



Minimum tube length



Spring loaded shaft

# AC For handling heavy load Roller PM605 series

## Roller diameter $\phi 60.5$

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- Roller diameter /  $\phi 60.5$
- Thickness / t3.2
- Shaft diameter /  $\phi 12$
- Voltage / 3ph 200V, 1ph 100V  
(Single-phase specification is PM605AS series only)
- Tube material / STKM12
- Surface treatment / Trivalent chromate processing

### Operation

#### Standard type AS series

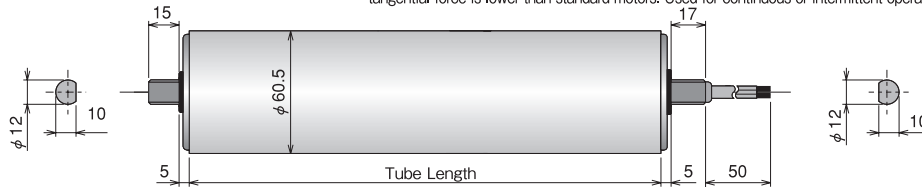
Continuous duty 24 hours Intermittent Operation Minimum contact time 3 seconds ON, 2 seconds OFF

#### High power type BP series

High power type delivers approx 2.5 times output of a standard type motor. It cannot be used for continuous operation or intermittent operation. Minimum tact time of intermittent operation is 3 sec ON and 5-sec OFF.

#### Accumulation type AU series

This high-impedance low-current rating motor does not burn out even when locked continuously. Starting torque and tangential force is lower than standard motors. Used for continuous or intermittent operation with no restriction of tact time.



### Tube Length : PM605AS / PM605BP / PM605AU

Minimum tube length 200mm, Spring loaded shaft  $\geq 250$ mm

| Tube Length (mm)    | 200 | 250 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| Weight (kg)         | 2.2 | 2.7 | 2.9 | 3.3 | 3.8 | 4.2 | 4.7 | 5.1 | 5.6 | 6.0  |
| 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.

### Product Designation :

**PM605AS - 10 - 300 - 3 - 200 - BR**

Power Moller model Nominal Speed Tube Length Voltage Options

Motor type : AS, BP, AU

Nominal Speed : 4.5, 8.9, 10, 13, 15, 20, 30, 45, 50, 60

PM605BP is not available for 45.

PM605AU is not available for 45, 50, 60.

Tube Length : Specify in mm.

Voltage : 3ph-200V / 1ph-100V etc.

Please inquire for other voltage.

Options : Each of the following optional specification may be selected.

### Options : PM605AS / PM605AU

**Rubber Laggings - NR, UR, NB, CR**  
Natural rubber, Urethane, NBR, Neoprene

**BR Built-In Brake - BR**  
Minimum tube length 250mm, Spring loaded shaft  $\geq 300$ mm

**WA Water Proof<sup>\*1</sup> WT<sup>\*2</sup>**  
Minimum tube length 260mm, Spring loaded shaft  $\geq 290$ mm

**DR Drip Proof<sup>\*3</sup>**  
Minimum tube length 200mm, Spring loaded shaft  $\geq 260$ mm

**EC Free Clutch - EC**  
Minimum tube length 280mm, Spring loaded shaft  $\geq 330$ mm

<sup>\*1</sup> Available nominal speed is 4~30(AU series : 4~10). But available nominal speed is different for single-phase 100V specification. Torque value may be reduced by nominal speed. Inquire with us for more detail.

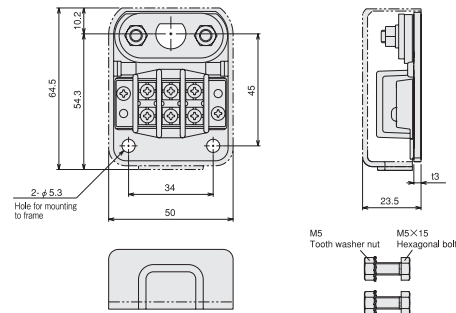
<sup>\*2</sup> Nominal speed 15m or below can only be produced. In such a case, add WA-WT.

