## Electric Actuator with Integrated Guide Series LTF

| Series | Motor type | Guide type | Mounting orientation | Model | Lead screw Lead mm |  | Page | LJ1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Ground ball screw | Rolled ball screw |  |  |
| LTF | Standard motor | Frame-type linear guide | Horizontal | LTF6 | 610 | (6) 10 | P. 720 | LG1 |
|  |  |  | Horizonal | LTF8 | 1020 | 1020 | P. 732 | LTF |
|  |  |  | Vertical | LTF6 | 610 | 610 | P. 744 |  |
|  |  |  |  | LTF8 | $10{ }^{20}$ | $10{ }^{20}$ | P. 752 | LC1 |
|  | Non-standard motor |  | Horizontal | LTF6 | 610 | 610 | P. 760 |  |
|  |  |  |  | LTF8 | $10{ }^{20}$ | $10{ }^{2} 2$ | P. 780 | LC7 |
|  |  |  | Vertical | LTF6 | (6) 10 | (6) 10 | P. 800 | LC8 |
|  |  |  |  | LTF8 | $1 0 \longdiv { 2 0 }$ | $1 0 \longdiv { 2 0 }$ | P. 812 |  |
|  |  |  |  |  | tions |  | P. 658 | LXF |
|  |  |  |  |  |  |  |  | LXP |
|  |  |  |  |  |  |  | P 825 | LXS |
|  |  |  | Non-stan | Moto | uting |  | P. 826 | LC6ロ |
|  |  |  |  | Def | Data |  | P. 827 | LZ |
|  |  |  |  |  |  |  |  | LC3F2 |
|  |  |  |  |  |  |  |  | X $\square$ |
| Part Number Designations |  |  |  |  |  |  |  | D-■ |



# Standard Motor Horizontal Mount 



## Standard Motor/Horizontal Mount Specification Series LTF6

Specifications

| Standard stroke (mm) |  |  | 100 | 200 | 300 | 400 | 500 | 600 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (kg) |  | 2.2 | 2.7 | 3.2 | 3.7 | 4.2 | 4.7 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) |  | 5 to 40 (No condensation) |  |  |  |  |  |
|  | Work load (kg) |  | 30 |  |  |  |  |  |
|  | Maximum speed (mm/s) |  | 300 |  |  |  |  | 230 |
|  | Positioning repeatability (mm) |  | $\pm 0.02$ |  |  |  |  |  |
| Main parts | Motor |  | AC servomotor (100 W) |  |  |  |  |  |
|  | Encoder |  | Incremental system |  |  |  |  |  |
|  | Lead screw |  | Ground ball screw $\varnothing 10 \mathrm{~mm}, 6 \mathrm{~mm}$ lead |  |  |  |  |  |
|  | Guide |  | Frame-type linear guide |  |  |  |  |  |
|  | Motor/Screw connection |  | With coupling |  |  |  |  |  |
| Switch | Model |  | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |
| Controller | Model | LC1 | LC1-1H2HF $\square$ - $\square \square$ (Refer to page 829 for details.) |  |  |  |  |  |
|  |  | LC8 | LC8-B2H $\square \square-\square \square-\square$ (Refer to page 853 for details.) |  |  |  |  |  |

## Allowable Moment (N.m)

Allowable dynamic moment


[^0]Refer to page 827 for deflection data.
reler to page o<t for denection data.

## Dimensions/LTF6E $\square$ PF, LTF68E $\square$ PF



| Model | Stroke | $\mathbf{n}_{1}$ |
| :---: | :---: | :---: |
| LTF6 $\square \square$ EF-100- $\square \square$ | 100 | 2 |
| LTF6 $\square \square$ PF-200- $\square$ | 200 | 3 |
| LTF6 $\square \square \square$ PF-300- $\square$ | 300 | 4 |
| LTF6 $\square \square \square$ PF-400- $\square$ | 400 | 5 |
| LTF6 $\square \square$ PF-500- $\square \square$ | 500 | 6 |
| LTF6 $\square \square$ PF-600- $\square \square$ | 600 | 7 |

* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to page 825 for mounting.


## Positioning Time Guide

|  |  | Positioning time (sec.) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | ---: | ---: | ---: | :---: |
| Positioning distance $(\mathrm{mm})$ |  |  | 1 | 10 | 100 | 300 |  |
| Speed <br> $(\mathrm{mm} / \mathrm{s})$ | 10 | 0.5 | 1.5 | 10.5 | 30.5 | 60.5 |  |
|  | 100 | 0.5 | 0.6 | 1.5 | 3.5 | 6.5 |  |
|  | 150 | 0.5 | 0.6 | 1.2 | 2.5 | 4.5 |  |
|  | 300 | 0.5 | 0.6 | 0.9 | 1.6 | 2.6 |  |

* Values will vary slightly depending on the operating conditions.


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time ( 0.4 sec .)
Maximum acceleration: $3000 \mathrm{~mm} / \mathrm{s}^{2}$

# Standard Motor Horizontal Mount <br> Series LTF6 

Motor Output Ground Ball Screw
100 w .0 .10 mm 10 mm tead

How to Order


## Series LTF6

Specifications

| Standard stroke (mm) |  |  | 100 | 200 | 300 | 400 | 500 | 600 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (kg) |  | 2.2 | 2.7 | 3.2 | 3.7 | 4.2 | 4.7 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) |  | 5 to 40 (No condensation) |  |  |  |  |  |
|  | Work load (kg) |  | 15 |  |  |  |  |  |
|  | Maximum speed (mm/s) |  | 500 |  |  |  |  | 390 |
|  | Positioning repeatability (mm) |  | $\pm 0.02$ |  |  |  |  |  |
| Main parts | Motor |  | AC servomotor (100 W) |  |  |  |  |  |
|  | Encoder |  | Incremental system |  |  |  |  |  |
|  | Lead screw |  | Ground ball screw $\varnothing 10 \mathrm{~mm}, 10 \mathrm{~mm}$ lead |  |  |  |  |  |
|  | Guide |  | Frame-type linear guide |  |  |  |  |  |
|  | Motor/Screw connection |  | With coupling |  |  |  |  |  |
| Switch | Model |  | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |
| Controller | Model | LC1 | LC1-1H2HH $\square-\square \square$ (Refer to page 829 for details.) |  |  |  |  |  |
|  |  | LC8 | LC8-B2H $\square \square-\square \square-\square$ (Refer to page 853 for details.) |  |  |  |  |  |

## Allowable Moment (N.m)

## Allowable dynamic moment


$\mathbf{m}$ : Transfer load (kg) Me: Allowable dynamic moment
a : Work piece acceleration $\left(\mathrm{mm} / \mathrm{s}^{2}\right) \mathbf{L}$ : Overhang to work piece center of gravity $(\mathrm{mm})$
Refer to page 827 for deflection data.

## Standard Motor/Horizontal Mount Specification Series LTF6

Dimensions/LTF6E $\square$ PH, LTF68E $\square$ PH


## Positioning Time Guide

|  |  |  | Positioning time (sec.) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | ---: | ---: | :---: | :---: |
| Positioning distance (mm) |  |  | 1 | 10 | 100 | 300 |  |  |
| Speed <br> $(\mathrm{mm} / \mathrm{s})$ | 10 | 0.5 | 1.5 | 10.5 | 30.5 | 60.5 |  |  |
|  | 100 | 0.5 | 0.6 | 1.5 | 3.5 | 6.5 |  |  |
|  | 250 | 0.5 | 0.6 | 0.9 | 1.7 | 2.9 |  |  |
|  | 500 | 0.5 | 0.6 | 0.8 | 1.2 | 1.8 |  |  |

* Values will vary slightly depending on the operating conditions.


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time ( 0.4 sec .)
Maximum acceleration: $3000 \mathrm{~mm} / \mathrm{s}^{2}$

# Standard Motor Horizontal Mount 



Cover specification

## Standard Motor/Horizontal Mount Specification Series LTF6

Specifications

| Standard stroke (mm) |  |  | 100 | 200 | 300 | 400 | 500 | 600 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (kg) |  | 2.2 | 2.7 | 3.2 | 3.7 | 4.2 | 4.7 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) |  | 5 to 40 (No condensation) |  |  |  |  |  |
|  | Work load (kg) |  | 30 |  |  |  |  |  |
|  | Maximum speed (mm/s) |  | 300 |  |  |  |  | 230 |
|  | Positioning repeatability (mm) |  | $\pm 0.05$ |  |  |  |  |  |
| Main parts | Motor |  | AC servomotor (100 W) |  |  |  |  |  |
|  | Encoder |  | Incremental system |  |  |  |  |  |
|  | Lead screw |  | Rolled ball screw $\varnothing 10 \mathrm{~mm}, 6 \mathrm{~mm}$ lead |  |  |  |  |  |
|  | Guide |  | Frame-type linear guide |  |  |  |  |  |
|  | Motor/Screw connection |  | With coupling |  |  |  |  |  |
| Switch | Model |  | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |
| Controller | Model | LC1 | LC1-1H2HF $\square$ - $\square \square$ (Refer to page 829 for details.) |  |  |  |  |  |
|  |  | LC8 | LC8-B2H $\square \square-\square \square-\square$ (Refer to page 853 for details.) |  |  |  |  |  |

## Allowable Moment (N.m)

Allowable dynamic moment


[^1]Refer to page 827 for deflection data.

$$
\text { eter to page } 82 / \text { tor detlection data. }
$$

## Dimensions/LTF6E $\square$ NF, LTF68E $\square$ NF



| Model | Stroke | $\mathbf{n}_{1}$ |
| :---: | :---: | :---: |
| LTF6 $\square \square \square$ NF-100- $\square \square$ | 100 | 2 |
| LTF6 $\square$ E $\square$ NF-200- $\square$ | 200 | 3 |
| LTF6 $\square$ E $\square$ NF-300- $\square$ | 300 | 4 |
| LTF6 $\square$ E $\square$ NF-400- $\square \square$ | 400 | 5 |
| LTF6 $\square \square$ NF-500- $\square$ | 500 | 6 |
| LTF6 $\square$ E $\square$ NF-600- $\square \square$ | 600 | 7 |

* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to page 825 for mounting.


## Positioning Time Guide

|  |  |  | Positioning time (sec.) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | ---: | ---: | ---: | :---: | :---: |
| Positioning distance (mm) |  |  | 1 | 10 | 100 | 300 |  |  |
| Speed <br> $(\mathrm{mm} / \mathrm{s})$ | 10 | 0.5 | 1.5 | 10.5 | 30.5 | 600 |  |  |
|  | 100 | 0.5 | 0.6 | 1.5 | 3.5 | 6.5 |  |  |
|  | 150 | 0.5 | 0.6 | 1.2 | 2.5 | 4.5 |  |  |
|  | 300 | 0.5 | 0.6 | 0.9 | 1.6 | 2.6 |  |  |

* Values will vary slightly depending on the operating conditions.


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time ( 0.4 sec .)
Maximum acceleration: $3000 \mathrm{~mm} / \mathrm{s}^{2}$

# Standard Motor Horizontal Mount <br> Series LTF6 



## Series LTF6

Specifications

| Standard stroke (mm) |  |  | 100 | 200 | 300 | 400 | 500 | 600 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (kg) |  | 2.2 | 2.7 | 3.2 | 3.7 | 4.2 | 4.7 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) |  | 5 to 40 (No condensation) |  |  |  |  |  |
|  | Work load (kg) |  | 15 |  |  |  |  |  |
|  | Maximum speed (mm/s) |  | 500 |  |  |  |  | 390 |
|  | Positioning repeatability (mm) |  | $\pm 0.05$ |  |  |  |  |  |
| Main parts | Motor |  | AC servomotor (100 W) |  |  |  |  |  |
|  | Encoder |  | Incremental system |  |  |  |  |  |
|  | Lead screw |  | Rolled ball screw $\varnothing 10 \mathrm{~mm}, 10 \mathrm{~mm}$ lead |  |  |  |  |  |
|  | Guide |  | Frame-type linear guide |  |  |  |  |  |
|  | Motor/Screw connection |  | With coupling |  |  |  |  |  |
| Switch | Model |  | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |
| Controller | Model | LC1 | LC1-1H2HH $\square-\square \square$ (Refer to page 829 for details.) |  |  |  |  |  |
|  |  | LC8 | LC8-B2H $\square \square-\square \square-\square$ (Refer to page 853 for details.) |  |  |  |  |  |

## Allowable Moment (N.m)

Allowable dynamic moment

$\mathbf{m}$ : Transfer load (kg) Me: Allowable dynamic moment
a : Work piece acceleration $\left(\mathrm{mm} / \mathrm{s}^{2}\right) \mathbf{L}$ : Overhang to work piece center of gravity $(\mathrm{mm})$
Refer to page 827 for deflection data.

## Standard Motor/Horizontal Mount Specification Series LTF6

Dimensions/LTF6E $\square$ NH, LTF68E $\square$ NH


## Positioning Time Guide

|  |  |  | Positioning time (sec.) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | ---: | ---: | :---: | :---: |
| Positioning distance (mm) |  |  | 1 | 10 | 100 | 300 |  |  |
| Speed <br> $(\mathrm{mm} / \mathrm{s})$ | 10 | 0.5 | 1.5 | 10.5 | 30.5 | 60.5 |  |  |
|  | 100 | 0.5 | 0.6 | 1.5 | 3.5 | 6.5 |  |  |
|  | 250 | 0.5 | 0.6 | 0.9 | 1.7 | 2.9 |  |  |
|  | 500 | 0.5 | 0.6 | 0.8 | 1.2 | 1.8 |  |  |

* Values will vary slightly depending on the operating conditions.


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time ( 0.4 sec .)
Maximum acceleration: $3000 \mathrm{~mm} / \mathrm{s}^{2}$

# Standard Motor Horizontal Mount 



## Standard Motor/Horizontal Mount Specification Series LTF8

Specifications

| Standard stroke (mm) |  |  | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (kg) |  | 4.6 | 5.5 | 6.3 | 7.1 | 8.0 | 8.8 | 9.6 | 10.5 | 11.3 | 12.1 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) |  | 5 to 40 (No condensation) |  |  |  |  |  |  |  |  |  |
|  | Work load (kg) |  | 50 |  |  |  |  |  |  |  |  |  |
|  | Maximum speed (mm/s) |  | 500 |  |  |  |  |  | 440 | 350 | 290 | 240 |
|  | Positioning repeatability (mm) |  | $\pm 0.02$ |  |  |  |  |  |  |  |  |  |
| Main parts | Motor |  | AC servomotor (200 W) |  |  |  |  |  |  |  |  |  |
|  | Encoder |  | Incremental system |  |  |  |  |  |  |  |  |  |
|  | Lead screw |  | Ground ball screw $\varnothing 15 \mathrm{~mm}, 10 \mathrm{~mm}$ lead |  |  |  |  |  |  |  |  |  |
|  | Guide |  | Frame-type linear guide |  |  |  |  |  |  |  |  |  |
|  | Motor/Screw connection |  | With coupling |  |  |  |  |  |  |  |  |  |
| Switch | Model |  | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |  |  |  |  |
| Controller | Model | LC1 | LC1-1H3HH $\square-\square \square$ (Refer to page 829 for details.) |  |  |  |  |  |  |  |  |  |
|  |  | LC8 | LC8-B3H $\square \square-\square \square-\square$ (Refer to page 853 for details.) |  |  |  |  |  |  |  |  |  |

## Allowable Moment (N.m)

[^2]Refer to page 827 for deflection data.

Dimensions/LTF8F $\square$ PH, LTF88F $\square$ PH


| Model | Stroke | n1 |
| :---: | :---: | :---: |
| LTF8 $\square$ F $\square$ PH- 100- $\square \square$ | 100 | 2 |
| LTF8 $\square$ F $\square$ PH- 200- $\square \square$ | 200 | 3 |
| LTF8 $\square$ F $\square$ PH- 300- $\square \square$ | 300 | 4 |
| LTF8 $\square$ F $\square$ PH- 400- $\square \square$ | 400 | 5 |
| LTF8 $\square$ F $\square$ PH- 500- $\square \square$ | 500 | 6 |
| LTF8 $\square$ F $\square$ PH- 600- $\square \square$ | 600 | 7 |
| LTF8 $\square$ F $\square$ PH- 700- $\square \square$ | 700 | 8 |
| LTF8 $\square$ F $\square$ PH- 800- $\square \square$ | 800 | 9 |
| LTF8 $\square$ F $\square$ PH- 900- $\square \square$ | 900 | 10 |
| LTF8 $\square$ F $\square$ PH-1000- $\square \square$ | 1000 | 11 |

* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to page 825 for mounting.


## Positioning Time Guide

|  |  |  | Positioning time (sec.) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | ---: | ---: | :---: | :---: |
| Positioning distance (mm) | 1 | 10 | 100 | 500 | 1000 |  |  |  |
|  | 10 | 0.6 | 1.6 | 10.6 | 50.6 | 100.6 |  |  |
|  | 100 | 0.6 | 0.7 | 1.6 | 5.6 | 10.6 |  |  |
|  | 250 | 0.6 | 0.7 | 1.0 | 2.6 | 4.6 |  |  |
|  | 500 | 0.6 | 0.7 | 0.9 | 1.7 | 2.7 |  |  |

* Values will vary slightly depending on the operating conditions.


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time ( 0.5 sec .)
Maximum acceleration: $3000 \mathrm{~mm} / \mathrm{s}^{2}$

# Standard Motor Horizontal Mount 



## Series LTF8

Specifications

| Standard stroke (mm) |  |  | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (kg) |  | 4.6 | 5.5 | 6.3 | 7.1 | 8.0 | 8.8 | 9.6 | 10.5 | 11.3 | 12.1 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) |  | 5 to 40 (No condensation) |  |  |  |  |  |  |  |  |  |
|  | Work load (kg) |  | 25 |  |  |  |  |  |  |  |  |  |
|  | Maximum speed (mm/s) |  | 1000 |  |  |  |  |  | 890 | 710 | 580 | 480 |
|  | Positioning repeatability (mm) |  | $\pm 0.02$ |  |  |  |  |  |  |  |  |  |
| Main parts | Motor |  | AC servomotor (200 W) |  |  |  |  |  |  |  |  |  |
|  | Encoder |  | Incremental system |  |  |  |  |  |  |  |  |  |
|  | Lead screw |  | Ground ball screw $\varnothing 15 \mathrm{~mm}, 20 \mathrm{~mm}$ lead |  |  |  |  |  |  |  |  |  |
|  | Guide |  | Frame-type linear guide |  |  |  |  |  |  |  |  |  |
|  | Motor/Screw connection |  | With coupling |  |  |  |  |  |  |  |  |  |
| Switch | Model |  | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |  |  |  |  |
| Controller | Model | LC1 | LC1-1H3HL $\square-\square \square$ (Refer to page 829 for details.) |  |  |  |  |  |  |  |  |  |
|  |  | LC8 | LC8-B3H $\square \square-\square \square-\square$ (Refer to page 853 for details.) |  |  |  |  |  |  |  |  |  |

## Allowable Moment (N.m)

Allowable dynamic moment


Dimensions/LTF8F $\square$ PL, LTF88F $\square$ PL


| Model | Stroke | $\mathbf{n}_{\mathbf{1}}$ |
| :---: | :---: | :---: |
| LTF8 $\square$ F $\square$ PL- 100- $\square \square$ | 100 | 2 |
| LTF8 $\square$ FPL- 200- $\square \square$ | 200 | 3 |
| LTF8 $\square$ F $\square$ PL- 300- $\square \square$ | 300 | 4 |
| LTF8 $\square$ F $\square$ PL- 400- $\square \square$ | 400 | 5 |
| LTF8 $\square$ F $\square$ PL- 500- $\square \square$ | 500 | 6 |
| LTF8 $\square$ FPL- 600- $\square \square$ | 600 | 7 |
| LTF8 $\square$ F $\square$ PL- 700- $\square \square$ | 700 | 8 |
| LTF8 $\square$ F $\square$ PL- 800- $\square \square$ | 800 | 9 |
| LTF8 $\square$ FPR- 900- $\square \square$ | 900 | 10 |
| LTF8 $\square$ F $\square$ PL-1000- $\square \square$ | 1000 | 11 |

* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to page 825 for mounting.


## Positioning Time Guide

|  |  | Positioning time (sec.) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | ---: | ---: | :---: |
| Positioning distance (mm) |  |  |  | 1 | 10 | 100 |  |
| 500 | 1000 |  |  |  |  |  |  |
| Speed <br> $(\mathrm{mm} / \mathrm{s})$ | 10 | 0.6 | 1.6 | 10.6 | 50.6 | 100.6 |  |
|  | 100 | 0.6 | 0.7 | 1.6 | 5.6 | 10.6 |  |
|  | 500 | 0.6 | 0.7 | 0.9 | 1.7 | 2.7 |  |
|  | 1000 | 0.6 | 0.7 | 0.9 | 1.4 | 1.9 |  |

* Values will vary slightly depending on the operating conditions.


