

LINEAR MOTORS P01-37SX120H-HP



- ✓ Short design
- ✓ Higher speeds
- ✓ Integrated mounting flange
- ✓ Pluggable motor cable with cover
- ✓ Free positionable cable outlet
- ✓ For use where space is limited and in multi-axis applications

LINEARMOTOREN P01-37SX120H-HP

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Cable outlet -90°

Cable outlet 0°

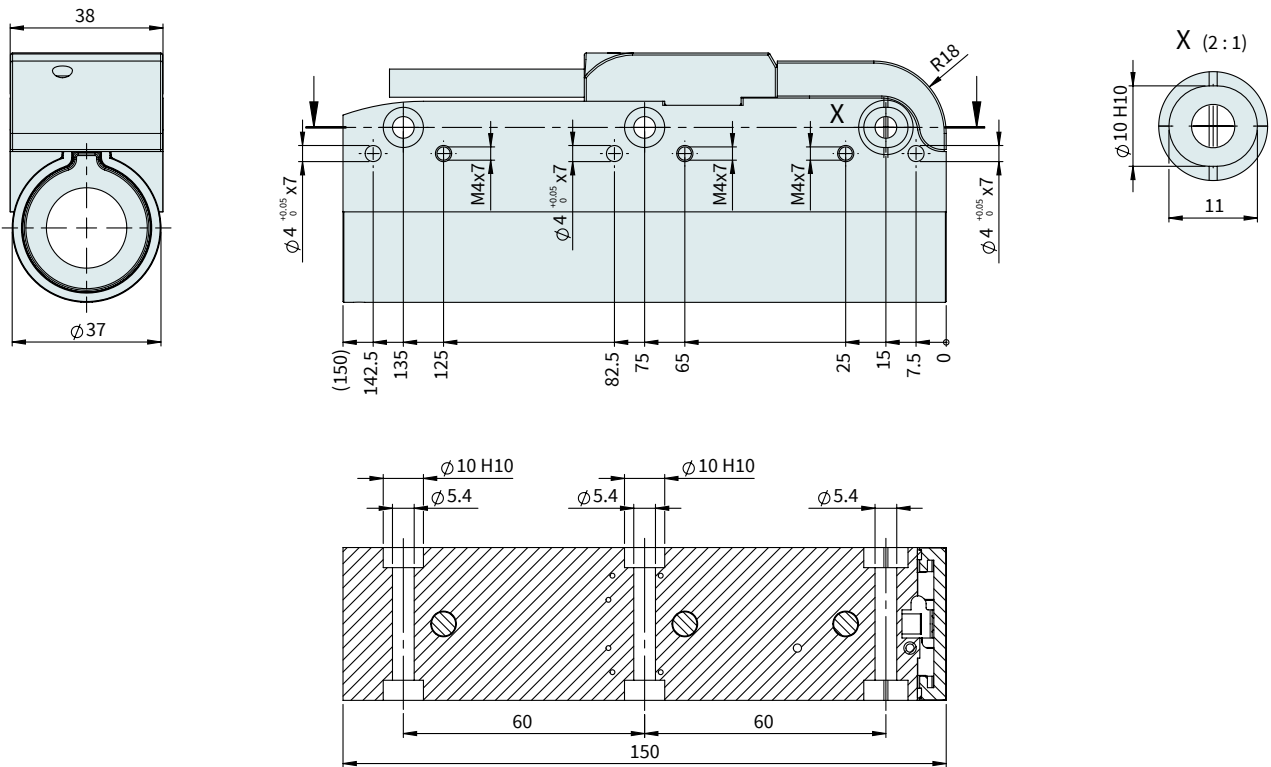
Cable outlet 90°

MOTOR FAMILY P01-37Sx120H-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) | | 35 / 67 / - | (7.8 / 15 / -) |
| Max. Border Force relative | % | | ≤ 67 | |
| Force Constant | N/A _{pk} (lbf/A _{pk}) | | 10.1 | (2.27) |
| Velocity | | | | |
| Max. Velocity @ 48VDC | m/s (in/s) | | 4.3 | (171.8) |
| Max. Velocity @ 72VDC | m/s (in/s) | | 6.5 | (257.6) |
| 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} | | 25 | |
| Max. Current @ 72VDC | A _{pk} | | 25 | |
| Max. Cont. Current [Passive cooling / Fan / Fluid] | A _{pk} | | 3.5 / 6.6 / - | |
| Terminal Resistance 25 °C / 120 °C | Ohm | | 0.81 / 1.18 | |
| Terminal Inductivity | mH | | 0.43 | |
| Magnetic Period | mm (in) | | 40 | (1.57) |
| Thermal Data | | | | |
| Max. Winding Temperature (Sensor) | °C | | 120 | |
| Thermal Resistance [Passive cooling / Fan / Fluid] | *K/W | | 5.5 / 1.5 / - | |
| Thermal Time Constant [Passive cooling / Fan / Fluid] | s | | 2200 / 600 / - | |
| Mechanical Data | | | | |
| Stator Diameter | mm (in) | | 37 | (1.5) |
| Stator Length [Connector type / Cable type] | mm (in) | | 150 | (5.9) |
| Stator Mass | g (lb) | | 800 | (1.76) |
| 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 50 | |
| Certification | | | | |
| cURus | File-No. | | E354430 | |

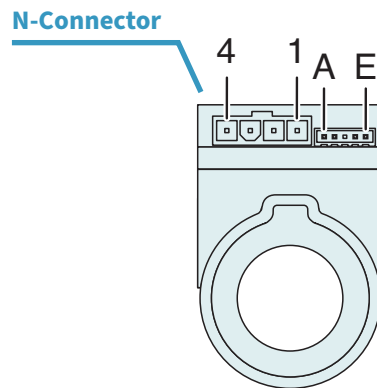
STATOR



| Item | Description | Item-No. |
|--------------------|---------------------------------|---------------------------|
| PS01-37Sx120H-HP-N | Stator HP, Cable -90°, 0°, +90° | 0150-6238 |

CONNECTOR

| Motor Connector Wiring | N-Connector | Wire color motor cable |
|------------------------|-------------|------------------------|
| Phase 1+ | Pin 4 | red |
| Phase 1- | Pin 3 | pink |
| Phase 2+ | Pin 2 | blue |
| Phase 2- | Pin 1 | grey |
| +5V | Pin A | white |
| GND | Pin B | Inner Shield |
| Sensor Sin | Pin C | yellow |
| Sensor Cos | Pin D | green |
| Temp Sensor | Pin E | black |
| Housing | | Outer Shield |

