



# ZYT型永磁直流电动机

## Series ZYT PM DC Motor



### 概述 Summary

ZYT系列永磁直流电动机采用铁氧体永久磁铁激磁，系封闭自冷式。作为小功率直流电动机，可在各种装置中用作驱动元件。

Series ZYT PM DC Motor is used with Ferrite PM magnet, closure and self-cooling. It is used for driven element in any

90 ZYT 08 / H1

示派生结构，其代号用H1、H2、H3……每个机座号按用户提出要求顺序排列。

H1 refers to derivative structure, its no. is indicated with H1、H2、H3… (for each frame no., arranged as per the sequence of the requirement of customers.)

铁心长代号，“01-49”表示短铁心产品，“51-99”表示长铁心产品，“101-149”表示特长铁心产品。

08 indicate the lamination length no. 01-49 refers to short lamination products. “51 ~ 99” refers to long lamination products “101 ~ 149” refers to longer lamination products

表示永磁式直流电动机。ZYT indicate PM DC motor

机座号用55、70、90、110、130表示，其相应机座外径为55……130mm.

90 indicate motor frame no. Frame no. is indicated with 55、70、90、

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### 安装型式 mounting model

| 安装结构型式<br>mounting model   | 安装结构型式代号<br>mounting model no. |                               | 机座号<br>frame no. |
|----------------------------|--------------------------------|-------------------------------|------------------|
|                            | 单轴伸<br>single shaft extension  | 双轴伸<br>double shaft extension |                  |
| 机壳外圆安装<br>housing mounting | A5                             | AA5                           | 55 ~ 130         |
| 端盖凸缘安装<br>flange mounting  | A3                             | AA3                           | 55 ~ 130         |
| 底脚安装<br>foot mounting      | A1                             | AA1                           | 90 ~ 130         |

### 使用条件 usage

海拔不超过4000m;

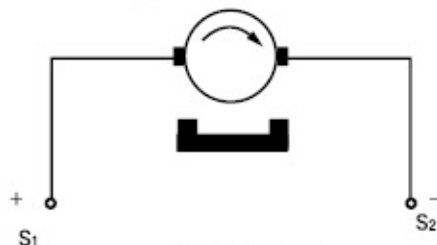
环境温度; -25℃ ~ +40℃;

相对湿度 ≤ 95% (+25℃时);

允许温升: 不超过75K (海拔为1000m时)

1. No more than 4000m above sea level;
2. Ambient temperature: -25℃ ~ +40℃;
3. Relative humidity ≤ 95% (at +25℃);
4. Temperature Rise permissible: (when 1000m above sea level).

### 接线说明 wiring



(换向器端视)  
(view from comm. End)

