

HI-PWR-S Type Roller Chains

Roller Chains for Power Transmission

High-strength RollerChainSeries



High power roller chains with improved fatigue strength and impact strength

HI-PWR-S roller chains are enhanced in fatigue strength and impact strength without changing the dimension in the pin length direction of standard roller chains. Plates are enlarged, and the machining accuracy and assembling accuracy of components are improved. The roller chains hold high transmission efficiency for applications from low to high speeds and are powerful enough to withstand long-term use.

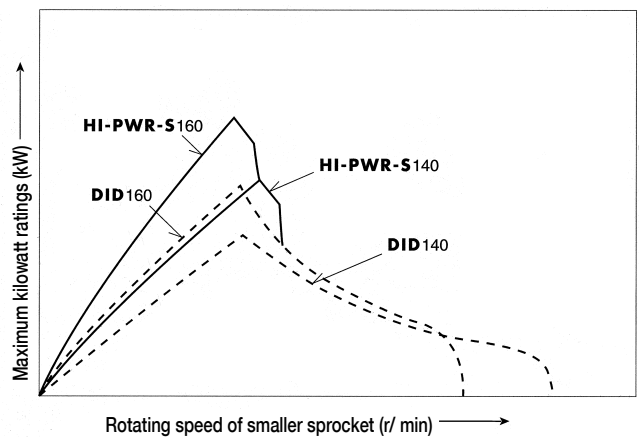
Recommended uses

- Compared to standard roller chains, HI-PWR-S roller chains are higher in maximum kilowatt rating by about 30 percent in a medium to low speed range. They exhibit excellent capability in places where large shock loads are applied, drive units for frequent start/stop, and also in high speed applications.

<Examples>

- Civil engineering machines such as skid steer, trenchers, trucks, cranes, agitating trucks, forklifts and drive units for conveyors, elevators, stackers, etc.

Maximum kilowatt rating diagram



Selection of chains

In general, select your chain with reference to "Designing of Chain Transmission" (P122~128) and also to the tables of "Drive Performance" and "Dimensions" of HI-PWR-S type roller chains (P52~59)
However, only for a special case of low speed and less shock, "Low-speed selection" (P123) is also applicable.

Sprockets

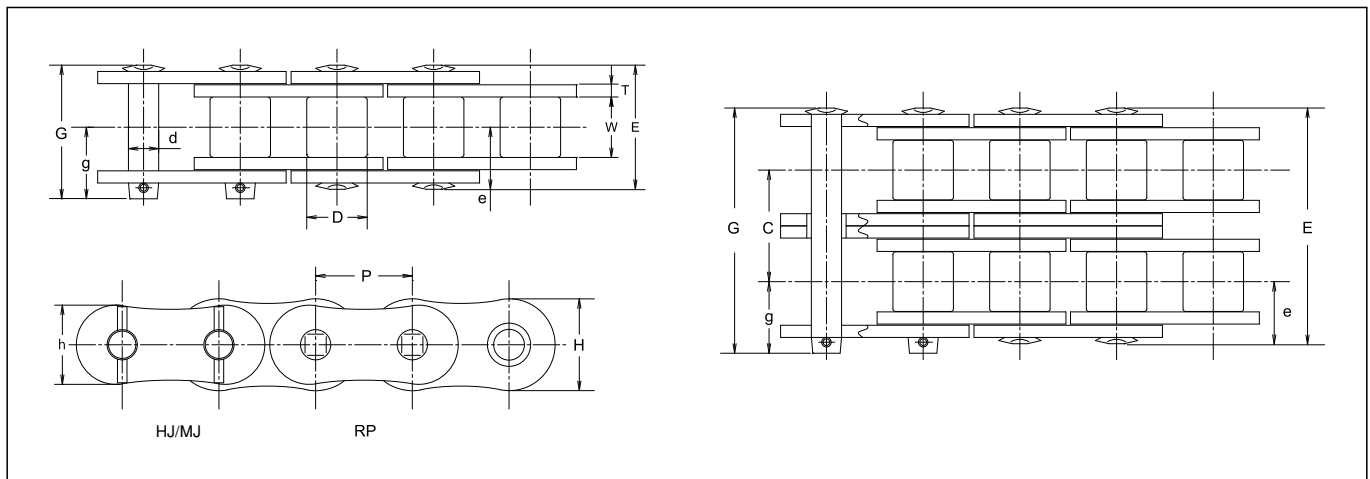
HI-PWR-S Roller chains and ANSI standard chains are the same in basic dimensions. Use ANSI standard sprockets.

Connecting links and offset links

Use HJ or MJ type connecting link for HI-PWR-S. Pins of HJ type connecting link are interference-fitted with the connecting plates but those of MJ type are clearance-fitted. In case severe condition or place where side force apply to chain, use HJ type connecting link. For the connection between the connecting plate and the connecting pins, spring pins are used instead of cotter pins for a standard roller chain.
The center plates of a connecting link for multiplex chain has bushings pressed in.

HI-PWR-S roller chains do not have any offset link. Use an even number of links.

Never make the holes of the connecting plate larger and never make the pins thinner to facilitate the work for fitting the pins into the connecting plate, since otherwise the fatigue strength will be lowered.

