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■ Linear Modules

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Product overview

Overview of multi axis linear module		Permissible max. pay load				
Description	Type	60kg	150kg	200kg	300kg	400kg
 1 axis linear module-UL type	UL	UL1		UL2		UL3
 2 axis linear module-TL type	TL	TL1	TL2	TL3		
 3 axis linear module-CL type	CL	CL1	CL2	CL3		
 Wireless linear module-WL type	WL	WL1				

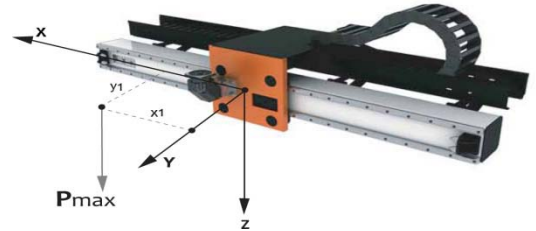
◆ Type UL



Module Type	Payload range [kg]							
	60	80	100	120	150	200	250	400
UL - 1								
UL - 2								
UL - 3								

► 1 axis linear module

◆ Technical data UL-1



Pmax = 150 kg

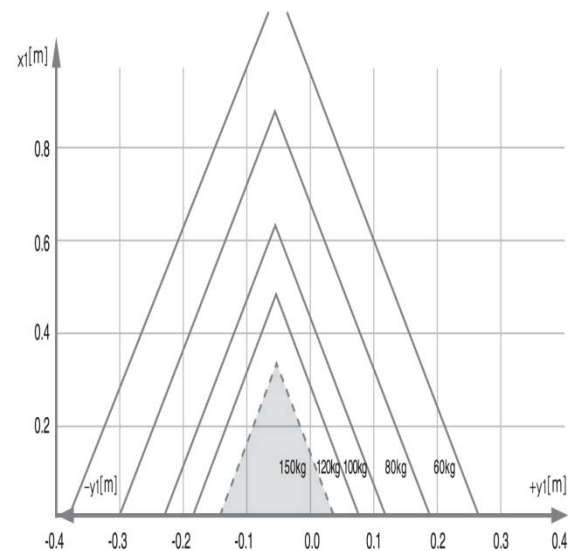
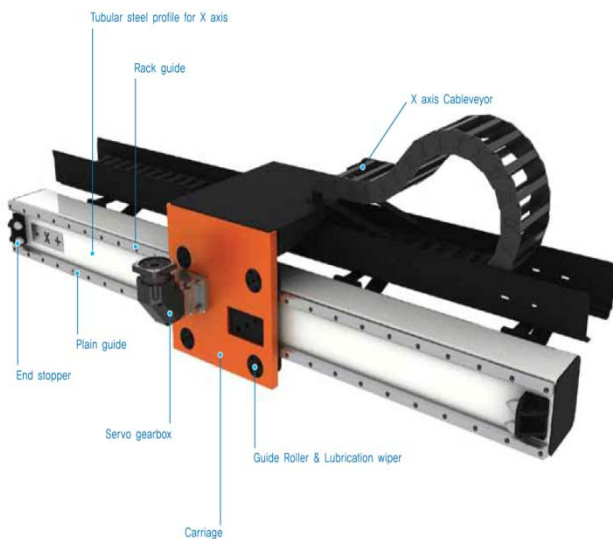
P_{max} [kg] : Permissible max. payload
P_{eff} [kg] : Effective payload (incl. gripper unit)

$$P_{eff} \leq P_{max} \quad [kg]$$

$$P_{max} = P_r \quad [kg]$$

◆ Payload range for loading position

P_r [kg]



► 1 axis linear module

◆ Key component

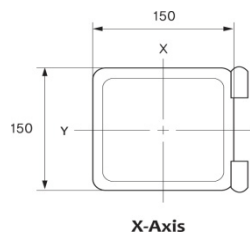
Description	Type	Unit weight	See page
Guide roller	GR G 20	0.5 kg	13
Lubrication wiper	LW G 20	0.05 kg	17
Plain guide	MPG G 20	3.9 kg/m	11
Rack guide	MRG G 20	3.8 kg/m	7
Gearbox	AFR075	6.4 kg	19

Please refer to the component catalogue regarding detailed component specification

◆ Payload and drive data

Axis			Xaxis	
Effective payload	[kg]	60	100	150
Nominal speed	[m/s]	2.6	2.6	2.6
Max. acceleration	[m/s ²]	5	4	3
Gearbox ratio	[-]	3:1	3:1	3:1
Motor speed	[rpm]	4500	4500	4500
Repeatability	[mm]		±0.05	

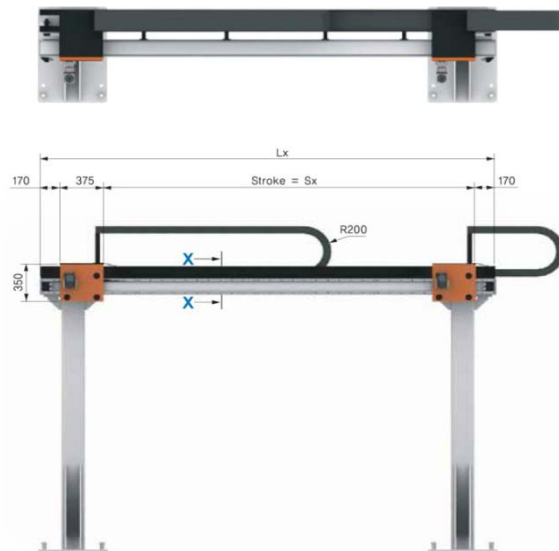
◆ Axis bending and torsion



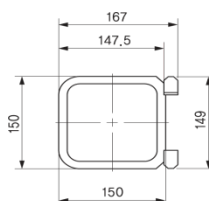
Axis	Material	Standard	*Unit weight (kg/m)	*Ix(cm ⁴)	*Iy(cm ⁴)	*It(cm ⁴)
X	R50	ISO 3304	58.5	2589	2387	3272

*Guide assembly

◆ Dimensions sheet UL-1

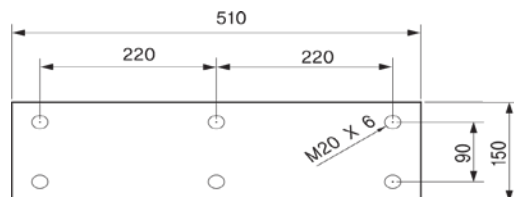


• View X-X

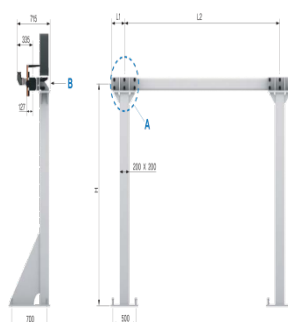


	max.(mm)
Lx	30715
Sx	30000

• View A



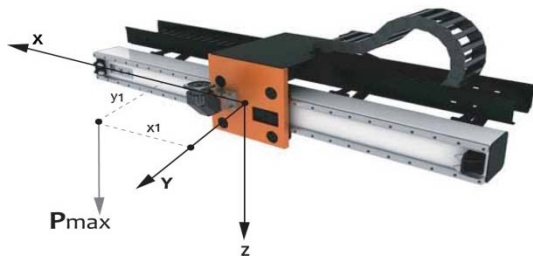
• View B



	min.(mm)	max.(mm)
L1	300	1500
L2	600	8000
H	900	3500

► 1 axis linear module

◆ Technical data UL-2



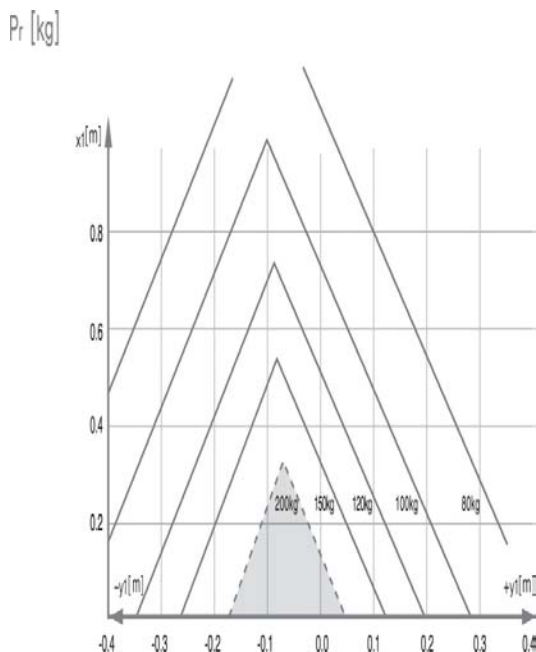
P_{max} = 200 kg

P_{max} [kg] : Permissible max. payload
P_{eff} [kg] : Effective payload (incl. gripper unit)

$$P_{eff} \leq P_{max} \quad [kg]$$

$$P_{max} = P_r \quad [kg]$$

◆ Payload range for loading position



◆ Key component

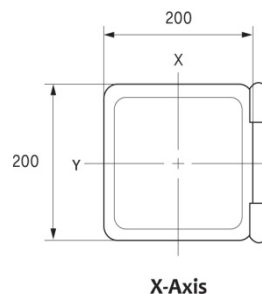
Description	Type	Unit weight	See page
Guide roller	GR G 25	1.1 kg	14
Lubrication wiper	LW G 25	0.13 kg	17
Plain guide	MPG G 25	5.7 kg/m	11
Rack guide	MRG G 25	5.2 kg/m	8
Gearbox	AFR100	13.9 kg	19

