



LINEAR MOTION TECHNOLOGY

AR/HR Ball Type Linear Guide Series



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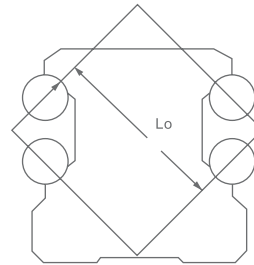
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Printed Date: JULY.2009

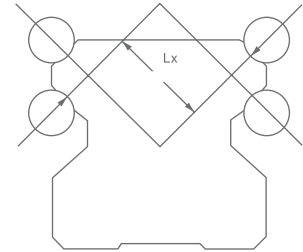
◎ AR/HR Ball Type Linear Guide Series

cpc's AR/HR Ball type linear guide series incorporates four rows of ball recirculation design. O-shape arrangement with 45 degree contact angle between raceway and steel balls, efficiently increase rigidity and torsion resistance (shock absorption).

Although the linear guides' design space has been limited, but **cpc** is capable to increase numbers of balls and adopt larger steel balls to enhance load capability.

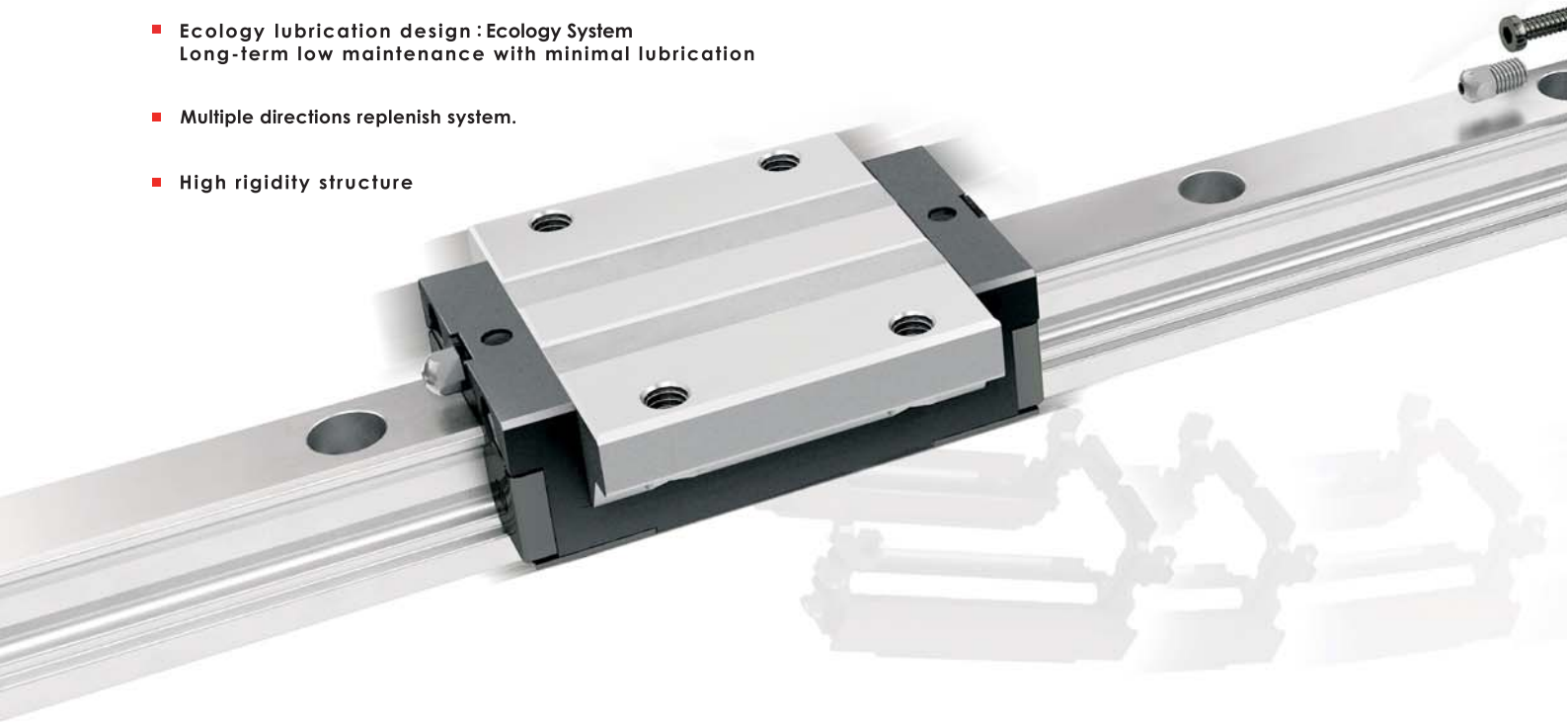


O Type-Arrangement



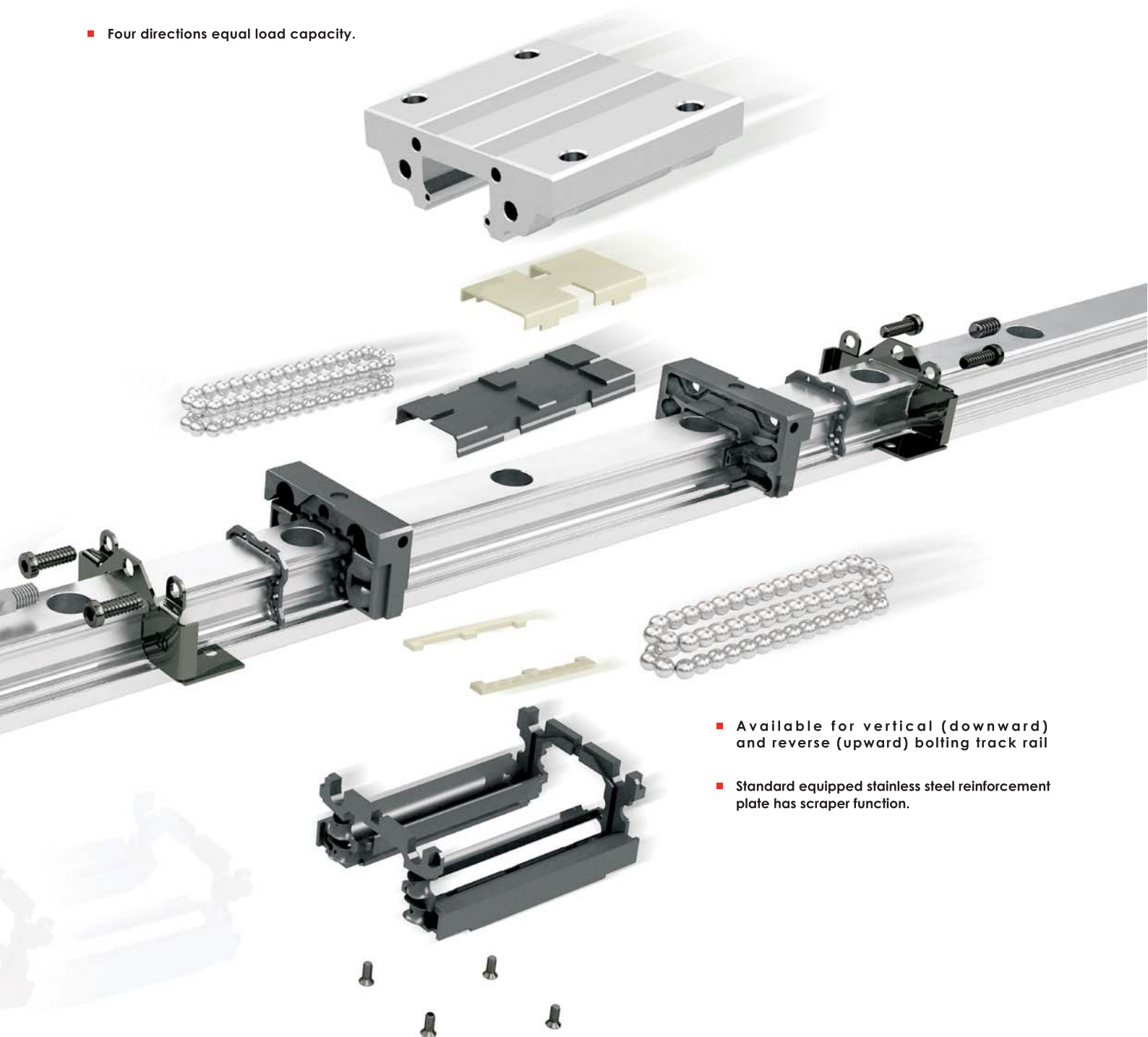
X Type-Arrangement

- Ecology lubrication design : Ecology System
Long-term low maintenance with minimal lubrication
- Multiple directions replenish system.
- High rigidity structure



- Lightweight and compact slide block
- Interchangeability

- Excellent dynamic function: $V_{max} > 5 \text{ m/s}$, $a_{max} > 300 \text{ m/s}^2$
- Four directions equal load capacity.



