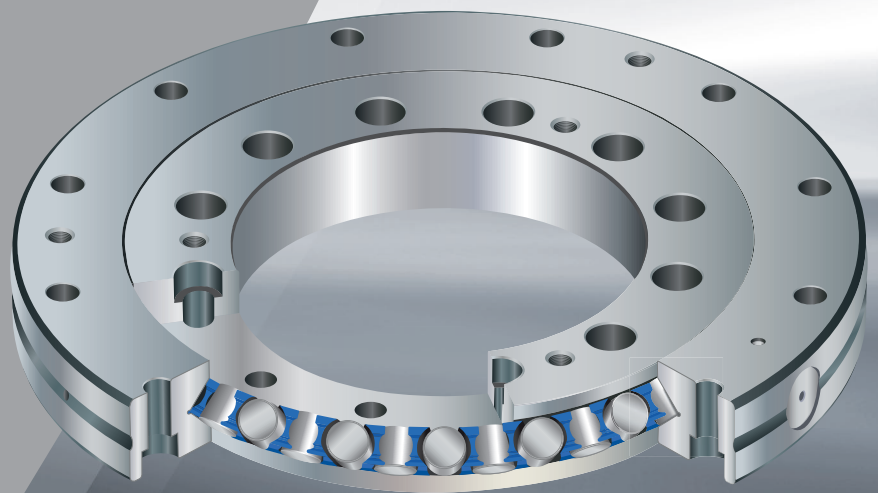




AXCR Crossed Roller Bearings

dimension
tables

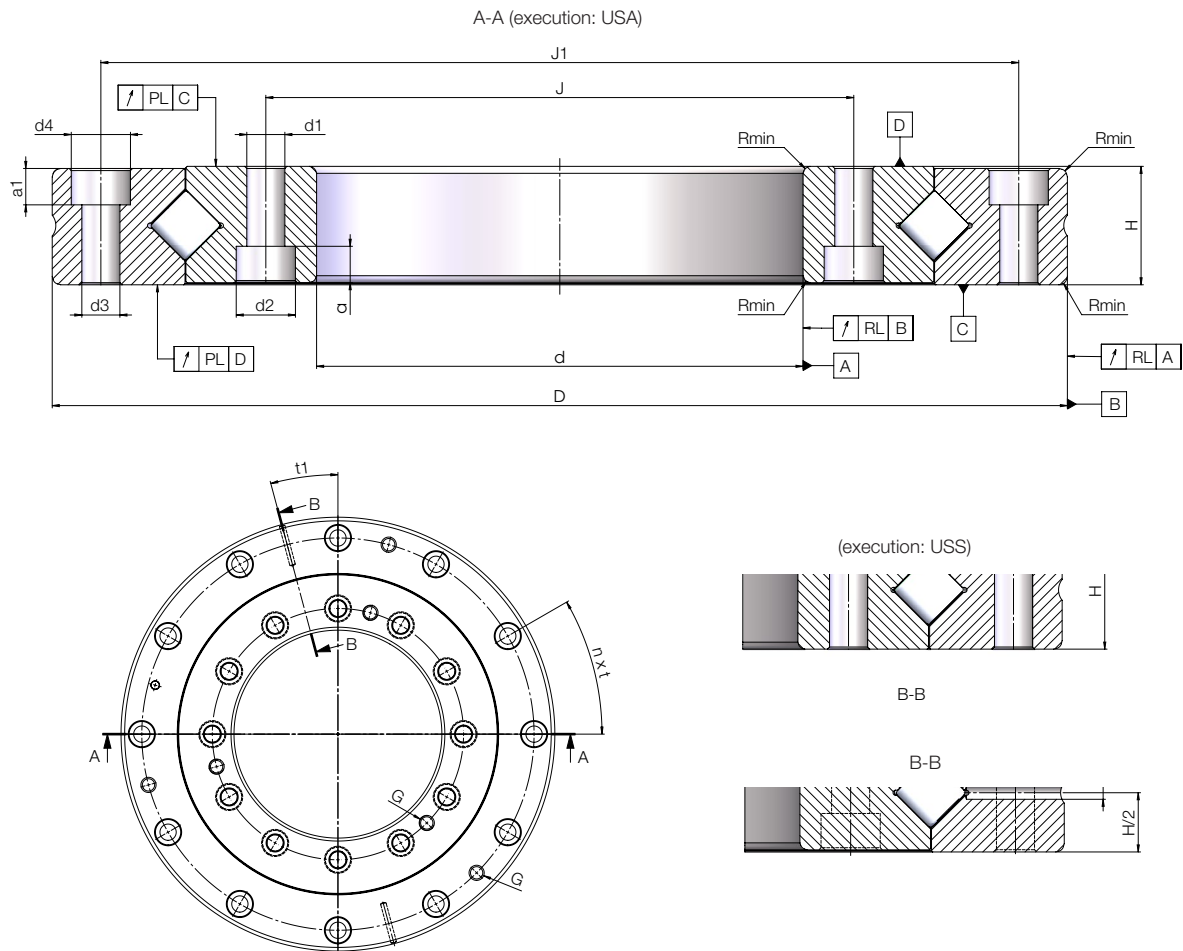


contents

- AXCR-U** commercially execution with one-piece rings
- AXCR-S** commercially execution with one-piece rings and constant height
- AXCR-X** customized execution with splitted outer ring
- AXCR-M** customized execution with one-piece rings

