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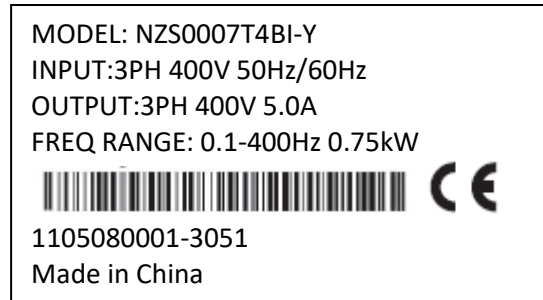
YI1000 PLUS Series User Manuel

1. Preface

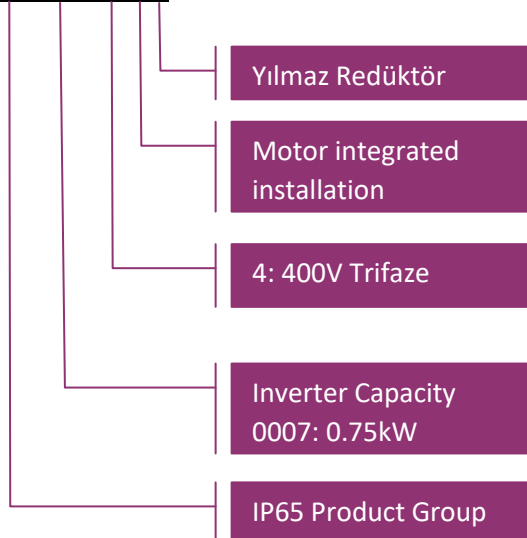
Thank you for choosing YI 1000 PLUS series of high-performance, simple inverter. Diagram of the operating instructions, is to facilitate the description, may be slightly different with the product.

Please note that this manual will be handed the hands of end users, and retain for future maintenance, use and if in doubt, please contact with our company to get in touch, we will be happy to serve you.

