Chain Power Transmission Tables

Power Transmission capacities of the KCM products shown in this catalog are determined under the following conditions:

1) Operation at – 10℃ to +60℃ in the atmosphere free from abrasive dirt.
2) No corrosive gas and high humidity.
3) Two sprockets on which roller chain is mounted are properly aligned on parallel and level shafts.
4) Use of lubricant and lubrication method.
5) Less loading variations.

Multiple strand factor (Table 1)

Power transmission capacity of multiple strand roller chain is not equal to the number of strands times that of single strand roller chain, because the load is not evenly distributed to respective strands of roller chains. Therefore, power transmission capacity of multiple strand roller chain is determined by multiplying that of single strand roller chain by multiple strand factor.

Service factor (Table 2)

Actual power transmission capacity is adjusted according to the degree of loading variations, because the power transmission capacity tables are prepared on condition that loading variations are small.

Quick Selection Chart

How to Use:

EXAMPLE: Single strand roller chain with 5kW compensated chain drive power.

1. When smaller sprocket speed is 100 r/min

Find the intersection of 5kW vertical line of the compensated chain drive power and 100 r/min horizontal line of the smaller sprocket speed in the quick selection chart. You'll find that the chain is KCM80, and number of sprocket teeth is between 16T and 20T, judging as 17T from the exact location of the intersection.

2. When smaller sprocket speed is 300 r/min

1) Find the intersection in the same way as 1, you'll find that the chain is KCM60, and number of sprocket teeth is 13T to 18T, judging as 15T from the exact location of the intersection that is closed to 13T. Also, you'll find that there is KCM50-24T line (dotted) near this intersection. This means you can use either KCM60-15T and KCM50-24T.

After tentatively making quick selection with this chart confirm the selected sprocket is appropriate with reference to the power transmission capacity tables.

2) For power transmission capacity lines of 20T, 24T, and 30T, only its high speed portions are shown to simplify the quick selection chart. For lower speed portions, extend a line in parallel to the lines, just like a dotted line of KCM50-24T.

3) For chain speeds of 50 m/min or lower, it is economical to make selection by "Low speed selection method" described later.

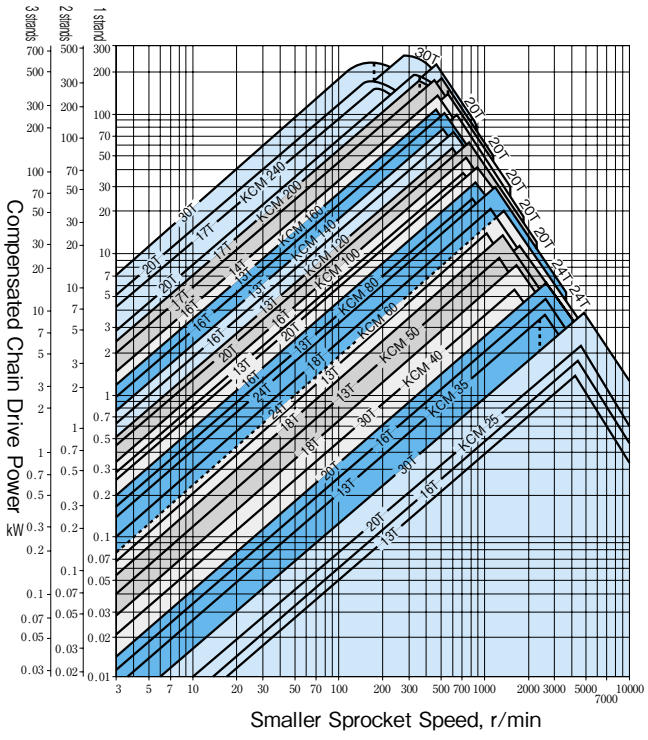
Table 1: Multiple Strand Factor

No. of Chain Strands	Multiple Strand factor
2 strands	1.7
3 strands	2.5
4 strands	3.3
5 strands	3.9
6 strands	4.6

Table 2: Service Factor

Load	Prime mover / Driven machine	Motor turbine	Combustion engine	
			W/hyd. equipment	W/o hyd. equipment
Smooth loading	Belt conveyor, subjected to small loading variation, chain conveyor, centrifugal pump, centrifugal blower, textile machine and other machinery subjected to small loading variation.	1.0	1.0	1.2
With some shocks	Centrifugal compressor, marine propulsion system, conveyer subjected to some loading variations, automatic furnace, drier, crusher, machine tool , compressor, construction and civil engineering machinery, and papermaking machine	1.3	1.2	1.4
With heavy shocks	Press, crusher, mining machinery, vibratory machine, oil-well machinery, rubber mixer, roll, roll gang, and other machinery subjected to reversing load or heavy shock.	1.5	1.4	1.7

Table 3: Quick Selection Chart



General Roller Chain Selection Method

For roller chain transmission, it is important to select appropriate roller chain and sprockets.

1) Power to be transmitted

2) Compensated chain drive power

Determine the compensated chain drive power by multiplying the power to be transmitted by service factor shown in Table 2 according to the driven machine and prime mover. If the desired transmission power cannot be achieved with single strand chain, select multiple strand chain in this case. It is required to make compensation with multiple strand factor listed in Table 1 as follows.

○ Single strand chain:
Compensated chain drive power = Power to be transmitted x Service factor

○ Multiple strand chain:

$$\text{Compensated chain drive power} = \frac{\text{Power to be transmitted} \times \text{Service factor}}{\text{Multiple strand factor}}$$

3) Speeds of drive and driven shafts:

Determine appropriate roller chain and number of teeth of smaller sprocket from Table 3 "Quick Selection Chart" according to the speed (r/min) of higher-speed shaft (drive shaft in case of deceleration and driven shaft in acceleration) and compensated chain drive power.

In this case, it is recommended to select a chain with pitches as small as possible for smooth and quiet operation.

4) Shaft diameter and boss diameter:

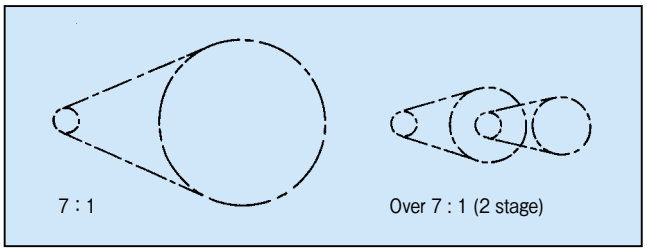
After determining the number of teeth of smaller sprocket, refer to Sprocket dimensions tables on pages 73 to 86 to find boss diameter and maximum bore diameter. If the bore diameter is less than the actual shaft diameter, reselect the increased number of teeth of smaller sprocket so that the bore diameter matches the actual shaft diameter.

5) Speed ratio of both shafts

Determine the number of teeth of larger sprocket by multiplying the number of teeth of smaller sprocket by the RPM ratio (speed ratio) of smaller sprocket to larger sprocket. Here, note that the number of teeth of smaller sprocket must be 17 or more, and that of larger sprocket must be 114 or less.

When uniform load is transferred at low speed, it is possible to select a sprocket whose number of teeth is down to 13.

In roller chain drive, the speed ratio of smaller sprocket to larger sprocket is normally 7 : 1 or less. If larger speed ratio is required, select two or more stages for speed change.



6) Shaft-to-shaft distance

It is ideal that shaft-to-shaft distance is 30 to 50 times chain pitch employed, although both shafts are positioned close to each other just before engagement of both sprockets. If subjected to pulsating load, shaft-to-shaft distance must be 20 or less times chain pitch employed.

Special Selection Method

Low Speed Roller Chain Selection Method

When the chain speed is 50 m/min or less, follow the "Low Speed Roller Chain Selection Method", rather than "General Roller Chain Selection Method", described above, for economical operation.

This low speed roller chain selection method is suitable for smooth power transmission with less frequent starts and stops. Working conditions such as operating environment, arrangement and lubrication are similar to those of general roller chain selection method.

1) Chain Speed

$$V = \frac{P \cdot N \cdot n}{1000}$$

V: Chain speed, m/min
P: Chain pitch, mm
N: Number of teeth of smaller sprocket
n: Number of r/min of smaller sprocket. r/min

2) Load acting on roller chain

$$F = \frac{6120 \cdot kW}{V}$$

F: Max. load acting on roller chain, kgf
kW: Transmission Power, kW

3) Max. acting load and max. allowable load

Max. load acting on chain × Service factor Table 2 × Speed factor Table 4 ≦ Max. allowable load of roller chain (kgf)

Table 4: Speed Factor

Chain Speed	Speed Factor
15m/min or less	1.0
15 to 30m/min	1.2
30 to 50m/min	1.4

If the foregoing equation is not satisfied, change the size of roller chain and the number of teeth of sprocket, and try to recheck if the equation is satisfied or not.

4) For low-speed application subjected to frequent starts and stops or braking and shocks, contact us.

Required Roller Chain Length

The required roller chain length (number of pitches) can be determined by the following equation, using center-to-center distance between shafts and number of teeth of sprocket.

$$L_P = \frac{N_1 + N_2}{2} + 2C_P + \frac{\{(N_2 - N_1)/2\pi\}^2}{C_P}$$

L_P: Overall roller chain length (no. of pitches)
N_1: Number of teeth of smaller sprocket
N_2: Number of teeth of larger sprocket
C_P: Center-to-center distance between shafts (no. of pitches)

$\{(N_2 - N_1)/2\pi\}^2$ can be found from the table below.

N_2-N_1	$\{(N_2-N_1)/2\pi\}^2$	N_2-N_1	$\{(N_2-N_1)/2\pi\}^2$	N_2-N_1	$\{(N_2-N_1)/2\pi\}^2$
1	0.03	35	31.06	69	120.72
2	0.10	36	32.86	70	124.24
3	0.23	37	34.71	71	127.82
4	0.41	38	36.61	72	131.45
5	0.63	39	38.57	73	135.12
6	0.91	40	40.57	74	138.85
7	1.24	41	42.62	75	142.63
8	1.62	42	44.73	76	146.46
9	2.05	43	46.88	77	150.34
10	2.54	44	49.09	78	154.27
11	3.07	45	51.35	79	158.25
12	3.65	46	53.65	80	162.28
13	4.29	47	56.01	81	166.36
14	4.97	48	58.42	82	170.49
15	5.71	49	60.88	83	174.68
16	6.49	50	63.39	84	178.91
17	7.33	51	65.95	85	183.20
18	8.22	52	68.56	86	187.53
19	9.15	53	71.22	87	191.92
20	10.14	54	73.94	88	196.36
21	11.18	55	76.70	89	200.84
22	12.27	56	79.52	90	205.38
23	13.41	57	82.38	91	209.97
24	14.61	58	85.30	92	214.61
25	15.85	59	88.26	93	219.30
26	17.14	60	91.28	94	224.05
27	18.48	61	94.35	95	228.84
28	19.88	62	97.47	96	233.68
29	21.32	63	100.64	97	238.57
30	22.82	64	103.86	98	243.52
31	24.37	65	107.13	99	248.51
32	25.96	66	110.45	100	253.56
33	27.61	67	113.82		
34	29.31	68	117.25		

NOTE: Lp (number of pitches), determined by the equation above, is not integer, almost having fraction part. Therefore, it is necessary to round up the fraction part to obtain integer.
If the round-up integer is odd number, use an offset link, but even number is preferable.

Center-to-center Distance between Drive and Driven Shafts

The required roller chain length (number of pitches) determined at left is just approximation, which does not coincide with arbitrary center-to-center distance of drive and driven shafts. Therefore, it is required to obtain accurate center-to-center distance of drive and driven shafts by making calculation based on the required roller chain length equation.

$$C_P = \frac{1}{4}\left\{L_P - \frac{N_1 + N_2}{2} + \sqrt{\left(L_P - \frac{N_1 + N_2}{2}\right)^2 - \frac{2}{\pi^2}(N_2 - N_1)^2}\right\}$$

C_P : Center-to-center distance between shafts (no. of pitches)
L_P : Overall roller chain length (no. of pitches)
N_1 : Number of teeth of smaller sprocket
N_2 : Number of teeth of larger sprocket

$\frac{2}{\pi^2}(N_2 - N_1)^2$ can be found from the table below.

