

Technical data

ZRS

Technical data

Option

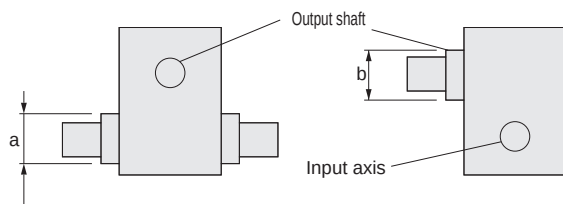
Safety precautions

Model selection specifications
Check sheet

C O N T E N T S

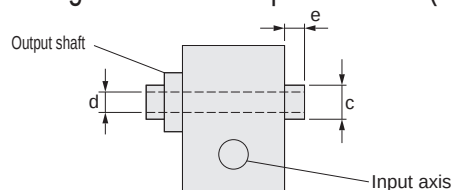
Common specifications	48
Output torque table	50

1. Stepped part diameter of input shaft and output shaft



Dimension size	a	b
04	ø15	ø20
05	ø17	ø25
06	ø25	ø30
08	ø28	ø32
11	ø32	ø42
14	ø42	ø55

2. Flange shaft hollow specifications (made to order)



Dimension size	c	d	e
08	ø25	ø12	5
11	ø30	ø16	5
14	ø40	ø20	5

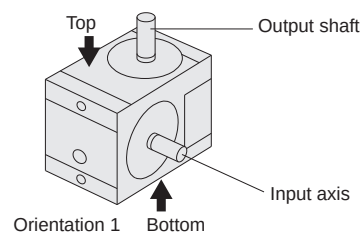
3. Output shaft (flange shaft) positioning pin hole dimensions (made to order)

The dimensions below are used as reference when machining the positioning pin hole on the output shaft.

Size	05	06	08	11	14
Pitch					
Reference hole	ø8H7 through Effective length 12	ø8H7 through Effective length 12	ø8H7 depth 15 (P.C.D46)	ø10H7 depth 20 (P.C.D60)	2-ø13H7 Depth 25

4. Housing positioning pin hole dimension (made to order)

When machining positioning pin holes on the housing, the dimensions below are used as reference.



Size	04	05	06	08	11	14
Top						
Bottom						
Reference hole diameter	2-ø6H7 depth 8	2-ø8H7 depth 10	2-ø8H7 depth 10	2-ø8H7 depth 10	2-ø10H7 depth 10	2-ø13H7 depth 8

*Contact CKD for information on the lower surface positioning pin dimension tolerance.

Common specifications

5. Option (motor)

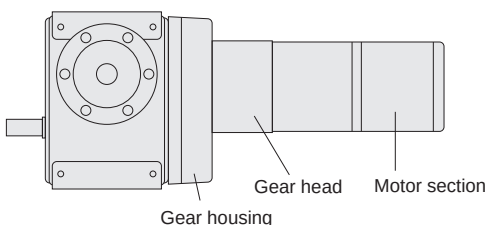
The life of the optionally mountable parts is determined by the manufacturer as below. The service life may be reached in a short time depending on the operating frequency. Refer to the service life below to set the maintenance period.

Service life guidelines for optional parts manufacturers

Optional parts	Estimated service life	Manufacturer
Motor with brake, motor with C/B	Operation cycles 2 million times	Oriental Motor

6. Option/ Gear head + motor mounting list

Gear head + motor
[Oriental Motor Co., Ltd.]

Size		ZRS	04	04 05	05 06	06
Motor specifications	Motor output		25W	40W	60W	90W
	Induction	Single phase100V	○	○	○	○
		Single phase200V	○	○	○	○
		Three-phase200V	○	○	○	○
	Reliable	Single phase100V	○	○	○	○
		Single phase200V	○	○	○	○
	With electromagnetic brake	Single phase100V	○	○	○	○
		Single phase200V	○	○	○	○
		Three-phase200V	○	○	○	○
	With C/B	Single phase100V	◎	◎	◎	◎
		Single phase200V	○	○	○	○
		Three-phase200V	○	○	○	○
Gear head reduction ratio		1/3, 1/3.6, 1/5, 1/6, 1/7.5, 1/9, 1/12.5 1/15, 1/18, 1/25, 1/30, 1/36, 1/50, 1/60 1/75, 1/90, 1/100, 1/120, 1/150, 1/180				
Reduction ratio of gear housing		1/1				
 Gear housing Gear head Motor section						
*Contact CKD for belt drive.						

◎ ...Standard (Dimensions description)

○ ...Option

① An electronic brake circuit is required for intermittent operation with an induction motor.
Purchase the Oriental Motor brake pack separately.

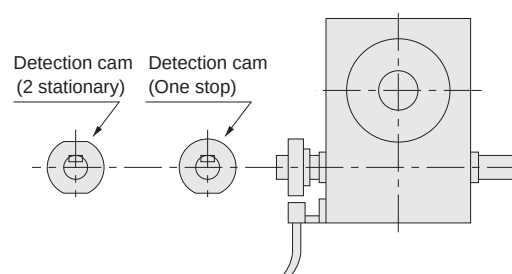
② Calculate the motor size before using the body selection.

7. Option/input shaft 1 rotation

Detection cam + proximity SW

Proximity SW model No.

Size	SW model No.	Manufacturer
04 to 11	E2S-Q23	OMRON
14	E2E-X2C112	



8. Option/torque saver (TSF4 to TSF14)

Torque guard (TGX20 to TGX70) + release detection proximity switch

Proximity SW model No.

Torque saver Torque guard	SW model No.	Manufacturer
TSF4	TL-W3MC1	OMRON
TSF5 to TSF14	TL-W5MC1	
TGX20 to TGX70		

ZRS

Technical data

Option

Safety precautions

Model selection specifications
Check sheet

■ ZRS-X Straight axis 1 stationary

Cam curve/MS

Indexing No.	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)					
				Input axis rotational speed (rpm)					
				30	60	90	120	150	200
2	270	04	10.9	6.64	6.45	6.21	6.05	5.93	5.77
		05	19.9	12.3	12.0	11.5	11.2	11.0	10.7
		06	85.1	44.2	40.6	34.6	30.9	28.3	25.2
		08	164	100	97	89	80	73	65
		11	359	220	211	180	161	147	130
		14	950	444	407	347	309	282	248
	300	04	30.6	16.1	14.9	12.7	11.4	10.4	9.3
		05	50.1	28.1	26.1	22.3	19.9	18.2	16.3
		06	85.1	47.0	43.6	37.2	33.3	30.4	27.1
		08	242	140	130	111	99	91	81
		11	591	286	265	226	202	184	164
		14	1160	598	555	473	422	385	342
	330	04	30.6	17.0	15.9	13.5	12.1	11.1	9.9
		05	50.1	29.6	27.7	23.6	21.1	19.4	17.3
		06	119	56.6	52.9	45.2	40.3	36.9	33.0
		08	242	148	138	118	105	96	86
		11	591	301	281	240	214	196	175
		14	1160	631	590	503	449	411	365
3	180	04	10.9	6.64	6.33	6.10	5.94	5.81	5.65
		05	19.9	12.3	11.7	11.3	11.0	10.8	10.4
		06	85.1	44.2	39.8	34.0	30.3	27.7	24.6
		08	164	100	96	87	78	71	63
		11	359	220	207	177	157	144	127
		14	950	444	400	340	302	275	241
	210	04	10.9	7.27	7.03	6.77	6.60	6.46	6.29
		05	50.1	28.9	26.4	22.5	20.1	18.4	16.4
		06	85.1	48.3	44.2	37.7	33.7	30.8	27.4
		08	242	144	132	112	100	92	82
		11	591	293	268	229	204	187	166
		14	1160	615	562	479	427	390	344
	240	04	30.6	17.7	16.4	14.0	12.5	11.5	10.2
		05	50.1	30.9	28.6	24.4	21.8	20.0	17.8
		06	85.1	51.8	48.0	40.9	36.6	33.5	29.8
		08	242	154	143	122	109	100	89
		11	591	314	291	248	222	203	180
		14	1160	660	611	521	465	424	376
	270	04	41.6	26.1	24.4	20.8	18.6	17.1	15.3
		05	50.1	32.6	30.5	26.0	23.3	21.3	19.0
		06	85.1	54.7	51.1	43.7	39.0	35.7	31.9
		08	242	163	152	130	116	106	95
		11	591	332	310	265	236	216	193
		14	1160	697	652	556	496	454	403
300	04	41.6	27.2	25.7	22.0	19.6	18.0	16.1	
	05	67.0	45.2	42.7	36.4	32.6	29.8	26.7	
	06	119	65.0	61.4	52.4	46.9	42.9	38.3	
	08	262	207	204	174	156	143	127	
	11	738	451	426	364	325	298	265	
	14	1640	907	857	731	653	597	532	
330	04	41.6	28.2	26.7	22.9	20.5	18.8	16.8	
	05	67.0	46.7	44.2	38.0	33.9	31.1	27.8	
	06	129	106	106	97	87	80	71	
	08	262	214	212	182	162	149	133	
	11	738	467	442	379	339	310	277	
	14	1640	939	889	763	682	624	556	

Output torque table

■ ZRS-X Straight axis 1 stationary
Cam curve/MS

Indexing No.	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)					
				Input axis rotational speed (rpm)					
				30	60	90	120	150	200
4	150	04	10.2	6.66	5.99	5.11	4.57	4.18	3.72
		05	12.8	8.90	8.45	8.14	7.91	7.74	7.50
		06	63.6	35.4	31.8	27.1	24.2	22.1	19.5
		08	108	59.7	53.6	45.7	40.7	37.2	32.9
		11	331	193	173	147	131	119	105
		14	760	362	325	276	245	222	193
	180	04	10.9	7.79	7.53	7.25	7.07	6.92	6.73
		05	19.9	14.4	13.9	13.4	13.1	12.8	12.4
		06	63.6	38.9	35.6	30.4	27.1	24.8	22.0
		08	152	75.0	68.6	58.5	52.2	47.7	42.4
		11	359	258	246	210	187	171	152
		14	950	522	477	406	361	329	290
	210	04	17.9	13.9	13.6	13.1	12.8	12.3	11.0
		05	19.9	15.4	15.1	14.6	14.2	13.9	13.5
		06	63.6	41.7	38.7	33.0	29.4	27.0	24.0
		08	164	126	124	113	101	92	82
		11	359	277	268	228	204	186	166
		14	950	560	519	442	394	360	319
	240	04	17.9	14.6	14.5	14.0	13.6	13.1	11.7
		05	19.9	16.2	16.1	15.5	15.1	14.8	14.4
		06	63.6	43.9	41.1	35.1	31.4	28.7	25.6
		08	164	133	132	120	108	99	88
		11	359	291	285	243	217	199	177
		14	950	589	553	471	420	384	341
	270	04	17.9	15.1	15.1	14.6	14.2	13.8	12.3
		05	19.9	16.8	16.8	16.2	15.8	15.5	15.1
		06	63.6	45.5	43.1	36.8	32.9	30.2	26.9
		08	164	138	138	126	113	103	92
		11	591	367	348	297	265	243	217
		14	1160	775	733	626	559	512	456
	300	04	30.6	21.3	20.2	17.4	15.6	14.3	12.8
		05	50.1	37.1	35.1	30.3	27.1	24.8	22.2
		06	85.1	62.3	59.0	50.9	45.5	41.7	37.2
		08	164	142	142	131	117	108	96
		11	591	378	358	309	276	253	225
		14	1160	798	755	652	582	533	475
	330	04	30.6	21.8	20.7	18.0	16.1	14.7	13.2
		05	50.1	37.9	35.9	31.2	27.9	25.6	22.8
		06	85.1	63.8	60.4	52.5	47.0	43.0	38.4
		08	164	145	145	135	121	111	99
		11	591	386	366	318	284	261	233
		14	1160	817	773	673	601	550	490
5	120	04	7.19	4.92	4.38	3.74	3.33	3.05	2.71
		05	13.1	8.32	7.40	6.30	5.61	5.12	4.52
		06	16.4	11.2	10.5	10.1	9.8	9.5	9.1
		08	80.0	45.0	40.0	34.0	30.3	27.5	24.2
		11	200	94.1	83.6	71.0	62.8	56.8	49.1
		14	420	245	217	184	162	146	124
	150	04	7.19	5.45	4.95	4.23	3.77	3.45	3.08
		05	12.8	9.87	9.46	9.11	8.87	8.68	8.42
		06	25.3	18.5	17.8	17.1	16.6	16.2	15.7
		08	108	67.1	60.9	51.9	46.3	42.3	37.5
		11	225	165	158	145	129	117	104
		14	462	335	317	270	240	218	191

ZRS

Technical data

Option

Safety precautions

Model selection specifications
Check sheet

■ ZRS-X Straight axis 1 stationary

Cam curve/MS

	Indexing No.	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)					
					Input axis rotational speed (rpm)					
					30	60	90	120	150	200
ZRS	5	180	04	10.2	7.93	7.32	6.25	5.58	5.11	4.56
			05	12.8	10.5	10.3	9.9	9.6	9.4	9.2
			06	25.3	20.0	19.5	18.8	18.3	17.9	17.3
			08	108	72.4	66.8	57.0	50.9	46.6	41.4
			11	225	178	174	159	142	129	115
			14	462	362	349	297	265	241	213
		210	04	14.8	8.30	7.77	6.63	5.93	5.43	4.85
			05	12.8	11.0	10.9	10.5	10.2	10.0	9.7
			06	63.6	45.2	42.3	36.1	32.2	29.5	26.3
			08	152	87.1	81.5	69.6	62.1	56.9	50.7
			11	331	246	230	196	175	160	143
			14	462	382	374	318	284	259	230
		240	04	10.9	9.39	9.39	9.06	8.83	8.65	8.43
			05	37.9	26.6	25.1	21.5	19.2	17.6	15.7
			06	63.6	46.9	44.4	37.9	33.9	31.0	27.7
			08	152	90.4	85.6	73.1	65.3	59.8	53.3
			11	331	255	241	206	184	168	150
			14	760	483	457	391	348	319	283
		270	04	10.9	9.65	9.65	9.41	9.17	8.99	8.75
			05	37.9	27.3	25.8	22.3	19.9	18.3	16.3
			06	63.6	48.2	45.6	39.4	35.2	32.2	28.8
			08	152	92.9	88.0	76.0	67.9	62.2	55.5
			11	359	319	315	272	243	223	199
			14	760	497	471	406	362	332	295
		300	04	10.9	9.85	9.85	9.70	9.45	9.26	9.02
			05	37.9	27.8	26.3	23.0	20.5	18.8	16.8
			06	63.6	49.2	46.5	40.6	36.2	33.2	29.6
			08	152	94.9	89.8	78.3	69.9	64.1	57.2
			11	359	326	322	281	251	230	205
			14	760	508	481	419	374	342	305
		330	04	10.9	10.0	10.0	9.9	9.7	9.5	9.2
			05	37.9	28.3	26.7	23.5	21.0	19.3	17.2
			06	63.6	49.9	47.3	41.6	37.1	34.0	30.4
			08	152	96.4	91.2	80.2	71.7	65.7	58.6
			11	359	331	327	287	257	235	210
			14	760	516	488	429	383	351	313
Option	6	90	04	10.9	6.53	6.13	5.91	5.75	5.62	5.45
			05	19.9	12.1	11.4	10.9	10.6	10.4	10.0
			06	85.1	43.4	38.6	32.9	29.3	26.7	23.5
			08	164	98.7	92.6	84.6	75.4	68.8	60.8
			11	591	264	234	199	177	161	141
			14	950	436	386	327	289	261	223
		120	04	41.6	24.7	22.2	18.9	16.9	15.5	13.8
			05	67.0	41.1	36.9	31.5	28.1	25.8	23.0
			06	119	59.1	53.0	45.2	40.4	36.9	32.8
			08	262	188	176	150	134	123	109
			11	738	410	368	314	280	255	226
			14	1640	822	737	628	559	509	449
		150	04	41.6	27.2	24.9	21.3	19.0	17.4	15.6
			05	67.0	45.2	41.4	35.3	31.5	28.9	25.8
			06	129	102	99	90	81	74	66
			08	262	207	198	169	151	138	123
			11	738	451	413	352	315	288	256
			14	1640	907	830	708	631	577	511
Safety precautions	6	90	04	10.9	6.53	6.13	5.91	5.75	5.62	5.45
			05	19.9	12.1	11.4	10.9	10.6	10.4	10.0
			06	85.1	43.4	38.6	32.9	29.3	26.7	23.5
			08	164	98.7	92.6	84.6	75.4	68.8	60.8
			11	591	264	234	199	177	161	141
			14	950	436	386	327	289	261	223
		120	04	41.6	24.7	22.2	18.9	16.9	15.5	13.8
			05	67.0	41.1	36.9	31.5	28.1	25.8	23.0
			06	119	59.1	53.0	45.2	40.4	36.9	32.8
			08	262	188	176	150	134	123	109
			11	738	410	368	314	280	255	226
			14	1640	822	737	628	559	509	449
		150	04	41.6	27.2	24.9	21.3	19.0	17.4	15.6
			05	67.0	45.2	41.4	35.3	31.5	28.9	25.8
			06	129	102	99	90	81	74	66
			08	262	207	198	169	151	138	123
			11	738	451	413	352	315	288	256
			14	1640	907	830	708	631	577	511
Model selection specifications Check sheet	6	90	04	10.9	6.53	6.13	5.91	5.75	5.62	5.45
			05	19.9	12.1	11.4	10.9	10.6	10.4	10.0
			06	85.1	43.4	38.6	32.9	29.3	26.7	23.5
			08	164	98.7	92.6	84.6	75.4	68.8	60.8
			11	591	264	234	199	177	161	141
			14	950	436	386	327	289	261	223
		120	04	41.6	24.7	22.2	18.9	16.9	15.5	13.8
			05	67.0	41.1	36.9	31.5	28.1	25.8	23.0
			06	119	59.1	53.0	45.2	40.4	36.9	32.8
			08	262	188	176	150	134	123	109
			11	738	410	368	314	280	255	226
			14	1640	822	737	628	559	509	449
		150	04	41.6	27.2	24.9	21.3	19.0	17.4	15.6
			05	67.0	45.2	41.4	35.3	31.5	28.9	25.8
			06	129	102	99	90	81	74	66
			08	262	207	198	169	151	138	123
			11	738	451	413	352	315	288	256
			14	1640	907	830	708	631	577	511