<sup>\*3</sup> Available nominal speed is 4~45(AU series : 4~15). But available nominal speed is different for single-phase 100V specification. Torque value may be reduced by nominal speed. Inquire with us for more detail.

PM605AU brake specification cannot be produced

PM605AU water-proof specification cannot be produced with spring loaded shaft WT.

### Terminal Bracket : No.A-200



\*Drawing data can be downloaded from our web page.

In the case of water-proof or drip-proof specification, No.C-001-D is the standard accessory.

Apply 3Nm torque for securing the Power Moller mounting shaft, and 3.5Nm for securing the bracket.

### Options : PM605BP

**Rubber Laggings - NR, UR, NB, CR**  
Natural rubber, Urethane, NBR, Neoprene

**BR Built-In Brake - BR**  
Minimum tube length 250mm, Spring loaded shaft  $\geq 300$ mm

**WA Water Proof WT<sup>\*</sup>**  
Minimum tube length 240mm, Spring loaded shaft  $\geq 260$ mm

**DR Drip Proof**  
Minimum tube length 240mm, Spring loaded shaft  $\geq 260$ mm

\* Optional. Add WA-WT when ordering.  
Nominal speed may be reduced. Please inquire for detail.



Accumulation (AU) type cannot used with an inverter.  
Reduced transfer torque or unstable operation is possible.

## Operating characteristics : PM605AS

### 3ph 200V/50Hz

| Nominal Speed (m/min) | Rated Speed (m/min) | Tangential Force(N) |          | Torque(N·m) |          | Input Current(A) |       |          | Input (W) | Output (W) |
|-----------------------|---------------------|---------------------|----------|-------------|----------|------------------|-------|----------|-----------|------------|
|                       |                     | Rated               | Starting | Rated       | Starting | No-load          | Rated | Starting |           |            |
| 4                     | 4.0                 | 32.7                | 150.7    | 0.99        | 4.56     | 0.07             | 0.07  | 0.13     | 3.2       | 15.0       |
| 5                     | 5.5                 | 24.1                | 110.4    | 0.73        | 3.34     |                  |       |          |           |            |
| 8                     | 8.0                 | 16.5                | 75.7     | 0.50        | 2.29     |                  |       |          |           |            |
| 9                     | 10.1                | 13.2                | 60.2     | 0.40        | 1.82     |                  |       |          |           |            |
| 10                    | 11.0                | 11.9                | 55.2     | 0.36        | 1.67     |                  |       |          |           |            |
| 13                    | 13.9                | 9.6                 | 43.6     | 0.29        | 1.32     |                  |       |          |           |            |
| 15                    | 16.9                | 8.9                 | 41.7     | 0.27        | 1.26     |                  |       |          |           |            |
| 20                    | 24.1                | 6.3                 | 29.1     | 0.19        | 0.88     |                  |       |          |           |            |
| 30                    | 35.1                | 4.3                 | 19.8     | 0.13        | 0.60     |                  |       |          |           |            |
| 45                    | 46.0                | 3.3                 | 15.2     | 0.10        | 0.46     |                  |       |          |           |            |
| 50                    | 50.6                | 3.0                 | 13.9     | 0.09        | 0.42     |                  |       |          |           |            |
| 60                    | 66.5                | 2.3                 | 10.6     | 0.07        | 0.32     |                  |       |          |           |            |