N_2-N_1	$\frac{2}{\pi^2}(N_2-N_1)^2$	N_2-N_1	$\frac{2}{\pi^2}(N_2-N_1)^2$	N_2-N_1	$\frac{2}{\pi^2}(N_2-N_1)^2$
1	0.20	35	248.49	69	965.76
2	0.81	36	262.89	70	993.96
3	1.83	37	277.70	71	1022.56
4	3.25	38	292.91	72	1051.56
5	5.07	39	308.53	73	1080.98
6	7.30	40	324.56	74	1110.80
7	9.94	41	340.99	75	1141.19
8	12.98	42	357.82	76	1171.65
9	16.43	43	375.07	77	1202.69
10	20.28	44	392.71	78	1234.13
11	24.54	45	410.77	79	1265.97
12	29.21	46	429.23	80	1298.23
13	34.28	47	448.09	81	1330.88
14	39.76	48	467.36	82	1363.95
15	45.64	49	487.04	83	1397.42
16	51.93	50	507.12	84	1431.29
17	58.62	51	527.61	85	1465.58
18	65.72	52	548.50	86	1500.26
19	73.23	53	569.80	87	1535.36
20	81.14	54	591.50	88	1570.85
21	89.46	55	613.61	89	1606.76
22	98.18	56	636.13	90	1643.07
23	107.31	57	659.05	91	1679.78
24	116.84	58	682.38	92	1716.90
25	126.78	59	706.11	93	1754.43
26	137.13	60	730.25	94	1792.36
27	147.88	61	754.80	95	1830.70
28	159.03	62	779.75	96	1869.45
29	170.60	63	805.10	97	1908.60
30	182.56	64	830.86	98	1948.15
31	194.94	65	857.03	99	1988.11
32	207.92	66	883.61	100	2028.48
33	220.90	67	910.58		
34	234.49	68	937.97		

Use in Severe Working Conditions

1. Application at High Temperature

If the chain is heated, its strength and wear resistance are decreased.

Table 5: Atmospheric temperature and strength

Atmospheric temp. (℃)	Strength
Up to -30	Allowable tensile force described in catalog ×0.25
-30 to -20	〃 ×0.30
-10 to 150	〃 ×1
150 to 200	〃 ×0.75
200 to 250	〃 ×0.5

2. Use in Corrosive Atmosphere

For use in alkalic or acidic environment, it is required to use the chain made of material having high corrosion resistance, for instance, stainless steel. Note that corrosion resistance of stainless steel may be decreased significantly according to kinds of liquid and gas, and operating temperatures, similar to common chains.

Installation

(A) Arrangement of Shafts

Horizontal arrangement:

Even if both shafts are arranged horizontally, pay due attention to rotational direction of the shafts. In cases of Fig. (2) and (3), there is a fear that the chain, if elongated, cannot smoothly depart from the teeth of the sprockets and can be seized by sprockets. Particularly, in the case of fig. (3), there is a fear that the upper and lower chain parts make contact; use an idler at mid-span between shafts as shown.

Vertical arrangement:

The chain, if elongated, will be deflected as illustrated in Fig. (5). Particularly, if a smaller sprocket is located at the bottom side, there is a concern that the chain can disengage from the sprocket. To avoid disengagement, it is required that the line linking centers of both shafts is at 60 or less to horizontal line, as illustrated in Fig. (4). If this arrangement is not allowed due to limitation of mechanism or space, it is recommended to arrange a larger sprocket at the lower side, and an idler inside or outside the chain as illustrated in Fig. (6).

(B) Sag

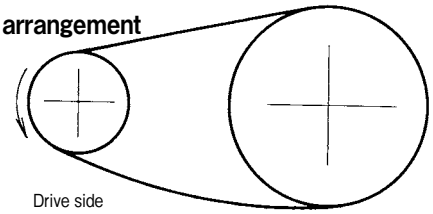
Sag of the chain is approximately 4% of shaft-to-shaft distance, and approximately 2% of that in the following cases.

1) Vertical arrangement or similar arrangement.
2) Shaft-to-shaft distance is 1 m or longer.
3) Frequent starts and stops under heavy load.
4) Reversing operation

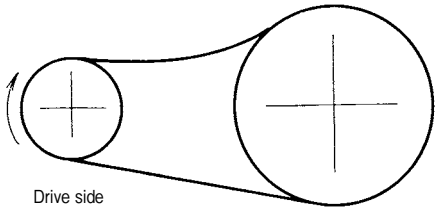
(C) Varying loads

It is required to place a tesioner on the tensed side or slackened side of the chain to give pre-tension. This eliminates vibration in operation and reduces noise.

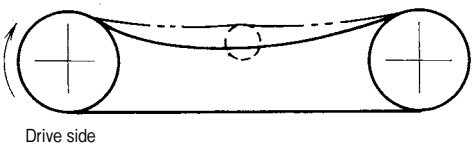
Horizontal arrangement



(1) Good

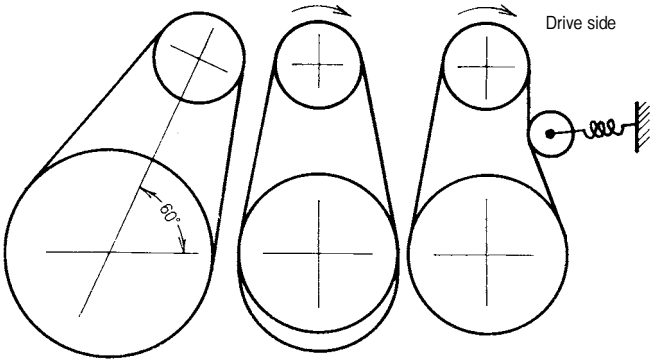


(2) Wrong



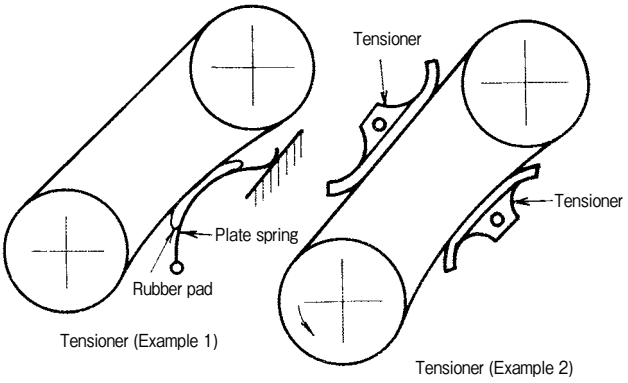
(3) Wrong (Change rotating direction or use an idler.)

Vertical arrangement:



(4) Good (5) (6)

Examples of Tensioners



Tensioner (Example 1) Tensioner (Example 2)

LUBRICATION FOR ROLLER CHAINS

Lubrication is of prime importance for roller chains, because it greatly influences its service life, especially in modern high-speed chain drives. Therefore, the use of highly efficient lubrication is required.

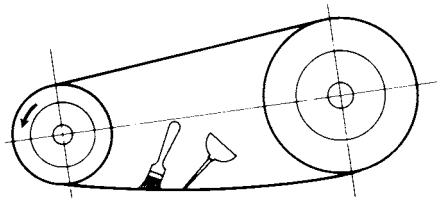
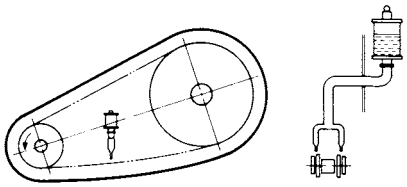
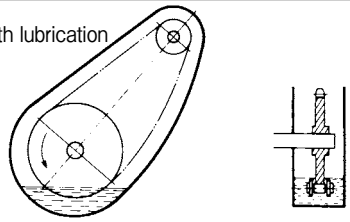
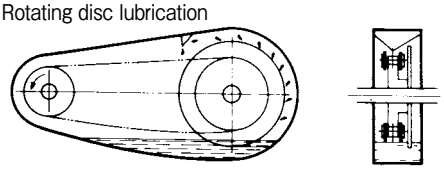
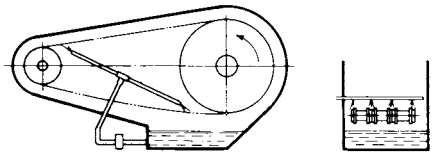
Effect of Lubrication

When lubricant is applied clearances among pin, bush, and roller, oil film is formed to prevent wear on parts and serve as a cushion, and absorbs heat generated in chain.
Recommended lubricant is high-quality mineral oil.

Recommended lubricants

Lubrication Type	A・B				C			
Temp (℃) / KCM Chain No.	−10 ～ 0	0 ～ 40	40 ～ 50	50 ～ 60	−10 ～ 0	0 ～ 40	40 ～ 50	50 ～ 60
KCM25 ～ 50	SAE10W	SAE20W	SAE30	SAE40	SAE10W	SAE20W	SAE30	SAE40
KCM60 ～ 80	SAE20W	SAE30	SAE40	SAE50				
KCM100					SAE20W	SAE30	SAE40	SAE50
KCM120 or higher	SAE30	SAE30	SAE50					

Lubrication Types (These also appear in Chain Power Transmission Tables)

Lubrication Type	Lubrication Method	Lubrication Intervals and Lubricant Amount	Remarks
A	Manual lubrication 	Periodic lubrication using oil feeder or brush at least once a day.	Feed lubricant to chain while turning it slowly. Here, continuously apply oil 3 to 4 times on full roller. Also, take care that your hand or cloth is not caught by chain drive. At start after lubrication, be careful that excessive oil will not splash.
	Drip lubrication 	Supply oil at 5 to 20 oil drops per minute.	It is recommended to provide simple casing against oil splash.
B	Oil bath lubrication 	Chain is submerged in oil at depth of 10mm.	Be careful to completely clean inside of container before use to remove foreign matter such as dirt. Also, pay attention to oil level not to increase.
	Rotating disc lubrication 	Rotating disc supplies oil on roller chain. Disc submerging depth is about 20mm and the circumferential speed is 200m/min or larger.	
C	Forced circulation lubrication  Oil pump	It is required to maintain proper oil amount to avoid overheating.	Be careful to completely clean inside of container before use to remove foreign matter such as dirt.

Chain Power Transmission Table (kW)