designation coding

Crossed Roller Bearings AXCR-U



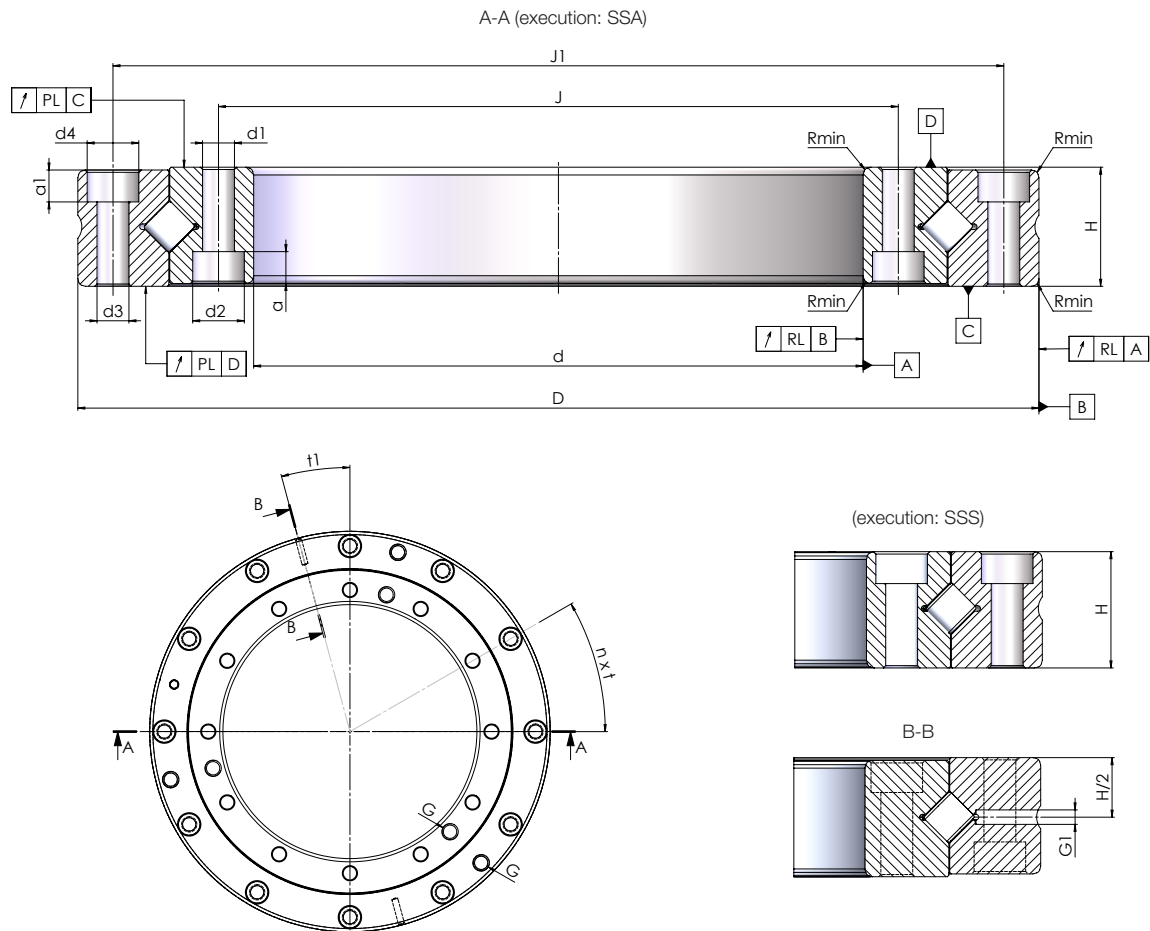
designation	mass	dimensions [mm]											
	m	d	Δd	D	ΔD	H	ΔH	J	J1	t1	G1	quantity	
	[kg]					USA	USS						
AXCR 80-U	2,6	80	-0,009	165	-0,013	22	21,5	$\pm 0,150$	97	148	18°	3,1	2
AXCR 90-U	4,9	90	-0,010	210	-0,015	25	24,5	$\pm 0,150$	112	187	15°	3,1	2
AXCR 115-U	6,9	115	-0,010	240	-0,015	28	27,5	$\pm 0,150$	139	217	15°	3,1	2
AXCR 160-U	11,8	160	-0,013	295	-0,018	35	34,5	$\pm 0,200$	184	270	15°	6	2
AXCR 210-U	22,0	210	-0,015	380	-0,020	40	39,5	$\pm 0,200$	240	350	11,25°	6	2
AXCR 270-U	14,9	270	-0,018	400	-0,020	30	29,5	$\pm 0,250$	298	376	11,25°	6	2
AXCR 350-U	42,6	350	-0,023	540	-0,028	45	44,5	$\pm 0,300$	385	505	7,5°	6	2
AXCR 360-U	35,8	360	-0,023	540	-0,028	40	39,5	$\pm 0,300$	395	510	7,5°	6	2
AXCR 540-U	62,1	540	-0,030	718	-0,035	50	49,5	$\pm 0,300$	574	684	5°	6	2

- 1) Tightening torque for screws according to DIN 912, property class 10.9.
