

LINEAR MOTORS P01-37X120F-HP



- ✓ Higher maximum peak force and acceleration
- ✓ Increased continuous force and acceleration
- ✓ Higher permissible operating temperatures with less self-heating
- ✓ Wide range of applications in handling modules as well as in plant and machine construction

LINEAR MOTORS P01-37x120F-HP

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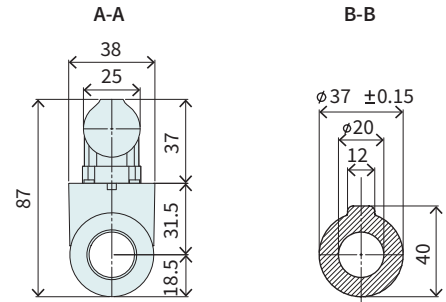
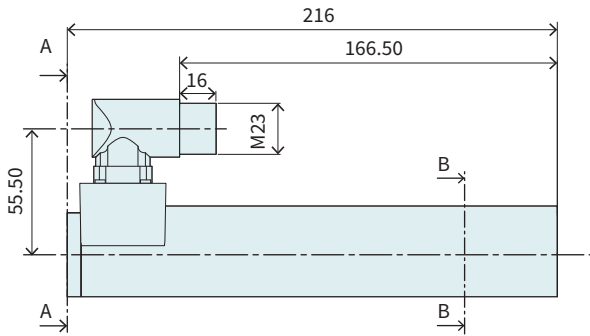
MOTOR FAMILY P01-37x120F-HP



Technical Data

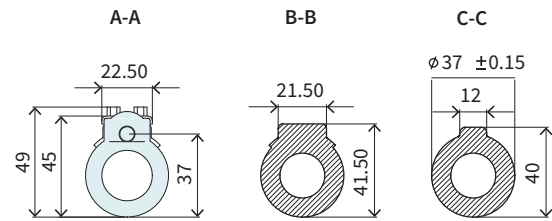
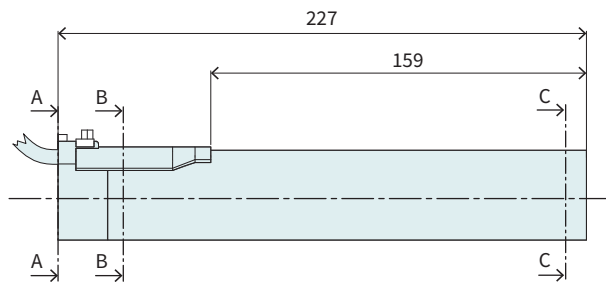
Stroke				
Standard Stroke (SS)	mm (in)		≤ 1400	(≤ 55.1)
Extended Stroke (ES)	mm (in)		≤ 1480	(≤ 58.3)
Force				
Max. Force @ 48VDC	N (lbf)		255	(57.3)
Max. Force @ 72VDC	N (lbf)		255	(57.3)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		48 / 87 / -	(11 / 20 / -)
Max. Border Force relative	%		≤ 67	
Force Constant	N/A _{pk} (lbf/A _{pk})		17	(3.82)
Velocity				
Max. Velocity @ 48VDC	m/s (in/s)		2.5	(99.9)
Max. Velocity @ 72VDC	m/s (in/s)		3.8	(149.9)
Position Detection				
Position Resolution	mm (in)		0.005	(0.0002)
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 @ 48VDC	A _{pk}		14.9	
Max. Current @ 72VDC	A _{pk}		14.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		2.8 / 5.1 / -	
Terminal Resistance 25 °C / 120 °C	Ohm		2.4 / 3.5	
Terminal Inductivity	mH		1.6	
Magnetic Period	mm (in)		40	(1.57)
Thermal Data				
Max. Winding Temperature (Sensor)	°C		120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		2.9 / 0.88 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		1200 / 350 / -	
Mechanical Data				
Stator Diameter	mm (in)		37	(1.5)
Stator Length [Connector type / Cable type]	mm (in)		216 / 227	(8.5 / 8.9)
Stator Mass	g (lb)		740	(1.63)
Slider Diameter	mm (in)		20	(0.79)
Slider Length	mm (in)		240 - 1600	(9.4 - 63)
Slider Mass	g (lb)		490 - 3620	(1.08 - 7.96)
IP Code			IP 65	
Certification				
cURus	File-No.		E354430	

STATOR CONNECTOR TYPE



Item	Description	Item-No.
PS01-37x120F-HP-C	Stator HP with IP67 Connector M23/9(m)	0150-1251

STATOR CABLE TYPE

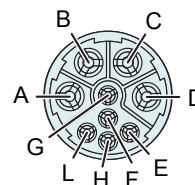


Item	Description	Item-No.
PS01-37x120F-HP-C20	Stator HP, 0.2 m Cable, IP67 St. M23/9(m)	0150-1252

CONNECTOR

Motor Connector Wiring	PS01-37x120F-HP-C PS01-37x120F-HP-C20	Wire color motor cable
	C-Connector	
Ph 1+	A	red
Ph 1-	B	pink
Ph 2+	C	blue
Ph 2-	D	grey
+5VDC	E	white
GND	F	inner shield
Sin	G	yellow
Cos	H	green
Temp.	L	black
Shield	Housing	outer Shield

C-Connector

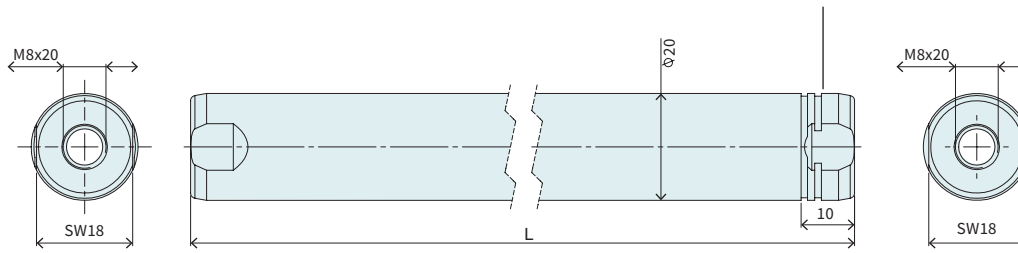


View: Motor Connector, plug side

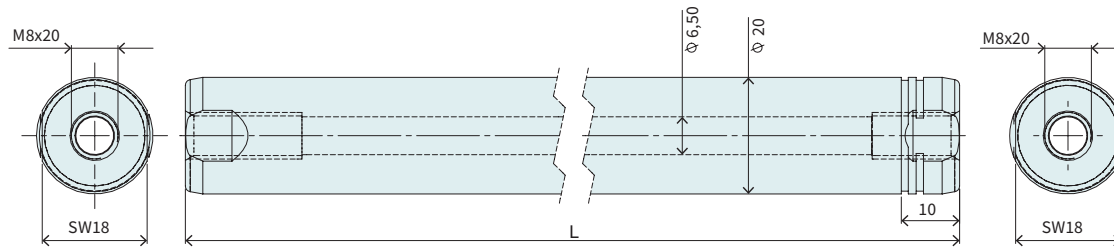
SLIDER

Slider HP/ Heavy Duty HP

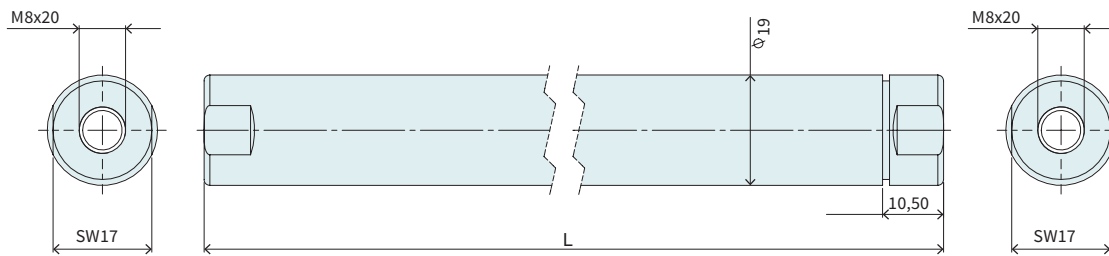
Number of grooves determines the slider type (see chapter 2 / slider) and marks the front end.



Hollow slider



High-Clearance Slider



Slider HP				
Item	Description	Max. Stroke [mm]	Standard Stroke [mm]	Item-No.
PL01-20x240/180-HP	Slider 'High Performance'	120	40	0150-1505
PL01-20x300/240-HP	Slider 'High Performance'	180	100	0150-1506
PL01-20x360/300-HP	Slider 'High Performance'	240	160	0150-1507
PL01-20x400/340-HP	Slider 'High Performance'	280	200	0150-1508
PL01-20x500/440-HP	Slider 'High Performance'	380	300	0150-1509
PL01-20x600/540-HP	Slider 'High Performance'	480	400	0150-1510
PL01-20x700/640-HP	Slider 'High Performance'	580	500	0150-1511
PL01-20x800/740-HP	Slider 'High Performance'	680	600	0150-1512
PL01-20x900/840-HP	Slider 'High Performance'	780	700	0150-1513
PL01-20x1000/940-HP	Slider 'High Performance'	880	800	0150-1514
PL01-20x1200/1140-HP	Slider 'High Performance'	1080	1000	0150-1515
PL01-20x1400/1340-HP	Slider 'High Performance'	1280	1200	0150-1516
PL01-20x1600/1540-HP	Slider 'High Performance'	1480	1400	0150-1517

