

LINEAR MOTORS P01-23X160H-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 P01-23x160H-HP

Technical Data **157**

Motor Specifications

 P01-23x160H/20x160-HP **160**

 P01-23x160H/60x200-HP **161**

 P01-23x160H/80x220-HP **162**

 P01-23x160H/140x280-HP **163**

 P01-23x160H/210x350-HP **164**

 P01-23x160H/270x410-HP **165**

 P01-23x160H/370x510-HP **166**

 P01-23x160H/550x690-HP **167**

 P01-23x160H/640x780-HP **168**

Linear Guides **169**

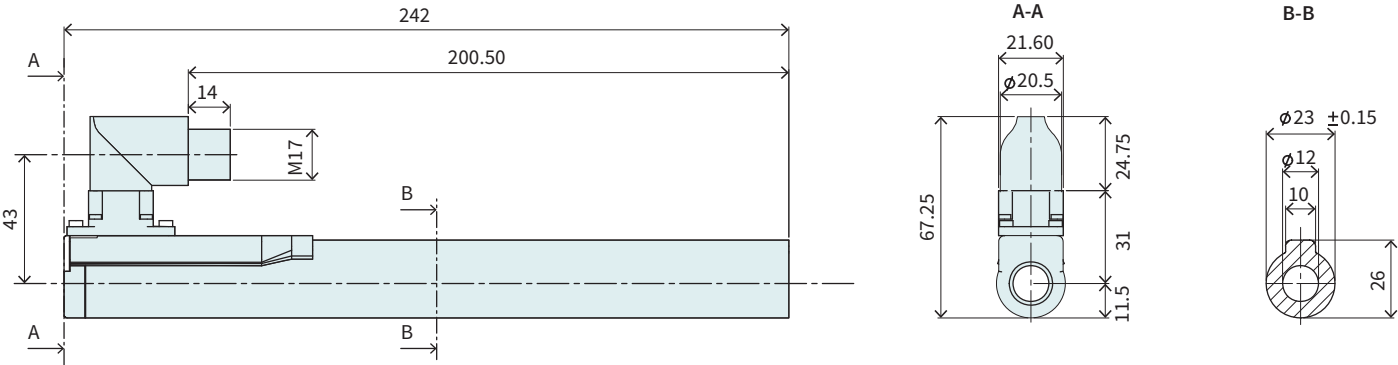
Accessories **170**



MOTOR FAMILY P01-23x160H-HP

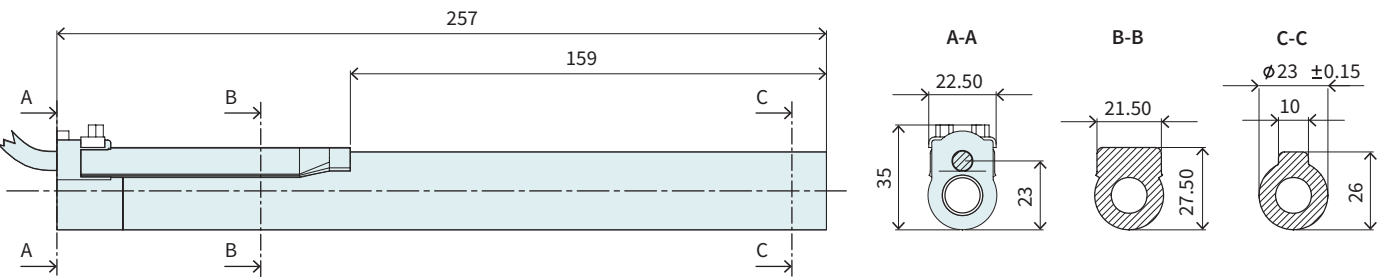
Technical Data				
Stroke				
Standard Stroke (SS)	mm	(in)	≤ 640	(≤ 25.19)
Extended Stroke (ES)	mm	(in)	≤ 780	(≤ 30.69)
Force				
Max. Force @ 48VDC	N	(lbf)	126	(28.3)
Max. Force @ 72VDC	N	(lbf)	138	(31)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N	(lbf)	30 / 46 / -	(6.7 / 10 / -)
Max. Border Force relative	%		≤ 56	
Force Constant	N/A _{pk}	(lbf/A _{pk})	12.5	(2.82)
Velocity				
Max. Velocity @ 48VDC	m/s	(in/s)	3.4	(139.9)
Max. Velocity @ 72VDC	m/s	(in/s)	5.2	(209.9)
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}		10	
Max. Current @ 72VDC	A _{pk}		10.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		2.4 / 3.6 / -	
Terminal Resistance 25 °C / 150 °C	Ohm		3.9 / 5.7	
Terminal Inductivity	mH		0.54	
Magnetic Period	mm	(in)	20	(0.78)
Thermal Data				
Max. Winding Temperature (Sensor)	°C		120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		2.6 / 1.1 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		510 / 220 / -	
Mechanical Data				
Stator Diameter	mm	(in)	23	(0.91)
Stator Length [Connector type / Cable type]	mm	(in)	242 / 257	(9.5 / 10)
Stator Mass	g	(lb)	450	(1.0)
Slider Diameter	mm	(in)	12	(0.47)
Slider Length	mm	(in)	230 - 850	(9.1 - 33)
Slider Mass	g	(lb)	180 - 700	(0.4 - 1.54)
IP Code			IP 65	

STATOR CONNECTOR TYPE



Item	Description	Item-No.
PS01-23x160H-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1254

STATOR CABLE TYPE

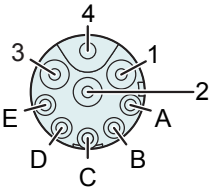


Item	Description	Item-No.
PS01-23x160H-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1255

CONNECTOR

Motor Connector Wiring	PS01-23x160H-HP-R PS01-23x160H-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

