

MUSASHI  
ENGINEERING, INC.

For Inline Production

Versatile  
Orthogonal Machine

# X CROSS MASTER™ *Sx series*

# Debut

MUSASHI's Inline Motion Unit



## Specifications

| Name                                                   |                                                                                                                                                                                            | CROSS MASTER Sx series                       |                                    |                                    |                                    |
|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| Model                                                  |                                                                                                                                                                                            | XM230SX-3A-L-SS<br>XM230SX-3A-R-SS           | XM340SX-3A-L-SS<br>XM340SX-3A-R-SS | XM460SX-3A-L-SS<br>XM460SX-3A-R-SS | XM680SX-3A-L-SS<br>XM680SX-3A-R-SS |
| Number of controlled axes                              | 3 axes                                                                                                                                                                                     |                                              |                                    |                                    |                                    |
| Control method (*1)                                    | PTP control, interpolation control                                                                                                                                                         |                                              |                                    |                                    |                                    |
| Travel range                                           | X axis                                                                                                                                                                                     | 200 mm                                       | 300 mm                             | 400 mm                             | 600 mm                             |
|                                                        | Y axis                                                                                                                                                                                     | 300 mm                                       | 400 mm                             | 600 mm                             | 800 mm                             |
|                                                        | Z axis                                                                                                                                                                                     | 150 mm                                       |                                    |                                    |                                    |
| PTP operation speed setting range (*2)                 | X axis                                                                                                                                                                                     | 1 to 500 mm/s                                |                                    |                                    | 1 to 470 mm/s                      |
|                                                        | Y axis                                                                                                                                                                                     | 1 to 500 mm/s                                |                                    | 1 to 1000 mm/s                     | 1 to 830 mm/s                      |
|                                                        | Z axis                                                                                                                                                                                     | 1 to 300 mm/s                                |                                    |                                    |                                    |
| Interpolation operation speed setting range (*2)       | X axis                                                                                                                                                                                     | 0.1 to 500 mm/s                              |                                    |                                    | 0.1 to 470 mm/s                    |
|                                                        | Y axis                                                                                                                                                                                     | 0.1 to 500 mm/s                              |                                    | 0.1 to 999.9 mm/s                  | 0.1 to 830 mm/s                    |
|                                                        | Z axis                                                                                                                                                                                     | 0.1 to 300 mm/s                              |                                    |                                    |                                    |
| Interpolation                                          | 3D line, 3D circular arc / circular, 3D elliptical arc / ellipse, spline                                                                                                                   |                                              |                                    |                                    |                                    |
| Repetitive positioning accuracy (*3)                   | X axis                                                                                                                                                                                     | ±0.01 mm                                     |                                    |                                    |                                    |
|                                                        | Y axis                                                                                                                                                                                     | ±0.01 mm                                     |                                    |                                    |                                    |
|                                                        | Z axis                                                                                                                                                                                     | ±0.01 mm                                     |                                    |                                    |                                    |
| Transportable weight (*4)                              | 2.5 kg                                                                                                                                                                                     |                                              |                                    |                                    |                                    |
| Number of I/O signal points                            | General-purpose input                                                                                                                                                                      | 20                                           |                                    |                                    |                                    |
|                                                        | General-purpose output                                                                                                                                                                     | 23                                           |                                    |                                    |                                    |
| Program entry method                                   | Teaching pendant and PC                                                                                                                                                                    |                                              |                                    |                                    |                                    |
| Display language                                       | Japanese, English, Chinese                                                                                                                                                                 |                                              |                                    |                                    |                                    |
| Program capacity (*5)                                  | 40,000 steps (999 channels)                                                                                                                                                                |                                              |                                    |                                    |                                    |
| Program storage system                                 | Internal                                                                                                                                                                                   | Internal memory                              |                                    |                                    |                                    |
|                                                        | External                                                                                                                                                                                   | Backup by a PC with program editing software |                                    |                                    |                                    |
| Program editing software                               | MuCAD™ V (option)                                                                                                                                                                          |                                              |                                    |                                    |                                    |
| Rated power supply and frequency                       | AC200 to 240 V, 50/60 Hz                                                                                                                                                                   |                                              |                                    |                                    |                                    |
| Power consumption                                      | 200W                                                                                                                                                                                       |                                              | 300W                               |                                    |                                    |
|                                                        | Width (W)                                                                                                                                                                                  | 565 mm                                       | 635.5 mm                           | 760 mm                             | 1052.5 mm                          |
|                                                        | Depth (D)                                                                                                                                                                                  | 565 mm                                       | 651 mm                             | 923 mm                             | 1,123 mm                           |
| Main body external dimensions (excluding protrusions)  | Height (H)                                                                                                                                                                                 |                                              | 470 mm                             |                                    |                                    |
|                                                        | Height (H)                                                                                                                                                                                 |                                              | 490 mm                             |                                    |                                    |
| Main body weight                                       | 25.5 kg                                                                                                                                                                                    | 28.5 kg                                      | 44.5 kg                            | 67.5 kg                            |                                    |
| Controller external dimensions (excluding protrusions) | W500 x D340 x H265 mm                                                                                                                                                                      |                                              |                                    |                                    |                                    |
| Controller weight                                      | 18 kg                                                                                                                                                                                      |                                              |                                    |                                    |                                    |
| Other functions                                        | Test shot, eject condition CH switching, Synchro Speed™, data transfer with teaching pendant, field network communication                                                                  |                                              |                                    |                                    |                                    |
| Other options                                          | Teaching pendant set, external operation box (horizontal / vertical), holder units, test shot unit, nozzle adjuster, nozzle cleaner, signal tower light unit, field network unit (CC-Link) |                                              |                                    |                                    |                                    |
| Compatible standards                                   | EU RoHS                                                                                                                                                                                    |                                              |                                    |                                    |                                    |

