

LINEAR MOTORS P01-23X80F-HP



- ✓ Highly dynamic drives
- ✓ Higher permissible operating temperatures
- ✓ Maximum power density
- ✓ 25 Functional Safety variant available
- ✓ Wide stroke range
- ✓ Extensive range of accessories
- ✓ Dynamics and flexibility for handling, plant and machine construction

LINEAR MOTORS P01-23x80F-HP

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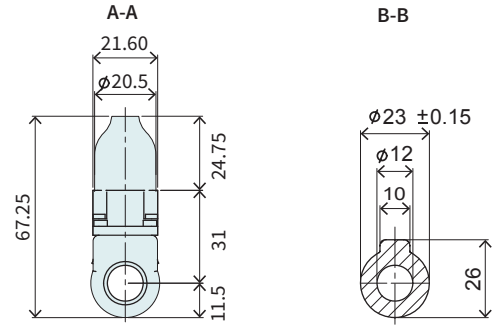
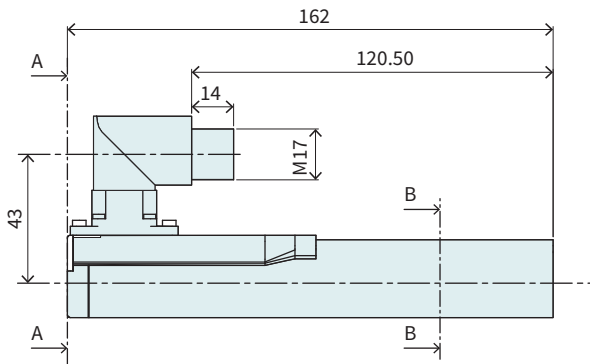


MOTOR FAMILY P01-23x80F-HP



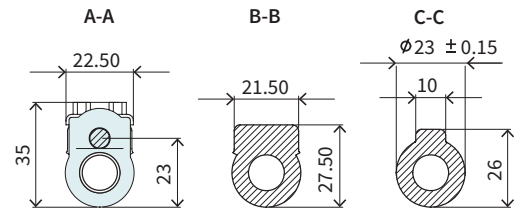
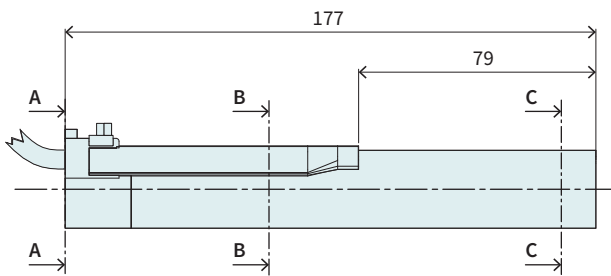
Technical Data				
Stroke				
Standard Stroke (SS)	mm (in)		≤ 720 (≤ 28.3)	
Extended Stroke (ES)	mm (in)		≤ 780 (≤ 30.69)	
Force				
Max. Force @ 48VDC	N (lbf)		67.1 (15.1)	
Max. Force @ 72VDC	N (lbf)		67.1 (15.1)	
Max. Cont. Force [Passive cooling/ Fan / Fluid]	N (lbf)		14 / 23 / - (3.2 / 5.3 / -)	
Max. Border Force relative	%		≤ 63	
Force Constant	N/A _{pk} (lbf/A _{pk})		8.95 (2.01)	
Velocity				
Max. Velocity @ 48VDC	m/s (in/s)		4.9 (189.9)	
Max. Velocity @ 72VDC	m/s (in/s)		7.3 (289.9)	
Position Detection				
Position Resolution	mm (in)		0.002 (0.0001)	
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}		7.4	
Max. Current @ 72VDC	A _{pk}		7.4	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		1.6 / 2.6 / -	
Terminal Resistance 25 °C / 150 °C	Ohm		4.2 / 6.2	
Terminal Inductivity	mH		0.6	
Magnetic Period	mm (in)		20 (0.78)	
Thermal Data				
Max. Winding Temperature (Sensor)	°C		120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		5.4 / 2 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		650 / 240 / -	
Mechanical Data				
Stator Diameter	mm (in)		23 (0.91)	
Stator Length [Connector type / Cable type]	mm (in)		162 / 177 (6.4 / 7)	
Stator Mass	g (lb)		265 (0.58)	
Slider Diameter	mm (in)		12 (0.47)	
Slider Length	mm (in)		130 - 850 (5.1 - 33)	
Slider Mass	g (lb)		90 - 700 (0.19 - 1.5)	
IP Code			IP 65	
Certification				
cURus	File-No.		E354430	

STATOR CONNECTOR TYPE



Item	Description	Item-No.
PS01-23x80F-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1259
PS01-23x80F-HP-R-2S	Stator HP with IP67 Connector M17/9(m) - 2S	0150-21259

STATOR CABLE TYPE

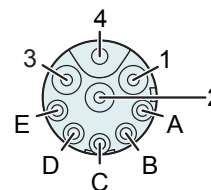


Item	Description	Item-No.
PS01-23x80F-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1260

CONNECTOR

Motor Connector Wiring	PS01-23x80F-HP-R PS01-23x80F-HP-R20	Wire color motor cable
	R-Connector	
Ph 1+	1	red
Ph 1-	2	pink
Ph 2+	3	blue
Ph 2-	4	grey
+5VDC	A	white
GND	B	inner shield
Sin	C	yellow
Cos	D	green
Temp.	E	black
Shield	Housing	outer Shield

R-Connector

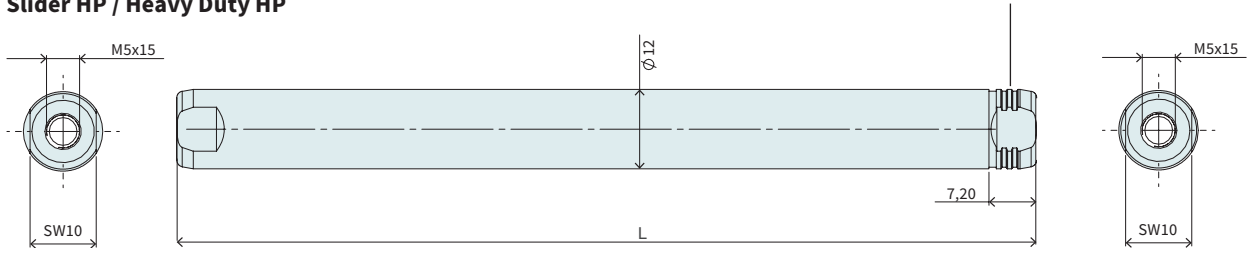


View: Motor Connector, plug side

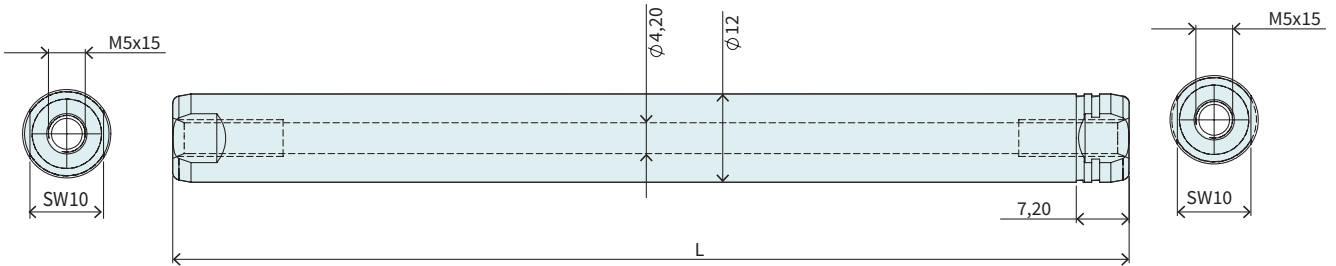
SLIDER

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

Slider HP / Heavy Duty HP



Hollow slider HP



Slider High Performance				
Item	Description	Max. Stroke [mm]	Standard Stroke [mm]	Item-No.
PL01-12x130/90-HP	Slider 'High Performance'	60	0	0150-2209
PL01-12x150/110-HP	Slider 'High Performance'	80	20	0150-2281
PL01-12x170/130-HP	Slider 'High Performance'	100	40	0150-1529
PL01-12x200/160-HP	Slider 'High Performance'	130	70	0150-1518
PL01-12x230/190-HP	Slider 'High Performance'	160	100	0150-1519
PL01-12x270/230-HP	Slider 'High Performance'	200	140	0150-1520
PL01-12x290/250-HP	Slider 'High Performance'	220	160	0150-1521
PL01-12x350/310-HP	Slider 'High Performance'	280	220	0150-1522
PL01-12x420/380-HP	Slider 'High Performance'	350	290	0150-1523
PL01-12x480/440-HP	Slider 'High Performance'	410	350	0150-1524
PL01-12x580/540-HP	Slider 'High Performance'	510	450	0150-1525
PL01-12x760/720-HP	Slider 'High Performance'	690	630	0150-1526
PL01-12x850/810-HP	Slider 'High Performance'	780	720	0150-1527