Output torque table

■ ZRS-X Straight axis 1 stationary

Cam curve/MS

Indexing No.	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)					
				Input axis rotational speed (rpm)					
				30	60	90	120	150	200
6	180	04	41.6	28.9	26.9	23.0	20.6	18.8	16.8
		05	67.0	47.9	44.6	38.1	34.0	31.2	27.9
		06	129	109	107	98	87	80	71
		08	431	268	249	213	190	174	155
		11	903	606	564	482	430	394	351
		14	2230	1190	1110	950	850	770	690
	210	04	41.6	30.1	28.5	24.3	21.7	19.9	17.8
		05	67.0	49.9	47.1	40.2	35.9	32.9	29.4
		06	129	113	113	103	92	84	75
		08	431	279	263	225	201	184	164
		11	903	631	596	508	454	416	371
		14	2230	1240	1170	1000	890	820	730
	240	04	41.6	31.0	29.4	25.3	22.6	20.7	18.5
		05	67.0	51.3	48.5	41.8	37.4	34.3	30.6
		06	129	116	116	107	96	88	79
		08	431	287	271	234	209	192	171
		11	903	649	614	529	473	433	387
		14	2230	1280	1210	1040	930	850	760
	270	04	41.6	31.7	30.0	26.1	23.3	21.4	19.1
		05	67.0	52.3	49.5	43.1	38.5	35.3	31.6
		06	129	119	119	111	99	91	81
		08	431	293	277	241	216	198	177
		11	1270	825	781	680	608	557	497
		14	2230	1310	1240	1080	960	880	790
	300	04	41.6	32.1	30.4	26.8	23.9	21.9	19.6
		05	67.0	53.1	50.2	44.2	39.5	36.2	32.3
		06	129	120	120	113	101	93	83
		08	431	297	281	247	221	203	181
		11	1270	838	793	697	623	571	510
		14	2230	1330	1260	1110	990	900	810
	330	04	41.6	32.5	30.8	27.3	24.4	22.4	20.0
		05	67.0	53.7	50.8	45.0	40.3	36.9	33.0
		06	129	122	122	116	103	95	85
		08	431	301	285	252	226	207	185
		11	1270	847	802	710	636	583	520
		14	2230	1340	1270	1130	1010	920	820
8	90	04	10.9	7.77	7.29	7.03	6.84	6.70	6.51
		05	50.1	30.8	27.4	23.4	20.8	19.1	17.0
		06	85.1	51.6	45.9	39.1	34.9	31.8	28.2
		08	164	117	110	101	90	82	73
		11	359	257	239	203	181	165	145
		14	950	520	461	392	347	315	273
	120	04	30.6	20.0	18.2	15.5	13.9	12.7	11.3
		05	50.1	34.7	31.6	27.0	24.1	22.0	19.7
		06	85.1	58.3	53.0	45.2	40.4	37.0	32.9
		08	242	174	158	135	120	110	98
		11	591	354	322	274	245	224	198
		14	1160	745	677	577	514	469	414
	150	04	30.6	21.3	19.8	16.9	15.1	13.8	12.4
		05	50.1	37.1	34.4	29.4	26.2	24.0	21.4
		06	85.1	62.3	57.8	49.4	44.1	40.4	36.0
		08	242	186	172	147	131	120	107
		11	591	378	351	299	267	244	217
		14	1160	798	740	631	563	514	457

ZRS

Technical data

Option

Safety precautions

Model selection specifications
Check sheet

■ ZRS-X Straight axis 1 stationary

Cam curve/MS

Indexing No.	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)					
				Input axis rotational speed (rpm)					
				30	60	90	120	150	200
8	180	04	30.6	22.2	21.0	17.9	16.0	14.7	13.1
		05	50.1	38.5	36.4	31.0	27.7	25.4	22.7
		06	85.1	64.9	61.2	52.2	46.7	42.8	38.2
		08	242	194	183	156	139	128	114
		11	738	513	484	413	369	338	301
		14	1640	1040	980	830	740	680	610
	210	04	30.6	22.8	21.6	18.6	16.6	15.3	13.6
		05	50.1	39.5	37.4	32.3	28.8	26.4	23.6
		06	85.1	66.6	63.0	54.4	48.6	44.5	39.7
		08	242	199	188	162	145	133	119
		11	738	527	498	430	384	352	314
		14	1640	1060	1010	870	780	710	630
	240	04	30.6	23.2	22.0	19.2	17.2	15.7	14.0
		05	50.1	40.2	38.1	33.2	29.7	27.2	24.3
		06	85.1	67.8	64.2	56.0	50.0	45.9	41.0
		08	242	202	191	167	149	137	122
		11	738	536	507	443	396	362	323
		14	1640	1080	1030	900	800	730	650
	270	04	30.6	23.5	22.3	19.6	17.6	16.1	14.4
		05	50.1	40.7	38.5	34.0	30.4	27.8	24.9
		06	85.1	68.6	65.0	57.3	51.2	46.9	41.9
		08	262	249	246	217	194	178	159
		11	738	542	513	453	405	371	331
		14	1640	1100	1040	920	820	750	670
	300	04	30.6	23.7	22.5	19.9	17.9	16.4	14.6
		05	50.1	41.1	38.9	34.4	30.9	28.4	25.3
		06	85.1	69.2	65.5	58.0	52.2	47.8	42.7
		08	262	252	249	220	198	181	162
		11	738	547	518	459	412	378	337
		14	1640	1110	1050	930	830	760	680
	330	04	30.6	23.9	22.6	20.0	18.2	16.6	14.9
		05	50.1	41.3	39.1	34.6	31.4	28.8	25.7
		06	85.1	69.7	66.0	58.4	53.0	48.6	43.4
		08	262	253	250	222	201	184	165
		11	738	551	522	462	419	384	343
		14	1640	1120	1060	940	850	780	690
9	90	04	10.9	8.23	7.74	7.46	7.26	7.11	6.91
		05	37.9	23.3	20.8	17.7	15.8	14.5	12.9
		06	63.6	41.1	36.6	31.2	27.8	25.4	22.5
		08	152	79.2	70.5	60.0	53.5	48.8	43.2
		11	331	224	199	169	151	137	121
		14	760	422	375	319	282	256	222
	120	04	10.9	9.12	8.81	8.49	8.27	8.10	7.88
		05	37.9	25.8	23.6	20.1	18.0	16.5	14.7
		06	63.6	45.5	41.6	35.5	31.7	29.0	25.8
		08	152	87.8	80.3	68.5	61.1	55.9	49.7
		11	359	302	288	246	219	200	178
		14	760	469	429	365	325	296	261
	150	04	10.9	9.65	9.51	9.17	8.93	8.75	8.52
		05	37.9	27.3	25.4	21.7	19.4	17.8	15.9
		06	85.1	64.1	59.7	51.0	45.5	41.7	37.2
		08	164	146	144	131	117	108	96
		11	359	319	311	265	237	217	193
		14	950	649	605	516	460	420	373

Output torque table

■ ZRS-X Straight axis 1 stationary

Cam curve/MS

Indexing No.	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)					
				Input axis rotational speed (rpm)					
				30	60	90	120	150	200
9	180	04	10.9	9.98	9.98	9.64	9.39	9.20	8.96
		05	51.5	39.3	37.2	31.8	28.4	26.1	23.3
		06	85.1	66.2	62.7	53.6	47.9	43.9	39.2
		08	164	151	151	138	124	113	101
		11	359	330	326	279	249	228	203
		14	950	671	635	543	485	443	395
	210	04	30.6	23.2	21.9	19.0	17.0	15.6	13.9
		05	51.5	40.1	38.0	32.9	29.4	27.0	24.1
		06	85.1	67.6	64.0	55.5	49.6	45.5	40.6
		08	164	154	154	143	128	117	105
		11	359	337	333	289	258	236	211
		14	1160	868	822	712	636	582	519
	240	04	30.6	23.5	22.3	19.5	17.5	16.0	14.3
		05	51.5	40.7	38.5	33.8	30.2	27.7	24.7
		06	85.1	68.6	65.0	57.0	50.9	46.7	41.7
		08	164	156	156	147	131	120	108
		11	359	341	338	296	265	242	216
		14	1160	881	834	731	653	598	534
	270	04	30.6	23.7	22.5	19.9	17.8	16.3	14.6
		05	51.5	41.1	38.9	34.4	30.8	28.3	25.3
		06	85.1	69.3	65.6	58.1	52.0	47.7	42.6
		08	164	158	158	150	134	123	110
		11	359	345	341	302	270	248	221
		14	1160	890	843	746	667	611	546
	300	04	30.6	23.9	22.7	20.1	18.1	16.6	14.8
		05	51.5	41.4	39.2	34.7	31.4	28.7	25.7
		06	85.1	69.8	66.1	58.5	52.9	48.5	43.3
		08	164	159	159	151	136	125	112
		11	591	423	400	354	320	293	262
		14	1160	897	849	752	679	622	555
	330	04	30.6	24.1	22.8	20.2	18.4	16.9	15.1
		05	51.5	41.6	39.4	34.9	31.8	29.1	26.0
		06	85.1	70.2	66.4	58.8	53.6	49.2	43.9
		08	164	160	160	152	138	127	113
		11	591	425	402	356	325	298	266
		14	1160	902	854	756	689	631	564

ZRS

Technical data

Option

Safety precautions

Model selection specifications
Check sheet

■ ZRS-X Straight axis 1 stationary

Cam curve/MS

Indexing No.	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)					
				Input axis rotational speed (rpm)					
				30	60	90	120	150	200
10	90	04	10.2	7.93	7.09	6.05	5.40	4.95	4.41
		05	12.8	10.5	10.0	9.6	9.3	9.1	8.8
		06	25.3	20.0	18.9	18.2	17.6	17.2	16.6
		08	108	72.4	64.8	55.2	49.2	44.9	39.7
		11	225	178	168	154	137	124	110
		14	462	362	338	287	254	230	200
	120	04	10.9	9.39	9.11	8.78	8.55	8.38	8.16
		05	37.9	26.6	24.4	20.8	18.6	17.0	15.2
		06	63.6	46.9	43.0	36.7	32.8	30.0	26.7
		08	152	90.4	83.0	70.8	63.2	57.8	51.4
		11	331	255	234	200	178	163	144
		14	760	483	444	378	336	307	271
	150	04	10.9	9.85	9.75	9.40	9.16	8.97	8.74
		05	37.9	27.8	26.1	22.3	19.9	18.2	16.3
		06	63.6	49.1	46.1	39.3	35.1	32.1	28.7
		08	152	94.8	88.9	75.8	67.7	62.0	55.3
		11	359	326	319	272	243	222	198
		14	760	508	476	405	362	330	293
	180	04	10.9	10.1	10.1	9.8	9.6	9.4	9.1
		05	37.9	28.6	27.1	23.3	20.8	19.0	17.0
		06	85.1	67.2	63.6	54.7	48.8	44.8	40.0
		08	152	97.6	92.3	79.3	70.9	64.9	57.9
		11	359	335	331	284	254	232	207
		14	950	682	645	554	495	453	403
	210	04	10.9	10.3	10.3	10.1	9.9	9.7	9.4
		05	37.9	29.1	27.5	24.0	21.4	19.6	17.5
		06	85.1	68.4	64.8	56.4	50.4	46.2	41.3
		08	164	156	156	146	130	119	106
		11	359	341	337	293	262	240	214
		14	950	694	657	572	511	468	417
	240	04	10.9	10.4	10.4	10.4	10.1	9.9	9.7
		05	37.9	29.4	27.9	24.6	21.9	20.1	18.0
		06	85.1	69.2	65.5	57.8	51.6	47.3	42.3
		08	164	158	158	149	133	122	109
		11	359	345	341	300	268	246	220
		14	950	703	665	586	524	480	428
	270	04	10.9	10.5	10.5	10.5	10.3	10.1	9.9
		05	37.9	29.7	28.1	24.9	22.4	20.5	18.3
		06	85.1	69.8	66.1	58.5	52.6	48.2	43.1
		08	164	159	159	151	136	124	111
		11	359	347	344	304	273	251	224
		14	950	709	671	594	534	489	437
	300	04	10.9	10.6	10.6	10.6	10.5	10.3	10.0
		05	37.9	29.8	28.2	25.0	22.7	20.8	18.6
		06	85.1	70.2	66.5	58.9	53.5	49.0	43.8
		08	164	160	160	152	138	126	113
		11	359	349	346	306	278	255	227
		14	950	713	675	598	543	497	444
	330	04	10.9	10.6	10.6	10.6	10.6	10.4	10.1
		05	37.9	30.0	28.4	25.1	23.0	21.1	18.8
		06	85.1	70.5	66.8	59.1	54.2	49.6	44.4
		08	164	161	161	153	140	128	114
		11	359	351	347	307	281	258	230
		14	950	717	679	601	550	504	450