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time ( 0.5 sec .)
Maximum acceleration: $3000 \mathrm{~mm} / \mathrm{s}^{2}$

# Standard Motor Horizontal Mount Series LTF8 

How to Order


## Standard Motor/Horizontal Mount Specification Series LTF8

Specifications

| Standard stroke (mm) |  |  | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (kg) |  | 4.6 | 5.5 | 6.3 | 7.1 | 8.0 | 8.8 | 9.6 | 10.5 | 11.3 | 12.1 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) |  | 5 to 40 (No condensation) |  |  |  |  |  |  |  |  |  |
|  | Work load (kg) |  | 50 |  |  |  |  |  |  |  |  |  |
|  | Maximum speed (mm/s) |  | 500 |  |  |  |  |  | 440 | 350 | 290 | 240 |
|  | Positioning repeatability (mm) |  | $\pm 0.05$ |  |  |  |  |  |  |  |  |  |
| Main parts | Motor |  | AC servomotor (200 W) |  |  |  |  |  |  |  |  |  |
|  | Encoder |  | Incremental system |  |  |  |  |  |  |  |  |  |
|  | Lead screw |  | Rolled ball screw $\varnothing 15 \mathrm{~mm}, 10 \mathrm{~mm}$ lead |  |  |  |  |  |  |  |  |  |
|  | Guide |  | Frame-type linear guide |  |  |  |  |  |  |  |  |  |
|  | Motor/Screw connection |  | With coupling |  |  |  |  |  |  |  |  |  |
| Switch | Model |  | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |  |  |  |  |
| Controller | Model | LC1 | LC1-1H3HH $\square-\square \square$ (Refer to page 829 for details.) |  |  |  |  |  |  |  |  |  |
|  |  | LC8 | LC8-B3H $\square \square-\square \square-\square$ (Refer to page 853 for details.) |  |  |  |  |  |  |  |  |  |

## Allowable Moment (N.m)



[^3]Refer to page 827 for deflection data.

Dimensions/LTF8F $\square$ NH, LTF88F $\square$ NH


| Model | Stroke | $\mathbf{n}_{1}$ |
| :---: | :---: | :---: |
| LTF8 $\square$ F $\square$ NH- 100- $\square \square$ | 100 | 2 |
| LTF8 $\square$ F $\square$ NH- 200- $\square \square$ | 200 | 3 |
| LTF8 $\square$ F $\square$ NH- 300- $\square \square$ | 300 | 4 |
| LTF8 $\square$ F $\square$ NH- 400- $\square \square$ | 400 | 5 |
| LTF8 $\square$ F $\square$ NH- 500- $\square$ |  |  |
| LTF8 $\square$ F $\square$ NH- 600- $\square \square$ | 500 | 6 |
| LTF8 $\square$ F $\square$ NH- 700- $\square \square$ | 600 | 7 |
| LTF8 $\square$ F $\square$ NH- 800- $\square$ | 700 | 8 |
| LTF8 $\square$ F $\square$ NH- 900- $\square \square$ | 800 | 9 |
| LTF8 $\square$ F $\square$ NH-1000- $\square \square$ | 900 | 10 |

* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to page 825 for mounting.


## Positioning Time Guide

|  |  | Positioning time (sec.) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | ---: | :---: |
| Positioning distance (mm) |  | 1 | 10 | 100 | 500 | 1000 |  |
| Speed <br> $(\mathrm{mm} / \mathrm{s})$ | 10 | 0.6 | 1.6 | 10.6 | 50.6 | 100.6 |  |
|  | 100 | 0.6 | 0.7 | 1.6 | 5.6 | 10.6 |  |
|  | 250 | 0.6 | 0.7 | 1.0 | 2.6 | 4.6 |  |
|  | 500 | 0.6 | 0.7 | 0.9 | 1.7 | 2.7 |  |

* Values will vary slightly depending on the operating conditions.


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time ( 0.5 sec .)
Maximum acceleration: $3000 \mathrm{~mm} / \mathrm{s}^{2}$

# Standard Motor Horizontal Mount 



## Series LTF8

Specifications

| Standard stroke (mm) |  |  | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (kg) |  | 4.6 | 5.5 | 6.3 | 7.1 | 8.0 | 8.8 | 9.6 | 10.5 | 11.3 | 12.1 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) |  | 5 to 40 (No condensation) |  |  |  |  |  |  |  |  |  |
|  | Work load (kg) |  | 25 |  |  |  |  |  |  |  |  |  |
|  | Maximum speed (mm/s) |  | 1000 |  |  |  |  |  | 890 | 710 | 580 | 480 |
|  | Positioning repeatability (mm) |  | $\pm 0.05$ |  |  |  |  |  |  |  |  |  |
| Main parts | Motor |  | AC servomotor (200 W) |  |  |  |  |  |  |  |  |  |
|  | Encoder |  | Incremental system |  |  |  |  |  |  |  |  |  |
|  | Lead screw |  | Rolled ball screw $\varnothing 15 \mathrm{~mm}, 20 \mathrm{~mm}$ lead |  |  |  |  |  |  |  |  |  |
|  | Guide |  | Frame-type linear guide |  |  |  |  |  |  |  |  |  |
|  | Motor/Screw connection |  | With coupling |  |  |  |  |  |  |  |  |  |
| Switch | Model |  | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |  |  |  |  |
| Controller | Model | LC1 | LC1-1H3HL $\square-\square \square$ (Refer to page 829 for details.) |  |  |  |  |  |  |  |  |  |
|  |  | LC8 | LC8-B3H $\square \square-\square \square-\square$ (Refer to page 853 for details.) |  |  |  |  |  |  |  |  |  |

## Allowable Moment (N.m)

Allowable dynamic moment


Dimensions/LTF8F $\square$ NL, LTF88F $\square$ NL


| Model | Stroke | $\mathrm{n}_{1}$ |
| :---: | :---: | :---: |
| LTF8 $\square$ F $\square$ NL- 100- $\square \square$ | 100 | 2 |
| LTF8 $\square$ FDNL- 200-■ | 200 | 3 |
| LTF8 $\square$ F $\square$ NL- 300-■ | 300 | 4 |
| LTF8 $\square$ F $\square$ NL- 400-■ $\square$ | 400 | 5 |
| LTF8 $\square$ F]NL- 500-] | 500 | 6 |
| LTF8 $\square$ F $\square$ NL- $600-\square \square$ | 600 | 7 |
| LTF8 $\square$ F $\square$ NL- 700-■ $\square$ | 700 | 8 |
| LTF8 $\square$ F $\square$ NL- 800- $\square \square$ | 800 | 9 |
| LTF8 $\square$ F $\square$ NL- 900- $\square \square$ | 900 | 10 |
| LTF8 $\square$ F $\square$ NL-1000- $\square \square$ | 1000 | 11 |

* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to page 825 for mounting.


## Positioning Time Guide

|  |  | Positioning time (sec.) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | ---: | ---: | :---: |
| Positioning distance (mm) |  |  |  | 1 | 10 | 100 |  |
| 500 | 1000 |  |  |  |  |  |  |
| Speed <br> $(\mathrm{mm} / \mathrm{s})$ | 10 | 0.6 | 1.6 | 10.6 | 50.6 | 100.6 |  |
|  | 100 | 0.6 | 0.7 | 1.6 | 5.6 | 10.6 |  |
|  | 500 | 0.6 | 0.7 | 0.9 | 1.7 | 2.7 |  |
|  | 1000 | 0.6 | 0.7 | 0.9 | 1.4 | 1.9 |  |

* Values will vary slightly depending on the operating conditions.


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time ( 0.5 sec .)
Maximum acceleration: $3000 \mathrm{~mm} / \mathrm{s}^{2}$

# Standard Motor Vertical Mount 

## Series LTF6

How to Order



| $\mathbf{2}$ | 2 m |
| :--- | :--- |
| $\mathbf{3}$ | 3 m |
| $\mathbf{4}$ | 4 m |
| $\mathbf{5}$ | 5 m |



Right entry

Made to order specifications (For details, refer to page 999)

Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (kg) | 2.4 | 2.9 | 3.4 | 3.9 | 4.4 | 4.9 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |
|  | Work load (kg) | 6 |  |  |  |  |  |
|  | Maximum speed (mm/s) | 300 |  |  |  |  | 230 |
|  | Positioning repeatability (mm) | $\pm 0.02$ |  |  |  |  |  |
| Main parts | Motor | AC servomotor (100 W) with brake |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |
|  | Lead screw | Ground ball screw $\varnothing 10 \mathrm{~mm}, 6 \mathrm{~mm}$ lead |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |
| Switch | Model | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |
| Controller | Model | LC1-1H2VF $\square$ - $\square \square$ (Refer to page 829 for details.) |  |  |  |  |  |
| Regenerative absorption unit | Model | LC7R-K1 $\square$ A $\square \square$ (Refer to page 846 for details.) |  |  |  |  |  |

Note) Be sure to use a regenerative absorption unit with this product.

## Allowable Moment ( $\mathrm{N} \cdot \mathrm{m}$ )

## Allowable dynamic moment


m : Transfer load (kg)
Me: Allowable dynamic moment
a : Work piece acceleration $\left(\mathrm{mm} / \mathrm{s}^{2}\right) \quad \mathbf{L}$ : Overhang to work piece center of gravity ( mm )
Refer to page 827 for deflection data.

## Standard Motor/Vertical Mount Specification Series LTF6

## Dimensions/LTF6E $\square$ PF



| Model | Stroke | $\mathbf{n}_{1}$ |
| :---: | :---: | :---: |
| LTF6E $\square$ PF-100K- $\square \square$ | 100 | 2 |
| LTF6E $\square$ PF-200K- $\square$ | 200 | 3 |
| LTF6E $\square$ PF-300K- $\square$ | 300 | 4 |
| LTF6E $\square$ PF-400K- $\square$ | 400 | 5 |
| LTF6E $\square$ PF-500K- $\square$ | 500 | 6 |
| LTF6E $\square$ PF-600K- $\square \square$ | 600 | 7 |

* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to page 825 for mounting.


## Positioning Time Guide

|  |  | Positioning time (sec.) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | ---: | ---: | :---: |
| Positioning distance (mm) | 1 | 10 | 100 | 300 | 600 |  |  |
| Speed <br> $(\mathrm{mm} / \mathrm{s})$ | 10 | 0.5 | 1.5 | 10.5 | 30.5 | 60.5 |  |
|  | 100 | 0.5 | 0.6 | 1.5 | 3.5 | 6.5 |  |
|  | 150 | 0.5 | 0.6 | 1.2 | 2.5 | 4.5 |  |
|  | 300 | 0.5 | 0.6 | 0.9 | 1.6 | 2.6 |  |

* Values will vary slightly depending on the operating conditions.


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time ( 0.4 sec .)
Maximum acceleration: $3000 \mathrm{~mm} / \mathrm{s}^{2}$

## Standard Motor Vertical Mount

## Series LTF6

How to Order


Made to order specifications (For details, refer to page 999)

Cover specification

Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (kg) | 2.4 | 2.9 | 3.4 | 3.9 | 4.4 | 4.9 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |
|  | Work load (kg) | 3 |  |  |  |  |  |
|  | Maximum speed (mm/s) | 500 |  |  |  |  | 390 |
|  | Positioning repeatability (mm) | $\pm 0.02$ |  |  |  |  |  |
| Main parts | Motor | AC servomotor (100 W) with brake |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |
|  | Lead screw | Ground ball screw $\varnothing 10 \mathrm{~mm}, 10 \mathrm{~mm}$ lead |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |
| Switch | Model | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |
| Controller | Model | LC1-1H2VH $\square-\square \square$ (Refer to page 829 for details.) |  |  |  |  |  |
| Regenerative absorption unit | Model | LC7R-K1 $\square$ A $\square \square$ (Refer to page 846 for details.) |  |  |  |  |  |

Note) Be sure to use a regenerative absorption unit with this product.

## Allowable Moment ( $\mathrm{N} \cdot \mathrm{m}$ )

## Allowable dynamic moment



Me: Allowable dynamic moment
a : Work piece acceleration $\left(\mathrm{mm} / \mathrm{s}^{2}\right) \quad \mathbf{L}$ : Overhang to work piece center of gravity ( mm )
Refer to page 827 for deflection data.

## Standard Motor/Vertical Mount Specification Series LTF6

## Dimensions/LTF6E $\square$ PH



## Positioning Time Guide

|  |  | Positioning time (sec.) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Positioning distance (mm) |  | 1 | 10 | 100 | 300 | 600 |
| Speed ( $\mathrm{mm} / \mathrm{s}$ ) | 10 | 0.5 | 1.5 | 10.5 | 30.5 | 60.5 |
|  | 100 | 0.5 | 0.6 | 1.5 | 3.5 | 6.5 |
|  | 250 | 0.5 | 0.6 | 0.9 | 1.7 | 2.9 |
|  | 500 | 0.5 | 0.6 | 0.8 | 1.2 | 1.8 |

* Values will vary slightly depending on the operating conditions.


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time ( 0.4 sec .)
Maximum acceleration: $3000 \mathrm{~mm} / \mathrm{s}^{2}$

## Standard Motor Vertical Mount

# Series LTF6 

How to Order


Made to
Made to order specifications (For details, refer to page 999)

Cover specification

Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (kg) | 2.4 | 2.9 | 3.4 | 3.9 | 4.4 | 4.9 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |
|  | Work load (kg) | 6 |  |  |  |  |  |
|  | Maximum speed (mm/s) | 300 |  |  |  |  | 230 |
|  | Positioning repeatability (mm) | $\pm 0.05$ |  |  |  |  |  |
| Main parts | Motor | AC servomotor (100 W) with brake |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |
|  | Lead screw | Rolled ball screw $\varnothing 10 \mathrm{~mm}, 6 \mathrm{~mm}$ lead |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |
| Switch | Model | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |
| Controller | Model | LC1-1H2VF $\square$ - $\square \square$ (Refer to page 829 for details.) |  |  |  |  |  |
| Regenerative absorption unit | Model | LC7R-K1 $\square$ A $\square \square$ (Refer to page 846 for details.) |  |  |  |  |  |

Note) Be sure to use a regenerative absorption unit with this product.

## Allowable Moment ( $\mathrm{N} \cdot \mathrm{m}$ )

## Allowable dynamic moment



[^4]
## Standard Motor/Vertical Mount Specification Series LTF6

## Dimensions/LTF6E $\square$ NF





## Positioning Time Guide

|  |  | Positioning time (sec.) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | ---: | ---: | ---: | :---: |
| Sositioning distance (mm) | 1 | 10 | 100 | 300 | 600 |  |  |
|  | 10 | 0.5 | 1.5 | 10.5 | 30.5 | 60.5 |  |
|  | 100 | 0.5 | 0.6 | 1.5 | 3.5 | 6.5 |  |
|  | 150 | 0.5 | 0.6 | 1.2 | 2.5 | 4.5 |  |
|  | 300 | 0.5 | 0.6 | 0.9 | 1.6 | 2.6 |  |

* Values will vary slightly depending on the operating conditions.
* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment Refer to page 825 for mounting.

| Model | Stroke | $\mathbf{n}_{1}$ |
| :---: | :---: | :---: |
| LTF6E $\square$ NF-100K- $\square \square$ | 100 | 2 |
| LTF6E $\square$ NF-200K- $\square$ | 200 | 3 |
| LTF6E $\square$ NF-300K- $\square$ | 300 | 4 |
| LTF6E $\square$ NF-400K- $\square$ | 400 | 5 |
| LTF6E $\square$ NF-500K- $\square$ | 500 | 6 |
| LTF6E $\square$ NF-600K- $\square \square$ | 600 | 7 |

## Standard Motor Vertical Mount

# Series LTF6 

How to Order


Made to
Made to order specifications (For details, refer to page 999)

Cover specification

Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (kg) | 2.4 | 2.9 | 3.4 | 3.9 | 4.4 | 4.9 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |
|  | Work load (kg) | 3 |  |  |  |  |  |
|  | Maximum speed (mm/s) | 500 |  |  |  |  | 390 |
|  | Positioning repeatability (mm) | $\pm 0.05$ |  |  |  |  |  |
| Main parts | Motor | AC servomotor (100 W) with brake |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |
|  | Lead screw | Rolled ball screw $\varnothing 10 \mathrm{~mm}, 10 \mathrm{~mm}$ lead |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |
| Switch | Model | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |
| Controller | Model | LC1-1H2VH $\square$ - $\square \square$ (Refer to page 829 for details.) |  |  |  |  |  |
| Regenerative absorption unit | Model | LC7R-K1 $\square$ A $\square \square$ (Refer to page 846 for details.) |  |  |  |  |  |

Note) Be sure to use a regenerative absorption unit with this product.

## Allowable Moment (N.m)

Allowable dynamic moment


Me: Allowable dynamic moment
a : Work piece acceleration $\left(\mathrm{mm} / \mathrm{s}^{2}\right) \quad \mathbf{L}$ : Overhang to work piece center of gravity ( mm )
Refer to page 827 for deflection data.



reference plane* Section AA

| Model | Stroke | $\mathbf{n}_{1}$ |
| :---: | :---: | :---: |
| LTF6E $\square$ NH-100K- $\square \square$ | 100 | 2 |
| LTF6E $\square$ NH-200K- $\square$ | 200 | 3 |
| LTF6E $\square$ NH-300K- $\square$ | 300 | 4 |
| LTF6E $\square$ NH-400K- $\square$ | 400 | 5 |
| LTF6E $\square$ NH-500K- $\square$ | 500 | 6 |
| LTF6E $\square$ NH-600K- $\square \square$ | 600 | 7 |

* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to page 825 for mounting.


## Positioning Time Guide

|  |  | Positioning time (sec.) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | ---: | ---: | :---: |
| Positioning distance $(\mathrm{mm})$ |  |  |  | 1 | 10 | 100 |  |
| 300 | 600 |  |  |  |  |  |  |
| Speed <br> $(\mathrm{mm} / \mathrm{s})$ | 10 | 0.5 | 1.5 | 10.5 | 30.5 | 60.5 |  |
|  | 100 | 0.5 | 0.6 | 1.5 | 3.5 | 6.5 |  |
|  | 250 | 0.5 | 0.6 | 0.9 | 1.7 | 2.9 |  |
|  | 500 | 0.5 | 0.6 | 0.8 | 1.2 | 1.8 |  |

* Values will vary slightly depending on the operating conditions.


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time ( 0.4 sec .)
Maximum acceleration: $3000 \mathrm{~mm} / \mathrm{s}^{2}$

How to Order


Note) Be sure to use a regenerative absorption unit with this product.

## Allowable Moment (N.m)

Allowable dynamic moment

m : Transfer load (kg)
$\mathrm{m}:$ Transfer load (kg) Me: Allowable dynamic moment
a : Work piece acceleration $\left(\mathrm{mm} / \mathrm{s}^{2}\right) \mathbf{L}$ : Overhang to work piece center of gravity ( mm )
Refer to page 827 for deflection data.

## Standard Motor/Vertical Mount Specification Series LTF8

Dimensions/LTF8F $\square$ PH


| Model | Stroke | $\mathbf{n}_{1}$ |
| :---: | :---: | :---: |
| LTF8F $\square$ PH- 100K- $\square \square$ | 100 | 2 |
| LTF8F $\square$ PH- 200K- $\square$ | 200 | 3 |
| LTF8F $\square$ PH- 300K- $\square$ | 300 | 4 |
| LTF8F $\square$ PH- 400K- $\square \square$ | 400 | 5 |
| LTF8F $\square$ PH- 500K- $\square$ | 500 | 6 |
| LTF8F $\square$ PH- 600K- $\square$ | 600 | 7 |
| LTF8F $\square$ PH- 700K- $\square$ | 700 | 8 |
| LTF8F $\square$ PH- 800K- $\square$ | 800 | 9 |
| LTF8F $\square$ PH- 900K- $\square$ | 900 | 10 |
| LTF8F $\square$ PH-1000K- $\square \square$ | 1000 | 11 |

* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to page 825 for mounting.


## Positioning Time Guide

|  |  |  |  |  |  |  |  |  | Positioning time (sec.) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | ---: | ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Positioning distance (mm) | 1 | 10 | 100 | 500 | 1000 |  |  |  |  |  |  |  |  |  |
|  | 10 | 0.6 | 1.6 | 10.6 | 50.6 | 100.6 |  |  |  |  |  |  |  |  |
|  | 100 | 0.6 | 0.7 | 1.6 | 5.6 | 10.6 |  |  |  |  |  |  |  |  |
|  | 250 | 0.6 | 0.7 | 1.0 | 2.6 | 4.6 |  |  |  |  |  |  |  |  |
|  | 500 | 0.6 | 0.7 | 0.9 | 1.7 | 2.7 |  |  |  |  |  |  |  |  |

[^5]

A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time ( 0.5 sec .)
Maximum acceleration: 3000 mm/s²

How to Order


Made to
Made to order specifications (For details, refer to page 999)

Cover specification

Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (kg) | 5.0 | 5.9 | 6.7 | 7.5 | 8.4 | 9.2 | 10.0 | 10.9 | 11.7 | 12.5 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |  |  |  |  |
|  | Work load (kg) | 5 |  |  |  |  |  |  |  |  |  |
|  | Maximum speed (mm/s) | 1000 |  |  |  |  |  | 890 | 710 | 580 | 480 |
|  | Positioning repeatability (mm) | $\pm 0.02$ |  |  |  |  |  |  |  |  |  |
| Main parts | Motor | AC servomotor (200 W) with brake |  |  |  |  |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |  |  |  |  |
|  | Lead screw | Ground ball screw $\varnothing 15 \mathrm{~mm}, 20 \mathrm{~mm}$ lead |  |  |  |  |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |  |  |  |  |
| Switch | Model | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |  |  |  |  |
| Controller | Model | LC1-1H3VL $\square$ - $\square \square$ (Refer to page 829 for details.) |  |  |  |  |  |  |  |  |  |
| Regenerative absorption unit | Model | LC7R-K1 $\square A \square \square$ (Refer to page 846 for details.) |  |  |  |  |  |  |  |  |  |

Note) Be sure to use a regenerative absorption unit with this product.