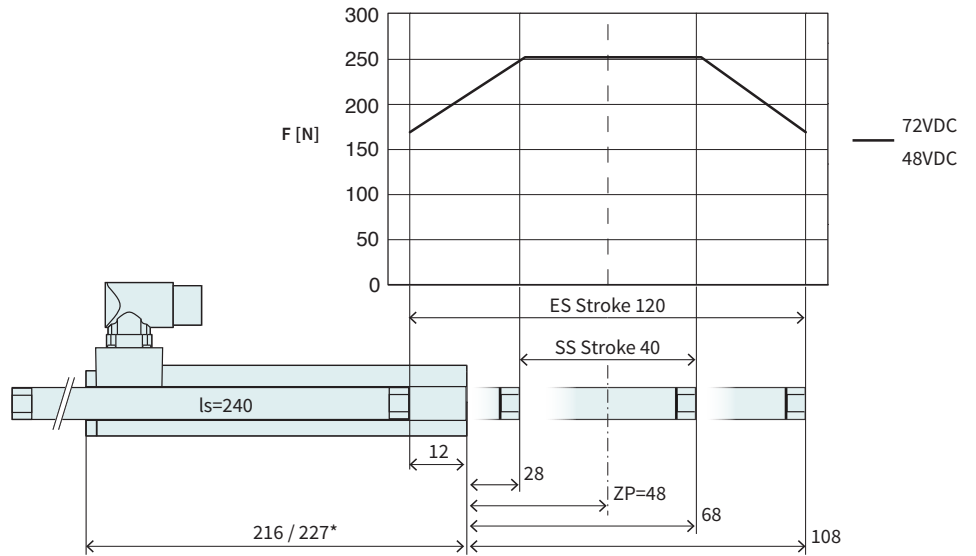
Slider Heavy Duty HP				
Item	Description	Max. Stroke [mm]	Standard Stroke [mm]	Item-No.
PL02-20x240/180-HP	Slider 'heavy duty' 'High Performance'	120	40	0150-2162
PL02-20x300/240-HP	Slider 'heavy duty' 'High Performance'	180	100	0150-2163
PL02-20x360/300-HP	Slider 'heavy duty' 'High Performance'	240	160	0150-2164
PL02-20x400/340-HP	Slider 'heavy duty' 'High Performance'	280	200	0150-2165
PL02-20x500/440-HP	Slider 'heavy duty' 'High Performance'	380	300	0150-2166
PL02-20x600/540-HP	Slider 'heavy duty' 'High Performance'	480	400	0150-2167
PL02-20x700/640-HP	Slider 'heavy duty' 'High Performance'	580	500	0150-2168
PL02-20x800/740-HP	Slider 'heavy duty' 'High Performance'	680	600	0150-2169
PL02-20x900/840-HP	Slider 'heavy duty' 'High Performance'	780	700	0150-2170

Hollow slider				
Item	Description	Max. Stroke [mm]	Standard Stroke [mm]	Item-No.
PL01-20x240/180-HP-L	Slider 'High Performance L'	120	100	0150-2540
PL01-20x300/240-HP-L	Slider 'High Performance L'	180	160	0150-3696
PL01-20x360/300-HP-L	Slider 'High Performance L'	240	220	0150-1537
PL01-20x400/340-HP-L	Slider 'High Performance L'	280	260	0150-3697
PL01-20x500/440-HP-L	Slider 'High Performance L'	380	360	0150-3698
PL01-20x600/540-HP-L	Slider 'High Performance L'	480	460	0150-3699
PL01-20x700/640-HP-L	Slider 'High Performance L'	580	560	0150-3700
PL01-20x800/740-HP-L	Slider 'High Performance L'	680	660	0150-3701
PL01-20x900/840-HP-L	Slider 'High Performance L'	780	760	0150-3702
PL01-20x1000/940-HP-L	Slider 'High Performance L'	880	860	0150-2510
PL01-20x1200/1140-HP-L	Slider 'High Performance L'	1080	1060	on request
PL01-20x1400/1340-HP-L	Slider 'High Performance L'	1280	1260	on request
PL01-20x1600/1540-HP-L	Slider 'High Performance L'	1480	1460	on request

High-Clearance Slider				
Item	Description	Max. Stroke [mm]	Standard Stroke [mm]	Item-No.
PL01-19x240/160	Slider 'high clearance'	100	80	0150-1448
PL01-19x300/220	Slider 'high clearance'	160	140	0150-1449
PL01-19x395/320	Slider 'high clearance'	260	240	0150-1452
PL01-19x500/420	Slider 'high clearance'	360	340	0150-1455
PL01-19x600/520	Slider 'high clearance'	460	440	0150-1456
PL01-19x700/620	Slider 'high clearance'	560	540	0150-1457

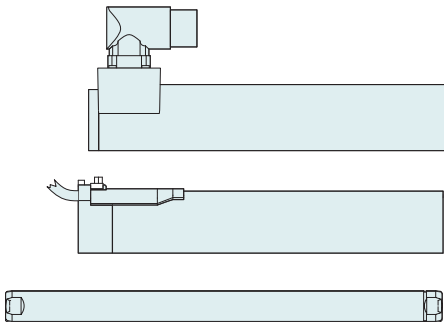
P01-37x120F/40x120-HP

Max. Stroke: 120 mm
Peak Force: 255 N



Dimensions in mm
 *Cable Type

Technical Data P01-37x120F/40x120-HP				
Stroke				
Standard Stroke (SS)	mm (in)		40 (1.57)	
Extended Stroke (ES)	mm (in)		120 (4.71)	
Force				
Max. Force @ 48VDC	N (lbf)		255 (57.3)	
Max. Force @ 72VDC	N (lbf)		255 (57.3)	
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		48 / 87 / -	(11 / 20 / -)
Max. Border Force relative	%		67	
Force Constant	N/A _{pk} (lbf/A _{pk})		17	(3.82)
Velocity				
Max. Velocity @ 48VDC	m/s (in/s)		2.5 (99.9)	
Max. Velocity @ 72VDC	m/s (in/s)		3.8 (149.9)	
Position Detection				
Repeatability	mm (in)		±0.05	(±0.002)
Linearity	%		± 0.5	
Electrical Data				
Max. Current @ 48VDC	A _{pk}		14.9	
Max. Current @ 72VDC	A _{pk}		14.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		2.8 / 5.1 / -	
Thermal Data				
Max. Winding Temperature (Sensor)	°C		120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		2.9 / 0.88 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		1200 / 350 / -	
Mechanical Data				
Slider Length	mm (in)		240	(9.4)
Slider Mass	g (lb)		490	(1.08)

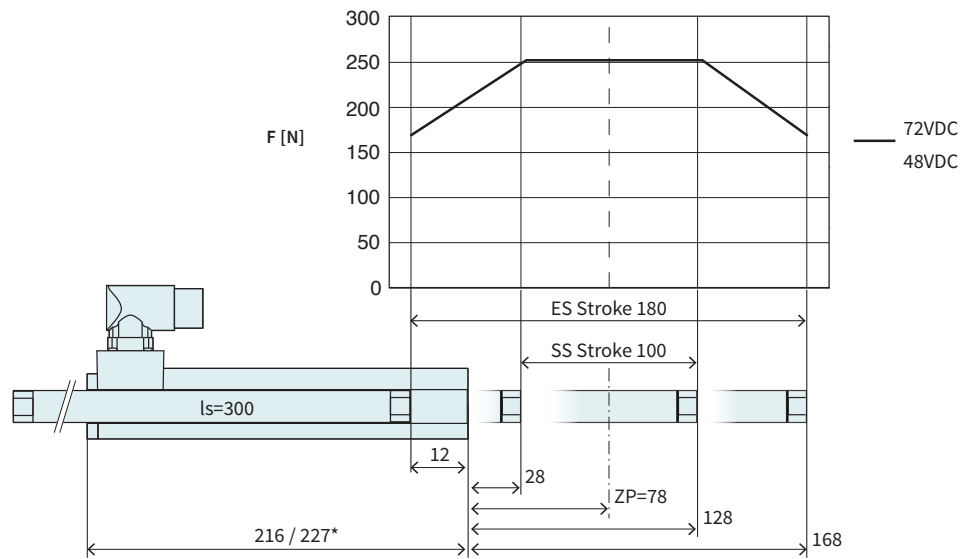


Item	Description	Item-No.
PS01-37x120F-HP-C	Stator HP with IP67 Connector M23/9(m)	0150-1251
PS01-37x120F-HP-C20	Stator HP, 0.2 m Cable, IP67 St. M23/9(m)	0150-1252
PL01-20x240/180-HP	Slider 'High Performance'	0150-1505
PL02-20x240/180-HP	Slider 'heavy duty' 'High Performance'	0150-2162
PL01-20x240/180-HP-L*	Slider 'High Performance L'	0150-2540
PL01-19x240/160*	Slider 'high clearance'	0150-1448

* With this slider, the motor specifications above change.

P01-37x120F/100x180-HP

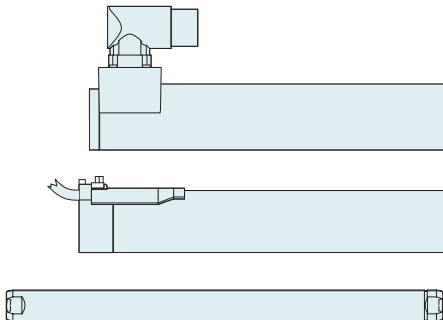
Max. Stroke: 180 mm
Peak Force: 255 N



Dimensions in mm
 *Cable Type

Technical Data P01-37x120F/100x180-HP

Technical Data P01-37x120F/100x180-HP			
Stroke			
Standard Stroke (SS)	mm (in)	100 (3.93)	
Extended Stroke (ES)	mm (in)	180 (7.08)	
Force			
Max. Force @ 48VDC	N (lbf)	255 (57.3)	
Max. Force @ 72VDC	N (lbf)	255 (57.3)	
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	48 / 87 / - (11 / 20 / -)	
Max. Border Force relative	%	67	
Force Constant	N/A _{pk} (lbf/A _{pk})	17 (3.82)	
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)	2.5 (99.9)	
Max. Velocity @ 72VDC	m/s (in/s)	3.8 (149.9)	
Position Detection			
Repeatability	mm (in)	±0.05 (±0.002)	
Linearity	%	± 0.4	
Electrical Data			
Max. Current @ 48VDC	A _{pk}	14.9	
Max. Current @ 72VDC	A _{pk}	14.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}	2.8 / 5.1 / -	
Thermal Data			
Max. Winding Temperature (Sensor)	°C	120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	2.9 / 0.88 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	1200 / 350 / -	
Mechanical Data			
Slider Length	mm (in)	300 (12)	
Slider Mass	g (lb)	630 (1.4)	