- 2) At high speed applications, please contact us
- 3) Measuring speed $n_{\text{const}} = 5 \text{ min}^{-1}$
- 4) Measured on mounted bearing, with ideal adjacent construction.

designation	fixing holes											
	inner ring				outer ring				extraction threads on inner ring and outer ring		quantity x pitch	screw tightening torque
	d1	d2	a	quantity	d3	d4	a1	quantity	G	quantity	nxt	$M_A^{(1)}$ [Nm]
AXCR 80-U	5,5	9,5	5,4	10	5,5	9,5	5,4	10	M8	2	10x 36°	8,5
AXCR 90-U	9	14	8,6	12	9	14	8,6	12	M8	3	12x 30°	34
AXCR 115-U	9	14	8,6	12	9	14	8,6	12	M8	3	12x 30°	34
AXCR 160-U	11	17,5	10,6	12	11	17,5	10,6	12	M10	3	12x 30°	68
AXCR 210-U	13,5	20	12,6	16	13,5	20	12,6	16	M10	2	16x 22,5°	116
AXCR 270-U	9	14	8,6	16	9	14	8,6	16	M10	2	16x 22,5°	34
AXCR 350-U	13,5	20	12,6	24	13,5	20	12,6	24	M10	3	24x 15°	116
AXCR 360-U	13,5	20	12,6	24	13,5	20	12,6	24	M10	3	24x 15°	116
AXCR 540-U	13,5	20	12,6	36	13,5	20	12,6	36	M10	3	36x 10°	116