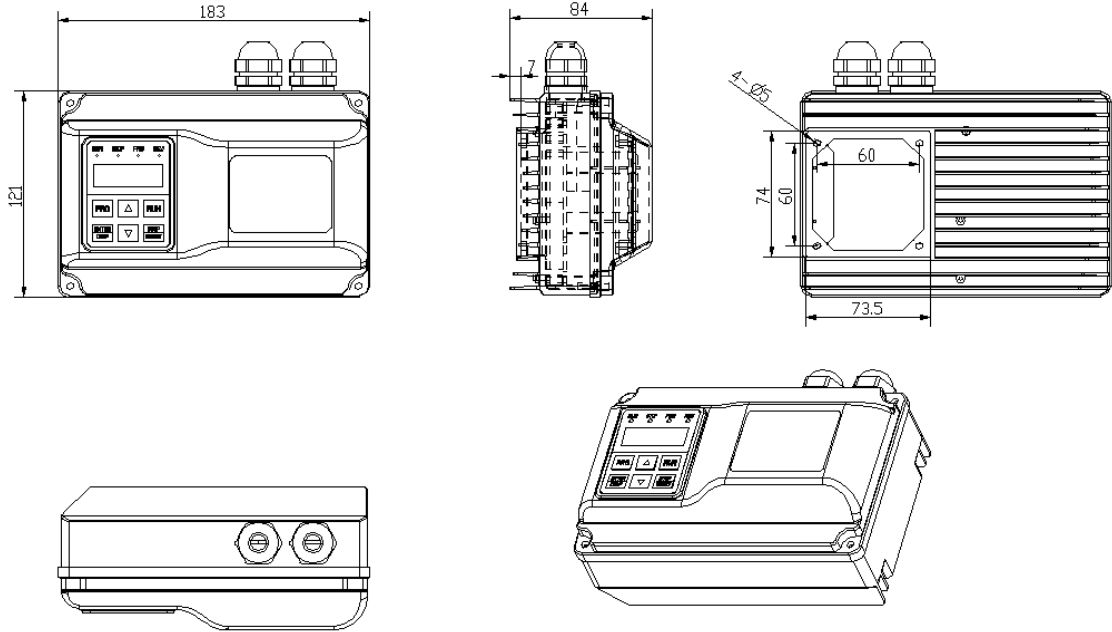
2. Nameplate Description



MODEL: NZS0007T4BI-Y

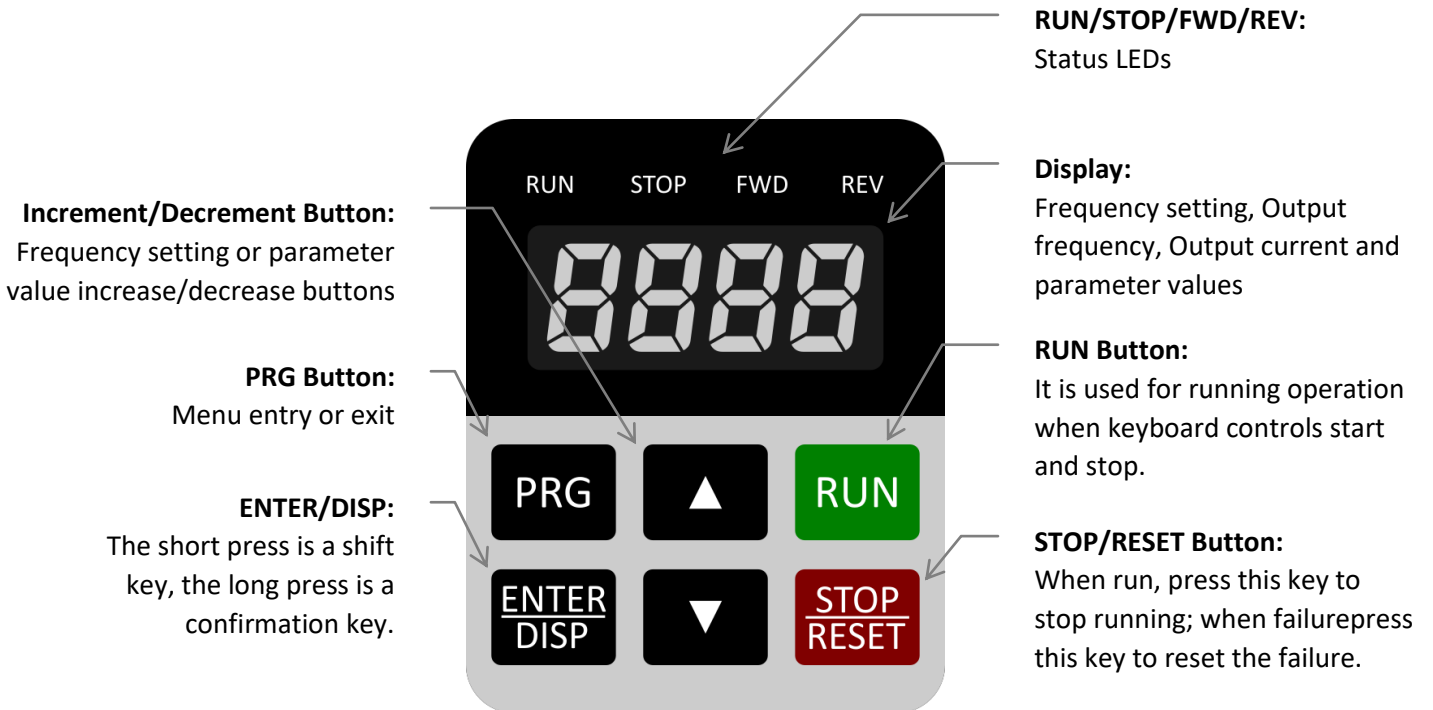


3. Dimensions



Not: Units are in mm (millimeter)