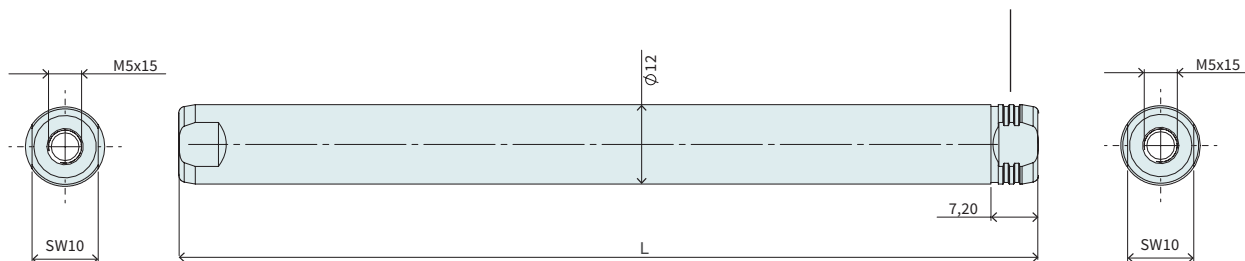


View: Motor Connector, plug side

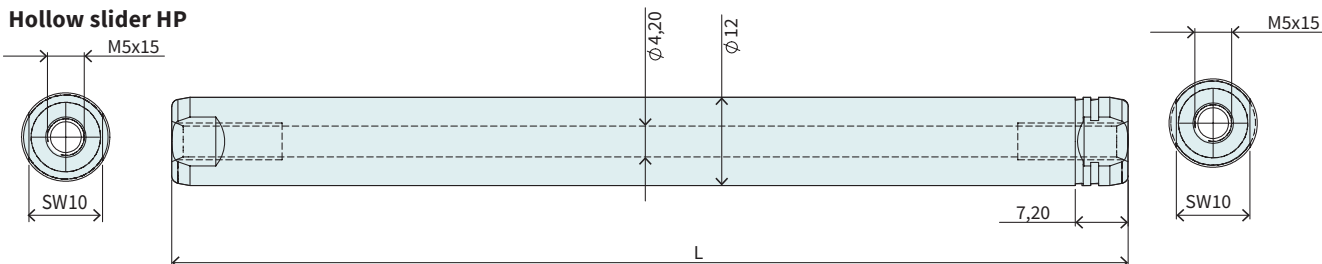
SLIDER

Slider HP / Heavy Duty HP

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



Hollow slider HP



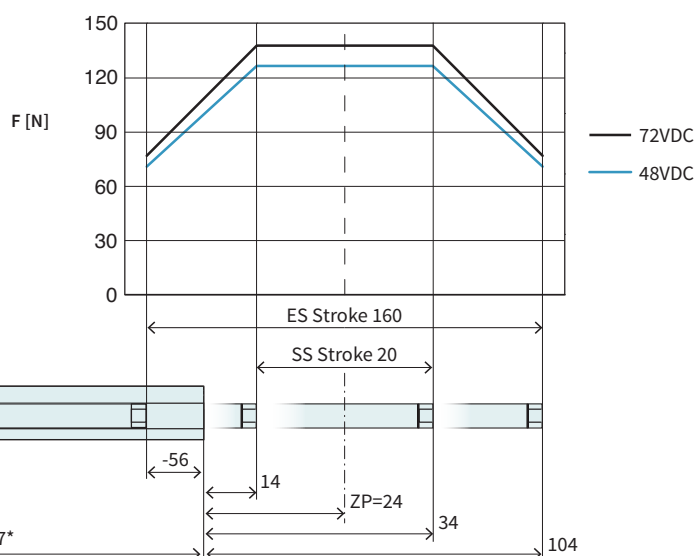
Slider High Performance				
Item	Description	Max. Stroke [mm]	Standard Stroke [mm]	Item-No.
PL01-12x230/190-HP	Slider 'High Performance'	160	20	0150-1519
PL01-12x270/230-HP	Slider 'High Performance'	200	60	0150-1520
PL01-12x290/250-HP	Slider 'High Performance'	220	80	0150-1521
PL01-12x350/310-HP	Slider 'High Performance'	280	140	0150-1522
PL01-12x420/380-HP	Slider 'High Performance'	350	210	0150-1523
PL01-12x480/440-HP	Slider 'High Performance'	410	270	0150-1524
PL01-12x580/540-HP	Slider 'High Performance'	510	370	0150-1525
PL01-12x760/720-HP	Slider 'High Performance'	690	550	0150-1526
PL01-12x850/810-HP	Slider 'High Performance'	780	640	0150-1527

Slider Heavy Duty High Performance				
Item	Description	Max. Stroke [mm]	Standard Stroke [mm]	Item-No.
PL02-12x230/190-HP	Slider 'heavy duty' 'High Performance'	160	20	0150-1552
PL02-12x270/230-HP	Slider 'heavy duty' 'High Performance'	200	60	0150-1533
PL02-12x290/250-HP	Slider 'heavy duty' 'High Performance'	220	80	0150-1495
PL02-12x350/310-HP	Slider 'heavy duty' 'High Performance'	280	140	0150-1555
PL02-12x420/380-HP	Slider 'heavy duty' 'High Performance'	350	210	0150-1554
PL02-12x480/440-HP	Slider 'heavy duty' 'High Performance'	410	270	0150-2519
PL02-12x580/540-HP	Slider 'heavy duty' 'High Performance'	510	370	0150-2520
PL02-12x760/720-HP	Slider 'heavy duty' 'High Performance'	690	550	0150-2521
PL02-12x850/810-HP	Slider 'heavy duty' 'High Performance'	780	640	0150-2516

Hollow slider High Performance				
Item	Description	Max. Stroke [mm]	Standard Stroke [mm]	Item-No.
PL01-12x230/190-HP-L	Slider 'High Performance L'	160	20	0150-2546
PL01-12x270/230-HP-L	Slider 'High Performance L'	200	60	0150-2557
PL01-12x290/250-HP-L	Slider 'High Performance L'	220	80	0150-3690
PL01-12x350/310-HP-L	Slider 'High Performance L'	280	140	0150-3691
PL01-12x420/380-HP-L	Slider 'High Performance L'	350	210	0150-3692
PL01-12x480/440-HP-L	Slider 'High Performance L'	410	270	0150-3693
PL01-12x580/540-HP-L	Slider 'High Performance L'	510	370	0150-3694
PL01-12x760/720-HP-L	Slider 'High Performance L'	690	550	0150-3695
PL01-12x850/810-HP-L	Slider 'High Performance L'	780	640	on request

