

Minimum
tube lengthSpring
loaded shaft

MDR Brushless DC Motor Integral motor driver type PM486XE/PM486XP

Roller diameter $\varnothing 48.6$ Roller diameter $\varnothing 48.6$ **PM486XE**

(Standard type)

PM486XP

(High power type)

- Roller diameter / $\varnothing 48.6$
- Thickness / $t1.4$
- Voltage / 24V DC
- Tube material / STKM12
- Surface treatment / Trivalent chromate processing

Product Designation :

PM486XE - 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)

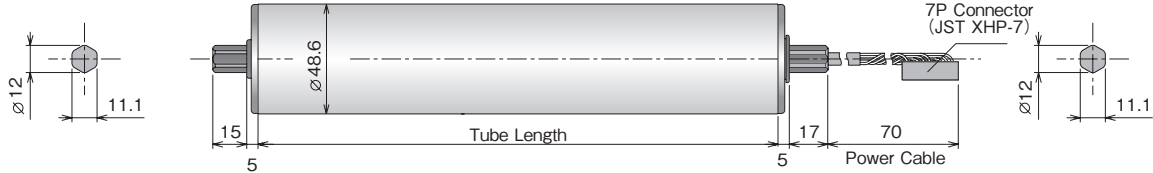
Input / Output Signal : NN-NPN input-output / NP-NPN input, PNP output

*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 : PM486XE/PM486XP

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 : PM486XE/PM486XP

**Rubber Laggings - NR, UR, NB, CR**

Natural rubber, Urethane, NBR, Neoprene

**DR Drip Proof**

350mm 350mm

**WH IP66**

350mm 350mm

**VG Poly V-Belt Pulley**

350mm 350mm

**VP V-Belt Pulley**

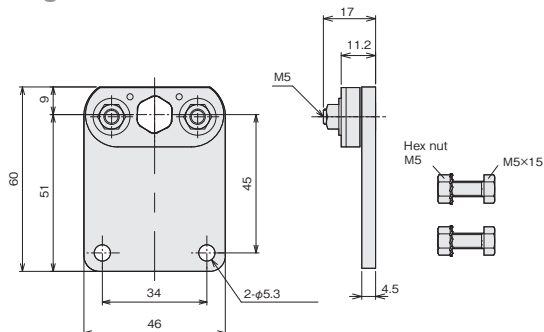
350mm 350mm

**P2 Double Grooved Tube** ^{※1}

400mm 400mm

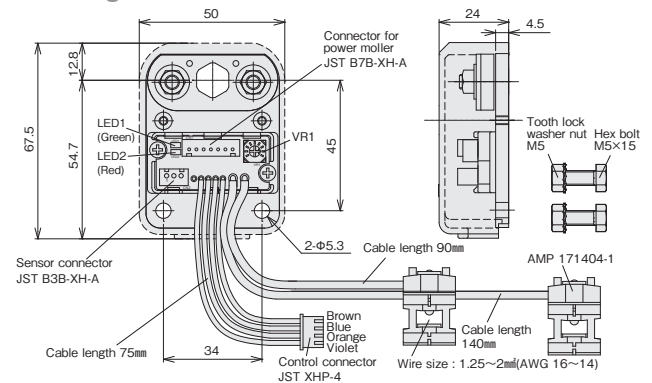
JD**Both-end D-shaped shaft***¹ Up to 800mm can be produced.

Mounting Bracket : No.MBB-081

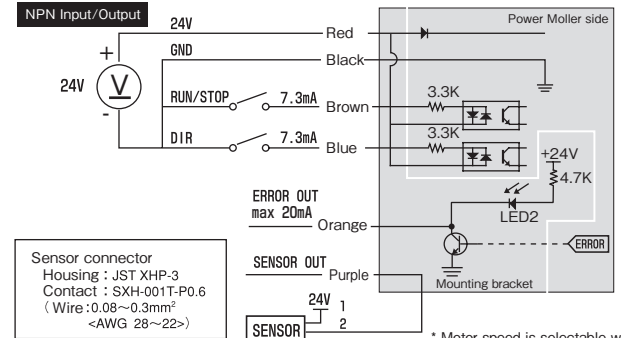


- *Attach to the power cable side.
- *Apply 6~10Nm torque for securing the Power Moller mounting shaft, and 3.5Nm for securing the bracket.