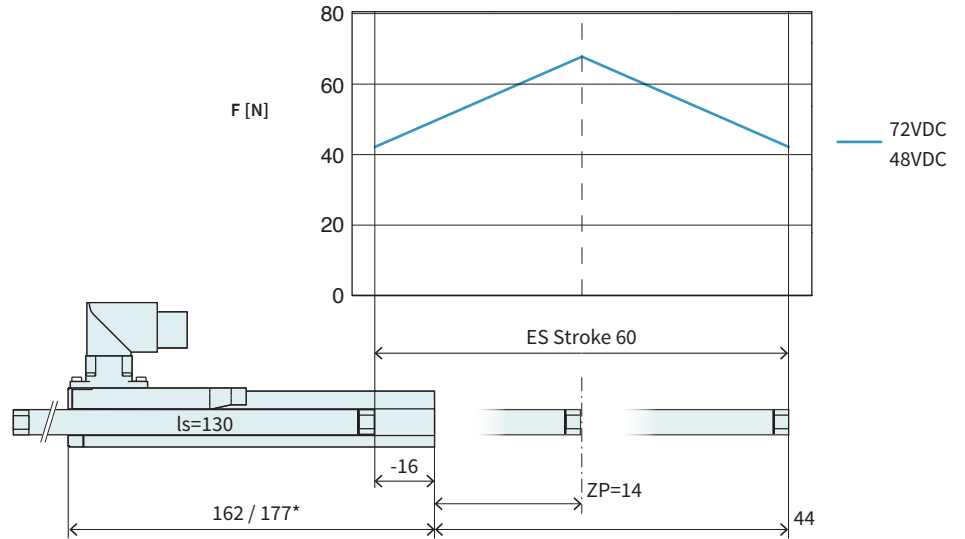
Slider High Performance 2S				
Item	Description	Max. Stroke [mm]	Standard Stroke [mm]	Item-No.
PL01-12x130/90-HP-2S	Slider 'High Performance' - Safety	60	0	0150-22209
PL01-12x150/110-HP-2S	Slider 'High Performance' - Safety	80	20	0150-22281
PL01-12x170/130-HP-2S	Slider 'High Performance' - Safety	100	40	0150-21529
PL01-12x200/160-HP-2S	Slider 'High Performance' - Safety	130	70	0150-21518
PL01-12x230/190-HP-2S	Slider 'High Performance' - Safety	160	20	0150-21519
PL01-12x270/230-HP-2S	Slider 'High Performance' - Safety	200	60	0150-21520
PL01-12x290/250-HP-2S	Slider 'High Performance' - Safety	220	80	0150-21521
PL01-12x350/310-HP-2S	Slider 'High Performance' - Safety	280	140	0150-21522
PL01-12x420/380-HP-2S	Slider 'High Performance' - Safety	350	210	0150-21523
PL01-12x480/440-HP-2S	Slider 'High Performance' - Safety	410	270	0150-21524
PL01-12x580/540-HP-2S	Slider 'High Performance' - Safety	510	370	0150-21525
PL01-12x760/720-HP-2S	Slider 'High Performance' - Safety	690	550	0150-21526
PL01-12x850/810-HP-2S	Slider 'High Performance' - Safety	780	640	0150-21527

Slider Heavy Duty High Performance				
Item	Description	Max. Stroke [mm]	Standard Stroke [mm]	Item-No.
PL02-12x130/90-HP	Slider 'heavy duty' 'High Performance	60	0	0150-2983
PL02-12x150/110-HP	Slider 'heavy duty' 'High Performance	80	20	on request
PL02-12x170/130-HP	Slider 'heavy duty' 'High Performance	100	40	0150-1559
PL02-12x200/160-HP	Slider 'heavy duty' 'High Performance	130	70	0150-1532
PL02-12x230/190-HP	Slider 'heavy duty' 'High Performance	160	100	0150-1552
PL02-12x270/230-HP	Slider 'heavy duty' 'High Performance	200	140	0150-1533
PL02-12x290/250-HP	Slider 'heavy duty' 'High Performance	220	160	0150-1495
PL02-12x350/310-HP	Slider 'heavy duty' 'High Performance	280	220	0150-1555
PL02-12x420/380-HP	Slider 'heavy duty' 'High Performance	350	290	0150-1554
PL02-12x480/440-HP	Slider 'heavy duty' 'High Performance	410	350	0150-2519
PL02-12x580/540-HP	Slider 'heavy duty' 'High Performance	510	450	0150-2520
PL02-12x760/720-HP	Slider 'heavy duty' 'High Performance	690	630	0150-2521
PL02-12x850/810-HP	Slider 'heavy duty' 'High Performance	780	720	0150-2516

Slider 'High Performance L'				
Item	Description	Max. Stroke [mm]	Standard Stroke [mm]	Item-No.
PL01-12x130/90-HP-L	Slider 'High Performance L'	60	0	0150-3687
PL01-12x150/110-HP-L	Slider 'High Performance L'	80	20	on request
PL02-12x170/130-HP-L	Slider 'High Performance L'	100	40	0150-3688
PL02-12x200/160-HP-L	Slider 'High Performance L'	130	70	0150-3689
PL02-12x230/190-HP-L	Slider 'High Performance L'	160	100	0150-2546
PL02-12x270/230-HP-L	Slider 'High Performance L'	200	140	0150-2557
PL02-12x290/250-HP-L	Slider 'High Performance L'	220	160	0150-3690
PL02-12x350/310-HP-L	Slider 'High Performance L'	280	220	0150-3691
PL02-12x420/380-HP-L	Slider 'High Performance L'	350	290	0150-3692
PL02-12x480/440-HP-L	Slider 'High Performance L'	410	350	0150-3693
PL02-12x580/540-HP-L	Slider 'High Performance L'	510	450	0150-3694
PL02-12x760/720-HP-L	Slider 'High Performance L'	690	630	0150-3695
PL02-12x850/810-HP-L	Slider 'High Performance L'	780	720	on request

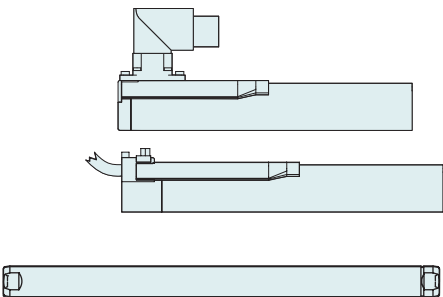
P01-23x80F/0x60-HP

Max. Stroke: 60 mm
Peak Force: 67 N



Dimensions in mm
 *Cable Type

Technical Data P01-23x80F/0x60-HP			
Stroke			
Standard Stroke (SS)	mm (in)		0 (0)
Extended Stroke (ES)	mm (in)		60 (2.35)
Force			
Max. Force @ 48VDC	N (lbf)		67.1 (15.1)
Max. Force @ 72VDC	N (lbf)		67.1 (15.1)
Max. Cont. Force [Passive cooling/ Fan / Fluid]	N (lbf)		14 / 23 / - (3.2 / 5.3 / -)
Max. Border Force relative	%		63
Force Constant	N/A _{pk} (lbf/A _{pk})		8.95 (2.01)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)		4.9 (189.9)
Max. Velocity @ 72VDC	m/s (in/s)		7.3 (289.9)
Position Detection			
Repeatability	mm (in)		±0.05 (±0.002)
Linearity	%		± 0.5
Electrical Data			
Max. Current @ 48VDC	A _{pk}		7.4
Max. Current @ 72VDC	A _{pk}		7.4
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		1.6 / 2.6 / -
Thermal Data			
Max. Winding Temperature (Sensor)	°C		120
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		5.4 / 2 / -
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		650 / 240 / -
Mechanical Data			
Slider Length	mm (in)		130 (5.1)
Slider Mass	g (lb)		90 (0.2)



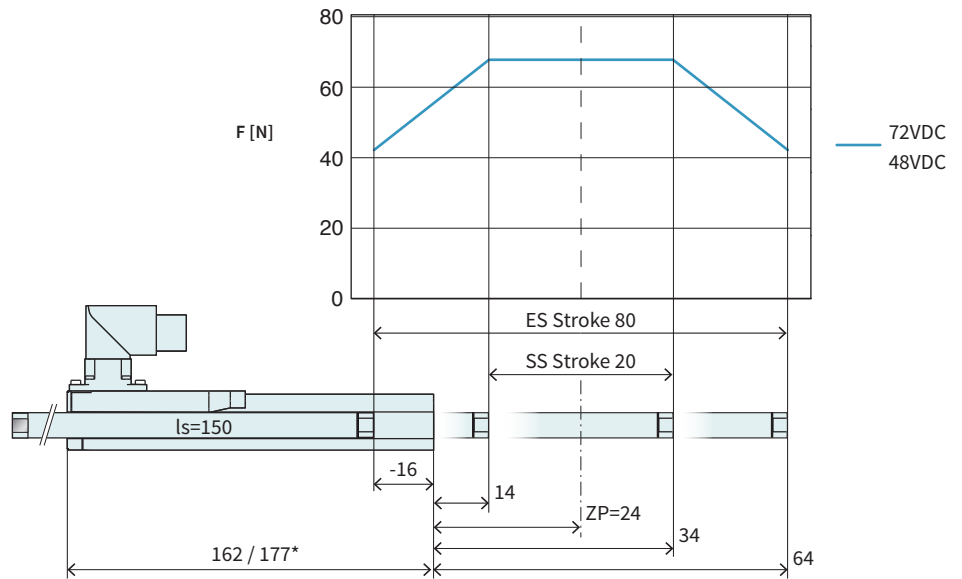
Item	Description	Item-No.
PS01-23x80F-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1259
PS01-23x80F-HP-R-2S	Stator HP with IP67 Connector M17/9(m) - Safety	0150-21259
PS01-23x80F-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1260
PL01-12x130/90-HP	Slider 'High Performance'	0150-2209
PL01-12x130/90-HP-2S	Slider 'High Performance' - Safety	0150-22209
PL02-12x130/90-HP	Slider 'heavy duty' 'High Performance	0150-2983
PL01-12x130/90-HP-L*	Slider 'High Performance L'	0150-3687

* With this slider, the motor specifications above change.