Output torque table

■ ZRS-X Straight axis 1 stationary Cam curve/MS

Indexing No.	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)					
				Input axis rotational speed (rpm)					
				30	60	90	120	150	200
12	90	04	7.19	6.13	5.53	4.72	4.21	3.86	3.44
		05	12.8	11.1	10.6	10.2	9.9	9.7	9.4
		06	25.3	21.2	20.2	19.5	18.9	18.5	17.9
		08	108	77.0	69.4	59.2	52.8	48.2	42.7
		11	225	189	180	165	147	134	118
		14	462	385	363	308	274	249	217
	120	04	7.19	6.49	6.01	5.13	4.58	4.20	3.75
		05	12.8	11.7	11.5	11.1	10.8	10.6	10.3
		06	25.3	22.8	22.3	21.4	20.9	20.4	19.8
		08	108	82.5	76.4	65.2	58.2	53.2	47.4
		11	225	203	198	181	162	148	131
		14	462	414	400	341	304	277	245
	150	04	10.2	9.14	8.64	7.37	6.59	6.04	5.39
		05	12.8	12.1	12.1	11.6	11.3	11.1	10.8
		06	25.3	23.6	23.5	22.7	22.1	21.6	21.0
		08	108	85.5	80.8	68.9	61.6	56.4	50.3
		11	225	210	209	192	171	157	139
		14	462	429	424	361	322	294	261
	180	04	10.2	9.30	8.81	7.63	6.82	6.25	5.58
		05	12.8	12.3	12.3	12.0	11.7	11.5	11.2
		06	25.3	24.1	24.1	23.5	22.9	22.4	21.8
		08	108	87.3	82.6	71.5	63.9	58.6	52.3
		11	331	280	265	230	205	188	168
		14	760	534	505	437	390	357	318
	210	04	10.2	9.40	8.90	7.82	6.99	6.40	5.72
		05	12.8	12.4	12.4	12.3	12.0	11.8	11.4
		06	25.3	24.4	24.4	24.2	23.5	23.1	22.5
		08	108	88.4	83.7	73.5	65.7	60.2	53.7
		11	331	284	269	236	211	193	172
		14	760	541	512	449	401	367	327
	240	04	10.2	9.47	8.96	7.94	7.12	6.53	5.83
		05	12.8	12.5	12.5	12.5	12.2	12.0	11.7
		06	25.3	24.6	24.6	24.6	24.0	23.5	22.9
		08	108	89.2	84.4	74.7	67.0	61.4	54.9
		11	331	286	271	240	215	197	176
		14	760	545	516	457	410	375	335
	270	04	10.9	10.6	10.6	10.6	10.5	10.3	10
		05	19.9	19.5	19.5	19.5	19.3	18.9	18.4
		06	25.3	24.7	24.7	24.7	24.4	23.9	23.3
		08	108	89.7	84.9	75.2	68.2	62.5	55.8
		11	331	288	273	241	219	201	179
		14	760	549	519	460	417	382	341
	300	04	10.9	10.7	10.7	10.7	10.7	10.4	10.2
		05	19.9	19.6	19.6	19.6	19.5	19.1	18.7
		06	63.6	53.2	50.4	44.6	40.8	37.4	33.4
		08	152	103	97	86	79	72	65
		11	331	289	274	242	222	203	182
		14	760	551	522	462	423	387	346
	330	04	10.9	10.7	10.7	10.7	10.7	10.6	10.3
		05	19.9	19.6	19.6	19.6	19.6	19.4	18.9
		06	63.6	53.4	50.5	44.7	41.0	37.9	33.8
		08	152	103	98	86	79	73	65
		11	331	290	275	243	223	206	184
		14	760	553	524	463	425	392	350

ZRS

Technical data

Option

Safety precautions

Model selection specifications
Check sheet

■ ZRS-X Straight axis 1 stationary

Cam curve/MS

Indexing No.	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)					
				Input axis rotational speed (rpm)					
				30	60	90	120	150	200
15	90	08	31.8	28.4	27.3	26.2	25.5	24.9	24.0
		11	143	109	99	85	75	68	60
		14	285	254	244	222	198	179	157
	120	08	80.0	63.7	59.6	50.8	45.4	41.5	37.0
		11	200	130	122	104	92	84	75
		14	285	266	263	240	214	195	172
	150	08	80.0	65.2	61.7	53.1	47.4	43.4	38.7
		11	200	133	126	108	96	88	78
		14	420	357	338	290	259	237	210
	180	08	80.0	66.1	62.5	54.7	48.9	44.8	39.9
		11	200	134	127	111	99	91	81
		14	420	362	342	299	267	245	218
	210	08	80.0	66.6	63.1	55.8	50.0	45.8	40.9
		11	200	135	128	113	101	93	83
		14	420	365	345	306	273	250	223
	240	08	80.0	67.0	63.4	56.1	50.9	46.6	41.6
		11	200	136	129	114	103	95	84
		14	420	367	347	307	278	255	227
	270	08	80.0	67.2	63.6	56.3	51.6	47.3	42.2
		11	200	136	129	114	105	96	86
		14	420	368	349	308	282	259	231
	300	08	80.0	67.4	63.8	56.5	51.8	47.9	42.8
		11	200	137	129	115	105	97	87
		14	420	369	349	309	284	262	234
	330	08	80.0	67.5	63.9	56.6	51.9	48.4	43.2
		11	200	137	130	115	105	98	88
		14	420	370	350	310	284	265	236
16	90	08	31.8	28.7	27.7	26.7	25.9	25.3	24.4
		11	143	110	101	86	76	70	61
		14	305	267	257	234	208	189	164
	120	08	31.8	30.0	29.7	28.6	27.8	27.2	26.4
		11	143	115	107	92	82	75	66
		14	285	268	266	243	216	197	174
	150	08	31.8	30.6	30.6	29.8	29.0	28.4	27.6
		11	143	117	110	95	85	78	69
		14	285	274	274	253	226	207	183
	180	08	80.0	66.3	62.8	55.1	49.2	45.1	40.2
		11	143	118	112	98	87	80	71
		14	285	277	277	261	233	213	189
	210	08	80.0	66.8	63.2	56.0	50.3	46.0	41.1
		11	200	136	128	114	102	93	83
		14	285	279	279	265	238	218	194
	240	08	80.0	67.1	63.5	56.2	51.1	46.8	41.8
		11	200	136	129	114	104	95	85
		14	285	281	281	266	242	222	198
	270	08	80.0	67.3	63.7	56.4	51.7	47.5	42.4
		11	200	137	129	114	105	96	86
		14	285	282	282	267	245	225	201
	300	08	80.0	67.5	63.9	56.6	51.9	48.1	42.9
		11	200	137	130	115	105	97	87
		14	285	282	282	268	246	228	203
	330	08	80.0	67.6	64.0	56.7	52.0	48.6	43.4
		11	200	137	130	115	105	98	88
		14	285	283	283	268	246	230	205

MEMO

ZRS

Technical data

Option

Safety precautions

Model selection specifications
Check sheet

■ ZRS-X Straight axis 2 stationary

Cam curve/MS

Indexing No.	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)							
				Input axis rotational speed (rpm)							
				15	30	45	60	75	100	150	200
16	120	04	16.1	13.0	12.9	12.4	12.1	11.9	11.6	10.0	8.8
		05	19.9	16.2	16.1	15.5	15.1	14.8	14.4	13.8	12.8
		06	63.6	43.9	41.1	35.1	31.4	28.7	25.6	21.7	19.1
		08	164	133	132	120	108	98.5	87.9	74.6	66.0
		11	359	291	285	243	217	199	177	149	131
		14	950	589	553	471	420	384	341	285	246
	150	04	30.6	21.3	20.2	17.4	15.6	14.3	12.8	10.9	9.7
		05	50.1	37.1	35.1	30.3	27.1	24.8	22.2	18.9	16.8
		06	85.1	62.3	59.0	50.9	45.5	41.7	37.2	31.7	28.1
		08	164	142	142	131	117	108	96	82	73
		11	591	378	358	309	276	253	225	191	169
		14	1160	798	755	652	582	533	475	401	352
	180	04	30.6	22.2	21.0	18.5	16.5	15.1	13.5	11.5	10.3
		05	50.1	38.5	36.5	32.0	28.6	26.2	23.4	20.0	17.8
		06	119	74.0	70.1	61.5	55.0	50.4	45.0	38.3	34.1
		08	242	194	183	161	144	132	118	100	89
		11	591	393	372	327	292	267	239	203	180
		14	1160	832	787	691	617	565	504	427	378
	210	04	30.6	22.8	21.6	19.1	17.2	15.7	14.1	12.0	10.7
		05	50.1	39.5	37.4	33.1	29.8	27.3	24.4	20.8	18.6
		06	119	76.0	71.9	63.7	57.2	52.4	46.8	39.9	35.6
		08	242	199	188	166	150	137	122	104	93
		11	591	403	382	338	304	278	249	212	188
		14	1640	1060	1010	890	800	730	650	560	490
	240	04	30.6	23.2	22.0	19.5	17.7	16.2	14.5	12.4	11.1
		05	50.1	40.2	38.1	33.7	30.6	28.1	25.1	21.4	19.1
		06	119	77.3	73.2	64.8	58.9	54.0	48.2	41.1	36.7
		08	242	202	191	169	154	141	126	108	96
		11	591	411	389	344	313	287	256	218	194
		14	1640	1080	1030	910	830	760	680	570	510
	270	04	30.6	23.5	22.3	19.7	18.1	16.6	14.8	12.7	11.3
		05	50.1	40.7	38.5	34.1	31.3	28.7	25.7	21.9	19.6
		06	119	78.3	74.1	65.6	60.2	55.3	49.4	42.1	37.6
		08	242	205	194	172	157	144	129	110	98
		11	591	416	394	348	320	293	262	223	199
		14	1640	1100	1040	920	840	770	690	590	520
	300	04	30.6	23.7	22.5	19.9	18.2	16.9	15.1	12.9	11.5
		05	50.1	41.1	38.9	34.4	31.6	29.3	26.2	22.3	19.9
		06	119	79.0	74.8	66.2	60.7	56.3	50.3	42.9	38.3
		08	262	252	249	220	202	187	167	143	127
		11	738	547	518	459	421	390	348	297	265
		14	1640	1110	1050	930	850	790	710	600	540
	330	04	30.6	23.9	22.6	20.0	18.4	17.2	15.4	13.1	11.7
		05	50.1	41.3	39.1	34.6	31.8	29.7	26.6	22.7	20.2
		06	119	79.5	75.3	66.7	61.1	57.2	51.1	43.6	38.9
		08	262	253	250	222	203	190	170	145	130
		11	738	551	522	462	424	396	354	302	269
		14	1640	1120	1060	940	860	800	720	610	540
18	120	04	10.9	9.12	9.09	8.76	8.54	8.36	8.15	6.97	6.21
		05	37.9	25.8	24.4	20.8	18.6	17.0	15.2	12.9	11.5
		06	85.1	60.6	57.1	48.8	43.6	39.9	35.6	30.2	26.8
		08	152	87.8	82.8	70.7	63.1	57.8	51.5	43.6	38.5
		11	359	302	297	254	226	207	185	156	137
		14	950	612	577	492	439	402	357	299	259

Output torque table

■ ZRS-X Straight axis 2 stationary

Cam curve/MS

Indexing No.	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)							
				Input axis rotational speed (rpm)							
				15	30	45	60	75	100	150	200
18	150	04	10.9	9.65	9.65	9.46	9.22	9.03	8.80	7.54	6.72
		05	37.9	27.3	25.8	22.4	20.0	18.4	16.4	14.0	12.4
		06	85.1	64.1	60.6	52.6	47.0	43.1	38.5	32.7	29.1
		08	164	146	146	136	121	111	99	84	75
		11	359	319	315	274	244	224	200	170	150
		14	950	649	614	533	476	435	388	327	287
	180	04	30.6	22.7	21.5	18.9	16.9	15.5	13.9	11.8	10.6
		05	51.5	39.3	37.2	32.8	29.3	26.9	24.0	20.5	18.3
		06	85.1	66.2	62.7	55.3	49.4	45.3	40.5	34.5	30.7
		08	164	151	151	143	127	117	104	89	79
		11	359	330	326	288	257	235	210	179	159
		14	1160	849	804	709	633	580	518	439	388
	210	04	30.6	23.2	21.9	19.4	17.5	16.1	14.4	12.3	11.0
		05	51.5	40.1	38.0	33.6	30.4	27.8	24.9	21.2	18.9
		06	85.1	67.6	64.0	56.7	51.2	46.9	41.9	35.7	31.9
		08	164	154	154	146	132	121	108	92	82
		11	591	410	388	343	310	284	254	216	192
		14	1160	868	822	727	657	602	537	456	405
	240	04	30.6	23.5	22.3	19.7	18.0	16.5	14.8	12.6	11.3
		05	51.5	40.7	38.5	34.1	31.2	28.6	25.5	21.8	19.5
		06	85.1	68.6	65.0	57.5	52.6	48.2	43.0	36.7	32.7
		08	164	156	156	148	136	124	111	95	85
		11	591	416	393	348	318	292	261	222	198
		14	1160	881	834	738	675	618	552	470	417
	270	04	30.6	23.7	22.5	19.9	18.3	16.9	15.1	12.9	11.5
		05	51.5	41.1	38.9	34.4	31.6	29.2	26.1	22.2	19.9
		06	85.1	69.3	65.6	58.1	53.3	49.2	43.9	37.5	33.5
		08	164	158	158	150	137	127	113	97	86
		11	591	420	397	352	323	298	266	227	202
		14	1160	890	843	746	684	631	564	480	427
	300	04	30.6	23.9	22.7	20.1	18.4	17.1	15.3	13.1	11.7
		05	51.5	41.4	39.2	34.7	31.8	29.7	26.5	22.6	20.2
		06	85.1	69.8	66.1	58.5	53.7	50.0	44.7	38.1	34.0
		08	164	159	159	151	139	129	115	98	88
		11	591	423	400	354	325	303	271	231	206
		14	1160	897	849	752	689	642	574	489	435
	330	04	30.6	24.1	22.8	20.2	18.5	17.3	15.5	13.3	11.9
		05	51.5	41.6	39.4	34.9	32.0	29.9	26.9	22.9	20.5
		06	85.1	70.2	66.5	58.8	54.0	50.5	45.3	38.7	34.5
		08	164	160	160	152	139	130	117	100	89
		11	591	425	402	356	327	306	274	234	209
		14	1160	902	854	756	693	648	582	496	442
20	90	04	10.2	7.93	7.32	6.25	5.58	5.11	4.56	3.87	3.43
		05	19.9	15.8	15.5	14.9	14.5	14.2	13.8	11.9	10.5
		06	25.3	20.0	19.5	18.8	18.3	17.9	17.3	16.5	15.1
		08	108	72.4	66.8	57.0	50.9	46.6	41.4	34.8	30.3
		11	225	178	174	159	142	129	115	96	82
		14	462	362	349	297	265	241	213	174	144
	120	04	10.9	9.39	9.39	9.06	8.83	8.65	8.43	7.21	6.43
		05	37.9	26.6	25.1	21.5	19.2	17.6	15.7	13.4	11.9
		06	63.6	46.9	44.4	37.9	33.9	31.0	27.7	23.5	20.8
		08	152	90.4	85.6	73.1	65.3	59.8	53.3	45.2	39.9
		11	331	255	241	206	184	168	150	127	111
		14	760	483	457	391	348	319	283	237	205