### 3ph 200V/60Hz

| Nominal Speed (m/min) | Rated Speed (m/min) | Tangential Force(N) |          | Torque(N·m) |          | Input Current(A) |       |          | Input (W) | Output (W) |
|-----------------------|---------------------|---------------------|----------|-------------|----------|------------------|-------|----------|-----------|------------|
|                       |                     | Rated               | Starting | Rated       | Starting | No-load          | Rated | Starting |           |            |
| 4                     | 4.8                 | 26.1                | 116.7    | 0.79        | 3.53     | 0.06             | 0.06  | 0.13     | 3.3       | 12.8       |
| 5                     | 6.6                 | 19.2                | 85.3     | 0.58        | 2.58     |                  |       |          |           |            |
| 8                     | 9.6                 | 13.2                | 58.5     | 0.40        | 1.77     |                  |       |          |           |            |
| 9                     | 12.1                | 10.6                | 46.6     | 0.32        | 1.41     |                  |       |          |           |            |
| 10                    | 13.2                | 9.6                 | 42.6     | 0.29        | 1.29     |                  |       |          |           |            |
| 13                    | 16.7                | 7.6                 | 33.7     | 0.23        | 1.02     |                  |       |          |           |            |
| 15                    | 20.3                | 7.3                 | 32.1     | 0.22        | 0.97     |                  |       |          |           |            |
| 20                    | 29.0                | 5.0                 | 22.5     | 0.15        | 0.68     |                  |       |          |           |            |
| 30                    | 42.2                | 3.6                 | 15.5     | 0.11        | 0.47     |                  |       |          |           |            |
| 45                    | 55.3                | 2.6                 | 11.9     | 0.08        | 0.36     |                  |       |          |           |            |
| 50                    | 60.8                | 2.3                 | 10.6     | 0.07        | 0.32     |                  |       |          |           |            |
| 60                    | 80.0                | 2.0                 | 8.3      | 0.06        | 0.25     |                  |       |          |           |            |

### 1ph 200V/60Hz

| Nominal Speed (m/min) | Rated Speed (m/min) | Tangential Force(N) |          | Torque(N·m) |          | Input Current(A) |       |          | Input (W) | Output (W) |
|-----------------------|---------------------|---------------------|----------|-------------|----------|------------------|-------|----------|-----------|------------|
|                       |                     | Rated               | Starting | Rated       | Starting | No-load          | Rated | Starting |           |            |
| 4                     | 4.0                 | 18.2                | 47.9     | 0.55        | 1.45     | 0.21             | 0.21  | 0.28     | 2.3       | 17.5       |
| 5                     | 5.5                 | 13.2                | 35.0     | 0.40        | 1.06     |                  |       |          |           |            |
| 8                     | 8.0                 | 8.9                 | 24.1     | 0.27        | 0.73     |                  |       |          |           |            |
| 9                     | 10.1                | 7.3                 | 19.2     | 0.22        | 0.58     |                  |       |          |           |            |
| 10                    | 11.0                | 6.6                 | 17.5     | 0.20        | 0.53     |                  |       |          |           |            |
| 13                    | 13.9                | 6.0                 | 15.9     | 0.18        | 0.48     |                  |       |          |           |            |
| 15                    | 16.9                | 5.3                 | 13.9     | 0.16        | 0.42     |                  |       |          |           |            |
| 20                    | 24.1                | 3.6                 | 9.9      | 0.11        | 0.30     |                  |       |          |           |            |
| 30                    | 35.1                | 2.6                 | 6.9      | 0.08        | 0.21     |                  |       |          |           |            |
| 45                    | 46.0                | 2.0                 | 5.3      | 0.06        | 0.16     |                  |       |          |           |            |
| 50                    | 50.6                | 1.7                 | 4.6      | 0.05        | 0.14     |                  |       |          |           |            |
| 60                    | 66.5                | 1.3                 | 3.6      | 0.04        | 0.11     |                  |       |          |           |            |

\*Capacitor external connection 5.5 $\mu$ F/220V

### 1ph 200V/60Hz

| Nominal Speed (m/min) | Rated Speed (m/min) | Tangential Force(N) |          | Torque(N·m) |          | Input Current(A) |       |          | Input (W) | Output (W) |
|-----------------------|---------------------|---------------------|----------|-------------|----------|------------------|-------|----------|-----------|------------|
|                       |                     | Rated               | Starting | Rated       | Starting | No-load          | Rated | Starting |           |            |
| 4                     | 4.8                 | 16.9                | 47.9     | 0.51        | 1.45     | 0.17             | 0.19  | 0.28     | 2.7       | 17.5       |
| 5                     | 6.6                 | 12.6                | 35.0     | 0.38        | 1.06     |                  |       |          |           |            |
| 8                     | 9.6                 | 8.6                 | 24.1     | 0.26        | 0.73     |                  |       |          |           |            |
| 9                     | 12.1                | 6.6                 | 19.2     | 0.20        | 0.58     |                  |       |          |           |            |
| 10                    | 13.2                | 6.3                 | 17.5     | 0.19        | 0.53     |                  |       |          |           |            |
| 13                    | 16.7                | 5.6                 | 15.9     | 0.17        | 0.48     |                  |       |          |           |            |
| 15                    | 20.3                | 5.0                 | 13.9     | 0.15        | 0.42     |                  |       |          |           |            |
| 20                    | 29.0                | 3.6                 | 9.9      | 0.11        | 0.30     |                  |       |          |           |            |
| 30                    | 42.2                | 2.3                 | 6.9      | 0.07        | 0.21     |                  |       |          |           |            |
| 45                    | 55.3                | 2.0                 | 5.3      | 0.06        | 0.16     |                  |       |          |           |            |
| 50                    | 60.8                | 1.7                 | 4.6      | 0.05        | 0.14     |                  |       |          |           |            |
| 60                    | 80.0                | 1.3                 | 3.6      | 0.04        | 0.11     |                  |       |          |           |            |