## Allowable Moment (N.m)

Allowable dynamic moment

$\mathbf{m}:$ Transfer load (kg) Me: Allowable dynamic moment
a : Work piece acceleration $\left(\mathrm{mm} / \mathrm{s}^{2}\right) \mathbf{L}$ : Overhang to work piece center of gravity ( mm )
Refer to page 827 for deflection data.

Dimensions/LTF8F $\square$ PL


| Model | Stroke | $\mathbf{n}_{1}$ |
| :---: | :---: | :---: |
| LTF8F $\square$ PL- 100K- $\square \square$ | 100 | 2 |
| LTF8F $\square$ PL- 200K- $\square \square$ | 200 | 3 |
| LTF8F $\square$ PL- 300K- $\square$ | 300 | 4 |
| LTF8F $\square$ PL- 400K- $\square \square$ | 400 | 5 |
| LTF8F $\square$ PL- 500K- $\square \square$ | 500 | 6 |
| LTF8F $\square$ PL- 600K- $\square$ | 600 | 7 |
| LTF8F $\square$ PL- 700K- $\square$ | 700 | 8 |
| LTF8F $\square$ PL- 800K- $\square \square$ | 800 | 9 |
| LTF8F $\square$ PL- 900K- $\square$ | 900 | 10 |
| LTF8F $\square$ PL-1000K- $\square \square$ | 1000 | 11 |

* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to page 825 for mounting.


## Positioning Time Guide

|  |  | Positioning time (sec.) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | ---: | ---: | :---: |
| Positioning distance (mm) | 1 | 10 | 100 | 500 | 1000 |  |  |
|  | 10 | 0.6 | 1.6 | 10.6 | 50.6 | 100.6 |  |
|  | 100 | 0.6 | 0.7 | 1.6 | 5.6 | 10.6 |  |
|  | 500 | 0.6 | 0.7 | 0.9 | 1.7 | 2.7 |  |
|  | 1000 | 0.6 | 0.7 | 0.9 | 1.4 | 1.9 |  |

* Values will vary slightly depending on the operating conditions.


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time ( 0.5 sec .)
Maximum acceleration: $3000 \mathrm{~mm} / \mathrm{s}^{2}$

How to Order


Made to order specifications (For details, refer to page 999)

Cover specification

Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (kg) | 5.0 | 5.9 | 6.7 | 7.5 | 8.4 | 9.2 | 10.0 | 10.9 | 11.7 | 12.5 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |  |  |  |  |
|  | Work load (kg) | 10 |  |  |  |  |  |  |  |  |  |
|  | Maximum speed (mm/s) | 500 |  |  |  |  |  | 440 | 350 | 290 | 240 |
|  | Positioning repeatability (mm) | $\pm 0.05$ |  |  |  |  |  |  |  |  |  |
| Main parts | Motor | AC servomotor (200 W) with brake |  |  |  |  |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |  |  |  |  |
|  | Lead screw | Rolled ball screw $\varnothing 15 \mathrm{~mm}, 10 \mathrm{~mm}$ lead |  |  |  |  |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |  |  |  |  |
| Switch | Model | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |  |  |  |  |
| Controller | Model | LC1-1H3VH $\square-\square \square$ (Refer to page 829 for details.) |  |  |  |  |  |  |  |  |  |
| Regenerative absorption unit | Model | LC7R-K1 $\square$ A $\square \square$ (Refer to page 846 for details.) |  |  |  |  |  |  |  |  |  |

Note) Be sure to use a regenerative absorption unit with this product.

## Allowable Moment (N.m)

Allowable dynamic moment

m : Transfer load (kg)
$\mathrm{m}:$ Transfer load (kg) Me: Allowable dynamic moment
a : Work piece acceleration $\left(\mathrm{mm} / \mathrm{s}^{2}\right) \mathrm{L}$ : Overhang to work piece center of gravity ( mm )
Refer to page 827 for deflection data.

## Standard Motor/Vertical Mount Specification Series LTF8

Dimensions/LTF8F $\square$ NH


| Model | Stroke | $\mathbf{n}_{1}$ |
| :---: | :---: | :---: |
| LTF8F $\square$ NH- 100K- $\square \square$ | 100 | 2 |
| LTF8F $\square$ NH- 200K- $\square \square$ | 200 | 3 |
| LTF8F $\square$ NH- 300K- $\square$ | 300 | 4 |
| LTF8F $\square$ NH- 400K- $\square$ | $\square$ | 400 |
| LTF8F $\square$ NH- 500K- $\square$ | 500 | 5 |
| LTF8F $\square$ NH- 600K- $\square$ | 600 | 6 |
| LTF8F $\square$ NH- 700K- $\square$ | 700 | 7 |
| LTF8F $\square$ NH- 800K- $\square \square$ | 800 | 8 |
| LTF8F $\square$ NH- 900K- $\square$ | 900 | 9 |
| LTF8F $\square$ NH-1000K- $\square \square$ | 1000 | 10 |

* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to page 825 for mounting.


## Positioning Time Guide

|  |  |  | Positioning time (sec.) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | ---: | ---: | :---: | :---: |
| Positioning distance (mm) | 1 | 10 | 100 | 500 | 1000 |  |  |  |
|  | 10 | 0.6 | 1.6 | 10.6 | 50.6 | 100.6 |  |  |
|  | 100 | 0.6 | 0.7 | 1.6 | 5.6 | 10.6 |  |  |
|  | 250 | 0.6 | 0.7 | 1.0 | 2.6 | 4.6 |  |  |
|  | 500 | 0.6 | 0.7 | 0.9 | 1.7 | 2.7 |  |  |

[^6]

A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time ( 0.5 sec .)
Maximum acceleration: 3000 mm/s²

How to Order


Made to order specifications (For details, refer to page 999)

Cover specification
Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (kg) | 5.0 | 5.9 | 6.7 | 7.5 | 8.4 | 9.2 | 10.0 | 10.9 | 11.7 | 12.5 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |  |  |  |  |
|  | Work load (kg) | 5 |  |  |  |  |  |  |  |  |  |
|  | Maximum speed (mm/s) | 1000 |  |  |  |  |  | 890 | 710 | 580 | 480 |
|  | Positioning repeatability (mm) | $\pm 0.05$ |  |  |  |  |  |  |  |  |  |
| Main parts | Motor | AC servomotor (200 W) with brake |  |  |  |  |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |  |  |  |  |
|  | Lead screw | Rolled ball screw $\varnothing 15 \mathrm{~mm}, 20 \mathrm{~mm}$ lead |  |  |  |  |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |  |  |  |  |
| Switch | Model | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |  |  |  |  |
| Controller | Model | LC1-1H3VL $\square-\square \square$ (Refer to page 829 for details.) |  |  |  |  |  |  |  |  |  |
| Regenerative absorption unit | Model | LC7R-K1 $\square$ A $\square \square$ (Refer to page 846 for details.) |  |  |  |  |  |  |  |  |  |

Note) Be sure to use a regenerative absorption unit with this product.

## Allowable Moment (N.m)

Allowable dynamic moment

m : Transfer load (kg)
$\mathrm{m}:$ Transfer load (kg) Me: Allowable dynamic moment
a : Work piece acceleration $\left(\mathrm{mm} / \mathrm{s}^{2}\right) \mathrm{L}$ : Overhang to work piece center of gravity ( mm )
Refer to page 827 for deflection data.

## Standard Motor/Vertical Mount Specification Series LTF8

Dimensions/LTF8F $\square$ NL


| Model | Stroke | $\mathbf{n}_{\mathbf{1}}$ |
| :---: | :---: | :---: |
| LTF8F $\square$ NL- 100K- $\square \square$ | 100 | 2 |
| LTF8F $\square$ NL- 200K- $\square$ | 200 | 3 |
| LTF8F $\square$ NL- 300K- $\square$ | 300 | 4 |
| LTF8F $\square$ NL- 400K- $\square \square$ | 400 | 5 |
| LTF8F $\square$ NL- 500K- $\square \square$ | 500 | 6 |
| LTF8F $\square$ NL- 600K- $\square$ | 600 | 7 |
| LTF8F $\square$ NL- 700K- $\square \square$ | 700 | 8 |
| LTF8F $\square$ NL- 800K- $\square \square$ | 800 | 9 |
| LTF8F $\square$ NL- 900K- $\square$ | 900 | 10 |
| LTF8F $\square$ NL-1000K- $\square \square$ | 1000 | 11 |

* The body mounting reference plane and work piece mounting reference plane should be used as standards when mounting onto equipment. Refer to page 825 for mounting.


## Positioning Time Guide



# Non-standard Motor Horizontal Mount 

How to Order


| Nil | Without switch and switch rail |
| :---: | :---: |
| $\mathbf{1}$ | Photo micro sensor 1 pc., Photo micro sensor rail 1 pc. |
| $\mathbf{2}$ | Photo micro sensor 2 pcs., Photo micro sensor rail 1 pc. |
| $\mathbf{3}$ | Photo micro sensor 3 pcs., Photo micro sensor rail 1 pc. |
| $\mathbf{4}$ | Proximity switch (A contact) 1 pc., Proximity switch rail 1 pc. |
| $\mathbf{5}$ | Proximity switch (A contact) 2 pcs., Proximity switch rail 1 pc. |
| $\mathbf{6}$ | Proximity switch (B contact) 2 pcs., Proximity switch rail 1 pc. |
| $\mathbf{7}$ | Proximity switch (A contact) 1 pc., (B contact) 2 pcs., Proximity switch rail 1 pc. |
| $\mathbf{A}$ | Photo micro sensor rail 1 pc. |
| $\mathbf{B}$ | Proximity switch rail 1 pc. |

* Dog fittings for switch are attached to all types except type "Nil".
-Motor/switch entry direction

| Nil | Without motor, switch and switch rail |
| :---: | :---: |
| R | Motor straight, motor cable, switch and switch rail located on the right |
| L | Motor straight, motor cable, switch and switch rail located on the left |



Motor/switch entry direction

Motor specification

| Symbol | Motor manufacturer | Motor model | Motor output | Compatible driver model | Power supply voltage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| RE1 | Mitsubishi Electric Corporation | HC-PQ13 | 100 W | MR-C10A1 | 100/115 VAC |
| RE2 |  |  |  | MR-C10A | 200/230 VAC |
| RE0 |  | - | - | - | - |

* Motor/driver is included for RE1 and RE2.

Refer to page 826 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (without motor) (kg) | 1.7 | 2.1 | 2.6 | 3.1 | 3.6 | 4.1 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |
|  | Work load (kg) | 30 |  |  |  |  |  |
|  | Maximum speed (mm/s) | 300 |  |  |  |  | 230 |
|  | Positioning repeatability (mm) | $\pm 0.02$ |  |  |  |  |  |
| Main parts | Motor | AC servomotor (100 W) |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |
|  | Lead screw | Ground ball screw $\varnothing 10 \mathrm{~mm}, 6 \mathrm{~mm}$ lead |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |
| Switch | Model | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FT (A contact) (Refer to page 1080 for details.) |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FTB (B contact) (Refer to page 1080 for details.) |  |  |  |  |  |

## Allowable Moment (N.m)

Allowable dynamic moment

m : Transfer load (kg)
a : Work piece acceleration $\left(\mathrm{mm} / \mathrm{s}^{2}\right)$
Me: Allowable dynamic moment
L : Overhang to work piece
center of gravity (mm)

Refer to page 827 for deflection data.

# Non-standard Motor Horizontal Mount 

How to Order

# LTF6 RE1 PF- $\mathbf{3 0 0}-\square \square-\mathbf{X 1 0 - Q}$ <br> Stroke (mm) <br> For details, refer <br> to page 763 <br> -Switch specifications <br> <div class="inline-tabular"><table id="tabular" data-type="subtable">
<tbody>
<tr style="border-top: none !important; border-bottom: none !important;">
<td style="text-align: center; border-left-style: solid !important; border-left-width: 1px !important; border-right-style: solid !important; border-right-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top-style: solid !important; border-top-width: 1px !important; width: auto; vertical-align: middle; ">Nil</td>
<td style="text-align: center; border-right-style: solid !important; border-right-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top-style: solid !important; border-top-width: 1px !important; width: auto; vertical-align: middle; ">Without switch and switch rail</td>
</tr>
<tr style="border-top: none !important; border-bottom: none !important;">
<td style="text-align: center; border-left-style: solid !important; border-left-width: 1px !important; border-right-style: solid !important; border-right-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top: none !important; width: auto; vertical-align: middle; ">$\mathbf{A}$</td>
<td style="text-align: center; border-right-style: solid !important; border-right-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top: none !important; width: auto; vertical-align: middle; ">Photo micro sensor rail 1 pc.</td>
</tr>
<tr style="border-top: none !important; border-bottom: none !important;">
<td style="text-align: center; border-left-style: solid !important; border-left-width: 1px !important; border-right-style: solid !important; border-right-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top: none !important; width: auto; vertical-align: middle; ">B</td>
<td style="text-align: center; border-right-style: solid !important; border-right-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top: none !important; width: auto; vertical-align: middle; ">Proximity switch rail 1 pc.</td>
</tr>
</tbody>
</table>
<table id="tabular" data-type="subtable">
<tbody>
<tr style="border-top: none !important; border-bottom: none !important;">
<td style="text-align: center; border-left-style: solid !important; border-left-width: 1px !important; border-right-style: solid !important; border-right-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top-style: solid !important; border-top-width: 1px !important; width: auto; vertical-align: middle; ">Nil</td>
<td style="text-align: center; border-right-style: solid !important; border-right-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top-style: solid !important; border-top-width: 1px !important; width: auto; vertical-align: middle; ">Without motor, switch and switch rail</td>
</tr>
<tr style="border-top: none !important; border-bottom: none !important;">
<td style="text-align: center; border-left-style: solid !important; border-left-width: 1px !important; border-right-style: solid !important; border-right-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top: none !important; width: auto; vertical-align: middle; ">$\mathbf{R}$</td>
<td style="text-align: center; border-right-style: solid !important; border-right-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top: none !important; width: auto; vertical-align: middle; ">Motor straight, motor cable, switch and switch rail located on the right</td>
</tr>
<tr style="border-top: none !important; border-bottom: none !important;">
<td style="text-align: center; border-left-style: solid !important; border-left-width: 1px !important; border-right-style: solid !important; border-right-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top: none !important; width: auto; vertical-align: middle; ">L</td>
<td style="text-align: center; border-right-style: solid !important; border-right-width: 1px !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top: none !important; width: auto; vertical-align: middle; ">Motor straight, motor cable, switch and switch rail located on the left</td>
</tr>
</tbody>
</table>
<table-markdown style="display: none">| Nil | Without motor, switch and switch rail |
| :---: | :---: |
| $\mathbf{R}$ | Motor straight, motor cable, switch and switch rail located on the right |
| L | Motor straight, motor cable, switch and switch rail located on the left |</table-markdown></div> 



Motor/switch entry direction

- Motor specification

| Symbol | Motor manufacturer | Motor model | Motor output | Compatible driver model | Power supply voltage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| RE1 | Mitsubishi Electric Corporation*2 | HC-PQ13 | 100 W | MR-C10A1-UE | 100/115 VAC |
| RE2 |  |  |  | MR-C10A-UE | 200/230 VAC |
| RE9 |  |  |  | - | - |
| RE0*1 |  | - | - | - | - |
| RME1 |  | HC-MFS13 | 100 W | MR-J2S-10A1 | 100/115 VAC |
| RME2 |  |  |  | MR-J2S-10A | 200/230 VAC |
| RME9 |  |  |  | - | - |
| RME0*1 |  | - | - | - | - |
| RKE1 |  | HC-KFS13 | 100 W | MR-J2S-10A1 | 100/115 VAC |
| RKE2 |  |  |  | MR-J2S-10A | 200/230 VAC |
| RKE9 |  |  |  | - | - |
| RKE0*1 |  | - | - | - | - |
| RPE1 |  | HF-KP13 | 100 W | MR-J3-10A1 | 100/115 VAC |
| RPE2 |  |  |  | MR-J3-10A | 200/230 VAC |
| RPE9 |  |  |  | - | - |
| RPE0*1 |  | - | - | - | - |

*1 Without motor/driver. Refer to page 826 for motor mounting dimensions.
*2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (without motor) (kg) | 1.7 | 2.1 | 2.6 | 3.1 | 3.6 | 4.1 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |
|  | Work load (kg) | 30 |  |  |  |  |  |
|  | Maximum speed (mm/s) | 300 |  |  |  |  | 230 |
|  | Positioning repeatability (mm) | $\pm 0.02$ |  |  |  |  |  |
| Main parts | Motor | AC servomotor (100 W) |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |
|  | Lead screw | Ground ball screw $\varnothing 10 \mathrm{~mm}, 6 \mathrm{~mm}$ lead |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |

Allowable Moment ( $\mathrm{N} \cdot \mathrm{m}$ )
Allowable dynamic moment

m : Transfer load (kg)
a : Work piece acceleration $\left(\mathrm{mm} / \mathrm{s}^{2}\right)$
Me: Allowable dynamic moment
L : Overhang to work piece
center of gravity (mm)

LXF

[^7]
## Series LTF6

## Dimensions/LTF6 $\square \mathrm{E} \square \mathrm{PF}(\mathrm{X} 10)$



| Model | Stroke | $\mathbf{n}_{1}$ | $\mathbf{n}_{2}$ |
| :---: | :---: | :---: | :---: |
| LTF6 $\square$ E $\square$ PF-100- $\square-\mathbf{- X 1 0}$ | 100 | 2 | 2 |
| LTF6 $\square$ E $\square$ PF-200- $\square-$-X10 | 200 | 3 | 2 |
| LTF6 $\square$ E $\square$ PF-300- $\square \square$-X10 | 300 | 4 | 2 |
| LTF6 $\square \square$ PF-400- $\square-$ X10 | 400 | 5 | 2 |
| LTF6 $\square$ E $\square$ PF-500- $\square-$-X10 | 500 | 6 | 3 |
| LTF6 $\square$ EPF-600- $\square \square$-X10 | 600 | 7 | 3 |



Section AA (Sensor mounting dimensions)


## Positioning Time Guide

A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time ( 0.4 sec .)*
Maximum acceleration: $3000 \mathrm{~mm} / \mathrm{s}^{2}$

* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

*1. The body and work piece mounting reference planes are to be used as guidelines for equipment mounting. Refer to page 825 for the mounting procedure.
*2. For the motor dimensions, refer to "Non-standard Motor." *3. For the dimensions of the motor mounting position, refer to the dimensions on page 826 for the guidelines for assembly and designing.

|  |  | Positioning time (sec.) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | ---: | ---: | ---: | :---: |
| Positioning distance (mm) |  |  |  | 1 | 10 | 100 |  |
| 300 | 600 |  |  |  |  |  |  |
| Speed <br> $(\mathrm{mm} / \mathrm{s})$ | 10 | 0.5 | 1.5 | 10.5 | 30.5 | 60.5 |  |
|  | 100 | 0.5 | 0.6 | 1.5 | 3.5 | 6.5 |  |
|  | 150 | 0.5 | 0.6 | 1.2 | 2.5 | 4.5 |  |
|  | 300 | 0.5 | 0.6 | 0.9 | 1.6 | 2.6 |  |

* Values will vary slightly depending on the operating conditions.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

| a motor mounted type is specified. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Motor output (W) | Motor model | Motor dimension (mm) |  |
| Mitsubishi Electric <br> Corporation | 100 | HC-PQ13 | 86.5 |  |
|  |  | HC-MFS13 | 96.5 |  |
|  |  | HC-KFS13 | 96.5 |  |
|  |  | HF-KP13 | 82.4 |  |

# Non-standard Motor Horizontal Mount Series LTF6 

 Motor Output Ground Ball Screw 100 $.10 \mathrm{~mm} 10_{\text {maxa }}$How to Order

## LTF6 RE1 PH- $\mathbf{3 0 0}-\square \square$ - X10


-Motor/switch entry direction

| Nil | Without motor, switch and switch rail |
| :---: | :---: |
| $\mathbf{R}$ | Motor straight, motor cable, switch and switch rail located on the right |
| $\mathbf{L}$ | Motor straight, motor cable, switch and switch rail located on the left |

Motor/switch entry direction

Motor specification

| Symbol | Motor manufacturer | Motor model | Motor output | Compatible driver model | Power supply voltage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| RE1 | Mitsubishi Electric Corporation | HC-PQ13 | 100 W | MR-C10A1 | 100/115 VAC |
| RE2 |  |  |  | MR-C10A | 200/230 VAC |
| RE0 |  | - | - | - | - |

* Motor/driver is included for RE1 and RE2.

