

200M Series Quick Operation Guide

1. Basic Information

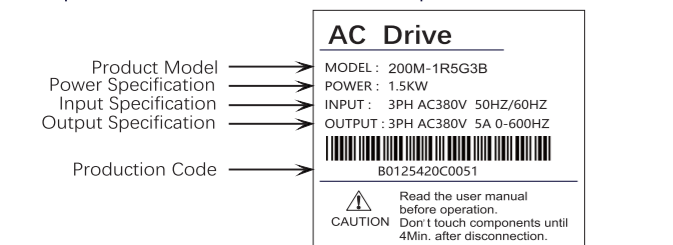
This document will guide the customer to complete the basic installation, wiring and debugging. If you need detailed instructions, please contact with the product distributors. Products all passed strict inspection before they completed and packed, if discover frequency converter damaged, model error, lack of additional accessories, such as abnormal situation, please contact this product distributors or relevant personnel of the company.

⚠ DANGEROUS

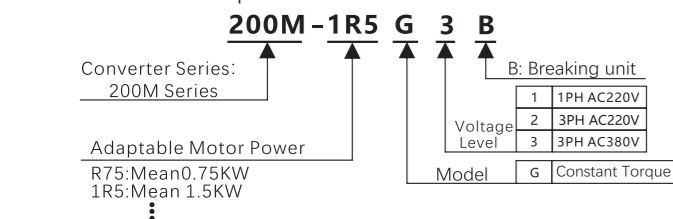
Before installing the 200M series converter, please read and understand this instruction book.

- Before connect the converter, must cut off electricity
- When the power is cut off, frequency converter internal may still be residual energy, before handling the converter electronics, wait for at least 4 minutes, otherwise there is risk of electric shock.
- Forbid change any connector on the converter when power on, in order to avoid the converter damage and casualties.
- Converter earthing terminal, please be sure to properly grounded
- Main circuit terminal wiring must be correct, R/L, S, T/N as power input terminals, forbid mix with U, V, W output terminals, or when power on will causes the damage of converter.
- Please be sure to follow the manual operation, otherwise may cause serious casualties

2. Explanation of converter nameplate

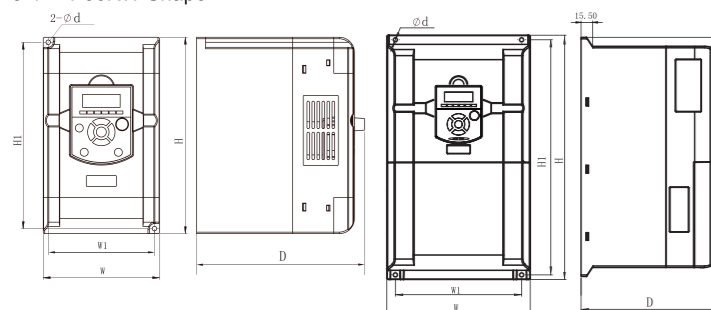


► A Model explanation

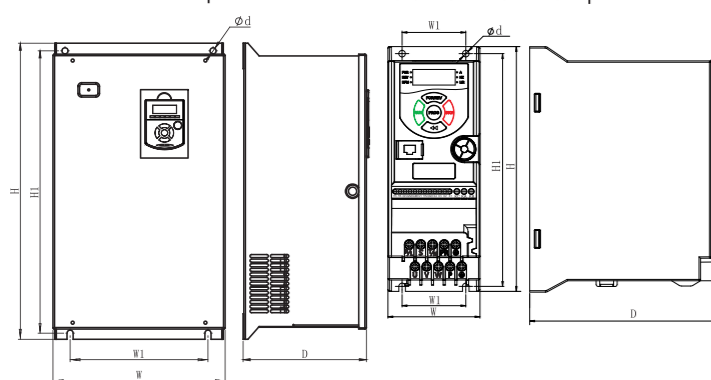


3. Appearance and Mounting Dimension

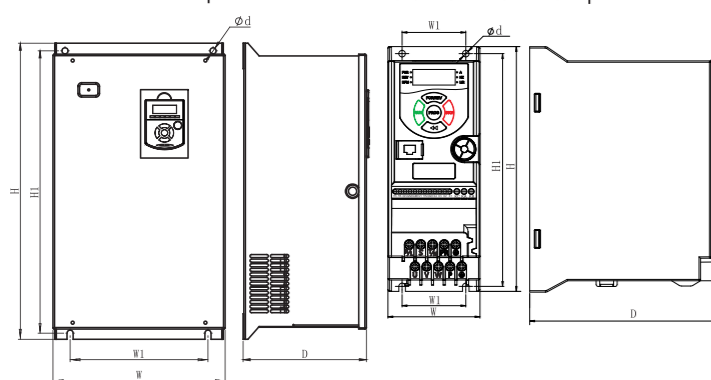
3-1 4-30KW Shape



3-2 37-500KW Shape



3-3 0.4-7.5KW Shape

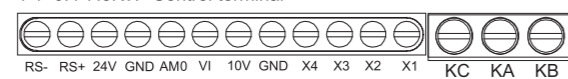


| Product Model | Power (KW) | Output Current (A) | outline dimension | | | installation dimension | | |
|---------------|------------|--------------------|-------------------|-----|------|------------------------|-----|-------|
| | | | W | D | H | H1 | W1 | d |
| 200M-R40G1B | 0.4 | 2.3 | 65 | 151 | 173 | 165 | 45 | 4.6 |
| 200M-R75G1B | 0.75 | 4 | | | | | | |
| 200M-1R5G1B | 1.5 | 7 | | | | | | |
| 200M-2R2G1B | 2.2 | 9.6 | | | | | | |
| 200M-003G1B | 3 | 13 | 85 | 164 | 219 | 211 | 65 | 4.6 |
| 200M-004G1B | 4 | 17 | | | | | | |
| 200M-R40G3B | 0.4 | 1.2 | | | | | | |
| 200M-R75G3B | 0.75 | 2.1 | | | | | | |
| 200M-1R5G3B | 1.5 | 3.8 | 65 | 151 | 173 | 165 | 45 | 4.6 |
| 200M-2R2G3B | 2.2 | 5.1 | | | | | | |
| 200M-003G3B | 3 | 7 | | | | | | |
| 200M-004G3B | 4 | 9 | | | | | | |
| 200M-5R5G3B | 5.5 | 13 | 85 | 164 | 219 | 211 | 65 | 4.6 |
| 200M-7R5G3B | 7.5 | 17 | | | | | | |
| 200M-004G3B-2 | 4 | 9 | | | | | | |
| 200M-5R5G3B-2 | 5.5 | 13 | | | | | | |
| 200M-7R5G3B-2 | 7.5 | 17 | 116 | 168 | 196 | 186 | 106 | 2*4.5 |
| 200M-011G3B | 11 | 25 | | | | | | |
| 200M-015G3B | 15 | 32 | | | | | | |
| 200M-018G3B | 18.5 | 37 | | | | | | |
| 200M-022G3B | 22 | 45 | 184 | 198 | 320 | 308 | 162 | 4*5.4 |
| 200M-030G3B | 30 | 60 | | | | | | |
| 200M-037G3 | 37 | 75 | | | | | | |
| 200M-045G3 | 45 | 90 | | | | | | |
| 200M-055G3 | 55 | 110 | 337 | 242 | 580 | 553 | 270 | 12 |
| 200M-075G3 | 75 | 152 | | | | | | |
| 200M-093G3 | 93 | 187 | | | | | | |
| 200M-110G3 | 110 | 210 | | | | | | |
| 200M-132G3 | 132 | 253 | 410 | 350 | 700 | 678 | 280 | 14 |
| 200M-160G3 | 160 | 304 | | | | | | |
| 200M-187G3 | 187 | 340 | | | | | | |
| 200M-200G3 | 200 | 380 | | | | | | |
| 200M-220G3 | 220 | 426 | 570 | 390 | 888 | 850 | 380 | 12 |
| 200M-250G3 | 250 | 465 | | | | | | |
| 200M-280G3 | 287 | 520 | | | | | | |
| 200M-315G3 | 315 | 585 | | | | | | |
| 200M-355G3 | 355 | 650 | 665 | 392 | 1050 | 1012 | 515 | 14 |
| 200M-400G3 | 400 | 725 | | | | | | |
| 200M-450G3 | 450 | 820 | | | | | | |
| 200M-500G3 | 500 | 950 | | | | | | |