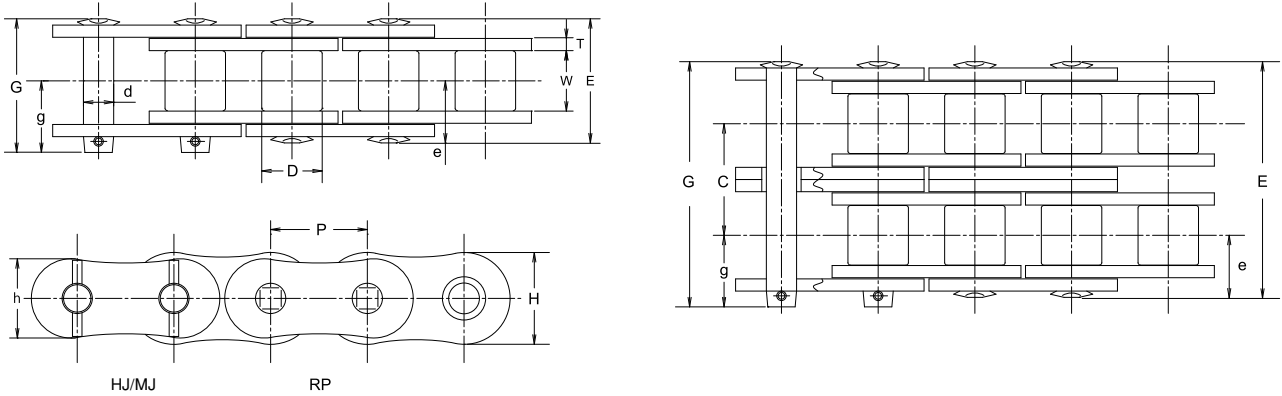


Dimensions

Chain No.		Pitch P	Roller link width W	Roller dia. D	Pin					Transverse pitch C	Plate			DID		DID		DID		Approx. Weight (kg/m)
DID	ANSI*				d	E	G	e	g		T	H	h	Min. tensile strength	Avg. tensile strength	Max. allowable load				
											kN	kgf	kN	kgf	kN	kgf	kN	kgf		
DID HI-PWR-S 80	80	25.40	15.88	15.88	7.94	32.6	35.4	16.4	19.0	29.3	3.2	24.1	20.8	75.6	7,680	84	8,530	18.6	1,890	2.82
DID HI-PWR-S 100	100	31.75	19.05	19.05	9.54	39.5	42.5	19.8	22.7	35.8	4.0	30.1	26.0	117	11,880	127	12,890	30.4	3,090	4.18
DID HI-PWR-S 120	120	38.10	25.40	22.23	11.11	49.7	53.0	24.9	28.2	45.4	4.8	36.2	31.2	162	16,450	186	18,880	40.2	4,080	6.12
DID HI-PWR-S 140	140	44.45	25.40	25.40	12.71	53.6	58.4	26.8	31.7	48.9	5.6	42.2	36.3	216	21,930	245	24,870	53.9	5,470	7.71
DID HI-PWR-S 160	160	50.80	31.75	28.58	14.29	63.6	68.2	31.9	36.5	58.5	6.4	48.2	41.4	273	27,720	313	31,780	70.6	7,170	10.5
DID HI-PWR-S 180	180	57.15	35.72	35.71	17.46	71.5	77.3	35.8	41.6	65.8	7.1	54.3	46.6	379	38,480	412	41,830	83.3	8,460	14.4
DID HI-PWR-S 200	200	63.50	38.10	39.68	19.85	77.9	85.0	39.0	46.0	71.6	8.0	60.3	52.0	460	46,700	500	50,760	98.1	9,960	17.5
DID HI-PWR-S 240	240	76.20	47.63	47.63	23.81	95.2	102.9	47.7	55.3	87.8	9.5	72.3	62.0	667	67,720	725	73,600	132	13,400	24.7

Note: 1. The values of average tensile strength and maximum allowable load are for chains.
2. Ask us for the delivery time.
3. *Equivalent to ANSI

DID HI-PWR-S80 (Please refer to P33 for sprocket)



Dimensions

Chain No.		Pitch P	Roller link width W	Roller dia. D	Pin					Transverse Pitch C	Plate			DID Min. Tensile Strength		DID Avg. Tensile Strength		DID Max. Allowable Load		Approx. Weight (kg/m)	
DID	ANSI*				d	E	G	e	g		T	H	h	kN	kgf	kN	kgf	kN	kgf		
DID HI-PWR-S 80	80					32.6	35.4								75.6	7,680	84	8,530	18.6	1,890	2.82
DID HI-PWR-S 80-2	80-2	25.40	15.88	15.88	7.94	61.9	64.7	16.4	19.0	29.3	3.2	24.1	20.8	151	15,330	168	17,060	31.6	3,210	5.61	
DID HI-PWR-S 80-3	80-3					91.3	94.0							227	23,050	252	25,580	46.5	4,720	8.24	

Note: The values of average tensile strength and maximum allowable tension are for chains.