K.C.M.25(Single Strand Roller Chain)kW

No. of Teeth / Small Spkt.	Revolutions Per Minute - Small Sprocket (r/min)																								
	50	100	300	500	700	900	1200	1500	1800	2100	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	10000
9	0.01	0.03	0.09	0.13	0.19	0.23	0.31	0.37	0.43	0.50	0.59	0.69	0.79	0.76	0.64	0.54	0.47	0.42	0.37	0.33	0.30	0.27	0.25	0.22	0.19
10	0.02	0.04	0.10	0.16	0.21	0.26	0.34	0.42	0.48	0.56	0.66	0.78	0.89	0.90	0.75	0.64	0.55	0.48	0.43	0.39	0.35	0.31	0.29	0.26	0.22
11	0.02	0.04	0.10	0.17	0.23	0.29	0.37	0.46	0.54	0.62	0.73	0.86	0.98	1.03	0.87	0.74	0.64	0.56	0.50	0.45	0.40	0.37	0.34	0.31	0.26
12	0.02	0.04	0.12	0.19	0.25	0.32	0.41	0.51	0.60	0.69	0.80	0.94	1.08	1.17	0.98	0.84	0.72	0.64	0.57	0.51	0.46	0.42	0.38	0.35	0.30
13	0.03	0.04	0.13	0.20	0.28	0.35	0.45	0.55	0.65	0.75	0.87	1.03	1.18	1.32	1.11	0.95	0.82	0.72	0.64	0.57	0.51	0.47	0.43	0.40	0.34
14	0.03	0.05	0.14	0.22	0.30	0.37	0.48	0.60	0.70	0.81	0.95	1.11	1.28	1.44	1.24	1.06	0.92	0.81	0.72	0.64	0.57	0.52	0.48	0.44	0.37
15	0.03	0.06	0.15	0.24	0.32	0.40	0.52	0.64	0.75	0.87	1.01	1.20	1.38	1.55	1.37	1.17	1.01	0.90	0.79	0.71	0.64	0.58	0.53	0.48	0.42
16	0.03	0.06	0.16	0.25	0.35	0.43	0.57	0.69	0.81	0.93	1.09	1.28	1.48	1.66	1.51	1.29	1.12	0.98	0.87	0.78	0.70	0.64	0.58	0.54	0.46
17	0.04	0.07	0.17	0.28	0.37	0.46	0.60	0.74	0.87	0.99	1.16	1.37	1.57	1.78	1.66	1.42	1.22	1.07	0.95	0.85	0.77	0.70	0.64	0.59	0.50
18	0.04	0.07	0.19	0.29	0.40	0.49	0.64	0.78	0.93	1.06	1.24	1.46	1.68	1.89	1.81	1.54	1.34	1.17	1.04	0.93	0.84	0.76	0.69	0.64	0.54
19	0.04	0.07	0.19	0.31	0.42	0.52	0.68	0.83	0.98	1.12	1.31	1.54	1.78	2.01	1.95	1.67	1.45	1.27	1.13	1.01	0.91	0.83	0.75	0.69	0.59
20	0.04	0.07	0.21	0.33	0.44	0.55	0.72	0.87	1.03	1.19	1.39	1.63	1.88	2.12	2.11	1.81	1.57	1.37	1.22	1.09	0.98	0.90	0.81	0.75	0.64
21	0.04	0.08	0.22	0.34	0.46	0.58	0.75	0.93	1.09	1.25	1.46	1.72	1.98	2.23	2.28	1.94	1.69	1.48	1.31	1.17	1.06	0.96	0.87	0.81	0.69
22	0.04	0.08	0.23	0.36	0.49	0.61	0.80	0.97	1.14	1.31	1.54	1.81	2.08	2.35	2.44	2.08	1.81	1.58	1.40	1.26	1.13	1.03	0.94	0.87	0.74
23	0.04	0.09	0.24	0.38	0.51	0.64	0.84	1.02	1.20	1.38	1.61	1.90	2.19	2.46	2.61	2.22	1.93	1.69	1.50	1.34	1.21	1.10	1.01	0.93	0.79
24	0.05	0.10	0.25	0.40	0.54	0.67	0.87	1.07	1.26	1.45	1.69	1.99	2.29	2.58	2.78	2.37	2.06	1.81	1.60	1.43	1.29	1.17	1.07	0.98	0.84
25	0.05	0.10	0.26	0.42	0.56	0.70	0.91	1.12	1.31	1.51	1.77	2.08	2.39	2.69	2.95	2.52	2.19	1.92	1.70	1.52	1.37	1.25	1.14	1.04	0.90
26	0.05	0.10	0.28	0.43	0.59	0.73	0.95	1.16	1.37	1.57	1.84	2.17	2.49	2.81	3.13	2.68	2.32	2.04	1.81	1.62	1.45	1.32	1.21	1.11	0.95
28	0.06	0.11	0.30	0.47	0.63	0.80	1.03	1.26	1.48	1.71	2.00	2.35	2.70	3.05	3.39	2.99	2.59	2.28	2.01	1.81	1.63	1.48	1.35	1.24	1.06
30	0.06	0.12	0.32	0.51	0.69	0.86	1.11	1.36	1.60	1.84	2.15	2.54	2.91	3.28	3.65	3.32	2.87	2.52	2.24	2.00	1.81	1.64	1.50	1.37	1.17
32	0.07	0.13	0.34	0.54	0.73	0.92	1.19	1.45	1.72	1.97	2.31	2.72	3.12	3.52	3.92	3.66	3.17	2.78	2.46	2.21	1.99	1.81	1.65	1.51	1.29
35	0.07	0.14	0.38	0.60	0.81	1.01	1.31	1.60	1.89	2.17	2.54	2.99	3.44	3.88	4.31	4.18	3.63	3.18	2.82	2.52	2.28	2.07	1.89	1.73	1.48
40	0.09	0.16	0.43	0.69	0.93	1.17	1.51	1.85	2.19	2.51	2.93	3.46	3.97	4.48	4.98	5.11	4.42	3.89	3.45	3.08	2.78	2.52	2.31	2.11	1.81
45	0.10	0.19	0.49	0.78	1.06	1.33	1.72	2.10	2.48	2.85	3.33	3.92	4.51	5.09	5.65	6.09	5.28	4.63	4.11	3.68	3.32	3.01	2.75	2.52	2.16
Lubrication Type	A				B									C											

K.C.M.35(Single Strand Roller Chain)kW

No. of Teeth / Small Spkt.	Revolutions Per Minute - Small Sprocket (r/min)																								
	50	100	300	500	700	900	1200	1500	1800	2100	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	10000
9	0.06	0.11	0.29	0.46	0.63	0.79	1.02	1.25	1.48	1.69	1.98	1.62	1.29	1.05	0.88	0.75	0.66	0.57	0.51	0.46	0.41	0.37	0.34	0.31	0.27
10	0.07	0.12	0.33	0.52	0.71	0.89	1.15	1.40	1.65	1.89	2.22	1.90	1.51	1.23	1.04	0.88	0.77	0.67	0.60	0.53	0.48	0.43	0.40	0.37	0.31
11	0.07	0.13	0.37	0.57	0.78	0.98	1.27	1.55	1.83	2.10	2.46	2.19	1.74	1.42	1.19	1.02	0.88	0.78	0.69	0.61	0.55	0.50	0.46	0.43	0.36
12	0.08	0.15	0.40	0.63	0.86	1.07	1.40	1.71	2.01	2.31	2.70	2.50	1.98	1.62	1.36	1.16	1.01	0.88	0.78	0.70	0.63	0.57	0.52	0.48	0.41
13	0.09	0.16	0.44	0.69	0.94	1.17	1.52	1.86	2.19	2.52	2.95	2.81	2.24	1.83	1.53	1.31	1.13	0.99	0.88	0.79	0.71	0.65	0.59	0.54	0.46
14	0.10	0.18	0.47	0.75	1.01	1.28	1.65	2.01	2.37	2.73	3.19	3.15	2.50	2.04	1.72	1.46	1.27	1.11	0.98	0.88	0.80	0.72	0.66	0.60	0.51
15	0.10	0.19	0.51	0.81	1.10	1.37	1.78	2.17	2.56	2.94	3.44	3.49	2.77	2.27	1.90	1.62	1.40	1.23	1.10	0.98	0.88	0.80	0.73	0.67	0.57
16	0.11	0.20	0.54	0.87	1.17	1.47	1.90	2.33	2.75	3.15	3.69	3.84	3.05	2.50	2.10	1.79	1.55	1.36	1.21	1.08	0.97	0.88	0.81	0.74	0.63
17	0.12	0.22	0.58	0.93	1.25	1.57	2.04	2.48	2.93	3.36	3.94	4.21	3.34	2.74	2.29	1.95	1.69	1.49	1.32	1.18	1.07	0.97	0.88	0.81	0.69
18	0.13	0.23	0.62	0.98	1.33	1.67	2.16	2.64	3.12	3.58	4.19	4.59	3.64	2.98	2.50	2.13	1.85	1.62	1.44	1.29	1.16	1.05	0.96	0.88	0.75
19	0.13	0.25	0.66	1.04	1.41	1.77	2.29	2.80	3.30	3.80	4.44	4.98	3.95	3.23	2.71	2.31	2.01	1.76	1.56	1.40	1.26	1.14	1.04	0.95	0.82
20	0.14	0.26	0.69	1.10	1.49	1.87	2.42	2.96	3.49	4.01	4.69	5.37	4.27	3.49	2.94	2.50	2.16	1.90	1.69	1.51	1.36	1.23	1.13	1.04	0.88
21	0.15	0.28	0.73	1.16	1.57	1.97	2.55	3.13	3.68	4.23	4.95	5.78	4.59	3.75	3.15	2.69	2.33	2.04	1.81	1.62	1.46	1.33	1.21	1.11	0.95
22	0.16	0.28	0.77	1.22	1.66	2.07	2.69	3.28	3.87	4.47	5.20	6.12	4.92	4.03	3.37	2.88	2.50	2.19	1.95	1.74	1.57	1.42	1.30	1.19	1.02
23	0.16	0.30	0.81	1.28	1.74	2.18	2.82	3.45	4.06	4.66	5.45	6.43	5.26	4.30	3.60	3.08	2.67	2.34	2.08	1.86	1.68	1.52	1.39	1.28	1.09
24	0.17	0.31	0.85	1.34	1.82	2.28	2.95	3.61	4.25	4.89	5.71	6.73	5.60	4.59	3.84	3.28	2.84	2.50	2.22	1.98	1.79	1.62	1.48	1.36	1.16
25	0.18	0.33	0.89	1.40	1.90	2.38	3.08	3.77	4.44	5.10	5.97	7.03	5.96	4.88	4.09	3.49	3.02	2.66	2.36	2.10	1.90	1.72	1.57	1.45	1.23
26	0.19	0.34	0.93	1.46	1.98	2.48	3.22	3.93	4.63	5.33	6.23	7.34	6.32	5.17	4.33	3.70	3.21	2.81	2.50	2.24	2.01	1.83	1.67	1.53	1.31
28	0.20	0.37	1.00	1.58	2.15	2.69	3.48	4.26	5.02	5.77	6.75	7.98	7.06	5.78	4.84	4.14	3.59	3.15	2.79	2.50	2.25	2.04	1.87	1.72	1.46
30	0.22	0.40	1.08	1.71	2.31	2.90	3.75	4.59	5.41	6.21	7.27	8.58	7.83	6.41	5.37	4.59	3.98	3.49	3.10	2.77	2.50	2.27	2.07	1.90	1.62
32	0.23	0.43	1.16	1.83	2.48	3.11	4.02	4.92	5.80	6.60	7.76	9.18	8.65	7.06	5.92	5.05	4.38	3.84	3.41	3.05	2.75	2.50	2.28	2.10	0
35	0.25	0.48	1.28	2.01	2.73	3.42	4.44	5.42	6.39	7.34	8.58	10.1	9.85	8.06	6.77	5.78	5.01	4.40	3.90	3.49	3.15	2.86	2.61	2.40	0
40	0.29	0.54	1.47	2.33	3.16	3.95	5.13	6.27	7.38	8.50	9.92	11.7	12.1	9.85	8.28	7.06	6.12	5.37	4.77	4.27	3.84	3.49	0		
45	0.34	0.62	1.67	2.65	3.58	4.49	5.82	7.11	8.36	9.62	11.3	13.3	14.4	11.8	9.85	8.43	7.30	6.41	5.68	5.09	0				
Lubrication Type	A		B							C															

Lubrication Type A: Lubrication - Manual Oil Drip
B: Lubrication - Oil Bath
C: Lubrication - Oil Pump
See Lubrication Instructions on page 25.

See pages 21 to 24 for details on selecting chains or multiple strand roller chains.

Chain Power Transmission Table (kW)