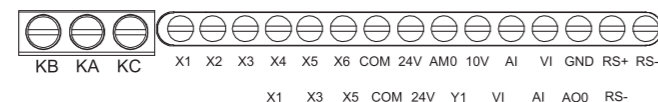
Attention: Size of 3PH AC220V refer to 1PH 220V. Change the G1 to G2 to name product model. Such as: 3PH AC220V1.5KW product model is 200M-1R5G2B

4. VFD control loop connection

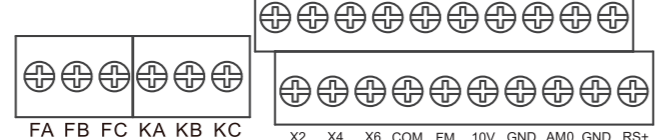
4-1 0.4-7.5KW Control terminal



4-2 3.7-30KW Control terminal



4-3 37-500KW Control terminal



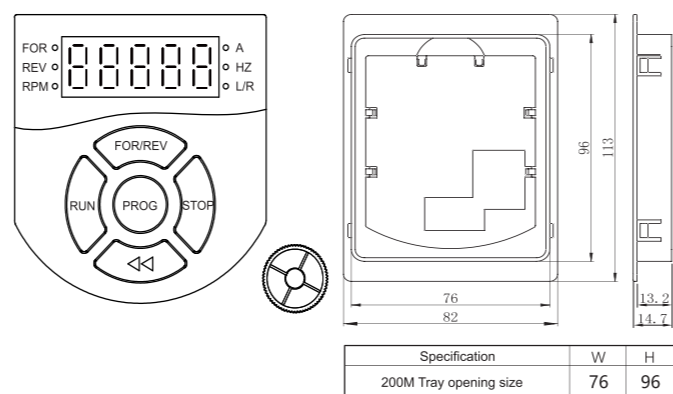
Description of control circuit terminals

| Terminal Name | Specification | Function Description |
|---------------|-------------------------|---|
| X1-X6 | Input Digital | 1. Digital: >DC19V Digital 0; the terminal function is invalid, <DC14V Digital 1; the terminal function is valid. 2. Input Voltage range: 0-30V 3. Input Impedance: 3.6KΩ 4. X3 (optional) set input pulse range: 0-100KHz |
| Y1 | Digital output 1 | Optocoupler isolation, bipolar open collector output. Output voltage range: 0V-24V output current range: 0mA-50mA |
| FM | High-speed pulse output | The terminal output mode is selected as high-speed pulse output with the highest frequency up to 100KHz |
| +10V | 10V Power Supply | Maximum output current 10mA |
| VI-AI | Analog input terminal | standard configuration: VI is input voltage(0-10V); Factory can set the input current (0-20mA). (If the Order labeled) 1. Input Voltage: Input Impedance about 10KΩ 2. Input current: Input Impedance ≤500Ω; |

| Terminal Name | Specification | Function Description |
|----------------------|--------------------------------|--|
| RS+, RS- | RS485 Communication Function | Maximum baud rate 38400bit/s |
| KA-KB-KC FA-FB-FC | Output Relay | 1. Resistive load: 250VAC 3A/30V DC 3A; 2. Inductive load: 250VAC 0.2A/24V DC 0.1 A; (cosφ=0.4); 3. KA and KC NC Terminal/KA and KB NO Terminal FA and FC NC Terminal/FA and FB NO Terminal |
| AMO/AO0 | Analog output terminal | 1. Output Voltage range: 0-10V/0-20mA 2. Output Voltage: Load impedance >500Ω |
| GND | Analog signal ground | Common port for connecting analog signal input |
| +24V | 24V Power Supply | Provide +24V power, maximum output current 100mA |
| COM | Digital signal ground | Common port for connecting digital signal input |
| J1 | expansion card connector | To connect expansion card |
| J2 | Outside Keyboard Connector | To connect outside keyboard |
| J3 | Function Transformation Switch | Connected to VI terminal, support switching between 0-10V and 0-20mA (Pull out the cover of the network cable interface then the switch is visible) |

5. Operation and Display

5.1 Operation pannel



Instruction of Keys on panel:

| Button | Name | Function |
|---------|-----------------------|--|
| RUN | Run Button | Start frequency converter directly by the button on panel |
| STOP | Stop Button | Stop frequency converter or Reset when frequency converter break down |
| ← | Shift Key | To display digital |
| FOR/REV | FOR/REV Select Button | Change the direction rotation between FOR and REV |
| PROG | Menu Button | Enter into Menu and back |
| Encoder | Encoder | 1. To adjust rate of converter; 2. To enter into menu or confirm digital; |

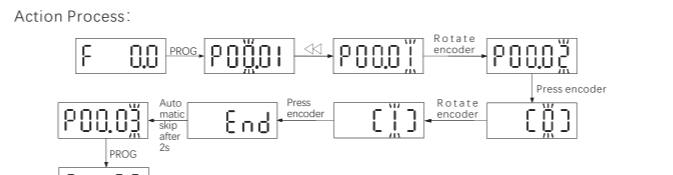
After power up, set program P00.02=1 or 3, digital from digital input or communication function

5.2 Start and Stop by button on panel

1. Press the RUN button to start and FOR / REV indicator lighting;
2. Adjust output power by rotate shift key;
3. Press stop button to stop converter;
4. If need to REV, set the program P00-17 as REV operation valid;

5.3 Start and stop by input digital

After power up, set program P00.02=1 or 3, digital from digital input or communication function



After set program, short circuit digital input X1 and CND to start converter, on the contrary to stop.

