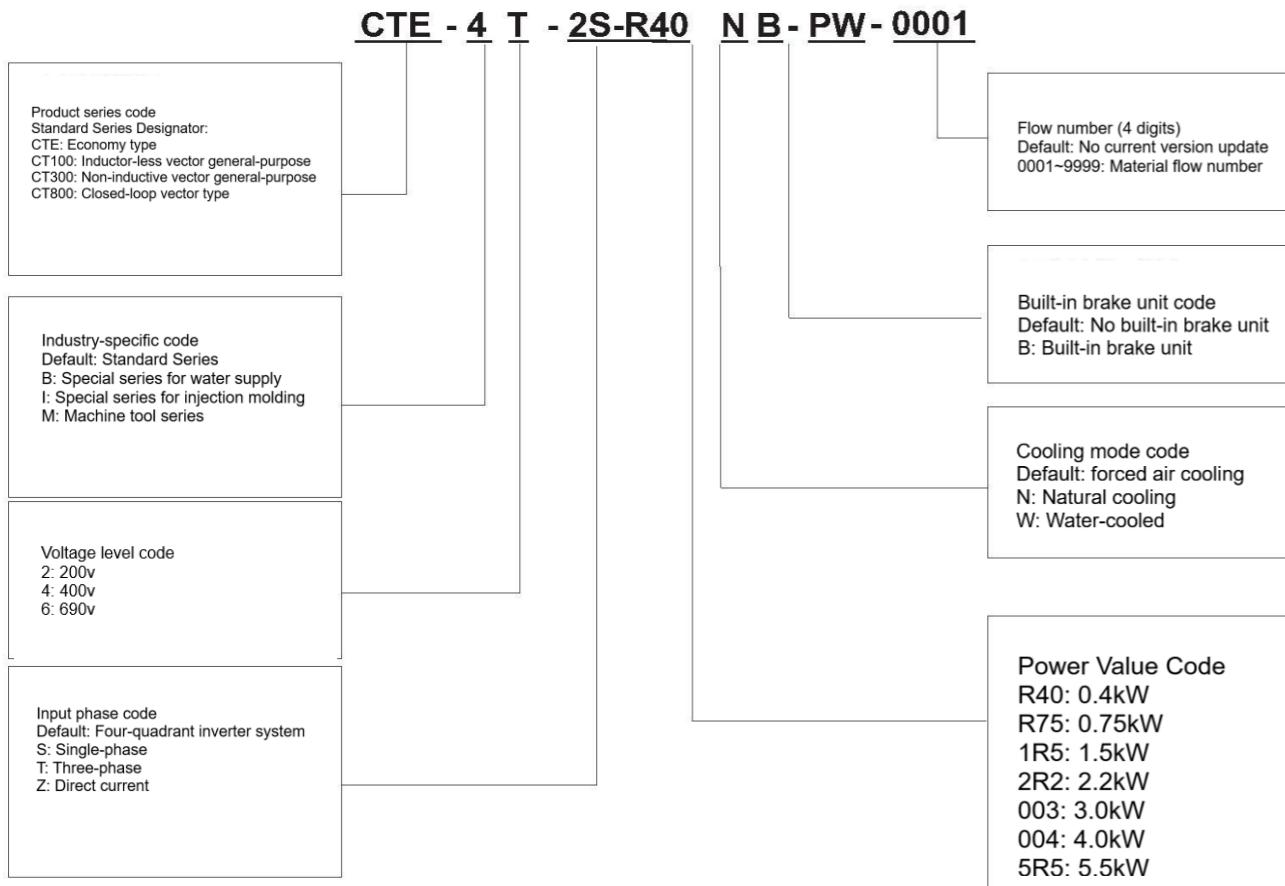


# CTE Series Inverter Simplified Manual

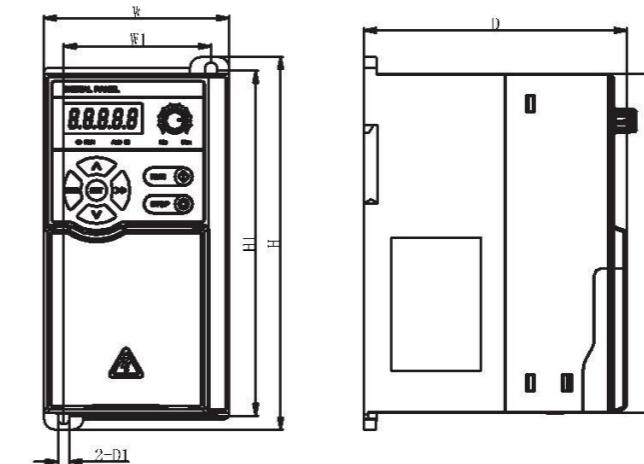
Product naming rules:



## CTE Product Models and Technical Data

Model Number	Input Current		Output Current		Adapted motor
	A	A	kW	Brake unit	
<b>220V voltage level series products</b>					
CTE-2S-R40B	5.4	2.8	0.4	<b>Built-in</b>	
CTE-2S-R75B	8.2	4.8	0.75	<b>Built-in</b>	
CTE-2S-1R5B	14.0	8	1.5	<b>Built-in</b>	
CTE-2S-2R2B	23.0	10	2.2	<b>Built-in</b>	
CTE-2S-003B	29.0	13	3.0	<b>Built-in</b>	
CTE-2S-004B	29.0	17	4.0	<b>Built-in</b>	
<b>380V voltage level series products</b>					
CTE-4T-R75B	5.3	2.5	0.75	<b>Built-in</b>	
CTE-4T-1R5B	7.1	4.2	1.5	<b>Built-in</b>	
CTE-4T-2R2B	9	5.6	2.2	<b>Built-in</b>	
CTE-4T-004B	15	9.4	3.7	<b>Built-in</b>	
CTE-4T-5R5B	22	13	5.5	<b>Built-in</b>	

CTE series products appearance and installation hole size (mm)



Model	Outer Dimension						Fixing hole	Weight
	W1	H1	H	H2	W	D		
CTE-2S-R40B								
CTE-2S-R75B								
CTE-2S-1R5B	67.5	160	170	/	84.5	129	ø4.5	1.0
CTE-2S-2R2B								
CTE-4T-R75B								
CTE-4T-1R5B								
CTE-4T-2R2B								
CTE-2S-003B								
CTE-2S-004B	85	185	194	/	97	143.5	ø5.5	1.4
CTE-4T-004B								
CTE-4T-5R5B								

## CTE series control terminal function description

Category	Terminal Symbol	Terminal Name	Function Description
Power Supply	+10V-GND	External +10V power supply	Provide +10V external power supply, maximum output current: 10mA Used as external potentiometer working power supply, resistance range: 1kΩ~50kΩ
Analog Inputs	AI1-GND	Analog input terminal 1	Input voltage: DC 0V~10V/4mA~20mA, input impedance 100K.
	Xi- GND	Digital input I(i=1-5)	1、Optical coupling isolation, compatible with bipolar input 2、Input impedance: 4.7kΩ 3、Voltage range at level input: 9V~30V
Analog Output	AO1-GND	Analog output	The voltage or current output is selected by the AO1 jumper on the control board. Output voltage range: 0V~10V, output current range: 0mA~20mA
Digital Output	Y-GND	Digital output (compatible with High-speed output)	Optical coupled isolation, bipolar open collector output Output voltage range: 0V~24V, output current range: 0mA~50mA
Relay Output	RA-RB	Normally closed terminal	Contact driving capacity: AC250V,3A; DC 30V,3A.
	RA-RC	Normally open terminals	

## Function parameter table

**F7-11 is set to non-0 value, that is, the parameter protection password is set, after exit, press the confirmation key, it will display "0.0.0.0."**

**Prompt to enter the user password, you must enter the password correctly to enter, cancel the password, you need to set F7-11 to 0.**

F0-F9, FA, FB, FC, FD groups are basic function parameters, and UO group is monitoring function parameters. The symbols in the function table are explained as follows.

“√” : means the setting value of the parameter can be changed when the inverter is in stopping or running state;

“×” : means the setting value of the parameter cannot be changed when the inverter is in running state.

“○” : means that the parameter is the actual test record value and cannot be changed.

Function Code	Name	Setting range	Factory	Change
<b>F0 basic function group</b>				
F0-01	Motor control mode	2: V/F control	2	×
F0-02	Run command channel selection	0: Operator panel command channel (LED off) 1: Terminal command channel (LED on) 2: Communication command channel (LED blinks, address 2000H)	0	√
F0-03	Main frequency source A selection	0: Digital setting (preset frequency F0-08, UP/ DOWN can be modified, power down is not remembered) 1: Digital setting (preset frequency F0-08, UP/ DOWN can be modified, power down memory) 2: AI1 4: Keyboard potentiometer 6: Multi -segment command 7: Simple PLC 8: PID 9: Communication setting (address 1000H)	4	×
F0-04	Auxiliary frequency source B selection	0: Digital setting (preset frequency F0-08, UP/ DOWN cannot be modified, power down is not remembered) 1: Digital setting (preset frequency F0-08, UP/ DOWN cannot be modified, power down memory) 2:AI1 4: Keyboard potentiometer 6: Multi -segment command 7: Simple PLC 8: PID 9: Communication to give (address 1000H)		

