

[Technical Data]
Selection of Timing Belts 1

Selection is easy with Timing Pulleys and Belts automatic calculation tool available at:
http://fawos.misumi.jp/FA_WEB/pulley_us/

[Step 1] Setting the Required Design Conditions

- (1) Machine Type (2) Power Transmission (3) Load Variances (4) Operation Duration per Day (5) Small Pulley Rotational Speed
(6) Rotation Ratio (Lg. Pulley # of Teeth / Small Pulley # of Teeth) (7) Shaft Center Distance (Interim) (8) Pulley Diameter Limitation (9) Other Usage Conditions

[Step 2-a] Calculating Design Power.....MXL/XL/L/H/S_M/MTS_M/T Series

- Design Power (Pd) =Transmission Power (Pt) x Overload Factor (Ks)
• Calculate Transmission Power at Motor Rated Power Output. (Ideally should be calculated with the load applied to the belt)
• Overload Factor (Ks)=Ko+Kr+Ki Overload Factor (Ks)=Lo+Kr+Ki Ko: Overload Correction Factor (Table 1) Kr: Rotation Ratio Correction Factor (Table 2) Ki: Idler Correction Factor (Table 3)

Table 1. Load Correction Factor (Ko)

Table with 7 columns: Typical Machines Using a Belt, Motor (Max. Output not Exceeding 300% of Rated Value, Max. Output Exceeding 300% of Rated Value), AC Motor (Standard Motor, Synchronous Motor), DC Motor (Shunt), Engine with 2 or More Cylinders, DC Motor (Series), Operation with Lye Shaft or Clutch, Operation Hours (Intermittent use, Regular Use, Continuous Use), Intermittent use 1 Day 3 to 5 hrs, Regular Use 1 Day 8 to 12 hrs, Continuous Use 1 Day 8 to 12 hrs. Rows include Exhibit Instrument, Projector, Measuring Instrument, Medical Machine, Cleaner, Sewing Machine, Office Machine, Carpentry Lathe, Belt Sawing Machine, Light Load Belt Conveyor, Packer, Sifter, Liquid Mixer, Drill Press, Lathe, Screw Machine, (Circular Sawing) Machine, Planer, Washing Machine, Paper Manufacturing Machine, (Excluding Pulp Manufacturing Machine), Printing Machine, Mixer (Cement and Viscous Matter), Belt Conveyor (Ore, Coal and Sand), Grinder, Shaping Machine, Boring Machine, Milling Machine, Compressor (Centrifugal), Vibration Sifter, Textile Machine (Warper and Winder), Rotary Compressor, Compressor (Reciprocal), Conveyor (Apron, Pan, Bucket and Elevator), Extraction, Fan, Blower (Centrifugal, Suction and Discharge), Power Generator, Exciter, Hoist, Elevator, Rubber Processor (Calender, Roll and Extruder), Textile Machine (Weaving Machine, Fine Spinning Machine, Twisting Machine and Weft Winding Machine), Centrifugal Separator, Conveyor (Flight and Screw), Hammer Mill, Paper Manufacturing Machine (Pulpapapitor).

Typical machines using a belt are listed above. For other machines using a belt, a load correction coefficient should be fixed by reference to this table.

In the case of starts and stops over 100 times per day or rapid acceleration and deceleration, check the above values multiplied by 1.3. (MTS_M only)

Table 2. Speed Ration Correction Coefficient (Kr)

Table with 2 columns: Speed Ratio, Coefficient (Kr). Rows: 1.00 to 1.25 (0), 1.25 to 1.75 (0.1), 1.75 to 2.50 (0.2), 2.50 to 3.50 (0.3), 3.50 or more (0.4).

Table 3. Idlers Correction Coefficient (Ki)

Table with 2 columns: Position of Idler, Coefficient (Ki). Rows: Inside the loose side of the belt (0), Outside the loose side of the belt (0.1), Inside the loose side of the belt (0.1), Outside the loose side of the belt (0.2).

[Step 2-b] Calculating Design PowerFor P_M/UP_M Series

- Design Power (Pd) =Transmission Power (Pt) x Overload Factor (Ks)
• Calculate Transmission Power at Motor Rated Power Output. (Ideally should be calculated with the load applied to the belt)
• Normal Motor Load Factor (Ks)=Ko+Ki+Kr+Kh
Ko: Application Coefficient (Table 4) Ki: Idler Correction Factor (Table 5) Kr: Speed Multiplication Correction Factor (Table 6) Kh: Operation Time Correction Factor (Table 7)

Table 4. Application Coefficient (Ko)

Table with 4 columns: Type of Motor, I, II, III. Rows: Type of Passive Unit, Peak Output/Basic Output, 200% or Less, 200 to 300, 300% or More. Motor section includes AC Motor (Single-Phase, Squirrel-Cage Induction, Wire-Wound), Synchronous Motor, DC Motor, Internal Combustion Engine, Hydraulic Motor.

Note)When the transmission involves regular, reverse revolutions, large momentum or extreme impact, a basic-use coefficient of 2.5 or more can be used.

Table 5. Correction Coefficient when Idler is Used (Ki)

Table with 3 columns: Location of Idler in Use, Inside, Outside. Rows: Loose Side of the Belt (0, +0.1), Tense Side of the Belt (+0.1, +0.2).

Should be added for each idler.

Table 6. Speed Increase Correction Coefficient (Kr)

Table with 2 columns: Speed Increase Ratio, Correction Coefficient. Rows: 1 to 1.25 (0), 1.25 to 1.75 (+0.1), 1.75 to 2.5 (+0.2), 2.5 to 3.5 (+0.3), 3.5 or more (+0.4).

Table 7. Operating Correction Coefficient (Kh)

Table with 2 columns: Operation Hours, Correction Coefficient. Rows: Operated 10 or More Hours a Day (+0.1), Operated 20 or More Hours a Day (+0.2), Operated 500 Hours or Less (For Seasonal Operation) (-0.2).

[Step 2-c] Calculating the Design Power.....2GT/3GT Series

- Design Power (Pd) =Transmission Power (Pt) ×Overload Coefficient (Ks)
• Calculate the Transmission Power (Pt) in terms of the rated power of the prime motor. (Originally, it is ideal to calculate from the actual load applied to the belt)
A: Normal Motor Load Factor (Ks)=Ko+Ki+Kr+Kh
Ko: Load Correction Factor (Table 8) Ki: Idler Correction Factor (Table 9) Kr: Speed Multiplication Correction Factor (Table 10) Kh: Operation Time Correction Factor (Table 11)
B: Servo Motor Kp, other table*

Table 8. Load Correction Factor (Ko)

Table with 4 columns: Type of Motor, I, II, III. Rows: Peak Output/Basic Output, 150% or Less, Over 150%-200% or Less, Over 250%. AC Motor section includes Single-Phase, Squirrel, Cage, Type, Wound, Field, Type. Synchronous Motor, DC Motor, Hydraulic Motor, Office Machinery, Home Appliance, Finance Equipment, Food · Medicine · Medical Equipment, Machine Tool, Printing Book Making, Textile Machine, Sawing Machine, Belt Conveyor · Packaging Machine, Film · Wire Making Machine.

Table 12. Special Motor Correction Factor (Kp)

Table with 2 columns: Motor Type, Load Correction Factor. Rows: Servo Motor (Design as Kp=2.5 for Rated Output, and Kp=0.5 for Peak Output (Rational speed as applied speed)), Spindle Motor (Design as Kp=2.2 for Rated Output and Base Rotational Speed).

[Step 2-d] Calculating Designed Power For EV5GT/EV8YU Series

- Design Power (Pd) =Transmission Power (Pt) x Overload Factor (Ks)
• Calculate Transmission Power at Motor Rated Power Output. (Ideally should be calculated with the load applied to the belt)
• Overload Factor (Ks)=Ko+Ki+Kr+Kh+Km
Ko: Load Correction Factor (Table 13) Ki: Idler Correction Factor (Table 14) Kr: Speed Multiplication Correction Factor (Table 15) Kh: Operation Time Correction Factor (Table 16) Km: Start/Stop Correction Factor (Table 17)

Table 13. Load Correction Factor (Ko)

Table with 6 columns: Prime Motor Type, Induction Motor, Spindle Motor, Servo Motor (Peak Output/Rated Output), 200% or Less, 201~299%, 300% or More. Rows: Robot, Injection Mold Machine, Machine Tool, Machine Tool, Conveyor, Medical Machinery · Measurement Equipment, Packaging Machine, Agitator · Mixer, Drilling Machine · Granulator, Centrifuge, Mills, Printing Machine · Book Making Machine, Paper Making Machine, Textile Machine, Wire Related, Woodworking Machine, Pump, Compressor, Fan · Blower, Generator · Exciter, Rubber Industry Machinery · Lumber Mill Machinery.

Table 9. Idler Correction Factor (Ki)

Table with 3 columns: Idler Position, Inside, Outside. Rows: Loose Side of the Belt (0, +0.1), Tense Side of the Belt (+0.1, +0.2).

Table 10. Speed Multiplication Correction Factor (Kr)

Table with 2 columns: Speed Increase Ratio, Correction Factor. Rows: 1 or More Less than 1.25 (0), 1.25 or More Less than 1.75 (+0.1), 1.75 or More Less than 2.5 (+0.2), 2.5 or More Less than 3.5 (+0.3), 3.5 or More (+0.4).

Table 11. Operation Time Correction Factor (Kh)

Table with 2 columns: Operation Time, Correction Factor. Rows: Less than 10 hours (Everyday) (0), 10~16 Hours Continuous (Everyday) (+0.2), 16~24 Hours Continuous (Everyday) (+0.4), 300 Hours/year or Less (Seasonal operations etc.) (-0.2).

Table 14. Idler Correction Factor (Ki)

Table with 2 columns: No Idler, 0. Rows: Inside Idler (0.1×(Qty-1)), Outside Idler (0.1×(Qty-1)).

Table 15. Speed Multiplication Correction Factor (Kr)

Table with 2 columns: Operation Duration (Hours/Day), Correction Factor. Rows: 1 or More Less than 1.25 (0), 1.25 or More Less than 1.75 (0.1), 1.75 or More Less than 2.5 (0.2), 2.5 or More Less than 3.5 (0.3), 3.5 or More (0.4).

Table 16. Operation Time Correction Factor (Kh)

Table with 2 columns: Operation Duration (Hours/Day), Correction Factor. Rows: ≤8 (0.1), 8<16 (0.2), 16≤ (0.3).

Table 17. Start/Stop Correction Factor (Km)

Table with 2 columns: Start/Stop Frequency (Times/Day), Correction Factor. Rows: ≤10 (0.1), 11<100 (0.2), 101<500 (0.3), 501< (0.4).

[Technical Data]
Selection of Timing Belts 2

Selection is easy with Timing Pulleys and Belts automatic calculation tool available at:
http://fawos.misumi.jp/FA_WEB/pulley_us/

[Step 3] Temporarily Selecting the Type of Belt from Selection Guide Table

Table 18. Selection Guide Table 1 (MXL,XL,L,H,T5,T10)

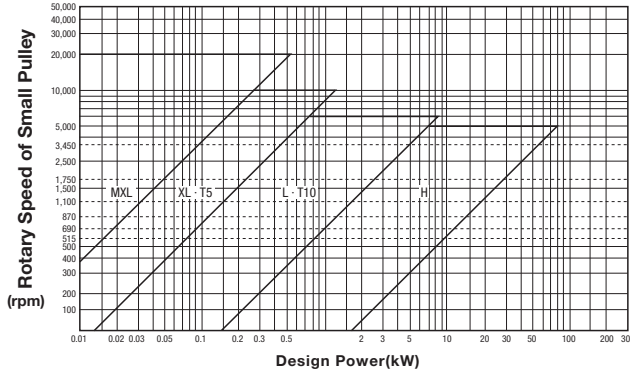


Table 19. Selection Guide Table 2 (S_M series)

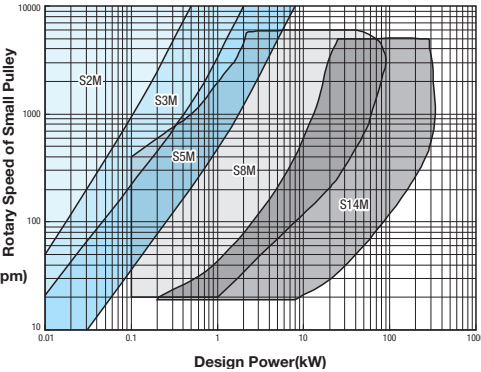


Table 20. Selection Guide Table 3 (P_M series)

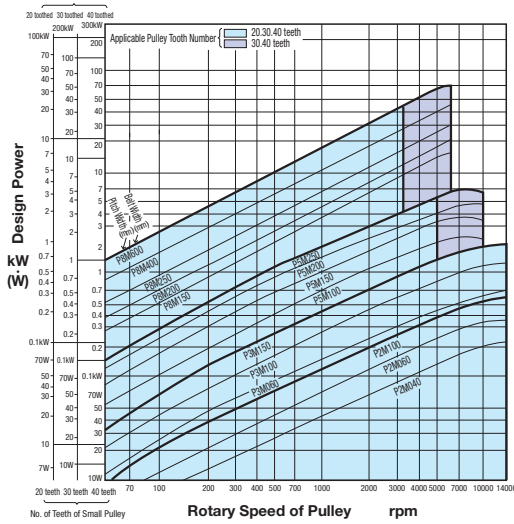


Table 21. Selection Guide Table 4 (MTS8M)

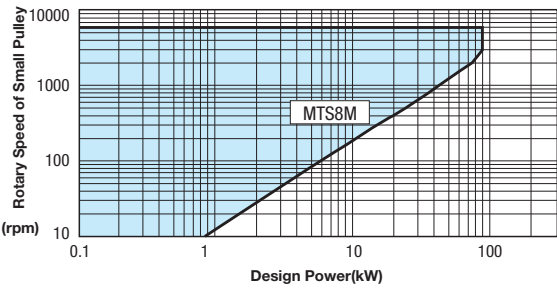


Table 22. Selection Guide Table 5 (UP_M series)

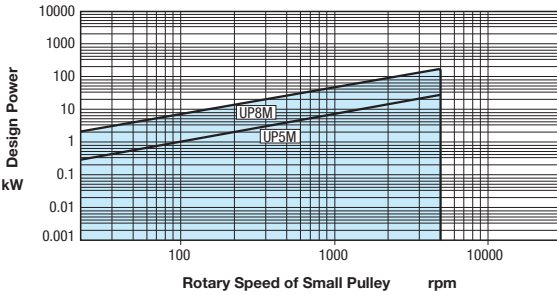


Table 23. Selection Guide Table (2GT-3GT series)

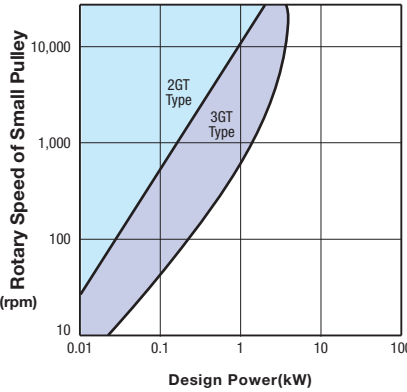
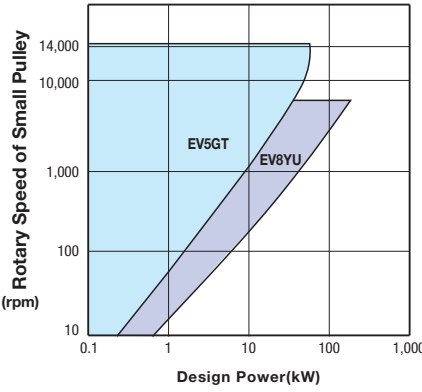


Table 24. Selection Guide Table (EV5GT-EV8YU series)



[Step 4] Determining Number of Teeth of Large and Small Pulley, Belt Length, Inter-Shaft Distance

(1) Select the number of teeth of large and small pulley from P.3519~3529, which can satisfy the predetermined speed ratio.
(However, note that the number of teeth for small pulley should be larger than the min. number of teeth shown in Table 25.)