P01-23x80F/20x80-HP

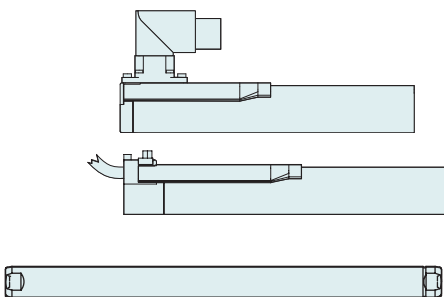
Max. Stroke: 80 mm
Peak Force: 67 N

Dimensions in mm
 *Cable Type



Technical Data P01-23x80F/20x80-HP

Stroke			
Standard Stroke (SS)	mm (in)		20 (0.78)
Extended Stroke (ES)	mm (in)		80 (3.14)
Force			
Max. Force @ 48VDC	N (lbf)		67.1 (15.1)
Max. Force @ 72VDC	N (lbf)		67.1 (15.1)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		14 / 23 / - (3.2 / 5.3 / -)
Max. Border Force relative	%		63
Force Constant	N/A _{pk} (lbf/A _{pk})		8.95 (2.01)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)		4.9 (189.9)
Max. Velocity @ 72VDC	m/s (in/s)		7.3 (289.9)
Position Detection			
Repeatability	mm (in)		±0.05 (±0.002)
Linearity	%		± 0.4
Electrical Data			
Max. Current @ 48VDC	A _{pk}		7.4
Max. Current @ 72VDC	A _{pk}		7.4
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		1.6 / 2.6 / -
Thermal Data			
Max. Winding Temperature (Sensor)	°C		120
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		5.4 / 2 / -
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		650 / 240 / -
Mechanical Data			
Slider Length	mm (in)		150 (5.9)
Slider Mass	g (lb)		110 (0.24)

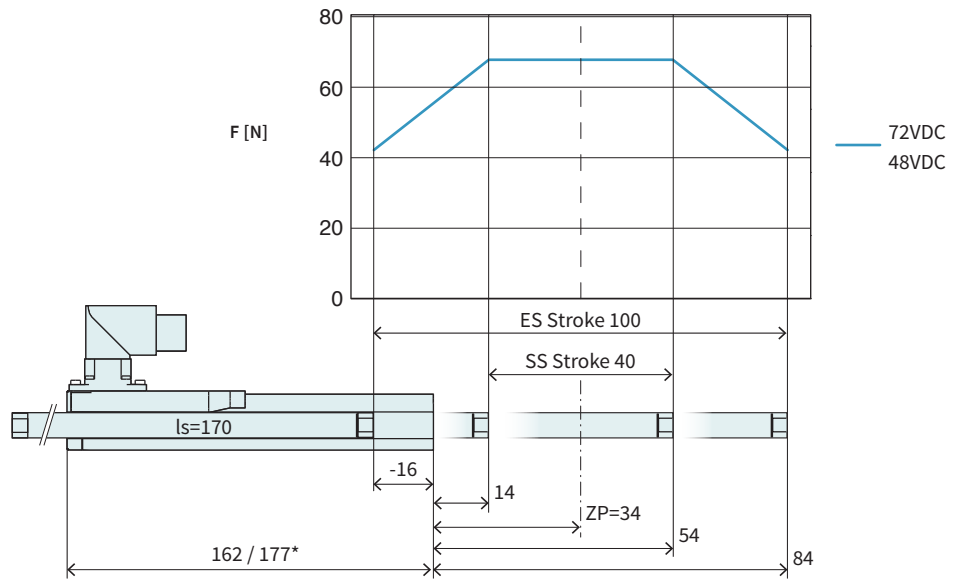


Item	Description	Item-No.
PS01-23x80F-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1259
PS01-23x80F-HP-R-2S	Stator HP with IP67 Connector M17/9(m) - Safety	0150-21259
PS01-23x80F-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1260
PL01-12x150/110-HP	Slider 'High Performance'	0150-2281
PL01-12x150/110-HP-2S	Slider 'High Performance' - Safety	0150-22281
PL02-12x150/110-HP	Slider 'heavy duty' 'High Performance'	on request
PL01-12x150/110-HP-L*	Slider 'High Performance' L'	on request

* With this slider, the motor specifications above change.

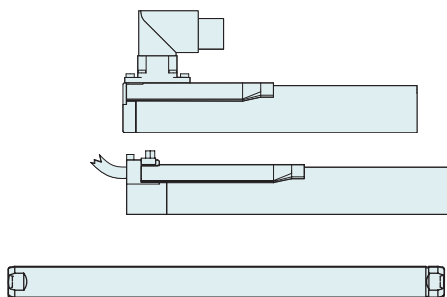
P01-23x80F/40x100-HP

Max. Stroke: 100 mm
Peak Force: 67 N



Dimensions in mm
 *Cable Type

Technical Data P01-23x80F/40x100-HP			
Stroke			
Standard Stroke (SS)	mm (in)	40 (1.57)	
Extended Stroke (ES)	mm (in)	100 (3.93)	
Force			
Max. Force @ 48VDC	N (lbf)	67.1 (15.1)	
Max. Force @ 72VDC	N (lbf)	67.1 (15.1)	
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	14 / 23 / -	(3.2 / 5.3 / -)
Max. Border Force relative	%	63	
Force Constant	N/A _{pk} (lbf/A _{pk})	8.95 (2.01)	
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)	4.9 (189.9)	
Max. Velocity @ 72VDC	m/s (in/s)	7.3 (289.9)	
Position Detection			
Repeatability	mm (in)	±0.05 (±0.002)	
Linearity	%	± 0.35	
Electrical Data			
Max. Current @ 48VDC	A _{pk}	7.4	
Max. Current @ 72VDC	A _{pk}	7.4	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}	1.6 / 2.6 / -	
Thermal Data			
Max. Winding Temperature (Sensor)	°C	120	
Thermal Resistance [Passive cooling / Fan / Fluid]	*K/W	5.4 / 2 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	650 / 240 / -	
Mechanical Data			
Slider Length	mm (in)	170 (6.7)	
Slider Mass	g (lb)	130 (0.29)	



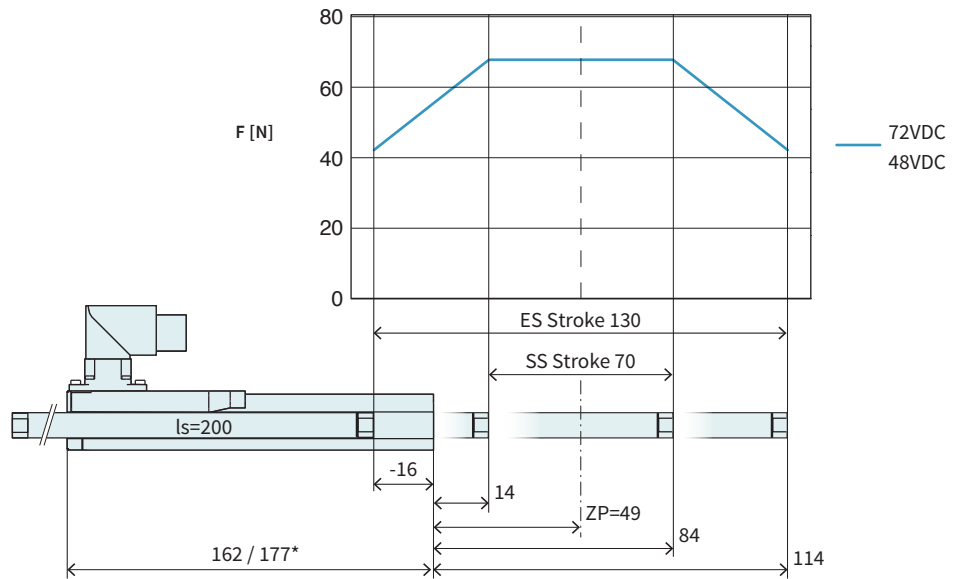
Item	Description	Item-No.
PS01-23x80F-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1259
PS01-23x80F-HP-R-2S	Stator HP with IP67 Connector M17/9(m) - Safety	0150-21259
PS01-23x80F-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1260
PL01-12x170/130-HP	Slider 'High Performance'	0150-1529
PL01-12x170/130-HP-2S	Slider 'High Performance' - Safety	0150-21529
PL02-12x130/90-HP	Slider 'heavy duty' 'High Performance'	0150-2983
PL01-12x130/90-HP-L*	Slider 'High Performance L'	0150-3687

* With this slider, the motor specifications above change.

