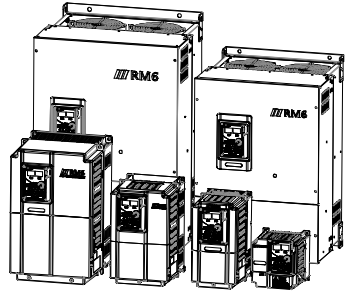




# 寧茂 RM6F6 系列 參數手冊



XB200241 2024.11.15 製作

感謝您購買寧茂 RM6F6 系列變頻器。  
為保護操作人員及機械設備的安全，請在安裝、配線、運轉前，  
詳細閱讀完整手冊內容，並交由專業電機工程人員進行安裝及參數調整。  
完整版手冊請利用右方 QR code 下載。  
完整版手冊中有 "危險"、"注意" 等符號說明，請務必詳細閱讀與遵守。



|  |                                    |
|--|------------------------------------|
|  <b>危險</b> | 表示若不按說明書上之指示去執行工作，可能引起人員傷亡或嚴重的傷害。  |
|  <b>注意</b> | 表示若不按說明書上之指示去執行工作，可能造成人員的傷害或設備的損壞。 |

## ■ 標準規格

三相 200V 系列標準規格

| 型號<br>(RM6F6-□□□□□B3) | 2A005                  | 2A007 | 2A010 | 2A016 | 2A022   | 2A031  | 2A042  | 2A060 |
|-----------------------|------------------------|-------|-------|-------|---------|--------|--------|-------|
| 最大適用馬達 (HP/ kW)       | 1/0.75                 | 2/1.5 | 3/2.2 | 5/3.7 | 7.5/5.5 | 10/7.5 | 15/11  | 20/15 |
| 額定輸出容量 (kVA)          | 1.6                    | 2.6   | 3.8   | 5.8   | 8.1     | 12     | 16     | 23    |
| 額定輸出電流 (A)            | 4.2                    | 6.8   | 10    | 15.2  | 21.3    | 31     | 42     | 60    |
| 額定輸出電壓 (V)            | 三相 200~240V (對應輸入電壓)   |       |       |       |         |        |        |       |
| 輸出頻率範圍 (Hz)           | 0.1~600.00Hz           |       |       |       |         |        |        |       |
| 電源 (Φ, V, Hz)         | 三相 200~240V 50/60Hz    |       |       |       |         |        |        |       |
| 輸入電流 (A)              | 6.1                    | 8     | 12    | 18    | 25.2    | 41     | 56     | 68    |
| 容許電壓/頻率變動率            | 170~264V 50/60Hz / ±5% |       |       |       |         |        |        |       |
| 過負載保護                 | 變頻器額定輸出電流 120% / 1 分鐘  |       |       |       |         |        |        |       |
| 風扇風量(CFM)             | 自然冷卻                   | 8.1   | 16.2  | 16.2  | 62.8    | 59.8   | 59.8   |       |
| 適用安規                  | —                      |       |       |       |         |        |        |       |
| 保護結構                  | IP20                   |       |       |       |         |        |        |       |
| 重量 (kg)               | 1.8                    | 1.8   | 1.8   | 2.0   | 2.1     | 3.0    | 5.4    | 5.7   |
| 箱身尺寸代號                | Case 1                 |       |       |       |         | Case 2 | Case 3 |       |

| 型號<br>(RM6F6-□□□□B3/E3) | 2A075                  | 2A090 | 2A112 | 2A150 | 2A185          | 2A220 | 2A275  |
|-------------------------|------------------------|-------|-------|-------|----------------|-------|--------|
| 最大適用馬達 (HP / kW)        | 25/18.5                | 30/22 | 40/30 | 50/37 | 60/45          | 75/55 | 100/75 |
| 額定輸出容量 (kVA)            | 29                     | 34    | 43    | 57    | 70             | 84    | 105    |
| 額定輸出電流 (A)              | 75                     | 90    | 112   | 150   | 185            | 220   | 275    |
| 額定輸出電壓 (V)              | 三相 200~240V (對應輸入電壓)   |       |       |       |                |       |        |
| 輸出頻率範圍 (Hz)             | 0.1~600.00Hz           |       |       |       |                |       |        |
| 電源 (Φ, V, Hz)           | 三相 200~240V 50/60Hz    |       |       |       |                |       |        |
| 輸入電流 (A)                | 86                     | 103   | 128   | 183   | 211            | 240   | 280    |
| 容許電壓/頻率變動率              | 170~264V 50/60Hz / ±5% |       |       |       |                |       |        |
| 過負載保護                   | 變頻器額定輸出電流 120% / 1分鐘   |       |       |       |                |       |        |
| 風扇風量(CFM)               | 150                    | 150   | 216   | 216   | 212            | 394   | 394    |
| 適用安規                    | -                      |       |       |       |                |       |        |
| 保護結構                    | IP20                   |       |       |       | IP00 (IP20 選用) |       |        |
| 重量 (kg)                 | 12.4                   | 13.1  | 14.7  | 14.8  | 42.7           | 44.3  | 46.3   |
| 箱身尺寸代號                  | Case 4                 |       |       |       | Case 5         |       |        |

| 型號<br>(RM6F6-□□□□E3) | 2A346                  | 2A410   | 2A500   | 2A700   | 2A840   | - | - |
|----------------------|------------------------|---------|---------|---------|---------|---|---|
| 最大適用馬達 (HP / kW)     | 125/90                 | 150/110 | 175/132 | 250/200 | 300/220 | - | - |
| 額定輸出容量 (kVA)         | 132                    | 156     | 191     | 267     | 321     | - | - |
| 額定輸出電流 (A)           | 346                    | 410     | 500     | 700     | 840     | - | - |
| 額定輸出電壓 (V)           | 三相 200~240V (對應輸入電壓)   |         |         |         |         |   |   |
| 輸出頻率範圍 (Hz)          | 0.1~600.00Hz           |         |         |         |         |   |   |
| 電源 (Φ, V, Hz)        | 三相 200~240V 50/60Hz    |         |         |         |         |   |   |
| 輸入電流 (A)             | 330                    | 385     | 470     | 660     | 792     | - | - |
| 容許電壓/頻率變動率           | 170~264V 50/60Hz / ±5% |         |         |         |         |   |   |
| 過負載保護                | 變頻器額定輸出電流 120% / 1分鐘   |         |         |         |         |   |   |
| 風扇風量(CFM)            | 394                    | 591     | 591     | 788     | 788     | - | - |
| 適用安規                 | -                      |         |         |         |         |   |   |
| 保護結構                 | IP00 (IP20 選用)         |         |         |         |         |   |   |
| 重量 (kg)              | 63.6                   | 89      | 90      | 164     | 167     | - | - |
| 箱身尺寸代號               | Case 6                 | Case 7  |         | Case 8  |         | - | - |

三相 400V 系列標準規格

| 型號<br>(RM6F6-□□□□B3) | 4A004                  | 4A005 | 4A009 | 4A012   | 4A018  | 4A023 | 4A031  | 4A039   |
|----------------------|------------------------|-------|-------|---------|--------|-------|--------|---------|
| 最大適用馬達 (HP / kW)     | 2/1.5                  | 3/2.2 | 5/3.7 | 7.5/5.5 | 10/7.5 | 15/11 | 20/15  | 25/18.5 |
| 額定輸出容量 (kVA)         | 2.7                    | 3.8   | 6.9   | 8.6     | 14     | 18    | 24     | 30      |
| 額定輸出電流 (A)           | 3.5                    | 5     | 9     | 11.3    | 18     | 23    | 31     | 39      |
| 額定輸出電壓 (V)           | 三相 380~480V (對應輸入電壓)   |       |       |         |        |       |        |         |
| 輸出頻率範圍 (Hz)          | 0.1~600.00Hz           |       |       |         |        |       |        |         |
| 電源 (Φ, V, Hz)        | 三相 380~480V 50/60Hz    |       |       |         |        |       |        |         |
| 輸入電流 (A)             | 4.2                    | 6     | 12    | 13.4    | 20     | 26    | 44     | 47      |
| 容許電壓/頻率變動率           | 323~528V 50/60Hz / ±5% |       |       |         |        |       |        |         |
| 過負載保護                | 變頻器額定輸出電流 120% / 1 分鐘  |       |       |         |        |       |        |         |
| 風扇風量(CFM)            | 自然<br>冷卻               | 8.1   | 16.2  | 16.2    | 62.8   | 62.8  | 59.8   | 59.8    |
| 適用安規                 | —                      |       |       |         |        |       |        |         |
| 保護結構                 | IP20                   |       |       |         |        |       |        |         |
| 重量 (kg)              | 1.8                    | 1.8   | 1.9   | 2.0     | 3.0    | 3.1   | 5.6    | 5.7     |
| 箱身尺寸代號               | Case 1                 |       |       |         | Case 2 |       | Case 3 |         |

| 型號<br>(RM6F6-□□□□E3) | 4A045                  | 4A058 | 4A075 | 4A091 | 4A110 | 4A144          | 4A180  | 4A216   |
|----------------------|------------------------|-------|-------|-------|-------|----------------|--------|---------|
| 最大適用馬達 (HP / kW)     | 30/22                  | 40/30 | 50/37 | 60/45 | 75/55 | 100/75         | 125/90 | 150/110 |
| 額定輸出容量 (kVA)         | 34                     | 44    | 57    | 69    | 84    | 110            | 137    | 165     |
| 額定輸出電流 (A)           | 45                     | 58    | 75    | 91    | 110   | 144            | 180    | 216     |
| 額定輸出電壓 (V)           | 三相 380~480V (對應輸入電壓)   |       |       |       |       |                |        |         |
| 輸出頻率範圍 (Hz)          | 0.1~600.00Hz           |       |       |       |       |                |        |         |
| 電源 (Φ, V, Hz)        | 三相 380~480V 50/60Hz    |       |       |       |       |                |        |         |
| 輸入電流 (A)             | 52                     | 66    | 86    | 105   | 132   | 162            | 181    | 202     |
| 容許電壓/頻率變動率           | 323~528V 50/60Hz / ±5% |       |       |       |       |                |        |         |
| 過負載保護                | 變頻器額定輸出電流 120% / 1 分鐘  |       |       |       |       |                |        |         |
| 風扇風量(CFM)            | 59.8                   | 150   | 216   | 216   | 216   | 212            | 394    | 394     |
| 適用安規                 | —                      |       |       |       |       |                |        |         |
| 保護結構                 | IP20                   |       |       |       |       | IP00 (IP20 選用) |        |         |
| 重量 (kg)              | 5.8                    | 12.8  | 12.9  | 15    | 15.3  | 44             | 45.5   | 46.4    |
| 箱身尺寸代號               | Case3                  | Case4 |       |       |       | Case5          |        |         |

註 1：4A045 僅有 RM6F6-□□□□B3 系列機種。

註 2：4A180、4A216 僅有 RM6F6-□□□□E3 系列機種。

| 型號<br>(RM6F6-□□□□E3) | 4A253                  | 4A304       | 4A377       | 4A415       | 4A480       | 4A585       | 4A700       | 4A860       | 4A960       |
|----------------------|------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 最大適用馬達 (HP / kW)     | 175/<br>132            | 200/<br>160 | 250/<br>200 | 300/<br>220 | 350/<br>250 | 420/<br>315 | 500/<br>375 | 600/<br>450 | 700/<br>500 |
| 額定輸出容量 (kVA)         | 193                    | 232         | 287         | 316         | 366         | 446         | 533         | 655         | 732         |
| 額定輸出電流 (A)           | 253                    | 304         | 377         | 415         | 480         | 585         | 700         | 860         | 960         |
| 額定輸出電壓 (V)           | 三相 380~480V (對應輸入電壓)   |             |             |             |             |             |             |             |             |
| 輸出頻率範圍 (Hz)          | 0.1~600.00Hz           |             |             |             |             |             |             |             |             |
| 電源 (Φ, V, Hz)        | 三相 380~480V 50/60Hz    |             |             |             |             |             |             |             |             |
| 輸入電流 (A)             | 217                    | 282         | 355         | 385         | 440         | 540         | 627         | 800         | 900         |
| 容許電壓/頻率變動率           | 323~528V 50/60Hz / ±5% |             |             |             |             |             |             |             |             |
| 過負載保護                | 變頻器額定輸出電流 120% / 1 分鐘  |             |             |             |             |             |             |             |             |
| 風扇風量(CFM)            | 394                    | 394         | 591         | 591         | 788         | 788         | 788         | 1182        | 1182        |
| 適用安規                 | —                      |             |             |             |             |             |             |             |             |
| 保護結構                 | IP00 (IP20 選用)         |             |             |             |             |             |             |             |             |
| 重量 (kg)              | 64                     | 64.5        | 95          | 97          | 159         | 163         | 164         | 217         | 272         |
| 箱身尺寸代號               | Case 6                 |             | Case 7      |             | Case 8      |             |             | Case 9      |             |

※ RM6F6 標準規格表中的重量，不包含交流電抗器(ACL)和直流電抗器(DCL)重量。

※ 適用安規標示“—”，表示為規劃中。

※ 額定輸出電流會依載波頻率(C4-00)設定線性遞減，比例如下表格所示：

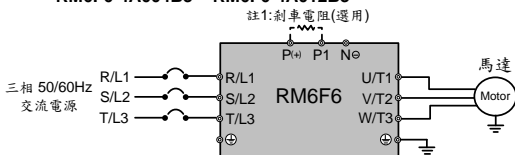
| 倍率 | C4-00=2 | C4-00=3 | C4-00=4 | C4-00=5 | C4-00=6 |
|----|---------|---------|---------|---------|---------|
|    | 1       | 0.96    | 0.85    | 0.72    | 0.63    |

## ■ 主迴路端子說明

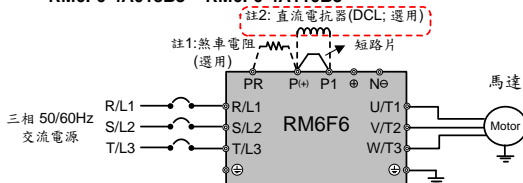
| 種類            | 符號                      | 名稱               | 說明   |
|---------------|-------------------------|------------------|--|
| 主電源           | R, S, T<br>(L1, L2, L3) | 交流電源(AC)<br>輸入端子 | 三相正弦波電源輸入端子。   |
|               | ⊕, N⊖                   | 直流電源(DC)<br>輸入端子 | 外部直流電源輸入端子。<br>※僅 2A031 ~ 2A150, 4A018 ~ 4A110 機種有此<br>端子。 |
| 馬達            | U, V, W<br>(T1, T2, T3) | 馬達連接端子           | 三相可變頻率和電壓輸出至馬達端子。  |
| 電源<br>和<br>煞車 | P(+), N⊖                | 動態煞車裝置連<br>接端子   | 可連接外部動態煞車裝置(選用)。   |
|               | P(+), PR                | 外部煞車電阻連<br>接端子   | 可連接外部煞車電阻(選用)。   |
|               | P(+), P1                | 外部電抗器<br>連接端子    | 可連接直流電抗器(DCL)改善功率因數；<br>出廠值：端子之間連接一短路片。                    |
| 接地            | PE(or G)<br>⊕           | 接地端子             | 變頻器接地需符合美國電工法規(NEC)標準或<br>是當地電工法規。                         |

## ■ 主迴路接線圖

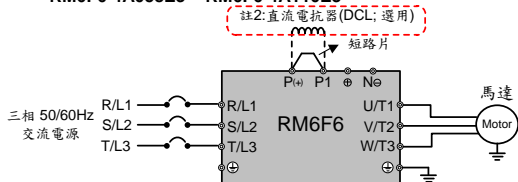
機種：RM6F6-2A005B3 ~ RM6F6-2A022B3 ;  
RM6F6-4A004B3 ~ RM6F6-4A012B3



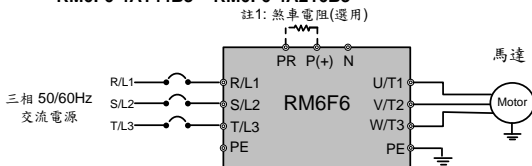
機種：RM6F6-2A031B3 ~ RM6F6-2A150B3 ;  
RM6F6-4A018B3 ~ RM6F6-4A110B3



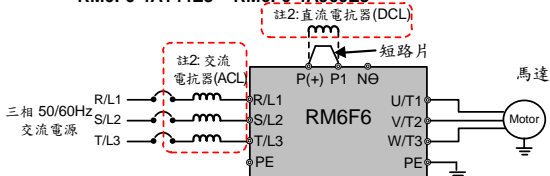
機種：RM6F6-2A075E3 ~ RM6F6-2A150E3 ;  
RM6F6-4A058E3 ~ RM6F6-4A110E3



機種：RM6F6-2A185B3 ~ RM6F6-2A275B3 ;  
RM6F6-4A144B3 ~ RM6F6-4A216B3



機種：RM6F6-2A185E3 ~ RM6F6-2A840E3 ;  
RM6F6-4A144E3 ~ RM6F6-4A960E3

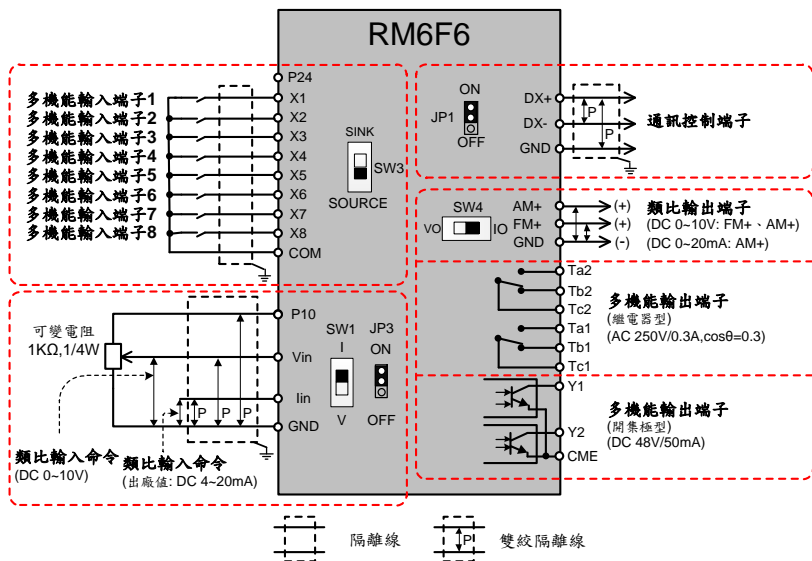


註1: PR端子為B type系列專有的端子，變頻器內建煞車晶體，煞車電阻為選配件。  
如：RM6F6-2A075B3 (內無煞車晶體)；RM6F6-2A075B3 (內含煞車晶體)。

註2: RM6F6-2A346或RM6F6-4A180以上變頻器：交流電抗器(ACL)為標準配備。  
RM6F6-2A700或RM6F6-4A304以上變頻器：直流電抗器(DCL)為標準配備。  
連接外部直流電抗器(DCL)時，請移除P1和P端子之間的短路片；  
未連接外部直流電抗器(DCL)時，請勿移除短路片。

## ■ 控制迴路端子接線與說明

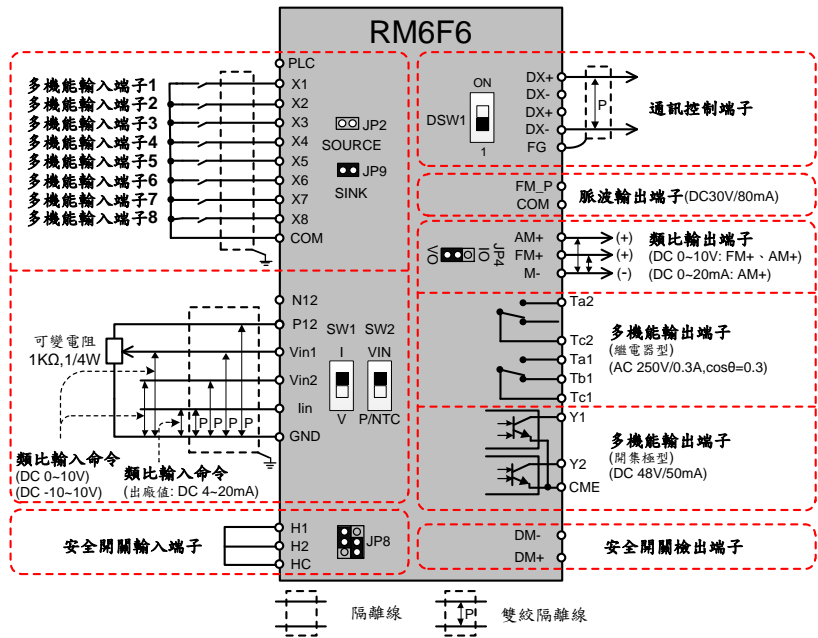
機種： RM6F6-2A005B3 ~ RM6F6-2A022B3;  
RM6F6-4A004B3 ~ RM6F6-4A012B3



- ※1.JP1: 通訊控制用之終端電阻選擇，內部阻抗為100Ω;  
ON:終端電阻投入。  
OFF:終端電阻切離。
- ※2.JP2: 操作器之終端電阻選擇;  
ON:終端電阻投入。  
OFF:終端電阻切離。
- ※3.JP3: lin 250Ω與500Ω選擇  
ON: 250Ω(出廠值)。  
OFF:500Ω。
- ※4.JP4: GND與COM短路  
ON: 短路。  
OFF:開路(出廠值)。
- ※5.SW1: lin端子輸入源選擇;  
I位置: lin-GND之間輸入為電流訊號(出廠值)。  
V位置: lin-GND之間輸入為電壓訊號。
- ※6.SW3: SINK / SOURCE選擇;  
多機能輸入端子X1~X8端子輸入模式選擇。
- ※7.SW4:"AM+"端子類比輸出訊號選擇;  
IO位置: AM+-M-之間輸出為電流訊號(出廠值)。  
VO位置: AM+-M-之間輸出為電壓訊號。

| 種類   | 記號                 | 名稱              | 說明   |   |
|------|--------------------|-----------------|--|---|
| 控制電源 | P24                | 電源端子;控制裝置用      | 輸出 DC+24V;最大可提供 100mA 輸出   |   |
|      | P10                | 電源端子;控制裝置用      | 輸出 DC+10V;最大可提供 20mA 輸出  |   |
|      | GND                | 類比輸入控制共用端子      | 控制電源(P10, P24)及類比輸入(Vin,lin)共用端子。AM+, FM+輸出信號的共用端子。  |   |
|      | 輸入端子               | X1              | 多機能輸入端子 1  | 功能由 H1-00 決定 (出廠值: 正轉命令)  |
|      |                    | X2              | 多機能輸入端子 2  | 功能由 H1-01 決定 (出廠值: 反轉命令)  |
|      |                    | X3              | 多機能輸入端子 3  | 功能由 H1-02 決定 (出廠值: 寸動命令)  |
|      |                    | X4              | 多機能輸入端子 4  | 功能由 H1-03 決定 (出廠值: 外部異常)  |
|      |                    | X5              | 多機能輸入端子 5  | 功能由 H1-04 決定 (出廠值: 重置命令)  |
|      |                    | X6              | 多機能輸入端子 6  | 功能由 H1-05 決定 (出廠值: 無作用)   |
|      |                    | X7              | 多機能輸入端子 7  | 功能由 H1-06 決定 (出廠值: 無作用)   |
|      |                    | X8              | 多機能輸入端子 8  | 功能由 H1-07 決定 (出廠值: 無作用)   |
|      |                    | COM             | 數位輸入控制共用端子   | 輸入控制(X1~X8)的共用端子。<br>控制電源(P24)的共用端子。  |
|      |                    | Vin             | 類比輸入端子   | 輸入範圍: DC 0~10V, 輸入阻抗 20kΩ<br>功能由 H3-01 決定。出廠值: 頻率命令   |
|      | lin                | 類比輸入端子          | 輸入信號選擇:<br>SW1: I 位置 (電流信號)輸入阻抗 250Ω<br>SW1: V 位置 (電壓信號)輸入阻抗 20kΩ<br>輸入範圍: DC 4~20mA (2~10V) 或<br>DC 0~20mA (0~10V)<br>功能由 H3-11 決定。出廠值: 無作用 |   |
|      | 控制迴路端子             | FM+             | 類比輸出端子   | 輸出電壓信號:DC0~10V<br>最大輸出電流: 2mA<br>功能由 H4-00 決定。出廠值: 輸出頻率   |
|      |                    | AM+             | 類比輸出端子   | 輸出電流(SW4:IO 位置):<br>輸出範圍:0~20mA 或 4~20mA<br>最大輸出阻抗 500Ω<br>輸出電壓(SW4:VO 位置):<br>輸出範圍 0~10VDC, 最大輸出電流 2mA<br>功能由 H4-03 決定。出廠值: 輸出電流 |
|      |                    | GND             | 類比輸出共用端子   | 類比輸出端子的共用端子。  |
| 輸出端子 |                    | Ta1             | 多機能輸出端子<br>(繼電器型)  | N.O (常閉接點; a 接點);<br>功能由 H2-04 決定。出廠值: 異常檢出<br>容量: AC250V, 0.5AMax, cosθ=0.3  |
|      |                    | Tb1             |  | N.C (常閉接點; b 接點);<br>容量: AC250V, 0.5AMax, cosθ=0.3  |
|      |                    | Tc1             |  | Ta1、Tb1 的共用端子。  |
|      |                    | Ta2             |  | N.O (常閉接點; a 接點);<br>功能由 H2-05 決定。出廠值: 運轉中檢出<br>容量: AC250V, 0.5AMax, cosθ=0.3   |
|      |                    | Tb2             |  | N.C (常閉接點; b 接點);<br>容量: AC250V, 0.5AMax, cosθ=0.3  |
|      |                    | Tc2             |  | Ta2、Tb2 的共用端子。  |
|      |                    | Y1              |  | 功能由 H2-00、H2-01 決定。   |
| Y2   | 容量: DC48V, 50mAMax |                 |  |   |
| CME  | Y1、Y2 的共用端子。       |                 |  |   |
| 通訊端子 | GND                | 零電位端子           | RS485 通信接地接線端子   |   |
|      | DX+                | RS485 Modbus 通訊 | RS485 通訊用端子  |   |
|      | DX-                |                 | 終端電阻切換開關為 JP1, 終端電阻為 100Ω  |   |

機種： RM6F6-2A031B3 ~ RM6F6-2A840E3 ；  
 RM6F6-4A018B3 ~ RM6F6-4A960E3



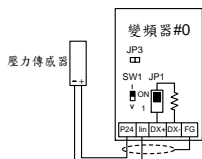
- ※1.JP2、JP9: SINK / SOURCE選擇；  
 多機能輸入端子X1~X8端子輸入模式選擇。
- ※2.SW1: lin端子輸入源選擇選擇；  
 I位置: lin-GND之間輸入為電流訊號(出廠值)。  
 V位置: lin-GND之間輸入為電壓訊號。
- ※3.SW2: Vin2端子輸入源選擇；  
 Vin位置:輸入為電壓命令(出廠值)  
 P/NTC位置:外接P/NTC熱敏電阻
- ※4.JP8: 安全開關輸入端子(H1、H2、HC)之SINK / SOURCE選擇；
- ※5.JP4: "AM+"端子類比輸出訊號選擇；  
 IO位置: AM+-M-之間輸出為電流訊號。  
 VO位置: AM+-M-之間輸出為電壓訊號(出廠值)。
- ※6.DSW1: 通訊控制用之終端電阻；內部阻抗為120Ω。  
 外部裝置控制多台變頻器時，第一台及最後一台變頻器請切至 "ON" 位置。

| 種類   | 記號                 | 名稱   | 說明  |  |
|------|--------------------|--|---|--|
| 控制電源 | PLC                | 電源端子;控制裝置用   | 輸出 DC+24v; 最大可提供 100mA 輸出   |  |
|      | P12                |  | 輸出 DC+12v; 最大可提供 20mA 輸出  |  |
|      | N12                |  | 輸出 DC-12v; 最大耐電流 20mA。  |  |
|      | P15                |  | 輸出 DC+15V;  |  |
|      | GND                |  | 類比輸入控制共用端子  | 控制電源(P12, N12)及類比輸入共用端子。   |
|      | 輸入端子               | X1   | 多機能輸入端子 1   | 功能由 H1-00 決定 (出廠值: 正轉命令)   |
|      |                    | X2   | 多機能輸入端子 2   | 功能由 H1-01 決定 (出廠值: 反轉命令)   |
|      |                    | X3   | 多機能輸入端子 3   | 功能由 H1-02 決定 (出廠值: 寸動命令)   |
|      |                    | X4   | 多機能輸入端子 4   | 功能由 H1-03 決定 (出廠值: 外部異常)   |
|      |                    | X5   | 多機能輸入端子 5   | 功能由 H1-04 決定 (出廠值: 重置命令)   |
|      |                    | X6   | 多機能輸入端子 6   | 功能由 H1-05 決定 (出廠值: 無作用)  |
|      |                    | X7   | 多機能輸入端子 7   | 功能由 H1-06 決定 (出廠值: 無作用)  |
|      |                    | X8   | 多機能輸入端子 8   | 功能由 H1-07 決定 (出廠值: 無作用)  |
|      |                    | COM  | 數位輸入控制共用端子  | X1 ~ X8 及控制電源(PLC)的共用端子。   |
|      |                    | Vin1   | 類比輸入端子  | 輸入範圍:DC 0~10V 或 DC -10~10V<br>輸入範圍由 H3-04 決定, 輸入阻抗 20kΩ<br>功能由 H3-01 決定。出廠值: 頻率命令<br>功能由 SW2 選擇為外接電壓訊號或熱敏電阻<br>SW2: Vin 位置(外接電壓訊號) |
| Vin2 |                    | 輸入範圍: DC 0~10V 或 DC -10~10V<br>輸入範圍由 H3-09 決定, 輸入阻抗 20kΩ<br>功能由 H3-06 決定。出廠值: 頻率命令<br>SW2: P/NTC 位置(外接熱敏電阻)<br>熱敏電阻選擇由 L6-10 決定        |   |  |
| lin  |                    | 由 SW1 及 H3-12 選擇輸入信號範圍:<br>SW1: I 位置 (電流信號)<br>輸入範圍: DC 0~20mA 或 4~20mA<br>SW1: V 位置 (電壓信號)<br>輸入範圍: DC 0~10V<br>功能由 H3-11 決定。出廠值: 無作用 |   |  |
| 輸出端子 |                    | FM_P   | 脈衝輸出信號端子  | NPN 開集極隔離<br>最大承受電壓: 30VDC; 最大承受電流: 80mA<br>最高輸出頻率為變頻器輸出頻率的 36 倍頻<br>功能 H6-05 決定。出廠值: 輸出頻率   |
|      |                    | FM+  | 類比輸出端子  | 輸出電壓信號:DC 0~10V<br>最大輸出電流: 2mA<br>功能由 H4-00 決定。出廠值: 輸出頻率   |
|      |                    | AM+  |   | 輸出電流(JP4:IO 位置):<br>輸出範圍:DC0 ~20 或 4~20mA, 最大輸出阻抗 500Ω<br>輸出電壓(JP4:VO 位置):<br>輸出範圍 0~10VDC, 最大輸出電流 2mA<br>功能由 H4-03 決定。出廠值: 輸出電流   |
|      | M-                 | 類比輸出共用端子   |   | 類比輸出端子的共用端子。   |
|      | Ta1                | 多機能輸出端子<br>(繼電器型)  | N.O (常開接點; a 接點);<br>功能由 H2-04 決定。出廠值: 異常檢出<br>容量: AC250V, 0.5AMax, cosθ=0.3  |  |
|      | Tb1                |  | N.C (常閉接點; b 接點);<br>容量: AC250V, 0.5AMax, cosθ=0.3                            |  |
|      | Tc1                |  | Ta1、Tb1 的共用端子。  |  |
|      | Ta2                |  | N.O (常開接點; a 接點);<br>功能由 H2-05 決定。出廠值: 運轉中檢出<br>容量: AC250V, 0.5AMax, cosθ=0.3 |  |
|      | Tc2                | Ta2 的共用端子。   |   |  |
|      | Y1                 | 多機能輸出端子<br>(開集極型)  | 功能由 H2-00、H2-01 決定。   |  |
| Y2   | 容量: DC48V, 50mAMax |  |   |  |
| CME  | Y1、Y2 的共用端子。       |  |   |  |
| 通訊端子 | DX+<br>DX-         | RS485 Modbus 通訊  | RS485 通訊用端子<br>終端電阻切換開關為 JP1, 終端電阻為 100Ω                                      |  |
| 安全開關 | 輸入                 | H1   | 安全開關輸入端子  | 由 JP8 選擇模式為 SINK 或 SOURCE<br>未使用安全開關時, H1-HC/H2-HC 需短路   |
|      |                    | H2   |   |  |
|      | HC                 | 安全開關輸入共用端子   |   | 出廠時, JP8 為 SINK 模式, H1-HC/H2-HC 皆短路  |
|      | 輸出                 | DM+  | 安全開關輸入輸出端子  | 安全開關狀態檢出端子   |
| DM-  |                    | 開集極輸出型, 容量:DC48V/50mA  |   |  |

## ■ 單台及多台泵浦接線及設定方式

機種: RM6F6-2A005B3 ~ RM6F6-2A022B3;  
RM6F6-4A004B3 ~ RM6F6-4A012B3

### 單台泵浦控制(G3-00=1)

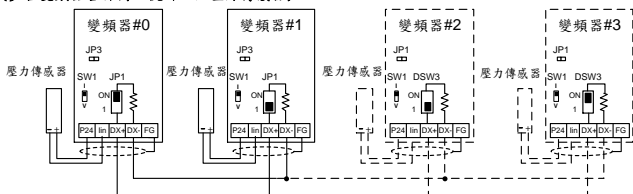


1. SW1: I 位置
2. JP3: 開路
3. JP1: ON 位置
4. G3-00=1

SW1: lin 輸入訊號選擇  
JP3: lin 輸入阻抗選擇  
JP1: 終端電阻選擇  
G3-00: 泵浦控制模式選擇  
G3-01: 並聯控制機台設定

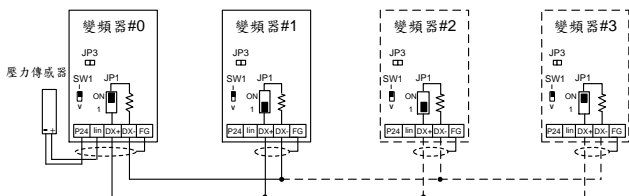
### 多台泵浦控制(G3-00=2,3)