6. Failure warning

| Warning | Error Code | Error name | Solution |
|---------|----------------------|--|--|
| - | E.01 | Output short circuit | Check motor connection \motor wire and motor insulation situation |
| A.02 | E.02 | Accelerated over current | 1. Increase the acceleration time 2. Improve torque by hand 3. Exclude outside faults 4. Exclude outside faults 5. Choose speed tracking start or stop and start 6. Cancel exploding load 7. Choose a bigger power frequency converter |
| A.03 | E.03 | Decelerated over current | 1. Exclude outside faults 2. Make motor parameter learn self 3. Add speed cut time 4. Cancel exploding load or add braking unit and resistor 5. Add braking unit and resistor |
| A.04 | E.04 | Constant over current | 1. Exclude outside faults 2. Make motor parameter learn self 3. Cancel exploding load 4. Choose a bigger power frequency converter |
| A.05 | E.05 | Accelerated over voltage | 1. Check power, adjust voltage to normal range 2. Increase the acceleration time 3. Cancel exploding load 4. Choose a bigger power frequency converter |
| A.06 | E.06 | Decelerated over voltage | 1. Adjust voltage to normal range 2. Cancel exploding load or add braking unit and resistor 3. Add speed cut time 4. Stop free |
| A.07 | E.07 | Constant over voltage | 1. Adjust voltage to normal range 2. Cancel exploding load or add braking unit and resistor 3. Choose a bigger power frequency converter |
| A.09 | E.09 | Under-voltage | Ensure the normal power grid voltage |
| A.10 | E.10 | Converter overload | 1. Choose bigger power product 2. set up correctly according to motor nameplate |
| A.12 | E.12 | Input lock of PH | Check connection of input power wire |
| - | E.13 | Motor lock of PH | 1. check motor connector 2. check motor |
| A.14 | E.14 | IGBT excess temperature | 1. clean air duct 2. change fan |
| - | E.16 | Internal Warning | Return to factory maintenance |
| - | E.19 | Motor parameter self learning failure | Set up motor nameplate parameter correctly |
| - | E.23 | Grounded warning | 1. motor for short circuit 2. change motor wire or change motor |
| A.24 | E.24 | Torque limitation | Set up motor digital correctly or adjust P09.04 digital |
| A.25 | E.25 | Current limitation | Set up motor digital correctly or adjust P09.05 digital |
| A.27 | E.27 | Eternal warning | Set up terminal digital correctly |
| A.31 | E.31 | Feedback warning | Check feedback wire or feedback source |
| A.45 | E.45 | Motor Overload | 1. Choose bigger power product 2. set up correctly according to motor nameplate |
| A.46 | E.46 | High-voltage warning | Check hydraulic pressure or pressure gauge |
| A.47 | E.47 | Low-voltage warning | Check whether leak water or air leak |
| - | E.48 | Total work time to failure | Reset parameter to clean recorded information |
| - | E.88 | Control board and drive board communication abnormal | Return to factory maintenance |
| - | E.89 | Button using forbidden | Set P10.01.02.03 digital according to current situation |
| E.91 | Parameter error | Not according to stipulations set parameters correctly | |
| E.92 | Parameter ultralimit | Not according to stipulations set parameters correctly | |
| A.95 | E.95 | Power warning | Check network voltage |
| A.96 | E.96 | Wire break warning | Check terminals whether analog connection wire and signal normal |
| A.97 | E.97 | Communication control overtime | 1. Check master computer program 2. Check communication wire connection 3. Correctly set communication parameter 4. Using shielding line |
| - | E.98 | Reset factory setting | Press STOP button to reset |
| - | E.99 | Open braking resistor to brake | Set P00.72 digital according to current situation |
| - | E.100 | Drive voltage warning | Reserved |
| - | E.101 | Rotor locked | Synchronous motor stalling |

The above action not solve warning please ask for technical support

7. Basic function parameter list

P00-P11 Function Parameter

| P00 Function Parameter | | |
|--|---|--|
| P00.01 Control model | 0: VF control * 1: Vector control | |
| P00.02 Option of order source | * 0: Order channel of panel 1: Order channel of terminal 2: Order channel of communication 3: Order channel of communication or terminal | |
| P00.03 Main frequency source X option | 0: Digital set 2: VI 3: AI (reserved) * 4: Panel coder 5: Input pulse 6: Order of multi-speed 7: Simple PLC 8: PID 9: Communication given | |
| P00.04 Assistant frequency source Y option | * 0: Digital set 2: VI 3: AI (reserved) 4: Panel coder 5: Input pulse 6: Order of multi-speed 7: Simple PLC 8: PID 9: Communication given | |
| P00.05 Option range of assistant frequency source Y | * 0: Relative maximum frequency 1: Relative main frequency source X | |
| P00.06 Range of assistant frequency source | 0-200% * 100 | |
| P00.07 Biased frequency of assistant frequency source Y | 0-P0.10 * 0 | |
| P00.08 Option of main frequency operation | Decade: relation of main and assistant source operation * 0: Main+assistance 1: Main - assistance 2: Maximum 3: Minimum | |
| P00.09 Preset reference | Unit: Option of main frequency operation * 0: Main frequency source X 1: Result of main and assistant frequency operation (relations determined by decade) 2: Main frequency source X switch with assistant frequency Y 3: Main frequency source X switch with result of main and assistant frequency operation 4: Assistance frequency Y switch with result of main and assistant frequency operation | |
| P00.10 Maximum frequency | 0-655.35Hz * 50 | |
| P00.12 Limited frequency | 0-P00.10 * 50 | |
| P00.14 Floor frequency | 0-P00.10 * 0 | |
| P00.15 Below floor frequency operation model | * 0: Floor frequency operation 1: Motor stop 2: No speed operation | |
| P00.16 Rotation Direction Selection | * 0: default direction 1: opposite default direction | |
| P00.17 Forbid REV | 0: Invalid * 1: Valid | |

