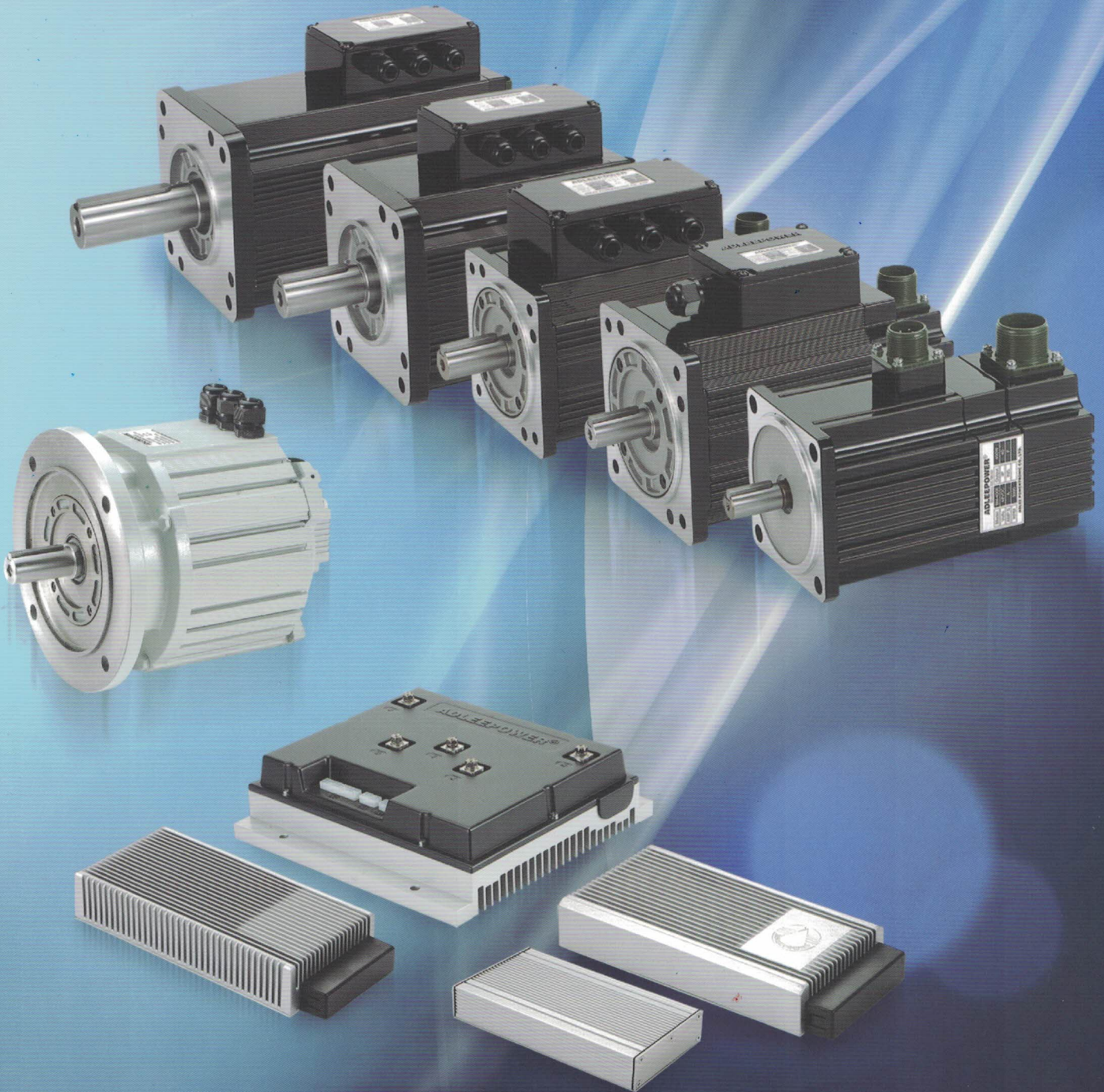




**ADLEEPower®**  
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# 電動車用直流無刷馬達 & 驅動器

- Golf Car
- Tractor
- Minivan
- Forklift
- LSV
- Go Cart
- Pedicab
- Scooter
- Bike



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# 電動車用直流無刷馬達

## 驅動器主要功能特點

- 回升剎車
- 速度及轉矩控制
- 蜂鳴器信號輸出
- 鎖匙開關
- 安全開關
- 正轉 / 反轉切換
- 失效時LED指示

## 驅動器保護功能

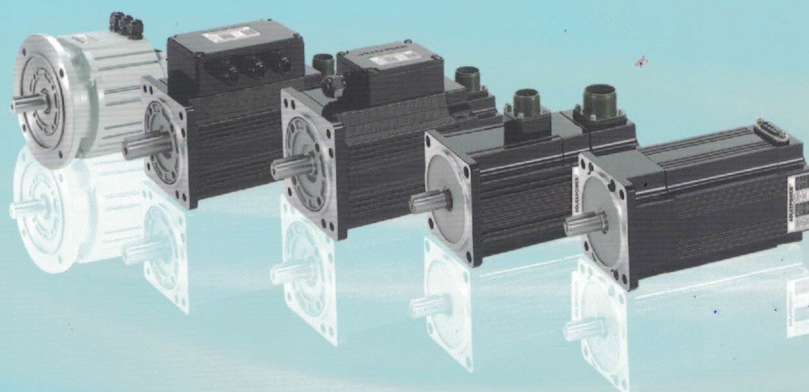
- 過電流保護
- 馬達/驅動器過熱保護
- 低電壓保護
- 馬達堵住保護
- 主電源斷電偵測
- 馬達相間短路保護
- 加速器開機未歸零保護