Speed Ratio = $\frac{\text{Number of Teeth of Large Pulley}}{\text{Number of Teeth of Small Pulley}}$

Table 25. Min. Number of Teeth of Pulley

Rotary Speed of Small Pulley (rpm)	Type of Belt, Minimum Number of Teeth										
	MXL	XL	L	H	S2M	S3M	S5M	S8M	S14M	MTS8M	T5
900 or Less	12	10	12	14	14	14	14	22	—	24	12
Over 900 1200 or Less	12	10	12	16	14	14	16	24	34	24	12
Over 1200 1800 or Less	14	11	14	18	16	16	20	26	38	24	14
Over 1800 3600 or Less	16	12	16	20	18	18	24	28	40	24	16
Over 3600 4800 or Less	—	16	20	24	20	20	26	30	48	24	20
Over 4800 10000 or Less	—	—	—	—	20	20	26	—	—	—	—

(2) Determine approx. belt circum. length (Lp') in terms of temporary inter-shaft distance (C'), diameter of large pulley (Dp) and diameter of small pulley (dp).

$$Lp' = 2C' + \frac{\pi(Dp+dp)}{2} + \frac{(Dp-dp)^2}{4C'}$$

C' : Temporary Inter-shaft Distance
Dp : Pitch Diameter of Large Pulley (mm)
dp : Pitch Diameter of Small Pulley (mm)
Lp' : Approx. Belt Circum. Length (mm)

(3) Determine a belt circum. length (Lp') that is the nearest value to approx. belt circum. length referring to P.1173~1184, and then calculate the correct inter-shaft distance using the following formula.

$$C = \frac{b + \sqrt{b^2 - 8(Dp-dp)^2}}{8}$$

Dp : Pitch Diameter of Large Pulley (mm)
dp : Pitch Diameter of Small Pulley (mm)
Lp : Belt Circum. Length (mm)
C : Inter-shaft Distance

$$b = 2Lp - \pi(Dp+dp)$$

[Step 5] Determining Belt Width

(1) Calculate an approx. belt width using the following formula, and then select a belt width (Bw':mm) that is the nearest value to the approximated value.

$$Bw' = \frac{Pd}{Ps \cdot Km} \times Wp$$

Pd : Design Power
Ps : Reference Transmission CapacityUse the Reference Transmission Capacity Table on P.3519~3529.
Km : Engagement Correction Coefficient (Table 26)
Wp : Reference Belt Width (Table 27)

Table 26. Engagement Correction Coefficient (Km)

No. of Teeth Engaged Zm	More than 6	5	4	3	2
Km	1.0	0.8	0.6	0.4	0.2

Table 27. Reference Belt Width (Wp)

Type of Belt	MXL	XL	L	H	S2M	S3M	S5M	S8M	S14M	MTS8M
Reference Belt Width	6.4	25.4	25.4	25.4	4	6	10	60	120	60

$$\text{No. of Teeth Engaged (Zm)} = \frac{Zd \cdot \theta}{360^\circ}$$
$$\theta = 180^\circ - \frac{57.3(Dp-dp)}{C}$$

Zd : No. of Teeth of Small Pulley
θ : Contact Angle(°)
Dp : Pitch Diameter of Large Pulley (mm)
dp : Pitch Diameter of Small Pulley (mm)
C : Inter-shaft Distance (mm)

(2) Check if Design Power (Pd) satisfies the following formula. (If not, select the belt width of one size larger again.)

$Pd < Ps \cdot Km \cdot Kb$
*2GT · 3GT · EV5GT · EV8YU
 $Pd < Ps \cdot Km \cdot Kb \cdot KL$

Pd : Design Power
Ps : Reference Transmission Capacity
Km : Engagement Correction Coefficient
Kb : Width Correction Coefficient (Table 28)
KL : Length Correction Coefficient (Table 29)

Table 28. Width Correction Coefficient(Kb)

Type of Belt	Nominal	Belt Width	Width Correction Coefficient
MXL	019	4.8	0.72
	025	6.4	1.00
	037	9.5	1.57
	050	12.7	2.18
XL	025	6.4	0.15
	031	7.9	0.21
	037	9.5	0.28
	050	12.7	0.42
L	050	12.7	0.42
	075	19.1	0.71
	100	25.4	1.00
	150	38.1	1.56
H	075	19.1	0.71
	100	25.4	1.00
	150	38.1	1.56
	200	50.8	2.14
S2M	040	4	1.00
	060	6	1.59
	100	10	2.84
	060	6	1.00
S3M	100	10	1.79
	150	15	2.84
	100	10	1.00
	150	15	1.59
S5M	150	15	1.59
	250	25	2.84
	150	15	0.21
	250	25	0.37
S8M	150	15	0.21
	250	25	0.37
	300	30	0.45
	400	40	0.63
S14M	300	30	0.45
	400	40	0.63
	400	40	0.29
	600	60	0.45

Table 29. Length Correction Coefficient(KL)

Length Correction Coefficient(KL)	0.80	0.90	1.00	1.10	1.20
2GT Belt Length(mm)	130 or less	131~182	183~280	281~419	420 or less
3GT Belt Length(mm)	190 or less	191~260	261~400	401~599	600 or less
EV5GT Belt Length(mm)	440 or less	441~550	551~800	801~1100	1001 or less
EV8YU Belt Length(mm)	600 or less	601~900	901~1250	1251~1799	1800 or less

Type of Belt	Nominal	Belt Width	Width Correction Coefficient
P2M	40	4	1.00
	60	6	1.59
	100	10	1.78
P3M	150	15	2.84
	100	10	1.00
	150	15	1.59
P5M	150	15	1.59
	150	15	1.00
	250	25	1.79
P8M	100	10	1.00
	150	15	1.60
	200	20	2.30
T5	250	25	2.90
	150	15	1.60
	200	20	2.30
T10	250	25	2.90
	300	30	3.50
	400	40	4.60
	500	50	5.80

Type of Belt	Nominal	Belt Width	Width Correction Coefficient
2GT	4	4	1.00
	6	6	1.67
	9	9	2.67
3GT	6	6	1.00
	9	9	1.66
	15	15	2.97
EV5GT	9	9	0.53
	12	12	0.76
	15	15	1.00
EV8YU	15	15	0.71
	20	20	1.00
	25	25	1.29

[Technical Data]
Selection of Timing Belts 3 -Transmission Capacity Table-

Selection is easy with Timing Pulleys and Belts automatic calculation tool available at:
http://fawos.misumi.jp/FA_WEB/pulley_us/

[Step 6] Check if Inter-Shaft Distance Adjustment Range is Larger than that in Table 16

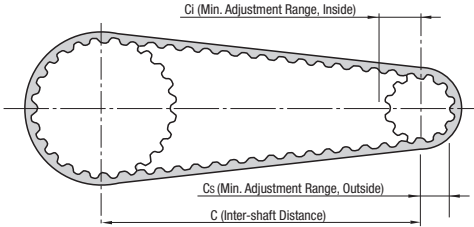


Table 16. Minimum Inter-Axial Distance Adjustment Range

Belt Length	Length Tolerance	Inter-Shaft Distance Tolerance	MXL		XL		L		H		S2M S3M S5M		S8M S14M		MTS8M		P2M P3M P5M		P8M		T5		T10	
			Ci	Cs	Ci	Cs	Ci	Cs	Ci	Cs	Ci	Cs	Ci	Cs	Ci	Cs	Ci	Cs	Ci	Cs	Ci	Cs	Ci	Cs
150 or Less	±0.35	±0.18	3	3	3	3	3	3	3	2	3	—	3	3	3	3	3	3	3	3	3	3		
150 to 250	±0.41	±0.21		3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3			
250 to 380	±0.46	±0.23		5	5	5	5	2	3	3	3	3	3	3	3	3	3	3	5	5	5			
380 to 500	±0.51	±0.26		10	10	10	10	2	3	3	3	3	3	3	3	3	3	3	10	10	10			
500 to 750	±0.60	±0.30		10	10	10	10	10	3	5	5	3	3	5	15	5	5	5	10	10	10			
750 to 1000	±0.66	±0.33		15	15	15	15	15	3	15	5	15	5	15	5	10	5	15	5	5	15	15		
1000 to 1250	±0.76	±0.38		15	15	15	15	5	10	5	10	5	10	5	10	10	10	10	15	15	15			
1250 to 1500	±0.82	±0.41		25	25	25	25	25	5	10	10	10	10	10	10	10	10	10	25	25	25			
1500 to 1750	±0.86	±0.43		25	25	25	25	5	10	10	10	10	10	10	10	10	10	10	25	25	25			
1750 to 2000	±0.92	±0.46	30	30	30	30	30	5	10	10	10	10	10	10	10	10	10	30	30	30				

Belt Length	Length Tolerance	Inter-Shaft Distance Tolerance	2GT		3GT		EV5GT		EV8YU	
			Ci	Cs	Ci	Cs	Ci	Cs	Ci	Cs
150 or Less	± 0.40	± 0.20	3	3	3	3	3	3	3	3
Over 150	± 0.40	± 0.20	3	3	3	3	3	3	3	3
Over 250	± 0.46	± 0.23	3	3	3	3	3	3	3	3
Over 380	± 0.50	± 0.25	3	3	3	3	3	3	3	3
Over 500	± 0.60	± 0.30	5	5	5	5	10	5	20	5
Over 750	± 0.66	± 0.33	5	5	5	5	10	5	20	5
Over 1000	± 0.76	± 0.38	10	10	10	10	10	10	10	10
Over 1250	± 0.82	± 0.41	10	10	10	10	10	10	10	10
Over 1500	± 0.86	± 0.43	10	10	10	10	10	10	10	10
Over 1750	± 0.92	± 0.46	10	10	10	10	10	10	10	10

Notes on Operation

- Be careful to avoid the ingress of foreign particles.
When solid foreign particles enter during operation, it can scratch the belt and adversely affect the engagement of the belt and the pulley.
In some cases, the pulley may disengage, land on the teeth of the pulley, and be cut.
- Avoid Adhesion of oil.
Oil on the rubber timing belt may wet and expand it, drastically shortening its service life.
(a)Take special care when using solvent type oil.
(b)A small amount of lubricant or grease, however, rarely causes a trouble.
- Do not use the belt in a humid atmosphere.
- Please use a well-ventilated safety cover.
- The service life of the belt, when used at a high temperature (80°C or more), can be drastically shortened.

Reference Belt Width Tolerance

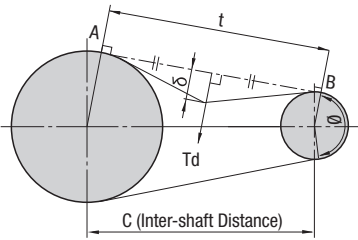
(Unit: mm)

Belt Width	Belt Length			
	351 or Less	351 to 840	840 to 1680	1680 or More
10 or Less	+0.3 −0.6	+0.3 −0.6	+0.3 −0.6	+0.6 −0.6
10 to 40	+0.6 −0.6	+0.6 −0.6	+0.6 −0.6	+0.6 −0.6
40 to 50	+0.6 −0.6	+0.6 −0.6	+1.0 −1.0	+1.0 −1.3

Cautions on Use of Belt

How to Extend Belt

When the belt is too taut, its service life can be shortened, while when it is not taut enough, the belt may (jump off) the groove of the pulley due to an activating torque or shock load. Keep the belt stationary and optimize its tautness. The warp load necessary to provide the optimum tautness can be calculated from values representing the belt, its width and the span in equation A below.



$$Td = \frac{Ti + \frac{t \times Y}{Lp}}{16} \text{ Equation A}$$

Td: Load N Needed for Deflection d at the Center of Span t

Ti : Initial Tension N From Table 31

Lp : Length of the Belt (mm)

Y : Correction Coefficient From Table 31

C : Inter-shaft Distance (mm)

δ : Deflection (mm) δ=0.016t

dp : Diameter of the Pitch Circle of the Small Pulley (mm)

t : Span Length (mm)

Dp : Diameter of the Pitch Circle of the Large Pulley (mm)

$$t = \sqrt{C^2 - \frac{(Dp - dp)^2}{4}}$$

Table 31. Initial Tension (Ti) and Correction Coefficient (Y)

Type	Ti-Y		Belt Nominal Width		019	025	031	037	050	075	100	150	200
			Belt Width (mm)		4.8	6.4	7.9	9.5	12.7	19.1	25.4	38.1	50.8
MXL	Ti	Max. Value	N	Recommended Value	9.8	13.7	—	21.6	29.9	—	—	—	—
		Recommended Value		5.8	8.2	—	12.9	18.0	—	—	—	—	—
	Coefficient Y		—	—	—	—	—	—	—	—	—	—	—
XL	Ti	Max. Value	N	Recommended Value	—	29	37	44	67	—	—	—	—
		Recommended Value		18	25	32	51	—	—	—	—	—	—
	Coefficient Y		—	3.8	5.4	7.6	11.8	—	—	—	—	—	—
L	Ti	Max. Value	N	Recommended Value	—	—	—	—	76	125	175	273	—
		Recommended Value		—	—	—	—	52	87	123	191	—	—
	Coefficient Y		—	—	—	—	44.1	75.5	107	165	—	—	—
H	Ti	Max. Value	N	Recommended Value	—	—	—	—	—	293	421	646	889
		Recommended Value		—	—	—	—	—	—	222	312	486	668
	Coefficient Y		—	—	—	—	—	—	142	205	317	423	—

Type	Ti-Y		Belt Nominal Width		60	100	150	250
			Belt Width (mm)		6	10	15	25
P2M	Ti	Max. Value	N	Recommended Value	13	—	—	—
		Recommended Value		9.8	—	—	—	—
	Coefficient Y		—	0.9	—	—	—	—
P3M	Ti	Max. Value	N	Recommended Value	—	46	74	—
		Recommended Value		—	34	55	—	—
	Coefficient Y		—	—	1.9	3.0	—	—
P5M	Ti	Max. Value	N	Recommended Value	—	147	225.4	—
		Recommended Value		—	107.8	166.6	—	—
	Coefficient Y		—	—	56.9	82.4	—	—
P8M	Ti	Max. Value	N	Recommended Value	—	—	294	509.6
		Recommended Value		—	—	225.4	382.2	—
	Coefficient Y		—	—	—	135	239	—

Type	Ti-Y		Belt Nominal Width		40	60	100	150	250	300	400	600
			Belt Width (mm)		4	6	10	15	25	30	40	60
S2M	Ti	Max. Value	N	Recommended Value	7.8	12.7	22.6	—	—	—	—	—
		Recommended Value		5.9	9.8	16.7	—	—	—	—	—	—
	Coefficient Y		—	9.8	15.7	27.4	—	—	—	—	—	—
S3M	Ti	Max. Value	N	Recommended Value	—	26	46	73	—	—	—	—
		Recommended Value		—	20	34	54	—	—	—	—	—
	Coefficient Y		—	—	26.5	46.1	75.5	—	—	—	—	—
S5M	Ti	Max. Value	N	Recommended Value	—	—	77	124	—	—	—	—
		Recommended Value		—	—	58	93	166	—	—	—	—
	Coefficient Y		—	—	—	52.8	85.5	151.0	—	—	—	—
S8M MTS8M	Ti	Max. Value	N	Recommended Value	—	—	—	294	510	628	873	—
		Recommended Value		—	—	—	—	226	382	470	657	—
	Coefficient Y		—	—	—	—	98	196	235	333	—	—
S14M	Ti	Max. Value	N	Recommended Value	—	—	—	—	—	1226	1912	—
		Recommended Value		—	—	—	—	—	—	1108	1726	—
	Coefficient Y		—	—	—	—	—	—	—	686	1059	—

Type	Ti-Y		Belt Nominal Width		100	150	200	250	300	400	500
			Belt Width (mm)		10	15	20	25	30	40	50
T5	Ti	Max. Value	N	Recommended Value	37.3	59	85	106	—	—	—
		Recommended Value		24.5	39	59	74	—	—	—	—
	Coefficient Y		—	16.7	26.5	38.2	47.5	—	—	—	—
T10	Ti	Max. Value	N	Recommended Value	—	162	235	294	363	500	628
		Recommended Value		—	108	157	196	245	333	422	—
	Coefficient Y		—	—	71.6	104.9	130.4	163.8	222.6	281.5	—