#### 接線方式1(多台變頻器各自獨立使用一組壓力傳感器)



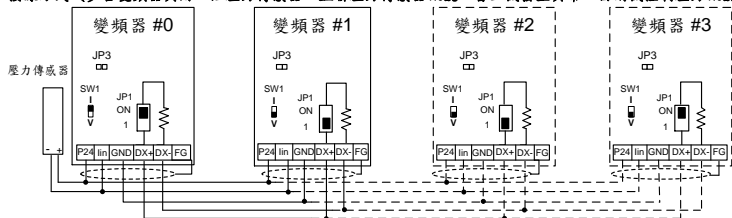
1. SW1: 變頻器 #0~#3 → I 位置
2. JP3: 變頻器 #0~#3 → 開路
3. JP1: 變頻器 #0和變頻器 #3 → ON 位置; 變頻器 #1和變頻器 #2 → 1 位置
4. 由G3-01設定每一台變頻器機號

#### 接線方式2(多台變頻器共用一組壓力傳感器, 副機變頻器壓力命令由內部通訊控制)



1. SW1: 變頻器 #0~#3 → I 位置
2. JP3: 變頻器 #0 → 開路; 變頻器 #1~#3 → 短路
3. JP1: 變頻器 #0和變頻器 #3 → ON 位置; 變頻器 #1和變頻器 #2 → 1 位置
4. 由G3-01設定每一台變頻器機號

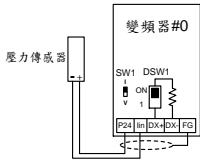
#### 接線方式3(多台變頻器共用一組壓力傳感器, 並聯壓力傳感器訊號, 當主機發生異常, 由副機控制壓力訊號)



1. SW1: 變頻器 #0 → I 位置; 變頻器 #1~#3 → V 位置
2. JP3: 變頻器 #0 → 開路; 變頻器 #1~#3 → 短路
3. JP1: 變頻器 #0和變頻器 #3 → ON 位置; 變頻器 #1和#2 → 1 位置
4. 由G3-01設定每一台變頻器機號

機種： RM6F6-2A031B3 ~ RM6F6-2A840E3 ;  
RM6F6-4A018B3 ~ RM6F6-4A960E3

**單台泵浦控制(G3-00=1)**

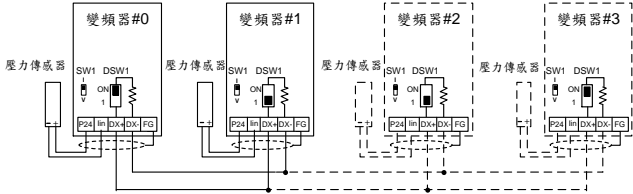


1. SW1: I 位置
2. DSW1: ON 位置
3. G3-00=1

SW1: lin 輸入訊號選擇  
DSW1: 終端電阻選擇  
G3-00: 泵浦控制模式選擇  
G3-01: 並聯控制機台設定

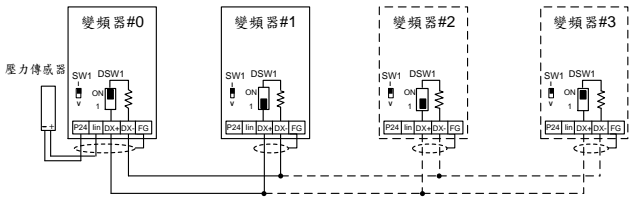
**多台泵浦控制(G3-00=2,3)**

**接線方式1(多台變頻器各自獨立使用一組壓力傳感器)**



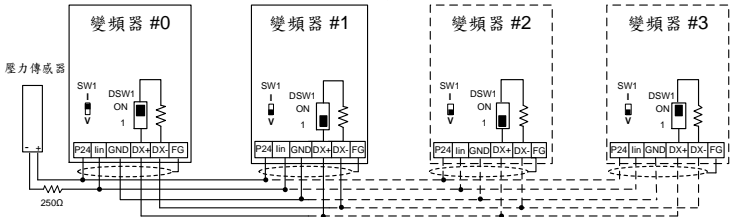
1. SW1: 變頻器 #0~#3 → I 位置
2. DSW1: 變頻器#0和變頻器 #3 → ON 位置; 變頻器 #1和變頻器 #2 → I 位置
3. 由G3-01設定每一台變頻器機號

**接線方式2(多台變頻器共用一組壓力傳感器, 副機變頻器壓力命令由內部通訊控制)**



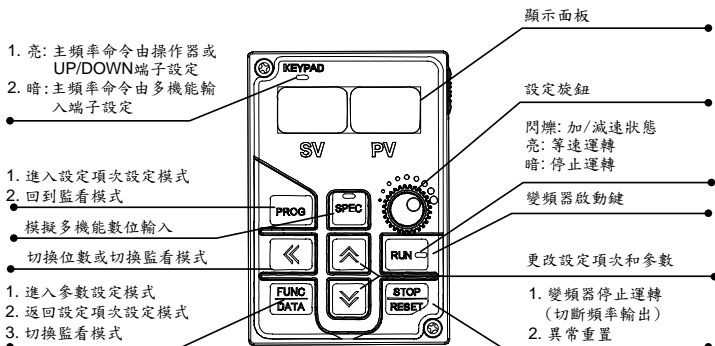
1. SW1: 變頻器 #0~#3→ I 位置
2. DSW1: 變頻器 #0和變頻器 #3 → ON 位置; 變頻器 #1和變頻器 #2 → I 位置
3. 由G3-01設定每一台變頻器機號

**接線方式3(多台變頻器共用一組壓力傳感器, 並聯壓力傳感器訊號, 當主機發生異常, 由副機控制壓力訊號)**

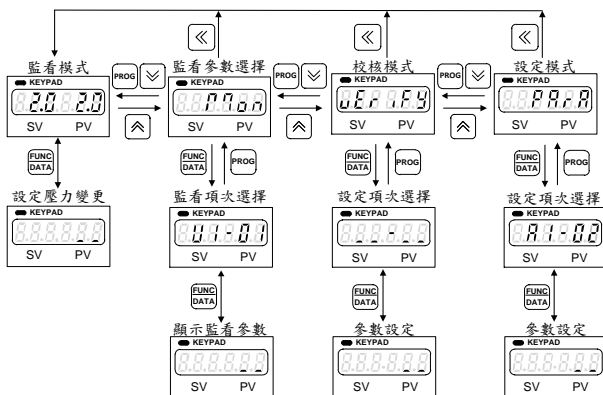


1. SW1: 變頻器 #0 → I 位置; 變頻器 #1~#3 → V 位置
2. 變頻器 #0 lin 連接到壓力傳感器需串接250Ω 電阻
3. DSW1: 變頻器#0和變頻器 #3 → ON 位置; 變頻器 #1和#2 → I 位置
4. 由G3-01設定每一台變頻器機號

## ■ 數位式操作器 KP-601A

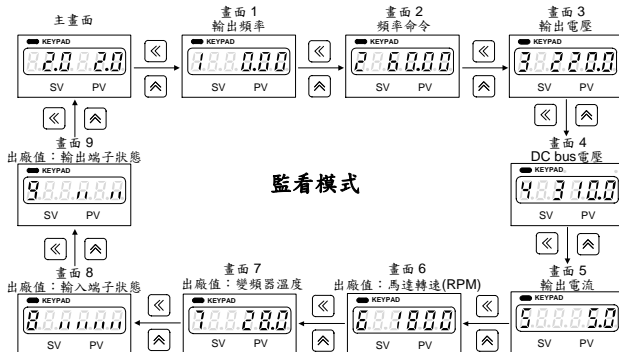


## ■ 操作流程說明




## ■ 監看畫面說明

監看模式下有九種監看畫面可供選擇，請參考下面圖示說明



## ■ 參數一覽表

| 群組 | 功能說明                | 群組 | 功能說明                |
|----|---------------------|----|---------------------|
| A1 | 初始設定 (4000H)        | F1 | 速度回授卡設定(4600H)      |
| A3 | 操作器選擇 (4040H)       | G2 | 泵浦控制(4820H)         |
| A4 | 功能選擇 (4065H)        | G3 | 多台泵浦控制(4850H)       |
| A5 | 維護選擇 (4080H)        | H1 | 多機能數位輸入 (4A00H)     |
| b1 | 運轉模式選擇 (4100H)      | H2 | 多機能數位輸出 (4A20H)     |
| b2 | 直流制動 (4120H)        | H3 | 多機能類比輸入 (4A40H)     |
| b3 | 速度追蹤 (4130H)        | H4 | 多機能類比輸出 (4A60H)     |
| b4 | 多機能元件 (4140H)       | H5 | Modbus 串列通訊 (4A80H) |
| b5 | PID 控制功能 (4160H)    | H6 | 脈波輸入輸出 (4AA0H)      |
| b6 | 緩行功能 (41A0H)        | L1 | 變頻器&馬達保護 (4C00H)    |
| C1 | 加/減速時間 (4200H)      | L2 | 瞬間停電再起動 (4C20H)     |
| C2 | S 曲線特性 (4220H)      | L3 | 失速防止 (4C40H)        |
| C3 | V/F 控制補償 (4240H)    | L4 | 速度跟轉偵測 (4C60H)      |
| C4 | 變頻器載波頻率 (4260H)     | L5 | 異常再起動 (4C80H)       |
| C5 | 自動速度調節(4280H)       | L6 | 擴充保護 (4CA0H)        |
| C7 | PM 控制設定(42A0H)      | L7 | 轉矩限制 (4CC0H)        |
| d1 | 多段速度 (4300H)        | P1 | 程序運轉 (5000H)        |
| d2 | 輸出頻率上下限 (4320H)     | P2 | 擺頻功能 (5080H)        |
| d3 | 跳躍頻率 (4340H)        | o1 | 電流迴路增益設定 (5900H)    |
| d4 | UP/DOWN 控制 (4360H)  | U1 | 運轉狀態監看 (6000H)      |
| d5 | 轉矩控制 (4380H)        | U2 | 異常追蹤 (6100H)        |
| d6 | 弱磁功能 (43A0H)        | U3 | 異常履歷 (6200H)        |
| d7 | 偏壓頻率 (43B0H)        | U4 | 維護監看 (6300H)        |
| E1 | 馬達 1 V/F 曲線 (4400H) | U5 | PID 監看 (6400H)      |
| E2 | 馬達 1 參數 (4420H)     | U6 | 運轉狀態監看二 (6500H)     |
| E3 | 馬達 2 V/F 曲線 (4440H) | U7 | 程式控制監看 (6600H)      |
| E4 | 馬達 2 參數 (4460H)     | U8 | 系統監看 (6700H)        |

設定項次底色為  的設定項次表示運轉中可設定。

| 項次    | 名稱           | 設定範圍   | 出廠             |
|-------|--------------|--|----------------|
| A1-02 | 控制方式選擇       | 0:V/F控制<br>1:V/F控制+速度迴授卡<br>2:向量控制<br>3:向量控制+速度迴授卡<br>4:PM控制+Resolver<br>5:PM控制+Encoder<br>6:PM控制(I/F+EMF)<br>7:PM控制(HFI+EMF)<br>9:保留<br>11:保留   | 0              |
| A1-03 | 自動調測功能選項     | 0:關閉<br>1:旋轉型調測<br>2:靜止型調測(需輸入無載電流)<br>4:PM旋轉型調測<br>5:Resolver角度校正<br>6:PM靜止型調測<br>8:保留  | 0              |
| A1-04 | 電源電壓設定       | 100.0~280.0V(220V系列)<br>240.0~500.0V(380V系列)   | 220.0<br>380.0 |
| A1-05 | 變頻器功能選擇      | none:無效<br>dF60:恢復成60Hz出廠值<br>dF50:恢復成50Hz出廠值<br>dFPM:永磁馬達出廠值<br>dFPUMP:泵浦出廠值<br>dFPid:PID功能出廠值<br>SEndPr:參數複製<br>SAv:儲存設定值<br>rES:恢復設定值<br>Wr_KP:參數→操作器<br>rd_KP:參數←操作器<br>Commt:通訊偵測模式 | -              |
| A1-07 | 參數密碼輸入/解碼    | 0000-9999  | -              |
| A1-08 | 參數密碼設定       | 0000-9999  | -              |
| A1-09 | 參數上鎖顯示選擇     | 0:僅顯示A1-07<br>1:顯示全部參數   | 0              |
| A1-11 | 簡易參數鎖        | 0:無效<br>1:有效, 僅能修改項次A3-00、A3-20~A3-22、B5-17  | 0              |
| A3-00 | 操作器數位頻率命令    | 0.00~E1-00 Hz  | 60.00          |
| A3-01 | 操作器頻率來源      | 0:A3-00(數位)<br>1:設定按鈕(類比)  | 0              |
| A3-02 | 操作器按鈕功能選擇    | 0~19(請參考H3-01)<br>A3-01=0時才有作用   | 0              |
| A3-03 | 操作器按鈕反應時間    | 0.000~50.000秒  | 0.000          |
| A3-04 | 功能選擇(SPEC鍵)  | -64~+64(請參考H1-00)  | 0              |
| A3-05 | 自保持功能(SPEC鍵) | 0:無效<br>1:有效   | 0              |
| A3-06 | 主畫面顯示        | 000~999  | 510            |
| A3-07 | 畫面6顯示        | 000~999  | 109            |
| A3-08 | 畫面7顯示        | 000~999  | 106            |
| A3-09 | 畫面8顯示        | 000~999  | 107            |
| A3-10 | 畫面9顯示        | 000~999  | 108            |
| A3-11 | 主畫面增益1       | 0.01~100.00  | 1.00           |
| A3-12 | 主畫面增益2       | 0.1~1000.0   | 1.0            |
| A3-13 | 主畫面小數點位數     | 0~3  | 3              |
| A3-14 | STOP鍵有效範圍    | 0:全範圍有效<br>1:啟動命令由操作器時有效   | 0              |
| A3-15 | 頻率命令選擇(操作器)  | 0:監看模式可變更頻率命令<br>1:監看模式不可變更頻率命令  | 0              |

| 項次    | 名稱             | 設定範圍   | 出廠    |
|-------|----------------|--|-------|
| A3-16 | 停止時主畫面和“-”文替顯示 | 0:關閉<br>1:開啟<br>2:邏輯命令源為多機能端子時   | 2     |
| A3-17 | 參數設定方法選擇       | 0:按下[]鍵後, 設定值生效<br>1:參數設定值改變後立即生效  | 0     |
| A3-18 | 操作器斷線動作選擇      | 0:變頻器繼續運轉<br>1:變頻器跳脫保護   | 0     |
| A3-19 | Func/Data鍵控制選擇 | 0:A3-00<br>1:A3-20<br>2:A3-21<br>3:A3-22<br>4:b5-17  | 5     |
| A3-20 | 線速度命令0         | 0~(E1-00)*(b1-15)*(b1-16)  | 60    |
| A3-21 | 線速度命令1         | 0~(E1-00)*(b1-15)*(b1-16)  | 60.0  |
| A3-22 | 線速度命令2         | 0~(E1-00)*(b1-15)*(b1-16)  | 60.00 |
| A3-23 | 雙螢幕顯示          | 000~999  | 509   |
| A3-24 | 副頻率切換主螢幕顯示     | 000~999  | 102   |
| A3-25 | 副頻率切換副螢幕顯示     | 000~999  | 000   |
| A3-26 | 操作器使用選擇        | 0:變頻器自行判斷<br>1:LCD操作器(KP-602)  | 0     |
| A4-00 | 控制功能選擇         | 0:無<br>1:保留<br>2:泵浦<br>4:保留  | 2     |
| A5-00 | 設定U2-00        | 0~9  | 0     |
| A5-01 | 維護管理功能         | 0:none:無<br>1:Clr.Err:清除錯誤履歷<br>2:Clr.kwh:清除瓦時表<br>3:Clr.All:清除所有維護項目  | -     |
| A5-02 | 累積送電時間設定       | 0~49999 小時   | 0     |
| A5-03 | 累積運轉時間設定       | 0~49999 小時   | 0     |
| A5-04 | 風扇運轉時間設定       | 0~49999 小時   | 0     |
| b1-00 | 主頻率選擇          | 0:操作器<br>1:數位輸入端子(X1~X8)<br>2:類比輸入端子(Vin1, Vin2, lin)<br>3:通訊<br>4:脈波控制(X8)<br>6:手輪(速度迴授卡)+多段倍率<br>7:操作器設定線速度0<br>8:操作器設定線速度1<br>9:操作器設定線速度2<br>10:PID輸出 | 0     |
| b1-01 | 副頻率選擇          | 0~9  | 0     |
| b1-02 | 主運轉命令          | 0:操作器(鍵)<br>1:多機能端子(X1~X8)   | 0     |
| b1-03 | 副運轉命令          | 2:通訊   | 0     |
| b1-04 | 主正反轉命令來源       | 0:操作器(鍵+A3-04=5)<br>1:多機能端子(X1~X8)   | 0     |
| b1-05 | 副正反轉命令來源       | 2:通訊   | 0     |
| b1-06 | 通訊控制來源         | 0:RS485/RS422 通訊埠<br>1:擴充卡   | 0     |
| b1-07 | 通訊模式端子有效數      | 0~8  | 8     |
| b1-09 | 不足最低頻率動作選擇     | 0:依頻率命令運轉<br>1:輸出切斷<br>2:依E1-04(啟動頻率)運轉<br>3:零速運轉  | 0     |
| b1-10 | 停止方法           | 0:減速停止+直流致動<br>1:自由運轉停止<br>2:自由運轉停止+直流致動   | 0     |
| b1-11 | 禁止反轉           | 0:反轉命令有效<br>1:反轉命令無效   | 0     |

| 項次    | 名稱                      | 設定範圍  | 出廠    |
|-------|-------------------------|---|-------|
| b1-12 | 輸出相序                    | 0:順時鐘(IEC標準)<br>1:逆時鐘(NEMA標準)   | 0     |
| b1-13 | Local/Remote<br>命令切換選擇  | 0:需先將運轉命令斷開<br>1:運轉命令投入則立即運轉  | 0     |
| b1-14 | 送電運轉選擇                  | 0:需先將運轉命令斷開<br>1:運轉命令投入則立即運轉  | 0     |
| b1-15 | 線速度倍率1                  | 線速度命令   | 1     |
| b1-16 | 線速度倍率2                  | 輸出頻率 = 線速度命令<br>b1-15×b1-16   | 1     |
| b2-00 | 直流制動頻率                  | 0.1~60.0Hz  | 0.5   |
| b2-01 | 直流制動單位                  | 0~120%變頻器之額定電流  | 50    |
| b2-02 | 直流制動<br>反應時間            | 0.001~60.000秒   | 1.000 |
| b2-03 | 啟動時<br>直流制動時間           | 0.0~60.0秒   | 0.0   |
| b2-04 | 降速停止<br>直流制動時間          | 0.0~60.0秒   | 0.5   |
| b2-05 | 自由運轉停止時<br>直流制動<br>延遲時間 | 0.0~60.0秒   | 0.5   |
| b2-06 | 自由運轉停止時<br>直流制動時間       | 0.0~600.0秒  | 5.0   |
| b2-07 | 零速命令時<br>直流制動單位         | 0~150%變頻器之額定電流  | 0     |
| b3-00 | 啟動時<br>速度追蹤選擇           | 0:無<br>1:設定頻率<br>2:最大輸出頻率   | 0     |
| b3-01 | 速度追蹤<br>電流單位            | 0~200%變頻器之額定電流  | 150   |
| b3-02 | 速度追蹤<br>V/F增益           | 0.10~1.00   | 1.00  |
| b3-03 | 速度追蹤<br>等待/追蹤<br>時間設定   | 0.0~100.0秒  | 0.5   |
| b3-04 | 速度追蹤<br>加速時間            | 0.1~6.0秒  | 0.4   |
| b3-05 | 速度追蹤<br>減速時間            | 0.1~10.0秒   | 2.0   |
| b3-06 | 速度追蹤<br>加速穩定時間          | 0~500毫秒   | 200   |
| b3-07 | 速度追蹤<br>啟動頻率增益          | 0.10~1.00   | 1.00  |
| b3-08 | 速度追蹤的<br>濾波常數           | 0.000~1.000   | 0.03  |
| b4-00 | 計數器模式                   | 0:上數模式 1:下數模式   | 0     |
| b4-01 | 計數器值1                   | 0~60000   | 0     |
| b4-02 | 計數器值2                   | 0~60000   | 0     |
| b4-03 | 計數器週期                   | 0~60000   | 0     |
| b4-04 | 計時器<br>ON-Delay時間       | 0.0~6000.0秒   | 0.0   |
| b4-05 | 計時器<br>OFF-Delay時間      | 0.0~6000.0秒   | 0.0   |
| b5-00 | PID<br>功能選擇             | 0:PID 功能關閉<br>1:頻率輸出=PID<br>2:頻率輸出=PID+頻率命令<br>3:外部元件用(電源開啟動作)<br>4:外部元件用(變頻器啟動動作)<br>5:外部元件用(H1-□□=38控制) | 0     |
| b5-01 | 比例增益1                   | 0.00~100.00   | 1.00  |
| b5-02 | 積分時間1                   | 0.000~36.000秒   | 1.000 |
| b5-03 | 微分時間1                   | 0.000~10.000秒   | 0.000 |
| b5-04 | 比例增益2                   | 0.00~100.00   | 1.00  |
| b5-05 | 積分時間2                   | 0.000~36.000秒   | 1.000 |
| b5-06 | 微分時間2                   | 0.000~10.000秒   | 0.000 |
| b5-07 | 積分上限                    | -1.00~1.00  | 1.00  |
| b5-08 | 積分下限                    | -1.00~1.00  | 0.00  |

| 項次    | 名稱                     | 設定範圍  | 出廠    |
|-------|------------------------|---|-------|
| b5-09 | 積分初始值                  | -320.00~320.00  | 0.00  |
| b5-10 | PID 輸入限制               | 0.00~1.00   | 1.00  |
| b5-11 | PID 延遲時間               | 0.00~10.00秒   | 0.00  |
| b5-12 | PID 偏壓調整               | 1.00~1.00   | 0.00  |
| b5-13 | PID 輸出增益               | -25.00~25.00  | 1.00  |
| b5-14 | PID 前置<br>比例控制器        | 0:一般模式<br>1:前置模式                                      | 0     |
| b5-15 | PID 前置<br>微分控制器        | 0:一般模式<br>1:前置模式                                      | 0     |
| b5-16 | PID 回投濾波               | 0.001~1.000   | 1.000 |
| b5-17 | PID 目標值                | -320.00~320.00  | 0.00  |
| b5-18 | 前饋控制器<br>增益            | -25.00~25.00  | 0.00  |
| b5-19 | 前饋控制器<br>限制            | -1.00~1.00  | 0.00  |
| b5-20 | PID 輸出限制               | 0.00~1.00   | 0.00  |
| b5-21 | PID<br>輸出 2 上限         | -1.00~1.00  | 1.00  |
| b5-22 | PID<br>輸出 2 下限         | -1.00~1.00  | 0.00  |
| b5-23 | PID 回投<br>故障檢出<br>動作選擇 | 0:無<br>1:警告,繼續運轉<br>2:減速停止<br>3:自由運轉停止                | 0     |
| b5-24 | PID 回投喪失<br>檢出值        | -1.00~1.00  | -1.00 |
| b5-25 | PID 回投喪失<br>檢出時間       | 0.0~60.0 秒  | 1.0   |
| b5-26 | PID 回投過高<br>檢出值        | -1.00~1.00  | 1.00  |
| b5-27 | PID 回投過高<br>檢出時間       | 0.0~60.0 秒  | 1.0   |
| b5-28 | PID 睡眠單位               | -320.00~320.00  | 0.00  |
| b5-29 | PID 睡眠<br>延遲時間         | 0.0~600.0秒  | 0.0   |
| b5-30 | PID 喚醒單位               | -320.00~320.00  | 0.00  |
| b5-31 | PID 喚醒<br>延遲時間         | 0.0~600.0秒  | 0.0   |
| b5-32 | PID 錯誤檢出<br>遲滯範圍       | 0.000~1.000   | 0.001 |
| b5-33 | PID<br>參數組別切<br>換緩行時間  | 0.000~60.000秒   | 0.000 |
| b5-34 | PID 緩啟動<br>加減速時間       | 0.0~6000.0秒   | 0.0   |
| b5-35 | PID<br>正/反向控制          | 0:正向控制<br>1:反向控制                                      | 0     |
| b5-36 | 傳感器<br>最大輸入值           | -320.00~320.00  | 1.00  |
| b5-37 | 傳感器<br>最小輸入值           | -320.00~320.00  | 0.00  |
| b5-38 | 2 段 PI<br>動作選擇         | 0:依b5-40決定動作時間<br>1:進入 2 段 PI 後,誤差小於<br>b5-39 之 5%即離開 | 0     |
| b5-39 | 2 段 PI<br>動作單位         | -320.00~320.00  | 1.00  |
| b5-40 | 2 段 PI<br>動作時間         | 0.0~300.0秒  | 0.0   |
| b6-00 | 起動時的<br>緩行頻率           | 0.00~600.00Hz   | 0.00  |
| b6-01 | 起動時的<br>緩行時間           | 0.0~360.0秒  | 0.0   |
| b6-02 | 停止時的<br>緩行頻率           | 0.00~600.00Hz   | 0.00  |
| b6-03 | 停止時的<br>緩行時間           | 0.0~360.0秒  | 0.0   |

| 項次    | 名稱                    | 設定範圍   | 出廠    |
|-------|-----------------------|--|-------|
| C1-00 | 加/減速時間<br>基準頻率        | 0.01-600.00Hz  | 60.00 |
| C1-01 | 加速時間0                 | 0.0-3200.0秒  | 1.0   |
| C1-02 | 減速時間0                 | 0.0-3200.0秒  | 1.0   |
| C1-03 | 加速時間1                 | 0.0-3200.0秒  | 5.0   |
| C1-04 | 減速時間1                 | 0.0-3200.0秒  | 5.0   |
| C1-05 | 加速時間2                 | 0.0-3200.0秒  | 5.0   |
| C1-06 | 減速時間2                 | 0.0-3200.0秒  | 5.0   |
| C1-07 | 加速時間3                 | 0.0-3200.0秒  | 5.0   |
| C1-08 | 減速時間3                 | 0.0-3200.0秒  | 5.0   |
| C1-09 | 副加速時間                 | 0.0-3200.0秒  | 5.0   |
| C1-10 | 副減速時間                 | 0.0-3200.0秒  | 5.0   |
| C1-11 | 獨立V/F調整V<br>的加速時間     | 0.0-3200.0秒  | 5.0   |
| C1-12 | 獨立V/F調整V<br>的減速時間     | 0.0-3200.0秒  | 5.0   |
| C1-13 | 快速停止時間                | 0.0-3200.0秒  | 5.0   |
| C1-14 | 加減速時間<br>設定單位         | 0.0:1-3200秒<br>1:0.01-320秒   | 0     |
| C1-15 | 加減速<br>切換頻率           | 0-600Hz  | 0     |
| C2-00 | 加速開始時<br>S曲線時間        | 0.00-10.00秒  | 0.00  |
| C2-01 | 加速結束時<br>S曲線時間        | 0.00-10.00秒  | 0.00  |
| C2-02 | 減速開始時<br>S曲線時間        | 0.00-10.00秒  | 0.00  |
| C2-03 | 減速結束時<br>S曲線時間        | 0.00-10.00秒  | 0.00  |
| C3-00 | 馬達滑差補償                | -60.0-60.0Hz   | 0.0   |
| C3-01 | 滑差補償<br>反應時間          | 0.000-10.000秒  | 0.800 |
| C3-02 | 自動電壓調節開<br>關<br>(AVR) | 0:無效<br>1:全速度區域有效<br>2:在等速與加速時間開啟(VF)/<br>在減速時間開啟(OLV)<br>3:全力減速(VF) | 1     |
| C3-03 | 自動電壓調節反<br>應時間        | 0.000-20.000秒  | 0.050 |
| C3-04 | 電流振盪補償<br>增益          | 0.0-500.0  | 0.0   |
| C3-05 | 電流振盪補償反<br>應時間        | 0.000-1.000秒   | 0.000 |
| C3-06 | 自動轉矩補償<br>增益          | 0.0-25.5   | 1.0   |
| C3-07 | 自動轉矩補償<br>反應時間        | 0.000-20.000秒  | 1.000 |
| C3-10 | 馬達2<br>滑差補償           | -60.0-60.0Hz   | 0.0   |
| C3-11 | 馬達2滑差補償<br>反應時間       | 0.000-10.000秒  | 0.800 |
| C3-12 | 馬達2自動電壓調節開<br>關(AVR)  | 0:無效<br>1:全速度區域有效<br>2:在等速與加速時間開啟(VF)/<br>在減速時間開啟(OLV)<br>3:全力減速(VF) | 1     |
| C3-13 | 馬達2自動電壓調節反<br>應時間     | 0.000-20.000 秒   | 1.000 |
| C3-14 | 馬達2電流振盪<br>補償增益       | 0.0-500.0  | 1.0   |
| C3-15 | 馬達2電流振盪<br>補償反應時間     | 0.000-1.000秒   | 0.010 |
| C3-16 | 馬達2自動轉矩<br>補償增益       | 0.0-25.5   | 1.0   |
| C3-17 | 馬達2自動轉矩<br>補償反應時間     | 0.000-20.000秒  | 1.000 |

| 項次    | 名稱                       | 設定範圍  | 出廠    |
|-------|--------------------------|---|-------|
| C3-20 | 電流振盪補償<br>頻率增益           | 0.0-300.0   | 10.0  |
| C3-21 | 電流振盪補償<br>頻率濾波           | 0.000-1.000   | 0.500 |
| C3-22 | 馬達2電流振盪<br>頻率補償增益        | 0.0-300.0   | 0.0   |
| C3-23 | 馬達2電流振盪<br>頻率補償濾波        | 0.000-1.000   | 0.100 |
| C4-00 | 載波頻率                     | 0-6   | 1     |
| C5-00 | 速度控制<br>比例增益1            | 0.00-300.00   | 8.00  |
| C5-01 | 速度控制<br>積分時間1            | 0.000-10.000秒   | 0.050 |
| C5-02 | 速度控制<br>比例增益2            | 0.00-300.00   | 8.00  |
| C5-03 | 速度控制<br>積分時間2            | 0.000-10.000秒   | 0.050 |
| C5-04 | 速度控制限制                   | 0.0-20.0%   | 5.0   |
| C5-05 | 加減速積分選擇                  | 0:無效<br>1:有效  | 0     |
| C5-06 | 速度控制反應<br>延遲時間           | 0.000-0.500秒  | 0.000 |
| C5-07 | 速度控制增益<br>切換頻率           | 0.0-400.0Hz   | 120.0 |
| C5-08 | 速度控制<br>積分限制             | 0-400%  | 400   |
| C5-09 | PM高頻注入速度<br>估測器比例增益      | 0.00-10.00  | 0.25  |
| C5-10 | PM高頻注入速度<br>估測器積分增益      | 0.0-200.00  | 25.00 |
| C5-11 | EMF速度估測器<br>比例增益高速區      | 0.00-100.00   | 1.00  |
| C5-12 | EMF速度估測器<br>比例增益低速區      | 0.00-100.00   | 1.00  |
| C5-13 | EMF補償之<br>比例增益           | 0.00-100.00   | 1.00  |
| C5-14 | EMF補償之<br>積分增益           | 0.00-100.00   | 1.00  |
| C7-00 | IF模式電流準位                 | -1.00-1.00  | 0.20  |
| C7-01 | PM控制方法<br>切換頻率           | 0.0-200.0Hz   | 0.5   |
| C7-02 | 高頻注入法<br>訊號濾波            | 0.001-1.000   | 1.000 |
| C7-03 | 高頻注入法<br>控制方式            | 0:直流制動定位<br>1:高頻注入定位<br>2:IPM磁極偵測<br>3:PM磁極偵測<br>4:脈波定位 | 0     |
| C7-04 | 高頻注入初始磁<br>極位置偵測最長<br>時間 | 0.01-5.00秒  | 0.50  |
| C7-05 | 高頻注入<br>角度偏移             | -1.00-1.00  | 0.10  |
| C7-06 | 高頻注入頻率                   | 0-2000Hz  | 800   |
| C7-07 | 高頻注入電壓                   | 0.00-0.50   | 0.20  |
| C7-08 | 高頻注入完成<br>判斷準位           | 0-250   | 0     |
| C7-09 | 編碼器角度偏移                  | -1.000-1.000  | 0.000 |
| C7-10 | D軸電流偏移值                  | -1.00-1.00  | 0.00  |
| C7-11 | 電壓利用率                    | 100-150   | 120   |
| C7-12 | 脈衝定位脈寬                   | 1-1000  | 150   |
| d1-00 | 多段速度0                    | 0.00-600.00   | 60.00 |
| d1-01 | 多段速度1                    | 0.00-600.00   | 10.00 |
| d1-02 | 多段速度2                    | 0.00-600.00   | 20.00 |
| d1-03 | 多段速度3                    | 0.00-600.00   | 30.00 |
| d1-04 | 多段速度4                    | 0.00-600.00   | 0.00  |
| d1-05 | 多段速度5                    | 0.00-600.00   | 0.00  |
| d1-06 | 多段速度6                    | 0.00-600.00   | 0.00  |

