Thank you for choosing HE100 series high-performance AC Drive.

The diagrams in this operating instruction are for the convenience of description, and may be slightly different from the product. Due to product upgrades, it may also be slightly different. Please refer to the actual product.

Please pay attention to hand this practical manual to the end user, and keep it properly for future inspection and maintenance.

If you have any questions, please contact our company or our agent in time, we will serve you wholeheartedly.

Chapter 1 Selection

Nameplate description

MODEL: HE100-T3-4ROG

POWER: 4KW

INPUT: AC 380/400V

OUTPUT: 9A

SER. NO:

NUMBER: 0118711202111100001

Model: HE100-T3-4R0G

Power: 4.0KW

Power: T1:Single-phase 220V

T2:Three-phase 220V

T3:Three-phase 380V

T3S:Input:Single-phase 220V

Output:Three-phase 380V

Table 1 Model and technical data of HE100 inverter

| AC Drive Model | Power | Input current | Output current | Мо | tor |
|--------------------|----------------|---------------|----------------|------|-----|
| 7.0 2.110 1110 00. | KVA | Α | A | kW | HP |
| single- | phase Power: 2 | 220V,50/60Hz | Output: 220 | V | |
| HE100-T1-0R7 | 1.5 | 8.2 | 4.0 | 0.75 | 1 |
| HE100-T1-1R5 | 3.0 | 14.0 | 7.0 | 1.5 | 2 |
| HE100-T1-2R2 | 4.0 | 23.0 | 9.6 | 2.2 | 3 |
| HE100-T1-3R7 | 5.5 | 31.0 | 17 | 3.7 | 4 |
| HE100-T1-5R5 | 5.5 | 37.0 | 25 | 5.5 | 5 |
| single | -phase Power: | 220V, 50/60H | z Output: 380\ | , | |
| HE100-T3S-0R7 | 1.5 | 8.2 | 2.1 | 0.75 | 1 |
| HE100- T3S -1R5 | 3.0 | 14.0 | 3.8 | 1.5 | 2 |
| HE100- T3S -2R2 | 4.0 | 23.0 | 5.1 | 2.2 | 3 |
| HE100- T3S -3R7 | 5.5 | 31.0 | 9.0 | 3.7 | 4 |
| HE100- T3S -5R5 | 5.5 | 37.0 | 13.0 | 5.5 | 5 |
| HE100-T3S-7R5 | 11.0 | 50.5 | 17.0 | 7.5 | 10 |
| HE100-T3S-11R0 | 17.0 | 74.0 | 25.0 | 11.0 | 15 |
| HE100-T3S-15R0 | 21.0 | 101.0 | 32.0 | 15.0 | 20 |
| HE100-T3S-18R5 | 24.0 | 124.5 | 37.0 | 18.5 | 25 |
| HE100-T3S-22R0 | 30.0 | 148.0 | 45.0 | 22 | 30 |
| three | -phase Power: | 380V, 50/60H | z Output: 380V | | |
| HE100-T3-0R7 | 1.5 | 3.4 | 2.1 | 0.75 | 1 |
| HE100-T3-1R5 | 3.0 | 5.0 | 3.8 | 1.5 | 2 |
| HE100-T3-2R2 | 4.0 | 5.8 | 5.1 | 2.2 | 3 |
| HE100-T3-3R7 | 5.9 | 10.5 | 9.0 | 3.7 | 5 |
| HE100-T3-5R5 | 8.9 | 14.6 | 13.0 | 5.5 | 7.5 |
| HE100-T3-7R5 | 11.0 | 20.5 | 17.0 | 7.5 | 10 |
| HE100-T3-11R0 | 17.0 | 26.0 | 25.0 | 11.0 | 15 |
| HE100-T3-15R0 | 21.0 | 35.0 | 32.0 | 15.0 | 20 |
| HE100-T3-18R5 | 24.0 | 38.5 | 37.0 | 18.5 | 25 |

| AC Drive Model | Power | Input current | Output current | Mot | tor |
|----------------|-------|---------------|----------------|-----|-----|
| | KVA | Α | Α | kW | HP |
| HE100-T3-22R0 | 30.0 | 46.5 | 45.0 | 22 | 30 |
| HE100-T3-30R0 | 40.0 | 62.0 | 60.0 | 30 | 40 |
| HE100-T3-37R0 | 57.0 | 76.0 | 75.0 | 37 | 50 |
| HE100-T3-45R0 | 69.0 | 92.0 | 91.0 | 45 | 60 |

Chapter 2 Dimensions

Product dimension

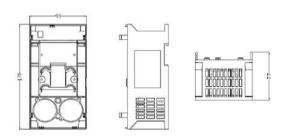


Figure 2-1 HE100 plastic 2.2-4KW structure external dimension and installation dimension diagram

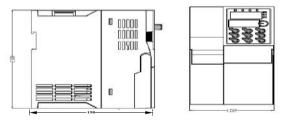


Figure 2-2 HE100 plastic 5.5-7.5KW structure external dimension and installation dimension diagram

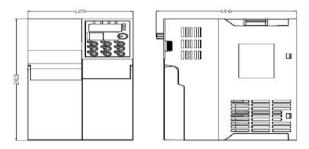


Figure 2-3 HE100 plastic 11-15KW structure external dimension and installation dimension diagram

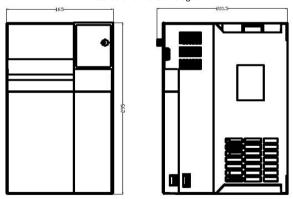


Figure 2-4 HE100 plastic 18-22KW structure external dimension and installation dimension diagram

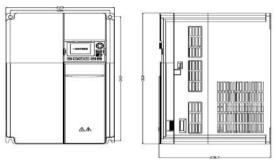


Figure 2-5 HE100 plastic 30-37KW structure external dimension and installation dimension diagram

dimension of external keyboard

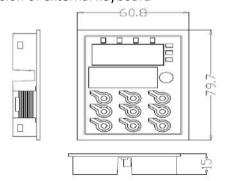


Figure 2-6 dimension of external keyboard

Chapter 3 Wiring

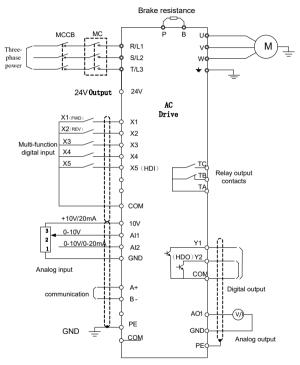


Figure 3-1 HE100 AC Drive Standard Diagram(Three phase-380V)

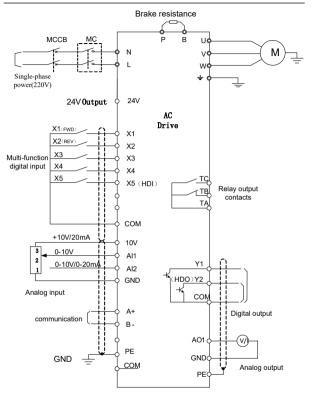


Figure 3-2 HE100 AC Drive Standard Diagram(Single phase-220V)

Table 1 Terminal description

| Terminal marking | Name | Illustrate |
|------------------|-----------------------------|---------------------------|
| R、S、T | Power input terminal | AC power connection point |
| P+,PB | Brake resistor connection | Connect braking resistor |
| U、V、W | Inverter output terminal | Connect three-phase motor |
| | Grounding terminal | Grounding terminal |

The control circuit terminal layout is as follows:

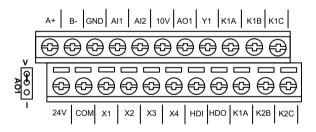


Figure 3-3 Control circuit terminal layout

Chapter 4 Function Code Table

Group P and Group A are standard function parameters. Group D includes the monitoring function parameters.

- The symbols in the function code table are described as follows:
- "•" : The parameter can be modified when the AC drive is in either stop or running state.
- "O": The parameter cannot be modified when the AC drive is in the running state
- "x": The parameter is the actually measured value and cannot be modified.