P01-23x80F/70x130-HP

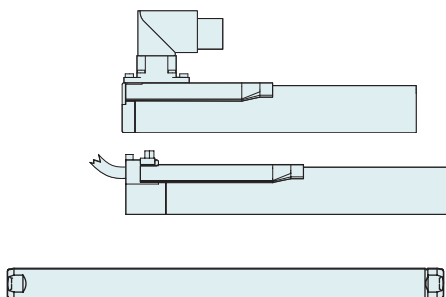
Max. Stroke: 130 mm
Peak Force: 67 N

Dimensions in mm
 *Cable Type



Technical Data P01-23x80F/70x130-HP

Stroke			
Standard Stroke (SS)	mm (in)	70 (2.75)	
Extended Stroke (ES)	mm (in)	130 (5.12)	
Force			
Max. Force @ 48VDC	N (lbf)	67.1 (15.1)	
Max. Force @ 72VDC	N (lbf)	67.1 (15.1)	
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	14 / 23 / - (3.2 / 5.3 / -)	
Max. Border Force relative	%	63	
Force Constant	N/A _{pk} (lbf/A _{pk})	8.95 (2.01)	
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)	4.9 (189.9)	
Max. Velocity @ 72VDC	m/s (in/s)	7.3 (289.9)	
Position Detection			
Repeatability	mm (in)	±0.05 (±0.002)	
Linearity	%	± 0.3	
Electrical Data			
Max. Current @ 48VDC	A _{pk}	7.4	
Max. Current @ 72VDC	A _{pk}	7.4	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}	1.6 / 2.6 / -	
Thermal Data			
Max. Winding Temperature (Sensor)	°C	120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	5.4 / 2 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	650 / 240 / -	
Mechanical Data			
Slider Length	mm (in)	200 (7.9)	
Slider Mass	g (lb)	155 (0.34)	

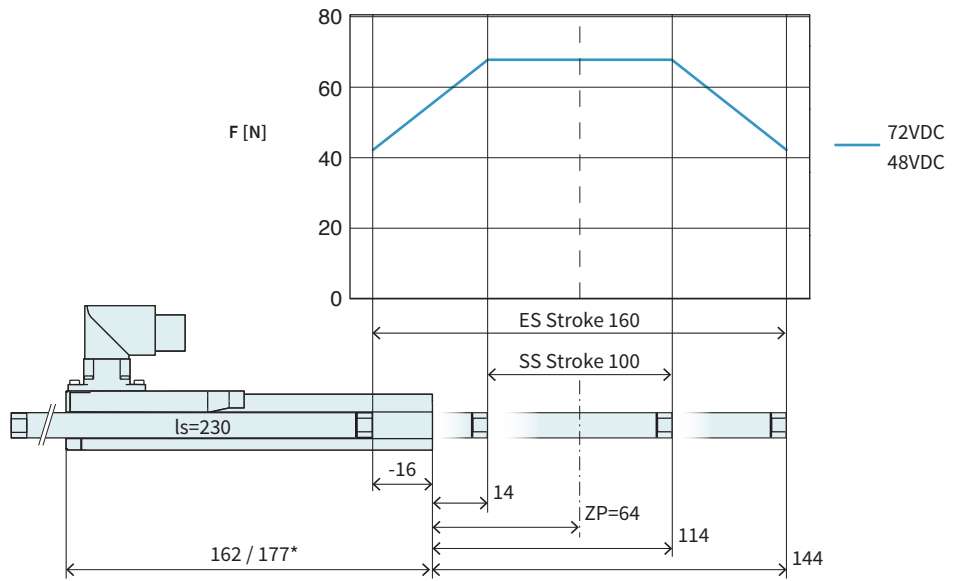


Item	Description	Item-No.
PS01-23x80F-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1259
PS01-23x80F-HP-R-2S	Stator HP with IP67 Connector M17/9(m) - Safety	0150-21259
PS01-23x80F-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1260
PL01-12x200/160-HP	Slider 'standard LC'	0150-1518
PL01-12x200/160-HP-2S	Slider 'standard LC' - Safety	0150-21518
PL02-12x200/160-HP	Slider 'heavy duty LC'	0150-1532
PL01-12x200/160-HP-L*	Slider 'High Performance L'	0150-3689

* With this slider, the motor specifications above change.

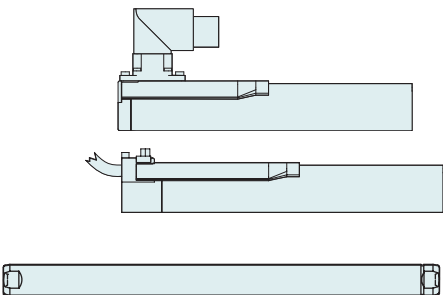
P01-23x80F/100x160-HP

Max. Stroke: 160 mm
Peak Force: 67 N



Dimensions in mm
 *Cable Type

Technical Data P01-23x80F/100x160-HP			
Stroke			
Standard Stroke (SS)	mm (in)	100 (3.93)	
Extended Stroke (ES)	mm (in)	160 (6.29)	
Force			
Max. Force @ 48VDC	N (lbf)	67.1 (15.1)	
Max. Force @ 72VDC	N (lbf)	67.1 (15.1)	
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	14 / 23 / - (3.2 / 5.3 / -)	
Max. Border Force relative	%	63	
Force Constant	N/A _{pk} (lbf/A _{pk})	8.95 (2.01)	
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)	4.9 (189.9)	
Max. Velocity @ 72VDC	m/s (in/s)	7.3 (289.9)	
Position Detection			
Repeatability	mm (in)	±0.05 (±0.002)	
Linearity	%	±0.25	
Electrical Data			
Max. Current @ 48VDC	A _{pk}	7.4	
Max. Current @ 72VDC	A _{pk}	7.4	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}	1.6 / 2.6 / -	
Thermal Data			
Max. Winding Temperature (Sensor)	°C	120	
Thermal Resistance [Passive cooling / Fan / Fluid]	*K/W	5.4 / 2 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	650 / 240 / -	
Mechanical Data			
Slider Length	mm (in)	230 (9.1)	
Slider Mass	g (lb)	180 (0.4)	

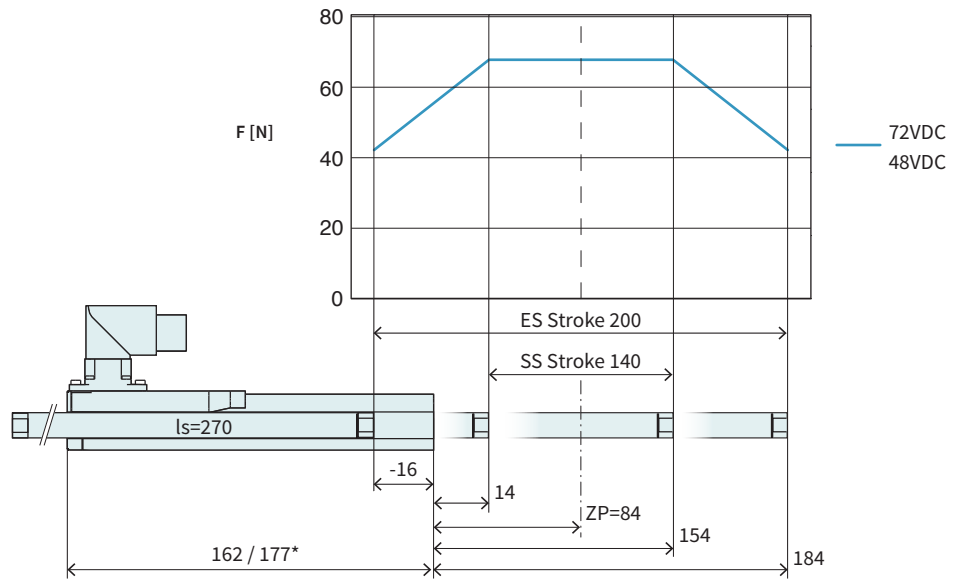


Item	Description	Item-No.
PS01-23x80F-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1259
PS01-23x80F-HP-R-2S	Stator HP with IP67 Connector M17/9(m) - Safety	0150-21259
PS01-23x80F-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1260
PL01-12x230/190-HP	Slider 'High Performance'	0150-1519
PL01-12x230/190-HP-2S	Slider 'High Performance' - Safety	0150-21519
PL02-12x230/190-HP	Slider 'heavy duty' 'High Performance'	0150-1552
PL01-12x230/190-HP-L*	Slider 'High Performance L'	0150-2546

* With this slider, the motor specifications above change.

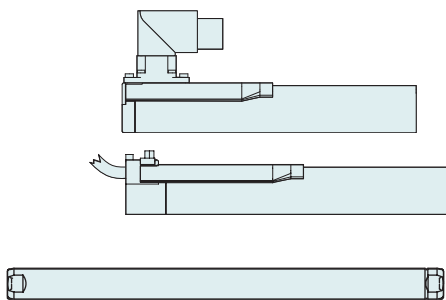
P01-23x80F/140x200-HP

Max. Stroke: 200 mm
Peak Force: 67 N



Dimensions in mm
 *Cable Type

Technical Data P01-23x80F/140x200-HP			
Stroke			
Standard Stroke (SS)	mm (in)		140 (5.5)
Extended Stroke (ES)	mm (in)		200 (7.86)
Force			
Max. Force @ 48VDC	N (lbf)		67.1 (15.1)
Max. Force @ 72VDC	N (lbf)		67.1 (15.1)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		14 / 23 / - (3.2 / 5.3 / -)
Max. Border Force relative	%		63
Force Constant	N/A _{pk} (lbf/A _{pk})		8.95 (2.01)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)		4.9 (189.9)
Max. Velocity @ 72VDC	m/s (in/s)		7.3 (289.9)
Position Detection			
Repeatability	mm (in)		±0.05 (±0.002)
Linearity	%		± 0.2
Electrical Data			
Max. Current @ 48VDC	A _{pk}		7.4
Max. Current @ 72VDC	A _{pk}		7.4
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		1.6 / 2.6 / -
Thermal Data			
Max. Winding Temperature (Sensor)	°C		120
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		5.4 / 2 / -
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		650 / 240 / -
Mechanical Data			
Slider Length	mm (in)		270 (11)
Slider Mass	g (lb)		215 (0.47)