Type		Ti-Y		Belt Nominal Width		4	6	9	12	15	20	25
				Belt Width error		4	6	9	12	15	20	25
2GT	Ti	Max. Value	12.2	20.5	32.8	—	—	—	—	—	—	
	N	Recommended Value	9.4	15.8	25.2	—	—	—	—	—		
3GT	Coefficient Y		—	—	—	—	—	—	—	—		
	Ti	Max. Value	—	38	57	—	96	—	—			
	N	Recommended Value	—	29	44	—	74	—	—			
EV5GT	Coefficient Y		—	—	—	—	—	—	—			
	Ti	Max. Value	—	—	92	127	163	—	—			
	N	Recommended Value	—	—	71	98	125	—	—			
EV8YU	Coefficient Y		—	—	—	—	—	—	—			
	Ti	Max. Value	—	—	—	—	273	364	455			
	N	Recommended Value	—	—	—	—	210	280	350			
EV8YU	Coefficient Y		—	—	—	—	—	—	—			

[Technical Data]

Selection of Timing Belts 4 -Transmission Capacity Table-

Selection is easy with Timing Pulleys and Belts automatic calculation tool available at:
http://fawos.misumi.jp/FA_WEB/pulley_us/

Table 32. Reference Transmission Capacity of MXL Ps -Nominal Width of Belts 025(6.4mm)- (W)

No. of Teeth of Small Pulley		12	14	15	16	18	20	22	24	25	26	28	30	32	36	40
Rotary Speed of Small Pulley(rpm)	Diameter of the Pitch Circle(mm)	7.76	9.06	9.70	10.35	11.64	12.94	14.23	15.52	16.17	16.82	18.11	19.40	20.70	23.29	25.97
		9.0	10.5	11.3	12.0	13.5	15.0	16.5	18.0	18.8	19.6	21.1	22.6	24.1	27.1	30.1
950		11.0	12.8	13.8	14.7	16.5	18.4	20.2	22.0	23.0	23.9	25.7	27.6	29.4	33.1	36.7
1160			15.8	16.9	18.0	20.3	22.6	24.8	27.1	28.2	29.3	31.6	33.9	36.1	40.6	45.1
1425			19.4	20.8	22.2	24.9	27.7	30.5	33.3	34.7	36.0	38.8	41.6	44.3	49.9	55.4
1750				33.9	36.1	40.6	45.1	49.6	54.1	56.4	58.6	63.1	67.6	72.1	81.0	90.0
2850				41.0	43.7	49.2	54.6	60.1	65.5	68.2	70.9	76.3	81.7	87.1	97.9	108.6
3450																
100		0.9	1.1	1.1	1.2	1.4	1.5	1.7	1.9	1.9	2.0	2.2	2.3	2.5	2.8	3.1
200		1.9	2.2	2.3	2.5	2.8	3.1	3.4	3.8	3.9	4.1	4.4	4.7	5.0	5.7	6.3
300		2.8	3.3	3.5	3.8	4.2	4.7	5.2	5.7	5.9	6.1	6.6	7.1	7.6	8.5	9.5
400		3.8	4.4	4.7	5.0	5.7	6.3	6.9	7.6	7.9	8.2	8.8	9.5	10.1	11.4	12.6
500		4.7	5.5	5.9	6.3	7.1	7.9	8.7	9.5	9.9	10.3	11.1	11.9	12.6	14.2	15.8
600		5.7	6.6	7.1	7.6	8.5	9.5	10.4	11.4	11.9	12.3	13.3	14.2	15.2	17.1	19.0
700		6.6	7.7	8.3	8.8	10.0	11.1	12.2	13.3	13.8	14.4	15.5	16.6	17.7	19.9	22.2
800		7.6	8.8	9.5	10.1	11.4	12.6	13.9	15.2	15.8	16.5	17.7	19.0	20.3	22.8	25.3
900		8.5	10.0	10.7	11.4	12.8	14.2	15.7	17.1	17.8	18.5	19.9	21.4	22.8	25.7	28.5
1000		9.5	11.1	11.9	12.6	14.2	15.8	17.4	19.0	19.8	20.6	22.2	23.8	25.3	28.5	31.7
1100	10.4	12.2	13.0	13.9	15.7	17.4	19.2	20.9	21.8	22.6	24.4	26.1	27.9	31.4	34.8	
1200	11.4	13.3	14.2	15.2	17.1	19.0	20.9	22.8	23.8	24.7	26.6	28.5	30.4	34.2	38.0	
1300		14.4	15.4	16.5	18.5	20.6	22.6	24.7	25.7	26.8	28.8	30.9	32.9	37.1	41.2	
1400		15.5	16.6	17.7	19.9	22.2	24.4	26.6	27.7	28.8	31.0	33.3	35.5	39.9	44.3	
1500		16.6	17.8	19.0	21.4	23.8	26.1	28.5	29.7	30.9	33.3	35.6	38.0	42.8	47.5	
1600		17.7	19.0	20.3	22.8	25.3	27.9	30.4	31.7	32.9	35.5	38.0	40.5	45.6	50.7	
1700		18.8	20.2	21.5	24.2	26.9	29.6	32.3	33.7	35.0	37.7	40.4	43.1	48.5	53.8	
1800		19.9	21.4	22.8	25.7	28.5	31.4	34.2	35.6	37.1	39.9	42.8	45.6	51.3	57.0	
2000			23.8	25.3	28.5	31.7	34.8	38.0	39.6	41.2	44.3	47.5	50.7	57.0	63.3	
2200			26.1	27.9	31.4	34.8	38.3	41.8	43.6	45.3	48.8	52.2	55.7	62.7	69.6	
2400			28.5	30.4	34.2	38.0	41.8	45.6	47.5	49.4	53.2	57.0	60.8	68.3	75.9	
2600			30.9	32.9	37.1	41.2	45.3	49.4	51.5	53.5	57.6	61.7	65.8	74.0	82.1	
2800				35.5	39.9	44.3	48.8	53.2	55.4	57.6	62.0	66.4	70.8	79.6	88.4	
3000				38.0	42.8	47.5	52.2	57.0	59.3	61.7	66.4	71.2	75.9	85.3	94.6	
3200				40.5	45.6	50.7	55.7	60.8	63.3	65.8	70.8	75.9	80.9	90.9	100.9	
3400				43.1	48.5	53.8	59.2	64.5	67.2	69.9	75.2	80.6	85.9	96.5	107.1	
3600				45.6	51.3	57.0	62.7	68.3	71.2	74.0	79.6	85.3	90.9	102.1	113.3	
3800					54.1	60.1	66.1	72.1	75.1	78.1	84.0	90.0	95.9	107.7	119.5	
4000					57.0	63.3	69.6	75.9	79.0	82.1	88.4	94.6	100.9	113.3	125.6	
4200					59.8	66.4	73.0	79.6	82.9	86.2	92.8	99.3	105.8	118.8	131.8	
4400					62.7	69.6	76.5	83.4	86.8	90.3	97.1	104.0	110.8	124.4	137.9	
4600					65.5	72.7	79.9	87.1	90.7	94.3	101.5	108.6	115.8	129.9	144.0	
4800					68.3	75.9	83.4	90.9	94.6	98.4	105.8	113.3	120.7	135.4	150.0	

*Values in the table above are for nominal belt width 025(6.4mm). For other belt widths, those values should be multiplied by the width correction coefficient, Kb, shown in Table 28.

Table 33. Reference Transmission Capacity of XL Ps -Nominal Width of Belts 100(25.4mm)- (kW)

No. of Teeth of Small Pulley		10	11	12	14	15	16	18	19	20	21	22	24	25	26	28	30
Rotary Speed of Small Pulley(rpm)	Diameter of the Pitch Circle(mm)	16.17	17.79	19.40	22.64	24.26	25.87	29.11	30.72	32.34	33.96	35.57	38.81	40.43	42.04	45.28	48.51
		0.14	0.16	0.17	0.20	0.21	0.23	0.26	0.27	0.29	0.30	0.32	0.35	0.36	0.38	0.41	0.43
950		0.17	0.19	0.21	0.25	0.26	0.28	0.32	0.33	0.35	0.37	0.39	0.42	0.44	0.46	0.50	0.53
1160				0.26	0.30	0.32	0.35	0.39	0.41	0.43	0.46	0.48	0.52	0.54	0.57	0.61	0.65
1425				0.32	0.37	0.40	0.43	0.48	0.51	0.53	0.56	0.59	0.64	0.67	0.69	0.75	0.80
1750				0.52	0.61	0.65	0.07	0.78	0.82	0.87	0.91	0.95	1.04	1.08	1.12	1.21	1.29
2850				0.63	0.74	0.79	0.84	0.94	1.00	1.05	1.10	1.15	1.25	1.30	1.35	1.45	1.55
3450																	
100		0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04
200		0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.05	0.06	0.06	0.06	0.07	0.07	0.08	0.08	0.09
300		0.04	0.05	0.05	0.06	0.06	0.07	0.08	0.08	0.09	0.09	0.10	0.11	0.11	0.12	0.12	0.13
400		0.06	0.06	0.07	0.08	0.09	0.09	0.11	0.11	0.12	0.12	0.13	0.14	0.15	0.16	0.17	0.18
500		0.07	0.08	0.09	0.10	0.11	0.12	0.13	0.14	0.15	0.16	0.16	0.18	0.19	0.20	0.21	0.23
600		0.09	0.10	0.11	0.12	0.13	0.14	0.16	0.17	0.18	0.19	0.20	0.22	0.23	0.24	0.25	0.27
700		0.10	0.11	0.12	0.15	0.16	0.17	0.19	0.20	0.21	0.22	0.23	0.25	0.27	0.28	0.30	0.32
800		0.12	0.13	0.14	0.17	0.18	0.19	0.22	0.23	0.24	0.25	0.27	0.29	0.30	0.32	0.34	0.37
900		0.13	0.15	0.16	0.19	0.20	0.22	0.25	0.26	0.27	0.29	0.30	0.33	0.34	0.36	0.38	0.41
1000		0.15	0.16	0.18	0.21	0.23	0.24	0.27	0.29	0.30	0.32	0.33	0.37	0.38	0.40	0.43	0.46
1100		0.16	0.18	0.20	0.23	0.25	0.27	0.30	0.32	0.33	0.35	0.37	0.40	0.42	0.44	0.47	0.50
1200		0.18	0.20	0.22	0.25	0.27	0.29	0.33	0.35	0.37	0.38	0.40	0.44	0.46	0.48	0.51	0.55
1300				0.24	0.28	0.30	0.32	0.36	0.38	0.40	0.42	0.44	0.48	0.50	0.52	0.56	0.59
1400				0.25	0.30	0.32	0.34	0.38	0.41	0.43	0.45	0.47	0.51	0.53	0.56	0.60	0.64
1500				0.27	0.32	0.34	0.37	0.41	0.43	0.46	0.48	0.50	0.55	0.57	0.59	0.64	0.69
1600				0.29	0.34	0.37	0.39	0.44	0.46	0.49	0.51	0.54	0.59	0.61	0.63	0.68	0.73
1700				0.31	0.36	0.39	0.41	0.47	0.49	0.52	0.54	0.57	0.62	0.65	0.67	0.73	0.78
1800				0.33	0.38	0.41	0.44	0.49	0.52	0.55	0.58	0.60	0.66	0.69	0.71	0.77	0.82
2000				0.37	0.43	0.46	0.49	0.55	0.58	0.61	0.64	0.67	0.73	0.76	0.79	0.85	0.91
2200				0.40	0.47	0.50	0.54	0.60	0.64	0.67	0.70	0.74	0.80	0.84	0.87	0.94	1.00
2400				0.44	0.51	0.55	0.59	0.66	0.70	0.73	0.77	0.80	0.88	0.91	0.95	1.02	1.09
2600				0.48	0.56	0.59	0.63	0.71	0.75	0.79	0.83	0.87	0.95	0.99	1.03	1.10	1.18
2800				0.51	0.60	0.64	0.68	0.77	0.81	0.85	0.89	0.94	1.02	1.06	1.10	1.19	1.27
3000				0.55	0.64	0.69	0.73	0.82	0.87	0.91	0.96	1.00	1.09	1.14	1.18	1.27	1.35
3200				0.59	0.68	0.73	0.78	0.88	0.92	0.97	1.02	1.07	1.16	1.21	1.26	1.35	1.44
3400				0.62	0.73	0.78	0.83	0.93	0.98	1.03	1.08	1.13	1.23	1.28	1.33	1.43	1.53
3600				0.66	0.77	0.82	0.88	0.98	1.04	1.09	1.14	1.20	1.30	1.35	1.41	1.51	1.61
3800					0.87	0.92	1.04	1.09	1.15	1.21	1.26	1.37	1.43	1.48	1.59	1.69	
4000					0.91	0.97	1.09	1.15	1.21	1.27	1.33	1.44	1.50	1.55	1.67	1.78	
4200					0.96	1.02	1.14	1.21	1.27	1.33	1.39	1.51	1.57	1.63	1.74	1.86	
4400						1.00	1.07	1.20	1.26	1.33	1.39	1.45	1.58	1.64	1.70	1.82	1.94
4600						1.05	1.12	1.25	1.32	1.38	1.45	1.52	1.64	1.71	1.77	1.90	2.02
4800						1.09	1.16	1.30	1.37	1.44	1.51	1.58	1.71	1.78	1.84	1.97	2.10

[Technical Data]
Selection of Timing Belts 5 -Transmission Capacity Table-

Table 36. Reference Transmission Capacity of S2M Ps -Belt Width 4mm- (W)