designation	load ratings				limit- ing- speed ^[2]	bearing- frictional torque ^[3]	axial & radial runout ^[4]						rigidity of bearing position			min. corner- radius
	axial		radial		grease	grease	inner ring			outer ring			axial	radial	tilting rigidity	
							class P4	class P2	class UP	class P4	class P2	class UP				
	dyn. C _a [kN]	stat. C _{0a} [kN]	dyn. C _r [kN]	stat. C _{0r} [kN]	n _G [min ⁻¹]	M _{RL max} [Nm]	PL & RL [μm]	PL & RL [μm]	PL & RL [μm]	PL & RL [μm]	PL & RL [μm]	PL & RL [μm]	C _{ai} [kN/μm]	C _{ri} [kN/μm]	C _{ti} [kNm/mrad]	R _{min} [mm]
AXCR 80-U	49,4	177,8	44,0	71,1	320	5	4	2,5	2	8	5	3	1,4	0,8	2,7	1
AXCR 90-U	74,9	273,7	66,7	109,5	270	6	5	2,5	2	10	7	4	1,7	0,9	4,5	1,5
AXCR 115-U	103,8	388,2	92,5	155,3	225	10	5	2,5	2	10	7	4	1,8	0,9	6,9	1,5
AXCR 160-U	147,5	594,0	131,3	237,6	180	12	6	5	3	11	7	4	2,3	1,2	14,2	2
AXCR 210-U	206,2	911,6	183,5	364,6	140	18	8	5	3	13	8	5	3,0	1,5	32,1	2,5
AXCR 270-U	147,0	757,0	130,6	302,8	120	25	10	6	4	13	8	5	3,2	1,6	44,0	3
AXCR 350-U	254,2	1368,0	225,9	547,2	90	40	12	7	4	17	10	7	4,4	2,3	106,4	2,5
AXCR 360-U	258,0	1402,9	229,2	561,2	90	50	12	7	4	17	10	7	4,3	2,2	106,8	3,5
AXCR 540-U	307,3	1964,4	272,9	785,8	65	100	16	10	6	20	15	9	6,7	3,3	320,9	4