## 直流無刷馬達規格

| 馬達形式     |       | BM-180 | BM-370 | BM-400E | BM-750E | BM-1500E |
|----------|-------|--------|--------|---------|---------|----------|
| 驅動器形式    |       | SW02   | SW02   | SW05A   | SW06B   | SW06A    |
| 輸入電壓     | VDC   | 24     | 24     | 48      | 48      | 48       |
| 額定輸出     | W     | 180    | 370    | 400     | 750     | 1500     |
| 額定轉矩     | Kg-cm | 9.0    | 12.0   | 9.0     | 16.2    | 34.0     |
| 最大轉矩     | Kg-cm | 27     | 40     | 35      | 70      | 130      |
| 額定電流     | A     | 9.0    | 19.0   | 9.7     | 18.6    | 36.0     |
| 最大電流     | A     | 25     | 50     | 29      | 57      | 106      |
| 額定速度     | RPM   | 2000   | 3000   | 4300    | 4500    | 4300     |
| 最大速度     | RPM   | 2500   | 3700   | 4700    | 4800    | 4600     |
| 最大輸出     | W     | 280    | 650    | 800     | 2100    | 3700     |
| 馬達外型尺寸圖  |       | Fig 1  | Fig 3  | Fig 5   | Fig 7   | Fig 8    |
| 驅動器外型尺寸圖 |       | Fig A  | Fig A  | Fig C   | Fig D   | Fig E    |

| 馬達型式     |       | BM-2200E    | BM-3700E    | BM-5000ES | BM-5000ER | BM-5500E |
|----------|-------|-------------|-------------|-----------|-----------|----------|
| 驅動器形式    |       | SW06A/SW08A | SW08A/SW08B | SW08B     | SW08B     | SW08C    |
| 輸入電壓     | VDC   | 48          | 48          | 48        | 48        | 72       |
| 額定輸出     | W     | 2200        | 3700        | 5000      | 5000      | 5500     |
| 額定轉矩     | Kg-cm | 48.7        | 90          | 72        | 250       | 134      |
| 最大轉矩     | Kg-cm | 124/180     | 150/215     | 130       | 350       | 300      |
| 額定電流     | A     | 48          | 87          | 114       | 140       | 89       |
| 最大電流     | A     | 106/140     | 140/200     | 200       | 220       | 200      |
| 額定速度     | RPM   | 4400        | 4000        | 6500      | 1900      | 4000     |
| 最大速度     | RPM   | 4800        | 4700        | 7000      | 6000      | 4600     |
| 最大輸出     | W     | 3700/5200   | 5200/5800   | 8000      | 5700      | 10500    |
| 馬達外型尺寸圖  |       | Fig 8       | Fig 9       | Fig 11    | Fig 12    | Fig 10   |
| 驅動器外型尺寸圖 |       | Fig E/F     | Fig F       | Fig F     | Fig F     | Fig F    |

驅動器使用功能及保護功能因不同形式而有所區別



# 電動車用直流無刷伺服馬達

## 驅動器主要功能特點

- 閉迴路速度控制
- 加減速時間設定
- 多段速
- SON 伺服使能開關
- 外部類比、通訊數位、轉速/命令選擇
- DI 多工輸入端子
- DO 多工輸出端子

## 驅動器保護功能

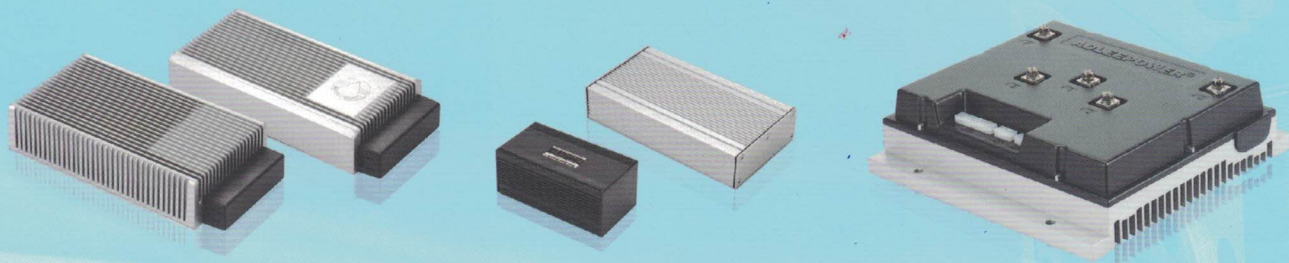
- 過電流保護
- 過負載保護
- 低電壓保護
- 過電壓保護
- 驅動器過熱保護
- HALL SENSOR 異常保護
- 馬達相間短路保護