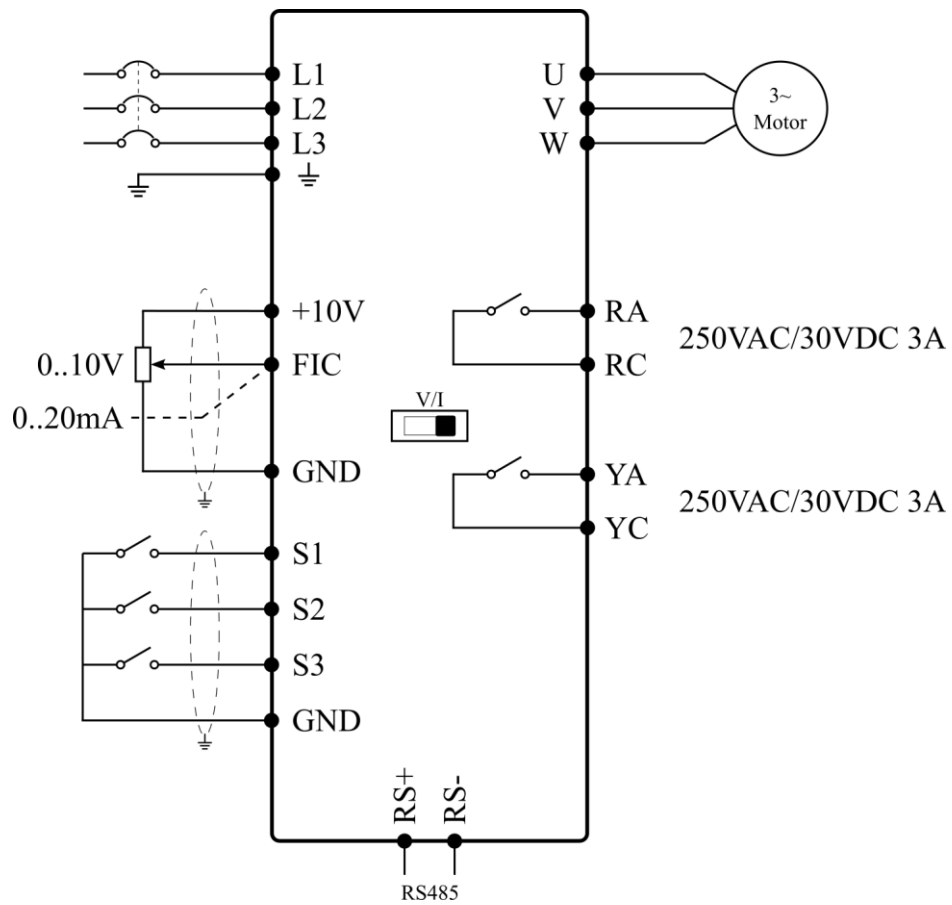
4. Keyboard Description



5. Product Specifications

Items		YI1000 PLUS
Power Supply	Rated Voltage, Frequency	3 - PH 380VAC, 50/60Hz
	Voltage Range	380V: 330 - 440VAC
Output	Voltage Range	380V: 0 - 380VAC
	Frequency Range	0.10 - 400.00Hz
Control Method		V/F Control, Space Vector Control
Indication		Operating status/Alarm definition/Interactive guidance: eg, frequency setting, the output frequency/current, DC bus voltage the temperature and so on
Control Specification	Output Frequency Range	0.10 - 400.00Hz
	Frequency Setting Resolution	Digital Input: 0.1Hz Analog Input: % 0.1 of maximum output frequency
	Output Frequency Accuracy	0.1Hz
	V/F Control	Setting V/F curve to satisfy various load requirements
	Torque Control	Auto increase: Auto raise torque by loading condition; Manuel increase: enable to set 0.0-%20.0 of raising torque
	Multifunctional Input Terminal	3 multi-function input terminals, realizing functions including fifteen section speed control, program running, four-section acceleration/deceleration speed switch, UP/DOWN function and emergency stop and other function
	Multifunctional Output Terminal	2 multi-function output terminals for displaying of running, zero speed, counter, external abnormality, program operation and other information and warnings
	Acceleration/Deceleration Time Setting	0 - 999.9s acceleration/deceleration time can be set individually
Other Functions	PID Control	Built-in PID Control
	RS 485	Standard RS485 communication function (Modbus)
	Frequency Setting	Analog input: 0 to 10V, 4 to 20mA can be selected; Digital input: Input using the setting dial of the operation panel or RS485 or UP/DOWN Note: FIC Terminals can be used to select an analog voltage input (0-10V) and analog current input (4-20mA) through the switch J2
	Multi Speed	3 multifunction input terminals, 15 section speed can be set
	AVR	Automatic voltage regulation function can be selected
	Counter	Built-in 2 group of counter
Protection/Warning Function	Overload	%150, 60 second (Constant Torque)
	Over Voltage	Over voltage protection can be set
	Under Voltage	Under voltage protection can be set
	Other Protections	Output short circuit, Over current, and parameter lock and so on
Environment	Ambient Temperature	-10 to 40°C
	Ambient Humidity	Max %95 (non-condensing)
	Altitude	Lower then 1000m
	Vibration	Max 0.5G
Structure	Cooling Mode	Forced air cooling
	Protective Structure	IP65
Installation		Wall-mounted or Standard 35MM rail

6. Installation and Wiring



Notes:

- FIC terminal's function selected by dip-switch (0..20mA/0..10V)
- When using FIC as 0..20mA input, set below parameters as;
 - P300 = 00.0V (Means 0mA)
 - P301 = 05.0V (Means 20mA)
- When using FIC as 4..20mA input, set below parameters as;
 - P300 = 01.0V (Means 4mA)
 - P301 = 05.0V (Means 20mA)

7. Parameter List

Function	Parameter	Name	Setting Range	Resolution	Default Value
Monitor Function	P000	Main display data selection	0: Setting frequency 1: Running frequency 2: Output current 3: Rotate speed 4: Bus voltage 5: Output voltage 7: Display PID setting feedback 8: PID setting	1	00
	P001	Display the set frequency	Unit: 0.1Hz	---	---
	P002	Display the output frequency	Unit: 0.1Hz	---	---
	P003	Display the output current	Unit: 0.1A	---	---
	P004	Display the motor speed	Unit: RMP	---	---
	P005	Display the DC Bus voltage value	Unit: 0.1V	---	---
	P007	Display PID	Unit: 0.01	---	---
	P008	Power on time	Unit: Hour	---	---
	P009	Output voltage	Unit: 1V	---	---
	P010	Alarm record 1	0: No fault 2: Over-current during acceleration 3: Over-current during deceleration 4: Over-current at constant speed 5: Over-voltage during acceleration 6: Over-voltage during deceleration	---	---
	P011	Alarm record 2	7: Over-voltage at constant speed 8: Resistor overload 9: Undervoltage 10: AC Drive overload 11: Motor overload 14: Module overheat 15: External fault	---	---
	P012	Alarm record 3	16: Abnormal communication 24: Water supply low pressure 27: Water supply high pressure 28: No water warning 29: Power on time reached 31: PID Feedback lost during running	---	---
	P014	The frequency setting in the last alarm	Unit: 0.1Hz	---	---
	P015	The output frequency in the last alarm	Unit: 0.1Hz	---	---
	P016	The output current in the last alarm	Unit: 0.1A	---	---

Function	Parameter	Name	Setting Range	Resolution	Default Value
Monitor Function	P017	The output voltage in the last alarm	Unit: 0.1V	---	---
	P021	Input terminal	Bit0: S1 Bit1: S2 Bit2: S3 0: Deactive/1: Active	---	---
	P022	Output terminal	Bit0: YA, YC Bit1: RA, RC 0: Deactive/1: Active	---	---
	P023	FIC Voltage	0.00 - 10.00V	---	---
	P027	Fault state	0: No fault 2: Over-current during acceleration 3: Over-current during deceleration 4: Over-current at constant speed 5: Over-voltage during acceleration 6: Over-voltage during deceleration 7: Over-voltage at constant speed 8: Resistor overload 9: Undervoltage 10: AC Drive overload 11: Motor overload 14: Module overheat 15: External fault 16: Abnormal communication 24: Water supply low pressure 27: Water supply high pressure 28: No water warning 29: Power on time reached 31: PID Feedback lost during running	---	---
	P028	Running state	0: Stop 1: Forward 2: Reverse	---	---