Refer to page 826 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

## Series LTF6

Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (without motor) (kg) | 1.7 | 2.1 | 2.6 | 3.1 | 3.6 | 4.1 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |
|  | Work load (kg) | 15 |  |  |  |  |  |
|  | Maximum speed (mm/s) | 500 |  |  |  |  | 390 |
|  | Positioning repeatability (mm) | $\pm 0.02$ |  |  |  |  |  |
| Main parts | Motor | AC servomotor (100 W) |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |
|  | Lead screw | Ground ball screw $\varnothing 10 \mathrm{~mm}, 10 \mathrm{~mm}$ lead |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |
| Switch | Model | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FT (A contact) (Refer to page 1080 for details.) |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FTB (B contact) (Refer to page 1080 for details.) |  |  |  |  |  |

## Allowable Moment ( $\mathrm{N} \cdot \mathrm{m}$ )

Allowable dynamic moment

m: Transfer load (kg)
a : Work piece acceleration $\left(\mathrm{mm} / \mathrm{s}^{2}\right)$
Me: Allowable dynamic moment
L : Overhang to work piece center of gravity (mm)

Refer to page 827 for deflection data.

# Non-standard Motor Horizontal Mount 


-Motor specification

| Symbol | Motor manufacturer | Motor model | Motor output | Compatible driver model | Power supply voltage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| RE1 | Mitsubishi Electric Corporation*2 | HC-PQ13 | 100 W | MR-C10A1-UE | 100/115 VAC |
| RE2 |  |  |  | MR-C10A-UE | 200/230 VAC |
| RE9 |  |  |  | - | - |
| RE0*1 |  | - | - | - | - |
| RME1 |  | HC-MFS13 | 100 W | MR-J2S-10A1 | 100/115 VAC |
| RME2 |  |  |  | MR-J2S-10A | 200/230 VAC |
| RME9 |  |  |  | - | - |
| RME0*1 |  | - | - | - | - |
| RKE1 |  | HC-KFS13 | 100 W | MR-J2S-10A1 | 100/115 VAC |
| RKE2 |  |  |  | MR-J2S-10A | 200/230 VAC |
| RKE9 |  |  |  | - | - |
| RKE0*1 |  | - | - | - | - |
| RPE1 |  | HF-KP13 | 100 W | MR-J3-10A1 | 100/115 VAC |
| RPE2 |  |  |  | MR-J3-10A | 200/230 VAC |
| RPE9 |  |  |  | - | - |
| RPE0*1 |  | - | - | - | - |

*1 Without motor/driver. Refer to page 826 for motor mounting dimensions.
*2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

## Series LTF6

Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (without motor) (kg) | 1.7 | 2.1 | 2.6 | 3.1 | 3.6 | 4.1 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |
|  | Work load (kg) | 15 |  |  |  |  |  |
|  | Maximum speed (mm/s) | 500 |  |  |  |  | 390 |
|  | Positioning repeatability (mm) | $\pm 0.02$ |  |  |  |  |  |
| Main parts | Motor | AC servomotor (100 W) |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |
|  | Lead screw | Ground ball screw $\varnothing 10 \mathrm{~mm}, 10 \mathrm{~mm}$ lead |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |

## Allowable Moment (N.m)

Allowable dynamic moment

m : Transfer load (kg)
a : Work piece acceleration $\left(\mathrm{mm} / \mathrm{s}^{2}\right)$
Me: Allowable dynamic moment
L : Overhang to work piece
center of gravity (mm)

## Dimensions/LTF6 $\square \square \square \mathrm{PH}(\mathbf{X 1 0 )}$



| Model | Stroke | $\mathbf{n}_{1}$ | $\mathbf{n}_{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: |
| LTF6 $\square \mathbf{E} \square$ PH-100- $\square \square-\mathbf{X 1 0}$ | 100 | 2 | 2 |
| LTF6 $\square \mathbf{E} \square$ PH-200- $\square \square-\mathbf{X 1 0}$ | 200 | 3 | 2 |
| LTF6 $\square \mathbf{E} \square$ PH-300- $\square \square-\mathbf{X 1 0}$ | 300 | 4 | 2 |
| LTF6 $\square \mathbf{E} \square$ PH-400- $\square \square-\mathbf{X 1 0 ~}$ | 400 | 5 | 2 |
| LTF6 $\square \mathbf{E} \square$ PH-500- $\square-\mathbf{- X 1 0}$ | 500 | 6 | 3 |
| LTF6 $\square \mathbf{E} \square$ PH-600- $\square \square-\mathbf{X 1 0 ~}$ | 600 | 7 | 3 |



LJ1

(Switch rail T-slot dimensions)

> Section AA

to be used as quidelines for equipment mounting Refer to page 825 for the mounting procedure.
*2. For the motor dimensions, refer to "Non-standard Motor."
$* 3$. For the dimensions of the motor mounting position, refer to the dimensions on page 826 for the guidelines for assembly and designing.

## Positioning Time Guide

|  |  | Positioning time (sec.) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | ---: | ---: | :---: |
| Positioning distance $(\mathrm{mm})$ |  | 1 | 10 | 100 | 300 | 600 |  |
| Speed <br> $(\mathrm{mm} / \mathrm{s})$ | 10 | 0.5 | 1.5 | 10.5 | 30.5 | 60.5 |  |
|  | 100 | 0.5 | 0.6 | 1.5 | 3.5 | 6.5 |  |
|  | 250 | 0.5 | 0.6 | 0.9 | 1.7 | 2.9 |  |
|  | 500 | 0.5 | 0.6 | 0.8 | 1.2 | 1.8 |  |

* Values will vary slightly depending on the operating conditions.


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time ( 0.4 sec .)*
Maximum acceleration: $3000 \mathrm{~mm} / \mathrm{s}^{2}$

* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

|  | Motor output (W) | Motor model | Motor dimension (mm) |
| :---: | :---: | :---: | :---: |
| Mitsubishi Electric <br> Corporation | 100 | HC-PQ13 | 86.5 |
|  |  | HC-MFS13 | 96.5 |
|  |  | HC-KFS13 | 96.5 |
|  |  | HF-KP13 | 82.4 |

# Non-standard Motor Horizontal Mount 

How to Order
LTF6 RE1 NF- $\mathbf{3 0 0}-\square \square$ - X10

- Motor/switch entry direction

| Nil | Without motor, switch and switch rail |
| :---: | :---: |
| $\mathbf{R}$ | Motor straight, motor cable, switch and switch rail located on the right |
| $\mathbf{L}$ | Motor straight, motor cable, switch and switch rail located on the left |



Motor/switch entry direction
d Motor specification

| Symbol | Motor manufacturer | Motor model | Motor output | Compatible driver model | Power supply voltage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| RE1 | Mitsubishi Electric Corporation | HC-PQ13 | 100 W | MR-C10A1 | 100/115 VAC |
| RE2 |  |  |  | MR-C10A | 200/230 VAC |
| RE0 |  | - | - | - | - |

* Motor/driver is included for RE1 and RE2.

Refer to page 826 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (without motor) (kg) | 1.7 | 2.1 | 2.6 | 3.1 | 3.6 | 4.1 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |
|  | Work load (kg) | 30 |  |  |  |  |  |
|  | Maximum speed (mm/s) | 300 |  |  |  |  | 230 |
|  | Positioning repeatability (mm) | $\pm 0.05$ |  |  |  |  |  |
| Main parts | Motor | AC servomotor (100 W) |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |
|  | Lead screw | Rolled ball screw $\varnothing 10 \mathrm{~mm}, 6 \mathrm{~mm}$ lead |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |
| Switch | Model | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FT (A contact) (Refer to page 1080 for details.) |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FTB (B contact) (Refer to page 1080 for details.) |  |  |  |  |  |

## Allowable Moment (N.m)

Allowable dynamic moment

m : Transfer load (kg)
a : Work piece acceleration $\left(\mathrm{mm} / \mathrm{s}^{2}\right)$
Me: Allowable dynamic moment
L : Overhang to work piece center of gravity (mm)

Refer to page 827 for deflection data.

# Non-standard Motor Horizontal Mount 

# Series LTF6 

How to Order
LTF6 RE1 NF- $\mathbf{3 0 0}-\square \square-\mathbf{X 1 0 - Q}$
Stroke (mm)
For details, refer to page 773 .

- Switch specifications

| Nil | Without switch and switch rail |
| :---: | :---: |
| A | Photo micro sensor rail 1 pc. |
| B | Proximity switch rail 1 pc. |

* Dog fittings for switch are attached to all types except type "Nil"
Please order the switches separately. (Refer to pages 1080, 1081 and 1083.)
- Motor/switch entry direction

| Nil | Without motor, switch and switch rail |
| :---: | :---: |
| $\mathbf{R}$ | Motor straight, motor cable, switch and switch rail located on the right |
| $\mathbf{L}$ | Motor straight, motor cable, switch and switch rail located on the left |



Motor/switch entry direction

- Motor specification

| Symbol | Motor manufacturer | Motor model | Motor output | Compatible driver model | Power supply voltage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| RE1 | Mitsubishi Electric Corporation*2 | HC-PQ13 | 100 W | MR-C10A1-UE | 100/115 VAC |
| RE2 |  |  |  | MR-C10A-UE | 200/230 VAC |
| RE9 |  |  |  | - | - |
| RE0*1 |  | - | - | - | - |
| RME1 |  | HC-MFS13 | 100 W | MR-J2S-10A1 | 100/115 VAC |
| RME2 |  |  |  | MR-J2S-10A | 200/230 VAC |
| RME9 |  |  |  | - | - |
| RME0*1 |  | - | - | - | - |
| RKE1 |  | HC-KFS13 | 100 W | MR-J2S-10A1 | 100/115 VAC |
| RKE2 |  |  |  | MR-J2S-10A | 200/230 VAC |
| RKE9 |  |  |  | - | - |
| RKE0*1 |  | - | - | - | - |
| RPE1 |  | HF-KP13 | 100 W | MR-J3-10A1 | 100/115 VAC |
| RPE2 |  |  |  | MR-J3-10A | 200/230 VAC |
| RPE9 |  |  |  | - | - |
| RPE0*1 |  | - | - | - | - |

*1 Without motor/driver. Refer to page 826 for motor mounting dimensions.
*2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (without motor) (kg) | 1.7 | 2.1 | 2.6 | 3.1 | 3.6 | 4.1 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |
|  | Work load (kg) | 30 |  |  |  |  |  |
|  | Maximum speed (mm/s) | 300 |  |  |  |  | 230 |
|  | Positioning repeatability (mm) | $\pm 0.05$ |  |  |  |  |  |
| Main parts | Motor | AC servomotor (100 W) |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |
|  | Lead screw | Rolled ball screw $\varnothing 10 \mathrm{~mm}, 6 \mathrm{~mm}$ lead |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |

Allowable Moment ( $\mathrm{N} \cdot \mathrm{m}$ )
Allowable dynamic moment


Refer to page 827 for deflection data.
m : Transfer load (kg)
a : Work piece acceleration $\left(\mathrm{mm} / \mathrm{s}^{2}\right)$
Me: Allowable dynamic moment
L : Overhang to work piece
center of gravity (mm)

LXF

## Series LTF6

Dimensions/LTF6 $\square \mathrm{E} \square \mathrm{NF}(\mathbf{X 1 0})$


| Model | Stroke | $\mathbf{n}_{1}$ | $\mathbf{n}_{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: |
| LTF6 $\square \mathrm{E} \square$ NF-100- $\square \square-\mathbf{X 1 0}$ | 100 | 2 | 2 |
| LTF6 $\square \mathrm{E} \square$ NF-200- $\square \square-\mathbf{X 1 0}$ | 200 | 3 | 2 |
| LTF6 $\square \square$ NF-300- $\square \square$-X10 | 300 | 4 | 2 |
| LTF6 $\square \mathrm{E} \square$ NF-400- $\square \square-\mathbf{X 1 0 ~}$ | 400 | 5 | 2 |
| LTF6 $\square \mathrm{E} \square$ NF-500- $\square-$-X10 | 500 | 6 | 3 |
| LTF6 $\square \square$ NF-600- $\square-$-X10 | 600 | 7 | 3 |



Section AA (Sensor mounting dimensions)

*1. The body and work piece mounting reference planes are to be used as guidelines for equipment mounting. Refer to page 825 for the mounting procedure.
*2. For the motor dimensions, refer to "Non-standard Motor." $* 3$. For the dimensions of the motor mounting position, refer to the dimensions on page 826 for the guidelines for assembly and designing.

## Positioning Time Guide

|  |  | Positioning time (sec.) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | ---: | ---: | :---: |
| Positioning distance (mm) |  | 1 | 10 | 100 | 300 | 600 |  |
| Speed <br> (mm/s) | 10 | 0.5 | 1.5 | 10.5 | 30.5 | 60.5 |  |
|  | 100 | 0.5 | 0.6 | 1.5 | 3.5 | 6.5 |  |
|  | 150 | 0.5 | 0.6 | 1.2 | 2.5 | 4.5 |  |
|  | 300 | 0.5 | 0.6 | 0.9 | 1.6 | 2.6 |  |

* Values will vary slightly depending on the operating conditions.


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time ( 0.4 sec .)*
Maximum acceleration: $3000 \mathrm{~mm} / \mathrm{s}^{2}$

* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

|  | Motor output (W) | Motor model | Motor dimension (mm) |
| :---: | :---: | :---: | :---: |
| Mitsubishi Electric <br> Corporation | 100 | HC-PQ13 | 86.5 |
|  |  | HC-MFS13 | 96.5 |
|  |  | HC-KFS13 | 96.5 |
|  |  | HF-KP13 | 82.4 |

# Non-standard Motor Horizontal Mount 

## Series LTF6

How to Order

## LTF6 RE1 NH-300- $\square \square$ - X10

Stroke (mm)
For details, refer to page 776

| Nil | Without switch and switch rail |
| :---: | :---: |
| $\mathbf{1}$ | Photo micro sensor 1 pc., Photo micro sensor rail 1 pc. |
| $\mathbf{2}$ | Photo micro sensor 2 pcs., Photo micro sensor rail 1 pc. |
| $\mathbf{3}$ | Photo micro sensor 3 pcs., Photo micro sensor rail 1 pc. |
| $\mathbf{4}$ | Proximity switch (A contact) 1 pc., Proximity switch rail 1 pc. |
| $\mathbf{5}$ | Proximity switch (A contact) 2 pcs., Proximity switch rail 1 pc. |
| $\mathbf{6}$ | Proximity switch (B contact) 2 pcs., Proximity switch rail 1 pc. |
| $\mathbf{7}$ | Proximity switch (A contact) 1 pc., (B contact) 2 pcs., Proximity switch rail 1 pc. |
| A | Photo micro sensor rail 1 pc. |
| B | Proximity switch rail 1 pc. |

* Dog fittings for switch are attached to all types except type "Nil".

Motor specification

| Symbol | Motor manufacturer | Motor <br> model | Motor <br> output | Compatible <br> driver model | Power supply <br> voltage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| RE1 | Mitsubishi Electric | HC-PQ13 | 100 W | MR-C10A1 | $100 / 115$ VAC |
| RE2 <br> Corporation |  |  |  | $200 / 230$ VAC |  |
| RE0 |  | - | - |  |  |

* Motor/driver is included for RE1 and RE2.

Refer to page 826 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details

Made to order specifications
(For details, refer to page 999)

## Series LTF6

Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (without motor) (kg) | 1.7 | 2.1 | 2.6 | 3.1 | 3.6 | 4.1 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |
|  | Work load (kg) | 15 |  |  |  |  |  |
|  | Maximum speed (mm/s) | 500 |  |  |  |  | 390 |
|  | Positioning repeatability (mm) | $\pm 0.05$ |  |  |  |  |  |
| Main parts | Motor | AC servomotor (100 W) |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |
|  | Lead screw | Rolled ball screw $\varnothing 10 \mathrm{~mm}$, 10 mm lead |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |
| Switch | Model | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FT (A contact) (Refer to page 1080 for details.) |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FTB (B contact) (Refer to page 1080 for details.) |  |  |  |  |  |

## Allowable Moment ( $\mathrm{N} \cdot \mathrm{m}$ )

Allowable dynamic moment

m: Transfer load (kg)
a : Work piece acceleration $\left(\mathrm{mm} / \mathrm{s}^{2}\right)$
Me: Allowable dynamic moment
L : Overhang to work piece center of gravity (mm)

Refer to page 827 for deflection data.

Series LTF6

How to Order
-Motor/switch entry direction

| Nil | Without motor, switch and switch rail |
| :---: | :---: |
| $\mathbf{R}$ | Motor straight, motor cable, switch and switch rail located on the right |
| $\mathbf{L}$ | Motor straight, motor cable, switch and switch rail located on the left |

Motor/switch entry direction


- Motor specification

| Symbol | Motor manufacturer | Motor model | Motor output | Compatible driver model | Power supply voltage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| RE1 | Mitsubishi Electric Corporation*2 | HC-PQ13 | 100 W | MR-C10A1-UE | 100/115 VAC |
| RE2 |  |  |  | MR-C10A-UE | 200/230 VAC |
| RE9 |  |  |  | - | - |
| RE0*1 |  | - | - | - | - |
| RME1 |  | HC-MFS13 | 100 W | MR-J2S-10A1 | 100/115 VAC |
| RME2 |  |  |  | MR-J2S-10A | 200/230 VAC |
| RME9 |  |  |  | - | - |
| RME0*1 |  | - | - | - | - |
| RKE1 |  | HC-KFS13 | 100 W | MR-J2S-10A1 | 100/115 VAC |
| RKE2 |  |  |  | MR-J2S-10A | 200/230 VAC |
| RKE9 |  |  |  | - | - |
| RKE0*1 |  | - | - | - | - |
| RPE1 |  | HF-KP13 | 100 W | MR-J3-10A1 | 100/115 VAC |
| RPE2 |  |  |  | MR-J3-10A | 200/230 VAC |
| RPE9 |  |  |  | - | - |
| RPE0*1 |  | - | - | - | - |

*1 Without motor/driver. Refer to page 826 for motor mounting dimensions.
*2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

## Series LTF6

Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (without motor) (kg) | 1.7 | 2.1 | 2.6 | 3.1 | 3.6 | 4.1 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |
|  | Work load (kg) | 15 |  |  |  |  |  |
|  | Maximum speed (mm/s) | 500 |  |  |  |  | 390 |
|  | Positioning repeatability (mm) | $\pm 0.05$ |  |  |  |  |  |
| Main parts | Motor | AC servomotor (100 W) |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |
|  | Lead screw | Rolled ball screw $\varnothing 10 \mathrm{~mm}, 10 \mathrm{~mm}$ lead |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |

## Allowable Moment ( $\mathrm{N} \cdot \mathrm{m}$ )

Allowable dynamic moment


Refer to page 827 for deflection data.

## Dimensions/LTF6 $\square \mathrm{E} \square \mathrm{NH}(\mathbf{X 1 0 )}$


LJ1
Section AA (Sensor mounting dimensions)

| Model | Stroke | n1 | n2 |
| :---: | :---: | :---: | :---: |
| LTF6 $\square$ E $\square$ NH-100- $\square \square$-X10 | 100 | 2 | 2 |
| LTF6 $\square$ E $\square$ NH-200- $\square \square$-X10 | 200 | 3 | 2 |
| LTF6 $\square$ E $\square$ NH-300- $\square \square$-X10 | 300 | 4 | 2 |
| LTF6 $\square$ E $\square$ NH-400- $\square \square$-X10 | 400 | 5 | 2 |
| LTF6 $\square$ E $\square$ NH-500- $\square \square$-X10 | 500 | 6 | 3 |
| LTF6 $\square$ E $\square$ NH-600- $\square \square$-X10 | 600 | 7 | 3 |

## Positioning Time Guide

*1. The body and work piece mounting reference planes are to be used as guidelines for equipment mounting. Refer to page 825 for the mounting procedure.
*2. For the motor dimensions, refer to "Non-standard Motor."
$* 3$. For the dimensions of the motor mounting position, refer to the dimensions on page 826 for the guidelines for assembly and designing.


Section AA

|  |  | Positioning time (sec.) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | ---: | ---: | :---: |
| Positioning distance (mm) |  | 1 | 10 | 100 | 300 | 600 |  |
| Speed <br> (mm/s) | 10 | 0.5 | 1.5 | 10.5 | 30.5 | 60.5 |  |
|  | 100 | 0.5 | 0.6 | 1.5 | 3.5 | 6.5 |  |
|  | 250 | 0.5 | 0.6 | 0.9 | 1.7 | 2.9 |  |
|  | 500 | 0.5 | 0.6 | 0.8 | 1.2 | 1.8 |  |

* Values will vary slightly depending on the operating conditions.


## Non-standard Motors: The following motors will be mounted when

 a motor mounted type is specified.|  | Motor output (W) | Motor model | Motor dimension (mm) |
| :---: | :---: | :---: | :---: |
| Mitsubishi Electric <br> Corporation | 100 | $\mathrm{HC}-\mathrm{PQ} 13$ | 86.5 |
|  |  | $\mathrm{HC}-\mathrm{MFS} 13$ | 96.5 |
|  |  | $\mathrm{HC}-\mathrm{KFS} 13$ | 96.5 |
|  |  | $\mathrm{HF}-\mathrm{KP} 13$ | 82.4 |



A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time ( 0.4 sec .)*
Maximum acceleration: $3000 \mathrm{~mm} / \mathrm{s}^{2}$

* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.