Standard Function Parameters

| Function Code | Parameter Name | Setting Range | Default | Property |
|-----------------------------------|--|---|---------|----------|
| P0 : Standard Function Parameters | | | | |
| P0-01 | Motor control mode | Voltage/Frequency (V/F) control Sensorless flux vector control | 0 | 0 |
| P0-02 | Command source selection | O: Operation panel control Terminal control Communication control | 0 | • |
| P0-03 | Main frequency source A selection | O: Digital setting (non-retentive at power failure) 1: Digital setting (retentive at power failure) 2: Al1 3: Al2 4: Al3(key panel Potentiometer) 5: HDI(X5) 6: Multi-reference 7: Simple PLC 8: PID 9: Communication setting | 0 | 0 |
| P0-04 | Auxiliary frequency source B selection | The same as P0-03 | 0 | 0 |
| P0-05 | Range of auxiliary frequency B | 0: Relative to maximum frequency 1: Relative to main frequency X | 0 | • |

| Function Code | Parameter Name | Setting Range | Default | Property |
|------------------|---|---|---------|----------|
| P0-06 | Range of auxiliary frequency B | 0%~150% | 100% | • |
| P0-07 | Frequency source selection | Unit's digit (Frequency source selection) 0: Main frequency source X 1: X and Y operation (operation relationship determined by ten's digit) 2: Switchover between X and Y and Y operation" 4: Switchover between Y and "X and Y operation" Ten's digit (X and Y operation relationship) 0: X+Y 1: X-Y 2: Maximum 3: Minimum | 00 | • |
| P0-08 | Preset frequency | 0.00Hz~maximum frequency (P0.10) | 50.00Hz | • |
| P0-09 | Rotation direction | Same direction Reverse direction | 0 | • |
| P0-10 | Maximum fequency | 50.00Hz~320.00Hz(P0-22=2) 50.0Hz~3200.0Hz(P0-22=1) | 50.00Hz | 0 |
| P0-11 | Source of frequency upper limit | 0: Set by P0-12 1: Al1 2: Al2 3: Al3(key panel Potentiometer) 4: HDI 5: Communication setting | 0 | 0 |
| P0-12 | Frequency upper limit | Frequency lower limit (P0-14) to maximum frequency (P0-10) | 50.00Hz | • |
| P0-13 | Frequency upper limit offset | 0.00 Hz to maximum frequency (P0-10) | 0.00Hz | • |
| P0-14 | Frequency lower limit | 0.00 Hz to frequency upper limit (P0-12) | 0.00Hz | • |
| P0-15 | Carrier frequency | 0.5kHz~16.0kHz | | • |
| P0-16 | Carrier frequency adjustment with temperature | 0: No 1: Yes | 1 | • |
| P0-17 | Acceleration time 1 | 0.00s∼65000s | | • |
| P0-18 | Deceleration time 1 | 0.00s∼65000s | | • |

| Function Code | Parameter Name | Setting Range | Default | Property |
|------------------|--|--|---------|----------|
| P0-19 | Acceleration/Decel eration time unit | 0:1s 1: 0.1s 2: 0.01s | 1 | 0 |
| P0-21 | Frequency offset of auxiliary frequency source for A and B operation | 0.00 Hz to maximum frequency (P0.10) | 0.00Hz | • |
| P0-22 | Frequency reference resolution | 1: 0.1Hz 2: 0.01Hz | 2 | 0 |
| P0-23 | Retentive of digital setting frequency upon power failure | 0: Not retentive 1: Retentive | 0 | • |
| P0-24 | Motor parameter group selection | 0: Motor parameter group 1 1: Motor parameter group 2 | 0 | 0 |
| P0-25 | Acceleration/Decel eration time base frequency | 0: Maximum frequency (P0.10) 1: Set frequency 2: 100 Hz | 0 | 0 |
| P0-26 | Base frequency for UP/DOWN modification during running | 0: Running frequency | 0 | 0 |
| P0-27 | Binding command source to frequency source | Unit's digit (Binding operation panel command to frequency source) 9: No binding 1: Frequency source by digital setting 2: Al1 3: Al2 4: reserve 5: reserve 6: Multi-reference 7: Simple PLC 8: PID 9: Communication setting Ten's digit (Binding terminal command to frequency source) Hundred's digit (Binding communication command to frequency source) | 0000 | • |

| Function Code | Parameter Name | Setting Range | Default | Property |
|------------------|--|--|--------------------|----------|
| P1 : Mo | tor 1 Parameters | | | |
| P1-00 | Motor type selection | Common asynchronous motor Variable frequency asynchronous motor | 0 | 0 |
| P1.01 | Rated motor power | 0.1kW~1000.0kW | Model dependent | 0 |
| P1-02 | Rated motor voltage | 1V~2000V | Model dependent | 0 |
| P1-03 | Rated motor current | 0.01–655.35 A (AC drive power ≤ 55 kW) 0.1–6553.5 A (AC drive power > 55 kW) | Model dependent | 0 |
| P1-04 | Rated motor frequency | 0.01 Hz to maximum frequency | Model dependent | 0 |
| P1-05 | Rated motor rotational | 1rpm~65535rpm | Model dependent | 0 |
| P1-06 | Stator resistance (asynchronous motor) | 0.001–65.535 Ω (AC drive power ≤ 55 kW) 0.0001–6.5535 Ω (AC drive power > 55 kW) | Model dependent | 0 |
| P1-07 | Rotor resistance (asynchronous motor) | 0.001–65.535 Ω (AC drive power ≤ 55 kW) 0.0001–6.5535 Ω (AC drive power > 55 kW) | Model dependent | 0 |
| P1-08 | Leakage inductive reactance (asynchronous motor) | 0.01–655.35 mH (AC drive power ≤ 55 kW) 0.001–65.535 mH (AC drive power > 55 kW) | Model dependent | 0 |
| P1-09 | Mutual inductive reactance (asynchronous motor) | 0.1–6553.5 mH (AC drive power ≤ 55 kW) 0.01–655.35 mH (AC drive power > 55 kW) | Model dependent | 0 |
| P1-10 | No-load current (asynchronous motor) | 0.01 to F1-03 (AC drive power ≤ 55 kW) 0.1 to F1-03 (AC drive power > 55 kW) | Model dependent | 0 |
| P1-37 | selection | No auto-tuning No auto-tuning Auto-tuning Second auto-tuning Asynchronous motor complete auto-tuning | 0 | 0 |

| Function Code | Parameter Name | Setting Range | Default | Property |
|------------------|--|---|---------|----------|
| P2 : Vec | tor Control Para | meters | | |
| P2-00 | Speed loop proportional gain 1 | 1~100 | 30 | • |
| P2-01 | Speed loop integral time 1 | 0.01s∼10.00s | 0.50s | • |
| P2-02 | Switchover frequency 1 | 0.00~P2.05 | 5.00Hz | • |
| P2-03 | Speed loop proportional gain 2 | 1~100 | 20 | • |
| P2-04 | Speed loop integral time 2 | 0.01s∼10.00s | 1.00s | • |
| P2-05 | Switchover frequency 2 | P2.02∼maximum output frequency | 10.00Hz | • |
| P2-06 | Vector control slip gain | 50%~200% | 100% | • |
| P2-07 | Time constant of speed loop filter | 0.000s~1.000s | 0.050s | • |
| P2-09 | Torque upper limit source in speed control mode | 0: P2.10 1: Al1 2: Al2 3: Al3 4: Pulse setting (X5) 5: Communication setting | 0 | • |
| P2-10 | Digital setting of torque upper limit in speed control mode | 0.0%~200.0% | 150.0% | • |
| P2-13 | Excitation adjustment proportional gain | 0~60000 | 2000 | • |
| P2-14 | Excitation adjustment integral gain | 0~60000 | 1300 | • |
| P2-15 | Torque adjustment proportional gain | 0~60000 | 2000 | • |
| P2-16 | Torque adjustment integral gain | 0~60000 | 1300 | • |
| P2-17 | Speed loop integral property | Unit's digit: integral separation 0: Disabled 1: Enabled | 0 | • |