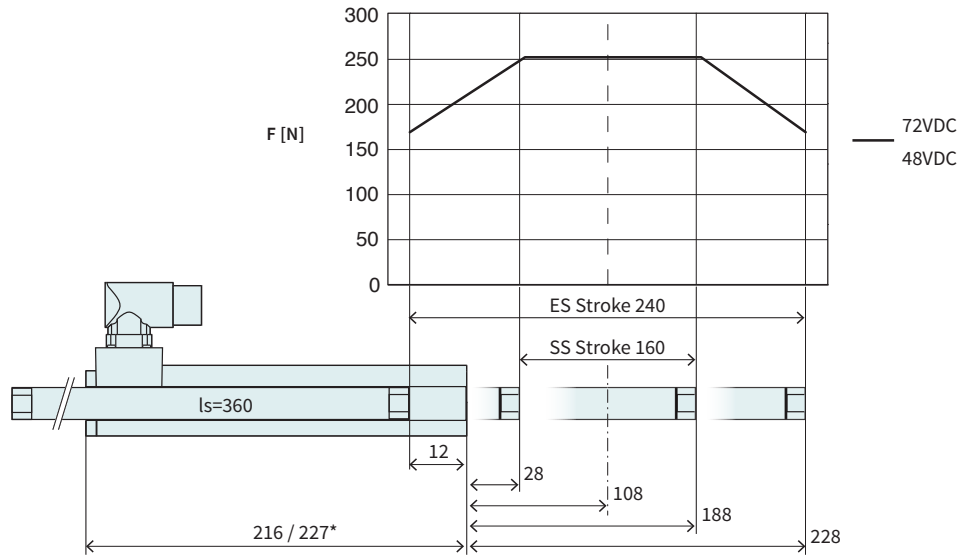


Item	Description	Item-No.
PS01-37x120F-HP-C	Stator HP with IP67 Connector M23/9(m)	0150-1251
PS01-37x120F-HP-C20	Stator HP, 0.2 m Cable, IP67 St. M23/9(m)	0150-1252
PL01-20x300/240-HP	Slider 'High Performance'	0150-1506
PL02-20x300/240-HP	Slider 'heavy duty' 'High Performance'	0150-2163
PL01-20x300/240-HP-L*	Slider 'High Performance L'	0150-3696
PL01-19x300/220*	Slider 'high clearance'	0150-1449

* With this slider, the motor specifications above change.

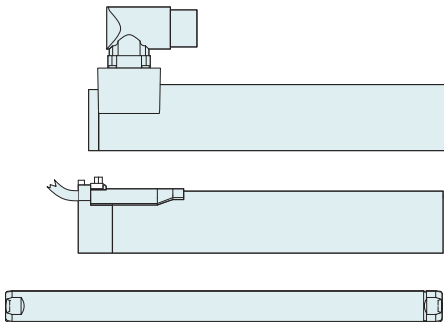
P01-37x120F/160x240-HP

Max. Stroke: 240 mm
Peak Force: 255 N



Dimensions in mm
 *Cable Type

Technical Data P01-37x120F/160x240-HP				
Stroke				
Standard Stroke (SS)	mm	(in)	160	(6.29)
Extended Stroke (ES)	mm	(in)	240	(9.44)
Force				
Max. Force @ 48VDC	N	(lbf)	255	(57.3)
Max. Force @ 72VDC	N	(lbf)	255	(57.3)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	48 / 87 / -	(11 / 20 / -)
Max. Border Force relative	%		67	
Force Constant	N/A _{pk}	(lbf/A _{pk})	17	(3.82)
Velocity				
Max. Velocity @ 48VDC	m/s	(in/s)	2.5	(99.9)
Max. Velocity @ 72VDC	m/s	(in/s)	3.8	(149.9)
Position Detection				
Repeatability	mm	(in)	±0.05	(±0.002)
Linearity	%		± 0.3	
Electrical Data				
Max. Current @ 48VDC	A _{pk}		14.9	
Max. Current @ 72VDC	A _{pk}		14.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		2.8 / 5.1 / -	
Thermal Data				
Max. Winding Temperature (Sensor)	°C		120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		2.9 / 0.88 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		1200 / 350 / -	
Mechanical Data				
Slider Length	mm	(in)	360	(14)
Slider Mass	g	(lb)	760	(1.67)

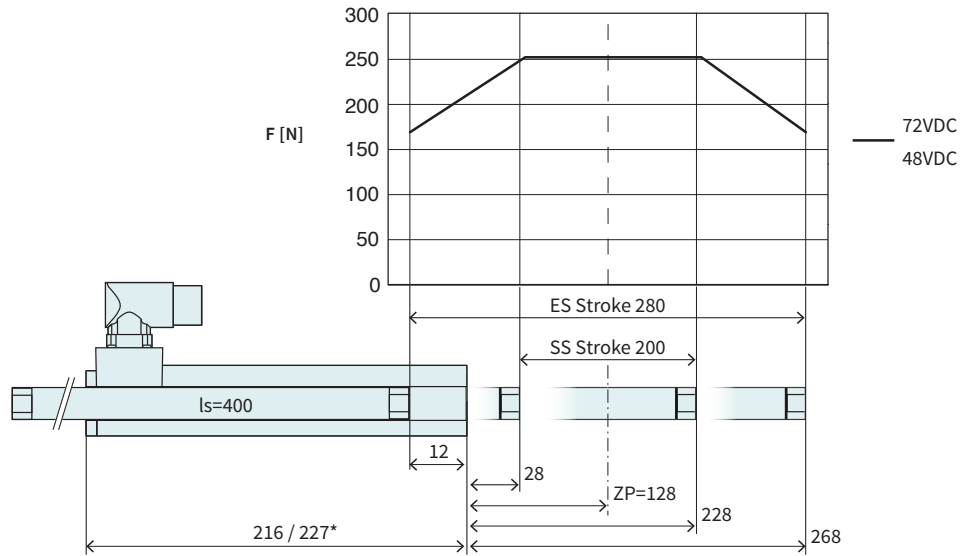


Item	Description	Item-No.
PS01-37x120F-HP-C	Stator HP with IP67 Connector M23/9(m)	0150-1251
PS01-37x120F-HP-C20	Stator HP, 0.2 m Cable, IP67 St. M23/9(m)	0150-1252
PL01-20x360/300-HP	Slider 'High Performance'	0150-1507
PL02-20x360/300-HP	Slider 'heavy duty' 'High Performance'	0150-2164
PL01-20x360/300-HP-L*	Slider 'High Performance L'	0150-1537

* With this slider, the motor specifications above change.

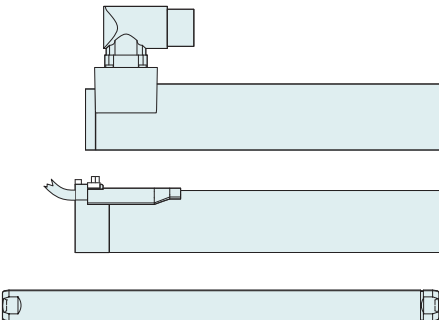
P01-37x120F/200x280-HP

Max. Stroke: 280 mm
Peak Force: 255 N



Dimensions in mm
 *Cable Type

Technical Data P01-37x120F/200x280-HP			
Stroke			
Standard Stroke (SS)	mm (in)		200 (7.86)
Extended Stroke (ES)	mm (in)		280 (10.99)
Force			
Max. Force @ 48VDC	N (lbf)		255 (57.3)
Max. Force @ 72VDC	N (lbf)		255 (57.3)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		48 / 87 / - (11 / 20 / -)
Max. Border Force relative	%		67
Force Constant	N/A _{pk} (lbf/A _{pk})		17 (3.82)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)		2.5 (99.9)
Max. Velocity @ 72VDC	m/s (in/s)		3.8 (149.9)
Position Detection			
Repeatability	mm (in)		±0.05 (±0.002)
Linearity	%		± 0.3
Electrical Data			
Max. Current @ 48VDC	A _{pk}		14.9
Max. Current @ 72VDC	A _{pk}		14.9
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		2.8 / 5.1 / -
Thermal Data			
Max. Winding Temperature (Sensor)	°C		120
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		2.9 / 0.88 / -
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		1200 / 350 / -
Mechanical Data			
Slider Length	mm (in)		400 (16)
Slider Mass	g (lb)		860 (1.89)

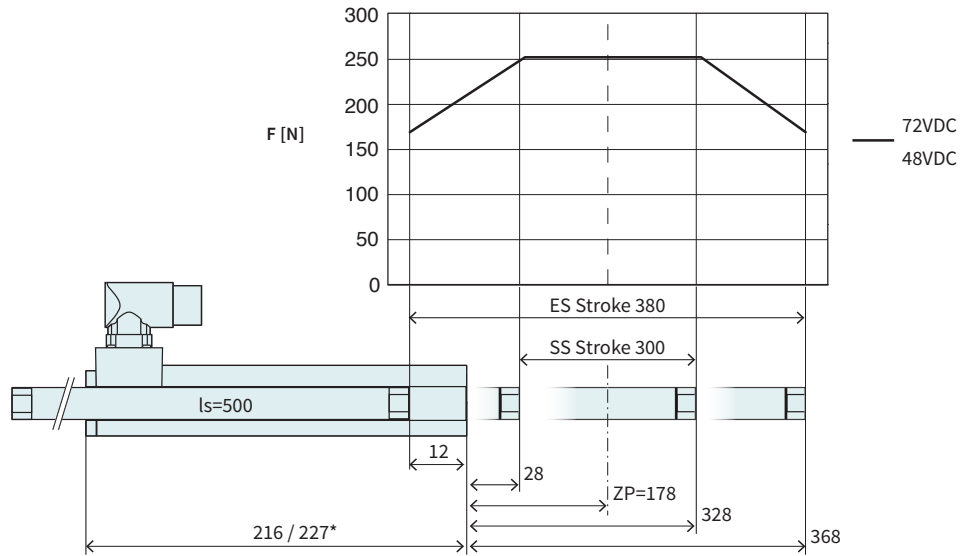


Item	Description	Item-No.
PS01-37x120F-HP-C	Stator HP with IP67 Connector M23/9(m)	0150-1251
PS01-37x120F-HP-C20	Stator HP, 0.2 m Cable, IP67 St. M23/9(m)	0150-1252
PL01-20x400/340-HP	Slider 'High Performance'	0150-1508
PL02-20x400/340-HP	Slider 'heavy duty' 'High Performance'	0150-2165
PL01-20x400/340-HP-L*	Slider 'High Performance L'	0150-3697
PL01-19x395/320*	Slider 'high clearance'	0150-1452

* With this slider, the motor specifications above change.