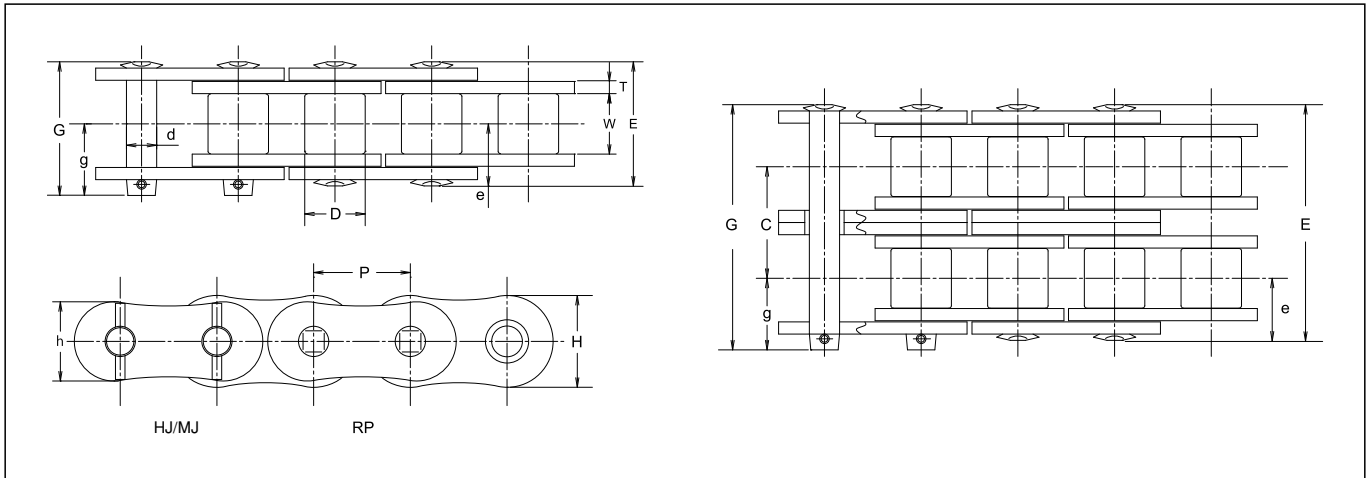
*Equivalent to ANSI

Max. kilowatt Ratings HI-PWR-S80

No. of Teeth of Small Sprocket	Small sprocket rpm (Refer to P132 for the details of lubrication A, B and C.)									
	25	50	100	200	300	400	500	700	900	1000
	A			B				C		
11	1.90	3.55	6.63	12.4	17.8	23.1	28.2	29.6	24.0	—
12	2.09	3.90	7.28	13.6	19.6	25.4	31.0	32.5	27.3	—
13	2.28	4.25	7.94	14.8	21.4	27.7	33.8	35.4	30.8	—
14	2.47	4.61	8.60	16.1	23.1	30.0	36.6	38.4	34.4	—
15	2.66	4.96	9.27	17.3	24.9	32.3	39.5	41.3	38.2	—
16	2.85	5.32	9.94	18.6	26.7	34.6	42.3	44.3	42.1	—
17	3.04	5.68	10.6	19.8	28.5	37.0	45.2	48.0	46.1	—
18	3.24	6.05	11.3	21.1	30.3	39.3	48.1	51.4	50.2	—
19	3.43	6.41	12.0	22.3	32.2	41.7	51.0	54.5	54.4	—
20	3.63	6.77	12.7	23.6	34.0	44.1	53.9	58.8	58.8	50.2
21	3.82	7.14	13.3	24.9	35.8	46.4	56.8	63.3	63.3	54.0
22	4.02	7.51	14.0	26.2	37.7	48.8	59.7	67.8	67.8	57.9
23	4.22	7.88	14.7	27.5	39.5	51.2	62.6	72.5	72.5	61.9
24	4.42	8.25	15.4	28.7	41.4	53.6	65.6	77.3	77.3	66.0
25	4.62	8.62	16.1	30.0	43.3	56.1	68.5	82.2	82.2	70.2
28	5.22	9.75	18.2	34.0	48.9	63.4	77.5	97.4	97.4	83.2
30	5.62	10.5	19.6	36.6	52.7	68.3	83.4	108	108	92.2
32	6.03	11.3	21.0	39.2	56.5	73.2	89.5	117	117	102
35	6.64	12.4	23.2	43.2	62.2	80.6	98.6	129	129	116
40	7.68	14.3	26.7	49.9	71.9	93.1	114	149	149	142
45	8.72	16.3	30.4	56.7	81.6	106	129	169	169	169

Note: Values in the above table are for simplex chain only. For multiplex chains, please multiply the coefficient of multi-strand. (See "Chain Selection" on P122.)

DID HI-PWR-S100 (Please refer to P35 for sprocket)



Dimensions

Chain No.		Pitch P	Roller link width W	Roller dia. D	Pin					Transverse Pitch C	Plate			DID Min. Tensile Strength		DID Avg. Tensile Strength		DID Max. Allowable Load		Approx. Weight (kg/m)	
DID	ANSI*				d	E	G	e	g		T	H	h	kN	kgf	kN	kgf	kN	kgf		
DID HI-PWR-S 100	100					39.5	42.5								117	11,880	127	12,890	30.4	3,090	4.18
DID HI-PWR-S 100-2	100-2	31.75	19.05	19.05	9.54	75.3	78.3	19.8	22.7	35.8	4.0	30.1	26.0	234	23,760	255	25,890	51.6	5,240	8.21	
DID HI-PWR-S 100-3	100-3					111.2	114.2							351	35,630	382	38,780	76	7,720	12.2	

Note: The values of average tensile strength and maximum allowable tension are for chains.

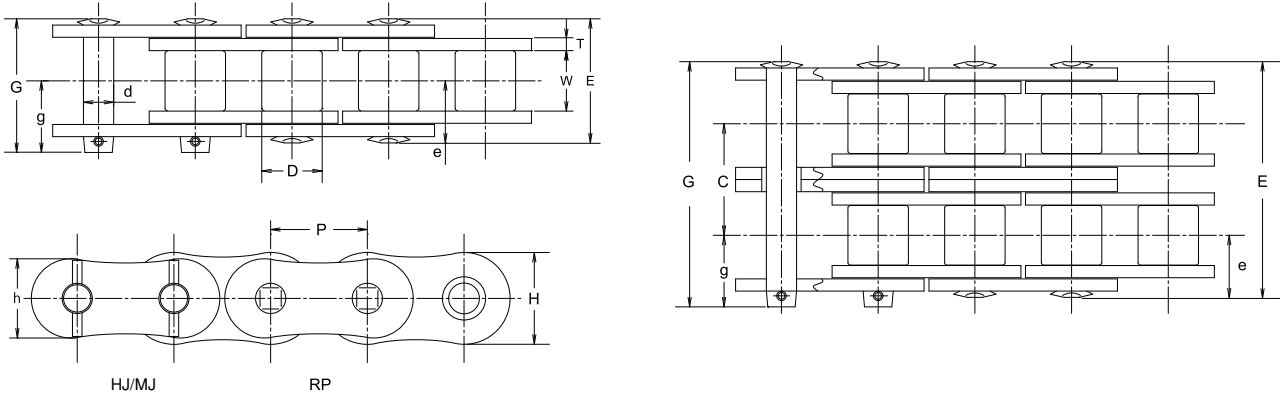
*Equivalent to ANSI

Max. kilowatt Ratings HI-PWR-S100

No. of Teeth of Small Sprocket	Type of Lubrication	Small sprocket rpm (Refer to P132 for the details of lubrication A, B and C.)											
		10	25	50	100	200	300	400	500	600	700	800	900
		A			B			C					
11		1.59	3.64	6.81	12.7	23.7	34.2	41.8	41.8	41.8	41.8	—	—
12		1.75	4.00	7.48	14.0	26.1	37.5	47.6	47.6	47.6	47.6	—	—
13		1.91	4.37	8.15	15.2	28.4	40.9	53.0	53.7	53.7	53.7	—	—
14		2.07	4.73	8.83	16.5	30.8	44.3	57.4	60.0	60.0	60.0	—	—
15		2.23	5.10	9.51	17.8	33.2	47.7	61.9	66.6	66.6	66.6	54.5	—
16		2.39	5.46	10.2	19.0	35.5	51.2	66.3	72.1	72.1	72.1	60.0	—
17		2.56	5.83	10.9	20.3	37.9	54.7	70.8	76.9	76.9	76.9	65.7	—
18		2.72	6.21	11.6	21.6	40.4	58.1	75.3	81.8	81.8	81.8	71.6	—
19		2.88	6.58	12.3	22.9	42.8	61.6	79.9	86.7	86.7	86.7	77.7	—
20		3.05	6.96	13.0	24.2	45.2	65.1	84.4	91.8	91.8	91.8	83.9	—
21		3.21	7.33	13.7	25.5	47.7	68.7	89.0	96.8	96.8	96.8	90.2	—
22		3.38	7.71	14.4	26.9	50.1	72.2	93.6	102	102	102	96.8	—
23		3.54	8.09	15.1	28.2	52.6	75.8	98.2	107	107	107	103	—
24		3.71	8.47	15.8	29.5	55.1	79.3	103	112	112	112	110	—
25		3.88	8.85	16.5	30.8	57.6	82.9	107	117	117	117	117	—
28		4.38	10.0	18.7	34.9	65.0	93.7	121	139	139	139	139	—
30		4.72	10.8	20.1	37.6	70.1	101	131	154	154	154	154	—
32		5.06	11.6	21.6	40.3	75.1	108	140	170	170	170	170	142
35		5.58	12.7	23.8	44.4	82.8	119	154	189	189	189	189	163
40		6.45	14.7	27.5	51.2	95.6	138	178	218	219	219	219	199
45		7.32	16.7	31.2	58.2	109	156	203	247	247	247	247	237