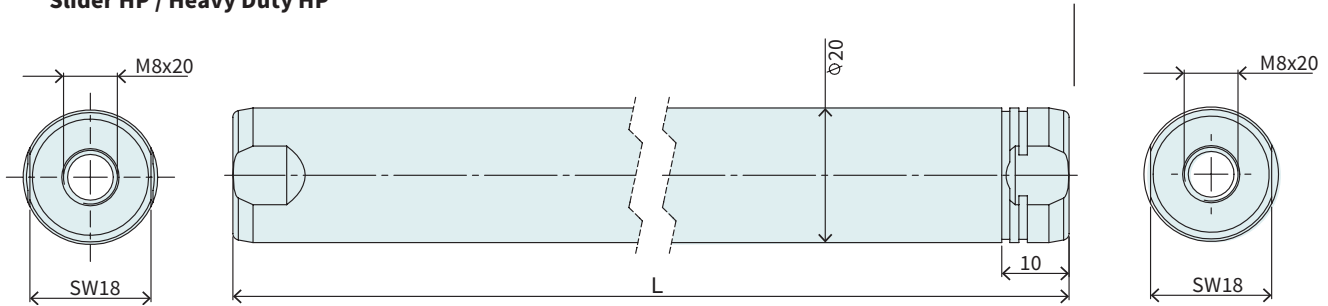


View: Motor Connector, plug side

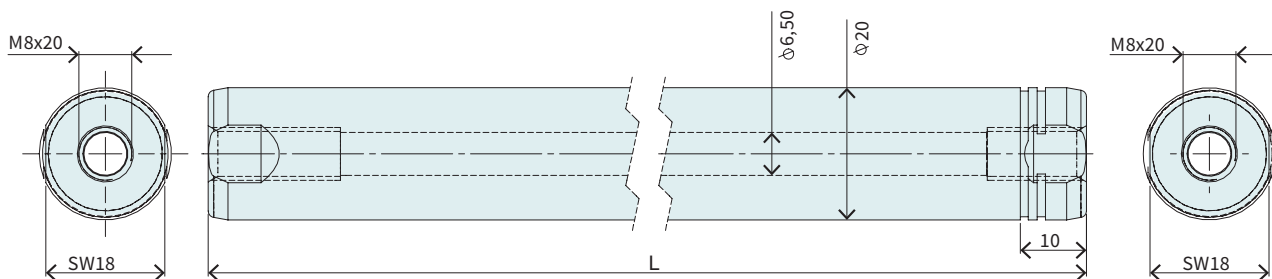
SLIDER

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

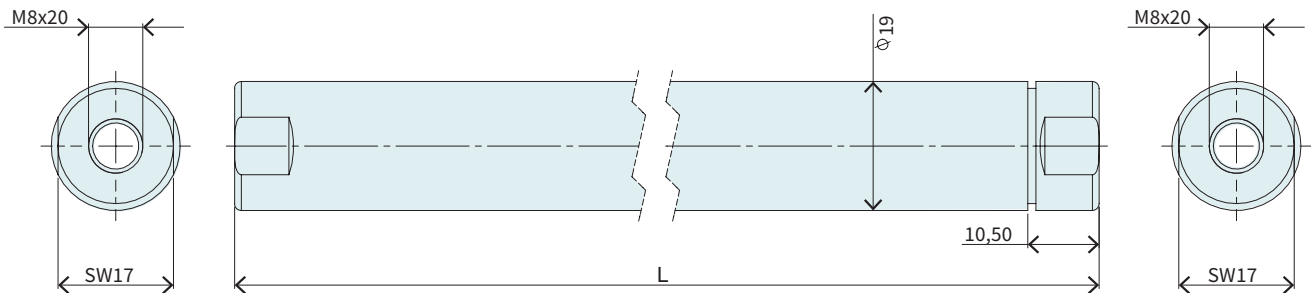
Slider HP / Heavy Duty HP



Hollow slider HP



High-Clearance Slider



| Slider High Performance | | | | |
|-------------------------|---------------------------|------------------|----------------------|---------------------------|
| Item | Description | Max. Stroke [mm] | Standard Stroke [mm] | Item-No. |
| PL01-20x240/180-HP | Slider 'High Performance' | 120 | 100 | 0150-1505 |
| PL01-20x300/240-HP | Slider 'High Performance' | 180 | 160 | 0150-1506 |
| PL01-20x360/300-HP | Slider 'High Performance' | 240 | 220 | 0150-1507 |
| PL01-20x400/340-HP | Slider 'High Performance' | 280 | 260 | 0150-1508 |
| PL01-20x500/440-HP | Slider 'High Performance' | 380 | 360 | 0150-1509 |
| PL01-20x600/540-HP | Slider 'High Performance' | 480 | 460 | 0150-1510 |
| PL01-20x700/640-HP | Slider 'High Performance' | 580 | 560 | 0150-1511 |
| PL01-20x800/740-HP | Slider 'High Performance' | 680 | 660 | 0150-1512 |
| PL01-20x900/840-HP | Slider 'High Performance' | 780 | 760 | 0150-1513 |
| PL01-20x1000/940-HP | Slider 'High Performance' | 880 | 860 | 0150-1514 |
| PL01-20x1200/1140-HP | Slider 'High Performance' | 1080 | 1060 | 0150-1515 |
| PL01-20x1400/1340-HP | Slider 'High Performance' | 1280 | 1260 | 0150-1516 |
| PL01-20x1600/1540-HP | Slider 'High Performance' | 1480 | 1460 | 0150-1517 |

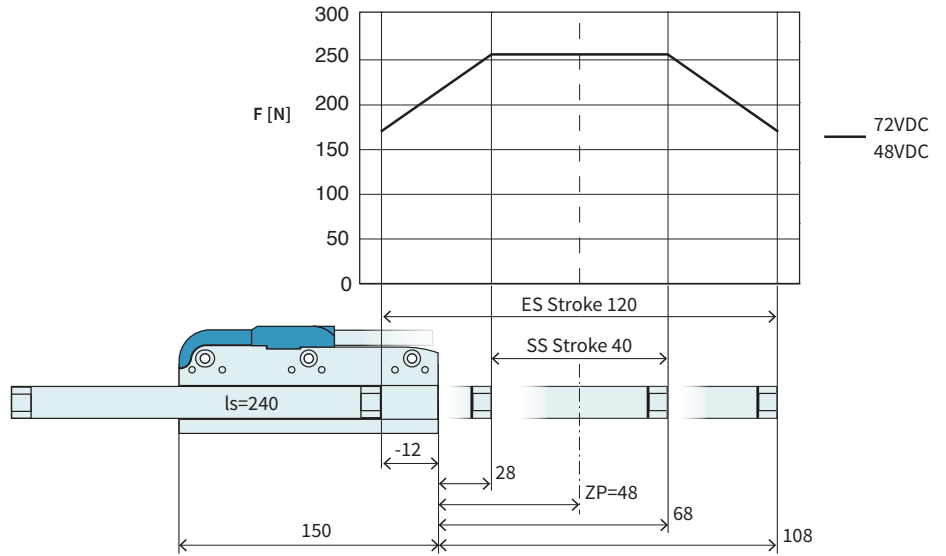
| Slider Heavy Duty High Performance | | | | |
|------------------------------------|---------------------------------------|------------------|----------------------|---------------------------|
| Item | Description | Max. Stroke [mm] | Standard Stroke [mm] | Item-No. |
| PL02-20x240/180-HP | Slider 'heavy duty' 'High Performance | 120 | 100 | 0150-2162 |
| PL02-20x300/240-HP | Slider 'heavy duty' 'High Performance | 180 | 160 | 0150-2163 |
| PL02-20x360/300-HP | Slider 'heavy duty' 'High Performance | 240 | 220 | 0150-2164 |
| PL02-20x400/340-HP | Slider 'heavy duty' 'High Performance | 280 | 260 | 0150-2165 |
| PL02-20x500/440-HP | Slider 'heavy duty' 'High Performance | 380 | 360 | 0150-2166 |
| PL02-20x600/540-HP | Slider 'heavy duty' 'High Performance | 480 | 460 | 0150-2167 |
| PL02-20x700/640-HP | Slider 'heavy duty' 'High Performance | 580 | 560 | 0150-2168 |
| PL02-20x800/740-HP | Slider 'heavy duty' 'High Performance | 680 | 660 | 0150-2169 |
| PL02-20x900/840-HP | Slider 'heavy duty' 'High Performance | 780 | 760 | 0150-2170 |

| Hollow slider High Performance | | | | |
|--------------------------------|-----------------------------|------------------|----------------------|---------------------------|
| 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 | 0150-3703 |
| PL01-20x1200/1140-HP-L | Slider 'High Performance L' | 1080 | 1060 | 0150-2510 |
| 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 |

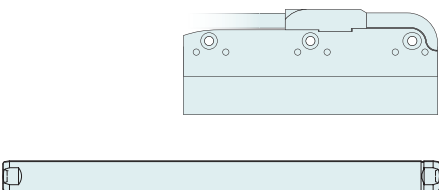
P01-37Sx120H/40x120-HP

Max. Stroke: 120 mm
Peak Force: 255 N



Dimensions in mm

| Technical Data P01-37Sx120H/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) | 35 / 67 / - | (7.8 / 15 / -) |
| Max. Border Force relative | % | 67 | |
| Force Constant | N/A _{pk} (lbf/A _{pk}) | 10.1 | (2.27) |
| Velocity | | | |
| Max. Velocity @ 48VDC | m/s (in/s) | 4.3 | (171.8) |
| Max. Velocity @ 72VDC | m/s (in/s) | 6.5 | (257.6) |
| Position Detection | | | |
| Repeatability | mm (in) | ±0.05 | (±0.002) |
| Linearity | % | ± 0.5 | |
| Electrical Data | | | |
| Max. Current @ 48VDC | A _{pk} | 25 | |
| Max. Current @ 72VDC | A _{pk} | 25 | |
| Max. Cont. Current [Passive cooling / Fan / Fluid] | A _{pk} | 3.5 / 6.6 / - | |
| Thermal Data | | | |
| Max. Winding Temperature (Sensor) | °C | 120 | |
| Thermal Resistance [Passive cooling / Fan / Fluid] | °K/W | 5.5 / 1.5 / - | |
| Thermal Time Constant [Passive cooling / Fan / Fluid] | s | 2200 / 600 / - | |
| Mechanical Data | | | |
| Slider Length | mm (in) | 240 | (9.4) |
| Slider Mass | g (lb) | 490 | (1.08) |