Function	Parameter	Name	Setting Range	Resolution	Default Value
Basic Functions	P100	Digital frequency setting	0.0 - Maximum frequency	0.1	0.0
	P101	Main frequency setting selection	0: Digital frequency setting(P100) 1: Analog input 2: Remote keypad potentiometer setting mode 3: Local keypad potentiometer setting mode 4: Up/Down frequency setting 5: Communication 6: Multi-Speed reference 7: Simple PLC 8: PID	1	3
	P102	Start signal selection	0: Operational panel 1: Terminal 2: Communication	1	0
	P104	Reverse rotation prevention selection	0: Active 1: Passive	1	1
	P105	Maximum frequency	Minimum frequency - 400.0Hz	0.1	50.0
	P106	Minimum frequency	0.0 - Maximum frequency	0.1	0.0
	P107	Acceleration time	0.0 - 999.9s	0.1	Changing
	P108	Deceleration time	0.0 - 999.9s	0.1	Changing
	P109	V/F Maximum voltage	V/F Intermediate voltage -500.0V	0.1	Changing
	P110	V/F Maximum frequency	V/F Intermediate frequency - Maximum frequency	0.1	50.0
	P111	V/F Intermediate voltage	V/F Minimum voltage - V/F Maximum voltage	0.1	Changing
	P112	V/F Intermediate frequency	V/F Minimum frequency - V/F Maximum frequency	0.1	2.5
	P113	V/F Minimum voltage	0.0 - V/F Intermediate voltage	0.1	Changing
	P114	V/F Minimum frequency	0.0 - V/F Intermediate frequency	0.1	1.2
	P115	Carrier frequency	1.0 - 16.0kHz	0.1	Changing
	P117	Initialization of parameters	08: Initialization of factory setting	1	00
	P118	Parameter lock	0: Unlock 1: Lock	1	0
	P119	Rotation direction	0: Same direction 1: Reverse direction	1	0
	P120	Axiliary frequency source Y selection	0: Digital frequency setting(P100) 1: Analog input 2: Remote keypad potentiometer setting mode 3: Local keypad potentiometer setting mode 4: Up/Down frequency setting 5: Communication 6: Multi-Speed reference 7: Simple PLC 8: PID	1	0

Function	Parameter	Name	Setting Range	Resolution	Default Value
Basic Functions	P121	Frequency source selection	Unit's digit: Frequency source selection 0: Main frequency source X 1: X and Y operation 2: Switchover between X and Y 3: Switchover between X and "X and Y operation" 4: Switchover between Y and "X and Y operation" Ten's digit: X and Y operation 0: X+Y 1: X-Y 2: Both the maximum 3: Both the minimum	1	00
	P122	Auxiliary frequency source Y range selection	0: Relative to the max. frequency 1: Relative to frequency source X	1	0
	P123	Auxiliary frequency source Y range	%0 - %150	%1	%100
	P124	Frequency ofset of auxiliary frequency source for X and Y operation	0.0 - Maximum frequency	0.1	0.0
	P125	Base frequency for Up/Down modification during running	0: Running frequency 1: Set frequency	1	1
	P126	Upper limit frequency	Min. Frequency - Max. Frequency	0.1	50.0
	P127	Acceleration/Deceleration time base frequency	0: Maximum frequency 1: Set frequency 2: 100Hz	1	0
	P200	Start mode selection	0: Regular start 1: Restart after inspection	1	0
	P201	Stop mode selection	0: Deceleration to a stop 1: Coast to mode	1	0
	P202	Starting frequency	0.0 - 50.0Hz	0.1	0.5
	P203	Stopping frequency	0.0 - 50.0Hz	0.1	0.5
	P204	Startup DC Breaking voltage	%0.0 - %10.0	%0.1	%0.0
	P205	Startup DC Breaking operation time	0.0 - 100.0s	0.1	0.0
	P206	Stop DC Breaking voltage	%0.0 - %10.0	%0.1	%0.0
	P207	Stop DC Breaking operation time	0.0 - 100.0s	0.1	0.0
	P208	Torque boost	%0 - %30.0	%0.1	%4.0
	P209	Rated motor voltage	0.1 - 999.9	0.1	380.0
	P210	Rated motor current	0.01 - 99.99	0.1	Changing
	P211	No load current ratio of motor	%1 - %100	%1	%50
	P212	Rated motor rotation speed	1 - 9999d/d	1	1460
	P213	Number of motor poles	2 - 20	1	4

Function	Parameter	Name	Setting Range	Resolution	Default Value
Basic Functions	P214	Rated motor slip	0.0 - 10.0Hz	0.1	2.5
	P215	Rated motor frequency	0.0 - 999.9Hz	0.1	50.0
	P216	Resistance of stator	0.00- 99.99Ω	0.01	Changing
	P217	Resistance of rotor	0.00 - 99.99Ω	0.01	Changing
	P218	Self inductance of rotor	0.000 - 9.999H	0.01	Changing
	P219	Mutual inductance of rotor	0.000 - 9.999H	0.01	Changing
I/O Functions	P300	FIC Minimum voltage input	0.00 - FIC Maximum voltage	0.01	0.00
	P301	FIC Maximum voltage input	FIC Minimum voltage - 11.00V	0.01	10.00
	P302	FIC Input filter time	0.00 - 10.00s	0.01	0.10
	P310	Frequency of low analog	0.0 - 50.0Hz	0.1	0.0
	P311	Direction of low analog	0: Forward 1: Reverse	1	0
	P312	Frequency of high analog	0.0 - Maximum frequency	0.1	50.0
	P313	Direction of high analog	0: Forward 1: Reverse	1	0
	P315	S1 terminal	0: Invalid 1: Jog 2: Jog Forward 3: Jog Reverse 4: Forward/Reverse 5: Run 6: Forward start 7: Reverse start 8: Stop	1	6
	P316	S2 terminal	9: Multi-Speed 1 10: Multi-Speed 2 11: Multi-Speed 3 12: Multi-Speed 4 13: Acceleration/Deceleration terminal 1 14: Acceleration /Deceleration terminal 2	1	7
	P317	S3 terminal	15: Frequency increase (MOP) 16: Frequency decrease (MOP) 17: Coast to stop 18: Fault reset 19: PID in running 20: PLC in running 21: Input of timer 1 22: Input of timer 2 23: Counter pulse signal 24: Counter reset signal 25: Run pause 26: Switchover between frequency source X and Y	1	18