# Non-standard Motor Horizontal Mount 



Motor/switch entry direction

- Motor specification

| Symbol | Motor manufacturer | Motor <br> model | Motor <br> output | Compatible <br> driver model | Power supply <br> voltage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| RF1 | Mitsubishi Electric | HC-PQ23 | 200 W | MR-C20A1 | 100/115 VAC |
|  |  |  |  | - | MR-C20A |
|  | RF0 | 200/230 VAC |  |  |

* Motor/driver is included for RF1 and RF2.

Refer to page 826 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

## Non-standard Motor/Horizontal Mount Specification Series LTF8

Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (without motor) (kg) | 3.4 | 4.3 | 5.1 | 6.0 | 6.8 | 7.7 | 8.5 | 9.4 | 10.2 | 11.1 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |  |  |  |  |
|  | Work load (kg) | 50 |  |  |  |  |  |  |  |  |  |
|  | Maximum speed (mm/s) | 500 |  |  |  |  |  | 440 | 350 | 290 | 240 |
|  | Positioning repeatability (mm) | $\pm 0.02$ |  |  |  |  |  |  |  |  |  |
| Main parts | Motor | AC servomotor (200 W) |  |  |  |  |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |  |  |  |  |
|  | Lead screw | Ground ball screw $\varnothing 15 \mathrm{~mm}, 10 \mathrm{~mm}$ lead |  |  |  |  |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |  |  |  |  |
| Switch | Model | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FT (A contact) (Refer to page 1080 for details.) |  |  |  |  |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FTB (B contact) (Refer to page 1080 for details.) |  |  |  |  |  |  |  |  |  |

## Allowable Moment (N.m)

Allowable dynamic moment


Refer to page 827 for deflection data.

# Non-standard Motor 

LTF8 RF1|PH-300- $\square \square$ - $\mathbf{X 1 0 - Q}$
-Switch specifications


* Dog fittings for switch are attached to all types except type "Nil". Please order the switch separately. (Refer to pages 1080, 1081, and 1083.)
Motor/switch entry direction

| Nil | Without motor, switch and switch rail |
| :---: | :---: |
| $\mathbf{R}$ | Motor straight, motor cable, switch and switch rail located on the right |
| L | Motor straight, motor cable, switch and switch rail located on the left |



Motor/switch entry direction

- Motor specification

| Symbol | Motor manufacturer | Motor model | Motor output | Compatible driver model | Power supply voltage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| RF1 | Mitsubishi Electric Corporation*2 | HC-PQ23 | 200 W | MR-C20A1-UE | 100/115 VAC |
| RF2 |  |  |  | MR-C20A-UE | 200/230 VAC |
| RF9 |  |  |  | - | - |
| RF0*1 |  | - | - | - | - |
| RMF1 |  | HC-MFS23 | 200 W | MR-J2S-20A1 | 100/115 VAC |
| RMF2 |  |  |  | MR-J2S-20A | 200/230 VAC |
| RMF9 |  |  |  | - | - |
| RMFO*1 |  | - | - | - | - |
| RKF1 |  | HC-KFS23 | 200 W | MR-J2S-20A1 | 100/115 VAC |
| RKF2 |  |  |  | MR-J2S-20A | 200/230 VAC |
| RKF9 |  |  |  | - | - |
| RKFO* ${ }^{* 1}$ |  | - | - | - | - |
| RPF1 |  | HF-KP23 | 200 W | MR-J3-20A1 | 100/115 VAC |
| RPF2 |  |  |  | MR-J3-20A | 200/230 VAC |
| RPF9 |  |  |  | - | - |
| RPFO*1 |  | - | - | - | - |

[^8]
## Non-standard Motor/Horizontal Mount Specification Series LTF8

Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (without motor) (kg) | 3.4 | 4.3 | 5.1 | 6.0 | 6.8 | 7.7 | 8.5 | 9.4 | 10.2 | 11.1 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |  |  |  |  |
|  | Work load (kg) | 50 |  |  |  |  |  |  |  |  |  |
|  | Rated thrust ( N ) | 360 |  |  |  |  |  |  |  |  |  |
|  | Maximum speed (mm/s) | 500 |  |  |  |  |  | 440 | 350 | 290 | 240 |
|  | Positioning repeatability (mm) | $\pm 0.02$ |  |  |  |  |  |  |  |  |  |
| Main parts | Motor | AC servomotor (200 W) |  |  |  |  |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |  |  |  |  |
|  | Lead screw | Ground ball screw $\varnothing 15 \mathrm{~mm}, 10 \mathrm{~mm}$ lead |  |  |  |  |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |  |  |  |  |

Allowable Moment (N.m)
Allowable dynamic moment


Refer to page 827 for deflection data.

## Dimensions/LTF8 $\square \mathrm{F} \square \mathrm{PH}(\mathrm{X10})$



| Model | Stroke | $\mathbf{n}_{1}$ | $\mathbf{n}_{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: |
| LTF8 $\square$ F $\square$ PH- 100- $\square \square-\mathbf{X 1 0}$ | 100 | 2 | 2 |
| LTF8 $\square$ F $\square$ PH- 200- $\square \square-\mathbf{X 1 0}$ | 200 | 3 | 2 |
| LTF8 $\square$ F $\square$ PH- 300- $\square \square-$ X10 | 300 | 4 | 2 |
| LTF8 $\square$ F $\square$ PH- 400- $\square-$-X10 | 400 | 5 | 2 |
| LTF8 $\square$ F $\square$ PH- 500- $\square \square-X 10 ~$ | 500 | 6 | 3 |


| Model | Stroke | $\mathbf{n}_{\mathbf{1}}$ | $\mathbf{n}_{\mathbf{2}}$ |
| :---: | ---: | ---: | :---: |
| LTF8 $\square$ F $\square$ PH- 600- $\square \square-\mathbf{X 1 0}$ | 600 | 7 | 3 |
| LTF8 $\square$ F $\square$ PH- 700- $\square-$-X10 | 700 | 8 | 3 |
| LTF8 $\square$ F $\square$ PH- 800- $\square-$ X10 | 800 | 9 | 3 |
| LTF8 $\square$ F $\square$ PH- 900- $\square-$ X10 | 900 | 10 | 3 |
| LTF8 $\square$ F $\square$ PH-1000- $\square-$ X10 | 1000 | 11 | 3 |

## Positioning Time Guide

|  |  | Positioning time (sec.) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | ---: | ---: | :---: |
| Positioning distance (mm) | 1 | 10 | 100 | 500 | 1000 |  |  |
| Speed <br> $(\mathrm{mm} / \mathrm{s})$ | 10 | 0.6 | 1.6 | 10.6 | 50.6 | 100.6 |  |
|  | 100 | 0.6 | 0.7 | 1.6 | 5.6 | 10.6 |  |
|  | 250 | 0.6 | 0.7 | 1.0 | 2.6 | 4.6 |  |
|  | 500 | 0.6 | 0.7 | 0.9 | 1.7 | 2.7 |  |

* Values will vary slightly depending on the operating conditions.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

|  | Motor output (W) | Motor model | Motor dimension (mm) |
| :---: | :---: | :---: | :---: |
| Mitsubishi Electric <br> Corporation | 200 | $\mathrm{HC}-\mathrm{PQ} 23$ | 89 |
|  |  | HC-MFS23 | 99.5 |
|  |  | $\mathrm{HC}-\mathrm{KFS} 23$ | 99.5 |
|  |  | HF -KP23 | 76.6 |

LTF8 RF1 PL-300- $\square \square$ - X10

Stroke (mm)
For details, refer to page 786 .

- Switch specifications

| Nil | Without switch and switch rail |
| :---: | :---: |
| 1 | Photo micro sensor 1 pc., Photo micro sensor rail 1 pc. |
| 2 | Photo micro sensor 2 pcs., Photo micro sensor rail 1 pc. |
| 3 | Photo micro sensor 3 pcs., Photo micro sensor rail 1 pc. |
| 4 | Proximity switch (A contact) 1 pc., Proximity switch rail 1 pc. |
| 5 | Proximity switch (A contact) 2 pcs., Proximity switch rail 1 pc. |
| 6 | Proximity switch (B contact) 2 pcs., Proximity switch rail 1 pc. |
| 7 | Proximity switch (A contact) 1 pc., (B contact) 2 pcs., Proximity switch rail 1 pc. |
| A | Photo micro sensor rail 1 pc . |
| B | Proximity switch rail 1 pc. |

* Dog fittings for switch are attached to all types except type "Nil".
- Motor specification

| Symbol | Motor manufacturer | Motor model | Motor output | Compatible driver model | Power supply voltage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| RF1 | Mitsubishi Electric Corporation | HC-PQ23 | 200 W | MR-C20A1 | 100/115 VAC |
| RF2 |  |  |  | MR-C20A | 200/230 VAC |
| RF0 |  | - | - | - | - |

* Motor/driver is included for RF1 and RF2.

Refer to page 826 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details

## Series LTF8

Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (without motor) (kg) | 3.4 | 4.3 | 5.1 | 6.0 | 6.8 | 7.7 | 8.5 | 9.4 | 10.2 | 11.1 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |  |  |  |  |
|  | Work load (kg) | 25 |  |  |  |  |  |  |  |  |  |
|  | Maximum speed (mm/s) | 1000 |  |  |  |  |  | 890 | 710 | 580 | 480 |
|  | Positioning repeatability (mm) | $\pm 0.02$ |  |  |  |  |  |  |  |  |  |
| Main parts | Motor | AC servomotor (200 W) |  |  |  |  |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |  |  |  |  |
|  | Lead screw | Ground ball screw $\varnothing 15 \mathrm{~mm}, 20 \mathrm{~mm}$ lead |  |  |  |  |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |  |  |  |  |
| Switch | Model | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FT (A contact) (Refer to page 1080 for details.) |  |  |  |  |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FTB (B contact) (Refer to page 1080 for details.) |  |  |  |  |  |  |  |  |  |

## Allowable Moment ( $\mathrm{N} \cdot \mathrm{m}$ )

Allowable dynamic moment


Refer to page 827 for deflection data.
m : Transfer load (kg)
a : Work piece acceleration ( $\mathrm{mm} / \mathrm{s}^{2}$ )
Me: Allowable dynamic moment
L : Overhang to work piece center of gravity (mm)

# Non-standard Motor Horizontal Mount 




Motor/switch entry direction

- Motor specification

| Symbol | Motor manufacturer | Motor model | Motor output | Compatible driver model | Power supply voltage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| RF1 | Mitsubishi Electric Corporation*2 | HC-PQ23 | 200 W | MR-C20A1-UE | 100/115 VAC |
| RF2 |  |  |  | MR-C20A-UE | 200/230 VAC |
| RF9 |  |  |  | - | - |
| RF0*1 |  | - | - | - | - |
| RMF1 |  | HC-MFS23 | 200 W | MR-J2S-20A1 | 100/115 VAC |
| RMF2 |  |  |  | MR-J2S-20A | 200/230 VAC |
| RMF9 |  |  |  | - | - |
| RMFO*1 |  | - | - | - | - |
| RKF1 |  | HC-KFS23 | 200 W | MR-J2S-20A1 | 100/115 VAC |
| RKF2 |  |  |  | MR-J2S-20A | 200/230 VAC |
| RKF9 |  |  |  | - | - |
| RKFO* ${ }^{* 1}$ |  | - | - | - | - |
| RPF1 |  | HF-KP23 | 200 W | MR-J3-20A1 | 100/115 VAC |
| RPF2 |  |  |  | MR-J3-20A | 200/230 VAC |
| RPF9 |  |  |  | - | - |
| RPFO*1 |  | - | - | - | - |

*1 Without motor/driver. Refer to page 826 for motor mounting dimensions.

* 2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation.

Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

## Series LTF8

Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (without motor) (kg) | 3.4 | 4.3 | 5.1 | 6.0 | 6.8 | 7.7 | 8.5 | 9.4 | 10.2 | 11.1 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |  |  |  |  |
|  | Work load (kg) | 25 |  |  |  |  |  |  |  |  |  |
|  | Rated thrust ( N ) | 180 |  |  |  |  |  |  |  |  |  |
|  | Maximum speed (mm/s) | 1000 |  |  |  |  |  | 890 | 710 | 580 | 480 |
|  | Positioning repeatability (mm) | $\pm 0.02$ |  |  |  |  |  |  |  |  |  |
| Main parts | Motor | AC servomotor (200 W) |  |  |  |  |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |  |  |  |  |
|  | Lead screw | Ground ball screw $\varnothing 15 \mathrm{~mm}, 20 \mathrm{~mm}$ lead |  |  |  |  |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |  |  |  |  |

## Allowable Moment (N.m)

Allowable dynamic moment


Refer to page 827 for deflection data.
m : Transfer load (kg)
a : Work piece acceleration ( $\mathrm{mm} / \mathrm{s}^{2}$ )
Me: Allowable dynamic moment
L : Overhang to work piece center of gravity (mm)

## Dimensions/LTF8 $\square$ F $\square$ PL(X10)


*1. The body and work piece mounting reference planes are to be used as guidelines for equipment mounting. Refer to page 825 for the mounting procedure.
*2. For the motor dimensions, refer to "Non-standard Motor."
*3. For the dimensions of the motor mounting position, refer to the dimensions on page 826 for the guidelines for assembly and designing.
*4. With HC-MFS23, HC-KFS23 or HF-KP23 motor, the motor encoder may project from the product's bottom mounting surface. Be sure to incorporate a recess when designing the device.


## Positioning Time Guide

|  |  | Positioning time (sec.) |  |  |  |  |  |
| :---: | ---: | :---: | :---: | :---: | ---: | ---: | :---: |
| Positioning distance (mm) |  | 1 | 10 | 100 | 500 | 1000 |  |
| Speed <br> (mm/s) | 10 | 0.6 | 1.6 | 10.6 | 50.6 | 100.6 |  |
|  | 100 | 0.6 | 0.7 | 1.6 | 5.6 | 10.6 |  |
|  | 500 | 0.6 | 0.7 | 0.9 | 1.7 | 2.7 |  |
|  | 1000 | 0.6 | 0.7 | 0.9 | 1.4 | 1.9 |  |

* Values will vary slightly depending on the operating conditions.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

|  | Motor output (W) | Motor model | Motor dimension (mm) |
| :---: | :---: | :---: | :---: |
| Mitsubishi Electric <br> Corporation | 200 | $\mathrm{HC}-\mathrm{PQ} 23$ | 89 |
|  |  | $\mathrm{HC}-\mathrm{MFS23}$ | 99.5 |
|  |  | $\mathrm{HC}-\mathrm{KFS23}$ | 99.5 |
|  |  | HF -KP23 | 76.6 |



A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time ( 0.5 sec .)*
Maximum acceleration: $3000 \mathrm{~mm} / \mathrm{s}^{2}$

* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.


# Non-standard Motor Horizontal Mount Series LTF8 

## LTF8 RF1 NH- $\mathbf{3 0 0}-\square \square$ - X10



For detail
to page 791 .

| Nil | Without switch and switch rail |
| :---: | :---: |
| $\mathbf{1}$ | Photo micro sensor 1 pc., Photo micro sensor rail 1 pc. |
| $\mathbf{2}$ | Photo micro sensor 2 pcs., Photo micro sensor rail 1 pc. |
| $\mathbf{3}$ | Photo micro sensor 3 pcs., Photo micro sensor rail 1 pc. |
| $\mathbf{4}$ | Proximity switch (A contact) 1 pc., Proximity switch rail 1 pc. |
| $\mathbf{5}$ | Proximity switch (A contact) 2 pcs., Proximity switch rail 1 pc. |
| $\mathbf{6}$ | Proximity switch (B contact) 2 pcs., Proximity switch rail 1 pc. |
| $\mathbf{7}$ | Proximity switch (A contact) 1 pc., (B contact) 2 pcs., Proximity switch rail 1 pc. |
| A | Photo micro sensor rail 1 pc. |
| B | Proximity switch rail 1 pc. |

* Dog fittings for switch are attached to all types except type "Nil".

Motor/switch entry direction

| $\mathbf{N i l}$ | Without motor, switch and switch rail |
| :---: | :---: |
| $\mathbf{R}$ | Motor straight, motor cable, switch and switch rail located on the right |
| $\mathbf{L}$ | Motor straight, motor cable, switch and switch rail located on the left |



Motor/switch entry direction

- Motor specification

| Symbol | Motor manufacturer | Motor <br> model | Motor <br> output | Compatible <br> driver model | Power supply <br> voltage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| RF1 | Mitsubishi Electric | HC-PQ23 | 200 W | MR-C20A1 | 100/115 VAC |
|  |  | Corporation |  | - | MR-C20A |
|  | RF0 | 200/230 VAC |  |  |

* Motor/driver is included for RF1 and RF2.

Refer to page 826 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details

## Non-standard Motor/Horizontal Mount Specification Series LTF8

Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (without motor) (kg) | 3.4 | 4.3 | 5.1 | 6.0 | 6.8 | 7.7 | 8.5 | 9.4 | 10.2 | 11.1 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |  |  |  |  |
|  | Work load (kg) | 50 |  |  |  |  |  |  |  |  |  |
|  | Maximum speed (mm/s) | 500 |  |  |  |  |  | 440 | 350 | 290 | 240 |
|  | Positioning repeatability (mm) | $\pm 0.05$ |  |  |  |  |  |  |  |  |  |
| Main parts | Motor | AC servomotor (200 W) |  |  |  |  |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |  |  |  |  |
|  | Lead screw | Rolled ball screw $\varnothing 15 \mathrm{~mm}, 10 \mathrm{~mm}$ lead |  |  |  |  |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |  |  |  |  |
| Switch | Model | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FT (A contact) (Refer to page 1080 for details.) |  |  |  |  |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FTB (B contact) (Refer to page 1080 for details.) |  |  |  |  |  |  |  |  |  |

## Allowable Moment (N.m)

Allowable dynamic moment

m : Transfer load (kg)
a : Work piece acceleration $\left(\mathrm{mm} / \mathrm{s}^{2}\right)$
Me: Allowable dynamic moment
L : Overhang to work piece
center of gravity (mm)

Refer to page 827 for deflection data.

# Non-standard Motor Horizontal Mount 

LTF8 RF1 NH- $\mathbf{3 0 0}-\square \square-\mathbf{X 1 0 - Q}$
-Switch specifications


* Dog fittings for switch are attached to all types except type "Nil".
Please order the switch separately. (Refer to pages 1080, 1081, and 1083.)
-Motor/switch entry direction

| Nil | Without motor, switch and switch rail |
| :---: | :---: |
| $\mathbf{R}$ | Motor straight, motor cable, switch and switch rail located on the right |
| L | Motor straight, motor cable, switch and switch rail located on the left |



Motor/switch entry direction

- Motor specification

| Symbol | Motor manufacturer | Motor model | Motor output | Compatible driver model | Power supply voltage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| RF1 | Mitsubishi Electric Corporation*2 | HC-PQ23 | 200 W | MR-C20A1-UE | 100/115 VAC |
| RF2 |  |  |  | MR-C20A-UE | 200/230 VAC |
| RF9 |  |  |  | - | - |
| RFO*1 |  | - | - | - | - |
| RMF1 |  | HC-MFS23 | 200 W | MR-J2S-20A1 | 100/115 VAC |
| RMF2 |  |  |  | MR-J2S-20A | 200/230 VAC |
| RMF9 |  |  |  | - | - |
| RMFO*1 |  | - | - | - | - |
| RKF1 |  | HC-KFS23 | 200 W | MR-J2S-20A1 | 100/115 VAC |
| RKF2 |  |  |  | MR-J2S-20A | 200/230 VAC |
| RKF9 |  |  |  | - | - |
| RKFO*1 |  | - | - | - | - |
| RPF1 |  | HF-KP23 | 200 W | MR-J3-20A1 | 100/115 VAC |
| RPF2 |  |  |  | MR-J3-20A | 200/230 VAC |
| RPF9 |  |  |  | - | - |
| RPFO*1 |  | - | - | - | - |

[^9]
## Non-standard Motor/Horizontal Mount Specification Series LTF8

Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (without motor) (kg) | 3.4 | 4.3 | 5.1 | 6.0 | 6.8 | 7.7 | 8.5 | 9.4 | 10.2 | 11.1 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |  |  |  |  |
|  | Work load (kg) | 50 |  |  |  |  |  |  |  |  |  |
|  | Rated thrust ( N ) | 360 |  |  |  |  |  |  |  |  |  |
|  | Maximum speed (mm/s) | 500 |  |  |  |  |  | 440 | 350 | 290 | 240 |
|  | Positioning repeatability (mm) | $\pm 0.05$ |  |  |  |  |  |  |  |  |  |
| Main parts | Motor | AC servomotor (200 W) |  |  |  |  |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |  |  |  |  |
|  | Lead screw | Rolled ball screw $\varnothing 15 \mathrm{~mm}, 10 \mathrm{~mm}$ lead |  |  |  |  |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |  |  |  |  |

## Allowable Moment ( $\mathrm{N} \cdot \mathrm{m}$ )

## Allowable dynamic moment


$\mathbf{m}:$ Transfer load $(\mathrm{kg})$
$\mathbf{a}:$ Work piece acceleration $\left(\mathrm{mm} / \mathrm{s}^{2}\right)$
Me: Allowable dynamic moment
L : Overhang to work piece center of gravity (mm)

