

PDEE series

**High-Performance Vector
Inverter**

user manual

Preface

Thank you for purchasing the this series AC drive developed by Our company.

This series AC drive is a general-purpose high-performance vector control AC drive,and it is mainly used for controlling and regulating the speed and torque of the threephaseAC asynchronous motor. It is a new generation of AC Drive with latesttechnology.

This series is characterized in the high-performance current vectorcontrol technology, high torque output at low frequency and strong overload capacity.

This manual will be helpful in the installation,parameter setting, troubleshooting, and daily maintenance of the AC motor drives. To guarantee safe operation of the equipment,read the following safety guidelines before connecting power to the AC drives. Keep this operating manual handy and distribute to all users for reference.

Matters need attention:

- ★ Wiring can only be done after the mains input is cut off, otherwise there will be danger of electric shock.
- ★ Please connect the inverter to the ground according to the standard, otherwise there will be danger of electric shock
- ★ Do not connect the input terminals with the output terminals (U, V,W), otherwise the inverter may be damaged!
- ★ Please confirm the mains voltage level is consistent with that of the inverter and the input andoutput wirings are correct, and check if there is any short circuit in peripheral circuit and if thewiring is fixed and fast, otherwise the inverter may be damaged!
- ★ Please repair or maintain the inverter after confirming the charge LED turns off, otherwise there may be human injury caused by the residual voltage of the capacitor!

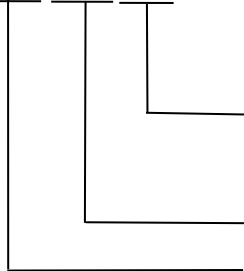
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— Specification model and dimension

1. Model Explanation:

PD EE - 05DK - 4T



INPUT & OUTPUT POWER

2S:220VAC 1 phase input, 220V 3 phase output
 2T: 220VAC 3 phase input , 220V 3 phase output
 4T: 380VAC 3 phase input , 380V 3 phase output
 2S4T:220VAC 1 phase input, 380V 3 phase output

Rated power 5.5KW

AC series driver

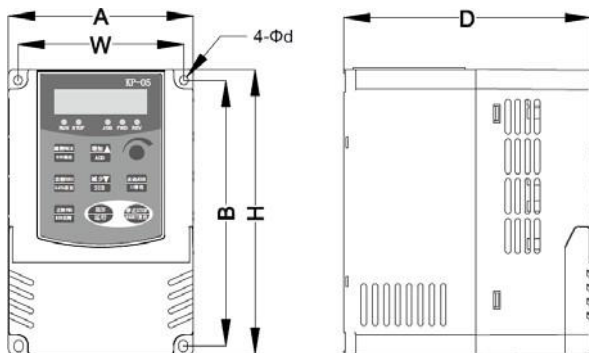
2. Specification model:

SN	Specification model	Rated power	Input Current(A)	Output Current(A)	Adapt Motor
2S:220VAC 1 phase input, 220V 3 phase output 47/63Hz					
1	PD EE 0D75K-2S	0.75KW	8.2A	4.1A	0.75KW
2	PD EE1D5K-2S	1.5KW	14.0A	7.0A	1.5KW
3	PD EE2D2K-2S	2.2KW	23.0A	10.0A	2.2KW
4	PD EE4D0K-2S	4.0KW	30.0A	15.0A	3.7KW
5	PD EE5D5K-2S	5.5KW	48.0A	23.0A	5.5KW
2T: 220VAC 3 phase input , 220V 3 phase output 47/63Hz					
6	PD EE 0D75K-2T	0.75KW	4.9A	4.1A	0.75KW
7	PD EE1D5K-2T	1.5KW	8.4A	7.0A	1.5KW
8	PD EE2D2K-2T	2.2KW	11.5A	10.0A	2.2KW
9	PD EE4D0K-2T	3.7KW	18.0A	15.0A	3.7KW

10	PD EE5D5K-4T	5.5KW	24.0A	23.0A	5.5KW
4T: 380VAC 3 phase input , 380V 3 phase output 47/63Hz					
11	PD EE 0D75K-4T	0.75KW	3.4A	2.5A	0.75KW
12	PD EE1D5K-4T	1.5KW	5.0A	3.7A	1.5KW
13	PD EE2D2K-4T	2.2KW	5.8A	5.0A	2.2KW
14	PD EE4D0K-4T	3.7KW	10.5A	8.5A	3.7KW
15	PD EE5D5K-4T	5.5KW	14.6A	13.0A	5.5KW
16	PD EE7D5K-4T	7.5KW	20.5A	18.0A	7.5KW
2S4T: 220VAC 1 phase input , 380V 3 phase output 47/63Hz					
17	PD EE 0D75K-4T	0.75KW	7.5A	2.5A	0.75KW
18	PD EE1D5K-4T	1.5KW	11A	3.7A	1.5KW
19	PD EE2D2K-4T	2.2KW	15A	5.0A	2.2KW
20	PD EE4D0K-4T	3.7KW	26A	8.5A	3.7KW
21	PD EE5D5K-4T	5.5KW	39A	13.0A	5.5KW
22	PD EE7D5K-4T	7.5KW	54A	18.0A	7.5KW
23	PD EE0011D-4T	11KW	72A	24A	11KW
24	PD EE0015D-4T	15KW	90A	30A	15KW
25	PD EE0018D-4T	18.5KW	112A	37A	18.5KW
26	PD EE0022D-4T	22KW	138A	46A	22KW
27	PD EE0030D-4T	30KW	174A	58A	30KW
28	PD EE0037D-4T	37KW	225	75	37KW
29	PD EE0045D-4T	45KW	270	90	45KW

30	PD EE0055D-4T	55KW	330	110	55KW
31	PD EE0075D-4T	75KW	450	150	75KW
32	PD EE0093D-4T	93KW	510	170	93KW
33	PD EE00110D-4T	110KW	630	210	110KW

3. Appearance dimension:



Power (KW)	Housing No	A	H	D	W	B	d
220V: 0.75-2.2 380V: 0.75-3.7	B18	105	162	154	94	150	4.5
220V: 3.7-5.5 380V: 5.5-7.5	B19	115	220	154	104	209	4.5

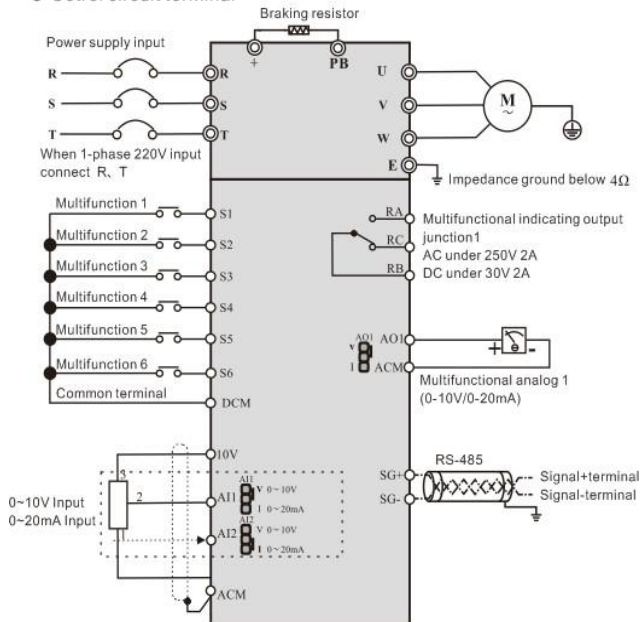
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二. Wiring Description

1. Control Circuit and Main Circuit Wiring:

⊙ Main circuit terminal

○ Control circuit terminal



2. Instructions for use of switch

- 1) SW1: AI1 Signal Selection Switch V: 0-10V, I:0-20mA
- 2) SW2: AI2 Signal Selection Switch V: 0-10V, I:0-20mA
- 3) SW3: AO1 Signal Selection Switch V: 0-10V, I:0-20mA

3. Main Circuit Terminals:

Terminal symbol	function description
R、S、T	AC input line terminals
U、V、W	Motor connection
+、B	Connection for the braking resistor (option)
E	Ground

4. control circuit terminals:

1) control circuit terminal sketch map

S1	S2	S3	S4	S5	S6	DCM	10V	AI1	AI2	AO1	ACM	SG+	SG-	RA	RB	RC
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2) Description of control circuit terminals

Terminal	function description	
S1~S6-DCM	Multi-function input 1-6	Refer to F06
10V-ACM	Power supply for speed setting	
AI1-ACM	Analog input 1: 0-10V or 0-20mA	Refer to F06
AI2-ACM	Analog input 2: 0-10V or 0-20mA	
AO1-ACM	Analog output 1: 0-10V or 0-20mA	Refer to F07
SG+, SG-	Serial communication interface	Refer to F13
RA-RB-RC	Relay Out	Refer to F07