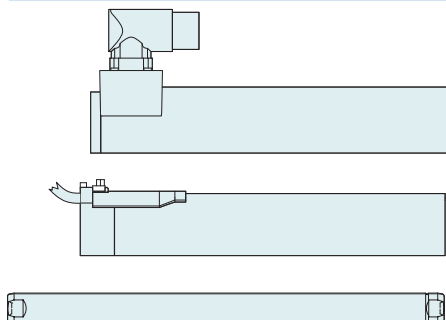
P01-37x120F/300x380-HP

Max. Stroke: 380 mm
Peak Force: 255 N



Dimensions in mm
 *Cable Type

Technical Data P01-37x120F/300x380-HP				
Stroke				
Standard Stroke (SS)	mm	(in)	300	(11.8)
Extended Stroke (ES)	mm	(in)	380	(14.99)
Force				
Max. Force @ 48VDC	N	(lbf)	255	(57.3)
Max. Force @ 72VDC	N	(lbf)	255	(57.3)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	48 / 87 / -	(11 / 20 / -)
Max. Border Force relative	%		67	
Force Constant	N/A _{pk}	(lbf/A _{pk})	17	(3.82)
Velocity				
Max. Velocity @ 48VDC	m/s	(in/s)	2.5	(99.9)
Max. Velocity @ 72VDC	m/s	(in/s)	3.8	(149.9)
Position Detection				
Repeatability	mm	(in)	±0.05	(±0.002)
Linearity	%		±0.25	
Electrical Data				
Max. Current @ 48VDC	A _{pk}		14.9	
Max. Current @ 72VDC	A _{pk}		14.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		2.8 / 5.1 / -	
Thermal Data				
Max. Winding Temperature (Sensor)	°C		120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		2.9 / 0.88 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		1200 / 350 / -	
Mechanical Data				
Slider Length	mm	(in)	500	(20)
Slider Mass	g	(lb)	1090	(2.4)

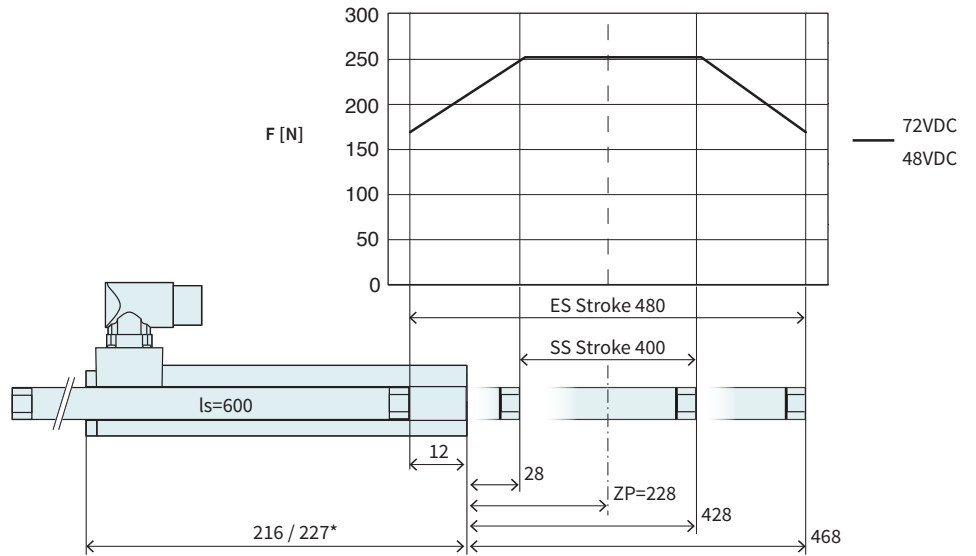


Item	Description	Item-No.
PS01-37x120F-HP-C	Stator HP with IP67 Connector M23/9(m)	0150-1251
PS01-37x120F-HP-C20	Stator HP, 0.2 m Cable, IP67 St. M23/9(m)	0150-1252
PL01-20x500/440-HP	Slider 'High Performance'	0150-1509
PL02-20x500/440-HP	Slider 'heavy duty' 'High Performance'	0150-2166
PL01-20x500/440-HP-L*	Slider 'High Performance L'	0150-3698
PL01-19x500/420*	Slider 'high clearance'	0150-1455

* With this slider, the motor specifications above change.

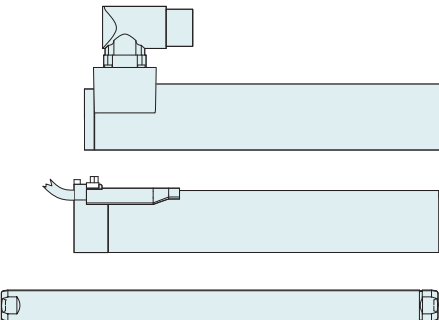
P01-37x120F/400x480-HP

Max. Stroke: 480 mm
Peak Force: 255 N



Dimensions in mm
 *Cable Type

Technical Data P01-37x120F/400x480-HP			
Stroke			
Standard Stroke (SS)	mm (in)	400 (15.69)	
Extended Stroke (ES)	mm (in)	480 (18.89)	
Force			
Max. Force @ 48VDC	N (lbf)	255 (57.3)	
Max. Force @ 72VDC	N (lbf)	255 (57.3)	
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	48 / 87 / - (11 / 20 / -)	
Max. Border Force relative	%	67	
Force Constant	N/A _{pk} (lbf/A _{pk})	17 (3.82)	
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)	2.5 (99.9)	
Max. Velocity @ 72VDC	m/s (in/s)	3.8 (149.9)	
Position Detection			
Repeatability	mm (in)	±0.05 (±0.002)	
Linearity	%	± 0.2	
Electrical Data			
Max. Current @ 48VDC	A _{pk}	14.9	
Max. Current @ 72VDC	A _{pk}	14.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}	2.8 / 5.1 / -	
Thermal Data			
Max. Winding Temperature (Sensor)	°C	120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	2.9 / 0.88 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	1200 / 350 / -	
Mechanical Data			
Slider Length	mm (in)	600 (24)	
Slider Mass	g (lb)	1330 (2.93)	

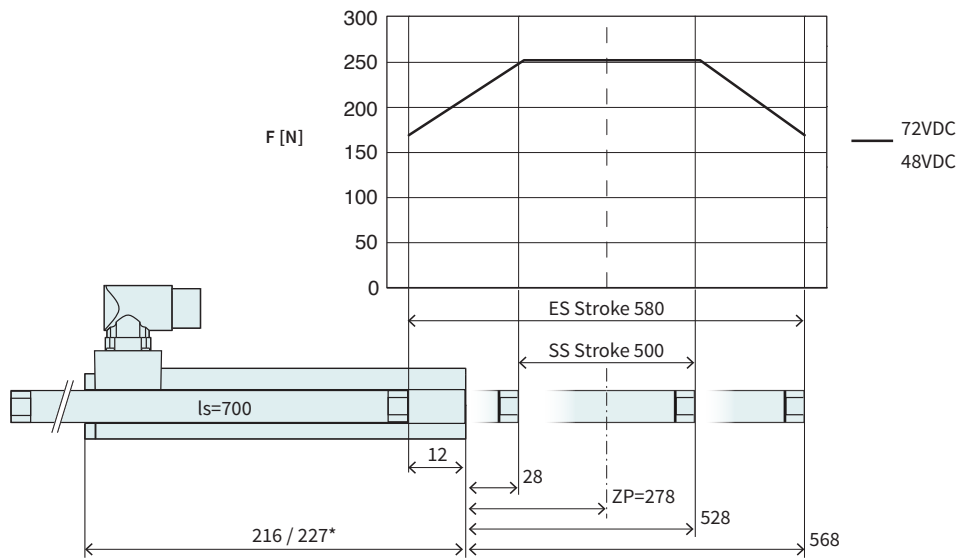


Item	Description	Item-No.
PS01-37x120F-HP-C	Stator HP with IP67 Connector M23/9(m)	0150-1251
PS01-37x120F-HP-C20	Stator HP, 0.2 m Cable, IP67 St. M23/9(m)	0150-1252
PL01-20x600/540-HP	Slider 'High Performance'	0150-1510
PL02-20x600/540-HP	Slider 'heavy duty' 'High Performance'	0150-2167
PL01-20x600/540-HP-L*	Slider 'High Performance L'	0150-3699
PL01-19x600/520*	Slider 'high clearance'	0150-1456

* With this slider, the motor specifications above change.