ZRS

Technical data

Option

Safety precautions

Model selection specifications
Check sheet

■ ZRS-X Straight axis 2 stationary

Cam curve/MS

Indexing No.	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)							
				Input axis rotational speed (rpm)							
				15	30	45	60	75	100	150	200
20	150	04	10.9	9.85	9.85	9.70	9.45	9.26	9.02	7.73	6.90
		05	37.9	27.8	26.3	23.0	20.5	18.8	16.8	14.3	12.8
		06	63.6	49.2	46.5	40.6	36.2	33.2	29.6	25.2	22.4
		08	152	94.9	89.8	78.3	69.9	64.1	57.2	48.6	43.1
		11	359	326	322	281	251	230	205	174	154
		14	760	508	481	419	374	342	305	257	225
	180	04	10.9	10.1	10.1	10.1	9.9	9.7	9.4	8.1	7.2
		05	37.9	28.6	27.1	24.0	21.4	19.7	17.6	15.0	13.4
		06	63.6	50.5	47.8	42.4	37.9	34.7	31.0	26.4	23.5
		08	152	97.6	92.4	81.8	73.1	67.0	59.9	50.9	45.3
		11	359	335	331	293	262	240	214	182	162
		14	950	682	646	571	511	468	417	354	313
	210	04	10.9	10.3	10.3	10.3	10.2	10.0	9.7	8.4	7.5
		05	37.9	29.1	27.5	24.4	22.1	20.3	18.1	15.5	13.8
		06	63.6	51.4	48.7	43.1	39.1	35.8	32.0	27.3	24.3
		08	164	156	156	148	134	123	110	94	84
		11	359	341	337	298	270	248	221	188	168
		14	950	695	657	582	528	484	432	367	325
	240	04	10.9	10.4	10.4	10.4	10.4	10.2	10.0	8.6	7.6
		05	37.9	29.4	27.9	24.7	22.6	20.8	18.5	15.8	14.1
		06	63.6	52.0	49.3	43.6	40.0	36.7	32.8	28.0	24.9
		08	164	158	158	150	137	126	113	96	86
		11	359	345	341	302	277	254	227	193	172
		14	950	703	666	589	540	496	443	376	335
	270	04	10.9	10.5	10.5	10.5	10.5	10.4	10.2	8.7	7.8
		05	37.9	29.7	28.1	24.9	22.8	21.1	18.9	16.1	14.4
		06	63.6	52.5	49.7	44.0	40.3	37.4	33.4	28.5	25.4
		08	164	159	159	151	139	128	115	98	87
		11	359	347	344	304	279	259	231	197	176
		14	950	709	671	594	545	505	451	384	342
	300	04	10.9	10.6	10.6	10.6	10.6	10.6	10.3	8.9	7.9
		05	37.9	29.8	28.2	25.0	22.9	21.5	19.2	16.4	14.6
		06	85.1	70.2	66.5	58.9	54.0	50.5	45.2	38.5	34.4
		08	164	160	160	152	139	130	117	99	89
		11	359	349	346	306	281	262	235	200	179
		14	950	713	675	598	548	513	459	391	348
	330	04	10.9	10.6	10.6	10.6	10.6	10.6	10.5	9.0	8.0
		05	37.9	30.0	28.4	25.1	23.0	21.5	19.4	16.6	14.8
		06	85.1	70.5	66.8	59.1	54.2	50.7	45.8	39.1	34.9
		08	164	161	161	153	140	131	118	101	90
		11	359	351	347	307	282	264	238	203	181
		14	950	717	679	601	551	515	465	396	353
24	90	04	7.19	6.13	5.71	4.87	4.35	3.99	3.56	3.02	2.68
		05	12.8	11.1	10.9	10.5	10.2	10.0	9.7	8.3	7.3
		06	25.3	21.3	20.9	20.1	19.6	19.2	18.6	17.7	16.3
		08	80.0	57.6	53.6	45.7	40.8	37.3	33.2	27.9	24.2
		11	200	119	110	94	84	77	68	56	48
		14	462	386	375	319	284	260	230	189	159
	120	04	7.19	6.49	6.15	5.30	4.73	4.34	3.87	3.30	2.93
		05	12.8	11.8	11.7	11.4	11.1	10.9	10.6	9.1	8.1
		06	25.3	22.8	22.8	22.1	21.6	21.1	20.5	19.7	18.2
		08	108	82.5	78.1	67.3	60.1	55.0	49.1	41.6	36.8
		11	225	203	203	187	167	153	136	115	101
		14	462	414	409	352	314	287	256	214	186

Output torque table

■ ZRS-X Straight axis 2 stationary

Cam curve/MS

Indexing No.	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)							
				Input axis rotational speed (rpm)							
				15	30	45	60	75	100	150	200
24	150	04	10.2	9.14	8.66	7.61	6.80	6.23	5.57	4.75	4.23
		05	12.8	12.1	12.1	12.0	11.7	11.5	11.2	9.5	8.5
		06	63.6	50.5	47.8	42.1	37.6	34.4	30.8	26.2	23.3
		08	108	85.5	81.0	71.2	63.6	58.2	52.0	44.2	39.3
		11	225	210	210	198	177	162	144	123	108
		14	462	429	424	373	333	305	272	229	201
	180	04	10.2	9.30	8.81	7.80	7.03	6.45	5.76	4.91	4.39
		05	12.8	12.3	12.3	12.3	12.1	11.8	11.5	9.9	8.8
		06	63.6	51.6	48.8	43.2	39.0	35.7	31.9	27.2	24.2
		08	108	87.3	82.6	73.2	66.0	60.5	54.0	46.0	40.9
		11	225	214	214	203	183	168	150	128	113
		14	462	438	434	384	346	317	283	240	212
	210	04	10.2	9.40	8.90	7.88	7.21	6.61	5.90	5.04	4.50
		05	12.8	12.4	12.4	12.4	12.4	12.1	11.8	10.1	9.0
		06	63.6	52.2	49.5	43.8	40.0	36.7	32.8	28.0	24.9
		08	152	101	95	85	77	71	63	54	48
		11	225	217	217	206	188	173	154	131	117
		14	760	541	512	453	414	380	339	288	255
	240	04	10.2	9.47	8.96	7.94	7.28	6.73	6.02	5.14	4.59
		05	12.8	12.5	12.5	12.5	12.5	12.4	12.0	10.3	9.2
		06	63.6	52.7	49.9	44.2	40.5	37.5	33.5	28.5	25.5
		08	152	102	96	85	78	72	65	55	49
		11	225	219	219	208	190	176	157	134	119
		14	760	545	516	457	419	388	346	294	262
	270	04	10.2	9.51	9.01	7.97	7.31	6.84	6.11	5.22	4.66
		05	37.9	29.9	28.3	25.1	23.0	21.5	19.2	16.4	14.7
		06	63.6	53.0	50.2	44.4	40.7	38.1	34.0	29.0	25.9
		08	152	102	97	86	79	74	66	56	50
		11	225	220	220	209	192	179	160	136	122
		14	760	549	520	460	422	394	352	300	267
	300	04	10.2	9.55	9.04	8.00	7.34	6.86	6.19	5.29	4.72
		05	37.9	30.1	28.5	25.2	23.1	21.6	19.5	16.6	14.9
		06	63.6	53.2	50.4	44.6	40.9	38.3	34.5	29.4	26.3
		08	152	103	97	86	79	74	67	57	51
		11	331	289	274	242	222	208	188	160	143
		14	760	551	522	462	424	396	357	304	271
	330	04	10.2	9.57	9.06	8.02	7.36	6.88	6.26	5.35	4.78
		05	37.9	30.2	28.5	25.3	23.2	21.7	19.7	16.8	15.0
		06	63.6	53.4	50.5	44.7	41.0	38.4	34.9	29.8	26.6
		08	152	103	98	86	79	74	67	58	51
		11	331	290	275	243	223	209	190	162	144
		14	760	553	524	464	425	398	362	308	275
30	90	08	31.8	28.4	28.2	27.1	26.4	25.8	25.0	23.8	21.8
		11	143	109	103	87	78	71	63	53	45
		14	285	254	252	230	205	187	166	136	114
	120	08	80.0	63.7	60.3	52.5	46.9	42.9	38.3	32.5	28.7
		11	200	130	123	107	96	87	78	66	58
		14	285	266	266	248	221	203	180	151	131
	150	08	80.0	65.2	61.7	54.7	49.0	44.9	40.1	34.1	30.2
		11	200	133	126	111	100	91	81	69	61
		14	420	357	338	299	268	245	219	185	162
	180	08	80.0	66.1	62.6	55.4	50.5	46.2	41.3	35.2	31.3
		11	200	134	127	113	103	94	84	71	63
		14	420	362	343	303	276	253	226	191	169

ZRS

Technical data

Option

Safety precautions

Model selection specifications
Check sheet

■ ZRS-X Straight axis 2 stationary

Cam curve/MS

Indexing No.	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)							
				Input axis rotational speed (rpm)							
				15	30	45	60	75	100	150	200
30	210	08	80.0	66.6	63.1	55.8	51.2	47.3	42.2	36.0	32.1
		11	200	135	128	113	104	96	86	73	65
		14	420	365	345	306	280	259	231	196	174
	240	08	80.0	67.0	63.4	56.1	51.5	48.1	43.0	36.6	32.7
		11	200	136	129	114	104	98	87	74	66
		14	420	367	347	307	282	263	235	200	178
	270	08	80.0	67.2	63.6	56.3	51.7	48.3	43.6	37.2	33.2
		11	200	136	129	114	105	98	88	75	67
		14	420	368	349	309	283	265	239	203	181
	300	08	80.0	67.4	63.8	56.5	51.8	48.5	44.1	37.6	33.6
		11	200	137	129	115	105	98	89	76	68
		14	420	369	350	309	284	265	242	206	183
	330	08	80.0	67.5	63.9	56.6	51.9	48.5	44.5	38.1	34.0
		11	200	137	130	115	105	98	90	77	69
		14	420	370	350	310	284	266	244	208	185
32	90	08	31.8	28.7	28.6	27.6	26.8	26.2	25.4	24.2	22.2
		11	143	110	104	89	79	72	64	53	46
		14	285	257	256	234	209	190	168	139	117
	120	08	31.8	30.0	30.0	29.5	28.7	28.1	27.4	26.2	24.2
		11	143	115	108	95	84	77	69	58	51
		14	285	269	268	251	224	205	182	153	133
	150	08	31.8	30.6	30.6	30.6	30.0	29.3	28.6	27.4	25.5
		11	143	117	110	98	88	80	72	61	54
		14	285	274	274	260	234	214	190	161	141
	180	08	80.0	66.3	62.8	55.6	50.8	46.5	41.6	35.4	31.5
		11	143	118	112	99	90	83	74	63	56
		14	285	277	277	263	240	220	196	166	147
	210	08	80.0	66.8	63.2	56.0	51.3	47.5	42.5	36.2	32.2
		11	200	136	128	114	104	96	86	73	65
		14	285	279	279	265	243	225	201	171	151
	240	08	80.0	67.1	63.5	56.2	51.6	48.2	43.2	36.8	32.8
		11	200	136	129	114	105	98	88	75	66
		14	285	281	281	266	244	228	204	174	154
	270	08	80.0	67.3	63.7	56.4	51.8	48.4	43.8	37.4	33.3
		11	200	137	129	114	105	98	89	76	67
		14	285	282	282	267	245	229	207	176	157
	300	08	80.0	67.5	63.9	56.6	51.9	48.5	44.3	37.8	33.8
		11	200	137	130	115	105	98	90	77	68
		14	285	282	282	268	246	230	210	179	159
	330	08	80.0	67.6	64.0	56.7	52.0	48.6	44.6	38.2	34.1
		11	200	137	130	115	105	99	90	77	69
		14	285	283	283	268	246	230	211	181	161

ZRS

Technical data

Option

Safety precautions

Model selection specifications
Check sheet

MEMO

ZRS

Technical data

Option

Safety precautions

Model selection specifications
Check sheet

■ ZRS-X Flange shaft 1 stationary

Cam curve/MS

Indexing No.	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)					
				Input axis rotational speed (rpm)					
				30	60	90	120	150	200
2	270	04	10.9	6.64	6.44	6.19	6.02	5.88	5.68
		05	19.9	12.3	12.0	11.5	11.2	10.9	10.6
		06	85.1	44.2	40.6	34.6	30.9	28.2	25.0
		08	164	100	97	89	79	73	64
		11	359	220	211	180	160	146	129
		14	950	443	407	346	307	279	244
	300	04	30.6	16.1	14.9	12.7	11.4	10.4	9.2
		05	50.1	28.1	26.1	22.2	19.9	18.2	16.2
		06	85.1	47.0	43.6	37.2	33.2	30.4	27.0
		08	242	140	130	111	99	90	81
		11	591	286	265	226	201	184	163
		14	1160	598	554	472	420	383	338
	330	04	30.6	17.0	15.9	13.5	12.1	11.1	9.9
		05	50.1	29.6	27.7	23.6	21.1	19.3	17.2
		06	119	56.6	52.9	45.1	40.3	36.9	32.9
		08	242	148	138	118	105	96	86
		11	591	301	281	240	214	196	174
		14	1160	631	590	503	448	409	362
3	180	04	10.9	6.64	6.32	6.07	5.89	5.74	5.53
		05	19.9	12.3	11.7	11.3	11.0	10.7	10.3
		06	85.1	44.1	39.8	33.9	30.2	27.6	24.4
		08	164	100	96	87	78	71	63
		11	359	220	207	176	157	142	125
		14	950	443	399	338	300	271	233
	210	04	10.9	7.27	7.02	6.76	6.56	6.41	6.19
		05	50.1	28.9	26.4	22.5	20.1	18.4	16.4
		06	85.1	48.3	44.2	37.7	33.6	30.7	27.3
		08	242	144	132	112	100	92	81
		11	591	293	268	228	203	186	164
		14	1160	615	562	478	425	387	339
	240	04	30.6	17.7	16.4	14.0	12.5	11.4	10.2
		05	50.1	30.9	28.6	24.4	21.8	20.0	17.8
		06	85.1	51.8	48.0	40.9	36.5	33.4	29.7
		08	242	154	143	122	109	100	89
		11	591	314	291	248	221	202	179
		14	1160	660	611	520	463	422	372
	270	04	41.6	26.1	24.4	20.8	18.6	17.0	15.2
		05	50.1	32.6	30.5	26.0	23.2	21.3	19.0
		06	85.1	54.6	51.1	43.6	39.0	35.7	31.8
		08	242	163	152	130	116	106	95
		11	591	332	310	264	236	216	192
		14	1160	697	652	556	495	452	400
300	04	41.6	27.2	25.7	22.0	19.6	18.0	16.0	
	05	67.0	45.2	42.7	36.4	32.5	29.8	26.6	
	06	119	65.0	61.4	52.4	46.8	42.9	38.2	
	08	262	207	204	174	156	142	127	
	11	738	451	426	364	325	297	264	
	14	1640	907	857	731	652	596	529	
330	04	41.6	28.2	26.7	22.9	20.5	18.7	16.7	
	05	67.0	46.7	44.2	38.0	33.9	31.1	27.8	
	06	129	106	106	97	87	80	71	
	08	262	214	211	182	162	149	133	
	11	738	467	442	379	339	310	276	
	14	1640	939	888	763	681	623	554	

Output torque table

■ ZRS-X Flange shaft 1 stationary

Cam curve/MS

Indexing No.	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)					
				Input axis rotational speed (rpm)					
				30	60	90	120	150	200
4	150	04	10.2	6.66	5.98	5.08	4.52	4.10	3.58
		05	12.8	8.90	8.44	8.11	7.87	7.66	7.36
		06	63.6	35.4	31.8	27.0	24.1	21.9	19.3
		08	108	59.7	53.6	45.6	40.5	36.8	32.2
		11	331	193	173	147	130	118	103
		14	760	362	324	275	242	218	185
	180	04	10.9	7.79	7.52	7.23	7.03	6.87	6.64
		05	19.9	14.4	13.9	13.4	13.0	12.7	12.3
		06	63.6	38.9	35.6	30.3	27.0	24.7	21.9
		08	152	75.0	68.5	58.4	52.0	47.5	41.9
		11	359	258	246	210	187	170	150
		14	950	522	476	405	359	326	285
	210	04	17.9	13.9	13.4	13.1	12.8	12.3	10.9
		05	19.9	15.4	15.1	14.5	14.2	13.8	13.4
		06	63.6	41.7	38.6	33.0	29.4	26.9	23.9
		08	164	126	124	113	101	92	82
		11	359	276	268	228	203	186	164
		14	950	560	518	441	393	358	315
	240	04	17.9	14.6	14.5	14.0	13.6	13.1	11.6
		05	19.9	16.2	16.1	15.5	15.1	14.7	14.3
		06	63.6	43.9	41.1	35.1	31.3	28.7	25.5
		08	164	133	132	120	107	98	88
		11	359	291	285	243	217	198	176
		14	950	589	552	471	419	383	338
	270	04	17.9	15.1	15.1	14.6	14.2	13.7	12.2
		05	19.9	16.8	16.8	16.2	15.8	15.5	15.0
		06	63.6	45.5	43.1	36.8	32.9	30.1	26.8
		08	164	138	138	126	113	103	92
		11	591	367	348	297	265	243	216
		14	1160	775	733	626	558	510	453
	300	04	30.6	21.3	20.2	17.4	15.6	14.3	12.7
		05	50.1	37.1	35.1	30.3	27.1	24.8	22.1
		06	85.1	62.3	59.0	50.9	45.5	41.7	37.2
		08	164	142	142	131	117	107	96
		11	591	378	358	309	276	252	225
		14	1160	798	755	651	581	532	473
	330	04	30.6	21.8	20.7	18.0	16.1	14.7	13.1
		05	50.1	37.9	35.9	31.2	27.9	25.6	22.8
		06	85.1	63.8	60.4	52.5	46.9	43.0	38.4
		08	164	145	145	135	121	111	99
		11	591	386	366	318	284	260	232
		14	1160	816	773	672	600	549	489
5	120	04	7.19	4.92	4.36	3.70	3.27	2.95	2.53
		05	13.1	8.31	7.38	6.27	5.55	5.02	4.35
		06	16.4	11.2	10.5	10.0	9.7	9.3	8.8
		08	80.0	45.0	39.9	33.9	30.0	27.1	23.4
		11	200	94.1	83.3	70.3	61.6	54.9	45.7
		14	420	245	217	182	159	140	115
	150	04	7.19	5.45	4.94	4.20	3.73	3.39	2.97
		05	12.8	9.86	9.45	9.09	8.83	8.61	8.31
		06	25.3	18.5	17.7	17.1	16.5	16.1	15.5
		08	108	67.0	60.8	51.8	46.1	42.0	37.0
		11	225	165	158	144	128	116	102
		14	462	335	317	269	237	214	184