Crossed Roller Bearings AXCR-S



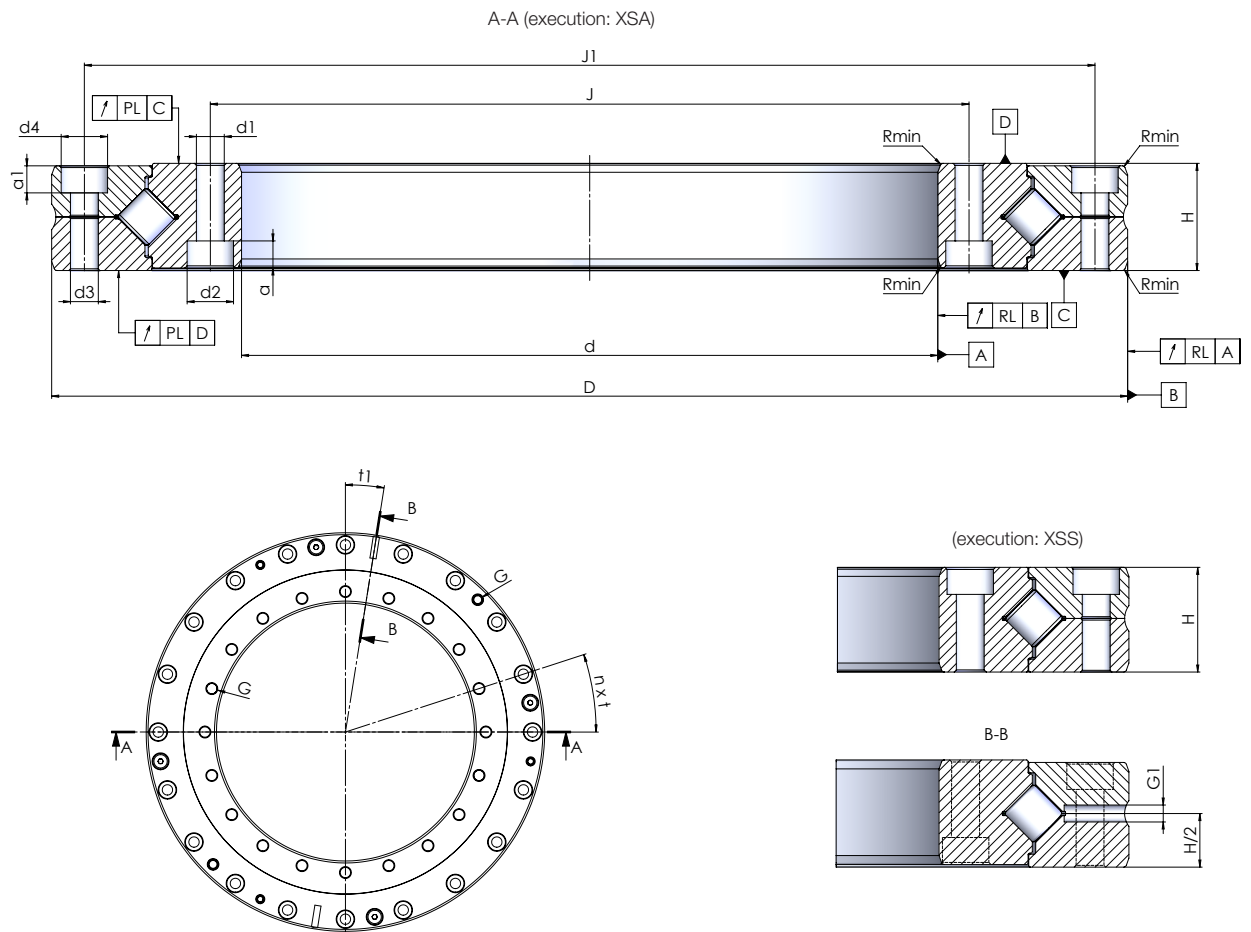
designation	mass	dimensions [mm]											
	m	d	Δd	D	ΔD	H	ΔH	J	J1	t1	G1	quantity	
	[kg]					SSA	SSS						
AXCR 130-S	3,3	130	0,025	205	-0,029	25,4	24,8	$\pm 0,200$	145	190	15°	3,1	2
AXCR 150-S	3,7	150	0,025	225	-0,029	25,4	24,8	$\pm 0,200$	165	210	11,25°	3,1	2
AXCR 180-S	4,3	180	0,025	255	-0,032	25,4	24,8	$\pm 0,200$	195	240	9°	3,1	2
AXCR 220-S	5,1	220	0,029	295	-0,032	25,4	24,8	$\pm 0,200$	235	280	7,5°	3,1	2
AXCR 280-S	6,3	280	0,032	355	-0,036	25,4	24,8	$\pm 0,250$	295	340	6,43°	3,1	2
AXCR 360-S	7,8	360	0,036	435	-0,040	25,4	24,8	$\pm 0,300$	375	420	5°	3,1	2

- 1) Tightening torque for screws according to DIN 912, property class 10.9.
- 2) At high speed applications, please contact us
- 3) Measuring speed $n_{const} = 5 \text{ min}^{-1}$
- 4) Measured on mounted bearing, with ideal adjacent construction.