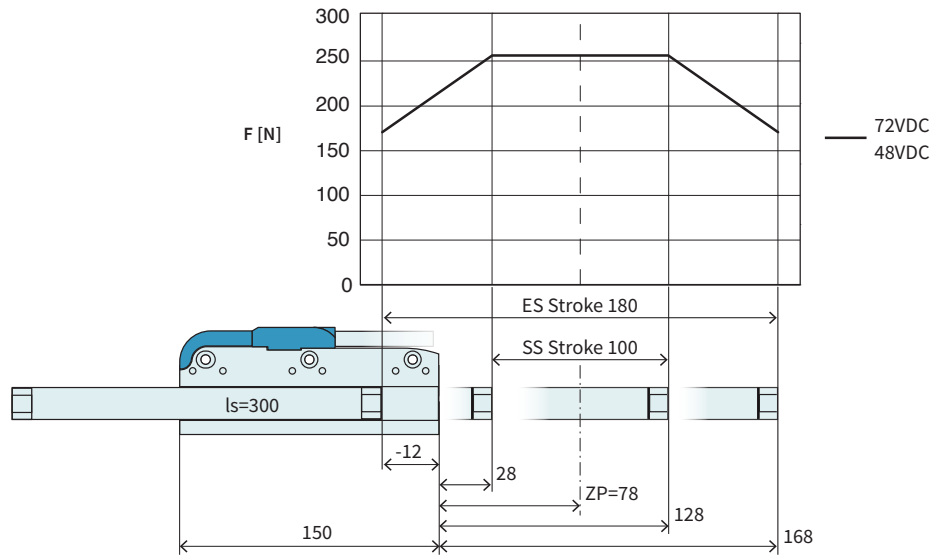


| Item | Description | Item-No. |
|------------------------------|--|---------------------------|
| PS01-37Sx120H-HP-N | Stator HP, Cable -90°, 0°, +90° | 0150-6238 |
| PL01-20x240/180-HP | Slider 'High Performance' | 0150-1505 |
| PL02-20x240/180-HP | Slider 'heavy duty' 'High Performance' | 0150-2162 |
| 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.

P01-37Sx120H/100x180-HP

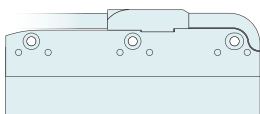
Max. Stroke: 180 mm
Peak Force: 255 N



Dimensions in mm

Technical Data P01-37Sx120H/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) | 35 / 67 / - | (7.8 / 15 / -) |
| Max. Border Force relative | % | 67 | |
| Force Constant | N/A _{pk} (lbf/A _{pk}) | 10.1 | (2.27) |
| Velocity | | | |
| Max. Velocity @ 48VDC | m/s (in/s) | 4.3 | (171.8) |
| Max. Velocity @ 72VDC | m/s (in/s) | 6.5 | (257.6) |
| Position Detection | | | |
| Repeatability | mm (in) | ±0.05 | (±0.002) |
| Linearity | % | ± 0.4 | |
| Electrical Data | | | |
| Max. Current @ 48VDC | A _{pk} | 25 | |
| Max. Current @ 72VDC | A _{pk} | 25 | |
| Max. Cont. Current [Passive cooling / Fan / Fluid] | A _{pk} | 3.5 / 6.6 / - | |
| Thermal Data | | | |
| Max. Winding Temperature (Sensor) | °C | 120 | |
| Thermal Resistance [Passive cooling / Fan / Fluid] | °K/W | 5.5 / 1.5 / - | |
| Thermal Time Constant [Passive cooling / Fan / Fluid] | s | 2200 / 600 / - | |
| Mechanical Data | | | |
| Slider Length | mm (in) | 300 | (12) |
| Slider Mass | g (lb) | 630 | (1.39) |

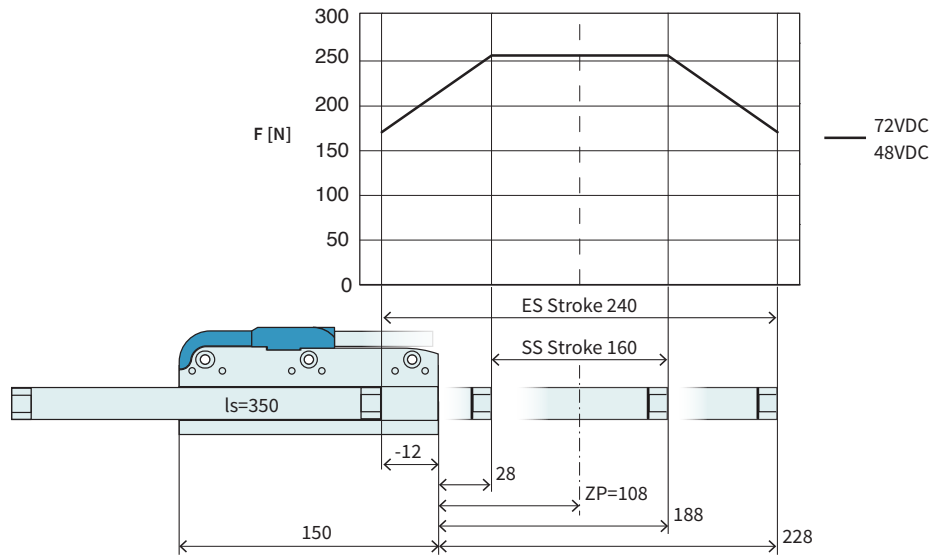


| Item | Description | Item-No. |
|------------------------------|--|---------------------------|
| PS01-37Sx120H-HP-N | Stator HP, Cable -90°, 0°, +90° | Q150-6238 |
| PL01-20x300/240-HP | Slider 'High Performance' | Q150-1506 |
| PL02-20x300/240-HP | Slider 'heavy duty' 'High Performance' | Q150-2163 |
| PL01-20x300/240-HP-L* | Slider 'High Performance L' | Q150-3696 |
| PL01-19x300/220* | Slider 'high clearance' | Q150-1449 |

* With this slider, the motor specifications above change.

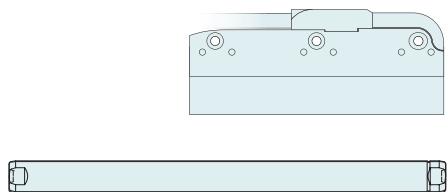
P01-37Sx120H/160x240-HP

Max. Stroke: 240 mm
Peak Force: 255 N



Dimensions in mm

| Technical Data P01-37Sx120H/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) | | 35 / 67 / - (7.8 / 15 / -) | |
| Max. Border Force relative | % | | 67 | |
| Force Constant | N/A _{pk} (lbf/A _{pk}) | | 10.1 (2.27) | |
| Velocity | | | | |
| Max. Velocity @ 48VDC | m/s (in/s) | | 4.3 (171.8) | |
| Max. Velocity @ 72VDC | m/s (in/s) | | 6.5 (257.6) | |
| Position Detection | | | | |
| Repeatability | mm (in) | | ±0.05 (±0.002) | |
| Linearity | % | | ± 0.3 | |
| Electrical Data | | | | |
| Max. Current @ 48VDC | A _{pk} | | 25 | |
| Max. Current @ 72VDC | A _{pk} | | 25 | |
| Max. Cont. Current [Passive cooling / Fan / Fluid] | A _{pk} | | 3.5 / 6.6 / - | |
| Thermal Data | | | | |
| Max. Winding Temperature (Sensor) | °C | | 120 | |
| Thermal Resistance [Passive cooling / Fan / Fluid] | °K/W | | 5.5 / 1.5 / - | |
| Thermal Time Constant [Passive cooling / Fan / Fluid] | s | | 2200 / 600 / - | |
| Mechanical Data | | | | |
| Slider Length | mm (in) | | 360 (14) | |
| Slider Mass | g (lb) | | 760 (1.67) | |

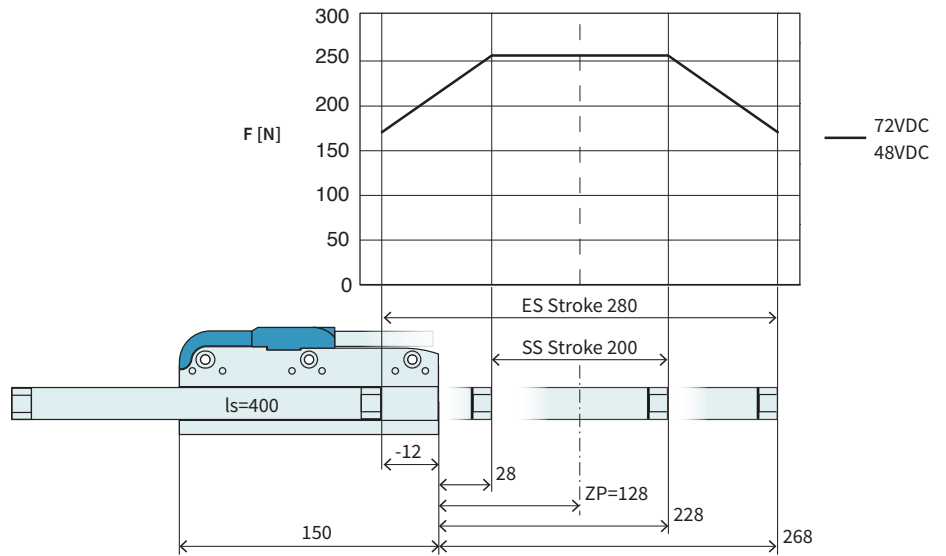


| Item | Description | Item-No. |
|------------------------------|--|---------------------------|
| PS01-37Sx120H-HP-N | Stator HP, Cable -90°, 0°, +90° | 0150-6238 |
| PL01-20x360/300-HP | Slider 'High Performance' | 0150-1507 |
| PL02-20x360/300-HP | Slider 'heavy duty' 'High Performance' | 0150-2164 |
| PL01-20x360/300-HP-L* | Slider 'High Performance L' | 0150-1537 |

* With this slider, the motor specifications above change.

