

Long Timing Belts

Polyurethane – No. of Teeth Configurable Joint Machining

Timing Pulleys / Belts / Keyless Bushings

Feature: The belt length is selectable as desired, and suitable for a long span synchronous conveyance. For Belts with Backside Attachment, see P.1442. For Timing Pulleys P.1332.

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RoHS10

Joint process
The Open-ended Belt can be changed to an endless belt by thermally bonding the ends of the Open-ended Belt.
Core wires of the joint part are not connected.

Feature of Cloth Lined Belts
Backside Cloth Lined: Reduces friction coefficient of conveyed items and is suitable for accumulation conveyance.
Both Sides Cloth Lined: Reduces friction coefficient of conveyed materials and Pulleys and cut noise.

Type	Type	Material		
		(1) Main Body	(2) Core Wire	(3) Cloth
LTBJ	Standard	Polyurethane	T5, T10, L, H, S5M, S8M: Aramid Core Wire AT5, AT10: Steel Cord	—
LTBN	Backside Cloth Lined	—	—	Nylon Cloth
LTBR	Both Sides Cloth Lined	—	—	Nylon Cloth

Ⓜ Operating Temperature: -20~70°C

Type of Belt	Pitch	2θ (°)	H	h	i	L	Unit Mass g/m (Width: 10 mm)		
							Standard	Backside Cloth Lined	Both Sides Cloth Lined
L	9.525	40°	3.6	1.91	1.69	3.25	29.1	28.8	—
H	12.7	40°	4.36	2.29	2.07	4.4	36.2	33.8	—
T5	5	40°	2.2	1.2	1.0	1.8	19.0	—	20.0
T10	10	40°	4.5	2.5	2.0	3.5	37.7	34.5	32.5
AT5	5	50°	2.7	1.2	1.5	2.5	32.0	—	—
AT10	10	50°	4.5	2.5	2.0	5.0	58.6	—	—

Type of Belt	Pitch	Ra	Lr	H	h	i	Unit Mass g/m (Width: 10 mm)	
							Standard	Chloroprene Rubber
S5M	5	3.25	3.25	3.31	1.81	1.5	29.0	—
S8M	8	5.2	5.2	5.3	2.95	2.35	45.2	—

Ⓜ For the belt designing, refer to P.3970, Material Properties, refer to P.1339.

Comparison of Friction Coefficient

Reference Value

Matching Material	Belt Type	Tooth Surface		Back Surface	
		Cloth Lined	Standard	Cloth Lined	Standard
Steel	—	0.34	0.65	0.29	0.75
Stainless Steel	—	0.22	0.68	0.17	0.69
Aluminum	—	0.19	0.42	0.15	0.50
UHMW	—	0.18	0.31	0.17	0.32
Teflon	—	0.12	0.21	0.12	0.28

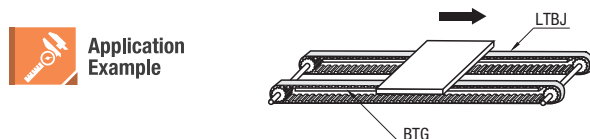
* Figures in the chart are examples of actual measurement, not standard values.

Type	Part Number	Type of Belt	Belt Nominal Width	No. of Teeth	Belt Width (mm)	Allowable Tension (N)	Available Types					
							LTBJ	LTBN	LTBR	Standard	Cloth Lined	
LTBJ Standard	L	050	74-1049	12.7	92	92	•	•	—	•	•	
		075			138		•	•	—	•	•	
		100			184		•	•	—	•	•	
		150			276		•	•	—	•	•	
		075			163		•	•	—	•	•	
		100			216		•	•	—	•	•	
LTBN Backside Cloth Lined	H	075	56-787	19.1	163	163	•	•	—	•	•	
		100			216		•	•	—	•	•	
		150			324		•	•	—	•	•	
		200			432		•	•	—	•	•	
		100			60		•	•	—	•	•	
		150			90		•	•	—	•	•	
LTBR Both Sides Cloth Lined	S5M	150	140-2000	15	150	150	•	•	—	•	•	
		250			117		•	•	—	•	•	
		150			196		•	•	—	•	•	
		250			235		•	•	—	•	•	
		300			313		•	•	—	•	•	
		400			58		•	•	—	•	•	
LTBJ Standard	T5	150	140-2000	15	87	87	•	•	—	•	•	
		200			116		•	•	—	•	•	
		250			145		•	•	—	•	•	
		150			180		•	•	—	•	•	
		200			240		•	•	—	•	•	
		250			300		•	•	—	•	•	
	T10	70-1000	15	240	240	240	240	•	•	—	•	•
				300		360		•	•	—	•	•
				400		481		•	•	—	•	•
				500		601		•	•	—	•	•
				100		74		•	•	—	•	•
				150		110		•	•	—	•	•
AT5	140-2000	15	234	234	234	234	•	•	—	•	•	
			200		312		•	•	—	•	•	
			250		391		•	•	—	•	•	
			100		74		•	•	—	•	•	
			150		110		•	•	—	•	•	
			200		145		•	•	—	•	•	
AT10	70-1000	15	234	234	234	234	•	•	—	•	•	
			200		312		•	•	—	•	•	
			250		391		•	•	—	•	•	
			100		74		•	•	—	•	•	
			150		110		•	•	—	•	•	
			200		145		•	•	—	•	•	

Ⓜ Overall Length: Number of Teeth x Pitch. Ⓜ Kgf=Nx0.101972

Part Number Example

Type	Type of Belt	Belt Nominal Width	Teeth
LTBJ	AT5	150	800
LTBR	H	200	300



Open End Belts

Polyurethane, Chloroprene Rubber

For fittings, refer to P.1448.