| 項次    | 名稱                | 設定範圍   | 出廠             |
|-------|-------------------|--|----------------|
| d1-07 | 多段速度 7            | 0.00~600.00                                  | 0.00           |
| d1-08 | 多段速度 8            | 0.00~600.00                                  | 0.00           |
| d1-09 | 多段速度 9            | 0.00~600.00                                  | 0.00           |
| d1-10 | 多段速度 10           | 0.00~600.00                                  | 0.00           |
| d1-11 | 多段速度 11           | 0.00~600.00                                  | 0.00           |
| d1-12 | 多段速度 12           | 0.00~600.00                                  | 0.00           |
| d1-13 | 多段速度 13           | 0.00~600.00                                  | 0.00           |
| d1-14 | 多段速度 14           | 0.00~600.00                                  | 0.00           |
| d1-15 | 多段速度 15           | 0.00~600.00                                  | 0.00           |
| d1-16 | 寸動速度              | 0.00~600.00                                  | 6.00           |
| d2-00 | 輸出頻率<br>限制選擇      | 0:由d2-01及d2-02設定<br>1:由d2-03及d2-04設定         | 0              |
| d2-01 | 輸出頻率上限<br>(%)     | 0.00~1.00                                    | 1.00           |
| d2-02 | 輸出頻率下限<br>(%)     | 0.00~1.00                                    | 0.00           |
| d2-03 | 輸出頻率上限<br>(Hz)    | 0.00~600.00Hz                                | 60.00          |
| d2-04 | 輸出頻率下限<br>(Hz)    | 0.00~600.00Hz                                | 0.00           |
| d3-00 | 跳躍頻率一             | 0.0~600.0Hz                                  | 0.0            |
| d3-01 | 跳躍頻率二             | 0.0~600.0Hz                                  | 0.0            |
| d3-02 | 跳躍頻率三             | 0.0~600.0Hz                                  | 0.0            |
| d3-03 | 跳躍頻率區間            | 0.0~20.0Hz                                   | 1.0            |
| d4-00 | UP/DOWN<br>記憶選擇   | 0:無效<br>1:有效                                 | 0              |
| d4-01 | UP/DOWN<br>頻率調整   | 0.01~25.00Hz                                 | 0.01           |
| d4-02 | 連續加減速<br>反應時間     | 0:邊緣觸發<br>1~5:反應時間設定(秒)                      | 0              |
| d4-03 | UP/DOWN<br>頻率命令   | 0.00~600.00Hz                                | 0.00           |
| d4-04 | 連續加減速頻<br>率變化率    | 0.01~25.00Hz                                 | 4.00           |
| d5-01 | 轉矩控制選擇            | 0:速度控制<br>1:轉矩控制                             | 0              |
| d5-02 | 轉矩命令<br>延遲時間      | 0~1000毫秒                                     | 0              |
| d5-03 | 速度限制選擇            | 0:由頻率命令限制<br>1:由d5-04設定值限制                   | 0              |
| d5-04 | 速度限制              | +120~120%                                    | 0              |
| d5-05 | 速度限制偏壓            | 0~120%                                       | 10             |
| d5-06 | 速度/轉矩控制<br>切換保持時間 | 0~1000毫秒                                     | 0              |
| d5-08 | 單向速度限制<br>偏壓選擇    | 0:無效(雙方向)<br>1:有效(單方向)                       | 1              |
| d5-10 | T/F 曲線最大<br>扭力增益  | 0.000~2.000                                  | 1.000          |
| d5-11 | T/F 曲線<br>最大頻率    | 0.0~600.0Hz                                  | 60.0           |
| d5-12 | T/F 曲線<br>最小扭力增益  | 0.000~2.000                                  | 1.000          |
| d5-13 | T/F 曲線<br>最小頻率    | 0.0~600.0Hz                                  | 0.0            |
| d6-00 | 磁場弱化等級            | 0~100%                                       | 80%            |
| d6-01 | 磁場弱化<br>頻率下限      | 0.0~400.0Hz                                  | 0.0            |
| d7-00 | 偏壓頻率 0            | +1.00~1.00                                   | 0.00           |
| d7-01 | 偏壓頻率 1            | +1.00~1.00                                   | 0.00           |
| d7-02 | 偏壓頻率 2            | +1.00~1.00                                   | 0.00           |
| E1-00 | 最大輸出頻率            | 0.1~600.0Hz                                  | 60.0           |
| E1-01 | 最大輸出電壓            | 0.0~300.0V (220V 系列)<br>0.0~550.0V (380V 系列) | 220.0<br>380.0 |
| E1-02 | 基底頻率              | 0.1~600.0Hz                                  | 60.0           |
| E1-03 | 基底電壓              | 0.1~300.0V (220V 系列)<br>0.1~550.0V (380V 系列) | 220.0<br>380.0 |
| E1-04 | 啟動頻率              | 0.0~10.0Hz                                   | 0.5            |
| E1-05 | 啟動電壓              | 0.1~50.0V (220V 系列)<br>0.1~100.0V (380V 系列)  | 8.0<br>12.0    |

| 項次    | 名稱                 | 設定範圍   | 出廠             |
|-------|--------------------|--|----------------|
| E1-06 | 第一轉折點頻率            | 0.0~600.0Hz  | 0.0            |
| E1-07 | 第一轉折點電壓            | 0.0~300.0V (220V 系列)<br>0.0~550.0V (380V 系列)         | 0              |
| E1-08 | 第二轉折點頻率            | 0.0~600.0Hz  | 0.0            |
| E1-09 | 第二轉折點電壓            | 0.0~300.0V (220V 系列)<br>0.0~550.0V (380V 系列)         | 0              |
| E1-10 | 輸出電壓<br>限制選擇       | 0:VF 曲線之輸出電壓無限制<br>1:VF 曲線之輸出電壓有限制                   | 0              |
| E1-11 | VF 曲線              | 0:線性<br>1:省能源裝置<br>2:2次方曲線<br>3:1.7次方曲線<br>4:1.5次方曲線 | 0              |
| E1-12 | 非線性曲線<br>起始頻率      | 0.0~600.0Hz  | 0.0            |
| E1-13 | 非線性曲線<br>起始電壓      | 0.0~255.0V (220V 系列)<br>0.0~550.0V (380V 系列)         | 0.0            |
| E1-14 | 加速時升壓比             | 0~100  | 0              |
| E1-15 | 升壓後降壓時間            | 0.1~60.0毫秒   | 10.0           |
| E2-01 | 馬達額定電流             | 10~150%變頻器額定電流                                       | —              |
| E2-02 | 馬達額定滑差             | 0.01~20.00Hz   | —              |
| E2-03 | 馬達無載電流             | 0~E2-01  | —              |
| E2-04 | 馬達極數               | 2~24   | 4              |
| E2-05 | 馬達線間電阻             | 0.001~65.000Ω  | —              |
| E2-06 | 馬達漏電感              | 0.01~40.0%   | —              |
| E2-11 | PM馬達Ld             | 0.001~65.000mH                                       | 3.000          |
| E2-12 | PM馬達Lq             | 0.001~65.000mH                                       | 3.000          |
| E2-13 | PM 馬達<br>反電動勢常數    | 0.01~650.00  | 6.00           |
| E3-00 | 馬達 2<br>最大輸出頻率     | 0.1~600.0Hz  | 60.0           |
| E3-01 | 馬達 2<br>最大輸出電壓     | 0.0~300.0V (220V 系列)<br>0.0~550.0V (380V 系列)         | 220.0<br>380.0 |
| E3-02 | 馬達 2 基底頻率          | 0.1~600.0Hz  | 60.0           |
| E3-03 | 馬達 2<br>基底電壓       | 0.1~300.0V (220V 系列)<br>0.1~550.0V (380V 系列)         | 220.0<br>380.0 |
| E3-04 | 馬達 2 啟動頻率          | 0.0~10.0Hz   | 0.5            |
| E3-05 | 馬達 2<br>啟動電壓       | 0.1~50.0V (220V 系列)<br>0.1~100.0V (380V 系列)          | 8.0<br>12.0    |
| E3-06 | 馬達 2<br>第一轉折點頻率    | 0.0~600.0Hz  | 0.0            |
| E3-07 | 馬達 2<br>第一轉折點電壓    | 0.0~300.0V (220V 系列)<br>0.0~550.0V (380V 系列)         | 0              |
| E3-08 | 馬達 2<br>第二轉折點頻率    | 0.0~600.0Hz  | 0.0            |
| E3-09 | 馬達 2<br>第二轉折點電壓    | 0.0~300.0V (220V 系列)<br>0.0~550.0V (380V 系列)         | 0              |
| E3-10 | 馬達 2 輸出電壓<br>限制選擇  | 0:VF 曲線之輸出電壓無限制<br>1:VF 曲線之輸出電壓有限制                   | 0              |
| E3-11 | 馬達 2<br>VF 曲線      | 0:線性<br>1:省能源裝置<br>2:2次方曲線<br>3:1.7次方曲線<br>4:1.5次方曲線 | 0              |
| E3-12 | 馬達 2 非線性曲<br>線起始頻率 | 0.0~600.0Hz  | 0.0            |
| E3-13 | 馬達 2 非線性曲<br>線起始電壓 | 0.0~255.0V (220V 系列)<br>0.1~510.0V (380V 系列)         | 0.0            |
| E4-01 | 馬達 2 額定電流          | 10~150%變頻器額定電流                                       | —              |
| E4-02 | 馬達 2 額定滑差          | 0.01~20.00Hz   | —              |
| E4-03 | 馬達 2 無載電流          | 0~馬達額定電流   | —              |
| E4-04 | 馬達 2 極數            | 1~24   | 4              |
| E4-05 | 馬達 2 線間電阻          | 0.001~65.000Ω  | —              |
| E4-06 | 馬達 2 漏電感           | 0.01~40.0%   | —              |
| F1-00 | 回授卡脈波數             | 0~10000  | 1024           |
| F1-01 | 回授卡旋轉方向            | 0:馬達正轉時 A 相超前<br>1:馬達正轉時 B 相超前                       | 0              |
| F1-02 | 回授卡斷線時<br>的動作選擇    | 0:無<br>1:警告<br>2:減速停止<br>3:自由運轉停止                    | 3              |

| 項次    | 名稱               | 設定範圍  | 出廠    | 項次    | 名稱              | 設定範圍   | 出廠   |
|-------|------------------|---|-------|-------|-----------------|--|------|
| F1-03 | 回授卡斷線偵測時間        | 0.0~10.0 秒  | 2.0   | G2-26 | (缺水偵測) 停機時間     | 0~200分鐘  | 6    |
| F1-04 | 過速發生時的動作選擇       | 0:無<br>1:警告<br>2:減速停止<br>3:自由運轉停止   | 3     | G2-27 | (缺水偵測) 重啟次數     | 0~255次   | 10   |
| F1-05 | 過速檢出準位           | 0~120%  | 120   | G2-28 | 異音防止            | 0:無效<br>1:有效   | 0    |
| F1-06 | 過速檢出時間           | 0.0~2.0 秒   | 2.0   | G2-29 | 不斷水控制           | 0:無效<br>1:有效   | 0    |
| F1-07 | 速度偏差過大之動作選擇      | 0:無<br>1:警告<br>2:減速停止<br>3:自由運轉停止   | 3     | G2-30 | 過壓力檢出選擇         | 0:無效<br>1:警告檢出;變頻器持續運轉<br>2:警告檢出;變頻器停止輸出<br>3:異常檢出;變頻器異常跳脫 | 0    |
| F1-08 | 速度偏差過大之檢出準位      | 0~50%   | 20    | G2-31 | 過壓力準位           | 0~100%   | 100  |
| F1-09 | 速度偏差過大之檢出時間      | 0.0~10.0 秒  | 2.0   | G2-32 | 過壓力偵測時間         | 0.0~25.5秒  | 2.0  |
| F1-10 | 速度回授卡訊號選擇        | 0:AB 相檢出<br>1:A 相檢出   | 0     | G2-33 | 過壓力檢出模式         | 0:運轉中有效<br>1:全時有效  | 1    |
| F1-11 | 回授卡監看除頻          | 輸出比例: $\frac{1+F1-12}{F1-11}$   | 1     | G2-34 | 壓力回授訊號斷線偵測      | 0:無效<br>1:有效   | 1    |
| F1-12 | 回授卡監看倍頻          |   | 0     | G2-35 | 壓力回授訊號斷線偵測準位    | 0.00~1.00  | 0.10 |
| F1-13 | 手輪高速濾波           | 0.000~5.000   | 1.000 | G2-36 | 啟動命令記憶          | 0:無效<br>1:有效   | 1    |
| F1-14 | 手輪放大倍率           | 0.00~100.00   | 1.00  | G2-37 | 泵浦延時啟動設定        | 0~9999秒  | 0    |
| F1-15 | 手輪起始角位置          | 0.00~300.00   | 1.00  | G2-38 | 開關模式強制設定        | 0:無作用<br>1:動態測試開關模式<br>2:靜態測試開關模式                          | 0    |
| F1-16 | 手輪低速濾波           | 0.000~60.000  | 0.000 | G2-39 | 靜態缺水測試          | 0:無效<br>1:有效   | 0    |
| F1-17 | Hall sensor 監看 1 | 0000~9999   | 0     | G3-00 | (並聯控制) 控制模式選擇   | 0:單台泵浦應用<br>1:多台泵浦齊速應用:E-mode<br>2:多台泵浦全速應用:F-mode         | 0    |
| F1-18 | Hall sensor 監看 2 | 0000~9999   | 0     | G3-01 | (並聯控制) 機號設定     | 0~8  | 0    |
| G2-00 | SV壓力目標值設定        | 0.0~G2-01   | 2.0   | G3-02 | (並聯控制) 交互運轉選擇   | 0:無作用<br>1:交互時間到達後即交換<br>2:變頻器待機後即交換<br>3:以上皆會交換           | 3    |
| G2-01 | 壓力感測器設定          | 0.0~6000.0  | 10.0  | G3-03 | (並聯控制) 交互運轉時間   | 0:小時<br>1:分鐘<br>2:秒  | 0    |
| G2-02 | 最大操作壓力           | 0~100 %   | 100   | G3-04 | (並聯控制) 交互運轉時間單位 | 0~240  | 24   |
| G2-03 | (用水偵測) 壓力提升準位    | 0.01~160.00   | 0.15  | G3-05 | (並聯控制) 交互運轉延遲時間 | 0~250秒   | 10   |
| G2-04 | (用水偵測) 壓力提升時間    | 0.1~25.0 秒  | 0.6   | G3-06 | (並聯控制) 啟動偵測時間   | 0.0~25.0秒  | 6.0  |
| G2-05 | (用水偵測) 壓力提升間隔    | 0~250 秒   | 35    | G3-07 | (並聯控制) 啟動偵測準位   | 0.0~25.0   | 0.4  |
| G2-06 | PID啟動範圍          | 0.0~160.0   | 0.3   | G3-08 | (並聯控制) 泵浦脫離頻率   | 0.0~60.0Hz   | 50.0 |
| G2-07 | (用水偵測) 變頻器待機準位   | 0~120 hz  | 10    | G3-09 | (並聯控制) 脫離偵測時間   | 0.0~25.0秒  | 10.0 |
| G2-08 | (開關模式) 啟動偵測      | 0~100% (0:關閉)   | 0     | G3-10 | 待機數設定           | 0~7台   | 0    |
| G2-09 | (開關模式) 壓力死區範圍    | 0.1~25.0  | 0.3   | G3-11 | 最少運轉台數          | 1~8 台  | 1    |
| G2-10 | PID補償增益          | 0.1~8.0   | 1.0   | G3-12 | 系統總Pump數        | 1~8 台  | 4    |
| G2-11 | 增益(P)選擇          | 0:後置 P<br>1:前置 P  | 1     | G3-13 | 主副機轉換等待時間       | 5~65535  | 150  |
| G2-12 | 增益比(P)           | 0.0~25.0  | 3.0   | G3-14 | 輪循環時間設定         | 1~65535  | 1    |
| G2-13 | 積分時間(I)          | 0.0~25.0 秒  | 1.2   | G3-15 | 強制轉換成主機設定       | 0:無效<br>1:強制副機<br>2:強制主機                                   | 0    |
| G2-14 | 微分時間(D)          | 0.00~2.50 秒   | 0.00  |       |                 |  |      |
| G2-15 | 回授微分值            | 0.00~2.50 秒   | 0.00  |       |                 |  |      |
| G2-16 | 微分時間(D)選擇        | 0:後置 D<br>1:前置 D  | 0     |       |                 |  |      |
| G2-17 | 積分上限             | -1.00~1.00  | 1.00  |       |                 |  |      |
| G2-18 | 積分下限             | -1.00~1.00  | 0.00  |       |                 |  |      |
| G2-19 | 積分初始值            | 0~100%  | 65    |       |                 |  |      |
| G2-20 | PID緩衝            | 0.001~1.000   | 1.000 |       |                 |  |      |
| G2-21 | 回授訊號濾波設定         | 0.000~50.000秒   | 0.000 |       |                 |  |      |
| G2-22 | (缺水偵測) 再啟動選擇     | 0:無效<br>1:跳脫;按" <input type="button" value="歸零"/> 鍵重置<br>2:跳脫;重新送電重置<br>3:跳脫;依照G2-26設定自動再啟動 | 3     |       |                 |  |      |
| G2-23 | (缺水偵測) 壓力準位      | 0~100%  | 40    |       |                 |  |      |
| G2-24 | (缺水偵測) 電流準位      | 0~100%  | 0     |       |                 |  |      |
| G2-25 | (缺水偵測) 偵測時間      | 0~250秒  | 60    |       |                 |  |      |



| 項次    | 名稱             | 設定範圍  | 出廠             | 項次                              | 名稱           | 設定範圍        | 出廠  |  |               |  |           |
|-------|----------------|---|----------------|---------------------------------|--------------|-------------|---|--|---------------|--|-----------|
| H3-01 | 功能選擇 (Vin)     | 0:無<br>1:主頻率命令(增益前)<br>2:主頻率增益<br>3:主頻率偏移(增益後)<br>4:輔助頻率命令1<br>5:輔助頻率命令2<br>6:電流限制<br>7:PID目標值<br>8:PID回投值<br>9:PID差動回投值<br>10:V/F曲線之V獨立調整<br>11:類比輸入保護1<br>12:類比輸入保護2<br>13:頻率限制<br>14:正轉轉矩限制<br>15:反轉轉矩限制<br>16:回升轉矩限制<br>17:轉矩命令/轉矩限制<br>18:轉矩補償<br>19:一般轉矩限制<br>20:保留<br>21:缺水保護傳感器輸入 | 1              | H3-23                           | 虛擬類比輸入2之值    | 1.000~1.000 | 0.000   |  |               |  |           |
|       |                | H3-02   | 增益比 (Vin1)     | -10.000~10.000                  | 1.000        | H3-24       | 類比輸入<br>切換選擇<br>(搭配<br>H1-□□=±61)<br>設定-61為反向 | 端子 OFF   | 端子 ON         | 0  |           |
|       |                | H3-03   | 偏壓比 (Vin1)     | -10.000~10.000                  | 0.00         |             |   | 0  | Vin1+Vin2+lin |  | 無效        |
|       |                | H3-04   | 訊號準位選擇 (Vin1)  | 0:0~10 Vdc<br>1:-10~10 Vdc      | 0            |             |   | 1  | Vin1+Vin2+lin |  | Vin1      |
|       |                | H3-05   | 反應時間 (Vin1)    | 0.000~50.000 秒                  | 0.000        |             |   | 2  | Vin1+Vin2+lin |  | Vin2      |
|       |                | H3-06   | 功能選擇 (Vin2)    | 0~19(同 H3-01)                   | 0            |             |   | 3  | Vin1+Vin2+lin |  | Vin1+Vin2 |
|       |                | H3-07   | 增益比 (Vin2)     | -10.000~10.000                  | 1.000        |             |   | 4  | Vin1+Vin2+lin |  | lin       |
|       |                | H3-08   | 偏壓比 (Vin2)     | -10.000~10.000                  | 0.000        |             |   | 5  | Vin1+Vin2+lin |  | Vin1+lin  |
|       |                | H3-09   | 訊號準位選擇 (Vin2)  | 0:0~10 Vdc<br>1:-10~10 Vdc      | 0            |             |   | 6  | Vin1+Vin2+lin |  | Vin2+lin  |
|       |                | H3-10   | 反應時間 (Vin2)    | 0.000~50.000 秒                  | 0.000        |             |   | 7  | Vin1+Vin2     |  | lin       |
|       |                | H3-11   | 功能選擇 (lin)     | 0~19(同 H3-01)                   | 8            |             |   | 8  | Vin1          |  | Vin2      |
|       |                | H3-12   | 增益比 (lin)      | -10.000~10.000                  | 1.000        |             |   | 9  | Vin1          |  | lin       |
|       |                | H3-13   | 偏壓比 (lin)      | -10.000~10.000                  | 0.000        |             |   | 10   | Vin2          |  | Vin1+lin  |
|       |                | H3-14   | 訊號準位選擇 (lin)   | 0:4~20mA<br>1:0~20mA<br>2:0~10V | 0            | 11          | Vin1  | Vin2+lin   |               |  |           |
|       |                | H3-15   | 響應時間 (lin)     | 0.000~50.000 秒                  | 0.000        | 12          | Vin2+lin                                      | Vin1+lin   |               |  |           |
|       |                | H3-16   | 平行偏移量 (Vin1)   | -1.000~1.000                    | 0.000        | H4-00       | 監看選擇(FM+)                                     | 0:無<br>1:輸出頻率(補償前)<br>2:輸出頻率(補償後)<br>3:頻率命令<br>4:輸出電壓<br>5:輸出電流<br>6:DC bus電壓<br>7:Vin1端子輸入準位<br>8:Vin2端子輸入準位<br>9:lin 端子輸入準位<br>10:操作器旋鈕輸入準位<br>11:脈波輸入準位<br>12:PID 命令<br>13:PID 回投<br>14:PID 差動回投<br>15:PID 最終回投<br>16:PID 輸入<br>17:PID 輸出<br>18:PID 輸出 2<br>19:變頻器溫度<br>20:外部(馬達)溫度<br>21:回投頻率(PG)<br>22:轉矩命令 | 1.000~2.000   | 1.000                                    |           |
|       |                | H3-17   | 平行偏移量 (Vin2)   | -1.000~1.000                    | 0.000        |             |   | H4-01  | 增益比(FM+)      | 0~2.000                                  | 1.000     |
|       |                | H3-18   | 平行偏移量 (lin)    | -1.000~1.000                    | 0.000        |             |   | H4-02  | 偏壓比(FM+)      | -1.000~1.000                             | 0.000     |
|       |                | H3-19   | 類比輸入不感帶設定      | 0.00~10.00Hz                    | 0.00         |             |   | H4-03  | 監看選擇(AM+)     | 0~22(同 H4-00)                            | 5         |
|       |                | H3-20   | 功能選擇 (虛擬類比輸入1) | 0~19(同 H3-01)                   | 0            |             |   | H4-04  | 增益比(AM+)      | 0~2.000                                  | 1.000     |
|       |                | H3-21   | 虛擬類比輸入1之值      | -1.000~1.000                    | 0.000        |             |   | H4-05  | 偏壓比(AM+)      | -1.000~1.000                             | 0.000     |
| H3-22 | 功能選擇 (虛擬類比輸入2) | 0~19(同 H3-01)   | 0              | H4-07                           | 訊號準位選擇 (AM+) |             |   | 0:0~10V<br>1:0~20mA<br>2:4~20mA  | 1             |  |           |
|       |                |   |                | H5-00                           | 從站位址         |             |   | 0~254  | 1             |  |           |
|       |                |   |                | H5-01                           | 通訊<br>傳輸速率   |             |   | 1200 bps<br>2400 bps<br>4800 bps<br>9600 bps<br>14400 bps<br>19200 bps<br>38400 bps<br>57600 bps<br>76800 bps<br>115200 bps  | 76800         |  |           |
|       |                |   |                |                                 |              |             |   | H5-02  | 通訊格式          | 8, N, 1<br>8, N, 2<br>8, E, 1<br>8, O, 1 | 8N1       |
|       |                |   |                |                                 |              | H5-03       | 通訊回傳<br>等待時間                                  | 5~65 毫秒  | 2             |  |           |
|       |                |   |                |                                 |              | H5-04       | 通訊<br>逾時處置                                    | 0:減速停止<br>1:自由運轉停止<br>2:警告(Cot)  | 0             |  |           |

| 項次    | 名稱               | 設定範圍  | 出廠         |
|-------|------------------|---|------------|
| H5-05 | 通訊逾時設定 (Cot)     | 0.0~100.0秒                                      | 0          |
| H5-06 | 通訊協定選擇           | 0:Modbus RTU                                    | 0          |
| H5-07 | 通訊修改參數選擇         | 0:儲存於EEPROM<br>1:不儲存於EEPROM                     | 0          |
| H6-00 | 脈波輸入功能選擇 (X8端子)  | 0:無<br>1:頻率命令<br>2:PID回授值<br>3:PID目標值<br>4:速度回授 | 0          |
| H6-01 | 脈波輸入比例           | 100~32000Hz                                     | 1440       |
| H6-02 | 脈波輸入增益比          | 0.0~10.000                                      | 1.000      |
| H6-03 | 脈波輸入偏壓比          | 1.000~1.000                                     | 0.000      |
| H6-04 | 脈波輸入響應時間         | 0.000~50.000秒                                   | 0.010      |
| H6-05 | 脈波輸出監看選擇         | 0~22(同H4-00)                                    | 1          |
| H6-06 | 脈波輸出監看比例         | 100~32000Hz                                     | 1440       |
| H6-07 | 脈波輸入最小頻率         | 0.0~1000.0Hz                                    | 0.0        |
| L1-00 | 變頻器輸出電流限制常數(OL2) | 0~255   | 100        |
| L1-01 | 馬達接地漏電保護常數(GF)   | 0~255   | 1          |
| L1-02 | 馬達過載保護選擇(OL)     | 0:無效<br>1:非變頻馬達<br>2:變頻馬達(風扇具獨立電源)              | 1          |
| L1-03 | 馬達過載跳脫時間         | 0~10.0分   | 5.0        |
| L1-04 | 反電動勢保護準位         | 0~100%  | 0          |
| L1-06 | 過熱警示選擇(OHT)      | 0:無<br>1:保持運轉<br>2:載波頻率下降<br>3:停止運轉             | 2          |
| L1-07 | 過熱警示準位(OHT)      | 45~105°C  | 70         |
| L1-08 | 過熱警示延遲區間         | 0.1~10.0°C                                      | 3.0        |
| L1-09 | 風扇控制選擇           | 0:強制風冷<br>1:運轉風冷<br>2:溫控風冷                      | 1          |
| L1-10 | 風扇動作溫度準位         | 25~65°C   | 50         |
| L1-11 | 風扇停止延遲時間         | 0.1~25.0分                                       | 0.5        |
| L1-12 | 系統過負載檢出設定        | 0:無效<br>1:有效                                    | 0          |
| L1-13 | 系統過負載檢出模式        | 0:頻率等速檢出<br>1:運轉中檢出                             | 0          |
| L1-14 | 系統過負載後輸出設定       | 0:過負載檢出後"保持運轉"<br>1:過負載檢出後"跳脫保護"                | 0          |
| L1-15 | 系統過負載檢出準位        | 30~200%   | 160        |
| L1-16 | 系統過負載檢出時間        | 0.1~300.0秒                                      | 0.1        |
| L1-17 | 動態制車設定           | 0:無效<br>1:有效<br>2:有效, DBOH警告<br>3:有效, DBOH跳脫    | 1          |
| L1-18 | 動態制車動作準位         | 350~410V(220V系列)<br>700~820V(380V系列)            | 380<br>760 |
| L1-19 | 制車晶體脈波設定         | 10~90%  | 50         |

| 項次    | 名稱          | 設定範圍  | 出廠             |
|-------|-------------|---|----------------|
| L1-20 | 輸入欠相輸出      | 0:關閉<br>1:開啟  | 1              |
| L1-21 | 輸出欠相輸出      | 0:關閉<br>1:開啟  | 1              |
| L1-22 | 變頻器電流限制準位   | 0.01~2.00   | 2.00           |
| L1-23 | 熱敏偵測        | 0:有效<br>1:無效,送電時啟動風扇<br>2:無效,變頻器運轉時啟動風扇   | 0              |
| L1-24 | 制車電阻警告溫度    | 10~255°C  | 120            |
| L1-25 | 制車電阻阻值      | 0.01~500.00Ω  | 400.00         |
| L1-26 | 制車電阻額定功率    | 0.1~1000.0KW  | 0.1            |
| L1-27 | 制車電阻額定功率溫度  | 1~1000°C  | 170            |
| L2-00 | 瞬停後電再運轉選擇   | 0:變頻器不可再啟動<br>1:變頻器可再啟動<br>2:變頻器減速停止<br>3:減速停止期間復電後,變頻器重新啟動<br>4:KEB減速停止(啟動訊號on有效)<br>5:KEB減速停止及變頻器重新啟動<br>6:KEB減速停止<br>7:變頻器可再啟動(從0Hz) | 0              |
| L2-02 | 斷電降速之減算頻率   | 0.0~20.0Hz  | 0.5            |
| L2-03 | 斷電降速之減速時間1  | 0.0~3200.0秒   | 25.0           |
| L2-04 | 斷電降速之減速時間2  | 0.0~3200.0秒   | 25.0           |
| L2-05 | 斷電降速之切換頻率   | 0.0~400.0Hz   | 0.0            |
| L2-06 | KEB目標直流電壓   | 150~250V(220V系列)<br>300~500V(380V系列)  | 250.0<br>450.0 |
| L2-07 | KEB比例增益     | 0.000~5.000   | 0.12           |
| L2-08 | KEB積分增益     | 0.00~50.00  | 1.00           |
| L2-09 | KEB限制       | 0.0~120.0Hz   | 60.0           |
| L2-10 | LE偵測時間      | 0~250毫秒   | 50             |
| L3-00 | 加速中失速防止準位   | 30~200%   | 140            |
| L3-01 | 等速中失速防止準位   | 30~200%   | 130            |
| L3-02 | 等速中失速防止加速時間 | 0.1~3200.0秒   | 15.0           |
| L3-03 | 等速中失速防止減速時間 | 0.1~3200.0秒   | 15.0           |
| L3-04 | 減速中失速防止選擇   | 0:無效<br>1:有效  | 1              |
| L3-05 | 失速防止檢出時間    | 0~5000毫秒  | 100            |
| L3-06 | 過電壓抑制功能選擇   | 0:無效<br>1:有效<br>2:只有等速時啟動   | 0              |
| L3-07 | 過電壓抑制動作準位   | 310~400V(220V系列)<br>540~800V(380V系列)  | 360<br>620     |
| L3-08 | 過電壓抑制頻率限制   | 0.0~30.0Hz  | 12.0           |
| L3-09 | 過電壓抑制比例增益   | 0.000~5.000   | 0.200          |
| L3-10 | 過電壓抑制積分增益   | 0.00~50.00  | 10.00          |

| 項次    | 名稱                           | 設定範圍   | 出廠    |
|-------|------------------------------|--|-------|
| L4-00 | 等速檢出範圍                       | 0.0~20.0Hz   | 2.0   |
| L4-01 | 頻率偵測單位                       | 0.0~400.0Hz  | 0.0   |
| L4-02 | 頻率偵測範圍                       | 0.0~20.0Hz   | 2.0   |
| L4-03 | 頻率偵測單位<br>(含方向)              | -400.0~400.0Hz   | 0.0   |
| L4-04 | 頻率偵測範圍<br>(含方向)              | 0.0~20.0Hz   | 2.0   |
| L4-05 | 頻率偵測<br>檢出條件                 | 0:遮斷輸出(bb)時不進行檢出<br>1:遮斷輸出(bb)時進行檢出  | 1     |
| L4-06 | 頻率命令喪失<br>動作選擇               | 0:無<br>1:停止<br>2:依L4-07設定繼續運轉  | 0     |
| L4-07 | 頻率命令喪失<br>時頻率命令              | 0.000~1.000  | 0.800 |
| L4-10 | 轉矩檢出<br>選擇1                  | 0:無效<br>1:等速時檢出:警告(OL3)<br>2:運轉時檢出:警告(OL3)<br>3:等速時檢出:跳脫保護(OL3)<br>4:運轉時檢出:跳脫保護(OL3)<br>5:等速時檢出:警告(UL3)<br>6:運轉時檢出:警告(UL3)<br>7:等速時檢出:跳脫保護(UL3)<br>8:運轉時檢出:跳脫保護(UL3) | 0     |
| L4-11 | 轉矩檢出單位1                      | 0.00~3.00  | 1.50  |
| L4-12 | 轉矩檢出時間1                      | 00.~300.0秒   | 0.1   |
| L4-13 | 轉矩檢出選擇2                      | 0:無效<br>1:等速時檢出:警告(OL4)<br>2:運轉時檢出:警告(OL4)<br>3:等速時檢出:跳脫保護(OL4)<br>4:運轉時檢出:跳脫保護(OL4)<br>5:等速時檢出:警告(UL4)<br>6:運轉時檢出:警告(UL4)<br>7:等速時檢出:跳脫保護(UL4)<br>8:運轉時檢出:跳脫保護(UL4) | 0     |
| L4-14 | 轉矩檢出單位2                      | 0.00~3.00  | 1.50  |
| L4-15 | 轉矩檢出時間2                      | 00.~300.0秒   | 0.1   |
| L5-00 | 異常重試<br>動作選擇                 | 0:異常解除後即重置<br>1:經過L5-02設定值後重置<br>PS:只針對OC,OE,GF  | 1     |
| L5-01 | 異常重試次數                       | 0~16   | 10    |
| L5-02 | 異常重試<br>間隔時間                 | 0.5~600.0秒   | 60.0  |
| L5-03 | 異常重試時<br>異常檢出選擇              | 0:不輸出<br>1:輸出  | 0     |
| L5-04 | 異常訊息<br>自動重置選擇               | 0:無效<br>1:有效<br>PS:只針對LE1,HF1,HF2  | 0     |
| L6-00 | 類比輸入偵測1<br>跳脫單位<br>(A1 Err)  | 0.000~1.000  | 0.000 |
| L6-01 | 類比輸入偵測1<br>警訊單位<br>(A1 Warn) | 0.000~1.000  | 0.000 |
| L6-02 | 類比輸入偵測1<br>警訊延遲區間            | 0.000~1.000  | 0.000 |
| L6-03 | 類比輸入偵測1<br>警訊模式              | 0:無,只有數位輸出<br>1:警告<br>2:減速停止<br>3:自由運轉停止   | 0     |
| L6-04 | 類比輸入偵測2<br>跳脫單位<br>(A2 Err)  | 0.000~1.000  | 0.000 |
| L6-05 | 類比輸入偵測2<br>警訊單位<br>(A2 Warn) | 0.000~1.000  | 0.000 |
| L6-06 | 類比輸入偵測2<br>警訊延遲區間            | 0.000~1.000  | 0.000 |