F0-05	Auxiliary frequency source B reference pair selection during superposition	0: Relative to the maximum frequency 1: Relative to the frequency source A	0	√
F0-06	Auxiliary frequency source B range for superposition	0%~150%	100%	√
F0-07	Frequency source superposition selection	Individual bits: Frequency source selection 0: Main frequency source A 1: Result of main and auxiliary operation (The arithmetic relationship is determined by the tens digit) 2: Main frequency source A and auxiliary frequency source B switch (terminal function 18) 3: Main frequency source A and main auxiliary operation result switch (terminal function 18) 4: Auxiliary frequency source B and main auxiliary operation result switch (terminal function 18) 10 bits: frequency source main and auxiliary operation relationship 0: Main + Auxiliary 1: Main - auxiliary 2: The maximum value of both 3: The minimum value of both	02	√
F0-08	Preset frequency	0.00Hz ~ maximum frequency(F0-10)	50.00Hz	√
F0-09	Operation direction adjustment	0:direction consistent      1:direction opposite	0	√
F0-10	maximum frequency	50.00Hz~300.00Hz	50.00Hz	×
F0-11	Upper limit frequency source	0: F0-12 setting 1: AI1 3: Keypad potentiometer	0	×
F0-12	Upper limit frequency	Lower frequency F0-14 ~ Maximum frequency F0-10	50.00Hz	√
F0-13	Upper limit frequency Offset	0.00Hz ~ Maximum frequency F0-10	0.00Hz	√
F0-14	lower limit frequency	0.00Hz ~ Upper limit frequency F0-12	0.00Hz	√
F0-15	Carrier frequency setting	0.75kHz ~ 14.0kHz (Maximum carrier is related to the model)	Model determination	√
F0-16	Carrier adjustment with temperature	0: Invalid; 1: Valid	1	√
F0-17	Acceleration time 1	0.00s~32000s	Model determination	√
F0-18	Deceleration time 1	0.00s~32000s	Model determination	√
F0-19	Acceleration and deceleration time unit	1:0.1 s; 2: 0.01s	1	×
F0-22	Frequency command resolution	1:0.1Hz; 2: 0.01Hz	2	×
F0-23	Digital setting UPDN frequency stop memory selection	0: No memory; 1: Memory	1	√
F0-25	Acceleration and deceleration time reference frequency	0: Maximum frequency (F0-10) 1: Set frequency 2: 100Hz	0	×

F0-27	Command source bundle frequency sourc	Individual: Operation panel command binding frequency source selection 0: No binding 1: Digital set frequency 2:AI1 4: Keyboard potentiometer 6: Multi -segment speed 7: Simple PLC 8: PID 9: Communication given 10 bits: Terminal command binding frequency source selection Hundred bits: communication command binding frequency source selection Thousand bits: Automatic operation binding frequency source selection	0000	√
<b>F1 group motor 1 parameters</b>				
F1-00	Motor type selection	0: Normal asynchronous motor	0	✗
F1-01	Motor rated power	0.1kW~1000.0kW	Model determination	✗
F1-02	Motor rated voltage	1V~1000V	Model determination	✗
F1-03	Motor rated current	0.01A ~ 320.00A( Inverter power <=55kW) 0.1A ~ 3200.0A( Inverter power>55kW)	Model determination	✗
F1-04	Motor rated frequency	1.00Hz~~maximum frequency	50.00Hz	✗
F1-05	Motor rated speed	1rpm~32000rpm	1460rpm	✗
<b>F3 group V/F control parameters</b>				
F3-00	VF curve setting	0: Linear V/F 1: Multi-point V/F (F3-03 to F3-08) 2: Square V/F	0	✗
F3-01	Torque Boost	0.0%:(Automatic torque boost) 0.1% to 30.0%	Model determination	√
F3-02	Torque boost cut-off frequency	0.00Hz ~ maximum frequency	50.00Hz	✗
F3-03	Multi-point VF frequency value F1	0.00Hz~F3-05	5.00Hz	✗
F3-04	Multi-point VF frequency value F1	0.0%~100.0%	15.0%	✗
F3-05	Multi-point VF voltage value V1	F3-03~F3-07	17.50Hz	✗
F3-06	Multi-point VF voltage value V2	0.0%~100.0%	45.0%	✗
F3-07	Multi-point VF frequency value F3	F3-05 ~ Motor rated frequency (F1-04)	35.00Hz	✗
F3-08	Multi-point VF voltage value V3	0.0%~100.0%	80.0%	✗
F3-09	VF Differential Compensation Factor	0.0%~200.0%	0.0%	√
F3-10	VF overexcitation gain	0~200	32	√

