SP600 SP600 Series Air Compressor Integrator User Manual

Foreword

Thank you for choosing SP600 series air compressor integrator.

SP600 series air compressor integrator using sheet metal structure, floor and wall supports two kinds of installation, ease of installation; commissioning wiring products easy to operate, wherein the control circuit terminal plug-in connector terminals, and mistake proofing plug design; high integration products: built-in DC reactors to reduce the external interference, improve the power factor; built-in 220V AC power supply, transformer anti-over current fuses provide 24V DC external output; the other built-in integrated PT100 and PTC, and other detection circuit and protection circuit. Product software uses special software, communications equipment HMI, and other things with no debugging achieve a key to start.

This guide describes the SP600 series air compressor integrator basic information and use instructions, please be sure to carefully read this manual before use.

Precautions
● The illustrations in this manual are for illustrative purposes only,and may differ from the product you ordered. ● The company is committed to continuous improvement of products, will continue to upgrade product function, the information provided is subject to change without notice. ● If you use with a problem, please contact our agents in each region, please contact customer service with the company.

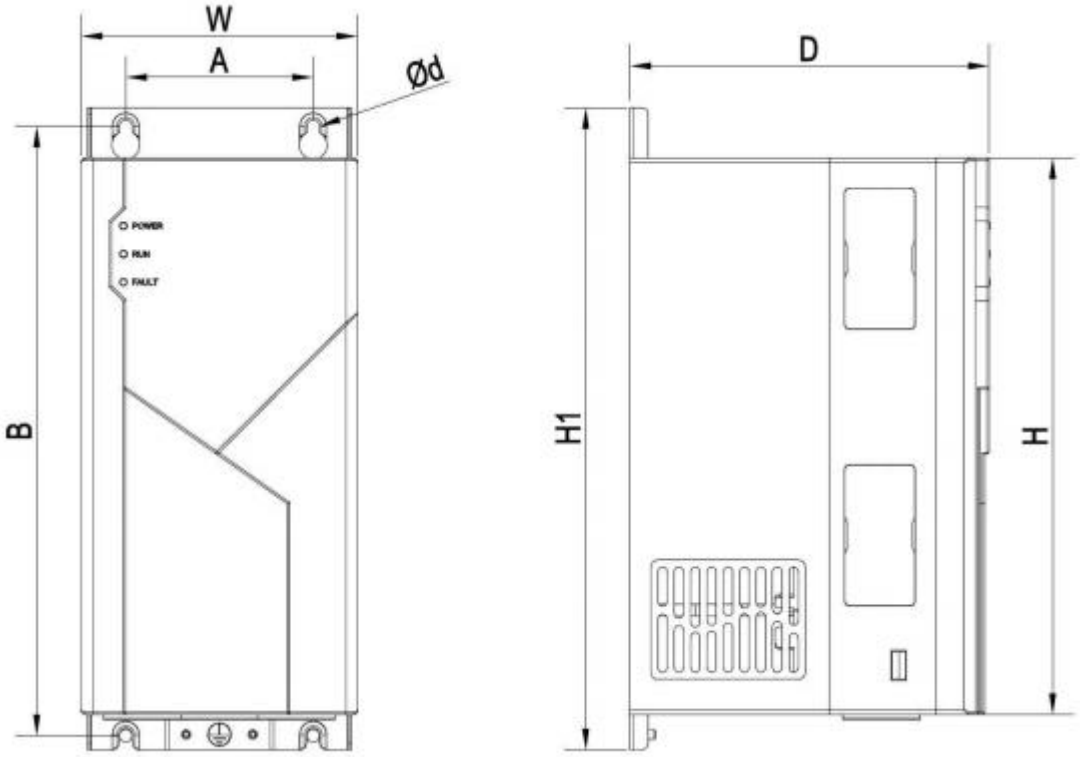
1.0 Basic Specifications

Item		Specification
Basic control functions	Control mode	Open loop vector control, V / F control
	Maximum frequency	0～600Hz
	Carrier frequency	0.5kHz ～ 15kHz ,carrier frequency is automatically adjusted based on the load features.
	Input frequency resolution	Digital setting：0.01Hz Analog setting: maximum frequency x 0.025%
	Startup torque	0.5 Hz/150%
	Speed range	1:100
	Speed stability accuracy	± 0.2%
	Torque control accuracy	±10%
	Overload capacity	60s for 150% of the rated current, 3s for 180% of the rated current.
	Torque boost	Fixed boost Customized boost 0.1%–30.0%
	V/F curve	Straight-line V/F curve Multi-point V/F curve N-power V/F curve (1.2-power, 1.4-power, 1.6-power, 1.8-power, square)
	V/F separation	Two types: complete separation; half separation
	Ramp mode	Straight-line ramp S-curve ramp Four groups of acceleration/deceleration time with the range of 0.0–6500.0s
	Communication methods	RS485
	JOG control	JOG frequency range: 0.00–50.00 Hz JOG acceleration/deceleration time: 0.0–6500.0s
	Built-in PID	It realizes process-controlled closed loop control system easily.
	Auto voltage regulation (AVR)	It can keep constant output voltage automatically when the mains voltage changes.
	Frequency source	Digital setting
Input and output interfaces	Analog Input	1 pressure sensor: 4 ~ 20mA input 2 temperature sensor: PT100
	Digital input	2 digital input 1 PTC circuit protection (compatible with normal digital

		inputs)
	Digital Output	1 normally open relay output (built in 220VAC voltage)
	LED diode display	Standard 3 LED display
Protection	Motor overheating protection (PTC), the power-to-ground short-circuit protection, inverter over-current, overload, over voltage, under voltage, over temperature, output phase, communication fault, fault current detection, EEPROM write failure and so on.	
Environment	Installation location	Indoor, free from direct sunlight, dust, corrosive gas,combustible gas, oil smoke, vapor, drip or salt.
	Altitude	Lower than 1000 m
	Ambient temperature	-10°C ～40°C (Downshift if the ambient temperature is between 40°C and 50°C)
	Humidity	Less than 95%RH, without condensing
	Vibration	Less than 5.9 m/s2 (0.6 g)
	Storage temperature	-20°C～60°C