| 項次    | 名稱                 | 設定範圍   | 出廠   |
|-------|--------------------|--|------|
| L6-07 | 類比輸入偵測2<br>警訊模式    | 0:無,只有數位輸出<br>1:警告<br>2:減速停止<br>3:自由運轉停止                               | 0    |
| L6-08 | 外部異常1<br>動作選擇(EF1) | 0:無<br>1:警告<br>2:減速停止<br>3:自由運轉停止<br>4:自由運轉停止+直流制動                     | 1    |
| L6-09 | 外部異常1<br>偵測選擇(EF1) | 0:持續偵測<br>1:運轉中偵測  | 1    |
| L6-10 | 外部設備<br>溫度電阻選擇     | 0:PTC(Ω)<br>1:NTC(Ω)<br>2:PT100(°C)<br>3:RTD392(°C)<br>4:KTY84/130(°C) | 0    |
| L6-11 | 外部設備溫度<br>跳脫電阻單位   | 0~100.0 KΩ   | 0.00 |
| L6-12 | 外部設備溫度<br>警告電阻單位   | 0~100.0 KΩ   | 0.00 |
| L6-13 | 外部設備過熱<br>警告處理     | 0:繼續運轉<br>1:減速停止   | 0    |
| L6-14 | 外部設備溫度<br>跳脫溫度單位   | 40~160°C   | 120  |
| L6-15 | 外部設備溫度<br>跳脫警告單位   | 40~160°C   | 90   |
| L7-00 | 正轉轉矩限制             | 0.00~3.00  | 2.00 |
| L7-01 | 反轉轉矩限制             | 0.00~3.00  | 2.00 |
| L7-02 | 正轉回升<br>轉矩限制       | 0.00~3.00  | 2.00 |
| L7-03 | 反轉回升<br>轉矩限制       | 0.00~3.00  | 2.00 |
| P1-00 | 程序運轉模式             | 0:運轉階段改變<br>1:停止後運轉階段改變  | 0    |
| P1-01 | 程序運轉順序             | 0:單方向<br>1:雙方向   | 0    |
| P1-02 | 程序運轉<br>循環次數       | 1~9998:表示循環次數<br>9999:無限次  | 1    |
| P1-03 | 傾斜時間單位             | 0:秒  | 0    |
| P1-04 | 保持時間單位             | 1:分鐘<br>2:小時   | 0    |
| P1-05 | 第0段速傾斜時間           | 0.0~360.0  | 0.0  |
| P1-06 | 第0段速保持時間           | 0.0~360.0  | 0.0  |
| P1-07 | 第1段速傾斜時間           | 0.0~360.0  | 0.0  |
| P1-08 | 第1段速保持時間           | 0.0~360.0  | 0.0  |
| P1-09 | 第2段速傾斜時間           | 0.0~360.0  | 0.0  |
| P1-10 | 第2段速保持時間           | 0.0~360.0  | 0.0  |
| P1-11 | 第3段速傾斜時間           | 0.0~360.0  | 0.0  |
| P1-12 | 第3段速保持時間           | 0.0~360.0  | 0.0  |
| P1-13 | 第4段速傾斜時間           | 0.0~360.0  | 0.0  |
| P1-14 | 第4段速保持時間           | 0.0~360.0  | 0.0  |
| P1-15 | 第5段速傾斜時間           | 0.0~360.0  | 0.0  |
| P1-16 | 第5段速保持時間           | 0.0~360.0  | 0.0  |
| P1-17 | 第6段速傾斜時間           | 0.0~360.0  | 0.0  |
| P1-18 | 第6段速保持時間           | 0.0~360.0  | 0.0  |
| P1-19 | 第7段速傾斜時間           | 0.0~360.0  | 0.0  |
| P1-20 | 第7段速保持時間           | 0.0~360.0  | 0.0  |
| P1-21 | 第8段速傾斜時間           | 0.0~360.0  | 0.0  |
| P1-22 | 第8段速保持時間           | 0.0~360.0  | 0.0  |
| P1-23 | 第9段速傾斜時間           | 0.0~360.0  | 0.0  |
| P1-24 | 第9段速保持時間           | 0.0~360.0  | 0.0  |
| P1-25 | 第10段速傾斜時間          | 0.0~360.0  | 0.0  |
| P1-26 | 第10段速保持時間          | 0.0~360.0  | 0.0  |
| P1-27 | 第11段速傾斜時間          | 0.0~360.0  | 0.0  |
| P1-28 | 第11段速保持時間          | 0.0~360.0  | 0.0  |

| 項次    | 名稱                  | 設定範圍                                 | 出廠    |
|-------|---------------------|--------------------------------------|-------|
| P1-29 | 第12段速傾斜時間           | 0.0-360.0                            | 0.0   |
| P1-30 | 第12段速保持時間           | 0.0-360.0                            | 0.0   |
| P1-31 | 第13段速傾斜時間           | 0.0-360.0                            | 0.0   |
| P1-32 | 第13段速保持時間           | 0.0-360.0                            | 0.0   |
| P1-33 | 第14段速傾斜時間           | 0.0-360.0                            | 0.0   |
| P1-34 | 第14段速保持時間           | 0.0-360.0                            | 0.0   |
| P1-35 | 第15段速傾斜時間           | 0.0-360.0                            | 0.0   |
| P1-36 | 第15段速保持時間           | 0.0-360.0                            | 0.0   |
| P1-37 | 程序運轉控制方向            | 0-FFFF                               | 0000  |
| P1-38 | 程序運轉暫停<br>恢復時模式     | 0:恢復時從暫停點開始<br>1:恢復時從段落起始點開始         | 0     |
| P1-39 | 程序運轉暫停<br>開始時模式     | 0:暫停時含STOP命令<br>1:暫停時不含STOP命令        | 0     |
| P2-00 | 擺頻功能選擇              | 0:無效<br>1:等速運轉時輸出擺頻波形<br>2:運轉時輸出擺頻波形 | 0     |
| P2-01 | 擺頻功能增益              | 0.00-0.20                            | 0.00  |
| P2-02 | 擺頻波形突變量             | 0.00-0.50%                           | 0.000 |
| P2-03 | 擺頻波形突變時間            | 0.000-0.500秒                         | 0.000 |
| P2-04 | 擺頻下降時間              | 0.0-120.0秒                           | 0.0   |
| P2-05 | 擺頻上升時間              | 0.0-120.0秒                           | 0.0   |
| o1-00 | D軸電流增益              | 0.01-10.00                           | 1.00  |
| o1-01 | Q軸電流增益              | 0.01-10.00                           | 1.00  |
| o1-02 | 磁通增益                | 0.001-5.000                          | 1.000 |
| o1-04 | D軸電流比例增益            | 0.000-60.000                         | 0.700 |
| o1-05 | D軸電流積分增益            | 0.0000-60.000                        | 150.0 |
| o1-06 | Q軸電流比例增益            | 0.000-60.000                         | 0.700 |
| o1-07 | Q軸電流積分增益            | 0.0-6000.0                           | 150.0 |
| o1-08 | 磁通比例增益              | 0.000-60.000                         | 2.000 |
| o1-09 | 磁通積分增益              | 0.00-600.00                          | 10.00 |
| o1-10 | DQ電流解耦合             | 0:關閉<br>1:開啟                         | 1     |
| o1-11 | Deadtime 補償         | 0-400                                | 100   |
| o1-12 | Deadtime補償<br>平滑角度  | 0.0-30.0°                            | 0.0   |
| o1-13 | Deadtime補償<br>電流轉折點 | 0.00-1.00                            | 0.00  |
| o1-14 | 馬達電流角度偏移            | -30.0-30.0°                          | 1.5   |
| o1-15 | 電壓電流夾角低通<br>濾波常數-分子 | 1-5000                               | 64    |
| o1-16 | 電壓電流夾角低通<br>濾波常數-分母 | 1-5000                               | 8     |
| o1-17 | 反積分終結               | 0:關閉 1:開啟                            | 0     |
| o1-18 | 弱磁濾波常數              | 0.0-6000.0                           | 100.0 |
| o1-19 | DPWM啟用              | 0:關閉<br>1:開啟                         | 1     |

## 監看參數一覽表

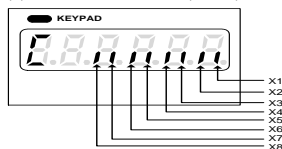
| 項次    | 名稱              | 說明                  | 項次    | 名稱            | 說明  |
|-------|-----------------|---------------------|-------|---------------|---|
| U1-00 | 控制模式            | 0:V/F控制             | U2-06 | 異常發生時DC bus電壓 | 顯示異常發生時的DC bus電壓(V)   |
|       |                 | 1:V/F控制+速度迴授卡       | U2-07 | 異常發生時變頻器溫度    | 顯示異常發生時的變頻器溫度(°C)   |
|       |                 | 2:向量控制              | U2-08 | 異常發生時累積時間     | 顯示異常發生時的累積時間(小時)  |
|       |                 | 3:向量控制+速度迴授卡        | U2-09 | 異常發生時運轉狀態     | 顯示異常發生時的運轉狀態  |
|       |                 | 4:PM控制+Resolver     | U2-10 | 異常發生時輸入端子狀態   | 顯示異常發生時的輸入端子狀態  |
|       |                 | 5:PM控制+Encoder      | U2-11 | 異常發生時輸出端子狀態   | 顯示異常發生時的輸出端子狀態  |
|       |                 | 6:PM控制(I/F+EMF)     | U2-12 | 異常發生時PG回授     | 顯示異常發生時的PG回授(Hz)  |
|       |                 | 7:PM控制(HFI+EMF)     | U2-13 | 異常發生時轉矩命令     | 顯示異常發生時的轉矩命令(%)   |
|       |                 | 9:保留                | U2-14 | 異常發生時馬達U相電流   | 顯示異常發生時馬達的U相電流(A)   |
|       |                 | 11:保留               | U2-15 | 異常發生時馬達V相電流   | 顯示異常發生時馬達的V相電流(A)   |
|       |                 | U1-01               | 頻率命令  | 顯示頻率命令值(Hz)   | U2-16   |
| U1-02 | 輸出頻率            | 顯示輸出頻率(Hz)          | U3-00 | 異常履歷0         | 顯示最近一筆異常履歷  |
| U1-03 | 輸出電壓            | 顯示內部輸出電壓(V)         | U3-01 | 異常履歷1         | 顯示倒數第二筆異常履歷   |
| U1-04 | 輸出電流            | 顯示內部輸出電流(A)         | U3-02 | 異常履歷2         | 顯示倒數第三筆異常履歷   |
| U1-05 | DC bus電壓        | 顯示內部直流電壓(V)         | U3-03 | 異常履歷3         | 顯示倒數第四筆異常履歷   |
| U1-06 | 變頻器溫度           | 顯示散熱片溫度(°C)         | U3-04 | 異常履歷4         | 顯示倒數第五筆異常履歷   |
| U1-07 | 輸入端子狀態          | 顯示畫面請參考*備註1         | U3-05 | 異常履歷5         | 顯示倒數第六筆異常履歷   |
| U1-08 | 輸出端子狀態          | 顯示畫面請參考*備註2         | U3-06 | 異常履歷6         | 顯示倒數第七筆異常履歷   |
| U1-09 | 馬達轉速            | 顯示馬達轉速(從輸出頻率推算)     | U3-07 | 異常履歷7         | 顯示倒數第八筆異常履歷   |
| U1-10 | 功率因數            | 顯示目前功率因數            | U3-08 | 異常履歷8         | 顯示倒數第九筆異常履歷   |
| U1-11 | 功因角             | 顯示目前功因角(電壓電流夾角)     | U3-09 | 異常履歷9         | 顯示倒數第十筆異常履歷   |
| U1-12 | 補償後之頻率輸出        | 顯示補償後的輸出頻率(Hz)      | U4-00 | 累積送電時間        | 顯示變頻器累積送電時間(小時)   |
| U1-13 | 變頻器狀態           | 顯示畫面請參考*備註3         | U4-01 | 累積運轉時間        | 顯示變頻器累積運轉時間(小時)   |
| U1-14 | 輸出功率            | 顯示輸出功率              | U4-02 | 風扇運轉時間        | 顯示變頻器的冷卻風扇運轉時間(小時)  |
| U1-15 | 輸出轉矩%           | 以百分比顯示向量控制的轉矩命令     | U4-03 | 風扇維護          | 以百分比顯示冷卻風扇累積運轉時間  |
| U1-16 | 頻率命令%           | 以百分比顯示頻率命令          | U4-07 | 馬達過載          | 對電流進行時間積分,達到100%後,跳脫馬達過載(OL)。(%)  |
| U1-17 | 輸出頻率%           | 以百分比顯示輸出頻率          | U4-08 | kWh(累積瓦時)低位元  | 顯示變頻器輸出瓦時,分高低位元顯示(例)12345678.9kWh:  |
| U1-18 | 輸出功率%           | 以百分比顯示輸出功率          | U4-09 | kWh(累積瓦時)高位元  | U4-08:678.9kWh<br>U4-09:12345MWh  |
| U1-19 | 錯誤碼(即時)         | 顯示當前故障內容            | U4-10 | Modbus設定頻率命令  | 顯示Modbus設定的頻率命令(Hz)   |
| U1-20 | 警告碼(即時)         | 顯示當前警告內容            | U4-11 | 擴充卡設定頻率命令     | 顯示擴充卡設定的頻率命令(Hz)  |
| U1-21 | 轉矩命令%           | 以百分比顯示轉矩命令          | U4-12 | 頻率命令來源        | 顯示格式:XY-<br>n<br>X:頻率來源<br>0=Local<br>1=主頻率來源 (b1-00)<br>2=副頻率來源 (b1-01)<br>Y-n:命令來源<br>0-00=操作器<br>1-00到1-15=多段速(d1-00到d1-15)<br>2-00到2-15=類比端子與多段速<br>3-00=Modbus通訊4-00=脈波輸入  |
| U1-22 | 轉矩補償%           | 以百分比顯示轉矩補償          |       |               |   |
| U1-24 | 線速度命令0          | 顯示線速度命令0            |       |               |   |
| U1-25 | 線速度監看0          | 顯示輸出線速度0            |       |               |   |
| U1-26 | 線速度命令1          | 顯示線速度命令1            |       |               |   |
| U1-27 | 線速度監看1          | 顯示輸出線速度1            |       |               |   |
| U1-28 | 線速度命令2          | 顯示線速度命令2            |       |               |   |
| U1-29 | 線速度監看2          | 顯示輸出線速度2            |       |               |   |
| U1-30 | 高頻注入凸極比監看       | 顯示高頻注入凸極比           |       |               |   |
| U1-31 | PM馬達轉速估測(非IF模式) | 顯示PM馬達非IF模式下的轉速估測值  |       |               |   |
| U1-32 | PM馬達轉速估測(IF模式)  | 顯示PM馬達IF模式下的轉速估測值   |       |               |   |
| U1-33 | PM馬達反電動勢常數估測    | 顯示PM馬達反電動勢常數估測值     |       |               |   |
| U1-35 | Hall Sensor位置迴授 | 顯示Hall Sensor的位置迴授  |       |               |   |
| U1-36 | Hall Sensor速度迴授 | 顯示Hall Sensor的速度迴授  |       |               |   |
| U1-37 | Hall Sensor角度迴授 | 顯示Hall Sensor的角度迴授  |       |               |   |
| U2-00 | 異常履歷項目          | 顯示第幾組的異常履歷(A5-00設定) | U4-13 | 運轉命令來源        | 顯示格式:XY-<br>n<br>X:運轉命令<br>0=Local<br>1=主運轉命令來源 (b1-02)<br>2=副運轉命令來源 (b1-03)<br>Y:=命令來源<br>0:操作器<br>1:多機能端子<br>2:通訊<br>nn:運轉命令限制狀態<br>00:運轉命令非限制狀態<br>01:電源啟動時運轉命令ON<br>02:Local/Remote切換時運轉命令ON<br>03:過低電壓運轉鎖定中<br>04:快速停止 |
| U2-01 | 異常碼             | 顯示異常發生時的異常碼         |       |               |   |
| U2-02 | 異常發生時頻率命令       | 顯示異常發生時的頻率命令(Hz)    |       |               |   |
| U2-03 | 異常發生時輸出頻率       | 顯示異常發生時的輸出頻率(Hz)    |       |               |   |
| U2-04 | 異常發生時輸出電壓       | 顯示異常發生時的輸出電壓(v)     |       |               |   |
| U2-05 | 異常發生時輸出電流       | 顯示異常發生時的輸出電流(A)     |       |               |   |
| U2-06 | 異常發生時DC bus電壓   | 顯示異常發生時的DC bus電壓(V) |       |               |   |
| U2-06 | 回授頻率            | 顯示估測的回授頻率           |       |               |   |

| 項次    | 名稱            | 說明                                   |
|-------|---------------|--------------------------------------|
| U4-15 | 頻率命令          | 顯示頻率命令值                              |
| U4-16 | Vin1輸入準位      | 顯示Vin1的輸入準位                          |
| U4-17 | Vin2輸入準位      | 顯示Vin2的輸入準位                          |
| U4-18 | lin輸入準位       | 顯示lin的輸入準位                           |
| U4-19 | 操作器旋鈕輸入準位     | 顯示操作器旋鈕的輸入準位                         |
| U4-21 | 外部設備溫度電阻值     | 顯示與VIN2連接的外部設備溫度電阻值(Ω)               |
| U4-22 | 外部設備溫度值       | 顯示與VIN2連接的外部設備溫度(°C)                 |
| U4-23 | UpDown設定頻率    | 顯示UpDown的設定頻率, 數值同d4-03              |
| U4-24 | PG計數器值        | 顯示PG的計數值                             |
| U4-25 | 通訊設定的轉矩命令     | 顯示從通訊設定的轉矩命令<br>*100%對應額定轉矩          |
| U4-26 | 通訊設定的轉矩補償     | 顯示從通訊設定的轉矩補償<br>*100%對應額定轉矩          |
| U4-27 | Resolver角度偏移值 | 顯示Resolver的角度偏移值                     |
| U5-01 | PID目標值        | 顯示PID目標值(%)                          |
| U5-02 | PID回投值        | 顯示PID控制時回投值(%)                       |
| U5-03 | PID差動回投值      | 顯示H3-□□=9(PID差動回投)的值(%)              |
| U5-04 | PID最終回投值      | 顯示PID最終回投值, 未使用差動回投時, 顯示值與U5-02相同(%) |
| U5-05 | PID輸入值        | 顯示PID輸入值(%)                          |
| U5-06 | PID輸出值        | 顯示PID輸出值(%)                          |
| U5-07 | PID輸出值2       | 顯示PID輸出值2(%)                         |
| U5-08 | PID積分累積值      | 顯示PID積分累積值(%)                        |
| U5-09 | 設定壓力值         | 顯示設定壓力值                              |
| U5-10 | 實際壓力值         | 顯示壓力傳感器回投壓力值                         |
| U5-11 | 壓力設定值(即時)     | 顯示設定壓力值(即時)                          |
| U6-01 | 馬達q軸電流        | 顯示馬達2次電流值(%)<br>*100%=馬達額定2次電流       |
| U6-02 | 馬達d軸電流        | 顯示馬達激磁電流的計算值(%)<br>*100%=馬達額定2次電流    |
| U6-03 | 輸出電壓命令(Vq)    | 顯示相對於馬達2次電流控制的電壓命令(Vac)              |
| U6-04 | 輸出電壓命令(Vd)    | 顯示相對於馬達激磁電流控制的電壓命令(Vac)              |
| U6-05 | 偏壓頻率          | 顯示目前偏壓頻率(%)                          |
| U6-06 | 脈衝定位電流        | 顯示脈衝定位電流                             |
| U6-07 | 剎車能量          | 顯示剎車能量                               |
| U6-10 | PV輸出電壓        | 顯示PV端輸出直流電壓(V)                       |
| U6-11 | 流量            | 顯示流量傳感器回投流量(%)                       |
| U6-12 | 主副機狀態         | 泵浦多台控制模式下主副機狀態                       |
| U7-01 | 程序運轉目前循環次數    | 顯示程序運轉目前的循環次數                        |
| U7-02 | 程序運轉目前段數      | 顯示程序運轉目前運轉於第幾段速                      |
| U7-03 | 數位輸入計數器值      | 顯示計數器的計數值                            |
| U7-04 | 類比輸入電流限制值     | 顯示類比輸入設定的電流限制值                       |
| U7-05 | 故障重試次數        | 顯示故障重試的次數                            |
| U8-00 | 程式版本          | 顯示CPU程式版本                            |
| U8-01 | 程式CRC碼        | 顯示程式CRC檢查碼                           |
| U8-02 | 參數表CRC碼       | 顯示參數表CRC檢查碼                          |
| U8-03 | 參數CRC碼        | 顯示參數CEC檢查碼                           |
| U8-04 | 變頻器馬力數        | 顯示變頻器馬力數(HP)                         |
| U8-05 | 變頻器額定電流       | 顯示變頻器額定電流值(A)                        |
| U8-10 | 擴充卡1名稱        | 顯示擴充卡1名稱                             |
| U8-11 | 擴充卡2類別        | 顯示擴充卡1類別                             |
| U8-12 | 擴充卡1版本        | 顯示擴充卡1版本                             |
| U8-13 | 擴充卡1CRC碼      | 顯示擴充卡1CRC檢查碼                         |
| U8-14 | 擴充卡1狀態        | 顯示擴充卡1狀態                             |

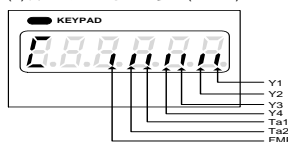
| 項次    | 名稱       | 說明           |
|-------|----------|--------------|
| U8-15 | 擴充卡2名稱   | 顯示擴充卡2名稱     |
| U8-16 | 擴充卡2類別   | 顯示擴充卡2類別     |
| U8-17 | 擴充卡2版本   | 顯示擴充卡2版本     |
| U8-18 | 擴充卡2CRC碼 | 顯示擴充卡2CRC檢查碼 |
| U8-19 | 擴充卡2狀態   | 顯示擴充卡2狀態     |

備註:

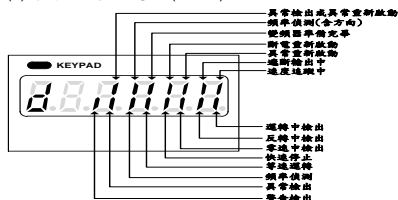
(1)輸入端子狀態顯示畫面(U1-07):







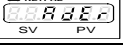

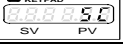
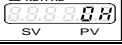


















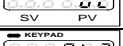
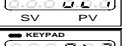






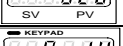
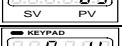
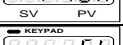
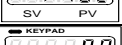
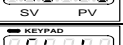
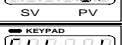

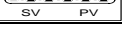

(2)輸出端子狀態顯示畫面(U1-08):














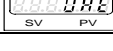
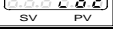
(3)變頻器狀態顯示畫面(U1-13):
















## 變頻器異常跳脫訊息

| 顯示   | 說明                       | 顯示  | 說明                    |
|--|--------------------------|---|-----------------------|
|    | EEPROM<br>異常保護           |    | 操作器連線中斷<br>(啟動後)      |
|    | 出廠 EEPROM<br>異常保護        |    | 變頻器過熱保護               |
|    | A/D 轉換器<br>異常保護          |    | 馬達過熱保護                |
|    | 保險絲開路保護                  |    | 變頻器過熱保護               |
|    | 類比輸入保護 1                 |    | 類比輸入保護 2              |
|    | 運轉中電源電壓<br>過低保護          |    | 變頻器過電流保護              |
|    | 接地漏電保護                   |    | 輸入欠相保護                |
|    | 過電壓保護                    |    | 輸出欠相保護                |
|    | 速度迴授卡斷線                  |    | 熱敏線路異常                |
|    | 運轉/停止命令同時動作              |    | 運轉命令上鎖<br>(電源 ON/OFF) |
|    | 運轉命令上鎖<br>(Local/Remote) |    | 安全信號保護 1              |
|    | 安全信號保護 2                 |    | 外部異常                  |
|    | 外部異常 0                   |    | 外部異常 1                |
|    | 馬達過負載保護                  |    | 變頻器過負載保護              |
|    | 變頻器電流限制                  |    | 馬達過轉矩保護 1             |
|   | 馬達過轉矩保護 2                |   | 系統過負載保護               |
|  | 馬達轉矩不足 1                 |  | 馬達轉矩不足 2              |
|  | 速度偏差過大                   |  | 過速保護                  |
|  | PID 回授過高                 |  | PID 回授過低              |
|  | PID 回授訊號異常               |  | 過壓力保護                 |
|  | 缺水保護                     |  | 缺水保護<br>重新啟動計時中       |
|  | 通訊逾時檢出                   |   |                       |

## 變頻器警告訊息

| 顯示  | 說明      | 顯示  | 說明                |
|---|---------|---|-------------------|
|   | 電源電壓過低  |   | Err_00:連接線斷線(連接前) |
|  | 變頻器遮斷輸出 |  | Err_01:連接線斷線(連線中) |
|  | 自由運轉停止  |  | 類比輸入警告 1          |
|  | 熱車晶體動作  |  | 類比輸入警告 2          |
|  | 馬達過熱警告  |  | 運轉方向命令錯誤          |
|  | 外部過溫警告  |  | 變頻器過熱警告           |
|  | 通訊逾時檢出  |   |                   |

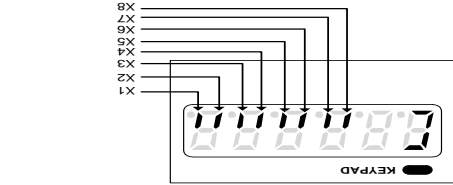
| Display   | Description                | Display   | Description                           |
|---|----------------------------|---|---------------------------------------|
|  | Power source under voltage |  | Keypad cable trip (before connecting) |
|  | Drive output interruption  |  | Keypad cable trip (connected)         |
|  | Coast to stop              |  | Analog input warn 1                   |
|  | Over voltage at stop       |  | Analog input warn 2                   |
|  | Motor overheat warn        |  | Direction command error               |
|  | Drive overheat             |  | External device overheat              |
|  | Communication overtime     |   |                                       |

| Description                   | Display   | Description         | Display   |
|-------------------------------|---|---------------------|---|
| Keypad connection interrupted |  | EEPROM Error        |  |
| Drive overheat                |  | EEPROM Error 0      |  |
| Motor overheat                |  | A/D converter error |  |
| Drive overheat                |  | EEPROM Error 0      |  |
| Motor overheat                |  | A/D converter error |  |
| Drive overheat                |  | EEPROM Error 0      |  |
| Motor overheat                |  | A/D converter error |  |
| Drive overheat                |  | EEPROM Error 0      |  |
| Motor overheat                |  | A/D converter error |  |
| Drive overheat                |   | EEPROM Error 0      |   |
| Motor overheat                |    | A/D converter error |    |
| Drive overheat                |    | EEPROM Error 0      |    |
| Motor overheat                |    | A/D converter error |    |
| Drive overheat                |    | EEPROM Error 0      |    |
| Motor overheat                |    | A/D converter error |    |
| Drive overheat                |    | EEPROM Error 0      |    |
| Motor overheat                |    | A/D converter error |    |
| Drive overheat                |    | EEPROM Error 0      |    |
| Motor overheat                |    | A/D converter error |    |
| Drive overheat                |    | EEPROM Error 0      |    |
| Motor overheat                |    | A/D converter error |    |
| Drive overheat                |    | EEPROM Error 0      |    |
| Motor overheat                |    | A/D converter error |    |
| Drive overheat                |    | EEPROM Error 0      |    |
| Motor overheat                |    | A/D converter error |    |
| Drive overheat                |    | EEPROM Error 0      |    |
| Motor overheat                |    | A/D converter error |    |
| Drive overheat                |    | EEPROM Error 0      |    |
| Motor overheat                |    | A/D converter error |    |
| Drive overheat                |     | EEPROM Error 0      |     |
| Motor overheat                |       | A/D converter error |       |

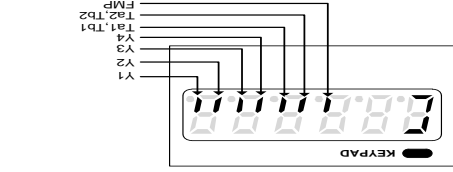
| Func. | Name                        | Description  |
|-------|-----------------------------|--|
| U6-04 | Output Voltage Command (Vd) | Output voltage command for the d-axis (Vdc)          |
| U6-05 | Offset Frequency            | Display the offset frequency                         |
| U7-01 | Sequence Control            | Display the current number of sequence control cycle |
| U7-02 | Sequence Control            | Display the current section of sequence control      |
| U7-03 | Digital Input               | Display the value of digital input                   |
| U7-04 | Analog Input                | Display the current limit from analog input (A)      |
| U7-05 | Fault Restart Count         | Display the count value of the fault restart         |
| U8-00 | Software Version            | Display the version of software                      |
| U8-01 | Software CRC                | Display the CRC code of software                     |
| U8-02 | Parameter List CRC          | Display the parameter list CRC code                  |
| U8-03 | Parameter CRC               | Display the parameter CRC code                       |
| U8-04 | Drive HP                    | Display the drive horse power (HP)                   |
| U8-05 | Drive Rated Current         | Display the drive rated current (A)                  |
| U8-10 | Option Card 1 Name          | Display the name of option card 1                    |
| U8-11 | Option Card 1 Type          | Display the type of option card 1                    |
| U8-12 | Option Card 1 Version       | Display the version of option card 1                 |
| U8-13 | Option Card 1 CRC           | Display the CRC code of option card 1                |
| U8-14 | Option Card 1 Status        | Display the status of option card 1                  |
| U8-15 | Option Card 2 Name          | Display the name of option card 2                    |
| U8-16 | Option Card 2 Type          | Display the type of option card 2                    |
| U8-17 | Option Card 2 Version       | Display the version of option card 2                 |
| U8-18 | CRC Option Card 2           | Display the CRC code of option card 2                |
| U8-19 | Option Card 2 Status        | Display the status of option card 2                  |

Note:

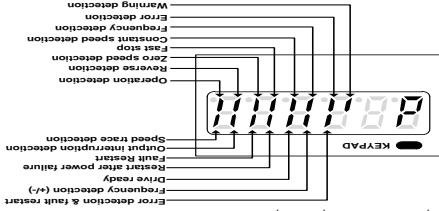
(1) Input Terminal Status (U1-07):



(2) Output Terminal Status (U1-08):



(3) Drive Status (U1-13):



| Func. | Name                               | Description  |
|-------|------------------------------------|--|
| U4-12 | Command Source                     | Display the start command source<br>4=0=Pulse in<br>3=0=Modbus Communication<br>2=0 to 2-15=Analog input and preset speed<br>1=0 to 1-15=Preset speed (d1-100 to d1-15)<br>0=00=keypad<br>Y-n: Source<br>2=Secondary Frequency (b1-10)<br>1=Primary Frequency (b1-00)<br>0=Local |
| U4-13 | Start Command Source               | 01:Start command on at power on<br>02:Start command on at local/tempo switch<br>03:Start command on during under voltage<br>04:Fast stop   |
| U4-14 | Feedback Freq.                     | Display the feedback frequency   |
| U4-15 | Freq. Command                      | Display the frequency command  |
| U4-16 | Input Level (Vin1)                 | Display the input level of Vin1  |
| U4-17 | Input Level (Vin2)                 | Display the input level of Vin2  |
| U4-18 | Input Level (In)                   | Display the input level of In  |
| U4-19 | (Keypad Pot) Input Level           | Display the input level of keypad pot  |
| U4-20 | External (Pulse Train) Input Level | Display the input level of pulse train   |
| U4-21 | External Temperature Resistor      | Display the value of external temperature sensor(K $\Omega$ )  |
| U4-22 | External Temperature               | Display the value of external temperature sensor;(C)   |
| U4-23 | UP/DOWN Set Frequency              | Display the UP/DOWN frequency adjust (Hz)  |
| U4-24 | The Value of Counter(PG)           | Display the counter value from PG  |
| U4-25 | Torque Command                     | Display the torque command set from Comm.  |
| U4-26 | Torque Compensation                | Display the torque compensation set by communication (%)   |
| U5-01 | PID Setpoint                       | Display the PID setpoint (%)   |
| U5-02 | PID Feedback                       | Display the feedback of PID control (%)  |
| U5-03 | PID Differential Feedback          | Display the PID differential feedback (%)  |
| U5-04 | PID Adjusted Feedback              | Display the PID adjusted feedback (%)  |
| U5-05 | PID Input                          | Display the PID input (%)  |
| U5-06 | PID Output 2                       | Display the PID output 2 (%)   |
| U5-07 | PID Output                         | Display the PID output (%)   |
| U5-08 | PID Cumulative Integral Value      | Display the PID cumulative integral value (%)  |
| U6-01 | Motor q-Axis Current               | Displays the output value for motor q-axis current control relative to motor secondary current (%)   |
| U6-02 | Motor d-Axis Current               | Displays the output value for motor d-axis current control relative to motor exciting current (%)  |
| U6-03 | Output Voltage Command (Vq)        | Output voltage command for the q-axis (Vdc)  |