\*Capacitor external connection 5.5 $\mu$ F/220V

- Please inquire for other voltage.
- Rated speed shown is when loaded. The value at no load, light load and overload varies. Select a right one by referring to "Caution for Design".

## Operating characteristics : PM605AU

### 3ph 200V/50Hz

| Nominal Speed (m/min) | Rated Speed (m/min) | Tangential Force(N) |          | Torque(N·m) |          | Input Current(A) |       |          | Input (W) | Output (W) |
|-----------------------|---------------------|---------------------|----------|-------------|----------|------------------|-------|----------|-----------|------------|
|                       |                     | Rated               | Starting | Rated       | Starting | No-load          | Rated | Starting |           |            |
| 4                     | 3.3                 | 10.6                | 54.2     | 0.32        | 1.64     | 0.06             | 0.06  | 0.07     | 1.2       | 10.0       |
| 5                     | 4.6                 | 7.6                 | 39.7     | 0.23        | 1.20     |                  |       |          |           |            |
| 8                     | 6.6                 | 5.3                 | 27.1     | 0.16        | 0.82     |                  |       |          |           |            |
| 9                     | 8.5                 | 4.3                 | 21.5     | 0.13        | 0.65     |                  |       |          |           |            |
| 10                    | 9.1                 | 4.0                 | 19.8     | 0.12        | 0.60     |                  |       |          |           |            |
| 13                    | 11.8                | 3.6                 | 18.2     | 0.11        | 0.55     |                  |       |          |           |            |
| 15                    | 13.9                | 3.0                 | 15.9     | 0.09        | 0.48     |                  |       |          |           |            |
| 20                    | 19.4                | 2.3                 | 11.2     | 0.07        | 0.34     |                  |       |          |           |            |
| 30                    | 29.7                | 1.7                 | 7.9      | 0.05        | 0.24     |                  |       |          |           |            |

### 3ph 200V/60Hz

| Nominal Speed (m/min) | Rated Speed (m/min) | Tangential Force(N) |          | Torque(N·m) |          | Input Current(A) |       |          | Input (W) | Output (W) |
|-----------------------|---------------------|---------------------|----------|-------------|----------|------------------|-------|----------|-----------|------------|
|                       |                     | Rated               | Starting | Rated       | Starting | No-load          | Rated | Starting |           |            |
| 4                     | 4.0                 | 7.3                 | 41.7     | 0.22        | 1.26     | 0.05             | 0.05  | 0.06     | 1.9       | 8.5        |
| 5                     | 5.5                 | 5.3                 | 30.4     | 0.16        | 0.92     |                  |       |          |           |            |
| 8                     | 8.0                 | 3.6                 | 20.8     | 0.11        | 0.63     |                  |       |          |           |            |
| 9                     | 10.3                | 3.0                 | 16.5     | 0.09        | 0.50     |                  |       |          |           |            |
| 10                    | 11.0                | 2.6                 | 15.2     | 0.08        | 0.46     |                  |       |          |           |            |
| 13                    | 14.2                | 2.3                 | 13.9     | 0.07        | 0.42     |                  |       |          |           |            |
| 15                    | 16.8                | 2.3                 | 12.2     | 0.07        | 0.37     |                  |       |          |           |            |
| 20                    | 23.4                | 1.7                 | 8.6      | 0.05        | 0.26     |                  |       |          |           |            |
| 30                    | 35.8                | 1.0                 | 6.0      | 0.03        | 0.18     |                  |       |          |           |            |