## 技术数据 technical data

| 型号<br>model | 转矩<br>(mN·m)<br>torque | 转速<br>(r/min)<br>speed | 功率<br>(W)<br>power | 电压 (V)<br>voltage | 电流(A)不大于<br>current < | 允许顺逆转速差<br>(r/min)<br>speed tolerance | 附注<br>remark |
|-------------|------------------------|------------------------|--------------------|-------------------|-----------------------|---------------------------------------|--------------|
| 55ZYT01     | 63.7                   | 3000                   | 20                 | 24                | 1.5                   | 200                                   |              |
| 55ZYT02     | 63.7                   | 3000                   | 20                 | 27                | 1.3                   | 200                                   |              |
| 55ZYT03     | 63.7                   | 3000                   | 20                 | 48                | 0.7                   | 200                                   |              |
| 55ZYT04     | 63.7                   | 3000                   | 20                 | 110               | 0.34                  | 200                                   |              |
| 55ZYT05     | 55.7                   | 6000                   | 35                 | 24                | 2.5                   | 300                                   |              |
| 55ZYT06     | 55.7                   | 6000                   | 35                 | 27                | 2.2                   | 300                                   |              |
| 55ZYT07     | 55.7                   | 6000                   | 35                 | 48                | 1.3                   | 300                                   |              |
| 55ZYT08     | 55.7                   | 6000                   | 35                 | 110               | 0.54                  | 300                                   |              |
| 55ZYT51     | 92.3                   | 3000                   | 29                 | 24                | 2.1                   | 200                                   |              |
| 55ZYT52     | 92.3                   | 3000                   | 29                 | 27                | 1.8                   | 200                                   |              |
| 55ZYT53     | 92.3                   | 3000                   | 29                 | 48                | 1.1                   | 200                                   |              |
| 55ZYT54     | 92.3                   | 3000                   | 29                 | 110               | 0.46                  | 200                                   |              |
| 55ZYT55     | 79.6                   | 6000                   | 50                 | 24                | 3.45                  | 300                                   |              |
| 55ZYT56     | 79.6                   | 6000                   | 50                 | 27                | 3.1                   | 300                                   |              |
| 55ZYT57     | 79.6                   | 6000                   | 50                 | 48                | 1.74                  | 300                                   |              |
| 55ZYT58     | 79.6                   | 6000                   | 50                 | 110               | 0.74                  | 300                                   |              |
| 55ZYT65     | 89.2                   | 7500                   | 70                 | 110               | 1.0                   | 400                                   |              |
|             |                        |                        |                    |                   |                       |                                       |              |
| 70ZYT01     | 159.2                  | 3000                   | 50                 | 24                | 3.2                   | 200                                   |              |
| 70ZYT02     | 159.2                  | 3000                   | 50                 | 27                | 2.9                   | 200                                   |              |
| 70ZYT03     | 159.2                  | 3000                   | 50                 | 48                | 1.5                   | 200                                   |              |
| 70ZYT04     | 159.2                  | 3000                   | 50                 | 110               | 0.7                   | 200                                   |              |
| 70ZYT05     | 135.4                  | 6000                   | 85                 | 24                | 5.2                   | 300                                   |              |
| 70ZYT06     | 135.4                  | 6000                   | 85                 | 27                | 4.8                   | 300                                   |              |
| 70ZYT07     | 135.4                  | 6000                   | 85                 | 48                | 2.6                   | 300                                   |              |
| 70ZYT08     | 135.4                  | 6000                   | 85                 | 110               | 1.1                   | 300                                   |              |
| 70ZYT51     | 223                    | 3000                   | 70                 | 24                | 4.3                   | 200                                   |              |
| 70ZYT52     | 223                    | 3000                   | 70                 | 27                | 3.8                   | 200                                   |              |
| 70ZYT53     | 223                    | 3000                   | 70                 | 48                | 2.2                   | 200                                   |              |
| 70ZYT54     | 223                    | 3000                   | 70                 | 110               | 0.95                  | 200                                   |              |
| 70ZYT55     | 191.2                  | 6000                   | 120                | 24                | 7.5                   | 300                                   |              |
| 70ZYT56     | 191.1                  | 6000                   | 120                | 27                | 6.6                   | 300                                   |              |
| 70ZYT57     | 191.1                  | 6000                   | 120                | 48                | 3.8                   | 300                                   |              |
| 70ZYT58     | 191.1                  | 6000                   | 120                | 110               | 1.6                   | 300                                   |              |
| 70ZYT59     | 166.6                  | 7500 ~ 9000            | 148                | 110               | 1.95                  | 400                                   |              |