2.0 Dimensions

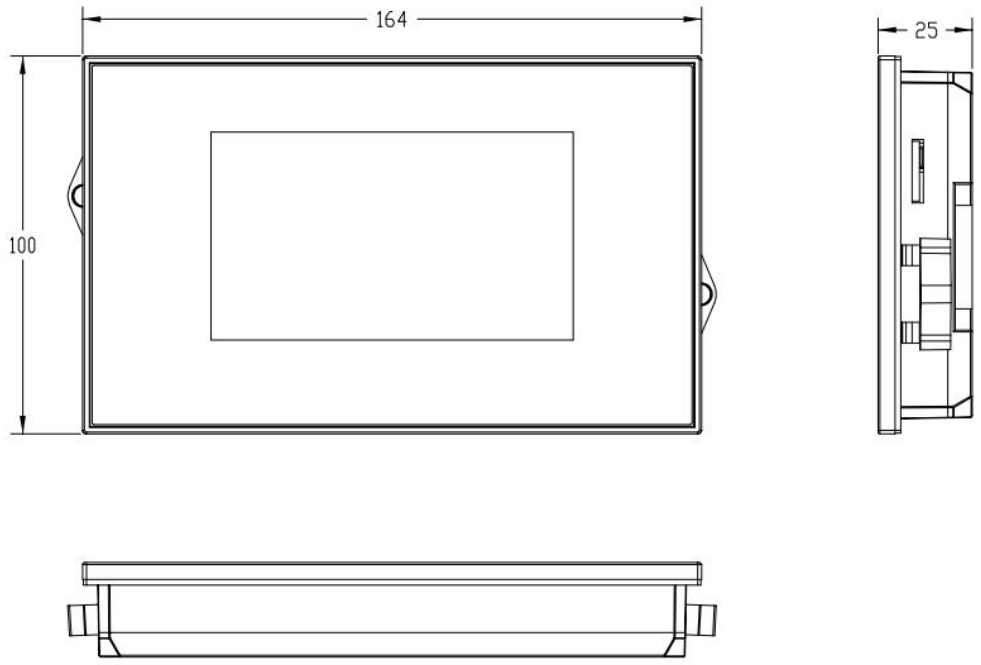
2.1 Closet dimensions

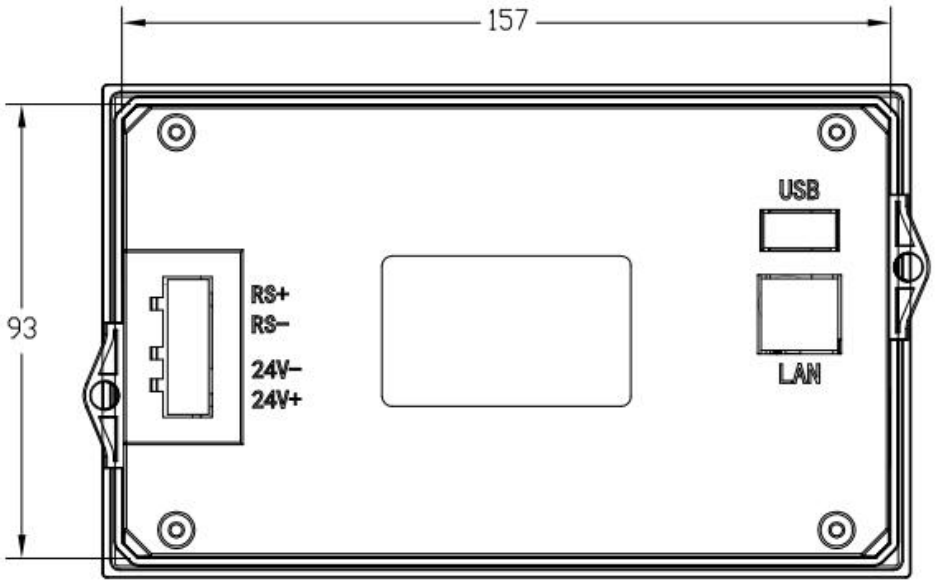


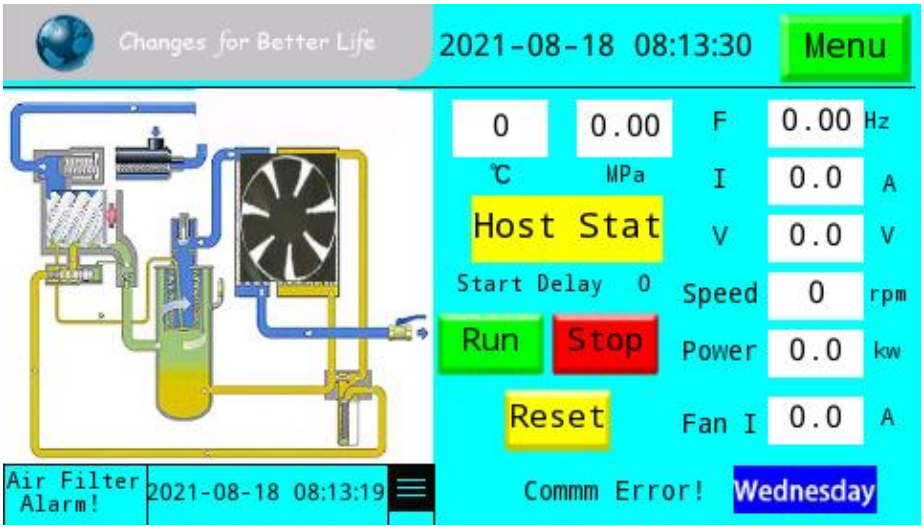
MODEL	W	H	H1	D	A	B	Ød
SP600T-5R5G-4 SP600T-7R5G-4	118	238	274	154	80	260	5.5
SP600T-11G-4 SP600T-15G-4	145	293	335	172	100	320	7
SP600T-18R5G-4 SP600T-22G-4	168	338	380	172	100	365	7
SP600T-30G-4 SP600T-37G-4	217	400	--	216	202	385	7
SP600T-45G-4 SP600T-55G-4	300	440	470	275	210	455	9
SP600T-75G-4	338	455	485	240	270	470	9
SP600T-90G-4	275	590	630	310	200	612	9
SP600T-110G-4							
SP600T-132G-4	300	610	650	310	200	633	9
SP600T-160G-4	400	675	715	310	320	695	11