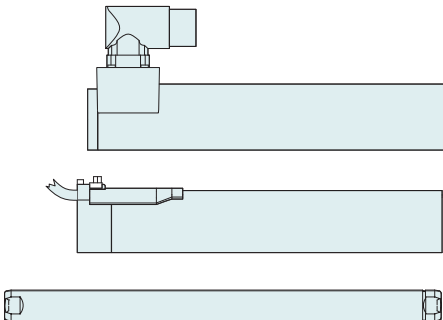
P01-37x120F/500x580-HP

Max. Stroke: 580 mm
Peak Force: 255 N



Dimensions in mm
 *Cable Type

Technical Data P01-37x120F/500x580-HP				
Stroke				
Standard Stroke (SS)	mm (in)		500 (19.69)	
Extended Stroke (ES)	mm (in)		580 (22.8)	
Force				
Max. Force @ 48VDC	N (lbf)		255 (57.3)	
Max. Force @ 72VDC	N (lbf)		255 (57.3)	
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		48 / 87 / -	(11 / 20 / -)
Max. Border Force relative	%		67	
Force Constant	N/A _{pk} (lbf/A _{pk})		17	(3.82)
Velocity				
Max. Velocity @ 48VDC	m/s (in/s)		2.5	(99.9)
Max. Velocity @ 72VDC	m/s (in/s)		3.8	(149.9)
Position Detection				
Repeatability	mm (in)		±0.05	(±0.002)
Linearity	%		± 0.2	
Electrical Data				
Max. Current @ 48VDC	A _{pk}		14.9	
Max. Current @ 72VDC	A _{pk}		14.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		2.8 / 5.1 / -	
Thermal Data				
Max. Winding Temperature (Sensor)	°C		120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		2.9 / 0.88 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		1200 / 350 / -	
Mechanical Data				
Slider Length	mm (in)		700	(28)
Slider Mass	g (lb)		1560	(3.43)

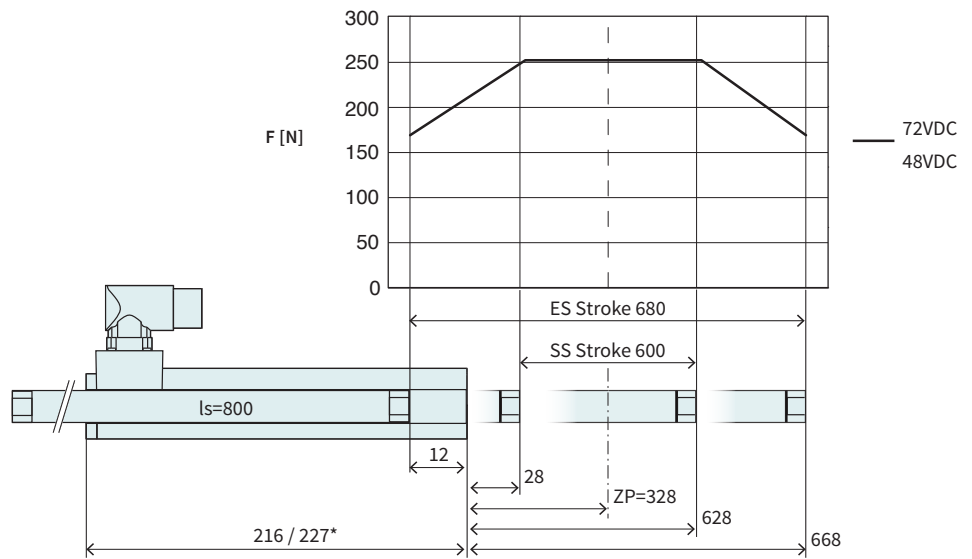


Item	Description	Item-No.
PS01-37x120F-HP-C	Stator HP with IP67 Connector M23/9(m)	0150-1251
PS01-37x120F-HP-C20	Stator HP, 0.2 m Cable, IP67 St. M23/9(m)	0150-1252
PL01-20x700/640-HP	Slider 'High Performance'	0150-1511
PL02-20x700/640-HP	Slider 'heavy duty' 'High Performance'	0150-2168
PL01-20x700/640-HP-L*	Slider 'High Performance L'	0150-3700
PL01-19x700/620*	Slider 'high clearance'	0150-1457

* With this slider, the motor specifications above change.

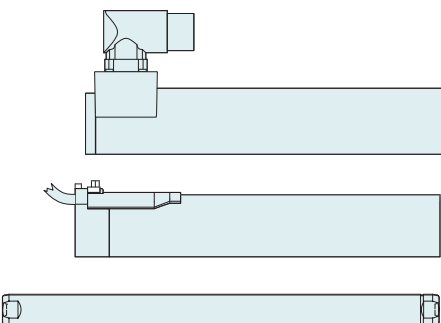
P01-37x120F/600x680-HP

Max. Stroke: 680 mm
Peak Force: 255 N



Dimensions in mm
 *Cable Type

Technical Data P01-37x120F/600x680-HP			
Stroke			
Standard Stroke (SS)	mm (in)		600 (23.6)
Extended Stroke (ES)	mm (in)		680 (26.8)
Force			
Max. Force @ 48VDC	N (lbf)		255 (57.3)
Max. Force @ 72VDC	N (lbf)		255 (57.3)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		48 / 87 / - (11 / 20 / -)
Max. Border Force relative	%		67
Force Constant	N/A _{pk} (lbf/A _{pk})		17 (3.82)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)		2.5 (99.9)
Max. Velocity @ 72VDC	m/s (in/s)		3.8 (149.9)
Position Detection			
Repeatability	mm (in)		±0.05 (±0.002)
Linearity	%		± 0.15
Electrical Data			
Max. Current @ 48VDC	A _{pk}		14.9
Max. Current @ 72VDC	A _{pk}		14.9
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		2.8 / 5.1 / -
Thermal Data			
Max. Winding Temperature (Sensor)	°C		120
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		2.9 / 0.88 / -
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		1200 / 350 / -
Mechanical Data			
Slider Length	mm (in)		800 (31)
Slider Mass	g (lb)		1790 (3.94)

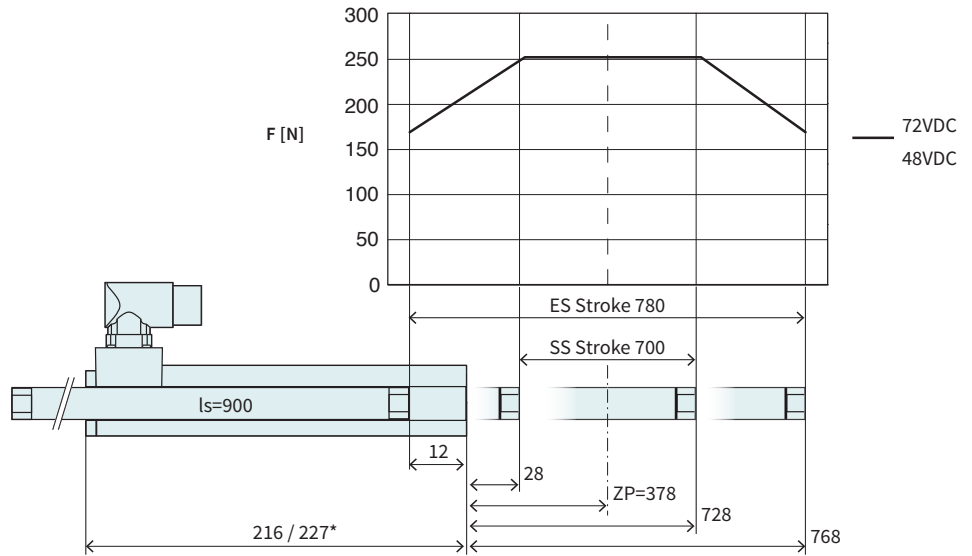


Item	Description	Item-No.
PS01-37x120F-HP-C	Stator HP with IP67 Connector M23/9(m)	0150-1251
PS01-37x120F-HP-C20	Stator HP, 0.2 m Cable, IP67 St. M23/9(m)	0150-1252
PL01-20x800/740-HP	Slider 'High Performance'	0150-1512
PL02-20x800/740-HP	Slider 'heavy duty' 'High Performance'	0150-2169
PL01-20x800/740-HP-L*	Slider 'High Performance L'	0150-3701

* With this slider, the motor specifications above change.

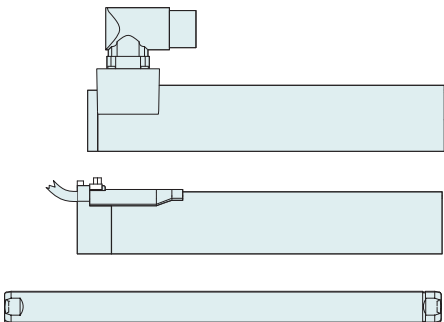
P01-37x120F/700x780-HP

Max. Stroke: 780 mm
Peak Force: 255 N



Dimensions in mm
 *Cable Type

Technical Data P01-37x120F/700x780-HP			
Stroke			
Standard Stroke (SS)	mm (in)	700 (27.6)	
Extended Stroke (ES)	mm (in)	780 (30.69)	
Force			
Max. Force @ 48VDC	N (lbf)	255 (57.3)	
Max. Force @ 72VDC	N (lbf)	255 (57.3)	
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	48 / 87 / - (11 / 20 / -)	
Max. Border Force relative	%	67	
Force Constant	N/A _{pk} (lbf/A _{pk})	17 (3.82)	
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)	2.5 (99.9)	
Max. Velocity @ 72VDC	m/s (in/s)	3.8 (149.9)	
Position Detection			
Repeatability	mm (in)	±0.05 (±0.002)	
Linearity	%	±0.15	
Electrical Data			
Max. Current @ 48VDC	A _{pk}	14.9	
Max. Current @ 72VDC	A _{pk}	14.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}	2.8 / 5.1 / -	
Thermal Data			
Max. Winding Temperature (Sensor)	°C	120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	2.9 / 0.88 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	1200 / 350 / -	
Mechanical Data			
Slider Length	mm (in)	900 (35)	
Slider Mass	g (lb)	2020 (4.44)	

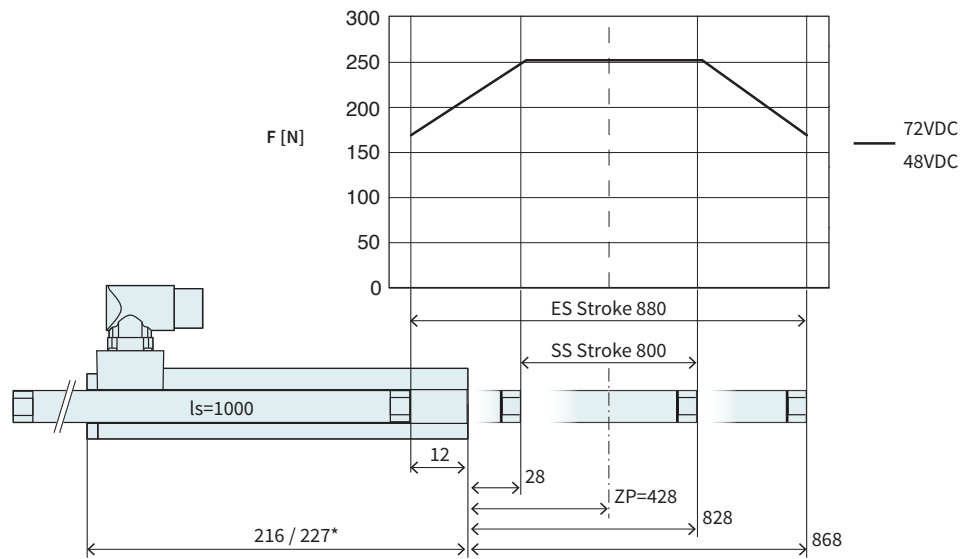


Item	Description	Item-No.
PS01-37x120F-HP-C	Stator HP with IP67 Connector M23/9(m)	0150-1251
PS01-37x120F-HP-C20	Stator HP, 0.2 m Cable, IP67 St. M23/9(m)	0150-1252
PL01-20x900/840-HP	Slider 'High Performance'	0150-1513
PL02-20x900/840-HP	Slider 'heavy duty' 'High Performance'	0150-2170
PL01-20x900/840-HP-L*	Slider 'High Performance L'	0150-3702

* With this slider, the motor specifications above change.