For examples of use, refer to P.1339.

Open End Belts – Polyurethane, Chloroprene Rubber

HTBOG, HTBO

Ⓜ Operating Temperature: -20~80°C

Type	Material	
	Main Body	Core Wire
TBOG / HTBOG / PTBOG	Chloroprene Rubber (Black)	Glass Cord
TBO / HTBO / TTBO	Polyurethane (White)	Steel Cord

Belt Type	Pitch	2θ (°)	H	h	i	L	Unit Mass g/m (Width: 10 mm)	
							Chloroprene Rubber	Polyurethane
XL	5.08	50°	2.25	1.25	1.0	1.35	26.77	22.17
L	9.525	40°	3.5	1.9	1.6	3.2	37.8	36.22
H	12.7	40°	4.3	2.3	2.0	4.4	52.36	41.22
T5	5	40°	2.2	1.2	1.0	1.8	—	22.1
T10	10	40°	4.5	2.5	2.0	3.5	—	47.6
AT5	5	50°	2.7	1.2	1.5	2.5	—	32.0
AT10	10	50°	4.5	2.5	2.0	5	—	58.6

Belt Type	Pitch	Ra	Lr	H	h	i	PLD	Unit Mass g/m (Width: 10 mm)	
								Chloroprene Rubber	Polyurethane
S3M	3	1.95	1.95	2.10 (2.00)	1.14	0.96 (0.86)	0.381	—	24.3
S5M	5	3.25	3.25	3.61 (3.20)	1.91 (1.77)	1.70 (1.43)	0.480	38.8	34.6
S8M	8	5.20	5.20	5.30 (5.00)	3.05 (2.85)	2.25 (2.15)	0.686	55.2	57.6

Ⓜ For the belt designing, refer to P.3970.

Belt Type	Pitch	ℓ	H	h	PLD	r	Unit Mass g/m (Width: 10 mm)	
							Chloroprene Rubber	Polyurethane
P5M	5	3.25	3.6	1.81	0.571	0.5	—	41.0
P8M	8	5.2	5.5	2.9	0.686	0.8	—	56.0

Type	Part Number	Belt Type	Belt Nominal Width	No. of Teeth	Belt Width (mm)	Allowable Tension (N)		Applicable Metal Joint	
						Chloroprene Rubber	Polyurethane		
TBGO Chloroprene Rubber	XL	L	025	30-3937	6.4	—	66	TBCK-XL025	
			037		9.5	102	TBCK-XL037		
			050		12.7	142	TBCK-XL050		
			050		12.7	259	TBCK-L050		
			075		19.1	387	TBCK-L075		
			100		25.4	519	TBCK-L100		
TBO Polyurethane	H	H	075	45-1574	19.1	—	397	TBCK-H075	
			100		25.4	529	TBCK-H100		
			150		38.1	799	TBCK-H150		
			200		50.8	1093	TBCK-H200		
			060		6	127	TBCK-S3M060		
			100		10	106	TBCK-S3M100		
HTBOG Chloroprene Rubber	S3M	S	150	40-6666	15	—	159	TBCK-S3M150	
			100		10	215	TBCK-S5M100		
			150		15	323	TBCK-S5M150		
HTBO Polyurethane	S5M	S	250	50-4000	25	—	539	TBCK-S5M250	
			150		15	647	TBCK-S8M150		
			250		25	1176	TBCK-S8M250		
PTBOG Chloroprene Rubber	P8M	P	150	60-2500	30	—	1412	TBCK-S8M300	
			400		40	1882	TBCK-S8M400		
			100		10	287	—	TBCK-S5M100	
			150		15	456	—	TBCK-S5M150	
			250		25	817	—	TBCK-S5M250	
			150		15	606	—	TBCK-S8M150	
TTBO Polyurethane	T5	T	250	40-2000	25	—	1060	TBCK-S8M250	
			100		10	—	112	TBCK-T5100	
			150		15	—	166	TBCK-T5150	
			200		20	—	225	TBCK-T5200	
			250		25	—	284	TBCK-T5250	
			150		15	—	299	TBCK-T10150	
			200		20	—	397	TBCK-T10200	
			250		25	—	529	TBCK-T10250	
			300		30	—	627	TBCK-T10300	
	400	40	—	862	TBCK-T10400				
	AT5	A	A	500	40-4000	50	—	1064	TBCK-T10500
				100		10	—	147	TBCK-AT5100
				150		15	—	221	TBCK-AT5150
				200		20	—	469	TBCK-AT10150
				250		25	—	625	TBCK-AT10200
250				25		—	781	TBCK-AT10250	

Ⓜ Overall Length: Number of Teeth x Pitch. Ⓜ Kgf=Nx0.101972

Part Number Example

Type	Type of Belt	Belt Nominal Width	Teeth
TBO	H	100	1100
HTBOG	S5M	100	500
TTBO	AT5	150	1200

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