F3-14	AVR automatic voltage stabilization function selection	0: Invalid 1: Valid throughout 2: Invalid only when deceleration	0	√
<b>F4 group input terminals</b>				
F4-00	x1 terminal function selection	0: No function	1	✗
F4-01	x2 terminal function selection	1: Forward operation (FWD) 2: Reverse rotation operation (REV) 3: Three-wire operation control 4: Forward jogging (FJOG) 5: Reverse Jog (RJOG) 6: Terminal UP 7: Terminal DOWN	2	✗
F4-02	x3 terminal function selection	8: All channels free stop 9: Fault reset (RESET) 10: Operation pause 11: External fault normally open input 12: Multi -segment command terminal 13: Multi -segment command terminal 14: Multi -segment command terminal 15: Multi -step command terminal 4 16: Acceleration/deceleration time selector terminal 17: Acceleration/deceleration time selection terminal 2 18: Frequency source switching (F0-07 is valid for 2, 3 and 4 bits) 19: UP/DOWN setting clear (terminal, keyboard) 20: Control command switch terminal 1 (F0-02 for terminal communication channel, switch to keyboard control when closed) 21: Acceleration and deceleration prohibition 22: PID pause 23: PLC state reset 25: Counter input 26: Counter reset 32: Immediate DC brake 33: External fault normally closed input (E-15 emergency stop) 34: Frequency modification disable 35: PID direction reversal 36: External stop terminal 1 (only valid for keyboard control, the terminal is closed to stop, equivalent to the STOP key function on the keyboard) 37: Control command switch terminal 2 (F0-02 for terminal control, the terminal closed switch for communication control; F0-02 for communication control, the terminal closed switch for terminal control, F7-01 = 1, the terminal closed invalid) 39: Frequency source A and digital frequency (B0.08) switching 40: Frequency source B and digital frequency (B0.08) switching	9	✗
F4-03	x4 terminal function selection	0: Terminal UP	0	✗
F4-04	Reserved	0: All channels free stop 9: Fault reset (RESET) 10: Operation pause 11: External fault normally open input 12: Multi -segment command terminal 13: Multi -segment command terminal 14: Multi -segment command terminal 15: Multi -step command terminal 4 16: Acceleration/deceleration time selector terminal 17: Acceleration/deceleration time selection terminal 2 18: Frequency source switching (F0-07 is valid for 2, 3 and 4 bits) 19: UP/DOWN setting clear (terminal, keyboard) 20: Control command switch terminal 1 (F0-02 for terminal communication channel, switch to keyboard control when closed) 21: Acceleration and deceleration prohibition 22: PID pause 23: PLC state reset 25: Counter input 26: Counter reset 32: Immediate DC brake 33: External fault normally closed input (E-15 emergency stop) 34: Frequency modification disable 35: PID direction reversal 36: External stop terminal 1 (only valid for keyboard control, the terminal is closed to stop, equivalent to the STOP key function on the keyboard) 37: Control command switch terminal 2 (F0-02 for terminal control, the terminal closed switch for communication control; F0-02 for communication control, the terminal closed switch for terminal control, F7-01 = 1, the terminal closed invalid) 39: Frequency source A and digital frequency (B0.08) switching 40: Frequency source B and digital frequency (B0.08) switching	0	✗

F4-11	Terminal command mode	<p>0: Two-wire type1 (Forward terminal forward operation, reverse terminal reverse operation)</p> <p>1: Two-wire type 2 (Forward terminal controls start/stop, reverse terminal selects direction)</p> <p>2: Three-wire type 1 (Forward terminal pulse start forward operation, reverse terminal pulse start reverse operation, 3-wire terminal normally closed)</p> <p>3: Three-wire type 2 (Forward terminal pulse start/stop operation, reverse terminal select direction, three-wire terminal normally closed)</p> <p>0.01Hz/s ~ 100.00Hz/s 0.00V ~ F4-15</p> <p>-100.0% ~ +100.0% F4-13+10.00v-100.0% ~ +100.0% - 20</p>	0	×
F4-12	Terminal command mode	0.01Hz/s~100.00Hz/s	2.00Hz/s	✓
F4-13	AI1 minimum input	0.00V~F4-15	0.10V	✓
F4-14	AI1 Minimum input corresponding setting	-100.0%~+100.0%	0.0%	✓
F4-15	AI1 maximum input	F4-13~+10.00V	9.90V	✓
F4-16	AI1 maximum input corresponds to setting	-100.0%~+100.0%	100.0%	✓
F4-17	AI1 filter coefficient	0~20	3	✓
F4-34	AI1 lower than minimum input setting selection	0: Corresponds to the minimum input setting 1: 0.0%	0	✓
	<b>F5 group output terminal</b>			
F5-01	Open collector Y output function selection (F5-00=1 valid)	0: No output 1: Inverter is running 2: Fault output (fault stop)	0	✓
F5-02	Relay RA-RB-RC Function selection	<p>3: Frequency level detection FDT1 output</p> <p>4: Frequency reached</p> <p>5: Zero speed operation (no output when stopping)</p> <p>8: Set value reached</p> <p>9: Specified value reached</p> <p>11: PLC cycle completed</p> <p>13: Frequency limit in progress</p> <p>15: Ready for operation</p> <p>17: Upper limit frequency reached</p> <p>18: Lower limit frequency reached (operation related)</p> <p>19: Undervoltage status output</p> <p>20: Communication setting (address 2000H)</p> <p>24: Accumulated power-on time reached</p> <p>33: Reverse operation in progress</p> <p>35: Module temperature reached</p> <p>36: Output current over limit</p> <p>37: Lower frequency limit reached (shutdown also output)</p>	2	✓