No. of Teeth of Small Pulley		14	15	16	18	20	22	24	25	26	28	30	32	36	40	44	48	50	60
Rotary Speed of Small Pulley(rpm)	Diameter of the Pitch Circle(mm)	8.91	9.55	10.19	11.46	12.73	14.01	15.28	15.92	16.55	17.83	19.10	20.37	22.92	25.46	28.01	30.56	31.83	38.20
		8.91	9.55	10.19	11.46	12.73	14.01	15.28	15.92	16.55	17.83	19.10	20.37	22.92	25.46	28.01	30.56	31.83	38.20
870	11	12	14	16	19	21	23	25	26	28	30	33	37	41	46	50	52	62	
1160	13	15	17	20	23	26	29	31	32	35	38	41	46	52	57	62	65	85	105
1750	17	20	22	27	31	35	39	41	43	47	51	55	63	70	78	85	88	105	
3500	26	30	34	41	49	56	63	67	70	77	83	90	102	115	126	138	143	170	
50	1	1	1	2	2	2	2	2	2	3	3	3	3	4	4	5	5	6	8
100	2	2	2	3	3	3	4	4	4	4	5	5	6	6	7	8	8	9	11
150	3	3	3	4	5	5	6	6	6	7	7	8	9	10	11	13	14	15	19
200	4	4	4	5	6	6	7	7	8	8	9	9	10	11	13	14	15	16	19
250	4	5	5	6	7	7	8	8	9	9	10	10	11	12	14	15	17	18	23
300	5	5	6	7	8	8	9	10	11	11	12	13	14	16	18	19	21	22	26
350	6	6	7	8	9	10	11	12	13	14	15	16	18	20	22	24	25	30	
400	6	7	8	9	10	11	13	14	15	16	18	20	22	25	27	28	33	33	
450	7	8	8	10	11	13	14	15	17	18	19	22	25	27	30	31	37		
500	7	8	9	11	12	14	15	16	17	18	20	21	24	27	29	32	33	40	
550	8	9	10	11	13	15	16	17	18	20	21	23	26	29	32	35	36	43	
600	8	9	10	12	14	16	18	19	21	23	24	28	31	34	37	39	46		
650	9	10	11	13	15	17	19	20	21	22	24	28	30	33	36	40	41	49	
700	9	10	12	14	16	18	20	21	22	24	26	28	31	35	39	42	44	52	
750	10	11	12	14	17	19	21	22	23	25	27	29	33	37	41	44	46	55	
800	10	12	13	15	17	20	22	23	24	26	28	31	35	39	43	47	49	58	
850	11	13	16	18	21	24	26	28	31	34	36	41	45	49	53	57	61	72	
900	11	13	16	19	22	24	25	26	29	31	34	38	43	47	51	53	63		
950	12	13	14	17	20	22	25	26	28	30	33	35	40	44	49	53	56	66	
1000	12	14	15	18	21	23	26	27	29	31	34	36	41	46	51	55	58	69	
1100	13	15	16	19	22	25	28	29	31	34	36	39	44	50	55	60	62	74	
1200	14	16	17	20	24	27	30	31	33	36	38	41	45	50	54	58	61	73	
1300	14	16	18	22	25	28	32	33	35	38	41	44	50	56	62	68	71	84	
1400	15	17	19	23	26	30	33	35	37	40	44	47	53	60	66	72	75	89	
1500	16	18	20	24	28	31	35	37	39	42	46	49	56	63	69	75	79	94	
1600	17	19	21	25	29	33	37	40	41	44	48	52	59	66	73	79	84	98	
1700	17	19	22	26	30	34	39	41	43	46	50	54	62	69	76	83	86	103	
1800	18	20	23	27	31	36	40	42	44	48	52	56	64	72	79	86	90	107	
1900	18	21	23	28	33	37	42	44	46	50	55	59	67	75	82	90	94	111	
2000	19	22	24	29	34	39	43	46	48	52	57	61	69	78	85	93	97	115	
2200	21	25	28	33	38	43	48	51	54	58	63	68	74	81	89	96	101	124	
2400	21	24	27	33	38	44	49	52	54	59	64	69	79	88	97	106	111	131	
2600	22	25	28	35	40	46	52	55	57	63	68	73	84	93	103	112	117	139	
2800	23	26	30	36	42	49	55	57	60	66	72	77	88	98	109	118	123	146	
3000	24	28	31	38	44	51	57	60	63	69	75	81	92	102	111	120	125	150	
3200	25	29	32	39	46	53	60	63	66	72	79	85	96	108	119	130	135	160	
3400	26	30	33	41	48	55	62	65	69	75	82	88	100	112	124	135	140	167	
3600	26	30	34	42	50	57	64	68	71	78	85	92	104	117	129	140	146	173	
3800	27	31	35	44	51	59	67	70	74	81	88	95	108	121	133	145	151	179	
4000	28	32	36	45	53	61	69	73	78	85	92	100	112	125	138	150	156	185	
4500	29	34	39	48	57	66	74	78	82	90	98	106	121	135	149	162	168	199	
5000	30	36	41	51	60	70	79	83	88	96	105	113	129	144	159	173	179	211	
5500	32	37	43	53	63	74	83	88	93	102	111	119	136	152	168	183	190	223	
6000	33	38	44	56	66	77	87	92	101	110	119	128	145	160	176	192	199	231	
6500	33	40	46	58	69	80	91	97	102	112	122	132	150	168	184	200	208	243	
7000	34	41	47	60	72	83	95	100	106	117	127	137	156	174	192	208	216	251	
7500	34	41	48	61	74	86	98	104	110	121	132	142	162	181	198	215	223	259	
8000	35	42	49	63	76	89	101	107	113	125	136	147	167	187	205	222	229	265	
8500	35	43	50	64	78	91	104	110	116	128	140	151	172	192	210	227	235	270	
9000	35	43	51	65	80	94	107	113	119	132	144	155	177	197	215	232	240	275	

*Values in the table above are for 4mm belt width. For other belt widths, those values should be multiplied by the width correction coefficient, Kb, shown in Table 28.

Table 37. Reference Transmission Capacity of S3M Ps -Belt Width 6mm- (W)

No. of Teeth of Small Pulley		14	15	16	18	20	22	24	25	26	28	30	32	36	40	44	48	50	60
Rotary Speed of Small Pulley(rpm)	Diameter of the Pitch Circle(mm)	13.37	14.32	15.28	17.19	19.10	21.01	22.92	23.87	24.83	26.74	28.65	30.56	34.38	38.20	42.02	45.84	47.75	57.30
		13.37	14.32	15.28	17.19	19.10	21.01	22.92	23.87	24.83	26.74	28.65	30.56	34.38	38.20	42.02	45.84	47.75	57.30
870	53	58	62	73	79	87	95	99	103	110	118	125	140	155	169	182	188	222	
1160	67	72	78	92	99	110	119	124	129	139	148	158	176	194	212	229	238	279	
1750	92	100	107	128	137	151	165	171	178	192	205	218	243	268	291	315	326	381	
3500	154	167	180	215	230	255	277	289	300	322	344	365	407	446	484	521	539	624	
50	5	5	6	7	7	8	8	9	9	10	11	11	13	14	15	17	17	20	
100	9	9	10	12	13	14	15	16	17	18	19	19	21	23	25	28	30	37	
150	12	13	14	17	18	20	22	23	24	26	27	29	33	36	39	43	44	52	
200	16	17	18	22	23	26	28	29	30	33	35	37	42	46	50	54	56	67	
250	19	21	22	26	28	31	34	35	37	39	42	45	50	55	61	66	68	80	
300	22	24	26	31	33	36	39	41	43	46	49	52	58	63	69	74	76	90	
350	25	27	29	35	37	41	45	47	49	52	56	59	66	73	80	87	90	106	
400	28	31	33	39	42	46	50	52	54	58	62	66	74	82	90	97	101	119	
450	31	34	36	43	46	51	55	58	60	64	69	73	82	90	99	107	111	131	
500	34	37	39	47	50	55	60	63	65	70	75	80	89	99	108	117	121	143	
550	37	40	42	51	54	60	65	68	71	76	81	86	97	107	116	126	131	154	
600	39	43	46	54	58	64	70	73	76	82	87	93	104	114	125	135	140	165	
650	42	46	49	58	62	69	75	78	81	87	93	99	111	122	133	144	150	176	
700	45	48	52	62	66	73	79	83	86	92	99	105	118	130	142	153	159	187	
750	47	51	55	65	70	77	84	87	91	98	105	111	124	137	150	162	168	198	
800	50	54	58	69	73	81	89	92	96	103	110	117	131	145	158	171	177	208	
850	52	57	61	72	77	86	93	97	101	108	116	123	138	152	166	179	186	218	
900	55	59	64	76	81	90	97	101	105	113	121	129	144	159	173	187	194	228	
950	57	62	66	79	84	94	102	106	110	118	127	135	150	166	181	196	203	248	
1000	60	64	69	82	88	97	106	110	115	123	132	140	157	173	188	204	211	248	
1100	64	69	75	89	95	105	114	119	124	133	142	151	169	185	203	220	228	267	
1200	69	74	80	95	102	113	122	128	133	143	152	162	181	200	218	235	244	286	
1300	73	79	85	101	108	120	130	136	141	152	162	173	193	213	232	250	260	304	
1400	78	84	90	107	115	127	138	144	150	161	172	183	204	225	245	265	275	324	
1500	82	89	95	113	121	134	146	152	158	170	182	193	216	239	259	280	290	340	
1600	86	93	100	119	127	141	154	160	166	179	191	203	227	250	272	294	305	357	
1700	90	98	105	125	134	148	161	168	174	187	200	213	238	262	285	308	319	373	
1800	94	102	110	130	140	155	168	175	182	196	209	222	248	273	298	322	333	390	
1900	98	106	114	136	146	161	175	183	190	204	218	232	259	285	310	335	347	406	
2000	102	110	118	141	151	168	182	190	200	214	227	241	269	296	322	348	361	421	
2200	110	119	128	152	163	180	196	204	212	228	244	259	289	318	346	374	387	452	
2400	117	127	136	162	174	193	210	218	227	244	261	277	309	340	369	398	413	481	
2600	124	135	145	173	185	205	223	232	241	259	277	294	328	360	392	422	437	509	
2800	131	142	153	182	195	216	235	245	255	274	292	311	346	380	413	446	461	539	
3000	138	150	161	192	205	228	248	258	268	288	308	327	364	400	433	468	484	562	
3200	145	157	169	201	216	239	260	270	281	302	322	342	381	419	455	490	507	588	
3400	151	164	177	210	225	250	272	283	294	316	337	358	398	437	475	511	528	612	
3600	157	171	184	219	235	260	283	295	306	329	351	373	415	455	494	531	549	635	
3800	164	177	191	229	244	271	294	306	318	342	365	387	431	471	510	547	565	658	
4000	170	184	198	237	253	281	305	318	330	355	378	402	447	490	531	570	590	680	
4500	184	200	216	257	275	305	332	345	359	385	411	436	484	530	574	616	636	729	
5000	198	215	232	277	297	329	357	372	386	414	442	468	520	568	614	658	679	773	
5500	211	230	248	296	317	351	381	396	412	442	471	499	553	603	651	696	717	813	
6000	226	246	263	313	336	372	404	420	436	468	498	528	584	634	681	727	753	848	
6500	236	256	277	331	354	392	426	443	460	492	524	555	613	667	717	763	784	876	
7000	247	269	291	347	371	411	446	464	482	516	549	580	640	695	745	795	816	909	
7500	259	281	304	363	388	430	466	485	503	538	572	604	665	721	771	816	836	919	
8000	269	293	316	376	404	447	485	505	523	559	594	627	688	744	793	837	856	929	
8500	279	304	328	392	419	464	503	522	542	579	614	648	710	765	813	855	873	935	
9000	289	315	340	406	434	480	520	540	559	597	633	667	729	784	830	869	885	935	

[Technical Data]

Selection of Timing Belts 6 -Transmission Capacity Table-

Selection is easy with Timing Pulleys and Belts automatic calculation tool available at:
http://fawos.misumi.jp/FA_WEB/pulley_us/

Table 40. Reference Transmission Capacity of S14M Ps -Belt Width 120mm- (kW)

Rotary Speed of Small Pulley(rpm)	No. of Teeth of Small Pulley															
	28	30	32	34	36	40	42	44	48	50	56	60	64	72	84	
575	124.78	133.69	142.60	151.52	160.43	178.25	187.17	196.08	213.90	222.82	249.55	267.38	285.21	320.86	374.33	
690	32.08	34.36	36.63	38.90	41.17	45.68	47.94	50.19	54.67	56.91	63.58	68.00	72.39	81.10	93.92	
870	38.45	41.17	43.88	46.59	49.29	54.67	57.36	60.03	65.35	68.00	75.89	81.09	86.26	96.44	111.32	
1160	48.35	51.75	55.14	58.52	61.88	68.57	71.90	75.20	81.77	85.03	94.68	101.02	107.27	119.49	136.99	
1750	64.12	68.57	73.00	77.40	81.77	90.41	94.69	98.92	107.27	111.39	123.46	131.27	138.87	153.39	173.25	
3450	95.20	101.57	107.84	114.03	120.11	131.93	137.68	143.29	154.11	159.32	174.00	182.96	191.21	205.36	220.00	
20	1.12	1.20	1.28	1.36	1.44	1.60	1.68	1.76	1.92	2.00	2.24	2.40	2.56	2.88	3.36	
40	2.24	2.40	2.56	2.72	2.88	3.20	3.36	3.52	3.84	4.00	4.48	4.80	5.12	5.76	6.71	
60	3.36	3.60	3.84	4.08	4.32	4.80	5.04	5.28	5.76	6.00	6.71	7.19	7.67	8.63	10.07	
80	4.48	4.80	5.12	5.44	5.76	6.39	6.71	7.03	7.67	7.99	8.95	9.59	10.23	11.51	13.42	
90	5.04	5.40	5.76	6.12	6.47	7.19	7.55	7.91	8.63	8.99	10.07	10.79	11.51	12.94	15.10	
100	5.60	6.00	6.39	6.79	7.19	7.99	8.39	8.79	9.59	9.99	11.19	11.99	12.79	14.38	16.77	
200	11.19	11.99	12.78	13.58	14.38	15.98	16.78	17.57	19.17	19.96	22.35	23.94	25.53	28.71	33.47	
300	16.78	17.97	19.17	20.36	21.56	23.94	25.14	26.33	28.71	29.90	33.47	35.84	38.21	42.94	49.99	
400	22.35	23.94	25.53	27.12	28.71	31.88	33.47	35.05	38.21	39.79	44.51	47.65	50.78	57.01	66.27	
500	27.92	29.90	31.88	33.86	35.84	39.79	41.76	43.72	47.64	49.60	55.45	59.33	63.20	70.87	82.22	
600	33.47	35.84	38.21	40.58	42.94	47.64	49.99	52.34	57.00	59.33	66.27	70.87	75.43	84.47	97.76	
700	39.00	41.76	44.51	47.26	49.99	55.45	58.17	60.88	66.27	68.96	76.95	82.22	87.45	97.76	112.80	
800	44.51	47.65	50.77	53.90	57.01	63.19	66.27	69.34	75.43	78.46	87.45	93.36	99.21	110.88	127.26	
900	49.99	53.51	57.00	60.49	63.97	70.87	74.29	77.70	84.47	87.82	97.75	104.27	110.68	123.19	141.06	
1000	55.45	59.33	63.19	67.04	70.87	78.46	82.22	85.96	93.36	97.03	107.84	114.90	121.82	135.23	154.11	
1100	60.88	65.12	69.34	73.57	77.70	85.96	90.05	94.10	102.11	106.06	117.68	125.23	132.60	146.75	166.35	
1200	66.27	70.87	75.43	79.97	84.47	93.36	97.76	102.11	110.68	114.90	127.26	135.23	142.97	157.70	177.67	
1300	71.63	76.57	81.47	86.34	91.16	100.66	105.35	109.97	119.07	123.53	136.53	144.87	152.91	168.02	188.00	
1400	76.95	82.22	87.45	92.63	97.76	107.84	112.80	117.69	127.26	131.94	145.49	154.12	162.37	177.67	197.26	
1500	82.22	87.82	93.36	98.85	104.27	114.90	120.11	125.23	135.23	140.10	154.11	162.94	171.32	186.69	205.36	
1600	87.45	93.36	99.21	104.99	110.68	121.82	127.26	132.60	142.97	148.00	162.36	171.31	179.72	194.73	212.22	
1700	92.63	98.85	104.98	111.04	116.99	128.60	134.25	139.78	150.46	155.82	170.22	179.21	187.53	202.03	217.76	
1800	97.76	104.27	110.68	116.99	123.19	135.23	141.06	146.75	157.70	162.94	177.67	186.59	194.73	208.45	221.89	
1900	102.83	109.62	116.29	122.85	129.27	141.70	147.69	153.51	164.65	169.95	184.67	193.43	201.26	213.94	224.54	
2000	107.85	114.90	121.82	128.61	135.23	147.99	154.12	160.05	171.31	176.63	191.21	199.69	207.11	218.44	225.62	
2100	112.80	120.10	127.26	134.25	141.06	154.11	160.34	166.35	177.67	182.96	197.25	205.36	212.22	221.89		
2200	117.69	125.23	132.60	139.78	146.75	160.05	166.35	172.40	183.70	188.93	202.79	210.39	216.56	224.26		
2300	122.51	130.27	137.83	145.19	152.30	165.78	172.13	178.18	189.39	194.51	207.78	214.76	220.10	225.47		
2400	127.26	135.23	142.97	150.47	157.70	171.31	177.67	183.70	194.72	199.69	212.22	218.43	222.80	225.50		
2500	131.94	140.10	147.99	155.82	162.94	176.63	182.97	188.93	199.69	204.46	216.06	221.39	224.63			
2600	136.54	144.87	152.90	160.63	168.02	181.82	188.00	193.86	204.27	208.78	219.29	223.59	225.54			
2700	141.06	149.54	157.70	165.51	172.93	186.58	192.77	198.49	208.45	212.66	221.89	225.01	225.50			
2800	145.50	154.12	162.36	170.23	177.67	191.21	197.26	202.79	212.22	216.06	223.83	225.62				
2900	149.85	158.58	166.90	174.80	182.22	195.58	201.46	206.76	215.55	218.98	225.08					
3000	154.12	162.94	171.31	179.21	186.59	199.69	205.36	210.39	218.43	221.39	225.62					
3100	158.29	167.19	175.58	183.46	190.76	203.53	208.95	213.66	220.86	223.28						
3200	162.37	171.31	179.71	187.53	194.73	207.10	212.22	216.56	222.80	224.63						
3300	166.35	175.32	183.70	191.44	198.49	210.39	215.16	219.09	224.25	225.42						
3400	170.23	179.21	187.53	195.16	202.03	213.37	217.76	221.22	225.20	225.63						
3500	174.00	182.96	191.21	198.69	205.36	216.06	220.01	222.94	225.62							
3600	177.67	186.59	194.72	202.04	208.45	218.43	221.89	224.26								
3700	181.23	190.08	198.08	205.18	211.32	220.49	223.41	225.14								
3800	184.67	193.43	201.26	208.12	213.94	222.21	224.54	225.58								
3900	188.00	196.63	204.27	210.86	216.31	223.59	225.28	225.58								
4000	191.21	199.69	207.10	213.38	218.44	224.63	225.62									
4100	194.30	202.60	209.75	215.68	220.30	225.30										
4200	197.26	205.36	212.22	217.76	221.89	225.62										
4300	200.09	207.95	214.49	219.61	223.21											
4400	202.79	210.39	216.56	221.22	224.26											
4500	205.36	212.66	218.43	222.59	225.01											
4600	207.79	214.76	220.10	223.71	225.47											
4700	210.08	216.68	221.56	224.58	225.64											
4800	212.22	218.43	222.80	225.20												
4900	214.22	220.00	223.83	225.55												
5000	216.06	221.39	224.63	225.63												

*Because the durability in terms of hours decreases in the □□□□ marked range, this range should be avoided whenever possible.
*The circumferential speed of pulley is 33 (m/s) or more in the □□□□ marked range: a dynamic balance for the pulley is essential.
*The □□□□ marked range should be avoided whenever possible, as above two factors overlap here.*Values in the table above is for nominal belt width 120 (120mm). For other belt widths, these values should be multiplied by the width correction coefficient in Table 28.