ZRS

Technical data

Option

Safety precautions

Model selection specifications
Check sheet

■ ZRS-X Flange shaft 1 stationary

Cam curve/MS

Indexing No.	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)					
				Input axis rotational speed (rpm)					
				30	60	90	120	150	200
5	180	04	10.2	7.92	7.31	6.23	5.55	5.07	4.48
		05	12.8	10.5	10.3	9.9	9.6	9.4	9.1
		06	25.3	20.0	19.5	18.7	18.2	17.8	17.2
		08	108	72.4	66.8	56.9	50.8	46.4	41.1
		11	225	178	174	158	141	129	113
		14	462	362	349	296	263	239	208
	210	04	14.8	8.30	7.77	6.62	5.91	5.40	4.79
		05	12.8	11.0	10.9	10.5	10.2	9.9	9.6
		06	63.6	45.2	42.3	36.1	32.2	29.4	26.2
		08	152	87.1	81.5	69.5	62.0	56.7	50.4
		11	331	246	230	196	175	160	141
		14	462	382	373	318	283	257	226
	240	04	10.9	9.39	9.39	9.05	8.81	8.63	8.38
		05	37.9	26.6	25.1	21.5	19.2	17.6	15.7
		06	63.6	46.9	44.4	37.9	33.8	31.0	27.6
		08	152	90.4	85.6	73.1	65.2	59.7	53.1
		11	331	255	241	206	184	168	149
		14	760	483	457	390	348	317	281
	270	04	10.9	9.65	9.65	9.41	9.16	8.97	8.72
		05	37.9	27.3	25.8	22.3	19.9	18.2	16.3
		06	63.6	48.2	45.6	39.4	35.2	32.2	28.7
		08	152	92.9	87.9	75.9	67.8	62.1	55.3
		11	359	319	315	272	243	222	198
		14	760	497	470	406	362	331	293
	300	04	10.9	9.85	9.85	9.70	9.44	9.25	9.00
		05	37.9	27.8	26.3	23.0	20.5	18.8	16.8
		06	63.6	49.1	46.5	40.6	36.2	33.2	29.6
		08	152	94.8	89.8	78.3	69.9	64.0	57.1
		11	359	326	322	280	250	229	204
		14	760	508	480	418	373	341	303
	330	04	10.9	10.0	10.0	9.9	9.7	9.5	9.2
		05	37.9	28.3	26.7	23.5	21.0	19.3	17.2
		06	63.6	49.9	47.3	41.6	37.1	34.0	30.4
		08	152	96.4	91.2	80.2	71.6	65.6	58.5
		11	359	331	327	287	257	235	210
		14	760	516	488	429	383	350	312
6	90	04	10.9	6.52	6.11	5.85	5.65	5.48	5.20
		05	19.9	12.1	11.3	10.9	10.5	10.2	9.8
		06	85.1	43.4	38.5	32.8	29.1	26.4	23.1
		08	164	98.7	92.5	84.4	75.0	68.1	59.6
		11	591	263	234	198	175	158	135
		14	950	436	385	325	284	252	209
	120	04	41.6	24.7	22.2	18.9	16.9	15.4	13.7
		05	67.0	41.1	36.9	31.5	28.1	25.7	22.8
		06	119	59.1	53.0	45.2	40.3	36.8	32.6
		08	262	188	176	150	134	122	109
		11	738	410	368	313	279	254	224
		14	1640	822	737	626	556	505	441

Output torque table

■ ZRS-X Flange shaft 1 stationary

Cam curve/MS

Indexing No.	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)					
				Input axis rotational speed (rpm)					
				30	60	90	120	150	200
6	150	04	41.6	27.2	24.9	21.3	19.0	17.4	15.5
		05	67.0	45.2	41.4	35.3	31.5	28.8	25.7
		06	129	102	99	90	81	74	66
		08	262	207	198	169	151	138	123
		11	738	451	413	352	314	287	254
		14	1640	907	830	707	629	574	506
	180	04	41.6	28.9	26.9	23.0	20.5	18.8	16.8
		05	67.0	47.9	44.6	38.1	34.0	31.2	27.8
		06	129	109	107	98	87	80	71
		08	431	268	249	213	190	174	155
		11	903	606	564	481	430	393	350
		14	2230	1190	1110	950	840	770	680
	210	04	41.6	30.1	28.5	24.3	21.7	19.9	17.7
		05	67.0	49.9	47.1	40.2	35.9	32.9	29.4
		06	129	113	113	103	92	84	75
		08	431	279	263	225	201	184	164
		11	903	631	596	508	454	416	370
		14	2230	1240	1170	1000	890	820	730
	240	04	41.6	31.0	29.4	25.3	22.6	20.7	18.5
		05	67.0	51.3	48.5	41.8	37.4	34.2	30.6
		06	129	116	116	107	96	88	78
		08	431	287	271	234	209	191	171
		11	903	649	614	529	473	433	386
		14	2230	1280	1210	1040	930	850	760
	270	04	41.6	31.7	30.0	26.1	23.3	21.4	19.1
		05	67.0	52.3	49.5	43.1	38.5	35.3	31.5
		06	129	119	119	111	99	91	81
		08	431	293	277	241	216	198	176
		11	1270	825	781	680	608	557	497
		14	2230	1310	1240	1080	960	880	790
	300	04	41.6	32.1	30.4	26.7	23.9	21.9	19.6
		05	67.0	53.1	50.2	44.2	39.5	36.2	32.3
		06	129	120	120	113	101	93	83
		08	431	297	281	247	221	203	181
		11	1270	838	793	697	623	571	510
		14	2230	1330	1260	1100	990	900	810
	330	04	41.6	32.5	30.8	27.3	24.4	22.4	20.0
		05	67.0	53.7	50.8	45.0	40.3	36.9	33.0
		06	129	122	122	116	103	95	85
		08	431	301	285	252	226	207	185
		11	1270	847	802	710	636	582	520
		14	2230	1340	1270	1130	1010	920	820
8	90	04	10.9	7.76	7.28	6.99	6.77	6.59	6.31
		05	50.1	30.8	27.4	23.3	20.8	19.0	16.8
		06	85.1	51.6	45.8	39.0	34.7	31.7	27.9
		08	164	117	110	101	90	82	72
		11	359	257	238	202	179	163	141
		14	950	519	460	390	343	309	263

ZRS

Technical data

Option

Safety precautions

Model selection specifications
Check sheet

■ ZRS-X Flange shaft 1 stationary

Cam curve/MS

	Indexing No.	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)					
					Input axis rotational speed (rpm)					
					30	60	90	120	150	200
ZRS	8	120	04	30.6	20.0	18.1	15.5	13.8	12.6	11.2
			05	50.1	34.7	31.6	26.9	24.0	22.0	19.6
			06	85.1	58.3	53.0	45.2	40.3	36.9	32.7
			08	242	174	158	135	120	110	98
			11	591	354	321	274	244	222	196
			14	1160	745	677	576	512	465	408
	150	150	04	30.6	21.3	19.8	16.9	15.1	13.8	12.3
			05	50.1	37.1	34.4	29.3	26.2	24.0	21.4
			06	85.1	62.3	57.8	49.3	44.0	40.3	35.9
			08	242	186	172	147	131	120	107
			11	591	378	350	299	266	244	216
			14	1160	798	740	630	561	512	453
	180	180	04	30.6	22.2	21.0	17.9	16.0	14.6	13.1
			05	50.1	38.5	36.4	31.0	27.7	25.4	22.6
			06	85.1	64.9	61.2	52.2	46.6	42.7	38.1
			08	242	193	182	156	139	127	114
			11	738	513	484	413	369	337	300
			14	1640	1040	980	830	740	680	600
	210	210	04	30.6	22.8	21.6	18.6	16.6	15.2	13.6
			05	50.1	39.5	37.4	32.3	28.8	26.4	23.6
			06	85.1	66.6	63.0	54.3	48.6	44.5	39.7
			08	242	199	188	162	145	133	118
			11	738	527	498	430	384	351	313
			14	1640	1060	1010	870	770	710	630
Option	240	240	04	30.6	23.2	22.0	19.2	17.1	15.7	14.0
			05	50.1	40.2	38.1	33.2	29.7	27.2	24.3
			06	85.1	67.8	64.2	56.0	50.0	45.8	40.9
			08	242	202	191	167	149	137	122
			11	738	536	507	443	395	362	323
			14	1640	1080	1030	890	800	730	650
	270	270	04	30.6	23.5	22.3	19.6	17.5	16.1	14.4
			05	50.1	40.7	38.5	34.0	30.4	27.8	24.9
			06	85.1	68.6	65.0	57.3	51.2	46.9	41.9
			08	262	249	246	217	194	178	159
			11	738	542	513	453	405	371	331
			14	1640	1100	1040	920	820	750	670
	300	300	04	30.6	23.7	22.5	19.9	17.9	16.4	14.6
			05	50.1	41.1	38.9	34.4	30.9	28.3	25.3
			06	85.1	69.2	65.5	58.0	52.2	47.8	42.7
			08	262	252	249	220	198	181	162
			11	738	547	518	459	412	378	337
			14	1640	1110	1050	930	830	760	680
Safety precautions	330	330	04	30.6	23.9	22.6	20.0	18.2	16.6	14.9
			05	50.1	41.3	39.1	34.6	31.4	28.8	25.7
			06	85.1	69.7	66.0	58.4	53.0	48.5	43.4
			08	262	253	250	222	201	184	165
			11	738	551	522	462	419	384	342
			14	1640	1120	1060	940	850	780	690
Model selection specifications Check sheet	330	330	04	30.6	23.9	22.6	20.0	18.2	16.6	14.9
			05	50.1	41.3	39.1	34.6	31.4	28.8	25.7
			06	85.1	69.7	66.0	58.4	53.0	48.5	43.4
			08	262	253	250	222	201	184	165
			11	738	551	522	462	419	384	342
			14	1640	1120	1060	940	850	780	690

Output torque table

■ ZRS-X Flange shaft 1 stationary

Cam curve/MS

Indexing No.	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)					
				Input axis rotational speed (rpm)					
				30	60	90	120	150	200
9	90	04	10.9	8.22	7.72	7.42	7.20	7.01	6.74
		05	37.9	23.3	20.8	17.7	15.8	14.4	12.7
		06	63.6	41.1	36.5	31.1	27.7	25.2	22.2
		08	152	79.2	70.4	59.9	53.2	48.4	42.4
		11	331	224	199	169	149	135	117
		14	760	422	374	317	279	250	212
	120	04	10.9	9.12	8.80	8.47	8.24	8.05	7.79
		05	37.9	25.8	23.6	20.1	18.0	16.4	14.6
		06	63.6	45.5	41.6	35.5	31.6	28.9	25.6
		08	152	87.8	80.2	68.4	60.9	55.6	49.2
		11	359	302	288	245	218	199	176
		14	760	469	428	364	323	293	255
	150	04	10.9	9.65	9.50	9.15	8.91	8.72	8.46
		05	37.9	27.3	25.4	21.7	19.4	17.7	15.8
		06	85.1	64.1	59.7	51.0	45.5	41.7	37.1
		08	164	146	144	131	117	107	96
		11	359	319	311	265	236	216	192
		14	950	649	605	515	459	419	370
	180	04	10.9	9.98	9.98	9.63	9.37	9.18	8.92
		05	51.5	39.3	37.2	31.8	28.4	26.0	23.2
		06	85.1	66.2	62.7	53.6	47.9	43.8	39.1
		08	164	151	151	138	123	113	101
		11	359	330	326	278	249	227	202
		14	950	671	635	542	484	442	392
	210	04	30.6	23.2	21.9	19.0	17.0	15.6	13.9
		05	51.5	40.1	38.0	32.9	29.4	27.0	24.1
		06	85.1	67.6	64.0	55.5	49.6	45.4	40.5
		08	164	154	154	143	128	117	105
		11	359	337	333	288	258	236	210
		14	1160	868	821	712	635	581	517
	240	04	30.6	23.5	22.3	19.5	17.5	16.0	14.3
		05	51.5	40.7	38.5	33.8	30.2	27.7	24.7
		06	85.1	68.6	65.0	57.0	50.9	46.7	41.6
		08	164	156	156	147	131	120	107
		11	359	341	338	296	265	242	216
		14	1160	881	834	731	653	598	532
	270	04	30.6	23.7	22.5	19.9	17.8	16.3	14.6
		05	51.5	41.1	38.9	34.4	30.8	28.3	25.2
		06	85.1	69.3	65.6	58.1	52.0	47.6	42.5
		08	164	158	158	150	134	123	110
		11	359	345	341	302	270	247	221
		14	1160	890	842	746	667	611	545
	300	04	30.6	23.9	22.6	20.1	18.1	16.6	14.8
		05	51.5	41.4	39.2	34.7	31.3	28.7	25.7
		06	85.1	69.8	66.1	58.5	52.9	48.4	43.3
		08	164	159	159	151	136	125	112
		11	591	423	400	354	320	293	262
		14	1160	897	849	751	679	622	554
	330	04	30.6	24.1	22.8	20.2	18.4	16.8	15.0
		05	51.5	41.6	39.4	34.9	31.8	29.1	26.0
		06	85.1	70.2	66.4	58.8	53.6	49.1	43.9
		08	164	160	160	152	138	127	113
		11	591	425	402	356	325	297	266
		14	1160	902	854	756	689	631	563