| | | |
|---|--|--|
| P00.20 Time accuracy | 0: 1s * 1: 0.1s 2: 0.01s | |
| P00.22 Speed up time 1 | 0-65535s * 10 | |
| P00.23 Speed cut time 1 | 0-65535s * 10 | |
| P00.25 Speed up time 2 | 0-65535s * 10 | |
| P00.26 Speed cut time 2 | 0-65535s * 10 | |
| P00.28 Speed up time 3 | 0-65535s * 10 | |
| P00.29 Speed cut time 3 | 0-65535s * 10 | |
| P00.31 Speed up time 4 | 0-65535s * 10 | |
| P00.32 Speed cut time 4 | 0-65535s * 10 | |
| P00.33 Speed up time 1and2 switch frequency | 0-650.00Hz * 0 | |
| P00.34 Speed cut time 1and2 switch frequency | 0-650.00Hz * 0 | |
| P00.40 UP/DOWN memory option of power down | * 0: No 1: Yes | |
| P00.41 Whether UP/DOWN have memory | * 0: No 1: Yes | |
| P00.42 Running frequency UP/DOWN basic | * 0: Operation frequency 1: Setting frequency | |
| P00.43 UP/DOWN Value | 0.01-100.00Hz * 0.1 | |
| P00.44 Hopping frequency | 0-P00.10 * 0 | |
| P00.45 Hopping frequency 2 | 0-P00.10 * 0 | |
| P00.46 Fabric width of Hopping frequency | 0-P00.10 * 0 | |
| P00.47 Inching frequency | 0-P00.12 * 5 | |
| P00.48 Acceleration time of inching | 0-65535s (connect with P00.20) * 10 | |
| P00.49 Inching speed cut time | 0-65535s (connect with P00.20) * 10 | |
| P00.50 Emergency stop speed cut time | 0-65535s (connect with P00.20) * 10 | |
| P00.60 Delayed start time | 0-100s * 0 | |
| P00.61 Delayed start function | 0: DC clamping * 2: Free revolve | |
| P00.62 Frequency tracking start | * 0: Invalid 1: Valid | |
| P00.63 Minimum start frequency setting value | 0-50Hz * 0 | |
| P00.64 Minimum operation frequency | 0-20Hz * 0 | |
| P00.65 PM Start Mode | 0: Floor frequency operation * 1: Start with magnet | |
| P00.66 Power down start delayed | 0-3600S * 0 | |
| P00.70 DC clamping current | 0-150% * 50 | |
| P00.71 Shutdown braking current | 0-150% * 50 | |

| | | |
|---|---|--|
| P00.72 Shutdown braking time | 0-60s * 0 | |
| P00.73 Cut-over frequency run out brake | 0-500Hz * 0 | |
| P00.74 Current synchronous motor start to magnet | 0-150% * 80 | |
| P00.75 Time synchronous motor start to magnet | 0.1-60s * 3 | |
| P00.80 Motor sop function | * 0: Free to stop motor 1: DC clamping | |
| P00.81 Minimun stop frequency | 0-400Hz * 0 | |

| P02组 Method of control | |
|---|---|
| P02.00 V/F Characteristic setting | * 0: Straight line V/F 1: Reserved 2: Reserved 3: Reserved 4: Reserved 5: Reserved 6: Reserved 9: Reserved |
| P02.01 V/F torsional moment promotion | 0-30% * 0 |
| P02.02 V/F torsional moment promotion stop frequency | 0-655.35Hz * 50 |
| P02.03 Frequency point of multi-V/F 1 | 0.00Hz-P02-05 * 0 |
| P02.04 Voltage point of multi-V/F 1 | 0.0%-100.0% * 0 |
| P02.05 Frequency point of multi-V/F 2 | 0.00Hz-P02-07 * 0 |
| P02.06 Voltage point of multi-V/F 2 | 0.0%-100.0% * 0 |
| P02.07 Frequency point of multi-V/F 3 | 0.00Hz-P02-09 * 0 |
| P02.08 Voltage point of multi-V/F 3 | 0.0%-100.0% * 0 |
| P02.09 Frequency point of multi-V/F 4 | 0.00Hz-P02-12 * 0 |
| P02.10 Voltage point of multi-V/F 4 | 0.0%-100.0% * 0 |
| P02.11 Frequency point of multi-V/F 5 | 0.00Hz-P01.03 * 0 |
| P02.12 Voltage point of multi-V/F 5 | 0.0%-100.0% * 0 |
| P02.15 V/F separate voltage source | * 0: Number setting (P02-16) |
| P02.16 V/F separate voltage setting | 0-1000V * 0 |
| P02.17 V/F separate time of voltage rising | 2-100 * 4 |
| P02 | |