Table 41. Reference Transmission Capacity of MTS8M Ps -Belt Width 60mm- (kW)

Rotary Speed of Small Pulley(rpm)	No. of Teeth of Small Pulley																
	24	26	28	30	32	34	36	38	40	42	44	46	48	50	60	72	84
50	61.12	66.21	71.30	76.39	81.49	86.58	91.67	96.77	101.86	106.95	112.05	117.14	122.23	127.32	152.79	183.35	213.90
100	1.35	1.47	1.58	1.70	1.82	1.93	2.05	2.17	2.27	2.37	2.46	2.56	2.66	2.75	3.21	3.75	4.27
200	2.71	2.94	3.17	3.40	3.63	3.87	4.11	4.35	4.54	4.74	4.93	5.12	5.31	5.50	6.42	7.50	8.54
300	4.91	5.32	5.73	6.15	6.57	6.99	7.42	7.85	8.20	8.54	8.89	9.22	9.56	9.89	11.52	13.41	15.23
400	6.91	7.48	8.06	8.64	9.23	9.83	10.43	11.04	11.52	12.00	12.47	12.94	13.41	13.87	16.12	18.71	21.20
500	8.77	9.50	10.23	10.98	11.73	12.48	13.25	14.02	14.63	15.23	15.82	16.41	16.99	17.57	20.38	23.62	26.72
600	10.53	11.40	12.29	13.18	14.08	14.99	15.92	16.85	17.57	18.28	18.99	19.69	20.38	21.07	24.40	28.22	31.88
700	12.20	13.22	14.24	15.28	16.33	17.39	18.46	19.55	20.38	21.20	22.02	22.82	23.62	24.40	28.22	32.59	36.76
800	13.80	14.95	16.11	17.29	18.48	19.69	20.91	22.15	23.09	24.01	24.92	25.82	26.72	27.60	31.88	36.76	41.39
900	15.32	16.61	17.91	19.23	20.56	21.91	23.28	24.66	25.70	26.72	27.72	28.72	29.70	30.68	35.39	40.74	45.81
1000	16.79	18.21	19.64	21.09	22.56	24.05	25.56	27.10	28.22	29.34	30.44	31.52	32.59	33.65	38.77	44.57	50.04
1100	18.21	19.75	21.31	22.89	24.50	26.13	27.78	29.46	30.68	31.88	33.06	34.23	35.39	36.53	42.03	48.25	54.09
1200	19.57	21.24	22.92	24.64	26.38	28.14	29.94	31.76	33.06	34.35	35.62	36.87	38.10	39.32	45.19	51.80	57.98
1300	20.89	22.67	24.48	26.33	28.20	30.10	32.04	34.00	35.39	36.76	38.10	39.43	40.74	42.03	48.25	55.22	61.71
1400	22.16	24.06	26.00	27.97	29.97	32.01	34.08	36.19	37.66	39.10	40.52	41.93	43.31	44.67	51.21	58.52	65.29
1500	23.38	25.40	27.46	29.56	31.69	33.86	36.07	38.33	39.87	41.39	42.89	44.36	45.81	47.24	54.09	61.71	68.73
1600	24.57	26.71	28.88	31.10	33.37	35.67	38.02	40.41	42.03	43.62	45.19	46.73	48.25	49.74	56.88	64.79	72.05
1700	25.71	27.97	30.26	32.61	35.00	37.44	39.92	42.46	44.15	45.81	47.44	49.05	50.63	52.18	59.59	67.76	75.19
1800	26.82	29.19	31.60	34.07	36.59	39.16	41.78	44.46	46.22	47.95	49.64	51.31	52.95	54.56	62.23	70.63	78.22
1900	27.89	30.37	32.90	35.49	38.14	40.84	43.60	46.42	48.25	50.04	51.79	53.52	55.22	56.88	64.78	73.40	81.12
2000	28.92	31.51	34.16	36.87	39.65	42.48	45.38	48.35	50.23	52.08	53.90	55.68	57.43	59.15	67.27	76.07	83.89
2100	29.92	32.62	35.39	38.22	41.12	44.09	47.13	50.23	52.18	54.09	55.96	57.79	59.59	61.36	69.68	78.64	86.53
2200	30.89	33.70	36.57	39.53	42.55	45.65	48.83	52.08	54.09	56.05	57.97	59.86	61.71	63.51	72.03	81.12	89.05
2300	31.82	34.74	37.73	40.80	43.95	47.19	50.50	53.90	55.96	57.97	59.95	61.88	63.77	65.62	74.30	83.50	91.43
2400	32.72	35.74	38.85	42.04	45.32	48.68	52.14	55.68	57.79	59.86	61.88	63.85	65.79	67.68	76.51	85.79	
2500	33.59	36.72	39.93	43.25	46.65	50.15	53.74	57.43	59.59	61.71	63.77	65.79	67.76	69.68	78.64	87.96	
2600	34.42	37.66	40.99	44.42	47.95	51.58	55.31	59.15	61.36	63.51	65.62	67.68	69.68	71.64	80.72	90.08	
2700	35.23	38.57	42.01	45.56	49.21	52.98	56.85	60.83	63.09	65.29	67.43	69.52	71.56	73.55	82.72	92.09	
2800	36.00	39.44	43.00	46.67	50.45	54.34	58.36	62.48	64.78	67.02	69.21	71.33	73.40	75.41	84.66		
2900	36.75	40.29	43.96	47.74	51.65	55.68	59.83	64.11	66.45	68.73	70.94	73.09	75.19	77.23	86.53		
3000	37.46	41.11	44.89	48.79	52.82	56.99	61.28	65.70	68.08	70.39	72.64	74.82	76.94	78.99	88.34		
3200	38.15	41.90	45.78	49.80	53.96	58.26	62.70	67.27	69.68	72.03	74.30	76.50	78.64	80.71	90.08		
3400	39.44	43.39	47.49	51.75	56.16	60.72	65.44	70.31	72.79	75.19	77.51	79.76		81.93	84.02		
3600	40.61	44.76	49.08	53.57	58.23	63.07	68.07	73.25	75.78	78.22	80.58	82.85	85.04	87.14			
3800	41.67	46.02	50.55	55.28	60.19	65.30	70.59	76.07	78.64	81.12	83.50	85.79	87.98	90.08			
4000	42.63	47.17	51.92	56.88	62.04	67.42	73.00	78.78		81.39	83.89	86.29	88.58	90.76			
4200	43.47	48.21	53.17	58.36	63.78	69.42	75.30	81.39	84.02	86.53	88.93	91.21					
4400	44.21	49.14	54.31	59.73	65.41	71.32	77.49	83.89	86.53	89.04	91.43						
4600	44.85	49.96	55.35	61.00	66.92	73.11	79.57	86.29	88.93	91.43							
4800	45.38	50.68	56.27	62.16	68.33	74.80	81.55	88.57	91.21								
5000	45.81	51.29	57.09	63.21	69.64	76.37	83.42	90.76									
5200	46.14	51.80	57.81	64.15	70.83	77.84	85.18										
5400	46.36	52.20	58.41	64.99	71.92	79.20	86.84										
5600	46.48	52.51		65.72	72.90	80.46											
5800	46.51	52.70		66.34	73.78												
6000	46.43			66.86	74.54												
	46.25																

[Technical Data]
Selection of Timing Belts 7 -Transmission Capacity Table-

Selection is easy with Timing Pulleys and Belts automatic calculation tool available at:
http://fawos.misumi.jp/FA_WEB/pulley_us/

Table 44. Reference Transmission Capacity of P5M Ps -Belt Width 10mm- (W)

No. of Teeth of Small Pulley		12	14	16	18	20	22	24	25	26	28	30	32	34	36	40	42	44	48	56
Rotary Speed of Small Pulley (rpm)	Diameter of the Pitch Circle (mm)	19.10	22.28	25.46	28.65	31.83	35.05	38.20	39.79	41.38	44.56	47.75	50.93	54.11	57.30	63.66	66.85	70.03	76.39	89.15
100	23	26	31	35	41	46	52	55	58	64	70	76	81	86	103	110	118	133	158	
	46	53	63	72	81	92	104	109	115	126	138	151	164	177	205	220	235	267	316	
	77	90	106	122	138	155	173	182	192	211	231	251	272	294	337	361	385	434	514	
	105	123	144	165	188	211	235	247	259	284	310	337	365	394	452	482	513	577	684	
	131	153	179	205	234	262	291	306	322	353	385	417	451	485	556	592	629	706	837	
	156	182	212	243	276	309	343	361	379	415	453	491	530	570	651	694	738	825	977	
	179	209	244	280	316	355	394	414	435	476	518	561	605	650	742	790	838	937	1110	
	201	235	274	319	355	399	443	465	487	532	580	628	677	726	828	880	933	1040	1230	
	242	282	323	365	409	453	476	499	546	594	643	694	745	850	903	957	1070	1260		
	248	288	333	374	420	466	489	512	560	609	659	711	762	869	925	981	1090	1290		
	261	303	348	393	441	489	514	538	588	639	691	745	799	910	970	1030	1140	1350		
	278	325	372	420	471	522	548	575	628	683	738	795	852	970	1040	1100	1220	1430		
	332	380	430	481	532	559	586	640	696	753	810	868	989	1050	1110	1240	1460			
	360	412	465	520	576	605	633	691	751	812	874	937	1060	1130	1200	1330	1570			
	413	472	532	595	658	691	723	789	857	925	992	1060	1210	1280	1350	1500	2030			
	557	628	701	775	812	850	926	1000	1080	1150	1240	1400	1485	1570	1730	2120				
	638	719	801	883	925	966	1050	1140	1230	1310	1400	1580	1670	1760	1940	2250				
	776	865	953	997	1040	1130	1220	1320	1450	1500	1690	1785	1880	2060	2380					
	911	1010	1110	1160	1210	1320	1420	1520	1620	1720	1920	2010	2110	2300	2610					
	1140	1260	1310	1370	1480	1580	1690	1790	1900	2100	2190	2290	2460	2720						
1490	1550	1600	1720	1830	1930	2020	2120	2270	2330	2400	2480	2480								
1710	1760	1860	1940	2020	2080	2130	2170	2160	2150	2040										
1770	1810	1880	1910	1940	1920	1900														
1750	1760	1710	1660																	

*Because the durability in terms of hours decreases in the □□□□ marked range, this range should be avoided whenever possible. For other belt widths, values above should be multiplied by the width correction coefficient shown in Table 28.

Table 45. Reference Transmission Capacity of P8M Ps -Belt Width 15mm- (kW)

Rotary Speed of Small Pulley (rpm)	No. of Teeth of Small Pulley		Diameter of the Pitch Circle (mm)															
	20	22	24	26	28	30	32	34	36	38	40	44	48	50	56	60	64	72
	50.93	56.02	61.12	66.21	71.30	76.39	81.49	86.58	91.67	96.77	101.86	112.05	122.23	127.32	142.06	152.79	162.97	183.35
	0.16	0.17	0.19	0.21	0.23	0.26	0.31	0.41	0.44	0.48	0.51	0.56	0.60	0.63	0.70	0.74	0.78	0.89
100	0.32	0.35	0.39	0.42	0.45	0.50	0.59	0.69	0.78	0.85	0.91	0.99	1.07	1.14	1.23	1.35	1.40	1.57
200	0.65	0.71	0.77	0.84	0.90	0.95	1.09	1.25	1.37	1.48	1.59	1.72	1.86	1.94	2.16	2.30	2.43	2.71
400	0.96	1.06	1.16	1.25	1.35	1.45	1.53	1.70	1.86	2.02	2.17	2.37	2.55	2.66	2.95	3.12	3.30	3.66
600	1.29	1.41	1.54	1.67	1.80	1.93	2.06	2.18	2.31	2.51	2.69	3.02	3.16	3.27	3.64	3.83	4.08	4.75
800	1.40	1.54	1.68	1.82	1.96	2.10	2.24	2.38	2.51	2.66	2.86	3.16	3.36	3.48	3.90	4.13	4.44	4.98
870	1.61	1.77	1.93	2.09	2.25	2.41	2.57	2.73	2.89	2.99	3.16	3.64	3.84	4.00	4.47	4.78	5.09	5.71
1000	1.86	2.05	2.24	2.42	2.61	2.79	2.98	3.16	3.35	3.53	3.84	4.08	4.44	4.62	5.17	5.52	6.48	7.28
1160	1.93	2.12	2.31	2.51	2.70	2.89	3.07	3.27	3.46	3.60	3.82	4.22	4.59	4.78	5.34	5.71	6.08	7.52
1200	2.25	2.45	2.70	2.94	3.15	3.37	3.59	3.80	4.03	4.25	4.47	4.90	5.34	5.55	6.20	6.62	7.04	8.68
1400	2.33	2.55	2.79	3.04	3.26	3.65	3.72	3.94	4.17	4.40	4.63	5.07	5.53	5.75	6.41	6.85	7.28	8.96
1450	2.41	2.64	2.89	3.15	3.37	3.72	3.84	4.07	4.31	4.55	4.78	5.25	5.71	5.94	6.62	7.07	7.51	9.25
1500	2.57	2.83	3.07	3.35	3.59	3.84	4.09	4.34	4.59	4.84	5.09	5.59	6.08	6.32	7.04	7.52	7.98	9.81
1600	2.81	3.08	3.36	3.64	3.92	4.20	4.47	4.74	5.01	5.28	5.56	6.09	6.63	6.88	7.68	8.17	8.70	10.6
1750	2.89	3.18	3.72	3.75	4.03	4.31	4.59	4.87	5.15	5.43	5.71	6.26	6.80	7.07	7.86	8.38	8.90	10.9
1800	3.20	3.52	4.01	4.15	4.47	4.78	5.09	5.40	5.71	6.01	6.32	6.93	7.52	7.81	8.68	9.24	9.81	11.9
2000	3.84	4.22	4.59	4.97	5.34	5.71	6.08	6.44	6.80	7.16	7.52	8.22	9.05	9.24	9.86	10.9	11.5	13.8
2400	4.63	5.20	5.62	6.02	6.52	6.81	7.32	7.76	8.22	8.71	9.02	9.84	10.7	11.1	12.2	12.6	12.9	14.6
3000	5.82	6.34	6.75	7.27	7.67	8.17	8.65	9.14	9.72	10.0	10.8	11.7	12.2	13.1	13.9	13.9	15.3	
3600	7.06	7.48	8.14	8.46	9.00	9.60	10.0	10.7	11.0	11.7	12.7	13.2	14.0	14.7	14.9	15.8		
4000	8.81	9.60	10.2	10.7	11.3	11.7	12.4	12.8	13.6	14.5	14.5	15.8	16.0					
5000	10.2	11.2	11.9	12.3	13.0	13.2	14.1	14.5	14.9	15.8	16.0							
6000																		

*Because the durability in terms of hours decreases in the □□□□ marked range, this range should be avoided whenever possible. For other belt widths, values above should be multiplied by the width correction coefficient shown in Table 28.

