

Minimum
tube lengthSpring
loaded shaft

MDR Brushless DC Motor Integral motor driver type PM500XE/PM500XP

Roller diameter $\varnothing 50$ Roller diameter $\varnothing 50$ **PM500XE**

(Standard type)

PM500XP

(High power type)

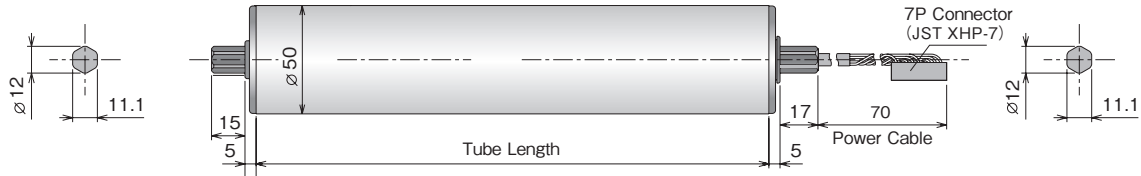
- Roller diameter / $\varnothing 50$
- Thickness / $t1.4$
- Voltage / 24V DC
- Tube material / STKM12
- Surface treatment / Trivalent chromate processing

Product Designation :

PM500XE - 17 - 400 - D - 024 - C007 - NN - VG

Power Moller model Nominal Speed Tube Length Voltage Cable Input/Output Signal Options

- Motor type : XE/XP
 Nominal Speed : 17,30,60,100
 Tube Length : Specify in mm.
 Voltage : D-024 (24VDC)
 Input / Output Signal : NN-NPN input-output / NP-NPN input, PNP output
 *Drip proof and 5P metal connector specification does not require designation. Leave this position blank.
 : Type and length of the power cable
 : Each of the following optional specification may be selected.

Cable
Options

Tube Length : PM500XE/PM500XP

 350mm	 ≥350mm						
Tube Length (mm)	400	500	600	700	800	900	1000
Weight (kg)	2.9	3.1	3.2	3.4	3.5	3.7	3.8
Spring loaded shaft	☐	☐	☐	☐	☐	☐	☐

- Conveyor frame inside dimension and frame hole shape vary by the manufacturer.
- A gap of 2~5mm is required between the frame inside dimension and Power Moller.

Options : PM500XE/PM500XP



Rubber Laggings - NR, UR, NB, CR

Natural rubber, Urethane, NBR, Neoprene



DR Drip Proof

 350mm ≥ 350 mm

VG Poly V-Belt Pulley

 350mm ≥ 350 mm

VP V-Belt Pulley

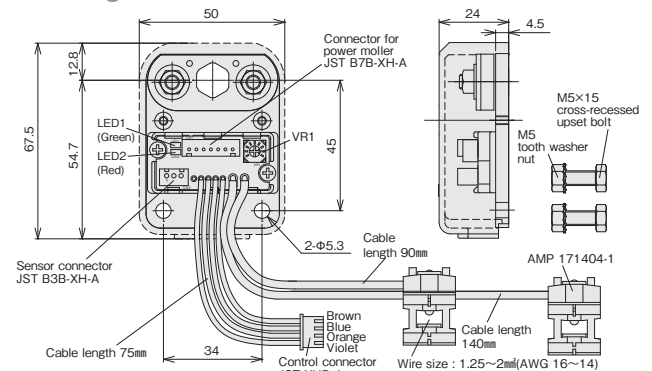
 350mm ≥ 350 mmP2 Double Grooved Tube ^{※1} 400mm ≥ 400 mm

JD

Both-end D-shaped shaft

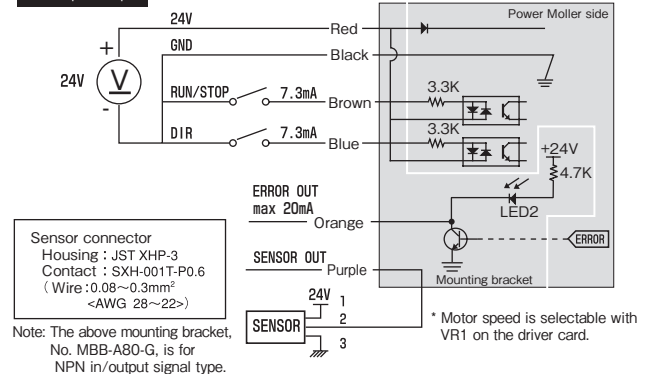
^{※1} Up to 800mm can be produced.