三. Function Parameter Table

Function Code	Name	Set Range	Factory value	Change
F 00 Basic Function Group				
F 00.00	Speed control mode	0: No PG vector Control (SVC) 1: Reserved 2: V/F control	2	●
F 00.01	Run the command channel	0: Keyboard control 1: Terminal Control 2: 485 Communication control	0	※
F 00.02	Communication Run Command channel selection	0: Modbus Communication Card	0	※
F 00.03	Maximum Output frequency	50.00Hz ~ 60.00Hz	50.00Hz	●
F 00.04	Operating frequency limit	F 00.05 ~ F 00.03(Maximum frequency)	50.00Hz	※
F 00.05	Lower operating frequency	0.00Hz ~ F 00.04(Operating frequency limit)	00.00Hz	※
F 00.06	A frequency Command selection	0: Keyboard settings, and inverter power off memory 1: Keyboard settings, and inverter power off memory 2: Analog AI1 Set 3: Analog AI2 Set 4: Reserved 5: Reserved 6: Multi -speed operation set 7: Simple PLC set 8: PID control set 9: 485 communication 10: Panel potentiometer given	0	●
F 00.07	B frequency Command selection	Same F 00.06(A frequency command option)	0	●
F 00.08	B Frequency Instruction Object selection	0: Relative to the maximum frequency 1: Relative to the A frequency command	0	※

Function Code	Name	Set Range	Factory value	Change
F 00.09	Frequency source Combination Mode	0: Afrequency instruction 1: Bfrequency instruction 2: Afrequency command and B frequency command switching 3: A+B 4: A-B 5: M ax (A and B) 6: Min(A an d B)	0	※
F 00.10	Keyboard setting frequency	0.00 Hz ~ F00.03 (Maximum frequency)	50.0 0Hz	※
F 00.11	Frequency command resolution	1: 0.1 Hz 2: 0.0 1Hz	2	●
F 00.12	Acceleration Time1	0.00s ~ 650 0.0s	Model setting	※
F 00.13	Deceleration time1	0.00s ~ 650 0.0s	Model setting	※
F 00.14	Time Unit of acceleration and deceleration	0: 1 seconds 1: 0.1 seconds 2: 0.0 1 seconds	1	●
F 00.15	Acceleration and deceleration time reference frequency	0: Maximum frequency (F 00.03) 1: Set frequency 2: 10 0Hz	0	●
F 00.16	Run Direction selection	0 : Run in the default direction 1 : run in the opposite direction	0	※
F 00.17	Carrier frequency setting	0.5k Hz ~ 16.0k Hz	Model setting	※
F 00.18	Carrier frequency adjustment with temperature	0: No 1: Y es	1	※
F 00.19	Upper Frequency source	0: F 00.04 Set 1: Analog AI1 Set 2: Analog AI2 Set 5: 48 5 communication settings	0	●
F 00.20	Upper Frequency Offset	0.00 HZ ~ Maximum frequency (F 00.03)	00.0 0Hz	※
F 00.21	Run time frequency instruction Up/down Datum	0: Operating Frequency 1: Set the frequency	0	●

Function Code	Name	Set Range	Factory value	Change
F 00. 2 2	Command source Bundle Frequency source	Digit: Keyboard control command binding frequency source Select 0: Unbound 1: Keyboard settings 2: Analog AI1 Set 3: Analog AI2 Set 6: Multi speed operation se 7: Simple PLC 8: pid control 0000 set 9:485 communication settings 10 bit: Terminal Control command binding frequency Source selection Hundred: 485 Communication control Command binding frequency Source selection Thousands: auto run binding frequency Source selection	000 0	※
F 00. 2 3	B frequency source range when superimposed	0% ~ 150%	100 %	※
F 00. 2 5	B frequency source bias frequency when superimposed	0.00 Hz ~ Maximum Frequency F00. 0 3	00. 0 0Hz	※
F 00. 2 6	Keyboard Set frequency downtime memory selection	0: No memory 1: Memory	0	※
F 00. 2 7	Motor Model Selection	0: Gtype 1: Ptype	Model setting	●
F 00. 2 8	Functional parameter Recovery	0: No operation 1: Restore the factory parameters, excluding motor parameters 2: Clear the Fault file	0	●
F 00. 2 9	Reserved	-		
F 00. 3 0	Reserved	-		

Function Code	Name	Set Range	Factory value	Change
F 01 Start-stop Control Group				
F 01.00	Start running mode	0: Direct Start 1: First speed tracking and then start 2: Pre-excitation before starting	0	※
F 01.01	Direct Start frequency	0.00 HZ ~ 10.00 HZ	0.00 HZ	※
F 01.02	Start frequency hold Time	0.0s ~ 100.0s	0.0s	●
F 01.03	Pre-start DC braking current/pre excitation current	0% ~ 100%	0%	●
F 01.04	Pre-start DC braking time/Pre excitation time	0.0s ~ 100.0s	0.0s	●
F 01.05	The choice of acceleration and deceleration mode	0: Linear plus deceleration 1: Scurve plus deceleration A 2: Scurve and deceleration B	0	●
F 01.06	The ratio of the start period of S curve	0.0% ~ (100.0% - F 01.07)	30.0%	●
F 01.07	The ratio of the end period of S curve	0.0% ~ (100.0% - F 01.06)	30.0%	●
F 01.08	Stop mode selection	0: Deceleration stop 1: Free Stop	0	※
F 01.09	Stop braking start frequency	0.00 Hz ~ F00.03(Maximum frequency)	0.00 Hz	※
F 01.10	Downtime braking wait time	0.0s ~ 100.0s	0.0s	※
F 01.11	Shutdown DC Braking current	0% ~ 100%	0%	※
F 01.12	Shutdown DC Braking time	0.0s ~ 100.0s	0.0s	※
F 01.13	Speed Tracking Mode	0: Starting from the stop Frequency 1: Starting at zero Speed 2: Starting at the maximum frequency	0	●
F 01.14	Speed tracking	1 ~ 100	20	※
F 01.15	Braking usage	0% ~ 100%	100%	※

Function Code	Name	Set Range	Factory value	Change
F 02 Motor 1 Parameter Group				
F 02.00	Motor 1 type	0: General Induction Motor 1: Inverter asynchronous motor	0	●
F 02.01	Induction Motor 1 Rated power	0. 1k W ~ 100 0. 0k W	Model setting	●
F 02.02	Induction Motor 1 Rated frequency	0. 01 Hz ~ F 0 0. 0 3(Max frequency)	Model setting	●
F 02.03	Asynchronous Motor 1 rated speed	1r pm ~ 6 55 35r pm	Model setting	●
F 02.04	Asynchronous Motor 1 Rated voltage	1V ~ 20 00V	Model setting	●
F 02.05	Induction Motor 1 rated current	0. 01A ~ 65 5. 35A (Frequency converter power <= 55k W) 0. 1A ~ 6 55 3. 5A (Frequency converter power > 55k W)	Model setting	●
F 02.06	Induction Motor 1 Stator resistance	0. 00 1 Ω ~ 6 5. 53 5 Ω (Frequency converter power <= 55k W) 0. 00 01 Ω ~ 6. 55 35 Ω (Frequency converter power > 55k W)	Model setting	●
F 02.07	1 rotor resistance of asynchronous motor	0. 00 1 Ω ~ 6 5. 53 5 Ω (Frequency converter power <= 55k W) 0. 00 01 Ω ~ 6. 55 35 Ω (Frequency converter power > 55k W)	Model setting	●
F 02.08	Asynchronous Motor 1 Leakage Sense	0. 01M H ~ 6 55. 35M H (Frequency converter power <= 55k W) 0. 00 1M H ~ 65. 53 5M H (Frequency converter power > 55k W)	Model setting	●
F 02.09	Asynchronous Motor 1 Mutual inductance	0. 1M H ~ 65 53. 5M H (Frequency converter power <= 55k W) 0. 01M H ~ 6 55. 35M H (Frequency converter power > 55k W)	Model setting	●
F 02.10	Asynchronous Motor 1 No-load current	0. 01A ~ F 02. 05 (Inverter power <= 55k W) 0. 1A ~ F 02. 05 (Inverter power > 55k W)	Model setting	●