Please refer to the component catalogue regarding detailed component specification

◆ Payload and drive data

Axis			Xaxis	
Effective payload	[kg]	80	120	200
Nominal speed	[m/s]	3	3	3
Max. acceleration	[m/s ²]	7	6	4.5
Gearbox ratio	[-]	3:1	3:1	3:1
Motor speed	[rpm]	3000	3000	3000
Repeatability	[mm]		±0.05	

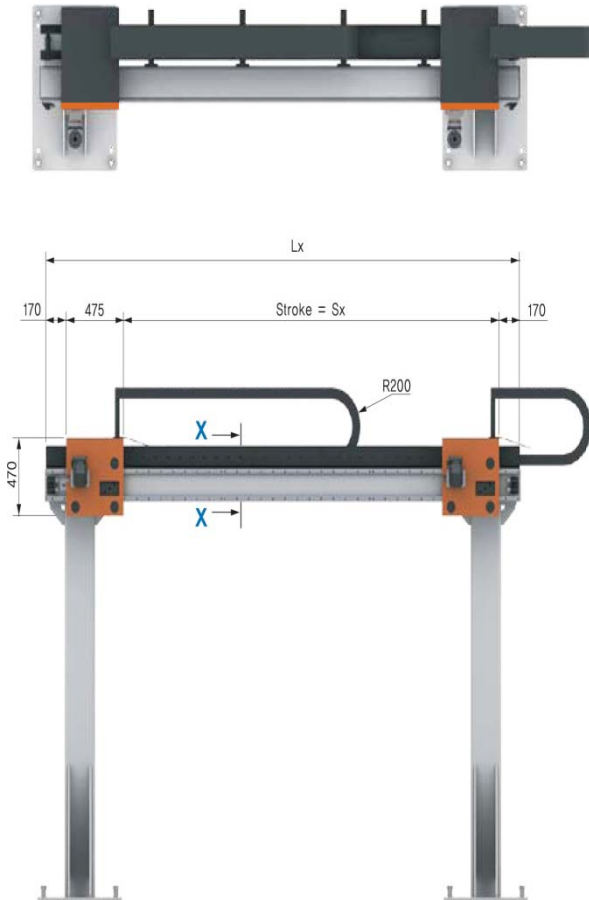
◆ Axis bending and torsion



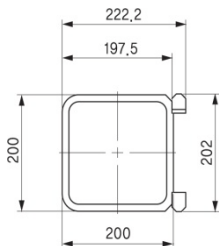
Axis	Material	Standard	*Unit weight (kg/m)	*Ix(cm ⁴)	*Iy(cm ⁴)	*It(cm ⁴)
X	R50	ISO 3304	80.5	6536	6106	8208

► 1 axis linear module

◆ Dimensions sheet UL-2

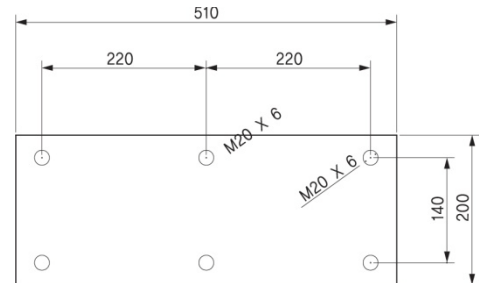


• View X-X

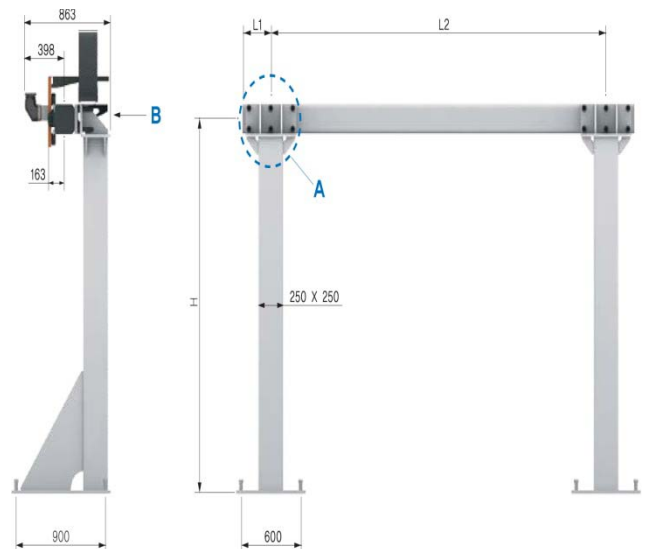


	max. value(mm)
Lx	50815
Sx	50000

• View A



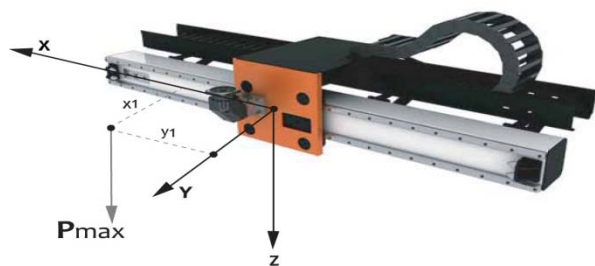
• View B



	min.(mm)	max.(mm)
L1	300	1500
L2	600	8000
H	900	3500

► 1 axis linear module

◆ Technical data UL-3



P_{max} = 400 kg

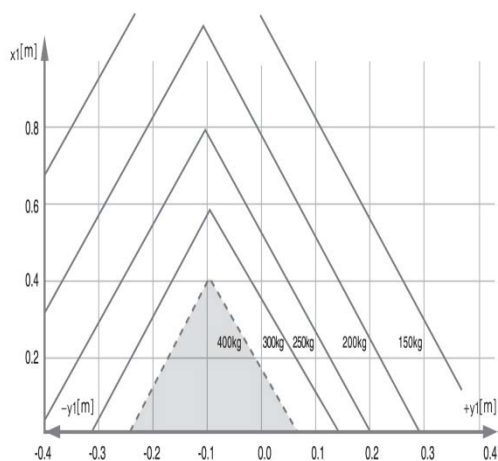
P_{max} [kg] : Permissible max. payload
P_{eff} [kg] : Effective payload (incl. gripper unit)

$$P_{eff} \leq P_{max} \quad [kg]$$

$$P_{max} = P_r \quad [kg]$$

◆ Payload range for loading position

P_r [kg]



◆ Key component

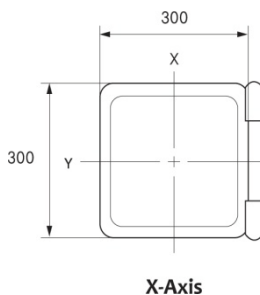
Description	Type	Unit weight	See page
Guide roller	GR G 35	2.8 kg	15
Lubrication wiper	LW G 35	0.26 kg	18
Plain guide	MPG G 35	11.3 kg/m	12
Rack guide	MRG G 35	10.6 kg/m	9
Gearbox	AFR140	23.7 kg	30

Please refer to the component catalogue regarding detailed component specification

◆ Payload and drive data

Axis			Xaxis	
Effective payload	[kg]	150	250	400
Nominal speed	[m/s]	3.3	3.3	3.3
Max. acceleration	[m/s ²]	8	6	4.5
Gearbox ratio	[-]	3:1	3:1	3:1
Motor speed	[rpm]	3000	3000	3000
Repeatability	[mm]		±0.05	

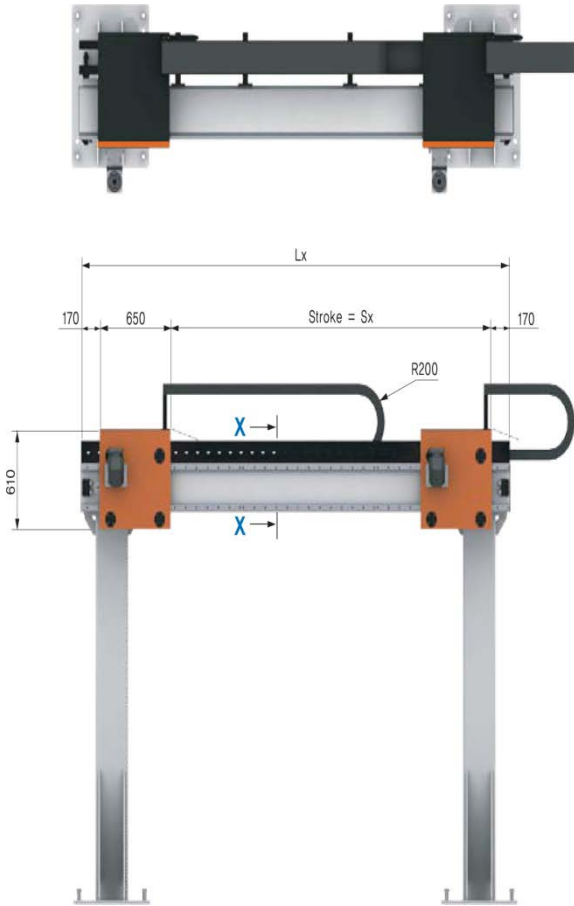
◆ Axis bending and torsion



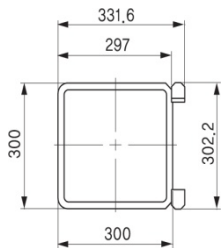
Axis	Material	Standard	*Unit weight (kg/m)	*I _x (cm ⁴)	*I _y (cm ⁴)	*I _t (cm ⁴)
X	R50	ISO 3304	162.9	29967	27894	37622