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## 技术数据 technical data

| 型号<br>model | 转矩<br>(mN·m)<br>torque | 转速<br>(r/min)<br>speed | 功率<br>(W)<br>power | 电压 (V)<br>voltage | 电流(A)不大于<br>current < | 允许顺逆转速差<br>(r/min)<br>speed tolerance | 附注<br>remark |
|-------------|------------------------|------------------------|--------------------|-------------------|-----------------------|---------------------------------------|--------------|
| 90ZYT01     | 323                    | 1500                   | 50                 | 110               | 0.66                  | 100                                   |              |
| 90ZYT02     | 323                    | 1500                   | 50                 | 220               | 0.33                  | 100                                   |              |
| 90ZYT03     | 294                    | 3000                   | 92                 | 110               | 1.2                   | 200                                   |              |
| 90ZYT04     | 294                    | 3000                   | 92                 | 220               | 0.6                   | 200                                   |              |
| 90ZYT05     | 294                    | 3000                   | 92                 | 24                | 6.1                   | 200                                   |              |
| 90ZYT51     | 510                    | 1500                   | 80                 | 110               | 1.1                   | 100                                   |              |
| 90ZYT52     | 510                    | 1500                   | 80                 | 220               | 0.55                  | 100                                   |              |
| 90ZYT53     | 480                    | 3000                   | 150                | 110               | 2.0                   | 200                                   |              |
| 90ZYT54     | 480                    | 3000                   | 150                | 220               | 1.0                   | 200                                   |              |
| 90ZYT55     | 510                    | 1500                   | 80                 | 24                | 5.0                   | 100                                   |              |
| 90ZYT101    | 796                    | 1500                   | 125                | 110               | 1.6                   | 100                                   |              |
| 90ZYT102    | 796                    | 1500                   | 125                | 220               | 0.8                   | 100                                   |              |
| 90ZYT103    | 733                    | 3000                   | 230                | 110               | 2.8                   | 200                                   |              |
| 90ZYT104    | 733                    | 3000                   | 230                | 220               | 1.5                   | 200                                   |              |
| 90ZYT105    | 733                    | 3000                   | 230                | 24                | 13.5                  | 200                                   |              |
|             |                        |                        |                    |                   |                       |                                       |              |
| 110ZYT01    | 784                    | 1500                   | 123                | 110               | 1.8                   | 100                                   |              |
| 110ZYT02    | 784                    | 1500                   | 123                | 220               | 0.9                   | 100                                   |              |
| 110ZYT03    | 637                    | 3000                   | 200                | 110               | 2.8                   | 200                                   |              |
| 110ZYT04    | 637                    | 3000                   | 200                | 220               | 1.4                   | 200                                   |              |
| 110ZYT05    | 637                    | 3000                   | 200                | 24                | 13                    | 200                                   |              |
| 110ZYT51    | 1177                   | 1500                   | 185                | 110               | 2.5                   | 100                                   |              |
| 110ZYT52    | 1177                   | 1500                   | 185                | 220               | 1.25                  | 100                                   |              |
| 110ZYT53    | 980                    | 3000                   | 308                | 110               | 4.0                   | 200                                   |              |
| 110ZYT54    | 980                    | 3000                   | 308                | 220               | 2.0                   | 200                                   |              |
| 110ZYT55    | 980                    | 3000                   | 308                | 24                | 16.5                  | 200                                   |              |

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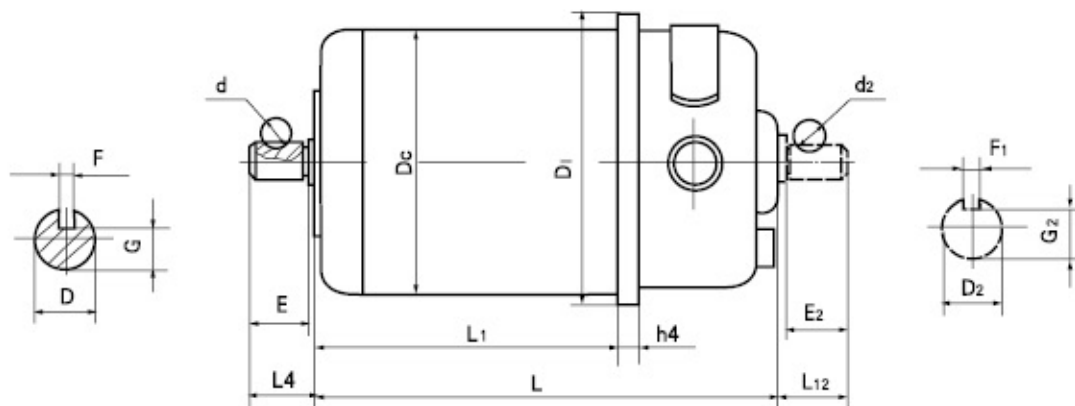
## 技术数据 technical data