Function	Parameter	Name	Setting Range	Resolution	Default Value
I/O Functions	P323	Relay output (YA,YC)	0: Invalid 1: System in running 2: Frequency reached 3: Alarm 4: Zero speed 5: Frequency 1 reached 6: Frequency 2 reached 7: Acceleration 8: Deceleration 9: Indication for under voltage 10: Timer 1 reached 11: Timer 2 reached 12: Indication for completion for completion of procedure	1	1
	P325	Relay output (RA,RC)	13: Indication of procedure 14: PID Maximum 15: PID Minimum 16: 4 - 20mA disconnection 17: Motor overload pre-warning 18: AC drive overload pre-warning 27: Counter pulse setting value reached 28: Intermediate pulse setting value reached 29: Water supply by constant voltage "1" turn on "0" turn off 30: Ready	1	3
	P328	S filter time	0.000 - 1.000s	0.001	0.010
	P329	Terminal command mode	0: Two-line mode1 1: Two-line mode2 2: Three-line mode1 3: Three-line mode2	1	0
	P330	Terminal Up/Down rate	0.01 - 99.99Hz/s	0.01	1.00
	P331	Digital output terminal valid mode selection	Unit's digit: YA,YC Ten's digit: RA,RC 0: Positive logic 1: Negative logic	---	H.000
	P332	S1 input delay time	0.0 - 999.9s	0.1	0.0
	P333	S2 input delay time	0.0 - 999.9s	0.1	0.0
	P334	S3 input delay time	0.0 - 999.9s	0.1	0.0
P335	Digital input terminal valid mode selection	Unit's digit: S1 Ten's digit: S2 Hundred's digit: S3 0: High valid 1: Low valid	---	00000	

Function	Parameter	Name	Setting Range	Resolution	Default Value
Application Functions	P400	Jog frequency setting	0.0 - Maximum frequency	0.1	5.0
	P401	Acceleration time2	0.0 - 999.9s	0.1	10.0
	P402	Deceleration time 2	0.0 - 999.9s	0.1	10.0
	P403	Acceleration time 3	0.0 - 999.9s	0.1	10.0
	P404	Deceleration time 3	0.0 - 999.9s	0.1	10.0
	P405	Acceleration time 4 (Jog Acceleration time)	0.0 - 999.9s	0.1	2.0
	P406	Deceleration time 4 (Jog Deceleration time)	0.0 - 999.9s	0.1	2.0
	P407	Designated value of counter	0 - 9999	1	100
	P408	Intermediate value of counter	0 - 9999	1	50
	P409	Limitation of acceleration torque	%50 - %200	%1	%150
	P410	Over-current stall suppression gain	%0 - %100	%1	%0
	P411	Over-voltage stall enable	0: Invalid 1: Valid	1	1
	P412	V/F Over-excitation gain	%0 - %100	%1	%10
	P413	Over-voltage stall suppression gain	%0 - %200	%1	%50
	P414	Breaking action voltage	400V: 700.0V 220V: 370.0V	0.1	Changing
	P416	Startup protection	0: Yes 1: No Set P416=0 when connect FWD and GND, after power off, when power on again, AC Drive don't work	1	1
	P417	Action slection at sntantaneous power failuret	0: Invalid 1: Decelerate 2: Decelerate to stop	1	0
	P420	Fault restart times	0 - 20	1	0
	P421	Time interval of fault auto reset	0.1 - 100.0s	0.1	1.0
	P423	Over current detection level	%0.0 - %200.0	%0.1	%0.0
	P424	Over current detection time	0.0 - 999.9s	0.1	10.0
	P425	Reaching frequency 1	0.0 - Maximum frequency	0.1	0.0
	P426	Reaching frequency 2	0.0 - Maximum frequency	0.1	0.0
	P427	Timer 1 setting	0.0 - 999.9s	0.1	10.0
	P428	Timer 2 setting	0.0 - 999.9s	0.1	20.0
	P430	Frequency detection hysteresis	%0.0 - %100.0	%0.1	%0.5
	P431	Jump frequency 1	0.0 - Maximum frequency	0.1	0.0
	P432	Jump frequency 2	0.0 - Maximum frequency	0.1	0.0
	P433	Jump frequency hysteresis loop width	0.0 - Maximum frequency	0.1	0.5