| | | | | | | | | | | | | | |
|--|---|--|---|---|---|---|--|---|--|--|---|--|--|
| <p>P02.31 High frequency compensation torques</p> <p>0-199% * 100</p> <p>P02.32 Slip Compensation</p> <p>-400~399% * 80</p> <p>P02.33 Slip Compensation Time Constant</p> <p>-400~399% * 0.1</p> <p>P02.34 Resonance Dampening</p> <p>0-3000% * 50</p> <p>P02.35 Resonance Dampening Ttime Constant</p> <p>0.001-0.05s * 0.005</p> <p>P02.36 Open Magnetisation</p> <p>0-300% * 100</p> <p>P02.37 Normal Magnetisation Switch point</p> <p>0-10 * 1</p> <p>P02.38 Open Torque compensation</p> <p>0-25% * 0</p> <p>P02.40 Synchronous motor low speed compensation</p> <p>0-120% * 80</p> <p>P02.41 Synchronous motor load compensation</p> <p>0-500% * 120</p> <p>P02.42 Low speed synchronous motor compensation filtering time</p> <p>0.01-20s * 0.8</p> <p>P02.43 High speed synchronous motor compensation filtering time</p> <p>0.01-20s * 0.8</p> <p>P02.44 Synchronous motor current filtering time</p> <p>0.001-1s * 0.5</p> <p>P02.45 Synchronous motor high-speed compensation</p> <p>-400~400% * 10</p> <p>P02.50 Torque type</p> <p>* 0: Constant torque 1: Djustable torque 3: Optimize torque</p> <p>P02.51 Adjust adjustable torque</p> <p>40-90% * 90</p> <p>P02.52 Automatic optimum energy consumption minimum flux</p> <p>40-75% * 66</p> | <p>20: Open pulse 21: Pulse REV 22: Start counterclockwise only 23: Frequency source switch 24: Frequency source switch 32: Order source switch1 33: Order source switch2 34: Outside failure 35: Counter A (plus) 37: Counter A reset 38: Counter B (plus) 40: Counter B reset 41: PID pause 42: PID opposite direction 43: PID Integral to suspend 44: PID parameter switch 45: PLC reset condition 46: Input high-speed pulse(DI3)</p> <p>P02.38 Terminal DI 2 Input Parameter as P03.04 *2</p> <p>P03.06 Terminal DI3 Input Parameter as P03.04 *14</p> <p>P03.07 Terminal DI4 Input Parameter as P03.04 *15</p> <p>P03.08 Terminal DI 5 Input Reserve</p> <p>P03.09 Terminal DI 6 Input Reserve</p> <p>P03.10 Terminal DI 3 Input min frequency</p> <p>0-99.99kHz *0.02</p> <p>P03.11 Terminal DI Input max frequency</p> <p>0.01-100kHz *50</p> <p>P03.12 Terminal DI 3 Input min corresponding reference/feedback value</p> <p>-200~+200% *0</p> <p>P03.13 Terminal DI 3 Input max corresponding reference/feedback value</p> <p>-200~+200% *100</p> <p>P03.14 Terminal DI 3 Filtering time</p> <p>1-1000ms *100</p> <p>P03.20 Interrupt signal detection time</p> <p>1-99s *10</p> <p>P03.21 Interrupt signal action</p> <p>*0: Invalid 2: Stop 3: Inching running 4: Running with MAX frequency 5: Stop then warning</p> <p>P03.30 Terminal VI Model</p> <p>*0: Voltage 1: Current</p> <p>P03.31 Terminal VI Min current</p> <p>0-9.99V *0.07</p> <p>P03.32 Terminal VI Max current</p> <p>0.01-10V *10</p> <p>P03.33 Terminal AI Minimum</p> <p>0-19.99mA *0.14</p> <p>P03.34 Terminal AI Maximum</p> <p>0.01-20mA *20</p> <p>P03.35 Terminal VI Min reference/feedback value</p> <p>-200~200% *0</p> <p>P03.36 Terminal VI Max reference/feedback value</p> <p>-200~200% *100</p> <p>P03.37 Terminal VI Filtering time</p> <p>0.001-10s *0.01</p> <p>P03.38 Terminal VI Zero Dead Band</p> <p>0-20V/mA *0</p> <p>P03.40 Terminal AI Model(Reserved)</p> <p>0: Voltage *1: Current</p> <p>P03.41 Terminal AI Min voltage</p> <p>0-9.99V (Reserved)</p> <p>P03.42 Terminal AI Max voltage</p> <p>0.01-10V (Reserved)</p> <p>P03.43 Terminal AI Minimum</p> <p>0-19.99mA (Reserved)</p> <p>P03.44 Terminal AI Maximum</p> <p>0.01-20mA (Reserved)</p> | <p>P03.45 Terminal AI Min reference/feedback value</p> <p>-200~200% (Reserved)</p> <p>P03.46 Terminal AI Max reference/feedback value</p> <p>-200~200% (Reserved)</p> <p>P03.47 Terminal AI Filtering time</p> <p>0.001-10s (Reserved)</p> <p>P03.48 Terminal AI Zero Dead Band</p> <p>0-20V/mA (Reserved)</p> | <p>22: Input VI 23: Input AI 26: Busbar voltage 30: Torsional moment output 80: Application control</p> <p>P04.22 Terminal VO Min output proportion</p> <p>0-200% *0</p> <p>P04.23 Terminal VO Max output proportion</p> <p>0-200% *100</p> <p>P04.24 Terminal VO Minimum output</p> <p>0-20 (Reserved)</p> <p>P04.25 Terminal VO Maximum output</p> <p>0.01-20 (Reserved)</p> <p>P04.30 Terminal AO output type</p> <p>0: Invalid 1: Running *2: Failure 3: Frequency horizontal detect FDT1 output 4: Frequency arrived 5: Ospeed running 6: Motor overload protection 7: Converter overload protection 8: Counter A arrived 9: Counter B arrived 10: Length arrived 11: PLC circulation 12: Total power on time arrived 13: Frequency limiting 14: Torque limiting 15: Converter ready 16: All bigger than AI2 17: Limited frequency arrived 18: Floor frequency arrived 19: Under-voltage condition output 20: Communication set 21: Position approaching 22: Completed to Locate 23: 0 Speed Running 2 24: Total power on time arrived 25: Frequency Horizontal Detect FDT 2 Output 26: Frequency 1 Arrived 27: Frequency 2 Arrived 28: Current 1 Arrived 29: Current 2 Arrived 31: VI Output Over Limited 32: Drop Loading 33: REV Running 34: 0 Current 35: Module temperature arrived 36: Output current over limited 37: Still output even floor frequency arrived 38: Failure or warning 39: Over temperature warning 40: Running time arrived 41: Failure no under-voltage 42: High pressure 43: Low pressure 44: Pressure arrived</p> <p>P04.01 The 2 function of Relay (same as above)</p> <p>P04.02 Output function of DO1(Y1) (same as above)</p> <p>P04.03 Output Selection function of FM (same as above)</p> <p>P04.09 DO Logic</p> <p>0-255, (Reserved)</p> <p>P04.10 Relay 1 On Delay Time</p> <p>0-600s *0</p> <p>P04.11 Relay 2 On Delay Time</p> <p>0-600s, (Reserved)</p> <p>P04.20 Terminal VO Mode</p> <p>0: 0-20mA(Reserved) 1: 4-20mA(Reserved) *3: 0-10V</p> <p>P04.21 Terminal VO Analog Output</p> <p>0: None 10: Output frequency *11: Feference value 12: Feedback value 13: Motor current 16: Output power 17: Motor Rotational Speed 18: Voltage output 20: Communication control 21: Pulse input</p> | <p>P05.00 PID setting source</p> <p>* 0: Set P05.01 parameter 1: VI 2: AI 3: Panel Coder 4: Pulse Input 5: Communication given 6: Multistage speed 7: P05.01 add Up/Down arrived *05.01 PID value given -3000~3000 *3 *05.02 Feedback source of process control</p> <p>* 0: VI 1: AI 2: Coder 3: VI-AI(Reserved) 4: Pulse input DI4 5: Communication given 6: VI+AI(Reserved) 7: VIAI Max(Reserved) 8: VIAI Min(Reserved)</p> <p>P05.03 Positive and negative logic of process PI</p> <p>* 0: Forward 1: Reverse</p> <p>P05.04 PID Feedback basic value given</p> <p>0.1-6553.5 *10</p> <p>P05.05 Process PI Proportional Gain</p> <p>0-1000 *20</p> <p>P05.06 Process PI Integral Time</p> <p>0-1000 (Reserved)</p> <p>P05.07 Process PI Calculus time</p> <p>0.1-655.35s *2</p> <p>P05.08 Process PI Differential Time</p> <p>0-10.000s *0</p> <p>P05.09 PID Reverse stop frequency</p> <p>0-655.35Hz *0</p> <p>P05.10 Deviation Limit</p> <p>0-200% *0</p> <p>P05.11 Process PID Differential limit</p> <p>0.1-100 *0.1</p> <p>P05.12 PID Changing time given</p> <p>0-650s *0.1</p> <p>P05.13 PID time of filter feedback</p> <p>0-60s *0</p> | <p>P05.13 PID time of filter output</p> <p>0-60s *0</p> <p>P05.15 Process PI proportion gain</p> <p>0-10s (Reserved)</p> <p>P05.16 Process PI Integration time</p> <p>0.1-655.35 (Reserved)</p> <p>P05.17 Process PI Calculus time</p> <p>0-10 (Reserved)</p> <p>P05.18 PID parameter switchover condition</p> <p>0: No switch (Reserved) 1: Switch by DI (Reserved) 2: Deviation switch (Reserved) 3: Frequency switch (Reserved)</p> <p>P05.19 Process PID Parameter Switchover Deviation 1</p> <p>0-100%(Reserved)</p> <p>P05.20 Process PID Parameter Switchover Deviation 2</p> <p>0-100%(Reserved)</p> <p>P05.21 PID Starting value</p> <p>0-10.00 *0</p> <p>P05.22 PID Time of starting value keeping</p> <p>0-650.00s *0</p> <p>P05.23 Output FOR deviation MAX value</p> <p>0-100% *1</p> <p>P05.24 Output REV deviation MAX value</p> <p>0-100% *1</p> <p>P05.25 PID Integral attribute</p> <p>00-11 *0</p> <p>P05.26 PID Detection value of feedback lost</p> <p>0-100% *0</p> <p>P05.27 PID Detection time of feedback lost</p> <p>0-100% *0</p> <p>P05.28 PID Run out and operation</p> <p>* 0: Run out but no operation 1: Run out and operation</p> <p>P05.29 Wake up pressure</p> <p>0-6500 *2</p> <p>P05.30 Wake up delayed time</p> <p>0-6500s *0</p> <p>P05.31 Dormant pressure</p> <p>0-6500 *4</p> <p>P05.32 Dormant delayed time</p> <p>0-6500s *60</p> <p>P05.33 Dormant mode set</p> <p>0: Forbid dormant *1: Pressure arrived 2: Frequency arrived 3: Pressure and frequency arrived at same time</p> <p>P05.34 Dormant frequency</p> <p>0-655.35Hz *30</p> <p>P05.35 Pressure proportion linkage</p> <p>0: workable *1: forbid</p> <p>P05.36 Wake up pressure linkage setting value</p> <p>0-6500 *1</p> <p>P05.37 Dormant pressure linkage setting value</p> <p>0-6500 *1</p> <p>P05.38 High pressure alarm difference set</p> <p>0-6500 *0</p> <p>P05.39 High pressure alarm delay time</p> <p>0-6500s *0</p> <p>P05.40 Low pressure alarm difference set</p> <p>0-6500s *0</p> <p>P05.41 Low pressure alarm delay time</p> <p>0-6500s *0</p> | <p>P06.01 Multistage speed commands1</p> <p>-100~100% *0</p> <p>P06.02 Multistage speed commands2</p> <p>-100~100% *0</p> <p>P06.03 Multistage speed commands3</p> <p>-100~100% *0</p> <p>P06.04 Multistage speed commands4</p> <p>-100~100% *0</p> <p>P06.05 Multistage speed commands5</p> <p>-100~100% *0</p> <p>P06.06 Multistage speed commands6</p> <p>-100~100% *0</p> <p>P06.07 Multistage speed commands7</p> <p>-100~100% *0</p> <p>P06.08 Multistage speed commands8</p> <p>-100~100% *0</p> <p>P06.09 Multistage speed commands9</p> <p>-100~100% *0</p> <p>P06.10 Multistage speed commands10</p> <p>-100~100% *0</p> <p>P06.11 Multistage speed commands11</p> <p>-100~100% *0</p> <p>P06.12 Multistage speed commands12</p> <p>-100~100% *0</p> <p>P06.13 Multistage speed commands13</p> <p>-100~100% *0</p> <p>P06.14 Multistage speed commands14</p> <p>-100~100% *0</p> <p>P06.15 Multistage speed commands15</p> <p>-100~100% *0</p> <p>P06.16 Simple PLC running way</p> <p>0: Running single time then stop *1: Running single time then stop and keep final digital 2: Circulating all the time</p> <p>P06.17 Simple PLC option of drop power memory</p> <p>0-11 *0</p> <p>P06.18 Simple PLC running time unit</p> <p>* 0: s, Second 1: h, Hour</p> <p>P06.19 Simple PLC0 running time</p> <p>0-6500 *0</p> <p>P06.20 Simple PLC0 variable speed time option</p> <p>0-3 *0</p> <p>P06.21 Simple PLC1 running time</p> <p>0-6500 *0</p> <p>P06.22 Simple PLC1 variable speed time option</p> <p>0-3 *0</p> <p>P06.23 Simple PLC2 running time</p> <p>0-6500 *0</p> <p>P06.24 Simple PLC2 variable speed time option</p> <p>0-3 *0</p> <p>P06.25 Simple PLC3 running time</p> <p>0-6500 *0</p> <p>P06.26 Simple PLC3 variable speed time option</p> <p>0-3 *0</p> <p>P06.27 Simple PLC4 running time</p> <p>0-6500 *0</p> <p>P06.28 Simple PLC4variable speed time option</p> <p>0-3 *0</p> <p>P06.29 Simple PLC5 running time</p> <p>0-6500 *0</p> <p>P06.30 Simple PLC5variable speed time option</p> <p>0-3 *0</p> <p>P06.31 Simple PLC6 running tim</p> <p>0-6500 *0</p> <p>P06.32 Simple PLC6variable speed time option</p> <p>0-3 *0</p> <p>P06.33 Simple PLC7 running time</p> <p>0-6500 *0</p> <p>P06.34 Simple PLC7variable speed time option</p> <p>0-3 *0</p> <p>P06.35 Simple PLC8 running time</p> <p>0-6500 *0</p> <p>P06.36 Simple PLC8variable speed time option</p> <p>0-3 *0</p> | <p>P06.37 Simple PLC9 running time</p> <p>0-6500 *0</p> <p>P06.38 Simple PLC9variable speed time option</p> <p>0-3 *0</p> <p>P06.39 Simple PLC10running time</p> <p>0-6500 *0</p> <p>P06.40 Simple PLC10variable speed time option</p> <p>0-3 *0</p> <p>P06.41 Simple PLC11 running time</p> <p>0-6500 *0</p> <p>P06.42 Simple PLC11variable speed time option</p> <p>0-3 *0</p> <p>P06.43 Simple PLC12 running time</p> <p>0-6500 *0</p> <p>P06.44 Simple PLC12variable speed time option</p> <p>0-3 *0</p> <p>P06.45 Simple PLC13 running time</p> <p>0-6500 *0</p> <p>P06.46 Simple PLC13variable speed time option</p> <p>0-3 *0</p> <p>P06.47 Simple PLC14 running time</p> <p>0-6500 *0</p> <p>P06.48 Simple PLC14variable speed time option</p> <p>0-3 *0</p> <p>P06.49 Simple PLC15 running time</p> <p>0-6500 *0</p> <p>P06.50 Simple PLC15 variable speed time option</p> <p>0-3 *0</p> <p>P06.51 Multistage speed 0 given way</p> <p>* 0: P06.00 given 1: Analog AI1 2: Analog AI2(Reserved) 4: Input pulse 5: PID 6: Preset value</p> | <p>P07.38 Message Response</p> <p>* 0: Every time 1: Only response abnormal message 2: No response</p> <p>P07.39 Programme control</p> <p>0: Parameter do not save when power off *1: Parameter save when power off</p> | <p>P08 Assistant Parameter</p> <p>P08.01 Over Modulation Function</p> <p>90-105.5% *100</p> <p>P08.02 Deadband Compensation</p> <p>0-200 *100</p> <p>P08.07 Max Deadband Compensation</p> <p>20-1000Hz *50</p> <p>P08.10 DC Circuit Voltage Compensation</p> <p>* 0: No compensation 1: Compensation1 2: Compensation2</p> <p>P08.20 Switching Frequency</p> <p>2-16kHz *5</p> <p>P08.30 Operating mode</p> <p>* 0: Normal operating 2: Reset</p> <p>P08.31 Set password/unlock password</p> <p>0-65535(Reserved)</p> <p>P08.32 Confirm password</p> <p>0-65535(Reserved)</p> <p>P08.35 Counter A reach to setting</p> <p>0-65535 *0</p> <p>P08.36 Counter B reach to setting</p> <p>0-65535 *0</p> <p>P08.37 Save Counter</p> <p>* 0: No Save 1: Save Counter A 2: save Counter B 3: Save Counter A B</p> <p>P08.40 Frequency detected value 1</p> <p>0-655.35Hz *50</p> <p>P08.41 Frequency detected value 1 hysteresis of instrument</p> <p>0-100% *5</p> <p>P08.42 Frequency reach to detection width</p> <p>0-100% *0</p> <p>P08.43 Frequency detected value 2</p> <p>0-655.35Hz *50</p> <p>P08.44 Frequency detected value 2 hysteresis of instrument</p> <p>0-100% *5</p> <p>P08.45 Any reach frequency detected value 1</p> <p>0-655.35Hz *50</p> <p>P08.46 Any reach frequency detected width 1</p> <p>0-100% *0</p> <p>P08.47 Any reach frequency detected value 2</p> <p>0-655.35Hz *50</p> <p>P08.48 Any reach frequency detected width 2</p> <p>0-100% *0</p> <p>P08.49 0 current detection level</p> <p>0-300% *5</p> <p>P08.50 0 current detection delayed time</p> <p>0-600s *0.1</p> <p>P08.51 Output current over limited</p> <p>0-300% *200</p> <p>P08.52 Output current over limited detection delayed</p> <p>0-600s *0</p> | <p>P09 Assistant Parameter</p> <p>P09.00 Limited value prevent over current losing speed</p> <p>0-300% *200</p> <p>P09.01 Current controller 1 proportion</p> <p>0-300% *100</p> <p>P09.02 Current controller 1integral</p> <p>0.005-2s *0.02</p> <p>P09.04 Torque limited when motor on</p> <p>0-1000% *150</p> <p>P09.05 Torque limited when generate electricity</p> <p>0-1000% *150</p> <p>P09.08 Over current losing speed alarm delayed</p> <p>0-60s *60</p> <p>P09.09 Torque reached to limited alarm delayed</p> <p>0-60s *60</p> <p>P09.20 Braking function</p> <p>* 0: Invalid 1: Rheostatic brake 2: Alternating braking</p> <p>P09.21 Resistance Brake threshold Depends on the voltage specification</p> <p>P09.24 Overpressure stall threshold Depends on the voltage specification</p> <p>P09.25 Over voltage control</p> <p>* 0: Invalid 2: Model 1 3: Model 2</p> <p>P09.26 Overvoltage control integral coefficient</p> <p>0.01-0.1s *0.05</p> <p>P09.27 Overvoltage control proportion coefficient</p> <p>0-200% *100</p> <p>P09.28 Alternating braking integral coefficient</p> <p>1.0-2.0 *1.4</p> <p>P09.29 Maximum current of alternating braking</p> <p>0-150% *100</p> <p>P09.40 Motor phases detection</p> <p>0: Off *1: On</p> <p>P09.41 Power imbalance option</p> <p>* 0: Failure stop 1: Warning 2: Invalid 4: Warning mid-sensitivity 5: Failure stop mid-sensitivity 6: Failure stop high-sensitivity</p> <p>P09.42 Voltagenet drop function</p> <p>* 0: Invalid 1: Speed cut 2: Speed cut failure 3: Free revolve stop motor 4: Instantaneous power lost non-stop 5: Instantaneous power lost non-stop failure 6: Failure</p> <p>P09.43 Judge voltage from power grid failure</p> <p>100-800V (Reserve)</p> | <p>P09.44 Moment non-stop gain when power supply drop</p> <p>0-500% *100</p> <p>P09.45 Moment non-stop recovery threshold when power supply drop</p> <p>0-65535 *200</p> <p>P09.46 Cocnverter action after voltage failure</p> <p>* 0: Failure locked 1: Speed start</p> <p>P09.50 Motor overload protection option</p> <p>* 0: Forbid 1: Permit</p> <p>P09.51 Motor Overload Protection Factor</p> <p>0.2-60 *1</p> <p>P09.52 Motor Overheating Protection Warning Factor</p> <p>50-100% *80</p> <p>P09.58 Synchronous motor stalling protection</p> <p>* 0: Off 1: On</p> <p>P09.59 Time of Synchronous motor stalling protection</p> <p>0.05-1s *0.1</p> <p>P09.60 Malfunction warning display</p> <p>0: Blank *1: Normally display 2: Power on failure clearance</p> <p>P09.61 Malfunction locked</p> <p>* 0: Unlocked 1: Locked</p> <p>P09.62 Actions when converter breakdown</p> <p>0: Display fault and Stop motor *1: Sop motor after warning</p> <p>P09.70 Time of automatic reset</p> <p>* 0: Manual reset 1: Automatic reset1 time 2: Automatic reset 2 times 3: Automatic reset 3 times 4: Automatic reset 4 times 5: Automatic reset 5 times 6: Automatic reset 6 times 7: Automatic reset 7 times 8: Automatic reset 8 times 9: Automatic reset 9 times 10: Automatic reset 10 times 11: Automatic reset 15 times 12: Automatic reset 20 times 13: Automatic reset unlimited times</p> <p>P09.71 automatic reset time</p> <p>0-600s *10</p> | <p>P10 Failure Record</p> <p>P10.00 LCP menu options</p> <p>1: Motor voltage 2: Motor rotational peed 4: DC voltage 8: Temperature 16: Process PID feedback digital 32: Counter A 64: Counter B 128: Input VI 256: Input AI 512: Input pulse 1024: Output pulse 2048: Custom physical quantities (reserved) 4096: Output power 8192: Process PID given digital</p> | <p>P11 Digital Monitoring</p> <p>P11.00 Frequency output</p> <p>P11.01 Set digital</p> <p>P11.02 DC voltage</p> <p>P11.03 Motor voltage</p> <p>P11.04 Motor current</p> <p>P11.05 Frequency output</p> <p>P11.06 Torsional moment output %</p> <p>P11.07 DI input condition</p> <p>P11.08 DO output condition</p> <p>P11.09 VI digital input</p> <p>P11.10 AI digital input</p> <p>P11.11 AI digital input 3</p> <p>P11.12 Counter A</p> <p>P11.13 Counter B</p> <p>P11.14 Motor rotational speed</p> <p>P11.15 PID reference value</p> <p>P11.16 Feedback value</p> <p>P11.17 PLC stage</p> <p>P11.18 Pulse frequency input</p> <p>P11.19 Frequency feedback (Hz)</p> <p>P11.20 Rest of running time</p> <p>P11.21 VI voltage before emended</p> <p>P11.22 AI voltage before emended</p> <p>P11.23 AI voltage before emended 3</p> <p>P11.25 Current time of power on</p> <p>P11.26 Total time of power on</p> <p>P11.27 Current running time</p> <p>P11.29 Set communication value</p> <p>P11.30 Coder feedback speed</p> <p>P11.31 display main frequency X</p> <p>P11.32 Display main frequency Y</p> <p>P11.34 Synchronous motor rotor Angle</p> <p>P11.35 converter temperature</p> <p>Attention: labeled"* "is tolerant parameter</p> <p>P010、P011 Parameter is subject to frequency converter actually display</p> |