Note: Values in the above table are for simplex chain only. For multiplex chains, please multiply the coefficient of multi-strand. (See "Chain Selection" on P122.)

DID HI-PWR-S120 (Please refer to P37 for sprocket)



Dimensions

Chain No.		Pitch P	Roller link width W	Roller dia. D	Pin					Transverse Pitch C	Plate			DID Min. Tensile Strength		DID Avg. Tensile Strength		DID Max. Allowable Load		Approx. Weight (kg/m)
DID	ANSI*				d	E	G	e	g		T	H	h	kN	kgf	kN	kgf	kN	kgf	
DID HI-PWR-S 120	120					49.7	53.0							162	16,450	186	18,880	40.2	4,080	6.12
DID HI-PWR-S 120-2	120-2	38.10	25.40	22.23	11.11	95.2	98.5	24.9	28.2	45.4	4.8	36.2	31.2	324	32,890	372	37,770	68.3	6,930	12.2
DID HI-PWR-S 120-3	120-3					140.6	143.9							486	49,340	559	56,750	100	10,150	18.2

Note: The values of average tensile strength and maximum allowable tension are for chains.

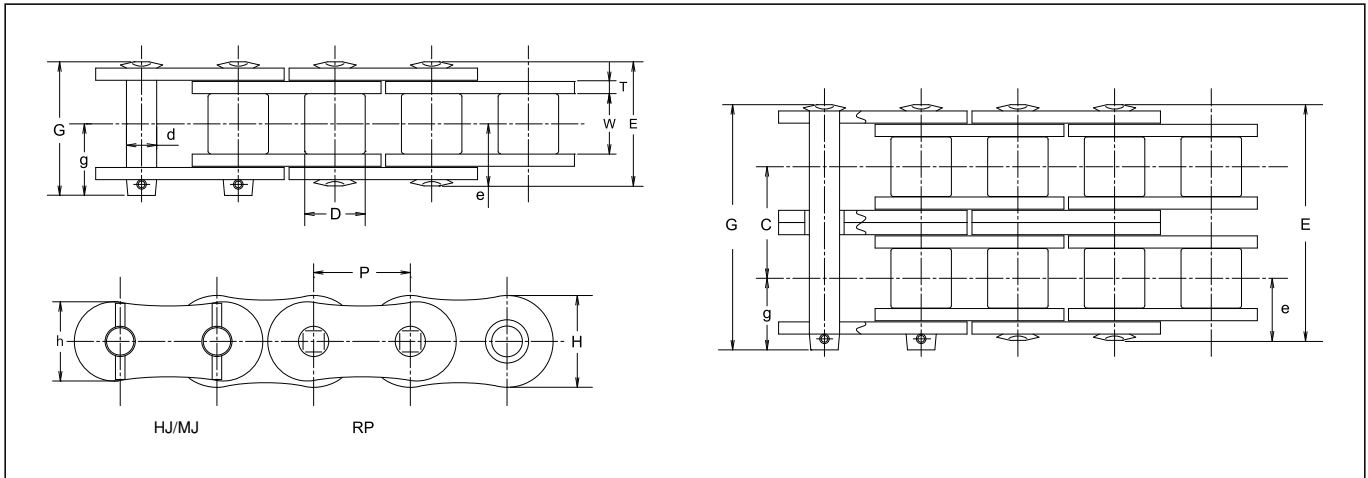
*Equivalent to ANSI

Max. kilowatt Ratings HI-PWR-S120

No. of Teeth of Small Sprocket	Small sprocket rpm (Refer to P132 for the details of lubrication A, B and C.)																							
	10		25		50		100		150		200		300		400		500		600		700		800	
	A		B		C		A		B		C		A		B		C		A		B		C	
11	2.53	5.79	10.8	20.2	29.0	37.6	54.2	63.6	63.6	60.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12	2.78	6.36	11.9	22.2	31.9	41.3	59.5	69.8	69.8	69.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—
13	3.04	6.93	12.9	24.2	34.8	45.1	64.9	78.3	78.3	78.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
14	3.29	7.51	14.0	26.2	37.7	48.8	70.3	87.5	87.5	87.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—
15	3.54	8.09	15.1	28.2	40.6	52.6	75.8	97.1	97.1	97.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
16	3.80	8.67	16.2	30.2	43.5	56.4	81.2	105	107	107	—	—	—	—	—	—	—	—	—	—	—	—	—	—
17	4.06	9.26	17.3	32.3	46.5	60.2	86.7	112	117	117	92.9	—	—	—	—	—	—	—	—	—	—	—	—	—
18	4.32	9.85	18.4	34.3	49.4	64.1	92.3	120	127	127	101	—	—	—	—	—	—	—	—	—	—	—	—	—
19	4.58	10.4	19.5	36.4	52.4	67.9	97.8	127	135	135	110	—	—	—	—	—	—	—	—	—	—	—	—	—
20	4.84	11.0	20.6	38.5	55.4	71.8	103	134	143	143	119	—	—	—	—	—	—	—	—	—	—	—	—	—
21	5.10	11.6	21.7	40.5	58.4	75.7	109	141	151	151	128	—	—	—	—	—	—	—	—	—	—	—	—	—
22	5.36	12.2	22.8	42.6	61.4	79.6	115	148	158	158	137	—	—	—	—	—	—	—	—	—	—	—	—	—
23	5.63	12.8	24.0	44.7	64.4	83.5	120	156	166	166	146	—	—	—	—	—	—	—	—	—	—	—	—	—
24	5.89	13.4	25.1	46.8	67.5	87.4	126	163	174	174	156	—	—	—	—	—	—	—	—	—	—	—	—	—
25	6.16	14.1	26.2	48.9	70.5	91.3	132	170	182	182	166	—	—	—	—	—	—	—	—	—	—	—	—	—
30	7.50	17.1	31.9	59.6	85.8	111	160	208	221	221	218	—	—	—	—	—	—	—	—	—	—	—	—	—
32	8.04	18.3	34.2	63.9	92.0	119	172	222	237	237	237	—	—	—	—	—	—	—	—	—	—	—	—	—
35	8.86	20.2	37.7	70.4	101	131	189	245	261	261	261	—	—	—	—	—	—	—	—	—	—	—	—	—
40	10.2	23.3	43.6	81.3	117	152	219	283	302	302	302	—	—	—	—	—	—	—	—	—	—	—	—	—
45	11.6	26.5	49.5	92.3	133	172	248	322	360	360	360	—	—	—	—	—	—	—	—	—	—	—	—	—