Function	Parameter	Name	Setting Range	Resolution	Default Value
PLC Operation	P500	Simple PLC Retentive selection	Unit's digit: Retentive upon power stop selection 0: No 1: Yes Ten's digit: Retentive upon power failure selection 0: No 1: Yes	1	0
	P501	PLC Starting mode	0: If P101=7, PLC Valid 1: PLC Start	1	0
	P502	Simple PLC Running mode	0: 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	1	0
	P503	Multi-Speed 1	0.0 - Maximum frequency	0.1	20.0
	P504	Multi-Speed 2	0.0 - Maximum frequency	0.1	10.0
	P505	Multi-Speed 3	0.0 - Maximum frequency	0.1	20.0
	P506	Multi-Speed 4	0.0 - Maximum frequency	0.1	25.0
	P507	Multi-Speed 5	0.0 - Maximum frequency	0.1	30.0
	P508	Multi-Speed 6	0.0 - Maximum frequency	0.1	35.0
	P509	Multi-Speed 7	0.0 - Maximum frequency	0.1	40.0
	P510	Multi-Speed 8	0.0 - Maximum frequency	0.1	45.0
	P511	Multi-Speed 9	0.0 - Maximum frequency	0.1	50.0
	P512	Multi-Speed 10	0.0 - Maximum frequency	0.1	10.0
	P513	Multi-Speed 11	0.0 - Maximum frequency	0.1	10.0
	P514	Multi-Speed 12	0.0 - Maximum frequency	0.1	10.0
	P515	Multi-Speed 13	0.0 - Maximum frequency	0.1	10.0
	P516	Multi-Speed 14	0.0 - Maximum frequency	0.1	10.0
	P517	Multi-Speed 15	0.0 - Maximum frequency	0.1	10.0
	P518	PLC Operation time 1	0 - 9999s	1	100
	P519	PLC Operation time 2	0 - 9999s	1	100
	P520	PLC Operation time 3	0 - 9999s	1	100
	P521	PLC Operation time 4	0 - 9999s	1	100
	P522	PLC Operation time 5	0 - 9999s	1	100
	P523	PLC Operation time 6	0 - 9999s	1	0
	P524	PLC Operation time 7	0 - 9999s	1	0
	P525	PLC Operation time 8	0 - 9999s	1	0
	P526	PLC Operation time 9	0 - 9999s	1	0
	P527	PLC Operation time 10	0 - 9999s	1	0
	P528	PLC Operation time 11	0 - 9999s	1	0
	P529	PLC Operation time 12	0 - 9999s	1	0
	P530	PLC Operation time 13	0 - 9999s	1	0
	P531	PLC Operation time 14	0 - 9999s	1	0
	P532	PLC Operation time 15	0 - 9999s	1	0
P533	PLC Operation direction	0 - 9999s (16-bit Binary System)	1	0	
P536	PLC Running direction high level	0 - 3	1	0	

Function	Parameter	Name	Setting Range	Resolution	Default Value
PLC Operation	P537	PLC Running time unit	0: s / 1: h	1	0
	P538	Multi-speed 1 selection	0 - 6	1	0
	P539	Acceleration/ Deceleration time of simple PLC Reference 1	0 - 3	1	0
	P540	Acceleration/ Deceleration time of simple PLC Reference 2	0 - 3	1	0
	P541	Acceleration/ Deceleration time of simple PLC reference 3	0 - 3	1	0
	P542	Acceleration/ Deceleration time of simple PLC Reference 4	0 - 3	1	0
	P543	Acceleration/ Deceleration time of simple PLC Reference 5	0 - 3	1	0
	P544	Acceleration/ Deceleration time of simple PLC Reference 6	0 - 3	1	0
	P545	Acceleration/ Deceleration time of simple PLC Reference 7	0 - 3	1	0
	P546	Acceleration/ Deceleration time of simple PLC Reference 8	0 - 3	1	0
	P547	Acceleration/ Deceleration time of simple PLC Reference 9	0 - 3	1	0
	P548	Acceleration/ Deceleration time of simple PLC Reference 10	0 - 3	1	0
	P549	Acceleration/ Deceleration time of simple PLC Reference 11	0 - 3	1	0
	P550	Acceleration/ Deceleration time of simple PLC Reference 12	0 - 3	1	0
	P551	Acceleration/ Deceleration time of simple PLC Reference 13	0 - 3	1	0
	P552	Acceleration/ Deceleration time of simple PLC Reference 14	0 - 3	1	0
	P553	Acceleration/ Deceleration time of simple PLC Reference 15	0 - 3	1	0
	P554	Swing frequency setting mode	0: Relative to the central frequency 1: Relative to the max. frequency	1	0

Function	Parameter	Name	Setting Range	Resolution	Default Value
PLC Operation	P555	Swing frequency amplitude	%0.0 - %100.0	%0.1	%0.0
	P556	Jump frequency amplitude	%0.0 - %50.0	%0.1	%0.0
	P557	Swing frequency cycle	0.1 - 999.9s	0.1	10.0
	P558	Triangular wave rising time coefficient	%0.1 - %100.0	%0.1	%50.0
PID Operation	P600	PID Starting mode	0: If 101=8, PID Enable, otherwise PID Disable 1: PID Enable 2: PID Start by external terminal	1	0
	P601	PID Operation mode	0: Negative feedback mode 1: Positive feedback mode	1	0
	P602	PID Action set point	0: Digital setting (P604) 1: FIC Setting	1	0
	P603	PID Feedback selection	0: FIC feedback 1: 4 - 20mA (P300 = 1.00V; P301 = 5.00V) 5: 0 - 10V (P300 = 0.00V; P301 = 10.00V)	1	0
	P604	Value setting (bar)	Lower limit (P606) - Scale (P614)	0.01	2.50
	P605	Upper limit (bar)	PID Lower limit - Scale (P614)	0.01	10.00
	P606	Lower limit (bar)	0.00 - PID Upper limit	0.01	0.00
	P607	Proportional band	%0.0 - %600.0	%0.1	%100.0
	P608	Integral time	0.01 - 10.00s (0: Passive)	0.01	2.00
	P609	Differential time	0.001 - 9.999s (0: Passive)	0.001	0.000
	P610	Forward maximum value of 2 times output	%0.00 - %99.99	%0.01	%2.00
	P611	Sleep frequency	0.1 - 50.0Hz (0: Passive)	0.1	25.0
	P612	Sleep time	0 - 9999s	1	10
	P613	Wake-up percent	%0.0 - %100.0	%0.1	%90.0
	P614	Scale	0.00 - 99.99bar	0.01	10.00
	P615	PID Digit of display	1 - 4	1	4
	P616	PID Decimal digits of display	0 - 4	1	2
	P617	Upper limit frequency	Lower limit frequency - Maximum frequency	0.1	48.0
P618	Lower limit frequency	Minimum frequency - Upper limit frequency	0.1	20.0	