K.C.M.41 (Single Strand Roller Chain)kW

No. of Teeth / Small Spkt.	Revolutions Per Minute - Small Sprocket (r/min)																								
	10	25	50	100	200	300	400	500	700	900	1000	1200	1400	1600	1800	2100	2400	2700	3000	3500	4000	5000	6000	7000	8000
9	0.01	0.04	0.07	0.14	0.27	0.38	0.49	0.60	0.82	1.03	1.13	0.95	0.75	0.61	0.51	0.41	0.34	0.28	0.24	0.19	0.16	0.11	0.08	0.07	0.05
10	0.02	0.04	0.08	0.16	0.30	0.43	0.55	0.68	0.92	1.15	1.27	1.11	0.88	0.72	0.60	0.48	0.40	0.33	0.28	0.22	0.18	0.13	0.10	0.08	0.06
11	0.02	0.05	0.10	0.18	0.33	0.48	0.61	0.75	1.02	1.28	1.40	1.28	1.01	0.83	0.69	0.55	0.46	0.38	0.32	0.25	0.21	0.15	0.11	0.09	0.07
12	0.03	0.05	0.10	0.19	0.37	0.52	0.68	0.83	1.12	1.40	1.54	1.45	1.16	0.95	0.79	0.63	0.51	0.43	0.37	0.29	0.24	0.17	0.13	0.10	0.08
13	0.03	0.06	0.11	0.21	0.40	0.57	0.74	0.90	1.22	1.53	1.68	1.64	1.31	1.07	0.90	0.71	0.58	0.48	0.42	0.33	0.27	0.19	0.15	0.12	0.10
14	0.03	0.07	0.12	0.23	0.43	0.62	0.80	0.98	1.32	1.66	1.82	1.84	1.45	1.19	1.00	0.79	0.65	0.54	0.46	0.37	0.30	0.22	0.16	0.13	0.10
15	0.03	0.07	0.13	0.25	0.46	0.66	0.86	1.05	1.42	1.78	1.96	2.04	1.62	1.32	1.11	0.88	0.72	0.60	0.51	0.41	0.34	0.24	0.18	0.14	0.12
16	0.03	0.07	0.14	0.27	0.49	0.71	0.93	1.13	1.53	1.92	2.10	2.25	1.78	1.45	1.22	0.97	0.79	0.66	0.57	0.45	0.37	0.26	0.20	0.16	0.13
17	0.04	0.08	0.15	0.28	0.53	0.76	0.98	1.20	1.63	2.04	2.25	2.45	1.95	1.60	1.34	1.06	0.87	0.73	0.62	0.49	0.40	0.29	0.22	0.17	0.14
18	0.04	0.09	0.16	0.30	0.56	0.81	1.04	1.28	1.73	2.17	2.39	2.68	2.13	1.74	1.45	1.16	0.95	0.79	0.68	0.54	0.44	0.31	0.24	0.19	0
19	0.04	0.09	0.17	0.32	0.60	0.86	1.11	1.36	1.84	2.31	2.54	2.90	2.31	1.89	1.58	1.25	1.03	0.86	0.73	0.58	0.48	0.34	0.26	0.21	0
20	0.04	0.10	0.18	0.34	0.63	0.90	1.17	1.43	1.94	2.43	2.68	3.13	2.48	2.04	1.71	1.35	1.11	0.93	0.79	0.63	0.51	0.37	0.28	0.22	0
21	0.04	0.10	0.19	0.36	0.66	0.95	1.24	1.51	2.04	2.57	2.82	3.33	2.68	2.19	1.84	1.45	1.19	1.00	0.85	0.68	0.55	0.40	0.30	0.24	0
22	0.04	0.10	0.20	0.37	0.69	1.01	1.30	1.59	2.16	2.70	2.97	3.50	2.87	2.35	1.97	1.56	1.28	1.07	0.92	0.72	0.60	0.43	0.32	0.25	0
23	0.04	0.11	0.21	0.40	0.73	1.05	1.37	1.67	2.26	2.83	3.11	3.67	3.07	2.51	2.10	1.67	1.37	1.15	0.98	0.78	0.63	0.46	0.34	0.28	0
24	0.05	0.12	0.22	0.41	0.77	1.10	1.43	1.75	2.36	2.96	3.26	3.84	3.27	2.68	2.25	1.78	1.45	1.22	1.04	0.83	0.68	0.48	0.37	0.29	0
25	0.05	0.13	0.23	0.43	0.80	1.16	1.49	1.83	2.47	3.10	3.41	4.01	3.48	2.84	2.39	1.89	1.55	1.30	1.11	0.88	0.72	0.51	0.40	0	
26	0.05	0.13	0.24	0.45	0.84	1.20	1.56	1.90	2.58	3.23	3.55	4.19	3.69	3.02	2.53	2.01	1.64	1.38	1.18	0.93	0.76	0.54	0.42	0	
28	0.06	0.14	0.26	0.48	0.90	1.31	1.69	2.07	2.79	3.50	3.85	4.54	4.12	3.37	2.83	2.25	1.84	1.54	1.31	1.04	0.85	0.61	0.46	0	
30	0.06	0.15	0.28	0.52	0.98	1.40	1.82	2.22	3.01	3.77	4.15	4.89	4.57	3.74	3.13	2.48	2.04	1.70	1.45	1.16	0.95	0.68	0.51	0	
32	0.07	0.16	0.30	0.56	1.04	1.51	1.95	2.39	3.23	4.04	4.45	5.24	5.04	4.12	3.45	2.74	2.25	1.88	1.60	1.28	1.04	0.75	0		
35	0.07	0.18	0.33	0.62	1.15	1.66	2.15	2.63	3.55	4.45	4.90	5.77	5.76	4.71	3.95	3.13	2.57	2.15	1.84	1.45	1.19	0.85	0		
40	0.09	0.20	0.38	0.72	1.33	1.92	2.48	3.04	4.10	5.15	5.66	6.67	7.03	5.76	4.83	3.83	3.13	2.63	2.25	1.78	1.45	1.04	0		
45	0.10	0.23	0.43	0.81	1.51	2.18	2.82	3.45	4.66	5.85	6.43	7.61	8.43	6.87	5.76	4.57	3.74	3.13	2.68	2.13	1.74	0			
Lubrication Type	A				B								C												

K.C.M.40 (Single Strand Roller Chain)kW

No. of Teeth / Small Spkt.	Revolutions Per Minute - Small Sprocket (r/min)																								
	10	25	50	100	200	300	400	500	700	900	1000	1200	1400	1600	1800	2100	2400	2700	3000	3500	4000	5000	6500	7000	8000
9	0.03	0.07	0.14	0.26	0.48	0.69	0.90	1.10	1.49	1.87	2.05	2.42	2.78	3.07	2.57	2.04	1.67	1.40	1.19	0.95	0.78	0.56	0.43	0.34	0.28
10	0.04	0.08	0.16	0.29	0.54	0.78	1.01	1.23	1.67	2.10	2.31	2.72	3.12	3.51	3.01	2.39	1.96	1.64	1.40	1.11	0.91	0.65	0.49	0.40	0.32
11	0.04	0.09	0.17	0.32	0.60	0.87	1.12	1.37	1.85	2.32	2.55	3.01	3.45	3.89	3.48	2.76	2.26	1.89	1.62	1.28	1.05	0.75	0.57	0.46	0.37
12	0.04	0.10	0.19	0.35	0.66	0.95	1.23	1.50	2.04	2.55	2.80	3.30	3.80	4.28	3.96	3.15	2.57	2.16	1.84	1.46	1.19	0.86	0.65	0.51	0.43
13	0.04	0.11	0.21	0.39	0.72	1.04	1.34	1.64	2.22	2.78	3.06	3.60	4.14	4.67	4.47	3.55	2.90	2.43	2.08	1.65	1.35	0.96	0.73	0.58	0.48
14	0.05	0.12	0.22	0.42	0.78	1.12	1.45	1.78	2.40	3.01	3.31	3.90	4.48	5.06	5.00	3.96	3.25	2.72	2.32	1.87	1.51	1.09	0.82	0.65	0.53
15	0.05	0.13	0.24	0.45	0.84	1.21	1.57	1.91	2.59	3.25	3.57	4.21	4.83	5.45	5.54	4.39	3.60	3.01	2.57	2.04	1.67	1.19	0.91	0.72	0.59
16	0.06	0.14	0.26	0.48	0.90	1.30	1.68	2.05	2.78	3.48	3.83	4.51	5.18	5.84	6.10	4.84	3.96	3.32	2.83	2.25	1.87	1.32	1.00	0.80	0.65
17	0.06	0.15	0.28	0.51	0.96	1.38	1.79	2.19	2.96	3.72	4.09	4.81	5.53	6.24	6.68	5.30	4.34	3.64	3.11	2.47	2.02	1.45	1.10	0.87	0.72
18	0.07	0.16	0.29	0.54	1.02	1.47	1.90	2.33	3.15	3.95	4.34	5.12	5.88	6.63	7.28	5.78	4.73	3.96	3.39	2.69	2.20	1.57	1.19	0.95	0
19	0.07	0.16	0.31	0.58	1.09	1.56	2.02	2.47	3.34	4.19	4.60	5.42	6.24	7.03	7.83	6.27	5.13	4.30	3.67	2.92	2.39	1.71	1.30	1.03	0
20	0.07	0.18	0.33	0.61	1.14	1.65	2.13	2.61	3.53	4.43	4.87	5.74	6.59	7.43	8.28	6.77	5.54	4.64	3.96	3.15	2.57	1.87	1.40	1.11	0
21	0.08	0.19	0.34	0.65	1.21	1.74	2.25	2.75	3.72	4.67	5.13	6.05	6.95	7.83	8.73	7.28	5.96	5.00	4.27	3.39	2.77	1.98	1.51	1.19	0
22	0.08	0.19	0.37	0.68	1.27	1.83	2.36	2.89	3.92	4.91	5.39	6.36	7.30	8.21	9.18	7.83	6.39	5.36	4.57	3.63	2.97	2.13	1.62	1.28	0
23	0.09	0.20	0.38	0.72	1.33	1.92	2.48	3.04	4.11	5.15	5.66	6.67	7.68	8.65	9.62	8.36	6.83	5.73	4.89	3.88	3.18	2.28	1.73	1.37	0
24	0.10	0.22	0.40	0.75	1.40	2.01	2.60	3.18	4.30	5.39	5.93	6.98	8.06	9.03	10.1	8.88	7.28	6.10	5.21	4.13	3.39	2.42	1.84	1.46	0
25	0.10	0.22	0.42	0.78	1.45	2.10	2.72	3.32	4.49	5.63	6.19	7.30	8.36	9.47	10.5	9.47	7.76	6.49	5.54	4.39	3.60	2.57	1.96	0	
26	0.10	0.23	0.43	0.81	1.52	2.19	2.83	3.46	4.68	5.88	6.46	7.61	8.73	9.85	11.0	10.1	8.21	6.89	5.88	4.66	3.82	2.73	2.08	0	
28	0.11	0.25	0.47	0.88	1.64	2.37	3.07	3.75	5.08	6.37	7.01	8.28	9.47	10.7	11.9	11.2	9.18	7.68	6.56	5.21	4.27	3.05	2.32	0	
30	0.12	0.28	0.51	0.95	1.78	2.55	3.30	4.04	5.47	6.86	7.53	8.88	10.2	11.5	12.8	12.5	10.1	8.50	7.28	5.78	4.73	3.39	2.57	0	
32	0.13	0.29	0.54	1.01	1.90	2.74	3.54	4.33	5.86	7.36	8.06	9.55	11.0	12.3	13.7	13.7	11.2	9.40	8.06	6.37	5.21	3.73	0		
35	0.14	0.32	0.60	1.12	2.10	3.01	3.91	4.77	6.46	8.13	8.88	10.5	12.1	13.6	15.1	15.7	12.8	10.7	9.18	7.28	5.96	4.27	0		
40	0.16	0.37	0.69	1.30	2.42	3.48	4.51	5.51	7.46	9.33	10.3	12.2	14.0	15.7	17.5	19.2	15.7	13.1	11.2	8.88	7.28	5.21	0		
45	0.19	0.43	0.79	1.47	2.75	3.95	5.13	6.27	8.50	10.6	11.7	13.8	15.8	17.8	19.8	22.8	18.7	15.7	13.4	10.6	8.73	0			
Lubrication Type	A				B								C												

Lubrication Type A: Lubrication - Manual Oil Drip
B: Lubrication - Oil Bath
C: Lubrication - Oil Pump
See Lubrication Instructions on page 25.

See pages 21 to 24 for details on selecting chains or multiple strand roller chains.

Chain Power Transmission Table (kW)