2.2 HMI installation dimension

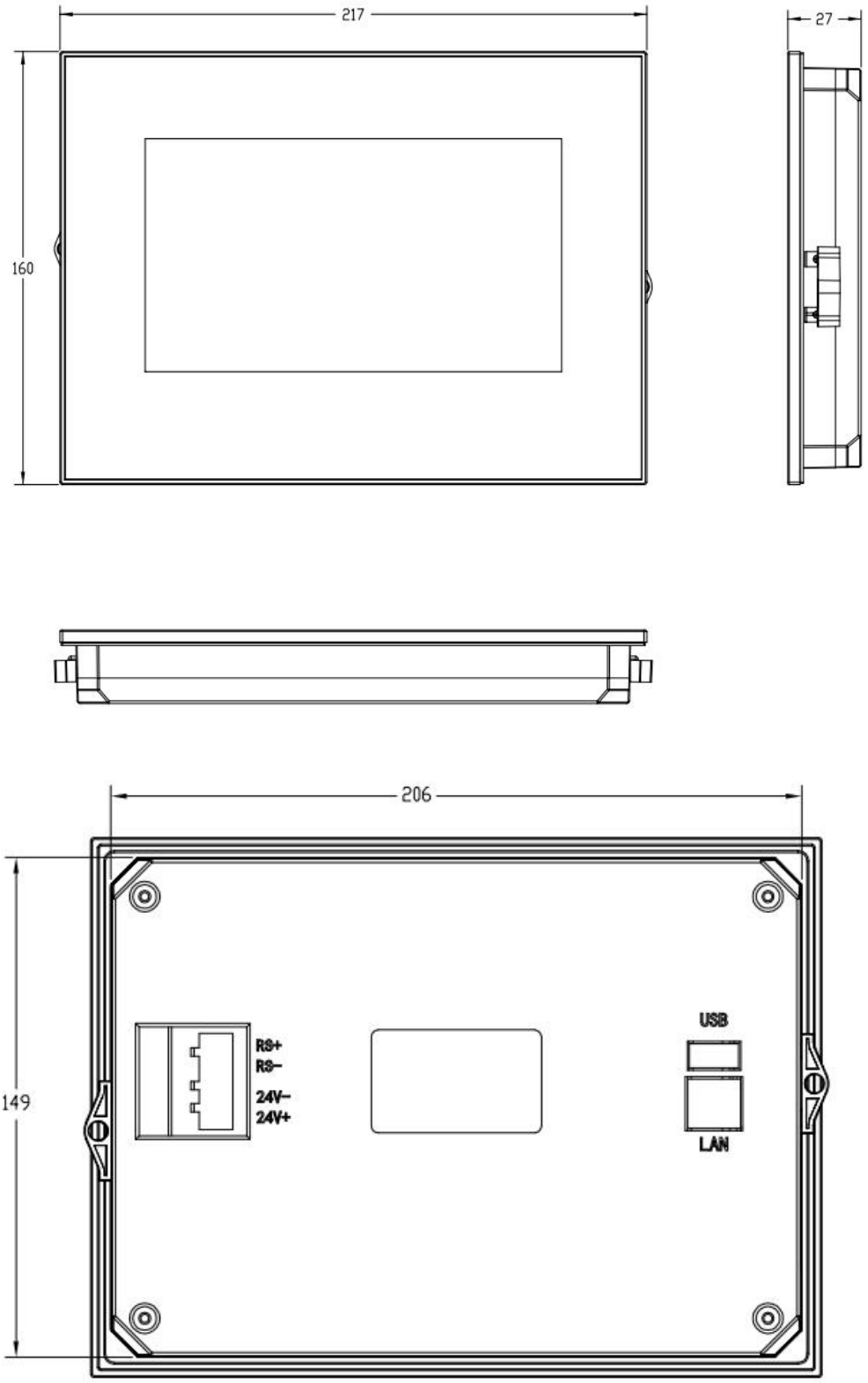
HMI-600T（4.3 inch）

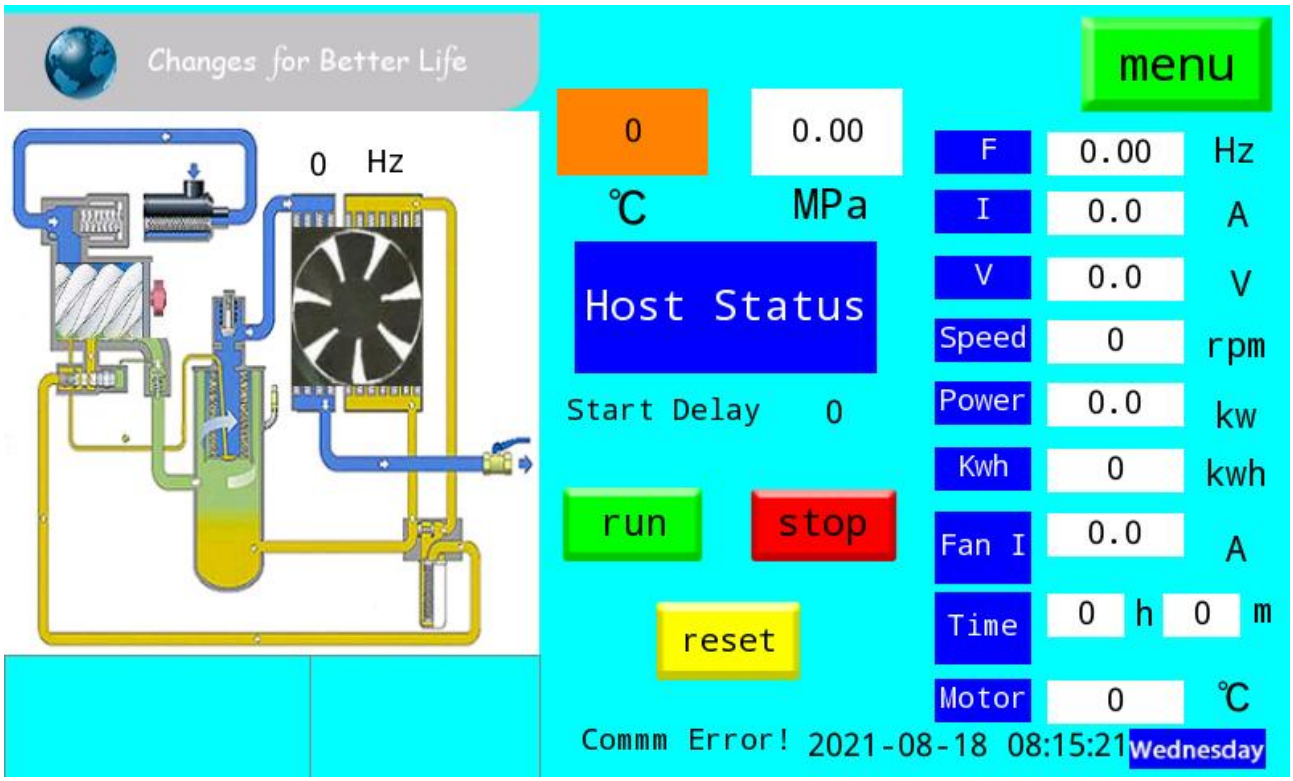



157
93
USB
LAN
RS+
RS-
24V-
24V+


Changes for Better Life
2021-08-18 08:13:30
Menu
0
℃
0.00
MPa
Host Stat
Start Delay 0
Run
Stop
Reset
F
0.00
Hz
I
0.0
A
V
0.0
V
Speed
0
rpm
Power
0.0
kw
Fan I
0.0
A
Air Filter Alarm!
2021-08-18 08:13:19
Commm Error!
Wednesday