*□□□□ The circumferential speed of pulley is 33(m/s) or more; a dynamic balance for the pulley is essential.

[Technical Data]
Selection of Timing Belts 8 -Transmission Capacity Table-

Selection is easy with Timing Pulleys and Belts automatic calculation tool available at:
http://fawos.misumi.jp/FA_WEB/pulley_us/

Table 46. Reference Transmission Capacity of UP5M Ps -Belt Width 10mm- (W)

Rotary Speed of Small Pulley (rpm)	No. of Teeth of Small Pulley	Diameter of the Pitch Circle (mm)	12	14	16	18	20	22	24	26	28	30	32	36	40	44	48	50	60	72
			19.10	22.28	25.46	28.65	31.83	35.01	38.20	41.38	44.56	47.75	50.93	57.30	63.66	70.03	76.39	79.58	95.49	114.59
20	10	12	15	17	19	21	24	26	29	31	34	39	45	51	58	61	78	101		
	19	23	28	32	36	40	45	49	54	59	64	74	85	96	108	114	147	187		
	27	32	39	45	50	56	63	69	76	83	90	104	119	135	152	161	206	267		
	41	50	60	69	78	88	97	107	118	128	139	162	185	210	236	249	321	420		
	76	92	111	128	145	162	180	198	215	237	257	298	342	388	436	460	592	774		
	141	170	206	236	267	299	332	366	401	437	474	550	631	715	804	849	1092	1430		
	172	207	251	287	325	364	405	446	488	532	577	670	769	871	979	1034	1330	1741		
	202	243	295	338	382	428	475	524	574	625	678	788	903	1024	1151	1216	1563	2045		
	260	314	380	436	492	552	613	675	740	806	875	1016	1164	1320	1483	1567	2016	2637		
	316	382	463	531	600	672	747	822	901	982	1065	1238	1418	1609	1806	1909	2454	3210		
	376	453	550	630	713	799	887	977	1070	1167	1265	1470	1685	1910	2146	2266	2913	3811		
	436	526	637	730	826	924	1026	1132	1240	1351	1466	1702	1951	2212	2484	2625	3372	4409		
		544	658	755	854	957	1061	1171	1283	1397	1516	1760	2017	2288	2569	2714	3488	4559		
		561	681	780	883	988	1098	1209	1324	1444	1566	1819	2084	2364	2654	2803	3601	4707		
		599	724	831	940	1052	1169	1287	1410	1537	1667	1935	2218	2514	2823	2984	3833	5007		
		652	790	907	1025	1147	1275	1405	1539	1677	1817	2111	2420	2743	3080	3254	4178	5455		
			813	931	1053	1179	1309	1443	1582	1724	1868	2171	2486	2820	3165	3344	4293	5605		
			902	1032	1169	1309	1453	1601	1754	1912	2071	2407	2757	3124	3508	3707	4687	6201		
			1068	1222	1386	1552	1720	1897	2077	2262	2453	2849	3261	3695	4146	4378	5485	7293		
				1517	1714	1918	2130	2348	2570	2798	3034	3520	4027	4559	5108	5389	6614	8885		
			1794	2029	2272	2519	2774	3039	3307	3584	4151	4743	5361	5996	6320	7629	10250			
				2245	2513	2785	3067	3358	3655	3956	4577	5226	5895	6583	6932	8040	11069			
				2747	3072	3404	3747	4090	4446	4807	5542	6301	7066	7843	8229	9048				
				3217	3585	3969	4359	4757	5154	5559	6376	7185	7995	8776	9159					
							5002	5455	5908	6361	6795	7624	8366	8993	9465	9619				
								6313	6747	7156	7518	8072	8349	8253						
								6824	7142	7359	7475	7316								
								6848	6882	6730										

*Because the durability in terms of hours decreases in the □□□□ marked range, this range should be avoided whenever possible. For other belt widths, values above should be multiplied by the width correction coefficient shown in Table 28.

Table 47. Reference Transmission Capacity of UP8M Ps -Belt Width 15mm- (kW)

Rotary Speed of Small Pulley (rpm)	No. of Teeth of Small Pulley Diameter of the Pitch Circle (mm)	20	22	24	26	28	30	32	34	36	38	40	44	48	50	56	60	64	72
		50.93	56.02	61.12	66.21	71.30	76.39	81.49	86.58	91.67	96.77	101.86	112.05	122.23	127.32	142.60	152.79	162.97	183.35
20		0.11	0.12	0.13	0.14	0.15	0.17	0.18	0.19	0.20	0.21	0.23	0.25	0.28	0.29	0.33	0.36	0.40	0.46
40		0.19	0.21	0.24	0.26	0.28	0.30	0.33	0.36	0.38	0.40	0.42	0.47	0.52	0.55	0.62	0.67	0.73	0.84
60		0.27	0.31	0.34	0.37	0.40	0.44	0.47	0.50	0.53	0.56	0.60	0.67	0.74	0.77	0.89	0.96	1.04	1.20
100		0.43	0.48	0.52	0.57	0.62	0.67	0.71	0.77	0.82	0.88	0.93	1.03	1.14	1.20	1.38	1.50	1.62	1.87
200		0.76	0.84	0.93	1.01	1.10	1.19	1.28	1.37	1.46	1.57	1.69	1.85	2.06	2.16	2.48	2.70	2.93	3.40
300		1.06	1.17	1.29	1.41	1.54	1.66	1.78	1.92	2.05	2.18	2.29	2.59	2.88	3.03	3.48	3.79	4.11	4.79
400		1.32	1.47	1.62	1.78	1.93	2.09	2.25	2.41	2.59	2.75	2.92	3.28	3.65	3.84	4.41	4.81	5.22	6.08
500		1.57	1.75	1.93	2.12	2.30	2.50	2.69	2.89	3.09	3.30	3.50	3.93	4.37	4.60	5.30	5.78	6.29	7.32
600		1.81	2.01	2.22	2.44	2.65	2.88	3.10	3.33	3.57	3.80	4.05	4.54	5.06	5.32	6.14	6.71	7.29	8.51
700		2.04	2.26	2.50	2.75	2.99	3.24	3.50	3.75	4.02	4.29	4.57	5.13	5.72	6.02	6.95	7.59	8.26	9.65
800		2.25	2.51	2.77	3.04	3.31	3.59	3.87	4.17	4.46	4.76	5.07	5.70	6.35	6.69	7.73	8.45	9.20	10.75
900		2.46	2.74	3.03	3.32	3.61	3.92	4.24	4.55	4.88	5.21	5.55	6.25	6.97	7.34	8.48	9.29	10.11	11.83
1000		2.66	2.96	3.28	3.58	3.91	4.24	4.58	4.93	5.28	5.64	6.02	6.78	7.56	7.96	9.22	10.08	10.99	12.88
1100		2.86	3.19	3.52	3.87	4.23	4.59	4.95	5.33	5.71	6.10	6.51	7.32	8.18	8.62	9.99	10.93	11.91	13.97
1200		3.06	3.42	3.78	4.15	4.53	4.92	5.31	5.72	6.13	6.55	6.98	7.87	8.79	9.26	10.74	11.76	12.83	15.05
1300		3.26	3.64	4.02	4.42	4.82	5.24	5.67	6.10	6.54	6.99	7.45	8.40	9.40	9.90	11.49	12.59	13.73	16.11
1400		3.46	3.86	4.27	4.69	5.12	5.57	6.01	6.47	6.95	7.43	7.92	8.94	9.99	10.53	12.23	13.40	14.62	17.17
1450		3.55	3.96	4.39	4.82	5.26	5.72	6.18	6.66	7.15	7.64	8.15	9.20	10.28	10.84	12.59	13.80	15.06	17.69
1500		3.65	4.07	4.51	4.95	5.41	5.87	6.35	6.85	7.35	7.85	8.38	9.46	10.58	11.15	12.95	14.20	15.50	18.22
1600		3.83	4.27	4.73	5.21	5.69	6.18	6.69	7.21	7.74	8.28	8.84	9.98	11.16	11.77	13.68	15.00	16.37	19.26
1750		4.11	4.59	5.08	5.59	6.12	6.64	7.19	7.75	8.32	8.91	9.50	10.74	12.03	12.69	14.75	16.19	17.68	20.81
1800		4.19	4.69	5.20	5.71	6.25	6.79	7.35	7.92	8.52	9.11	9.72	11.00	12.31	12.99	15.10	16.58	18.11	21.32
2000		4.56	5.09	5.65	6.21	6.79	7.39	8.00	8.63	9.28	9.93	10.61	11.99	13.44	14.18	16.51	18.14	19.82	23.37
2400		5.25	5.87	6.51	7.17	7.85	8.54	9.27	10.00	10.75	11.52	12.31	13.95	15.65	16.53	19.27	21.20	23.18	27.38
2800		5.91	6.61	7.34	8.09	8.87	9.66	10.48	11.32	12.18	13.06	13.97	15.84	17.81	18.81	21.97	24.19	26.49	31.35
3000		6.22	6.97	7.75	8.54	9.37	10.21	11.09	11.97	12.89	13.82	14.79	16.78	18.87	19.94	23.31	25.68	28.13	33.30
3600		6.93	7.79	8.66	9.56	10.49	11.45	12.44	13.46	14.50	15.57	16.66	18.94	21.33	22.56	26.44	29.15	31.97	37.94
4000		7.36	8.29	9.20	10.18	11.18	12.20	13.27	14.36	15.48	16.63	17.81	20.27	22.85	24.18	28.37	31.30	34.36	40.81
5000		8.29	9.34	10.41	11.52	12.68	13.87	15.10	16.38	17.68	19.02	20.40	23.26	26.29	27.84	32.75	36.20		
6000		9.05	9.05	11.41	12.65	13.95	15.28	16.66	18.08	19.55	21.06	22.61	25.85	29.24	31.02	36.56	40.46		

*Because the durability in terms of hours decreases in the □□□□ marked range, this range should be avoided whenever possible. For other belt widths, values above should be multiplied by the width correction coefficient shown in Table 28.
*□□□□ The circumferential speed of pulley is 33(m/s) or more; a dynamic balance for the pulley is essential.

Table 48. Reference Transmission Capacity of T5 Ps -Belt Width 10mm-(W)

No. of Teeth of Small Pulley	12	14	16	18	20	22	24	28	30
Diameter of the Pitch Circle(mm)	19.10	22.28	25.46	28.65	31.83	35.01	38.20	44.56	47.75
Rotary Speed of Small Pulley(rpm)									
1160	98.5	114.9	131.3	147.7	164.1	180.5	196.9	229.7	246.1
1750	134.3	156.7	179.1	201.5	223.9	246.3	268.7	313.5	335.9
3500	222.5	259.6	296.7	333.7	370.8	407.9	445.0	519.1	556.2
100	10.7	12.4	14.2	16.0	17.8	19.5	21.3	24.9	26.6
200	20.8	24.3	27.7	31.2	34.7	38.2	41.6	48.6	52.0
300	30.5	35.6	40.7	45.7	50.8	55.9	61.0	71.2	76.2
400	39.7	46.4	53.0	59.6	66.2	72.9	79.5	92.7	99.4
500	48.6	56.7	64.8	72.9	81.0	89.1	97.2	113.4	121.5
600	57.0	66.5	76.0	85.6	95.1	104.6	114.1	133.1	142.6
700	65.1	76.0	86.8	97.7	108.6	119.4	130.3	152.0	162.8
800	72.9	85.0	97.2	109.3	121.5	133.6	145.8	170.1	182.2
900	80.3	93.7	107.1	120.5	133.9	147.3	160.7	187.5	200.9
1000	87.5	102.1	116.7	131.3	145.9	160.5	175.0	204.2	218.8
1100	94.4	110.2	125.9	141.6	157.4	173.1	188.9	220.3	236.1
1200	101.1	117.9	134.8	151.6	168.5	185.3	202.2	235.9	252.7
1300	107.5	125.5	143.4	161.3	179.2	197.2	215.1	250.9	268.9
1400	113.8	132.8	151.7	170.7	189.7	208.6	227.6	265.5	284.5
1500	119.9	139.8	159.8	179.8	200.0	219.2	239.7	279.7	299.7
1600	125.8	146.7	167.7	188.6	209.6	230.6	251.5	293.4	314.4
1700	131.5	153.4	175.4	197.3	219.2	241.1	263.0	306.9	328.8
1800	137.1	160.0	182.9	205.7	228.6	251.4	274.3	320.0	342.8
1900	142.6	166.4	190.2	214.0	237.7	261.5	285.3	332.8	356.6
2000	148.0	172.7	197.4	222.1	246.7	271.4	296.1	345.4	370.1
2200	158.6	185.0	211.4	237.8	264.3	290.7	317.8	370.0	396.4
2400	168.8	196.9	225.1	253.2	281.4	309.5	337.6	393.9	422.0
2600	178.8	208.7	238.5	268.3	298.1	327.9	357.7	417.3	447.1
2800	188.7	220.2	251.6	283.1	314.5	346.0	377.4	440.4	471.8
3000	198.5	231.6	264.6	297.7	330.8	363.9	397.0	463.1	496.2
3200	208.2	242.8	277.5	312.2	346.9	381.6	416.3	485.7	520.4
3400	217.7	254.0	290.3	326.6	362.9	399.2	435.5	508.0	544.3
3600	227.2	265.1	303.0	340.8	378.7	416.6	454.4	530.2	568.1
3800	236.6	276.0	315.5	354.9	394.3	433.8	473.2	552.1	591.5
4000	245.8	286.8	327.7	368.7	409.7	450.7	491.6	573.6	614.5
4200	254.8	297.3	339.7	382.2	424.7	467.2	509.6	594.6	637.0
4400	263.5	307.4	351.4	395.3	439.2	483.1	527.1	614.9	658.8
4600	271.9	317.2	362.5	407.8	453.1	498.4	543.7	634.4	679.7
4800	279.7	326.4	373.0	419.6	466.2	512.8	559.5	652.7	699.3
5000	287.0	334.8	382.7	430.5	478.3	526.2	574.0	669.7	717.5
5500			402.2	452.4	502.7	553.0	603.2	703.8	754.1
6000			412.1	463.6	515.1	566.6	618.1	721.1	772.6
6500			408.2	459.2	510.2	561.2	612.2	714.3	765.3
7000			385.3	433.5	481.7	529.8	578.0	674.3	722.5
7500			337.7	379.9	422.1	464.3	506.6	591.0	633.2
8000				290.8	323.1	355.5	387.8	452.4	484.7
8500				157.7	175.3	192.8	210.3	245.4	262.9

*Avoiding the [] marked ranges is recommended as endurance time is shorten
*The above table shows values for the nominal width 10 (10mm). Multiply a value in the table by correction coefficient Kb in the table 28 for other widths.