| 型号<br>model | 转矩<br>(mN·m)<br>torque | 转速<br>(r/min)<br>speed | 功率<br>(W)<br>power | 电压 (V)<br>voltage | 电流(A)不大于<br>current < | 允许顺逆转速差<br>(r/min)<br>speed tolerance | 附注<br>remark |
|-------------|------------------------|------------------------|--------------------|-------------------|-----------------------|---------------------------------------|--------------|
| 110ZYT101   | 1560                   | 1500                   | 245                | 110               | 3.0                   | 100                                   |              |
| 110ZYT102   | 1560                   | 1500                   | 245                | 220               | 1.5                   | 100                                   |              |
| 110ZYT103   | 1274                   | 3000                   | 400                | 110               | 4.8                   | 200                                   |              |
| 110ZYT104   | 1274                   | 3000                   | 400                | 220               | 2.4                   | 200                                   |              |
| 110ZYT105   | 1274                   | 3000                   | 400                | 24                | 22.5                  | 200                                   |              |
| 110ZYT151   | 2390                   | 1500                   | 375                | 110               | 4.5                   | 100                                   |              |
| 110ZYT152   | 2390                   | 1500                   | 375                | 220               | 2.3                   | 100                                   |              |
| 110ZYT153   | 2230                   | 3000                   | 700                | 110               | 8.5                   | 200                                   |              |
| 110ZYT154   | 2230                   | 3000                   | 700                | 220               | 4.2                   | 200                                   |              |
| 110ZYT155   | 2230                   | 3000                   | 700                | 24                | 45.0                  | 200                                   |              |
|             |                        |                        |                    |                   |                       |                                       |              |
| 130ZYT01    | 2548                   | 1500                   | 400                | 110               | 4.8                   | 100                                   |              |
| 130ZYT02    | 2548                   | 1500                   | 400                | 220               | 2.4                   | 100                                   |              |
| 130ZYT03    | 2548                   | 3000                   | 800                | 110               | 9                     | 200                                   |              |
| 130ZYT04    | 2548                   | 3000                   | 800                | 220               | 4.5                   | 200                                   |              |
| 130ZYT51    | 3185                   | 1500                   | 500                | 110               | 5.8                   | 100                                   |              |
| 130ZYT52    | 3185                   | 1500                   | 500                | 220               | 2.9                   | 100                                   |              |
| 130ZYT53    | 3185                   | 3000                   | 1000               | 110               | 11                    | 200                                   |              |
| 130ZYT54    | 3185                   | 3000                   | 1000               | 220               | 5.5                   | 200                                   |              |
| 130ZYT101   | 3822                   | 1500                   | 600                | 110               | 7                     | 100                                   |              |
| 130ZYT102   | 3822                   | 1500                   | 600                | 220               | 3.5                   | 100                                   |              |
| 130ZYT103   | 3822                   | 3000                   | 1200               | 110               | 13                    | 200                                   |              |
| 130ZYT104   | 3822                   | 3000                   | 1200               | 220               | 6.5                   | 200                                   |              |

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### 外形及安装尺寸 outline & installation size