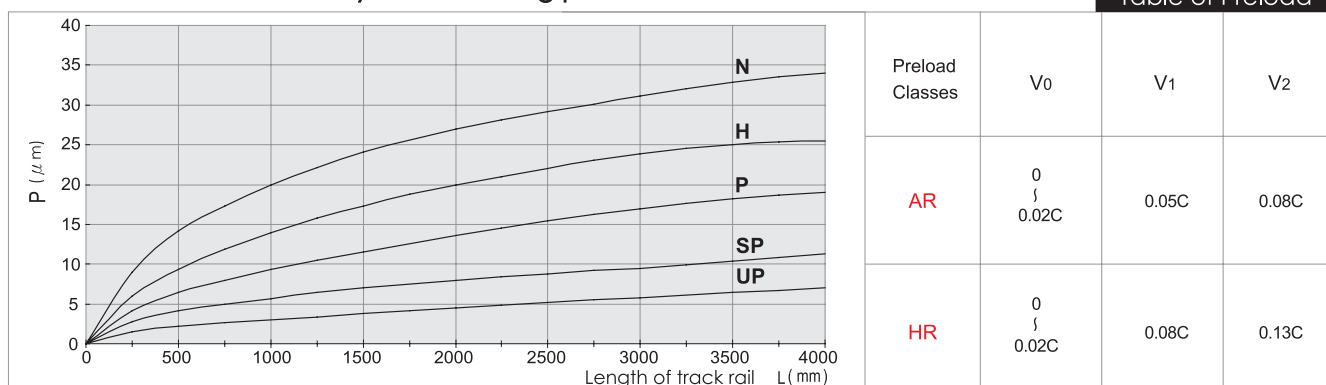
- Available for vertical (downward) and reverse (upward) bolting track rail
- Standard equipped stainless steel reinforcement plate has scraper function.

- Dust protection of double wipe blade design in the end seal; have Standard type and reinforcement type
- Available for special surface treatment.

Accuracy

		Accuracy classes					
Accuracy Classes (μm)		Ultra Precision (UP)	Super Precision (SP)	Precision (P)	High (H)	Normal (N)	
	Tolerance of dimension height	H	± 5	± 10	± 20	± 40	± 100
	Variation of height for different runner block on the same position of track rail	ΔH	3	5	7	15	30
	Tolerance of dimension width	W2	± 5	± 7	± 10	± 20	± 40
	Variation of width for different runner block on the same position of track rail	$\Delta W2$	3	5	7	15	30

Accuracy of the running parallelism



Order information

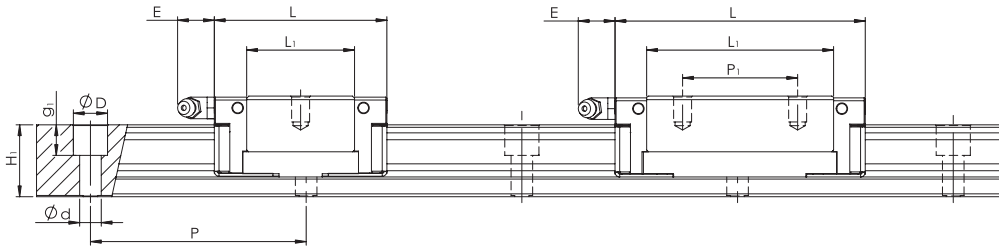
Model Code														
AR(U)	E	15	M	N	B	2	Z	V1	P	-1480L	-20	-20	II	J
Customization code														
Number of rail on the same moving axis														
End hole pitch (mm)														
Starting hole pitch (mm)														
Rail length (mm)														
Accuracy classes Normal (N), High (H), Precision (P), Super Precision (SP), Ultra Precision (UP)														
Preload classes V0: Standard, V1: Light Preload, V2: Medium preload														
Embedded lubrication storage														
Block quantity Quantity of the runner block														
End seal type B: Standard, S: Reinforcement														
Block length L: Long, N: Standard, S: Short														
Block type M: Standard, F: Wide														
Rail size The code of track rail size: 15, 20, 25														
E The track rail size 15 mounting hole 6x3.5x4.5														
Product Type – AR: automation series, HR: heavy Load series, U: Upward bolting track rail														

>> Customization code

The meaning of suffix characters:

- J** Butt-jointing track rail
- G** Customer designate lubricant
- I** Inspection report
- C** Chromium surface treatment is applied to the casing and track rail
- CR** Chromium surface treatment is applied to the track rail
- M** Manganese surface treatment is applied to the block and track rail
- MR** Manganese surface treatment is applied to the track rail
- R** Special process for track rail
- B** Special process for slide block