		41: Fault output (undervoltage is not output) 42: Multi -stage frequency arrival output (no action at 0 stage) 45: PLC stage finished output 47: At least one multi-speed terminal is closed 48: Forward running (excluding pointing forward) 49: Reversing operation (not including point reversing) 50: Pointing operation 51: In operation (non-point-action operation)		
F5-06	Reserved	0: Operating frequency (10V corresponds to the maximum frequency) 1: Set frequency (10V corresponds to the maximum frequency)	0	✓
F5-07	AO1 output function selection	2: Output current (10V corresponds to 2 times the rated motor current)	0	✓
F5-08	Reserved	3: Reserved 4: Reserved 5: Output voltage (10V corresponds to 1.2 times the rated voltage of the inverter)	1	✓
F5-13	AO1 maximum output voltage	0.00V~10.00V	10.00V	✓
F5-14	AO1 upper limit percent	0.0%~100.0%	100.0%	✓
F5-15	AO1 minimum output voltage	0.00V~10.00V	0.00V	✓
F5-16	AO1 lower limit percentage	0.0%~100.0%	0.0%	✓
F5-21	Lower than lower output limit selection	0: Output OV; 1: Output lower limit	1	✓
F5-22	Digital output specified value	<b>O: closed; 1: open</b>	1	✓
F5-23	AO1 output percentage specified value	0.0%~100.0%	0.0%	✓
F5-32	Digital terminal logic output inverse	Unit digit: Y open collector Ten bits: Relay RA RB RC. 0: no inverse; 1: inverse	000	✗
<b>F6 group start/stop control</b>				
F6-00	Start-up method	0: Direct start 1: Reserved 2: DC brake start	0	✓
F6-03	Start frequency	0.00Hz~10.00Hz	0.00Hz	✓
F6-04	Start frequency hold time	0.000s~32.000s	0.0s	✗
F6-05	Start DC braking current	0% ~ 100% Relative motor rated current	0%	✗
F6-06	Start DC braking time	0.000s~32.000s	0.0s	✗
F6-10	Normal stop mode	<b>O: Deceleration stop 1: Free stop</b>	0	✓
F6-11	Stop DC braking starting frequency	<b>0.00Hz ~ maximum frequency</b>	0.00Hz	✓
F6-12	Stop DC braking waiting time	0.000s~32.000s	0.0s	✓
F6-13	Stop DC braking current	0% ~ 100% relative to motor rated current	0%	✓
F6-14	Stop DC braking time	0.000s~32.000s	0.0s	✓
F6-16	Continued operation enable after automatic reset	<b>O: Not enabled; 1: Enabled</b>	1	✓
F6-18	Tap stop mode	<b>O: Deceleration stop 1: Free stop</b>	0	✓

F7 group keyboard and display				
F7-01	QUICK key function selection	0: Keypad invalid 1: Switching between operation panel command channel and remote command channel (Terminal command channel or communication command channel) 2: Forward and reverse rotation switching 3: Forward rotation pointing 4: Reverse rotation pointing	2	✗
F7-02	STOP/RESET key function	0: Only in the keyboard operation mode, STOP/RESET key stop function is effective 1: STOP/RESET key stop function is valid under any operation mode (Free stop in case of terminal or communication control) 2: Under any channel, it is valid (when the terminal or communication channel, EO37 keyboard stop fault is reported)	0	✓
F7-03	LED operation display parameters	00: Operating frequency 01: Set frequency	0	✓
		02: Bus voltage 03: Output voltage 04: Output current 07:X digital input terminal status 08: Y digital output terminal status 09:AI1 voltage(V) 11: Reserved 12: Count value 14: Load speed display 15: PID setting 16: PID feedback 17: PLC stage		
F7-05	LED stop display parameter	Same as F7-03	1	✓
F7-06	Load speed display coefficient	0.001~32.000	1.000	✓
F7-07	Inverter module heat sink temperature	0.0°C~100.0°C	-	○
F7-10	Braking voltage action point	100% ~ 160% standard bus voltage	128%	✓
F7-11	User password	0~32766	0	✓
F7-13	Accumulated power-up time	0h~32767h	-	○