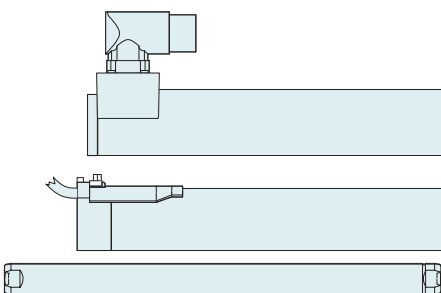
P01-37x120F/800x880-HP

Max. Stroke: 880 mm
Peak Force: 255 N



Dimensions in mm
 *Cable Type

Technical Data P01-37x120F/800x880-HP			
Stroke			
Standard Stroke (SS)	mm (in)		800 (31.49)
Extended Stroke (ES)	mm (in)		880 (34.6)
Force			
Max. Force @ 48VDC	N (lbf)		255 (57.3)
Max. Force @ 72VDC	N (lbf)		255 (57.3)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		48 / 87 / - (11 / 20 / -)
Max. Border Force relative	%		67
Force Constant	N/A _{pk} (lbf/A _{pk})		17 (3.82)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)		2.5 (99.9)
Max. Velocity @ 72VDC	m/s (in/s)		3.8 (149.9)
Position Detection			
Repeatability	mm (in)		±0.05 (±0.002)
Linearity	%		± 0.15
Electrical Data			
Max. Current @ 48VDC	A _{pk}		14.9
Max. Current @ 72VDC	A _{pk}		14.9
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		2.8 / 5.1 / -
Thermal Data			
Max. Winding Temperature (Sensor)	°C		120
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		2.9 / 0.88 / -
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		1200 / 350 / -
Mechanical Data			
Slider Length	mm (in)		1000 (39)
Slider Mass	g (lb)		2230 (4.91)

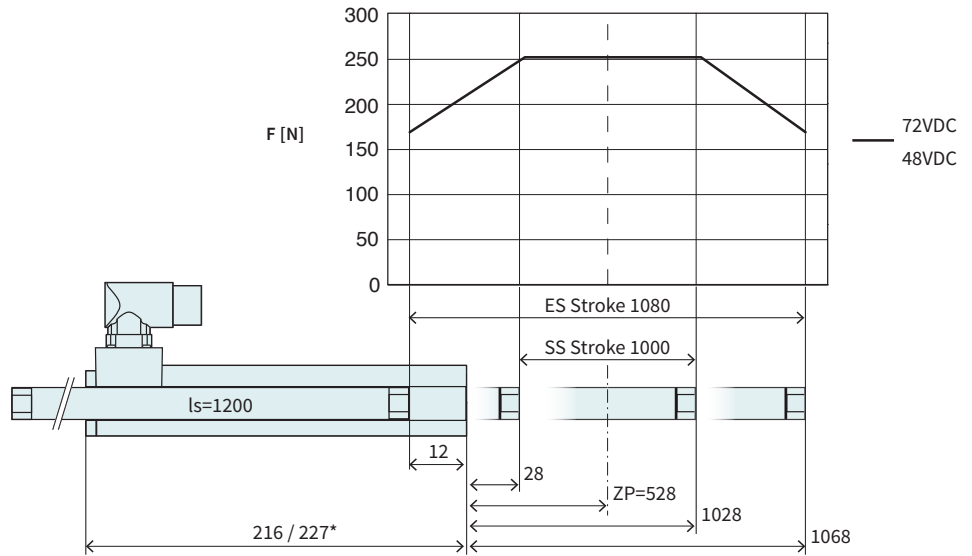


Item	Description	Item-No.
PS01-37x120F-HP-C	Stator HP with IP67 Connector M23/9(m)	0150-1251
PS01-37x120F-HP-C20	Stator HP, 0.2 m Cable, IP67 St. M23/9(m)	0150-1252
PL01-20x1000/940-HP	Slider 'High Performance'	0150-1514
PL01-20x1000/940-HP-L*	Slider 'High Performance L'	0150-3703

* With this slider, the motor specifications above change.

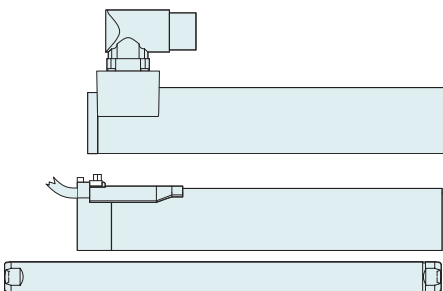
P01-37x120F/1000x1080-HP

Max. Stroke: 1080 mm
Peak Force: 255 N



Dimensions in mm
 *Cable Type

Technical Data P01-37x120F/1000x1080-HP			
Stroke			
Standard Stroke (SS)	mm (in)		1000 (39.39)
Extended Stroke (ES)	mm (in)		1080 (42.49)
Force			
Max. Force @ 48VDC	N (lbf)		255 (57.3)
Max. Force @ 72VDC	N (lbf)		255 (57.3)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		48 / 87 / - (11 / 20 / -)
Max. Border Force relative	%		67
Force Constant	N/A _{pk} (lbf/A _{pk})		17 (3.82)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)		2.5 (99.9)
Max. Velocity @ 72VDC	m/s (in/s)		3.8 (149.9)
Position Detection			
Repeatability	mm (in)		±0.05 (±0.002)
Linearity	%		±0.15
Electrical Data			
Max. Current @ 48VDC	A _{pk}		14.9
Max. Current @ 72VDC	A _{pk}		14.9
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		2.8 / 5.1 / -
Thermal Data			
Max. Winding Temperature (Sensor)	°C		120
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		2.9 / 0.88 / -
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		1200 / 350 / -
Mechanical Data			
Slider Length	mm (in)		1200 (47)
Slider Mass	g (lb)		2690 (5.92)



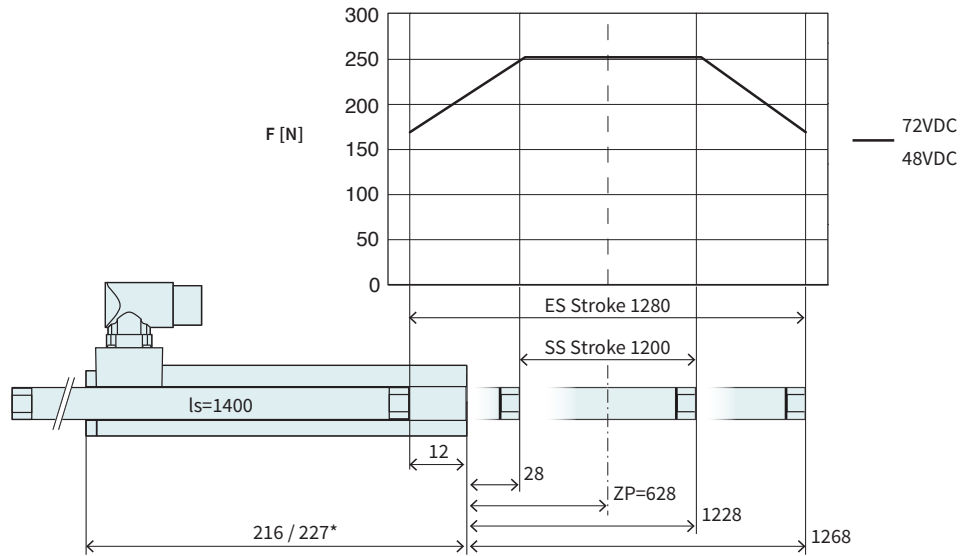
Item	Description	Item-No.
PS01-37x120F-HP-C	Stator HP with IP67 Connector M23/9(m)	0150-1251
PS01-37x120F-HP-C20	Stator HP, 0.2 m Cable, IP67 St. M23/9(m)	0150-1252
PL01-20x1200/1140-HP	Slider 'High Performance'	0150-1515
PL01-20x1200/1140-HP-L*	Slider 'High Performance L'	0150-2510

* With this slider, the motor specifications above change.