| Function Code | Parameter Name | Setting Range | Default | Property |
|------------------|------------------------------------|--|--------------------|----------|
| P3 : V/ | F Control Param | eters | | |
| P3-00 | V/F curve setting | 0: Linear V/F 1: Multi-point V/F 2: Square V/F 3: 1.2-power V/F 4: 1.4-power V/F 6: 1.6-power V/F 8: 1.8-power V/F 9: Reserved | 0 | 0 |
| P3-01 | Torque boost | 0.0% (fixed torque boost) 0.1%-30.0% | Model dependent | • |
| P3-02 | Cut-off frequency of torque boost | 0.00 Hz to maximum output frequency | 50.00Hz | 0 |
| P3-03 | Multi-point V/F frequency 1(F1) | 0.00Hz to P3.05 | 0.00Hz | 0 |
| P3-04 | Multi-point V/F voltage 1(V1) | 0.0%~100.0% | 0.0% | 0 |
| P3-05 | Multi-point V/F frequency 2(F2) | P3.03 to P3.07 | 0.00Hz | 0 |
| P3-06 | Multi-point V/F voltage 2 | 0.0%~100.0% | 0.0% | 0 |
| P3-07 | Multi-point V/F frequency 3(F3) | P3.05 to rated motor frequency (P1.04) | 0.00Hz | 0 |
| P3-08 | Multi-point V/F frequency 3(F3) | 0.0%~100.0% | 0.0% | 0 |
| P3-09 | Multi-point V/F voltage 3(V3) | 0.0%~200.0% | 0.0% | • |
| P3-10 | V/F over-excitation gain | 0~200 | 64 | • |
| P3-11 | V/F oscillation suppression | 0~100 | Model dependent | • |

| Function Code | Parameter Name | Setting Range | Default | Property |
|------------------|-----------------------|---|---------|----------|
| P4 : Inp | ut Terminals | | | |
| P4-00 | X1 function selection | 0: No function 1: Forward RUN (FWD) | 1 | 0 |
| P4-01 | X2 function selection | 2: Reverse RUN (REV) 3: Three-line control | 2 | 0 |
| P4-02 | X3 function selection | 4: Forward JOG (FJOG) 5: Reverse JOG (RJOG) | 9 | 0 |
| P4-03 | X4 function selection | 6: Terminal UP 7: Terminal DOWN 8: Coast to stop | 12 | 0 |
| P4-04 | X5 function selection | 9: Fault reset (RESET) 10: RUN pause | 13 | 0 |
| P4-05 | reserve | 11: Normally open (NO) input of external fault | 0 | 0 |
| P4-06 | reserve | 12: Multi-reference terminal 1 13: Multi-reference terminal 2 | 0 | 0 |
| P4-07 | reserve | 14: Multi-reference terminal 3 | 0 | 0 |
| P4-08 | reserve | 15: Multi-reference terminal 4 16: Terminal 1 for acceleration/ deceleration time selection 17: Terminal 2 for acceleration/ deceleration time selection 18: Frequency source switchover 19: UP and DOWN setting clear (terminal, operation panel) 20: Command source switchover terminal 1 21: Acceleration/Deceleration Prohibited 22: PID pause 23: PLC status reset 24: Swing pause 25: Counter input 26: Counter reset 27: Length count input 28: Length reset 29: Torque control prohibited 30: Reserved 31:Reserved 31:Reserved 32: Immediate DC braking 33: Normally closed (NC) input of external fault 44: Frequency modification Forbidden 35: Reverse PID action direction 36: External STOP terminal 1 | 0 | 0 |

| Function Code | Parameter Name | Setting Range | Default | Property |
|------------------|--|---|----------|----------|
| P4-09 | reserve | 37: Command source switchover terminal 2 38: PID integral pause 39: Switchover between main frequency source X and preset frequency 40: Switchover between auxiliary frequency source Y and preset frequency 41: Motor selection terminal 1 42: Motor selection terminal 2 43: PID parameter switchover 44: User-defined fault 1 45: User-defined fault 1 46: Speed control/Torque control switchover 47: Emergency stop 48: External STOP terminal 2 49: Deceleration DC braking 50: Clear the current running time 51: Switchover between two-line mode and three-line mode 52-59: Reserved | 0 | 0 |
| P4-10 | X filter time | 0.000s~1.000s | 0.010s | • |
| P4-11 | Terminal command mode | 0: Two-line mode 1 1: Two-line mode 2 2: Three-line mode 1 3: Three-line mode 2 | 0 | 0 |
| P4-12 | Terminal UP/DOWN rate | 0.001Hz/s∼65.535Hz/s | 1.00Hz/s | • |
| P4-13 | Al curve 1 minimum input | 0.00V~P4.15 | 0.00V | • |
| P4-14 | Corresponding setting of AI curve 1 minimum input | -100.0%~+100.0% | 0.0% | • |
| P4-15 | Al curve 1 maximum input | P4.13~+10.00V | 10.00V | • |
| P4-16 | Corresponding setting of AI curve 1 maximum input | -100.0%~+100.0% | 100.0% | • |
| P4-17 | Al curve 1 filter time | 0.00s~10.00s | 0.10s | • |

| Function Code | Parameter Name | Setting Range | Default | Property |
|------------------|--|-----------------|----------|----------|
| P4-18 | Al curve 2 minimum input | 0.00V~P4.20 | 0.00V | • |
| P4-19 | Corresponding setting of AI curve 2 minimum | -100.0%~+100.0% | 0.0% | • |
| P4-20 | Al curve 2 maximum input | P4.18~+10.00V | 10.00V | • |
| P4-21 | Corresponding setting of AI curve 2 maximum input | -100.0%~+100.0% | 100.0% | • |
| P4-22 | Al curve 2 filter time | 0.00s~10.00s | 0.10s | • |
| P4-23 | Al curve 3 minimum input | -10.00V~P4.25 | -10.00V | • |
| P4-24 | Corresponding setting of AI curve 3 minimum input | -100.0%~+100.0% | -100.0% | • |
| P4-25 | Al curve 3 maximum input | P4.23~+10.00V | 10.00V | • |
| P4-26 | Corresponding setting of AI curve 3 maximum input | -100.0%~+100.0% | 100.0% | • |
| P4-27 | Al curve 3 filter time | 0.00s~10.00s | 0.10s | • |
| P4-28 | Pulse minimum input | 0.00kHz~P4.30 | 0.00kHz | • |
| P4-29 | Corresponding setting of pulse minimum input | -100.0%~100.0% | 0.0% | • |
| P4-30 | Pulse maximum input | P4.28~100.00kHz | 50.00kHz | • |
| P4-31 | Corresponding setting of pulse maximum input | -100.0%~100.0% | 100.0% | • |
| P4-32 | Pulse filter time | 0.00s~10.00s | 0.10s | • |

| Function Code | Parameter Name | Setting Range | Default | Property |
|------------------|--|---|---------|----------|
| P4-33 | Al curve selection | Unit's digit (A11 curve selection) Curve 1 (2 points, see P4.13 to P4.16) Curve 2 (2 points, see P4.18 to P4.21) Curve 3 (2 points, see P4.23 to P4.26) Curve 4 (4 points, see A6-00 to A6-07) Curve 5 (4 points, see A6-08 to A6-15) Ten's digit (A12 curve selection) same as A11 Hundred's digit (A13 curve selection) same as A11 | 321 | • |
| P4-34 | Setting for AI less than minimum input | Unit's digit (Setting for Al1 less than minimum input) 0: Minimum value 1: 0.0% Ten's digit (Setting for Al2 less than minimum input) same as Al1 Hundred's digit (Setting for Al3 less than minimum input)same as Al1 | 000 | • |
| P4-35 | X valid mode selection 1 | Unit's digit (X1 valid mode) 0: High level valid 1: Low level valid Ten's digit (X2 valid mode) same as X1 Hundred's digit (X3 valid mode) same as X1 Thousand's digit (X4 valid mode) same as X1 Ten thousand's digit (reserve) same as X1 | 00000 | 0 |
| P4-37 | Al2 input signal selection | 0: Voltage signal 1: Current signal | 0 | 0 |
| P4-38 | X1 delay time | 0.0s∼3600.0s | 0.0s | 0 |
| P4-39 | X2 delay time | 0.0s∼3600.0s | 0.0s | 0 |
| P4-40 | X3 delay time | 0.0s~3600.0s | 0.0s | 0 |

| Function Code | Parameter Name | Setting Range | Default | Property |
|------------------|-----------------------------------|--|---------|----------|
| P5 : Ou | tput Terminals | | | |
| P5-00 | HDO output mode | 0:High pulse output 1:Switch | | |
| P5-01 | HDO function(switch) | 0: No output 1: AC drive running | 0 | • |
| P5-02 | Relay 1 function (T/A-T/B-T/C) | 2: Fault output (stop) 3: Frequency-level detection FDT1 output | 2 | • |
| P5-03 | Relay 2 function (T/A-T/B-T/C) | 4: Frequency reached 5: Zero-speed running (no output at stop) 6: Motor overload pre-warning 7: AC drive overload pre-warning 8: Set count value reached 9: Designated count value reached 10: Length reached 11: PLC cycle complete 12: Accumulative running time reached | 0 | • |
| P5-04 | Y1 function | 13: Frequency limited 14: Torque limited 14: Torque limited 15: Ready for RUN 16: Al1 larger than Al2 17: Frequency upper limit reached 18: Frequency lower limit reached (no output at stop) 19: Under voltage state output 20: Communication setting 21: Reserved 22: Reserved 23: Zero-speed running 2 (having output at stop) 24: Accumulative power-on time reached 25: Frequency level detection FDT2 output 26: Frequency 1 reached 27: Frequency 1 reached 28: Current 1 reached 29: Current 2 reached 30: Timing reached 31: Al1 input limit exceeded 32: Load becoming 0 33: Reverse running 34: Zero current state 35: Module temperature reached | 1 | • |