## Monitor Parameter List

| Func. | Name                                 | Description   |
|-------|--------------------------------------|---|
| U1-00 | Control Method                       | 0:V/F Control<br>1:V/F Control + P&G card<br>2:Vector Control<br>3:Vector Control + P&G card<br>4:PM control + Resolver<br>5:PM control + Encoder<br>6:PM Control 1 (I/F+EMF)<br>7:PM Control 2 (HF+EMF)<br>8:Reserved<br>9:Reserved<br>11:Reserved |
| U1-01 | Freq. Command                        | Display the frequency command (Hz)  |
| U1-02 | Output Freq.                         | Display the output frequency (Hz)   |
| U1-03 | Output Voltage                       | Display the output voltage (V)  |
| U1-04 | Output Current                       | Display the output current (A)  |
| U1-05 | DC Bus Voltage                       | Displays the DC bus voltage (V)   |
| U1-06 | Drive Temperature                    | Displays the drive temperature (°C)   |
| U1-07 | Input Terminal Status                | Please refer to note 1  |
| U1-08 | Output Terminal Status               | Please refer to note 2  |
| U1-09 | Motor Speed                          | Display RPM of motor (Estimated from the output frequency)  |
| U1-10 | Power Factor                         | Display the power factor  |
| U1-11 | Power Factor Angle                   | Display the power factor angle  |
| U1-12 | Output Frequency with Compensation   | Display the output frequency with compensation (Hz)   |
| U1-13 | Drive Status                         | Please refer to note 3  |
| U1-14 | Output Power                         | Display the output power.   |
| U1-15 | Torque Output %                      | Display torque commands as a percentage during vector control.  |
| U1-16 | Frequency Command %                  | Display the frequency command as a percentage.  |
| U1-17 | Output Frequency %                   | Display the output frequency as a percentage.   |
| U1-18 | Output Power %                       | Display the output power as a percentage.   |
| U1-19 | Error Code (Now)                     | Display the current fault.  |
| U1-20 | Warning Code (Now)                   | Display the current warning.  |
| U1-21 | Torque Command %                     | Display torque commands as a percentage.  |
| U1-22 | Compensation Torque                  | Display the torque compensation as a percentage.  |
| U1-24 | MPM 0                                | Display the machine speed command 0.  |
| U1-25 | Monitor MPM 0                        | Display the output machine speed command 0.   |
| U1-26 | MPM 1                                | Display the machine speed command 1.  |
| U1-27 | Monitor MPM 1                        | Display the output machine speed command 1.   |
| U1-28 | MPM 2                                | Display the machine speed command 2.  |
| U1-29 | Monitor MPM 2                        | Display the output machine speed command 2.   |
| U1-30 | Salience Ratio of HFI                | Display the Salience Ratio of HFI   |
| U1-31 | PM Estimated Speed (Besides IF Mode) | Display the PM estimated speed expect IF mode.  |
| U1-32 | PM Estimated Speed (For IF Mode)     | Display the PM estimated speed in IF mode.  |
| U1-33 | PM Estimated Back-EMF Constant       | Display the estimated back-EMF constant.  |
| U1-35 | Hall Sensor Position Feedback        | Display the position feedback from the hall sensor.   |

| Func. | Name                            | Description   |
|-------|---------------------------------|---|
| U1-36 | Hall Sensor Speed Feedback      | Display the speed feedback from the hall sensor.                                    |
| U1-37 | Hall Sensor Angle Feedback      | Display the angle feedback from the hall sensor.                                    |
| U2-00 | Fault History Item              | Display the fault history item set by item A5-00                                    |
| U2-01 | Error Code                      | Display the error code of U2-00   |
| U2-02 | Frequency Command               | Display the frequency command at U2-00 (Hz)   |
| U2-03 | Output Freq.                    | Display the output frequency at U2-00 (Hz)  |
| U2-04 | Output Voltage                  | Display the output voltage at U2-00 (V)   |
| U2-05 | Output Current                  | Display the output current at U2-00 (A)   |
| U2-06 | DC Bus Voltage (V)              | Display the DC bus voltage at U2-00 (V)   |
| U2-07 | Drive Temperature (°C)          | Display the drive temperature at U2-00 (°C)   |
| U2-08 | Cumulative Operation Time       | Display the cumulative operation time at U2-00 (hm)                                 |
| U2-09 | Input Terminal Status           | Display the operation status at U2-00   |
| U2-10 | Output Terminal Status          | Display the input terminal at U2-00   |
| U2-11 | Output Terminal Status          | Display the output terminal at U2-00  |
| U2-12 | Feedback Freq. from P&G         | Display the feedback frequency at U2-00 (Hz)  |
| U2-13 | Torque Command                  | Display the torque command at U2-00(%)  |
| U2-14 | U Phase Motor Current           | Display the U phase motor current at U2-00(A)                                       |
| U2-15 | V Phase Motor Current           | Display the V phase motor current at U2-00(A)                                       |
| U2-16 | W Phase Motor Current           | Display the W phase motor current at U2-00(A)                                       |
| U3-00 | Fault History 0                 | Display the latest fault code.  |
| U3-01 | Fault History 1                 | Display the second last fault code.   |
| U3-02 | Fault History 2                 | Display the third last fault code.  |
| U3-03 | Fault History 3                 | Display the fourth last fault code.   |
| U3-04 | Fault History 4                 | Display the fifth last fault code.  |
| U3-05 | Fault History 5                 | Display the sixth last fault code.  |
| U3-06 | Fault History 6                 | Display the seventh last fault code.  |
| U3-07 | Fault History 7                 | Display the eighth last fault code.   |
| U3-08 | Fault History 8                 | Display the ninth last fault code.  |
| U3-09 | Fault History 9                 | Display the tenth last fault code.  |
| U4-00 | Cumulative Power On Time (hr)   | Display the cumulative operation time   |
| U4-01 | Cumulative Operation Time (hr)  | Display the cumulative operation time   |
| U4-02 | Cooling Fan Operation Time (hr) | Display the cumulative operation time of the cooling fan (hr)                       |
| U4-03 | Cooling Fan Maintenance (%)     | Display the cooling fan operation time as a percentage (%)                          |
| U4-07 | Motor Overload Estimate (OL)    | Shows the value of the motor overload detection accumulator (%)                     |
| U4-08 | kWh Lower Digit                 | Display the output power usage. Take 12345678.9kWh for example: U4-09:12345678.9kWh |
| U4-09 | kWh upper Digit                 | U4-08:678.9kWh  |
| U4-10 | Command from Communication      | Display the frequency command from the Modbus communication (Hz)                    |
| U4-11 | Command from option card        | Display the frequency from the option card.   |

| Func. | Name   | Range   | DF60  |
|-------|--|---|-------|
| P2-00 | Traverse Mode                                  | 1:Enable during constant speed<br>2:Enable during operation | 0     |
| P2-01 | Traverse Amplitude                             | 0.00-0.20   | 0.00  |
| P2-02 | Traverse Step                                  | 0.00-0.50%  | 0.000 |
| P2-03 | Traverse Step Time                             | 0.000-0.500 sec   | 0.000 |
| P2-04 | Deceleration                                   | 0.0-120.0 sec   | 0.0   |
| P2-05 | Acceleration                                   | 0.0-120.0 sec   | 0.0   |
| P1-00 | Gain (D-Axis Current)                          | 0.01-10.00  | 1.00  |
| P1-01 | Gain (Q-Axis Current)                          | 0.01-10.00  | 1.00  |
| P1-02 | Gain (Flux)                                    | 0.01-5.00   | 1.00  |
| P1-04 | Proportional Gain (D-Axis Current)             | 0.000-60.000  | 0.700 |
| P1-05 | Integral Gain (D-Axis Current)                 | 0.0000-60.000   | 150.0 |
| P1-06 | Proportional Gain (Q-Axis Current)             | 0.000-60.000  | 0.700 |
| P1-07 | Integral Gain (Q-Axis Current)                 | 0.0-6000.0  | 150.0 |
| P1-08 | Proportional Gain (Flux)                       | 0.000-60.000  | 2.000 |
| P1-09 | Integral Gain (Flux)                           | 0.00-600.00   | 10.00 |
| P1-10 | Auto Tuning Acceleration (Rotational)          | 0.0-30.0 sec  | 5.0   |
| P1-11 | Motor PWM Dead time                            | 0-400   | 90    |
| P1-12 | Motor PWM Deadtime                             | 0.0-20.0  | 6.0   |
| P1-13 | Current Value of Turning Point in Compensation | 0.00-1.00   | 0.00  |
| P1-14 | Motor Current Angle Offset                     | -30.0-30.0  | 1.5   |
| P1-15 | Motor Current Constant Angle LPF (Numerator)   | 1-5000  | 64    |
| P1-17 | Anti-Windup (Disable)                          | 1:Enable  | 0     |
| P1-18 | Flux Weakening Low Pass Filter                 | 0.0-6000.0  | 100.0 |
| P1-19 | DPWM Function                                  | 0:OFF<br>1:ON   | 1     |

| Func. | Name                          | Range   | df60 |
|-------|-------------------------------|---|------|
| P1-07 | Accel/Decel Time of Sector 1  | 0.0-360.0   | 0.0  |
| P1-08 | Hold Time of Sector 1         | 0.0-360.0   | 0.0  |
| P1-09 | Accel/Decel Time of Sector 2  | 0.0-360.0   | 0.0  |
| P1-10 | Hold Time of Sector 2         | 0.0-360.0   | 0.0  |
| P1-11 | Accel/Decel Time of Sector 3  | 0.0-360.0   | 0.0  |
| P1-12 | Hold Time of Sector 3         | 0.0-360.0   | 0.0  |
| P1-13 | Accel/Decel Time of Sector 4  | 0.0-360.0   | 0.0  |
| P1-14 | Hold Time of Sector 4         | 0.0-360.0   | 0.0  |
| P1-15 | Accel/Decel Time of Sector 5  | 0.0-360.0   | 0.0  |
| P1-16 | Hold Time of Sector 5         | 0.0-360.0   | 0.0  |
| P1-17 | Accel/Decel Time of Sector 6  | 0.0-360.0   | 0.0  |
| P1-18 | Hold Time of Sector 6         | 0.0-360.0   | 0.0  |
| P1-19 | Accel/Decel Time of Sector 7  | 0.0-360.0   | 0.0  |
| P1-20 | Hold Time of Sector 7         | 0.0-360.0   | 0.0  |
| P1-21 | Accel/Decel Time of Sector 8  | 0.0-360.0   | 0.0  |
| P1-22 | Hold Time of Sector 8         | 0.0-360.0   | 0.0  |
| P1-23 | Accel/Decel Time of Sector 9  | 0.0-360.0   | 0.0  |
| P1-24 | Hold Time of Sector 9         | 0.0-360.0   | 0.0  |
| P1-25 | Accel/Decel Time of Sector 10 | 0.0-360.0   | 0.0  |
| P1-26 | Hold Time of Sector 10        | 0.0-360.0   | 0.0  |
| P1-27 | Accel/Decel Time of Sector 11 | 0.0-360.0   | 0.0  |
| P1-28 | Hold Time of Sector 11        | 0.0-360.0   | 0.0  |
| P1-29 | Accel/Decel Time of Sector 12 | 0.0-360.0   | 0.0  |
| P1-30 | Hold Time of Sector 12        | 0.0-360.0   | 0.0  |
| P1-31 | Accel/Decel Time of Sector 13 | 0.0-360.0   | 0.0  |
| P1-32 | Hold Time of Sector 13        | 0.0-360.0   | 0.0  |
| P1-33 | Accel/Decel Time of Sector 14 | 0.0-360.0   | 0.0  |
| P1-34 | Hold Time of Sector 14        | 0.0-360.0   | 0.0  |
| P1-35 | Accel/Decel Time of Sector 15 | 0.0-360.0   | 0.0  |
| P1-36 | Hold Time of Sector 15        | 0.0-360.0   | 0.0  |
| P1-37 | Sequence Control              | 0-FFFF  | 0000 |
| P1-38 | Control Pause point           | 0:Resume from the beginning<br>1:Resume from the pause    | 0    |
| P1-39 | Control Pause Mode            | 0:Pause with stop command<br>1:Pause without stop command | 0    |

| Func. | Name   | Range  | df60  |
|-------|--|--|-------|
| L4-03 | Freq. Detection Level (+/-)                    | -400-0.400-0 Hz  | 0,0   |
| L4-04 | Freq. Detection Range (+/-)                    | 0-20,0 Hz  | 2,0   |
| L4-05 | Freq. Detection Selection                      | 0:None<br>1:Disable at baseblock (bb)<br>2:enable at baseblock (bb)  | 1     |
| L4-06 | Freq. Command Loss Detection Selection         | 1:Stop<br>2:keep running according to the L4-07.   | 0     |
| L4-07 | Freq. Command at Freq. Command Loss            | 0.000-1.000  | 0.800 |
| L4-10 | Torque Detection 1 Selection 1                 | 1:Detect OL3 at constant speed (Alarm)<br>2:Detect OL3 at running speed (Fault)<br>3:Detect OL3 at constant speed (Fault)<br>4:Detect OL3 at running speed (Alarm)<br>5:Detect UL3 at constant speed (Alarm)<br>6:Detect UL3 at run (Alarm)<br>7:Detect UL3 at constant speed (Fault)<br>8:Detect UL3 at running speed (Fault)           | 0     |
| L4-11 | Torque Detection Level 1                       | 0.00-3.00  | 1.50  |
| L4-12 | Torque Detection Time 1                        | 00-300,0 sec   | 0,1   |
| L4-13 | Torque Detection 2 Selection 2                 | 1:Detect OL4 at constant speed (Alarm)<br>2:Detect OL4 at running speed (Alarm)<br>3:Detect OL4 at constant speed (Fault)<br>4:Detect OL4 at running speed (Fault)<br>5:Detect UL4 at constant speed (Alarm)<br>6:Detect UL4 at running speed (Alarm)<br>7:Detect UL4 at constant speed (Fault)<br>8:Detect UL4 at running speed (Fault) | 0     |
| L4-14 | Torque Detection Level 2                       | 0.00-3.00  | 1.50  |
| L4-15 | Torque Detection Time 2                        | 0.0-300,0 sec  | 0,1   |
| L5-00 | Fault Restart Selection                        | 0:Restart immediately after the fault is reset<br>1:Restart after the setting time in L5-02<br>PS. Only for OC, OE, GF   | 0     |
| L5-01 | Auto-Restart Times Setting                     | 0-16   | 0     |
| L5-02 | Fault Restart Interval Time                    | 0.5-600,0 sec  | 10,0  |
| L5-03 | Output Terminal Selection During Restart       | 0:No detection<br>1:Detection  | 0     |
| L5-04 | Fault Auto-Restart Selection                   | 0:Disable<br>1:Enable  | 0     |
| L5-04 | Fault Auto-Restart PS. Only for LE1, HF1, HF2  |  | 0     |
| L6-00 | Detection 1 Level (A1 Err) Level               | 0.000-1.000  | 0.000 |
| L6-01 | Analog Input Detection 1 Warn (A1 Warn) Level  | 0.000-1.000  | 0.000 |
| L6-02 | Analog Input Dead Band                         | 0.000-1.000  | 0.000 |
| L6-03 | Detection 1 Warn Mode                          | 0:None, digital output only<br>1:Warn<br>2:Ramp to stop<br>3:Coast to stop   | 0     |
| L6-04 | Analog Input Detection 2 Fault Level (A2 Err)  | 0.000-1.000  | 0.000 |
| L6-05 | Analog Input Detection 2 Warn Level (A2 Warn)  | 0.000-1.000  | 0.000 |
| L6-06 | Analog Input Detection 2 Warn Level (A2 Warn)  | 0.000-1.000  | 0.000 |
| L6-07 | Analog Input Detection 2 Warn Mode             | 0:None, digital output only<br>1:Warn<br>2:Ramp to stop<br>3:Coast to stop   | 0     |
| L6-08 | External fault 1 Warn Mode                     | 0:None<br>1:Warn<br>2:Ramp to stop<br>3:Coast to stop  | 1     |
| L6-09 | External fault 1 Selection (EF1) Selection     | 0:Detect during operation<br>1:Detect during operation<br>2:Coast to stop + DC braking<br>3:Coast to stop<br>4:Coast to stop   | 1     |
| L6-10 | Motor Thermistor                               | 4:KT84/130(C)<br>3:RTD32(C)+100Ω resistor<br>2:PT100(C)+100Ω resistor<br>1:NTC (Ω)<br>0:PTC (Ω)  | 0     |
| L6-11 | Motor Overheat Protection Level (OH1)          | 0.00-100,00kΩ  | 0.00  |
| L6-12 | Motor Overheat Warning Resistor Level (OH1)    | 0.00-100,00kΩ  | 0.00  |
| L6-13 | Motor Overheat Warning Selection (OH1)         | 0:keep running<br>1:Ramp to stop   | 0     |
| L6-14 | Motor Overheat Protection Level (OH2)          | 40-160°C   | 120   |
| L6-15 | Motor Overheat Warning Temperature Level (OH1) | 40-160°C   | 90    |
| L7-00 | Forward Torque Limit                           | 0.00-3.00  | 2.00  |
| L7-01 | Reverse Torque Limit                           | 0.00-3.00  | 2.00  |
| L7-02 | Forward Regeneration Torque Limit              | 0.00-3.00  | 2.00  |
| L7-03 | Reverse Regeneration Torque Limit              | 0.00-3.00  | 2.00  |
| P1-00 | Sequence Control Mode                          | 0:Direct Change<br>1:Stop before Change  | 0     |
| P1-01 | Sequence Control Direction                     | 0:Single direction<br>1:Dual direction   | 0     |
| P1-02 | Sequence Control Cycle                         | 1-9999:Number of cycle time<br>9999:Infinite cycles  | 1     |
| P1-03 | Sequential Time Unit for Sequential Control    | 0:second<br>1:minute<br>2:hour   | 0     |
| P1-04 | Hold Time Unit for Sequential Control          | 0.00-360.0   | 0     |
| P1-05 | Accel/Decel Time of Sector 0                   | 0.0-360.0  | 0.0   |
| P1-06 | Hold Time of Sector 0                          | 0.0-360.0  | 0.0   |

| Func. | Name  | Range  | df60  |
|-------|---|--|-------|
| L4-03 | Freq. Detection Level (+/-)                   | -400-0.400-0 Hz  | 0,0   |
| L4-04 | Freq. Detection Range (+/-)                   | 0-20,0 Hz  | 2,0   |
| L4-05 | Freq. Detection Selection                     | 0:None<br>1:Disable at baseblock (bb)<br>2:enable at baseblock (bb)  | 1     |
| L4-06 | Freq. Command Loss Detection Selection        | 1:Stop<br>2:keep running according to the L4-07.   | 0     |
| L4-07 | Freq. Command at Freq. Command Loss           | 0.000-1.000  | 0.800 |
| L4-10 | Torque Detection 1 Selection 1                | 1:Detect OL3 at constant speed (Alarm)<br>2:Detect OL3 at running speed (Alarm)<br>3:Detect OL3 at constant speed (Fault)<br>4:Detect OL3 at running speed (Alarm)<br>5:Detect UL3 at constant speed (Alarm)<br>6:Detect UL3 at run (Alarm)<br>7:Detect UL3 at constant speed (Fault)<br>8:Detect UL3 at running speed (Fault)           | 0     |
| L4-11 | Torque Detection Level 1                      | 0.00-3.00  | 1.50  |
| L4-12 | Torque Detection Time 1                       | 00-300,0 sec   | 0,1   |
| L4-13 | Torque Detection 2 Selection 2                | 1:Detect OL4 at constant speed (Alarm)<br>2:Detect OL4 at running speed (Alarm)<br>3:Detect OL4 at constant speed (Fault)<br>4:Detect OL4 at running speed (Fault)<br>5:Detect UL4 at constant speed (Alarm)<br>6:Detect UL4 at running speed (Alarm)<br>7:Detect UL4 at constant speed (Fault)<br>8:Detect UL4 at running speed (Fault) | 0     |
| L4-14 | Torque Detection Level 2                      | 0.00-3.00  | 1.50  |
| L4-15 | Torque Detection Time 2                       | 0.0-300,0 sec  | 0,1   |
| L5-00 | Fault Restart Selection                       | 0:Restart immediately after the fault is reset<br>1:Restart after the setting time in L5-02<br>PS. Only for OC, OE, GF   | 0     |
| L5-01 | Auto-Restart Times Setting                    | 0-16   | 0     |
| L5-02 | Fault Restart Interval Time                   | 0.5-600,0 sec  | 10,0  |
| L5-03 | Output Terminal Selection During Restart      | 0:No detection<br>1:Detection  | 0     |
| L5-04 | Fault Auto-Restart Selection                  | 0:Disable<br>1:Enable  | 0     |
| L5-04 | Fault Auto-Restart PS. Only for LE1, HF1, HF2 |  | 0     |
| L6-00 | Detection 1 Level (A1 Err) Level              | 0.000-1.000  | 0.000 |
| L6-01 | Analog Input Detection 1 Warn (A1 Warn) Level | 0.000-1.000  | 0.000 |

| Func. | Name  | Range  | df60           |
|-------|---|--|----------------|
| L1-26 | Rated power of Braking Resistor   | 0.1~1000.0kW                                     | 0.1            |
| L1-27 | At Rated Power Temperature of Braking Resistor  | 1~1000℃  | 170            |
| L2-00 | Operation Selection at Instant Power Failure<br>0: Drive cannot restart<br>1: Drive restart<br>2: Ramp to stop<br>3: Restart if the power restore during ramp to stop<br>4: Ramp to stop with KEB<br>5: Ramp to stop with KEB and drive restart<br>6: Ramp to stop with KEB<br>7: Drive restart from 0 Hz | 0  | 0              |
| L2-02 | Subtracted Freq. of Ramp to Stop by Power Failure   | 0.0~20.0 Hz                                      | 0.5            |
| L2-03 | Deceleration Time 1 of Ramp to Stop by Power Failure  | 0.0~3200.0 sec                                   | 25.0           |
| L2-04 | Deceleration Time 2 of Ramp to Stop by Power Failure  | 0.0~3200.0 sec                                   | 25.0           |
| L2-05 | Switching Freq. of Ramp to Stop by Power Failure  | 0.0~400.0 Hz                                     | 0.0            |
| L2-06 | KEB setpoint DC Voltage<br>Power Failure  | 150~250V (220V series)<br>300~500V (380V series) | 250.0<br>450.0 |
| L2-07 | KEB PI Gain (kp)  | 0.000~5.000                                      | 1.00           |
| L2-08 | KEB PI Integral (ki)  | 0.00~50.00                                       | 1.00           |
| L2-09 | KEB PI Limit (kl)   | 0.0~120.0Hz                                      | 60.0           |
| L2-10 | LE Detection time   | 0~250 ms   | 50             |
| L3-00 | Acceleration Level at Stall Prevention  | 30~200%  | 170            |
| L3-01 | Stall Prevention Level at Constant Speed  | 30~200%  | 160            |
| L3-02 | Acceleration time after Stall Prevention under Constant Speed   | 0.1~3200.0 sec                                   | 15.0           |
| L3-03 | Deceleration time for Stall Prevention under Constant Speed   | 0.1~3200.0 sec                                   | 15.0           |
| L3-04 | Stall Prevention at Deceleration  | 0: Disable<br>1: Enable                          | 1              |
| L3-05 | Stall Delay Time  | 0~5000 msec                                      | 100            |
| L3-06 | Overvoltage Suppression Selection<br>1: Enable<br>0: Disable at constant speed  | 0  | 0              |
| L3-07 | Overvoltage Suppression Active Level (540~800V(380V series)<br>310~400V(220V series)  | 360<br>620                                       | 620            |
| L3-08 | Overvoltage Suppression Frequency Limit   | 0.0~30.0Hz                                       | 12.0           |
| L3-09 | Overvoltage P Suppression Gain  | 0.000~5.000                                      | 0.200          |
| L3-10 | Overvoltage I Suppression Gain  | 0.00~50.00                                       | 10.00          |
| L4-00 | Constant Speed Detection Range  | 0.0~20.0 Hz                                      | 2.0            |
| L4-01 | Freq. Detection Level   | 0.0~400.0 Hz                                     | 0.0            |
| L4-02 | Freq. Detection Range   | 0.0~20.0 Hz                                      | 2.0            |

| Func. | Name  | Range  | df60   |
|-------|---|--|--------|
| H6-07 | Pulse Train Monitor   | 0.0~1000.0 Hz  | 0.0    |
| L1-00 | Current Limit (OL2) constant  | 0~255  | 0      |
| L1-01 | Grounding Protection (GF) constant  | 0~255  | 1      |
| L1-02 | Motor Overload Protection (OL)<br>0: Disable<br>1: Standard motor<br>2: Drive dedicated motor<br>3: External fan cooling) | 0: Disable<br>1: Standard motor<br>2: Drive dedicated motor<br>3: External fan cooling)    | 1      |
| L1-03 | Motor Overload Protection Time  | 0~10.0 min   | 5.0    |
| L1-04 | Back-EMF Protection Level   | 0~100 %  | 0      |
| L1-06 | Overheating Warning (OH)<br>0: None<br>1: Keep running<br>2: Carrier reduction<br>3: Stop                                 | 0: None<br>1: Keep running<br>2: Carrier reduction<br>3: Stop                              | 2      |
| L1-07 | Warning Level (OH)  | 45~105℃  | 70     |
| L1-08 | Overheating Drive Dead Band   | 0~1~10.0℃  | 3.0    |
| L1-09 | Fan Control Selection<br>0: Start the fan at power ON<br>1: Start the fan according to the setting of L1-10               | 0: Start the fan at power ON<br>1: Start the fan according to the setting of L1-10         | 1      |
| L1-10 | Level of Fan Activation   | 25~65℃   | 50     |
| L1-11 | Fan Off Delay Time  | 0.1~25.0 min   | 0.5    |
| L1-12 | System Overload (OLO) Detection   | 0: Disable<br>1: Enable  | 0      |
| L1-13 | System Overload Detection Mode<br>0: During constant speed<br>1: During operation   | 0  | 0      |
| L1-14 | System Overload after System 1: Trips to protection<br>0: Keeps operation   | 0  | 0      |
| L1-15 | System Overload Detection Level   | 30~200%  | 160    |
| L1-16 | System Overload Detection Time  | 0.1~300.0 sec  | 0.1    |
| L1-17 | Dynamic Braking Selection<br>0: Off<br>1: On<br>2: On, "DBOH" alarm<br>3: On, "DBOH" fault                                | 0: Off<br>1: On<br>2: On, "DBOH" alarm<br>3: On, "DBOH" fault                              | 1      |
| L1-18 | Braking Active Level (350~410V (220V series)<br>700~820V (380V series)  | 380<br>760   | 380    |
| L1-19 | Brake Resistor Pulse Setting  | 10~90%   | 50     |
| L1-20 | Input Phase Loss Protection   | 0: Disable<br>1: Enable  | 1      |
| L1-21 | Output Phase Loss Protection  | 0: Disable<br>1: Enable  | 1      |
| L1-22 | Current Limit Selection   | 0.10~2.00  | 2.00   |
| L1-23 | NTC Thermistor power on<br>1: Disable, start the fan at running<br>2: Disable, start the fan at warning                   | 0: Enable<br>1: Disable, start the fan at power on<br>2: Disable, start the fan at warning | 0      |
| L1-24 | Warning Temperature of Braking Resistor   | 10~255℃  | 120    |
| L1-25 | Resistance of Braking Resistor  | 0.01~500.0Ω  | 400.00 |

| Func. | Name                              | Range  | df60  |
|-------|-----------------------------------|--|-------|
|       | 0: Disable                        |  |       |
|       | 1: Output freq. with compensation |  |       |
|       | 2: Output freq. command           |  |       |
|       | 3: Freq. command                  |  |       |
|       | 4: Output voltage                 |  |       |
|       | 5: Output current                 |  |       |
|       | 6: DC Bus voltage                 |  |       |
|       | 7: VIn1 input signal              |  |       |
|       | 8: VIn2 input signal              |  |       |
|       | 9: In input signal                |  |       |
|       | 10: KP Pot input signal           |  |       |
|       | 11: Pulse train input signal      |  |       |
|       | 12: PID set point                 |  |       |
|       | 13: PID feedback                  |  |       |
|       | 14: PID differential feedback     |  |       |
|       | 15: PID adjusted feedback         |  |       |
|       | 16: PID input                     |  |       |
|       | 17: PID output                    |  |       |
|       | 18: PID output2                   |  |       |
|       | 19: Drive temperature             |  |       |
|       | 20: External temperature          |  |       |
|       | 21: Feedback freq.(FG)            |  |       |
|       | 22: Torque command                |  |       |
|       | 0-2.000                           |  |       |
|       | Gain (FM+)                        |  |       |
| H4-01 | Gain (FM+)                        | Refer to H4-00   |       |
| H4-03 | Selection                         | Refer to H4-00   | 5     |
| H4-04 | Gain (AM+)                        | 0-2.000  |       |
| H4-05 | Bias (AM+)                        | -1.000-1.000   |       |
| H4-07 | Level Selection                   | 1.0-20mA (AM+)<br>0.0-10V  |       |
| H5-00 | Comm. Address                     | 0-254  |       |
| H5-01 | Comm. Baud Rate                   | 19200 bps<br>38400 bps<br>57600 bps<br>9600 bps<br>11400 bps                                     | 9600  |
| H5-02 | Comm. Protocol                    | 8, N, 1<br>8, E, 1<br>8, N, 2<br>8, O, 1   | 8N1   |
| H5-03 | Transmit Delay Time               | 5-65 msec  | 10    |
| H5-04 | Comm. Disposal (Cot)              | 0: Ramp to stop<br>1: Coast to stop<br>2: Keep running   |       |
| H5-05 | Comm. Overtime (Cot)              | 0.0-100.0 sec  |       |
| H5-06 | Comm. Selection                   | 0: Modbus RTU<br>1: Modbus ASCII   |       |
| H5-07 | Parameters Modify Mode            | 0: Store at EEPROM<br>1: Don't store at EEPROM by Comm.  |       |
| H6-00 | Pulse Train Input Selection       | 0: None<br>1: Freq. command<br>2: PID feedback<br>3: PID set point<br>4: Speed feedback(H1□=±46) | 0     |
| H6-01 | Pulse Train Scalling              | 100-32000 Hz   | 1440  |
| H6-02 | Pulse Train Input Gain            | 0.000-10.000   | 1.000 |
| H6-03 | Pulse Train Input Bias            | -1.000-1.000   | 0.000 |
| H6-04 | Pulse Train Response Input        | 0.000-50.000 sec   | 0.010 |
| H6-05 | Pulse Train Monitor Selection     | Please refer to H4-00  | 1     |
| H6-06 | Pulse Train Monitor Scalling      | 100-32000 Hz   | 1440  |