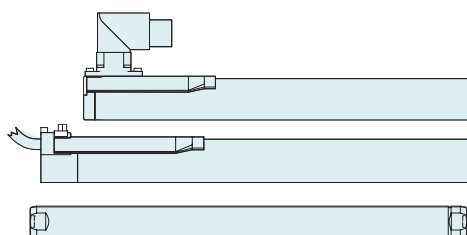
P01-23x160H/20x160-HP

Max. Stroke: 160 mm
Peak Force: 138 N



Technical Data P01-23x160H/20x160-HP

Stroke				
Standard Stroke (SS)	mm (in)		20	(0.78)
Extended Stroke (ES)	mm (in)		160	(6.29)
Force				
Max. Force @ 48VDC	N (lbf)		126	(28.3)
Max. Force @ 72VDC	N (lbf)		138	(31)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		30 / 46 / -	(6.7 / 10 / -)
Max. Border Force relative	%		56	
Force Constant	N/A _{pk} (lbf/A _{pk})		12.5	(2.82)
Velocity				
Max. Velocity @ 48VDC	m/s (in/s)		3.4	(139.9)
Max. Velocity @ 72VDC	m/s (in/s)		5.2	(209.9)
Position Detection				
Repeatability	mm (in)		±0.05	(±0.002)
Linearity	%		± 0.25	
Electrical Data				
Max. Current @ 48VDC	A _{pk}		10	
Max. Current @ 72VDC	A _{pk}		10.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		2.4 / 3.6 / -	
Thermal Data				
Max. Winding Temperature (Sensor)	°C		120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		2.6 / 1.1 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		510 / 220 / -	
Mechanical Data				
Slider Length	mm (in)		230	(9.1)
Slider Mass	g (lb)		180	(0.4)



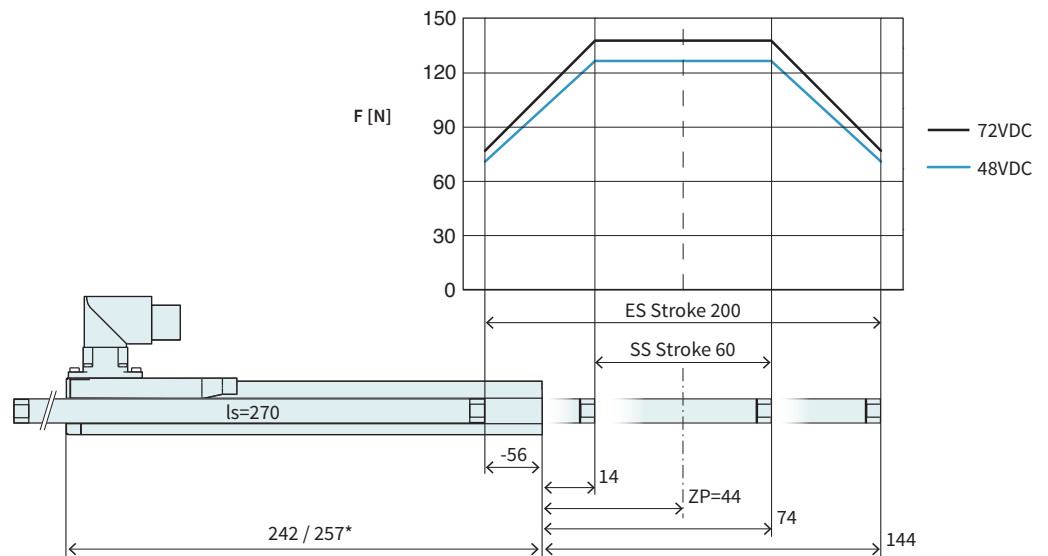
Item	Description	Item-No.
PS01-23x160H-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1254
PS01-23x160H-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1255
PL01-12x230/190-HP	Slider 'High Performance'	0150-1519
PL02-12x230/190-HP	Slider 'heavy duty' 'High Performance'	0150-1552
PL01-12x230/190-HP-L*	Slider 'High Performance L'	0150-2546

* With this slider, the motor specifications above change.

P01-23x160H/60x200-HP

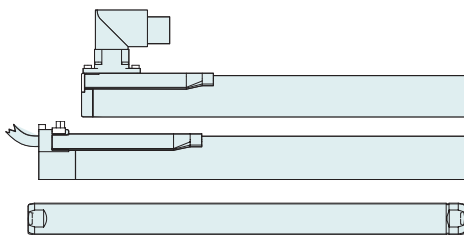
Max. Stroke: 200 mm
Peak Force: 138 N

Dimensions in mm
 *Cable Type



Technical Data P01-23x160H/60x200-HP

Stroke				
Standard Stroke (SS)	mm (in)		60 (2.35)	
Extended Stroke (ES)	mm (in)		200 (7.86)	
Force				
Max. Force @ 48VDC	N (lbf)		126 (28.3)	
Max. Force @ 72VDC	N (lbf)		138 (31)	
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		30 / 46 / - (6.7 / 10 / -)	
Max. Border Force relative	%		56	
Force Constant	N/A _{pk} (lbf/A _{pk})		12.5 (2.82)	
Velocity				
Max. Velocity @ 48VDC	m/s (in/s)		3.4 (139.9)	
Max. Velocity @ 72VDC	m/s (in/s)		5.2 (209.9)	
Position Detection				
Repeatability	mm (in)		±0.05 (±0.002)	
Linearity	%		± 0.2	
Electrical Data				
Max. Current @ 48VDC	A _{pk}		10	
Max. Current @ 72VDC	A _{pk}		10.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		2.4 / 3.6 / -	
Thermal Data				
Max. Winding Temperature (Sensor)	°C		120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		2.6 / 1.1 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		510 / 220 / -	
Mechanical Data				
Slider Length	mm (in)		270 (11)	
Slider Mass	g (lb)		215 (0.47)	

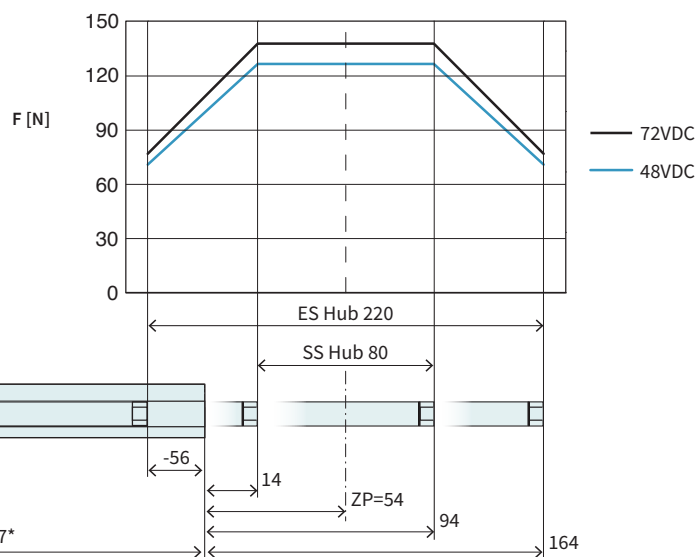


Item	Description	Item-No.
PS01-23x160H-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1254
PS01-23x160H-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1255
PL01-12x270/230-HP	Slider 'High Performance'	0150-1520
PL02-12x270/230-HP	Slider 'heavy duty' 'High Performance'	0150-1533
PL01-12x270/230-HP-L*	Slider 'High Performance L'	0150-2557

* With this slider, the motor specifications above change.