Function Code	Name	Set Range	Factory value	Change
F 02. 3 7	Self-learning of motor parameter	0: No Operation 1: Asynchronous Motor static self-learning 2: Asynchronous Motor dynamic self-learning	0	●
F 03 Vector Control Group				
F 03. 0 0	Speed Loop Proportional Benefits 1	1 ~ 1 00	30	※
F 03. 0 1	Speed Loop Integration Time 1	0. 01s ~ 10. 0 0s	0. 50s	※
F 03. 0 2	Switching low point frequency	0. 00 Hz ~ F 03 . 05	5. 00 Hz	※
F 03. 0 3	Speed Loop Proportional Benefits 2	1 ~ 1 00	20	※
F 03. 0 4	Speed Loop Integration Time 2	0. 01s ~ 10. 0 0s	1. 00s	※
F 03. 0 5	Toggle High Frequency	F 03. 02 ~ F 00. 03(Maxima frequency)	10. 0 0Hz	※
F 03. 0 6	Vector Control Transfer Benefits	50 % ~ 200 %	100 %	※
F 03. 0 7	Speed Loop Output Filter	0. 00 0s ~ 0. 1 00s	0. 00 0s	※
F 03. 0 8	Vector controlled excitation benefits	0 ~ 2 00	64	※
F 04 V/F Control Group				
F 04. 0 0	Motor 1 V/F Curve setting	0: straight line V/F Curve 1: multi-dots V/F curve 2: squared V/F curve 3: V/F all separate mode 4: V/F half separate mode 5: 1. 2 squared V/F 6: 1. 4squared V/ F 7: 1. 6squared V/ F 8: 1. 8squared V/ F	0	●
F 04. 0 1	Motor 1 Torque Promotion	0. 0 %: (automatic torque Promotion) 0. 1 % ~ 30 . 0%	Model determination	※
F 04. 0 2	Motor 1 torque Lifting off Cut-frequency	0. 00 Hz ~ F 00 . 03 (Maximum frequency)	50.00Hz	●

Function Code	Name	Set Range	Factory value	Change
F 04. 0 3	Motor 1 V/F Frequency point 1	0. 00 Hz ~ F 04 . 05	0.00Hz	●
F 04. 0 4	Motor 1 V/F Voltage point 1	0. 0 % ~ 1 00. 0 %	0.0%	●
F 04. 0 5	Motor 1 V/F Frequency point 2	F 04. 0 3 ~ F 04. 0 7	0.00Hz	●
F 04. 0 6	Motor 1 V/F Voltage point 2	0. 0 % ~ 1 00. 0 %	0.0%	●
F 04. 0 7	Motor 1 V/F Frequency point 3	F 04. 0 5 ~ F 02. 0 2 (motor rated frequency)	0.00Hz	●
F 04. 0 8	Motor 1 V/F Voltage point 3	0. 0 % ~ 1 00. 0 %	0.0%	●
F 04. 0 9	Compensation motor 1 V/F slip	0. 0 % ~ 2 00. 0 %	0.0%	※
F 04. 1 0	V/F Excitation Benefits	0 ~ 2 00	64	※
F 04. 1 1	V/F Oscillation inhibits benefits	0 ~ 1 00	Model determination	※
F 04. 1 3	V/F Separation Voltage Source	0: Keyboard setup (F 04. 1 4) 1: Analog all Set 2: Analog Volume AI2 Set 5: Multi stage speed operation setup 6: Simple PLC Set 7 : P I DControl Settings 8: 48 5 Communication set Injection100. 0 % corresponding motor rated voltage (F 02. 04)	0	※
F 04. 1 4	V/F Separation Voltage number setting	0V ~ F 0 2. 04(motor rated voltage)	0V	※
F 04. 1 5	V/F Separation Voltage rise time	0. 0s ~ 1 000. 0s Note: Time to indicate 0V change to motor rated voltage(F02.04)	0. 0s	※
F 05 Failure and Protection Function Group				
F 05. 0 0	Input missing phase protection selection	0: Close 1: Open	1	※
F 05. 0 1	Output Missing Phase protection selection	0: Close 1: Open	1	※

Function Code	Name	Set Range	Factory value	Change
F 05. 0 2	Instantaneous power frequency reduction function selection	0: Invalid 1: Deceleration 2: deceleration stop	0	※
F 05. 0 3	Judgment time of instantaneous power outage voltage Pick-up	0. 00s ~ 100. 00s	0.50s	※
F 05. 0 4	Instantaneous power outage action judgment voltage	60. 0 % ~ 10 0. 0 %(standard bus voltage)	80.0%	※
F 05. 0 5	Post pressure stall benefits	0 ~ 1 00	0	※
F 05. 0 6	Overvoltage Stall protection Voltage	120 % ~ 15 0%	130%	※
F 05. 0 7	Over current proof stall benefit	0 ~ 1 00	20	※
F 05. 0 8	Over drain speed point setting	100 % ~ 20 0%	150%	※
F 05. 0 9	Selection of motor overload prediction alarm	0: Prohibition 1: Permission	1	※
F 05. 1 0	Motor Overload warning detection level	0. 20 ~ 10. 00	1.00	※
F 05. 1 1	Motor Overload forecast alarm Check out time	50 % ~ 100 %	80%	※
F 05. 1 2	Off -load protection options	0: No protection 1: protection	0	※
F 05. 1 3	Drop load detection level	0. 0 ~ 1 00. 0%(motor rated current)	10.0%	※
F 05. 1 4	Drop Load Detection time	0. 0 ~ 6 0. 0s	1.0s	※
F 05. 1 5	Over speed detection value	0. 0 % ~ 50 . 0% (F 00. 03 maximum frequency)	20.0%	※
F 05. 1 6	Over speed detection time	0. 0 ~ 6 0. 0s	1.0s	※
F 05. 1 7	High speed deviation detection value	0. 0 % ~ 50 . 0% (F 00. 03 maximum frequency)	20.0%	※
F 05. 1 8	High speed deviation detection time	0. 0s ~ 6 0. 0s	5.0s	※

Function Code	Name	Set Range	Factory value	Change
F 05. 1 9	Automatic reset number of faults	0 ~ 20	0	※
F 05. 2 0	Fault Automatic Reset Interval time	0. 1s ~ 1 00. 0s	1.0s	※
F 05. 2 1	Fault Protection action Option 1	Single: Motor overload (E007) 0: Free Stop 1: Stop as the stop way 2: Keep running 10 bites: Input Phase Loss (E 012) 100 bites: output Phase Loss (E 013) 1000 bites: outer Fault (E 00d) 10000 bites: Communication Fault(E 018)	00000	※
F 05. 2 2	Fault Protection action Option 2	Single Digit: Reserved 10 bit: Functional code fault (E 021) 0: Free stop 1: Stop as stop way 100 bite: Reversed 1000 bite: motor overheated (E 036) 10000 bite: run time arrive (E 02 0)	000 00	※
F 05. 2 3	Fault Protection action Option 3	Single Digit and 10 bite: Reserved 100 bite: Power Up Time arrive (E 029) 0: Free Stop 1: Stop as stop way 2: Keep running 1000 bite: loss load(E 030) 0: Free Stop 1: Deceleration stop 2: Deceleration to the motor rated frequency of 7% continue to run, do not drop load automatically restore to the set frequency of operation 10000 bite: when running PID feedback value lost (E 02E) 0: Free parking 1: Stop mode down 2: Continue running	000 00	※

Function Code	Name	Set Range	Factory value	Change
F 05. 2 4	Fault Protection action Option 4	Single Digit: Speed deviation too large (E 03 4) 0: Free parking 1: Stop mode down 2: Continue running 10 bite: Motor over-speed (E 035) 100 bite: initial position error (E 03 7)	000	※
F 05. 2 6	Keep running when fault frequency setting	0: Run with current frequency 1: Run with setting frequency 2: Run with maxima frequency 3: Run with minimum frequency 4: Run with optional abnormal frequency	0	※
F 05. 2 7	Current Fault Type	0: No Fault 1: Accelerated overcurrent (E 00 4) 2: Deceleration over current (E 005) 3: Constant speed over current (E 006) 4: Accelerated Overvoltage (E 002) 5: Deceleration overvoltage (E 00A) 6: Constant speed over voltage(E 003) 7: Under voltage Failure (E 001) 8: Motor overload(E 007) 9: Frequency converter overload(E 008) 10: Input side phase(E 012)	-	●
F 05. 2 8	Previous Failure type	11: Output side missing phase(E 013) 12: Inverter module overheating(E 00E) 13: Buffer resistor overload (E 014) 14: Contactor Suction anomaly (E 01 7) 15: External Failure (E 00 d) 16: Communication Failure (E 01 8) 17: Current detection Failure (E 01 5) 18: Motor self -learning Failure(E 016) 19: Running time arrives(E 020) 20: Eeprom Fault(E 00F) 21: Motor to ground short Fault(E023) 22: Run time PID Feedback loss(E02E) 24: Inverter hardware exception(E033)	-	●

Function Code	Name	Set Range	Factory value	Change
F 05. 2 9	First two Fault types	25: Power Up Time arrives(E 029) 26: Drop Load(E 030) 27: Fast Current limit timeout(E 032) 28: The speed deviation is too large(E 034) 29: Run-time Switching motor(E 038) 30: Motor Overspeed(E 035) 31: Motor over temperature(E 036) 32: Initial position error(E 037)	-	●
F 05. 3 0	How often to run current Failure	-	-	●
F 05. 3 1	Current Failure output current	-	-	●
F 05. 3 2	Bus voltage at current Fault	-	-	●
F 05. 3 3	Input terminal status For current Failure	-	-	●
F 05. 3 4	Output terminal status at current Failure	-	-	●
F 05. 3 5	Inverter status For current Failure	-	-	●
F 05. 3 6	Time to power on current Failure	-	-	●
F 05. 3 7	Run time at current Failure	-	-	●
F 05. 3 8	Frequency of the previous Failure	-	-	●
F 05. 3 9	Output current during previous Failure	-	-	●
F 05. 4 0	Bus voltage in previous Failure	-	-	●
F 05. 4 1	Input terminal status in previous Failure	-	-	●
F 05. 4 2	Output terminal status in previous Failure	-	-	●
F 05. 4 3	Frequency converter state in previous Failure	-	-	●
F 05. 4 4	Power on time on previous Failure	-	-	●