P01-37Sx120H/200x280-HP

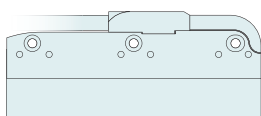
Max. Stroke: 280 mm
Peak Force: 255 N



Dimensions in mm

Technical Data P01-37Sx120H/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) | | 35 / 67 / - (7.8 / 15 / -) |
| Max. Border Force relative | % | | 67 |
| Force Constant | N/A _{pk} (lbf/A _{pk}) | | 10.1 (2.27) |
| Velocity | | | |
| Max. Velocity @ 48VDC | m/s (in/s) | | 4.3 (171.8) |
| Max. Velocity @ 72VDC | m/s (in/s) | | 6.5 (257.6) |
| Position Detection | | | |
| Repeatability | mm (in) | | ±0.05 (±0.002) |
| Linearity | % | | ± 0.3 |
| Electrical Data | | | |
| Max. Current @ 48VDC | A _{pk} | | 25 |
| Max. Current @ 72VDC | A _{pk} | | 25 |
| Max. Cont. Current [Passive cooling / Fan / Fluid] | A _{pk} | | 3.5 / 6.6 / - |
| Thermal Data | | | |
| Max. Winding Temperature (Sensor) | °C | | 120 |
| Thermal Resistance [Passive cooling / Fan / Fluid] | °K/W | | 5.5 / 1.5 / - |
| Thermal Time Constant [Passive cooling / Fan / Fluid] | s | | 2200 / 600 / - |
| Mechanical Data | | | |
| Slider Length | mm (in) | | 400 (16) |
| Slider Mass | g (lb) | | 860 (1.9) |

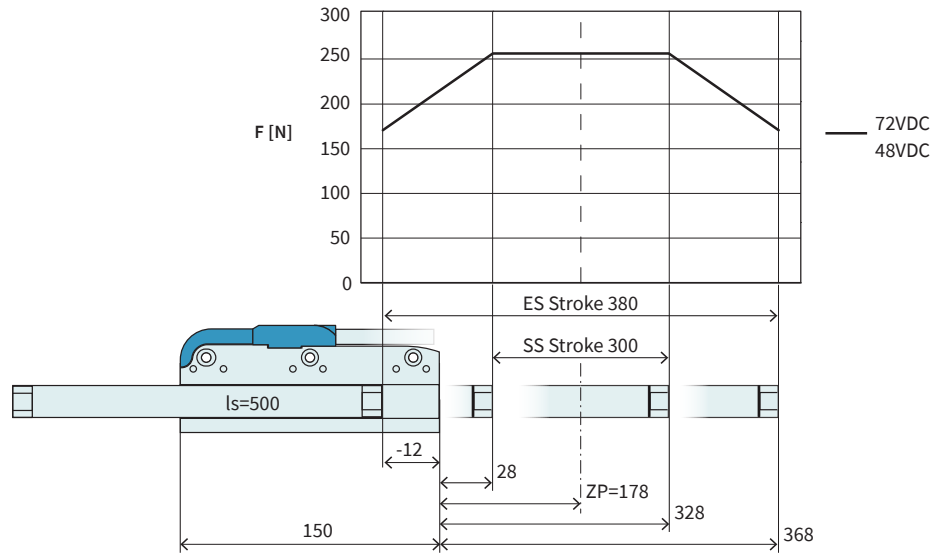


| Item | Description | Item-No. |
|------------------------------|--|---------------------------|
| PS01-37Sx120H-HP-N | Stator HP, Cable -90°, 0°, +90° | Q150-6238 |
| PL01-20x400/340-HP | Slider 'High Performance' | Q150-1508 |
| PL02-20x400/340-HP | Slider 'heavy duty' 'High Performance' | Q150-2165 |
| PL01-20x400/340-HP-L* | Slider 'High Performance L' | Q150-3697 |
| PL01-19x395/320* | Slider 'high clearance' | Q150-1452 |

* With this slider, the motor specifications above change.

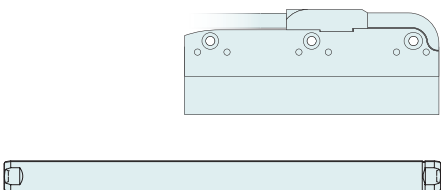
P01-37Sx120H/300x380-HP

Max. Stroke: 380 mm
Peak Force: 255 N



Dimensions in mm

| Technical Data P01-37Sx120H/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) | 35 / 67 / - (7.8 / 15 / -) | |
| Max. Border Force relative | % | 67 | |
| Force Constant | N/A _{pk} (lbf/A _{pk}) | 10.1 (2.27) | |
| Velocity | | | |
| Max. Velocity @ 48VDC | m/s (in/s) | 4.3 (171.8) | |
| Max. Velocity @ 72VDC | m/s (in/s) | 6.5 (257.6) | |
| Position Detection | | | |
| Repeatability | mm (in) | ±0.05 (±0.002) | |
| Linearity | % | ± 0.25 | |
| Electrical Data | | | |
| Max. Current @ 48VDC | A _{pk} | 25 | |
| Max. Current @ 72VDC | A _{pk} | 25 | |
| Max. Cont. Current [Passive cooling / Fan / Fluid] | A _{pk} | 3.5 / 6.6 / - | |
| Thermal Data | | | |
| Max. Winding Temperature (Sensor) | °C | 120 | |
| Thermal Resistance [Passive cooling / Fan / Fluid] | °K/W | 5.5 / 1.5 / - | |
| Thermal Time Constant [Passive cooling / Fan / Fluid] | s | 2200 / 600 / - | |
| Mechanical Data | | | |
| Slider Length | mm (in) | 500 (20) | |
| Slider Mass | g (lb) | 1090 (2.4) | |

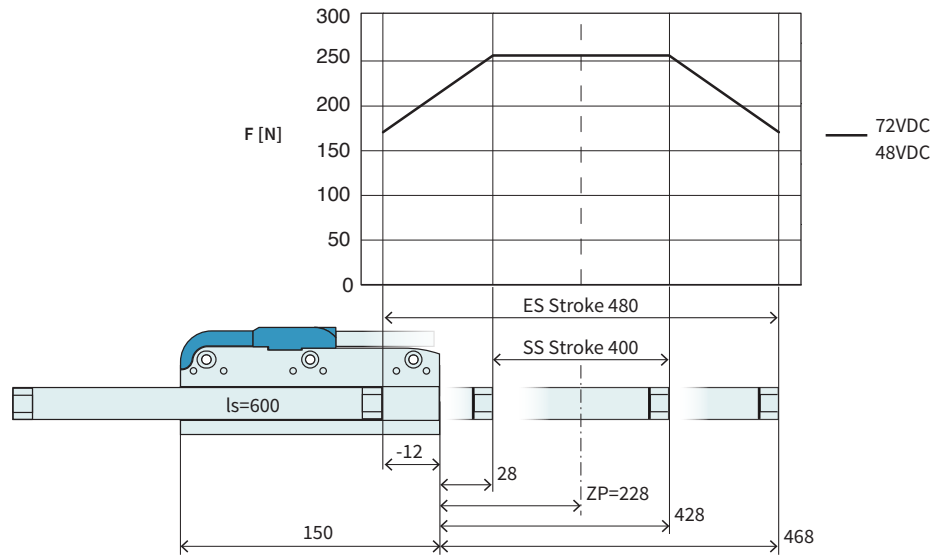


| Item | Description | Item-No. |
|------------------------------|--|---------------------------|
| PS01-37Sx120H-HP-N | Stator HP, Cable -90°, 0°, +90° | 0150-6238 |
| PL01-20x500/440-HP | Slider 'High Performance' | 0150-1509 |
| PL02-20x500/440-HP | Slider 'heavy duty' 'High Performance' | 0150-2166 |
| 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.