Note: Values in the above table are for simplex chain only. For multiplex chains, please multiply the coefficient of multi-strand. (See "Chain Selection" on P122.)

DID HI-PWR-S140 (Please refer to P39 for sprocket)



Dimensions

Chain No.		Pitch P	Roller link width W	Roller dia. D	Pin					Transverse Pitch C	Plate			DID Min. Tensile Strength		DID Avg. Tensile Strength		DID Max. Allowable Load		Approx. Weight (kg/m)
DID	ANSI*				d	E	G	e	g		T	H	h	kN	kgf	kN	kgf	kN	kgf	
DID HI-PWR-S 140	140					53.6	58.4							216	21,930	245	24,870	53.9	5,470	7.71
DID HI-PWR-S 140-2	140-2	44.45	25.40	25.40	12.71	102.6	107.4	26.8	31.7	48.9	5.6	42.2	36.3	432	43,860	490	49,750	91.7	9,310	15.3
DID HI-PWR-S 140-3	140-3					151.5	156.3							648	65,790	735	74,620	134	13,600	22.9

Note: The values of average tensile strength and maximum allowable tension are for chains.

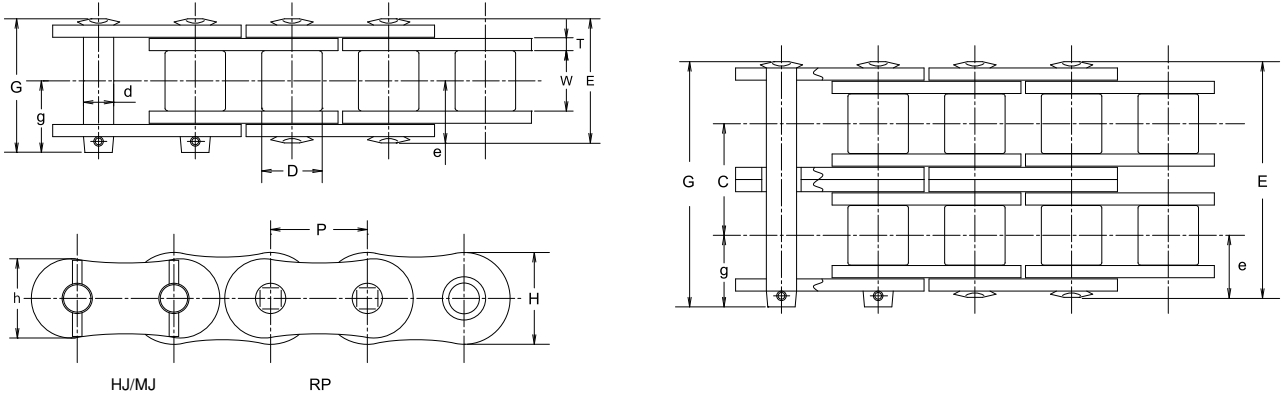
*Equivalent to ANSI

Max. kilowatt Ratings HI-PWR-S140

No. of Teeth of Small Sprocket	Small sprocket rpm (Refer to P132 for the details of lubrication A, B and C.)														Unit (kW)																
	10		25		50		100		150		200		250			300		350		400		450		500		550		600			
	A		B		C		A		B		C		A			B		C		A		B		C		A		B		C	
11	3.97	9.05	16.9	31.5	45.4	58.9	72.0	84.8	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	68.9
12	4.36	9.95	18.6	34.7	49.9	64.7	79.0	93.1	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	78.6
13	4.75	10.8	20.2	37.8	54.4	70.5	86.2	102	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	88.6
14	5.15	11.8	21.9	40.9	59.0	76.4	93.4	110	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	99.0
15	5.55	12.7	23.6	44.1	63.5	82.3	101	119	136	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137	110
16	5.95	13.6	25.3	47.3	68.1	88.2	108	127	146	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	121
17	6.35	14.5	27.1	50.5	72.7	94.2	115	136	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	132
18	6.75	15.4	28.8	53.7	77.3	100	122	144	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166	144
19	7.16	16.3	30.5	56.9	82.0	106	130	153	176	178	178	178	178	178	178	178	178	178	178	178	178	178	178	178	178	178	178	178	178	178	157
20	7.57	17.3	32.2	60.2	86.7	112	137	162	186	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	169
21	7.98	18.2	34.0	63.4	91.3	118	145	170	196	207	207	207	207	207	207	207	207	207	207	207	207	207	207	207	207	207	207	207	207	207	182
22	8.39	19.2	35.7	66.7	96.1	124	152	179	206	222	222	222	222	222	222	222	222	222	222	222	222	222	222	222	222	222	222	222	222	222	195
23	8.80	20.1	37.5	70.0	101	131	160	188	216	236	236	236	236	236	236	236	236	236	236	236	236	236	236	236	236	236	236	236	236	236	208
24	9.22	21.0	39.3	73.3	106	137	167	197	226	247	247	247	247	247	247	247	247	247	247	247	247	247	247	247	247	247	247	247	247	247	222
25	9.63	22.0	41.0	76.6	110	143	175	206	236	259	259	259	259	259	259	259	259	259	259	259	259	259	259	259	259	259	259	259	259	259	236
30	11.7	26.8	50.0	93.2	134	174	213	251	288	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	311
32	12.6	28.7	53.6	100	144	187	228	269	309	342	342	342	342	342	342	342	342	342	342	342	342	342	342	342	342	342	342	342	342	342	342
35	13.9	31.6	59.0	110	159	205	251	296	340	383	391	391	391	391	391	391	391	391	391	391	391	391	391	391	391	391	391	391	391	391	391
40	16.0	36.5	68.2	127	183	237	290	342	393	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	—
45	18.2	41.5	77.4	144	208	270	329	388	446	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	—

Note: Values in the above table are for simplex chain only. For multiplex chains, please multiply the coefficient of multi-strand. (See "Chain Selection" on P122.)