Function	Parameter	Name	Setting Range	Resolution	Default Value
PID Operation	P619	PID Detection time	0 – 9999s	1	20
	P620	PID Deviation limit	%0.0 - %100.0	%0.1	%0.1
	P621	PID Feedback loss warning mode	0: No warning 1: Warning no stop 2: Warning stop	1	1
	P622	PID Feedback loss detection value	Range: 0.00 - 10.00V (If choose 4 - 20mA, disconnect when less than 2mA, set P622 = 2mA * 250Ω = 0.50V)	0.01	0.50
	P623	PID Feedback loss detection time	0.0 - 20.0s	0.1	1.0
	P624	Cut-off frequency of PID Reverse	0.00 - Maximum frequency	0.1	0.0
	P625	PID Differential limit	%0.00 - %99.99	%0.01	%0.10
	P626	PID Setting change time	0.00 - 99.99s	0.01	0.00
	P627	PID Feedback filter time	0.00 - 60.00s	0.01	0.00
	P628	Output filter time	0.00 - 60.00s	0.01	0.00
	P630	Proportional Band P2	%0.0 - %600.0	%0.1	%200.0
	P631	Integral time I2	0.00 - 10.00s	0.01	0.50
	P632	Differential time D2	0.0 - 9.999s	0.001	0.000
	P633	PID Parameter switchover condition	0: No switch 1: Switch through X 2: Auto switch	1	0
	P634	PID Parameter switchover deviation 1	%0.0 - P635	%0.1	%5.0
	P635	PID Parameter switchover deviation2	P634 - %100.0	%0.1	%10.0
	P636	PID Initial value	%0.0 - %100.0	%0.1	%0.0
	P637	PID Initial value hold time	0.00 - 99.99s	0.01	0.00
	P639	PID Integral time	0: Invalid 1: Integral separated		00
	P640	PID Stop operation	0: No PID operation at stop 1: PID operation at stop	1	0
	P641	Pressure detection value when short of water	0.00: Deactive 0.01: Maximum setting value	0.01	0.50
P642	When AC Drive display high/low pressure warning, delay P642, high/low pressure fault is auto reset	1) When AC drive display high pressure warning, after pressure return to normal, delay P642, high pressure fault is auto reset. 2) When AC drive display low pressure fault is auto reset. If set reset P642=0, when AC drive display high/low pressure warning, it will not reset,range:0 - 9999s	1	10	

Function	Parameter	Name	Setting Range	Resolution	Default Value
PID Operation	P643	Low pressure warning detection time	Range: 0 - 9999s Pressure lower than P606 and keep P643 when running, it will stop. Display low pressure fault,	1	100
	P644	Short of water warning detection time	0 - 9999s	1	100
	P645	Delay time setting of auto running when power on	0: Invalid 1: Valid	1	0
	P646	First 10 times interval time of short of water auto reset	0 - 9999s	1	600
	P647	Interval time of first 10 times short of water pressure auto reset	0 - 9999mins	1	60
	P648	Anti-freeze enable	0: Invalid 1: Valid	1	0
	P649	Anti-freeze waiting time while sleeping	0 - 9999s	1	900
	P650	Anti-freeze running time while sleeping	0 - 9999s	1	30
	P651	Anti-freeze running frequency while sleeping	0.0 - 500.0Hz	0.1	15.0
	P652	Sleep operate level: operate when frequency <P652/s	0.0 - 100.0Hz	0.1	0.5
	P653	Sleep operate level: pressure allowed of frequency reduction	%0.00 - %10.00	%0.10	%0.60
	P654	Sleep operate level: frequency reduction per second	0.0 - 100.0Hz	0.1	0.3
	P655	Sleep operate level: times of frequency reduction	0 - 1000	1	10
	P656	Sleep operate level: frequency >P656,no operate	0.0 - Maximum frequency	0.1	42.0
	P657	PID Sample time	0 - 1000ms	1	4

Function	Parameter	Name	Setting Range	Resolution	Default Value
Communication	P700	Baud rate	0: 4800 1: 9600	1	1
	P701	Data format	0: No check (8-N-1) for ASC 1: Even parity check (8-E-1) for ASC 2: Odd parity check (8-O-1) for ASC 3: No check (8-N-1) for RTU 4: Even parity check (8-E-1) for RTU 5: Odd parity check (8-O-1) for RTU	1	3
	P702	Local address	0: Broadcast address 1: 249	1	1
	P703	Communication error processing	0: Disable 1: Warning, continue to run 2: Fault, stop	1	0
Advanced Functions	P800	User password	0: Locked 1: Unlocked	1	1
	P802	Model selection	0: G type 1: P type	1	Changing
	P803	Over voltage protection level setting	400V (220V level) 810V (380V level)	---	Changing
	P804	Under voltage protection level setting	400V (220V level) 810V (380V level)	---	Changing
	P805	Temperature alarm value		---	Changing
	P812	Digital setting frequency stop memory selection	0: No memory 1: Memory	1	0
	P814	Motor overload coefficient	0.20 - 10.00	0.01	1.00
	P815	PWM switch frequency	0.0 - 999.0Hz	0.1	1.0
	P816	Motor overload protection selection	0: Active 1: Passive	1	1