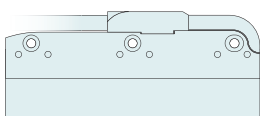
P01-37Sx120H/400x480-HP

Max. Stroke: 480 mm
Peak Force: 255 N



Dimensions in mm

| Technical Data P01-37Sx120H/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) | 35 / 67 / - | (7.8 / 15 / -) |
| Max. Border Force relative | % | 67 | |
| Force Constant | N/A _{pk} (lbf/A _{pk}) | 10.1 | (2.27) |
| Velocity | | | |
| Max. Velocity @ 48VDC | m/s (in/s) | 4.3 | (171.8) |
| Max. Velocity @ 72VDC | m/s (in/s) | 6.5 | (257.6) |
| Position Detection | | | |
| Repeatability | mm (in) | ±0.05 | (±0.002) |
| Linearity | % | ± 0.2 | |
| Electrical Data | | | |
| Max. Current @ 48VDC | A _{pk} | 25 | |
| Max. Current @ 72VDC | A _{pk} | 25 | |
| Max. Cont. Current [Passive cooling / Fan / Fluid] | A _{pk} | 3.5 / 6.6 / - | |
| Thermal Data | | | |
| Max. Winding Temperature (Sensor) | °C | 120 | |
| Thermal Resistance [Passive cooling / Fan / Fluid] | °K/W | 5.5 / 1.5 / - | |
| Thermal Time Constant [Passive cooling / Fan / Fluid] | s | 2200 / 600 / - | |
| Mechanical Data | | | |
| Slider Length | mm (in) | 600 | (24) |
| Slider Mass | g (lb) | 1330 | (2.93) |

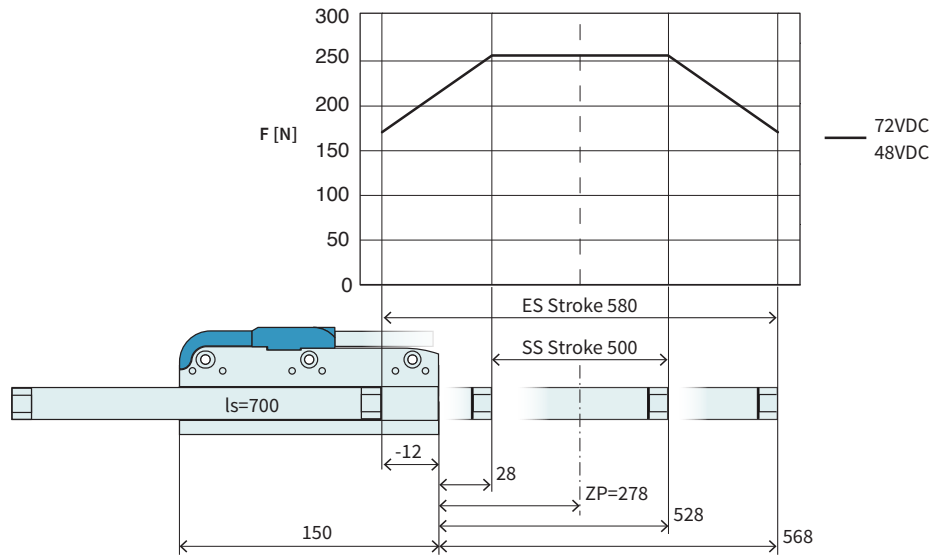


| Item | Description | Item-No. |
|------------------------------|--|---------------------------|
| PS01-37Sx120H-HP-N | Stator HP, Cable -90°, 0°, +90° | Q150-6238 |
| PL01-20x600/540-HP | Slider 'High Performance' | Q150-1510 |
| PL02-20x600/540-HP | Slider 'heavy duty' 'High Performance' | Q150-2167 |
| PL01-20x600/540-HP-L* | Slider 'High Performance L' | Q150-3699 |
| PL01-19x600/520* | Slider 'high clearance' | Q150-1456 |

* With this slider, the motor specifications above change.

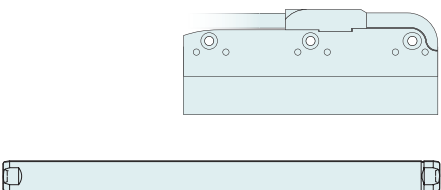
P01-37Sx120H/500x580-HP

Max. Stroke: 580 mm
Peak Force: 255 N



Dimensions in mm

| Technical Data P01-37Sx120H/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) | | 35 / 67 / - (7.8 / 15 / -) | |
| Max. Border Force relative | % | | 67 | |
| Force Constant | N/A _{pk} (lbf/A _{pk}) | | 10.1 (2.27) | |
| Velocity | | | | |
| Max. Velocity @ 48VDC | m/s (in/s) | | 4.3 (171.8) | |
| Max. Velocity @ 72VDC | m/s (in/s) | | 6.5 (257.6) | |
| Position Detection | | | | |
| Repeatability | mm (in) | | ±0.05 (±0.002) | |
| Linearity | % | | ± 0.2 | |
| Electrical Data | | | | |
| Max. Current @ 48VDC | A _{pk} | | 25 | |
| Max. Current @ 72VDC | A _{pk} | | 25 | |
| Max. Cont. Current [Passive cooling / Fan / Fluid] | A _{pk} | | 3.5 / 6.6 / - | |
| Thermal Data | | | | |
| Max. Winding Temperature (Sensor) | °C | | 120 | |
| Thermal Resistance [Passive cooling / Fan / Fluid] | °K/W | | 5.5 / 1.5 / - | |
| Thermal Time Constant [Passive cooling / Fan / Fluid] | s | | 2200 / 600 / - | |
| Mechanical Data | | | | |
| Slider Length | mm (in) | | 700 (28) | |
| Slider Mass | g (lb) | | 1560 (3.43) | |

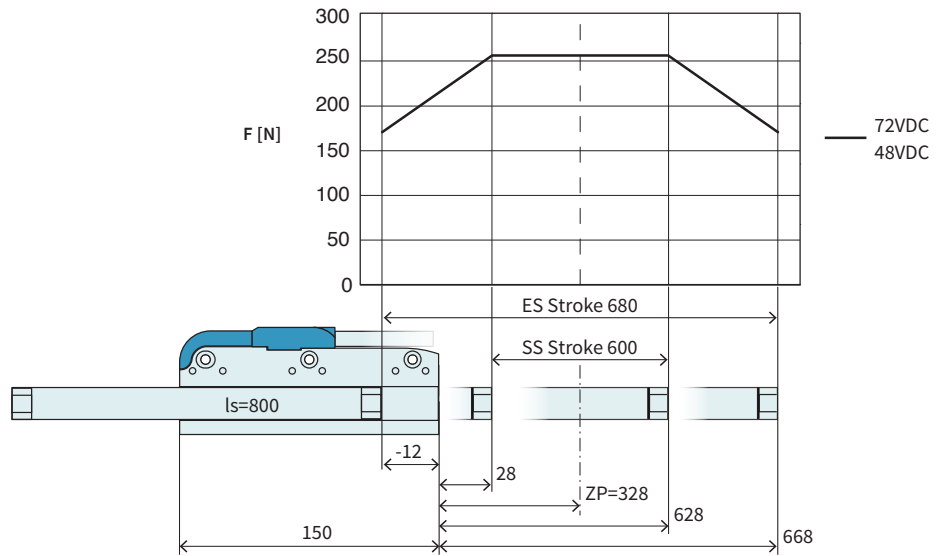


| Item | Description | Item-No. |
|------------------------------|--|---------------------------|
| PS01-37Sx120H-HP-N | Stator HP, Cable -90°, 0°, +90° | 0150-6238 |
| PL01-20x700/640-HP | Slider 'High Performance' | 0150-1511 |
| PL02-20x700/640-HP | Slider 'heavy duty' 'High Performance' | 0150-2168 |
| 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.

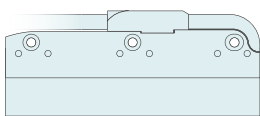
P01-37Sx120H/600x680-HP

Max. Stroke: 680 mm
Peak Force: 255 N



Dimensions in mm

| Technical Data P01-37Sx120H/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) | 35 / 67 / - | (7.8 / 15 / -) |
| Max. Border Force relative | % | 67 | |
| Force Constant | N/A _{pk} (lbf/A _{pk}) | 10.1 | (2.27) |
| Velocity | | | |
| Max. Velocity @ 48VDC | m/s (in/s) | 4.3 | (171.8) |
| Max. Velocity @ 72VDC | m/s (in/s) | 6.5 | (257.6) |
| Position Detection | | | |
| Repeatability | mm (in) | ±0.05 | (±0.002) |
| Linearity | % | ± 0.15 | |
| Electrical Data | | | |
| Max. Current @ 48VDC | A _{pk} | 25 | |
| Max. Current @ 72VDC | A _{pk} | 25 | |
| Max. Cont. Current [Passive cooling / Fan / Fluid] | A _{pk} | 3.5 / 6.6 / - | |
| Thermal Data | | | |
| Max. Winding Temperature (Sensor) | °C | 120 | |
| Thermal Resistance [Passive cooling / Fan / Fluid] | °K/W | 5.5 / 1.5 / - | |
| Thermal Time Constant [Passive cooling / Fan / Fluid] | s | 2200 / 600 / - | |
| Mechanical Data | | | |
| Slider Length | mm (in) | 800 | (31) |
| Slider Mass | g (lb) | 1790 | (3.94) |