Function Code	Name	Set Range	Factory value	Change
F 05. 4 5	Elapsed time on previous Failure	-	-	●
F 05. 4 6	Frequency of the First two Failures	-	-	●
F 05. 4 7	Output current at two previous Failures	-	-	●
F 05. 4 8	Bus voltage in the First two Failures	-	-	●
F 05. 4 9	Input terminal status For two previous Failures	-	-	●
F 05. 5 0	Output terminal status For two previous Failures	-	-	●
F 05. 5 1	Frequency converter state in the First two Failures	-	-	●
F 05. 5 2	Time of Power on the First two Failures	-	-	●
F 05. 5 3	Elapsed time during the First two Failures	-	-	●
F 05. 5 4	Selection of short circuit protection for electric power	0: Invalid 1: valid	1	※
F 05. 5 5	Operation selection of Fault output terminals during automatic reset	0: No action 1: Action	0	※
F 05. 5 6	Abnormal standby Frequency	0. 0 % ~ 1 00. 0 % (100. 0 % corresponds to the maximumFrequency F 00. 0 3)	100. 0 %	※
F 05. 6 0	Pause Action Stop judgment voltage	F 05. 0 4 ~ 1 00. 0 %	90. 0 %	※
F 06 Input Terminal Group				
F 06. 0 0	S1 Terminal Function Selection	0: No Function 1: Running 2: Reverse Run 3: Three - wire operation control 4: Turning inch 5: Reverse inch move 10: Frequency setting Decrement(down)	1	●

Function Code	Name	Set Range	Factory value	Change
F 06. 0 1	S2 Terminal Function Selection	11: Frequency increase or decrease set clear (terminal,keyboard) 12: Multi-segment speed Terminals 1 13: Multi-segment Speed Terminals 2 14: Multi-segment Speed Terminals 3 15: Multi-segment Speed Terminals 4 16: Run suspend 17: Acceleration and deceleration time selection Terminals 1 18: Acceleration and deceleration time selection terminals 2 19: Frequency Source switching	2	●
F 06. 0 2	S3 Terminal Function Selection	20: Operation command Switching Terminals 21: Acceleration and deceleration ban 22: PID control suspend 23: PLC State reset 25: Terminal Count 26: Counter Reset 27: Length count input 28: Length Reset 31: Keep	4	●
F 06. 0 3	S4 Terminal Function Selection	32: Immediate DC braking 33: External Fault usually closed input 34: Frequency modification enables the 35: PID Function direction to take the reverse 36: The external parking Terminal 1 37: Control command Switching Terminal 2 38: PID integral susp 39: Keep 40: Reserved 41: Motor Selection Terminals 1 42: Reserved 43: PID parameter Switch	6	●
F 06. 0 4	S5 Terminal Function Selection	44: Keep 45: Reserved 46: Keep 47: Emergency Parking 48: External Parking Terminal 2	12	●

Function Code	Name	Set Range	Factory value	Change
F 06. 0 5	S6 Terminal Function Selection	49: Deceleration DC braking 50: This run time clear zero	13	●
F 06. 1 0	Input terminals Polarity selection 1	0: High level effective 1: low level effective Single-digit:S 1 10 :S2 Hundred:S 3 Thousand:S 4 Million:S 5	000 00	●
F 06. 1 1	Input terminals Polarity Selection 2	0: Grosvenor Level effective 1: low level effective Single-digit:S 6 10 :S7 Hundred:S 8 Thousand:S 9 Million: HDI	000 00	●
F 06. 1 2	Time of switching amount Filter	0. 00 0s ~ 1. 0 00s	0. 01 0s	※
F 06. 1 3	Terminal control operation mode	0: Two-wire control 1: Two-line control 2 2: Three line control 1 3: Triple Control 2	0	●
F 06. 1 4	Terminal Up/down Frequency Incremental change Rate	0. 00 1Hz / s ~ 65 . 535Hz / s	1.00 Hz / s	※
F 06. 1 5	S1 Delay Time	0. 0s ~ 3 600. 0s	0.0s	●
F 06. 1 6	S2 Delay Time	0. 0s ~ 3 600. 0s	0.0s	●
F 06. 1 7	S3 Delay Time	0. 0s ~ 3 600. 0s	0.0s	●
F 06. 1 8	AI1 lower values	0. 00V ~ F 06. 20	0.00V	※
F 06. 1 9	AI1 lower corresponding	- 100. 0 % ~ + 1 00. 0 %	0.0%	※
F 06. 2 0	AI1 Top Values	F 06. 1 8 ~ + 1 0. 0 0V	10.00V	※
F 06. 2 1	AI1 upper limit corresponding setting	- 100. 0 % ~ + 1 00. 0 %	100.0%	※
F 06. 2 2	AI1 input Filter Time	0. 00s ~ 10. 0 0s	0.10s	※
F 06. 2 3	AI2 Lower bound value	0. 00V ~ F 06. 25	0.00V	※

Function Code	Name	Set Range	Factory value	Change
F 06. 2 4	AI2 lower limit corresponding setting	- 100. 0 % ~ + 1 00. 0 %	0.0%	※
F 06. 2 5	AI2 Upper Limit value	F 06. 2 3 ~ + 1 0. 0 0V	10.00V	※
F 06. 2 6	AI2 Upper Limit corresponding setting	- 100. 0 % ~ + 1 00. 0 %	100.0%	※
F 06. 2 7	AI2 Input Filter Time	0. 00s ~ 10. 0 0s	0.10s	※
F 06. 3 8	AI Curve Selection	Digit: AI1 curves 1: Curve 1 (2 point,see F06.18 ~ F06.21) 2: Curve 2 (2 point,see F06.23 ~ F06.26) 3: Curve 3 (2 point,see F06.28 ~ F06.31) 4: Curve 4 (4 point,see F06.40 ~ F06.47) 5: Curve 5 (4 point,see F06.48 ~ F06.55) 1 0 bits: AI2 curve selection Hundred: Reserved	H. 32 1	※
F 06. 3 9	AI below minimum input setting selection	Single digit: All below the lower limit set option 0: corresponds to the minimum input setting 1: 0. 0 % 10bits: AI2 lower than the lower limit set selection Hundred: Reserved	H. 00 0	※
F 06. 4 0	AI curve 4 lower bound value	- 10. 00V ~ F 06. 42	0. 00V	※
F 06. 4 1	AI curve 4 lower limit corresponding set	- 100. 0 % ~ + 1 00. 0 %	0. 0 %	※
F 06. 4 2	AI curve 4 inFlection point 1 input	F06.40 F06. 40 ~ F06. 44	3. 00V	※
F 06. 4 3	AI curve 4 inFlection point 1 input corresponds Set	- 100. 0 % ~ + 1 00. 0 %	30. 0 %	※
F 06. 4 4	AI curve 4 inFlection point 2 input	F06.42 F06. 42 ~ F06. 46	6. 00V	※
F 06. 4 5	AI curve 4 inFlection point 2 input corresponds Set	- 100. 0 % ~ + 1 00. 0 %	60. 0 %	※
F 06. 4 6	AI curve 4 upper bound value	F 06. 4 4 ~ + 1 0. 0 0V	10. 0 0V	※

Function Code	Name	Set Range	Factory value	Change
F 06. 4 7	AI curve 4 upper limit corresponding setting	- 100. 0 % ~ + 1 00. 0 %	100. 0 %	※
F 06. 4 8	AI curve 5 lower bound value	- 10. 00V ~ F 06. 50	- 10. 00V	※
F 06. 4 9	AI curve 5 lower limit corresponding set	- 100. 0 % ~ + 1 00. 0 %	- 100. 0 %	※
F 06. 5 0	AI Curve 5 in Flexion point 1 input	F 06. 4 8 ~ F 06. 5 2	- 3. 00V	※
F 06. 5 1	AI Curve 5 in Flexion point 1 input corresponds Set	- 100. 0 % ~ + 1 00. 0 %	- 30. 0 %	※
F 06. 5 2	AI Curve 5 in Flexion point 2 input	F 06. 5 0 ~ F 06. 5 4	3. 00V	※
F 06. 5 3	AI Curve 5 in Flexion point 2 input corresponds Set	- 100. 0 % ~ + 1 00. 0 %	30. 0 %	※
F 06. 5 4	AI curve 5 upper bound value	F 06. 5 2 ~ + 1 0. 0 0V	10. 0 0V	※
F 06. 5 5	AI curve 5 upper limit corresponding setting	- 100. 0 % ~ + 1 00. 0 %	100. 0 %	※
F 06. 6 4	AI1 set Jump point	- 100. 0 % ~ 10 0. 0 %	0. 0 %	※
F 06. 6 5	AI1 set jump point range	0. 0 % ~ 1 00. 0 %	0. 5 %	※
F 06. 6 6	AI2 set Jump Point	- 100. 0 % ~ 10 0. 0 %	0. 0 %	※
F 06. 6 7	AI2 set jump point range	0. 0 % ~ 1 00. 0 %	0. 5 %	※
F 07 Output Terminal Group				
F 07. 0 2	retain	0: No output 1: Frequency arrival 2: Frequency level detection	0	※
F 07. 0 3	Relay RA Output Selection (RA*RB*RC)	FDT1 output 3: Fault output (Fault shutdown) 4: Motor Overload warning	3	※