K.C.M.50(Single Strand Roller Chain)kW

No. of Teeth / Small Spkt.	Revolutions Per Minute - Small Sprocket (r/min)																								
	10	25	50	100	200	300	400	500	700	900	1000	1200	1400	1600	1800	2100	2400	2700	3000	3500	4000	4500	5000	5500	6000
9	0.07	0.14	0.27	0.50	0.94	1.35	1.75	2.14	2.90	3.64	4.00	4.71	4.49	3.67	3.08	2.44	2.00	1.68	1.43	1.13	0.93	0.78	0.66	0.57	0.51
10	0.07	0.16	0.31	0.57	1.05	1.51	1.69	2.40	3.25	4.07	4.48	5.28	5.26	4.30	3.60	2.86	2.34	1.96	1.68	1.33	1.09	0.91	0.78	0.67	0.59
11	0.08	0.18	0.34	0.63	1.16	1.68	2.18	2.66	3.60	4.52	4.97	5.86	6.06	4.96	4.16	3.30	2.70	2.27	1.93	1.54	1.25	1.05	0.90	0.78	0.69
12	0.09	0.19	0.37	0.69	1.28	1.84	2.39	2.92	3.96	4.96	5.45	6.43	6.91	5.65	4.74	3.76	3.08	2.58	2.20	1.75	1.43	1.20	1.02	0.89	0.78
13	0.10	0.22	0.40	0.75	1.40	2.01	2.61	3.19	4.31	5.41	5.95	7.01	7.76	6.38	5.34	4.24	3.47	2.91	2.48	1.97	1.61	1.35	1.16	1.00	0
14	0.10	0.23	0.43	0.81	1.51	2.18	2.83	3.45	4.68	5.86	6.45	7.61	8.73	7.12	5.98	4.74	3.88	3.25	2.76	2.20	1.81	1.51	1.29	1.12	0
15	0.11	0.25	0.47	0.87	1.63	2.35	3.04	3.72	5.04	6.32	6.95	8.21	9.40	7.91	6.62	5.26	4.30	3.60	3.08	2.44	2.00	1.68	1.43	1.24	0
16	0.12	0.27	0.50	0.94	1.75	2.52	3.26	3.99	5.40	6.77	7.45	8.80	10.1	8.73	7.30	5.79	4.74	3.97	3.39	2.69	2.20	1.84	1.57	1.37	0
17	0.13	0.29	0.54	1.00	1.87	2.69	3.48	4.26	5.77	7.23	7.98	9.40	10.7	9.55	7.98	6.34	5.19	4.35	3.72	2.95	2.41	2.02	1.72	1.50	0
18	0.13	0.31	0.57	1.07	1.98	2.86	3.71	4.53	6.13	7.68	8.43	10.0	11.4	10.4	8.73	6.91	5.65	4.74	4.04	3.21	2.63	2.20	1.88	0	
19	0.14	0.32	0.60	1.13	2.10	3.04	3.93	4.80	6.51	8.13	8.95	10.6	12.2	11.3	9.47	7.46	6.13	5.14	4.39	3.48	2.85	2.39	2.04	0	
20	0.15	0.34	0.64	1.19	2.22	3.21	4.16	5.07	6.87	8.58	9.47	11.2	12.8	12.2	10.2	8.06	6.62	5.55	4.74	3.76	3.08	2.58	2.20	0	
21	0.16	0.36	0.67	1.26	2.34	3.38	4.38	5.35	7.24	9.10	10.0	11.8	13.5	13.1	11.0	8.73	7.12	5.98	5.10	4.04	3.31	2.78	2.37	0	
22	0.16	0.38	0.71	1.37	2.47	3.55	4.60	5.62	7.61	9.55	10.5	12.4	14.2	14.0	11.8	9.33	7.61	6.41	5.47	4.34	3.55	2.98	2.54	0	
23	0.17	0.40	0.75	1.39	2.59	3.73	4.83	5.90	7.98	10.0	11.0	13.0	14.9	15.0	12.6	10.0	8.21	6.85	5.85	4.64	3.80	3.19	0		
24	0.19	0.42	0.78	1.45	2.71	3.90	5.06	6.18	8.36	10.5	11.6	13.6	15.6	16.0	13.4	10.7	8.73	7.30	6.23	4.95	4.04	3.39	0		
25	0.19	0.43	0.81	1.51	2.83	4.08	5.28	6.46	8.73	11.0	12.1	14.2	16.3	17.0	14.2	11.3	9.25	7.76	6.62	5.26	4.30	3.60	0		
26	0.20	0.46	0.85	1.58	2.95	4.25	5.51	6.74	9.10	11.4	12.6	14.8	17.0	18.1	15.1	12.0	9.85	8.21	7.03	5.57	4.57	3.83	0		
28	0.22	0.49	0.92	1.72	3.20	4.61	5.98	7.30	9.85	12.4	13.7	16.0	18.4	20.1	16.9	13.4	11.0	9.18	7.83	6.23	5.10	4.27	0		
30	0.23	0.53	0.99	1.85	3.45	4.97	6.44	7.83	10.7	13.5	14.7	17.3	19.8	22.4	18.7	14.8	12.2	10.2	8.73	6.91	5.65	0			
32	0.25	0.57	1.06	1.98	3.70	5.33	6.90	8.43	11.4	14.3	15.7	18.6	21.3	24.0	20.7	16.4	13.4	11.3	9.62	7.61	6.23	0			
35	0.28	0.63	1.17	2.19	4.07	5.86	7.61	9.33	12.6	15.7	17.3	20.4	23.5	26.5	23.6	18.7	15.4	12.8	11.0	8.73	7.12	0			
40	0.32	0.72	1.35	2.52	4.71	6.77	8.80	10.7	14.5	18.2	20.0	23.6	27.1	30.6	28.9	22.9	18.7	15.7	13.4	10.7	0				
45	0.36	0.82	1.54	2.86	5.34	7.68	10.0	12.2	16.5	20.7	22.8	26.8	30.8	34.6	34.4	27.3	22.4	18.7	16.0	0					
Lubrication Type	A				B				C																

K.C.M.60(Single Strand Roller Chain)kW

No. of Teeth / Small Spkt.	Revolutions Per Minute - Small Sprocket (r/min)																								
	10	25	50	100	150	200	300	400	500	600	700	800	900	1000	1100	1200	1400	1600	1800	2000	2500	3000	3500	4000	4500
9	0.11	0.25	0.46	0.87	1.25	1.61	1.86	3.01	3.69	4.34	4.98	5.62	6.25	6.87	7.45	6.54	5.19	4.25	3.56	3.04	2.18	1.66	1.31	1.07	0.90
10	0.12	0.28	0.52	0.97	1.40	1.81	2.33	3.38	4.13	4.86	5.59	6.30	7.00	7.68	8.36	7.68	6.08	4.98	4.17	3.56	2.55	1.94	1.54	1.26	1.05
11	0.13	0.31	0.57	1.07	1.54	2.01	2.89	3.74	4.57	5.39	6.19	6.98	7.76	8.50	9.33	8.88	7.02	5.74	4.81	4.11	2.94	2.24	1.78	1.45	1.22
12	0.15	0.34	0.63	1.18	1.70	2.20	3.17	4.11	5.03	5.92	6.80	7.68	8.50	9.40	10.2	10.1	7.98	6.54	5.48	4.68	3.35	2.55	2.02	1.66	1.39
13	0.16	0.37	0.69	1.29	1.86	2.40	3.46	4.48	5.48	6.45	7.42	8.36	9.33	10.2	11.1	11.3	9.03	7.38	6.18	5.28	3.77	2.87	2.28	1.87	0
14	0.18	0.40	0.75	1.40	2.01	2.60	3.74	4.86	5.94	6.99	8.06	9.03	10.1	11.0	12.1	12.7	10.1	8.28	6.91	5.90	4.22	3.22	2.55	2.09	0
15	0.19	0.43	0.81	1.50	2.16	2.80	4.04	5.28	6.39	7.53	8.65	9.77	10.8	11.9	13.0	14.0	11.2	9.18	7.68	6.54	4.68	3.56	2.83	2.31	0
16	0.20	0.46	0.87	1.61	2.32	3.01	4.33	5.61	6.86	8.06	9.25	10.4	11.6	12.8	14.0	15.1	12.3	10.1	8.43	7.21	5.15	3.92	3.11	2.55	0
17	0.22	0.49	0.93	1.72	2.48	3.21	4.63	5.99	7.32	8.65	9.92	11.2	12.5	13.7	14.8	16.1	13.5	11.0	9.25	7.91	5.65	4.30	3.41	2.79	0
18	0.23	0.52	0.98	1.83	2.63	3.42	4.92	6.37	7.76	9.18	10.5	11.9	13.2	14.5	15.8	17.1	14.7	12.0	10.1	8.58	6.15	4.68	3.72	3.04	0
19	0.25	0.56	1.04	1.94	2.79	3.62	5.21	6.75	8.28	9.70	11.2	12.6	14.0	15.4	16.8	18.1	16.0	13.1	10.9	9.33	6.68	5.08	4.03	3.30	0
20	0.26	0.59	1.10	2.05	2.95	3.83	5.51	7.14	8.73	10.3	11.8	13.4	14.8	16.3	17.8	19.2	17.2	14.1	11.8	10.1	7.21	5.48	4.35	0	
21	0.27	0.62	1.16	2.16	3.11	4.03	5.80	7.53	9.18	10.8	12.5	14.0	15.6	17.2	18.7	20.2	18.5	15.1	12.7	10.8	7.76	5.90	4.68	0	
22	0.28	0.65	1.22	2.28	3.27	4.24	6.11	7.91	9.70	11.4	13.1	14.8	16.4	18.1	19.7	21.3	19.8	16.3	13.6	11.6	8.28	6.33	5.02	0	
23	0.30	0.69	1.28	2.38	3.43	4.45	6.41	8.28	10.1	11.9	13.7	15.5	17.2	18.9	20.7	22.3	21.2	17.4	14.5	12.5	8.88	6.77	5.36	0	
24	0.31	0.72	1.34	2.50	3.60	4.66	6.71	8.65	10.6	12.5	14.4	16.2	18.1	19.8	21.6	23.3	22.6	18.5	15.5	13.3	9.47	7.21	5.72	0	
25	0.33	0.75	1.40	2.61	3.76	4.86	7.01	9.10	11.1	13.1	15.0	16.9	18.9	20.7	22.6	24.4	24.0	19.7	16.5	14.1	10.1	7.68	6.08	0	
26	0.34	0.78	1.45	2.72	3.92	5.08	7.31	9.47	11.6	13.7	15.7	17.7	19.7	21.6	23.6	25.4	25.5	20.9	17.5	14.9	10.7	8.13	6.45	0	
28	0.37	0.84	1.58	2.95	4.24	5.50	7.91	10.3	12.5	14.8	17.0	19.2	21.3	23.4	25.5	27.6	28.5	23.3	19.5	16.7	11.9	9.10	0		
30	0.40	0.91	1.70	3.18	4.57	5.92	8.50	11.0	13.5	16.0	18.3	20.7	23.0	25.2	27.5	29.7	31.6	25.9	21.7	18.5	13.3	10.1	0		
32	0.43	0.98	1.83	3.40	4.90	6.36	9.18	11.9	14.5	17.1	19.6	22.2	24.6	27.1	29.5	31.9	34.8	28.5	23.9	20.4	14.6	11.1	0		
35	0.47	1.07	2.01	3.75	5.40	7.00	10.1	13.1	16.0	18.8	21.6	24.4	27.1	29.8	32.5	35.1	39.8	32.6	27.3	23.3	16.7	12.7	0		
40	0.54	1.25	2.32	4.33	6.24	8.06	11.6	15.1	18.4	21.7	25.0	28.1	31.3	34.4	37.5	40.6	46.6	39.8	33.3	28.5	20.4	0			
45	0.62	1.41	2.63	4.92	7.09	9.18	13.2	17.2	21.0	24.7	28.3	32.0	35.6	39.1	42.6	46.0	52.9	47.5	39.8	34.0	24.3	0			
Lubrication Type	A				B				C																

Lubrication Type A: Lubrication - Manual Oil Drip
B: Lubrication - Oil Bath
C: Lubrication - Oil Pump
See Lubrication Instructions on page 25.

See pages 21 to 24 for details on selecting chains or multiple strand roller chains.

Chain Power Transmission Table (kW)