DID HI-PWR-S160 (Please refer to P41 for sprocket)



Dimensions

Chain No.		Pitch P	Roller link width W	Roller dia. D	Pin					Transverse Pitch C	Plate			DID Min. Tensile Strength		DID Avg. Tensile Strength		DID Max. Allowable Load		Approx. Weight (kg/m)
DID	ANSI*				d	E	G	e	g		T	H	h	kN	kgf	kN	kgf	kN	kgf	
DID HI-PWR-S 160	160					63.6	68.2							273	27,720	313	31,780	70.6	7,170	10.5
DID HI-PWR-S 160-2	160-2	50.80	31.75	28.58	14.29	122.2	126.8	31.9	36.5	58.5	6.4	48.2	41.4	546	55,430	626	63,550	120	12,180	20.8
DID HI-PWR-S 160-3	160-3					180.8	185.4							819	83,150	939	95,330	176	17,870	31.2

Note: The values of average tensile strength and maximum allowable tension are for chains.

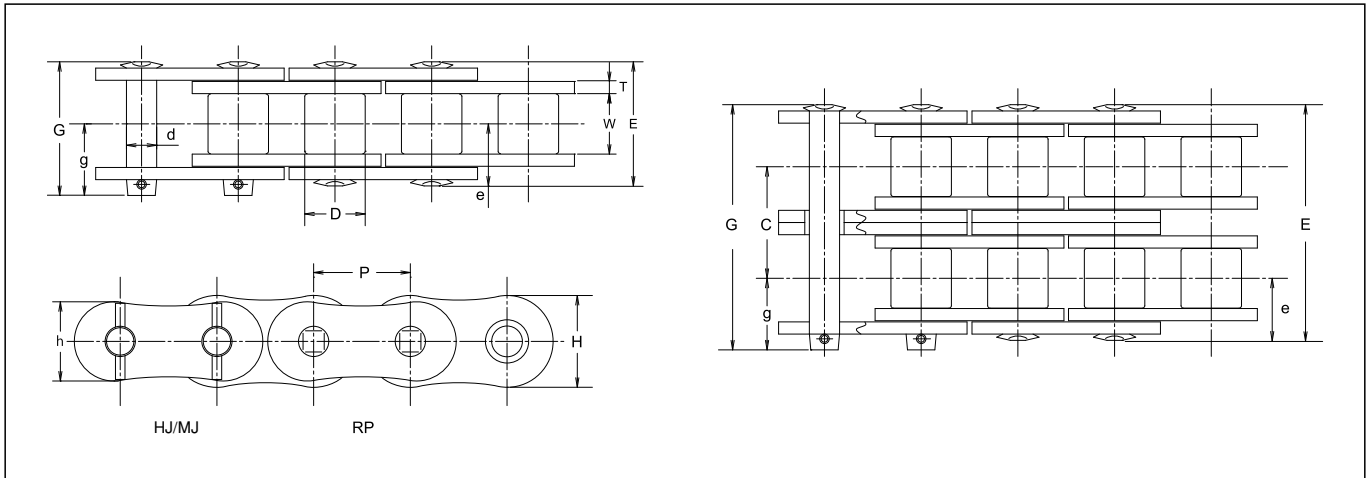
*Equivalent to ANSI

Max. kilowatt Ratings HI-PWR-S160

No. of Teeth of Small Sprocket	Small sprocket rpm (Refer to P132 for the details of lubrication A, B and C.)																									
	10		25		50		100		150		200		250		300		350		400		450		500		550	
	A		B		B		B		B		B		B		B		C		C		C		C		C	
11	5.94	13.6	25.3	47.2	68.0	88.1	108	118	118	118	118	118	101	—	—	—	—	—	—	—	—	—	—	—	—	—
12	6.53	14.9	27.8	51.9	74.7	96.8	118	135	135	135	135	135	115	—	—	—	—	—	—	—	—	—	—	—	—	—
13	7.12	16.2	30.3	56.6	81.5	106	129	148	148	148	148	148	130	—	—	—	—	—	—	—	—	—	—	—	—	—
14	7.71	17.6	32.8	61.3	88.3	114	140	161	161	161	161	161	145	—	—	—	—	—	—	—	—	—	—	—	—	—
15	8.31	19.0	35.4	66.0	95.1	123	151	173	173	173	173	173	161	—	—	—	—	—	—	—	—	—	—	—	—	—
16	8.91	20.3	37.9	70.8	102	132	161	186	186	186	186	186	177	—	—	—	—	—	—	—	—	—	—	—	—	—
17	9.51	21.7	40.5	75.6	109	141	172	198	198	198	198	198	194	—	—	—	—	—	—	—	—	—	—	—	—	—
18	10.1	23.1	43.1	80.4	116	150	183	211	211	211	211	211	211	—	—	—	—	—	—	—	—	—	—	—	—	—
19	10.7	24.5	45.7	85.2	123	159	194	229	229	229	229	229	229	198	—	—	—	—	—	—	—	—	—	—	—	—
20	11.3	25.9	48.3	90.1	130	168	205	242	247	247	247	247	247	211	—	—	—	—	—	—	—	—	—	—	—	—
21	12.0	27.3	50.9	94.9	137	177	217	255	266	266	266	266	266	229	—	—	—	—	—	—	—	—	—	—	—	—
22	12.6	28.7	53.5	99.8	144	186	228	268	285	285	285	285	285	247	—	—	—	—	—	—	—	—	—	—	—	—
24	13.8	31.5	58.8	110	158	205	250	295	316	316	316	316	316	266	—	—	—	—	—	—	—	—	—	—	—	—
25	14.4	32.9	61.4	115	165	214	261	308	330	330	330	330	330	285	—	—	—	—	—	—	—	—	—	—	—	—
30	17.6	40.1	74.8	140	201	260	318	375	402	402	402	402	402	316	—	—	—	—	—	—	—	—	—	—	—	—
32	18.8	43.0	80.2	150	216	279	341	402	434	434	434	434	434	330	—	—	—	—	—	—	—	—	—	—	—	—
35	20.8	47.3	88.3	165	237	308	376	443	496	496	496	496	496	345	—	—	—	—	—	—	—	—	—	—	—	—
40	24.0	54.7	102	190	274	355	434	512	588	598	598	598	598	375	—	—	—	—	—	—	—	—	—	—	—	—
45	27.2	62.1	116	216	311	403	493	581	654	654	654	654	654	402	—	—	—	—	—	—	—	—	—	—	—	—

Note: Values in the above table are for simplex chain only. For multiplex chains, please multiply the coefficient of multi-strand. (See "Chain Selection" on P122.).

