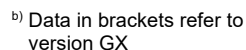


$$\text{Total length} = \text{Stroke} + 650$$


ASH

Max. total length: 8000 mm
(longer on request)

A 3D perspective diagram of a robotic arm assembly. A coordinate system is defined with the origin at the base of the arm. The $+F_z$ axis points vertically downwards. The $+F_y$ axis points horizontally to the right. The $+F_x$ axis points along the length of the arm, away from the base. Curved arrows indicate moments: $+M_z$ is a counter-clockwise rotation around the $+F_z$ axis, $+M_y$ is a clockwise rotation around the $+F_y$ axis, and $+M_x$ is a clockwise rotation around the $+F_x$ axis.

c) Maximum value (see diagram "F_x-v-Diagram")

ASH

Max. speed:	5.00 m/s
Max. acceleration:	60 m/s ²
Repeat accuracy:	± 0.08 mm
Idle torque:	4.00 Nm
Moment of inertia:*	2.57 · 10 ⁻² kgm ²
Drive element:	Toothed belt 50 AT10-E
Stroke per revolution:	240 mm

* (entire carriage traverses)

The graph shows a linear decrease in the normal force F_x as the traversing speed v increases. The y-axis represents F_x in Newtons [N], ranging from 2500 to 4000. The x-axis represents the traversing speed v in m/s, ranging from 0.00 to 5.00. The line starts at $(0, 4000)$ and ends at approximately $(5, 2580)$.

Traversing speed v [m/s]	Normal force F_x [N]
0.00	4000
1.00	3500
2.00	3000
3.00	2580
4.00	2160
5.00	2580