Function Code	Name	Set Range	Factory value	Change
		5: Frequency converter overload warning 6: 0 Speed running (no output at shutdown) 7: 0 Speed Running 2 (also output when downtime) 8: UpperFrequency reach 9: LowerFrequency reach (run related) 10: Set the Count value to reach 11: The speciFied count value reaches 12: The length reaches the 13: PLC cycle completes 14: The cumulative running time arrives 15: TheFrequency limit 16: Reserved 17: The operation is ready 18: Inver ter operation 19: A11>A12 20: undervoltage status output 22: Reserved 23: Keep 24: Cumulative power Time reached 25: Frequency level detection FDT2 output 26: Frequency 1 reaches output 27: Frequency 2 to output 28: Current 1 to output 29: Current 2 Arrival output 30: Time to output 31: AI1 input limit 32: Out of Reverse Load 33: Operation 34: 0 Current State 35: module temperature reaches 36: output current exceeding limit 37: The operatingFrequency limit arrives (also output when downtime) 38: Alarm Output (continued operation) 39: Motor over temperature Forecast Police 40: this time to arrive		

Function Code	Name	Set Range	Factory value	Change
F 07.06	Output Terminals Polarity selection	0: Positive Logic 1: Negative Logic unit's digit: Retain Ten's digit: retain Hundred's digit: RA Thousand's digit: retain	000 0	※
F 07.08	Retain	0.0s ~ 3 600.0s	0.0s	※
F 07.09	RA delay Time	0.0s ~ 3 600.0s	0.0s	※
F07.13	A01 Output Selection	0: Set Frequency 1: Operating Frequency 2: Output current 3: Output voltage 4: Output speed 5: Output torque 6: Output power 7: Retain 8:A11 9:A12 10: Retain 11: Length 12: note value 13: 485 Communication Set 14: Output Current (100% corresponds to 1000.0a) 15: Output voltage (100% corresponds to 1000.0V) 16: Reserved	0	※
F07.15	A01 0 DeFlexion coefficient	- 100.0% ~ 100.0%	0.0%	※
F07.16	A01 gain	- 10.00 ~ + 10.00	1.00	※
F07.19	A01 Output Filter Time	0 ~ 10.00	0	※
F 08 Keypad and Display Function Group				
F08.00	User password	0 ~ 6 553 5	0	※
F08.02	Stop key Stop Function selection	0: Only in the keyboard operation mode, Stop/res key stop Function is effective 1: In any operation mode, Stop/res key downtime is effective	1	※

Function Code	Name	Set Range	Factory value	Change
F08.03	Run state parameter Display selection 1	000 0 ~ FFF F Bi t00: OperatingFrequency 1 (Hz) Bi t01: Set Frequency (Hz) Bi t02: Output current (A) Bi t03: Output voltage (V) Bi t04: Load speed display Bi t05: Output power (kW) Bi t06: Output torque (%) Bi t07: Bus Voltage (V) Bi t08: PID set Bi t09: PID Feedback value Bi t10: Input terminal status Bi t11: Output terminal status Bi t12: Analog to AI1 voltage (V) Bi t13: Analog AI2 voltage (V) Bi t14: Retain Bi t15: Count value	H.008F	※
F08.04	Run state parameter Display selection 2	000 0 ~ FFF F Bi t00: Length Value Bi t01: PLC stage Bi t02: Retain Bi t03: Operating Frequency 2 (Hz) Bi t04: Residual running time Bi t05: AI1 correction voltage (V) Bi t06: AI2 correction Front voltage(V) Bi t07: Retain Bi t08: Line Speed Bi t09: Current Power on Time(Hour) Bi t10: Current elapsed time (Min) Bi t11: Retain Bi t12: 485 communication Set Value Bi t13: Encoder Feedback speed (Hz) Bi t14: A Frequency display (Hz) Bi t15: B Frequency display (Hz)	H.0000	※

Function Code	Name	Set Range	Factory value	Change
F08.05	Shutdown Status Parameter display selection	000 0 ~ FFF F Bi t 00: Set Frequency (Hz) Bi t 01: Bus Voltage (V) Bi t 02: Input terminal status Bi t 03: Output terminal status Bi t 04: PID given value Bi t 05: Analog all Voltage (V) Bi t 06: Analog AI2 voltage (V) Bi t 07: Retain Bi t 08: Count value Bi t 09: Length value Bi t 10: PLC stage Bi t 11: Load speed Bi t 12: Retain Bi t 13: PID Feedback value	H.0063	※
F08.06	Velocity display coefficient	0. 00 01 ~ 6. 5 00 0	1.0000	※
F08.07	Rectifier Bridge Module Temperature	0. 0 °C ~ 10 0. 0 °C	-	**
F08.08	Inverter module temperature	0. 0 °C ~ 10 0. 0 °C	-	**
F08.09	Software version	-	-	**
F08.10	Local cumulative run time	0h ~ 655 35 h	-	**
F08.11	Product number	-	-	**
F08.12	Load speed display decimal point digits	0: 0 Decimal digits 1: 1 digit digit 2: 2 digit decimal Place 3: 3 digit Decimal	1	※
F08.13	Cumulative power Time	0h ~ 655 35 h	-	**
F08.14	Cumulative power consumption	0 °C ~ 6 55 35 °C	-	**
F 09 Auxiliary Functions Group				
F09.00	Acceleration Time 2	0. 0s ~ 6 500. 0s	Model setting	※
F09.01	Minus time 2.	0. 0s ~ 6 500. 0s	Model setting	※
F09.02	Acceleration Time 3	0. 0s ~ 6 500. 0s	Model setting	※

Function Code	Name	Set Range	Factory value	Change
F09.03	Minus time 3	0.0s ~ 6 500.0s	Model setting	※
F09.04	Acceleration Time 4	0.0s ~ 6 500.0s	Model setting	※
F09.05	Minus time 4	0.0s ~ 6 500.0s	Model setting	※
F09.06	Operating Frequency of the inch	0.00 Hz ~ F00.03(Maximum Frequency)	2.00Hz	※
F09.07	Acceleration time of inch movement	0.0s ~ 6 500.0s	20.0s	※
F09.08	Slow time	0.0s ~ 6 500.0s	20.0s	※
F09.09	Jump Frequency 1	0.00 Hz ~ F00.03(Maximum Frequency)	0.00Hz	※
F09.10	Jump Frequency 2	0.00 Hz ~ F00.03(Maximum Frequency)	0.00Hz	※
F09.11	Jump Frequency Range	0.00 Hz ~ F00.03(Maximum Frequency)	0.00Hz	※
F09.12	Positive and negative turning dead time	0.0s ~ 3 000.0s	0.0s	※
F09.13	Reversal control enables	0: Permission 1: Forbidden	0	※
F09.14	Set Frequency lower than the lower Frequency when the action	0:Run at the lower Frequency 1: Downtime 2: 0 speed operation	0	※
F09.15	Set cumulative Power arrival time	0h~65000h	0h	※
F09.16	Set cumulative Run arrival time	0h~65000h	0h	※
F 09. 1 7	Power protection selection For terminal start- up	0: No protection 1: protection	0	※
F 09. 1 8	Droop control Frequency descent rate	0.00 Hz ~ 1 0.00 Hz	0.00Hz	※
F 09. 1 9	Motor Switching channel selection	0: Motor 1 1: Motor 2	0	●
F09. 2 0	FDT1 Level detection Value	0.00 Hz ~ F00.03(Maximum Frequency)	50.00Hz	※
F 09. 2 1	FDT1 hysteresis Detection Value	0.0 % ~ 1 00.0 % (FDT1 level)	5.0%	※

