OVERLOAD PROTECTION EQUIPMENT

TT-03 – Datasheet

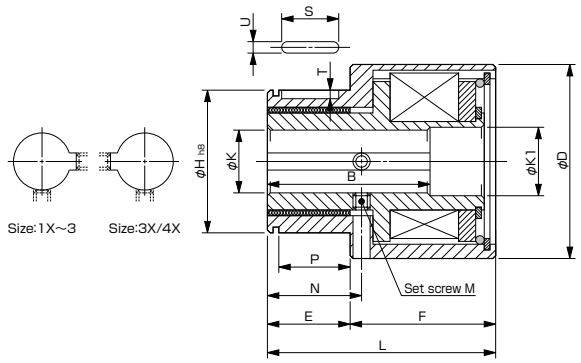
Torque Limiters / Winding Type

Specifications

Model	Size	Set torque value [N·m] (1500 min^{-1})									Max. rotation speed [min^{-1}]	Moment of inertia [kg·m^2]	Mass [kg]
TT-1X-03	1X	0.2	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	1800	0.09 × 10^{-3}	0.4
TT-2-03	2	1	2	3	4	5	6	7	8	10	1800	0.31 × 10^{-3}	0.8
TT-2X-03	2X	2	3	5	8	10	12	15	18	20	1800	0.66 × 10^{-3}	1.1
TT-3-03	3	5	8	10	15	20	25	30	35	40	1800	1.59 × 10^{-3}	1.7
TT-3X-03	3X	10	16	20	30	40	50	60	70	80	1800	2.43 × 10^{-3}	3.0
TT-4X-03	4X	20	30	50	80	100	120	150	180	200	500	15.8 × 10^{-3}	6.5

• The set torque values in the table above are those when the rotation speed is 1500 min^{-1}.
• Set torque values vary by ± 20%.
• If you need durability for the torque values in the ▭ area, select a larger size.

Dimensions

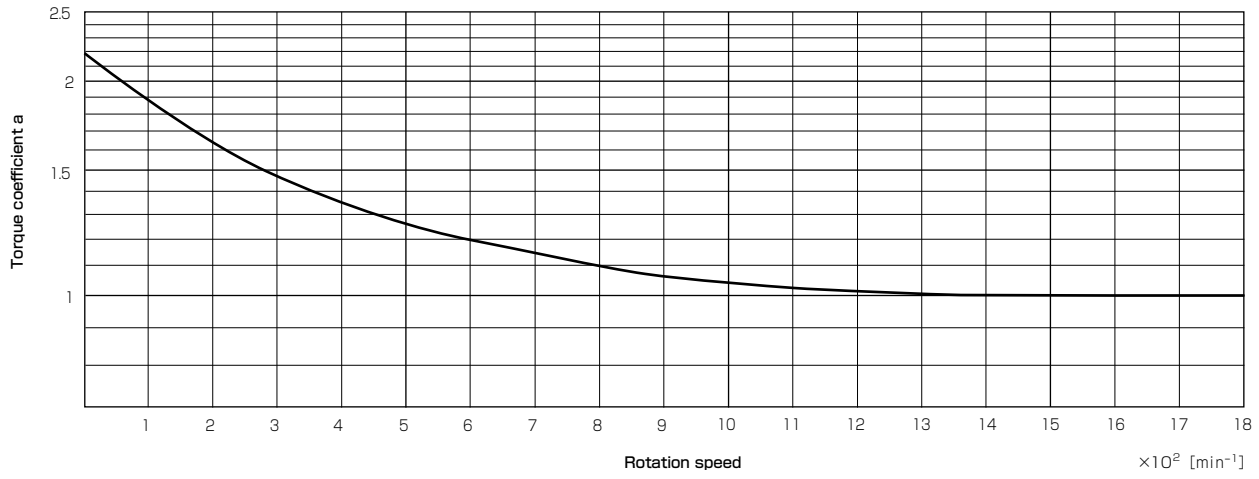


Unit [mm]

Size	K1	B	D	E	F	H	N	L	P	S	T	U	M
1X	12.5	34.5	42	20	35	30	25	55	16	14	2.5	4	2-M4
2	16.5	38.5	55	25	40	40	30	65	20	18	3	5	2-M5
2X	20.5	40.5	65	25	45	45	31	70	20	18	3	5	2-M5
3	25.5	52.5	75	35	55	60	45	90	30	28	4	7	2-M6
3X	25.5	75	75	35	90	60	45	125	30	28	4	7	2-M6
4X	46	100	120	50	90	85	57	140	45	40	4.5	12	2-M8

• The outer diameter key (old JIS class 2) and stop ring are included accessories.