Table 49. Reference Transmission Capacity of T10 Ps - Belt Width 10mm-(W)

No. of Teeth of Small Pulley		12	14	16	18	20	22	24	26	28	30	32	36	40	44	48
Rotary Speed of Small Pulley(rpm)	Diameter of the Pitch Circle(mm)	38.20	44.56	50.93	57.30	63.66	70.03	76.39	82.76	89.12	95.49	101.86	114.59	127.32	140.06	152.79
870		254.9	297.4	339.9	382.4	424.9	467.4	509.9	552.4	594.9	637.4	679.8	764.8	849.8	938.8	1019.8
1160		321.2	374.8	428.3	481.8	535.4	588.9	642.4	696.0	749.5	803.0	856.6	963.7	1070.7	1177.8	1284.9
1750		438.3	511.3	584.4	657.4	730.5	803.5	876.6	949.6	1022.7	1095.7	1168.8	1314.9	1461.0	1607.1	1753.2
3500		725.8	846.8	967.8	1088.7	1209.7	1330.6	1451.6	1572.6	1693.6	1814.6	1935.5	2177.5	2419.4	2661.4	2903.3
100		34.8	40.6	46.4	52.1	57.9	63.7	69.5	75.3	81.1	86.9	92.7	104.3	115.9	127.5	139.1
200		67.9	79.2	90.5	101.9	113.2	124.5	135.8	147.1	158.4	169.8	181.1	203.7	226.3	249.0	271.6
300		99.5	116.1	132.7	149.3	165.8	182.4	199.0	215.6	232.2	248.8	265.3	298.5	331.7	364.9	398.0
400		129.7	151.3	172.9	194.5	216.1	237.7	259.4	281.0	302.6	324.2	345.8	389.0	432.3	475.5	518.7
500		158.5	184.9	211.3	237.8	264.2	290.6	317.0	343.4	369.8	396.3	422.7	475.5	528.3	581.2	634.0
600		186.1	217.1	248.1	279.1	310.1	341.1	372.2	403.2	434.2	465.2	496.2	558.2	620.3	682.3	744.3
700		212.5	247.9	283.3	318.7	354.2	389.6	425.0	460.4	495.8	531.2	566.6	637.5	708.3	779.1	850.0
800		237.8	277.5	317.1	356.7	396.4	436.0	475.6	515.3	554.9	594.5	634.2	713.4	792.7	872.0	951.3
900		262.1	305.8	349.5	393.2	436.9	480.6	524.3	568.0	611.7	655.3	699.0	786.4	873.8	961.2	1048.6
1000		285.5	333.1	380.7	428.3	475.9	523.5	571.1	618.7	666.2	713.8	761.4	856.6	951.8	1047.0	1142.1
1100		308.1	359.4	410.8	462.1	513.5	564.8	616.2	667.5	718.8	770.2	821.5	924.2	1026.9	1129.6	1232.3
1200		329.8	384.8	439.8	494.7	549.7	604.7	659.7	714.6	769.6	824.6	879.6	989.5	1099.4	1209.4	1319.3
1300		350.9	409.4	467.8	526.3	584.8	644.3	701.4	760.2	818.7	877.2	935.7	1052.6	1169.6	1286.5	1403.5
1400		371.3	433.1	495.0	556.9	618.8	680.6	742.5	804.4	866.3	928.1	990.0	1113.8	1237.5	1361.3	1485.0
1500		391.0	456.2	521.4	586.6	651.7	716.9	782.1	847.3	912.4	977.6	1042.8	1173.1	1303.5	1433.8	1564.2
1600		410.3	478.7	547.1	615.4	683.8	752.2	820.6	889.0	957.4	1025.7	1094.1	1230.9	1367.7	1504.4	1641.2
1700		429.1	500.6	572.1	643.6	715.1	786.6	858.1	929.6	1001.2	1072.7	1144.2	1287.2	1430.2	1573.3	1716.3
1800		447.4	522.0	596.5	671.1	745.7	820.2	894.8	969.4	1043.9	1118.5	1193.1	1342.2	1481.3	1624.5	1761.6
1900		465.4	542.9	620.5	698.0	775.6	853.1	930.7	1008.3	1085.8	1163.4	1240.9	1396.1	1551.2	1706.3	1861.4
2000		483.0	563.5	643.9	724.4	804.9	885.4	965.9	1046.4	1126.9	1207.4	1287.9	1448.9	1609.9	1770.9	1931.8
2200		517.3	603.5	689.7	776.0	862.2	948.4	1034.6	1120.8	1207.1	1293.3	1379.5	1551.9	1724.4	1896.8	2069.2
2400		550.7	642.5	734.3	826.1	917.9	1009.7	1101.4	1193.8	1285.0	1376.8	1468.6	1652.2	1835.8	2019.3	2202.9
2600		583.5	680.7	777.9	875.2	972.4	1069.7	1166.9	1264.1	1361.4	1458.6	1555.9	1750.4	1944.9	2139.3	2333.8
2800		615.7	718.3	820.9	923.5	1026.1	1128.7	1231.3	1333.9	1436.6	1539.2	1641.8	1847.0	2052.3	2257.5	2462.7
3000			755.4	863.4	971.3	1079.2	1187.1	1295.0	1402.9	1510.9	1618.8	1726.7	1942.5	2158.4	2374.2	2590.1
3200			792.2	905.4	1018.6	1131.8	1244.9	1358.1	1471.2	1584.5	1697.6	1810.8	2037.2	2263.5	2489.9	2716.2
3400			828.7	947.1	1065.5	1183.8	1302.2	1420.6	1539.0	1657.4	1775.8	1894.2	2130.9	2367.7	2604.5	2841.2
3600			864.8	988.4	1111.9	1235.4	1358.9	1482.5	1606.0	1729.6	1853.2	1976.7	2223.8	2470.9	2718.0	2965.1
3800			900.5	1029.1	1157.7	1286.4	1415.0	1543.6	1672.2	1800.9	1929.6	2058.2	2315.5	2572.8	2830.0	3087.3
4000				1069.2	1202.8	1336.5	1470.0	1603.7	1737.3	1871.1	2004.7	2138.4	2405.7	2673.0	2940.3	3207.6
4200				1108.3	1246.9	1385.4	1523.9	1662.4	1800.9	1939.6	2078.1	2216.7	2493.7	2770.8	3047.9	3325.0
4400				1146.2	1289.5	1432.8	1576.0	1719.2	1862.5	2005.9	2149.2	2292.5	2579.0	2865.6	3152.1	3438.7
4600				1182.5	1330.3	1478.1	1625.8	1773.6	1921.4	2069.4	2217.2	2365.0	2660.6	2956.3	3251.9	3547.5
4800				1216.7	1368.8	1520.9	1672.8	1824.9	1976.9	2129.2	2281.3	2433.4	2737.6	3041.8	3345.9	3650.1
5000				1248.3	1404.3	1560.4	1716.2	1872.2	2028.3	2184.5	2340.6	2496.6	2808.7	3120.8	3432.8	3744.9
5200				1276.7	1436.3	1595.9	1755.2	1914.8	2074.4	2234.2	2393.8	2553.4	2872.6	3191.8	3510.9	3830.1
5400				1301.3	1463.9	1626.6	1789.0	1951.6	2114.2	2277.2	2439.9	2602.5	2927.8	3253.2	3578.5	3903.8
5600				1321.2	1486.4	1651.5	1816.4	1981.5	2146.7	2312.2	2477.3	2642.5	2972.8	3303.1	3633.4	3963.7
5800				1335.8	1502.8	1669.8	1836.4	2003.4	2170.3	2337.7	2504.7	2671.7	3005.6	3339.6	3673.5	4007.5
6000				1344.2	1512.2	1680.2	1847.8	2015.8	2184.3	2352.3	2520.3	2688.3	3024.4	3360.4	3696.5	4032.5

[Technical Data]
Selection of Timing Belts 10 -Transmission Capacity Table-

Selection is easy with Timing Pulleys and Belts automatic calculation tool available at:
http://fawos.misumi.jp/FA_WEB/pulley_us/

Table 50. Reference Transmission Capacity of 2GT Ps -Belt Width 4mm- (W)

No. of Teeth of Small Pulley Diameter of the Pitch Circle(mm) Rotary Speed of Small Pulley(rpm)	12	14	16	18	20	22	24	26	28	30	32	36	40	44	48	50	60	72
	7.64	8.91	10.19	11.46	12.73	14.01	15.28	16.55	17.83	19.10	20.37	22.92	25.46	28.01	30.56	31.83	38.20	45.84
20	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.7	1.9	2.2	2.5	2.6	3.4	4.0
40	0.8	1.0	1.1	1.3	1.5	1.7	1.8	2.0	2.2	2.4	2.7	3.1	3.6	4.1	4.6	4.9	6.3	7.6
60	1.1	1.4	1.6	1.8	2.1	2.3	2.6	2.9	3.2	3.5	3.8	4.4	5.1	5.8	6.6	7.0	9.1	10.9
100	1.7	2.1	2.4	2.8	3.2	3.6	4.0	4.5	4.9	5.4	5.9	6.9	8.0	9.1	10.3	11.0	14.3	17.2
200	3.0	3.6	4.3	5.0	5.7	6.4	7.2	8.0	8.8	9.7	10.6	12.5	14.5	16.6	18.9	20.1	26.4	31.7
300	4.2	5.0	5.9	6.9	7.9	8.9	10.0	11.1	12.3	13.6	14.9	17.6	20.4	23.5	26.8	28.5	37.7	45.3
400	5.2	6.3	7.4	8.6	9.9	11.2	12.6	14.1	15.6	17.2	18.8	22.3	26.0	30.0	34.3	36.5	48.5	58.2
500	6.1	7.4	8.8	10.2	11.8	13.4	15.1	16.8	18.7	20.6	22.6	26.8	31.4	36.2	41.4	44.1	58.8	70.6
600	7.0	8.5	10.1	11.8	13.5	15.4	17.4	19.4	21.6	23.8	26.2	31.2	36.5	42.2	48.3	51.5	68.9	82.6
700	7.8	9.5	11.3	13.2	15.2	17.4	19.6	21.9	24.4	27.0	29.6	35.3	41.4	48.0	55.0	58.7	78.6	94.4
800	8.6	10.5	12.5	14.6	16.8	19.2	21.7	24.3	27.1	30.0	33.0	39.4	46.2	53.6	61.5	65.6	88.2	105.8
870	9.1	11.1	13.3	15.5	17.9	20.5	23.2	26.0	28.9	32.0	35.2	42.1	49.5	57.5	66.0	70.4	94.7	113.7
900	9.3	11.4	13.6	15.9	18.4	21.0	23.8	26.7	29.7	32.9	36.2	43.3	50.9	59.1	67.9	72.4	97.5	117.0
1000	10.0	12.3	14.6	17.2	19.9	22.7	25.7	28.9	32.2	35.7	39.3	47.1	55.4	64.4	74.1	79.1	106.7	128.0
1160	11.1	13.6	16.3	19.1	22.1	25.4	28.8	32.3	36.1	40.0	44.2	53.0	62.5	72.7	83.7	89.5	121.0	145.2
1200	11.4	13.9	16.6	19.6	22.7	26.0	29.5	33.2	37.0	41.1	45.3	54.4	64.2	74.8	86.1	92.0	124.6	149.5
1400	12.6	15.4	18.5	21.8	25.3	29.1	33.0	37.2	41.6	46.2	51.1	61.4	72.6	84.7	97.7	104.5	141.9	170.3
1450	12.9	15.8	19.0	22.4	26.0	29.8	33.9	38.2	42.7	47.5	52.5	63.1	74.7	87.2	100.6	107.6	146.2	175.4
1600	13.7	16.8	20.3	23.9	27.8	32.0	36.4	41.1	46.0	51.2	56.6	68.2	80.8	94.4	109.0	116.6	158.8	190.6
1750	14.5	17.8	21.5	25.4	29.6	34.1	38.8	43.8	49.1	54.7	60.6	73.1	86.7	101.4	117.2	125.5	171.2	205.4
1800	14.7	18.2	21.9	25.9	30.2	34.8	39.6	44.7	50.2	55.9	61.9	74.7	88.6	103.7	119.9	128.4	175.3	210.3
2000	15.7	19.4	23.4	27.8	32.4	37.4	42.7	48.3	54.2	60.4	66.9	81.0	96.2	112.8	130.5	139.9	191.4	229.7
2400	17.4	21.7	26.3	31.2	36.6	42.3	48.4	54.9	61.8	69.0	76.6	93.0	110.9	130.2	151.1	162.1	222.8	267.3
2800	19.0	23.7	28.8	34.4	40.4	46.9	53.8	61.1	68.9	77.1	85.8	104.4	124.8	146.9	170.8	183.4	253.1	303.7
3200	20.3	25.5	31.1	37.3	43.9	51.1	58.8	66.9	75.6	84.7	94.4	115.2	138.1	162.9	189.8	204.0	282.4	338.9
3600	21.5	27.1	33.2	39.9	47.2	55.0	63.4	72.4	81.9	92.0	102.6	125.6	150.9	178.4	208.2	223.9	311.0	373.2
4000	22.6	28.6	35.1	42.4	50.2	58.7	67.8	77.5	87.9	98.9	110.5	135.6	163.2	193.3	225.9	243.2	338.9	406.7
5000	24.7	31.6	39.2	47.7	56.9	66.9	77.7	89.2	101.6	114.7	128.7	158.9	192.2	228.7	268.3	289.3	406.0	487.2
6000	26.2	33.8	42.4	52.0	62.5	73.9	86.3	99.6	113.8	129.0	145.1	180.2	219.1	261.7	308.1	332.7	469.8	563.8
7000	27.1	35.5	45.0	55.5	67.2	79.9	93.8	108.8	124.8	142.0	160.2	200.0	244.2	292.8	345.8	373.9	531.0	637.3
8000	27.6	36.6	46.9	58.4	71.1	85.2	100.4	117.0	134.7	153.8	174.1	218.4	267.8	322.2	381.6	413.2	590.0	708.0
10000	27.5	37.5	49.2	62.4	77.1	93.5	111.4	130.9	151.9	174.6	198.7	251.8	311.2	376.8	448.7	487.0	702.1	842.6
12000	26.0	36.9	49.8	64.4	81.0	99.5	119.8	142.0	166.1	192.1	220.0	281.4	350.3	426.8	510.7	555.6	807.9	969.5
14000	23.5	35.1	48.9	64.9	83.1	103.5	126.1	150.9	177.9	207.1	238.4	307.8	385.9	472.8	568.5	619.7	908.3	1090.0

*Because the durability in terms of hours decreases in the □□□□ marked range, this range should be avoided whenever possible. For other belt widths, values above should be multiplied by the width correction coefficient shown in Table 28.