## 直流無刷伺服馬達規格

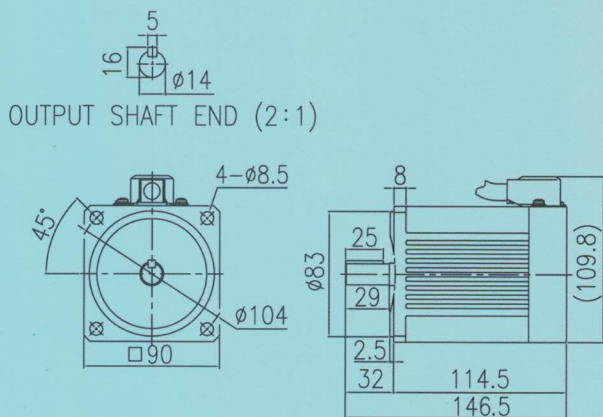
| 馬達形式     |       | BM-180E   | BM-370E   | BM-550E   | BM-750E   |
|----------|-------|-----------|-----------|-----------|-----------|
| 驅動器形式    |       | SWAN2V202 | SWAN2V204 | SWAN5V205 | SWAN6V407 |
| 輸入電壓     | VDC   | 24        | 24        | 24        | 48        |
| 驅動器最大電壓  | VDC   | 30        | 30        | 30        | 60        |
| 額定輸出     | W     | 180       | 370       | 550       | 750       |
| 額定轉矩     | Kg-cm | 6.1       | 12.2      | 18.1      | 24.4      |
| 最大轉矩     | Kg-cm | 16.8      | 34.2      | 77.3      | 69.8      |
| 額定電流     | A     | 9.3       | 18.6      | 27.6      | 18.6      |
| 最大電流     | A     | 26.1      | 52        | 77        | 52        |
| 額定速度     | RPM   | 3000      | 3000      | 3000      | 3000      |
| 馬達外型尺寸圖  |       | Fig 2     | Fig 4     | Fig 6     | Fig 7     |
| 驅動器外型尺寸圖 |       | Fig B     | Fig B     | Fig C     | Fig E     |

| 馬達型式     |       | BM-1500E  | BM-2200E  | BM-3700E  |
|----------|-------|-----------|-----------|-----------|
| 驅動器形式    |       | SWAN6V415 | SWAN6V422 | SWAN8V437 |
| 輸入電壓     | VDC   | 48        | 48        | 48        |
| 驅動器最大電壓  | VDC   | 60        | 60        | 60        |
| 額定輸出     | W     | 1500      | 2200      | 3700      |
| 額定轉矩     | Kg-cm | 48.8      | 73.2      | 122       |
| 最大轉矩     | Kg-cm | 136.64    | 205       | 340       |
| 額定電流     | A     | 36        | 48        | 87        |
| 最大電流     | A     | 101       | 134.4     | 244       |
| 額定速度     | RPM   | 3000      | 3000      | 3000      |
| 馬達外型尺寸圖  |       | Fig 8     | Fig 8     | Fig 9     |
| 驅動器外型尺寸圖 |       | Fig E     | Fig E     | Fig F     |