P01-23x160H/80x220-HP

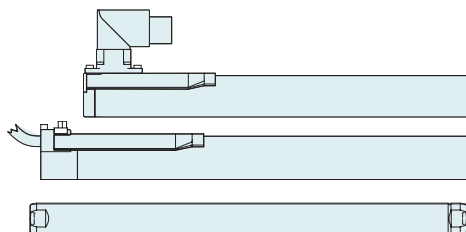
Max. Stroke: 220 mm
Peak Force: 138 N



Dimensions in mm
*Cable Type

Technical Data P01-23x160H/80x220-HP

Stroke			
Standard Stroke (SS)	mm (in)	80 (3.14)	
Extended Stroke (ES)	mm (in)	220 (8.65)	
Force			
Max. Force @ 48VDC	N (lbf)	126 (28.3)	
Max. Force @ 72VDC	N (lbf)	138 (31)	
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	30 / 46 / - (6.7 / 10 / -)	
Max. Border Force relative	%	56	
Force Constant	N/A _{pk} (lbf/A _{pk})	12.5 (2.82)	
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)	3.4 (139.9)	
Max. Velocity @ 72VDC	m/s (in/s)	5.2 (209.9)	
Position Detection			
Repeatability	mm (in)	±0.05 (±0.002)	
Linearity	%	± 0.2	
Electrical Data			
Max. Current @ 48VDC	A _{pk}	10	
Max. Current @ 72VDC	A _{pk}	10.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}	2.4 / 3.6 / -	
Thermal Data			
Max. Winding Temperature (Sensor)	°C	120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	2.6 / 1.1 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	510 / 220 / -	
Mechanical Data			
Slider Length	mm (in)	290 (11)	
Slider Mass	g (lb)	230 (0.51)	



Item	Description	Item-No.
PS01-23x160H-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1254
PS01-23x160H-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1255
PL01-12x290/250-HP	Slider 'High Performance'	0150-1521
PL02-12x290/250-HP	Slider 'heavy duty' 'High Performance'	0150-1495
PL01-12x290/250-HP-L*	Slider 'High Performance L'	0150-3690

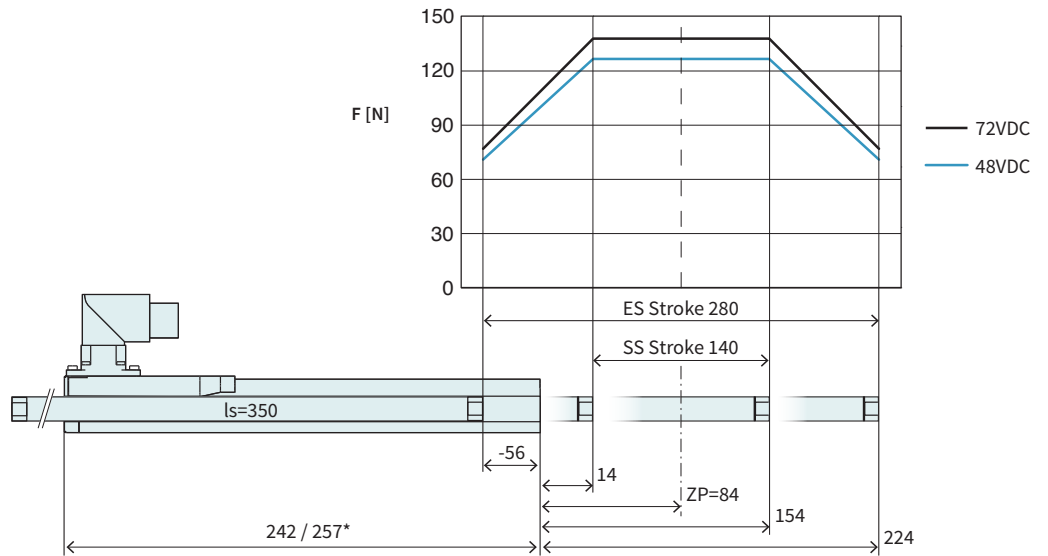
* With this slider, the motor specifications above change.

P01-23x160H/140x280-HP

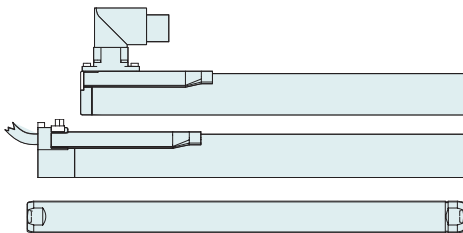
3

Max. Stroke: 280 mm
Peak Force: 138 N

Dimensions in mm
 *Cable Type



Technical Data P01-23x160H/140x280-HP				
Stroke				
Standard Stroke (SS)	mm (in)		140 (5.5)	
Extended Stroke (ES)	mm (in)		280 (10.99)	
Force				
Max. Force @ 48VDC	N (lbf)		126 (28.3)	
Max. Force @ 72VDC	N (lbf)		138 (31)	
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		30 / 46 / - (6.7 / 10 / -)	
Max. Border Force relative	%		56	
Force Constant	N/A _{pk} (lbf/A _{pk})		12.5 (2.82)	
Velocity				
Max. Velocity @ 48VDC	m/s (in/s)		3.4 (139.9)	
Max. Velocity @ 72VDC	m/s (in/s)		5.2 (209.9)	
Position Detection				
Repeatability	mm (in)		±0.05 (±0.002)	
Linearity	%		± 0.2	
Electrical Data				
Max. Current @ 48VDC	A _{pk}		10	
Max. Current @ 72VDC	A _{pk}		10.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		2.4 / 3.6 / -	
Thermal Data				
Max. Winding Temperature (Sensor)	°C		120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		2.6 / 1.1 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		510 / 220 / -	
Mechanical Data				
Slider Length	mm (in)		350 (14)	
Slider Mass	g (lb)		280 (0.62)	