P01-37x120F/1200x1280-HP

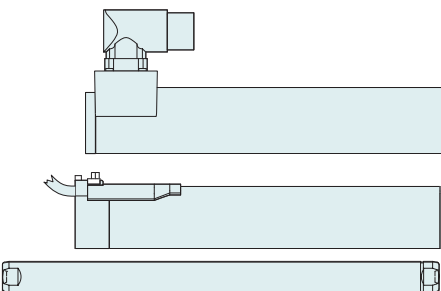
3

Max. Stroke: 1280 mm
Peak Force: 255 N



Dimensions in mm
 *Cable Type

Technical Data P01-37x120F/1200x1280-HP			
Stroke			
Standard Stroke (SS)	mm (in)	1200 (47.2)	
Extended Stroke (ES)	mm (in)	1280 (50.39)	
Force			
Max. Force @ 48VDC	N (lbf)	255 (57.3)	
Max. Force @ 72VDC	N (lbf)	255 (57.3)	
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	48 / 87 / -	(11 / 20 / -)
Max. Border Force relative	%	67	
Force Constant	N/A _{pk} (lbf/A _{pk})	17	(3.82)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)	2.5	(99.9)
Max. Velocity @ 72VDC	m/s (in/s)	3.8	(149.9)
Position Detection			
Repeatability	mm (in)	±0.05	(±0.002)
Linearity	%	± 0.15	
Electrical Data			
Max. Current @ 48VDC	A _{pk}	14.9	
Max. Current @ 72VDC	A _{pk}	14.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}	2.8 / 5.1 / -	
Thermal Data			
Max. Winding Temperature (Sensor)	°C	120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	2.9 / 0.88 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	1200 / 350 / -	
Mechanical Data			
Slider Length	mm (in)	1400	(55)
Slider Mass	g (lb)	3160	(6.95)

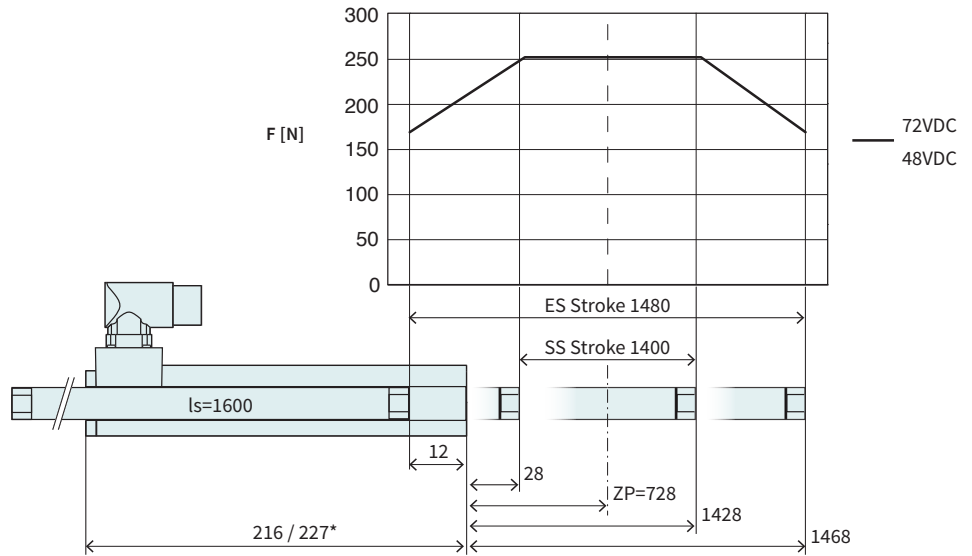


Item	Description	Item-No.
PS01-37x120F-HP-C	Stator HP with IP67 Connector M23/9(m)	0150-1251
PS01-37x120F-HP-C20	Stator HP, 0.2 m Cable, IP67 St. M23/9(m)	0150-1252
PL01-20x1400/1340-HP	Slider 'High Performance'	0150-1516
PL01-20x1400/1340-HP-L*	Slider 'High Performance L'	on request

* With this slider, the motor specifications above change.

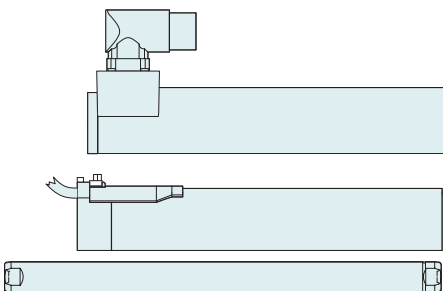
P01-37x120F/1400x1480-HP

Max. Stroke: 1480 mm
Peak Force: 255 N



Dimensions in mm
 *Cable Type

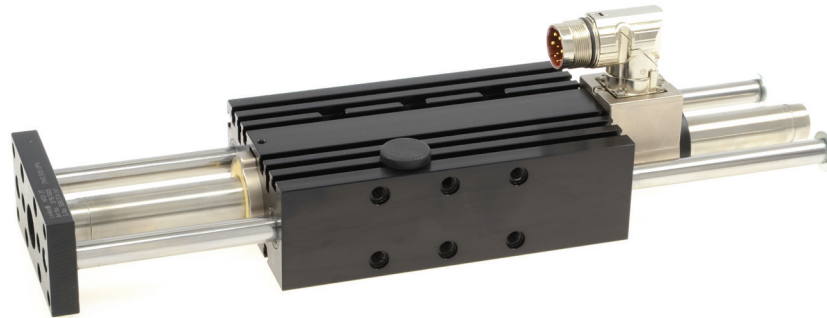
Technical Data P01-37x120F/1400x1480-HP			
Stroke			
Standard Stroke (SS)	mm (in)		1400 (55.1)
Extended Stroke (ES)	mm (in)		1480 (58.29)
Force			
Max. Force @ 48VDC	N (lbf)		255 (57.3)
Max. Force @ 72VDC	N (lbf)		255 (57.3)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		48 / 87 / - (11 / 20 / -)
Max. Border Force relative	%		67
Force Constant	N/A _{pk} (lbf/A _{pk})		17 (3.82)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)		2.5 (99.9)
Max. Velocity @ 72VDC	m/s (in/s)		3.8 (149.9)
Position Detection			
Repeatability	mm (in)		±0.05 (±0.002)
Linearity	%		±0.15
Electrical Data			
Max. Current @ 48VDC	A _{pk}		14.9
Max. Current @ 72VDC	A _{pk}		14.9
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		2.8 / 5.1 / -
Thermal Data			
Max. Winding Temperature (Sensor)	°C		120
Thermal Resistance [Passive cooling / Fan / Fluid]	*K/W		2.9 / 0.88 / -
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		1200 / 350 / -
Mechanical Data			
Slider Length	mm (in)		1600 (63)
Slider Mass	g (lb)		3620 (7.96)



Item	Description	Item-No.
PS01-37x120F-HP-C	Stator HP with IP67 Connector M23/9(m)	0150-1251
PS01-37x120F-HP-C20	Stator HP, 0.2 m Cable, IP67 St. M23/9(m)	0150-1252
PL01-20x1600/1540-HP	Slider 'High Performance'	0150-1517
PL01-20x1600/1540-HP-L*	Slider 'High Performance L'	on request

* With this slider, the motor specifications above change.

Linear Guides H01



HM01-37x120/80 | Linear Module 37x120 with 80 mm Stroke

→	H-Guide	H01-37x166/80	H-Guide for P01-37x120, Stroke max 80 mm	0150-5020
		H01-37x166/80-GF	H-Guide for P01-37x120, Stroke max 80 mm	0150-5080
→	Stator	PS01-37x120F-HP-C	Stator HP with IP67 Connector M23/9(m)	0150-1251
		PS01-37x120F-HP-C20	Stator HP, 0.2m Cable, IP67 St. M23/9(m)	0150-1252
→	Slider	PL01-20x300/240-HP	Slider 'High Performance'	0150-1506
		PL02-20x300/240-HP	Slider 'heavy duty' 'High Performance'	0150-2163

HM01-37x120/180 | Linear Module 37x120 with 180 mm Stroke

→	H-Guide	H01-37x166/180	H-Guide for P01-37x120, Stroke max 180 mm	0150-5021
		H01-37x166/180-GF	H-Guide for P01-37x120, Stroke max 180mm	0150-5081
→	Stator	PS01-37x120F-HP-C	Stator HP with IP67 Connector M23/9(m)	0150-1251
		PS01-37x120F-HP-C20	Stator HP, 0.2m Cable, IP67 St. M23/9(m)	0150-1252
→	Slider	PL01-20x400/340-HP	Slider 'High Performance'	0150-1508
		PL02-20x400/340-HP	Slider 'heavy duty' 'High Performance'	0150-2165

HM01-37x120/280 | Linear Module 37x120 with 280 mm Stroke

→	H-Guide	H01-37x166/280	H-Guide for P01-37x120, Stroke max 280mm	0150-5022
		H01-37x166/280-GF	H-Guide for P01-37x120, Stroke max 280mm	0150-5082
→	Stator	PS01-37x120F-HP-C	Stator HP with IP67 Connector M23/9(m)	0150-1251
		PS01-37x120F-HP-C20	Stator HP, 0.2m Cable, IP67 St. M23/9(m)	0150-1252
→	Slider	PL01-20x500/440-HP	Slider 'High Performance'	0150-1509
		PL02-20x500/440-HP	Slider 'heavy duty' 'High Performance'	0150-2166

Accessories

→	Brake	HB01-37	Pneumatic Brake for H01-37/600N (4-6Bar)	0150-5052
→	Fan	HV01-37/48	Fan cooling for H01-37/48 & PF02-37/48	0150-5051
→	MagSpring	MF01-37/H37	Flange MagSpring 37 / H-Guide 23/37/48	0250-2307
		MA01-37/H37	Adapter MagSpring 37&20 / H-Guide 37	0250-0117
→	Centering sleeve	HC01-09/04	Centering sleeve D9x4 mm	0150-3251
→	Wipers	HA01-27/20-F	Wiper for H01-37 guides, front side	0150-5108

FIND MORE PRODUCT DETAILS IN THE CHAPTER "LINEAR GUIDES".