ZRS

Technical data

Option

Safety precautions

Model selection specifications
Check sheet

■ ZRS-X Flange shaft 1 stationary

Cam curve/MS

Indexing No.	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)					
				Input axis rotational speed (rpm)					
				30	60	90	120	150	200
ZRS	90	04	10.2	7.92	7.08	6.02	5.35	4.86	4.25
		05	12.8	10.5	9.9	9.6	9.3	9.0	8.7
		06	25.3	20.0	18.9	18.1	17.5	17.1	16.3
		08	108	72.4	64.7	55.0	48.9	44.5	39.0
		11	225	178	168	153	136	123	107
		14	462	362	337	285	251	226	192
	120	04	10.9	9.39	9.10	8.76	8.52	8.33	8.07
		05	37.9	26.6	24.4	20.8	18.6	17.0	15.1
		06	63.6	46.9	43.0	36.7	32.7	29.9	26.6
		08	152	90.4	83.0	70.7	63.1	57.6	51.1
		11	331	255	234	199	177	162	143
		14	760	483	443	377	335	304	266
	150	04	10.9	9.85	9.75	9.39	9.14	8.94	8.68
		05	37.9	27.8	26.1	22.2	19.9	18.2	16.2
		06	63.6	49.1	46.0	39.3	35.1	32.1	28.6
		08	152	94.8	88.9	75.8	67.6	61.9	55.0
		11	359	326	318	272	242	222	197
		14	760	508	475	405	360	329	290
	180	04	10.9	10.1	10.1	9.8	9.6	9.4	9.1
		05	37.9	28.6	27.1	23.2	20.8	19.0	17.0
		06	85.1	67.2	63.6	54.7	48.8	44.7	39.9
		08	152	97.5	92.3	79.3	70.8	64.8	57.7
		11	359	335	331	284	254	232	207
		14	950	682	645	554	494	451	401
Option	210	04	10.9	10.3	10.3	10.1	9.9	9.7	9.4
		05	37.9	29.1	27.5	24.0	21.4	19.6	17.5
		06	85.1	68.4	64.8	56.4	50.4	46.2	41.2
		08	164	156	156	146	130	119	106
		11	359	341	337	293	262	240	214
		14	950	694	657	572	511	467	415
	240	04	10.9	10.4	10.4	10.4	10.1	9.9	9.6
		05	37.9	29.4	27.9	24.6	21.9	20.1	17.9
		06	85.1	69.2	65.5	57.8	51.6	47.3	42.2
		08	164	158	158	149	133	122	109
		11	359	345	341	300	268	246	219
		14	950	703	665	586	523	479	427
	270	04	10.9	10.5	10.5	10.5	10.3	10.1	9.8
		05	37.9	29.7	28.1	24.9	22.4	20.5	18.3
		06	85.1	69.8	66.1	58.5	52.6	48.2	43.1
		08	164	159	159	151	136	124	111
		11	359	347	343	304	273	250	223
		14	950	709	671	594	534	489	436
Safety precautions	300	04	10.9	10.6	10.6	10.6	10.5	10.3	10.0
		05	37.9	29.8	28.2	25.0	22.7	20.8	18.6
		06	85.1	70.2	66.5	58.9	53.4	49.0	43.7
		08	164	160	160	152	138	126	113
		11	359	349	346	306	278	254	227
		14	950	713	675	598	542	497	443
	330	04	10.9	10.6	10.6	10.6	10.6	10.4	10.1
		05	37.9	30.0	28.4	25.1	23.0	21.1	18.8
		06	85.1	70.5	66.8	59.1	54.1	49.6	44.3
		08	164	161	161	153	140	128	114
		11	359	351	347	307	281	258	230
		14	950	717	678	601	550	504	449
Model selection specifications Check sheet	330	04	10.9	10.6	10.6	10.6	10.6	10.4	10.1
		05	37.9	30.0	28.4	25.1	23.0	21.1	18.8
		06	85.1	70.5	66.8	59.1	54.1	49.6	44.3
		08	164	161	161	153	140	128	114
		11	359	351	347	307	281	258	230
		14	950	717	678	601	550	504	449

Output torque table

■ ZRS-X Flange shaft 1 stationary

Cam curve/MS

Indexing No.	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)					
				Input axis rotational speed (rpm)					
				30	60	90	120	150	200
12	90	04	7.19	6.13	5.52	4.69	4.17	3.79	3.31
		05	12.8	11.1	10.6	10.2	9.9	9.6	9.3
		06	25.3	21.2	20.2	19.4	18.8	18.4	17.7
		08	108	77.0	69.4	59.1	52.6	47.9	42.2
		11	225	189	180	164	146	132	116
		14	462	385	362	307	271	245	210
	120	04	7.19	6.49	6.01	5.12	4.56	4.16	3.67
		05	12.8	11.7	11.5	11.1	10.8	10.5	10.2
		06	25.3	22.8	22.2	21.4	20.8	20.3	19.7
		08	108	82.5	76.4	65.1	58.1	53.1	47.1
		11	225	203	198	181	161	147	130
		14	462	414	400	340	302	275	241
	150	04	10.2	9.14	8.64	7.37	6.57	6.01	5.35
		05	12.8	12.1	12.1	11.6	11.3	11.1	10.8
		06	25.3	23.6	23.5	22.7	22.1	21.6	20.9
		08	108	85.5	80.8	68.9	61.5	56.3	50.1
		11	225	210	209	191	171	156	139
		14	462	429	423	361	321	293	259
	180	04	10.2	9.30	8.80	7.62	6.80	6.23	5.55
		05	12.8	12.3	12.3	12.0	11.7	11.5	11.1
		06	25.3	24.1	24.1	23.5	22.9	22.4	21.8
		08	108	87.3	82.6	71.5	63.9	58.5	52.1
		11	331	280	265	230	205	188	167
		14	760	534	505	437	390	356	316
	210	04	10.2	9.40	8.90	7.81	6.98	6.39	5.70
		05	12.8	12.4	12.4	12.3	12.0	11.7	11.4
		06	25.3	24.4	24.4	24.2	23.5	23.0	22.4
		08	108	88.4	83.7	73.5	65.6	60.1	53.6
		11	331	284	269	236	211	193	172
		14	760	541	512	449	401	367	326
	240	04	10.2	9.47	8.96	7.93	7.11	6.52	5.81
		05	12.8	12.5	12.5	12.5	12.2	12.0	11.7
		06	25.3	24.6	24.6	24.6	24.0	23.5	22.9
		08	108	89.2	84.4	74.7	67.0	61.4	54.8
		11	331	286	271	240	215	197	176
		14	760	545	516	457	409	375	334
	270	04	10.9	10.6	10.6	10.6	10.5	10.3	10.0
		05	19.9	19.5	19.5	19.5	19.3	18.9	18.4
		06	25.3	24.7	24.7	24.7	24.4	23.9	23.3
		08	108	89.7	84.9	75.2	68.1	62.4	55.7
		11	331	288	273	241	219	200	179
		14	760	549	519	460	417	381	340
	300	04	10.9	10.7	10.7	10.7	10.6	10.4	10.2
		05	19.9	19.6	19.6	19.6	19.5	19.1	18.6
		06	63.6	53.2	50.4	44.6	40.8	37.4	33.4
		08	152	103	97	86	79	72	65
		11	331	289	274	242	222	203	181
		14	760	551	522	462	423	387	345
	330	04	10.9	10.7	10.7	10.7	10.7	10.6	10.3
		05	19.9	19.6	19.6	19.6	19.6	19.4	18.9
		06	63.6	53.4	50.5	44.7	41.0	37.9	33.8
		08	152	103	98	86	79	73	65
		11	331	290	275	243	223	206	184
		14	760	553	523	463	425	392	349

ZRS

Technical data

Option

Safety precautions

Model selection specifications
Check sheet

■ ZRS-X Flange shaft 1 stationary

Cam curve/MS

	Indexing No.	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)					
					Input axis rotational speed (rpm)					
					30	60	90	120	150	200
ZRS	15	90	08	31.8	28.4	27.2	26.2	25.3	24.6	23.5
			11	143	109	99	84	74	67	58
			14	285	254	244	221	195	176	151
		120	08	80.0	63.7	59.6	50.8	45.3	41.4	36.7
			11	200	130	121	103	92	84	74
			14	285	266	263	239	213	193	169
		150	08	80.0	65.2	61.7	53.1	47.4	43.3	38.6
			11	200	133	126	108	96	88	78
			14	420	357	338	290	258	236	208
		180	08	80.0	66.1	62.5	54.7	48.8	44.7	39.8
			11	200	134	127	111	99	91	80
			14	420	362	342	299	267	244	216
		210	08	80.0	66.6	63.0	55.8	49.9	45.7	40.8
			11	200	135	128	113	101	93	82
			14	420	365	345	305	273	250	222
		240	08	80.0	67.0	63.4	56.1	50.8	46.6	41.6
			11	200	136	129	114	103	94	84
			14	420	367	347	307	278	254	227
		270	08	80.0	67.2	63.6	56.3	51.6	47.3	42.2
			11	200	136	129	114	105	96	85
			14	420	368	348	308	282	258	230
		300	08	80.0	67.4	63.8	56.5	51.8	47.8	42.7
			11	200	137	129	115	105	97	86
			14	420	369	349	309	283	262	233
		330	08	80.0	67.5	63.9	56.6	51.9	48.4	43.2
			11	200	137	130	115	105	98	87
			14	420	370	350	310	284	265	236
Option	16	90	08	31.8	28.7	27.7	26.6	25.7	25.0	24.0
			11	143	110	101	85	76	68	59
			14	305	267	257	233	206	185	159
		120	08	31.8	30.0	29.7	28.5	27.7	27.1	26.1
			11	143	115	107	91	81	74	65
			14	285	268	266	242	215	196	171
		150	08	31.8	30.6	30.6	29.8	28.9	28.3	27.4
			11	143	117	110	95	85	77	69
			14	285	274	274	253	225	205	181
		180	08	80.0	66.3	62.8	55.1	49.2	45.0	40.1
			11	143	118	112	98	87	80	71
			14	285	277	277	260	232	212	188
		210	08	80.0	66.8	63.2	56.0	50.2	46.0	41.0
			11	200	136	128	114	102	93	83
			14	285	279	279	265	237	217	193
		240	08	80.0	67.1	63.5	56.2	51.1	46.8	41.8
			11	200	136	129	114	104	95	84
			14	285	281	281	266	242	221	197
		270	08	80.0	67.3	63.7	56.4	51.7	47.5	42.4
			11	200	137	129	114	105	96	86
			14	285	282	282	267	245	224	200
		300	08	80.0	67.5	63.9	56.6	51.9	48.0	42.9
			11	200	137	130	115	105	97	87
			14	285	282	282	268	245	227	203
		330	08	80.0	67.6	64.0	56.7	52.0	48.6	43.4
			11	200	137	130	115	105	98	88
			14	285	283	283	268	246	230	205
Safety precautions	16	90	08	31.8	28.7	27.7	26.6	25.7	25.0	24.0
			11	143	110	101	85	76	68	59
			14	305	267	257	233	206	185	159
		120	08	31.8	30.0	29.7	28.5	27.7	27.1	26.1
			11	143	115	107	91	81	74	65
			14	285	268	266	242	215	196	171
		150	08	31.8	30.6	30.6	29.8	28.9	28.3	27.4
			11	143	117	110	95	85	77	69
			14	285	274	274	253	225	205	181
		180	08	80.0	66.3	62.8	55.1	49.2	45.0	40.1
			11	143	118	112	98	87	80	71
			14	285	277	277	260	232	212	188
		210	08	80.0	66.8	63.2	56.0	50.2	46.0	41.0
			11	200	136	128	114	102	93	83
			14	285	279	279	265	237	217	193
		240	08	80.0	67.1	63.5	56.2	51.1	46.8	41.8
			11	200	136	129	114	104	95	84
			14	285	281	281	266	242	221	197
		270	08	80.0	67.3	63.7	56.4	51.7	47.5	42.4
			11	200	137	129	114	105	96	86
			14	285	282	282	267	245	224	200
		300	08	80.0	67.5	63.9	56.6	51.9	48.0	42.9
			11	200	137	130	115	105	97	87
			14	285	282	282	268	245	227	203
		330	08	80.0	67.6	64.0	56.7	52.0	48.6	43.4
			11	200	137	130	115	105	98	88
			14	285	283	283	268	246	230	205
Model selection specifications Check sheet	16	90	08	31.8	28.7	27.7	26.6	25.7	25.0	24.0
			11	143	110	101	85	76	68	59
			14	305	267	257	233	206	185	159
		120	08	31.8	30.0	29.7	28.5	27.7	27.1	26.1
			11	143	115	107	91	81	74	65
			14	285	268	266	242	215	196	171
		150	08	31.8	30.6	30.6	29.8	28.9	28.3	27.4
			11	143	117	110	95	85	77	69
			14	285	274	274	253	225	205	181
		180	08	80.0	66.3	62.8	55.1	49.2	45.0	40.1
			11	143	118	112	98	87	80	71
			14	285	277	277	260	232	212	188
		210	08	80.0	66.8	63.2	56.0	50.2	46.0	41.0
			11	200	136	128	114	102	93	83
			14	285	279	279	265	237	217	193
		240	08	80.0	67.1	63.5	56.2	51.1	46.8	41.8
			11	200	136	129	114	104	95	84
			14	285	281	281	266	242	221	197
		270	08	80.0	67.3	63.7	56.4	51.7	47.5	42.4
			11	200	137	129	114	105	96	86
			14	285	282	282	267	245	224	200
		300	08	80.0	67.5	63.9	56.6	51.9	48.0	42.9
			11	200	137	130	115	105	97	87
			14	285	282	282	268	245	227	203
		330	08	80.0	67.6	64.0	56.7	52.0	48.6	43.4
			11	200	137	130	115	105	98	88
			14	285	283	283	268	246	230	205

MEMO

ZRS
Technical data
Option
Safety precautions
Model selection specifications Check sheet

■ ZRS-X flange shaft 2 stationary

Cam curve/MS

Indexing No.	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)							
				Input axis rotational speed (rpm)							
				15	30	45	60	75	100	150	200
16	120	04	16.1	13.0	12.9	12.4	12.1	11.8	11.5	9.8	8.6
		05	19.9	16.2	16.1	15.5	15.1	14.7	14.3	13.7	12.6
		06	63.6	43.9	41.1	35.1	31.3	28.7	25.5	21.5	18.7
		08	164	133	132	120	107	98.4	87.7	74.0	65.1
		11	359	291	285	243	217	198	176	147	127
		14	950	589	552	471	419	383	338	278	234
	150	04	30.6	21.3	20.2	17.4	15.6	14.3	12.7	10.8	9.6
		05	50.1	37.1	35.1	30.3	27.1	24.8	22.1	18.8	16.7
		06	85.1	62.3	59.0	50.9	45.5	41.7	37.2	31.5	27.9
		08	164	142	142	131	117	107	96	81	72
		11	591	378	358	309	276	252	225	190	166
		14	1160	798	755	651	581	532	473	396	344
	180	04	30.6	22.2	21.0	18.5	16.5	15.1	13.5	11.5	10.2
		05	50.1	38.5	36.5	32.0	28.6	26.2	23.4	19.9	17.7
		06	119	74.0	70.1	61.5	54.9	50.3	44.9	38.2	34.0
		08	242	194	183	161	144	132	117	100	89
		11	591	393	372	327	292	267	238	202	178
		14	1160	832	787	690	616	564	503	424	372
	210	04	30.6	22.8	21.6	19.1	17.2	15.7	14.1	12.0	10.7
		05	50.1	39.5	37.4	33.1	29.8	27.3	24.4	20.7	18.5
		06	119	76.0	71.9	63.7	57.2	52.4	46.8	39.8	35.5
		08	242	199	188	166	149	137	122	104	93
		11	591	403	382	338	304	278	248	211	187
		14	1640	1060	1010	890	800	730	650	550	490
	240	04	30.6	23.2	22.0	19.5	17.7	16.2	14.5	12.3	11.0
		05	50.1	40.2	38.1	33.7	30.6	28.1	25.1	21.4	19.1
		06	119	77.3	73.2	64.8	58.9	54.0	48.2	41.1	36.6
		08	242	202	191	169	154	141	126	107	96
		11	591	411	389	344	313	286	256	217	193
		14	1640	1080	1030	910	830	760	670	570	510
	270	04	30.6	23.5	22.3	19.7	18.1	16.6	14.8	12.6	11.3
		05	50.1	40.7	38.5	34.1	31.3	28.7	25.7	21.9	19.5
		06	119	78.3	74.1	65.6	60.2	55.2	49.4	42.1	37.5
		08	242	205	194	172	157	144	129	110	98
		11	591	416	393	348	319	293	262	223	198
		14	1640	1100	1040	920	840	770	690	590	520
	300	04	30.6	23.7	22.5	19.9	18.2	16.9	15.1	12.9	11.5
		05	50.1	41.1	38.9	34.4	31.6	29.3	26.1	22.3	19.9
		06	119	79.0	74.8	66.2	60.7	56.3	50.3	42.9	38.3
		08	262	252	249	220	202	187	167	143	127
		11	738	547	518	459	421	390	348	297	264
		14	1640	1110	1050	930	850	790	700	600	530
	330	04	30.6	23.9	22.6	20.0	18.4	17.2	15.3	13.1	11.7
		05	50.1	41.3	39.1	34.6	31.8	29.7	26.5	22.6	20.2
		06	119	79.5	75.3	66.7	61.1	57.2	51.1	43.6	38.9
		08	262	253	250	222	203	190	170	145	129
		11	738	551	522	462	424	396	354	301	269
		14	1640	1120	1060	940	860	800	720	610	540
18	120	04	10.9	9.12	9.08	8.75	8.52	8.34	8.10	6.86	6.02
		05	37.9	25.8	24.4	20.8	18.6	17.0	15.1	12.8	11.3
		06	85.1	60.6	57.1	48.7	43.5	39.9	35.5	30.0	26.4
		08	152	87.8	82.8	70.6	63.1	57.7	51.3	43.1	37.6
		11	359	302	297	253	226	207	184	154	133
		14	950	612	577	492	439	400	354	293	248