Mounting Bracket : No.MBB-A80-G

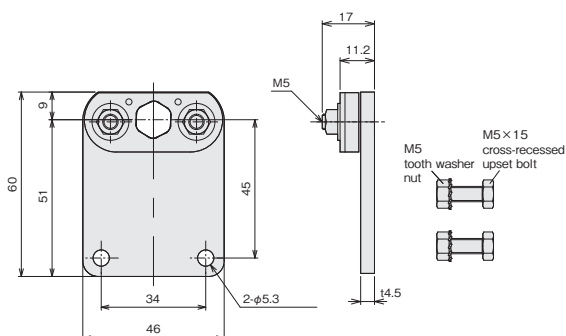


- Attach to the power cable side.
- Apply 6~10Nm torque for securing the Power Moller mounting shaft, and 3.1Nm* for securing the bracket.
- *If case of using a Phillips screwdriver, the required torque is 3.5Nm.

NPN Input/Output



Mounting Bracket : No.MBB-081

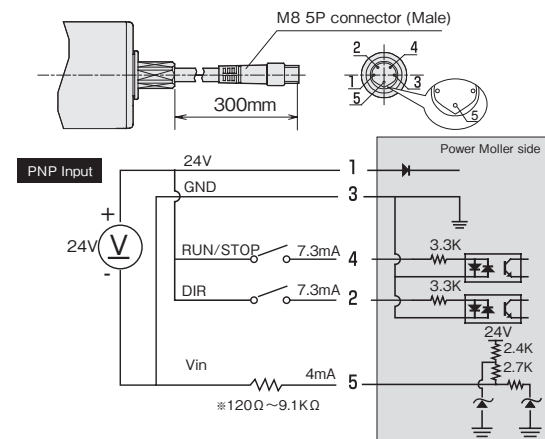


*Attach to the power cable side.

Apply 6~10Nm torque for securing the Power Moller mounting shaft, and 3.1Nm for securing the bracket.

*If case of using a Phillips screwdriver, the required torque is 3.5Nm.

Dripproof option/M8 5P connector cable

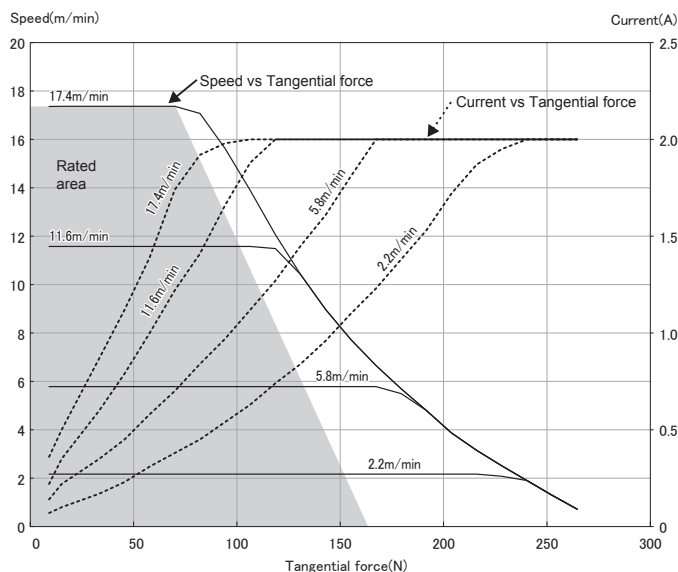


 [MDR Selection Tool] is available on our web page.