## Operating characteristics : PM605BP

### 3ph 200V/50Hz

| Nominal Speed (m/min) | Rated Speed (m/min) | Tangential Force(N) |          | Torque(N·m) |          | Input Current(A) |       |          | Input (W) | Output (W) |
|-----------------------|---------------------|---------------------|----------|-------------|----------|------------------|-------|----------|-----------|------------|
|                       |                     | Rated               | Starting | Rated       | Starting | No-load          | Rated | Starting |           |            |
| 4                     | 3.7                 | 181.8               | 449.5    | 5.50        | 13.60    | 0.11             | 0.12  | 0.32     | 15.2      | 30.5       |
| 5                     | 5.3                 | 128.6               | 317.9    | 3.89        | 9.62     |                  |       |          |           |            |
| 8                     | 7.4                 | 90.9                | 224.7    | 2.75        | 6.80     |                  |       |          |           |            |
| 9                     | 9.2                 | 73.4                | 181.4    | 2.22        | 5.49     |                  |       |          |           |            |
| 10                    | 10.5                | 64.1                | 158.9    | 1.94        | 4.81     |                  |       |          |           |            |
| 13                    | 13.0                | 51.9                | 128.2    | 1.57        | 3.88     |                  |       |          |           |            |
| 15                    | 20.0                | 33.7                | 83.4     | 1.02        | 2.52     |                  |       |          |           |            |
| 20                    | 27.0                | 26.8                | 65.9     | 0.81        | 1.99     |                  |       |          |           |            |
| 30                    | 38.2                | 18.8                | 46.6     | 0.57        | 1.41     |                  |       |          |           |            |
| 50                    | 47.4                | 15.2                | 37.6     | 0.46        | 1.14     |                  |       |          |           |            |
| 60                    | 58.8                | 12.2                | 30.3     | 0.37        | 0.92     |                  |       |          |           |            |

### 3ph 200V/60Hz

| Nominal Speed (m/min) | Rated Speed (m/min) | Tangential Force(N) |          | Torque(N·m) |          | Input Current(A) |       |          | Input (W) | Output (W) |
|-----------------------|---------------------|---------------------|----------|-------------|----------|------------------|-------|----------|-----------|------------|
|                       |                     | Rated               | Starting | Rated       | Starting | No-load          | Rated | Starting |           |            |
| 4                     | 4.5                 | 145.5               | 360.2    | 4.40        | 10.90    | 0.09             | 0.10  | 0.31     | 14.5      | 28.5       |
| 5                     | 6.3                 | 102.8               | 254.7    | 3.11        | 7.70     |                  |       |          |           |            |
| 8                     | 8.9                 | 72.7                | 180.1    | 2.20        | 5.45     |                  |       |          |           |            |
| 9                     | 11.1                | 58.5                | 145.4    | 1.77        | 4.40     |                  |       |          |           |            |
| 10                    | 12.7                | 51.2                | 127.3    | 1.55        | 3.85     |                  |       |          |           |            |
| 13                    | 15.7                | 41.3                | 102.7    | 1.25        | 3.11     |                  |       |          |           |            |
| 15                    | 24.1                | 27.1                | 66.8     | 0.82        | 2.02     |                  |       |          |           |            |
| 20                    | 32.5                | 21.2                | 52.8     | 0.64        | 1.60     |                  |       |          |           |            |
| 30                    | 46.0                | 15.2                | 37.3     | 0.46        | 1.13     |                  |       |          |           |            |
| 50                    | 57.0                | 12.2                | 30.1     | 0.37        | 0.91     |                  |       |          |           |            |
| 60                    | 70.7                | 9.9                 | 24.3     | 0.30        | 0.73     |                  |       |          |           |            |

\*The values in the characteristics list are only for your reference and not the warranted values. The values represent the characteristics of a single standard motor roller(no linked operation) without including other specifications, and the values may change when including other specifications or with linked operation.