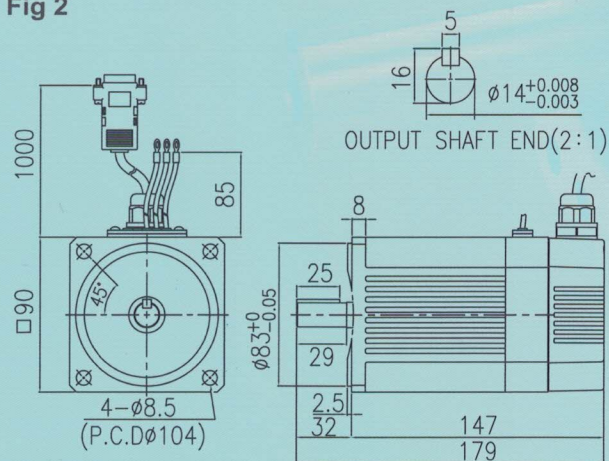
驅動器使用功能及保護功能因不同形式而有所區別



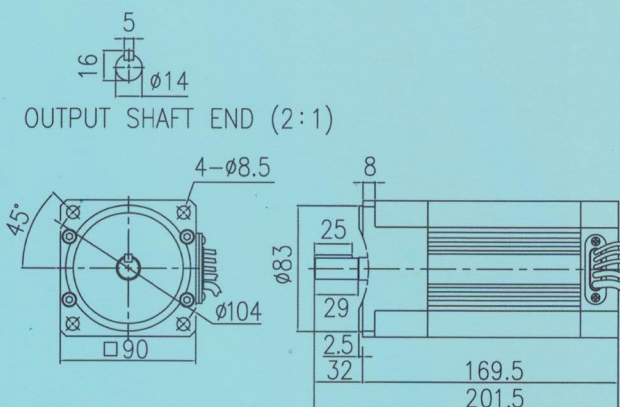
• Fig 1



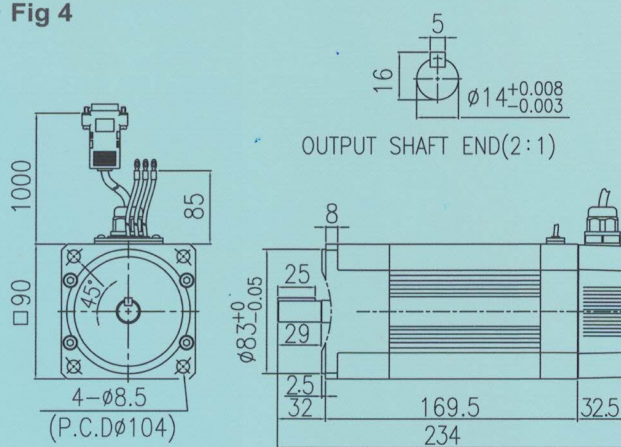
• Fig 2



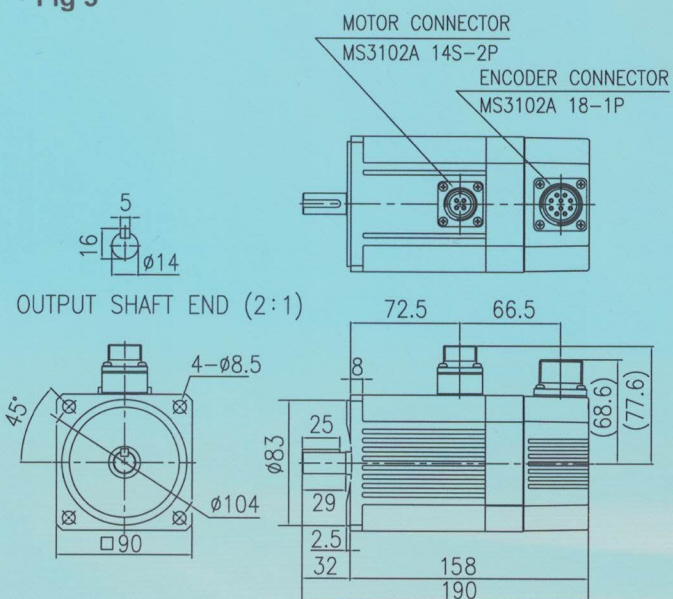
• Fig 3



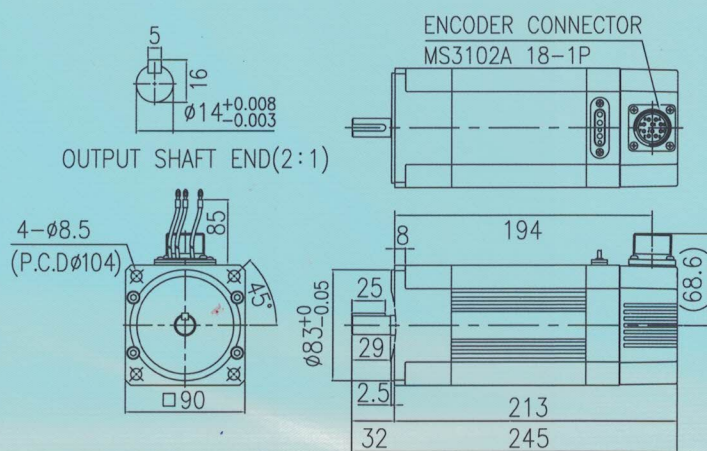
• Fig 4



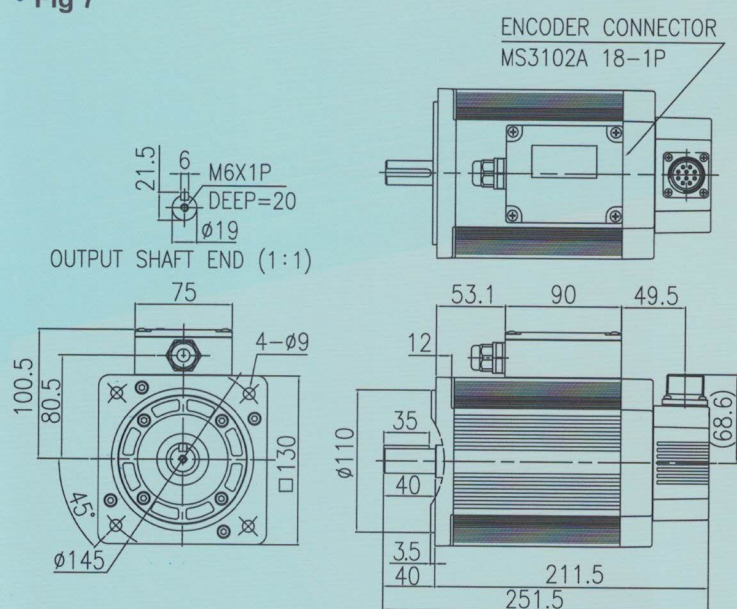
• Fig 5



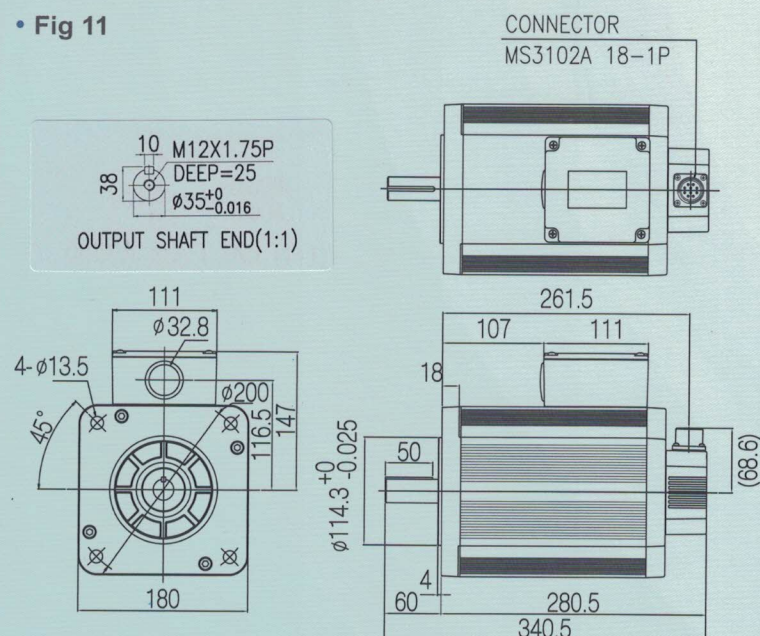
• Fig 6



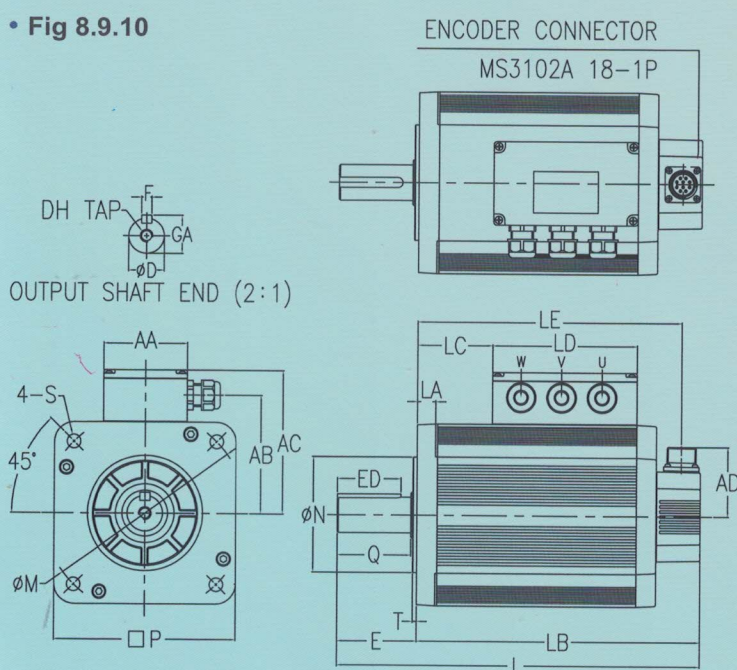
• Fig 7



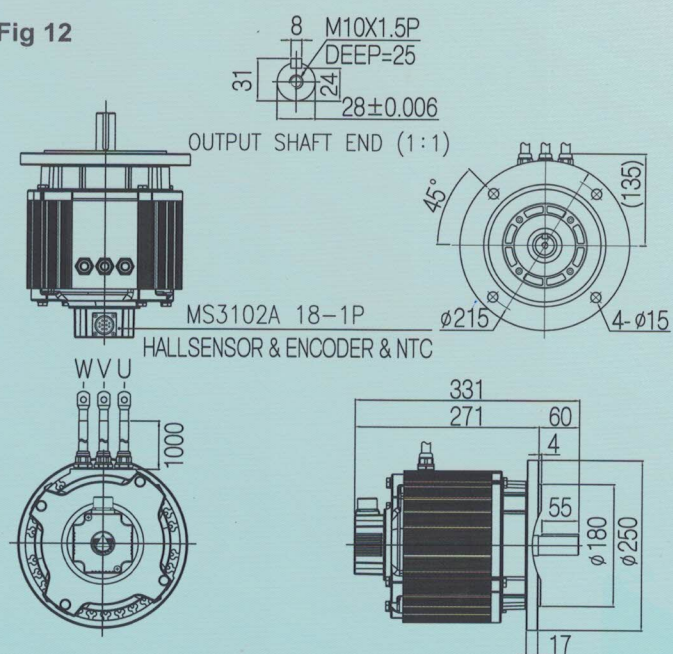
• Fig 11



• Fig 8.9.10



• Fig 12

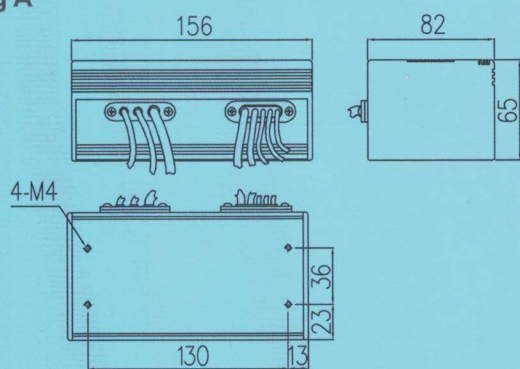


UNIT: mm

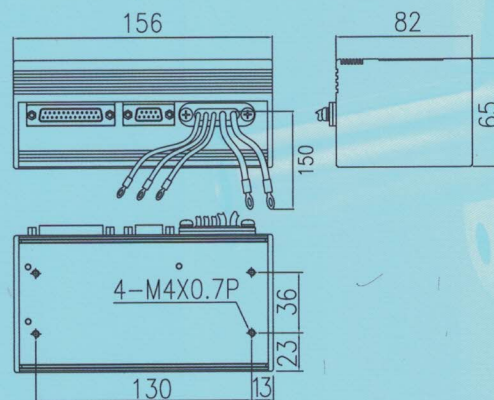
| FIG   | □P  | øM  | øS   | øN    | T   | L     | LA | LB    | LC  | LD  | LE    | AA   | AB    | AC  | AD.  | SHAFT END |     |    |    |    |         |         |
|-------|-----|-----|------|-------|-----|-------|----|-------|-----|-----|-------|------|-------|-----|------|-----------|-----|----|----|----|---------|---------|
|       |     |     |      |       |     |       |    |       |     |     |       |      |       |     |      | ED        | Q   | E  | øD | GA | F       | DH      |
| FIG 8 | 130 | 145 | 9    | 110   | 3.5 | 288.5 | 12 | 238.5 | 27  | 143 | 219.5 | 82.5 | 93.5  | 116 | 68.6 | 45        | 50  | 50 | 24 | 27 | 8       | M8X24L  |
| FIG 9 | 180 | 200 | 13.5 | 114.3 | 4   | 359.5 | 18 | 280.5 | 74  |     | 261.5 |      | 116.5 | 141 |      | 63        | 73  | 79 | 35 | 38 | 10      | M12X25L |
| FIG10 |     |     |      |       |     | 454.5 |    | 341.5 | 135 |     | 322.5 |      |       | 90  |      | 108.5     | 113 | 42 | 45 | 12 | M16X32L |         |