► 1 axis linear module

◆ Dimensions sheet UL-3

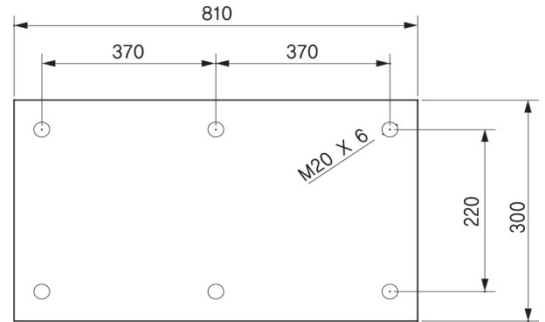


• View X-X

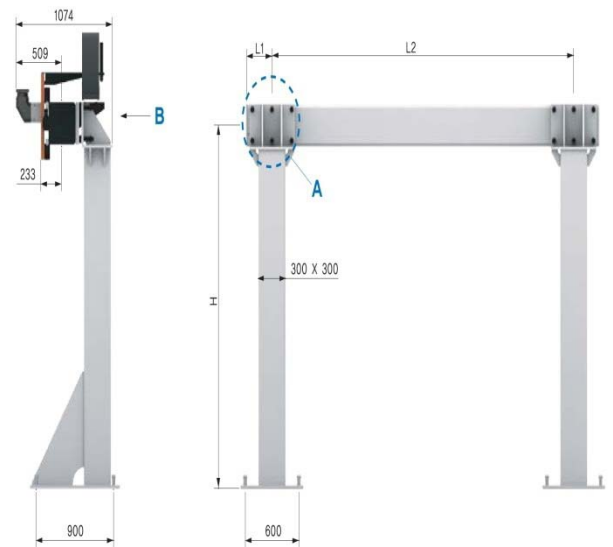


	max. value(mm)
Lx	80990
Sx	80000

• View A



• View B



	min.(mm)	max.(mm)
L1	400	2000
L2	800	10000
H	1000	4000

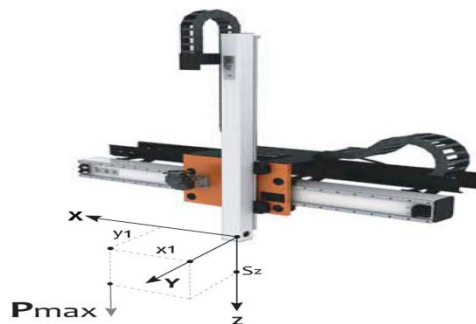
◆ Type TL



Module Type	Payload range [kg]							
	20	40	60	100	120	150	200	300
TL – 1								
TL – 2								
TL - 3								

► 2 axis linear module

◆ Technical data TL-1



- case 1 : $S_z < 1m$ $P_{max} = P_r$ [kg]
- case 2 : $S_z > 1m$ $P_{max} = P_r - (S_z - 1.0) \cdot 21$ [kg]
 $P_{eff} \leq P_{max}$ [kg]

$P_{max} = 60 \text{ kg}$

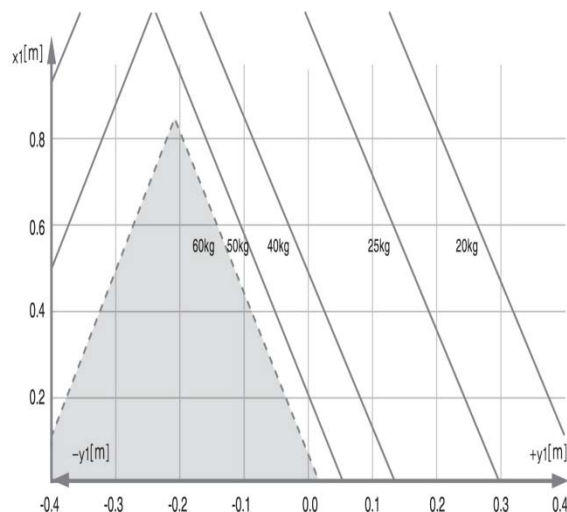
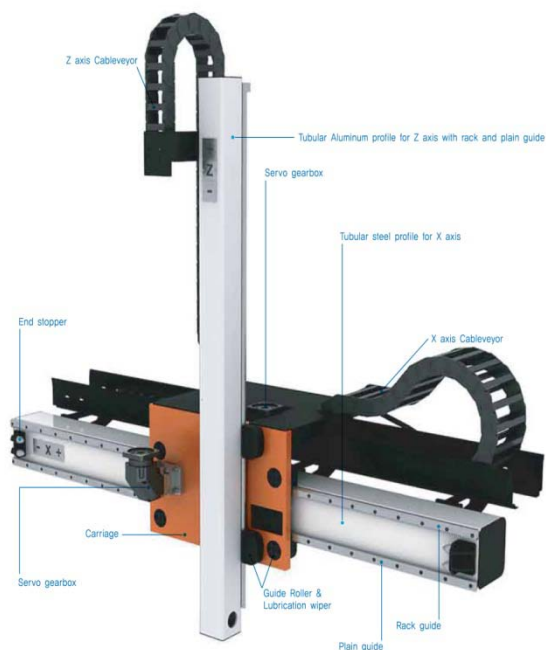
P_{max} [kg] : Permissible max. payload
 P_{eff} [kg] : Effective payload (incl. gripper unit)
 S_z [mm] : Stroke(Z axis)

Including gripper

$P_{eff} \leq P_{max}$ [kg]

◆ Payload range for loading position

P_r [kg]



► 2 axis linear module

◆ Key component

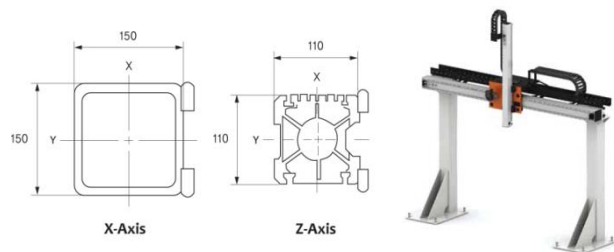
Description	Type	Unit weight	See page
Guide roller	GR G 20	0.5 kg	13
Lubrication wiper	LW G 20	0.05 kg	17
Plain guide	MPG G 20	3.9 kg/m	11
Rack guide	MRG G 20 (X axis)	3.8 kg/m	7
	MRG G 20 H (Z axis)	3.8 kg/m	7
Gearbox	AFR075	6.4 kg	19

Please refer to the component catalogue regarding detailed component specification

◆ Payload and drive data

Axis		X axis			Z axis		
Effective payload	[kg]	20	40	60	20	40	60
Nominal speed	[m/s]	2.6	2.6	2.6	2.6	2.6	2.6
Max. acceleration	[m/s ²]	5	4	3.5	12	10	6
Gearbox ratio	[-]	3:1	3:1	3:1	3:1	3:1	3:1
Motor speed	[rpm]	4500	4500	4500	4500	4500	4500
Repeatability	[mm]	±0.05					

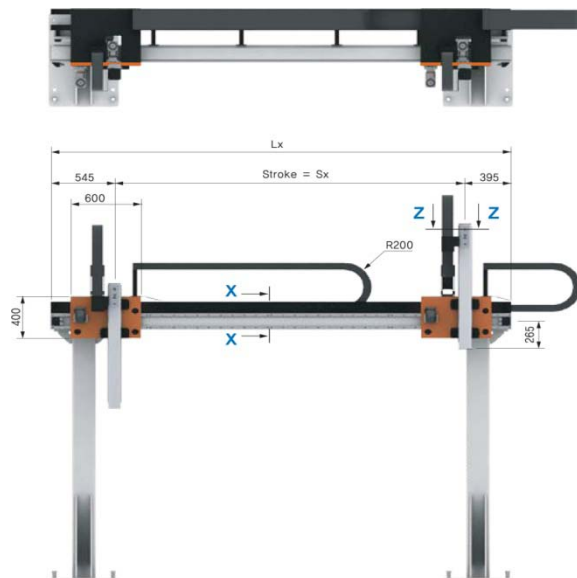
◆ Axis bending and torsion



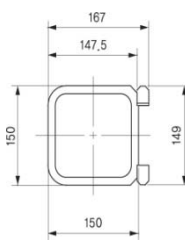
Axis	Material	Standard	*Unit weight (kg/m)	*Ix(cm ⁴)	*Iy(cm ⁴)	*It(cm ⁴)
X	R50	ISO 3304	58.5	2589	2387	3272
Z	AlMg0.7Si	ISO 6361	21	900	800	340

*Guide assembly

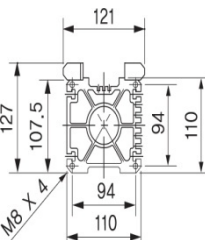
◆ Dimensions sheet TL-1



• View X-X

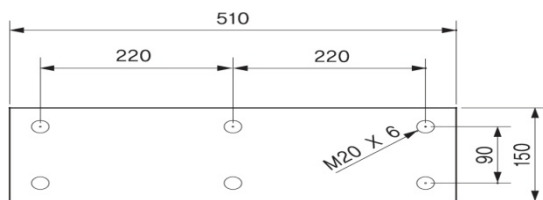


• View Z-Z

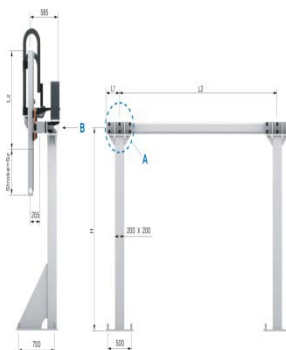


	max. (mm)
Lx	30715
Sx	30000
Lz	1740
Sz	1000

• View A



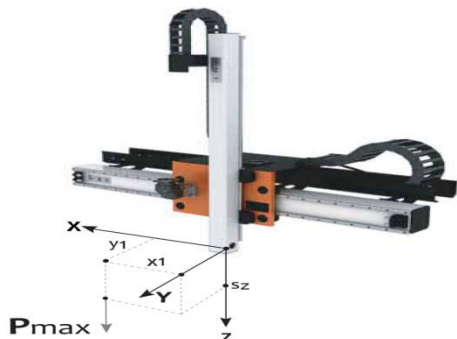
• View B



	min.(mm)	max.(mm)
L1	300	1500
L2	600	8000
H	900	3500

► 2 axis linear module

◆ Technical data TL-2



- case 1 : $S_z < 1\text{m}$ $P_{\text{max}} = P_r$ [kg]
- case 2 : $S_z > 1\text{m}$ $P_{\text{max}} = P_r - (S_z - 1.2) \cdot 24$ [kg]
 $P_{\text{eff}} \leq P_{\text{max}}$ [kg]