F8 group auxiliary function				
F8-00	Tap operation frequency	0.00Hz ~ maximum frequency	2.00Hz	✓
F8-01	Point-activated acceleration time	0.0s~3200.0s	20.0s	✓
F8-02	Tap deceleration time	0.0s~3200.0s	20.0s	✓
F8-03	Acceleration time 2	0.0s~3200.0s	Model determination	✓
F8-04	Deceleration time 2	0.0s~3200.0s	Model determination	✓
F8-05	Acceleration time 3	0.0s~3200.0s	Model determination	✓
F8-06	Deceleration time 3	0.0s~3200.0s	Model determination	✓
F8-07	Acceleration time 4	0.0s~3200.0s	Model determination	✓
F8-08	Deceleration time 4	0.0s~3200.0s	Model determination	✓
F8-12	Forward and reverse dead time	0.0s~3000.0s	0.0s	✓
F8-13	Reverse control enabled	<b>O: Allowed 1: Prohibited</b>	0	✓
F8-14	Set frequency below lower limit frequency operation mode	0: Operate at the lower frequency limit 1: Standby operation, no voltage output 2: Zero speed operation with certain DC voltage	0	✓
F8-15	Sag control	0.00Hz~10.00Hz	0.00Hz	✓
F8-16	Set cumulative power-up arrival time	0h~32000h	0h	✓
F8-18	Terminal operation protection selection	Unit digit: Power on start protection 0: No protection 1: Protection Hundred bits: normal power on after running protection 0: No protection1: Protection	000	✗
F8-19	Frequency detection value (FDT1)	0.00Hz ~ maximum frequency	50.00Hz	✓
F8-20	Frequency detection hysteresis value (FDT1)	0.0% ~ 100.0%(FDT1 level)	5.0%	✓
F8-21	Frequency arrival checkout width	0.0%~100.0% (Max. frequency)	5.0%	✓
F8-23	Fan operation mode	0: Always running;1: Fan running when inverter is running	1	✓
F8-36	Output current overrun value	0.0% (No detection) 0.1% ~ 300.0%(motor rated current)	200.0%	✓
F8-37	Output current overrun detection delay time	0.00s~60.00s	0.00s	✓

F8-54	<b>Set count value</b>	1~32000	1000	✓
F8-55	<b>Specify the count value</b>	1~32000	1000	✓
<b>Group F9 Fault and protection</b>				
F9-00	Motor overload protection selection	<b>O: Prohibited 1: Allowed</b>	1	✓
F9-01	Motor overload protection factor	20.0%~125.0%	100.0%	✓
F9-03	Overtoltage stall gain	0~100	0	✓
F9-04	Overtoltage stall protection voltage	115%~150%	135%	✓
F9-05	<b>Overspeed gain</b>	0~100	20	✓
F9-06	Over-speed protection current	100.0%~210.0%	165.0%	✓
F9-09	Fault automatic reset times	0~20	0	✓
F9-10	Fault auto-reset interval time			
	First fault type	<b>0: No action:1: Action</b>	0	✓
F9-11	Second fault type	0.100s~32.000s	1.000s	✓
F9-14	Fault during automatic fault reset	—	○	
F9-15	Output terminal action selection	—	○	
F9-16	<b>Third (last) fault type</b>	—	○	
	0: No fault			
	1: IGBT short-circuit fault			
	2: Acceleration overcurrent			
	3: Deceleration overcurrent			
	4: Constant speed overcurrent			
	5: Acceleration overvoltage			
	6: Deceleration overvoltage			
	7: Constant speed overvoltage			
	8: Stop overvoltage			
	9: Undervoltage			
	10: Inverter overload			
	11: Motor overload			
	14: Module overheating			
	15: External fault			
	16: Communication abnormality			
	21: Parameter read/write abnormality			
	22: Inverter hardware abnormality (clear latch timeout)			
	29: Power-up time reached			
	31: PID feedback disconnection fault			
	32: PID feedback too large (over-voltage) fault			
	37: Keyboard STOP key stop fault			
	41: Automatic reset times exceeded limit			
F9-17	<b>Frequency at the third (most recent) fault</b>	—	—	○
F9-18	<b>Current at third (last) fault</b>	—	—	○
F9-19	<b>Busbar voltage at the third (most recent) fault</b>	—	—	○
F9-23	<b>Accumulated power-up time at the third (most recent) fault</b>	—	—	○
F9-27	<b>Frequency at second fault</b>	—	—	○
F9-28	<b>Current at second fault</b>	—	—	○