\*1 PTP control: Each of the specified axes move to the end coordinate at a set speed.

Interpolation control: Each of the specified axes move to the end coordinate at an interpolated composite speed.

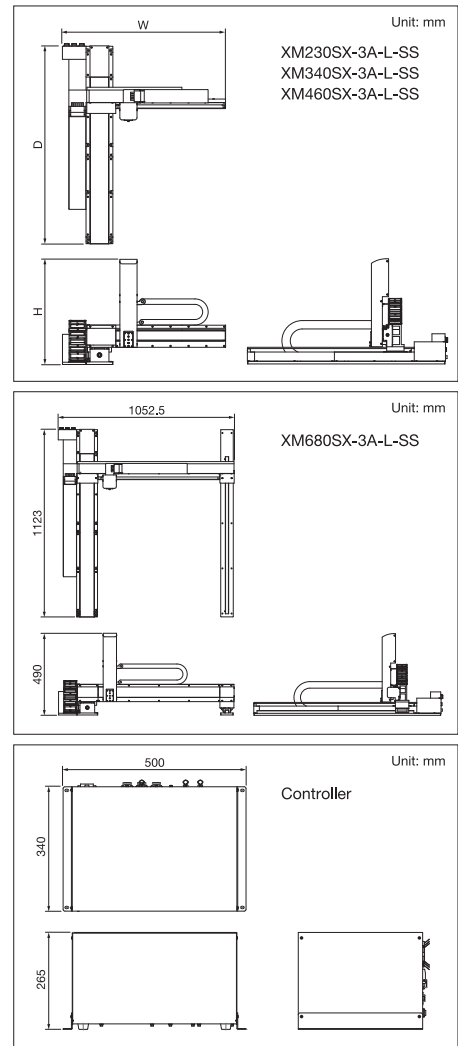
\*2 Varies according to factors such as the weight of the object mounted, the object's center of gravity, and the operation performed

\*3 This value is measured using Musashi's prescribed method (measurement method consistent with JIS).

\*4 When options are not mounted; varies according to the set speed, set acceleration / deceleration time, and operation mode

\*5 Main routine: 1 to 99 CH, sub routine: 100 to 999 CH

## External dimensions



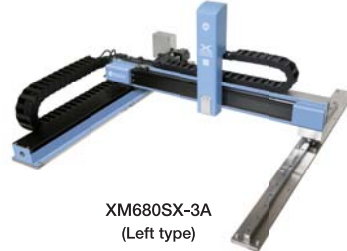
XM230SX-3A  
(Left type)



XM340SX-3A  
(Left type)



XM460SX-3A  
(Left type)



XM680SX-3A  
(Left type)



Controller