[^10]
## Series LTF8

Dimensions/LTF8 $\square \mathbf{F} \square \mathbf{N H}(\mathbf{X 1 0 )}$

*1. The body and work piece mounting reference planes are to be used as guidelines for equipment mounting. Refer to page 825 for the mounting procedure.
*2. For the motor dimensions, refer to "Non-standard Motor."
$* 3$. For the dimensions of the motor mounting position, refer to the dimensions on page 826 for the guidelines for assembly and designing.
*4. With HC-MFS23, HC-KFS23 or HF-KP23 motor, the motor encoder may project from the product's bottom mounting surface. Be sure to incorporate a recess when designing the device.


| Model | Stroke | $\mathbf{n}_{1}$ | $\mathbf{n}_{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: |
| LTF8 $\square$ F $\square$ NH- 100- $\square \square$-X10 | 100 | 2 | 2 |
| LTF8 $\square$ F $\square$ NH- 200- $\square \square$-X10 | 200 | 3 | 2 |
| LTF8 $\square$ F $\square$ NH- 300- $\square-$-X10 | 300 | 4 | 2 |
| LTF8 $\square$ F $\square$ NH- 400- $\square$-X10 | 400 | 5 | 2 |
| LTF8 $\square$ F $\square$ NH- 500- $\square-$-X10 | 500 | 6 | 3 |


| Model | Stroke | $\mathbf{n}_{1}$ | $\mathbf{n}_{2}$ |
| :---: | :---: | :---: | :---: |
| LTF8 $\square$ F $\square$ NH- 600- $\square-$-X10 | 600 | 7 | 3 |
| LTF8 $\square$ F $\square$ NH- 700- $\square-$-X10 | 700 | 8 | 3 |
| LTF8 $\square$ F $\square$ NH- 800- $\square \square-$ X10 | 800 | 9 | 3 |
| LTF8 $\square$ F $\square$ NH- 900- $\square-$-X10 | 900 | 10 | 3 |
| LTF8 $\square$ F $\square$ NH-1000- $\square-$-X10 | 1000 | 11 | 3 |

## Positioning Time Guide

|  |  | Positioning time (sec.) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | ---: | ---: | :---: |
| Positioning distance (mm) |  | 1 | 10 | 100 | 500 | 1000 |  |
| Speed <br> (mm/s) | 10 | 0.6 | 1.6 | 10.6 | 50.6 | 100.6 |  |
|  | 100 | 0.6 | 0.7 | 1.6 | 5.6 | 10.6 |  |
|  | 250 | 0.6 | 0.7 | 1.0 | 2.6 | 4.6 |  |
|  | 500 | 0.6 | 0.7 | 0.9 | 1.7 | 2.7 |  |

* Values will vary slightly depending on the operating conditions.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

|  | Motor output (W) | Motor model | Motor dimension (mm) |
| :---: | :---: | :---: | :---: |
| Mitsubishi Electric <br> Corporation | 200 | $\mathrm{HC}-\mathrm{PQ} 23$ | 89 |
|  |  | HC-MFS23 | 99.5 |
|  |  | $\mathrm{HC}-\mathrm{KFS23}$ | 99.5 |
|  |  | HF -KP23 | 76.6 |

# Non-standard Motor Horizontal Mount 



Stroke (mm)
For details, refer to page 796.
-Switch specifications

| Nil | Without switch and switch rail |
| :---: | :---: |
| $\mathbf{1}$ | Photo micro sensor 1 pc., Photo micro sensor rail 1 pc. |
| $\mathbf{2}$ | Photo micro sensor 2 pcs., Photo micro sensor rail 1 pc. |
| $\mathbf{3}$ | Photo micro sensor 3 pcs., Photo micro sensor rail 1 pc. |
| $\mathbf{4}$ | Proximity switch (A contact) 1 pc., Proximity switch rail 1 pc. |
| $\mathbf{5}$ | Proximity switch (A contact) 2 pcs., Proximity switch rail 1 pc. |
| $\mathbf{6}$ | Proximity switch (B contact) 2 pcs., Proximity switch rail 1 pc. |
| $\mathbf{7}$ | Proximity switch (A contact) 1 pc., (B contact) 2 pcs., Proximity switch rail 1 pc. |
| A | Photo micro sensor rail 1 pc. |
| B | Proximity switch rail 1 pc. |

* Dog fittings for switch are attached to all types except type "Nil".
- Motor specification

| Symbol | Motor manufacturer | Motor <br> model | Motor <br> output | Compatible <br> driver model | Power supply <br> voltage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| RF1 | Mitsubishi Electric | HC-PQ23 | 200 W | MR-C20A1 | 100/115 VAC |
|  |  | Corporation |  | - | MR-C20A |
|  | RF0 | 200/230 VAC |  |  |

* Motor/driver is included for RF1 and RF2.

Refer to page 826 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

## Series LTF8

Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (without motor) (kg) | 3.4 | 4.3 | 5.1 | 6.0 | 6.8 | 7.7 | 8.5 | 9.4 | 10.2 | 11.1 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |  |  |  |  |
|  | Work load (kg) | 25 |  |  |  |  |  |  |  |  |  |
|  | Maximum speed (mm/s) | 1000 |  |  |  |  |  | 890 | 710 | 580 | 480 |
|  | Positioning repeatability (mm) | $\pm 0.05$ |  |  |  |  |  |  |  |  |  |
| Main parts | Motor | AC servomotor (200 W) |  |  |  |  |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |  |  |  |  |
|  | Lead screw | Rolled ball screw $\varnothing 15 \mathrm{~mm}, 20 \mathrm{~mm}$ lead |  |  |  |  |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |  |  |  |  |
| Switch | Model | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FT (A contact) (Refer to page 1080 for details.) |  |  |  |  |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FTB (B contact) (Refer to page 1080 for details.) |  |  |  |  |  |  |  |  |  |

## Allowable Moment ( $\mathrm{N} \cdot \mathrm{m}$ )

Allowable dynamic moment


Refer to page 827 for deflection data.
m : Transfer load (kg)
a : Work piece acceleration ( $\mathrm{mm} / \mathrm{s}^{2}$ )
Me: Allowable dynamic moment
L : Overhang to work piece center of gravity (mm)

# Non-standard Motor Horizontal Mount 




Motor/switch entry direction

- Motor specification

| Symbol | Motor manufacturer | Motor model | Motor output | Compatible driver model | Power supply voltage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| RF1 | Mitsubishi Electric Corporation*2 | HC-PQ23 | 200 W | MR-C20A1-UE | 100/115 VAC |
| RF2 |  |  |  | MR-C20A-UE | 200/230 VAC |
| RF9 |  |  |  | - | - |
| RF0*1 |  | - | - | - | - |
| RMF1 |  | HC-MFS23 | 200 W | MR-J2S-20A1 | 100/115 VAC |
| RMF2 |  |  |  | MR-J2S-20A | 200/230 VAC |
| RMF9 |  |  |  | - | - |
| RMFO*1 |  | - | - | - | - |
| RKF1 |  | HC-KFS23 | 200 W | MR-J2S-20A1 | 100/115 VAC |
| RKF2 |  |  |  | MR-J2S-20A | 200/230 VAC |
| RKF9 |  |  |  | - | - |
| RKFO* ${ }^{* 1}$ |  | - | - | - | - |
| RPF1 |  | HF-KP23 | 200 W | MR-J3-20A1 | 100/115 VAC |
| RPF2 |  |  |  | MR-J3-20A | 200/230 VAC |
| RPF9 |  |  |  | - | - |
| RPFO*1 |  | - | - | - | - |

*1 Without motor/driver. Refer to page 826 for motor mounting dimensions.
*2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

## Series LTF8

Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (without motor) (kg) | 3.4 | 4.3 | 5.1 | 6.0 | 6.8 | 7.7 | 8.5 | 9.4 | 10.2 | 11.1 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |  |  |  |  |
|  | Work load (kg) | 25 |  |  |  |  |  |  |  |  |  |
|  | Rated thrust ( N ) | 180 |  |  |  |  |  |  |  |  |  |
|  | Maximum speed (mm/s) | 1000 |  |  |  |  |  | 890 | 710 | 580 | 480 |
|  | Positioning repeatability (mm) | $\pm 0.05$ |  |  |  |  |  |  |  |  |  |
| Main parts | Motor | AC servomotor (200 W) |  |  |  |  |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |  |  |  |  |
|  | Lead screw | Rolled ball screw $\varnothing 15 \mathrm{~mm}, 20 \mathrm{~mm}$ lead |  |  |  |  |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |  |  |  |  |

## Allowable Moment (N.m)

Allowable dynamic moment


Refer to page 827 for deflection data.
m : Transfer load (kg)
a : Work piece acceleration ( $\mathrm{mm} / \mathrm{s}^{2}$ )
Me: Allowable dynamic moment
L : Overhang to work piece center of gravity (mm)

## Dimensions/LTF8 $\square \mathrm{F} \square \mathrm{NL}(\mathrm{X10})$


*1. The body and work piece mounting reference planes are to be used as guidelines for equipment mounting. Refer to page 825 for the mounting procedure.
*2. For the motor dimensions, refer to "Non-standard Motor."
$* 3$. For the dimensions of the motor mounting position, refer to the dimensions on page 826 for the guidelines for assembly and designing.
*4. With HC-MFS23, HC-KFS23 or HF-KP23 motor, the motor encoder may project from the product's bottom mounting surface. Be sure to incorporate a recess when designing the device.



Section AA
(Sensor mounting dimensions)


D section detail
(Sensor rail dimensions)

Section AA


E section detail
(Switch rail T-slot dimensions)

| Model | Stroke | $\mathbf{n}_{1}$ | $\mathbf{n}_{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: |
| LTF8 $\square$ F $\square$ NL- 100- $\square \square-\mathbf{X 1 0}$ | 100 | 2 | 2 |
| LTF8 $\square \square$ NL- 200- $\square-$-X10 | 200 | 3 | 2 |
| LTF8 $\square$ F $\square$ NL- 300- $\square \square-\mathbf{X 1 0 ~}$ | 300 | 4 | 2 |
| LTF8 $\square$ F $\square$ NL- 400- $\square \square$-X10 | 400 | 5 | 2 |
| LTF8 $\square$ F $\square$ NL- 500- $\square-$-X10 | 500 | 6 | 3 |


| Model | Stroke | $\mathbf{n}_{1}$ | $\mathbf{n}_{2}$ |
| :---: | ---: | ---: | :---: |
| LTF8 $\square$ F $\square$ NL- 600- $\square \square-X 10$ | 600 | 7 | 3 |
| LTF8 $\square$ F $\square$ NL- 700- $\square \square-\mathbf{X 1 0 ~}$ | 700 | 8 | 3 |
| LTF8 $\square$ F $\square$ NL- 800- $\square \square-\mathbf{X 1 0 ~}$ | 800 | 9 | 3 |
| LTF8 $\square$ F $\square$ NL- 900- $\square \square-\mathbf{X 1 0 ~}$ | 900 | 10 | 3 |
| LTF8 $\square$ F $\square$ NL-1000- $\square \square-X 10$ | 1000 | 11 | 3 |

## Positioning Time Guide

|  |  | Positioning time (sec.) |  |  |  |  |  |
| :---: | ---: | :---: | :---: | :---: | ---: | ---: | :---: |
| Positioning distance (mm) |  |  | 1 | 10 | 100 | 500 |  |
| Speed <br> $(\mathrm{mm} / \mathrm{s})$ | 10 | 0.6 | 1.6 | 10.6 | 50.6 | 100.6 |  |
|  | 100 | 0.6 | 0.7 | 1.6 | 5.6 | 10.6 |  |
|  | 500 | 0.6 | 0.7 | 0.9 | 1.7 | 2.7 |  |
|  | 1000 | 0.6 | 0.7 | 0.9 | 1.4 | 1.9 |  |

* Values will vary slightly depending on the operating conditions.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

|  | Motor output (W) | Motor model | Motor dimension (mm) |
| :---: | :---: | :---: | :---: |
| Mitsubishi Electric <br> Corporation | 200 | HC-PQ23 | 89 |
|  |  | HC-MFS23 | 99.5 |
|  |  | HC-KFS23 | 99.5 |
|  |  | HF-KP23 | 76.6 |

A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time ( 0.5 sec .)*
Maximum acceleration: $3000 \mathrm{~mm} / \mathrm{s}^{2}$

* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.


# Non-standard Motor Vertical Mount 

## Series LTF6

## How to Order

## Stroke (mm) <br> For details, refer <br> to page 801

LTF6 RE1 PF- $300 \mathrm{~K}-\square \square$ - X10

Switch specifications

| Nil | Without switch and switch rail |
| :---: | :---: |
| $\mathbf{1}$ | Photo micro sensor 1 pc., Photo micro sensor rail 1 pc. |
| $\mathbf{2}$ | Photo micro sensor 2 pcs., Photo micro sensor rail 1 pc. |
| $\mathbf{3}$ | Photo micro sensor 3 pcs., Photo micro sensor rail 1 pc. |
| $\mathbf{4}$ | Proximity switch (A contact) 1 pc., Proximity switch rail 1 pc. |
| $\mathbf{5}$ | Proximity switch (A contact) 2 pcs., Proximity switch rail 1 pc. |
| $\mathbf{6}$ | Proximity switch (B contact) 2 pcs., Proximity switch rail 1 pc. |
| $\mathbf{7}$ | Proximity switch (A contact) 1 pc., (B contact) 2 pcs., Proximity switch rail 1 pc. |
| $\mathbf{A}$ | Photo micro sensor rail 1 pc. |
| $\mathbf{B}$ | Proximity switch rail 1 pc. |

* Dog fittings for switch are attached to all types except type "Nil".
- Motor/switch entry direction

| Nil | Without motor, switch and switch rail |
| :---: | :---: |
| $\mathbf{R}$ | Motor straight, motor cable, switch and switch rail located on the right |
| $\mathbf{L}$ | Motor straight, motor cable, switch and switch rail located on the left |



Motor/switch entry direction

- Motor specification

| Symbol | Motor manufacturer | Motor model | Motor output | Compatible driver model | Power supply voltage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| RE1 | Mitsubishi Electric Corporation | HC-PQ13B | 100 W | MR-C10A1 | 100/115 VAC |
| RE2 |  |  |  | MR-C10A | 200/230 VAC |
| RE0 |  | - | - | - | - |

* Motor/driver is included for RE1 and RE2.

Refer to page 826 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

## Non-standard Motor/Vertical Mount Specification Series LTF6

Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (without motor) (kg) | 1.7 | 2.1 | 2.6 | 3.1 | 3.6 | 4.1 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |
|  | Work load (kg) | 6 |  |  |  |  |  |
|  | Maximum speed (mm/s) | 300 |  |  |  |  | 230 |
|  | Positioning repeatability (mm) | $\pm 0.02$ |  |  |  |  |  |
| Main parts | Motor | AC servomotor (100 W) with brake |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |
|  | Lead screw | Ground ball screw $\varnothing 10 \mathrm{~mm}, 6 \mathrm{~mm}$ lead |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |
| Switch | Model | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FT (A contact) (Refer to page 1080 for details.) |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FTB (B contact) (Refer to page 1080 for details.) |  |  |  |  |  |
| Regenerative absorption unit |  | Refer to the selection guide below. |  |  |  |  |  |

## Allowable Moment (N.m)

Allowable dynamic moment


[^11]Refer to page 827 for deflection data.

Regenerative Absorption Unit Selection Guide
Depending on operating conditions, a regenerative absorption unit or regenerative resistor may be required for a non-standard motor with vertical mount specification. How to determine regenerative energy is shown below.
Regenerative energy = Motor coil energy consumption

+ Driver capacitor energy consumption (A)
+ Regenerative resistor energy consumption (B)
(A) and (B) vary depending on each motor and driver. Use of a regenerative absorption unit or regenerative resistor is recommended under any conditions when a vertical specification is used. Contact SMC for questions regarding selections.


## Series LTF6

Dimensions/LTF6 $\square \mathrm{E} \square \mathrm{PF}(\mathrm{X10})$


| Model | Stroke | $\mathbf{n}_{1}$ | $\mathbf{n}_{2}$ |
| :---: | :---: | :---: | :---: |
| LTF6 $\square$ E $\square$ PF- 100K- $\square \square$-X10 | 100 | 2 | 2 |
| LTF6 $\square$ E $\square$ PF- 200K- $\square-\mathbf{- X 1 0}$ | 200 | 3 | 2 |
| LTF6 $\square \square$ PF- 300K- $\square-$-X10 | 300 | 4 | 2 |
| LTF6 $\square$ E $\square$ PF- 400K- $\square \square$-X10 | 400 | 5 | 2 |
| LTF6 $\square$ E $\square$ PF- 500K- $\square \square-X 10$ | 500 | 6 | 3 |
| LTF6 $\square \square$ PF- 600K- $\square-$-X10 | 600 | 7 | 3 |



Section AA (Sensor mounting dimensions)


## Section AA

*1. The body and work piece mounting reference planes are to be used as guidelines for equipment mounting. Refer to page 825 for the mounting procedure.
*2. For the motor dimensions, refer to "Non-standard Motor."
*3. For the dimensions of the motor mounting position, refer to the dimensions on page 826 for the guidelines for assembly and designing.

## Positioning Time Guide

|  |  | Positioning time (sec.) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | ---: | ---: | ---: | :---: |
| Positioning distance $(\mathrm{mm})$ |  | 1 | 10 | 100 | 300 | 600 |  |
| Speed <br> $(\mathrm{mm} / \mathrm{s})$ | 10 | 0.5 | 1.5 | 10.5 | 30.5 | 60.5 |  |
|  | 100 | 0.5 | 0.6 | 1.5 | 3.5 | 6.5 |  |
|  | 150 | 0.5 | 0.6 | 1.2 | 2.5 | 4.5 |  |
|  | 300 | 0.5 | 0.6 | 0.9 | 1.6 | 2.6 |  |

* Values will vary slightly depending on the operating conditions.


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time ( 0.4 sec .)*
Maximum acceleration: $3000 \mathrm{~mm} / \mathrm{s}^{2}$

* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

|  | Motor output (W) | Motor model | Motor dimension (mm) |
| :---: | :---: | :---: | :---: |
| Mitsubishi Electric <br> Corporation | 100 | HC-PQ13B | 114.5 |

# Non-standard Motor Vertical Mount 

 Series LTF6How to Order
LTF6 RE1 PH-300 K- $\square \square-\mathbf{X 1 0}$

## Stroke (mm)

For details, refer
to page 804

| Nil | Without switch and switch rail |
| :---: | :---: |
| $\mathbf{1}$ | Photo micro sensor $1 \mathrm{pc} .$, Photo micro sensor rail 1 pc. |
| $\mathbf{2}$ | Photo micro sensor 2 pcs., Photo micro sensor rail 1 pc. |
| $\mathbf{3}$ | Photo micro sensor 3 pcs., Photo micro sensor rail 1 pc. |
| $\mathbf{4}$ | Proximity switch (A contact) 1 pc., Proximity switch rail 1 pc. |
| $\mathbf{5}$ | Proximity switch (A contact) 2 pcs., Proximity switch rail 1 pc. |
| $\mathbf{6}$ | Proximity switch (B contact) 2 pcs., Proximity switch rail 1 pc. |
| $\mathbf{7}$ | Proximity switch (A contact) 1 pc., (B contact) 2 pcs., Proximity switch rail 1 pc. |
| $\mathbf{A}$ | Photo micro sensor rail 1 pc. |
| $\mathbf{B}$ | Proximity switch rail 1 pc. |

* Dog fittings for switch are attached to all types except type "Nil".
- Motor specification

| Symbol | Motor manufacturer | Motor model | Motor output | Compatible driver model | Power supply voltage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| RE1 | Mitsubishi Electric Corporation | HC-PQ13B | 100 W | MR-C10A1 | 100/115 VAC |
| RE2 |  |  |  | MR-C10A | 200/230 VAC |
| RE0 |  | - | - | - | - |

* Motor/driver is included for RE1 and RE2.

Refer to page 826 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (without motor) (kg) | 1.7 | 2.1 | 2.6 | 3.1 | 3.6 | 4.1 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |
|  | Work load (kg) | 3 |  |  |  |  |  |
|  | Maximum speed (mm/s) | 500 |  |  |  |  | 390 |
|  | Positioning repeatability (mm) | $\pm 0.02$ |  |  |  |  |  |
| Main parts | Motor | AC servomotor (100 W) with brake |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |
|  | Lead screw | Ground ball screw $\varnothing 10 \mathrm{~mm}, 10 \mathrm{~mm}$ lead |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |
| Switch | Model | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FT (A contact) (Refer to page 1080 for details.) |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FTB (B contact) (Refer to page 1080 for details.) |  |  |  |  |  |
| Regenerative absorption unit |  | Refer to the selection guide below. |  |  |  |  |  |

## Allowable Moment (N.m)

Allowable dynamic moment


[^12]Refer to page 827 for deflection data.