| Function Code | Parameter Name | Setting Range | Default | Property | |
|------------------|---------------------------|---|---------|----------|--|
| P5-05 | reserve | 36: Software current limit exceeded 37: Frequency lower limit reached (having output at stop) 38: Alarm output 39: Motor overheat warning 40: Current running time reached 41: Fault output (There is no output if it is the coast to stop fault and under voltage occurs.) | 4 | • | |
| P5-06 | HDO function | 0: Running frequency | 0 | • | |
| P5-07 | AO1 function | 1: Set frequency 2: Output current | 0 | • | |
| P5-08 | AO2 function | 3: Output torque (absolute value) 4: Output power 5: Output voltage 6: Pulse input 7: Al1 8: Al2 9: Al3 10: Length 11: Count value 12: Communication setting 13: Motor rotational speed 14: Output current 15: Output voltage | 1 | • | |
| P5-18 | Relay 1 output delay time | 0.0s∼3600.0s | 0.0s | • | |
| P5-22 | DO valid mode selection | 0: Positive logic 1: Negative logic Unit's digit: reserve Ten's digit: Relay 1 valid mode Hundred's digit: reserve Thousand's digit: reserve Ten thousand's digit: reserve | 00000 | • | |
| P6 : Sta | P6 : Start/Stop Control | | | | |
| P6.00 | Start mode | D: Direct start Rotational speed tracking restart Pre-excited start (asynchronous motor) | 0 | • | |

| Function Code | Parameter Name | Setting Range | Default | Property |
|------------------|--|---|---------|----------|
| P6-01 | Rotational speed tracking mode | 0: From frequency at stop 1: From zero speed 2: From maximum frequency | 0 | 0 |
| P6-02 | Rotational speed tracking speed | 1~100 | 20 | • |
| P6-03 | Startup frequency | 0.00Hz~10.00Hz | 0.00Hz | • |
| P6-04 | Startup frequency holding time | 0.0s∼100.0s | 0.0s | 0 |
| P6-05 | Startup DC braking current/Pre-excited current | | 0% | 0 |
| P6-06 | Startup DC braking time/ Pre-excited time | 0.0s~100.0s | 0.0s | 0 |
| P6-07 | Acceleration/ Deceleration mode | 0: Linear acceleration/ deceleration 1: S-curve acceleration/ deceleration A 2: S-curve acceleration/ deceleration B | 0 | 0 |
| P6.08 | Time proportion of S-curve start segment | 0.0%~ (100.0%-P6.09) | 30.0% | 0 |
| P6-09 | Time proportion of S-curve end segment | 0.0%~ (100.0%-P6.08) | 30.0% | 0 |
| P6-10 | Stop mode | Decelerate to stop Coast to stop | 0 | • |
| P6-11 | Initial frequency of stop DC braking | 0.00Hz to maximum frequency | 0.00Hz | • |
| P6-12 | Waiting time of stop DC braking | 0.0s∼100.0s | 0.0s | • |
| P6-13 | Stop DC braking current | 0%~100% | 0% | • |
| P6-14 | Stop DC braking time | 0.0s∼100.0s | 0.0s | • |
| P6-15 | Brake use ratio | 0%~100% | 100% | • |

| Function Code | Parameter Name | Setting Range | Default | Property |
|------------------|-------------------------------------|--|---------|----------|
| P7 : Op | eration Panel and | d Display | | |
| P7-01 | MF.K Key function selection | 0: MF.K key disabled 1: Switchover between operation panel control and remote command control (terminal or communication) 2: Switchover between forward rotation and reverse rotation 3: Forward JOG 4: Reverse JOG | 0 | 0 |
| | STOP/RESET key function | STOP/RESET key enabled only in operation panel control STOP/RESET key enabled in any operation mode | 1 | • |
| P7-03 | LED display running parameters 1 | 0000-FFFF 0000-FFF 00000-FFF 0000-FFF 0000-FFF 0000-FFF 0000-FFF 0000-FFF 0000-FFF 00000-FFF 0000-FFF 0000-FFF 0000-FFF 0000-FFF 0000-FFF 0000-FFF 00000-FFF 0000-FFF 00000-FFF 000000-FFF 00000-FFF 00000-FFF 00000-FFF 00000-FFF 00000-FFF 00000-FFF | 1F | • |

| Function Code | Parameter Name | Setting Range | Default | Property |
|------------------|-------------------------------------|--|---------|----------|
| P7-04 | LED display running parameters 2 | 0000–FFFF Bit00: PID feedback Bit02: Pulse setting frequency (kHz) Bit04: Remaining running lime Bit05: Al1 voltage before correction (V) Bit06: Al2 voltage before correction (V) Bit07: Al3 voltage before correction (V) Bit08: Linear speed Bit09: Current power-on time (Hour) Bit10: Current power-on time (Hour) Bit11: Pulse setting frequency (Hz) Bit12: Communication setting value Bit13: Encoder feedback speed (Hz) Bit14: Main frequency X display (Hz) Bit15: Auxiliary frequency Y display (Hz) | 0 | • |

| Function Code | Parameter Name | Setting Range | Default | Property |
|------------------|---|--|---------|----------|
| P7-05 | LED display stop parameters | 0000-FFFF Bit00: Set frequency (Hz) Bit01: Bus voltage (V) Bit01: Bus voltage (V) Bit02: DI input status Bit03: DO output status Bit04: Al1 voltage (V) Bit06: Al3 voltage (V) Bit06: Al3 voltage (V) Bit07: Count value Bit08: Length value Bit09: PLC stage Bit10: Load speed Bit11: PID setting Bit12: Pulse setting frequency(kHz) | 33 | • |
| P7-06 | Load speed display coefficient | 0.0001~6.5000 | 1.0000 | • |
| P7-07 | Heatsink temperature of inverter module | 0.0℃~100.0℃ | 1 | × |
| P7-08 | Product number | - | | |
| P7-09 | Accumulative running time | 0h∼65535h | ı | × |
| P7-10 | Software version 1 | - | - | × |
| P7-11 | Software version 2 | - | i | × |
| P7-12 | Number of decimal places for load speed display | 0: 0 decimal place 1: 1 decimal place 2: 2 decimal places 3: 3 decimal places | 1 | • |
| P7-13 | Accumulative power-on time | 0h∼65535h | - | × |
| P7-14 | Accumulative power consumption | 0kW~65535 kwh | - | × |

| Functio Code | | Setting Range | Default | Property |
|-----------------|---|--|--------------------|----------|
| P8 : A | uxiliary Functions | | | |
| P8-00 | JOG running frequency | 0.00Hz~maximum frequency | 2.00Hz | • |
| P8-01 | JOG acceleration time | 0.0s~6500.0s | 20.0s | • |
| P8-02 | JOG deceleration time | 0.0s~6500.0s | 20.0s | • |
| P8-03 | Acceleration time 2 | 0.0s~6500.0s | Model dependent | • |
| P8-04 | Deceleration time 2 | 0.0s~6500.0s | Model dependent | • |
| P8-05 | Acceleration time 3 | 0.0s~6500.0s | Model dependent | • |
| P8-06 | Deceleration time 3 | 0.0s~6500.0s | Model dependent | • |
| P8-07 | Acceleration time 4 | 0.0s~6500.0s | Model dependent | • |
| P8-08 | Deceleration time 4 | 0.0s~6500.0s | Model dependent | • |
| P8-09 | Jump frequency 1 | 0.00Hz~maximum frequency | 0.00Hz | • |
| P8-10 | Jump frequency 2 | 0.00Hz~maximum frequency | 0.00Hz | • |
| P8-11 | Frequency jump amplitude | 0.00Hz~maximum frequency | 0.01Hz | • |
| P8-12 | Forward/Reverse rotation dead-zone time | 0.0s~3000.0s | 0.0s | • |
| P8-13 | Reverse control | 0: Enabled 1: Disabled | 0 | • |
| P8-14 | Running mode when set frequency lower than frequency lower limit | 0: Run at frequency lower limit 1: Stop 2: Run at zero speed | 0 | • |
| P8-15 | Droop control | 0.00Hz~10.00Hz | 0.00Hz | • |
| P8-16 | Accumulative power- on time threshold | 0h∼65000h | 0h | • |
| P8-17 | Accumulative running time threshold | 0h~65000h | 0h | • |
| P8-18 | Startup protection | 0: No 1: Yes | 0 | • |