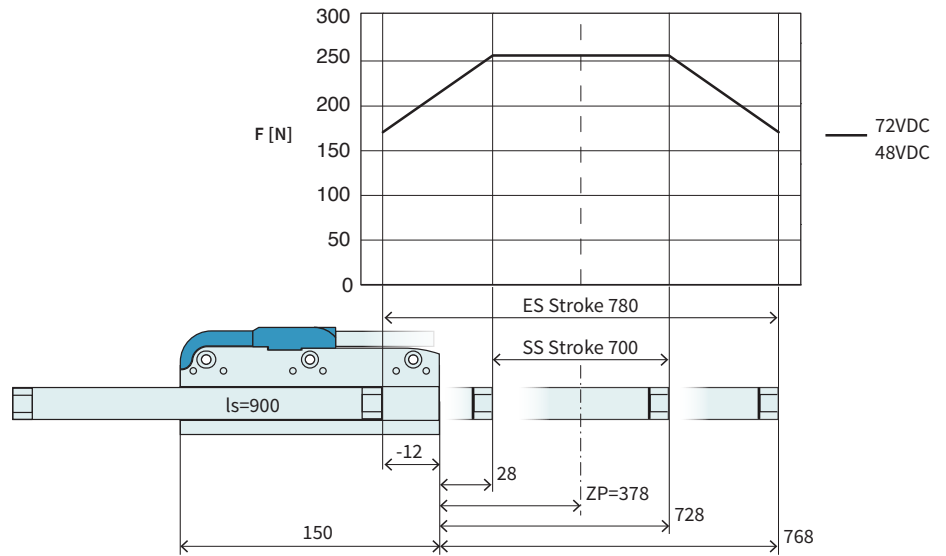


| Item | Description | Item-No. |
|------------------------------|--|---------------------------|
| PS01-37Sx120H-HP-N | Stator HP, Cable -90°, 0°, +90° | Q150-6238 |
| PL01-20x800/740-HP | Slider 'High Performance' | Q150-1512 |
| PL02-20x800/740-HP | Slider 'heavy duty' 'High Performance' | Q150-2169 |
| PL01-20x800/740-HP-L* | Slider 'High Performance L' | Q150-3701 |

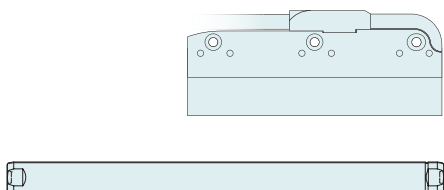
* With this slider, the motor specifications above change.

P01-37Sx120H/700x780-HP

Max. Stroke: 780 mm
Peak Force: 255 N



| Technical Data P01-37Sx120H/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) | | 35 / 67 / - | (7.8 / 15 / -) |
| Max. Border Force relative | % | | 67 | |
| Force Constant | N/A _{pk} (lbf/A _{pk}) | | 10.1 | (2.27) |
| Velocity | | | | |
| Max. Velocity @ 48VDC | m/s (in/s) | | 4.3 | (171.8) |
| Max. Velocity @ 72VDC | m/s (in/s) | | 6.5 | (257.6) |
| Position Detection | | | | |
| Repeatability | mm (in) | | ±0.05 | (±0.002) |
| Linearity | % | | ± 0.15 | |
| Electrical Data | | | | |
| Max. Current @ 48VDC | A _{pk} | | 25 | |
| Max. Current @ 72VDC | A _{pk} | | 25 | |
| Max. Cont. Current [Passive cooling / Fan / Fluid] | A _{pk} | | 3.5 / 6.6 / - | |
| Thermal Data | | | | |
| Max. Winding Temperature (Sensor) | °C | | 120 | |
| Thermal Resistance [Passive cooling / Fan / Fluid] | °K/W | | 5.5 / 1.5 / - | |
| Thermal Time Constant [Passive cooling / Fan / Fluid] | s | | 2200 / 600 / - | |
| Mechanical Data | | | | |
| Slider Length | mm (in) | | 900 | (35) |
| Slider Mass | g (lb) | | 2020 | (4.44) |

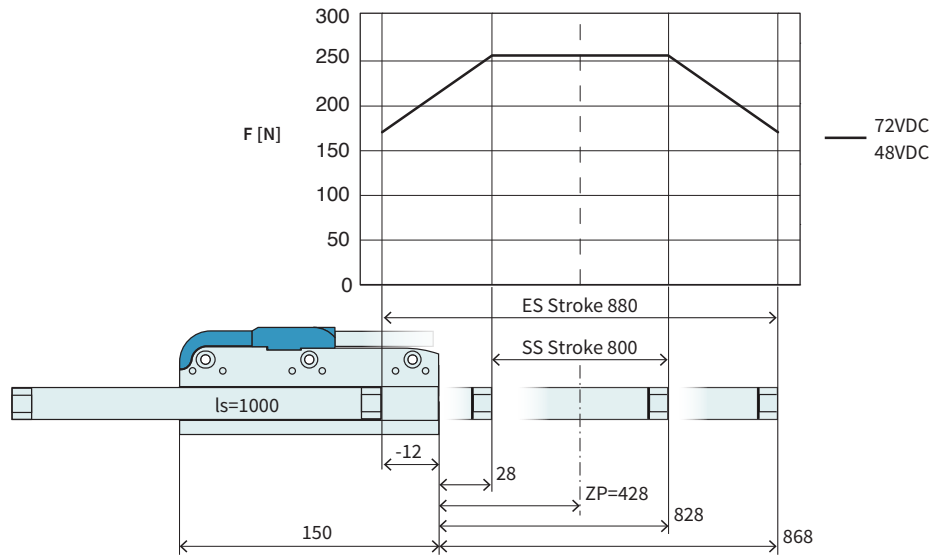


| Item | Description | Item-No. |
|------------------------------|--|---------------------------|
| PS01-37Sx120H-HP-N | Stator HP, Cable -90°, 0°, +90° | 0150-6238 |
| PL01-20x900/840-HP | Slider 'High Performance' | 0150-1513 |
| PL02-20x900/840-HP | Slider 'heavy duty' 'High Performance' | 0150-2170 |
| PL01-20x900/840-HP-L* | Slider 'High Performance L' | 0150-3702 |

* With this slider, the motor specifications above change.

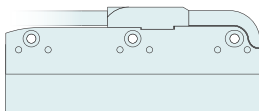
P01-37Sx120H/800x880-HP

Max. Stroke: 880 mm
Peak Force: 255 N



Dimensions in mm

| Technical Data P01-37Sx120H/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) | 35 / 67 / - | (7.8 / 15 / -) |
| Max. Border Force relative | % | 67 | |
| Force Constant | N/A _{pk} (lbf/A _{pk}) | 10.1 | (2.27) |
| Velocity | | | |
| Max. Velocity @ 48VDC | m/s (in/s) | 4.3 | (171.8) |
| Max. Velocity @ 72VDC | m/s (in/s) | 6.5 | (257.6) |
| Position Detection | | | |
| Repeatability | mm (in) | ±0.05 | (±0.002) |
| Linearity | % | ± 0.15 | |
| Electrical Data | | | |
| Max. Current @ 48VDC | A _{pk} | 25 | |
| Max. Current @ 72VDC | A _{pk} | 25 | |
| Max. Cont. Current [Passive cooling / Fan / Fluid] | A _{pk} | 3.5 / 6.6 / - | |
| Thermal Data | | | |
| Max. Winding Temperature (Sensor) | °C | 120 | |
| Thermal Resistance [Passive cooling / Fan / Fluid] | °K/W | 5.5 / 1.5 / - | |
| Thermal Time Constant [Passive cooling / Fan / Fluid] | s | 2200 / 600 / - | |
| Mechanical Data | | | |
| Slider Length | mm (in) | 1000 | (39) |
| Slider Mass | g (lb) | 2230 | (4.91) |

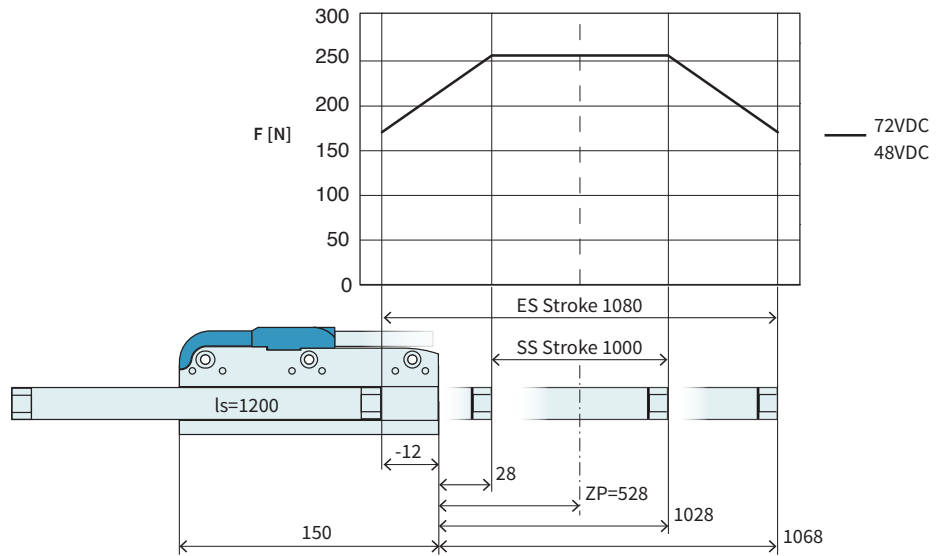


| Item | Description | Item-No. |
|-------------------------------|---------------------------------|---------------------------|
| PS01-37Sx120H-HP-N | Stator HP, Cable -90°, 0°, +90° | 0150-6238 |
| PL01-20x1000/940-HP | Slider 'High Performance' | 0150-1514 |
| PL01-20x1000/940-HP-L* | Slider 'High Performance L' | 0150-3703 |

* With this slider, the motor specifications above change.