Operating characteristics : PM500XE

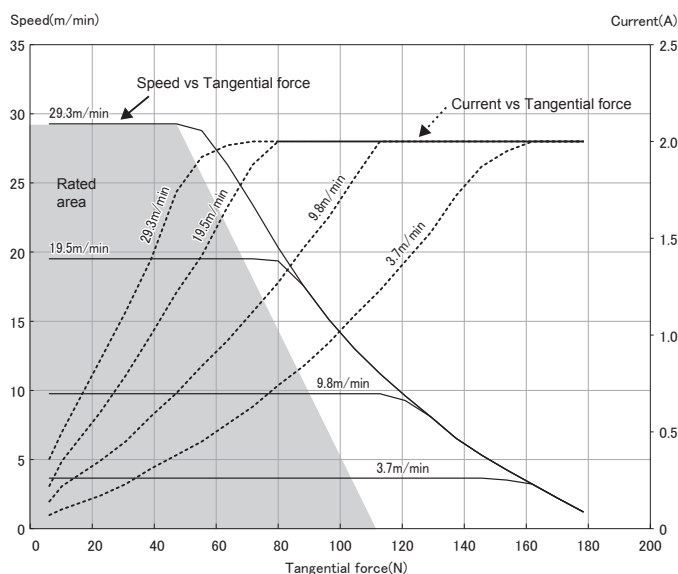
PM500XE-17

Speed (m/min)	Tangential Force(N)	Input Current (A)	Power Input (W)	Power Output (W)	External resistor (Ω)	External input voltage (V)
No-load	Rated	Starting	No-load	Starting		
17.4	70	0.5	31	42	9.1K or over or open	9.3~10
15.9	76	0.5	30	42	6.2K	8.5 $\pm$ 0.2
13.0	91	0.4	30	42	4.3K	7.5 $\pm$ 0.2
11.6	97	0.4	28	41	3.3K	6.5 $\pm$ 0.2
10.1	106	0.3	27	40	2.2K	5.5 $\pm$ 0.2
8.7	113	0.3	23	36	1.8K	4.5 $\pm$ 0.2
5.8	131	0.3	17	30	1.2K	3.5 $\pm$ 0.2
4.3	140	0.2	14	29	750	2.5 $\pm$ 0.2
2.9	146	0.2	10	26	430	1.5 $\pm$ 0.2
2.2	152	0.2	8	23	120 or less of short	0~0.9



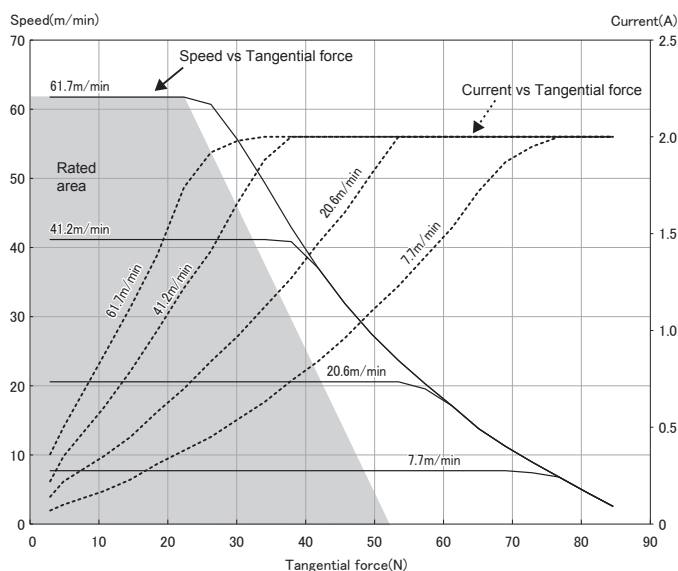
PM500XE-30

Speed (m/min)	Tangential Force(N)	Input Current (A)	Power Input (W)	Power Output (W)	External resistor (Ω)	External input voltage (V)
No-load	Rated	Starting	No-load	Starting		
29.3	47	0.5	31	42	9.1K or over or open	9.3~10
26.8	51	0.5	30	42	6.2K	8.5 $\pm$ 0.2
22.0	62	0.4	30	42	4.3K	7.5 $\pm$ 0.2
19.5	66	0.4	28	41	3.3K	6.5 $\pm$ 0.2
17.1	72	0.3	27	40	2.2K	5.5 $\pm$ 0.2
14.6	76	0.3	23	36	1.8K	4.5 $\pm$ 0.2
9.8	88	0.3	17	30	1.2K	3.5 $\pm$ 0.2
7.3	94	0.2	14	29	750	2.5 $\pm$ 0.2
4.9	98	0.2	10	26	430	1.5 $\pm$ 0.2
3.7	103	0.2	8	23	120 or less of short	0~0.9