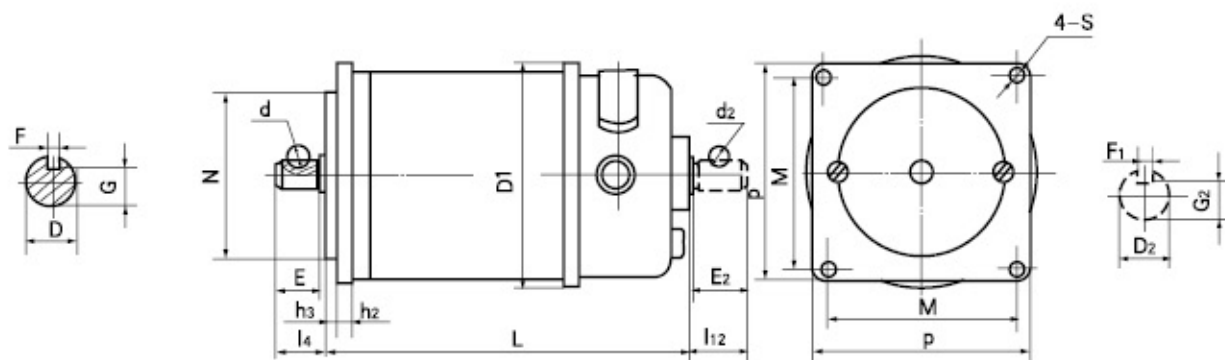


### 安装型式 mounting model: A5 AA5

mm

| 型号<br>model     | D <sub>c</sub> | D <sub>1</sub> | h <sub>4</sub> | L <sub>1</sub> | L   | D              | E  | L <sub>4</sub> | F                | G                  | d                  | D <sub>2</sub>    | E <sub>2</sub> | L <sub>12</sub> | F <sub>1</sub>     | G <sub>2</sub>     | d <sub>2</sub>     | 重量<br>(kg)<br>不大于<br>weight < |
|-----------------|----------------|----------------|----------------|----------------|-----|----------------|----|----------------|------------------|--------------------|--------------------|-------------------|----------------|-----------------|--------------------|--------------------|--------------------|-------------------------------|
|                 | -              | -              | -              | -              | -   | h <sub>6</sub> | -  | -              | +0.005<br>-0.015 | (h <sub>11</sub> ) | (H <sub>11</sub> ) | (h <sub>6</sub> ) | -              | -               | +0.005<br>-0.015   | (h <sub>11</sub> ) | (H <sub>11</sub> ) |                               |
| 55ZYT01 ~ 49    | 55             | 60             | 4.5            | 59.5           | 96  | 5              | 12 | 13.5           | 2                | 3.3                | 7                  | 4                 | 12             | 13.5            | 光轴<br>optical axis |                    |                    | 0.75                          |
| 55ZYT51 ~ 99    |                |                |                | 69.5           | 106 |                |    |                |                  |                    |                    |                   |                |                 | 0.9                |                    |                    |                               |
| 70ZYT01 ~ 49    | 70             | 74             | 5              | 72             | 114 | 6              | 14 | 16             | 2                | 4.3                | 7                  | 5                 | 12             | 13.5            | 2                  | 3.3                | 7                  | 1.4                           |
| 70ZYT51 ~ 99    |                |                |                | 82             | 124 |                |    |                |                  |                    |                    |                   |                |                 |                    |                    |                    | 1.6                           |
| 90ZYT01 ~ 49    | 90             | 95             | 6.5            | 79.5           | 127 | 8              | 16 | 18             | 2                | 5.2                | 10                 | 6                 | 14             | 16              | 2                  | 4.3                | 7                  | 2.6                           |
| 90ZYT51 ~ 99    |                |                |                | 99.5           | 147 |                |    |                |                  |                    |                    |                   |                |                 |                    |                    |                    | 3.3                           |
| 90ZYT101 ~ 149  |                |                |                | 124.5          | 172 |                |    |                |                  |                    |                    |                   |                |                 |                    |                    |                    | 4.0                           |
| 110ZYT01 ~ 49   | 110            | 115            | 7              | 97             | 152 | 14             | 20 | 22             | 4                | 11.5               | 13                 | 8                 | 16             | 18              | 2                  | 5.2                | 10                 | 4.0                           |
| 110ZYT51 ~ 99   |                |                |                | 117            | 172 |                |    |                |                  |                    |                    |                   |                |                 |                    |                    |                    | 4.7                           |
| 110ZYT101 ~ 149 |                |                |                | 133            | 188 |                |    |                |                  |                    |                    |                   |                |                 |                    |                    |                    | 5.8                           |
| 110ZYT151 ~ 199 |                |                |                | 163            | 218 |                |    |                |                  |                    |                    |                   |                |                 |                    |                    |                    | 7.8                           |