K.C.M.80(Single Strand Roller Chain)kW

No. of Teeth / Small Spkt.	Revolutions Per Minute - Small Sprocket (r/min)																								
	10	25	50	100	150	200	300	400	500	600	700	800	900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2700	3000	3400
9	0.25	0.58	1.08	2.02	2.91	3.77	5.43	7.03	8.58	10.1	11.6	13.1	12.7	10.8	9.40	8.21	6.53	5.35	4.48	3.83	3.32	2.91	2.44	2.08	1.73
10	0.28	0.65	1.22	2.26	3.26	4.22	6.09	7.91	9.62	11.3	13.1	14.7	14.8	12.7	11.0	9.62	7.68	6.27	5.25	4.48	3.89	3.41	2.86	2.44	2.02
11	0.31	0.72	1.34	2.51	3.61	4.68	6.74	8.73	10.7	12.6	14.5	16.3	17.2	14.6	12.7	11.1	8.80	7.23	6.06	5.17	4.48	3.93	3.30	2.81	1.27
12	0.35	0.79	1.48	2.75	3.97	5.14	7.41	9.62	11.7	13.8	15.9	17.9	19.5	16.6	14.5	12.7	10.1	8.21	6.90	5.89	5.11	4.48	3.76	3.21	0
13	0.38	0.87	1.61	3.01	4.33	5.61	8.06	10.4	12.8	15.1	17.3	19.5	21.7	18.8	16.3	14.3	11.3	9.33	7.76	6.65	5.76	5.06	4.24	3.62	0
14	0.41	0.93	1.75	3.25	4.69	6.07	8.73	11.3	13.9	16.3	18.7	21.2	23.5	21.0	18.2	16.0	12.7	10.4	8.73	7.43	6.44	5.65	4.74	4.04	0
15	0.44	1.01	1.88	3.51	5.05	6.54	9.40	12.2	14.9	17.6	20.2	22.8	25.4	23.3	20.2	17.8	14.1	11.5	9.62	8.21	7.14	6.27	5.25	4.48	0
16	0.47	1.08	2.01	3.76	5.42	7.02	10.1	13.1	16.0	18.9	21.6	24.5	27.2	25.7	22.2	19.5	15.5	12.7	10.6	9.10	7.83	6.90	5.79	4.94	0
17	0.51	1.16	2.15	4.01	5.78	7.46	10.8	14.0	17.1	20.1	23.1	26.1	29.0	28.1	24.4	21.4	16.9	13.9	11.6	9.92	8.58	7.53	6.33	5.41	0
18	0.54	1.22	2.29	4.27	6.15	7.98	11.5	14.8	18.2	21.4	24.6	27.8	30.9	30.7	26.6	23.3	18.5	15.1	12.7	10.8	9.40	8.21	6.90	5.89	0
19	0.57	1.30	2.42	4.53	6.52	8.43	12.2	15.7	19.2	22.7	26.1	29.4	32.7	33.2	28.8	25.3	20.1	16.4	13.7	11.7	10.1	8.95	7.46	6.39	0
20	0.60	1.37	2.57	4.78	6.89	8.95	12.8	16.6	20.4	24.0	27.6	31.1	34.5	35.9	31.1	27.3	21.6	17.8	14.8	12.7	11.0	9.62	8.06	0	
21	0.63	1.45	2.70	5.04	7.27	9.40	13.6	17.5	21.5	25.3	29.1	32.7	36.5	38.6	33.4	29.4	23.3	19.1	16.0	13.7	11.9	10.4	8.73	0	
22	0.67	1.52	2.84	5.30	7.61	9.92	14.2	18.5	22.6	26.6	30.6	34.5	38.3	41.4	35.9	31.5	25.0	20.4	17.2	14.6	12.7	11.1	9.33	0	
23	0.70	1.60	2.98	5.57	7.98	10.4	15.0	19.4	23.7	27.9	32.1	36.2	40.2	44.2	38.3	33.6	26.7	21.9	18.4	15.7	13.6	11.9	10.0	0	
24	0.73	1.67	3.13	5.83	8.43	10.9	15.7	20.3	24.8	29.2	33.6	37.9	42.1	46.3	40.9	35.9	28.5	23.3	19.5	16.6	14.5	12.7	10.6	0	
25	0.77	1.75	3.26	6.09	8.80	11.3	16.3	21.2	25.9	30.9	35.1	39.5	44.0	48.4	43.4	38.1	30.3	24.8	20.7	17.8	15.4	13.5	11.3	0	
26	0.80	1.83	3.40	6.36	9.18	11.9	17.1	22.2	27.0	31.9	36.6	41.3	45.9	50.4	46.1	40.4	32.1	26.3	22.0	18.8	16.3	14.3	12.0	0	
28	0.87	1.98	3.69	6.89	9.92	12.8	18.5	23.9	29.3	34.5	39.7	44.7	49.8	54.7	51.5	45.2	35.9	29.4	24.6	21.0	18.2	16.0	0		
30	0.93	2.13	3.98	7.42	10.7	13.8	19.9	25.8	31.6	37.2	42.7	48.2	53.6	58.9	57.1	50.1	39.8	32.5	27.3	23.3	20.2	17.8	0		
32	1.00	2.28	4.26	7.98	11.4	14.8	21.3	27.7	33.9	39.9	45.8	51.6	57.4	63.1	62.9	55.2	43.8	35.9	30.1	25.7	22.2	19.5	0		
35	1.10	2.51	4.69	8.73	12.6	16.3	23.6	30.5	37.3	43.9	50.4	56.9	63.3	69.6	72.0	63.2	50.1	41.0	34.4	29.4	25.4	0			
40	1.28	2.90	5.42	10.1	14.5	18.9	27.2	35.2	43.0	50.7	58.3	65.7	73.9	80.6	87.3	76.8	61.3	50.1	42.0	35.9	14.9	0			
45	1.45	3.30	6.15	11.5	16.6	21.4	30.9	40.0	48.9	57.6	66.2	74.6	82.8	91.0	99.2	91.8	73.1	59.8	50.1	40.3	0				
Lubrication Type	A		B						C																

K.C.M.100(Single Strand Roller Chain)kW

No. of Teeth / Small Spkt.	Revolutions Per Minute - Small Sprocket (r/min)																								
	10	25	50	100	150	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1600	1800	2000	2200	2400	2600	2700
9	0.48	1.11	2.07	3.87	5.57	7.22	10.4	13.5	16.5	19.4	22.1	18.1	15.1	13.0	11.2	9.85	8.73	7.83	6.39	5.36	4.57	3.97	3.48	3.09	0
10	0.54	1.25	2.32	4.33	6.24	8.06	11.6	15.1	18.4	21.8	25.0	21.2	17.8	15.1	13.1	11.6	10.2	9.18	7.46	6.28	5.36	4.65	4.08	3.62	0
11	0.60	1.38	2.57	4.80	6.92	8.95	12.9	16.7	20.4	24.1	27.7	24.5	20.5	17.5	15.1	13.3	11.8	10.6	8.65	7.24	6.19	5.36	4.71	0.96	0
12	0.66	1.51	2.83	5.28	7.61	9.85	14.2	18.4	22.5	26.5	30.4	27.8	23.3	19.9	17.3	15.1	13.4	12.0	9.85	8.28	7.05	6.11	5.36	0	
13	0.72	1.66	3.08	5.76	8.28	10.7	15.4	20.1	24.5	28.9	33.2	31.4	26.3	22.5	19.5	17.1	15.1	13.6	11.1	9.33	7.91	6.89	6.04	0	
14	0.78	1.79	3.34	6.24	8.95	11.6	16.8	21.7	26.6	31.3	36.0	35.1	29.4	25.1	21.8	19.1	16.9	15.1	12.4	10.4	8.88	7.68	6.75	0	
15	0.84	1.93	3.60	6.72	9.70	12.5	18.1	23.4	28.6	33.7	38.7	38.9	32.6	27.8	24.2	21.2	18.8	16.8	13.7	11.6	9.85	8.50	7.46	0	
16	0.91	2.07	3.86	7.21	10.4	13.4	19.4	25.1	30.7	36.1	41.5	42.9	36.0	30.7	26.6	23.4	20.7	18.5	15.1	12.7	10.8	9.40	8.28	0	
17	0.97	2.21	4.12	7.68	11.0	14.3	20.7	26.8	32.7	38.6	44.3	47.0	39.4	33.6	29.1	25.6	22.7	20.3	16.6	14.0	11.9	10.3	0.59	0	
18	1.03	2.35	4.39	8.21	11.8	15.3	22.0	28.5	34.8	41.0	47.1	51.2	42.9	36.6	31.7	27.8	24.7	22.1	18.1	15.1	13.0	11.2	0		
19	1.09	2.49	4.65	8.65	12.5	16.2	23.3	30.2	36.9	43.5	50.0	55.5	46.5	39.7	34.4	30.2	26.8	23.9	19.6	16.4	14.0	12.2	0		
20	1.16	2.63	4.91	9.18	13.2	17.1	24.6	31.9	39.0	46.0	52.8	59.5	50.2	42.9	37.2	32.6	28.9	25.9	21.2	17.8	15.1	13.1	0		
21	1.22	2.78	5.18	9.70	14.0	18.1	26.0	33.6	41.1	48.5	55.7	62.8	54.0	46.1	40.0	35.1	31.1	27.8	22.8	19.1	16.3	14.2	0		
22	1.28	2.92	5.45	10.1	14.6	18.9	27.3	35.4	43.3	51.0	58.6	66.0	58.0	49.5	42.9	37.6	33.3	29.8	24.5	20.5	17.5	15.1	0		
23	1.34	3.06	5.71	10.7	15.4	19.9	28.6	37.2	45.4	53.5	61.4	69.2	61.9	52.9	45.8	40.2	35.7	31.9	26.1	21.9	18.7	5.77	0		
24	1.40	3.21	5.98	11.2	16.0	20.8	30.0	38.9	47.5	56.0	64.3	72.5	66.0	56.4	48.9	42.9	38.1	34.0	27.8	23.4	19.9	0			
25	1.47	3.35	6.25	11.6	16.8	21.8	31.3	40.6	49.7	58.5	67.2	76.1	70.2	59.9	51.9	45.6	40.4	36.2	29.6	24.8	21.2	0			
26	1.53	3.49	6.52	12.2	17.5	22.7	32.7	42.4	51.8	61.0	70.1	79.1	74.5	63.6	55.1	48.3	42.9	38.3	31.4	26.3	22.5	0			
28	1.66	3.78	7.06	13.2	19.0	24.6	35.4	45.9	56.1	66.1	76.1	85.8	83.6	71.0	61.6	54.0	47.9	42.9	35.1	29.4	25.1	0			
30	1.79	4.08	7.61	14.2	20.4	26.5	38.2	49.5	60.4	71.2	82.1	92.5	92.5	79.1	68.3	59.9	53.1	47.5	38.9	32.6	7.46	0			
32	1.92	4.37	8.13	15.2	21.9	28.4	41.0	53.0	64.8	76.1	88.0	99.2	101	86.5	75.3	66.0	58.6	52.4	42.9	33.7	0				
35	2.11	4.82	8.95	16.8	24.2	31.3	45.1	58.4	71.4	84.3	97.0	109	116	99	85.8	75.3	67.0	59.9	49.1	41.1	0				
40	2.44	5.57	10.4	19.4	27.9	36.2	52.1	67.4	82.8	97.0	112	126	140	122	105	92.5	82.1	73.2	59.9	0					
45	2.77	6.32	11.8	22.0	31.7	41.0	59.2	76.8	94.0	110	127	143	159	145	125	110	97.7	87.3	33.8	0					
Lubrication Type	A		B				C																		

Lubrication Type A: Lubrication - Manual Oil Drip
B: Lubrication - Oil Bath
C: Lubrication - Oil Pump
See Lubrication Instructions on page 25.

See pages 21 to 24 for details on selecting chains or multiple strand roller chains.
For optimum results, consult KCM Chain for drives operating in the SHADED ZONE.

Chain Power Transmission Table (kW)

K.C.M.120(Single Strand Roller Chain)kW

No. of Teeth / Small Spkt.	Revolutions Per Minute - Small Sprocket (r/min)																								
	10	25	50	100	150	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100
9	0.82	1.88	3.50	6.53	9.40	12.2	17.5	22.8	27.8	32.2	25.6	21.0	17.5	15.0	13.0	11.4	10.1	9.03	8.13	7.40	6.76	6.20	5.72	5.30	4.92
10	0.93	2.10	3.92	7.32	10.5	13.7	19.7	25.5	31.2	36.7	29.9	24.5	20.5	17.5	15.2	13.4	11.9	10.6	9.55	8.65	7.91	7.27	6.70	6.20	5.77
11	1.02	2.33	4.35	8.13	11.7	15.1	21.8	28.3	34.5	40.7	34.5	28.3	23.7	20.2	17.5	15.4	13.7	12.2	11.0	10.0	9.10	8.36	7.76	7.16	0
12	1.12	2.56	4.77	8.88	12.8	16.6	23.9	31.0	38.0	44.7	39.4	32.2	27.0	23.1	20.0	17.5	15.6	14.0	12.5	11.4	10.4	9.55	8.80	8.13	0
13	1.22	2.79	5.21	9.70	14.0	18.1	26.1	33.9	41.4	48.7	44.4	36.3	30.4	26.0	22.5	19.8	17.5	15.7	14.2	12.8	11.7	10.7	9.92	9.18	0
14	1.33	3.02	5.64	10.5	17.2	19.6	28.3	36.6	44.8	52.8	49.6	40.6	34.0	29.1	25.2	22.1	19.6	17.5	15.8	14.3	13.1	12.0	11.1	6.67	0
15	1.42	3.26	6.08	11.3	16.3	21.2	30.5	39.5	48.3	56.9	55.1	45.1	37.8	32.2	27.9	24.5	21.7	19.5	17.5	15.9	14.5	13.4	12.3	0	
16	1.53	3.49	6.52	12.2	17.5	22.7	32.7	42.4	51.8	61.0	60.6	49.6	41.6	35.5	30.8	27.0	23.9	21.4	19.3	17.5	16.0	14.7	13.6	0	
17	1.63	3.73	6.96	13.0	18.7	24.2	34.9	45.2	55.3	65.1	66.4	54.3	45.5	38.9	33.7	29.5	26.3	23.5	21.2	19.2	17.5	16.1	14.8	0	
18	1.74	3.97	7.40	13.8	19.9	25.8	37.2	48.1	58.8	69.3	72.4	59.2	49.6	42.4	36.7	32.2	28.6	25.6	23.1	21.0	19.1	17.5	8.43	0	
19	1.84	4.21	7.83	14.6	21.1	27.3	39.4	51.0	62.4	73.5	78.3	64.2	53.8	46.0	39.8	34.9	31.0	27.8	25.0	22.7	20.7	19.0	0		
20	1.95	4.45	8.28	15.4	22.3	28.9	41.6	53.9	65.9	77.6	85.0	69.3	58.1	49.6	43.0	37.8	33.5	29.9	27.0	24.5	22.4	20.5	0		
21	2.05	4.68	8.73	16.3	23.5	30.4	43.9	56.8	69.5	82.1	91.0	74.6	62.5	53.4	46.3	40.6	36.0	32.2	29.1	26.4	24.1	22.1	0		
22	2.16	4.92	9.18	17.2	24.7	32.0	46.1	59.8	73.0	85.8	97.7	79.8	67.1	57.2	49.6	43.6	38.6	34.5	31.2	28.3	25.8	12.4	0		
23	2.27	5.17	9.62	18.0	26.0	33.6	48.4	62.7	76.8	90.3	104	85.8	71.7	61.2	53.0	46.6	41.3	36.9	33.3	30.2	27.6	0			
24	2.37	5.41	10.1	18.9	27.2	35.1	50.7	65.6	80.6	94.7	109	91.0	76.1	65.2	56.6	49.6	44.0	39.4	35.5	32.2	29.4	0			
25	2.48	5.65	10.5	19.7	28.3	36.8	53.0	68.6	83.6	98.5	113	97.0	81.3	69.3	60.1	52.7	46.8	41.9	37.8	34.2	30.8	0			
26	2.59	5.90	11.0	20.5	29.6	38.3	55.2	71.5	87.3	103	119	103	85.8	73.6	63.7	56.0	49.6	44.4	40.1	36.3	19.8	0			
28	2.80	6.39	11.9	22.2	32.1	41.6	59.8	77.6	94.7	112	128	115	96.2	82.1	71.3	62.5	55.4	49.6	44.8	40.6	0				
30	3.02	6.89	12.8	23.9	34.5	44.8	64.5	83.6	102	120	138	128	107	91.0	79.1	69.3	61.5	55.1	49.6	31.6	0				
32	3.24	7.39	13.8	25.7	37.0	48.0	69.1	90.0	110	129	148	140	118	101	87.3	76.1	67.7	60.7	54.9	0					
35	3.57	8.13	15.1	28.3	40.8	52.9	76.1	98.5	121	142	163	160	134	115	99.2	87.3	77.6	69.3	35.6	0					
40	4.12	9.40	17.5	32.7	47.1	61.0	88.0	114	140	164	189	196	164	140	122	107	94.7	44.4	0						
45	4.68	10.7	19.9	37.2	53.5	69.3	100	129	158	187	214	234	196	167	145	128	59.7	0							
Lubrication Type	A	B					C																		