| Func. | Name  | Range   | df60  |
|-------|---|---|-------|
|       | 0: Disable                                      |   |       |
|       | 1: Frequency(before gain)                       |   |       |
|       | 2: Frequency gain                               |   |       |
|       | 3: Frequency bias(after gain)                   |   |       |
|       | 4: Auxiliary frequency 1                        |   |       |
|       | 5: Auxiliary frequency 2                        |   |       |
|       | 6: Current limit                                |   |       |
|       | 7: PID setpoint                                 |   |       |
|       | 8: PID feedback                                 |   |       |
|       | 9: Differential PID feedback                    |   |       |
|       | 10: Output voltage adjustment of V/F pattern    |   |       |
|       | 11: Analog input protection 1                   |   |       |
|       | 12: Analog input protection 2                   |   |       |
|       | 13: Frequency limit                             |   |       |
|       | 14: Forward torque limit                        |   |       |
|       | 15: Reverse torque limit                        |   |       |
|       | 16: Regeneration torque limit                   |   |       |
|       | 17: Torque limit / Torque command               |   |       |
|       | 18: Torque compensation                         |   |       |
|       | 19: Torque limit                                |   |       |
|       | 20: Reserve                                     |   |       |
|       | 21: Water shortage protection                   |   |       |
| H3-01 | Selection (VIn1)                                | 11: Analog input protection 1<br>12: Analog input protection 2  | 1     |
| H3-02 | Gain (VIn1)                                     | -10.000-10.000  | 1.000 |
| H3-03 | Bias (VIn1)                                     | -10.000-10.000  | 0.00  |
| H3-04 | Selection (VIn1)                                | 0.0-10 Vdc<br>-1.0-10 Vdc   | 0     |
| H3-05 | Response Time (VIn1)                            | 0.000-50.000 sec  | 0.000 |
| H3-06 | Analog Input Selection (VIn2)                   | Please refer to H3-01   | 0     |
| H3-07 | Gain (VIn2)                                     | -10.000-10.000  | 1.000 |
| H3-08 | Bias (VIn2)                                     | -10.000-10.000  | 0.000 |
| H3-09 | Input Range (VIn2)                              | 0.0-10 Vdc<br>-1.0-10 Vdc   | 0     |
| H3-10 | Response Time (VIn2)                            | 0.000-50.000 sec  | 0.000 |
| H3-11 | Analog Input Selection (In)                     | Please refer to H3-01   | 0     |
| H3-12 | Gain (In)                                       | -10.000-10.000  | 1.000 |
| H3-13 | Bias (In)                                       | -10.000-10.000  | 0.000 |
| H3-14 | Input Range (In)                                | 0.4-20 mA<br>2.0-10V  | 0     |
| H3-15 | Response Time (In)                              | 0.000-50.000 sec  | 0.000 |
| H3-16 | Offset (VIn1)                                   | -1.000-1.000  | 0.000 |
| H3-17 | Offset (VIn2)                                   | -1.000-1.000  | 0.000 |
| H3-18 | Offset (In)                                     | -1.000-1.000  | 0.000 |
| H3-20 | Virtual Analog Input 1 (Virtual Analog Input 1) | Please refer to H3-01   | 0     |
| H3-21 | Virtual Analog Input 1 Value                    | -1.000-1.000  | 0.000 |
| H3-22 | Virtual Analog Input 2 (Virtual Analog Input 2) | Please refer to H3-01   | 0     |
| H3-23 | Virtual Analog Input 2 Value                    | -1.000-1.000  | 0.000 |
| H3-24 | Analog Input Selection (H1□=±61)                | 0: All<br>1: All<br>2: All<br>3: All<br>4: All<br>5: All<br>6: All<br>7: VIn1+VIn2<br>8: VIn1<br>9: VIn1<br>10: VIn2<br>11: VIn1+VIn2<br>12: VIn2<br>13: VIn1<br>14: VIn2<br>15: VIn1+VIn2<br>16: VIn1<br>17: VIn2<br>18: VIn1+VIn2<br>19: VIn1<br>20: VIn2<br>21: VIn1+VIn2<br>22: VIn1<br>23: VIn2<br>24: VIn1+VIn2<br>25: VIn1<br>26: VIn2<br>27: VIn1+VIn2<br>28: VIn1<br>29: VIn2<br>30: VIn1+VIn2<br>31: VIn1<br>32: VIn2<br>33: VIn1+VIn2<br>34: VIn1<br>35: VIn2<br>36: VIn1+VIn2<br>37: VIn1<br>38: VIn2<br>39: VIn1+VIn2<br>40: VIn1<br>41: VIn2<br>42: VIn1+VIn2<br>43: VIn1<br>44: VIn2<br>45: VIn1+VIn2<br>46: VIn1<br>47: VIn2<br>48: VIn1+VIn2<br>49: VIn1<br>50: VIn2<br>51: VIn1+VIn2<br>52: VIn1<br>53: VIn2<br>54: VIn1+VIn2<br>55: VIn1<br>56: VIn2<br>57: VIn1+VIn2<br>58: VIn1<br>59: VIn2<br>60: VIn1+VIn2<br>61: VIn1<br>62: VIn2<br>63: VIn1+VIn2<br>64: VIn1<br>65: VIn2<br>66: VIn1+VIn2<br>67: VIn1<br>68: VIn2<br>69: VIn1+VIn2<br>70: VIn1<br>71: VIn2<br>72: VIn1+VIn2<br>73: VIn1<br>74: VIn2<br>75: VIn1+VIn2<br>76: VIn1<br>77: VIn2<br>78: VIn1+VIn2<br>79: VIn1<br>80: VIn2<br>81: VIn1+VIn2<br>82: VIn1<br>83: VIn2<br>84: VIn1+VIn2<br>85: VIn1<br>86: VIn2<br>87: VIn1+VIn2<br>88: VIn1<br>89: VIn2<br>90: VIn1+VIn2<br>91: VIn1<br>92: VIn2<br>93: VIn1+VIn2<br>94: VIn1<br>95: VIn2<br>96: VIn1+VIn2<br>97: VIn1<br>98: VIn2<br>99: VIn1+VIn2<br>100: VIn1<br>101: VIn2<br>102: VIn1+VIn2<br>103: VIn1<br>104: VIn2<br>105: VIn1+VIn2<br>106: VIn1<br>107: VIn2<br>108: VIn1+VIn2<br>109: VIn1<br>110: VIn2<br>111: VIn1+VIn2<br>112: VIn1<br>113: VIn2<br>114: VIn1+VIn2<br>115: VIn1<br>116: VIn2<br>117: VIn1+VIn2<br>118: VIn1<br>119: VIn2<br>120: VIn1+VIn2<br>121: VIn1<br>122: VIn2<br>123: VIn1+VIn2<br>124: VIn1<br>125: VIn2<br>126: VIn1+VIn2<br>127: VIn1<br>128: VIn2<br>129: VIn1+VIn2<br>130: VIn1<br>131: VIn2<br>132: VIn1+VIn2<br>133: VIn1<br>134: VIn2<br>135: VIn1+VIn2<br>136: VIn1<br>137: VIn2<br>138: VIn1+VIn2<br>139: VIn1<br>140: VIn2<br>141: VIn1+VIn2<br>142: VIn1<br>143: VIn2<br>144: VIn1+VIn2<br>145: VIn1<br>146: VIn2<br>147: VIn1+VIn2<br>148: VIn1<br>149: VIn2<br>150: VIn1+VIn2<br>151: VIn1<br>152: VIn2<br>153: VIn1+VIn2<br>154: VIn1<br>155: VIn2<br>156: VIn1+VIn2<br>157: VIn1<br>158: VIn2<br>159: VIn1+VIn2<br>160: VIn1<br>161: VIn2<br>162: VIn1+VIn2<br>163: VIn1<br>164: VIn2<br>165: VIn1+VIn2<br>166: VIn1<br>167: VIn2<br>168: VIn1+VIn2<br>169: VIn1<br>170: VIn2<br>171: VIn1+VIn2<br>172: VIn1<br>173: VIn2<br>174: VIn1+VIn2<br>175: VIn1<br>176: VIn2<br>177: VIn1+VIn2<br>178: VIn1<br>179: VIn2<br>180: VIn1+VIn2<br>181: VIn1<br>182: VIn2<br>183: VIn1+VIn2<br>184: VIn1<br>185: VIn2<br>186: VIn1+VIn2<br>187: VIn1<br>188: VIn2<br>189: VIn1+VIn2<br>190: VIn1<br>191: VIn2<br>192: VIn1+VIn2<br>193: VIn1<br>194: VIn2<br>195: VIn1+VIn2<br>196: VIn1<br>197: VIn2<br>198: VIn1+VIn2<br>199: VIn1<br>200: VIn2<br>201: VIn1+VIn2<br>202: VIn1<br>203: VIn2<br>204: VIn1+VIn2<br>205: VIn1<br>206: VIn2<br>207: VIn1+VIn2<br>208: VIn1<br>209: VIn2<br>210: VIn1+VIn2<br>211: VIn1<br>212: VIn2<br>213: VIn1+VIn2<br>214: VIn1<br>215: VIn2<br>216: VIn1+VIn2<br>217: VIn1<br>218: VIn2<br>219: VIn1+VIn2<br>220: VIn1<br>221: VIn2<br>222: VIn1+VIn2<br>223: VIn1<br>224: VIn2<br>225: VIn1+VIn2<br>226: VIn1<br>227: VIn2<br>228: VIn1+VIn2<br>229: VIn1<br>230: VIn2<br>231: VIn1+VIn2<br>232: VIn1<br>233: VIn2<br>234: VIn1+VIn2<br>235: VIn1<br>236: VIn2<br>237: VIn1+VIn2<br>238: VIn1<br>239: VIn2<br>240: VIn1+VIn2<br>241: VIn1<br>242: VIn2<br>243: VIn1+VIn2<br>244: VIn1<br>245: VIn2<br>246: VIn1+VIn2<br>247: VIn1<br>248: VIn2<br>249: VIn1+VIn2<br>250: VIn1<br>251: VIn2<br>252: VIn1+VIn2<br>253: VIn1<br>254: VIn2<br>255: VIn1+VIn2<br>256: VIn1<br>257: VIn2<br>258: VIn1+VIn2<br>259: VIn1<br>260: VIn2<br>261: VIn1+VIn2<br>262: VIn1<br>263: VIn2<br>264: VIn1+VIn2<br>265: VIn1<br>266: VIn2<br>267: VIn1+VIn2<br>268: VIn1<br>269: VIn2<br>270: VIn1+VIn2<br>271: VIn1<br>272: VIn2<br>273: VIn1+VIn2<br>274: VIn1<br>275: VIn2<br>276: VIn1+VIn2<br>277: VIn1<br>278: VIn2<br>279: VIn1+VIn2<br>280: VIn1<br>281: VIn2<br>282: VIn1+VIn2<br>283: VIn1<br>284: VIn2<br>285: VIn1+VIn2<br>286: VIn1<br>287: VIn2<br>288: VIn1+VIn2<br>289: VIn1<br>290: VIn2<br>291: VIn1+VIn2<br>292: VIn1<br>293: VIn2<br>294: VIn1+VIn2<br>295: VIn1<br>296: VIn2<br>297: VIn1+VIn2<br>298: VIn1<br>299: VIn2<br>300: VIn1+VIn2<br>301: VIn1<br>302: VIn2<br>303: VIn1+VIn2<br>304: VIn1<br>305: VIn2<br>306: VIn1+VIn2<br>307: VIn1<br>308: VIn2<br>309: VIn1+VIn2<br>310: VIn1<br>311: VIn2<br>312: VIn1+VIn2<br>313: VIn1<br>314: VIn2<br>315: VIn1+VIn2<br>316: VIn1<br>317: VIn2<br>318: VIn1+VIn2<br>319: VIn1<br>320: VIn2<br>321: VIn1+VIn2<br>322: VIn1<br>323: VIn2<br>324: VIn1+VIn2<br>325: VIn1<br>326: VIn2<br>327: VIn1+VIn2<br>328: VIn1<br>329: VIn2<br>330: VIn1+VIn2<br>331: VIn1<br>332: VIn2<br>333: VIn1+VIn2<br>334: VIn1<br>335: VIn2<br>336: VIn1+VIn2<br>337: VIn1<br>338: VIn2<br>339: VIn1+VIn2<br>340: VIn1<br>341: VIn2<br>342: VIn1+VIn2<br>343: VIn1<br>344: VIn2<br>345: VIn1+VIn2<br>346: VIn1<br>347: VIn2<br>348: VIn1+VIn2<br>349: VIn1<br>350: VIn2<br>351: VIn1+VIn2<br>352: VIn1<br>353: VIn2<br>354: VIn1+VIn2<br>355: VIn1<br>356: VIn2<br>357: VIn1+VIn2<br>358: VIn1<br>359: VIn2<br>360: VIn1+VIn2<br>361: VIn1<br>362: VIn2<br>363: VIn1+VIn2<br>364: VIn1<br>365: VIn2<br>366: VIn1+VIn2<br>367: VIn1<br>368: VIn2<br>369: VIn1+VIn2<br>370: VIn1<br>371: VIn2<br>372: VIn1+VIn2<br>373: VIn1<br>374: VIn2<br>375: VIn1+VIn2<br>376: VIn1<br>377: VIn2<br>378: VIn1+VIn2<br>379: VIn1<br>380: VIn2<br>381: VIn1+VIn2<br>382: VIn1<br>383: VIn2<br>384: VIn1+VIn2<br>385: VIn1<br>386: VIn2<br>387: VIn1+VIn2<br>388: VIn1<br>389: VIn2<br>390: VIn1+VIn2<br>391: VIn1<br>392: VIn2<br>393: VIn1+VIn2<br>394: VIn1<br>395: VIn2<br>396: VIn1+VIn2<br>397: VIn1<br>398: VIn2<br>399: VIn1+VIn2<br>400: VIn1<br>401: VIn2<br>402: VIn1+VIn2<br>403: VIn1<br>404: VIn2<br>405: VIn1+VIn2<br>406: VIn1<br>407: VIn2<br>408: VIn1+VIn2<br>409: VIn1<br>410: VIn2<br>411: VIn1+VIn2<br>412: VIn1<br>413: VIn2<br>414: VIn1+VIn2<br>415: VIn1<br>416: VIn2<br>417: VIn1+VIn2<br>418: VIn1<br>419: VIn2<br>420: VIn1+VIn2<br>421: VIn1<br>422: VIn2<br>423: VIn1+VIn2<br>424: VIn1<br>425: VIn2<br>426: VIn1+VIn2<br>427: VIn1<br>428: VIn2<br>429: VIn1+VIn2<br>430: VIn1<br>431: VIn2<br>432: VIn1+VIn2<br>433: VIn1<br>434: VIn2<br>435: VIn1+VIn2<br>436: VIn1<br>437: VIn2<br>438: VIn1+VIn2<br>439: VIn1<br>440: VIn2<br>441: VIn1+VIn2<br>442: VIn1<br>443: VIn2<br>444: VIn1+VIn2<br>445: VIn1<br>446: VIn2<br>447: VIn1+VIn2<br>448: VIn1<br>449: VIn2<br>450: VIn1+VIn2<br>451: VIn1<br>452: VIn2<br>453: VIn1+VIn2<br>454: VIn1<br>455: VIn2<br>456: VIn1+VIn2<br>457: VIn1<br>458: VIn2<br>459: VIn1+VIn2<br>460: VIn1<br>461: VIn2<br>462: VIn1+VIn2<br>463: VIn1<br>464: VIn2<br>465: VIn1+VIn2<br>466: VIn1<br>467: VIn2<br>468: VIn1+VIn2<br>469: VIn1<br>470: VIn2<br>471: VIn1+VIn2<br>472: VIn1<br>473: VIn2<br>474: VIn1+VIn2<br>475: VIn1<br>476: VIn2<br>477: VIn1+VIn2<br>478: VIn1<br>479: VIn2<br>480: VIn1+VIn2<br>481: VIn1<br>482: VIn2<br>483: VIn1+VIn2<br>484: VIn1<br>485: VIn2<br>486: VIn1+VIn2<br>487: VIn1<br>488: VIn2<br>489: VIn1+VIn2<br>490: VIn1<br>491: VIn2<br>492: VIn1+VIn2<br>493: VIn1<br>494: VIn2<br>495: VIn1+VIn2<br>496: VIn1<br>497: VIn2<br>498: VIn1+VIn2<br>499: VIn1<br>500: VIn2<br>501: VIn1+VIn2<br>502: VIn1<br>503: VIn2<br>504: VIn1+VIn2<br>505: VIn1<br>506: VIn2<br>507: VIn1+VIn2<br>508: VIn1<br>509: VIn2<br>510: VIn1+VIn2<br>511: VIn1<br>512: VIn2<br>513: VIn1+VIn2<br>514: VIn1<br>515: VIn2<br>516: VIn1+VIn2<br>517: VIn1<br>518: VIn2<br>519: VIn1+VIn2<br>520: VIn1<br>521: VIn2<br>522: VIn1+VIn2<br>523: VIn1<br>524: VIn2<br>525: VIn1+VIn2<br>526: VIn1<br>527: VIn2<br>528: VIn1+VIn2<br>529: VIn1<br>530: VIn2<br>531: VIn1+VIn2<br>532: VIn1<br>533: VIn2<br>534: VIn1+VIn2<br>535: VIn1<br>536: VIn2<br>537: VIn1+VIn2<br>538: VIn1<br>539: VIn2<br>540: VIn1+VIn2<br>541: VIn1<br>542: VIn2<br>543: VIn1+VIn2<br>544: VIn1<br>545: VIn2<br>546: VIn1+VIn2<br>547: VIn1<br>548: VIn2<br>549: VIn1+VIn2<br>550: VIn1<br>551: VIn2<br>552: VIn1+VIn2<br>553: VIn1<br>554: VIn2<br>555: VIn1+VIn2<br>556: VIn1<br>557: VIn2<br>558: VIn1+VIn2<br>559: VIn1<br>560: VIn2<br>561: VIn1+VIn2<br>562: VIn1<br>563: VIn2<br>564: VIn1+VIn2<br>565: VIn1<br>566: VIn2<br>567: VIn1+VIn2<br>568: VIn1<br>569: VIn2<br>570: VIn1+VIn2<br>571: VIn1<br>572: VIn2<br>573: VIn1+VIn2<br>574: VIn1<br>575: VIn2<br>576: VIn1+VIn2<br>577: VIn1<br>578: VIn2<br>579: VIn1+VIn2<br>580: VIn1<br>581: VIn2<br>582: VIn1+VIn2<br>583: VIn1<br>584: VIn2<br>585: VIn1+VIn2<br>586: VIn1<br>587: VIn2<br>588: VIn1+VIn2<br>589: VIn1<br>590: VIn2<br>591: VIn1+VIn2<br>592: VIn1<br>593: VIn2<br>594: VIn1+VIn2<br>595: VIn1<br>596: VIn2<br>597: VIn1+VIn2<br>598: VIn1<br>599: VIn2<br>600: VIn1+VIn2<br>601: VIn1<br>602: VIn2<br>603: VIn1+VIn2<br>604: VIn1<br>605: VIn2<br>606: VIn1+VIn2<br>607: VIn1<br>608: VIn2<br>609: VIn1+VIn2<br>610: VIn1<br>611: VIn2<br>612: VIn1+VIn2<br>613: VIn1<br>614: VIn2<br>615: VIn1+VIn2<br>616: VIn1<br>617: VIn2<br>618: VIn1+VIn2<br>619: VIn1<br>620: VIn2<br>621: VIn1+VIn2<br>622: VIn1<br>623: VIn2<br>624: VIn1+VIn2<br>625: VIn1<br>626: VIn2<br>627: VIn1+VIn2<br>628: VIn1<br>629: VIn2<br>630: VIn1+VIn2<br>631: VIn1<br>632: VIn2<br>633: VIn1+VIn2<br>634: VIn1<br>635: VIn2<br>636: VIn1+VIn2<br>637: VIn1<br>638: VIn2<br>639: VIn1+VIn2<br>640: VIn1<br>641: VIn2<br>642: VIn1+VIn2<br>643: VIn1<br>644: VIn2<br>645: VIn1+VIn2<br>646: VIn1<br>647: VIn2<br>648: VIn1+VIn2<br>649: VIn1<br>650: VIn2<br>651: VIn1+VIn2<br>652: VIn1<br>653: VIn2<br>654: VIn1+VIn2<br>655: VIn1<br>656: VIn2<br>657: VIn1+VIn2<br>658: VIn1<br>659: VIn2<br>660: VIn1+VIn2<br>661: VIn1<br>662: VIn2<br>663: VIn1+VIn2<br>664: VIn1<br>665: VIn2<br>666: VIn1+VIn2<br>667: VIn1<br>668: VIn2<br>669: VIn1+VIn2<br>670: VIn1<br>671: VIn2<br>672: VIn1+VIn2<br>673: VIn1<br>674: VIn2<br>675: VIn1+VIn2<br>676: VIn1<br>677: VIn2<br>678: VIn1+VIn2<br>679: VIn1<br>680: VIn2<br>681: VIn1+VIn2<br>682: VIn1<br>683: VIn2<br>684: VIn1+VIn2<br>685: VIn1<br>686: VIn2<br>687: VIn1+VIn2<br>688: VIn1<br>689: VIn2<br>690: VIn1+VIn2<br>691: VIn1<br>692: VIn2<br>693: VIn1+VIn2<br>694: VIn1<br>695: VIn2<br>696: VIn1+VIn2<br>697: VIn1<br>698: VIn2<br>699: VIn1+VIn2<br>700: VIn1<br>701: VIn2<br>702: VIn1+VIn2<br>703: VIn1<br>704: VIn2<br>705: VIn1+VIn2<br>706: VIn1<br>707: VIn2<br>708: VIn1+VIn2<br>709: VIn1<br>710: VIn2<br>711: VIn1+VIn2<br>712: VIn1<br>713: VIn2<br>714: VIn1+VIn2<br>715: VIn1<br>716: VIn2<br>717: VIn1+VIn2<br>718: VIn1<br>719: VIn2<br>720: VIn1+VIn2<br>721: VIn1<br>722: VIn2<br>723: VIn1+VIn2<br>724: VIn1<br>725: VIn2<br>726: VIn1+VIn2<br>727: VIn1<br>728: VIn2<br>729: VIn1+VIn2<br>730: VIn1<br>731: VIn2<br>732: VIn1+VIn2<br>733: VIn1<br>734: VIn2<br>735: VIn1+VIn2<br>736: VIn1<br>737: VIn2<br>738: VIn1+VIn2<br>739: VIn1<br>740: VIn2<br>741: VIn1+VIn2<br>742: VIn1<br>743: VIn2<br>744: VIn1+VIn2<br>745: VIn1<br>746: VIn2<br>747: VIn1+VIn2<br>748: VIn1<br>749: VIn2<br>750: VIn1+VIn2<br>751: VIn1<br>752: VIn2<br>753: VIn1+VIn2<br>754: VIn1<br>755: VIn2<br>756: VIn1+VIn2<br>757: VIn1<br>758: VIn2<br>759: VIn1+VIn2<br>760: VIn1<br>761: VIn2<br>762: VIn1+VIn2<br>763: VIn1<br>764: VIn2<br>765: VIn1+VIn2<br>766: VIn1<br>767: VIn2<br>768: VIn1+VIn2<br>769: VIn1<br>770: VIn2<br>771: VIn1+VIn2<br>772: VIn1<br>773: VIn2<br>774: VIn1+VIn2<br>775: VIn1<br>776: VIn2<br>777: VIn1+VIn2<br>778: VIn1<br>779: VIn2<br>780: VIn1+VIn2<br>781: VIn1<br>782: VIn2<br>783: VIn1+VIn2<br>784: VIn1<br>785: VIn2<br>786: VIn1+VIn2<br>787: VIn1<br>788: VIn2<br>789: VIn1+VIn2<br>790: VIn1<br>791: VIn2<br>792: VIn1+VIn2<br>793: VIn1<br>794: VIn2<br>795: VIn1+VIn2<br>796: VIn1<br>797: VIn2<br>798: VIn1+VIn2<br>799: VIn1<br>800: VIn2<br>801: VIn1+VIn2<br>802: VIn1<br>803: VIn2<br>804: VIn1+VIn2<br>805: VIn1<br>806: VIn2<br>807: VIn1+VIn2<br>808: VIn1<br>809: VIn2<br>810: VIn1+VIn2<br>811: VIn1<br>81 |       |



| Func. | Name                                      | Range   | df60  |
|-------|---|---|-------|
| G2-12 | Proportional Gain(P)                      | 0.0-25.0  | 3.0   |
| G2-13 | Integration Time(I)                       | 0.0-25.0 sec  | 1.2   |
| G2-14 | Derivative Time(D)                        | 0.00-2.50 sec   | 0.00  |
| G2-15 | Derivative Time of Feedback               | 0.00-2.50 sec   | 0.00  |
| G2-16 | Derivative Selection Time(D)              | 0: D postposition<br>1: D preposition   | 0     |
| G2-17 | Upper Limitation                          | -1.00-1.00  | 1.00  |
| G2-18 | Integration Lower Limitation              | -1.00-1.00  | 0.00  |
| G2-19 | Offset Adjustment for Integration Time    | 0-100%  | 65    |
| G2-20 | PID Buffer Space                          | 0.001-1.000   | 1.000 |
| G2-21 | Feedback Signal Filter                    | 0.000-50.000 sec  | 0.000 |
| G2-22 | (Water Shortage Detection) Auto-Reset     | 1: Trip: Press "Reset" key to reset.<br>2: Trip: Power ON again to reset.<br>3: Trip: Auto-restarts according to G2-26. | 3     |
| G2-23 | (Water Shortage Detection) Pressure Level | 0-100%  | 40    |
| G2-24 | (Water Shortage Detection) Current Level  | 0-100%  | 0     |
| G2-25 | (Water Shortage Detection) Time Detection | 0-250 sec   | 60    |
| G2-26 | (Water Shortage) Shutdown Time            | 0-200 min   | 6     |
| G2-27 | (Water Shortage) number of restart        | 0-255   | 10    |
| G2-28 | Noise Prevention                          | 0: Disable.<br>1: Enable.   | 0     |
| G2-29 | Continuous Water Supply Control           | 0: Disable.<br>1: Enable.   | 0     |
| G2-30 | Over Pressure Disposal                    | 0: Disable<br>1: Alarm: Drive keeps running.<br>2: Alarm: Drive stops output.<br>3: Trip: Drive trips to stop.          | 0     |
| G2-31 | Over Pressure Level                       | 0-100%  | 100   |
| G2-32 | Over Pressure Detection Time              | 0.0-25.5 sec  | 2.0   |
| G2-33 | Over Pressure detection mode              | 0: During operation<br>1: During power on   | 1     |
| G2-34 | Feedback Signal Trip Detection            | 0: Disable.<br>1: Enable.   | 1     |
| G2-35 | Feedback Signal Trip Level                | 0.00-1.00   | 0.10  |
| G2-36 | Operation Condition Memory                | 0: Disable.(b1-02=1)<br>1: Enable.  | 1     |
| G2-37 | Delay Start Time                          | 0-9999 sec  | 0     |

| Func. | Name  | Range  | df60 |
|-------|---|--|------|
| G2-38 | Force Enter ON/OFF Mode                     | 0:Disable<br>1:Enable in dynamic test<br>2:Enable in static test                                 | 0    |
| G3-00 | Control Mode Selection                      | 0-8  | 0    |
| G3-01 | Drive's No. Setting                         | 0-8  | 0    |
| G3-02 | (Parallel control) Selection of Pump Shift  | 0: Disable<br>1: Shift after G3-04.<br>2: Shift after a drive stops.<br>3: Both 1 and 2 enabled. | 3    |
| G3-03 | (Parallel control) Pump Shift Time Unit     | 0: Hour<br>1: Min<br>2: Sec  | 0    |
| G3-04 | (Parallel control) Pump Shift Time          | 0-240  | 24   |
| G3-05 | (Parallel control) Delay Time at Pump Shift | 0-250 sec  | 10   |
| G3-06 | (Parallel control) Launch Detection Time    | 0.0-25.0 sec   | 6.0  |
| G3-07 | (Parallel control) Detection Level          | 0.0-25.0 bar   | 0.4  |
| G3-08 | (Parallel control) Cut-off Frequency        | 0.0-60.0 Hz  | 50.0 |
| G3-09 | (Parallel control) Cut-off Time             | 0.0-25.0 sec   | 10.0 |
| G3-10 | Set Standby Drives                          | 0-7  | 0    |
| G3-11 | Set the Minimum Pumps during Operation      | 1-8  | 1    |
| G3-12 | Total Pump Operation                        | 1-8  | 4    |
| G3-13 | Transfer time                               | 5-65535  | 150  |
| G3-14 | Polling time                                | 1-65535  | 1    |
| G3-15 | Master/Slave Force                          | 0: Disable<br>1: Force slave<br>2: Force master  | 0    |

| Func. | Name  | Range  | df60  |
|-------|---|--|-------|
| F1-00 | Pulse Per Resolution                          | 0-10000  | 1024  |
| F1-01 | Rotation Selection                            | 0:A pulse leads with forward<br>1:B pulse leads with forward     | 0     |
| F1-02 | (PGO) Open-Circuit Selection                  | 1: Disable<br>2: Warm<br>3: Ramp to stop<br>4: Coast to stop     | 3     |
| F1-03 | (PGO) Detection Time                          | 0-0-10.0 sec   | 2.0   |
| F1-04 | Over-speed (OS) Selection                     | 1: Disable<br>2: Warm<br>3: Ramp to stop<br>4: Coast to stop     | 3     |
| F1-05 | OS Detection Level                            | 0-120%   | 120   |
| F1-06 | OS Detection Time                             | 0-0-2.0 sec  | 2.0   |
| F1-07 | Excessive Speed Deviation(dEV)                | 1: Disable<br>2: Warm<br>3: Ramp to stop<br>4: Coast to stop     | 3     |
| F1-08 | dEV Detection Level                           | 0-50 %   | 20    |
| F1-09 | dEV Detection Time                            | 0-0-10.0 sec   | 2.0   |
| F1-10 | PG Signal Selection                           | 0: Single track (tracks A and B)<br>1: Two track (tracks A only) | 0     |
| F1-11 | Division Rate for PG Pulse Monitor            |  | 1     |
| F1-12 | Double Rate for PG Pulse Monitor              | Output ration = : F1-11<br>1+F1-12                               | 0     |
| F1-13 | MFG High Pass Filter                          | 0.000-5.000  | 1.000 |
| F1-14 | MFG Gain                                      | 0.00-100.00  | 1.00  |
| F1-15 | MFG Start Angle                               | 0.00-3.00  | 1.00  |
| F1-16 | MFG Low pass Filter                           | 0.000-60.000   | 0.000 |
| F1-17 | Hall sensor Monitor 1                         | 0000-9999  | 0     |
| F1-18 | Hall sensor Monitor 2                         | 0000-9999  | 0     |
| G2-00 | SV Setting Value                              | 0.0-G2-01  | 2.0   |
| G2-01 | Transducer Pressure                           | 0.0-6000.0   | 10.0  |
| G2-02 | Maximum Operating Pressure                    | 0-100 %  | 100   |
| G2-03 | Pressure Boost (Water Usage)                  | 0.01-160.00  | 0.15  |
| G2-04 | Pressure Boost (Water Usage) Time Interval of | 0.1-25.0 sec   | 0.6   |
| G2-05 | Pressure Boost (Water Usage)                  | 0-250 sec  | 35    |
| G2-06 | PID Start Range (Water Usage)                 | 0.0-160.0  | 0.3   |
| G2-07 | Drive Standby level                           | 0-120 hz   | 10    |
| G2-08 | (ON/OFF Mode) Starting Rate Setting           | 0-100 % (0:OFF)  | 0     |
| G2-09 | (ON/OFF Mode) Band Setting Pressure Dead      | 0.1-25.0   | 0.3   |
| G2-10 | Compensation PID                              | 0.1-8.0  | 1.0   |
| G2-11 | Proportional Gain(P)                          | 0:P position   | 1     |

| Func. | Name                                  | Range   | df60  |
|-------|---------------------------------------|---|-------|
| E1-09 | V/F Voltage 2                         | 0-300.0V (220V series)<br>0-550.0V (380V series)  | 0     |
| E1-10 | Output Voltage Limit                  | 0:Disable<br>1:Enable   | 0     |
| E1-11 | V/F Pattern                           | 1:Energy-saving<br>2:Square Curve<br>3:1.7 <sup>th</sup> power Curve<br>4:1.5 <sup>th</sup> power Curve             | 0     |
| E1-12 | Non-linear Start Freq.                | 0-600.0 Hz  | 0.0   |
| E1-13 | Voltage Boost Ratio at Acceleration   | 0-100   | 0     |
| E1-14 | Voltage Boost Ratio at Acceleration   | 0-100   | 0     |
| E1-15 | Voltage Buck Time after Boost Voltage | 0.1-60.0 msec   | 10.0  |
| E2-01 | Motor Rated Current                   | 10-150% of drive rated  | -     |
| E2-02 | Motor Rated Slip Current              | 0.00-20.00 Hz   | -     |
| E2-03 | Motor No-Load Current                 | 0-E2-01   | -     |
| E2-04 | Motor Poles                           | 2-24  | 4     |
| E2-05 | Motor Line-to-Line Resistance         | 0.001-65.000 Ω  | -     |
| E2-06 | Motor Leakage Inductance              | 0.01-40.0 %   | -     |
| E2-11 | PM Motor Ld                           | 0.001-60.000 mH   | 3.000 |
| E2-12 | PM Motor Lq                           | 0.001-60.000 mH   | 3.000 |
| E2-13 | Back-EMF Constant                     | 0.01-650.00   | 60.0  |
| E3-00 | Motor 2 Output Freq.                  | 0.1-600.0Hz   | 60.0  |
| E3-01 | Motor 2 Maximum Output Voltage        | 0-300.0V (220V series)<br>0-550.0V (380V series)  | 220.0 |
| E3-02 | Motor 2 Output Voltage                | 0-600.0 Hz  | 380.0 |
| E3-03 | Motor 2 Base Voltage                  | 0.1-300.0V (220V series)<br>0.1-550.0V (380V series)  | 220.0 |
| E3-04 | Motor 2 Start Freq.                   | 0.0-10.0 Hz   | 0.5   |
| E3-05 | Motor 2 Start Voltage                 | 0.1-50.0V (220V series)<br>0.1-100.0V (380V series)   | 8.0   |
| E3-06 | Motor 2 V/F Freq. 1                   | 0-600.0 Hz  | 0.0   |
| E3-07 | Motor 2 V/F Voltage 1                 | 0-300.0V (220V series)<br>0-550.0V (380V series)  | 0     |
| E3-08 | Motor 2 V/F Freq. 2                   | 0-600.0Hz   | 0.0   |
| E3-09 | Motor 2 V/F Voltage 2                 | 0-300.0V (220V series)<br>0-550.0V (380V series)  | 0     |
| E3-10 | Motor 2 Voltage Limit                 | 0:Disable<br>1:Enable   | 0     |
| E3-11 | Motor 2 V/F Pattern                   | 0:Linear<br>1:Energy-saving<br>2:Square Curve<br>3:1.7 <sup>th</sup> power Curve<br>4:1.5 <sup>th</sup> power Curve | 0     |
| E3-12 | Motor 2 Non-linear Start Freq.        | 0-600.0Hz   | 0.0   |
| E3-13 | Motor 2 Start Voltage                 | 0-255.0V (220V series)<br>0-510.0V (380V series)  | 0.0   |
| E4-01 | Motor 2 Rated Current                 | 10-150% of drive rated  | -     |
| E4-02 | Motor 2 Rated Slip                    | 0.00-20.00Hz  | -     |
| E4-03 | Motor 2 No-Load Current               | 0-E4-01   | -     |
| E4-04 | Motor 2 Motor Poles                   | 2-24  | 4     |
| E4-05 | Motor 2 Line-to-Line Resistance       | 0.001-65.000Ω   | -     |
| E4-06 | Motor 2 Leakage Inductance            | 0.01-40.0%  | -     |

| Func. | Name                                      | Range  |
|-------|---|--|
| dF60  | Range                                     | 0.00-600.00  |
| d1-14 | Presets Speed 14                          | 0.00-600.00  |
| d1-15 | Presets Speed 15                          | 0.00-600.00  |
| d1-16 | Jog Speed                                 | 0.00-600.00  |
| d2-00 | Output Freq. Selection: 1:d2-03 and d2-04 | 0.00-600.00  |
| d2-01 | Freq. Upper Limit (%)                     | 0.00-1.00  |
| d2-02 | Freq. Lower Limit (%)                     | 0.00-1.00  |
| d2-03 | Freq. Upper Limit (Hz)                    | 0.00-600.00 Hz   |
| d2-04 | Freq. Lower Limit (Hz)                    | 0.00-600.00 Hz   |
| d3-00 | Jump Freq. (Hz)                           | 0.00-600.00 Hz   |
| d3-01 | Jump Freq. 1                              | 0.0-600.0 Hz   |
| d3-02 | Jump Freq. 2                              | 0.0-600.0 Hz   |
| d3-03 | Jump Freq. 3                              | 0.0-600.0 Hz   |
| d3-04 | Jump Freq. Range                          | 0.0-20.0 Hz  |
| d4-00 | UP/DOWN Memory Selection                  | 0:Disable  |
| d4-01 | UP/DOWN Selection                         | 0.01-25.00 Hz  |
| d4-02 | UP/DOWN Trigger Mode                      | 0:Edge trigger<br>1-5:Response time(sec)                 |
| d4-03 | UP/DOWN Freq. Adjustment                  | 0.00-600.00 Hz   |
| d4-04 | Freq. Resolution during Accel/Decel.      | 0.01-25.00 Hz  |
| d5-01 | Torque Control Selection                  | 0:Speed Control<br>1:Torque Control                      |
| d5-02 | Torque Command Delay Time                 | 0-1000 msec  |
| d5-03 | Speed Limit Selection                     | 0:Frequency command<br>1:d5-04                           |
| d5-04 | Speed Limit                               | -120~-120%   |
| d5-05 | Speed Limit Bias                          | 0-120%   |
| d5-06 | Speed/Torque Control Switch Delay Time    | 0-1000 msec  |
| d5-08 | Unidirectional Control                    | 0:Disabled (bidirectional)<br>1:Enabled (unidirectional) |
| d5-10 | Torque Gain                               | 0.000-2.000  |
| d5-11 | Maximum T/F Curve                         | 0.0-600.0 Hz   |
| d5-12 | Minimum Torque Gain                       | 0.000-2.000  |
| d5-13 | Minimum T/F Curve                         | 0.0-600.0 Hz   |
| d6-00 | Field Weakening Level                     | 0-100%   |
| d6-01 | Field Weakening Limit                     | 0.0-400.0 Hz   |
| d7-00 | Offset Freq. 0                            | -1.00-1.00   |
| d7-01 | Offset Freq. 1                            | -1.00-1.00   |
| d7-02 | Offset Freq. 2                            | -1.00-1.00   |
| E1-00 | Maximum Output Freq.                      | 0.1-600.0 Hz   |
| E1-01 | Maximum Output Voltage                    | 0.0-300.0V (220V series)                                 |
| E1-02 | Base Freq.                                | 0.1-600.0 Hz   |
| E1-03 | Base Voltage                              | 0.1-300.0V (220V series)<br>0.1-550.0V (380V series)     |
| E1-04 | Start Freq.                               | 0.0-10.0 Hz  |
| E1-05 | Start Voltage                             | 0.1-100.0V (380V series)<br>0.1-50.0V (220V series)      |
| E1-06 | V/F Freq. 1                               | 0.0-600.0 Hz   |
| E1-07 | V/F Voltage 1                             | 0.0-300.0V (220V series)<br>0.0-550.0V (380V series)     |
| E1-08 | V/F Freq. 2                               | 0.0-600.0 Hz   |