| P8-19 | Frequency detection value (FDT1) | 0.00Hz~maximum frequency | 50.00Hz | • |
|-------|---|---|---------|---|
| P8-20 | Frequency detection hysteresis (FDT hysteresis 1) | 0.0%~100.0% (FDT1 level) | 5.0% | • |
| P8-21 | Detection range of frequency reached | 0.0%~100.0% (maximum requency) | 0.0% | • |
| P8-22 | Jump frequency during acceleration/decelera | 0: Disabled 1: Enabled | 0 | • |
| P8-25 | Frequency switchover point between acceleration | 0.00Hz∼maximum frequency | 0.00Hz | • |
| P8-26 | Frequency switchover point between deceleration | 0.00Hz∼maximum frequency | 0.00Hz | • |
| P8-27 | Terminal JOG preferred | 0: Disabled 1: Enabled | 0 | • |
| P8-28 | Frequency detection value(FDT2) | 0.00Hz~maximum frequency | 50.00Hz | • |
| P8-29 | Frequency detection hysteresis (FDT hysteresis 2) | 0.0%~100.0% (FDT2 level) | 5.0% | • |
| P8-30 | Any frequency reaching detection value 1 | 0.00Hz∼maximum frequency | 50.00Hz | • |
| P8-31 | Any frequency reaching detection amplitude 1 | 0.0%~100.0% (maximum frequency) | 0.0% | • |
| P8-32 | Any frequency reaching detection value 2 | 0.00Hz~maximum frequency | 50.00Hz | • |
| P8-33 | Any frequency reaching detection amplitude 2 | 0.0%~100.0% (maximum frequency) | 0.0% | • |
| P8-34 | Zero current detection level | 0.0%-300.0% (rated motor current) | 5.0% | • |
| P8-35 | Zero current detection delay time | 0.01s~600.00s | 0.10s | • |
| P8-36 | Output overcurrent threshold | 0.0% (no detection) 0.1%-300.0% (rated motor current) | 200.0% | • |
| P8-37 | Output overcurrent detection delay time | 0.00s~600.00s | 0.00s | • |

| Function Code | Parameter Name | Setting Range | Default | Property |
|------------------|----------------------------------|--|---------|----------|
| P8-38 | Any current reaching 1 | 0.0%–300.0% (rated motor current) | 100.0% | • |
| P8-39 | Any current reaching 1 amplitude | 0.0%–300.0% (rated motor current) | 0.0% | • |
| P8-40 | Any current reaching 2 | 0.0%-300.0% (rated motor current) | 100.0% | • |
| P8-41 | Any current reaching 2 amplitude | 0.0%-300.0% (rated motor current) | 0.0% | • |
| P8-42 | Timing function | 0: Disabled 1: Enabled | 0 | • |
| P8-43 | Timing duration source | 0: P8.44 1: Al1 2: Al2 3: Al3 (100% of analog input corresponds | 0 | • |
| P8-44 | Timing duration | 0.0Min~6500.0Min | 0.0Min | • |
| P8-45 | Al1 input voltage lower limit | 0.00V~P8.46 | 3.10V | • |
| P8-46 | Al1 input voltage upper limit | P8.45~10.00V | 6.80V | • |
| P8-47 | Module temperature threshold | 0°C~100°C | 75℃ | • |
| P8-48 | Cooling fan control | Fan working during running Fan working continuously | 0 | • |
| P8-49 | Wakeup frequency | Dormant frequency (P8.51) to maximum frequency (P0.10) | 0.00Hz | • |
| P8-50 | Wakeup delay time | 0.0s~6500.0s | 0.0s | • |
| P8-51 | Dormant frequency | 0.00Hz~wakeup frequency(P8.49) | 0.00Hz | • |
| P8-52 | Dormant delay time | 0.0s~6500.0s | 0.0s | • |
| P8-53 | Current running time reached | 0.0Min~6500.0Min | 0.0Min | • |

| Function Code | Parameter Name | Setting Range | Default | Property |
|------------------|---|--|---------|----------|
| P9 : Fau | ılt and Protection | | | |
| P9-00 | Motor overload protection selection | 0: Disabled 1: Enabled | 1 | • |
| P9-01 | Motor overload protection gain | 0.20~10.00 | 1.00 | • |
| P9-02 | Motor overload warning coefficient | 50%~100% | 80% | • |
| P9-03 | Overvoltage stall Gain | 0~100 | 0 | • |
| P9-04 | Overvoltage stall protective | 200.0V~2000.0V | 760V | • |
| P9-05 | Current limit gain | 0~100 | 20 | • |
| P9-06 | Current limit level | 50%~200% | 150% | • |
| P9-07 | Short-circuit to ground upon | 0: Disabled 1: Enabled | 1 | • |
| P9-08 | Brake unit opening voltage | 200.0~2000.0V | 670 | • |
| P9-09 | Fault auto reset times | 0~20 | 0 | • |
| P9-10 | DO action during fault auto reset | 0: Not act 1: Act | 0 | • |
| P9-11 | Time interval of fault auto reset | 0.1s∼100.0s | 1.0s | • |
| P9-12 | Input phase loss protection/ contactor nergizing protection election | Unit's digit: Input phase loss protection Ten's digit: Contactor energizing protection 0: Disabled 1: Enabled | 11 | • |
| P9-13 | Output phase loss protection selection | 0: Disabled 1: Enabled | 1 | • |

| Function Code | Parameter Name | Setting Range | Default | Property |
|------------------|----------------|---|---------|----------|
| P9-14 | 1st fault type | E0: No fault E1: Reserved E2: Overcurrent during acceleration E3: Overcurrent during deceleration E4: Overcurrent at constant speed E5: Overvoltage during acceleration E6: Overvoltage during deceleration E7: Overvoltage during deceleration E7: Overvoltage at constant speed E8: Buffer resistance overload E9: Undervoltage E10: AC drive overload E11: Motor overload E11: Motor overload E12: Power input phase loss E13: Power output phase loss E13: Power output phase loss E14: Module overheat E15: External equipment fault E16: Communication fault E17: Contactor fault E17: Contactor fault E18: Current detection fault E19: Motor auto-tuning fault E20: Encoder/PG card fault E21: EEPROM read-write fault E22: AC drive hardware fault | - | × |
| P9-15 | 2nd fault type | 223: Short circuit to ground E24: Reserved E25: Reserved 26: Accumulative running time reached E27: User-defined fault 1 E28: User-defined fault 2 E29: Accumulative power-on time reached E30: Load becoming 0 E31: PID feedback lost during Running E40: With-wave current limit fault E41: Motor switchover fault during running E42: Too large speed deviation E43: Motor over-speed E45: Motor over-heat E51: Initial position fault E60: Brake resistor fault | - | × |

| Function Code | Parameter Name | Setting Range | Default | Property |
|------------------|---------------------------------------|----------------------|---------|----------|
| P9-16 | 3rd (latest) fault type | Same as P9.14、 P9.15 | - | × |
| P9-17 | Frequency upon 3rd fault | _ | _ | × |
| P9-18 | Current upon 3rd fault | _ | - | × |
| P9-19 | Bus voltage upon 3rd fault | _ | - | × |
| P9-20 | DI status upon 3rd fault | _ | - | × |
| P9-21 | Output terminal status upon 3rd fault | _ | - | × |
| P9-22 | AC drive status upon 3rd fault | _ | _ | × |
| P9-23 | Power-on time upon 3rd fault | _ | _ | × |
| P9-24 | Running time upon 3rd fault | _ | _ | × |
| P9-27 | Frequency upon 2nd fault | _ | - | × |
| P9-28 | Current upon 2nd fault | _ | - | × |
| P9-29 | Bus voltage upon 2nd fault | _ | _ | × |
| P9-30 | DI status upon 2nd fault | _ | = | × |
| P9-31 | Output terminal status upon 2nd fault | _ | - | × |
| P9-32 | AC drive status upon 2rd fault | - | _ | × |
| P9-33 | Power-on time upon 2rd fault | _ | _ | × |
| P9-34 | Running time upon 2rd fault | - | - | × |