Output torque table

■ ZRS-X flange shaft 2 stationary

Cam curve/MS

Indexing No.	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)							
				Input axis rotational speed (rpm)							
				15	30	45	60	75	100	150	200
18	150	04	10.9	9.65	9.65	9.45	9.20	9.01	8.77	7.47	6.60
		05	37.9	27.3	25.8	22.4	20.0	18.3	16.4	13.9	12.3
		06	85.1	64.1	60.6	52.6	47.0	43.1	38.4	32.6	28.9
		08	164	146	146	136	121	111	99	84	75
		11	359	319	315	274	244	224	199	168	148
		14	950	649	614	532	475	434	386	324	281
	180	04	30.6	22.7	21.5	18.9	16.9	15.5	13.9	11.8	10.5
		05	51.5	39.3	37.2	32.8	29.3	26.9	24.0	20.4	18.2
		06	85.1	66.2	62.7	55.3	49.4	45.3	40.4	34.4	30.6
		08	164	151	151	143	127	117	104	89	79
		11	359	330	326	287	257	235	210	178	157
		14	1160	849	804	709	633	579	516	436	384
	210	04	30.6	23.2	21.9	19.4	17.5	16.1	14.4	12.2	10.9
		05	51.5	40.1	38.0	33.6	30.4	27.8	24.9	21.2	18.9
		06	85.1	67.6	64.0	56.7	51.2	46.9	41.9	35.7	31.8
		08	164	154	154	146	132	121	108	92	82
		11	591	410	388	343	310	284	253	215	191
		14	1160	868	822	727	656	601	536	454	401
	240	04	30.6	23.5	22.3	19.7	18.0	16.5	14.7	12.6	11.2
		05	51.5	40.7	38.5	34.1	31.2	28.6	25.5	21.8	19.4
		06	85.1	68.6	65.0	57.5	52.6	48.2	43.0	36.7	32.7
		08	164	156	156	148	136	124	111	95	84
		11	591	416	393	348	318	292	260	221	197
		14	1160	881	834	738	674	618	551	468	415
	270	04	30.6	23.7	22.5	19.9	18.3	16.9	15.1	12.8	11.5
		05	51.5	41.1	38.9	34.4	31.6	29.2	26.1	22.2	19.8
		06	85.1	69.3	65.6	58.1	53.3	49.2	43.9	37.4	33.4
		08	164	158	158	150	137	127	113	97	86
		11	591	420	397	352	323	298	266	226	201
		14	1160	890	843	746	684	631	563	479	425
	300	04	30.6	23.9	22.7	20.1	18.4	17.1	15.3	13.1	11.7
		05	51.5	41.4	39.2	34.7	31.8	29.6	26.5	22.6	20.2
		06	85.1	69.8	66.1	58.5	53.7	50.0	44.7	38.1	34.0
		08	164	159	159	151	138	129	115	98	88
		11	591	423	400	354	325	303	270	230	205
		14	1160	897	849	752	689	642	573	488	434
	330	04	30.6	24.1	22.8	20.2	18.5	17.3	15.5	13.3	11.8
		05	51.5	41.6	39.4	34.9	32.0	29.9	26.9	22.9	20.5
		06	85.1	70.2	66.4	58.8	54.0	50.5	45.3	38.7	34.5
		08	164	160	160	152	139	130	117	100	89
		11	591	425	402	356	327	306	274	234	208
		14	1160	902	854	756	693	648	582	495	441
20	90	04	10.2	7.92	7.31	6.23	5.55	5.07	4.48	3.70	3.12
		05	19.9	15.8	15.4	14.9	14.5	14.2	13.7	11.7	10.2
		06	25.3	20.0	19.5	18.7	18.2	17.8	17.2	16.2	14.5
		08	108	72.4	66.8	56.9	50.8	46.4	41.1	34.0	28.9
		11	225	178	174	158	141	129	113	92	76
		14	462	362	349	296	263	239	208	164	126
	120	04	10.9	9.39	9.39	9.05	8.81	8.63	8.38	7.12	6.26
		05	37.9	26.6	25.1	21.5	19.2	17.6	15.7	13.3	11.7
		06	63.6	46.9	44.4	37.9	33.8	31.0	27.6	23.3	20.5
		08	152	90.4	85.6	73.1	65.2	59.7	53.1	44.7	39.1
		11	331	255	241	206	184	168	149	125	108
		14	760	483	457	390	348	317	281	231	195

ZRS

Technical data

Option

Safety precautions

Model selection specifications
Check sheet

■ ZRS-X flange shaft 2 stationary

Cam curve/MS

Indexing No.	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)							
				Input axis rotational speed (rpm)							
				15	30	45	60	75	100	150	200
20	150	04	10.9	9.85	9.85	9.70	9.44	9.25	9.00	7.67	6.79
		05	37.9	27.8	26.3	23.0	20.5	18.8	16.8	14.3	12.6
		06	63.6	49.1	46.5	40.6	36.2	33.2	29.6	25.1	22.2
		08	152	94.8	89.8	78.3	69.9	64.0	57.1	48.3	42.6
		11	359	326	322	280	250	229	204	173	152
		14	760	508	480	418	373	341	303	254	219
	180	04	10.9	10.1	10.1	10.1	9.9	9.7	9.4	8.0	7.1
		05	37.9	28.6	27.1	24.0	21.4	19.6	17.5	14.9	13.3
		06	63.6	50.5	47.8	42.4	37.9	34.7	31.0	26.3	23.4
		08	152	97.6	92.3	81.7	73.1	67.0	59.8	50.8	45.0
		11	359	335	331	293	262	240	214	182	161
		14	950	682	645	571	511	467	416	352	309
	210	04	10.9	10.3	10.3	10.3	10.2	10.0	9.7	8.3	7.4
		05	37.9	29.1	27.5	24.4	22.1	20.3	18.1	15.4	13.7
		06	63.6	51.4	48.7	43.1	39.1	35.8	32.0	27.2	24.2
		08	164	156	156	148	134	123	110	94	83
		11	359	341	337	298	270	248	221	188	167
		14	950	694	657	582	528	483	431	365	322
	240	04	10.9	10.4	10.4	10.4	10.4	10.2	10.0	8.5	7.6
		05	37.9	29.4	27.9	24.7	22.6	20.8	18.5	15.8	14.1
		06	63.6	52.0	49.3	43.6	40.0	36.7	32.8	27.9	24.9
		08	164	158	158	150	137	126	113	96	86
		11	359	345	341	302	277	254	227	193	171
		14	950	703	665	589	540	495	442	375	332
	270	04	10.9	10.5	10.5	10.5	10.5	10.4	10.2	8.7	7.8
		05	37.9	29.7	28.1	24.9	22.8	21.1	18.9	16.1	14.4
		06	63.6	52.5	49.7	44.0	40.3	37.4	33.4	28.5	25.4
		08	164	159	159	151	138	128	115	98	87
		11	359	347	344	304	279	259	231	197	175
		14	950	709	671	594	545	505	451	383	340
	300	04	10.9	10.6	10.6	10.6	10.6	10.6	10.3	8.8	7.9
		05	37.9	29.8	28.2	25.0	22.9	21.4	19.2	16.4	14.6
		06	85.1	70.2	66.5	58.9	54.0	50.5	45.2	38.5	34.4
		08	164	160	160	152	139	130	117	99	89
		11	359	349	346	306	281	262	235	200	178
		14	950	713	675	598	548	513	458	390	346
	330	04	10.9	10.6	10.6	10.6	10.6	10.6	10.5	9.0	8.0
		05	37.9	30.0	28.4	25.1	23.0	21.5	19.4	16.6	14.8
		06	85.1	70.5	66.8	59.1	54.2	50.7	45.8	39.0	34.8
		08	164	161	161	153	140	131	118	101	90
		11	359	351	347	307	282	264	238	203	181
		14	950	717	679	601	551	515	464	395	352
24	90	04	7.19	6.13	5.70	4.86	4.33	3.95	3.49	2.88	2.42
		05	12.8	11.1	10.9	10.5	10.2	10.0	9.7	8.2	7.1
		06	25.3	21.2	20.9	20.1	19.5	19.1	18.5	17.5	15.9
		08	80.0	57.6	53.6	45.7	40.7	37.2	32.9	27.2	23.1
		11	200	119	110	94	83	76	67	53	43
		14	462	386	374	318	283	258	226	181	144
	120	04	7.19	6.49	6.14	5.29	4.72	4.32	3.84	3.21	2.79
		05	12.8	11.7	11.7	11.4	11.1	10.9	10.6	9.0	7.9
		06	25.3	22.8	22.8	22.1	21.5	21.1	20.5	19.5	18.0
		08	108	82.5	78.1	67.2	60.0	55.0	48.9	41.3	36.2
		11	225	203	203	187	167	153	136	114	99
		14	462	414	409	352	314	286	254	210	178

Output torque table

■ ZRS-X flange shaft 2 stationary

Cam curve/MS

Indexing No.	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)							
				Input axis rotational speed (rpm)							
				15	30	45	60	75	100	150	200
24	150	04	10.2	9.14	8.65	7.60	6.79	6.22	5.55	4.70	4.14
		05	12.8	12.1	12.1	12.0	11.7	11.4	11.1	9.5	8.4
		06	63.6	50.5	47.8	42.0	37.6	34.4	30.7	26.1	23.1
		08	108	85.5	80.9	71.1	63.5	58.2	51.9	44.0	38.9
		11	225	210	210	198	177	162	144	122	107
		14	462	429	424	373	333	304	270	226	196
	180	04	10.2	9.30	8.80	7.79	7.03	6.44	5.74	4.88	4.32
		05	12.8	12.3	12.3	12.3	12.1	11.8	11.5	9.8	8.7
		06	63.6	51.6	48.8	43.2	39.0	35.7	31.9	27.1	24.1
		08	108	87.3	82.6	73.1	66.0	60.4	53.9	45.8	40.6
		11	225	214	214	203	183	168	150	127	112
		14	462	438	433	384	346	316	282	237	208
	210	04	10.2	9.40	8.90	7.88	7.20	6.60	5.89	5.01	4.45
		05	12.8	12.4	12.4	12.4	12.4	12.1	11.8	10.1	9.0
		06	63.6	52.2	49.5	43.8	40.0	36.7	32.8	27.9	24.8
		08	152	101	95	85	77	71	63	54	48
		11	225	217	217	206	188	172	154	131	116
		14	760	541	512	453	414	379	338	286	253
	240	04	10.2	9.47	8.96	7.93	7.28	6.73	6.01	5.12	4.55
		05	12.8	12.5	12.5	12.5	12.5	12.4	12.0	10.3	9.2
		06	63.6	52.7	49.9	44.2	40.5	37.5	33.5	28.5	25.4
		08	152	102	96	85	78	72	65	55	49
		11	225	219	219	208	190	176	157	134	119
		14	760	545	516	457	419	387	346	293	260
	270	04	10.2	9.51	9.01	7.97	7.31	6.84	6.11	5.20	4.63
		05	37.9	29.9	28.3	25.1	23.0	21.5	19.2	16.4	14.6
		06	63.6	53.0	50.2	44.4	40.7	38.1	34.0	29.0	25.9
		08	152	102	97	86	79	74	66	56	50
		11	225	220	220	209	191	179	160	136	121
		14	760	549	520	460	422	394	352	299	265
	300	04	10.2	9.55	9.04	8.00	7.34	6.86	6.19	5.27	4.70
		05	37.9	30.1	28.5	25.2	23.1	21.6	19.5	16.6	14.8
		06	63.6	53.2	50.4	44.6	40.9	38.3	34.5	29.4	26.2
		08	152	103	97	86	79	74	67	57	51
		11	331	289	274	242	222	208	187	160	142
		14	760	551	522	462	424	396	357	304	270
	330	04	10.2	9.57	9.06	8.02	7.36	6.88	6.26	5.33	4.76
		05	37.9	30.2	28.5	25.3	23.2	21.7	19.7	16.8	15.0
		06	63.6	53.4	50.5	44.7	41.0	38.4	34.9	29.8	26.6
		08	152	103	98	86	79	74	67	57	51
		11	331	290	275	243	223	209	190	162	144
		14	760	553	524	463	425	397	361	307	273
30	90	08	31.8	28.4	28.2	27.1	26.3	25.7	24.8	23.3	20.8
		11	143	109	102	87	78	71	62	50	41
		14	285	254	252	230	204	186	163	130	103
	120	08	80.0	63.7	60.3	52.5	46.8	42.9	38.2	32.2	28.2
		11	200	130	123	107	95	87	77	64	55
		14	285	266	266	248	221	202	178	147	124
	150	08	80.0	65.2	61.7	54.6	48.9	44.8	40.0	33.9	29.9
		11	200	133	126	111	100	91	81	68	59
		14	420	357	338	299	268	245	217	182	158

ZRS

Technical data

Option

Safety precautions

Model selection specifications
Check sheet

■ ZRS-X flange shaft 2 stationary

Cam curve/MS

Indexing No.	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)							
				Input axis rotational speed (rpm)							
				15	30	45	60	75	100	150	200
30	180	08	80.0	66.1	62.5	55.4	50.4	46.2	41.2	35.0	31.0
		11	200	134	127	113	102	94	84	71	62
		14	420	362	342	303	276	252	225	190	166
	210	08	80.0	66.6	63.1	55.8	51.2	47.2	42.2	35.9	31.9
		11	200	135	128	113	104	96	85	72	64
		14	420	365	345	306	280	258	230	195	172
	240	08	80.0	67.0	63.4	56.1	51.5	48.1	42.9	36.6	32.5
		11	200	136	129	114	104	98	87	74	65
		14	420	367	347	307	282	263	235	199	176
	270	08	80.0	67.2	63.6	56.3	51.7	48.3	43.6	37.1	33.1
		11	200	136	129	114	105	98	88	75	67
		14	420	368	349	309	283	264	238	202	179
	300	08	80.0	67.4	63.8	56.5	51.8	48.4	44.1	37.6	33.5
		11	200	137	129	115	105	98	89	76	68
		14	420	369	349	309	284	265	241	205	182
	330	08	80.0	67.5	63.9	56.6	51.9	48.5	44.5	38.0	33.9
		11	200	137	130	115	105	98	90	77	68
		14	420	370	350	310	284	266	244	208	185
32	90	08	31.8	28.7	28.6	27.5	26.7	26.1	25.2	23.7	21.3
		11	143	110	104	89	79	72	63	51	42
		14	285	257	256	233	208	189	166	133	106
	120	08	31.8	30.0	29.9	29.5	28.7	28.1	27.2	25.9	23.8
		11	143	115	108	94	84	77	68	57	49
		14	285	268	268	251	223	204	181	149	127
	150	08	31.8	30.6	30.6	30.6	29.9	29.3	28.5	27.2	25.2
		11	143	117	110	98	88	80	71	60	52
		14	285	274	274	260	233	213	190	159	137
	180	08	80.0	66.3	62.8	55.6	50.8	46.5	41.5	35.3	31.3
		11	143	118	112	99	90	83	74	62	55
		14	285	277	277	263	240	220	196	165	144
	210	08	80.0	66.8	63.2	56.0	51.3	47.5	42.4	36.1	32.1
		11	200	136	128	114	104	96	86	73	64
		14	285	279	279	265	243	225	200	169	149
	240	08	80.0	67.1	63.5	56.2	51.6	48.2	43.2	36.8	32.7
		11	200	136	129	114	105	98	87	74	66
		14	285	281	281	266	244	228	204	173	153
	270	08	80.0	67.3	63.7	56.4	51.8	48.4	43.8	37.3	33.2
		11	200	137	129	114	105	98	89	75	67
		14	285	282	282	267	245	229	207	176	156
	300	08	80.0	67.5	63.9	56.6	51.9	48.5	44.3	37.8	33.7
		11	200	137	130	115	105	98	90	76	68
		14	285	282	282	268	246	230	210	178	158
	330	08	80.0	67.6	64.0	56.7	52.0	48.6	44.6	38.2	34.1
		11	200	137	130	115	105	98	90	77	69
		14	285	283	283	268	246	230	211	180	160