F9-29	<b>Busbar voltage at the second fault</b>	—	—	○
F9-33	<b>Accumulated time on power at second fault</b>	—	—	○
F9-37	<b>Frequency at first fault</b>	—	—	○
F9-38	<b>Current at first fault</b>	—	—	○
F9-39	<b>Bus voltage at first fault</b>	—	—	○
F9-43	<b>Cumulative power-up time at first fault</b>	—	—	○
<b>FA group PID function</b>				
FA-00	<b>PID source</b>	0: FA-01 setting 1:AI1 3: Keypad potentiometer	0	✓
FA-01	<b>PID value setting</b>	0.00kg~FA.04 (Automatically change to 0 when changing the pressure gauge range)	0.00Kg	✓
FA-02	<b>PID feedback source</b>	0: AI1 2: Keypad potentiometer	0	✓
FA-03	<b>PID action direction</b>	0: positive action;1: negative action	0	✓
FA-04	<b>Pressure gauge range</b>	0.00~99.99kg When the pressure gauge 1.0MFA set FA-04= 10.00kg Pressure gauge 1.6MFA when setting FA-04= 16.00kg	16.00 Kg	✗
FA-05	<b>Proportional gain</b>	0 ~ 32000(The larger the value, the faster the adjustment speed)	800	✓
FA-06	<b>Integral gain</b>	0~32000 (The larger the value, the faster the adjustment speed)	1500	✓
FA-09	<b>PID deviation limit</b>	0.0%~100.0%	0.0%	✓
FA-10	<b>Wake-up pressure deviation percentage</b>	0.0%~100.0%	80.0%	✓
FA-11	<b>Wake-up delay time</b>	0.0s~600.0s	2.0s	✓
FA-12	<b>Hibernation frequency</b>	0.00HZ~maximum frequency. 0.00HZ without dormancy. During the operation of the inverter, when the operating frequency is less than or equal to FA-12 sleep frequency, after FA-13 delay time, the inverter enters the sleep state; if the feedback pressure is less than (pressure set value * FA-10), the wake-up timing is performed, and when the wake-up timing exceeds FA.11 wake up delay time, the inverter exits the sleep state and starts PID frequency regulation again. 0.0s~600.0s	0.00HZ	✓
FA-13	<b>Hibernation delay time</b>		10.0s	✓
FA-24	<b>PID feedback over detection value</b>	0.0%100.0% (100.0% not detected) If the feedback pressure is continuously higher than FA-24 and the time exceeds FA-25, E032 feedback is too large or overpressure fault is reported.	100.0%	✓
FA-25	<b>PID feedback over detection time</b>	0.0s~600.0s	1.0s	✓
FA-26	<b>PID feedback disconnection detection value</b>	If the feedback pressure is lower than FA-26 and the time is longer than FA-27, E031 will report the feedback disconnection fault.	0.0%	✓
FA-27	<b>PID feedback disconnection detection time</b>	0.0s~600.0s	3.0s	✓

FC group multi-segment instruction, simple PLC				
FC-00	Multi-segment instruction 0	-100.0%~100.0%	0.0%	✓
FC-01	Multi-segment instruction 1	-100.0%~100.0%	0.0%	✓
FC-02	Multi-segment instruction 2	-100.0%~100.0%	0.0%	✓
FC-03	Multi-segment instruction 3	-100.0%~100.0%	0.0%	✓
FC-04	Multi-segment instruction 4	-100.0%~100.0%	0.0%	✓
FC-05	Multi-segment instruction 5	-100.0%~100.0%	0.0%	✓
FC-06	Multi-segment instruction 6	-100.0%~100.0%	0.0%	✓
FC-07	Multi-segment instruction 7	-100.0%~100.0%	0.0%	✓
FC-08	Multi-segment instruction 8	-100.0%~100.0%	0.0%	✓
FC-09	Multi-segment instruction 9	-100.0%~100.0%	0.0%	✓
FC-10	Multi-segment instruction 10	-100.0%~100.0%	0.0%	✓
FC-11	Multi-segment instruction 11	-100.0%~100.0%	0.0%	✓
FC-12	Multi-segment instruction 12	-100.0%~100.0%	0.0%	✓
FC-13	Multi-segment instruction 13	-100.0%~100.0%	0.0%	✓
FC-14	Multi-segment instruction 14	-100.0%~100.0%	0.0%	✓
FC-15	Multi-segment instruction 15	-100.0%~100.0%	0.0%	✓
FC-16	Simple PLC operation mode	0: Stop at the end of a single run 1: Single run end hold final value 2: Always cycle	0	✓
FC-17	Simple PLC power-down record billion selection	Unit digit: Power down memory selection 0: No memory for power failure; 1: Memory for power failure Ten digits: Stop memory selection 0: Stop without memory; 1: Stop memory	0	✓
FC-18	PLC section 0 running time	0.0s~3200.0	0.0	✓
FC-19	The 0th segment acceleration and deceleration time selection	0~3	0	✓
FC-20	PLC segment 1 run time	0.0s~3200.0	0.0	✓
FC-21	1st acceleration and deceleration time	0~3	0	✓
FC-22	Select PLC 2nd run time	0.0~3200.0	0.0	✓
FC-23	2nd acceleration/deceleration time selection	0~3	0	✓
FC-24	PLC section 3 running time	0.0s~3200.0	0.0	✓
FC-25	3rd acceleration/deceleration time selection	0~3	0	✓
FC-26	PLC section 4 running time	0.0~3200.0	0.0	✓
FC-27	Selection of acceleration and deceleration time of the 4th stage	0~3	0	✓
FC-28	PLC section 5 running time	0.0~3200.0	0.0	✓

FD group communication parameter				
FD-00	Communication baud rate	4: 4800BPS 5: 9600BPS 6: 19200BPS 7: 38400BPS 8: 57600BPS	5	✓
FD-01	Data format	0: No parity(8-N-2) 1: Even parity(8-E-1) 2: Odd parity (8-O-1) 3: 8-N-1	0	✓
FD-02	Local address		1	✓
FD-03	Answer delay	0ms~1000ms	2	✓