# 驅動器外型尺寸

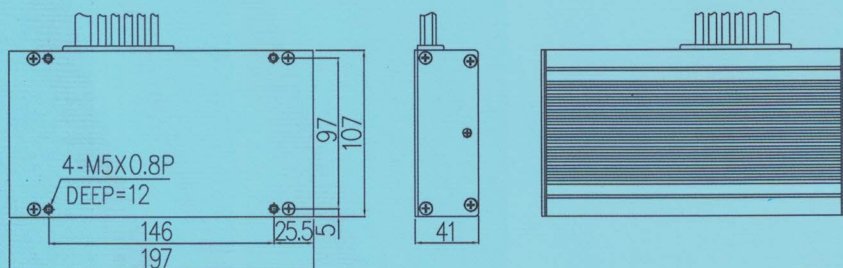
• Fig A



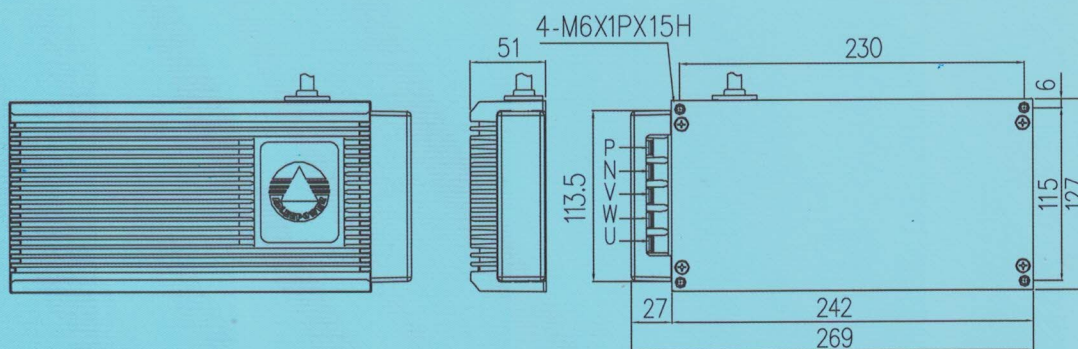
• Fig B



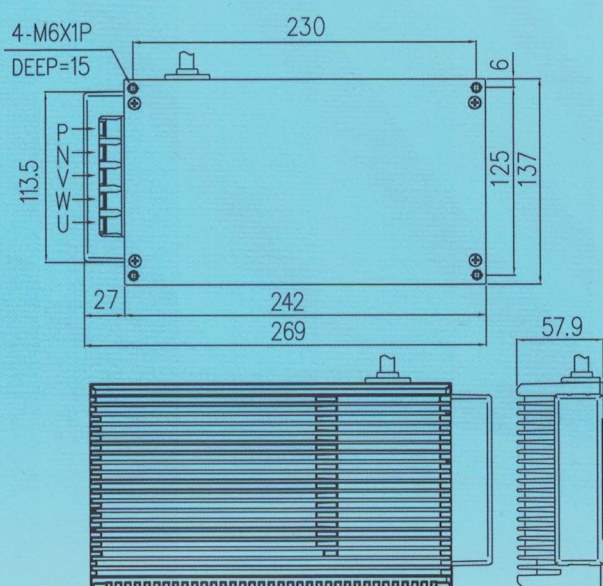
• Fig C



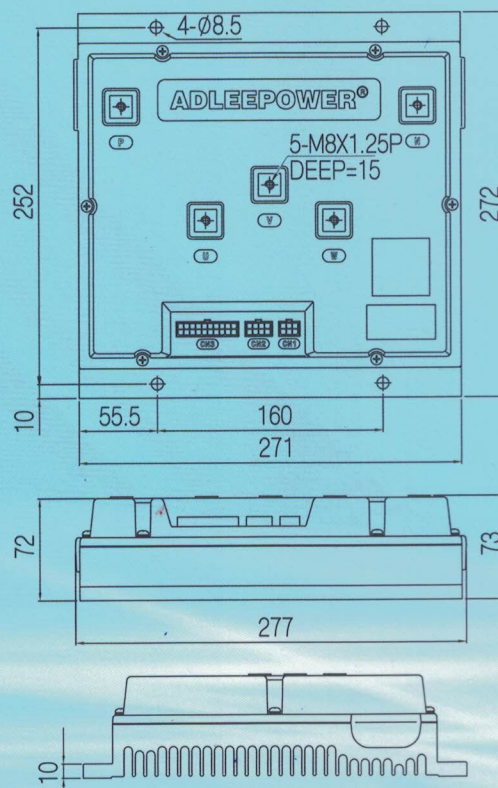
• Fig D



• Fig E

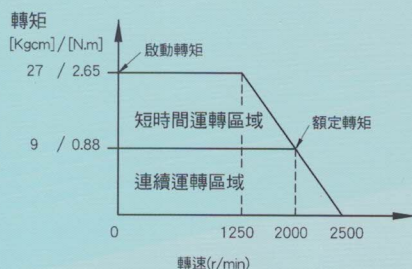


• Fig F

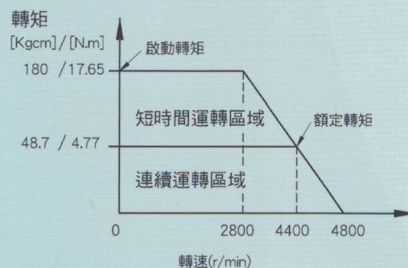


# 特性曲線圖

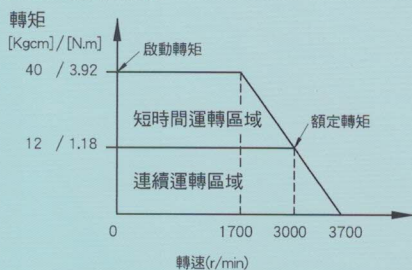
■ BM-180(SW02)



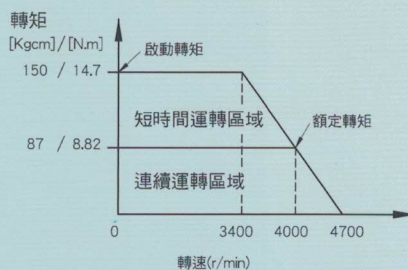
■ BM-2200E (SW08A)



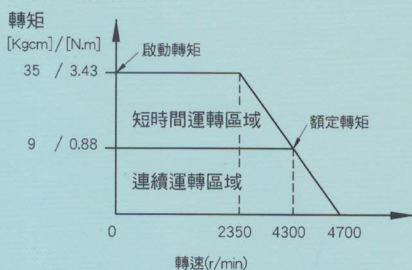