Torque coefficient



MIKI PULLEY EUROPE AG
www.mikipulley.de
Rheinweg 5, CH-8200 Schaffhausen, Tel: +41 52 625 24 24
Bauhofstraße 12, D-63762 Großostheim, Tel: +49 6026 999 610

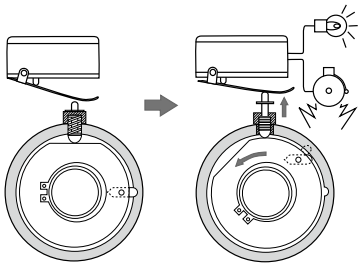
Standard Bore Diameter ø K

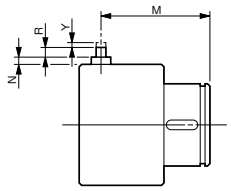
Model	Bore Drilling Standards	Nominal bore diameter	Standard bore diameter K [mm]																			
			8	10	11	12	14	15	16	18	19	20	22	24	25	28	30	32	35	38	40	42	45
	Old JIS standards (E9)	Blank	●	●	●	●																	
TT-1X-01	JIS standards (H9)	H		●	●	●																	
	Motor standards	N																					
	Old JIS standards (E9)	Blank			●	●	●	●	●														
TT-2-01	JIS standards (H9)	H			●	●	●	●	●														
	Motor standards	N					●																
	Old JIS standards (E9)	Blank					●	●	●	●	●	●											
TT-2X-01	JIS standards (H9)	H					●	●	●	●	●												
	Motor standards	N					●				●												
	Old JIS standards (E9)	Blank								●	●	●	●	●	●								
TT-3-01	JIS standards (H9)	H								●	●	●	●	●	●								
	Motor standards	N									●			●									
	Old JIS standards (E9)	Blank								●	●	●	●	●	●								
TT-3X-01	JIS standards (H9)	H								●	●	●	●	●	●								
	Motor standards	N									●			●									
	Old JIS standards (E9)	Blank									●	●	●	●	●	●	●	●	●	●	●	●	●
TT-4X-01	JIS standards (H9)	H									●	●	●	●	●	●	●	●	●	●	●	●	●
	Motor standards	N									●			●		●				●		●	

• There is no keyway for bore diameter ø8 mm.

Option Signal Pin

Unattended or remotely controlled machines and equipment require equipment that detects an overload and automatically switches off the power or sounds a warning alarm.
An overload can be detected by connecting the signal pin to the torque tender.
When an overload is detected, the input side and the output side are disconnected and the cam mechanism of the torque tender hub pushes the signal pin out in the radial direction. This can be used to switch off the power or sound a warning alarm.

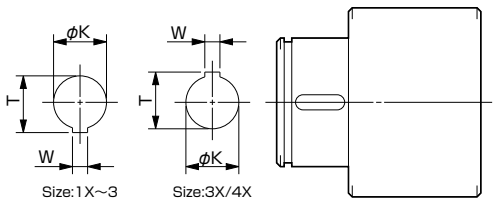




Size	M	Y	R	N
1X	47	1.5	6.5	5.5
2	56	2.5	5	4.5
2X	60	2.5	5	4.5
3	79	2.5	5	4.5
3X	114	2.5	5	4.5
4X	125	2.5	5	2

Standard Hole-Drillings

■ TT(03)



Unit [mm]