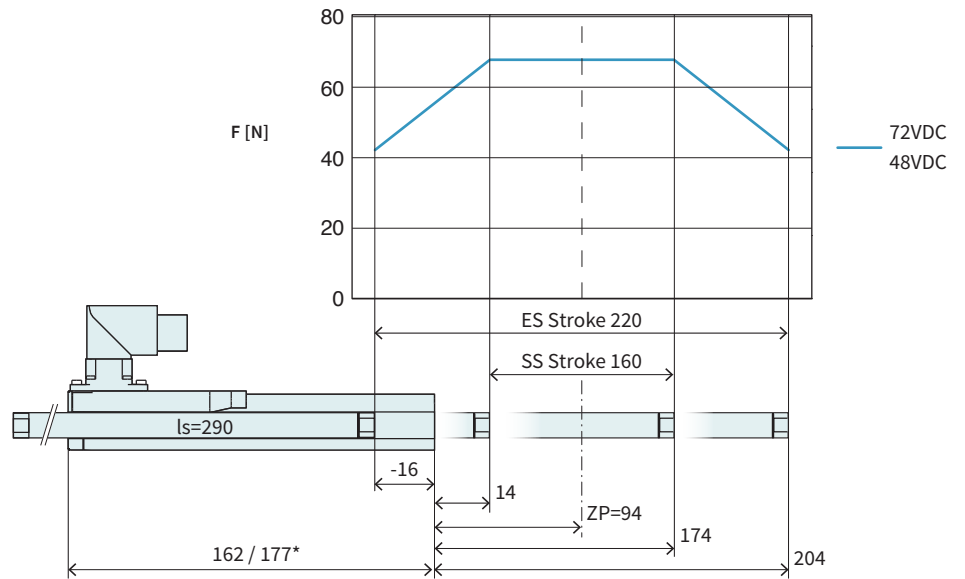


Item	Description	Item-No.
PS01-23x80F-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1259
PS01-23x80F-HP-R-2S	Stator HP with IP67 Connector M17/9(m) - Safety	0150-21259
PS01-23x80F-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1260
PL01-12x270/230-HP	Slider 'standard LC'	0150-1520
PL01-12x270/230-HP-2S	Slider 'standard LC' - Safety	0150-21520
PL02-12x270/230-HP	Slider 'heavy duty LC'	0150-1533
PL01-12x270/230-HP-L*	Slider 'High Performance L'	0150-2557

* With this slider, the motor specifications above change.

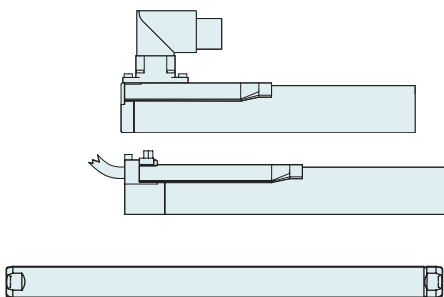
P01-23x80F/160x220-HP

Max. Stroke: 220 mm
Peak Force: 67 N



Dimensions in mm
 *Cable Type

Technical Data P01-23x80F/160x220-HP			
Stroke			
Standard Stroke (SS)	mm (in)	160 (6.29)	
Extended Stroke (ES)	mm (in)	220 (8.65)	
Force			
Max. Force @ 48VDC	N (lbf)	67.1 (15.1)	
Max. Force @ 72VDC	N (lbf)	67.1 (15.1)	
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	14 / 23 / -	(3.2 / 5.3 / -)
Max. Border Force relative	%	63	
Force Constant	N/A _{pk} (lbf/A _{pk})	8.95 (2.01)	
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)	4.9 (189.9)	
Max. Velocity @ 72VDC	m/s (in/s)	7.3 (289.9)	
Position Detection			
Repeatability	mm (in)	±0.05 (±0.002)	
Linearity	%	± 0.2	
Electrical Data			
Max. Current @ 48VDC	A _{pk}	7.4	
Max. Current @ 72VDC	A _{pk}	7.4	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}	1.6 / 2.6 / -	
Thermal Data			
Max. Winding Temperature (Sensor)	°C	120	
Thermal Resistance [Passive cooling / Fan / Fluid]	*K/W	5.4 / 2 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	650 / 240 / -	
Mechanical Data			
Slider Length	mm (in)	290 (11)	
Slider Mass	g (lb)	230 (0.51)	

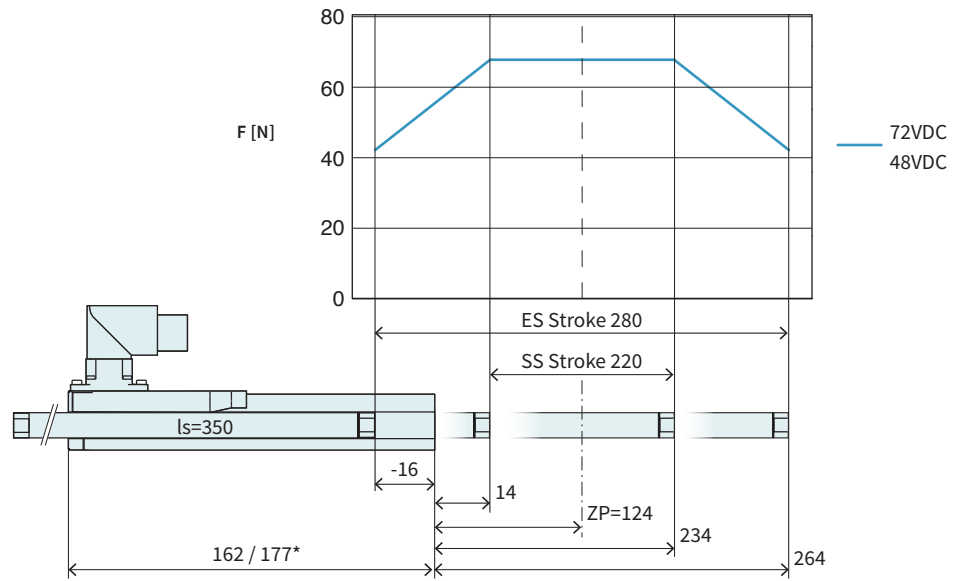


Item	Description	Item-No.
PS01-23x80F-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1259
PS01-23x80F-HP-R-2S	Stator HP with IP67 Connector M17/9(m) - Safety	0150-21259
PS01-23x80F-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1260
PL01-12x290/250-HP	Slider 'High Performance'	0150-1521
PL01-12x290/250-HP-2S	Slider 'High Performance' - Safety	0150-21521
PL02-12x290/250-HP	Slider 'heavy duty' 'High Performance'	0150-1495
PL01-12x290/250-HP-L*	Slider 'High Performance L'	0150-3690

* With this slider, the motor specifications above change.

P01-23x80F/220x280-HP

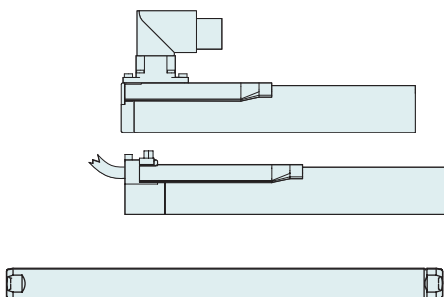
Max. Stroke: 280 mm
Peak Force: 67 N



Dimensions in mm
 *Cable Type

Technical Data P01-23x80F/220x280-HP

Stroke			
Standard Stroke (SS)	mm (in)	220 (8.65)	
Extended Stroke (ES)	mm (in)	280 (10.99)	
Force			
Max. Force @ 48VDC	N (lbf)	67.1 (15.1)	
Max. Force @ 72VDC	N (lbf)	67.1 (15.1)	
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	14 / 23 / - (3.2 / 5.3 / -)	
Max. Border Force relative	%	63	
Force Constant	N/A _{pk} (lbf/A _{pk})	8.95 (2.01)	
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)	4.9 (189.9)	
Max. Velocity @ 72VDC	m/s (in/s)	7.3 (289.9)	
Position Detection			
Repeatability	mm (in)	±0.05 (±0.002)	
Linearity	%	± 0.2	
Electrical Data			
Max. Current @ 48VDC	A _{pk}	7.4	
Max. Current @ 72VDC	A _{pk}	7.4	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}	1.6 / 2.6 / -	
Thermal Data			
Max. Winding Temperature (Sensor)	°C	120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	5.4 / 2 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	650 / 240 / -	
Mechanical Data			
Slider Length	mm (in)	350 (14)	
Slider Mass	g (lb)	280 (0.62)	

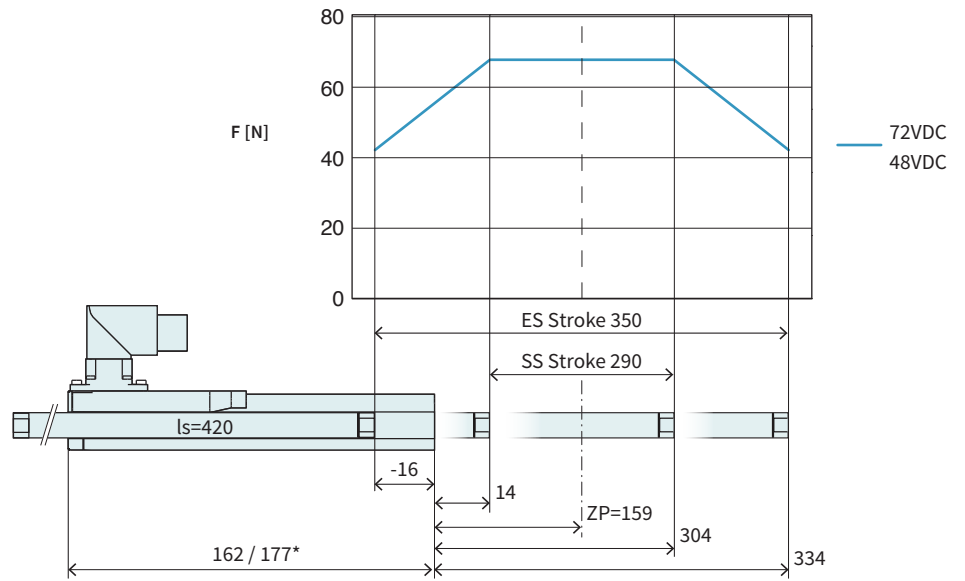


Item	Description	Item-No.
PS01-23x80F-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1259
PS01-23x80F-HP-R-2S	Stator HP with IP67 Connector M17/9(m) - Safety	0150-21259
PS01-23x80F-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1260
PL01-12x350/310-HP	Slider 'standard LC'	0150-1522
PL01-12x350/310-HP-2S	Slider 'standard LC' - Safety	0150-21522
PL02-12x350/310-HP	Slider 'heavy duty LC'	0150-1555
PL01-12x350/310-HP-L*	Slider 'High Performance L'	0150-3691

* With this slider, the motor specifications above change.