MEMO

ZRS

Technical data

Option

Safety precautions

Model selection specifications
Check sheet

■ ZRS-Y straight axis

Cam curve/MS

Indexing No.	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)							
				Input axis rotational speed (rpm)							
				15	30	45	60	75	100	150	200
120	360	04	10.9	6.64	6.64	6.50	6.33	6.20	6.04	5.17	4.61
		05	19.9	12.3	12.3	12.1	11.7	11.5	11.2	10.8	10.0
		06	85.1	44.2	41.8	36.2	32.3	29.6	26.5	22.5	19.9
		08	164	100	100	93	83	76	68	58	51
		11	359	220	218	189	168	154	138	116	103
		14	950	444	420	363	324	297	264	222	194
90	300	04	10.2	6.67	6.31	5.45	4.87	4.46	3.98	3.39	3.02
		05	12.8	8.90	8.90	8.68	8.45	8.28	8.06	6.88	6.10
		06	63.6	35.4	33.5	28.9	25.8	23.6	21.1	17.9	15.8
		08	108	59.7	56.5	48.8	43.6	39.9	35.6	30.1	26.6
		11	331	193	182	157	140	129	115	97	85
		14	760	363	343	296	264	241	214	179	155
	360	04	10.9	7.79	7.79	7.72	7.53	7.38	7.18	6.16	5.49
		05	19.9	14.4	14.4	14.3	13.9	13.6	13.3	12.8	11.9
		06	63.6	38.9	36.9	32.3	28.9	26.5	23.6	20.1	17.8
		08	152	75.0	71.0	62.3	55.7	51.0	45.5	38.7	34.3
		11	359	258	255	224	200	183	164	139	123
		14	950	522	494	433	387	354	316	267	234
60	180	04	10.9	6.64	6.53	6.29	6.13	6.01	5.85	5.00	4.44
		05	37.9	18.9	17.6	15.0	13.4	12.3	11.0	9.3	8.2
		06	85.1	44.2	41.1	35.1	31.3	28.7	25.6	21.6	19.0
		08	164	100	99	90	81	74	66	56	49
		11	591	268	250	213	190	174	155	130	113
		14	950	444	413	352	314	286	253	210	178
	240	04	41.6	24.7	23.4	20.2	18.0	16.5	14.8	12.6	11.2
		05	67.0	41.1	38.9	33.5	30.0	27.5	24.5	20.9	18.6
		06	119	59.1	55.9	48.2	43.1	39.5	35.2	29.9	26.6
		08	262	188	186	160	143	131	117	100	89
		11	738	410	388	334	299	274	244	207	183
		14	1640	823	779	671	599	548	488	412	362
	300	04	41.6	27.2	25.8	22.7	20.3	18.6	16.6	14.2	12.6
		05	67.0	45.2	42.8	37.6	33.6	30.8	27.5	23.5	20.9
		06	129	102	102	96	86	79	70	60	54
		08	262	207	204	180	161	147	132	112	100
		11	738	451	427	375	335	307	274	233	207
		14	1640	907	859	755	674	618	551	468	414
	360	04	41.6	28.9	27.4	24.3	21.9	20.1	17.9	15.3	13.7
		05	67.0	47.9	45.4	40.2	36.3	33.2	29.7	25.3	22.6
		06	129	109	109	103	93	85	76	65	58
		08	431	268	253	224	202	185	166	141	126
		11	903	606	574	508	458	420	375	320	285
		14	2230	1190	1130	1000	900	830	740	630	560
45	180	04	10.9	7.79	7.77	7.49	7.29	7.15	6.96	5.95	5.30
		05	50.1	30.9	29.2	24.9	22.2	20.4	18.2	15.5	13.7
		06	85.1	51.8	48.9	41.7	37.2	34.1	30.4	25.8	22.8
		08	164	118	117	107	96	88	78	67	59
		11	359	258	254	217	194	177	158	133	117
		14	950	522	492	420	374	342	304	254	219
	240	04	30.6	20.0	18.9	16.5	14.7	13.5	12.1	10.3	9.2
		05	50.1	34.7	32.9	28.7	25.7	23.5	21.0	17.9	16.0
		06	85.1	58.3	55.2	48.2	43.1	39.5	35.2	30.0	26.7
		08	242	174	165	144	128	118	105	89	80
		11	591	354	335	292	261	239	213	181	161
		14	1160	745	706	616	550	503	449	380	335

Output torque table

■ ZRS-Y straight axis

Cam curve/MS

Indexing No.	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)							
				Input axis rotational speed (rpm)							
				15	30	45	60	75	100	150	200
45	300	04	30.6	21.3	20.2	17.9	16.1	14.7	13.2	11.2	10.0
		05	50.1	37.1	35.1	31.1	27.9	25.6	22.9	19.5	17.4
		06	85.1	62.3	59.0	52.3	47.0	43.0	38.5	32.8	29.2
		08	242	186	176	156	140	128	115	98	87
		11	591	378	358	317	285	261	233	198	176
		14	1160	798	755	669	601	550	491	417	370
	360	04	30.6	22.2	21.0	18.6	17.0	15.6	14.0	11.9	10.6
		05	50.1	38.5	36.5	32.3	29.5	27.1	24.2	20.6	18.4
		06	85.1	64.9	61.4	54.4	49.7	45.6	40.7	34.7	31.0
		08	242	194	183	162	148	136	121	104	92
		11	738	513	486	430	393	360	322	274	244
		14	1640	1040	980	870	790	730	650	550	490
30	180	04	7.19	6.13	5.81	5.03	4.49	4.12	3.68	3.13	2.79
		05	12.8	11.1	11.1	10.9	10.6	10.4	10.1	8.6	7.7
		06	25.3	21.3	21.2	20.8	20.2	19.8	19.3	18.5	17.1
		08	108	77.0	72.9	63.1	56.4	51.6	46.1	39.1	34.6
		11	225	189	189	176	157	144	128	108	95
		14	462	386	381	330	294	269	239	201	175
	240	04	10.2	8.87	8.40	7.44	6.67	6.12	5.47	4.66	4.16
		05	12.8	11.8	11.7	11.7	11.5	11.3	11.0	9.4	8.4
		06	25.3	22.8	22.8	22.8	22.3	21.8	21.2	20.4	19.0
		08	108	82.5	78.1	69.2	62.0	56.9	50.8	43.2	38.4
		11	225	203	203	192	173	158	141	120	106
		14	462	414	409	362	325	297	265	224	198
	300	04	10.2	9.14	8.66	7.66	7.02	6.43	5.75	4.90	4.38
		05	12.8	12.1	12.1	12.1	12.1	11.8	11.5	9.9	8.8
		06	25.3	23.6	23.6	23.6	23.5	23.1	22.5	21.6	20.2
		08	108	85.5	81.0	71.7	65.6	60.1	53.7	45.8	40.8
		11	225	210	210	199	182	167	149	127	113
		14	462	429	425	376	344	315	281	239	212
	360	04	10.2	9.30	8.81	7.80	7.15	6.65	5.94	5.07	4.53
		05	12.8	12.3	12.3	12.3	12.3	12.2	11.9	10.2	9.1
		06	25.3	24.1	24.1	24.1	24.1	23.9	23.3	22.4	21.0
		08	108	87.3	82.6	73.2	67.1	62.4	55.8	47.5	42.4
		11	331	280	266	235	216	200	179	153	136
		14	760	534	505	447	410	381	341	290	258

ZRS

Technical data

Option

Safety precautions

Model selection specifications
Check sheet

■ ZRS-Y flange shaft

Cam curve/MS

Oscillation angle (deg)	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)							
				Input axis rotational speed (rpm)							
				15	30	45	60	75	100	150	200
120	360	04	10.9	6.64	6.64	6.49	6.32	6.18	6.01	5.10	4.48
		05	19.9	12.3	12.3	12.0	11.7	11.5	11.2	10.7	9.9
		06	85.1	44.2	41.8	36.2	32.3	29.6	26.4	22.4	19.7
		08	164	100	100	93	83	76	68	58	51
		11	359	220	218	188	168	154	137	115	100
		14	950	444	420	363	324	296	262	218	186
90	300	04	10.2	6.66	6.31	5.44	4.85	4.44	3.95	3.31	2.88
		05	12.8	8.90	8.90	8.67	8.44	8.26	8.02	6.80	5.96
		06	63.6	35.4	33.5	28.9	25.8	23.6	21.0	17.8	15.6
		08	108	59.7	56.5	48.7	43.5	39.8	35.4	29.8	25.9
		11	331	193	182	157	140	128	114	95	82
		14	760	362	343	295	263	240	212	175	147
	360	04	10.9	7.79	7.79	7.72	7.52	7.36	7.16	6.10	5.40
		05	19.9	14.4	14.4	14.3	13.9	13.6	13.3	12.7	11.8
		06	63.6	38.9	36.9	32.3	28.9	26.5	23.6	20.0	17.7
		08	152	75.0	71.0	62.3	55.6	51.0	45.4	38.4	33.9
		11	359	258	255	224	200	183	163	138	121
		14	950	522	494	433	386	353	314	264	229
60	180	04	10.9	6.64	6.52	6.28	6.11	5.97	5.78	4.85	4.18
		05	37.9	18.9	17.6	15.0	13.4	12.3	10.9	9.2	8.0
		06	85.1	44.2	41.1	35.1	31.3	28.6	25.5	21.4	18.6
		08	164	100	99	90	81	74	66	55	48
		11	591	268	249	213	190	173	153	127	108
		14	950	444	412	351	312	284	250	201	163
	240	04	41.6	24.7	23.4	20.2	18.0	16.5	14.7	12.5	11.1
		05	67.0	41.1	38.9	33.5	30.0	27.4	24.5	20.8	18.5
		06	119	59.1	55.9	48.2	43.0	39.4	35.2	29.8	26.3
		08	262	188	186	160	143	131	117	99	88
		11	738	410	388	334	299	273	243	206	180
		14	1640	823	778	670	598	547	486	408	354
	300	04	41.6	27.2	25.8	22.7	20.2	18.5	16.6	14.1	12.5
		05	67.0	45.2	42.8	37.6	33.6	30.8	27.5	23.4	20.8
		06	129	102	102	96	86	79	70	60	53
		08	262	207	204	180	161	147	131	112	99
		11	738	451	427	375	335	307	274	232	206
		14	1640	907	859	754	674	617	550	465	409
	360	04	41.6	28.9	27.4	24.3	21.9	20.1	17.9	15.3	13.6
		05	67.0	47.9	45.4	40.2	36.2	33.2	29.7	25.3	22.6
		06	129	109	109	103	93	85	76	65	58
		08	431	268	253	224	202	185	166	141	126
		11	903	606	574	508	458	420	375	319	283
		14	2230	1190	1130	1000	900	830	740	630	550
45	180	04	10.9	7.79	7.76	7.48	7.28	7.12	6.91	5.85	5.11
		05	50.1	30.9	29.1	24.9	22.2	20.3	18.1	15.4	13.6
		06	85.1	51.8	48.8	41.7	37.2	34.1	30.4	25.6	22.5
		08	164	118	117	107	96	88	78	66	58
		11	359	258	254	217	193	177	157	131	113
		14	950	522	492	419	373	341	301	248	208
	240	04	30.6	20.0	18.9	16.5	14.7	13.5	12.1	10.2	9.1
		05	50.1	34.7	32.9	28.7	25.6	23.5	21.0	17.8	15.8
		06	85.1	58.3	55.2	48.2	43.1	39.4	35.2	29.9	26.5
		08	242	174	165	144	128	118	105	89	79
		11	591	354	335	292	261	239	213	180	158
		14	1160	745	705	615	549	503	447	376	329

Output torque table

■ ZRS-Y flange shaft

Cam curve/MS

Oscillation angle (deg)	Total allocated angle (deg)	Size	Static rating Output torque (N·m)	Dynamic rated output torque (N·m)							
				Input axis rotational speed (rpm)							
				15	30	45	60	75	100	150	200
45	300	04	30.6	21.3	20.2	17.9	16.1	14.7	13.2	11.2	10.0
		05	50.1	37.1	35.1	31.1	27.9	25.6	22.9	19.5	17.3
		06	85.1	62.3	59.0	52.3	47.0	43.0	38.4	32.7	29.1
		08	242	186	176	156	140	128	115	98	87
		11	591	378	358	317	285	261	233	197	175
		14	1160	798	755	668	601	550	490	415	366
	360	04	30.6	22.2	21.0	18.6	17.0	15.6	13.9	11.9	10.6
		05	50.1	38.5	36.5	32.3	29.5	27.1	24.2	20.6	18.4
		06	85.1	64.9	61.4	54.4	49.7	45.5	40.7	34.7	30.9
		08	242	194	183	162	148	136	121	103	92
		11	738	513	486	430	393	360	322	274	243
		14	1640	1040	980	870	790	730	650	550	490
30	180	04	7.19	6.13	5.80	5.02	4.48	4.10	3.65	3.06	2.66
		05	12.8	11.1	11.1	10.8	10.6	10.3	10.0	8.5	7.5
		06	25.3	21.3	21.2	20.8	20.2	19.8	19.2	18.4	16.9
		08	108	77.0	72.9	63.1	56.3	51.6	45.9	38.8	34.0
		11	225	189	189	176	157	143	127	107	93
		14	462	386	381	330	294	268	238	197	167
	240	04	10.2	8.87	8.40	7.43	6.67	6.11	5.45	4.62	4.09
		05	12.8	11.8	11.7	11.7	11.5	11.3	10.9	9.3	8.3
		06	25.3	22.8	22.8	22.8	22.2	21.8	21.2	20.3	18.9
		08	108	82.5	78.1	69.1	62.0	56.8	50.7	43.0	38.1
		11	225	203	203	192	172	158	141	119	105
		14	462	414	409	362	324	297	264	222	194
	300	04	10.2	9.14	8.65	7.66	7.01	6.43	5.74	4.88	4.33
		05	12.8	12.1	12.1	12.1	12.1	11.8	11.5	9.8	8.8
		06	25.3	23.6	23.6	23.6	23.5	23.1	22.4	21.6	20.1
		08	108	85.5	81.0	71.7	65.6	60.1	53.7	45.7	40.6
		11	225	210	210	199	182	167	149	127	112
		14	462	429	424	376	344	315	281	237	209
	360	04	10.2	9.30	8.80	7.80	7.15	6.65	5.94	5.05	4.50
		05	12.8	12.3	12.3	12.3	12.3	12.2	11.9	10.2	9.1
		06	25.3	24.1	24.1	24.1	24.1	23.9	23.3	22.4	20.9
		08	108	87.3	82.6	73.2	67.1	62.4	55.7	47.5	42.3
		11	331	280	266	235	216	200	179	152	135
		14	760	534	505	447	410	381	340	289	256

ZRS

Technical data

Option

Safety precautions

Model selection specifications
Check sheet