PM500XE-60

Speed (m/min)	Tangential Force(N)	Input Current (A)	Power Input (W)	Power Output (W)	External resistor (Ω)	External input voltage (V)
No-load	Rated	Starting	No-load	Starting		
61.7	22	0.5	31	42	9.1K or over or open	9.3~10
56.6	24	0.5	30	42	6.2K	8.5 $\pm$ 0.2
46.3	29	0.4	30	42	4.3K	7.5 $\pm$ 0.2
41.2	31	0.4	28	41	3.3K	6.5 $\pm$ 0.2
36.0	34	0.3	27	40	2.2K	5.5 $\pm$ 0.2
30.9	36	0.3	23	36	1.8K	4.5 $\pm$ 0.2
20.6	42	0.3	17	30	1.2K	3.5 $\pm$ 0.2
15.4	45	0.2	14	29	750	2.5 $\pm$ 0.2
10.3	47	0.2	10	26	430	1.5 $\pm$ 0.2
7.7	49	0.2	8	23	120 or less of short	0~0.9

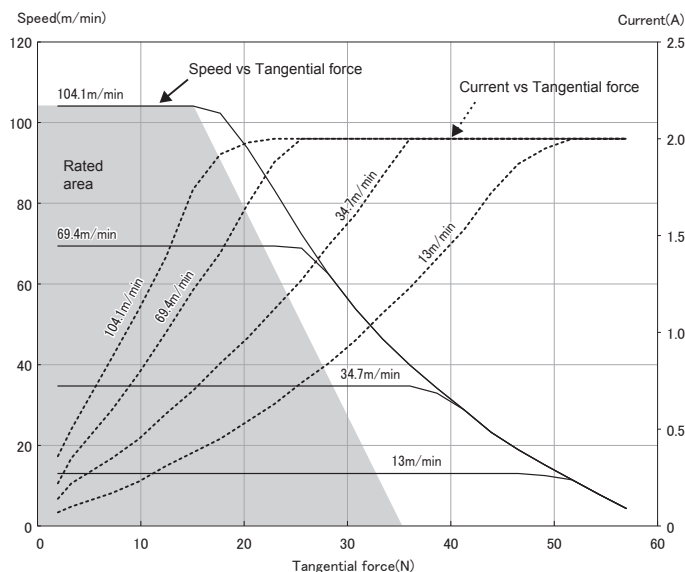


 [MDR Selection Tool] is available on our web page.