Function Code	Name	Set Range	Factory value	Change
F 09. 2 2	FDT2 Level detection Value	0.00 Hz ~ F00.03(Maximum Frequency)	50.00Hz	※
F 09. 2 3	FDT2 hysteresis Detection Value	0.0 % ~ 100.0 % (FDT2 level)	5.0%	※
F 09. 2 4	Frequency arrival Check out amplitude	0.0 % ~ 100.0 % (F00.03(Maximum Frequency))	0.0%	※
F 09. 2 5	Whether jump Frequency is effective during acceleration and deceleration	0: Invalid 1: valid	0	※
F 09. 2 8	Acceleration time 1 and Acceleration time 2 switching Frequency point	0.00 Hz ~ F00.03(Maximum Frequency)	0.00 Hz	※
F 09. 2 9	Minus time 1 and minus time 2 switching Frequency points	0.00 Hz ~ F00.03(Maximum Frequency)	0.00 Hz	※
F 09. 3 0	Terminal inch Move Priority	0: Invalid 1: valid	0	※
F 09. 3 1	Random Arrival Frequency Detection value 1	0.00 Hz ~ F00.03(Maximum Frequency)	50.00Hz	※
F 09. 3 2	Arbitrary arrival Frequency detected amplitude 1	0.0 % ~ 100.0 % (F00.03(Maximum Frequency))	0.0%	※
F 09. 3 3	Random Arrival Frequency Detection value 2	0.00 Hz ~ F00.03(Maximum Frequency)	50.00Hz	※
F 09. 3 4	Arbitrary arrival Frequency detected amplitude 2	0.0 % ~ 100.0 % (F00.03(Maximum Frequency))	0.0%	※
F 09. 3 5	0 Current detection level	0.0 % ~ 300.0 % 100.0 % corresponding motor rated current	5.0%	※
F 09. 3 6	0 Current detection delay time	0.01s ~ 600.00s	0.10s	※
F 09. 3 7	Output current overrun value	0.0 % (not detected) 0.1 % ~ 300.0 % (motor rated current)	200.0%	※
F 09. 3 8	Output current overrun detection delay time	0.00s ~ 600.00s	0.00s	※

Function Code	Name	Set Range	Factory value	Change
F 09. 3 9	Free to reach current 1	0.0% ~ 300.0%(motor rated current)	100.0%	※
F 09. 4 0	1 range of arbitrary reach current	0.0% ~ 300.0%(motor rated current)	0.0%	※
F 09. 4 1	Free to reach current 2	0.0% ~ 300.0%(motor rated current)	100.0%	※
F 09. 4 2	2 range of arbitrary reach current	0.0% ~ 300.0%(motor rated current)	0.0%	※
F 09. 4 3	Timing Function Selection	0: Invalid 1: valid	0	※
F 09. 4 4	Timed Run time selection	0: F 09. 45 Set 1: Analog AI1 Set 2: Analog AI1 Set	0	※
F 09. 4 5	Timed Run time	0.0Min ~ 65.00.0Min	0.0Min	※
F 09. 4 6	AI1 input voltage protection minimum	0.00V ~ F 09. 47	3.10V	※
F 09. 4 7	AI1 input voltage protection maximum	F 09. 4 6 ~ 10.00V	6.80V	※
F 09. 4 8	Module temperature arrives	0°C ~ 100°C	75°C	※
F 09. 4 9	Cooling Fan Operating mode	0: Fan Run when VFD runs 1: The Fan always run	0	※
F 09. 5 0	Wake pressure	0.0 ~ F 10. 0 4 (PID Given Feedback range)	0.0	※
F 09. 5 1	Wake delay Time	0.0s ~ 6500.0s	0.0s	※
F 09. 5 2	Sleep Frequency	0.00 Hz ~ F00.03(Maximum Frequency)	0.00Hz	※
F 09. 5 3	Sleep delay Time	0.0s ~ 6500.0s	0.0s	※
F 09. 5 4	This run arrival time Set	0.0Min ~ 65.00.0Min	0.0Min	※
F 09. 5 5	DPWM Switching Operating Frequency limit	0.00 Hz ~ 15.00 Hz	12.00Hz	※
F 09. 5 6	PWM modulation mode	0: Asynchronous Modulation 1: Synchronous modulation	0	※
F 09. 5 7	Dead Zone Compensation mode selection	0: No compensation 1: Compensation Mode 1 2: Compensation mode 2	1	※
F 09. 5 8	Random PWM Depth	0: Random PWM invalid 1 ~ 10: PWM carrier random depth	0	※

Function Code	Name	Set Range	Factory value	Change
F 09. 5 9	Fast current limiting enables	0: Inconvenience can 1: Enable	1	※
F 09. 6 0	Current detection compensation	0 ~ 1 00	5	※
F 09. 6 1	Undervoltage point Setting	60. 0 % ~ 14 0. 0 %	100.0%	※
F 09. 6 2	Optimization mode selection of F Svc	0: Do not optimize 1: Optimization mode 1 2: Optimization mode 2	1	※
F 09. 6 3	Dead Time Adjustment	100 % ~ 20 0%	150 %	※
F 09. 6 4	Over-pressure point setting	200. 0V ~ 2 50 0. 0V	Model determination	※
F 10 PID Control Group				
F 10. 0 0	PID given source selection	0: Keyboard setup (F 10. 0 1) 1: Analog allSet 2: AnalogAI2 Set 5: 485 Communication set 6: Multi - section speed instruction set 7: Panel potentiometer settings	0	※
F 10. 0 1	Keyboard preset PID given	0. 0 ~ F 10. 0 4(PID Given Feedback range)	5. 0	※
F 10. 0 2	PID Feedback Value Source Selection	0: Analog AI1 set 1: Analog AI2 Set 3 : A I 1 - AI2 5: 485 communication given 6 : A I 1 +AI 2 7: Max (A I 1 , A I 2) 8: Min (A I 1 , A I 2)	0	※
F 10. 0 3	PID output Feature Selection	0: PID output is positive 1: PID output is negative	0	※
F 10. 0 4	PID Given Feedback range	0. 0 ~ 1 00 0. 0	10.0	※
F 10. 0 5	Proportional benefit KPL	0. 0 ~ 1 00. 0	20.0	※
F 10. 0 6	Integration Time til	0. 01s ~ 10. 0 0s	2.00s	※
F 10. 0 7	Differential time TDL	0. 00 0s ~ 10. 00 0s	0.000s	※

Function Code	Name	Set Range	Factory value	Change
F 10.08	PID Reversal Cutoff Frequency	0.00 ~ F 00.03(Maximum Frequency)	0.00Hz	※
F 10.09	PID Control deviation Limit	0.0 % ~ 100.0 %	0.0%	※
F 10.10	PID differential limiting amplitude	0.00 % ~ 100.00 %	0.10%	※
F 10.11	PID instruction plus deceleration time	0.00 ~ 650.00s	0.00s	※
F 10.12	PID Feedback Filter Time	0.00 ~ 60.00s	0.00s	※
F 10.13	PID Output Filter Time	0.00 ~ 60.00s	0.00s	※
F 10.15	Proportional Benefit KP2	0.0 ~ 100.0	20.0	※
F 10.16	Integration Time Ti2	0.01s ~ 10.00s	2.00s	※
F 10.17	Differential Time Td2	0.000s ~ 10.000s	0.000s	※
F 10.18	PID parameter Switching condition	0: Do not switch 1: Cut through the input terminals 2: Automatic switching according to the deviation	0	※
F 10.19	PID parameter Switching deviation 1	0.0 % ~ F 10.20	20.0%	※
F 10.20	PID parameter Switching deviation 2	F 10.19 ~ 100.0 %	80.0%	※
F 10.21	PID Initial value	0.0 % ~ 100.0 %	0.0%	※
F 10.22	PID Initial value retention time	0.00 ~ 650.00s	0.00s	※
F 10.23	Two times output deviation Forward maximum value	0.00 % ~ 100.00 %	1.00%	※
F 10.24	Two times output deviation reverse maximum	0.00 % ~ 100.00 %	1.00%	※
F 10.25	PID Integral Adjustment selection	Digit: Integral separation 0: Invalid 1: valid 10 bit: whether to stop points after output to the limit 0: Continue integral 1: Stop integral	00	※