### 外形及安装尺寸 outline & installation size



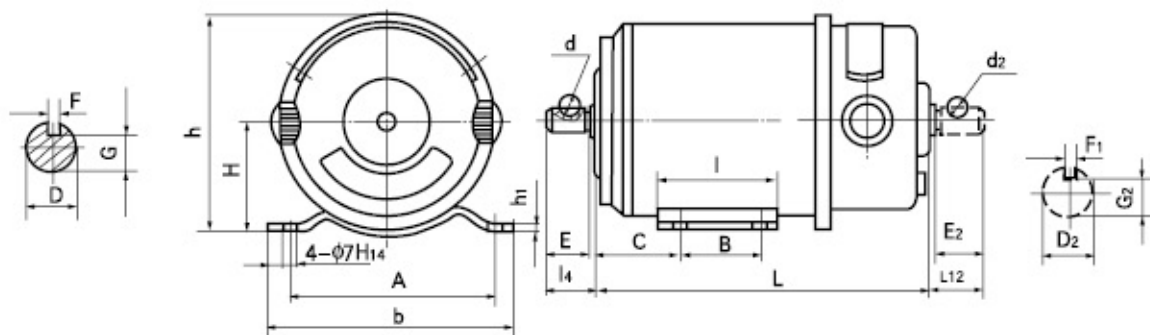
## 安装型式 mounting model: A3 AA3

mm

| 型号<br>MODEL     | N<br>(h <sub>7</sub> ) | h <sub>2</sub><br>- | h <sub>3</sub><br>(h <sub>12</sub> ) | M<br>(±0.15) | P<br>- | S<br>(H <sub>14</sub> ) | D <sub>1</sub><br>- | L<br>- | D<br>(h <sub>6</sub> ) | E<br>- | l <sub>4</sub><br>- | F<br>- | G<br>(h <sub>11</sub> ) | d<br>(h <sub>11</sub> ) | D <sub>2</sub><br>(h <sub>6</sub> ) | E <sub>2</sub><br>- | l <sub>12</sub><br>- | G <sub>2</sub><br>(h <sub>11</sub> ) | d <sub>2</sub><br>(H <sub>11</sub> ) | 重量<br>(kg)<br>不大于<br>WEIGHT < |
|-----------------|------------------------|---------------------|--------------------------------------|--------------|--------|-------------------------|---------------------|--------|------------------------|--------|---------------------|--------|-------------------------|-------------------------|-------------------------------------|---------------------|----------------------|--------------------------------------|--------------------------------------|-------------------------------|
| 55ZYT01 ~ 49    | 42                     | 4                   | 2.5                                  | 48           | 58     | 4.5                     | 60                  | 96     | 5                      | 12     | 13.5                | 2      | 3.3                     | 7                       | 4                                   | 12                  | 13.5                 | 光轴                                   | 0.75                                 |                               |
| 55ZYT51 ~ 99    |                        |                     |                                      |              |        |                         |                     | 106    |                        |        |                     |        |                         |                         |                                     |                     |                      |                                      |                                      | 0.9                           |
| 70ZYT01 ~ 49    | 54                     | 5                   | 3                                    | 60           | 72     | 5.5                     | 74                  | 114    | 6                      | 14     | 16                  | 2      | 4.3                     | 7                       | 5                                   | 12                  | 13.5                 | 3.3                                  | 7                                    | 1.4                           |
| 70ZYT51 ~ 99    |                        |                     |                                      |              |        |                         |                     | 124    |                        |        |                     |        |                         |                         |                                     |                     |                      |                                      |                                      | 1.6                           |
| 90ZYT01 ~ 49    | 70                     | 6                   | 3                                    | 76           | 92     | 6.6                     | 95                  | 127    | 8                      | 16     | 18                  | 2      | 5.2                     | 10                      | 6                                   | 14                  | 16                   | 4.3                                  | 7                                    | 2.6                           |
| 90ZYT51 ~ 99    |                        |                     |                                      |              |        |                         |                     | 147    |                        |        |                     |        |                         |                         |                                     |                     |                      |                                      |                                      | 3.3                           |
| 90ZYT101 ~ 149  |                        |                     |                                      |              |        |                         |                     | 172    |                        |        |                     |        |                         |                         |                                     |                     |                      |                                      |                                      | 4.0                           |
| 110ZYT01 ~ 49   | 85                     | 7                   | 4                                    | 94           | 112    | 9                       | 115                 | 152    | 14                     | 20     | 22                  | 4      | 11.5                    | 13                      | 8                                   | 16                  | 18                   | 5.2                                  | 10                                   | 4.0                           |
| 110ZYT51 ~ 99   |                        |                     |                                      |              |        |                         |                     | 172    |                        |        |                     |        |                         |                         |                                     |                     |                      |                                      |                                      | 4.7                           |
| 110ZYT101 ~ 149 |                        |                     |                                      |              |        |                         |                     | 188    |                        |        |                     |        |                         |                         |                                     |                     |                      |                                      |                                      | 5.8                           |
| 110ZYT151 ~ 199 |                        |                     |                                      |              |        |                         |                     | 218    |                        |        |                     |        |                         |                         |                                     |                     |                      |                                      |                                      | 7.8                           |

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## 外形及安装尺寸 outline & installation size