⊙ Dimensions and specification



AR Automation Series

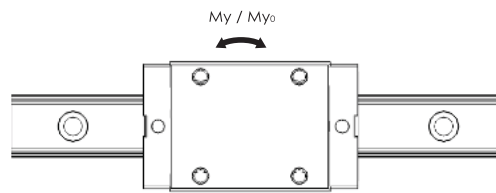
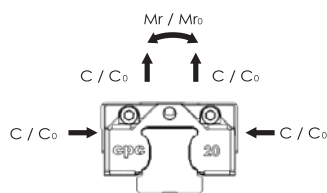
Model Code	Fabrication Dimensions		Rail Dimensions (mm)				Block Dimensions (mm)						Block Dimensions (mm)				
	H	W ₂	W ₁	H ₁	P	D×d×g ₁	W	L	L ₁	h ₂	P ₁	P ₂	E	M×g ₂	M ₁	S	T
AR 15 MS	24	9.5	15	15	60	7.5x4.5x5.3 (6x3.5x4.5)	34	40.8	24.2	20.1	-	26	4.5	M4x7		4	6
AR 15 MN	24	9.5	15	15	60		34	56.1	39.5	20.1	26	26	4.5	M4x7		4	6
AR 15 FS	24	18.5	15	15	60		52	40.8	24.2	20.1	-	41	4.5	M5x7	M4	4	7
AR 15 FN	24	18.5	15	15	60		52	56.1	39.5	20.1	26	41	4.5	M5x7	M4	4	7
AR 20 MS	28	11	20	20	60	9.5x6x8.5	42	48.2	30	22.5	-	32	12	M5x7		3.5	8
AR 20 MN	28	11	20	20	60		42	70.2	52	22.5	32	32	12	M5x7		3.5	8
AR 20 FS	28	19.5	20	20	60		59	48.2	30	22.5	-	49	12	M6x9	M5	3.5	9
AR 20 FN	28	19.5	20	20	60		59	70.2	52	22.5	32	49	12	M6x9	M5	3.5	9
AR 25 MS	33	12.5	23	23	60	11x7x9	48	57.2	37	26.6	-	35	12	M6x9		5	8
AR 25 MN	33	12.5	23	23	60		48	80.2	60	26.6	35	35	12	M6x9		5	8
AR 25 FS	33	25	23	23	60		73	57.2	37	26.6	-	60	12	M8x10	M6	5	10
AR 25 FN	33	25	23	23	60		73	80.2	60	26.6	35	60	12	M8x10	M6	5	10

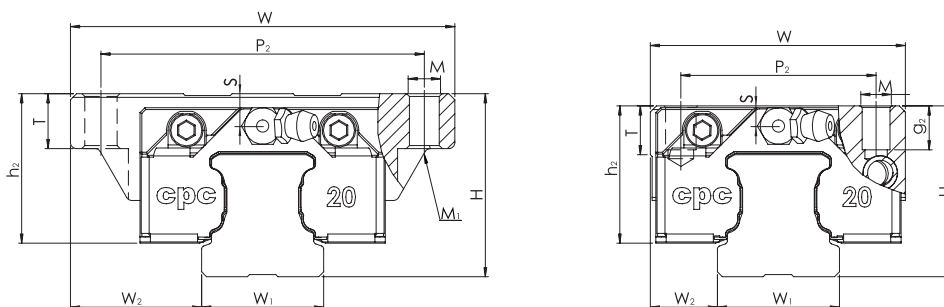
HR Heavy Load Series

Model Code	Fabrication Dimensions		Rail Dimensions (mm)				Block Dimensions (mm)						Block Dimensions (mm)				
	H	W ₂	W ₁	H ₁	P	D×d×g ₁	W	L	L ₁	h ₂	P ₁	P ₂	E	M×g ₂	M ₁	S	T
HR 15 MN	28	9.5	15	15	60	7.5x4.5x5.3 (6x3.5x4.5)	34	56.1	39.5	24.1	26	26	4.5	M4x7		8	6
HR 15 FN	24	16	15	15	60		47	56.1	39.5	20.1	30	38	4.5	M5x9		4	7
HR 20 MN	30	12	20	20	60	9.5x6x8.5	44	70.2	52	24.5	36	32	12	M5x8.5		5.5	10
HR 20 ML	30	12	20	20	60		44	90.2	72	24.5	50	32	12	M5x8.5		5.5	10
HR 20 FN	30	21.5	20	20	60		63	70.2	52	24.5	40	53	12	M6x9	M5	5.5	9
HR 20 FL	30	21.5	20	20	60		63	90.2	72	24.5	40	53	12	M6x9	M5	5.5	9
HR 25 MN	40	12.5	23	23	60	11x7x9	48	80.2	60	33.6	35	35	12	M6x9		12	12
HR 25 ML	40	12.5	23	23	60		48	100.2	80	33.6	50	35	12	M6x9		12	12
HR 25 FN	36	23.5	23	23	60		70	80.2	60	29.6	45	57	12	M8x10	M6	8	10
HR 25 FL	36	23.5	23	23	60		70	100.2	80	29.6	45	57	12	M8x10	M6	8	10