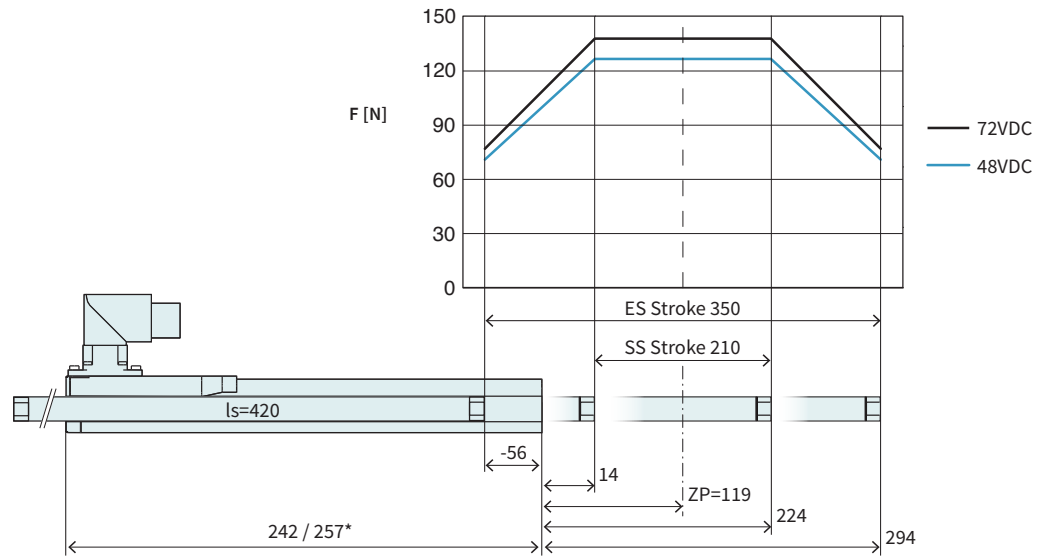
Item	Description	Item-No.
PS01-23x160H-HP-R	Stator HP with IP67 Connector M17/9(m)	Q150-1254
PS01-23x160H-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	Q150-1255
PL01-12x350/310-HP	Slider 'High Performance'	Q150-1522
PL02-12x350/310-HP	Slider 'heavy duty' 'High Performance'	Q150-1555
PL01-12x350/310-HP-L*	Slider 'High Performance L'	Q150-3691

* With this slider, the motor specifications above change.

P01-23x160H/210x350-HP

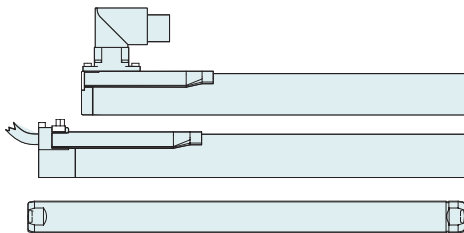
Max. Stroke: 350 mm
Peak Force: 138 N

Dimensions in mm
*Cable Type



Technical Data P01-23x160H/210x350-HP

Stroke				
Standard Stroke (SS)	mm (in)		210	(8.26)
Extended Stroke (ES)	mm (in)		350	(13.8)
Force				
Max. Force @ 48VDC	N (lbf)		126	(28.3)
Max. Force @ 72VDC	N (lbf)		138	(31)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		30 / 46 / -	(6.7 / 10 / -)
Max. Border Force relative	%		56	
Force Constant	N/A _{pk} (lbf/A _{pk})		12.5	(2.82)
Velocity				
Max. Velocity @ 48VDC	m/s (in/s)		3.4	(139.9)
Max. Velocity @ 72VDC	m/s (in/s)		5.2	(209.9)
Position Detection				
Repeatability	mm (in)		±0.05	(±0.002)
Linearity	%		± 0.15	
Electrical Data				
Max. Current @ 48VDC	A _{pk}		10	
Max. Current @ 72VDC	A _{pk}		10.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		2.4 / 3.6 / -	
Thermal Data				
Max. Winding Temperature (Sensor)	°C		120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		2.6 / 1.1 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		510 / 220 / -	
Mechanical Data				
Slider Length	mm (in)		420	(17)
Slider Mass	g (lb)		340	(0.75)

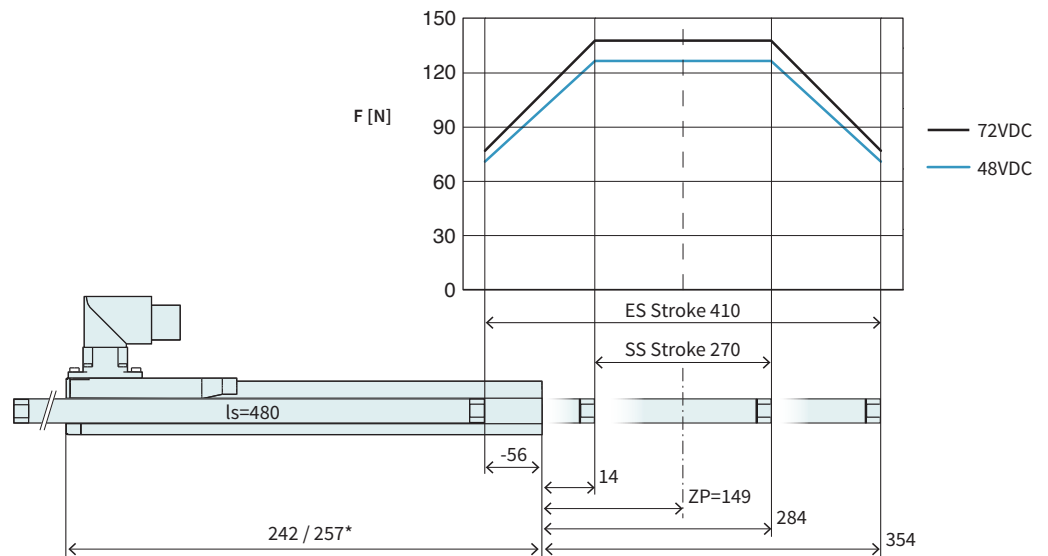


Item	Description	Item-No.
PS01-23x160H-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1254
PS01-23x160H-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1255
PL01-12x420/380-HP	Slider 'High Performance'	0150-1523
PL02-12x420/380-HP	Slider 'heavy duty' 'High Performance'	0150-1554
PL01-12x420/380-HP-L*	Slider 'High Performance L'	0150-3692

* With this slider, the motor specifications above change.