Bridge Guide B01



BM01-37x120/160 | Bridge Module 37x120 with 160 mm Stroke ¹⁾

→	B-Guide	B01-37x166/160	B-Guide for P01-37x120, Stroke max 160mm	0150-5138
		B01-37x166/160-GF	B-Guide for P01-37x120, Stroke max 160mm	0150-5141
→	Stator	PS01-37x120F-HP-C	Stator HP with IP67 Connector M23/9(m)	0150-1251
		PS01-37x120F-HP-C20	Stator HP, 0.2m Cable, IP67 St. M23/9(m)	0150-1252
→	Slider	PL01-19x395/320	Slider 'high clearance'	0150-1452

BM01-37x120/260 | Bridge Module 37x120 with 260 mm Stroke ¹⁾

→	B-Guide	B01-37x166/260	B-Guide for P01-37x120, Stroke max 260mm	0150-5139
		B01-37x166/260-GF	B-Guide for P01-37x120, Stroke max 260mm	0150-5142
→	Stator	PS01-37x120F-HP-C	Stator HP with IP67 Connector M23/9(m)	0150-1251
		PS01-37x120F-HP-C20	Stator HP, 0.2m Cable, IP67 St. M23/9(m)	0150-1252
→	Slider	PL01-19x500/420	Slider 'high clearance'	0150-1455

BM01-37x120/360 | Bridge Module 37x120 with 360 mm Stroke ¹⁾

→	B-Guide	B01-37x166/360	B-Guide for P01-37x120, Stroke max 360mm	0150-5140
		B01-37x166/360-GF	B-Guide for P01-37x120, Stroke max 360mm	0150-5143
→	Stator	PS01-37x120F-HP-C	Stator HP with IP67 Connector M23/9(m)	0150-1251
		PS01-37x120F-HP-C20	Stator HP, 0.2m Cable, IP67 St. M23/9(m)	0150-1252
→	Slider	PL01-19x600/520	Slider 'high clearance'	0150-1456

Accessories

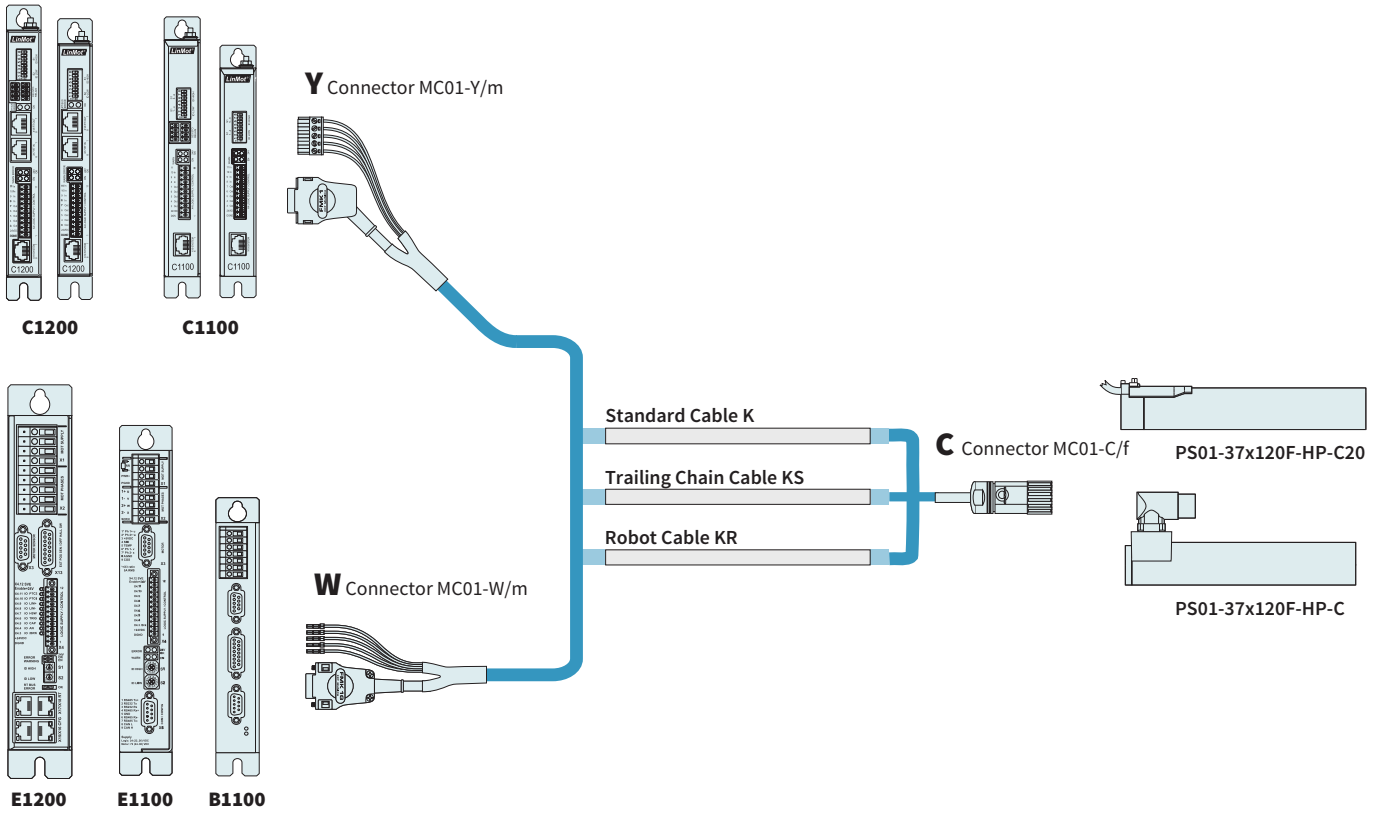
→	Brake	HB01-37	Pneumatic brake for H01-37 guides	0150-5052
→	Fan	HV01-37/48	Fan cooling for H01-37/48 & PF02-37/48	0150-5051
→	MagSpring	MF01-37/H37	Flange MagSpring 37 / H-Guide 23/37/48	0250-2307
		MA01-37/H37	Adapter MagSpring 37&20 / H-Guide 37	0250-0117
→	Centering sleeve	HC01-09/04	Centering sleeve D9x4 mm	0150-3251
→	Wipers	HA01-37/19-F	Wiper for H01-37 guides, front side	0150-5177

¹⁾ The stroke is reduced by 18mm when using cable models.

FIND MORE PRODUCT DETAILS IN THE CHAPTER "LINEAR GUIDES".

Motor Cable

3



ORDERING INFORMATION

STANDARD CABLE

Item	Description	Item-No.
K05-W/C-2	Motor Cable W/C, 2 m	0150-2123
K05-W/C-4	Motor Cable W/C, 4 m	0150-2124
K05-W/C-6	Motor Cable W/C, 6 m	0150-2125
K05-W/C-8	Motor Cable W/C, 8 m	0150-2126
K05-W/C-	Motor Cable W/C, Custom length	0150-3263
K05-Y/C-2	Motor Cable Y/R, 2 m	0150-2425
K05-Y/C-4	Motor Cable Y/R, 4 m	0150-2426
K05-Y/C-6	Motor Cable Y/R, 6 m	0150-2427
K05-Y/C-8	Motor Cable Y/R, 8 m	0150-2428
K05-Y-Fe/C-	Motor Cable Y-Fe/R, Custom length	0150-3502

TRAILING CHAIN CABLE

Item	Description	Item-No.
KS05-W/C-4	Trailing Chain Cable W/C, 4 m	0150-2127
KS05-W/C-6	Trailing Chain Cable W/C, 6 m	0150-2128
KS05-W/C-8	Trailing Chain Cable W/C, 8 m	0150-2129
KS05-W/C-	Trailing Chain Cable W/C, Custom length	0150-3204
KS05-Y/C-4	Trailing Chain Cable Y/C, 4 m	0150-2436
KS05-Y/C-6	Trailing Chain Cable Y/C, 6 m	0150-2437
KS05-Y/C-8	Trailing Chain Cable Y/C, 8 m	0150-2438
KS05-Y/C-	Trailing Chain Cable Y-Fe/C, Custom length	0150-3508

ROBOT CABLE

Item	Description	Item-No.
KR05-W/C-	Robot Cable KR05-W/C, Custom length	0150-3644
KR05-Y-Fe/C-	Robot Cable KR05-Y-Fe/C, Custom length	0150-3513

CONNECTOR & CABLE (INDIVIDUAL)

Item	Description	Item-No.
MC01-W/m	Motor Connector W/m	0150-3140
MC01-Y-Fe/m	Motor Connector Y-Fe/m	0150-3289
MC01-C/f	Motor Connector C/f	0150-3080
MC01-P/f	Motor Connector P/f	0150-3021
K05-04/05	Motor Cable per m	0150-1920
KS05-04/05	Trailing Chain Cable per m	0150-1938
KR05-04/05	Robot Cable per m	0150-1846

MOTOR FLANGES



Item	Description	Item-No.
PF02-37x100	Flange 37x100 mm	0150-1998
PF02-37x140	Flange 37x140 mm	0150-2105

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

FANS



Item	Description	Item-No.
HV01-37/48	Fan cooling for H01-37, B01-37 and PF02-37	0150-5051

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

SLIDER MOUNTING



Item	Description	Item-No.
PLF01-20	Fixed Bearing Set for 19mm and 20mm Slider	0150-3083
PLF01-20-SS	Fixed Bearing Set for 19mm and 20mm Slider, Stainless steel	0150-3296
PLL01-19	Floating Bearing for PL01-19 Slider	0150-3335
PLL01-20	Floating Bearing for PL01-20 Slider	0150-3084
PLM01-20-MK	Mounting Kit for PL01-20 Slider	0150-3079

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

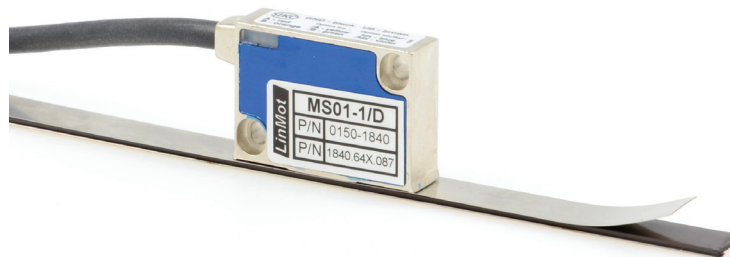
WIPERS



Item	Description	Item-No.
PA01-37/19-F	Wipers for PS01-37x...	0150-3225
PA01-37/19-R	Wipers for PS01-37x...-C	0150-3226
PA01-37/19-R cable	Wipers for PS01-37x... Cable Type	0150-3227
PA01-37/20-F	Wipers for PS01-37x...	0150-3126
PA01-37/20-R	Wipers for PS01-37x...-C	0150-3201
PA01-37/20-R cable	Wipers for PS01-37x...-Cable Type	0150-3221

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

EXTERNAL POSITION SENSORS



Item	Description	Item-No.
MS01-1/D	Linear Encoder 1µm, A/B (for inc. strip)	0150-1840
MB01-1000	Magnetic incremental strip for MS01-1/D, per cm	0150-1963
KS025-D/D-Encoder	Encoder Cable (Length in m)	0150-3166
KS025-D/D15-Encoder	Encoder Cable (Length in m)	0150-3168

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