DID HI-PWR-S180 (Please refer to P43 for sprocket)



Dimensions

Chain No.		Pitch P	Roller link width W	Roller dia. D	Pin					Transverse Pitch C	Plate			DID Min. Tensile Strength		DID Avg. Tensile Strength		DID Max. Allowable Load		Approx. Weight (kg/m)
DID	ANSI*				d	E	G	e	g		T	H	h	kN	kgf	kN	kgf	kN	kgf	
DID HI-PWR-S 180	180					71.5	77.3							379	38,480	412	41,830	83.3	8,460	14.4
DID HI-PWR-S 180-2	180-2	57.15	35.72	35.71	17.46	137.4	143.2	35.8	41.6	65.8	7.1	54.3	46.6	758	76,950	824	83,650	141	14,310	28.6
DID HI-PWR-S 180-3	180-3					203.3	209.1							1,137	115,430	1,236	125,480	208	21,120	42.7

Note: The values of average tensile strength and maximum allowable tension are for chains.

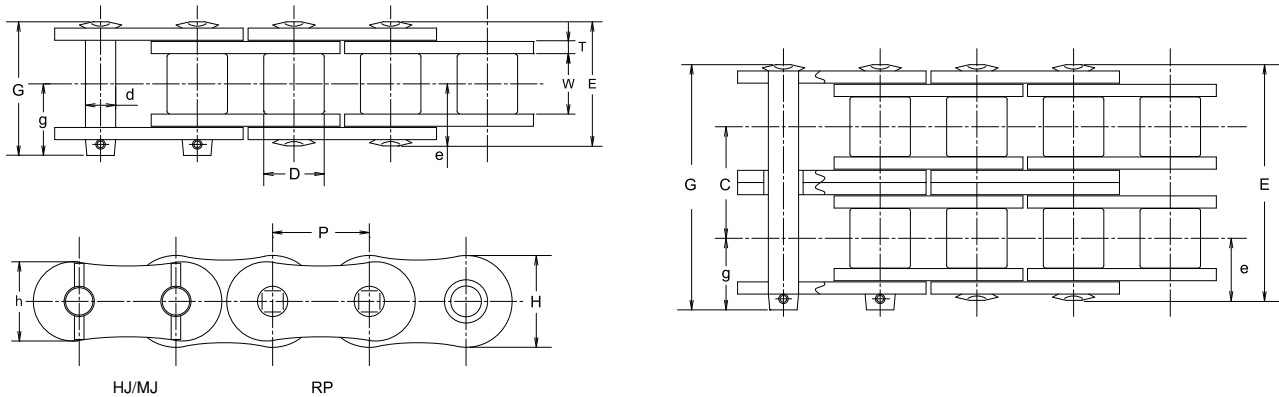
*Equivalent to ANSI

Max. kilowatt Ratings HI-PWR-S180

No. of Teeth of Small Sprocket	Small sprocket rpm (Refer to P132 for the details of lubrication A, B and C.)									
	10	25	50	100	150	200	250	300	350	400
	A		B			C				
13	8.88	20.3	37.8	70.6	102	132	154	154	154	—
14	9.62	22.0	41.0	76.5	110	143	167	167	167	—
15	10.4	23.7	44.2	82.4	119	154	180	180	180	—
16	11.1	25.4	47.3	88.4	127	165	193	193	193	—
17	11.9	27.1	50.6	94.3	136	176	206	206	206	—
18	12.6	28.8	53.8	100	145	187	219	219	219	—
19	13.4	30.5	57.0	106	153	198	232	232	232	—
20	14.2	32.3	60.2	112	162	210	256	277	277	277
21	14.9	34.0	63.5	119	171	221	270	292	292	292
22	15.7	35.8	66.8	125	180	233	284	307	307	307
24	17.2	39.3	73.4	137	197	255	312	337	337	337
26	18.8	42.9	80.0	149	215	279	340	368	368	368
30	21.9	50.0	93.4	174	251	325	397	429	429	429
35	25.9	59.1	110	206	296	384	469	506	506	506
40	29.9	68.3	127	238	342	444	542	585	585	585
45	34.0	77.5	145	270	389	504	616	660	660	660

Note: Values in the above table are for simplex chain only. For multiplex chains, please multiply the coefficient of multi-strand. (See "Chain Selection" on P122.)

DID HI-PWR-S200 (Please refer to P45 for sprocket)



Dimensions

Chain No.		Pitch P	Roller link width W	Roller dia. D	Pin					Transverse Pitch C	Plate			DID Min. Tensile Strength		DID Avg. Tensile Strength		DID Max. Allowable Load		Approx. Weight (kg/m)
DID	ANSI*				d	E	G	e	g		T	H	h	kN	kgf	kN	kgf	kN	kgf	
DID HI-PWR-S 200	200					77.9	85.0							460	46,700	500	50,760	98.1	9,960	17.5
DID HI-PWR-S 200-2	200-2	63.50	38.10	39.68	19.85	149.6	156.6	39.0	46.0	71.6	8.0	60.3	52.0	920	93,400	1,000	101,520	166	16,850	34.7
DID HI-PWR-S 200-3	200-3					221.3	228.3							1,380	140,100	1,500	152,280	245	24,870	52.0

Note: The values of average tensile strength and maximum allowable tension are for chains.