K.C.M.140(Single Strand Roller Chain)kW

No. of Teeth / Small Spkt.	Revolutions Per Minute - Small Sprocket (r/min)																								
	10	25	50	100	150	200	250	300	350	400	450	500	550	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700
9	1.28	2.90	5.42	10.1	14.5	18.9	23.1	27.2	31.1	35.2	39.2	43.0	41.6	36.5	28.9	23.7	19.8	16.9	14.7	12.9	11.4	10.2	9.25	8.36	7.61
10	1.42	3.25	6.07	11.3	16.3	21.1	25.8	30.4	35.0	39.5	43.9	48.2	48.6	42.7	33.9	27.8	23.3	19.8	17.2	15.1	13.4	12.0	10.8	9.77	0
11	15.8	3.60	6.73	12.5	18.1	22.4	28.6	33.2	38.8	43.7	48.6	53.4	56.1	49.2	39.1	32.0	26.8	22.9	19.8	17.4	15.4	13.8	12.5	11.3	0
12	1.74	3.96	7.39	13.8	19.8	25.7	31.5	37.1	42.6	48.0	53.4	58.7	63.9	56.1	44.5	36.5	30.6	26.1	22.6	19.8	17.6	15.7	14.2	12.9	0
13	1.89	4.08	8.06	15.1	21.6	28.0	34.3	40.4	46.4	52.4	58.2	64.0	69.8	63.3	50.2	41.1	34.5	29.4	25.5	22.4	19.8	17.8	16.0	14.5	0
14	2.05	4.68	8.06	16.3	23.5	30.4	37.2	43.8	50.3	56.7	63.0	69.4	75.3	70.7	56.1	46.0	38.5	32.9	28.5	25.0	22.2	19.8	17.9	16.3	
15	2.21	5.04	9.40	17.5	25.3	32.7	40.1	47.1	54.2	61.1	68.0	74.6	81.3	78.3	62.2	51.0	42.7	36.5	31.6	27.8	24.6	22.0	19.8	0	
16	2.37	5.40	10.1	18.8	27.1	35.1	42.9	50.6	58.1	65.5	72.9	79.8	87.3	86.5	68.6	56.1	47.1	40.1	34.8	30.6	27.1	24.2	21.9	0	
17	2.53	5.77	10.7	20.1	28.9	37.5	45.8	54.0	62.1	70.0	77.6	85.8	93.3	94.7	75.3	61.5	51.6	44.0	38.1	33.5	29.7	26.6	23.9	0	
18	2.69	6.14	11.5	21.3	30.8	39.9	48.7	57.4	66.0	74.5	82.8	91.0	99.2	103	82.1	67.0	56.1	47.9	41.6	36.5	32.3	28.9	26.1	0	
19	2.85	6.51	12.2	22.7	32.6	42.3	51.7	60.9	70.0	79.1	88.0	96.2	105	112	88.8	72.7	60.9	52.0	45.1	39.5	35.1	31.4	28.3	0	
20	3.01	6.88	12.8	23.9	34.5	44.7	54.6	63.4	73.9	83.6	92.5	102	111	120	95.5	78.3	65.7	56.1	48.6	42.7	37.9	33.9	0		
21	3.18	7.25	13.5	25.2	36.3	47.1	57.6	67.9	77.6	88.0	97.7	107	117	127	103	84.3	70.7	60.4	52.4	46.0	40.7	36.5	0		
22	3.34	7.61	14.3	26.6	38.3	49.5	60.6	71.3	82.1	92.5	103	113	123	133	110	90.3	76.1	64.8	56.1	49.2	43.7	39.1	0		
23	3.51	7.98	14.9	27.8	40.1	52.0	63.6	74.6	85.8	97.0	108	119	129	140	118	97.0	81.3	69.2	60.0	52.7	46.1	41.8	0		
24	3.67	8.36	15.6	29.2	42.0	54.4	66.5	78.3	90.3	101	113	124	135	146	126	103	86.5	73.8	63.9	56.1	49.8	44.5	0		
25	3.83	8.73	16.3	30.4	43.9	56.8	69.5	82.1	94.0	106	118	130	141	153	134	110	91.8	78.3	68.0	59.7	52.9	47.4	0		
26	4.01	9.10	17.0	31.8	45.8	59.3	72.5	85.8	98.5	110	123	135	148	160	142	116	97.7	83.6	72.1	63.3	56.1	0			
28	4.33	9.92	18.4	34.5	49.6	64.3	78.3	92.5	107	120	134	147	160	173	159	130	109	93.2	80.6	70.7	62.7	0			
30	4.67	10.7	19.9	37.1	53.4	69.2	84.3	100	115	129	144	158	172	186	176	144	121	103	89.5	78.3	69.5	0			
32	5.01	11.4	21.3	39.8	57.3	74.2	91.0	107	123	139	154	169	184	199	194	159	133	113	98.5	86.5	0				
35	5.52	12.6	23.5	43.8	63.1	82.1	100	118	135	153	169	187	203	220	222	181	152	130	113	97.0	0				
40	6.37	14.5	27.2	50.7	72.9	94.7	116	136	157	176	196	216	235	254	271	222	186	159	133	0					
45	7.24	16.5	30.8	57.5	82.8	107	131	154	178	200	222	245	266	289	324	265	222	177	69.2	0					
Lubrication Type	A	B					C																		

Lubrication type: A: Lubrication - Manual Oil Drip
B: Lubrication - Oil Bath
C: Lubrication - Oil Pump
See Lubrication Instructions on page 25.

See pages 21 to 24 for details on selecting chains or multiple strand roller chains.
For optimum results, consult KCM Chain for drives operating in the SHADED ZONE.

Chain Power Transmission Table (kW)

K.C.M.160(Single Strand Roller Chain)kW

No. of Teeth / Small Spkt.	Revolutions Per Minute - Small Sprocket (r/min)																								
	10	25	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	1000	1100	1200	1300	1400
9	1.85	4.21	7.83	14.7	21.1	27.4	33.4	39.4	45.3	51.1	56.8	53.3	46.3	40.6	36.0	32.2	29.0	26.3	24.0	22.1	18.9	16.3	14.3	12.7	0
10	2.07	4.72	8.80	16.4	23.6	30.7	37.5	44.2	50.7	57.2	63.6	62.4	54.2	47.5	42.2	37.7	34.0	30.9	28.2	25.9	22.1	19.2	16.8	14.9	0
11	2.29	5.23	9.77	18.2	26.3	34.0	41.6	48.9	56.2	63.4	70.5	72.1	62.4	54.8	48.6	43.5	39.2	35.6	32.5	29.8	25.4	22.1	19.4	17.2	0
12	2.52	5.74	10.7	20.0	28.8	37.4	45.7	53.8	61.8	69.7	77.6	82.1	71.2	62.4	55.4	49.5	44.7	40.6	37.0	34.0	29.0	25.1	22.1	19.6	0
13	2.75	6.27	11.7	21.8	31.4	40.7	49.8	58.6	67.4	76.1	84.3	92.5	80.6	70.5	62.4	55.9	50.4	45.7	41.8	38.3	32.7	28.4	24.9	22.1	0
14	2.98	6.79	12.7	23.6	34.0	44.1	53.9	63.9	73.0	82.1	91.8	101	89.5	78.3	69.8	62.4	56.3	51.1	46.7	42.8	36.6	31.7	27.8	24.7	0
15	3.21	7.31	13.7	25.4	36.7	47.5	58.1	68.4	78.3	88.8	98.5	108	99.2	87.3	77.6	69.2	62.4	56.7	51.8	47.5	40.6	35.1	30.9	0	
16	3.44	7.83	14.6	27.3	39.3	51.0	62.3	73.4	84.3	94.7	106	116	110	96.2	85.0	76.1	68.8	62.4	57.0	52.4	44.7	38.7	34.0	0	
17	3.62	8.36	15.6	29.2	42.0	54.4	66.5	78.3	90.3	101	113	124	120	105	93.3	83.6	75.3	68.4	62.4	57.3	48.9	42.5	37.2	0	
18	3.90	8.88	16.6	31.0	44.7	57.9	70.7	83.6	95.5	108	120	132	131	115	101	91.0	82.1	74.5	68.0	62.4	53.3	46.3	40.6	0	
19	4.14	9.47	17.6	32.9	47.4	61.3	75.3	88.0	101	114	128	140	142	125	110	98.5	88.8	80.6	73.8	67.7	57.8	50.1	44.0	0	
20	4.37	10.0	18.7	34.8	50.0	64.8	79.1	93.3	107	121	134	148	153	134	119	107	96.2	87.3	79.8	73.2	62.4	54.2	47.5	0	
21	4.61	10.5	19.6	36.6	52.7	68.3	83.6	98.5	113	128	142	156	165	145	128	115	104	94.0	85.8	78.3	67.2	58.3	51.1	0	
22	4.85	11.0	20.7	38.5	55.5	71.8	88.0	104	119	134	149	164	177	155	137	123	111	101	91.8	84.3	72.1	62.4	0		
23	5.09	11.6	21.6	40.4	58.2	75.3	92.5	109	125	141	157	172	187	166	147	131	119	107	98.5	90.3	76.8	66.8	0		
24	5.33	12.2	22.7	42.3	60.9	79.1	96.2	113	131	147	164	180	196	177	157	140	126	115	104	96.2	82.1	71.2	0		
25	5.57	12.7	23.7	44.2	63.7	82.8	101	119	137	154	171	188	205	188	166	149	134	122	111	102	87.3	75.3	0		
26	5.80	13.3	24.7	46.1	66.5	85.8	105	124	142	160	178	196	214	199	177	158	143	129	118	108	92.5	80.6	0		
28	6.29	14.3	26.8	50.0	72.0	93.3	114	134	154	174	193	213	232	222	198	177	160	145	121	121	104	89.5	0		
30	6.77	15.4	28.9	53.9	77.6	101	123	145	166	187	208	229	251	247	219	196	177	160	146	134	115	0			
32	7.27	16.6	31.0	57.7	82.8	107	131	155	178	201	224	245	268	272	241	216	195	177	161	148	126	0			
35	7.98	18.3	34.1	63.6	91.8	119	145	171	196	222	246	271	295	311	276	247	222	202	184	169	134	0			
40	9.25	21.1	39.4	73.5	106	137	168	198	227	256	284	313	341	369	337	301	272	247	225	192	0				
45	10.5	23.9	44.7	83.6	120	156	190	225	257	290	323	355	387	419	402	360	312	260	202	141	0				
Lubrication Type	A		B			C																			