$P_{\text{max}} = 150 \text{ kg}$

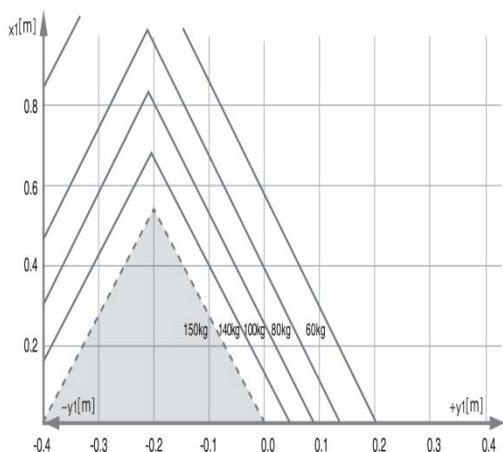
P_{max} [kg] : Permissible max. payload
 P_{eff} [kg] : Effective payload (incl. gripper unit)
 S_z [mm] : Stroke(Z axis)

Including gripper

$P_{\text{eff}} \leq P_{\text{max}}$ [kg]

◆ Payload range for loading position

P_r [kg]



◆ Key component

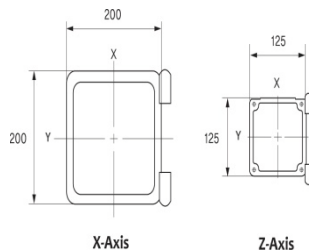
Description	Type	Unit weight	See page
Guide roller	GR G 25	1.1 kg	14
Lubrication wiper	LW G 25	0.13 kg	17
Plain guide	MPG G 25	5.7 kg/m	11
Rack guide	MRG G 25 (X axis)	5.2 kg/m	8
	MRG G 25 H (Z axis)	5.2 kg/m	8
Gearbox	AFR100	13.9 kg	19

Please refer to the component catalogue regarding detailed component specification

◆ Payload and drive data

Axis		X axis			Z axis		
Effective payload	[kg]	60	100	150	60	100	150
Nominal speed	[m/s]	3	3	3	3	3	3
Max. acceleration	[m/s ²]	5	4	3.5	10	7.5	5
Gearbox ratio	[-]	3:1	3:1	3:1	3:1	3:1	3:1
Motor speed	[rpm]	3000	3000	3000	3000	3000	3000
Repeatability	[mm]	± 0.05					

◆ Axis bending and torsion

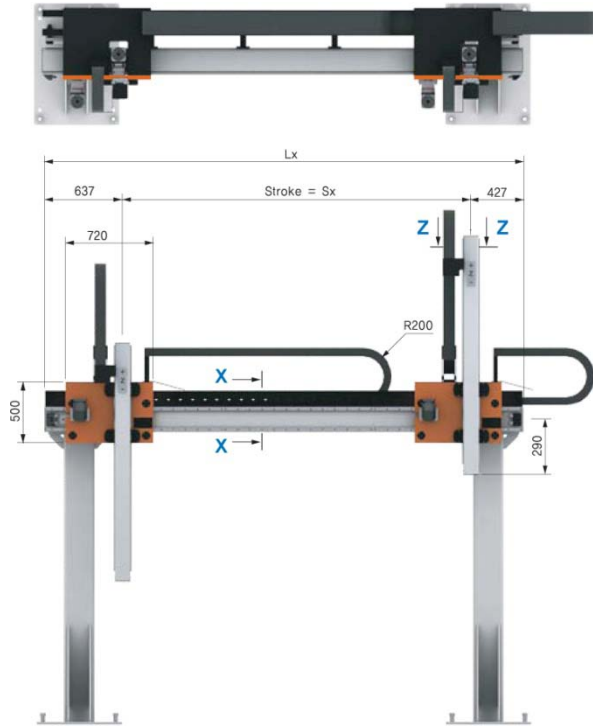


Axis	Material	Standard	*Unit weight (kg/m)	*Ix(cm ⁴)	*Iy(cm ⁴)	*It(cm ⁴)
X	R50	ISO 3304	80.5	6536	6106	8208
Z	AlMg0 7Si	ISO 6361	24	1510	1250	1300

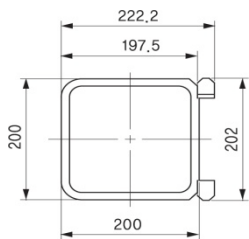
*Guide assembly

► 2 axis linear module

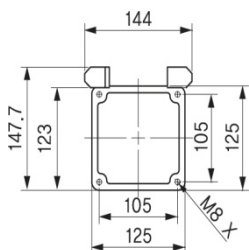
◆ Dimensions sheet TL-2



• View X-X

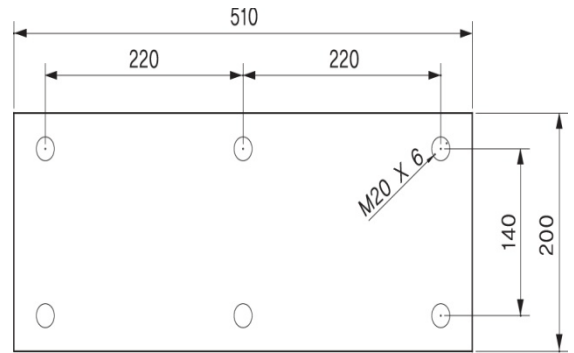


• View Z-Z

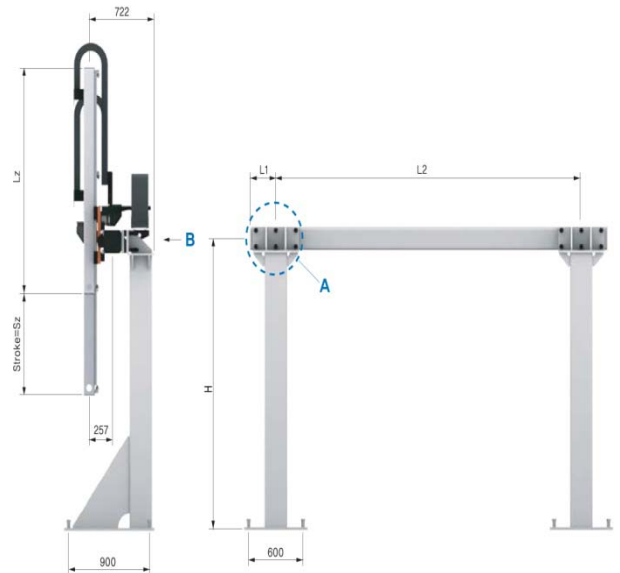


	max. value(mm)
Lx	51064
Sx	50000
Lz	2040
Sz	1200

• View A



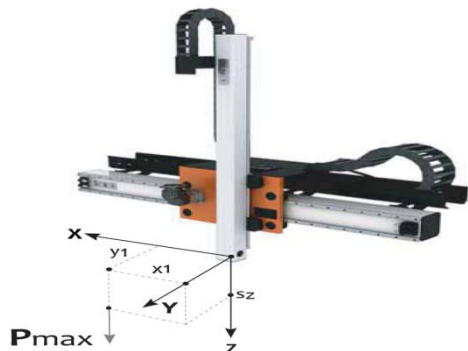
• View B



	min.(mm)	max.(mm)
L1	300	1500
L2	600	8000
H	900	3500

► 2 axis linear module

◆ Technical data TL-3



- case 1 : $S_z < 1\text{m}$ $P_{\text{max}} = P_r$ [kg]
- case 2 : $S_z > 1\text{m}$ $P_{\text{max}} = P_r - (S_z - 1.6) \cdot 49$ [kg]
 $P_{\text{eff}} \leq P_{\text{max}}$ [kg]

$P_{\text{max}} = 300\text{ kg}$

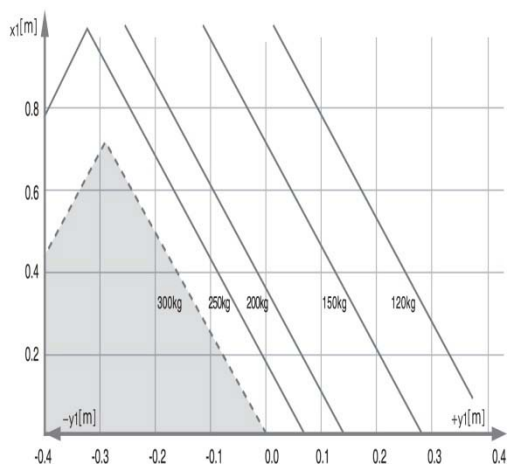
P_{max} [kg] : Permissible max. payload
 P_{eff} [kg] : Effective payload (incl. gripper unit)
 S_z [mm] : Stroke(Z axis)