FD-04	Communication timeout time		0.000	✓
FD-06	Communication reading current resolution	0:0.01A; 1:0.1A	1	✓
FP-00	Program version			○
FP-01	Parameter initialization	0: No operation 1: Restore factory parameters, not including motor parameters 2: Clear the fault record 3: Restore all parameters, including motor parameters	0	✗
FP-04	Parameter lock	0: Parameters can be modified 1: Parameter lock, cannot be modified	0	✓
U group monitoring parameter table				
Function code	Name	Minimum unit		
U0-00	Operation frequency (Hz)	0.01Hz	7000H	
U0-01	Set frequency (Hz)	0.01Hz	7001H	
U0-02	Bus voltage(V)	0.1V	7002H	
U0-03	Output voltage(V)	1V	7003H	
U0-04	Output current(A)	0.1A	7004H	
U0-07	X terminal input status (decimal)	1	7007H	
U0-08	Y terminal output status (decimal)	1	7008H	
U0-09	AI1 voltage(V)	0.01V	7009H	
U0-11	Module temperature	0.1°C	700BH	
U0-12	Count value	1	700CH	
U0-14	Motor speed display	1 RPM	700EH	
U0-15	PID setting	0.01KG	700FH	
U0-16	PID feedback	0.01KG	7010H	
U0-17	Current PLC stage	1	7011H	
U0-19	Feedback speed (unit)	0.01Hz	7013H	
U0-21	AO1 output voltage	0.01V	7015H	
U0-25	Accumulated power-up time	1h	7019H	
U0-28	Communication setting value	1%	701CH	
U0-32	Current multi-stage speed	1	7020H	
U0-41	X terminal input status		7029H	
U0-42	Y terminal output status		702AH	
Fault Code	Fault display	Fault name	Cause	Countermeasures
02	E002	Acceleration overcurrent	Torque boost value too large for V/f control	Reduce the torque boost value
			Starting frequency is too large	Reduce the starting frequency value
			Acceleration time is too short	Extend the acceleration time
			Load is too heavy	Lighten the load
			Improper V/f curve during V/f control	Set the V/f curve correctly
			Output phase short circuit or short circuit to ground	Check motor wiring and output to ground impedance
03	E003	Deceleration overcurrent	Inertia of the load is too large	Use energy braking
			Deceleration time is too short	Extend deceleration time

			Low grid input voltage	Check grid voltage
			Output phase short circuit or short circuit to ground	Check motor wiring and output to ground impedance
04	E004	Constant velocity overcurrent	Overload	Lighten the load
			Inverter power level is too small	Select the appropriate inverter power
			Grid input voltage is low	Check grid voltage
			Output phase to phase short circuit or short circuit to ground	Check motor wiring and output impedance to ground
05	E005	Accelerated overpressure	Inertia of load is too large	Use energy braking
			Abnormal input voltage	Check grid voltage
			Output phase to phase short circuit or short circuit to ground	Check motor wiring and output impedance
06	E006	Deceleration overpressure	Inertia of load is too large	Use energy brake
			Abnormal input voltage	Extend deceleration time
			Output phase to phase short circuit or short circuit to ground	Check grid voltage
07	E007	Constant speed over-voltage	Abnormal input voltage	Check grid voltage
			Load fluctuation is too large	Check load
			Output phase to phase short circuit or short circuit to ground	Check motor wiring and output impedance to ground
08	E008	Input power abnormal	Severe three-phase unbalance of input power supply voltage	Check input grid voltage
			Abnormal power input wiring	Check power input wiring
			Abnormal DC bus capacitance	Seek service
09	E009	Abnormal power supply during operation	DC bus voltage fluctuates too much or drops out during operation	Check input grid voltage and load for proper operation
			Torque boost value is too large during V/f control	Decrease torque boost value
11	E011	Motor overload	Improper V/f curve during V/f control	Set the V/f curve correctly
			Improper setting of motor parameters	Select correctly according to the motor nameplate
			Improper setting of motor overload protection time	Set the motor overload protection time correctly
			Motor blocking or sudden load change is too large	Check the cause of motor blockage or check the load condition
			Common motor long-term low speed heavy load operation	Select inverter motor
13	E013	Output phase loss	Abnormal motor line connection	Check the motor connection
			Motor three-phase unbalance	Check the motor or replace the motor
14	E014	Heat sink overheat protection	Fan damage	Replace the fan
			Air duct blockage	Unclog the air duct
			Temperature sensor abnormal	Seek service
			Inverter module installation abnormal	Seek service
16	E016	Port communication abnormal	Improper setting of communication baud rate	Set up correctly
			Communication port connection cable is disconnected	Reconnect
			The upper computer is not working	Make the upper unit work
			Inverter itself communication parameters are wrong	Set up correctly
28	E026	Continuous run time to	Continuous run time reached function is set	See F8 group function description
29	E029	Cumulative run time to	Cumulative running time reached function is set	See F8 group function description
31	E031	PID feedback lost	PID feedback channel abnormal	Check the feedback channel
			PID parameters set unreasonably	Correct setting
45	E045	High temperature	Temperature sampling fault	Check the temperature sampling link
50	E050	Internal communication failure		