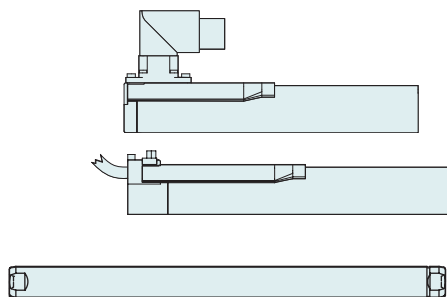
P01-23x80F/290x350-HP

Max. Stroke: 350 mm
Peak Force: 67 N



Dimensions in mm
 *Cable Type

Technical Data P01-23x80F/290x350-HP			
Stroke			
Standard Stroke (SS)	mm (in)		290 (11.4)
Extended Stroke (ES)	mm (in)		350 (13.8)
Force			
Max. Force @ 48VDC	N (lbf)		67.1 (15.1)
Max. Force @ 72VDC	N (lbf)		67.1 (15.1)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		14 / 23 / - (3.2 / 5.3 / -)
Max. Border Force relative	%		63
Force Constant	N/A _{pk} (lbf/A _{pk})		8.95 (2.01)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)		4.9 (189.9)
Max. Velocity @ 72VDC	m/s (in/s)		7.3 (289.9)
Position Detection			
Repeatability	mm (in)		±0.05 (±0.002)
Linearity	%		±0.15
Electrical Data			
Max. Current @ 48VDC	A _{pk}		7.4
Max. Current @ 72VDC	A _{pk}		7.4
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		1.6 / 2.6 / -
Thermal Data			
Max. Winding Temperature (Sensor)	°C		120
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		5.4 / 2 / -
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		650 / 240 / -
Mechanical Data			
Slider Length	mm (in)		420 (17)
Slider Mass	g (lb)		340 (0.75)



Item	Description	Item-No.
PS01-23x80F-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1259
PS01-23x80F-HP-R-2S	Stator HP with IP67 Connector M17/9(m) - Safety	0150-21259
PS01-23x80F-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1260
PL01-12x420/380-HP	Slider 'High Performance'	0150-1523
PL01-12x420/380-HP-2S	Slider 'High Performance' - Safety	0150-21523
PL02-12x420/380-HP	Slider 'heavy duty' 'High Performance'	0150-1554
PL01-12x420/380-HP-L*	Slider 'High Performance L'	0150-3692

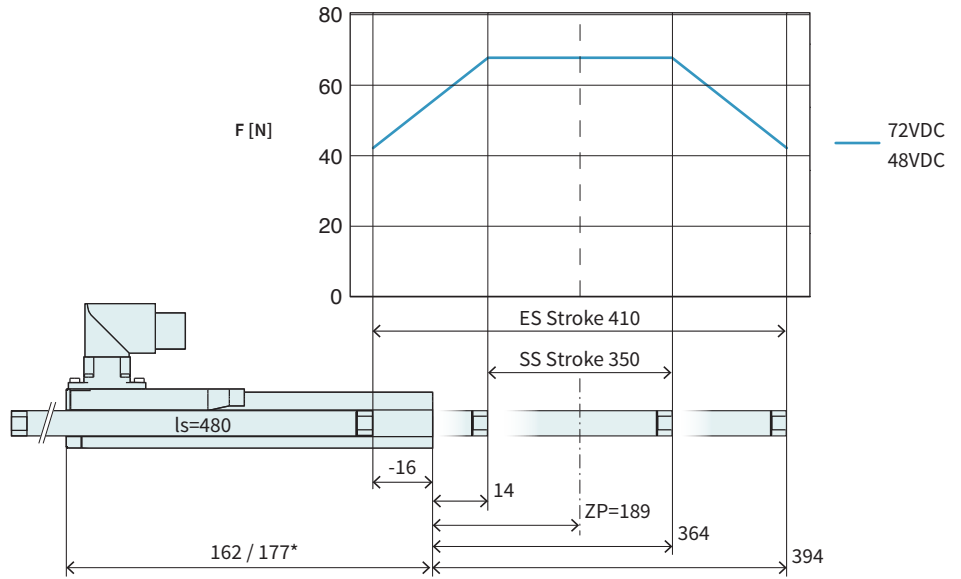
* With this slider, the motor specifications above change.

P01-23x80F/350x410-HP

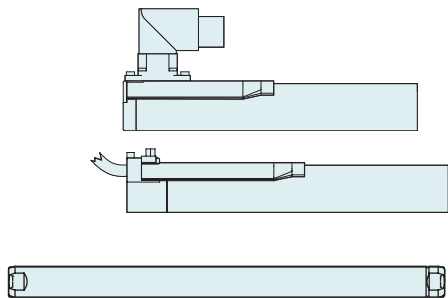
3

Max. Stroke: 410 mm
Peak Force: 67 N

Dimensions in mm
 *Cable Type



Technical Data P01-23x80F/350x410-HP			
Stroke			
Standard Stroke (SS)	mm (in)		350 (13.8)
Extended Stroke (ES)	mm (in)		410 (16.1)
Force			
Max. Force @ 48VDC	N (lbf)		67.1 (15.1)
Max. Force @ 72VDC	N (lbf)		67.1 (15.1)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		14 / 23 / - (3.2 / 5.3 / -)
Max. Border Force relative	%		63
Force Constant	N/A _{pk} (lbf/A _{pk})		8.95 (2.01)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)		4.9 (189.9)
Max. Velocity @ 72VDC	m/s (in/s)		7.3 (289.9)
Position Detection			
Repeatability	mm (in)		±0.05 (±0.002)
Linearity	%		± 0.15
Electrical Data			
Max. Current @ 48VDC	A _{pk}		7.4
Max. Current @ 72VDC	A _{pk}		7.4
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		1.6 / 2.6 / -
Thermal Data			
Max. Winding Temperature (Sensor)	°C		120
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		5.4 / 2 / -
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		650 / 240 / -
Mechanical Data			
Slider Length	mm (in)		480 (19)
Slider Mass	g (lb)		390 (0.86)

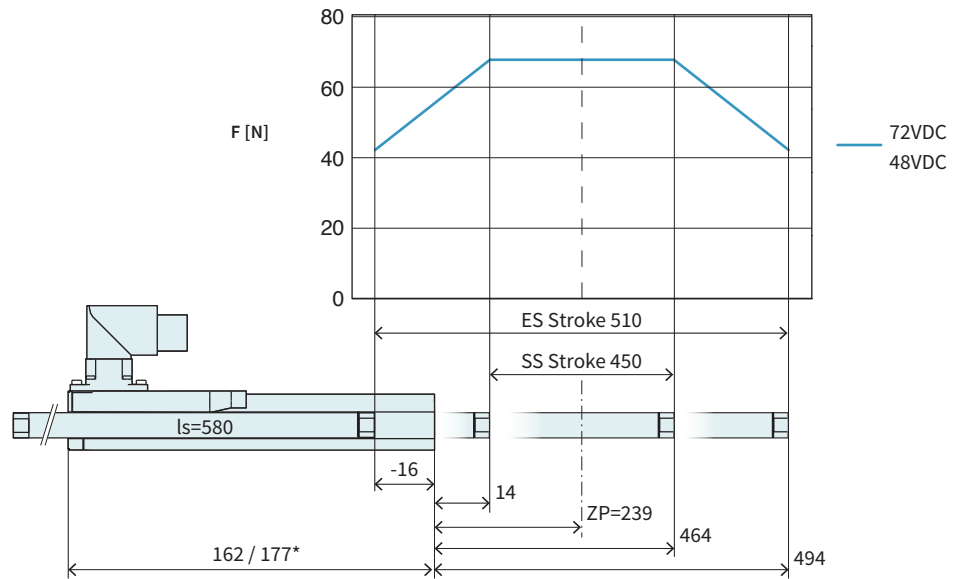


Item	Description	Item-No.
PS01-23x80F-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1259
PS01-23x80F-HP-R-2S	Stator HP with IP67 Connector M17/9(m) - Safety	0150-21259
PS01-23x80F-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1260
PL01-12x480/440-HP	Slider 'standard LC'	0150-1524
PL01-12x480/440-HP-2S	Slider 'standard LC' - Safety	0150-21524
PL02-12x480/440-HP	Slider 'heavy duty LC'	0150-2519
PL01-12x480/440-HP-L*	Slider 'High Performance L'	0150-3693

* With this slider, the motor specifications above change.