Including gripper

$P_{\text{eff}} \leq P_{\text{max}}$ [kg]

◆ Payload range for loading position

P_r [kg]



◆ Key component

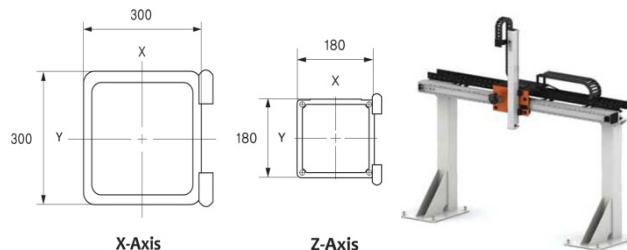
Description	Type	Unit weight	See page
Guide roller	GR G 35	2.8 kg	15
Lubrication wiper	LW G 35	0.26 kg	18
Plain guide	MPG G 35	11.3 kg/m	12
Rack guide	MRG G 35 (X axis)	10.6 kg/m	9
	MRG G 35 H (Z axis)	10.6 kg/m	9
Gearbox	AFR140	23.7 kg	20

Please refer to the component catalogue regarding detailed component specification

◆ Payload and drive data

Axis		X axis			Z axis		
Effective payload	[kg]	120	200	300	120	200	300
Nominal speed	[m/s]	3.3	3.3	3.3	3.3	3.3	3.3
Max. acceleration	[m/s ²]	6	5	4	8	6	3
Gearbox ratio	[-]	3:1	3:1	3:1	3:1	3:1	3:1
Motor speed	[rpm]	3000	3000	3000	3000	3000	3000
Repeatability	[mm]	±0.05					

◆ Axis bending and torsion

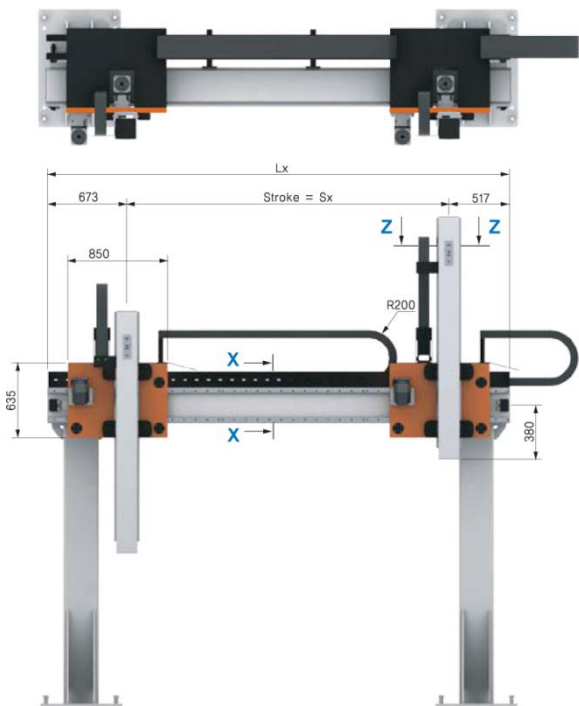


Axis	Material	Standard	*Unit weight (kg/m)	*Ix(cm ⁴)	*Iy(cm ⁴)	*It(cm ⁴)
X	R50	ISO 3304	162.9	29967	27894	37622
Z	AlMg0 7Si	ISO 6361	48	6300	5280	5830

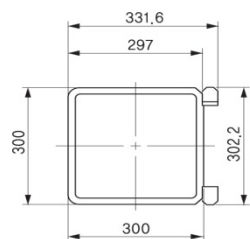
*Guide assembly

► 2 axis linear module

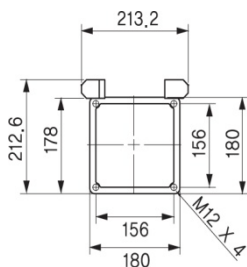
◆ Dimensions sheet TL-3



• View X-X

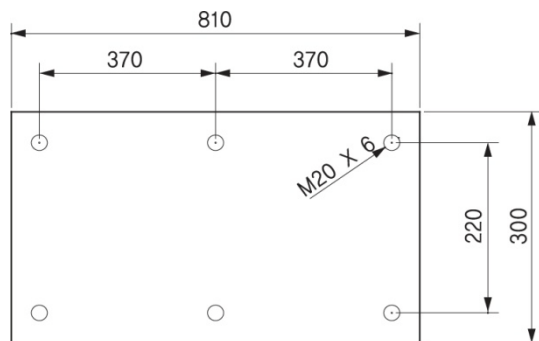


• View Z-Z

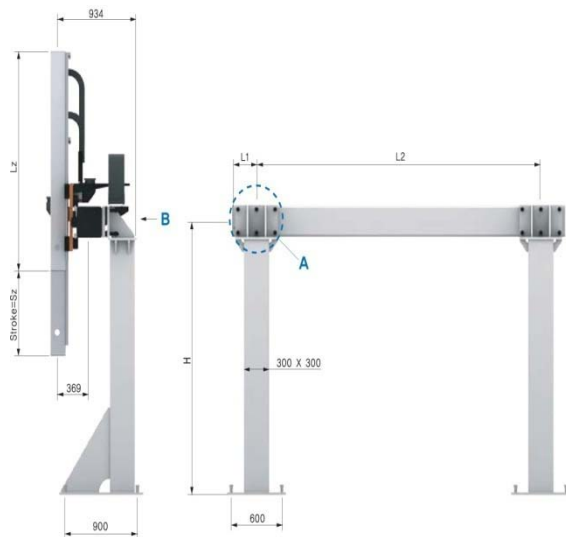


	max. value(mm)
Lx	81190
Sx	80000
Lz	2575
Sz	1600

• View A



• View B

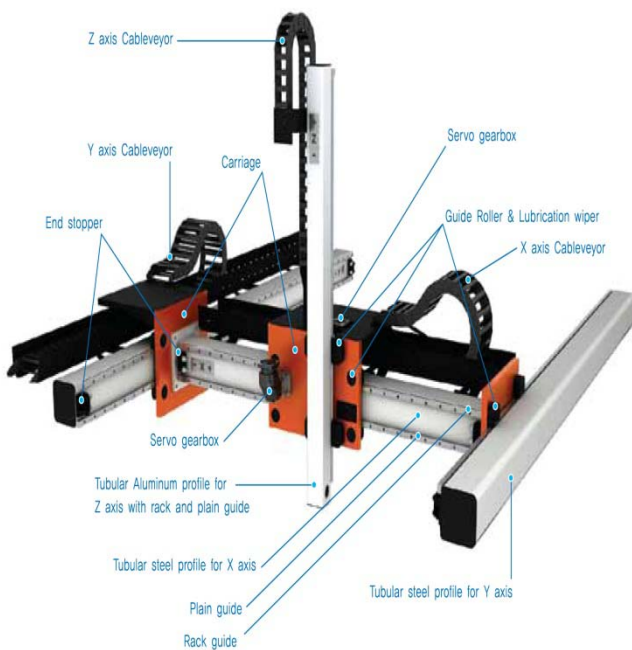


	min.(mm)	max.(mm)
L1	400	2000
L2	800	10000
H	1000	4000

◆ Type CL

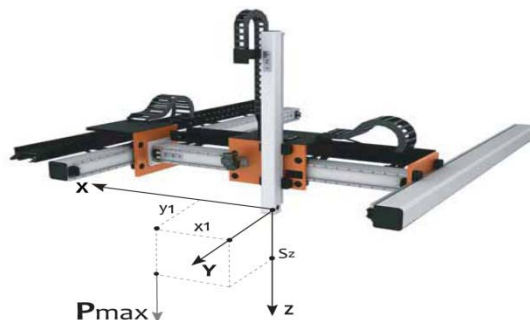


Module Type	Payload range [kg]							
	20	40	60	100	120	150	200	300
CL – 1								
CL – 2								
CL - 3								



► 3 axis linear module

◆ Technical data CL-1



- case 1 : $S_z < 1m$ $P_{max} = P_r$ [kg]
- case 2 : $S_z > 1m$ $P_{max} = P_r - (S_z - 1.0) \cdot 21$ [kg]
 $P_{eff} \leq P_{max}$ [kg]

$P_{max} = 60 \text{ kg}$

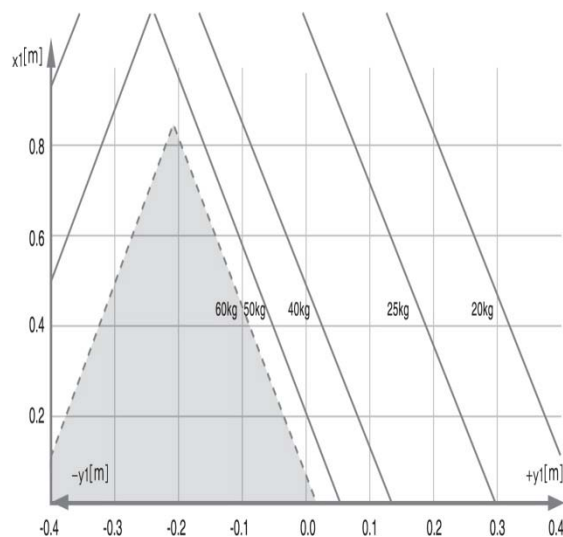
P_{max} [kg] : Permissible max. payload
 P_{eff} [kg] : Effective payload (incl. gripper unit)
 S_z [mm] : Stroke(Z axis)