Table 51. Reference Transmission Capacity of 3GT Ps -Belt Width 6mm- (W)

No. of Teeth of Small Pulley Diameter of the Pitch Circle(mm) Rotary Speed of Small Pulley(rpm)		12	14	16	18	20	22	24	26	28	30	32	36	40	48	54	60	72	80
		11.46	13.37	15.28	17.19	19.10	21.01	22.92	24.83	26.74	28.65	30.56	34.38	38.20	45.84	51.57	57.30	68.75	76.39
20	20	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	5.9	6.4	6.9	7.8	8.7	10.5	11.8	13.1	15.7	17.4
	40	3.6	4.5	5.5	6.4	7.3	8.2	9.1	10.0	10.9	11.8	12.6	14.3	16.0	19.3	21.7	24.2	28.9	32.0
	60	5.0	6.4	7.7	9.0	10.3	11.6	12.9	14.2	15.4	16.7	17.9	20.4	22.8	27.5	30.9	34.4	41.1	45.5
	100	7.6	9.7	11.8	13.9	15.9	18.0	19.9	21.9	23.9	25.9	27.8	31.6	35.3	42.6	48.0	53.4	63.8	70.6
	200	13.1	16.9	20.8	24.6	28.2	32.0	35.6	39.2	42.8	46.4	49.9	56.8	63.6	76.8	86.5	96.1	114.8	127.0
	300	17.7	23.2	28.7	34.1	39.2	44.6	49.6	54.8	59.9	65.0	69.8	79.6	89.2	107.7	121.4	134.8	161.0	178.1
	400	21.9	28.9	35.9	42.8	49.4	56.3	62.7	69.3	75.7	82.2	88.4	100.9	113.0	136.5	153.9	171.0	204.1	225.7
	500	25.6	34.2	42.6	51.0	58.9	67.2	74.9	82.9	90.6	98.5	105.9	121.0	135.6	163.8	184.7	205.1	244.8	270.7
	600	29.1	39.0	48.9	58.7	67.8	77.5	86.5	95.8	104.8	114.0	122.6	140.1	157.1	189.8	214.0	237.7	283.7	313.5
	700	32.2	43.6	54.8	66.0	76.4	87.4	97.6	108.2	118.4	128.9	138.6	158.5	177.8	214.8	242.2	269.1	321.0	354.7
	800	35.2	47.9	60.4	72.9	84.6	96.9	108.3	120.1	131.5	143.2	154.1	176.2	197.7	239.0	269.4	299.3	357.0	394.3
	870	37.2	50.8	64.2	77.6	90.1	103.3	115.5	128.2	140.4	152.9	164.6	188.3	211.3	255.4	288.0	319.8	381.4	421.3
	900	38.0	52.0	65.8	79.6	92.4	106.0	118.6	131.6	144.2	157.0	169.0	193.3	217.0	262.3	295.8	328.5	391.7	432.6
	1000	40.6	55.9	71.0	86.0	100.0	114.9	128.5	142.7	156.4	170.4	183.4	210.0	235.7	285.0	321.3	356.8	425.4	469.8
	1160	44.4	61.8	78.8	95.8	111.6	128.4	143.8	159.9	175.2	191.1	205.7	235.6	264.5	319.9	360.7	400.6	477.4	527.0
	1200	45.4	63.2	80.7	98.2	114.4	131.7	147.5	164.0	179.8	196.1	211.1	241.9	271.6	328.4	370.3	411.2	490.0	540.9
	1400	49.6	69.9	89.7	109.6	128.0	147.5	165.5	184.2	202.1	220.5	237.5	272.2	305.7	369.8	416.9	462.9	551.4	608.3
	1450	50.6	71.5	91.9	112.3	131.2	151.4	169.8	189.0	207.4	226.4	243.9	279.5	314.0	379.8	428.3	475.5	566.2	624.6
	1600	53.4	76.0	98.2	120.3	140.8	162.6	182.5	203.3	223.2	243.7	262.6	301.1	338.4	409.3	461.5	512.3	609.8	672.5
	1750	56.0	80.4	104.2	128.0	149.9	173.4	194.8	217.2	238.5	260.5	280.8	322.1	362.0	437.9	493.7	548.0	652.0	718.7
1800	56.8	81.7	106.1	130.5	152.9	176.9	198.8	221.7	243.5	266.0	286.7	328.9	369.7	447.2	504.2	559.6	665.7	733.7	
2000	59.9	87.1	113.6	140.1	164.5	190.6	214.4	239.3	263.0	287.4	309.8	355.7	399.8	483.7	545.3	605.1	719.3	792.3	
2400	65.2	96.6	127.3	158.1	186.2	216.4	243.8	272.4	299.7	327.9	353.7	406.3	456.9	552.8	622.9	690.9	820.1	902.2	
2800	72.9	105.0	139.7	174.4	206.1	240.2	271.0	303.3	334.0	365.8	394.6	453.7	510.4	617.2	695.3	770.7	913.1	1003.1	
3200	80.8	112.3	150.9	189.4	224.5	262.4	296.4	332.2	366.2	401.3	433.1	498.2	560.6	677.7	763.0	845.1	999.1	1095.6	
3600	88.4	118.7	161.0	203.2	241.6	283.1	320.3	359.3	396.4	434.7	469.3	540.2	607.8	734.5	826.3	914.4	1078.4	1180.2	
4000	95.9	124.3	170.2	216.0	257.5	302.4	342.6	384.9	424.9	466.3	503.5	579.8	652.4	787.8	885.6	979.0	1151.3	1257.0	
5000	113.8	135.2	189.6	243.9	292.7	345.8	392.9	442.6	489.4	537.9	581.1	669.6	753.3	907.4	1017.3	1120.7	1306.3	1415.8	
6000	130.7	154.3	204.6	266.8	322.3	383.0	436.3	492.7	545.5	600.3	648.7	747.7	840.5	1008.6	1126.6	1235.3	1422.5	1526.3	
7000	147.0	173.3	216.0	285.5	347.2	414.7	473.7	536.1	594.2	654.6	707.3	815.0	915.0	1092.4	1214.1	1323.1	1499.2	1586.5	
8000	162.6	191.5	224.1	300.4	367.7	441.6	505.6	573.4	636.2	701.3	757.6	872.2	977.3	1159.1	1279.9	1383.5	1534.5	1593.4	
10000	192.2	225.7	259.3	320.5	397.5	482.4	554.7	631.3	701.2	773.7	834.6	957.4	1066.1	1240.3	1343.8	1418.4	1471.0	1431.9	
12000	219.7	257.3	294.6	331.6	413.4	507.3	585.4	668.1	742.3	818.9	880.9	1004.0	1106.6	1249.1	1312.0	1329.1	1209.3	1008.1	
14000	245.5	286.4	326.7	366.1	416.7	517.2	598.6	684.8	760.0	837.2	896.5	1010.9	1096.9	1180.1	1175.5	1102.1			

[Technical Data]

Selection of Timing Belts 11 -Transmission Capacity Table-

Table52. Reference Transmission Capacity of EV5GT Ps -Belt Width 15mm-

(W)

No. of Teeth of Small Pulley	14	16	18	20	22	24	26	28	30	32	36	40	44	48	54	60	72	80
Rotary Speed of Small Pulley(rpm)	22.28	25.46	28.65	31.83	35.01	38.20	41.38	44.56	47.75	50.93	57.30	63.66	70.03	76.39	85.94	95.49	114.59	127.32
20	13	18	22	27	33	38	42	47	52	56	64	72	80	87	97	108	128	139
40	24	33	41	50	61	70	79	88	96	104	120	136	150	163	183	203	240	263
60	33	46	58	72	87	100	113	126	139	150	173	196	216	236	264	293	348	380
100	50	71	91	113	136	157	178	199	219	237	273	310	343	374	419	465	552	604
200	85	125	163	205	248	287	326	365	403	438	506	575	636	695	780	867	1031	1129
300	115	173	228	289	350	407	464	520	574	625	723	823	912	996	1119	1244	1482	1623
400	142	217	289	369	447	520	594	667	737	803	931	1060	1176	1285	1445	1607	1914	2096
500	166	258	347	445	539	629	718	808	894	974	1131	1289	1430	1564	1759	1957	2333	2555
600	188	297	402	518	627	733	839	944	1046	1141	1325	1511	1678	1836	2065	2298	2740	3002
700	208	333	454	589	712	834	956	1077	1193	1302	1514	1728	1919	2101	2364	2632	3139	3439
800	227	368	505	657	795	933	1069	1206	1337	1460	1699	1940	2156	2360	2657	2958	3529	3866
870	239	392	540	704	851	1000	1147	1294	1436	1569	1826	2086	2319	2539	2858	3183	3797	4161
900	244	402	554	724	875	1028	1180	1332	1478	1615	1880	2148	2388	2615	2944	3279	3912	4286
1000	260	434	602	789	954	1122	1289	1456	1616	1767	2058	2352	2616	2865	3227	3593	4288	4698
1160	284	483	675	890	1075	1268	1459	1649	1832	2004	2337	2672	2973	3257	3669	4087	4878	5343
1200	289	495	693	915	1105	1304	1500	1696	1885	2062	2405	2751	3061	3353	3778	4209	5023	5502
1400	315	551	780	1035	1251	1478	1704	1929	2145	2349	2742	3138	3493	3828	4314	4807	5736	6282
1450	321	565	801	1065	1286	1521	1754	1986	2209	2419	2825	3233	3599	3945	4446	4954	5912	6474
1600	338	605	863	1152	1391	1647	1901	2155	2397	2627	3070	3516	3914	4291	4837	5390	6430	7040
1750	354	643	923	1237	1494	1771	2046	2320	2583	2831	3311	3793	4224	4631	5221	5817	6939	7595
1800	358	655	943	1264	1527	1811	2093	2374	2644	2899	3390	3884	4326	4743	5347	5958	7106	7777
2000	376	703	1020	1374	1659	1971	2280	2589	2884	3164	3703	4244	4728	5185	5846	6513	7765	8494
2400	406	791	1165	1584	1911	2278	2641	3003	3349	3678	4309	4943	5509	6042	6812	7587	9034	9868
2800	440	872	1301	1783	2151	2571	2986	3400	3795	4171	4892	5615	6259	6865	7737	8613	10238	11165
3200	486	945	1429	1973	2380	2851	3318	3782	4225	4647	5455	6263	6982	7657	8625	9594	11379	12384
3600	529	1011	1550	2155	2598	3120	3636	4150	4640	5107	5998	6888	7679	8419	9477	10531	12456	13522
4000	571	1072	1665	2330	2808	3379	3944	4505	5041	5550	6522	7492	8350	9151	10291	11423	13466	14575
5000	667	1202	1925	2738	3296	3986	4667	5343	5985	6597	7758	8910	9920	10854	12167	13450	15686	16815
6000		1305	2153	3108	3737	4539	5330	6112	6853	7559	8889	10199	11335	12372	13803	15172	17429	18431
7000		1382	2352	3445	4136	5044	5936	6817	7648	8438	9915	11358	12590	13695	15183	16561	18641	19343
8000			2524	3749	4495	5501	6487	7459	8370	9235	10835	12383	13677	14812	16285	17586	19259	
9000			2671	4023	4815	5912	6984	8037	9018	9946	11645	13265	14586	15706	17086	18212		
10000			4266	5096	6277	7426	8550	9591	10570	12339	13998	15303	16361	17560				
12000			4660	5541	6865	8141	9375	10498	11541	13356	14976	16113	16883					
14000			4930	5825	7256	8617	9915	11067	12113	13831	15238							

*Because the durability in terms of hours decreases in the marked range, this range should be avoided whenever possible. For other belt widths, values above should be multiplied by the width correction coefficient shown in Table 28.

Table53. Reference Transmission Capacity of EV8YU Ps -Belt Width 20mm-

(W)

No. of Teeth of Small Pulley		20	22	24	26	28	30	32	34	36	38	40	44	48	54	60	64	72	80
Rotary Speed of Small Pulley(rpm)	Diameter of the Pitch Circle(mm)	50.93	56.02	61.12	66.21	71.30	76.39	81.49	86.58	91.67	96.77	101.86	112.05	122.23	137.51	152.79	162.97	183.35	203.72
10		0.04	0.04	0.05	0.05	0.05	0.06	0.06	0.07	0.07	0.08	0.08	0.09	0.10	0.12	0.13	0.14	0.16	0.18
20		0.07	0.08	0.09	0.10	0.10	0.11	0.13	0.13	0.14	0.15	0.16	0.18	0.20	0.23	0.26	0.28	0.32	0.36
40		0.13	0.14	0.16	0.18	0.20	0.22	0.24	0.26	0.28	0.30	0.32	0.36	0.40	0.46	0.52	0.56	0.64	0.72
60		0.18	0.21	0.23	0.26	0.29	0.32	0.35	0.38	0.41	0.44	0.48	0.54	0.60	0.69	0.78	0.84	0.96	1.08
100		0.28	0.33	0.37	0.42	0.47	0.52	0.57	0.62	0.67	0.72	0.78	0.88	0.99	1.14	1.30	1.40	1.60	1.80
200		0.52	0.60	0.69	0.79	0.89	0.99	1.10	1.20	1.29	1.39	1.52	1.73	1.96	2.27	2.58	2.79	3.19	3.60
300		0.74	0.86	0.99	1.13	1.29	1.45	1.62	1.76	1.90	2.05	2.25	2.57	2.92	3.38	3.85	4.18	4.78	5.40
400		0.94	1.10	1.28	1.47	1.67	1.89	2.12	2.30	2.50	2.70	2.97	3.40	3.86	4.48	5.12	5.56	6.37	7.20
500		1.13	1.34	1.56	1.80	2.05	2.32	2.61	2.84	3.08	3.33	3.68	4.23	4.81	5.59	6.38	6.94	7.95	8.99
600		1.32	1.57	1.83	2.12	2.42	2.75	3.10	3.38	3.67	3.97	4.38	5.04	5.75	6.68	7.64	8.31	9.53	10.78
700		1.50	1.79	2.10	2.43	2.79	3.17	3.58	3.90	4.24	4.59	5.08	5.86	6.68	7.77	8.89	9.68	11.10	12.57
800		1.68	2.00	2.36	2.74	3.15	3.59	4.05	4.43	4.81	5.22	5.78	6.66	7.61	8.86	10.14	11.04	12.67	14.34
870		1.80	2.15	2.54	2.95	3.40	3.87	4.38	4.79	5.21	5.65	6.26	7.23	8.26	9.62	11.01	11.99	13.76	15.58
900		1.85	2.21	2.61	3.04	3.50	4.00	4.52	4.94	5.38	5.83	6.47	7.47	8.54	9.95	11.39	12.40	14.23	16.11
1000		2.02	2.42	2.86	3.34	3.85	4.40	4.99	5.46	5.94	6.45	7.15	8.27	9.46	11.03	12.63	13.75	15.78	17.88
1160		2.28	2.74	3.26	3.81	4.41	5.05	5.73	6.27	6.83	7.42	8.24	9.54	10.92	12.75	14.60	15.91	18.26	20.68
1200		2.34	2.82	3.35	3.92	4.54	5.20	5.91	6.47	7.06	7.66	8.51	9.86	11.29	13.17	15.09	16.45	18.87	21.37
1400		2.65	3.21	3.83	4.50	5.22	5.99	6.82	7.48	8.16	8.86	9.86	11.43	13.11	15.30	17.54	19.11	21.93	24.83
1450		2.73	3.31	3.94	4.64	5.39	6.19	7.05	7.72	8.43	9.16	10.20	11.82	13.56	15.83	18.15	19.78	22.69	25.68
1600		2.95	3.59	4.29	5.06	5.88	6.77	7.72	8.47	9.24	10.05	11.20	12.99	14.91	17.41	19.96	21.75	24.95	28.23
1750		3.17	3.87	4.63	5.47	6.37	7.34	8.39	9.20	10.05	10.93	12.19	14.15	16.25	18.98	21.75	23.71	27.18	30.75
1800		3.24	3.96	4.75	5.61	6.53	7.53	8.61	9.44	10.31	11.22	12.52	14.54	16.69	19.50	22.35	24.36	27.93	31.58
2000		3.52	4.32	5.19	6.14	7.17	8.29	9.48	10.41	11.37	12.38	13.82	16.06	18.46	21.56	24.71	26.94	30.85	34.86
2400		4.06	5.01	6.05	7.19	8.43	9.76	11.20	12.30	13.45	14.65	16.39	19.07	21.93	25.61	29.34	31.97	36.55	41.21
2800		4.57	5.66	6.88	8.20	9.64	11.20	12.87	14.15	15.48	16.87	18.90	22.00	25.31	29.55	33.82	36.82	41.99	47.22
3200		5.05	6.29	7.67	9.18	10.82	12.59	14.50	15.95	17.46	19.03	21.35	24.86	28.60	33.35	38.12	41.46	47.14	52.83
3600		5.50	6.89	8.43	10.12	11.96	13.95	16.08	17.69	19.38	21.12	23.72	27.62	31.78	37.01	42.22	45.86	51.95	57.98
4000		5.94	7.47	9.17	11.03	13.06	15.26	17.62	19.39	21.23	23.15	26.02	30.30	34.84	40.50	46.10	50.00	56.39	
5000		6.91	8.79	10.87	13.16	15.65	18.34	21.24	23.37	25.59	27.88	31.39	36.50	41.90	48.40	54.68			
6000		7.75	9.94	12.38	15.05	17.97	21.12	24.52	26.95	29.47	32.08	36.16	41.92	47.96	54.90				
7000		8.44	10.92	13.68	16.70	20.00	23.57	27.39	30.06	32.82	35.65	40.22	46.41	52.84					
8000		8.99	11.72	14.76	18.09	21.27	25.63	29.82	32.65	35.55	38.52	43.45							