designation	fixing holes											
	inner ring				outer ring				extraction threads on inner ring and outer ring		quantity x pitch	screw tightening torque
	d1	d2	a	quantity	d3	d4	a1	quantity	G	quantity	nxt	$M_A^{1)}$ [Nm]
AXCR 130-S	6,6	11	6,4	12	6,6	11	6,4	12	M8	3	12x 30°	14
AXCR 150-S	6,6	11	6,4	16	6,6	11	6,4	16	M8	2	16x 22,5°	14
AXCR 180-S	6,6	11	6,4	20	6,6	11	6,4	20	M8	2	20x 18°	14
AXCR 220-S	6,6	11	6,4	24	6,6	11	6,4	24	M8	3	24x 15°	14
AXCR 280-S	6,6	11	6,4	28	6,6	11	6,4	28	M8	2	28x 12,857°	14
AXCR 360-S	6,6	11	6,4	36	6,6	11	6,4	36	M8	3	36x 10°	14

designation	load ratings				limiting-speed ²⁾	bearing-frictional torque ³⁾	axial & radial runout ⁴⁾		rigidity of bearing position			min. corner-radius
	axial		radial		grease	grease	inner ring	outer ring	axial	radial	tilting rigidity	
	dyn. C_a [kN]	stat. C_{0a} [kN]	dyn. C_r [kN]	stat. C_{0r} [kN]	n_G [min ⁻¹]	$M_{RL \max}$ [Nm]	PL & RL [μm]	PL & RL [μm]	C_{al} [kN/μm]	C_{rl} [kN/μm]	C_{kl} [kNm/mrad]	
AXCR 130-S	57,3	237,1	50,9	94,8	240	10	10	10	1,9	1,0	6,2	2
AXCR 150-S	61,5	270,8	54,7	108,3	215	12	10	10	2,1	1,1	9,1	2
AXCR 180-S	66,2	313,2	58,8	125,3	185	16	10	10	2,5	1,3	14,2	2
AXCR 220-S	72,4	372,5	64,3	149,0	155	18	10	10	2,9	1,5	23,5	2
AXCR 280-S	81,5	465,5	72,4	186,2	130	25	10	10	3,6	1,7	43,3	2
AXCR 360-S	91,7	584,0	81,4	233,6	100	50	10	10	4,4	2,0	83,9	2