Including gripper

$P_{eff} \leq P_{max}$ [kg]

◆ Payload range for loading position

P_r [kg]



► 3 axis linear module

◆ Key component

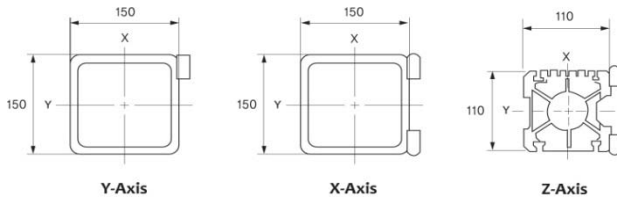
Description	Type	Unit weight	See page
Guide roller	GR G 20 (X,Z axis)	0.5 kg	13
	GR G 20 (Y axis)	0.7 kg	13
Lubrication wiper	LW G 20 (X,Z axis)	0.05 kg	17
	LW F 20 (Y axis)	0.05 kg	17
Plain guide	MPG G 20 (X axis)	3.9 kg/m	11
	MPG F 20 (Y axis)	4.3 kg/m	11
Rack guide	MRG G 20 (X axis)	3.8 kg/m	7
	MRG G 20 H (Z axis)	3.8 kg/m	7
	MRG F 20 (Y axis)	4.1 kg/m	7
Gearbox	AFR075	6.4 kg	19

Please refer to the component catalogue regarding detailed component specification

◆ Payload and drive data

Axis		X axis			Z axis			Y axis		
Effective payload	[kg]	20	40	60	20	40	60	20	40	60
Nominal speed	[m/s]	3	3	3	2	2	2	3	3	3
Max. acceleration	[m/s ²]	5	4	3.5	12	10	10	2.5	2	2
Gearbox ratio	[-]	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1
Motor speed	[rpm]	3000								
Repeatability	[mm]	±0.05								

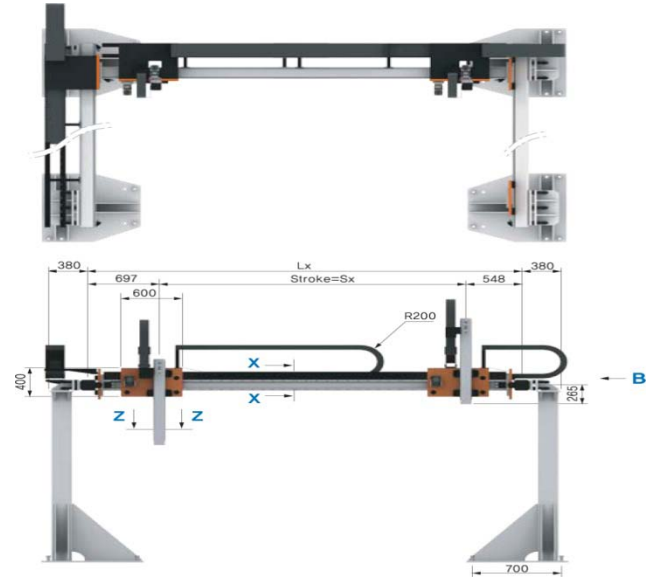
◆ Axis bending and torsion



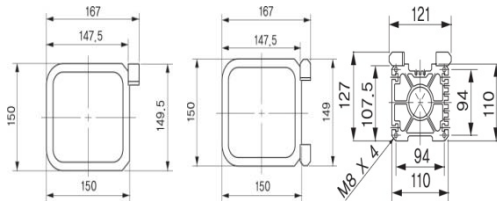
Axis	Material	Standard	*Unit weight (kg/m)	*I _x (cm ⁴)	*I _y (cm ⁴)	*I _t (cm ⁴)
Y	R50	ISO 3304	54.9	2619	2077	3272
X	R50	ISO 3304	58.5	2589	2387	3272
Z	AlMg0.7Si	ISO 6361	21.5	900	800	340

*Guide assembly

◆ Dimensions sheet CL-1

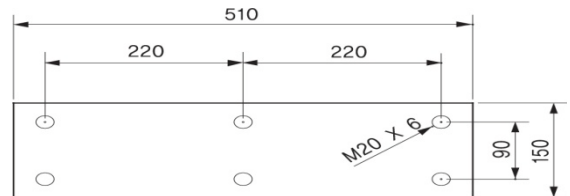


- View Y-Y
- View X-X
- View Z-Z

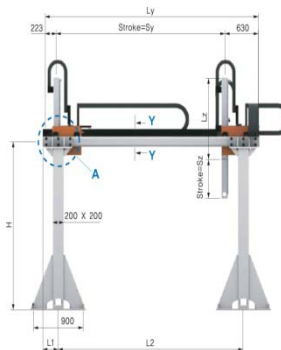


	max. (mm)
Lx	4445
Sx	3200
Lz	1740
Sz	1000
Ly	30853
Sy	30000

- View A



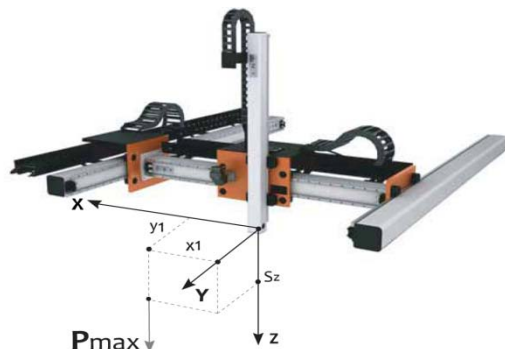
- View B



	min.(mm)	max.(mm)
L1	250	1500
L2	600	8000
H	900	3500

► 2 axis linear module

◆ Technical data CL-2



- case 1 : $S_z < 1\text{m}$ $P_{\text{max}} = P_r$ [kg]
- case 2 : $S_z > 1\text{m}$ $P_{\text{max}} = P_r - (S_z - 1.2) \cdot 24$ [kg]
 $P_{\text{eff}} \leq P_{\text{max}}$ [kg]

$P_{\text{max}} = 150\text{ kg}$

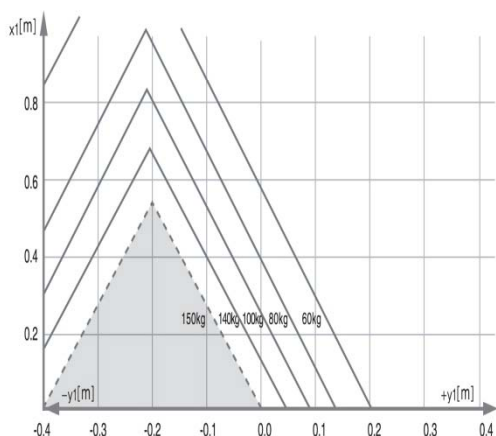
P_{max} [kg] : Permissible max. payload
 P_{eff} [kg] : Effective payload (incl. gripper unit)
 S_z [mm] : Stroke(Z axis)

Including gripper

$P_{\text{eff}} \leq P_{\text{max}}$ [kg]

◆ Payload range for loading position

P_r [kg]



◆ Key component

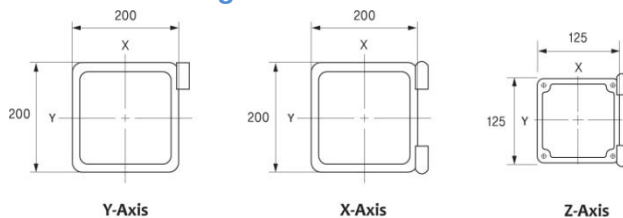
Description	Type	Unit weight	See page
Guide roller	GR G 25 (X,Z axis)	1.1 kg	14
	GR F 25 (Y axis)	1.1 kg	14
Lubrication wiper	LW G 25 (X,Z axis)	0.13 kg	17
	LW F 25 (Y axis)	0.13 kg	17
Plain guide	MPG G 25 (X axis)	5.7 kg/m	11
	MPG F 25 (Y axis)	6.2 kg/m	11
Rack guide	MRG G 25 (X axis)	5.2 kg/m	8
	MRG G 25 H (Z axis)	5.2 kg/m	8
	MRG F 25 (Y axis)	5.7 kg/m	8
Gearbox	AFR100	13.9 kg	19

Please refer to the component catalogue regarding detailed component specification

◆ Payload and drive data

Axis		X axis			Z axis			Y axis		
Effective payload	[kg]	60	100	150	60	100	150	60	100	150
Nominal speed	[m/s]	3	3	3	3	3	3	3	3	3
Max. acceleration	[m/s ²]	5	4	3.5	10	7.5	5	2	1.5	2
Gearbox ratio	[-]	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1
Motor speed	[rpm]	3000								
Repeatability	[mm]	±0.05								

◆ Axis bending and torsion



Axis	Material	Standard	*Unit weight (kg/m)	*Ix(cm ⁴)	*Iy(cm ⁴)	*It(cm ⁴)
Y	R50	ISO 3304	75.3	6546	5167	8208
X	R50	ISO 3304	80.5	6536	6106	8208
Z	AlMg0 7Si	ISO 6361	24	1510	1250	1300