K.C.M.200(Single Strand Roller Chain)kW

No. of Teeth / Small Spkt.	Revolutions Per Minute - Small Sprocket (r/min)																			
	10	15	20	30	40	50	70	100	150	200	250	300	350	400	450	500	550	600	650	700
9	3.39	4.88	6.32	9.10	11.8	14.4	19.5	26.9	38.7	50.2	61.3	72.3	82.8	88.8	74.6	63.7	55.3	48.5	43.0	0
10	3.79	5.46	7.08	10.2	13.2	16.1	21.9	30.1	43.4	56.2	68.7	81.3	93.3	104	87.3	74.6	64.7	56.8	50.4	0
11	4.21	6.06	7.83	11.3	14.6	17.9	24.2	33.4	48.1	62.3	76.1	89.5	103	116	101	85.8	74.6	65.5	58.1	0
12	4.62	6.65	8.65	12.4	16.1	19.7	26.6	36.7	52.8	68.5	83.6	98.5	113	128	115	98.5	85.0	74.6	0	
13	5.04	7.25	9.40	13.5	17.5	21.4	29.0	40.0	57.6	74.6	91.0	107	124	140	130	110	96.2	84.3	0	
14	5.45	7.83	10.1	14.7	19.0	23.2	31.4	43.3	62.4	80.6	98.5	116	134	151	145	124	107	94.0	0	
15	5.88	8.43	11.0	15.8	20.4	25.0	33.9	46.7	67.2	87.3	107	125	144	163	160	137	119	104	0	
16	6.30	9.10	11.8	16.9	21.9	26.9	36.3	50.1	72.1	93.3	114	134	154	175	177	151	131	115	0	
17	6.73	9.70	12.5	18.1	23.4	28.6	38.8	53.4	76.8	100	122	144	165	186	194	166	143	126	0	
18	7.15	10.3	13.4	19.2	24.9	30.4	42.3	56.8	82.1	106	130	153	175	198	211	181	156	137	0	
19	7.61	10.9	14.2	20.4	26.4	32.3	43.7	60.3	86.5	113	137	162	186	210	229	195	169	148	0	
20	7.98	11.6	15.0	21.6	27.9	34.2	46.2	63.7	91.8	119	145	171	197	222	247	211	183	0		
21	8.43	12.2	15.7	22.8	29.5	36.0	48.7	67.1	97.0	125	153	181	207	233	260	228	197	0		
22	8.88	12.8	16.6	23.9	31.0	37.8	51.3	70.6	101	132	161	189	218	246	273	244	211	0		
23	9.33	13.4	17.4	25.1	32.5	39.7	53.7	74.1	107	138	169	199	229	258	286	260	226	0		
24	9.77	14.1	18.2	26.3	34.0	41.6	56.2	77.6	112	145	177	208	239	270	300	278	241	0		
25	10.2	14.7	19.0	27.5	35.5	43.4	58.8	81.3	116	151	185	218	250	282	314	295	256	0		
26	10.7	15.4	19.8	28.6	37.0	45.3	61.3	84.3	122	158	193	228	261	295	327	313	272	0		
Lubrication Type	A		B			C														

Lubrication Type A: Lubrication - Manual Oil Drip
B: Lubrication - Oil Bath
C: Lubrication - Oil Pump
See Lubrication Instructions on page 25.

See pages 21 to 24 for details on selecting chains or multiple strand roller chains.
For optimum results, consult KCM Chain for drives operating in the SHADED ZONE.

NL Chain Power Transmission Table (kW)

KCM 40NL Chain Power Transmission Table (Single Strand Transmission, kW)

No. of Teeth / Small Spkt.	Revolutions Per Minute - Small Sprocket (r/min)											
	10	25	50	100	200	300	400	500	700	900	1000	1200
9	0.05	0.11	0.21	0.39	0.71	1.04	1.34	1.68	2.22	2.77	3.08	3.59
10	0.05	0.13	0.24	0.44	0.79	1.15	1.49	1.87	2.47	3.08	3.42	
11	0.06	0.15	0.26	0.48	0.87	1.27	1.64	2.05	2.72	3.39	3.80	
12	0.06	0.16	0.29	0.52	0.95	1.38	1.79	2.24	2.96	3.73		
13	0.07	0.18	0.31	0.57	1.03	1.50	1.94	2.43	3.27	4.05		
14	0.08	0.19	0.33	0.61	1.13	1.64	2.13	2.64	3.53			
15	0.08	0.20	0.36	0.65	1.21	1.76	2.29	2.83	3.78			
16	0.09	0.22	0.38	0.70	1.29	1.88	2.44	3.02	4.03			
17	0.09	0.23	0.41	0.74	1.37	2.00	2.59	3.21				
18	0.10	0.24	0.43	0.80	1.45	2.11	2.74	3.40				
19	0.10	0.26	0.45	0.86	1.57	2.28	2.95	3.65				
20	0.11	0.27	0.48	0.91	1.66	2.40	3.11	3.85				
21	0.11	0.28	0.50	0.95	1.74	2.52	3.26	4.04				
22	0.12	0.30	0.53	1.00	1.82	2.66	3.45	4.23				
23	0.12	0.31	0.55	1.04	1.92	2.81	3.61	4.42				
24	0.13	0.32	0.60	1.11	2.03	2.96	3.84					
25	0.13	0.34	0.63	1.15	2.11	3.08	4.00					
26	0.14	0.35	0.65	1.20	2.19	3.20	4.16					
27	0.15	0.36	0.68	1.25	2.28	3.33	4.32					
28	0.15	0.38	0.70	1.29	2.36	3.45	4.48					
30	0.16	0.40	0.75	1.40	2.53	3.70						
32	0.17	0.43	0.80	1.51	2.80	4.05						
35	0.19	0.47	0.88	1.65	3.06	4.43						
40	0.22	0.54	1.00	1.88	3.50							
45	0.24	0.61	1.13	2.12	3.94							

KCM 50NL Chain Power Transmission Table (Single Strand Transmission, kW)

No. of Teeth / Small Spkt.	Revolutions Per Minute - Small Sprocket (r/min)											
	10	25	50	100	200	300	400	500	600	700	800	900
9	0.11	0.24	0.44	0.82	1.49	2.17	2.80	3.39	3.99	4.61	5.19	5.72
10	0.12	0.27	0.49	0.91	1.66	2.41	3.11	3.76	4.44	5.12	5.80	
11	0.14	0.29	0.54	1.00	1.83	2.65	3.42	4.14	4.88	5.63		
12	0.15	0.32	0.59	1.09	1.99	2.89	3.74	4.51	5.35	6.18		
13	0.16	0.35	0.64	1.18	2.16	3.14	4.07	4.91	5.80			
14	0.17	0.37	0.69	1.27	2.32	3.38	4.45	5.29	6.24			
15	0.19	0.40	0.74	1.36	2.49	3.62	4.76	5.67				
16	0.20	0.43	0.79	1.45	2.66	3.86	5.08	6.05				
17	0.21	0.45	0.84	1.54	2.82	4.10	5.40	6.43				
18	0.22	0.48	0.89	1.63	2.99	4.34	5.72					
19	0.24	0.51	0.97	1.79	3.31	4.81	6.21					
20	0.25	0.53	1.03	1.89	3.49	5.07	6.54					
21	0.26	0.56	1.08	1.98	3.66	5.32	6.86					
22	0.27	0.58	1.13	2.08	3.83	5.57						
23	0.29	0.61	1.18	2.17	4.01	5.83						
24	0.30	0.66	1.23	2.29	4.26	6.14						
25	0.31	0.68	1.28	2.38	4.44	6.39						
26	0.32	0.71	1.33	2.48	4.62	6.65						
27	0.34	0.74	1.38	2.57	4.80	6.90						
28	0.35	0.77	1.44	2.67	4.97	7.16						
30	0.37	0.82	1.54	2.86	5.33							
32	0.40	0.88	1.66	3.05	5.68							
35	0.44	0.97	1.81	3.34	6.22							
40	0.50	1.11	2.07	3.81	7.11							
45	0.56	1.24	2.33	4.29								

KCM 60NL Chain Power Transmission Table (Single Strand Transmission, kW)

No. of Teeth / Small Spkt.	Revolutions Per Minute - Small Sprocket (r/min)											
	10	25	50	100	150	200	250	300	400	500	600	700
9	0.18	0.41	0.76	1.41	2.02	2.63	3.22	3.78	4.91	6.00	7.06	8.14
10	0.21	0.46	0.85	1.57	2.24	2.93	3.58	4.20	5.45	6.66	7.92	
11	0.23	0.51	0.93	1.73	2.47	3.22	3.94	4.62	6.00	7.33		
12	0.25	0.55	1.02	1.89	2.69	3.51	4.34	5.04	6.54	8.07		
13	0.27	0.60	1.10	2.04	2.97	3.88	4.75	5.46	7.23			
14	0.29	0.64	1.21	2.24	3.23	4.22	5.16	6.12	7.86			
15	0.31	0.69	1.30	2.41	3.46	4.52	5.53	6.56	8.43			
16	0.33	0.73	1.38	2.57	3.69	4.82	5.90	6.99				
17	0.35	0.78	1.47	2.73	3.92	5.12	6.27	7.43				
18	0.37	0.83	1.56	2.89	4.16	5.42	6.64	7.87				
19	0.39	0.89	1.69	3.17	4.51	5.89	7.21	8.46				
20	0.41	0.94	1.78	3.33	4.75	6.20	7.59	8.91				
21	0.43	0.98	1.87	3.50	4.99	6.51	7.97					
22	0.45	1.03	1.96	3.67	5.23	6.82	8.35					
23	0.47	1.08	2.05	3.83	5.46	7.13	8.73					
24	0.49	1.16	2.14	4.04	5.81	7.58	9.11					
25	0.51	1.21	2.23	4.20	6.05	7.90	9.67					
26	0.53	1.25	2.32	4.37	6.29	8.22						
28	0.58	1.35	2.49	4.71	6.78	8.85						
30	0.62	1.45	2.67	5.05	7.26	9.48						
32	0.66	1.56	2.93	5.53	7.96							
35	0.72	1.70	3.21	6.05	8.71							
40	0.82	1.95	3.66	6.92	9.95							
45	0.92	2.19	4.12	7.78								

KCM 80NL Chain Power Transmission Table (Single Strand Transmission, kW)

No. of Teeth / Small Spkt.	Revolutions Per Minute - Small Sprocket (r/min)										
	10	25	50	75	100	125	150	200	250	300	350
9	0.40	0.91	1.68	2.44	3.14	3.83	4.54	5.90	7.19	8.46	9.74
10	0.45	1.01	1.87	2.71	3.49	4.25	5.04	6.56	7.99	9.40	10.82
11	0.49	1.11	2.05	2.98	3.83	4.68	5.55	7.21	8.79	10.34	
12	0.54	1.21	2.24	3.25	4.18	5.10	6.05	7.87	9.59		
13	0.58	1.31	2.43	3.52	4.53	5.53	6.56	8.52	10.39		
14	0.63	1.44	2.72	3.94	5.08	6.25	7.34	9.46	11.52		
15	0.67	1.57	2.91	4.22	5.44	6.70	7.87	10.13			
16	0.72	1.67	3.11	4.51	5.80	7.15	8.39	10.81			
17	0.76	1.78	3.30	4.79	6.16	7.59	8.92	11.48			
18	0.81	1.88	3.50	5.07	6.53	8.04	9.44				
19	0.85	2.01	3.73	5.45	7.09	8.65	10.06				
20	0.90	2.11	3.92	5.74	7.46	9.10	10.59				
21	0.94	2.22	4.12	6.03	7.83	9.56	11.12				
22	0.99	2.32	4.31	6.32	8.21	10.01	11.65				
23	1.03	2.43	4.51	6.60	8.58	10.47	12.18				
24	1.08	2.58	4.75	6.95	9.04	10.92					
25	1.12	2.69	4.95	7.24	9.41	11.38					
26	1.17	2.80	5.15	7.53	9.79	11.83					
28	1.26	3.02	5.54	8.11	10.54	12.75					
30	1.34	3.23	5.94	8.69	11.30						
32	1.43	3.51	6.51	9.53	12.05						
35	1.57	3.84	7.13	10.43	13.18						
40	1.79	4.39	8.14	11.92							
45	2.02	4.94	9.16	13.41							

NOTES: - Power transmission of chain with an offset link is 80% of the figures specified above.
- Power transmission of SL chain is 60% of the figures specified above.