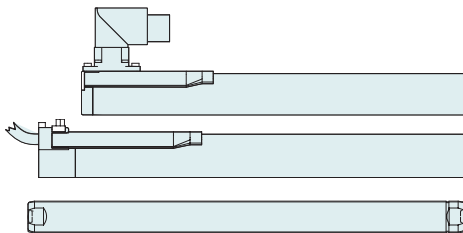
P01-23x160H/270x410-HP

Max. Stroke: 410 mm
Peak Force: 138 N



Dimensions in mm
 *Cable Type

Technical Data P01-23x160H/270x410-HP				
Stroke				
Standard Stroke (SS)	mm (in)		270	(10.59)
Extended Stroke (ES)	mm (in)		410	(16.1)
Force				
Max. Force @ 48VDC	N (lbf)		126	(28.3)
Max. Force @ 72VDC	N (lbf)		138	(31)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)		30 / 46 / -	(6.7 / 10 / -)
Max. Border Force relative	%		56	
Force Constant	N/A _{pk} (lbf/A _{pk})		12.5	(2.82)
Velocity				
Max. Velocity @ 48VDC	m/s (in/s)		3.4	(139.9)
Max. Velocity @ 72VDC	m/s (in/s)		5.2	(209.9)
Position Detection				
Repeatability	mm (in)		±0.05	(±0.002)
Linearity	%		± 0.15	
Electrical Data				
Max. Current @ 48VDC	A _{pk}		10	
Max. Current @ 72VDC	A _{pk}		10.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}		2.4 / 3.6 / -	
Thermal Data				
Max. Winding Temperature (Sensor)	°C		120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W		2.6 / 1.1 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s		510 / 220 / -	
Mechanical Data				
Slider Length	mm (in)		480	(19)
Slider Mass	g (lb)		390	(0.86)

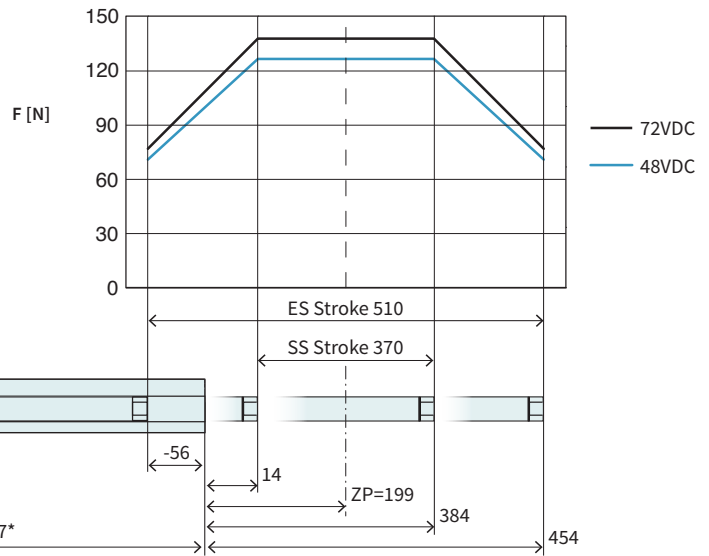


Item	Description	Item-No.
PS01-23x160H-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1254
PS01-23x160H-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1255
PL01-12x480/440-HP	Slider 'High Performance'	0150-1524
PL02-12x480/440-HP	Slider 'heavy duty' 'High Performance'	0150-2519
PL01-12x480/440-HP-L*	Slider 'High Performance L'	0150-3693

* With this slider, the motor specifications above change.

P01-23x160H/370x510-HP

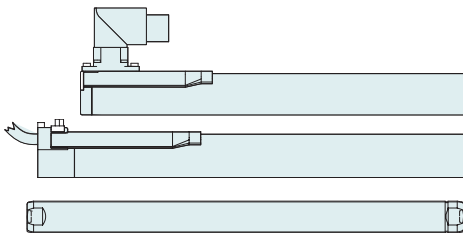
Max. Stroke: 510 mm
Peak Force: 138 N



Dimensions in mm
 *Cable Type

Technical Data P01-23x160H/370x510-HP

Stroke			
Standard Stroke (SS)	mm (in)	370	(14.59)
Extended Stroke (ES)	mm (in)	510	(20.1)
Force			
Max. Force @ 48VDC	N (lbf)	126	(28.3)
Max. Force @ 72VDC	N (lbf)	138	(31)
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	30 / 46 / -	(6.7 / 10 / -)
Max. Border Force relative	%	56	
Force Constant	N/A _{pk} (lbf/A _{pk})	12.5	(2.82)
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)	3.4	(139.9)
Max. Velocity @ 72VDC	m/s (in/s)	5.2	(209.9)
Position Detection			
Repeatability	mm (in)	±0.05	(±0.002)
Linearity	%	± 0.15	
Electrical Data			
Max. Current @ 48VDC	A _{pk}	10	
Max. Current @ 72VDC	A _{pk}	10.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}	2.4 / 3.6 / -	
Thermal Data			
Max. Winding Temperature (Sensor)	°C	120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	2.6 / 1.1 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	510 / 220 / -	
Mechanical Data			
Slider Length	mm (in)	580	(23)
Slider Mass	g (lb)	480	(1.06)