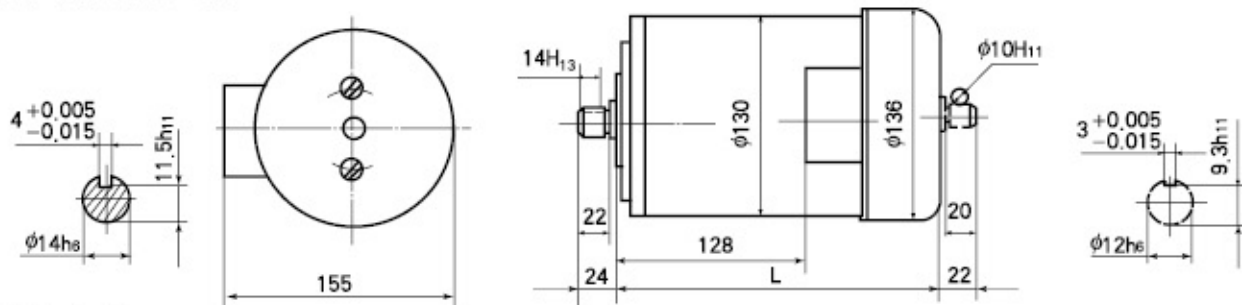
## 安装型式 mounting model: A1 AA1

mm

| 型号<br>MODEL     | H<br>-            | h<br>- | h <sub>1</sub><br>- | A<br>(±0.25) | b<br>- | C<br>- | B<br>(±0.25) | l<br>- | L<br>- | D<br>(h <sub>6</sub> ) | E<br>- | l <sub>4</sub><br>- | F<br><sup>+0.005</sup><br>-0.015 | G<br>(h <sub>11</sub> ) | d<br>(H <sub>11</sub> ) | D <sub>2</sub><br>(h <sub>6</sub> ) | E <sub>2</sub><br>- | l <sub>12</sub><br>- | F <sub>1</sub><br><sup>+0.005</sup><br>-0.015 | G <sub>2</sub><br>(h <sub>11</sub> ) | d <sub>2</sub><br>(H <sub>11</sub> ) | 重量<br>(kg)<br>不大于<br>WEIGHT < |
|-----------------|-------------------|--------|---------------------|--------------|--------|--------|--------------|--------|--------|------------------------|--------|---------------------|----------------------------------|-------------------------|-------------------------|-------------------------------------|---------------------|----------------------|---|--------------------------------------|--------------------------------------|-------------------------------|
| 90ZYT01 ~ 49    | 50 <sub>0.4</sub> | 97.5   | 3                   | 100          | 116    | 26.5   | 44           | 64     | 127    | 8                      | 16     | 18                  | 2                                | 5.2                     | 10                      | 6                                   | 14                  | 16                   | 2   | 4.3                                  | 7                                    | 2.8                           |
| 90ZYT51 ~ 99    |                   |        |                     |              |        | 40.5   |              |        | 147    |                        |        |                     |                                  |                         |                         |                                     |                     |                      |   |                                      |                                      | 3.5                           |
| 90ZYT101 ~ 149  |                   |        |                     |              |        | 49     |              |        | 172    |                        |        |                     |                                  |                         |                         |                                     |                     |                      |   |                                      |                                      | 4.2                           |
| 110ZYT01 ~ 49   | 63 <sub>0.5</sub> | 120.5  | 4                   | 115          | 130    | 25     | 70           | 85     | 152    | 14                     | 20     | 22                  | 4                                | 11.5                    | 13                      | 8                                   | 16                  | 18                   | 2   | 5.2                                  | 10                                   | 4.5                           |
| 110ZYT51 ~ 99   |                   |        |                     |              |        | 34     |              |        | 172    |                        |        |                     |                                  |                         |                         |                                     |                     |                      |   |                                      |                                      | 5.5                           |
| 110ZYT101 ~ 149 |                   |        |                     |              |        | 42     |              |        | 188    |                        |        |                     |                                  |                         |                         |                                     |                     |                      |   |                                      |                                      | 6.0                           |
| 110ZYT151 ~ 199 |                   |        |                     |              |        | 57     |              |        | 218    |                        |        |                     |                                  |                         |                         |                                     |                     |                      |   |                                      |                                      | 8.0                           |