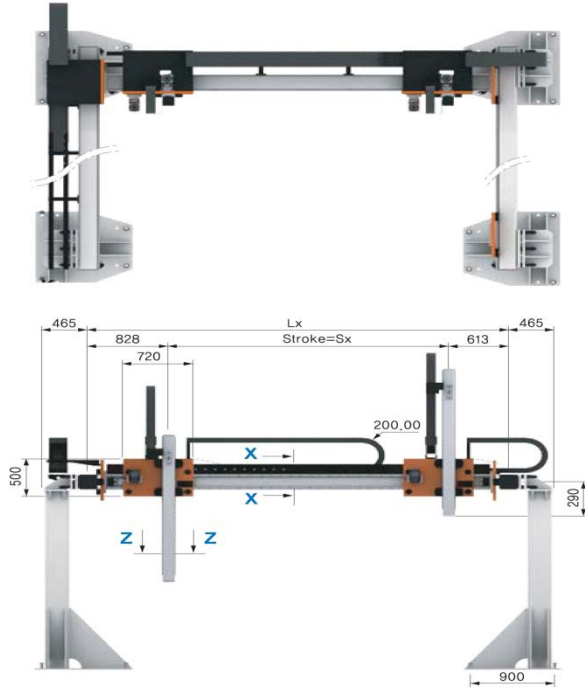
*Guide assembly

CL-2

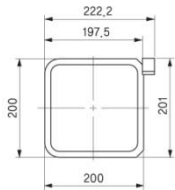
Dimension and Specification

► 3 axis linear module

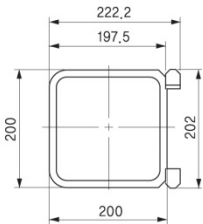
◆ Dimensions sheet CL-2



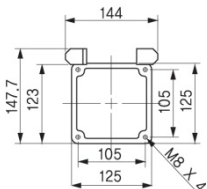
- View Y-Y



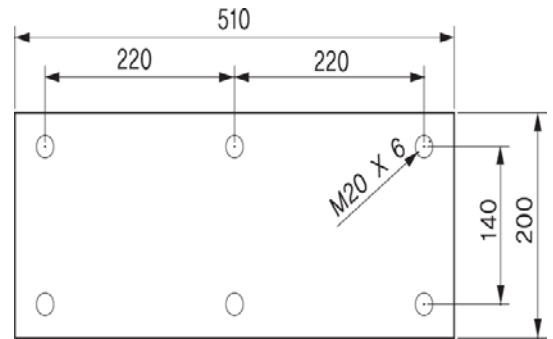
- View X-X



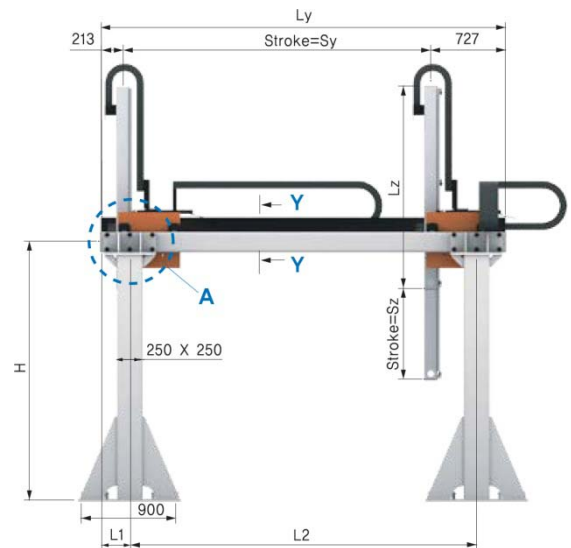
- View Z-Z



- View A



- View B

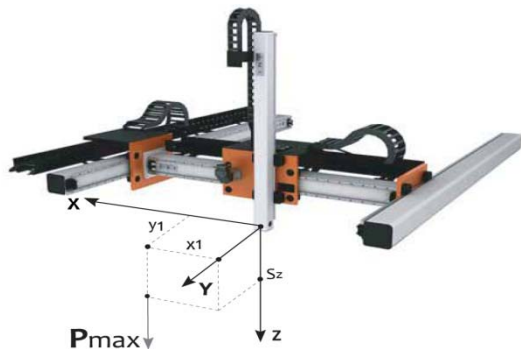


	max. value(mm)
Lx	4641
Sx	3200
Lz	2040
Sz	1200
Ly	50940
Sy	50000

	min.(mm)	max.(mm)
L1	300	1500
L2	600	8000
H	900	4000

► 3 axis linear module

◆ Technical data CL-3



- case 1 : $S_z < 1\text{m}$ $P_{\text{max}} = P_r$ [kg]
- case 2 : $S_z > 1\text{m}$ $P_{\text{max}} = P_r - (S_z - 1.2) \cdot 24$ [kg]
 $P_{\text{eff}} \leq P_{\text{max}}$ [kg]

$P_{\text{max}} = 300 \text{ kg}$

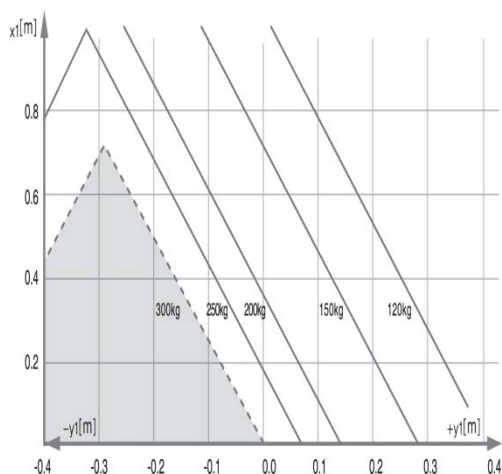
P_{max} [kg] : Permissible max. payload
 P_{eff} [kg] : Effective payload (incl. gripper unit)
 S_z [mm] : Stroke(Z axis)

Including gripper

$P_{\text{eff}} \leq P_{\text{max}}$ [kg]

◆ Payload range for loading position

P_r [kg]



◆ Key component

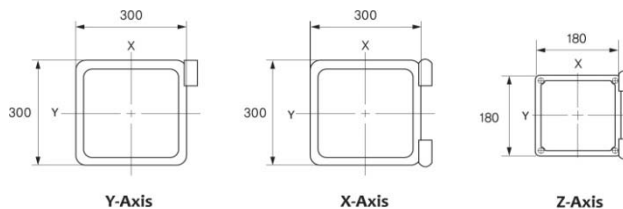
Description	Type	Unit weight	See page
Guide roller	GR G 35 (X,Z axis)	2.8 kg	15
	GR F 35 (Y axis)	3 kg	15
Lubrication wiper	LW G 35 (X,Z axis)	0.26 kg	18
	LW F 35 (Y axis)	0.26 kg	18
Plain guide	MPG G 35 (X axis)	11.3 kg/m	12
	MPG F 35 (Y axis)	12.1 kg/m	12
Rack guide	MRG G 35 (X axis)	10.6 kg/m	9
	MRG G 35 H (Z axis)	10.6 kg/m	9
	MRG F 35 (Y axis)	11.3 kg/m	9
Gearbox	AFR140	23.7 kg	20

Please refer to the component catalogue regarding detailed component specification

◆ Payload and drive data

Axis		X axis			Z axis			Y axis		
Effective payload	[kg]	120	200	300	120	200	300	120	200	300
Nominal speed	[m/s]	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
Max. acceleration	[m/s ²]	6	5	4	8	6	3	2	1.5	1
Gearbox ratio	[-]	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1
Motor speed	[rpm]	3000								
Repeatability	[mm]	±0.05								

◆ Axis bending and torsion

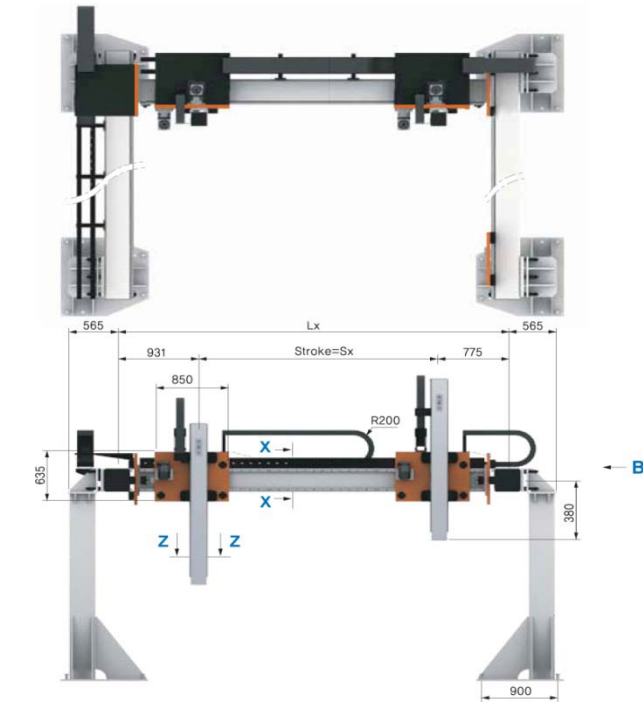


Axis	Material	Standard	*Unit weight (kg/m)	*Ix(cm ⁴)	*Iy(cm ⁴)	*It(cm ⁴)
Y	R50	ISO 3304	75.3	6546	5167	8208
X	R50	ISO 3304	80.5	6536	6106	8208
Z	AlMg0 7Si	ISO 6361	24	1510	1250	1300