ER Series

Model Code	Fabrication Dimensions		Rail Dimensions (mm)				Block Dimensions (mm)						Block Dimensions (mm)				
	H	W ₂	W ₁	H ₁	P	D×d×g ₁	W	L	L ₁	h ₂	P ₁	P ₂	E	M×g ₂	M ₁	S	T
ER 25MN	36	12.5	23	23	60	11x7x9	48	80.2	60	29.6	35	35	12	M6x9		8	8
ER 25ML	36	12.5	23	23	60		48	100.2	80	29.6	50	35	12	M6x9		8	8

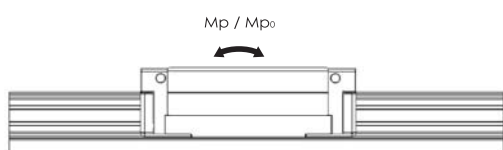




Block Dimensions (mm)				Load Capacities (KN)		Static Moment (KNm)			Weight		Model Code
M×g ₂	M ₁	S	T	C _{100B}	C ₀	M _{r0}	M _{p0}	M _{y0}	Block(g)	Rail(g/m)	
M4x7		4	6	6.40	10.80	80	40	40	95	1290	AR 15 MS
M4x7		4	6	9.00	17.50	140	100	100	140		AR 15 MN
M5x7	M4	4	7	6.40	10.80	80	40	40	120		AR 15 FS
M5x7	M4	4	7	9.00	17.50	140	100	100	180		AR 15 FN
M5x7		3.5	8	10.90	16.30	170	80	80	170	2280	AR 20 MS
M5x7		3.5	8	15.60	29.80	310	220	220	260		AR 20 MN
M6x9	M5	3.5	9	10.90	16.30	170	80	80	210		AR 20 FS
M6x9	M5	3.5	9	15.60	29.80	310	220	220	360	AR 20 FN	
M6x9		5	8	12.30	21.20	220	110	110	285	3020	AR 25 MS
M6x9		5	8	18.80	36.40	410	300	300	380		AR 25 MN
M8x10	M6	5	10	12.30	21.20	220	110	110	325		AR 25 FS
M8x10	M6	5	10	18.80	36.40	410	300	300	440		AR 25 FN

Block Dimensions (mm)				Load Capacities (KN)		Static Moment (KNm)			Weight		Model Code
M×g ₂	M ₁	S	T	C _{100B}	C ₀	M _{r0}	M _{p0}	M _{y0}	Block(g)	Rail(g/m)	
M4x7		8	6	9.00	17.50	140	100	100	185	1290	HR 15 MN
M5x9		4	7	9.00	17.50	140	100	100	180		HR 15 FN
M5x8.5		5.5	10	15.60	29.80	310	220	220	310	2280	HR 20 MN
M5x8.5		5.5	10	20.80	43.30	430	420	420	400		HR 20 ML
M6x9	M5	5.5	9	15.60	29.80	310	220	220	385		HR 20 FN
M6x9	M5	5.5	9	20.80	43.30	430	420	420	505		HR 20 FL
M6x9		12	12	18.80	36.40	410	300	300	530	3020	HR 25 MN
M6x9		12	12	23.40	48.50	560	520	520	665		HR 25 ML
M8x10	M6	8	10	18.80	36.40	410	300	300	470		HR 25 FN
M8x10	M6	8	10	23.40	48.50	560	520	520	585		HR 25 FL

Block Dimensions (mm)				Load Capacities (KN)		Static Moment (KNm)			Weight		Model Code
M×g ₂	M ₁	S	T	C _{100B}	C ₀	M _{r0}	M _{p0}	M _{y0}	Block(g)	Rail(g/m)	
M6x9		8	8	18.80	36.40	410	300	300	475	3020	ER 25MN
M6x9		8	8	23.40	48.50	560	520	520	550		ER 25ML



The above rating load capacities and static moment are calculated according to ISO14728 standard. The rating life for basic dynamic load rating is defined as the total 100km travel distance that 90% of a group of identical linear guides can be operated individually under the same conditions free from any material damage caused by rolling fatigue. When the standard of 50km travel distance is applied, the above basic dynamic load rating C of ISO14728 should be multiply by 1.26 for conversion.