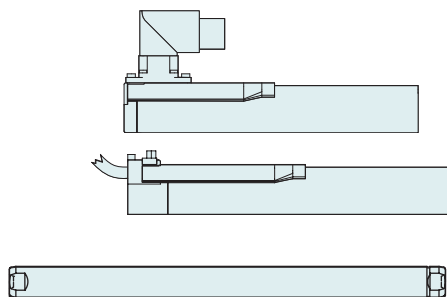
P01-23x80F/450x510-HP

Max. Stroke: 510 mm
Peak Force: 67 N



Dimensions in mm
 *Cable Type

Technical Data P01-23x80F/450x510-HP			
Stroke			
Standard Stroke (SS)	mm (in)		450 (17.69)
Extended Stroke (ES)	mm (in)		510 (20.1)
Force			
Max. Force @ 48VDC	N (lbf)		67.1 (15.1)
Max. Force @ 72VDC	N (lbf)		67.1 (15.1)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		14 / 23 / - (3.2 / 5.3 / -)
Max. Border Force relative	%		63
Force Constant	N/A _{pk} (lbf/A _{pk})		8.95 (2.01)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)		4.9 (189.9)
Max. Velocity @ 72VDC	m/s (in/s)		7.3 (289.9)
Position Detection			
Repeatability	mm (in)		±0.05 (±0.002)
Linearity	%		± 0.15
Electrical Data			
Max. Current @ 48VDC	A _{pk}		7.4
Max. Current @ 72VDC	A _{pk}		7.4
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		1.6 / 2.6 / -
Thermal Data			
Max. Winding Temperature (Sensor)	°C		120
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		5.4 / 2 / -
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		650 / 240 / -
Mechanical Data			
Slider Length	mm (in)		580 (23)
Slider Mass	g (lb)		480 (1.06)



Item	Description	Item-No.
PS01-23x80F-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1259
PS01-23x80F-HP-R-2S	Stator HP with IP67 Connector M17/9(m) - Safety	0150-21259
PS01-23x80F-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1260
PL01-12x580/540-HP	Slider 'High Performance'	0150-1525
PL01-12x580/540-HP-2S	Slider 'High Performance' - Safety	0150-21525
PL02-12x580/540-HP	Slider 'heavy duty' 'High Performance'	0150-2520
PL01-12x580/540-HP-L*	Slider 'High Performance L'	0150-3694

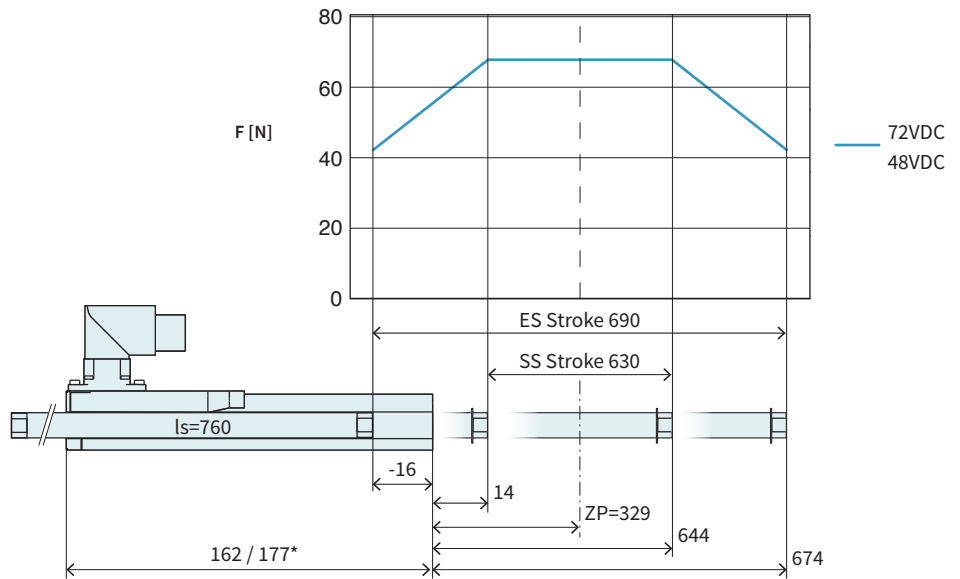
* With this slider, the motor specifications above change.

P01-23x80F/630x690-HP

3

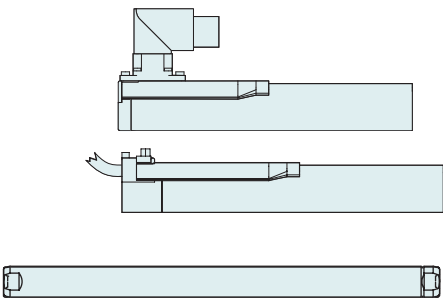
Max. Stroke: 690 mm
Peak Force: 67 N

Dimensions in mm
 *Cable Type



Technical Data P01-23x80F/630x690-HP

Stroke			
Standard Stroke (SS)	mm (in)		630 (24.8)
Extended Stroke (ES)	mm (in)		690 (27.19)
Force			
Max. Force @ 48VDC	N (lbf)		67.1 (15.1)
Max. Force @ 72VDC	N (lbf)		67.1 (15.1)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		14 / 23 / - (3.2 / 5.3 / -)
Max. Border Force relative	%		63
Force Constant	N/A _{pk} (lbf/A _{pk})		8.95 (2.01)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)		4.9 (189.9)
Max. Velocity @ 72VDC	m/s (in/s)		7.3 (289.9)
Position Detection			
Repeatability	mm (in)		±0.05 (±0.002)
Linearity	%		± 0.15
Electrical Data			
Max. Current @ 48VDC	A _{pk}		7.4
Max. Current @ 72VDC	A _{pk}		7.4
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		1.6 / 2.6 / -
Thermal Data			
Max. Winding Temperature (Sensor)	°C		120
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		5.4 / 2 / -
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		650 / 240 / -
Mechanical Data			
Slider Length	mm (in)		760 (30)
Slider Mass	g (lb)		630 (1.4)

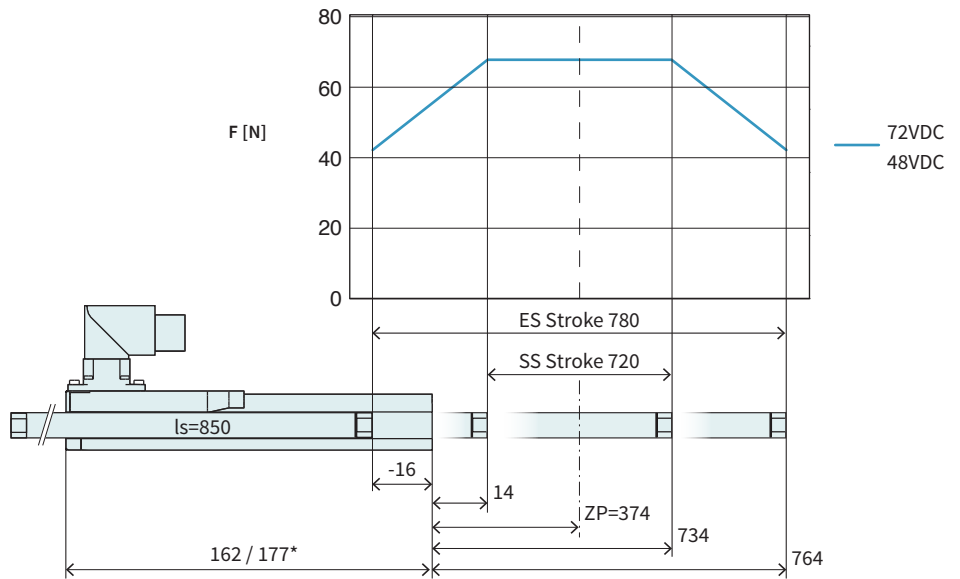


Item	Description	Item-No.
PS01-23x80F-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1259
PS01-23x80F-HP-R-2S	Stator HP with IP67 Connector M17/9(m) - Safety	0150-21259
PS01-23x80F-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1260
PL01-12x760/720-HP	Slider 'standard LC'	0150-1526
PL01-12x760/720-HP-2S	Slider 'standard LC' - Safety	0150-21526
PL02-12x760/720-HP	Slider 'heavy duty LC'	0150-2521
PL01-12x760/720-HP-L*	Slider 'High Performance L'	0150-3695

* With this slider, the motor specifications above change.

P01-23x80F/720x780-HP

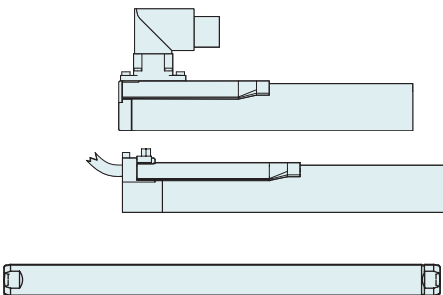
Max. Stroke: 780 mm
Peak Force: 67 N



Dimensions in mm
 *Cable Type

Technical Data P01-23x80F/720x780-HP

Stroke				
Standard Stroke (SS)	mm	(in)	720	(28.3)
Extended Stroke (ES)	mm	(in)	780	(30.69)
Force				
Max. Force @ 48VDC	N	(lbf)	67.1	(15.1)
Max. Force @ 72VDC	N	(lbf)	67.1	(15.1)
Max. Cont. Force [Passive cooling/ Fan / Fluid]	N	(lbf)	14 / 23 / -	(3.2 / 5.3 / -)
Max. Border Force relative	%		63	
Force Constant	N/A _{pk}	(lbf/A _{pk})	8.95 (2.01)	
Velocity				
Max. Velocity @ 48VDC	m/s	(in/s)	4.9 (189.9)	
Max. Velocity @ 72VDC	m/s	(in/s)	7.3 (289.9)	
Position Detection				
Repeatability	mm	(in)	±0.05 (±0.002)	
Linearity	%		± 0.15	
Electrical Data				
Max. Current @ 48VDC	A _{pk}		7.4	
Max. Current @ 72VDC	A _{pk}		7.4	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		1.6 / 2.6 / -	
Thermal Data				
Max. Winding Temperature (Sensor)	°C		120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		5.4 / 2 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		650 / 240 / -	
Mechanical Data				
Slider Length	mm	(in)	850 (33)	
Slider Mass	g	(lb)	700 (1.5)	



Item	Description	Item-No.
PS01-23x80F-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1259
PS01-23x80F-HP-R-2S	Stator HP with IP67 Connector M17/9(m) - Safety	0150-21259
PS01-23x80F-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1260
PL01-12x850/810-HP	Slider 'High Performance'	0150-1527
PL01-12x850/810-HP-2S	Slider 'High Performance' - Safety	0150-21527
PL02-12x850/810-HP	Slider 'heavy duty' 'High Performance'	0150-2516
PL01-12x850/810-HP-L*	Slider 'High Performance' L'	on request

* With this slider, the motor specifications above change.