Models compliant with the old JIS standard (class 2) JIS B 1301 1959				Models compliant with the new JIS standard (H9) JIS B 1301 1996				Models compliant with the motor standard JIS C 4210 2001			
Nominal bore diameter	Bore diameter [øA/øK]	Keyway width [W]	Keyway height [T]	Nominal bore diameter	Bore diameter [øA/øK]	Keyway width [W]	Keyway height [T]	Nominal bore diameter	Bore diameter [øA/øK]	Keyway width [W]	Keyway height [T]
	Tolerance H7	Tolerance E9	—		Tolerance H7	Tolerance H9	—		Tolerance G7	Tolerance H9	—
8	8 $^{+0.015}_{0}$	—	—	—	—	—	—	—	—	—	—
10	10 $^{+0.015}_{0}$	4 $^{+0.050}_{+0.020}$	11.5 $^{0.5}_{0}$	10 H	10 $^{+0.015}_{0}$	4 $^{+0.030}_{0}$	11.8 $^{0.5}_{0}$	—	—	—	—
11	11 $^{+0.018}_{0}$	4 $^{+0.050}_{+0.020}$	12.5 $^{0.5}_{0}$	11 H	11 $^{+0.018}_{0}$	4 $^{+0.030}_{0}$	12.8 $^{0.5}_{0}$	—	—	—	—
12	12 $^{+0.018}_{0}$	4 $^{+0.050}_{+0.020}$	13.5 $^{0.5}_{0}$	12 H	12 $^{+0.018}_{0}$	4 $^{+0.030}_{0}$	13.8 $^{0.5}_{0}$	—	—	—	—
14	14 $^{+0.018}_{0}$	5 $^{+0.050}_{+0.020}$	16.0 $^{0.5}_{0}$	14 H	14 $^{+0.018}_{0}$	5 $^{+0.030}_{0}$	16.3 $^{0.5}_{0}$	14 N	14 $^{+0.024}_{+0.006}$	5 $^{+0.030}_{0}$	16.0 $^{0.5}_{0}$
15	15 $^{+0.018}_{0}$	5 $^{+0.050}_{+0.020}$	17.0 $^{0.5}_{0}$	15 H	15 $^{+0.018}_{0}$	5 $^{+0.030}_{0}$	17.3 $^{0.5}_{0}$	—	—	—	—
16	16 $^{+0.018}_{0}$	5 $^{+0.050}_{+0.020}$	18.0 $^{0.5}_{0}$	16 H	16 $^{+0.018}_{0}$	5 $^{+0.030}_{0}$	18.3 $^{0.5}_{0}$	—	—	—	—
18	18 $^{+0.018}_{0}$	5 $^{+0.050}_{+0.020}$	20.0 $^{0.5}_{0}$	18 H	18 $^{+0.018}_{0}$	6 $^{+0.030}_{0}$	20.8 $^{0.5}_{0}$	—	—	—	—
19	19 $^{+0.021}_{0}$	5 $^{+0.050}_{+0.020}$	21.0 $^{0.5}_{0}$	19 H	19 $^{+0.021}_{0}$	6 $^{+0.030}_{0}$	21.8 $^{0.5}_{0}$	19 N	19 $^{+0.028}_{+0.007}$	6 $^{+0.030}_{0}$	21.5 $^{0.5}_{0}$
20	20 $^{+0.021}_{0}$	5 $^{+0.050}_{+0.020}$	22.0 $^{0.5}_{0}$	20 H	20 $^{+0.021}_{0}$	6 $^{+0.030}_{0}$	22.8 $^{0.5}_{0}$	—	—	—	—
22	22 $^{+0.021}_{0}$	7 $^{+0.061}_{+0.025}$	25.0 $^{0.5}_{0}$	22 H	22 $^{+0.021}_{0}$	6 $^{+0.030}_{0}$	24.8 $^{0.5}_{0}$	—	—	—	—
24	24 $^{+0.021}_{0}$	7 $^{+0.061}_{+0.025}$	27.0 $^{0.5}_{0}$	24 H	24 $^{+0.021}_{0}$	8 $^{+0.036}_{0}$	27.3 $^{0.5}_{0}$	24 N	24 $^{+0.028}_{+0.007}$	8 $^{+0.036}_{0}$	27.0 $^{0.5}_{0}$
25	25 $^{+0.021}_{0}$	7 $^{+0.061}_{+0.025}$	28.0 $^{0.5}_{0}$	25 H	25 $^{+0.021}_{0}$	8 $^{+0.036}_{0}$	28.3 $^{0.5}_{0}$	—	—	—	—