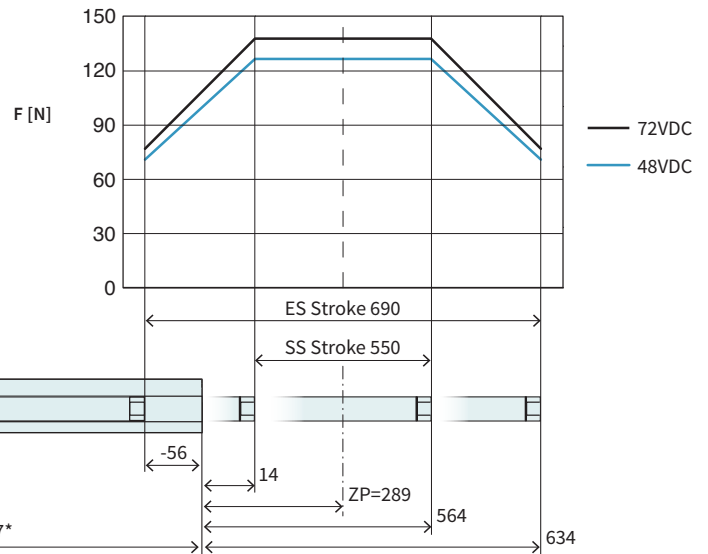


Item	Description	Item-No.
PS01-23x160H-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1254
PS01-23x160H-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1255
PL01-12x580/540-HP	Slider 'High Performance'	0150-1525
PL02-12x580/540-HP	Slider 'heavy duty' 'High Performance'	0150-2520
PL01-12x580/540-HP-L*	Slider 'High Performance L'	0150-3694

* With this slider, the motor specifications above change.

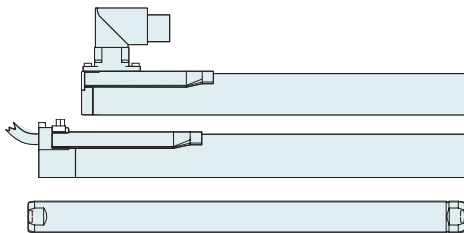
P01-23x160H/550x690-HP

Max. Stroke: 690 mm
Peak Force: 138 N



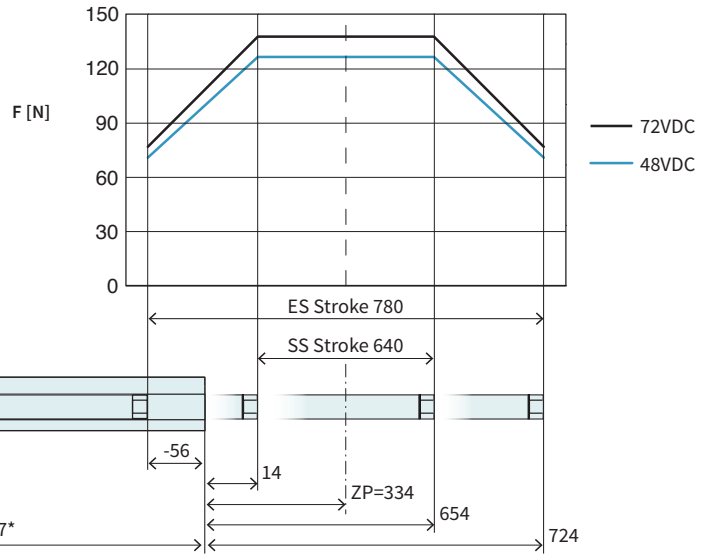
Technical Data P01-23x160H/550x690-HP

Stroke				
Standard Stroke (SS)	mm (in)	550	(21.69)	
Extended Stroke (ES)	mm (in)	690	(27.19)	
Force				
Max. Force @ 48VDC	N (lbf)	126	(28.3)	
Max. Force @ 72VDC	N (lbf)	138	(31)	
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	30 / 46 / -	(6.7 / 10 / -)	
Max. Border Force relative	%	56		
Force Constant	N/A _{pk} (lbf/A _{pk})	12.5	(2.82)	
Velocity				
Max. Velocity @ 48VDC	m/s (in/s)	3.4	(139.9)	
Max. Velocity @ 72VDC	m/s (in/s)	5.2	(209.9)	
Position Detection				
Repeatability	mm (in)	±0.05	(±0.002)	
Linearity	%	± 0.15		
Electrical Data				
Max. Current @ 48VDC	A _{pk}	10		
Max. Current @ 72VDC	A _{pk}	10.9		
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}	2.4 / 3.6 / -		
Thermal Data				
Max. Winding Temperature (Sensor)	°C	120		
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	2.6 / 1.1 / -		
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	510 / 220 / -		
Mechanical Data				
Slider Length	mm (in)	760	(30)	
Slider Mass	g (lb)	630	(1.39)	



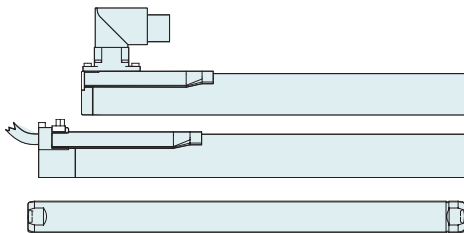
Item	Description	Item-No.
PS01-23x160H-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1254
PS01-23x160H-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1255
PL01-12x760/720-HP	Slider 'High Performance'	0150-1526
PL02-12x760/720-HP	Slider 'heavy duty' 'High Performance'	0150-2521
PL01-12x760/720-HP-L*	Slider 'High Performance L'	0150-3695

* With this slider, the motor specifications above change.

P01-23x160H/640x780-HP
Max. Stroke: 780 mm
Peak Force: 138 N

Dimensions in mm
*Cable Type

Technical Data P01-23x160H/640x780-HP

Stroke			
Standard Stroke (SS)	mm (in)	640 (25.19)	
Extended Stroke (ES)	mm (in)	780 (30.69)	
Force			
Max. Force @ 48VDC	N (lbf)	126 (28.3)	
Max. Force @ 72VDC	N (lbf)	138 (31)	
Max. Cont. Force [Passive cooling / Fan / Fluid]	N (lbf)	30 / 46 / - (6.7 / 10 / -)	
Max. Border Force relative	%	56	
Force Constant	N/A _{pk} (lbf/A _{pk})	12.5 (2.82)	
Velocity			
Max. Velocity @ 48VDC	m/s (in/s)	3.4 (139.9)	
Max. Velocity @ 72VDC	m/s (in/s)	5.2 (209.9)	
Position Detection			
Repeatability	mm (in)	±0.05 (±0.002)	
Linearity	%	± 0.15	
Electrical Data			
Max. Current @ 48VDC	A _{pk}	10	
Max. Current @ 72VDC	A _{pk}	10.9	
Max. Cont. Current [Passive cooling / Fan / Fluid]	A _{pk}	2.4 / 3.6 / -	
Thermal Data			
Max. Winding Temperature (Sensor)	°C	120	
Thermal Resistance [Passive cooling / Fan / Fluid]	°K/W	2.6 / 1.1 / -	
Thermal Time Constant [Passive cooling / Fan / Fluid]	s	510 / 220 / -	
Mechanical Data			
Slider Length	mm (in)	850 (33)	
Slider Mass	g (lb)	700 (1.54)	