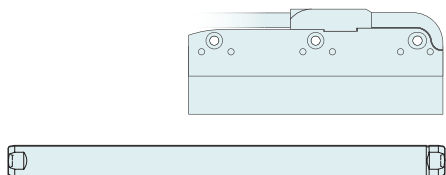
P01-37Sx120H/1000x1080-HP

Max. Stroke: 1080 mm
Peak Force: 255 N



Dimensions in mm

| Technical Data P01-37Sx120H/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) | 35 / 67 / - | (7.8 / 15 / -) |
| Max. Border Force relative | % | | 67 | |
| Force Constant | N/A _{pk} | (lbf/A _{pk}) | 10.1 | (2.27) |
| Velocity | | | | |
| Max. Velocity @ 48VDC | m/s | (in/s) | 4.3 | (171.8) |
| Max. Velocity @ 72VDC | m/s | (in/s) | 6.5 | (257.6) |
| Position Detection | | | | |
| Repeatability | mm | (in) | ±0.05 | (±0.002) |
| Linearity | % | | ± 0.15 | |
| Electrical Data | | | | |
| Max. Current @ 48VDC | A _{pk} | | 25 | |
| Max. Current @ 72VDC | A _{pk} | | 25 | |
| Max. Cont. Current [Passive cooling / Fan / Fluid] | A _{pk} | | 3.5 / 6.6 / - | |
| Thermal Data | | | | |
| Max. Winding Temperature (Sensor) | °C | | 120 | |
| Thermal Resistance [Passive cooling / Fan / Fluid] | °K/W | | 5.5 / 1.5 / - | |
| Thermal Time Constant [Passive cooling / Fan / Fluid] | s | | 2200 / 600 / - | |
| Mechanical Data | | | | |
| Slider Length | mm | (in) | 1200 | (47) |
| Slider Mass | g | (lb) | 2690 | (5.92) |

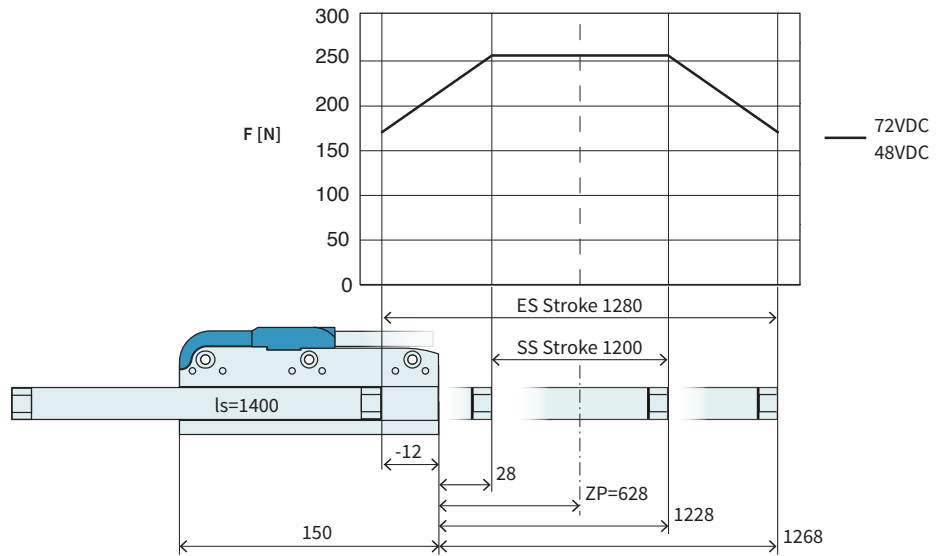


| Item | Description | Item-No. |
|--------------------------------|---------------------------------|---------------------------|
| PS01-37Sx120H-HP-N | Stator HP, Cable -90°, 0°, +90° | 0150-6238 |
| PL01-20x1200/1140-HP | Slider 'High Performance' | 0150-1515 |
| PL01-20x1200/1140-HP-L* | Slider 'High Performance L' | 0150-2510 |

* With this slider, the motor specifications above change.

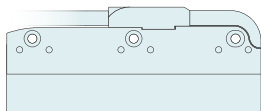
P01-37Sx120H/1200x1280-HP

Max. Stroke: 1280 mm
Peak Force: 255 N



Dimensions in mm

| Technical Data P01-37Sx120H/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) | | 35 / 67 / - (7.8 / 15 / -) |
| Max. Border Force relative | % | | 67 |
| Force Constant | N/A _{pk} (lbf/A _{pk}) | | 10.1 (2.27) |
| Velocity | | | |
| Max. Velocity @ 48VDC | m/s (in/s) | | 4.3 (171.8) |
| Max. Velocity @ 72VDC | m/s (in/s) | | 6.5 (257.6) |
| Position Detection | | | |
| Repeatability | mm (in) | | ±0.05 (±0.002) |
| Linearity | % | | ± 0.15 |
| Electrical Data | | | |
| Max. Current @ 48VDC | A _{pk} | | 25 |
| Max. Current @ 72VDC | A _{pk} | | 25 |
| Max. Cont. Current [Passive cooling / Fan / Fluid] | A _{pk} | | 3.5 / 6.6 / - |
| Thermal Data | | | |
| Max. Winding Temperature (Sensor) | °C | | 120 |
| Thermal Resistance [Passive cooling / Fan / Fluid] | °K/W | | 5.5 / 1.5 / - |
| Thermal Time Constant [Passive cooling / Fan / Fluid] | s | | 2200 / 600 / - |
| Mechanical Data | | | |
| Slider Length | mm (in) | | 1400 (55) |
| Slider Mass | g (lb) | | 3160 (6.95) |

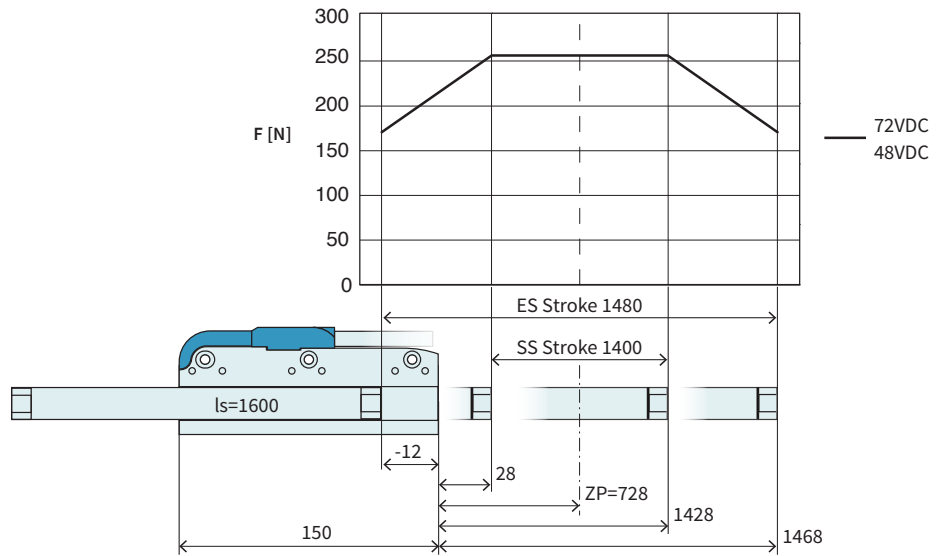


| Item | Description | Item-No. |
|--------------------------------|---------------------------------|---------------------------|
| PS01-37Sx120H-HP-N | Stator HP, Cable -90°, 0°, +90° | 0150-6238 |
| PL01-20x1400/1340-HP | Slider 'High Performance' | 0150-1516 |
| PL01-20x1400/1340-HP-L* | Slider 'High Performance L' | on request |

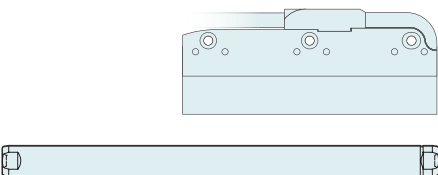
* With this slider, the motor specifications above change.