Function Code	Name	Set Range	Factory value	Change
F 10. 2 6	Feedback Disconnection Detection value	0 . 0 %: Do not judge Feedback disconnection 0. 1 % ~ 1 00. 0 %	0.0%	※
F 10. 2 7	Feedback Disconnection Detection time	0. 0s ~ 2 0. 0s	0.0s	※
F 10. 2 8	PID shutdown operation	0: Downtime does not operate 1: downtime operation	0	※
F 11 Swing Frequency, Fixed Length and Count Group				
F 11. 0 0	Setting mode of pendulum Frequency	0: Relative to the center Frequency 1: Relative to the maximum Frequency	0	※
F 11. 0 1	Swing Frequency Range	0. 0 % ~ 1 00. 0 %	0.0%	※
F 11. 0 2	Frequency range of Sudden jump	0. 0 % ~ 50 . 0%	0.0%	※
F 11. 0 3	Pendulum Frequency cycle	0. 1s ~ 3 000. 0s	10.0s	※
F 11. 0 4	Delta wave rise time of pendulum Frequency	0. 1 % ~ 1 00. 0 %	50.0%	※
F 11. 0 5	Set length	0m ~ 6 553 5m	1000m	※
F 11. 0 6	Actual length	0m ~ 6 553 5m	0m	※
F 11. 0 7	Pulses per metre	0. 1 ~ 6 55 3. 5	100.0	※
F 11. 0 8	Count Value setting	1 ~ 6 553 5	1000	※
F 11. 0 9	Count value designation	1 ~ 6 553 5	1000	※
F 12 Simple PLC and Multi-speed Control Group				
F 12. 0 0	Simple operation mode of PLC	0: Single run end of Shutdown 1: Single run to keep the Final value 2: Straight cycle	0	※
F 12. 0 1	Simple PLC power off memory selection	Single: Power off memory Option 0: Power oFF Memory 1: Power oFF memory 10 bits: Downtime Memory options 0: Stop memory 1: Downtime memory	00	※
F 12. 0 2	Multi-section Speed 0	- 100. 0 % ~ 10 0. 0 %	0.0%	※
F 12. 0 3	Multi-section Speed 1	- 100. 0 % ~ 10 0. 0 %	0.0%	※

Function Code	Name	Set Range	Factory value	Change
F 12.04	Multi-section Speed 2	- 100.0 % ~ 10 0.0 %	0.0%	※
F 12.05	Multi -Speed 3	- 100.0 % ~ 10 0.0 %	0.0%	※
F 12.06	Multi -Speed 4	- 100.0 % ~ 10 0.0 %	0.0%	※
F 12.07	Multi -Speed 5	- 100.0 % ~ 10 0.0 %	0.0%	※
F 12.08	Multi -Speed 6	- 100.0 % ~ 10 0.0 %	0.0%	※
F 12.09	Multi -Speed 7	- 100.0 % ~ 10 0.0 %	0.0%	※
F 12.10	Multi -Speed 8	- 100.0 % ~ 10 0.0 %	0.0%	※
F 12.11	Multi -Speed 9	- 100.0 % ~ 10 0.0 %	0.0%	※
F 12.12	Multi -Speed 10	- 100.0 % ~ 10 0.0 %	0.0%	※
F 12.13	Multi section Speed11	- 100.0 % ~ 10 0.0 %	0.0%	※
F 12.14	Multi section Speed12	- 100.0 % ~ 10 0.0 %	0.0%	※
F 12.15	Multi section Speed13	- 100.0 % ~ 10 0.0 %	0.0%	※
F 12.16	Multi section Speed14	- 100.0 % ~ 10 0.0 %	0.0%	※
F 12.17	Multi section Speed15	- 100.0 % ~ 10 0.0 %	0.0%	※
F 12.18	Simple plc No. 0 Running time	0.0s (h) ~ 65 00.0s (h)	0.0s(h)	※
F 12.19	Simple plc No. 0 section acceleration and deceleration Select between	0 ~ 3	0	※
F 12.20	Simple PLC 1th Running time	0.0s (h) ~ 65 00.0s (h)	0.0s(h)	※
F 12.21	Simple plc 1th section acceleration and deceleration time selection	0 ~ 3	0	※
F 12.22	Simple PLC 2nd Running time	0.0s (h) ~ 65 00.0s (h)	0.0s(h)	※
F 12.23	Simple plc 2nd section acceleration and deceleration time selection	0 ~ 3	0	※
F 12.24	Simple PLC 3rd Running time	0.0s (h) ~ 65 00.0s (h)	0.0s(h)	※

Function Code	Name	Set Range	Factory value	Change
F 12. 2 5	Simple plc 3rd section acceleration and deceleration time selection	0 ~ 3	0	※
F 12. 2 6	Simple PLC 4th Running time	0. 0s (h) ~ 65 00. 0s (h)	0.0s(h)	※
F 12. 2 7	Simple plc 4th section acceleration and deceleration time selection	0 ~ 3	0	※
F 12. 2 8	Simple PLC 5th Running time	0. 0s (h) ~ 65 00. 0s (h)	0.0s(h)	※
F 12. 2 9	Simple plc 5th section acceleration and deceleration time selection	0 ~ 3	0	※
F 12. 3 0	Simple PLC 6th Running time	0. 0s (h) ~ 65 00. 0s (h)	0.0s(h)	※
F 12. 3 1	Simple plc 6th section acceleration and deceleration time selection	0 ~ 3	0	※
F 12. 3 2	Simple PLC 7th Running time	0. 0s (h) ~ 65 00. 0s (h)	0.0s(h)	※
F 12. 3 3	Simple plc 7th section acceleration and deceleration time selection	0 ~ 3	0	※
F 12. 3 4	Simple PLC 8th Running time	0. 0s (h) ~ 65 00. 0s (h)	0.0s(h)	※
F 12. 3 5	Simple plc 8th section acceleration and deceleration time selection	0 ~ 3	0	※
F 12. 3 6	Simple PLC 9th Running time	0. 0s (h) ~ 65 00. 0s (h)	0.0s(h)	※
F 12. 3 7	Simple plc 9th section acceleration and deceleration time selection	0 ~ 3	0	※
F 12. 3 8	Simple PLC 10th Running time	0. 0s (h) ~ 65 00. 0s (h)	0.0s(h)	※

Function Code	Name	Set Range	Factory value	Change
F 12. 3 9	Simple plc 10th section acceleration and deceleration time selection	0 ~ 3	0	※
F 12. 4 0	Simple PLC 11th Running time	0. 0s (h) ~ 65 00. 0s (h)	0.0s(h)	※
F 12. 4 1	Simple plc 11th section acceleration and deceleration time selection	0 ~ 3	0	※
F 12. 4 2	Simple PLC 12th Running time	0. 0s (h) ~ 65 00. 0s (h)	0.0s(h)	※
F 12. 4 3	Simple plc 12th section acceleration and deceleration time selection	0 ~ 3	0	※
F 12. 4 4	Simple PLC 13th Running time	0. 0s (h) ~ 65 00. 0s (h)	0.0s(h)	※
F 12. 4 5	Simple plc 13th section acceleration and deceleration time selection	0 ~ 3	0	※
F 12. 4 6	Simple PLC 14th Running time	0. 0s (h) ~ 65 00. 0s (h)	0.0s(h)	※
F 12. 4 7	Simple plc 14th section acceleration and deceleration time selection	0 ~ 3	0	※
F 12. 4 8	Simple PLC 15th Running time	0. 0s (h) ~ 65 00. 0s (h)	0.0s(h)	※
F 12. 4 9	Simple plc 15th section acceleration and deceleration time selection	0 ~ 3	0	※
F 12. 5 0	Multi speed Time unit selection	0: s(SEC) 1: h(ho ur)	0	※

Function Code	Name	Set Range	Factory value	Change
F 12. 5 1	Multi-section speed 0 given way	0: Function code F12.02 set 1: Analog AI1 Set 2: Analog AI2 Set 5: PID set 6: Keyboard Frequency (F00.10) set, Up/down can be modified 7: Panel potentiometer settings	0	※
F 13 Communication Parameters				
F 13. 0 0	Local address	1 ~ 247, 0 for broadcast address	1	※
F 13. 0 1	Communication baud rate setting	0: 300bps 1: 600bps 2: 1200bps 3: 2400bps 4: 4800bps 5: 9600bps 6: 19200bps 7: 38400bps 8: 57600bps 9: 115200bps	5	※
F 13. 0 2	Data bit checksum settings	0: No checksum (8 - n - 2) 1: Parity (8 - E - L) 2: Parity (8 - O - 1) 3: 8 - N - 1	3	※
F 13. 0 3	Communication response delay	0m s ~ 20m s	20	※
F 13. 0 4	Communication Timeout Failure time	0. 0 (invalid) , 0. 1s ~ 60. 0s	0.0	※
F 13. 0 5	Data transfer Format Selection	0: Non-standard Modbus protocol 1: Standard Modbus protocol	1	※
F 13. 0 6	Communication Reading Current resolution	0: 0. 0 1A 1: 0. 1A	0	※

四. Troubleshooting and Maintenance

Display	Fault Name	Possible Causes	Solutions
E001	Bus under-voltage	1、instantaneous power failure 2、input voltage of the inverter is not within the specified requirements 3、bus voltage is abnormal 4、rectifier bridge and buffer resistance is abnormal 5、drive board is abnormal 6、main control board is abnormal	1、fault reset 2、adjust to normal voltage 3、seek technical support 4、seek technical support 5、seek technical support 6、seek technical support
E002	Over-voltage During acceleration	1、input voltage is too high 2、external force dragging motor running in the process of acceleration 3、acceleration time is too short 4、have no install brake unit or brake resistance	1、adjust to normal voltage 2、cancel external force or add a brake resistance 3、increase acceleration time 4、install brake unit or brake resistance
E003	Over-voltage at constant speed running	1、input voltage is too high 2、external force dragging motor running in the process of running	1、adjust to normal voltage 2、cancel external force or add a brake resistance
E004	Over-current during acceleration	1、AC drive output circuit is ground or short circuit 2、no self-learning of motor parameter 3、acceleration time is too short 4、manual torque boost or V/F curve is not suitable 5、voltage is too low 6、start rotating motor 7、additional load when acceleration 8、AC drive type is too small	1、eliminate external faults 2、self-learning of motor parameter 3、increase acceleration time 4、adjust manual torque boost or V/F curve 5、adjust to normal voltage 6、speed tracking restart or start after motor stop 7、cancel additional load 8、select an AC drive of higher power class