Crossed Roller Bearings AXCR-X



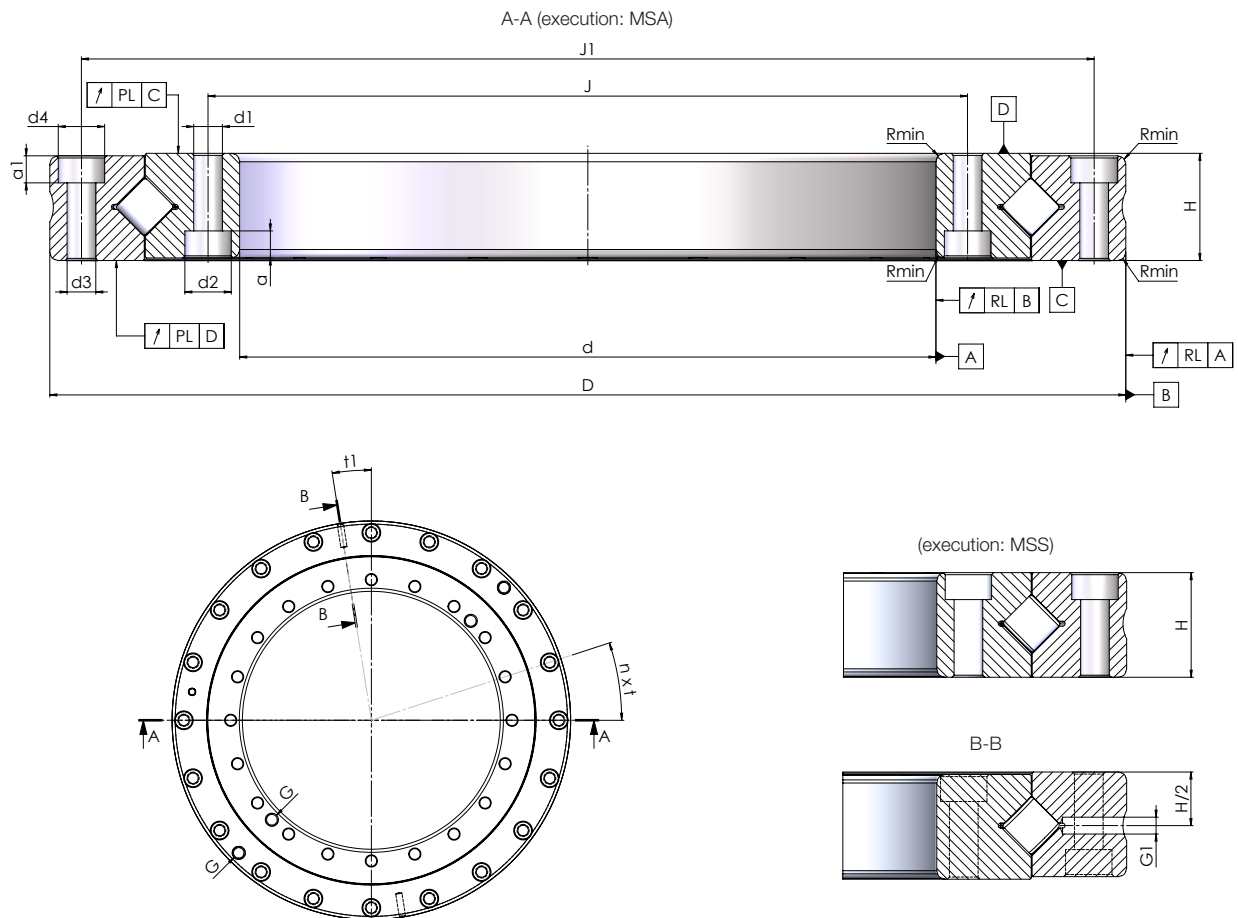
designation	mass	dimensions [mm]											
	m	d	Δd	D	ΔD	H	ΔH	J	J1	t1	G1	quantity	
	[kg]					XSA	XSS						
AXCR 150-X	5,5	150	-0,025	240	-0,030	-	28	$\pm 0,100$	-	217	15°	3,1	2
AXCR 160-X	4,2	160	-0,025	240	-0,030	25	25	$\pm 0,100$	172	228	9°	4	2
AXCR 165-X	5,1	165	-0,025	255	-0,032	25,4	24,8	$\pm 0,100$	180	240	9°	4	2
AXCR 270-X	14,7	270	-0,035	400	-0,040	30	30	$\pm 0,100$	298	376	11,25°	6	2
AXCR 350-X	42,2	350	-0,035	540	-0,050	45	45	$\pm 0,100$	385	505	7,5°	6	2

- 1) Tightening torque for screws according to DIN 912, property class 10.9.
- 2) At high speed applications, please contact us
- 3) Measuring speed $n_{\text{const}} = 5 \text{ min}^{-1}$
- 4) Measured on mounted bearing, with ideal adjacent construction.

designation	fixing holes													
	inner ring						outer ring						quantity x pitch	screw tightening torque
	d1 d2 a quantity				extraction threads	d3 d4 a1 quantity				extraction threads				
					G quantity					G quantity				
													nxt	M _A ¹⁾ [Nm]
AXCR 150-X	-	-	-	-	-	-	9	14	8,6	12	M8	2	12x 30°	34
AXCR 160-X	6,8	11	6,5	20	M8	2	6,8	11	6,5	20	M6	2	20x 18°	14
AXCR 165-X	6,8	11	6,4	20	M8	2	6,8	11	6,4	20	M6	2	20x 18°	14
AXCR 270-X	9	14	8,6	16	M8	2	9	14	8,6	16	M8	2	16x 22,5°	34
AXCR 350-X	14	20	12,6	24	M10	2	14	20	12,6	24	M10	2	24x 15°	116