| Func. | Name                                      | Range  |
|-------|---|--|
| dF60  | Range                                     | 0.00-600.00  |
| d1-14 | Presets Speed 14                          | 0.00-600.00  |
| d1-15 | Presets Speed 15                          | 0.00-600.00  |
| d1-16 | Jog Speed                                 | 0.00-600.00  |
| d2-00 | Output Freq. Selection: 1:d2-03 and d2-04 | 0.00-600.00  |
| d2-01 | Freq. Upper Limit (%)                     | 0.00-1.00  |
| d2-02 | Freq. Lower Limit (%)                     | 0.00-1.00  |
| d2-03 | Freq. Upper Limit (Hz)                    | 0.00-600.00 Hz   |
| d2-04 | Freq. Lower Limit (Hz)                    | 0.00-600.00 Hz   |
| d3-00 | Jump Freq. (Hz)                           | 0.00-600.00 Hz   |
| d3-01 | Jump Freq. 1                              | 0.0-600.0 Hz   |
| d3-02 | Jump Freq. 2                              | 0.0-600.0 Hz   |
| d3-03 | Jump Freq. 3                              | 0.0-600.0 Hz   |
| d3-04 | Jump Freq. Range                          | 0.0-20.0 Hz  |
| d4-00 | UP/DOWN Memory Selection                  | 0:Disable  |
| d4-01 | UP/DOWN Selection                         | 0.01-25.00 Hz  |
| d4-02 | UP/DOWN Trigger Mode                      | 0:Edge trigger<br>1-5:Response time(sec)                     |
| d4-03 | UP/DOWN Freq. Adjustment                  | 0.00-600.00 Hz   |
| d4-04 | Freq. Resolution during Accel/Decel.      | 0.01-25.00 Hz  |
| d5-01 | Torque Control Selection                  | 0:Speed Control<br>1:Torque Control                          |
| d5-02 | Torque Command Delay Time                 | 0-1000 msec  |
| d5-03 | Speed Limit Selection                     | 0:Frequency command<br>1:d5-04                               |
| d5-04 | Speed Limit                               | -120~-120%   |
| d5-05 | Speed Limit Bias                          | 0-120%   |
| d5-06 | Speed/Torque Control Switch Delay Time    | 0-1000 msec  |
| d5-08 | Unidirectional Control                    | 0:Disabled (bidirectional)<br>1:Enabled (unidirectional)     |
| d5-10 | Torque Gain                               | 0.000-2.000  |
| d5-11 | Maximum T/F Curve                         | 0.0-600.0 Hz   |
| d5-12 | Minimum Torque Gain                       | 0.000-2.000  |
| d5-13 | Minimum T/F Curve                         | 0.0-600.0 Hz   |
| d6-00 | Field Weakening Level                     | 0-100%   |
| d6-01 | Field Weakening Limit                     | 0.0-400.0 Hz   |
| d7-00 | Offset Freq. 0                            | -1.00-1.00   |
| d7-01 | Offset Freq. 1                            | -1.00-1.00   |
| d7-02 | Offset Freq. 2                            | -1.00-1.00   |
| E1-00 | Maximum Output Freq.                      | 0.1-600.0 Hz   |
| E1-01 | Maximum Output Voltage                    | 0.0-300.0V (220V series)                                     |
| E1-02 | Base Freq.                                | 0.1-600.0 Hz   |
| E1-03 | Base Voltage                              | 0.1-300.0V (220V series)<br>0.1-550.0V (380V series)         |
| E1-04 | Start Freq.                               | 0.0-10.0 Hz  |
| E1-05 | Start Voltage                             | 0.1-100.0V (380V series)<br>0.1-50.0V (220V series)          |
| E1-06 | V/F Freq. 1                               | 0.0-600.0 Hz   |
| E1-07 | V/F Voltage 1                             | 0.0-300.0V (220V series)<br>0.0-550.0V (380V series)         |
| E1-08 | V/F Freq. 2                               | 0.0-600.0 Hz   |
| C5-00 | ASR Proportional Gain (1P)                | 0.00-300.00  |
| C5-01 | ASR Integral Time (1I)                    | 0.00-10.000 sec  |
| C5-02 | ASR Proportional Gain (2P)                | 0.00-300.00  |
| C5-03 | ASR Integral Time (2I)                    | 0.00-10.000 sec  |
| C5-04 | ASR Limit                                 | 0.0-20.0%  |
| C5-05 | Integral Selection                        | 0:Disable<br>1:Enable  |
| C5-06 | ASR Delay Time                            | 0.000-0.500 sec  |
| C5-07 | ASR Switching Frequency                   | 0.0-400.0 Hz   |
| C5-08 | ASR Integral Limit                        | 0-400%   |
| C5-09 | PM HFI Speed Estimator Proportional Gain  | 0.00-10.00   |
| C5-10 | PM HFI Speed Estimator Integral Gain      | 0.00-200.00  |
| C5-11 | EMF Proportional Gain at High speed       | 0.00-100.00  |
| C5-12 | EMF Proportional Gain at Low speed        | 0.00-100.00  |
| C5-13 | EMF Compensation Proportional Gain        | 0.00-100.00  |
| C5-14 | EMF Compensation Integral Gain            | 0.00-100.00  |
| C7-00 | PM Control IF mode                        | -1.00-1.00   |
| C7-01 | Method Switching                          | 0.0-200.0Hz  |
| C7-02 | HFI Signal Low Pass Filter                | 0.001-1.000  |
| C7-03 | HFI Control Method                        | 1:HFI<br>2:PM magnetic pole<br>3:PM magnetic pole<br>4:Pulse |
| C7-04 | Timeout of HFI Initial Position Detection | 0.01-5.00 sec  |
| C7-05 | HFI Angle Offset                          | -1.00-1.00   |
| C7-06 | HFI Frequency                             | 0-2000 Hz  |
| C7-07 | HFI Voltage                               | 0.00-0.50  |
| C7-08 | Judgment Level of HFI Success             | 0-250  |
| C7-09 | Resolver Angle Offset                     | -1.000-1.000   |
| C7-10 | Current Offset                            | -1.00-1.00   |
| C7-11 | Voltage utilization                       | 100-150  |
| C7-12 | Duty of Pulse Positioning                 | 1-1000   |
| d1-00 | Presets Speed 0                           | 0.00-600.00  |
| d1-01 | Presets Speed 1                           | 0.00-600.00  |
| d1-02 | Presets Speed 2                           | 0.00-600.00  |
| d1-03 | Presets Speed 3                           | 0.00-600.00  |
| d1-04 | Presets Speed 4                           | 0.00-600.00  |
| d1-05 | Presets Speed 5                           | 0.00-600.00  |
| d1-06 | Presets Speed 6                           | 0.00-600.00  |
| d1-07 | Presets Speed 7                           | 0.00-600.00  |
| d1-08 | Presets Speed 8                           | 0.00-600.00  |
| d1-09 | Presets Speed 9                           | 0.00-600.00  |
| d1-10 | Presets Speed 10                          | 0.00-600.00  |
| d1-11 | Presets Speed 11                          | 0.00-600.00  |
| d1-12 | Presets Speed 12                          | 0.00-600.00  |
| d1-13 | Presets Speed 13                          | 0.00-600.00  |

| Func. | Name   | Range  | df60  |
|-------|--|--|-------|
| C3-01 | Slip Compensation                                      | 0.000-10.000 sec   | 0.800 |
| C3-02 | Automatic Voltage Regulation (AVR)                     | 0:Disable<br>1:Enable at all range<br>2:Enable at constant speed<br>and accel.(V/F) / Enable at<br>3:Deceleration(V/F) | 1     |
| C3-03 | Response Time of AVR                                   | 0.000-20.000 sec   | 0.050 |
| C3-04 | Current Oscillation Compensation                       | 0.0-500.0  | 0.0   |
| C3-05 | Current Oscillation Compensation                       | 0.000-1.000 sec  | 0.000 |
| C3-06 | Automatic Torque Compensation                          | 0.0-25.5   | 1.0   |
| C3-07 | Response Time of Motor 2 Slip Compensation             | 0.000-20.000 sec   | 1.000 |
| C3-10 | Motor 2 Slip Compensation                              | -60.0-60.0 Hz  | 0.0   |
| C3-11 | Motor 2 Slip Compensation                              | 0.000-10.000 sec   | 0.800 |
| C3-12 | Motor 2 Automatic Voltage Regulation (AVR)             | 0:Disable<br>1:Enable at all range<br>2:Enable at constant speed<br>and accel.(V/F) / Enable at<br>3:Deceleration(V/F) | 1     |
| C3-13 | Response Time of AVR                                   | 0.000-20.000 sec   | 1.000 |
| C3-14 | Motor 2 Current Oscillation Compensation               | 0.0-500.0  | 1.0   |
| C3-15 | Motor 2 Current Oscillation Compensation               | 0.000-1.000 sec  | 0.010 |
| C3-16 | Motor 2 Automatic Torque Compensation                  | 0.0-25.5   | 1.0   |
| C3-17 | Response Time of Motor 2 Automatic Torque Compensation | 0.000-20.000 sec   | 1.000 |
| C3-20 | Current Oscillation Compensation                       | 0.0-300.0  | 10.0  |
| C3-21 | Current Oscillation Compensation                       | 0.000-1.000  | 0.500 |
| C3-22 | Motor 2 Current Oscillation Compensation               | 0.0-300.0  | 0.0   |
| C3-23 | Motor 2 Current Oscillation Compensation               | 0.000-1.000  | 0.100 |
| C4-00 | Carrier Frequency Filter                               | 0-6  | 1     |

| Func. | Name  | Range   | df60  |
|-------|---|---|-------|
| b5-33 | PID Parameter Switching                                 | 0.000-60.000 sec  | 0.000 |
| b5-34 | PID Soften Start Time                                   | 0.0-6000.0 sec  | 0.0   |
| b5-35 | PID Selection   | 0: Forward control<br>1: Reverse control  | 0     |
| b5-36 | Upper Limit of Transmitter                              | -320.00-320.00  | 1.00  |
| b5-37 | Lower Limit of Transmitter                              | -320.00-320.00  | 0.00  |
| b5-38 | 2nd PI control selection                                | 0: Depend on b5-40<br>1: Switch back to the primary PI after the deviation is lower than 5% of b5-39. | 0     |
| b5-39 | (2nd PI) Active Range                                   | -320.00-320.00  | 1.00  |
| b5-40 | (2nd PI) Active Time                                    | 0.0-300.0 sec   | 0.0   |
| b6-00 | Holding Freq. at Start                                  | 0.00-600.00 Hz  | 0.00  |
| b6-01 | Holding Time at Start                                   | 0.0-360.0 sec   | 0.0   |
| b6-02 | Holding Freq. at Stop                                   | 0.00-600.00 Hz  | 0.00  |
| b6-03 | Holding Time at Stop                                    | 0.0-360.0 sec   | 0.0   |
| C1-00 | Reference Freq. of Accel./Decel.                        | 0.01-600.00 Hz  | 60.00 |
| C1-01 | Accel. Time 0   | 0.0-3200.0 sec  | 5.0   |
| C1-02 | Decel. Time 0   | 0.0-3200.0 sec  | 5.0   |
| C1-03 | Accel. Time 1   | 0.0-3200.0 sec  | 5.0   |
| C1-04 | Decel. Time 1   | 0.0-3200.0 sec  | 5.0   |
| C1-05 | Accel. Time 2 (Motor 2)                                 | 0.0-3200.0 sec  | 5.0   |
| C1-06 | Decel. Time 2 (Motor 2)                                 | 0.0-3200.0 sec  | 5.0   |
| C1-07 | Accel. Time 3 (Motor 2)                                 | 0.0-3200.0 sec  | 5.0   |
| C1-08 | Decel. Time 3 (Motor 2)                                 | 0.0-3200.0 sec  | 5.0   |
| C1-09 | Secondary Accel. Time                                   | 0.0-3200.0 sec  | 5.0   |
| C1-10 | Secondary Decel. Time                                   | 0.0-3200.0 sec  | 5.0   |
| C1-11 | Output Voltage Adjustment of V/F Pattern                | 0.0-3200.0 sec  | 5.0   |
| C1-12 | Decel. Time at Output Voltage Adjustment of V/F Pattern | 0.0-3200.0 sec  | 5.0   |
| C1-13 | Fast Stop Time  | 0.0-3200.0 sec  | 5.0   |
| C1-14 | Accel./Decel. Time Unit                                 | 0.0-1-3200 sec  | 0     |
| C1-15 | Accel./Decel. Time Switching Frequency                  | 0-600 Hz  | 0     |
| C2-00 | S-Curve time at Accel Start                             | 0.00-10.00 sec  | 0.00  |
| C2-01 | S-Curve time at Accel End                               | 0.00-10.00 sec  | 0.00  |
| C2-02 | S-Curve time at Decel Start                             | 0.00-10.00 sec  | 0.00  |
| C2-03 | S-Curve time at Decel End                               | 0.00-10.00 sec  | 0.00  |
| C3-00 | Motor Slip Compensation                                 | 60.0-60.0 Hz  | 0.0   |

| Func. | Name                                   | Range  |
|-------|--|--|
| b4-09 | Selection below Minimum Output Freq.   | 0  |
| b1-10 | Stop method                            | 0  |
| b1-11 | Reverse Operation                      | 0:Enable<br>1:Disable                                    |
| b1-12 | Phase Order Selection                  | 0:Counterwise (IEC)<br>1:Counter-clockwise (NEMA)        |
| b1-14 | Power ON Selection                     | 0  |
| b1-13 | Local/Remote Selection after Switching | 0  |
| b1-15 | MPM gain 1                             | 1  |
| b1-16 | MPM gain 2                             | 1  |
| b2-01 | DC Braking Level                       | 50   |
| b2-02 | DC Braking Response Time               | 1.000  |
| b2-03 | Time of DC Braking after Start         | 0.0-60.0 sec   |
| b2-04 | Delay Time of Ramp to Stop             | 0.0-60.0 sec   |
| b2-05 | Time of DC Braking after Coast to Stop | 0.0-60.0 sec   |
| b2-06 | DC Braking Coast to Stop               | 5.0  |
| b2-07 | Level at Zero Speed                    | 0  |
| b3-00 | Speed Selection at Start               | 0:None<br>1:Frequency command                            |
| b3-01 | Current Level of Start                 | 150  |
| b3-02 | V/F Gain During Speed Trace            | 1.00   |
| b3-03 | Wait / Trace Time of Speed             | 0.0-100.0 sec  |
| b3-04 | Acceleration Time of Speed             | 0.1-6.0 sec  |
| b3-05 | Deceleration Time of Speed             | 0.1-10.0 sec   |
| b3-06 | Stable Time of Trace                   | 200  |
| b3-07 | Start Freq. Gain during Speed Trace    | 1.00   |
| b3-08 | Filter Constant of Speed Trace         | 0.000-1.000  |
| b4-00 | Counter Mode                           | 0  |
| b4-01 | Counter Value 1                        | 0-60000  |
| b4-02 | Counter Value 2                        | 0-60000  |
| b4-03 | Counter Cycle Value                    | 0-60000  |
| b4-04 | Timer ON-Delay Time                    | 0.0-6000.0 sec   |
| b4-05 | Timer Off-Delay Time                   | 0.0-6000.0 sec   |
| b5-00 | PID Function Selection                 | 0  |
| b5-01 | Proportional Gain (1P)                 | 0.00-100.00  |
| b5-02 | Derivative Time (1D)                   | 0.000-36.000 sec   |
| b5-03 | Derivative Time (2P)                   | 0.000-10.000 sec   |
| b5-04 | Proportional Gain (2P)                 | 0.00-100.00  |
| b5-05 | Integral Time 2(I)                     | 0.000-36.000 sec   |
| b5-06 | Derivative Time 2(D)                   | 0.000-10.000 sec   |
| b5-07 | Integral Upper Limit                   | 1.00-1.00  |
| b5-08 | Integral Lower Limit                   | 1.00-1.00  |
| b5-09 | Integral Initial Value                 | -320.00-320.00   |
| b5-10 | PID Input Limit                        | 0.00-1.00  |
| b5-11 | PID Delay Time                         | 0.00-10.00 sec   |
| b5-12 | PID Output Bias                        | 1.00-1.00  |
| b5-13 | PID Output Gain                        | -25.00-25.00   |
| b5-14 | PID Proportional Selection             | 0:General mode<br>1:position mode                        |
| b5-15 | PID Derivative Selection               | 0:General mode<br>1:position mode                        |
| b5-16 | PID Feedback Filter                    | 0.001-1.000  |
| b5-17 | PID Set Point                          | -320.00-320.00   |
| b5-18 | Forward Controller Gain                | -25.00-25.00   |
| b5-19 | Forward Controller Limit               | 1.00-1.00  |
| b5-20 | PID Output 2 Limit                     | 0.00-1.00  |
| b5-21 | PID Output 2 Upper Limit               | 1.00-1.00  |
| b5-22 | PID Output 2 Lower Limit               | 1.00-1.00  |
| b5-23 | PID Feedback Error Selection           | 0:None<br>1:Alarm<br>2: Ramp to stop<br>3: Coast to stop |
| b5-24 | PID Feedback Low Detection Level       | 1.00-1.00  |
| b5-25 | PID Feedback Low Detection Time        | 0.0-60.0 sec   |
| b5-26 | PID Feedback High Detection Level      | 1.00-1.00  |
| b5-27 | PID Feedback High Detection Time       | 0.0-60.0 sec   |
| b5-28 | PID Sleep Initial Level                | -320.00-320.00   |
| b5-29 | PID Sleep Delay Time                   | 0.0-600.0 sec  |
| b5-30 | PID Wakeup Initial Level               | -320.00-320.00   |
| b5-31 | PID Wakeup Delay Time                  | 0.0-600.0 sec  |
| b5-32 | PID Error Dead Band                    | 0.000-1.000  |
| df60  | Range                                  | Range  |

| Func. | Name                                   | Range   |
|-------|--|---|
| b1-09 | Selection below Minimum Output Freq.   | 0   |
| b1-10 | Stop method                            | 0   |
| b1-11 | Reverse Operation                      | 0:Enable<br>1:Disable                             |
| b1-12 | Phase Order Selection                  | 0:Counterwise (IEC)<br>1:Counter-clockwise (NEMA) |
| b1-14 | Power ON Selection                     | 0   |
| b1-13 | Local/Remote Selection after Switching | 0   |
| b1-15 | MPM gain 1                             | 1   |
| b1-16 | MPM gain 2                             | 1   |
| b2-01 | DC Braking Level                       | 50  |
| b2-02 | DC Braking Response Time               | 1.000   |
| b2-03 | Time of DC Braking after Start         | 0.0-60.0 sec                                      |
| b2-04 | Delay Time of Ramp to Stop             | 0.0-60.0 sec                                      |
| b2-05 | Time of DC Braking after Coast to Stop | 0.0-60.0 sec                                      |
| b2-06 | DC Braking Coast to Stop               | 5.0   |
| b2-07 | Level at Zero Speed                    | 0   |
| b3-00 | Speed Selection at Start               | 0:None<br>1:Frequency command                     |
| b3-01 | Current Level of Start                 | 150   |
| b3-02 | V/F Gain During Speed Trace            | 1.00  |
| b3-03 | Wait / Trace Time of Speed             | 0.0-100.0 sec                                     |
| b3-04 | Acceleration Time of Speed             | 0.1-6.0 sec                                       |
| b3-05 | Deceleration Time of Speed             | 0.1-10.0 sec                                      |
| b3-06 | Stable Time of Trace                   | 200   |
| b3-07 | Start Freq. Gain during Speed Trace    | 1.00  |
| b3-08 | Filter Constant of Speed Trace         | 0.000-1.000                                       |
| b4-00 | Counter Mode                           | 0   |
| b4-01 | Counter Value 1                        | 0-60000   |
| b4-02 | Counter Value 2                        | 0-60000   |
| b4-03 | Counter Cycle Value                    | 0-60000   |
| b4-04 | Timer ON-Delay Time                    | 0.0-6000.0 sec                                    |
| df60  | Range                                  | Range   |

| Func.  | Name                                   | Range  | DF60           |
|--|--|--|----------------|
| A1-02  | Control Method                         | 0:V/F Control<br>1:V/F Control + P-g card<br>2:Vector Control + Resistor<br>3:Vector Control + P-g card<br>4:PM control + Resistor<br>5:PM control + Encoder<br>6:PM Control 1 (I/F+EMF)<br>7:PM Control 2 (H/F+EMF)<br>8:Reserve<br>9:Reserve<br>10:Reserve                               | 0              |
| A1-03  | Auto Tuning Function                   | 0:Disable<br>1:Rotational tuning<br>2:Stationary tuning with no-load current<br>3:Rotational tuning (PM)<br>4:Rotational tuning (PM)<br>5:Resolver angle tuning (PM)<br>6:Stationary tuning (PM)<br>7:Reserve<br>8:Reserve   | 0              |
| A1-04  | Power Source                           | 100.0-300.0V(220V series)<br>240.0-500.0V(380V series)   | 220.0<br>380.0 |
| A1-05  | Default Setting                        | df60: Default value for 60Hz<br>df50: Default value for 50Hz<br>dfPM: PM motor default value<br>dfPUM: Pump mode<br>dfPID: PID function mode<br>Sv: Save the setting value<br>FES: Restore the setting value<br>Wr.KP: Keypad ← Drive<br>rd.KP: Keypad → Drive<br>Comm: Communication test | -              |
| A1-07  | Password Input/Decode                  | 0000-9999  | -              |
| A1-08  | Password Setting                       | 0000-9999  | -              |
| A1-09  | Display section of parameter Lock      | 0:Only display A1-07<br>1:Display all parameters   | 0              |
| A1-11  | Simple parameter Lock                  | 0:Disable<br>1:Enable, only can adjust A3-00, A3-20~A3-22, and B5-17   | 0              |
| A3-00  | Keypad Frequency Command               | 0.00~E1-00 Hz  | 60.00          |
| A3-01  | Keypad Selection                       | 0:A3-00 (Digital)<br>1:Pot knob(Analog)  | 0              |
| A3-02  | Keypad Pot Selection                   | 0-19(Please refer to H3-01)<br>Enable when A3-01=0   | 0              |
| A3-03  | Keypad Pot Response                    | 0.000~50.000 sec   | 0.000          |
| A3-04  | Function Selection                     | -64~+64<br>(Please refer to H1-00)   | 0              |
| A3-05  | Self-holding(SPEC)                     | 0:Disable<br>1:Enable  | 0              |
| A3-06  | Main Display                           | 000~999  | 102            |
| A3-07  | Display 6                              | 000~999  | 109            |
| A3-08  | Display 7                              | 000~999  | 106            |
| A3-09  | Display 8                              | 000~999  | 107            |
| A3-10  | Display 9                              | 000~999  | 108            |
| A3-11  | Main Display Gain 1                    | 0.01~100.00  | 1.00           |
| A3-12  | Main Display Gain 2                    | 0.1~1000.0   | 1.0            |
| A3-13  | Main Display Decimal Value             | 0-3  | 3              |
| A3-14  | Selection Validity of "STOP" key       | 0:"STOP" key disable at b1-00=2<br>1:"STOP" key enable at b1-00=2  | 0              |
| Func. <th>Name</th> <th>Range</th> <th>DF60</th> | Name                                   | Range  | DF60           |
| A3-15  | Command Selection                      | 0:Command is changeable in the monitor mode<br>1:Command is unchangeable (keypad)  | 0              |
| A3-16  | Display and "show alternate" parameter | 0:Disable<br>1:Enable<br>2:b1-02=1<br>Effective when press [Func Data] key   | 2              |
| A3-17  | Setting Method                         | 0:Effective when setting is changed<br>1:Effective when setting is changed   | 0              |
| A3-18  | Selection When Keypad is Disconnected  | 0:Drive keeps operation<br>1:Drive trips "PAdF"  | 0              |
| A3-19  | "Func/Data" Key Function of            | 0:A3-00<br>1:A3-20<br>2:A3-21<br>3:A3-22<br>4:b5-17  | 0              |
| A3-20  | Command 0                              | 0-(E1-00)*(b1-15)*(b1-16)<br>MPM   | 50             |
| A3-21  | Command 1                              | 0-(E1-00)*(b1-15)*(b1-16)<br>MPM   | 50             |
| A3-22  | Command 2                              | 0-(E1-00)*(b1-15)*(b1-16)<br>MPM   | 50             |
| A3-23  | Dual Display                           | 000~999  | 000            |
| A3-24  | Main Display in Frequency              | 000~999  | 102            |
| A3-25  | Dual Display in Frequency              | 000~999  | 000            |
| A3-26  | Keypad Selection                       | 0>Select automatically<br>1:LCD keypad (KP-602)  | 0              |
| A4-00  | Control Function Selection             | 0:None<br>1:Reserve<br>2:Reserve<br>3:Clear fault history meter<br>4:Pump  | 0              |
| A5-00  | U2-00 Setting                          | 0:None<br>1:Ct:Clear fault history meter<br>2:Ct:Clear fault history meter<br>3:Ct:All:Clear all item  | -              |
| A5-01  | Maintenance Management                 | 0:None<br>1:Ct:Clear fault history meter<br>2:Ct:Clear fault history meter<br>3:Ct:All:Clear all item  | -              |
| A5-02  | Cumulative Power On Setting            | 0~49999 hr   | 0              |
| A5-03  | Cumulative Operation Time Setting      | 0~49999 hr   | 0              |
| A5-04  | Operation Time Setting                 | 0~49999 hr   | 0              |
| b1-00  | Primary Selection                      | 0:Keypad<br>1:Digital Input (X1-X8)<br>2:Analog Input (Vin1,Vin2, Iin)<br>3:Communication<br>4:Pulse control (PG card) + multiple ratio  | 0              |
| b1-01  | Secondary Frequency Selection          | 7.MPM speed 0<br>8.MPM speed 1<br>9.MPM speed 2<br>10.PID output   | 0              |
| b1-02  | Primary Start Command                  | 0:Keypad (key)<br>1:Digital Input(X1-X8)<br>2:Communication interface  | 0              |
| b1-03  | Secondary Start Command                | 0:Keypad (key)<br>1:Digital Input(X1-X8)<br>2:Communication interface  | 0              |
| b1-04  | Primary Direction Command              | 0:Keypad (key + A3-04=5)<br>1:Digital Input(X1-X8)   | 0              |
| b1-05  | Secondary Direction Command            | 0:Keypad (key + A3-04=5)<br>1:Digital Input(X1-X8)<br>2:Communication interface  | 0              |
| b1-06  | Communication Source                   | 0:RS485 Port<br>1:Option card  | 0              |
| b1-07  | Digital Input Controls by Modbus       | 0-8  | 8              |

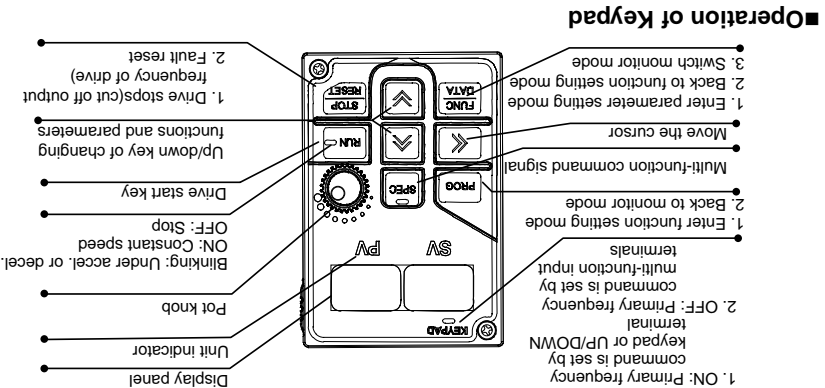
| Func.  | Name                              | Range  | DF60           |
|--|-----------------------------------|--|----------------|
| A1-02  | Control Method                    | 0:V/F Control<br>1:V/F Control + P-g card<br>2:Vector Control + Resistor<br>3:Vector Control + P-g card<br>4:PM control + Resistor<br>5:PM control + Encoder<br>6:PM Control 1 (I/F+EMF)<br>7:PM Control 2 (H/F+EMF)<br>8:Reserve<br>9:Reserve<br>10:Reserve                               | 0              |
| A1-03  | Auto Tuning Function              | 0:Disable<br>1:Rotational tuning<br>2:Stationary tuning with no-load current<br>3:Rotational tuning (PM)<br>4:Rotational tuning (PM)<br>5:Resolver angle tuning (PM)<br>6:Stationary tuning (PM)<br>7:Reserve<br>8:Reserve   | 0              |
| A1-04  | Power Source                      | 100.0-300.0V(220V series)<br>240.0-500.0V(380V series)   | 220.0<br>380.0 |
| A1-05  | Default Setting                   | df60: Default value for 60Hz<br>df50: Default value for 50Hz<br>dfPM: PM motor default value<br>dfPUM: Pump mode<br>dfPID: PID function mode<br>Sv: Save the setting value<br>FES: Restore the setting value<br>Wr.KP: Keypad ← Drive<br>rd.KP: Keypad → Drive<br>Comm: Communication test | -              |
| A1-07  | Password Input/Decode             | 0000-9999  | -              |
| A1-08  | Password Setting                  | 0000-9999  | -              |
| A1-09  | Display section of parameter Lock | 0:Only display A1-07<br>1:Display all parameters   | 0              |
| A1-11  | Simple parameter Lock             | 0:Disable<br>1:Enable, only can adjust A3-00, A3-20~A3-22, and B5-17   | 0              |
| A3-00  | Keypad Frequency Command          | 0.00~E1-00 Hz  | 60.00          |
| A3-01  | Keypad Selection                  | 0:A3-00 (Digital)<br>1:Pot knob(Analog)  | 0              |
| A3-02  | Keypad Pot Selection              | 0-19(Please refer to H3-01)<br>Enable when A3-01=0   | 0              |
| A3-03  | Keypad Pot Response               | 0.000~50.000 sec   | 0.000          |
| A3-04  | Function Selection                | -64~+64<br>(Please refer to H1-00)   | 0              |
| A3-05  | Self-holding(SPEC)                | 0:Disable<br>1:Enable  | 0              |
| A3-06  | Main Display                      | 000~999  | 102            |
| A3-07  | Display 6                         | 000~999  | 109            |
| A3-08  | Display 7                         | 000~999  | 106            |
| A3-09  | Display 8                         | 000~999  | 107            |
| A3-10  | Display 9                         | 000~999  | 108            |
| A3-11  | Main Display Gain 1               | 0.01~100.00  | 1.00           |
| A3-12  | Main Display Gain 2               | 0.1~1000.0   | 1.0            |
| A3-13  | Main Display Decimal Value        | 0-3  | 3              |
| A3-14  | Selection Validity of "STOP" key  | 0:"STOP" key disable at b1-00=2<br>1:"STOP" key enable at b1-00=2  | 0              |
| Func. <th>Name</th> <th>Range</th> <th>DF60</th> | Name                              | Range  | DF60           |

## ■ Parameter List

| Group | Name                                    | Group | Name  |
|-------|---|-------|---|
| A1    | Initialization (400H)                   | F1    | PG card setting (4600H)                     |
| A3    | Keypad Selection (4040H)                | G2    | Pump Control (4820H)                        |
| A4    | Function Selection (4065H)              | G3    | Multi-Pump Control (4850H)                  |
| A5    | Maintenance Selection (4080H)           | H1    | Multi-Function Digital Inputs (4A00H)       |
| b1    | Operation Mode Selection (4100H)        | H2    | Multi-Function Digital Outputs (4A20H)      |
| b2    | DC Braking (4120H)                      | H3    | Multi-Function Analog Inputs (4A40H)        |
| b3    | Speed trace (4130H)                     | H4    | Multi-Function Analog Outputs (4A60H)       |
| b4    | Multi-Function Component (4140H)        | H5    | ModbusSerial Communication (4A80H)          |
| b5    | PID Control (4160H)                     | H6    | Pulse input and output (4A90H)              |
| b6    | Holding Function (41A0H)                | L1    | Driver & Motor Protection (4C00H)           |
| C1    | Accel./Decel. Times (4200H)             | L2    | Restart After Instant Power Failure (4C20H) |
| C2    | S-Curve Characteristics (4220H)         | L3    | Stall Prevention (4C40H)                    |
| C3    | V/F Control Compensation (4240H)        | L4    | Speed and Torque Detection (4C60H)          |
| C4    | Carrier Frequency (4260H)               | L5    | Fault Restart (4C80H)                       |
| C5    | Automatic Speed Regulator (ASR) (4280H) | L6    | Extend Protection (4CA0H)                   |
| C7    | PM Control Setting(42A0H)               | L7    | Torque Limit (4CC0H)                        |
| d1    | Preset Speed (4300H)                    | P1    | Sequence Control (5000H)                    |
| d2    | Frequency Upper/Lower Limits (4320H)    | P2    | Traverse Function (5080H)                   |
| d3    | Jump Frequency (4340H)                  | o1    | Current Loop Gain Setting (5900H)           |
| d4    | Up/Down Control (4360H)                 | U1    | Operation Status Monitor (6000H)            |
| d5    | Torque Control (4380H)                  | U2    | Fault Trace (6100H)                         |
| d6    | Field Weakening (43A0H)                 | U3    | Fault History (6200H)                       |
| d7    | Offset Frequency (43B0H)                | U4    | Maintenance Monitor (6300H)                 |
| E1    | Motor1 V/F Pattern (4400H)              | U5    | PID Monitor (6400H)                         |
| E2    | Motor1 Parameters (4420H)               | U6    | Operation Status Monitor 2 (6500H)          |
| E3    | Motor2 V/F Pattern (4440H)              | U7    | Program Control Monitor (6600H)             |
| E4    | Motor2 Parameters (4460H)               | U8    | System Monitor (6700H)                      |

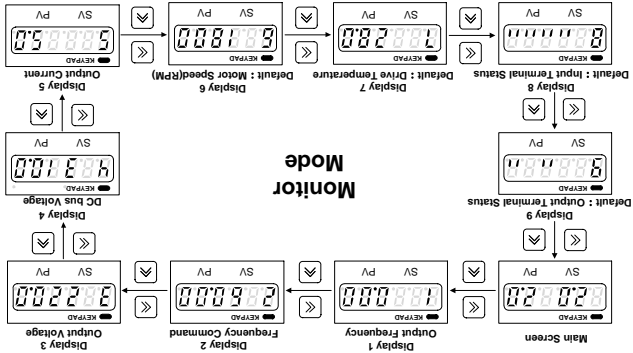
means function can be set up during the operation.

## ■ Digital Type Keypad KP-601A

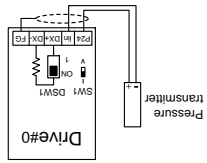


## ■ Description of Monitor Mode

There are nine displays can be selected in the monitor mode.