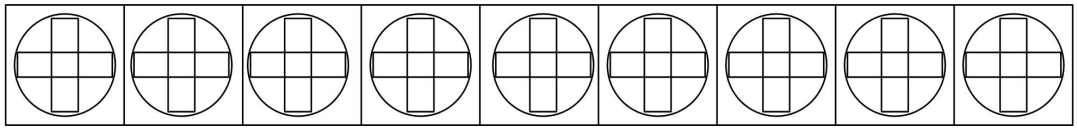
HMI-680T（7 inch）





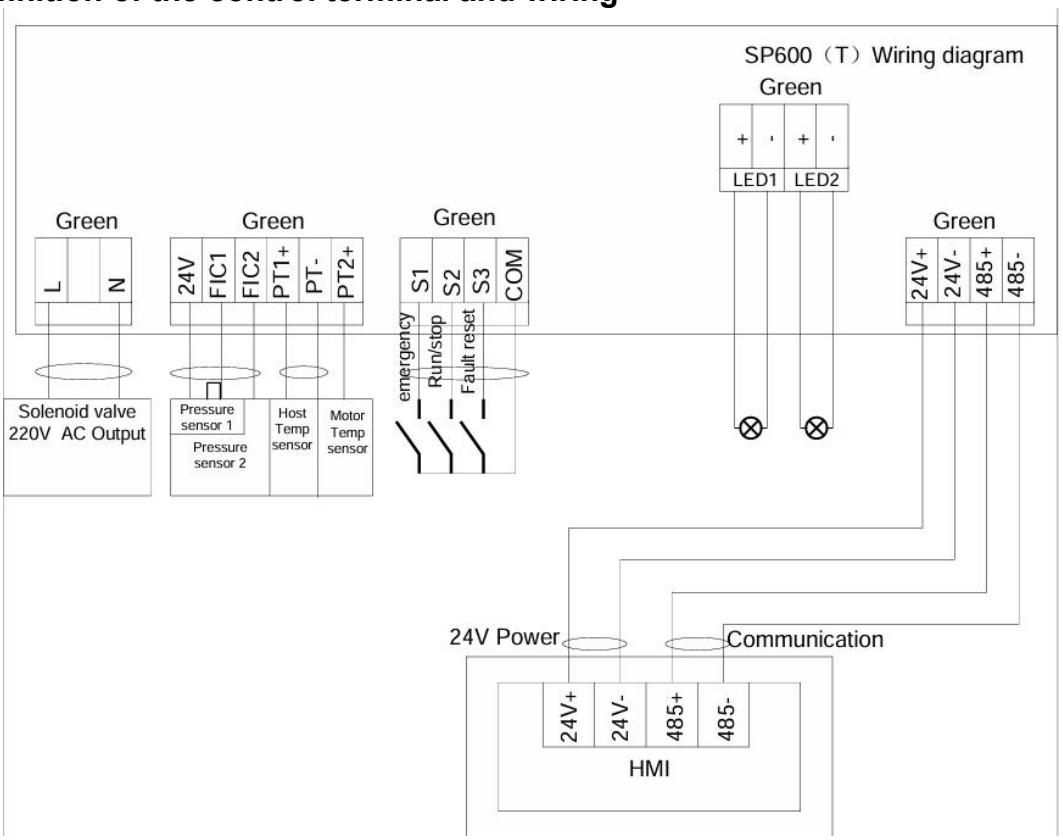
3.0 Terminal Definition

3.1 Main circuit terminal definitions



Terminal symbol	Terminal functions
R、S、T	Three-phase AC input terminals