## Regenerative Absorption Unit Selection Guide

Depending on operating conditions, a regenerative absorption unit or regenerative resistor may be required for a non-standard motor with vertical mount specification. How to determine regenerative energy is shown below.
Regenerative energy = Motor coil energy consumption

> + Driver capacitor energy consumption (A)
> + Regenerative resistor energy consumption (B)
$(A)$ and $(B)$ vary depending on each motor and driver. Use of a regenerative absorption unit or regenerative resistor is recommended under any conditions when a vertical specification is used. Contact SMC for questions regarding selections.


| Model | Stroke | n1 | n2 |
| :---: | :---: | :---: | :---: |
| LTF6 $\square$ E $\square$ PH-100K- $\square \square$-X10 | 100 | 2 | 2 |
| LTF6 $\square$ E $\square$ PH-200K- $\square \square$-X10 | 200 | 3 | 2 |
| LTF6 $\square$ E $\square$ PH-300K- $\square \square$-X10 | 300 | 4 | 2 |
| LTF6 $\square$ E $\square$ PH-400K- $\square \square$-X10 | 400 | 5 | 2 |
| LTF6 $\square$ E $\square$ PH-500K- $\square \square$-X10 | 500 | 6 | 3 |
| LTF6 $\square$ E $\square$ PH-600K- $\square \square$-X10 | 600 | 7 | 3 |



Section AA (Sensor mounting dimensions)


D section detail (Sensor rail dimensions)


E section detail
(Switch rail T-slot dimensions)
*1. The body and work piece mounting reference planes are to be used as guidelines for equipment mounting. Refer to page 825 for the mounting procedure.
*2. For the motor dimensions, refer to "Non-standard Motor."
$* 3$. For the dimensions of the motor mounting position, refer to the dimensions on page 826 for the guidelines for assembly and designing.

LJ1

E-MY

## Positioning Time Guide

|  |  | Positioning time (sec.) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | ---: | ---: | :---: |
| Positioning distance (mm) |  |  | 1 | 10 | 100 | 300 |  |
| Speed <br> $(\mathrm{mm} / \mathrm{s})$ | 10 | 0.5 | 1.5 | 10.5 | 30.5 | 60.5 |  |
|  | 100 | 0.5 | 0.6 | 1.5 | 3.5 | 6.5 |  |
|  | 250 | 0.5 | 0.6 | 0.9 | 1.7 | 2.9 |  |
|  | 500 | 0.5 | 0.6 | 0.8 | 1.2 | 1.8 |  |

* Values will vary slightly depending on the operating conditions.


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time ( 0.4 sec .)*
Maximum acceleration: $3000 \mathrm{~mm} / \mathrm{s}^{2}$

* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

|  | Motor output (W) | Motor model | Motor dimension (mm) |
| :---: | :---: | :---: | :---: |
| Mitsubishi Electric <br> Corporation | 100 | HC-PQ13B | 114.5 |

## Series LTF6

How to Order

## LTF6 RE1 NF-300 K- $\square \square-\mathbf{X 1 0}$ <br> Stroke (mm) <br> For details, refer to page 807 . <br> Switch specifications <br> * Dog fittings for switch are attached to all types except type "Nil". <br> Motor/switch entry direction

| Nil | Without switch and switch rail |
| :---: | :---: |
| $\mathbf{1}$ | Photo micro sensor 1 pc., Photo micro sensor rail 1 pc. |
| $\mathbf{2}$ | Photo micro sensor 2 pcs., Photo micro sensor rail 1 pc. |
| $\mathbf{3}$ | Photo micro sensor 3 pcs., Photo micro sensor rail 1 pc. |
| $\mathbf{4}$ | Proximity switch (A contact) 1 pc., Proximity switch rail 1 pc. |
| $\mathbf{5}$ | Proximity switch (A contact) 2 pcs., Proximity switch rail 1 pc. |
| $\mathbf{6}$ | Proximity switch (B contact) 2 pcs., Proximity switch rail 1 pc. |
| $\mathbf{7}$ | Proximity switch (A contact) 1 pc., (B contact) 2 pcs., Proximity switch rail 1 pc. |
| $\mathbf{A}$ | Photo micro sensor rail 1 pc. |
| $\mathbf{B}$ | Proximity switch rail 1 pc. |


| Nil | Without motor, switch and switch rail |
| :---: | :---: |
| $\mathbf{R}$ | Motor straight, motor cable, switch and switch rail located on the right |
| $\mathbf{L}$ | Motor straight, motor cable, switch and switch rail located on the left |



Motor/switch entry direction

Motor specification

| Symbol | Motor manufacturer | Motor model | Motor output | Compatible driver model | Power supply voltage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| RE1 | Mitsubishi Electric Corporation | HC-PQ13B | 100 W | MR-C10A1 | 100/115 VAC |
| RE2 |  |  |  | MR-C10A | 200/230 VAC |
| RE0 |  | - | - | - | - |

* Motor/driver is included for RE1 and RE2.

Refer to page 826 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (without motor) (kg) | 1.7 | 2.1 | 2.6 | 3.1 | 3.6 | 4.1 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |
|  | Work load (kg) | 6 |  |  |  |  |  |
|  | Maximum speed (mm/s) | 300 |  |  |  |  | 230 |
|  | Positioning repeatability (mm) | $\pm 0.05$ |  |  |  |  |  |
| Main parts | Motor | AC servomotor (100 W) with brake |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |
|  | Lead screw | Rolled ball screw $\varnothing 10 \mathrm{~mm}, 6 \mathrm{~mm}$ lead |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |
| Switch | Model | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FT (A contact) (Refer to page 1080 for details.) |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FTB (B contact) (Refer to page 1080 for details.) |  |  |  |  |  |
| Regenerative absorption unit |  | Refer to the selection guide below. |  |  |  |  |  |

Allowable Moment (N.m)
Allowable dynamic moment


[^13]Refer to page 827 for deflection data.

## Regenerative Absorption Unit Selection Guide

Depending on operating conditions, a regenerative absorption unit or regenerative resistor may be required for a non-standard motor with vertical mount specification. How to determine regenerative energy is shown below.
Regenerative energy = Motor coil energy consumption

+ Driver capacitor energy consumption (A)
+ Regenerative resistor energy consumption (B)
(A) and (B) vary depending on each motor and driver. Use of a regenerative absorption unit or regenerative resistor is recommended under any conditions when a vertical specification is used. Contact SMC for questions regarding selections.


## Dimensions/LTF6 $\square \mathrm{E} \square \mathbf{N F}(\mathrm{X10})$



| Model | Stroke | $\mathbf{n}_{1}$ | $\mathbf{n}_{2}$ |
| :---: | :---: | :---: | :---: |
| LTF6 $\square$ E $\square$ NF-100K- $\square \square$-X10 | 100 | 2 | 2 |
| LTF6 $\square$ E $\square$ NF-200K- $\square \square$-X10 | 200 | 3 | 2 |
| LTF6 $\square$ E $\square$ NF-300K- $\square \square$-X10 | 300 | 4 | 2 |
| LTF6 $\square \square$ NF-400K- $\square-$-X10 | 400 | 5 | 2 |
| LTF6 $\square \square$ EF-500K- $\square \square$-X10 | 500 | 6 | 3 |
| LTF6 $\square$ E $\square$ NF-600K- $\square \square$-X10 | 600 | 7 | 3 |



Section AA (Sensor mounting dimensions)

(Switch rail T-slot dimensions)

## Section AA

*1. The body and work piece mounting reference planes are to be used as guidelines for equipment mounting. Refer to page 825 for the mounting procedure.
*2. For the motor dimensions, refer to "Non-standard Motor."
*3. For the dimensions of the motor mounting position, refer to the dimensions on page 826 for the guidelines for assembly and designing.

## Positioning Time Guide

|  |  | Positioning time (sec.) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | ---: | ---: | ---: | :---: |
| Positioning distance (mm) |  | 1 | 10 | 100 | 300 | 600 |  |
| Speed <br> (mm/s) | 10 | 0.5 | 1.5 | 10.5 | 30.5 | 60.5 |  |
|  | 100 | 0.5 | 0.6 | 1.5 | 3.5 | 6.5 |  |
|  | 150 | 0.5 | 0.6 | 1.2 | 2.5 | 4.5 |  |
|  | 300 | 0.5 | 0.6 | 0.9 | 1.6 | 2.6 |  |

* Values will vary slightly depending on the operating conditions.


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time ( 0.4 sec .)*
Maximum acceleration: $3000 \mathrm{~mm} / \mathrm{s}^{2}$

* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

|  | Motor output (W) | Motor model | Motor dimension (mm) |
| :---: | :---: | :---: | :---: |
| Mitsubishi Electric <br> Corporation | 100 | HC-PQ13B | 114.5 |

## Non-standard Motor Vertical Mount

## Series LTF6

## How to Order



Motor/switch entry direction

Motor specification

| Symbol | Motor manufacturer | Motor model | Motor output | Compatible driver model | Power supply voltage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| RE1 | Mitsubishi Electric Corporation | HC-PQ13B | 100 W | MR-C10A1 | 100/115 VAC |
| RE2 |  |  |  | MR-C10A | 200/230 VAC |
| RE0 |  | - | - | - | - |

* Motor/driver is included for RE1 and RE2.

Refer to page 826 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Made to order specifications
(For details, refer to page 999)

[^14]Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (without motor) (kg) | 1.7 | 2.1 | 2.6 | 3.1 | 3.6 | 4.1 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |
|  | Work load (kg) | 3 |  |  |  |  |  |
|  | Maximum speed (mm/s) | 500 |  |  |  |  | 390 |
|  | Positioning repeatability (mm) | $\pm 0.05$ |  |  |  |  |  |
| Main parts | Motor | AC servomotor (100 W) with brake |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |
|  | Lead screw | Rolled ball screw $\varnothing 10 \mathrm{~mm}, 10 \mathrm{~mm}$ lead |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |
| Switch | Model | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FT (A contact) (Refer to page 1080 for details.) |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FTB (B contact) (Refer to page 1080 for details.) |  |  |  |  |  |
| Regenerative absorption unit |  | Refer to the selection guide below. |  |  |  |  |  |

## Allowable Moment (N.m)

Allowable dynamic moment


[^15]Refer to page 827 for deflection data.

## Regenerative Absorption Unit Selection Guide

Depending on operating conditions, a regenerative absorption unit or regenerative resistor may be required for a non-standard motor with vertical mount specification. How to determine regenerative energy is shown below.
Regenerative energy = Motor coil energy consumption

> + Driver capacitor energy consumption (A)
> + Regenerative resistor energy consumption (B)
$(A)$ and $(B)$ vary depending on each motor and driver. Use of a regenerative absorption unit or regenerative resistor is recommended under any conditions when a vertical specification is used. Contact SMC for questions regarding selections.

## Dimensions/LTF6 $\square \mathrm{E} \square \mathrm{NH}(\mathrm{X10})$



| Model | Stroke | n1 | n2 |
| :---: | :---: | :---: | :---: |
| LTF6 $\square$ E $\square$ NH-100K- $\square \square$-X10 | 100 | 2 | 2 |
| LTF6 $\square$ E $\square$ NH-200K- $\square \square$-X10 | 200 | 3 | 2 |
| LTF6 $\square$ E $\square$ NH-300K- $\square \square$-X10 | 300 | 4 | 2 |
| LTF6 $\square$ E $\square$ NH-400K- $\square \square$-X10 | 400 | 5 | 2 |
| LTF6 $\square$ E $\square$ NH-500K- $\square \square$-X10 | 500 | 6 | 3 |
| LTF6 $\square$ E $\square$ NH-600K- $\square \square$-X10 | 600 | 7 | 3 |

## Positioning Time Guide

|  |  | Positioning time (sec.) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | ---: | ---: | :---: |
| Positioning distance $(\mathrm{mm})$ |  | 1 | 10 | 100 | 300 | 600 |  |
| Speed <br> (mm/s) | 10 | 0.5 | 1.5 | 10.5 | 30.5 | 60.5 |  |
|  | 100 | 0.5 | 0.6 | 1.5 | 3.5 | 6.5 |  |
|  | 250 | 0.5 | 0.6 | 0.9 | 1.7 | 2.9 |  |
|  | 500 | 0.5 | 0.6 | 0.8 | 1.2 | 1.8 |  |

* Values will vary slightly depending on the operating conditions.


A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time ( 0.4 sec .)*
Maximum acceleration: $3000 \mathrm{~mm} / \mathrm{s}^{2}$

* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

|  | Motor output (W) | Motor model | Motor dimension (mm) |
| :---: | :---: | :---: | :---: |
| Mitsubishi Electric <br> Corporation | 100 | HC-PQ13B | 114.5 |

# Non-standard Motor <br> Vertical Mount 

## Series LTF8

## How to Order

## LTF8 RF1 PH- 300 <br> Stroke (mm) <br> For details, refer <br> to page 813 .



| Nil | Without switch and switch rail |
| :---: | :---: |
| $\mathbf{1}$ | Photo micro sensor 1 pc., Photo micro sensor rail 1 pc. |
| $\mathbf{2}$ | Photo micro sensor 2 pcs., Photo micro sensor rail 1 pc. |
| $\mathbf{3}$ | Photo micro sensor 3 pcs., Photo micro sensor rail 1 pc. |
| $\mathbf{4}$ | Proximity switch (A contact) 1 pc., Proximity switch rail 1 pc. |
| $\mathbf{5}$ | Proximity switch (A contact) 2 pcs., Proximity switch rail 1 pc. |
| $\mathbf{6}$ | Proximity switch (B contact) 2 pcs., Proximity switch rail 1 pc. |
| $\mathbf{7}$ | Proximity switch (A contact) 1 pc., (B contact) 2 pcs., Proximity switch rail 1 pc. |
| $\mathbf{A}$ | Photo micro sensor rail 1 pc. |
| $\mathbf{B}$ | Proximity switch rail 1 pc. |

* Dog fittings for switch are attached to all types except type "Nil".
- Motor/switch entry direction

| $\mathbf{N i l}$ | Without motor, switch and switch rail |
| :---: | :---: |
| $\mathbf{R}$ | Motor straight, motor cable, switch and switch rail located on the right |
| $\mathbf{L}$ | Motor straight, motor cable, switch and switch rail located on the left |



Motor/switch entry direction

Motor specification

| Symbol | Motor manufacturer | Motor <br> model | Motor <br> output | Compatible <br> driver model | Power supply <br> voltage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| RF1 | Mitsubishi Electric <br> RF2 | HC-PQ23B | 200 W | MR-C20A1 | 100/115 VAC |
|  |  | - | - | MR-C20A | $200 / 230 \mathrm{VAC}$ |
| RF0 |  | - | - |  |  |

* Motor/driver is included for RF1 and RF2.

Refer to page 826 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (without motor) (kg) | 3.4 | 4.3 | 5.1 | 6.0 | 6.8 | 7.7 | 8.5 | 9.4 | 10.2 | 11.1 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |  |  |  |  |
|  | Work load (kg) | 10 |  |  |  |  |  |  |  |  |  |
|  | Maximum speed (mm/s) | 500 |  |  |  |  |  | 440 | 350 | 290 | 240 |
|  | Positioning repeatability (mm) | $\pm 0.02$ |  |  |  |  |  |  |  |  |  |
| Main parts | Motor | AC servomotor (200 W) with brake |  |  |  |  |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |  |  |  |  |
|  | Lead screw | Ground ball screw $\varnothing 15 \mathrm{~mm}, 10 \mathrm{~mm}$ lead |  |  |  |  |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |  |  |  |  |
| Switch | Model | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FT (A contact) (Refer to page 1080 for details.) |  |  |  |  |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FTB (B contact) (Refer to page 1080 for details.) |  |  |  |  |  |  |  |  |  |
| Regenerative absorption unit |  | Refer to the selection guide below. |  |  |  |  |  |  |  |  |  |

## Allowable Moment (N.m)

Allowable dynamic moment

m: Transfer load (kg)
Me: Allowable dynamic moment
Refer to page 827 for deflection data.

Regenerative Absorption Unit Selection Guide
Depending on operating conditions, a regenerative absorption unit or regenerative resistor may be required for a nonstandard motor with vertical mount specification. How to determine regenerative energy is shown below.
Regenerative energy = Motor coil energy consumption

+ Driver capacitor energy consumption (A)
+ Regenerative resistor energy consumption (B)
(A) and (B) vary depending on each motor and driver. Use of a regenerative absorption unit or regenerative resistor is recommended under any conditions when a vertical specification is used. Contact SMC for questions regarding selections.

Dimensions/LTF8 $\square \mathrm{F} \square \mathrm{PH}(\mathrm{X10})$

*1. The body and work piece mounting reference planes are to be used as guidelines for equipment mounting. Refer to page 825 for the mounting procedure.
*2. For the motor dimensions, refer to "Non-standard Motor."
*3. For the dimensions of the motor mounting position, refer to the dimensions on page 826 for the guidelines for assembly and designing.



Section AA
(Sensor mounting dimensions)


D section detail (Sensor rail dimensions)


E section detail
(Switch rail T-slot dimensions)

| Model | Stroke | $\mathbf{n}_{1}$ | $\mathbf{n}_{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: |
| LTF8 $\square$ F $\square$ PH- 100K- $\square-$-X10 | 100 | 2 | 2 |
| LTF8 $\square$ F $\square$ PH- 200K- $\square \square-X 10$ | 200 | 3 | 2 |
| LTF8 $\square$ F $\square$ PH- 300K- $\square-\mathbf{X 1 0}$ | 300 | 4 | 2 |
| LTF8 $\square$ F $\square$ PH- 400K- $\square \square$-X10 | 400 | 5 | 2 |
| LTF8 $\square$ F $\square$ PH- 500K- $\square \square-X 10$ | 500 | 6 | 3 |


| Model | Stroke | $\mathbf{n}_{1}$ | $\mathbf{n}_{2}$ |
| :---: | ---: | ---: | :---: |
| LTF8 $\square$ F $\square$ PH- 600K- $\square \square$-X10 | 600 | 7 | 3 |
| LTF8 $\square$ F $\square$ PH- 700K- $\square \square$-X10 | 700 | 8 | 3 |
| LTF8 $\square$ F $\square$ PH- 800K- $\square \square$-X10 | 800 | 9 | 3 |
| LTF8 $\square$ F $\square$ PH- 900K- $\square \square$-X10 | 900 | 10 | 3 |
| LTF8 $\square$ F $\square$ PH-1000K- $\square \square$-X10 | 1000 | 11 | 3 |

## Positioning Time Guide

|  |  | Positioning time (sec.) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | ---: | ---: | :---: |
| Positioning distance (mm) | 1 | 10 | 100 | 500 | 1000 |  |  |
|  | 10 | 0.6 | 1.6 | 10.6 | 50.6 | 100.6 |  |
|  | 100 | 0.6 | 0.7 | 1.6 | 5.6 | 10.6 |  |
|  | 250 | 0.6 | 0.7 | 1.0 | 2.6 | 4.6 |  |
|  | 500 | 0.6 | 0.7 | 0.9 | 1.7 | 2.7 |  |

* Values will vary slightly depending on the operating conditions.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

|  | Motor output (W) | Motor model | Motor dimension (mm) |
| :---: | :---: | :---: | :---: |
| Mitsubishi Electric <br> Corporation | 200 | HC-PQ23B | 121 |

## Non-standard Motor Vertical Mount



| Nil | Without switch and switch rail |
| :---: | :---: |
| $\mathbf{1}$ | Photo micro sensor 1 pc., Photo micro sensor rail 1 pc. |
| $\mathbf{2}$ | Photo micro sensor 2 pcs., Photo micro sensor rail 1 pc. |
| $\mathbf{3}$ | Photo micro sensor 3 pcs., Photo micro sensor rail 1 pc. |
| $\mathbf{4}$ | Proximity switch (A contact) 1 pc., Proximity switch rail 1 pc. |
| $\mathbf{5}$ | Proximity switch (A contact) 2 pcs., Proximity switch rail 1 pc. |
| $\mathbf{6}$ | Proximity switch (B contact) 2 pcs., Proximity switch rail 1 pc. |
| $\mathbf{7}$ | Proximity switch (A contact) 1 pc., (B contact) 2 pcs., Proximity switch rail 1 pc. |
| A | Photo micro sensor rail 1 pc. |
| B | Proximity switch rail 1 pc. |

* Dog fittings for switch are attached to all types except type "Nil".

Motor specification

| Symbol | Motor manufacturer | Motor <br> model | Motor <br> output | Compatible <br> driver model | Power supply <br> voltage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| RF1 | Mitsubishi Electric | HC-PQ23B | 200 W | MR-C20A1 | 100/115 VAC |
| RF2 |  |  | - | MR-C20A | $200 / 230$ VAC |
|  | RF0 | Cory | - | - |  |

* Motor/driver is included for RF1 and RF2.

Refer to page 826 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (without motor) (kg) | 3.4 | 4.3 | 5.1 | 6.0 | 6.8 | 7.7 | 8.5 | 9.4 | 10.2 | 11.1 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |  |  |  |  |
|  | Work load (kg) | 5 |  |  |  |  |  |  |  |  |  |
|  | Maximum speed (mm/s) | 1000 |  |  |  |  |  | 890 | 710 | 580 | 480 |
|  | Positioning repeatability (mm) | $\pm 0.02$ |  |  |  |  |  |  |  |  |  |
| Main parts | Motor | AC servomotor (200 W) with brake |  |  |  |  |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |  |  |  |  |
|  | Lead screw | Ground ball screw $\varnothing 15 \mathrm{~mm}, 20 \mathrm{~mm}$ lead |  |  |  |  |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |  |  |  |  |
| Switch | Model | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FT (A contact) (Refer to page 1080 for details.) |  |  |  |  |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FTB (B contact) (Refer to page 1080 for details.) |  |  |  |  |  |  |  |  |  |
| Regenerative absorption unit |  | Refer to the selection guide below. |  |  |  |  |  |  |  |  |  |

## Allowable Moment (N.m)

Allowable dynamic moment

m : Transfer load (kg)
a : Work piece acceleration $\left(\mathrm{mm} / \mathrm{s}^{2}\right) \mathbf{L}$ : Overhang to work piece center of gravity ( mm )
Refer to page 827 for deflection data.