Display	Fault Name	Possible Causes	Solutions
E005	Over-current During deceleration	1、 AC drive output circuit is ground or short circuit 2、 no self-learning of motor parameter 3、 deceleration time is too short 4、 voltage is too low 5、 additional load when deceleration 6、 have no install brake unit or brake resistance	1、 eliminate external faults 2、 self-learning of motor parameter 3、 increase deceleration time 4、 adjust to normal voltage 5、 cancel additional load 6、 install brake unit or brake resistance
E006	Over-current at constant speed running	1、 AC drive output circuit is ground or short circuit 2、 no self-learning of motor parameter 3、 voltage is too low 4、 additional load when running 5、 AC drive type is too small	1、 eliminate external faults 2、 self-learning of motor parameter 3、 adjust to normal voltage 4、 cancel additional load 5、 select an AC drive of higher power class.
E007	Motor overload	1、 Whether protection parameter F05.10 is suitable 2、 Whether load is too heavy or motor lock-rotor 3、 AC drive type is too small	1、 setting parameter correctly 2、 reduce the load and check the motor and mechanical condition. 3、 select an AC drive of higher power class.
E008	AC drive overload	1、 The load is too heavy or Locked rotor occurs on the motor. 2、 The AC drive model is of too small power class.	1、 reduce the load and check the motor and mechanical condition. 2、 select an AC drive of higher power class.
E00A	Overvoltage During deceleration	1、 The input voltage is too high 2、 An external force drives the motor during acceleration 3、 The acceleration time is too short. 4、 The braking unit and braking resistor are not installed	1、 adjust the voltage to normal range 2、 cancel the external force or install a braking resistor 3、 increase the acceleration time. 4、 install the braking unit and braking resistor
E00d	External equipment fault	external fault signal is input via S.	reset the operation

Display	Fault Name	Possible Causes	Solutions
E00E	Module overheat	<ol style="list-style-type: none"> 1、 the ambient temperature is too high. 2、 the air filter is blocked 3、 the fan is damaged 4、 the thermally sensitive resistor of the module is damaged 5、 the inverter module is 	<ol style="list-style-type: none"> 1、 lower the ambient temperature 2、 clean the air filter 3、 replace the damaged fan 4、 replace the damaged thermally sensitive resistor 5、 replace the inverter module.
E00F	EEPROM Read write fault	The EEPROM chip is damaged	Replace the main control board.
E012	Power input phase loss	<ol style="list-style-type: none"> 1、 the three-phase power input is abnormal 2、 the drive board is faulty. 3、 the lightning board is faulty 4、 the main control board is faulty 	<ol style="list-style-type: none"> 1、 eliminate external faults 2、 seek technical support 3、 seek technical support 4、 seek technical support
E013	Power output phase loss	<ol style="list-style-type: none"> 1、 the cable connecting the AC drive and the motor is faulty 2、 the AC drive's three-phase outputs are unbalanced when the motor is running 3、 the drive board is faulty 4、 the module is faulty 	<ol style="list-style-type: none"> 1、 eliminate external faults 2、 check whether the motor three-phase winding is normal. 3、 seek technical support 4、 seek technical support
E015	Current Detection fault	<ol style="list-style-type: none"> 1、 the HALL device is faulty. 2、 the drive board is faulty 	<ol style="list-style-type: none"> 1、 replace the faulty HALL device 2、 replace the faulty drive board.
E016	Motor Self-learnin fault	<ol style="list-style-type: none"> 1、 the motor parameters are not set according to the nameplate 2、 the motor self-learning times out. 	<ol style="list-style-type: none"> 1、 set the motor parameters according to the nameplate properly. 2、 check the cable connecting the AC drive and the motor.
E017	Contactora fault	<ol style="list-style-type: none"> 1、 the drive board and power supply are faulty. 2、 the contactor is faulty. 	<ol style="list-style-type: none"> 1、 replace the faulty drive board o power supply board. 2、 replace the faulty contactor.
E018	Communication fault	<ol style="list-style-type: none"> 1、 the host computer is in abnormal state 2、 the communication cable is faulty. 3、 the communication parameters in group F13 are set improperly 	<ol style="list-style-type: none"> 1、 check the cabling of host computer 2、 check the communication cabling. 3、 set the communication parameters properly

Display	Fault Name	Possible Causes	Solutions
E020	Retain 1		seek technical support
E023	Short circuit to ground	The motor is short circuited to the ground.	Replace the cable or motor
E029	Retain 2		seek technical support
E02E	PID feedback lost during running	The PID feedback is lower than the setting of F10.26	Check the PID feedback signal or set F10.26 to a proper value
E030	Load becoming 0	The AC drive running current is lower than F05.13	Check that the load is disconnected or the setting of F05.13 and F05.14 is correct
E032	Pulse-by-pulse current limit fault	1、 the load is too heavy or locked rotor occurs on the motor. 2、 the AC drive model is too small power class.	1、 reduce the load and check the motor and mechanical condition 2、 select an AC drive of higher power class
E033	AC drive hardware fault	1、 overvoltage exists 2、 overcurrent exists	1、 handle based on overvoltage 2、 handle based on overcurrent
E034	Too large speed deviation	1、 the encoder parameters are set incorrectly. 2、 the motor self-learning is not performed. 3、 F05.17 and F05.18 are set incorrectly	1、 set the encoder parameters properly. 2、 perform the motor self-learning 3、 set F05.17 and F05.18 correctly based on the actual situation.
E035	Motor over-speed	1、 the encoder parameters are set incorrectly 2、 the motor self-learning is not performed 3、 F05.15 and F05.16 are set incorrectly	1、 set the encoder parameters properly 2、 perform the motor self-learning 3、 set F05.15 and F05.16 correctly based on the actual situation.
E036	Motor overheat	1、 the cabling of the temperature sensor becomes loose. 2、 the motor temperature is too high.	1、 check the temperature sensor cabling and eliminate the cabling fault 2、 lower the carrier frequency or adopt other heat radiation measures.
E037	Initial position fault	The motor parameters are not set based on the actual situation	Check that the motor parameters are set correctly and whether the setting of rated current is too small.

Display	Fault Name	Possible Causes	Solutions
E038	Motor switchover fault during running	Change the selection of the motor via terminal during running of the AC drive.	Perform motor switchover after the AC drive stops

APPENDIX: Accessories

1. Braking Resistors & Braking Units Use in AC Drives

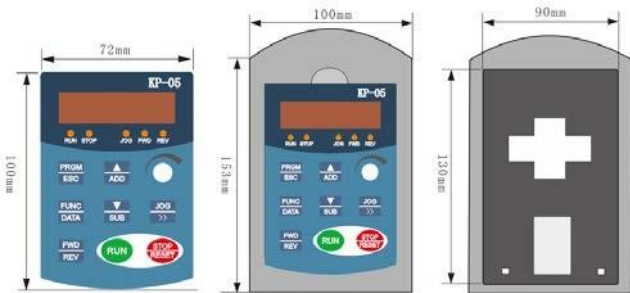
220V voltage class		380V voltage class	
Rated power	Braking resistor	Rated power	Braking resistor
0.55KW	120 Ω /80W	0.75KW	300 Ω /150W
0.75KW	120 Ω /80W	1.5KW	300 Ω /200W
1.5KW	100 Ω /150W	2.2KW	200 Ω /200W
2.2KW	68 Ω /300W	3.7KW	150 Ω /400W
3.7KW	68 Ω /300W	5.5KW	100 Ω /400W
5.5KW	30 Ω /400W	7.5KW	75 Ω /750W

Note::

- 1) Please only use the resistors and re commended values.
- 2) Take in to consideration the safe ty of the environment when installing the braking resistors.
- 3) If the minimum resistance value is to be utilized, consult local dealers for the calculation of the Watt figures.

2. Display panel (KP-05)

The Apparatus Size of the Digital Hand-Held Programming Panel.



Hole diameter of the panel installation box (height* width) : 130* 90mm

Size of outline box: 153* 100mm

1) Standard Extension Cable:

SN	Specification model	Length
1	ET-WX0150	1.5m
2	ET-WX0200	2.0m
3	ET-WX0300	3.0m
4	ET-WX0400	4.0m
5	ET-WX0500	5.0m

※For more specifications, please consult our company

2) Panel adapter board (A-TB-03)