P01-37Sx120H/1400x1480-HP

Max. Stroke: 1480 mm
Peak Force: 255 N



| Technical Data P01-37Sx120H/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) | 35 / 67 / - | (7.8 / 15 / -) |
| Max. Border Force relative | % | | 67 | |
| Force Constant | N/A _{pk} | (lbf/A _{pk}) | 10.1 | (2.27) |
| Velocity | | | | |
| Max. Velocity @ 48VDC | m/s | (in/s) | 4.3 | (171.8) |
| Max. Velocity @ 72VDC | m/s | (in/s) | 6.5 | (257.6) |
| Position Detection | | | | |
| Repeatability | mm | (in) | ±0.05 | (±0.002) |
| Linearity | % | | ±0.15 | |
| Electrical Data | | | | |
| Max. Current @ 48VDC | A _{pk} | | 25 | |
| Max. Current @ 72VDC | A _{pk} | | 25 | |
| Max. Cont. Current [Passive cooling / Fan / Fluid] | A _{pk} | | 3.5 / 6.6 / - | |
| Thermal Data | | | | |
| Max. Winding Temperature (Sensor) | °C | | 120 | |
| Thermal Resistance [Passive cooling / Fan / Fluid] | °K/W | | 5.5 / 1.5 / - | |
| Thermal Time Constant [Passive cooling / Fan / Fluid] | s | | 2200 / 600 / - | |
| Mechanical Data | | | | |
| Slider Length | mm | (in) | 1600 | (63) |
| Slider Mass | g | (lb) | 3620 | (7.96) |

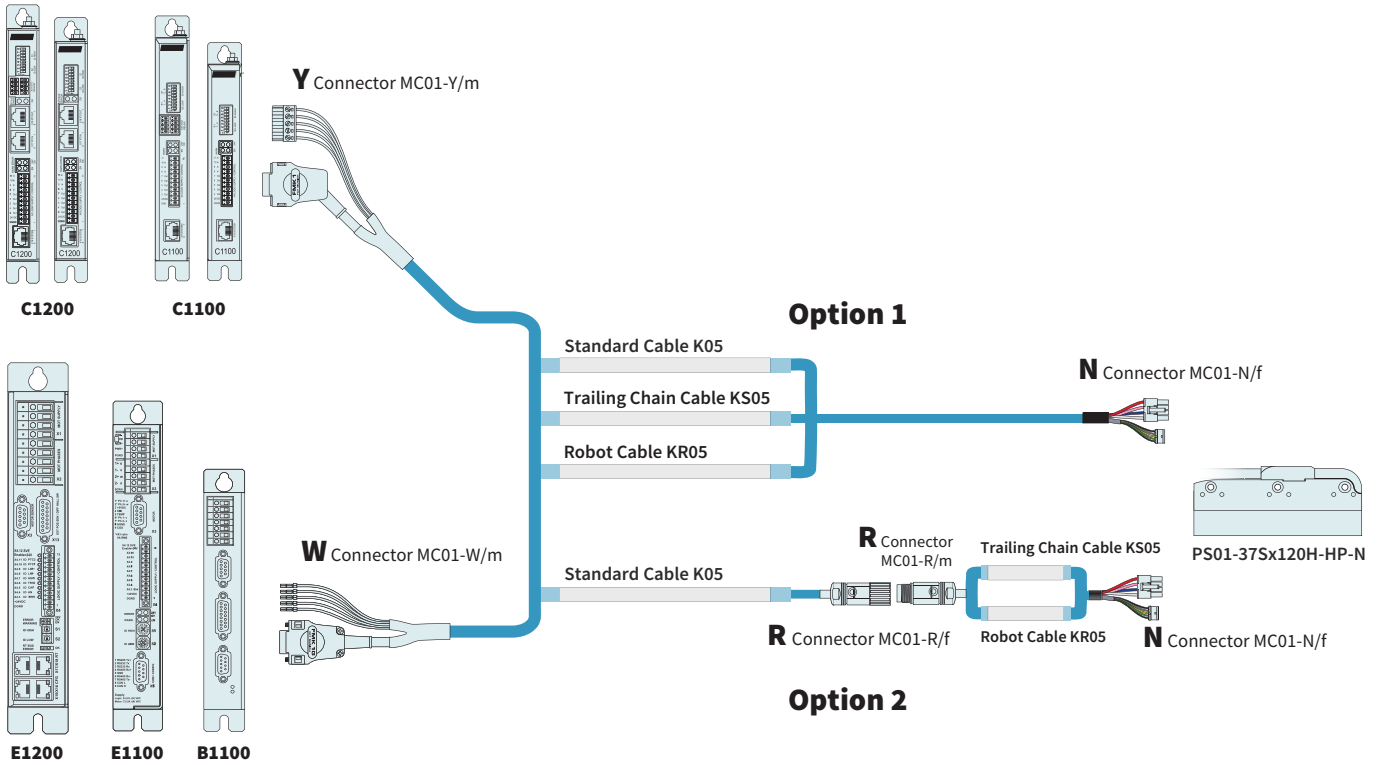


| Item | Description | Item-No. |
|--------------------------------|---------------------------------|---------------------------|
| PS01-37Sx120H-HP-N | Stator HP, Cable -90°, 0°, +90° | 0150-6238 |
| PL01-20x1600/1540-HP | Slider 'High Performance' | 0150-1517 |
| PL01-20x1600/1540-HP-L* | Slider 'High Performance L' | on request |

* With this slider, the motor specifications above change.

Motor Cable

3



ORDERING INFORMATION

| OPTION 1 | | |
|---------------------|---|---------------------------|
| Item | Description | Item-No. |
| K05-W/N- | Motor Cable W/N, Custom length | 0150-3756 |
| K05-Y-Fe/N- | Motor Cable Y/N, Custom length | 0150-3503 |
| KS05-W/N-2 | Trailing Chain Cable W/N, 2 m | 0150-2296 |
| KS05-W/N-4 | Trailing Chain Cable W/N, 4 m | 0150-2297 |
| KS05-W/N-6 | Trailing Chain Cable W/N, 6 m | 0150-2298 |
| KS05-W/N-8 | Trailing Chain Cable W/N, 8 m | 0150-2299 |
| KS05-W/N- | Trailing Chain Cable W/N, Custom length | 0150-3412 |
| KS05-Y/N-2 | Trailing Chain Cable Y/N, 2 m | 0150-2442 |
| KS05-Y/N-4 | Trailing Chain Cable Y/N, 4 m | 0150-2443 |
| KS05-Y/N-6 | Trailing Chain Cable Y/N, 6 m | 0150-2444 |
| KS05-Y/N-8 | Trailing Chain Cable Y/N, 8 m | 0150-2445 |
| KS05-Y-Fe/N- | Trailing Chain Cable Y/N, Custom length | 0150-3509 |
| KR05-W/N- | Robot Cable W/N, Custom length | 0150-3406 |
| KR05-Y-Fe/N- | Robot Cable Y/N, Custom length | 0150-3514 |

OPTION 2

| 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 |
| KS05-R/N- | Trailing Chain Cable R/N, Custom length | 0150-3486 |
| KR05-R/N- | Robot Cable R/N, Custom length | 0150-3757 |

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-N/f | Motor Connector N/f | 0150-3407 |
| 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 |

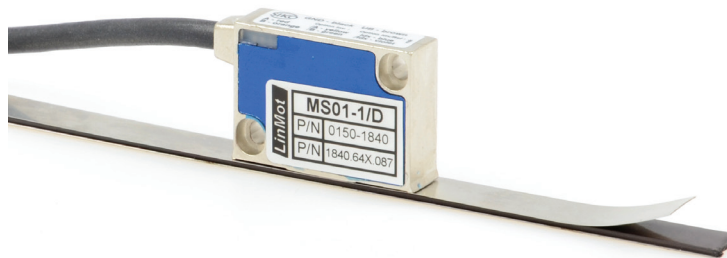
SLIDER MOUNTING



| Item | Description | Item-No. |
|--------------------|---|---------------------------|
| PLF01-20 | Fixed Bearing Set for 19/20 mm sliders | 0150-3083 |
| PLF01-20-SS | Fixed Bearing Set for 19/20 mm sliders, stainless steel | 0150-3296 |
| PLL01-19 | Floating Bearing for 19 mm sliders | 0150-3335 |
| PLL01-20 | Floating Bearing for 20 mm sliders | 0150-3084 |
| PLM01-20-MK | Mounting Kit for 20 mm sliders | 0150-3079 |

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".



| 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".