| Function Code | Parameter Name | Setting Range | Default | Property |
|------------------|---------------------------------------|--|---------|----------|
| P9-37 | Frequency upon 1st fault | - | ı | × |
| P9-38 | Current upon 1st fault | _ | - | × |
| P9-39 | Bus voltage upon 1rd fault | _ | - | × |
| P9-40 | DI status upon 1nd fault | - | ı | × |
| P9-41 | Output terminal status upon 1nd fault | _ | - | × |
| P9-42 | AC drive status upon 1rd fault | - | 1 | × |
| P9-43 | Power-on time upon 1rd fault | = | - | × |
| P9-44 | Running time upon 1rd fault | = | ı | × |
| P9-47 | Fault protection action selection 1 | Unit's digit (Motor overload, E11) 0: Coast to stop 1: Stop according to the stop mode 2: Continue to run Ten's digit (Power input phase loss, E12) Hundred's digit (Power output phase loss, E13) Thousand's digit (External equipment fault, E15) Ten thousand's digit (Communication fault, E16) | 00000 | • |
| P9-48 | Fault protection action selection 2 | Unit's digit (Encoder fault, E20) 0: Coast to stop 1: Stop according to the stop Mode Ten's digit (EEPROM read-write fault, E21) Hundred's digit: reserved Thousand's digit (Motor overheat,E25) Ten thousand's digit (Accumulative running time reached,E26) | 00000 | • |

| Function Code | Parameter Name | Setting Range | Default | Property |
|------------------|--|--|---------|----------|
| P9-49 | Fault protection action selection 3 | Unit's digit (User-defined fault 1,E27) Same as unit's digit in P9-47 Ten's digit (User-defined fault 2,E28)) Same as unit's digit in P9-47 Hundred's digit (Accumulative power-on time reached, E29) Same as unit's digit in P9-47 Thousand's digit (Load becoming0, E30) 0: Coast to stop 1: Stop according to the stop mode 2: Continue to run at 7% of rated motor frequency and resume to the set frequency if the load recovers Ten thousand's digit (PID feedback lost during running, E31) Same as unit's digit in P9-47 | 00000 | • |
| P9-50 | Fault protection action selection 4 | Unit's digit (Too large speed deviation, E42) Same as unit's digit in P9-47 Ten's digit (Motor over-speed, E43) Hundred's digit (Initial position fault, E51) | 00000 | • |
| P9-54 | Frequency selection for continuing to run upon fault | 0: Current running frequency 1: Set frequency 2: Frequency upper limit 3: Frequency lower limit 4: Backup frequency upon abnormality | 0 | • |
| P9-55 | Backup frequency upon abnormality | 0-0%-100.0% (maximum frequency) | 100.0% | • |
| P9-56 | Type of motor temperature sensor | 0: No temperature sensor 1: PT100 2: PT1000 | 0 | • |
| P9-57 | Motor overheat protection | 0°C~200°C | 110℃ | • |
| P9-58 | Motor overheat warning threshold | 0°C~200°C | 90℃ | • |

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| Function Code | Parameter Name | Setting Range | Default | Property |
|------------------|---|--|---------|----------|
| P9-59 | Action selection at instantaneous power failure | 0: Invalid 1: Decelerate 2: Decelerate to stop | 0 | • |
| P9-60 | Action pause judging voltage at instantaneous power failure | 80.0%~100.0% | 85.0% | • |
| P9-61 | Voltage rally judging time at instantaneous power failure | 0.00s∼100.00s | 0.50s | • |
| P9-62 | Action judging voltage at instantaneous power failure | 60.0%~100.0%(standard bus voltage) | 80.0% | • |
| P9-63 | Protection upon load becoming 0 | 0: Disabled 1: Enabled | 0 | • |
| P9-64 | Detection level of load becoming 0 | 0.0~100.0% | 10.0% | • |
| P9-65 | Detection time of load becoming 0 | 0.0∼60.0s | 1.0s | • |

| Function Code | Parameter Name | Setting Range | Default | Property |
|------------------|--|--|---------|----------|
| PA: Fa | ult and Protection | | | |
| PA-00 | PID setting source | 0: PA-01 set 1: Al1 2: Al2 3: Al3 4: Pulse setting (DI5) 5: Communication setting 6: Multi-reference | 0 | • |
| PA-01 | PID digital setting | 0.0%~100.0% | 50.0% | • |
| PA-02 | PID feedback source | 0: Al1 1: Al2 2: Al3 3: Al1-Al2 4: Pulse setting (DI5) 5: Communication setting 6: Al1 + Al2 7: MAX ([Al1], [Al2]) 8: MIN ([Al1], [Al2]) | 0 | • |
| PA-03 | PID action direction | 0: Forward action 1: Reverse action | 0 | • |
| PA-04 | PID setting feedback range | 0~65535 | 1000 | • |
| PA-05 | Proportional gain Kp1 | 0.0~100.0 | 20.0 | • |
| PA-06 | Integral time Ti1 | 0.01s~10.00s | 2.00s | • |
| PA-07 | Differential time Td1 | 0.000s~10.000s | 0.000s | • |
| PA-08 | Cut-off frequency of PID reverse rotation | 0.00~最大频率 | 2.00Hz | • |
| PA-09 | PID deviation limit | 0.0%~100.0% | 0.0% | • |
| PA-10 | PID differential limit | 0.00%~100.00% | 0.10% | • |
| PA-11 | PID setting change time | 0.00∼650.00s | 0.00s | • |
| PA-12 | PID feedback filter time | 0.00~60.00s | 0.00s | • |
| PA-13 | PID output filter time | 0.00∼60.00s | 0.00s | • |

| PA-14 | Reserved | | | |
|-------|---|--|--------|---|
| PA-15 | Proportional gain Kp2 | 0.0~100.0 | 20.0 | • |
| PA-16 | Integral time Ti2 | 0.01s~10.00s | 2.00s | • |
| PA-17 | Differential time Td2 | 0.000s~10.000s | 0.000s | • |
| PA-18 | PID parameter switchover condition | O: No switchover O: Switchover via DI O: Automatic switchover based on deviation O: No switchover based on deviation O: No switchover based on deviation O: No switchover | 0 | • |
| PA-19 | PID parameter switchover deviation 1 | 0.0%~PA.20 | 20.0% | • |
| PA-20 | PID parameter switchover deviation 2 | PA.19~100.0% | 80.0% | • |
| PA-21 | PID initial value | 0.0%~100.0% | 0.0% | • |
| PA-22 | PID initial value holding time | 0.00~650.00s | 0.00s | • |
| PA-23 | Maximum deviation between two PID outputs in forward direction | 0.00%~100.00% | 1.00% | • |
| PA-24 | Maximum deviation between two PID outputs in reverse direction | 0.00%~100.00% | 1.00% | • |
| PA-25 | PID integral property | Unit's digit (Integral separated) 0: Invalid 1: Valid Ten's digit (Whether to stop integral operation when the output reaches the limit) 0: Continue integral operation 1: Stop integral operation | 00 | • |
| PA-26 | Detection value of PID feedback loss | 0.0% : Not judging feedback loss 0.1%~100.0% | 0.0% | • |
| PA-27 | Detection time of PID feedback loss | 0.0s~20.0s | 0.0s | • |
| PA-28 | PID operation at stop | 0: No PID operation at stop 1: PID operation at stop | 0 | • |