■ BM-370(SW02)



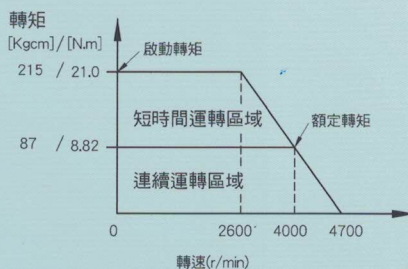
■ BM-3700E (SW08A)



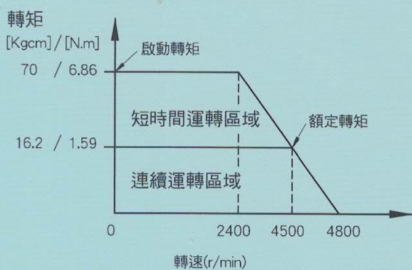
■ BM-400E(SW05A)



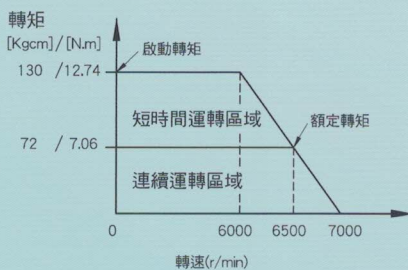
■ BM-3700E (SW08B)



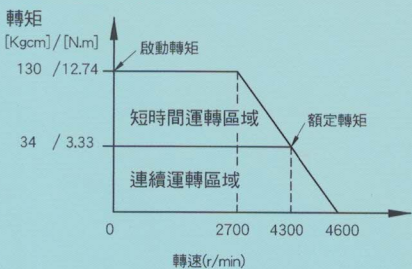
■ BM-750E(SW06B)



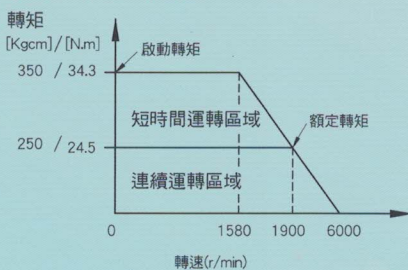
■ BM-5000ES(SW08B)



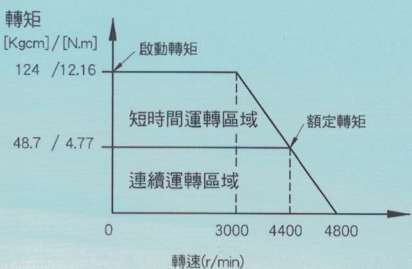
■ BM-1500E(SW06A)



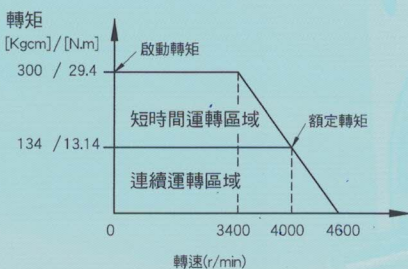
■ BM-5000ER(SW08B)



■ BM-2200E (SW06A)