8. Fault Diagnostics

Fault Code	Name	Possible Cause	Suggested Solution
oC0/uC0	Over current during stop	<ul style="list-style-type: none"> • Inverter fault 	<ul style="list-style-type: none"> • Please contact your sales representative
oC1/uC1	Over current during acceleration	<ul style="list-style-type: none"> • Acceleration time is too short • V/F curve is not set correctly • Motor or motor wire have short circuit to the ground • The torque boost is set to fast • The input voltage is too low • Directly start up the running motor • The inverter setting is not correct • The inverter fails 	<ul style="list-style-type: none"> • Increase acceleration time • Correctly set V/F curve • Check the insulation of motor and motor wire • Reduce the value of torque boost • Check input voltage • Check the load • Set tracing startup • Enlarge capacity of inverter • Sent for repairing
oC2/uC2	Over current during deceleration	<ul style="list-style-type: none"> • Decelerate time is too short • Inverter capacity is inappropriately set • Whether there is any disturbing 	<ul style="list-style-type: none"> • Increase deceleration time • Enlarge inverter capacity • Solve disturbing resource
oC3/uC3	Over current during constant	<ul style="list-style-type: none"> • The insulation of motor and motor wire is not good • Load fluctuation • Fluctuation of input voltage and the voltage is low • whether there is a large power motor starting up and leads the input voltage goes down • Whether there is a disturbing resource to disturb inverter 	<ul style="list-style-type: none"> • Check the insulation of motor and motor wire • Check load situation and mechanical lubrication • Check input voltage • Enlarge the capacity of inverter • Increase capacity of transformer • Solve disturbing resource
oU0	Over voltage during stop	<ul style="list-style-type: none"> • The deceleration time is short • Inverter capacity incorrectly set • Disturbing 	<ul style="list-style-type: none"> • Check the power supply voltage • Set for repairing
oU1	Over voltage during acceleration	<ul style="list-style-type: none"> • Abnormal power supply • Peripheral circuitry is incorrectly set (switch control on or off, etc.) • Inverter fault 	<ul style="list-style-type: none"> • Check the power supply voltage • Do not use power supply switch to control the inverter on or off • Set for repairing
oU2	Over voltage during deceleration	<ul style="list-style-type: none"> • Power supply voltage abnormal • Energy feedback load • Braking resistor incorrectly set 	<ul style="list-style-type: none"> • Check the power supply voltage • Install braking unit and resistance • Affirm resistance setting again
oU3	Over voltage during constant speed	<ul style="list-style-type: none"> • Decelerate time is too short • Power supply voltage abnormal • Over load • Braking resistor incorrectly set • Braking parameters incorrectly set 	<ul style="list-style-type: none"> • Increase deceleration time • Check the power supply voltage • Check braking unit and resistance • Set braking resistor over again • Correctly set parameters, e.g. braking tube voltage, etc

Fault Code	Name	Possible Cause	Suggested Solution
LU0	Under voltage during stop	<ul style="list-style-type: none"> Power supply voltage abnormal Phase missing 	<ul style="list-style-type: none"> Check the power supply voltage Check power supply and switch whether there is phase missing
LU1	Under voltage during acceleration	<ul style="list-style-type: none"> Power supply voltage abnormal Phase missing There is large load power start up in the input 	<ul style="list-style-type: none"> Check whether peripheral setting and bad connection leads phase missing Please use independent power supply
LU2	Under voltage during deceleration		
LU3	Under voltage during constant speed		
oL1	During acceleration/ inverter overload	<ul style="list-style-type: none"> The motor for use under overload Acceleration time is too short Motor protection setting is too small V/F Curve is incorrectly set Torque boost is too fast Bad motor insulation Motor setting is too small 	<ul style="list-style-type: none"> Reduce the load weight Increase acceleration time Increase protection setting Correctly set V/F Curve Reduce torque boost rate Check motor insulation and replace motor Use larger inverter or motor
oL2	During deceleration/ inverter overload		
oL3	During constant speed / inverter overload		
oT0	During stop / Motor overload		
oT1	During acceleration/ Motor overload		
oT2	During deceleration/ Motor overload		
oT3	During constant speed / Motor overload		
oH	Inverter overheating		
ES	Emergency Stop	<ul style="list-style-type: none"> Inverter is in Emergency Stop condition 	<ul style="list-style-type: none"> After release Emergency Stop, start up as regular procedure
CO	Communication Error	<ul style="list-style-type: none"> Communication line connection has problem Communication parameter is incorrectly set Transmission format is wrong 	<ul style="list-style-type: none"> Perform wiring of the RS-485 terminals properly Set parameter over again Check data transmission format
20	0..20mA Wire Broken	<ul style="list-style-type: none"> Terminal is loose; signal input line is bad connected 	<ul style="list-style-type: none"> Perform wiring of the 4-20mA terminals properly
Pr	Parameter write error	<ul style="list-style-type: none"> Parameter setting is wrong 	<ul style="list-style-type: none"> After stopping operation, make parameter setting
Err	Wrong parameter group	<ul style="list-style-type: none"> The parameter does not exist or the factory setting parameter 	<ul style="list-style-type: none"> Quit this parameter
Ef	External equipment fault	<ul style="list-style-type: none"> External fault signal is input via multi-function terminal 	<ul style="list-style-type: none"> Reset the operation
Te	Accumulative power-on time reaches the setting value	<ul style="list-style-type: none"> The accumulative power-on time reaches the setting value 	<ul style="list-style-type: none"> Contact the factory
HP	High water pressure alarm	<ul style="list-style-type: none"> Pressure sensor wiring fault Parameter is set improperly 	<ul style="list-style-type: none"> Check the wiring of pressure sensor Set the parameter properly
LP	Low water pressure alarm		
LL	Short of water warning	<ul style="list-style-type: none"> Pressure sensor wiring fault Parameter is set improperly No water in tube 	<ul style="list-style-type: none"> Check the wiring of pressure sensor Set the parameter properly Check the tube