| Function Code | Parameter Name | Setting Range | Default | Property |
|------------------|---|---|---------|----------|
| Pb: Swi | ng Frequency, Fixe | ed | | |
| Pb-00 | Swing frequency setting mode | 0: Relative to the central frequency 1: Relative to the maximum frequency | 0 | • |
| Pb-01 | Swing frequency amplitude | 0.0%~100.0% | 0.0% | • |
| Pb-02 | Jump frequency amplitude | 0.0%~50.0% | 0.0% | • |
| Pb-03 | Swing frequency cycle | 0.1s~3000.0s | 10.0s | • |
| Pb-04 | Triangular wave rising time coefficient | 0.1%~100.0% | 50.0% | • |
| Pb-05 | Set length | 0m~65535m | 1000m | • |
| Pb-06 | Actual length | 0m∼65535m | 0m | • |
| Pb-07 | Number of pulses per meter | 0.1~6553.5 | 100.0 | • |
| Pb-08 | Set count value | 1~65535 | 1000 | • |
| Pb-09 | Designated count value | 1~65535 | 1000 | • |
| PC: Mu | Iti-Reference and S | Simple PLC Function | | |
| PC-00 | Reference 0 | -100.0%~100.0% | 0.0% | • |
| PC-01 | Reference 1 | -100.0%~100.0% | 0.0% | • |
| PC-02 | Reference 2 | -100.0%~100.0% | 0.0% | • |
| PC-03 | Reference 3 | -100.0%~100.0% | 0.0% | • |
| PC-04 | Reference 4 | -100.0%~100.0% | 0.0% | • |
| PC-05 | Reference 5 | -100.0%~100.0% | 0.0% | • |
| PC-06 | Reference 6 | -100.0%~100.0% | 0.0% | • |
| PC-07 | Reference 7 | -100.0%~100.0% | 0.0% | • |
| PC-08 | Reference 8 | -100.0%~100.0% | 0.0% | • |
| PC-09 | Reference 9 | -100.0%~100.0% | 0.0% | • |
| PC-10 | Reference 10 | -100.0%~100.0% | 0.0% | • |

| Function Code | Parameter Name | Setting Range | Default | Property |
|------------------|--|--|----------|----------|
| PC-11 | Reference 11 | -100.0%~100.0% | 0.0% | • |
| PC-12 | Reference 12 | -100.0%~100.0% | 0.0% | • |
| PC-13 | Reference 13 | -100.0%~100.0% | 0.0% | • |
| PC-14 | Reference 14 | -100.0%~100.0% | 0.0% | • |
| PC-15 | Reference 15 | -100.0%~100.0% | 0.0% | • |
| PC-16 | Simple PLC running mode | O: Stop after the AC drive runs one cycle 1: Keep final values after the AC drive runs one cycle 2: Repeat after the AC drive runs one cycle | 0 | • |
| PC-17 | Simple PLC retentive selection | Unit's digit (Retentive upon power failure) 0: No 1: Yes Ten's digit (Retentive upon stop) 0: No 1: Yes | 00 | • |
| PC-18 | Running time of simple PLC reference 0 | 0.0s (h) ~6553.5s (h) | 0.0s (h) | • |
| PC-19 | Acceleration/deceleration time of simple PLC reference 0 | 0~3 | 0 | • |
| PC-20 | Running time of simple PLC reference 1 | 0.0s (h) ∼6553.5s (h) | 0.0s (h) | • |
| PC-21 | Acceleration/deceleration time of simple PLC reference 1 | 0~3 | 0 | • |
| PC-22 | Running time of simple PLC reference 2 | 0.0s (h) ∼6553.5s (h) | 0.0s (h) | • |
| PC-23 | Acceleration/deceleration time of simple PLC reference 2 | 0~3 | 0 | • |
| PC-24 | Running time of simple PLC reference 3 | 0.0s (h) ~6553.5s (h) | 0.0s (h) | • |

| Function Code | Parameter Name | Setting Range | Default | Property |
|------------------|---|-----------------------|----------|----------|
| PC-25 | Acceleration/deceleration time of simple PLC reference 3 | 0~3 | 0 | • |
| PC-26 | Running time of simple PLC reference 4 | 0.0s (h) ~6553.5s (h) | 0.0s (h) | • |
| PC-27 | Acceleration/deceleration time of simple PLC reference 4 | 0~3 | 0 | • |
| PC-28 | Running time of simple PLC reference 5 | 0.0s (h) ~6553.5s (h) | 0.0s (h) | • |
| PC-29 | Acceleration/deceleration time of simple PLC reference 5 | 0~3 | 0 | • |
| PC-30 | Running time of simple PLC reference 6 | 0.0s (h) ~6553.5s (h) | 0.0s (h) | • |
| PC-31 | Acceleration/deceleration time of simple PLC reference 6 | 0~3 | 0 | • |
| PC-32 | Running time of simple PLC reference 7 | 0.0s (h) ~6553.5s (h) | 0.0s (h) | • |
| PC-33 | Acceleration/deceleration time of simple PLC reference 7 | 0~3 | 0 | • |
| PC-34 | Running time of simple PLC reference 8 | 0.0s (h) ~6553.5s (h) | 0.0s (h) | • |
| PC-35 | Acceleration/deceleration time of simple PLC reference 8 | 0~3 | 0 | • |
| PC-36 | Running time of simple PLC reference 9 | 0.0s (h) ~6553.5s (h) | 0.0s (h) | • |
| PC-37 | Acceleration/deceleration time of simple PLC reference 9 | 0~3 | 0 | • |
| PC-38 | Running time of simple PLC reference 10 | 0.0s (h) ~6553.5s (h) | 0.0s (h) | • |
| PC-39 | Acceleration/deceleration time of simple PLC reference 10 | 0~3 | 0 | • |

| Function Code | Parameter Name | Setting Range | Default | Property |
|------------------|---|--|----------|----------|
| PC-40 | Running time of simple PLC reference 11 | 0.0s (h) ~6553.5s (h) | 0.0s (h) | • |
| PC-41 | Acceleration/deceleration time of simple PLC reference 11 | 0~3 | 0 | • |
| PC-42 | Running time of simple PLC reference 12 | 0.0s (h) ~6553.5s (h) | 0.0s (h) | • |
| PC-43 | Acceleration/deceleration time of simple PLC reference 12 | 0~3 | 0 | • |
| PC-44 | Running time of simple PLC reference 13 | 0.0s (h) ~6553.5s (h) | 0.0s (h) | • |
| PC-45 | Acceleration/deceleration time of simple PLC reference 13 | 0~3 | 0 | • |
| PC-46 | Running time of simple PLC reference 14 | 0.0s (h) ~6553.5s (h) | 0.0s (h) | • |
| PC.47 | Acceleration/deceleration time of simple PLC reference 14 | 0~3 | 0 | • |
| PC-48 | Running time of simple PLC reference 15 | 0.0s (h) ~6553.5s (h) | 0.0s (h) | • |
| PC-49 | Acceleration/deceleration time of simple PLC reference 15 | 0~3 | 0 | • |
| PC-50 | Time unit of simple PLC running | 0: s (second) 1:h (hour) | 0 | • |
| PC-51 | Reference 0 source | 0: Set by FC-00 1: Al1 2: Al2 3: Al3 4: Pulse setting 5: PID 6: Set by preset frequency (F0- 08), modified via terminal UP/ DOWN | 0 | • |

| Function Code | Parameter Name | Setting Range | Default | Property |
|------------------|--|---|---------|----------|
| Pd: Co | mmunication Para | meters | | |
| Pd-00 | Baud rate | Unit's digit : MODBUS (bps) 0 : 300 1 : 600 2 : 1200 3 : 2400 4 : 4800 5 : 9600 6 : 19200 7 : 38400 8 : 57600 9 : 115200 Ten's digit : reserve Hundred's digit : reserve | 0005 | • |
| Pd-01 | Data format | 0 : No check, data format (1-8- N-2) 1 : Even parity check, data format (1-8-E-1) 2 : Odd Parity check, data format (1-8-O-1) 3 : No check, data format (1-8- N-1) | 3 | • |
| Pd-02 | Local address | 1~247, 0 :Broadcast address | 1 | • |
| Pd-03 | Response delay | 0ms~20ms | 2 | • |
| Pd-04 | Communication timeout | 0.0 (invalid) , 0.1s~60.0s | 0.0 | • |
| Pd-05 | Modbus protocol selection and PROFIBUS-DP data format | Unit's digit : MODBUS 0: Non-standard Modbus protocol 1: Standard Modbus protocol Ten's digit: reserve | 01 | • |
| Pd-06 | Communication reading current resolution | 0 : 0.01A 1 : 0.1A | 0 | • |