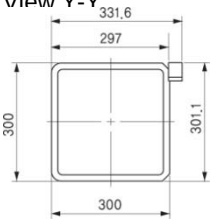
*Guide assembly

► 3 axis linear module

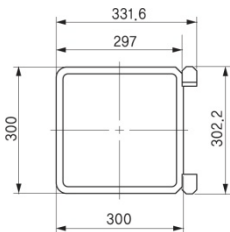
◆ Dimensions sheet CL-3



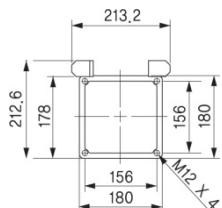
• View Y-Y



• View X-X

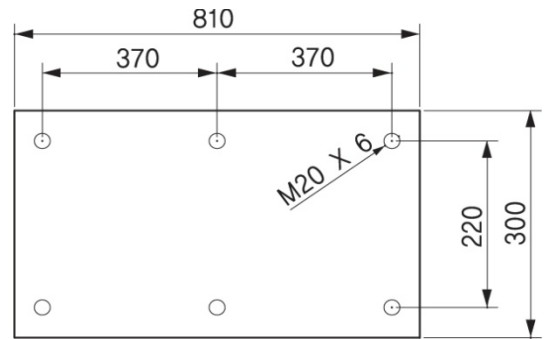


• View Z-Z

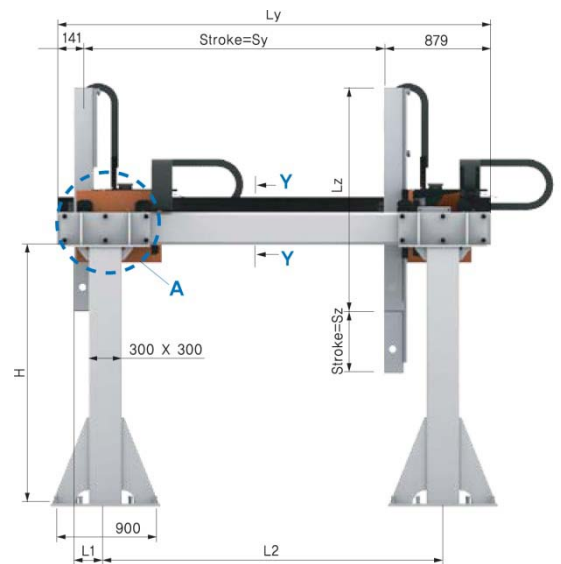


	max. value(mm)
Lx	6606
Sx	4900
Lz	2575
Sz	1600
Ly	81020
Sy	80000

• View A



• View B



	min.(mm)	max.(mm)
L1	300	2000
L2	800	10000
H	1000	4000

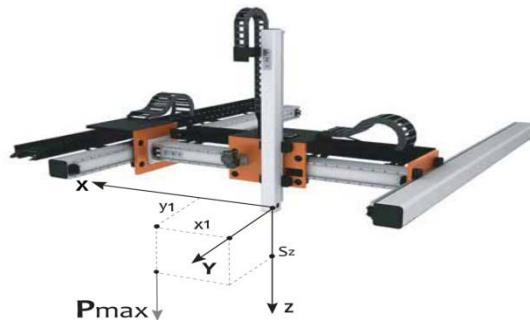
◆ Type WL



Module Type	Payload range [kg]		
	60	100	120
WL - 1			

► 3 axis linear module

◆ Technical data CL-1



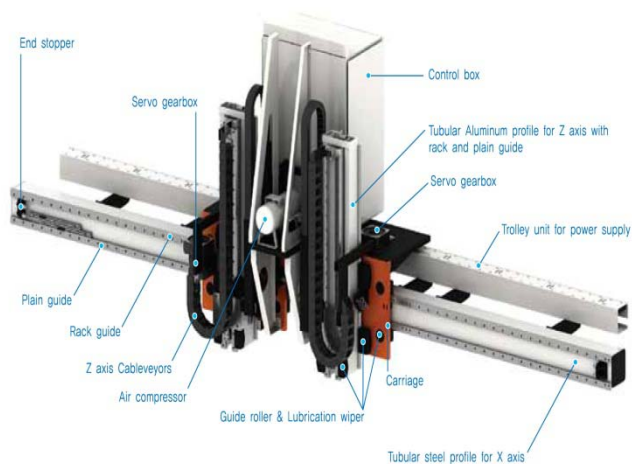
- case 1 : $S_z < 1\text{m}$ $P_{\max} = P_r$ [kg]
- case 2 : $S_z > 1\text{m}$ $P_{\max} = P_r - (S_z - 1.0) \cdot 21$ [kg]
 $P_{\text{eff}} \leq P_{\max}$ [kg]

$$P_{\max} = 60 \text{ kg}$$

$P_{\max}$ [kg] : Permissible max. payload
 P_{eff} [kg] : Effective payload (incl. gripper unit)
 S_z [mm] : Stroke(Z axis)

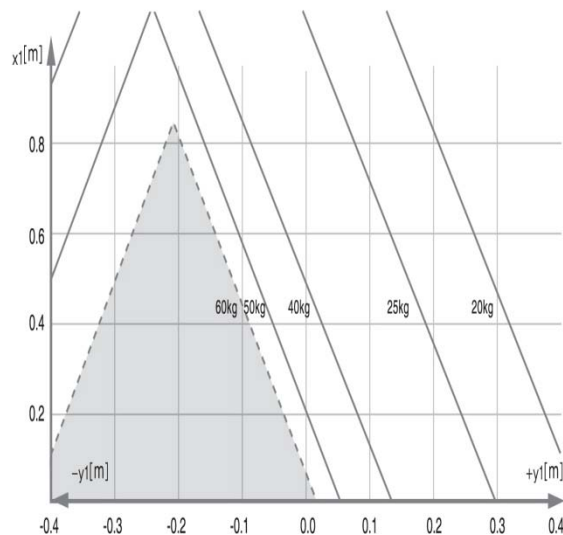
Including gripper

$$P_{\text{eff}} \leq P_{\max} \quad [\text{kg}]$$



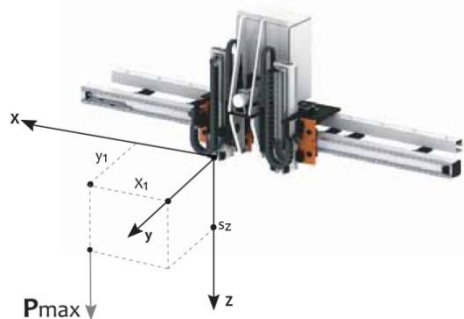
◆ Payload range for loading position

P_r [kg]



► Wireless linear module

◆ Technical data WL-1



- case 1 : $S_z < 1\text{m}$ $P_{\text{max}} = P_r$ [kg]
- case 2 : $S_z > 1\text{m}$ $P_{\text{max}} = P_r - (S_z - 1) \cdot 22$ [kg]
 $P_{\text{eff}} \leq P_{\text{max}}$ [kg]

$P_{\text{max}} = 150\text{ kg}$

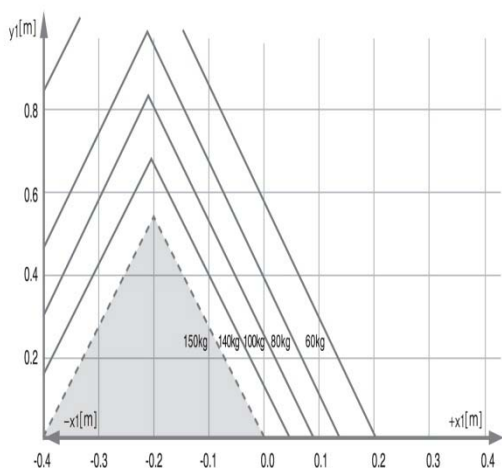
P_{max} [kg] : Permissible max. payload
 P_{eff} [kg] : Effective payload (incl. gripper unit)
 S_z [mm] : Stroke(Z axis)

Including gripper

$P_{\text{eff}} \leq P_{\text{max}}$ [kg]

◆ Payload range for loading position

P_r [kg]



◆ Key component

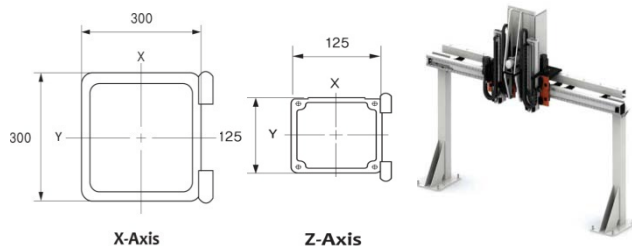
Description	Type		Unit weight		See page	
Guide roller	GR G 25	BHJ 95	1.1 kg	1.4 kg	14	25
Lubrication wiper	LW G 25	CW 95	0.13 kg	0.22 kg	17	27
Plain guide	MPG G 25	SPP 25	5.7 kg	8.6 kg	11	24
Rack guide	MRG G 25 (X axis)	SPR 25 M3	5.2 kg	7.9 kg	8	23
	MRG G 25 H (Z axis)	SPR 25 H M3	5.2 kg	7.9 kg	8	23
Gearbox	AFR140	AFR140	23.7 kg	23.7 kg	20	28

Please refer to the component catalogue regarding detailed component specification

◆ Payload and drive data

Axis		X axis			Z axis		
Effective payload	[kg]	60	100	150	60	100	150
Nominal speed	[m/s]	2.5	2.5	2.5	3	3	3
Max. acceleration	[m/s ²]	4	3.5	3	10	7.5	5
Gearbox ratio	[-]	3:1	3:1	3:1	3:1	3:1	3:1
Motor speed	[rpm]	3000	3000	3000	3000	3000	3000
Repeatability	[mm]	± 0.05					

◆ Axis bending and torsion



Axis	Material	Standard	*Unit weight (kg/m)	*Ix(cm ⁴)	*Iy(cm ⁴)	*It(cm ⁴)
X	R50	ISO 3304	157.5	29812	28620	37622
Z	AlMg0 7Si	ISO 6361	48	6300	4488	5830

*Guide assembly



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