Linear Guides H01

3



HM01-23x80/60 Linear Module 23x80 with 60 mm Stroke

→	H-Guide	H01-23x86/60	H-Guide for P01-23x80, Stroke max 60mm	0150-5014
		H01-23x86/60-GF	H-Guide for P01-23x80, Stroke max 60mm	0150-5074
→	Stator	PS01-23x80F-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1259
		PS01-23x80F-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1260
→	Slider	PL01-12x200/160-HP	Slider 'High Performance'	0150-1518

HM01-23x80/160 Linear Module 23x80 with 160 mm Stroke

→	H-Guide	H01-23x86/160	H-Guide for P01-23x80, Stroke max 160mm	0150-5015
		H01-23x86/160-GF	H-Guide for P01-23x80, Stroke max 160mm	0150-5075
→	Stator	PS01-23x80F-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1259
		PS01-23x80F-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1260
→	Slider	PL01-12x290/250-HP	Slider 'standard LC'	0150-1521

HM01-23x80/260 Linear Module 23x80 with 260 mm Stroke

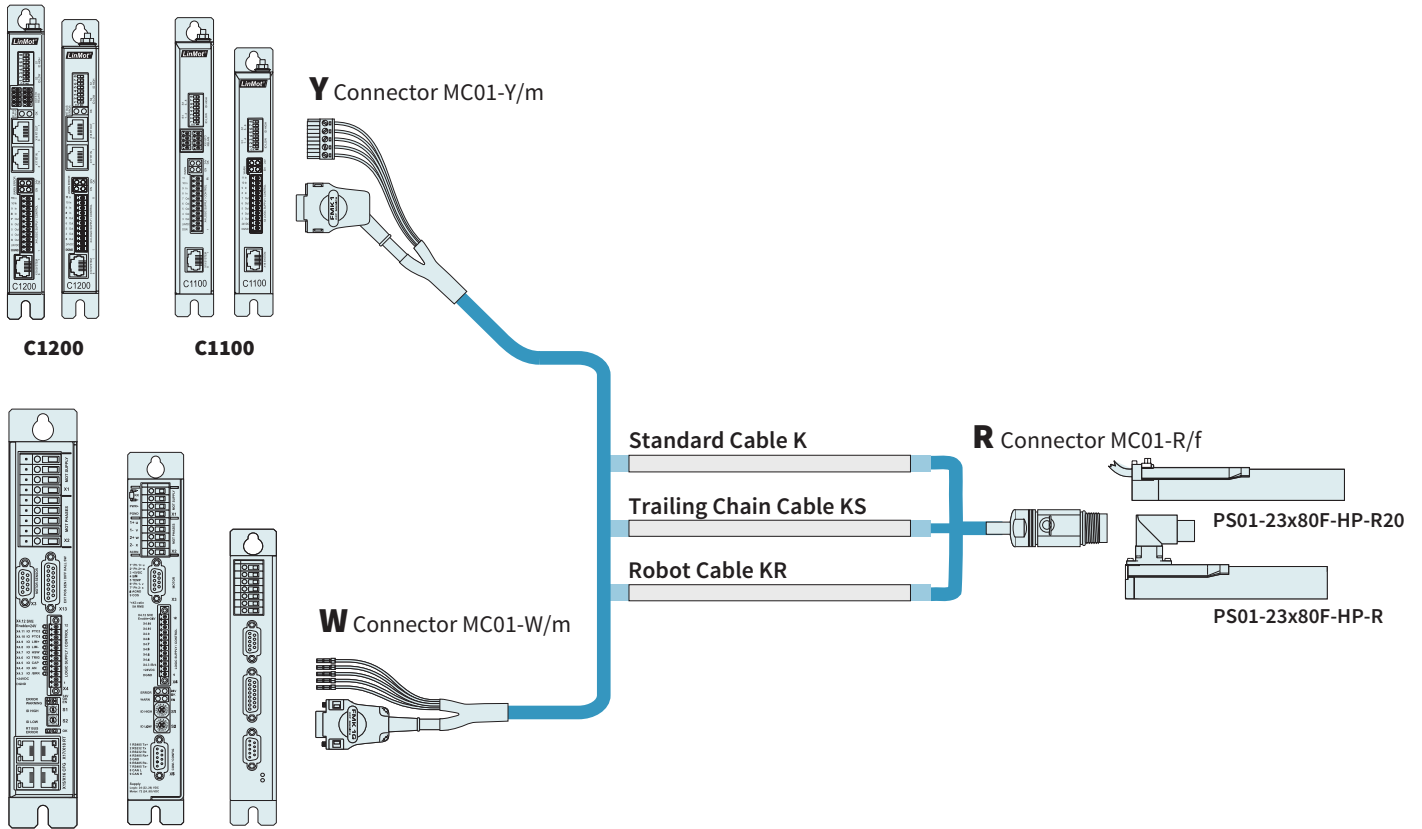
→	H-Guide	H01-23x86/260	H-Guide for P01-23x80, Stroke max 260mm	0150-5016
		H01-23x86/260-GF	H-Guide for P01-23x80, Stroke max 260mm	0150-5076
→	Stator	PS01-23x80F-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1259
		PS01-23x80F-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1260
→	Slider	PL01-12x420/380-HP	Slider 'High Performance'	0150-1523

Accessories

→	Fan	HV01-23	Fan cooling for H01-23	0150-5050
→	MagSpring	MF01-20/H23	Flange MagSpring 20 / H-Guide 23	0250-2306
		MA01-20/H23	Flange MagSpring 20 / H-Guide 23	0250-0116
→	Centering sleeve	HC01-09/04	Centering sleeve D9x4 mm	0150-3251

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

Motor Cable



ORDERING INFORMATION

STANDARD CABLE		
Item	Description	Item-No.
K05-W/R-2	Motor Cable W/R, 2 m	0150-2119
K05-W/R-4	Motor Cable W/R, 4 m	0150-2120
K05-W/R-6	Motor Cable W/R, 6 m	0150-2121
K05-W/R-8	Motor Cable W/R, 8 m	0150-2122
K05-W/R-	Motor Cable W/R, Custom length	0150-3262
K05-Y/R-2	Motor Cable Y/R, 2 m	0150-2421
K05-Y/R-4	Motor Cable Y/R, 4 m	0150-2422
K05-Y/R-6	Motor Cable Y/R, 6 m	0150-2423
K05-Y/R-8	Motor Cable Y/R, 8 m	0150-2424
K05-Y-Fe/R-	Motor Cable Y/R, Custom length	0150-3501

TRAILING CHAIN CABLE

Item	Description	Item-No.
KS05-W/R-4	Trailing Chain Cable W/R, 4 m	0150-2106
KS05-W/R-6	Trailing Chain Cable W/R, 6 m	0150-2131
KS05-W/R-8	Trailing Chain Cable W/R, 8 m	0150-2107
KS05-W/R-	Trailing Chain Cable W/R, Custom length	0150-3256
KS05-Y/R-4	Trailing Chain Cable Y/R, 4 m	0150-2433
KS05-Y/R-6	Trailing Chain Cable Y/R, 6 m	0150-2434
KS05-Y/R-8	Trailing Chain Cable Y/R, 8 m	0150-2435
KS05-Y/R-	Trailing Chain Cable Y/R, Custom length	0150-3507

ROBOT CABLE

Item	Description	Item-No.
KR05-W/R-	Robot Cable KR05-W/R, Custom length	0150-3336
KR05-Y-Fe/R-	Robot Cable KR05-Y-Fe/R, Custom length	0150-3512

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-R/f	Motor Connector R/f	0150-3129
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.
PF02-23x50	Flange 23x50 mm	0150-2102
PF02-23x90	Flange 23x90 mm	0150-2146

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

FANS



Item	Description	Item-No.
HV01-23	Fan cooling for H01-23 and PF02-23	0150-5050

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

SLIDER MOUNTING



Item	Description	Item-No.
PLF01-12	Fixed End Washer Set for 12 mm sliders	0150-3085
PLF01-12-Ni	Fixed End Washer Set for 12 mm sliders nickel-plated	0150-3573
PLL02-12	Floating support for PL01-12 Sliders	0150-3111

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

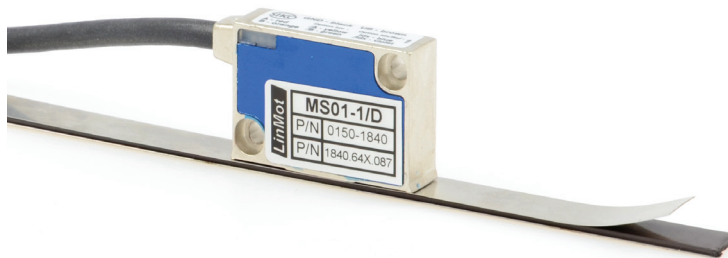
WIPERS



Item	Description	Item-No.
PA01-23/12-F-2	Seal front side for PS01-23x...	0150-3293

FIND MORE PRODUCT DETAILS IN THE CHAPTER "ACCESSORIES".

EXTERNAL POSITION SENSORS



Item	Description	Item-No.
MS01-1/D	Linear Encoder 1 µm, A/B (for incremental 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".



Item	Description	Item-No.
MS01-1/D-SSI	Linear Encoder 1 µm, 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".