## Regenerative Absorption Unit Selection Guide

Depending on operating conditions, a regenerative absorption unit or regenerative resistor may be required for a nonstandard motor with vertical mount specification. How to determine regenerative energy is shown below.
Regenerative energy = Motor coil energy consumption

+ Driver capacitor energy consumption (A)
+ Regenerative resistor energy consumption (B)
$(A)$ and $(B)$ vary depending on each motor and driver. Use of a regenerative absorption unit or regenerative resistor is recommended under any conditions when a vertical specification is used. Contact SMC for questions regarding selections.


## Dimensions/LTF8 $\square$ F $\square$ PL(X10)



## Positioning Time Guide

|  |  | Positioning time (sec.) |  |  |  |  |  |
| :---: | ---: | :---: | :---: | :---: | ---: | ---: | :---: |
| Positioning distance $(\mathrm{mm})$ |  | 1 | 10 | 100 | 500 | 1000 |  |
| Speed <br> $(\mathrm{mm} / \mathrm{s})$ | 10 | 0.6 | 1.6 | 10.6 | 50.6 | 100.6 |  |
|  | 100 | 0.6 | 0.7 | 1.6 | 5.6 | 10.6 |  |
|  | 500 | 0.6 | 0.7 | 0.9 | 1.7 | 2.7 |  |
|  | 1000 | 0.6 | 0.7 | 0.9 | 1.4 | 1.9 |  |

* Values will vary slightly depending on the operating conditions.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

|  | Motor output (W) | Motor model | Motor dimension (mm) |
| :---: | :---: | :---: | :---: |
| Mitsubishi Electric <br> Corporation | 200 | HC-PQ23B | 121 |



A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time ( 0.5 sec .)*
Maximum acceleration: $3000 \mathrm{~mm} / \mathrm{s}^{2}$

* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.


## LTF8 RF1 NH-300 <br> Stroke (mm) <br> For details, refer o page 819 .



| Nil | Without switch and switch rail |
| :---: | :---: |
| $\mathbf{1}$ | Photo micro sensor 1 pc., Photo micro sensor rail 1 pc. |
| $\mathbf{2}$ | Photo micro sensor 2 pcs., Photo micro sensor rail 1 pc. |
| $\mathbf{3}$ | Photo micro sensor 3 pcs., Photo micro sensor rail 1 pc. |
| $\mathbf{4}$ | Proximity switch (A contact) 1 pc., Proximity switch rail 1 pc. |
| $\mathbf{5}$ | Proximity switch (A contact) 2 pcs., Proximity switch rail 1 pc. |
| $\mathbf{6}$ | Proximity switch (B contact) 2 pcs., Proximity switch rail 1 pc. |
| $\mathbf{7}$ | Proximity switch (A contact) 1 pc., (B contact) 2 pcs., Proximity switch rail 1 pc. |
| $\mathbf{A}$ | Photo micro sensor rail 1 pc. |
| $\mathbf{B}$ | Proximity switch rail 1 pc. |

* Dog fittings for switch are attached to all types except type "Nil".
- Motor/switch entry direction

| $\mathbf{N i l}$ | Without motor, switch and switch rail |
| :---: | :---: |
| $\mathbf{R}$ | Motor straight, motor cable, switch and switch rail located on the right |
| $\mathbf{L}$ | Motor straight, motor cable, switch and switch rail located on the left |



Motor/switch entry direction

Motor specification

| Symbol | Motor manufacturer | Motor model | Motor output | Compatible driver model | Power supply voltage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| RF1 | Mitsubishi Electric Corporation | HC-PQ23B | 200 W | MR-C20A1 | 100/115 VAC |
| RF2 |  |  |  | MR-C20A | 200/230 VAC |
| RFO |  | - | - | - | - |

* Motor/driver is included for RF1 and RF2.

Refer to page 826 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (without motor) (kg) | 3.4 | 4.3 | 5.1 | 6.0 | 6.8 | 7.7 | 8.5 | 9.4 | 10.2 | 11.1 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |  |  |  |  |
|  | Work load (kg) | 10 |  |  |  |  |  |  |  |  |  |
|  | Maximum speed (mm/s) | 500 |  |  |  |  |  | 440 | 350 | 290 | 240 |
|  | Positioning repeatability (mm) | $\pm 0.05$ |  |  |  |  |  |  |  |  |  |
| Main parts | Motor | AC servomotor (200 W) with brake |  |  |  |  |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |  |  |  |  |
|  | Lead screw | Rolled ball screw $\varnothing 15 \mathrm{~mm}, 10 \mathrm{~mm}$ lead |  |  |  |  |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |  |  |  |  |
| Switch | Model | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FT (A contact) (Refer to page 1080 for details.) |  |  |  |  |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FTB (B contact) (Refer to page 1080 for details.) |  |  |  |  |  |  |  |  |  |
| Regenerative absorption unit |  | Refer to the selection guide below. |  |  |  |  |  |  |  |  |  |

## Allowable Moment (N.m)

Allowable dynamic moment

m: Transfer load (kg)
a : Work piece acceleration $\left(\mathrm{mm} / \mathrm{s}^{2}\right) \mathrm{L}$ : Overhang to work piece center of gravity ( mm )
Refer to page 827 for deflection data.

Regenerative Absorption Unit Selection Guide
Depending on operating conditions, a regenerative absorption unit or regenerative resistor may be required for a nonstandard motor with vertical mount specification. How to determine regenerative energy is shown below.
Regenerative energy = Motor coil energy consumption

+ Driver capacitor energy consumption (A)
+ Regenerative resistor energy consumption (B)
(A) and (B) vary depending on each motor and driver. Use of a regenerative absorption unit or regenerative resistor is recommended under any conditions when a vertical specification is used. Contact SMC for questions regarding selections.

Dimensions/LTF8 $\square \mathrm{F} \square \mathrm{NH}(\mathrm{X} 10)$




Section AA

| Model | Stroke | $\mathbf{n}_{1}$ | $\mathbf{n}_{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: |
| LTF8 $\square$ F $\square$ NH- 100K- $\square \square-$ X10 | 100 | 2 | 2 |
| LTF8 $\square$ F $\square$ NH- 200K- $\square-$-X10 | 200 | 3 | 2 |
| LTF8 $\square$ F $\square$ NH- 300K- $\square-$-X10 | 300 | 4 | 2 |
| LTF8 $\square$ F $\square$ NH- 400K- $\square \square-X 10$ | 400 | 5 | 2 |
| LTF8 $\square$ F $\square$ NH- 500K- $\square \square-X 10$ | 500 | 6 | 3 |


| Model | Stroke | $\mathbf{n}_{1}$ | $\mathbf{n}_{\mathbf{2}}$ |
| :---: | ---: | ---: | :---: |
| LTF8 $\square$ F $\square$ NH- 600K- $\square \square$-X10 | 600 | 7 | 3 |
| LTF8 $\square$ F $\square$ NH- 700K- $\square \square$-X10 | 700 | 8 | 3 |
| LTF8 $\square$ F $\square$ NH- 800K- $\square \square$-X10 | 800 | 9 | 3 |
| LTF8 $\square$ F $\square$ NH- 900K- $\square \square$-X10 | 900 | 10 | 3 |
| LTF8 $\square$ F $\square$ NH-1000K- $\square \square$-X10 | 1000 | 11 | 3 |

## Positioning Time Guide

|  |  | Positioning time (sec.) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | ---: | ---: | :---: |
| Positioning distance $(\mathrm{mm})$ |  | 1 | 10 | 100 | 500 | 1000 |  |
| Speed <br> $(\mathrm{mm} / \mathrm{s})$ | 10 | 0.6 | 1.6 | 10.6 | 50.6 | 100.6 |  |
|  | 100 | 0.6 | 0.7 | 1.6 | 5.6 | 10.6 |  |
|  | 250 | 0.6 | 0.7 | 1.0 | 2.6 | 4.6 |  |
|  | 500 | 0.6 | 0.7 | 0.9 | 1.7 | 2.7 |  |

* Values will vary slightly depending on the operating conditions.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

|  | Motor output (W) | Motor model | Motor dimension (mm) |
| :---: | :---: | :---: | :---: |
| Mitsubishi Electric <br> Corporation | 200 | HC-PQ23B | 121 |

## Series LTF8

How to Order
LTF8 RF1 NL-300 K- $\square$ - $\mathbf{~ X 1 0}$

Stroke (mm)
For details, refer
to page 822.

| Nil | Without switch and switch rail |
| :---: | :---: |
| $\mathbf{1}$ | Photo micro sensor 1 pc., Photo micro sensor rail 1 pc. |
| $\mathbf{2}$ | Photo micro sensor 2 pcs., Photo micro sensor rail 1 pc. |
| $\mathbf{3}$ | Photo micro sensor 3 pcs., Photo micro sensor rail 1 pc. |
| $\mathbf{4}$ | Proximity switch (A contact) 1 pc., Proximity switch rail 1 pc. |
| $\mathbf{5}$ | Proximity switch (A contact) 2 pcs., Proximity switch rail 1 pc. |
| $\mathbf{6}$ | Proximity switch (B contact) 2 pcs., Proximity switch rail 1 pc. |
| $\mathbf{7}$ | Proximity switch (A contact) 1 pc., (B contact) 2 pcs., Proximity switch rail 1 pc. |
| A | Photo micro sensor rail 1 pc. |
| B | Proximity switch rail 1 pc. |

-Motor/switch entry direction

| Nil | Without motor, switch and switch rail |
| :---: | :---: |
| $\mathbf{R}$ | Motor straight, motor cable, switch and switch rail located on the right |
| $\mathbf{L}$ | Motor straight, motor cable, switch and switch rail located on the left |

Motor/switch entry direction

Motor specification

| Symbol | Motor manufacturer | Motor <br> model | Motor <br> output | Compatible <br> driver model | Power supply <br> voltage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| RF1 | Mitsubishi Electric | HC-PQ23B | 200 W | MR-C20A1 | 100/115 VAC |
| RF2 |  |  | - | MR-C20A | $200 / 230$ VAC |
|  | RF0 | Cory | - | - |  |

* Motor/driver is included for RF1 and RF2.

Refer to page 826 for motor mounting dimensions.
Cable for joining motor and driver is optional.
Refer to page 659 for part nos.
Please contact individual motor manufacturers regarding motor/driver specifications or other details.

Specifications

| Standard stroke (mm) |  | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Performance | Body mass (without motor) (kg) | 3.4 | 4.3 | 5.1 | 6.0 | 6.8 | 7.7 | 8.5 | 9.4 | 10.2 | 11.1 |
|  | Operating temperature range ( ${ }^{\circ} \mathrm{C}$ ) | 5 to 40 (No condensation) |  |  |  |  |  |  |  |  |  |
|  | Work load (kg) | 5 |  |  |  |  |  |  |  |  |  |
|  | Maximum speed (mm/s) | 1000 |  |  |  |  |  | 890 | 710 | 580 | 480 |
|  | Positioning repeatability (mm) | $\pm 0.05$ |  |  |  |  |  |  |  |  |  |
| Main parts | Motor | AC servomotor (200 W) with brake |  |  |  |  |  |  |  |  |  |
|  | Encoder | Incremental system |  |  |  |  |  |  |  |  |  |
|  | Lead screw | Rolled ball screw $\varnothing 15 \mathrm{~mm}, 20 \mathrm{~mm}$ lead |  |  |  |  |  |  |  |  |  |
|  | Guide | Frame-type linear guide |  |  |  |  |  |  |  |  |  |
|  | Motor/Screw connection | With coupling |  |  |  |  |  |  |  |  |  |
| Switch | Model | Photo micro sensor EE-SX674 (Refer to page 1083 for details.) |  |  |  |  |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FT (A contact) (Refer to page 1080 for details.) |  |  |  |  |  |  |  |  |  |
|  |  | Proximity switch GXL-N12FTB (B contact) (Refer to page 1080 for details.) |  |  |  |  |  |  |  |  |  |
| Regenerative absorption unit |  | Refer to the selection guide below. |  |  |  |  |  |  |  |  |  |

## Allowable Moment (N.m)

Allowable dynamic moment

m : Transfer load (kg)
a : Work piece acceleration $\left(\mathrm{mm} / \mathrm{s}^{2}\right) \mathbf{L}$ : Overhang to work piece center of gravity ( mm )
Refer to page 827 for deflection data.

## Regenerative Absorption Unit Selection Guide

Depending on operating conditions, a regenerative absorption unit or regenerative resistor may be required for a nonstandard motor with vertical mount specification. How to determine regenerative energy is shown below.
Regenerative energy = Motor coil energy consumption

+ Driver capacitor energy consumption (A)
+ Regenerative resistor energy consumption (B)
$(A)$ and (B) vary depending on each motor and driver. Use of a regenerative absorption unit or regenerative resistor is recommended under any conditions when a vertical specification is used. Contact SMC for questions regarding selections.


| Model | Stroke | $\mathbf{n}_{1}$ | $\mathbf{n}_{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: |
| LTF8 $\square$ F $\square$ NL- 100K- $\square \square-\mathbf{X 1 0}$ | 100 | 2 | 2 |
| LTF8 $\square$ F $\square$ NL- 200K- $\square \square$-X10 | 200 | 3 | 2 |
| LTF8 $\square$ F $\square$ NL- 300K- $\square \square-\mathbf{X 1 0}$ | 300 | 4 | 2 |
| LTF8 $\square$ F $\square$ NL- 400K- $\square \square$-X10 | 400 | 5 | 2 |
| LTF8 $\square$ F $\square$ NL- 500K- $\square \square-X 10$ | 500 | 6 | 3 |


| Model | Stroke | $\mathbf{n}_{\mathbf{1}}$ | $\mathbf{n}_{\mathbf{2}}$ |
| :---: | ---: | ---: | :---: |
| LTF8 $\square$ F $\square$ NL- 600K- $\square \square$-X10 | 600 | 7 | 3 |
| LTF8 $\square$ FL- 700K- $\square \square-\mathbf{X 1 0}$ | 700 | 8 | 3 |
| LTF8 $\square$ F $\square$ NL- 800K- $\square \square-\mathbf{X 1 0}$ | 800 | 9 | 3 |
| LTF8 $\square$ F $\square$ NL- 900K- $\square \square$-X10 | 900 | 10 | 3 |
| LTF8 $\square$ F $\square$ NL-1000K- $\square \square-X 10$ | 1000 | 11 | 3 |

## Positioning Time Guide

|  |  | Positioning time (sec.) |  |  |  |  |  |
| :---: | ---: | :---: | :---: | :---: | ---: | ---: | :---: |
| Positioning distance $(\mathrm{mm})$ |  | 1 | 10 | 100 | 500 | 1000 |  |
| Speed <br> $(\mathrm{mm} / \mathrm{s})$ | 10 | 0.6 | 1.6 | 10.6 | 50.6 | 100.6 |  |
|  | 100 | 0.6 | 0.7 | 1.6 | 5.6 | 10.6 |  |
|  | 500 | 0.6 | 0.7 | 0.9 | 1.7 | 2.7 |  |
|  | 1000 | 0.6 | 0.7 | 0.9 | 1.4 | 1.9 |  |

* Values will vary slightly depending on the operating conditions.

Non-standard Motors: The following motors will be mounted when a motor mounted type is specified.

|  | Motor output (W) | Motor model | Motor dimension (mm) |
| :---: | :---: | :---: | :---: |
| Mitsubishi Electric <br> Corporation | 200 | HC-PQ23B | 121 |

A: Acceleration time
B: Constant velocity time
C: Deceleration time
D: Resting time ( 0.5 sec .)*
Maximum acceleration: $3000 \mathrm{~mm} / \mathrm{s}^{2}$

* The value is a guide when SMC's series LC1 controller is used and may vary depending on the driver capacity.


# Series LTF <br> Construction 

## Construction

## LTF6/LTF8



Parts list

| No. | Description | Material | Note |
| :---: | :--- | :---: | :---: |
| $\mathbf{1}$ | AC servomotor | - | $100 / 200$ W |
| $\mathbf{2}$ | Lead screw | - | Ball screw |
| $\mathbf{3}$ | Frame-type linear guide | - |  |
| $\mathbf{4}$ | Coupling | - |  |
| $\mathbf{5}$ | Bearing $\mathbf{R}$ | - |  |
| $\mathbf{6}$ | Bearing F | - |  |
| $\mathbf{7}$ | Housing A | Aluminum alloy |  |
| $\mathbf{8}$ | Housing B | Aluminum alloy |  |
| $\mathbf{9}$ | Bearing retainer | Carbon steel |  |


| No. | Description | Material | Note |
| :--- | :--- | :---: | :---: |
| 10 | Spacer | Stainless steel |  |
| 11 | Bumper bolt | Alloy steel |  |
| 12 | Bumper | Resin |  |
| 13 | Housing plate | Mild steel |  |
| 14 | Cable clip | Resin |  |
| 15 | Photo micro sensor rail | Aluminum alloy |  |
| 16 | Dog fitting for switch | Mild steel | Chromate |
| 17 | Photo micro sensor |  |  |
| 18 | Connector cable for sensor |  |  |

## Top Mount

## LTF6


(

## LTF8



## Series LTF

Non-standard Motor Mounting Dimensions

## Non-standard Motor Mounting Dimensions

## LTF6



## LTF8



Motor mounting area dimensions

| Manufacturer | Mitsubishi Electric <br> Corporation |
| :---: | :---: |
| C (Thread size) | M5 $\times 0.8$ |
| Effective thread length $(\mathrm{mm})$ | 10 |
| Quantity | 4 |
| P.C.D. | 70 |

* When mounting a coupling on the motor, mount it within the dimensional range shown on the left.

Coupling mounting dimensions*

## Series LTF

Deflection Data

Deflection Data

* Calculated values based on the body's sectional secondary moment.

The load and the amount of deflection at load point W are shown in the graphs below for each series.
LTF6

Horizontal


LTF8




Figure 2. Lateral


[^0]:    m:Transfer load (kg)
    Me: Allowable dynamic moment
    a : Work piece acceleration $\left(\mathrm{mm} / \mathrm{s}^{2}\right) \quad \mathbf{L}$ : Overhang to work piece center of gravity ( mm )

[^1]:    m: Transfer load (kg)
    Me: Allowable dynamic moment
    a : Work piece acceleration $\left(\mathrm{mm} / \mathrm{s}^{2}\right) \quad \mathbf{L}$ : Overhang to work piece center of gravity $(\mathrm{mm})$

[^2]:    m: Transfer load (kg)
    Me: Allowable dynamic moment
    a : Work piece acceleration $\left(\mathrm{mm} / \mathrm{s}^{2}\right) \quad \mathbf{L}$ : Overhang to work piece center of gravity ( mm )

[^3]:    m : Transfer load (kg)
    $\mathbf{a}$ : Work piece acceleration $\left(\mathrm{mm} / \mathrm{s}^{2}\right) \quad \mathbf{L}$ : Overhang to work piece center of gravity ( mm )

[^4]:    m : Transfer load (kg)
    Me: Allowable dynamic moment
    a : Work piece acceleration $\left(\mathrm{mm} / \mathrm{s}^{2}\right) \quad \mathbf{L}$ : Overhang to work piece center of gravity $(\mathrm{mm})$
    Refer to page 827 for deflection data.

[^5]:    * Values will vary slightly depending on the operating conditions.

[^6]:    * Values will vary slightly depending on the operating conditions.

[^7]:    Refer to page 827 for deflection data.

[^8]:    *1 Without motor/driver. Refer to page 826 for motor mounting dimensions.
    *2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation.
    Cable for joining motor and driver is optional.
    Refer to page 659 for part nos.
    Please contact individual motor manufacturers regarding motor/driver specifications or other details.

[^9]:    *1 Without motor/driver. Refer to page 826 for motor mounting dimensions.
    *2 Can be supplied including motor/driver for non-standard motors by Mitsubishi Electric Corporation.
    Cable for joining motor and driver is optional.
    Refer to page 659 for part nos.
    Please contact individual motor manufacturers regarding motor/driver specifications or other details.

[^10]:    Refer to page 827 for deflection data.

[^11]:    m : Transfer load (kg)
    Me: Allowable dynamic moment
    a : Work piece acceleration $\left(\mathrm{mm} / \mathrm{s}^{2}\right) \quad \mathbf{L}$ : Overhang to work piece center of gravity ( mm )

[^12]:    m: Transfer load (kg)
    Me : Allowable dynamic moment
    a : Work piece acceleration $\left(\mathrm{mm} / \mathrm{s}^{2}\right) \mathbf{L}$ : Overhang to work piece center of gravity ( mm )

[^13]:    m: Transfer load (kg)
    Me : Allowable dynamic moment
    a : Work piece acceleration $\left(\mathrm{mm} / \mathrm{s}^{2}\right) \mathbf{L}$ : Overhang to work piece center of gravity ( mm )

[^14]:    Cover specification

[^15]:    m: Transfer load (kg)
    Me : Allowable dynamic moment
    a : Work piece acceleration $\left(\mathrm{mm} / \mathrm{s}^{2}\right) \mathbf{L}$ : Overhang to work piece center of gravity ( mm )