**Single Pump Control(G3-00=1)**

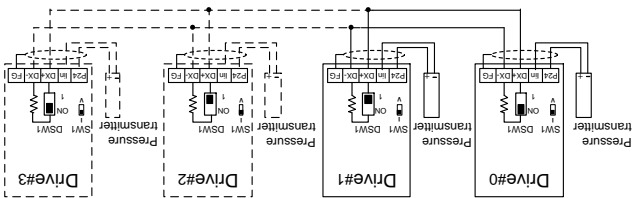


1. SW1: I position
2. DSW1: ON position
3. G3-00=1

SW1: Input signal type selection of IIn  
 DSW1: Terminal resistor switch  
 G3-00: Selection of Pump Control Mode  
 G3-01: Set Drive's No for Parallel Control

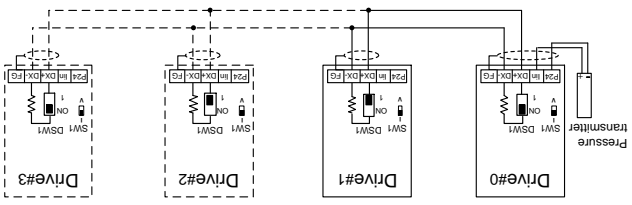
**Multi-Pump Control(G3-00=2,3)**

1. Parallel control for four pumps with four pressure transmitters



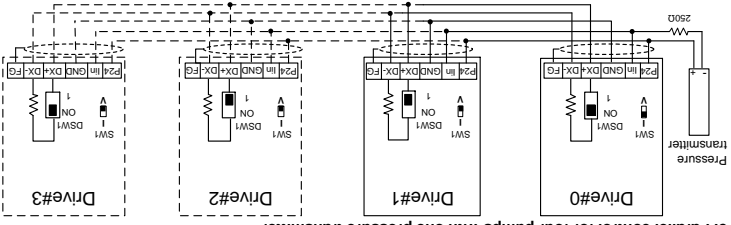
1. SW1: Drive #0-#3 → I position
2. DSW1: Drive#0 and Drive#3 → ON position; Drive#1 and Drive#2 → 1 position
3. Set the number for every drive by G3-01

2. Parallel control for four pumps with one pressure transmitter



1. SW1: Drive #0-#3 → I position
2. DSW1: Drive#0 and Drive#3 → ON position; Drive#1 and Drive#2 → 1 position
3. Set the number for every drive by G3-01

3. Parallel control for four pumps with one pressure transmitter



1. SW1: Drive #0 → I position; Drive #1-#3 → V position
2. Drive #0 IIn connect 250Ω resistor to pressure transmitter.
3. DSW1: Drive#0 and Drive#3 → ON position; Drive #1 and #2 → 1 position
4. Set the number for every drive by G3-01

# ■ Wiring Diagram and Setting for Single-pump and Multi-pump Applications

Model: RM6F6-2A005B3 ~ RM6F6-2A022B3;  
RM6F6-4A004B3 ~ RM6F6-4A012B3

## Single Pump Control(G3-00=1)

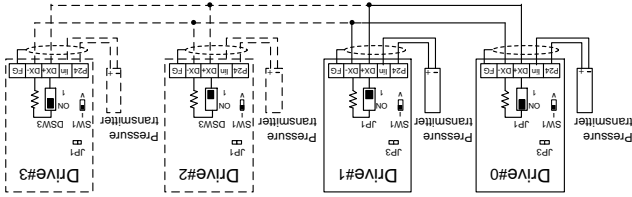


1. SW1: 1 position
2. JP3: Open
3. JP1: ON position
4. G3-00=1

SW1: Input signal type selection of in  
JP3: Input impedance selection of in  
JP1: Terminal resistor selection  
G3-00: Selection of Pump Control Mode  
G3-01: Set Drive's No for Parallel Control

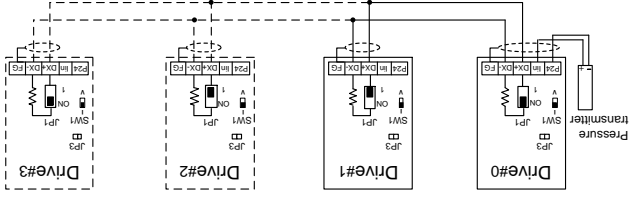
## Multi-Pump Control(G3-00=2,3)

### 1. Parallel control for four pumps with four pressure transmitters



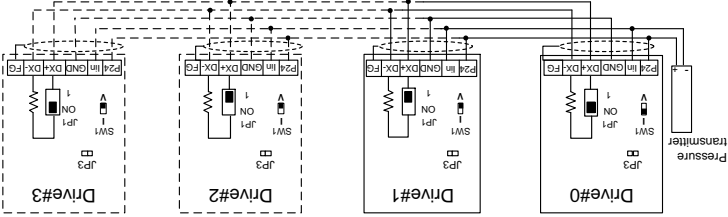
1. SW1: Drive #0-#3 → 1 position
2. JP3: Drive #0-#3 → Open
3. JP1: Drive#0 and Drive#3 → ON position; Drive#1 and Drive#2 → 1 position
4. Set the number for every drive by G3-01

### 2. Parallel control for four pumps with one pressure transmitter



1. SW1: Drive#0-#3 → 1 position
2. JP3: Drive#0 → Open; Drive#1-#3 → Short
3. JP1: Drive#0 and Drive#3 → ON position; Drive#1 and Drive#2 → 1 position
4. Set the number for every drive by G3-01

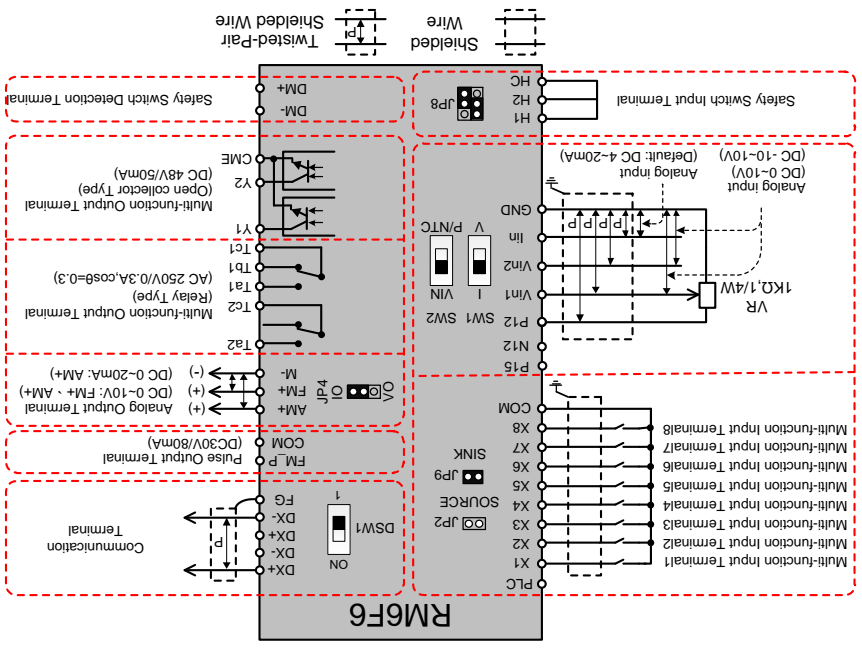
### 3. Parallel control for four pumps with one pressure transmitter



1. SW1: Drive#0 → 1 position; Drive#1-#3 → V position
2. JP3: Drive#0 → Open; Drive#1-#3 → Short
3. JP1: Drive#0 and Drive#3 → ON position; Drive#1 and Drive#2 → 1 position
4. Set the number for every drive by G3-01

| Type             | Symbol  | Function                             | Description  |  |
|------------------|---|--------------------------------------|--|--|
| Control Terminal | PLC   | Power terminal                       | Output DC+24V: Maximum supplied current is 100mA   |  |
|                  | P12   |                                      | Output DC+12V: Maximum supplied current is 20mA  |  |
|                  | N12   |                                      | Output DC-12V: Maximum supplied current is 20mA  |  |
|                  | P15   |                                      | Output DC+15V  |  |
| Terminal         | GND   | Common terminal                      | Common terminal for P12, N12 and analog input terminal   |  |
|                  | X1  | Multi-function input terminal<br>1~8 | Set the function at H1-00 (Default: Forward)   |  |
|                  | X2  |                                      | Set the function at H1-01 (Default: Reverse)   |  |
|                  | X3  |                                      | Set the function at H1-02 (Default: Jog)   |  |
|                  | X4  |                                      | Set the function at H1-03 (Default: External fault)  |  |
|                  | X5  |                                      | Set the function at H1-04 (Default: Reset)   |  |
|                  | X6  |                                      | Set the function at H1-05 (Default: Disable)   |  |
|                  | X7  |                                      | Set the function at H1-06 (Default: Disable)   |  |
|                  | X8  |                                      | Set the function at H1-07 (Default: Disable)   |  |
|                  | COM   |                                      | Common terminal  | Common of input terminal (X1~X8) and P24   |
|                  | Vin1  |                                      | Analog input terminal  | Input range: DC 0~10V or ~10V~10V.<br>Input range is selected by H3-04. Input impedance 20k $\Omega$ .<br>Set the function at H3-01 (Default: Frequency command) |
| Vin2             | SW2: Vin position(analog input)<br>Input range: DC 0~10V or ~10V~10V.<br>Input range is selected by H3-09. Input impedance 20k $\Omega$ .<br>SW2:P/NTC position(thermistor)<br>The type of thermistor is selected by L6-10. |                                      |  |  |
| IIn              | Input signal is selected by SW1 and H3-12.<br>SW1: I position(current signal)<br>Input range: DC 0~20mA or ~4~20mA<br>SW1: V position(voltage signal)<br>Input range: DC 0~10V.   |                                      |  |  |
| FM_P             | Pulse output terminal<br>PNP open collector isolated output:<br>Maximum Permissible value: 30VDC/80mA.<br>Set the function by H6-05 (Default setting: Output frequency)   |                                      |  |  |
| Output Terminal  | FM+   | Analog output terminal               | Output voltage signal:DC0~10V<br>Max output current:2mA<br>Set the function at H4-00 (Default: Output Frequency)   |  |
|                  | AM+   |                                      | Output current(IP4):O position):<br>Output range:0~20mA or ~4~20mA<br>Max output impedance 50 $\Omega$<br>Output Voltage(IP4:VO position):<br>Output range:0~10VDC; Max output current: 2mA<br>Set the function at H4-03 (Default: Output current) |  |
|                  | M-  |                                      | Common terminal  | Common of analog input   |
|                  | Ta1   |                                      | Multi-function output terminals (relay type)   | Ta1:N.O (contact a); Tb1: N.C (contact b)<br>Set the function at H2-04 (Default: Error detection)<br>Capacity: AC250V, 0.5A Max. cos $\phi$ =0.3                 |
| Tb1              | Ta2:N.O (contact a); Tb2: N.C (contact b)<br>Set the function at H2-05; Default: Detection during operation<br>Capacity: AC250V, 0.5A Max. cos $\phi$ =0.3  |                                      |  |  |
| Tc2              | Multi-function output terminals (open collector)<br>Y1<br>Y2<br>CME   |                                      |  |  |
| Y1               | Multi-function output terminals (open collector)<br>Y1<br>Y2<br>CME<br>Common terminal of Y1, Y2.   |                                      |  |  |
| Comm. Terminal   | DX+   | MODBUS                               | Connect the drive by transmission cable, when the drive is controlled by RS-485 communication interface.   |  |
|                  | DX-   | Communication terminal               | Communication protocol: Modbus(interface: RS-485)  |  |
| Safety Switch    | H1  | Safety switch                        | Select SINK or SOURCE mode by JP8.   |  |
|                  | H2  | Common terminal                      | Default: SINK mode.H1-HC/H2-HC is shorted.   |  |
|                  | HC  | Safety switch                        | Output status of safety switch.  |  |
|                  | DM-   | Common terminal                      | Open collector output type. Capacity:DC48V/50mA  |  |

Model: RM6F6-2A031B3 ~ RM6F6-2A840E3 ; RM6F6-4A018B3 ~ RM6F6-4A960E3



※1.JP2、JP9: SINK / SOURCE selection;  
SINK/SOURCE mode selection of X1 to X8.

※2.SW1: "Iin" terminal input selection;

I position: Current signal (default setting)  
V position: Voltage signal

※3.SW2: "Vin2" terminal input selection;

Vin position: Voltage signal (default setting)  
P/NTC position: External P/NTC thermistor

※4.JP8: SINK / SOURCE selection of safety switch input terminals(H1、H2、HC);

※5.JP4:"AM+"and/or output terminal jumper selection;

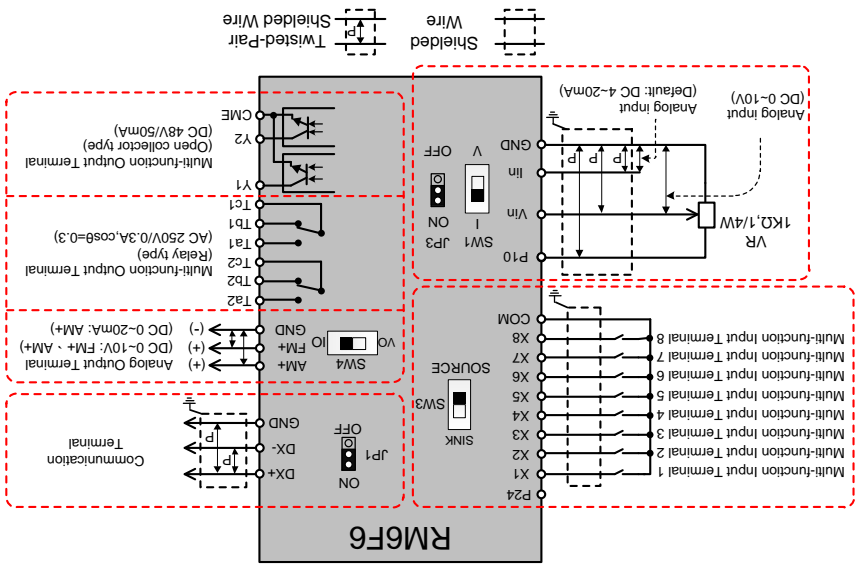
IO position: output current signal (default setting)  
VO position: output voltage signal

※6.DSW1: Terminal resistor selection of communication control.

The internal resistance is 120Ω.

| Type            | Symbol  | Function                                     | Description  |  |
|-----------------|---|--|--|--|
| Control         | P24   | Power terminal                               | Output DC+24V; Maximum supplied current is 100mA   |  |
|                 | P10   | Power terminal                               | Output DC+10V; Maximum supplied current is 20mA  |  |
| Power           | GND   | Common terminal                              | Common terminal for control power(P10,P24), analog input (Vin,lin), and analog output(AM+,FM+)   |  |
|                 | X1  | Multi-function input terminal 1-8            | Set the function at H1-00 (Default: Forward)   |  |
| X2              | Set the function at H1-01 (Default: Reverse)        |  |  |  |
| X3              | Set the function at H1-02 (Default: Jog)            |  |  |  |
| X4              | Set the function at H1-03 (Default: External fault) |  |  |  |
| X5              | Set the function at H1-04 (Default: Reset)          |  |  |  |
| X6              | Set the function at H1-05 (Default: Disable)        |  |  |  |
| X7              | Set the function at H1-06 (Default: Disable)        |  |  |  |
| X8              | Set the function at H1-07 (Default: Disable)        |  |  |  |
| Input Terminal  | COM   | Common terminal                              | Common of input terminal (X1-X8) and P24   |  |
|                 | Vin   | Analog input terminal                        | Input range: DC 0~10V, Input impedance 20k $\Omega$ , Set the function at H3-01 (Default: Freq. command)   |  |
|                 | lin   |  | Input selection: SW1: V position, Input impedance 20k $\Omega$ , Input range: DC 0~20mA (0~10V) or DC 4~20mA(2~10V). Set the function at H3-11 (Default: Disable)  |  |
|                 | FM+   | Analog output terminal                       | Output voltage signal:DC0~10V<br>Max output current:2mA<br>Set the function at H4-00 (Default:Output Freq.)  |  |
|                 | AM+   |  | Output current(SW4:O position):<br>Output range:0~20mA or 4~20mA<br>Max output impedance 50 $\Omega$<br>Output Voltage(SW4:VO position):<br>Output range:0~10VDC; Max output current: 2mA<br>Set the function at H4-03 (Default: Output current) |  |
|                 | Ta1   |  | Ta1:N.O (contact a); Tb1: N.C (contact b)<br>Set the function at H2-04 (Default: Error detection)<br>Capacity: AC250V, 0.5A Max, cos $\theta$ =0.3   |  |
|                 | Ta2   | Multi-function output terminals (relay type) | Ta2:N.O (contact a); Tb2: N.C (contact b)<br>Set the function at H2-05; Default: Detection during operation<br>Capacity: AC250V, 0.5A Max, cos $\theta$ =0.3   |  |
|                 | Tb1   |  | Multi-function output terminals (open collector type)  | Y1   |
|                 | Tc2   |  |  | Y2   |
|                 | CME   |  |  | The function is set by H2-00 and H2-01.<br>Capacity: DC48V, 50mA Max<br>Common terminal of Y1, Y2. |
| Output Terminal | Ta1   | Multi-function output terminals (relay type) | Terminal resistor = 100 $\Omega$   |  |
|                 | Ta2   |  | Terminal resistor switch is selected by JP1.<br>Communication protocol: Modbus(interface: RS-485)<br>Controlled by RS-485 communication interface, when the drive is   |  |
| Comm. Terminal  | DX+   | MODBUS                                       | Connect the drive by transmission cable, when the drive is   |  |
|                 | DX-   |  | Communication protocol: Modbus(interface: RS-485)<br>Terminal resistor switch is selected by JP1.<br>Terminal resistor = 100 $\Omega$  |  |

■ Wiring Diagram and Descriptions of Control Terminals  
 Model: RM6F6-2A005B3 ~ RM6F6-2A022B3;  
 RM6F6-4A004B3 ~ RM6F6-4A012B3

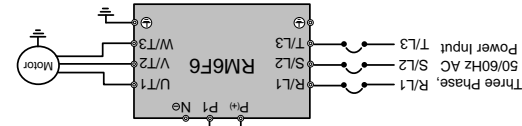


- ※1.JP1: Terminal resistor selection of communication control.  
 The internal resistance is 100Ω.
- ※2.JP2: Terminal resistor selection of KP-601A.  
 The internal resistance is 100Ω.
- ※3.JP3: Input impedance selection of IIn.  
 ON: 250Ω (Default value)  
 OFF: 500Ω
- ※4.JP4: ON: GND and COM are short-circuited.  
 OFF: GND and COM are open-circuited (Default value)
- ※5.SW1: "IIn" terminal input selection;  
 I position: Current signal (Default value)  
 V position: Voltage signal
- ※6.SW3: SINK / SOURCE selection;
- ※7.SW4: "AM+" analog output terminal signal selection;  
 IO position: output current signal (Default value)  
 VO position: output voltage signal

## ■ Wiring of Main Circuit

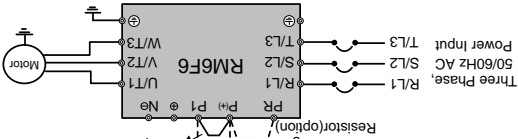
Model: RM6F6-2A05B3 ~ RM6F6-2A02B3 ;  
RM6F6-4A004B3 ~ RM6F6-4A012B3

\*1: Braking Resistor (option)



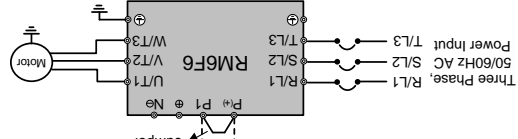
Model: RM6F6-2A031B3 ~ RM6F6-2A150B3 ;  
RM6F6-4A018B3 ~ RM6F6-4A110B3

\*2: DC Reactor(DCL; option)



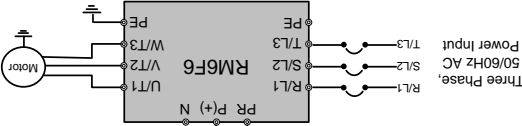
Model: RM6F6-2A075E3 ~ RM6F6-2A150E3 ;  
RM6F6-4A058E3 ~ RM6F6-4A110E3

\*2: DC Reactor(DCL; option)



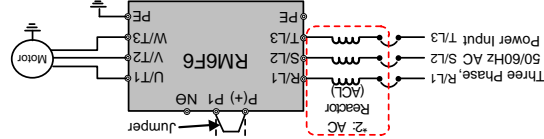
Model: RM6F6-2A185B3 ~ RM6F6-2A275B3 ;  
RM6F6-4A144B3 ~ RM6F6-4A216B3

\*1: Braking Resistor(option)



Model: RM6F6-2A185E3 ~ RM6F6-2A840E3 ;  
RM6F6-4A144E3 ~ RM6F6-4A960E3

\*2: DC Reactor(DCL; option)



\*1: PR terminal is only available in B type series. (Build-in brake transistor)  
Braking resistor is optional.

\*2: Model above RM6F6-2A346 or RM6F6-4A180: AC reactor (ACL) is the standard accessory.  
Model above RM6F6-2A700 or RM6F6-4A304: DC reactor (DCL) is the standard accessory.  
Please remove the jumper between P1 and P terminal, when connecting the external DCL.  
DO NOT remove the jumper, when DCL does not be connected.

| Type              | Symbol              | Function                              | Description  |
|-------------------|---------------------|---------------------------------------|--|
| Power Source      | R,S,T<br>(L1,L2,L3) | AC power source<br>input terminals    | Three-phase; sinusoidal power source input terminals.  |
| Motor             | U,V,W<br>(T1,T2,T3) | Drive outputs to<br>motor terminals   | Output three-phase variable frequency and voltage to<br>motor.   |
| Power and Braking | P(+), NØ            | Dynamic brake unit<br>terminal        | Connect to dynamic braking unit(option).   |
|                   | P(+), PR            | External braking<br>resistor terminal | Connect to external brake resistor (option).   |
|                   | P(+), P1            | External reactor<br>terminal          | Connect to DC reactor (DCL) for improving power<br>factor. The default setting is connected by a jumper. |
| Ground            | PE(or G)            | Grounding terminal                    | Ground the drive in compliance with the NEC standard<br>or local electrical code.                        |

### ■ Descriptions of Main Circuit Terminals

| Rate | C4-00=2 | C4-00=3 | C4-00=4 | C4-00=5 | C4-00=6 |
|------|---------|---------|---------|---------|---------|
|      | 1       | 0.96    | 0.85    | 0.72    | 0.63    |

※ Drive derate based on the carrier frequency(C4-00). Please refer to the table below.

※ Applicable safety standard “-” means on planning.

※ The weight of RM6F6 series standard specifications exclude ACL and DCL.

| Model<br>(RM6F6-□□□□E3)                    | 4A253  | 4A304        | 4A377        | 4A415        | 4A480        | 4A585        | 4A700        | 4A860        | 4A960 |
|--|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------|
| Maximum applicable motor<br>(HP / kW)      | 175/<br>200/                                       | 200/<br>250/ | 300/<br>350/ | 350/<br>420/ | 420/<br>500/ | 500/<br>600/ | 600/<br>700/ | 700/<br>800/ | 900   |
| Rated output capacity (kVA)                | 193  | 232          | 287          | 316          | 366          | 446          | 533          | 655          | 732   |
| Rated output current (A)                   | 253  | 304          | 377          | 415          | 480          | 585          | 700          | 860          | 960   |
| Maximum output voltage (V)                 | Three Phase 380~480V (corresponding input voltage) |              |              |              |              |              |              |              |       |
| Range of output frequency (Hz)             | 0.1~600.00Hz                                       |              |              |              |              |              |              |              |       |
| Power source (Φ, V, Hz)                    | Three Phase 380~480V 50/60Hz                       |              |              |              |              |              |              |              |       |
| Input current (A)                          | 217  | 282          | 355          | 385          | 440          | 540          | 627          | 800          | 900   |
| Permissible Ac power source<br>fluctuation | 323~528V 50/60Hz / ±5%                             |              |              |              |              |              |              |              |       |
| Overload protection                        | 120% of drive rated output current for 1 min       |              |              |              |              |              |              |              |       |
| Fan air delivery(CFM)                      | 394  | 394          | 394          | 591          | 591          | 788          | 788          | 788          | 1182  |
| Applicable safety standard                 | -  |              |              |              |              |              |              |              |       |
| Protective structure                       | IP00 (IP20 option)                                 |              |              |              |              |              |              |              |       |
| Weight / Mass(kg)                          | 64   | 64.5         | 95           | 97           | 159          | 163          | 164          | 217          | 272   |
| Case Code                                  | Case 6   |              | Case 7       |              | Case 8       |              | Case 9       |              |       |

**Three phase 400V Series**

| Model<br>(RM6F6-□□□□B3/E3)              | 4A004  | 4A005 | 4A009 | 4A012   | 4A018  | 4A023  | 4A031 | 4A039   |
|---|--|-------|-------|---------|--------|--------|-------|---------|
| Maximum applicable motor<br>(HP / kW)   | 2/1.5  | 3/2.2 | 5/3.7 | 7.5/5.5 | 10/7.5 | 15/11  | 20/15 | 25/18.5 |
| Rated output capacity (kVA)             | 2.7  | 3.8   | 6.9   | 8.6     | 14     | 18     | 24    | 30      |
| Rated output current (A)                | 3.5  | 5     | 9     | 11.3    | 18     | 23     | 31    | 39      |
| Maximum output voltage (V)              | Three Phase 380~480V (corresponding input voltage) |       |       |         |        |        |       |         |
| Range of output frequency (Hz)          | 0.1~600.00Hz                                       |       |       |         |        |        |       |         |
| Power source (Φ, V, Hz)                 | Three Phase 380~480V 50/60Hz                       |       |       |         |        |        |       |         |
| Input current (A)                       | 4.2  | 6     | 12    | 13.4    | 20     | 26     | 44    | 47      |
| Permissible Ac power source fluctuation | 323~528V 50/60Hz / ±5%                             |       |       |         |        |        |       |         |
| Overload protection                     | 120% of drive rated output current for 1 min       |       |       |         |        |        |       |         |
| Fan air delivery(CFM)                   | Nature cooling                                     | 8.1   | 16.2  | 16.2    | 62.8   | 62.8   | 59.8  | 59.8    |
| Applicable safety standard              | IP20   |       |       |         |        |        |       |         |
| Protective structure                    |  |       |       |         |        |        |       |         |
| Weight / Mass(kg)                       | 1.8  | 1.8   | 1.9   | 2.0     | 3.0    | 3.1    | 5.6   | 5.7     |
| Case Code                               | Case 1   |       |       | Case 2  |        | Case 3 |       |         |

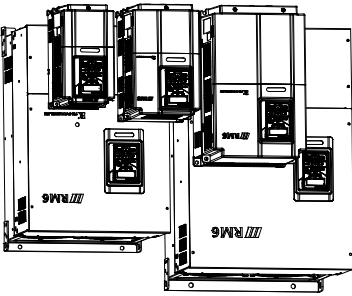
| Model<br>(RM6F6-□□□□B3/E3)              | 4A045  | 4A058 | 4A075 | 4A091  | 4A110 | 4A144  | 4A180  | 4A216   |
|---|--|-------|-------|--------|-------|--------|--------|---------|
| Maximum applicable motor<br>(HP / kW)   | 30/22  | 40/30 | 50/37 | 60/45  | 75/55 | 100/75 | 125/90 | 150/110 |
| Rated output capacity (kVA)             | 34   | 44    | 57    | 69     | 84    | 110    | 137    | 165     |
| Rated output current (A)                | 45   | 58    | 75    | 91     | 110   | 144    | 180    | 216     |
| Maximum output voltage (V)              | Three Phase 380~480V (corresponding input voltage) |       |       |        |       |        |        |         |
| Range of output frequency (Hz)          | 0.1~600.00Hz                                       |       |       |        |       |        |        |         |
| Power source (Φ, V, Hz)                 | Three Phase 380~480V 50/60Hz                       |       |       |        |       |        |        |         |
| Input current (A)                       | 52   | 66    | 86    | 105    | 132   | 162    | 181    | 202     |
| Permissible Ac power source fluctuation | 323~528V 50/60Hz / ±5%                             |       |       |        |       |        |        |         |
| Overload protection                     | 120% of drive rated output current for 1 min       |       |       |        |       |        |        |         |
| Fan air delivery(CFM)                   | 59.8   | 150   | 216   | 216    | 216   | 212    | 394    | 394     |
| Applicable safety standard              | IP20   |       |       |        |       |        |        |         |
| Protective structure                    | IP00 (IP20 option)                                 |       |       |        |       |        |        |         |
| Weight / Mass(kg)                       | 5.8  | 12.8  | 12.9  | 15     | 15.3  | 44     | 45.5   | 46.4    |
| Case Code                               | Case 3   |       |       | Case 4 |       |        | Cases  |         |

※ 4A045 is only available in RM6F6-□□□□B3 series model.  
 ※ 4A176 and 4A210 are only available in RM6F6-□□□□E3 series model.

| Model                                   | Case 6   |         |         | Case 7  |         |   | Case 8 |   |   |
|---|--|---------|---------|---------|---------|---|--------|---|---|
| (RM6F6-□□□□E3)                          | 2A346  | 2A410   | 2A500   | 2A700   | 2A840   | — | —      | — | — |
| Maximum applicable motor (HP / kW)      | 125/90   | 150/110 | 175/132 | 250/185 | 300/220 | — | —      | — | — |
| Rated output capacity (kVA)             | 132  | 156     | 191     | 267     | 321     | — | —      | — | — |
| Rated output current (A)                | 346  | 410     | 500     | 700     | 840     | — | —      | — | — |
| Maximum output voltage (V)              | Three phase 200~240V (corresponding input voltage) |         |         |         |         |   |        |   |   |
| Range of output frequency (Hz)          | 0.1~600.00Hz                                       |         |         |         |         |   |        |   |   |
| Power source (Φ, V, Hz)                 | Three phase 200~240V 50/60Hz                       |         |         |         |         |   |        |   |   |
| Input current (A)                       | 330  | 385     | 470     | 660     | 792     | — | —      | — | — |
| Permissible Ac power source fluctuation | 170~264V 50/60Hz / ±5%                             |         |         |         |         |   |        |   |   |
| Overload protection                     | 120% of drive rated output current for 1 min       |         |         |         |         |   |        |   |   |
| Fan air delivery(CFM)                   | 394  | 591     | 591     | 788     | 788     | — | —      | — | — |
| Applicable safety standard              | —  |         |         |         |         |   |        |   |   |
| Protective structure                    | IP00 (IP20 option)                                 |         |         |         |         |   |        |   |   |
| Weight / Mass(kg)                       | 63.6   | 89      | 90      | 164     | 167     | — | —      | — | — |
| Case Code                               | Case 6   |         |         | Case 7  |         |   | Case 8 |   |   |

| Model                                   | Case 4   |       |       | Case 5             |       |       |        |
|---|--|-------|-------|--------------------|-------|-------|--------|
| (RM6F6-□□□□B3/E3)                       | 2A075  | 2A090 | 2A112 | 2A150              | 2A185 | 2A220 | 2A275  |
| Maximum applicable motor (HP / kW)      | 25/18.5  | 30/22 | 40/30 | 50/37              | 60/45 | 75/55 | 100/75 |
| Rated output capacity (kVA)             | 29   | 34    | 43    | 57                 | 70    | 84    | 105    |
| Rated output current (A)                | 75   | 90    | 112   | 150                | 185   | 220   | 275    |
| Maximum output voltage (V)              | Three phase 200~240V (corresponding input voltage) |       |       |                    |       |       |        |
| Range of output frequency (Hz)          | 0.1~600.00Hz                                       |       |       |                    |       |       |        |
| Power source (Φ, V, Hz)                 | Three phase 200~240V 50/60Hz                       |       |       |                    |       |       |        |
| Input current (A)                       | 86   | 103   | 128   | 183                | 211   | 240   | 280    |
| Permissible Ac power source fluctuation | 170~264V 50/60Hz / ±5%                             |       |       |                    |       |       |        |
| Overload protection                     | 120% of drive rated output current for 1 min       |       |       |                    |       |       |        |
| Fan air delivery(CFM)                   | 150  | 150   | 216   | 216                | 212   | 394   | 394    |
| Applicable safety standard              | —  |       |       |                    |       |       |        |
| Protective structure                    | IP20   |       |       | IP00 (IP20 option) |       |       |        |
| Weight / Mass(kg)                       | 12.4   | 13.1  | 14.7  | 14.8               | 42.7  | 44.3  | 46.3   |
| Case Code                               | Case 4   |       |       | Case 5             |       |       |        |



# RM6F6 Series Parameter Manual



XB200241 2024.11.15 Edition

Thank you for using RHYMEBUS RM6F6 series drive.  
For proper operations and safety purposes, please read manual carefully.  
Only the qualified personnel may proceed with the installation.  
Scan the QR code on the right side for the complete operation manual.  
Please pay attention to the safety precautions marked with "DANGER" or "CAUTION" in complete manual before installation.



|   |  |
|---|--|
| <br><b>DANGER</b>  | User may cause the casualty or serious damages if user does not abide by the instructions of the manual to execute the tasks.                |
| <br><b>CAUTION</b> | User may cause injuries to the people or damage the equipment if user does not abide by the instructions of the manual to execute the tasks. |

## ■ Standard Specifications

### Three phase 200V Series

|   |  |       |       |        |         |        |       |       |
|---|--|-------|-------|--------|---------|--------|-------|-------|
| Model<br>(RM6F6-□□□□B3)                 | 2A005  | 2A007 | 2A010 | 2A016  | 2A022   | 2A031  | 2A042 | 2A060 |
| Maximum applicable motor<br>(HP / kW)   | 1/0.75   | 2/1.5 | 3/2.2 | 5/3.7  | 7.5/5.5 | 10/7.5 | 15/11 | 20/15 |
| Rated output capacity (kVA)             | 1.6  | 2.6   | 3.8   | 5.8    | 8.1     | 12     | 16    | 23    |
| Rated output current (A)                | 4.2  | 6.8   | 10    | 15.2   | 21.3    | 31     | 42    | 60    |
| Maximum output voltage (V)              | Three phase 200~240V (corresponding input voltage) |       |       |        |         |        |       |       |
| Range of output frequency (Hz)          | 0.1~600.00Hz                                       |       |       |        |         |        |       |       |
| Power source (φ, V, Hz)                 | Three phase 200~240V 50/60Hz                       |       |       |        |         |        |       |       |
| Input current (A)                       | 6.1  | 8     | 12    | 18     | 25.2    | 41     | 56    | 68    |
| Permissible Ac power source fluctuation | 170~264V 50/60Hz / ±5%                             |       |       |        |         |        |       |       |
| Overload protection                     | 120% of drive rated output current for 1 min       |       |       |        |         |        |       |       |
| Fan air delivery(CFM)                   | Nature cooling                                     |       |       |        |         |        |       |       |
| Applicable safety standard              | -  |       |       |        |         |        |       |       |
| Protective structure                    | IP20   |       |       |        |         |        |       |       |
| Weight / Mass(kg)                       | 1.8  | 1.8   | 1.8   | 2.0    | 2.1     | 3.0    | 5.4   | 5.7   |
| Case Code                               | Case 1   |       |       | Case 2 |         | Case 3 |       |       |