Mounting Bracket : No.MBB-A80-G

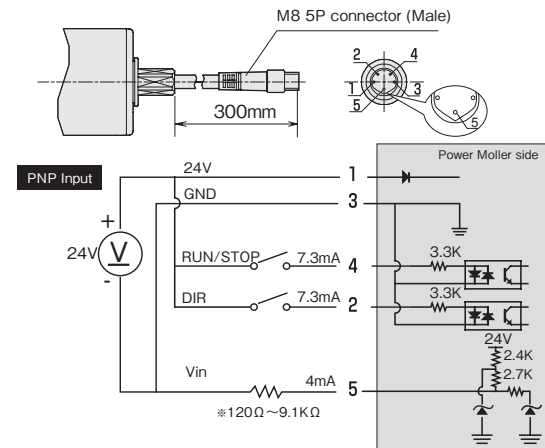


- * Attach to the power cable side.
- * Apply 6~10Nm torque for securing the Power Moller mounting shaft, and 3.5Nm for securing the bracket.



* Motor speed is selectable with VR1 on the driver card.

Dripproof option/M8 5P connector cable



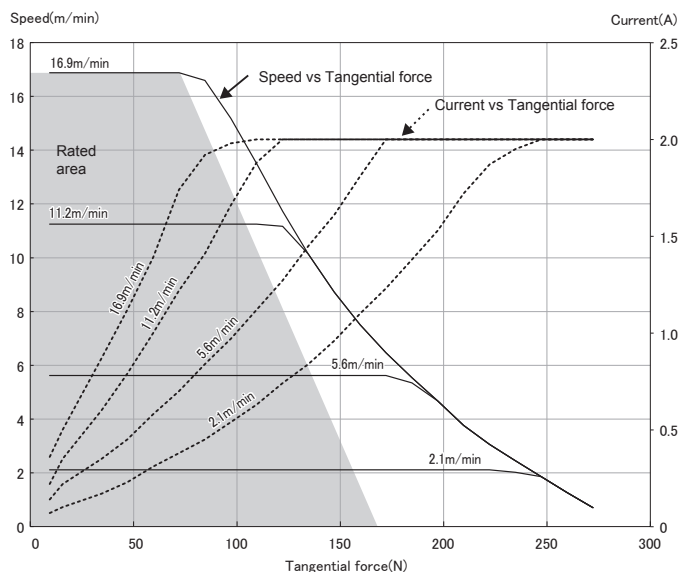
- * Speed setting is available by inputting external voltage instead of an external register.
- * Connect each plugs carefully when wiring.
- * Incorrect wiring could result in malfunction and/or damage on other devices.
- * Optional mounting bracket for IP66 is No. MBD-081-D.

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

Operating characteristics : PM486XE

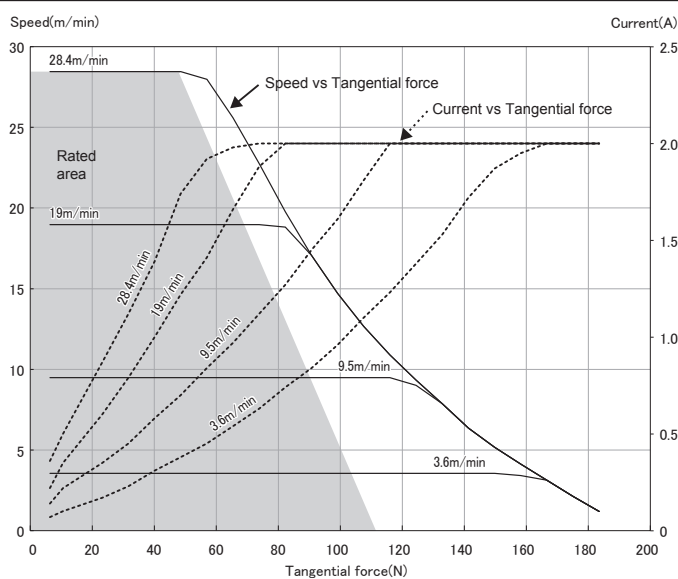
PM486XE-17

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		
16.9	72	0.5	31	42	9.1K or over or open	9.3~10
15.5	78	0.5	30	42	6.2K	8.5 $\pm$ 0.2
12.7	94	0.4	30	42	4.3K	7.5 $\pm$ 0.2
11.2	100	0.4	28	41	3.3K	6.5 $\pm$ 0.2
9.8	110	0.3	27	40	2.2K	5.5 $\pm$ 0.2
8.4	116	0.3	23	36	1.8K	4.5 $\pm$ 0.2
5.6	135	0.3	17	30	1.2K	3.5 $\pm$ 0.2
4.2	144	0.2	14	29	750	2.5 $\pm$ 0.2
2.8	150	0.2	10	26	430	1.5 $\pm$ 0.2
2.1	156	0.2	8	23	120 or less of short	0~0.9