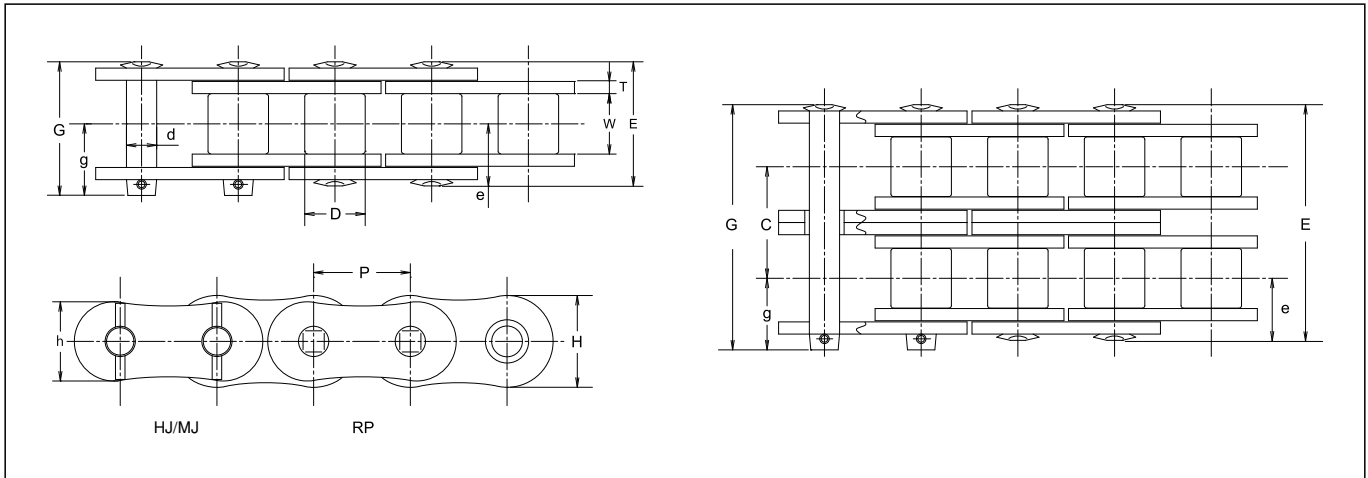
*Equivalent to ANSI

Max. kilowatt Ratings HI-PWR-S200

No. of Teeth of Small Sprocket	Small sprocket rpm (Refer to P132 for the details of lubrication A, B and C.)																							
	10		15		20		30		40		50		60		80		100		150		200		250	
	A						B						C											
13	12.4	17.8	23.1	33.2	43.1	52.6	62.0	80.4	98.2	141	183	194												
14	13.4	19.3	25.0	36.0	46.7	57.0	67.2	87.1	106	153	199	211												
15	14.4	20.8	26.9	38.8	50.3	61.4	72.4	93.8	115	165	214	234												
16	15.5	22.3	28.9	41.6	53.9	65.9	77.6	101	123	177	229	258												
17	16.5	23.8	30.8	44.4	57.5	70.3	82.9	107	131	189	245	283												
18	17.6	25.3	32.8	47.2	61.2	74.8	88.2	114	140	201	261	308												
19	18.6	26.8	34.8	50.1	64.9	79.3	93.5	121	148	213	276	334												
20	19.7	28.4	36.7	52.9	68.6	83.8	98.8	128	156	225	292	355												
21	20.8	29.9	38.7	55.8	72.3	88.4	104	135	165	238	308	374												
22	21.8	31.4	40.7	58.7	76.0	92.9	109	142	173	250	324	393												
24	24.0	34.5	44.7	64.5	83.5	102	120	156	190	274	355	432												
26	26.1	37.7	48.8	70.3	91.0	111	131	170	208	299	388	—												

Note: Values in the above table are for simplex chain only. For multiplex chains, please multiply the coefficient of multi-strand. (See "Chain Selection" on P122.)

DID HI-PWR-S240 (Please refer to P47 for sprocket)



Dimensions

Chain No.		Pitch P	Roller link width W	Roller dia. D	Pin					Transverse Pitch C	Plate				DID Min. Tensile Strength		DID Avg. Tensile Strength		DID Max. Allowable Load		Approx. Weight (kg/m)
DID	ANSI*				d	E	G	e	g		T	H	h	kN	kgf	kN	kgf	kN	kgf		
DID HI-PWR-S 240	240					95.2	102.9								667	67,720	725	73,600	132	13,400	24.7
DID HI-PWR-S 240-2	240-2	76.20	47.63	47.63	23.81	183.1	190.7	47.7	55.3	87.8	9.50	72.3	62.0	1,334	135,430	1,450	147,210	225	22,840	49.0	
DID HI-PWR-S 240-3	240-3					270.9	278.5							2,001	203,150	2,175	220,810	331	33,600	73.3	

Note: The values of average tensile strength and maximum allowable tension are for chains.

*Equivalent to ANSI

Max. kilowatt Ratings HI-PWR-S240

No. of Teeth of Small Sprocket	Small sprocket rpm (Refer to P132 for the details of lubrication A, B and C.)																											
	5		10		15		20		25		30		40		50		60		80		100		125		150			
	A						B						C															
13	10.0	18.7	26.9	34.9	42.6	50.2	65.1	79.5	93.7	121	148	181	214															
14	10.8	20.2	29.2	37.8	46.2	54.4	70.5	86.2	102	132	161	197	232															
15	11.7	21.8	31.4	40.7	49.8	58.6	76.0	92.8	109	142	173	212	250															
16	12.5	23.4	33.7	43.6	53.3	62.9	81.4	99.5	117	152	186	227	268															
17	13.4	25.0	36.0	46.6	57.0	67.1	86.9	106	125	162	198	242	286															
18	14.2	26.6	38.3	49.6	60.6	71.4	92.5	113	133	173	211	258	304															
19	15.1	28.2	40.6	52.5	64.2	75.7	98.0	120	141	183	224	273	322															
20	15.9	29.8	42.9	55.5	67.9	80.0	104	127	149	193	236	289	340															
21	16.8	31.4	45.2	58.5	71.6	84.3	109	134	157	204	249	305	359															
22	17.7	33.0	47.5	61.6	75.2	88.7	115	140	165	214	262	320	—															
24	19.4	36.2	52.2	67.6	82.7	97.4	126	154	182	235	288	352	—															
26	21.2	39.5	56.9	73.7	90.1	106	138	168	198	257	314	384	—															

Note: Values in the above table are for simplex chain only. For multiplex chains, please multiply the coefficient of multi-strand. (See "Chain Selection" on P122.)