28	28 $^{+0.021}_{0}$	7 $^{+0.061}_{+0.025}$	31.0 $^{0.5}_{0}$	28 H	28 $^{+0.021}_{0}$	8 $^{+0.036}_{0}$	31.3 $^{0.5}_{0}$	28 N	28 $^{+0.028}_{+0.007}$	8 $^{+0.036}_{0}$	31.0 $^{0.5}_{0}$
30	30 $^{+0.021}_{0}$	7 $^{+0.061}_{+0.025}$	33.0 $^{0.5}_{0}$	30 H	30 $^{+0.021}_{0}$	8 $^{+0.036}_{0}$	33.3 $^{0.5}_{0}$	—	—	—	—
32	32 $^{+0.025}_{0}$	10 $^{+0.061}_{+0.025}$	33.5 $^{0.5}_{0}$	32 H	32 $^{+0.025}_{0}$	10 $^{+0.036}_{0}$	35.3 $^{0.5}_{0}$	—	—	—	—
35	35 $^{+0.025}_{0}$	10 $^{+0.061}_{+0.025}$	38.5 $^{0.5}_{0}$	35 H	35 $^{+0.025}_{0}$	10 $^{+0.036}_{0}$	38.3 $^{0.5}_{0}$	—	—	—	—
38	38 $^{+0.025}_{0}$	10 $^{+0.061}_{+0.025}$	41.5 $^{0.5}_{0}$	38 H	38 $^{+0.025}_{0}$	10 $^{+0.036}_{0}$	41.3 $^{0.5}_{0}$	38 N	38 $^{+0.034}_{+0.009}$	10 $^{+0.036}_{0}$	41.0 $^{0.5}_{0}$
40	40 $^{+0.025}_{0}$	10 $^{+0.061}_{+0.025}$	43.5 $^{0.5}_{0}$	40 H	40 $^{+0.025}_{0}$	12 $^{+0.043}_{0}$	43.3 $^{0.5}_{0}$	—	—	—	—
42	42 $^{+0.025}_{0}$	12 $^{+0.075}_{+0.032}$	45.5 $^{0.5}_{0}$	42 H	42 $^{+0.025}_{0}$	12 $^{+0.043}_{0}$	45.3 $^{0.5}_{0}$	42 N	42 $^{+0.034}_{+0.009}$	12 $^{+0.043}_{0}$	45.0 $^{0.5}_{0}$
45	45 $^{+0.025}_{0}$	12 $^{+0.075}_{+0.032}$	48.5 $^{0.5}_{0}$	45 H	45 $^{+0.025}_{0}$	14 $^{+0.043}_{0}$	48.8 $^{0.5}_{0}$	—	—	—	—
48	48 $^{+0.025}_{0}$	12 $^{+0.075}_{+0.032}$	51.5 $^{0.5}_{0}$	48 H	48 $^{+0.025}_{0}$	14 $^{+0.043}_{0}$	51.8 $^{0.5}_{0}$	48 N	48 $^{+0.034}_{+0.009}$	14 $^{+0.043}_{0}$	51.5 $^{0.5}_{0}$
50	50 $^{+0.025}_{0}$	12 $^{+0.075}_{+0.032}$	53.5 $^{0.5}_{0}$	50 H	50 $^{+0.025}_{0}$	14 $^{+0.043}_{0}$	53.8 $^{0.5}_{0}$	—	—	—	—

NOTE

- The set screws are included with the product.
- For standard bore drilling dimensions other than those specified, please contact Miki Pulley.

How to Place an Order

TT-2X-03-19H-10NM-P

- Size
- Type — 03: Winding
- Bore diameter (øK)
- Key specifications — Blank: Compliant with the old JIS standards (class 2); H: Compliant with the new JIS standards; N: Compliant with the new motor standards
- Set torque — *Contact Miki Pulley for assistance in changing the set torque for normal or reverse operation.
- Option — Blank: None; P: Equipped with a signal pin

MIKI PULLEY EUROPE AG

Rheinweg 5, CH-8200 Schaffhausen, Tel: +41 52 625 24 24
Bauhofstraße 12, D-63762 Großostheim, Tel: +49 6026 999 610

www.mikipulley.de