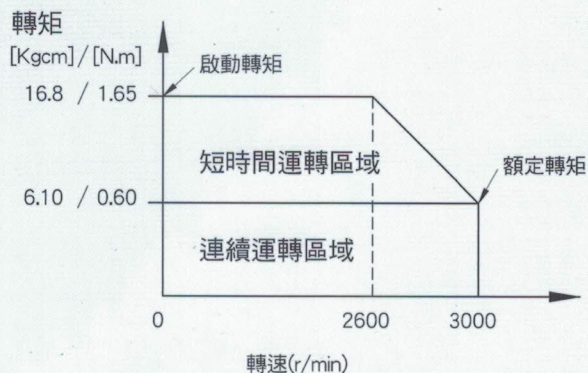


■ BM-5500E(SW08C)

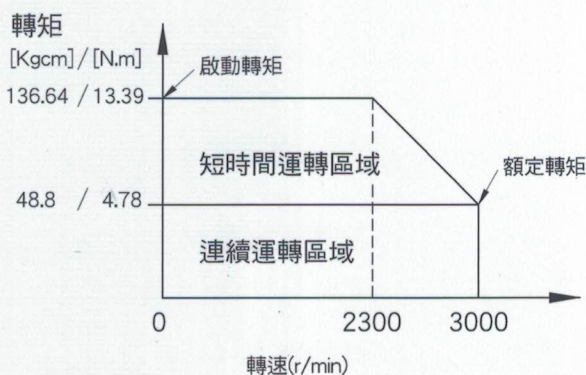


# 特性曲線圖

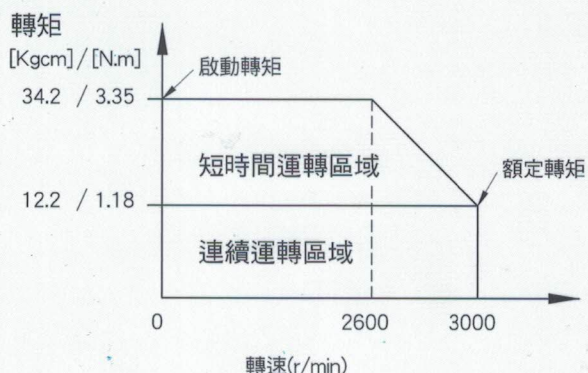
■ BM-180E(SWAN2V202)



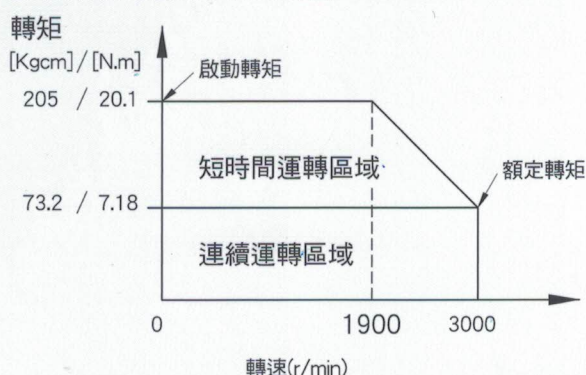
■ BM-1500E(SWAN6V415)



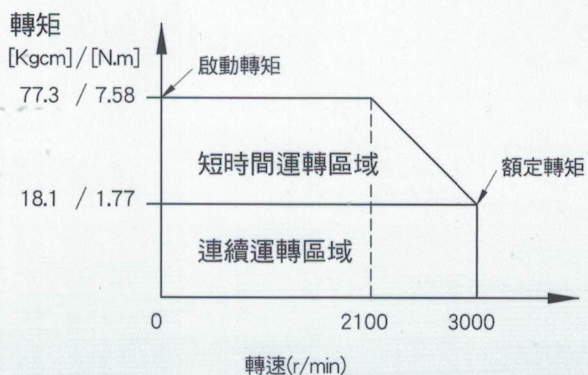
■ BM-370E(SWAN2V204)



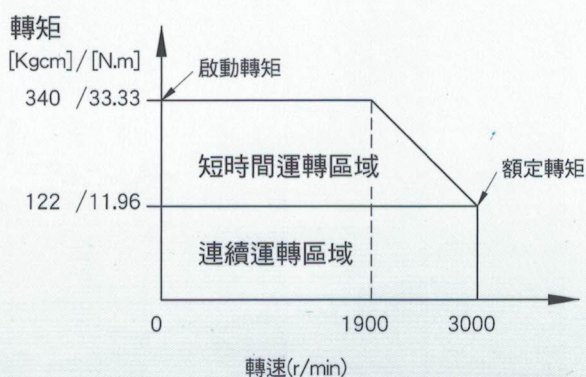
■ BM-2200E(SWAN6V422)



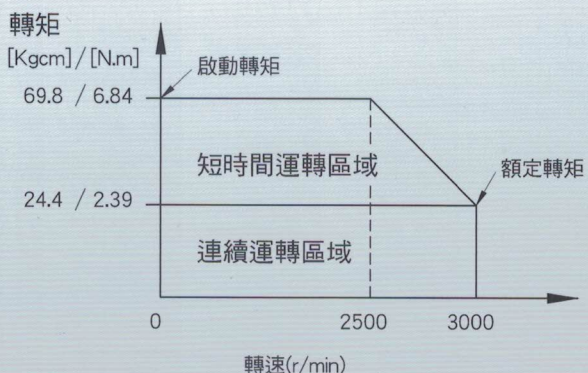
■ BM-550E(SWAN5V205)



■ BM-3700E(SWAN8V437)



■ BM-750E(SWAN6V407)



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