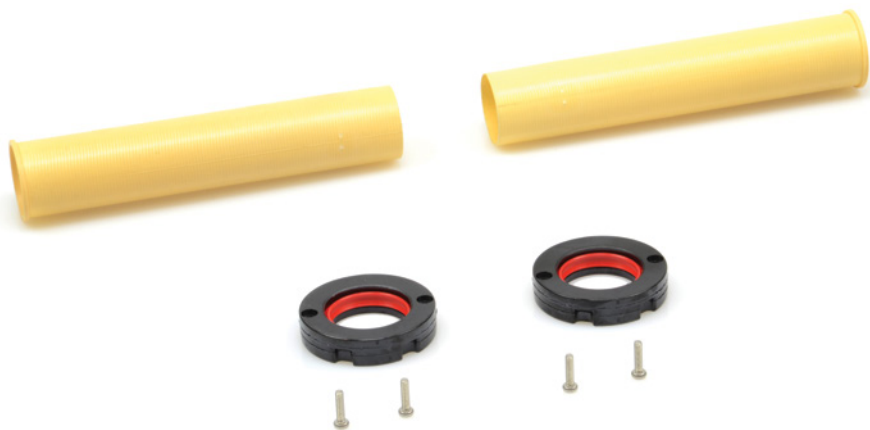
SLIDER MOUNTING



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

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

BEARING KIT



Item	Description	Item-No.
PB10-54x180-L	Bearing Kit for PS10-54x180	0150-3672

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

EXTERNAL POSITION SENSORS



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

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".



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

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".