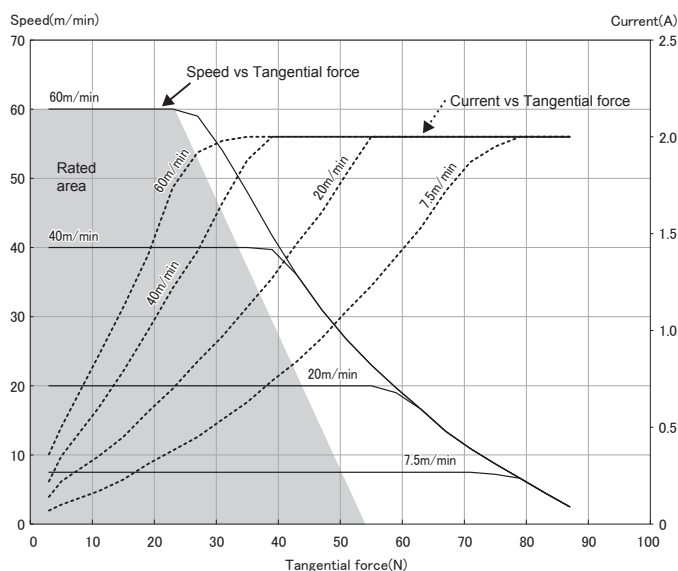
PM486XE-30

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		
28.4	49	0.5	31	42	9.1K or over or open	9.3~10
26.1	53	0.5	30	42	6.2K	8.5 $\pm$ 0.2
21.3	63	0.4	30	42	4.3K	7.5 $\pm$ 0.2
19.0	67	0.4	28	41	3.3K	6.5 $\pm$ 0.2
16.6	74	0.3	27	40	2.2K	5.5 $\pm$ 0.2
14.2	78	0.3	23	36	1.8K	4.5 $\pm$ 0.2
9.5	91	0.3	17	30	1.2K	3.5 $\pm$ 0.2
7.1	97	0.2	14	29	750	2.5 $\pm$ 0.2
4.7	101	0.2	10	26	430	1.5 $\pm$ 0.2
3.6	105	0.2	8	23	120 or less of short	0~0.9



PM486XE-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		
60.0	23	0.5	31	42	9.1K or over or open	9.3~10
55.0	25	0.5	30	42	6.2K	8.5 $\pm$ 0.2
45.0	30	0.4	30	42	4.3K	7.5 $\pm$ 0.2
40.0	32	0.4	28	41	3.3K	6.5 $\pm$ 0.2
35.0	35	0.3	27	40	2.2K	5.5 $\pm$ 0.2
30.0	37	0.3	23	36	1.8K	4.5 $\pm$ 0.2
20.0	43	0.3	17	30	1.2K	3.5 $\pm$ 0.2
15.0	46	0.2	14	29	750	2.5 $\pm$ 0.2
10.0	48	0.2	10	26	430	1.5 $\pm$ 0.2
7.5	50	0.2	8	23	120 or less of short	0~0.9



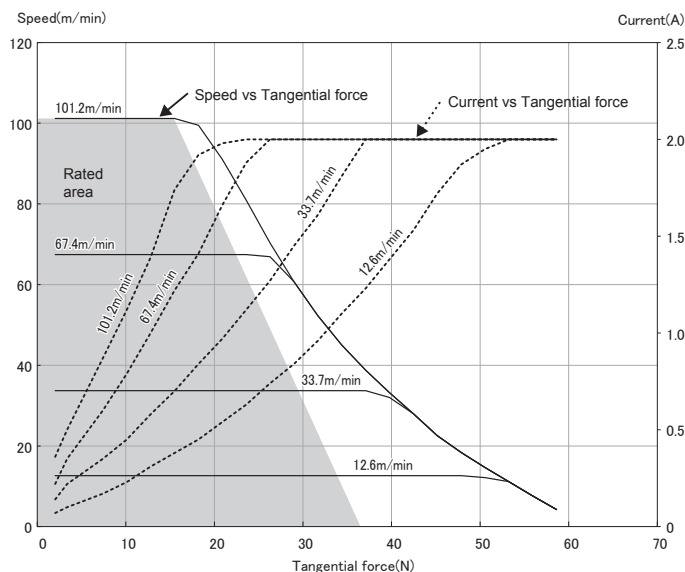
MDR Brushless DC Motor Integral motor driver type PM486XE/PM486XP Roller diameter $\varnothing 48.6$