Operating characteristics : PM500XE

PM500XE-100

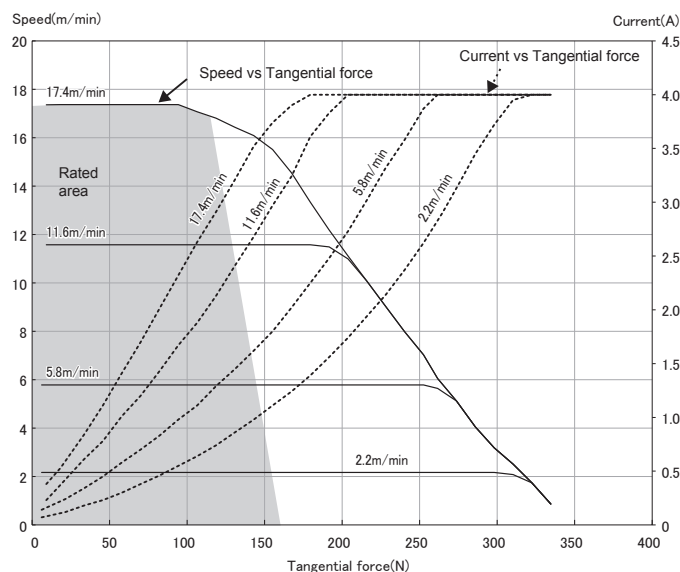
Speed (m/min)	Tangential Force(N)	Input Current (A)		Power Input (W)	Power Output (W)	External resistor (Ω)	External input voltage (V)
		No-load	Starting				
104.1	15		0.5	31	42	9.1K or over or open	9.3~10
95.4	16		0.5	30	42	6.2K	8.5 $\pm$ 0.2
78.1	20		0.4	30	42	4.3K	7.5 $\pm$ 0.2
69.4	21		0.4	28	41	3.3K	6.5 $\pm$ 0.2
60.7	23		0.3	27	40	2.2K	5.5 $\pm$ 0.2
52.0	24		0.3	23	36	1.8K	4.5 $\pm$ 0.2
34.7	28		0.3	17	30	1.2K	3.5 $\pm$ 0.2
26.0	30		0.2	14	29	750	2.5 $\pm$ 0.2
17.3	31		0.2	10	26	430	1.5 $\pm$ 0.2
13.0	33		0.2	8	23	120 or less of short	0~0.9



Operating characteristics : PM500XP

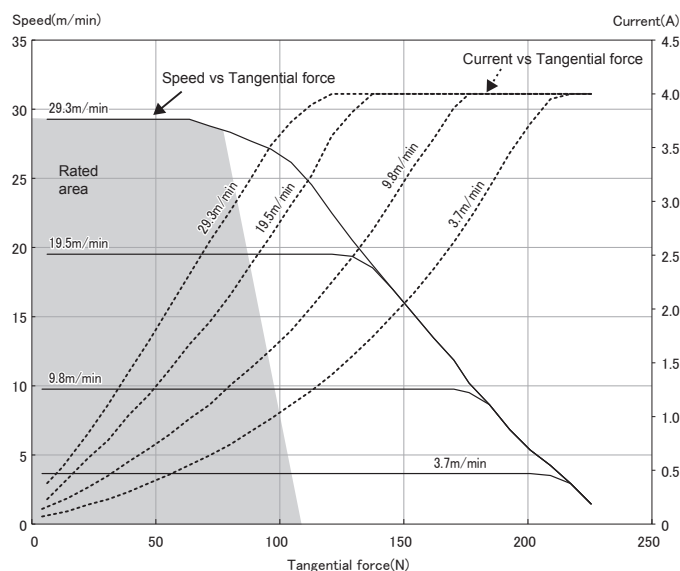
PM500XP-17

Speed (m/min)	Tangential Force(N)	Input Current (A)		Power Input (W)	Power Output (W)	External resistor (Ω)	External input voltage (V)
		No-load	Starting				
17.4	116		0.5	46	63	9.1K or over or open	9.3~10
15.9	119		0.5	43	59	6.2K	8.5 $\pm$ 0.2
13.0	125		0.4	39	56	4.3K	7.5 $\pm$ 0.2
11.6	128		0.4	35	51	3.3K	6.5 $\pm$ 0.2
10.1	134		0.3	30	46	2.2K	5.5 $\pm$ 0.2
8.7	137		0.3	29	42	1.8K	4.5 $\pm$ 0.2
5.8	146		0.3	19	35	1.2K	3.5 $\pm$ 0.2
4.3	149		0.2	14	29	750	2.5 $\pm$ 0.2
2.9	152		0.2	10	26	430	1.5 $\pm$ 0.2
2.2	155		0.2	8	23	120 or less of short	0~0.9