U1、V1、W1	Master three-phase AC inverter output terminals
U2、V2、W2	Fan-phase AC output terminal
PE	Ground terminal

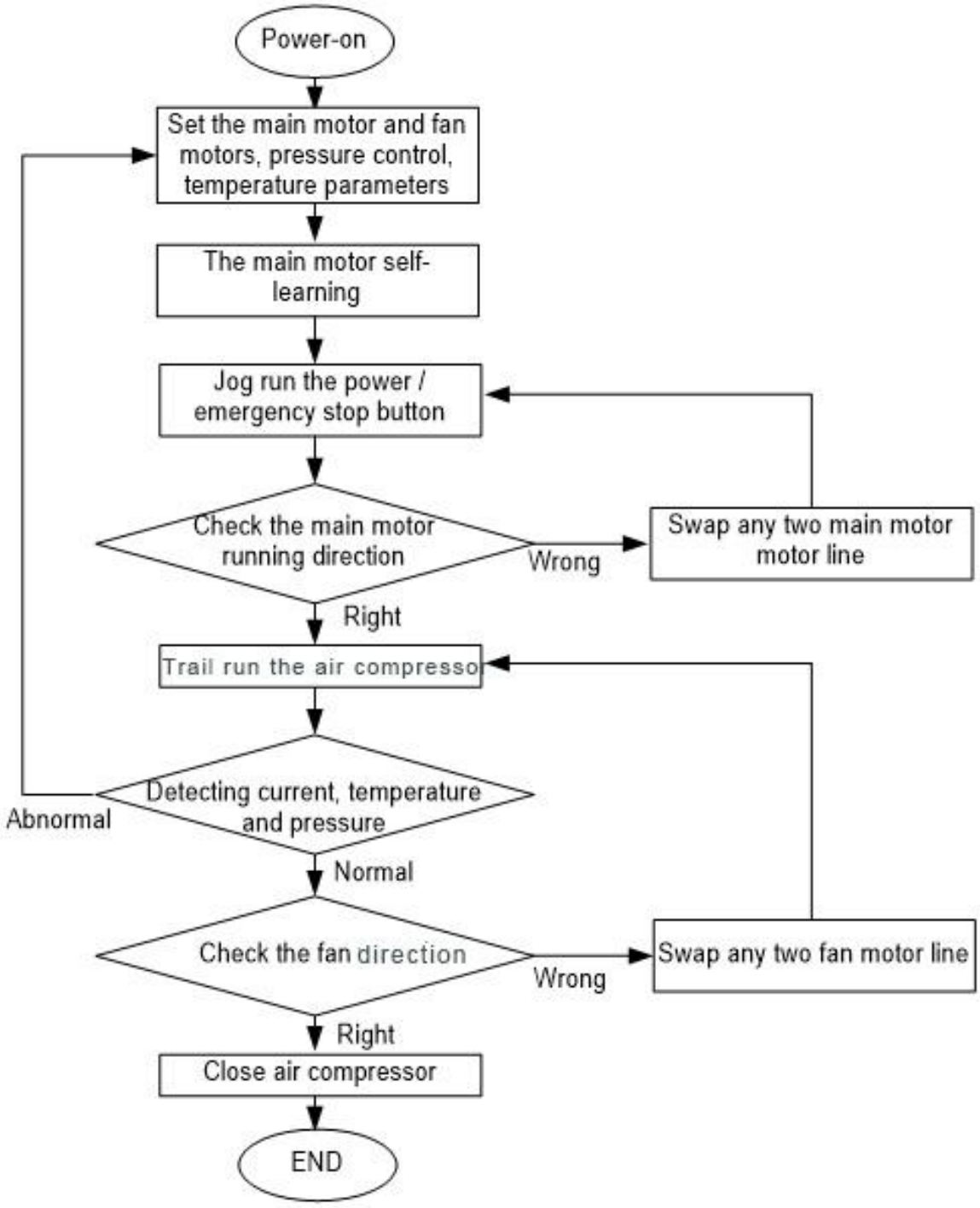
3.2 Definition of the control terminal and wiring