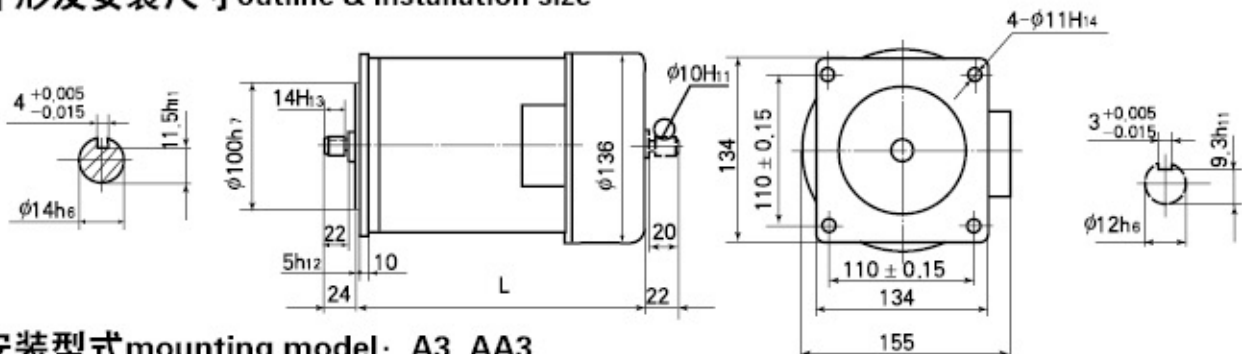
### 外形及安装尺寸 outline & installation size



#### 安装型式 mounting model: A5 AA5

| 型号 MODEL        | L   | 重量(kg)WEIGHT<br>不大于 ≤ |
|-----------------|-----|-----------------------|
| 130ZYT01 ~ 49   | 204 | 10.5                  |
| 130ZYT51 ~ 99   | 224 | 12                    |
| 130ZYT101 ~ 149 | 254 | 14                    |

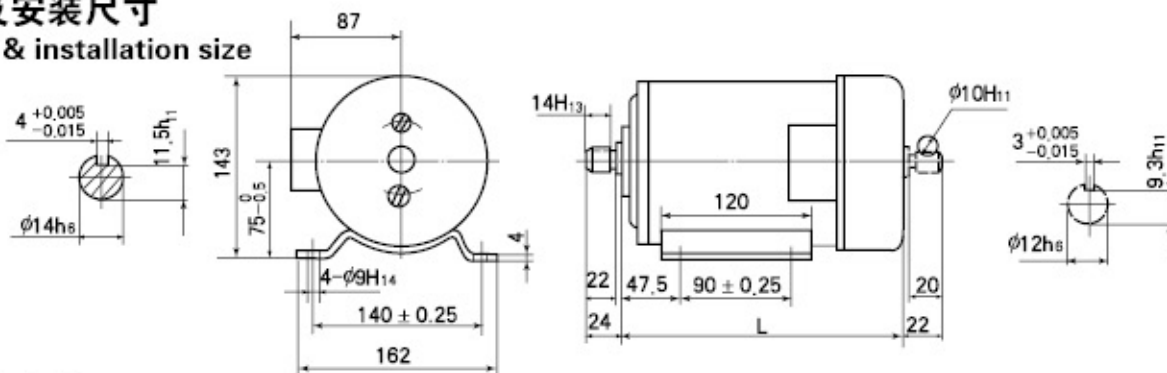
### 外形及安装尺寸 outline & installation size



#### 安装型式 mounting model: A3 AA3

| 型号 MODEL        | L   | 重量(kg)WEIGHT<br>不大于 ≤ |
|-----------------|-----|-----------------------|
| 130ZYT01 ~ 49   | 204 | 10.5                  |
| 130ZYT51 ~ 99   | 224 | 12                    |
| 130ZYT101 ~ 149 | 254 | 14                    |

### 外形及安装尺寸 outline & installation size



#### 安装型式 mounting model: A1 AA1

| 型号 MODEL        | L   | 重量(kg)WEIGHT<br>不大于 ≤ |
|-----------------|-----|-----------------------|
| 130ZYT01 ~ 49   | 204 | 10.5                  |
| 130ZYT51 ~ 99   | 224 | 12                    |
| 130ZYT101 ~ 149 | 254 | 14                    |

ZYT系列  
Series ZYT