PM500XP-30

Speed (m/min)	Tangential Force(N)	Input Current (A)		Power Input (W)	Power Output (W)	External resistor (Ω)	External input voltage (V)
		No-load	Starting				
29.3	78		0.5	46	63	9.1K or over or open	9.3~10
26.8	80		0.5	43	59	6.2K	8.5 $\pm$ 0.2
22.0	84		0.4	39	56	4.3K	7.5 $\pm$ 0.2
19.5	86		0.4	35	51	3.3K	6.5 $\pm$ 0.2
17.1	90		0.3	30	46	2.2K	5.5 $\pm$ 0.2
14.6	92		0.3	29	42	1.8K	4.5 $\pm$ 0.2
9.8	98		0.3	19	35	1.2K	3.5 $\pm$ 0.2
7.3	100		0.2	14	29	750	2.5 $\pm$ 0.2
4.9	103		0.2	10	26	430	1.5 $\pm$ 0.2
3.7	105		0.2	8	23	120 or less of short	0~0.9

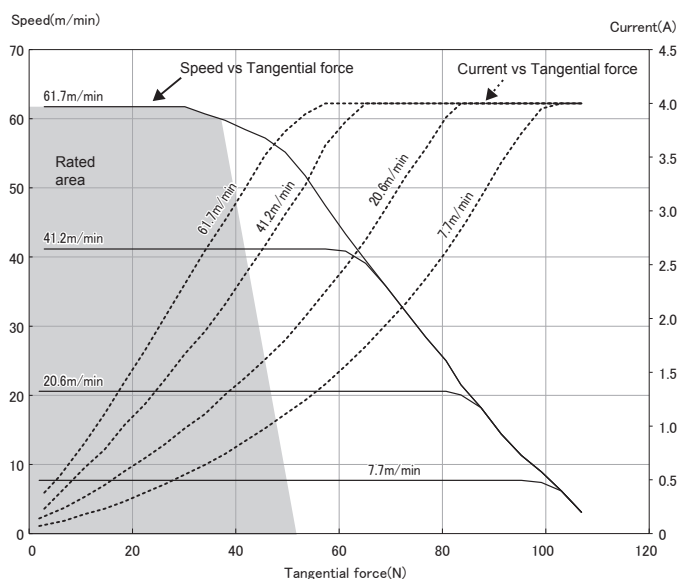


 [MDR Selection Tool] is available on our web page.

Operating characteristics : PM500XP

PM500XP-60

Speed (m/min)	Tangential Force(N)	Input Current (A)	Power Input (W)	Power Output (W)	External resistor (Ω)	External input voltage (V)
No-load	Rated	Starting	No-load	Starting		
61.7	37	0.5	46	63	9.1K or over or open	9.3~10
56.6	38	0.5	43	59	6.2K	8.5 $\pm$ 0.2
46.3	40	0.4	39	56	4.3K	7.5 $\pm$ 0.2
41.2	41	0.4	35	51	3.3K	6.5 $\pm$ 0.2
36.0	43	0.3	30	46	2.2K	5.5 $\pm$ 0.2
30.9	44	0.3	29	42	1.8K	4.5 $\pm$ 0.2
20.6	47	0.3	19	35	1.2K	3.5 $\pm$ 0.2
15.4	48	0.2	14	29	750	2.5 $\pm$ 0.2
10.3	49	0.2	10	26	430	1.5 $\pm$ 0.2
7.7	50	0.2	8	23	120 or less of short	0~0.9



PM500XP-100

Speed (m/min)	Tangential Force(N)	Input Current (A)	Power Input (W)	Power Output (W)	External resistor (Ω)	External input voltage (V)
No-load	Rated	Starting	No-load	Starting		
104.1	25	0.5	46	63	9.1K or over or open	9.3~10
95.4	26	0.5	43	59	6.2K	8.5 $\pm$ 0.2
78.1	27	0.4	39	56	4.3K	7.5 $\pm$ 0.2
69.4	28	0.4	35	51	3.3K	6.5 $\pm$ 0.2
60.7	29	0.3	30	46	2.2K	5.5 $\pm$ 0.2
52.0	29	0.3	29	42	1.8K	4.5 $\pm$ 0.2
34.7	31	0.3	19	35	1.2K	3.5 $\pm$ 0.2
26.0	32	0.2	14	29	750	2.5 $\pm$ 0.2
17.3	33	0.2	10	26	430	1.5 $\pm$ 0.2
13.0	33	0.2	8	23	120 or less of short	0~0.9