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| <p>P07 Communication Parameter</p> <p>P07.03 Communication Timeout Time</p> <p>0.1-650.00s *1</p> <p>P07.04 Communication Timeout Function</p> <p>* 0: Invalid 2: Stop 3: Inching operation 4: Max operation frequency 5: Stop then warn 6: Warning</p> <p>P07.06 Reset Communication Timeout</p> <p>* 0: Invalid 1: Reset communication cut</p> <p>P07.30 Protocol</p> <p>* 0: MODBUS-RTU 2: Reserve</p> <p>P07.31 Address</p> <p>1-247 *1</p> <p>P07.32 Baud Rate</p> <p>0: 300b 1: 600b 2: 1200b 3: 2400b 4: 4800b *5: 9600b 6: 19200b 7: 38400b</p> <p>P07.33 Baud Rate</p> <p>* 0: No parity (1Position Stop) 1: Even parity (1Position Stop) 2: Odd parity (1Position Stop) 3: No parity (2Position Stop)</p> <p>P07.35 Min. Response Delay</p> <p>0-0.5s *0.002</p> <p>P07.36 Max. Response Delay</p> <p>0.1-10s *5</p> | <p>P08 Assistant Parameter</p> <p>P08.01 Over Modulation Function</p> <p>90-105.5% *100</p> <p>P08.02 Deadband Compensation</p> <p>0-200 *100</p> <p>P08.07 Max Deadband Compensation</p> <p>20-1000Hz *50</p> <p>P08.10 DC Circuit Voltage Compensation</p> <p>* 0: No compensation 1: Compensation1 2: Compensation2</p> <p>P08.20 Switching Frequency</p> <p>2-16kHz *5</p> <p>P08.30 Operating mode</p> <p>* 0: Normal operating 2: Reset</p> <p>P08.31 Set password/unlock password</p> <p>0-65535(Reserved)</p> <p>P08.32 Confirm password</p> <p>0-65535(Reserved)</p> <p>P08.35 Counter A reach to setting</p> <p>0-65535 *0</p> <p>P08.36 Counter B reach to setting</p> <p>0-65535 *0</p> <p>P08.37 Save Counter</p> <p>* 0: No Save 1: Save Counter A 2: save Counter B 3: Save Counter A B</p> <p>P08.40 Frequency detected value 1</p> <p>0-655.35Hz *50</p> <p>P08.41 Frequency detected value 1 hysteresis of instrument</p> <p>0-100% *5</p> <p>P08.42 Frequency reach to detection width</p> <p>0-100% *0</p> <p>P08.43 Frequency detected value 2</p> <p>0-655.35Hz *50</p> <p>P08.44 Frequency detected value 2 hysteresis of instrument</p> <p>0-100% *5</p> <p>P08.45 Any reach frequency detected value 1</p> <p>0-655.35Hz *50</p> <p>P08.46 Any reach frequency detected width 1</p> <p>0-100% *0</p> <p>P08.47 Any reach frequency detected value 2</p> <p>0-655.35Hz *50</p> <p>P08.48 Any reach frequency detected width 2</p> <p>0-100% *0</p> <p>P08.49 0 current detection level</p> <p>0-300% *5</p> <p>P08.50 0 current detection delayed time</p> <p>0-600s *0.1</p> <p>P08.51 Output current over limited</p> <p>0-300% *200</p> <p>P08.52 Output current over limited detection delayed</p> <p>0-600s *0</p> | <p>P09 Assistant Parameter</p> <p>P09.00 Limited value prevent over current losing speed</p> <p>0-300% *200</p> <p>P09.01 Current controller 1 proportion</p> <p>0-300% *100</p> <p>P09.02 Current controller 1integral</p> <p>0.005-2s *0.02</p> <p>P09.04 Torque limited when motor on</p> <p>0-1000% *150</p> <p>P09.05 Torque limited when generate electricity</p> <p>0-1000% *150</p> <p>P09.08 Over current losing speed alarm delayed</p> <p>0-60s *60</p> <p>P09.09 Torque reached to limited alarm delayed</p> <p>0-60s *60</p> <p>P09.20 Braking function</p> <p>* 0: Invalid 1: Rheostatic brake 2: Alternating braking</p> <p>P09.21 Resistance Brake threshold Depends on the voltage specification</p> <p>P09.24 Overpressure stall threshold Depends on the voltage specification</p> <p>P09.25 Over voltage control</p> <p>* 0: Invalid 2: Model 1 3: Model 2</p> <p>P09.26 Overvoltage control integral coefficient</p> <p>0.01-0.1s *0.05</p> <p>P09.27 Overvoltage control proportion coefficient</p> <p>0-200% *100</p> <p>P09.28 Alternating braking integral coefficient</p> <p>1.0-2.0 *1.4</p> <p>P09.29 Maximum current of alternating braking</p> <p>0-150% *100</p> <p>P09.40 Motor phases detection</p> <p>0: Off *1: On</p> <p>P09.41 Power imbalance option</p> <p>* 0: Failure stop 1: Warning 2: Invalid 4: Warning mid-sensitivity 5: Failure stop mid-sensitivity 6: Failure stop high-sensitivity</p> <p>P09.42 Voltagenet drop function</p> <p>* 0: Invalid 1: Speed cut 2: Speed cut failure 3: Free revolve stop motor 4: Instantaneous power lost non-stop 5: Instantaneous power lost non-stop failure 6: Failure</p> <p>P09.43 Judge voltage from power grid failure</p> <p>100-800V (Reserve)</p> | <p>P10 Failure Record</p> <p>P10.00 LCP menu options</p> <p>1: Motor voltage 2: Motor rotational peed 4: DC voltage 8: Temperature 16: Process PID feedback digital 32: Counter A 64: Counter B 128: Input VI 256: Input AI 512: Input pulse 1024: Output pulse 2048: Custom physical quantities (reserved) 4096: Output power 8192: Process PID given digital</p> | <p>P11 Digital Monitoring</p> <p>P11.00 Frequency output</p> <p>P11.01 Set digital</p> <p>P11.02 DC voltage</p> <p>P11.03 Motor voltage</p> <p>P11.04 Motor current</p> <p>P11.05 Frequency output</p> <p>P11.06 Torsional moment output %</p> <p>P11.07 DI input condition</p> <p>P11.08 DO output condition</p> <p>P11.09 VI digital input</p> <p>P11.10 AI digital input</p> <p>P11.11 AI digital input 3</p> <p>P11.12 Counter A</p> <p>P11.13 Counter B</p> <p>P11.14 Motor rotational speed</p> <p>P11.15 PID reference value</p> <p>P11.16 Feedback value</p> <p>P11.17 PLC stage</p> <p>P11.18 Pulse frequency input</p> <p>P11.19 Frequency feedback (Hz)</p> <p>P11.20 Rest of running time</p> <p>P11.21 VI voltage before emended</p> <p>P11.22 AI voltage before emended</p> <p>P11.23 AI voltage before emended 3</p> <p>P11.2</p> |
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