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

Operating characteristics : PM486XE

PM486XE-100

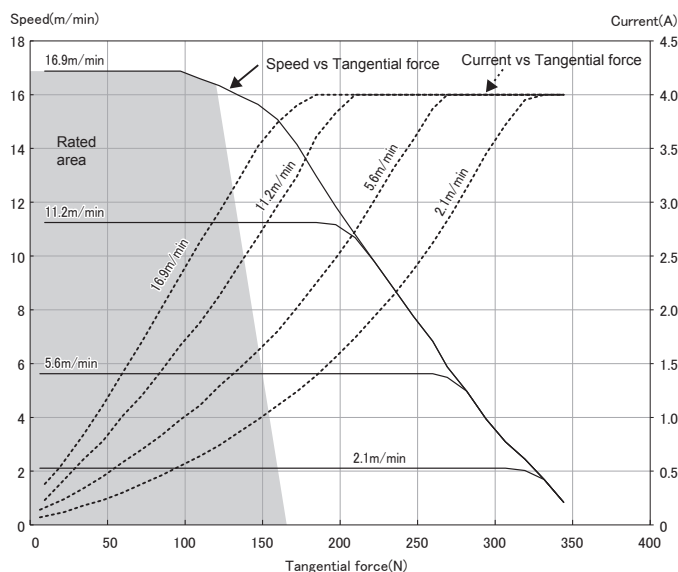
Speed (m/min)	Tangential Force(N)	Input Current (A)	Power Input (W)	Power Output (W)	External resistor (Ω)	External input voltage (V)
No-load	Rated	Starting	No-load	Starting		
101.2	16	0.5	31	42	9.1K or over or open	9.3~10
92.7	17	0.5	30	42	6.2K	8.5 $\pm$ 0.2
75.9	20	0.4	30	42	4.3K	7.5 $\pm$ 0.2
67.4	22	0.4	28	41	3.3K	6.5 $\pm$ 0.2
59.0	24	0.3	27	40	2.2K	5.5 $\pm$ 0.2
50.6	25	0.3	23	36	1.8K	4.5 $\pm$ 0.2
33.7	29	0.3	17	30	1.2K	3.5 $\pm$ 0.2
25.3	31	0.2	14	29	750	2.5 $\pm$ 0.2
16.9	32	0.2	10	26	430	1.5 $\pm$ 0.2
12.6	34	0.2	8	23	120 or less of short	0~0.9



Operating characteristics : PM486XP

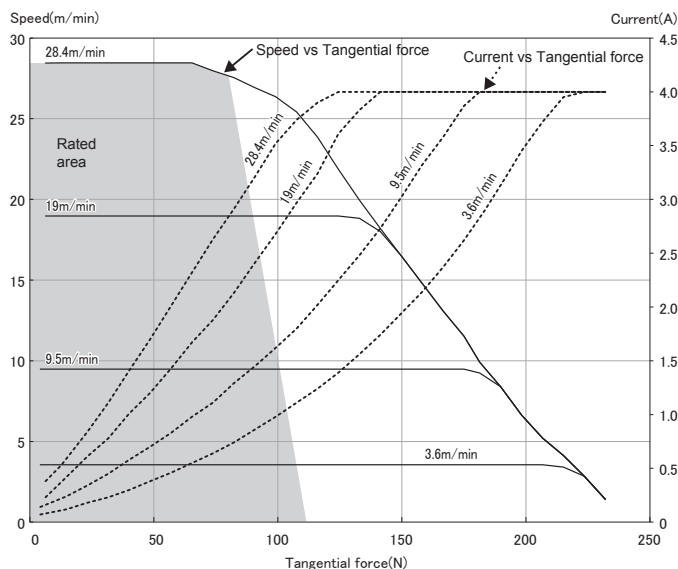
PM486XP-17

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		
16.9	119	0.5	46	63	9.1K or over or open	9.3~10
15.5	122	0.5	43	59	6.2K	8.5 $\pm$ 0.2
12.7	128	0.4	39	56	4.3K	7.5 $\pm$ 0.2
11.2	131	0.4	35	51	3.3K	6.5 $\pm$ 0.2
9.8	138	0.3	30	46	2.2K	5.5 $\pm$ 0.2
8.4	141	0.3	29	42	1.8K	4.5 $\pm$ 0.2
5.6	150	0.3	19	35	1.2K	3.5 $\pm$ 0.2
4.2	153	0.2	14	29	750	2.5 $\pm$ 0.2
2.8	156	0.2	10	26	430	1.5 $\pm$ 0.2
2.1	160	0.2	8	23	120 or less of short	0~0.9