Item	Description	Item-No.
PS01-23x160H-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1254
PS01-23x160H-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1255
PL01-12x850/810-HP	Slider 'High Performance'	0150-1527
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

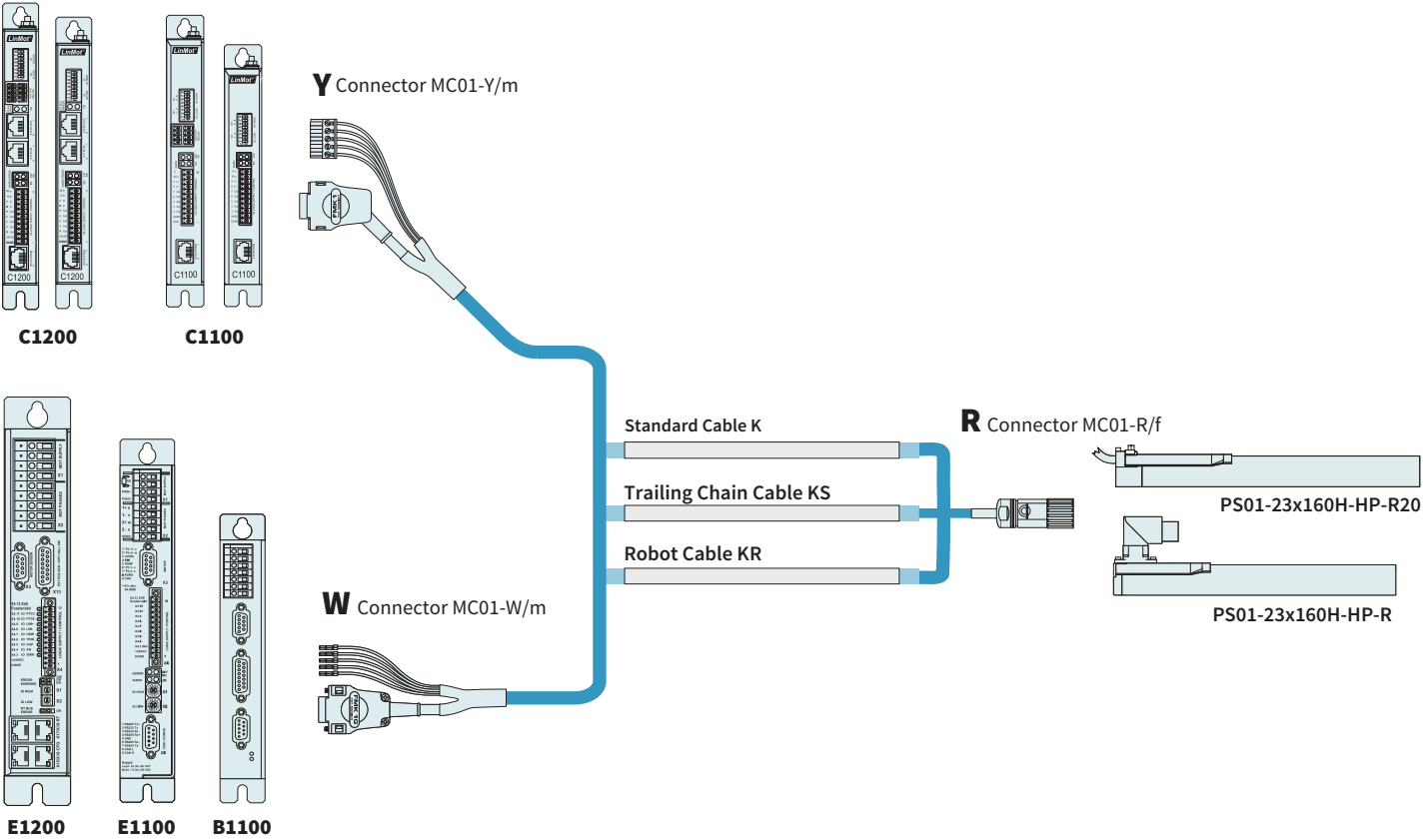


HM01-23x160/80		Linear Module 23x160 with 80 mm Stroke			
	→	H-Guide	H01-23x166/80	H-Guide for P01-23x160, Stroke max 80mm	0150-5017
			H01-23x166/80-GF	H-Guide for P01-23x160, Stroke max 80mm	0150-5077
	→	Stator	PS01-23x160H-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1254
			PS01-23x160H-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1255
	→	Slider	PL01-12x290/250-HP	Slider 'High Performance'	0150-1521
	HM01-23x160/180		Linear Module 23x160 with 180 mm Stroke		
	→	H-Guide	H01-23x166/180	H-Guide for P01-23x160, Stroke max 180mm	0150-5018
			H01-23x166/180-GF	H-Guide for P01-23x160, Stroke max 180mm	0150-5078
	→	Stator	PS01-23x160H-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1254
			PS01-23x160H-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1255
	→	Slider	PL01-12x420/380-HP	Slider 'High Performance'	0150-1523
	HM01-23x160/280		Linear Module 23x160 with 280 mm Stroke		
	→	H-Guide	H01-23x166/280	H-Guide for P01-23x160, Stroke max 280mm	0150-5019
			H01-23x166/280-GF	H-Guide for P01-23x160, Stroke max 280mm	0150-5079
	→	Stator	PS01-23x160H-HP-R	Stator HP with IP67 Connector M17/9(m)	0150-1254
			PS01-23x160H-HP-R20	Stator HP, 0.2m Cable, IP67 St. M17/9(m)	0150-1255
	→	Slider	PL01-12x480/440-HP	Slider 'High Performance'	0150-1524
	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	Adapter MagSpring 20 / H-Guide 23	0250-0116
	→	Centering sleeve	HC01-09/04	Centering sleeve D9x4mm	0150-3251

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

Motor Cable

3



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
MC01-D/f	Motor Connector D/f	0150-3025
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.
PF02-23x120	Flange 23x120 mm	0150-2103
PF02-23x170	Flange 23x170 mm	0150-2117

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	Wiper 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 1µm, 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 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".