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| Function Code | Parameter Name | Setting Range | Default | Property | |
|------------------|-------------------------------------|--|---------|----------|--|
| PP: Fu | PP: Function Code Management | | | | |
| PP-00 | User password | 0~65535 | 0 | • | |
| PP-01 | Restore default settings | 0: No operation 01: Restore factory settings except motor parameters 02: Clear records 04: Restore user backup parameters 501: Back up current user parameters | 0 | 0 | |
| PP-02 | AC drive parameter display property | Unit's digit (Group U display selection) 0: Not display 1: Display Ten's digit (Group A display selection) 0: Not display 1: Display | 11 | 0 | |

| Function Code | Parameter Name | Setting Range | Default | Property | | | |
|-------------------------------------|---|--|--------------------|----------|--|--|--|
| A5: Control Optimization Parameters | | | | | | | |
| A5.00 | DPWM switchover frequency | 0.00Hz∼maximum output frequency | 8.00Hz | • | | | |
| A5.01 | PWM modulation mode | Asynchronous modulation Synchronous modulation | 0 | • | | | |
| A5.02 | Dead zone ompensation mode selection | 0: No compensation 1: Compensation mode 1 | 1 | • | | | |
| A5.03 | Random PWM depth | 0: Random PWM invalid 1–10 | 0 | • | | | |
| A5.04 | Rapid current limit | 0: Disabled1: Enabled | 1 | • | | | |
| A5.05 | Current detection compensation | 0~100 | 5 | • | | | |
| A5.06 | Undervoltage threshold | 200.0~2000.0V | Model dependent | • | | | |
| A5.07 | SFVC optimization mode selection | 1: Optimization mode 1 2: Optimization mode 2 | 2 | • | | | |
| A5.08 | Dead-zone time adjustment | 100%~200% | 150% | • | | | |
| A5.09 | Overvoltage threshold | 200.0~2000.0V | Model dependent | • | | | |
| A6.07 | Corresponding setting of AI curve 4 maximum input | -100.0%~+100.0% | 100.0% | • | | | |
| A6.08 | Al curve 5 minimum input | -10.00V∼A6.10 | -10.00V | • | | | |
| A6.09 | Corresponding setting of AI curve 5 minimum input | -100.0%~+100.0% | -100.0% | • | | | |
| A6.10 | Al curve 5 inflexion 1 input | A6.08~A6.12 | -3.00V | • | | | |
| A6.11 | Corresponding setting of Al curve 5 inflexion 1 input | -100.0%~+100.0% | -30.0% | • | | | |
| A6.12 | Al curve 5 inflexion 1 input | A6.10∼A6.14 | 3.00V | • | | | |

Monitoring Parameters

| Function Code | Parameter Name | Min. Unit | Communication Address | | | |
|------------------------------------|--|-----------|--------------------------|--|--|--|
| UO: Standard Monitoring Parameters | | | | | | |
| U0.01 | Running frequency (Hz) 0.01Hz | | 7000H | | | |
| U0.01 | Set frequency (Hz) | 0.01Hz | 7001H | | | |
| U0.02 | Bus voltage | 0.1V | 7002H | | | |
| U0.03 | Output voltage | 1V | 7003H | | | |
| U0.04 | Output current | 0.01A | 7004H | | | |
| U0.05 | Output power | 0.1kW | 7005H | | | |
| U0.06 | Output torque | 0.1% | 7006H | | | |
| U0.07 | Digital input(X) state | 1 | 7007H | | | |
| U0.08 | Digital output(Y) state | 1 | 7008H | | | |
| U0.09 | Al1 voltage (V) | 0.01V | 7009H | | | |
| U0.10 | Al2 voltage (V) | 0.01V | 700AH | | | |
| U0.11 | Al3 voltage (V) | 0.01V | 700BH | | | |
| U0.12 | Count value | 1 | 700CH | | | |
| U0.13 | Length value | 1 | 700DH | | | |
| U0.14 | Load speed | 1 | 700EH | | | |
| U0.15 | PID setting | 1 | 700FH | | | |
| U0.16 | PID feedback | 1 | 7010H | | | |
| U0.17 | PLC stage | 1 | 7011H | | | |
| U0.18 | Input pulse frequency (Hz) | 0.01kHz | 7012H | | | |
| U0.19 | Feedback speed | 0.1Hz | 7013H | | | |
| U0.20 | Remaining running time | 0.1Min | 7014H | | | |
| U0.21 | Al1 voltage before correction | 0.001V | 7015H | | | |
| U0.22 | Al2 voltage (V)/current (mA) before correction | 0.001V | 7016H | | | |
| U0.23 | Al3 voltage before correction | 0.001V | 7017H | | | |

| Function Code Parameter Name | | Min. Unit | Communication Address |
|------------------------------|------------------------------------|-----------|--------------------------|
| U0-24 | Linear speed | 1m/Min | 7018H |
| U0-25 | Accumulative power-on time | 1Min | 7019H |
| U0-26 | Accumulative running time | 0.1Min | 701AH |
| U0-27 | Pulse input frequency | 1Hz | 701BH |
| U0-28 | Communication setting value | 0.01% | 701CH |
| U0-29 | Encoder feedback speed | 0.01Hz | 701DH |
| U0-30 | Main frequency X | 0.01Hz | 701EH |
| U0-31 | Auxiliary frequency Y | 0.01Hz | 701FH |
| U0-32 | Viewing any register address value | 1 | 7020H |
| U0-34 | Motor temperature | 1℃ | 7022H |
| U0-35 | Target torque | 0.1% | 7023H |
| U0-37 | Power factor angle | 0.19 | 7025H |
| U0-39 | Target voltage upon V/F separation | 1V | 7027H |
| U0-40 | Output voltage upon V/F separation | 1V | 7028H |
| U0-41 | DI state visual display | 1 | 7029H |
| U0-42 | DO state visual display | 1 | 702AH |
| U0-43 | DI function state visual display 1 | 1 | 702BH |
| U0-44 | DI function state visual display 2 | 1 | 702CH |
| U0-45 | Fault information | 1 | 702DH |
| U0-59 | Current set frequency | 0.01% | 703BH |
| U0-60 | Current running frequency | 0.01% | 703CH |
| U0-61 | AC drive running state | 1 | 703DH |
| U0-65 | Torque upper limit | 0.01% | 7041H |
| U0-74 | Torque output | 1% | 7047H |

Summary of fault information

| Display | Fault Name | Display | Fault Name |
|---------|---------------------------------------|---------|---|
| Err01 | Inverter unit protection | Err18 | Current detection fault |
| Err02 | Overcurrent during acceleration | Err19 | Motor auto-tuning fault |
| Err03 | Overcurrent during deceleration | Err20 | Encoder fault |
| Err04 | Overcurrent at constant speed | Err21 | EEPROM read write fault |
| Err05 | Overvoltage during acceleration | Err22 | AC drive hardware fault |
| Err06 | Overvoltage during deceleration | Err23 | Short circuit to ground |
| Err07 | Overvoltage at constant speed | Err26 | Accumulative running time reached |
| Err08 | Control power supply fault | Err29 | Accumulative power-on time reached |
| Err09 | Under voltage | Err30 | Load becoming 0 |
| Err10 | AC drive overload | Err31 | PID feedback lost during running |
| Err11 | Motor overload | Err40 | Pulse-by-pulse current limit fault |
| Err12 | Power input phase loss | Err41 | Motor switchover fault during running |
| Err13 | Power output phase loss | Err42 | Too large speed deviation |
| Err14 | Module overheat | Err43 | Motor over-speed |
| Err15 | External equipment fault | Err45 | Motor overheat |
| Err16 | Communication fault | Err51 | Initial position fault |
| Err17 | Contactor fault | Err60 | Braking resistor failure |

Warranty commitment

The warranty scope only refers to the inverter itself, and the warranty period starts from the date of shipment from the company.

- The warranty period of this product is within twelve months after purchase (except for products exported to foreign countries/non-standard machines).
- 2. If the failure is caused by the following reasons, even within the warranty period, it is also a paid maintenance:
- . Problems caused by incorrect operation or self-repair and modification without permission;
- . Problems caused by the use of frequency converters beyond the requirements of the standard specifications:
 - . Damage caused by fall or rough handling after purchase;
- . Problems or failures caused by use in an environment that does not meet the requirements of the manual; damage to the inverter caused by incorrect wiring;
- . Failures caused by earthquakes, fires, feng shui disasters, lightning strikes, abnormal voltages or other natural disasters and related reasons.
- . For malfunctioning products, the company has the right to entrust others to be responsible for warranty matters.
- Relevant service fees are calculated according to actual costs, and if there is an agreement, the agreement shall prevail.
- 4. The company's sales, production, and agency agencies all over the country can provide after-sales service for this product.
- 5. In the following cases, the manufacturer has the right not to provide warranty services:
- . When the manufacturer's brand, trademark, serial number, nameplate and other marks on the product are damaged or unrecognizable;
- . When the user fails to pay the purchase price in accordance with the "Purchase and Sale Contract" signed by both parties;
- . When the user deliberately conceals the improper use of the product during installation, wiring, operation, maintenance or other processes from the manufacturer's after-sales service provider.