PM486XP-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		
28.4	80	0.5	46	63	9.1K or over or open	9.3~10
26.1	82	0.5	43	59	6.2K	8.5 $\pm$ 0.2
21.3	86	0.4	39	56	4.3K	7.5 $\pm$ 0.2
19.0	89	0.4	35	51	3.3K	6.5 $\pm$ 0.2
16.6	93	0.3	30	46	2.2K	5.5 $\pm$ 0.2
14.2	95	0.3	29	42	1.8K	4.5 $\pm$ 0.2
9.5	101	0.3	19	35	1.2K	3.5 $\pm$ 0.2
7.1	103	0.2	14	29	750	2.5 $\pm$ 0.2
4.7	105	0.2	10	26	430	1.5 $\pm$ 0.2
3.6	108	0.2	8	23	120 or less of short	0~0.9

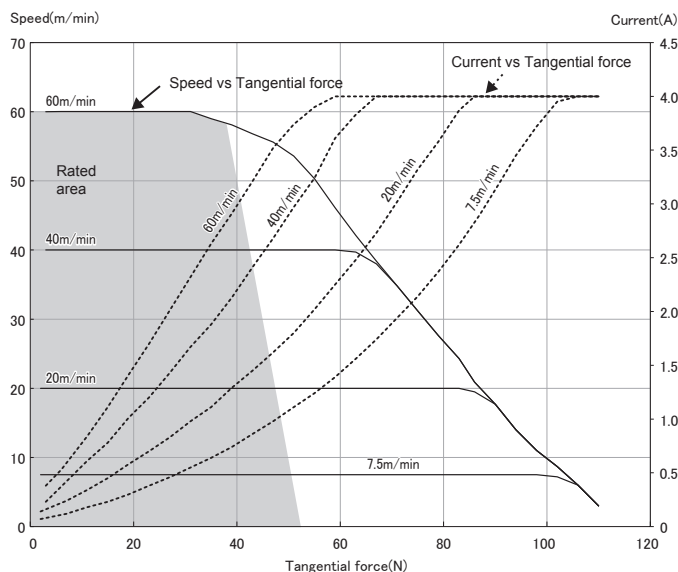


 [MDR Selection Tool] is available on our web page.

Operating characteristics : PM486XP

PM486XP-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		
60.0	38	0.5	46	63	9.1K or over or open	9.3~10
55.0	39	0.5	43	59	6.2K	8.5 $\pm$ 0.2
45.0	41	0.4	39	56	4.3K	7.5 $\pm$ 0.2
40.0	42	0.4	35	51	3.3K	6.5 $\pm$ 0.2
35.0	44	0.3	30	46	2.2K	5.5 $\pm$ 0.2
30.0	45	0.3	29	42	1.8K	4.5 $\pm$ 0.2
20.0	48	0.3	19	35	1.2K	3.5 $\pm$ 0.2
15.0	49	0.2	14	29	750	2.5 $\pm$ 0.2
10.0	50	0.2	10	26	430	1.5 $\pm$ 0.2
7.5	51	0.2	8	23	120 or less of short	0~0.9



PM486XP-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		
101.2	26	0.5	46	63	9.1K or over or open	9.3~10
92.7	26	0.5	43	59	6.2K	8.5 $\pm$ 0.2
75.9	28	0.4	39	56	4.3K	7.5 $\pm$ 0.2
67.4	28	0.4	35	51	3.3K	6.5 $\pm$ 0.2
59.0	30	0.3	30	46	2.2K	5.5 $\pm$ 0.2
50.6	30	0.3	29	42	1.8K	4.5 $\pm$ 0.2
33.7	32	0.3	19	35	1.2K	3.5 $\pm$ 0.2
25.3	33	0.2	14	29	750	2.5 $\pm$ 0.2
16.9	34	0.2	10	26	430	1.5 $\pm$ 0.2
12.6	34	0.2	8	23	120 or less of short	0~0.9