designation	load ratings				limiting-speed ²⁾	bearing-frictional torque ³⁾	axial & radial runout ⁴⁾				rigidity of bearing position			min. corner-radius
	axial		radial		grease	grease	inner ring		outer ring		axial	radial	tilting rigidity	
							standard	restricted	standard	restricted				
	dyn. C _a [kN]	stat. C _{0a} [kN]	dyn. C _r [kN]	stat. C _{0r} [kN]	n _G [min ⁻¹]	M _{RL max} [Nm]	PL & RL [μm]	PL & RL [μm]	PL & RL [μm]	PL & RL [μm]	C _{al} [kN/μm]	C _{rl} [kN/μm]	C _{kl} [kNm/mrad]	R _{min} [mm]
AXCR 150-X	103,8	388,2	92,5	155,3	225	10	8	5	15	10	1,6	0,8	5,9	2
AXCR 160-X	87,3	369,8	77,7	147,9	205	11	10	6	20	10	2,0	1,0	9,7	2
AXCR 165-X	91,0	396,9	80,9	158,7	200	12	10	6	15	11	2,2	1,1	11,6	2
AXCR 270-X	147,1	756,9	130,7	302,8	150	20	12	6	45	22	3,2	1,6	43,7	2,5
AXCR 350-X	254,1	1368,1	225,8	547,2	100	40	15	7	50	25	4,4	2,3	106,6	3

Crossed Roller Bearings AXCR-M



designation	mass	dimensions [mm]											
	m	d	Δd	D	ΔD	H	ΔH	J	J1	t1	G1	quantity	
	[kg]					MSA	MSS						
AXCR 165-M	5,1	165	-0,025	255	-0,032	25,4	24,8	$\pm 0,100$	180	240	9°	4	2

- 1) Tightening torque for screws according to DIN 912, property class 10.9.
- 2) At high speed applications, please contact us
- 3) Measuring speed $n_{\text{const}} = 5 \text{ min}^{-1}$
- 4) Measured on mounted bearing, with ideal adjacent construction.

designation	fixing holes											
	inner ring				outer ring				extraction threads on inner ring and outer ring		quantity x pitch	screw tightening torque
	d1	d2	a	quantity	d3	d4	a1	quantity				
									G	quantity	nxt	$M_A^{1)}$ [Nm]
AXCR 165-M	6,8	11	6,4	20	6,8	11	6,4	20	M8	2	20x 18°	14

designation	load ratings				limiting-speed ²⁾	bearing-frictional torque ³⁾	axial & radial runout ⁴⁾				rigidity of bearing position			min. corner-radius
	axial		radial		grease	grease	inner ring		outer ring		axial	radial	tilting rigidity	
							standard	restricted	standard	restricted				
	dyn. C _a [kN]	stat. C _{0a} [kN]	dyn. C _r [kN]	stat. C _{0r} [kN]	n _G [min ⁻¹]	M _{PL} max [Nm]	PL & RL [μm]	PL & RL [μm]	PL & RL [μm]	PL & RL [μm]	C _{al} [kN/μm]	C _{rl} [kN/μm]	C _{kl} [kNm/mrad]	R _{min} [mm]
AXCR 165-M	91,0	396,9	80,9	158,7	200	12	6	4	11	6	2,2	1,1	11,7	1,5

Designation coding

Designation coding AXCR

AXCR 200 - USA - P2 - CL - J7000 - L120 - BR

Type

Bore
in mm

Design:

U = commercially
execution with one-
piece rings

S = commercially
execution with one-
piece rings and
constant height
X = customized
execution with splitted
outer ring

M = customized
execution with one-
piece rings

Mounting
options:

SA = opposite counter bores
SS = counter bores on same side
others on request

Surface treatment:

without = no surface treatment
BR = burnished rings
CTx = coated rings

Lubrication:

without = standard grease
L120 = bearing ungreased, only
conserved (eg. for oil lubrication)
Gxxx = special grease

Design:

without = catalogue design
Jxxxx = customized design
(number defined by myonic)

Preload:

without = standard preload
CL = light preload
CP = play

Running accuracy:

without = standard running accuracy P4
P2 = restricted running accuracy
UP = ultra precision running accuracy