3.3 Rated input / output current

Model	Rated input current（A）	Host-rated output current（A）	Fan rated output current（A）
SP600T-5R5G-4	15.9	13	3
SP600T-7R5G-4	20	17	3
SP600T-11G-4	26	25	3
SP600T-15G-4	35	32	3
SP600T-18R5G-4	38	37	3
SP600T-22G-4	46	45	3
SP600T-30G-4	62	60	3
SP600T-37G-4	76	75	3
SP600T-45G-4	92	90	15
SP600T-55G-4	113	110	15
SP600T-75G-4	157	150	15
SP600T-90G-4	180	176	15
SP600T-110G-4	214	210	15
SP600T-132G-4	256	253	15
SP600T-160G-4	307	300	15

4.0 Debugging Process



5.0 Controller Function parameter

Group P0 Monitoring Preferences			
Code	**Function**	**Setting Range**	**Type of data**
P0.00	Display selection	0-32	Read-only
P0.01	Set frequency	0.01Hz	Read-only
P0.02	Output frequency	0.1Hz	Read-only
P0.03	Output current	0.1A	Read-only
P0.04	Running speed	1rpm	Read-only
P0.05	DCV	0.1V	Read-only
P0.06	Inverter temperature	1℃	Read-only
P0.07	Pressure compressor	0.01MPa	Read-only
P0.08	Running hours	1hour	Read-only
P0.09	Output voltage	0.1V	Read-only
P0.10	PID stage status	0：Start-up delay 1： Loading delay 2： Running 3： Pressure relief 4： Sleeping 10：Stop delay 11：Standby 12：Restart delay 13：malfunction	Read-only
P0.11	PID each stage timing	1s	Read-only
P0.13	Head temperature	1℃（PT1+/PT1-）	Read-only
P0.14	Inverter fault	Bit0: Inverter fault Bit1: Air Compressor overheating Bit2: Air Compressor over pressure Bit3: EMERGENCY	Read-only

		Bit4: Fan status Bit5: Phase sequence fault Bit6: Pressure sensor failure(<2Ma) Bit7: Motor overheating PT100 Bit8: Motor failure PTC Bit9: Communication fault Bit10: Electromagnetic valve Bit11: Reserved Bit12: Fan motor over current alarm Bit13: Fan inverter alarm	
P0.15	Air filter used time	1hour	Read-only
P0.16	Oil filter used time	1hour	Read-only
P0.17	Splitter used time	1hour	Read-only
P0.18	Lubricants used time	1hour	Read-only
P0.19	Grease used time	1hour	Read-only
P0.20	Power	0.1KW	Read-only
P0.21	Motor temperature	1℃（PT2+/PT2-）	Read-only
P0.22	Total running time	1hour	Read-only
P0.23	Total loading time	1hour	Read-only
P0.24	Total uninstall time	1hour	Read-only
P0.25	Fan current	0.0A	Read-only
P0.26	Energy used	1kwh	Read-only
P0.27	Fault code	Inverter fault codes	Read-only
P0.28	Inverter status	1：Forward running 2：Reverse running 3：Stop	Read-only
P0.29	Running time in minutes		
P0.32	Main inverter fault code		Read-only

Group P1 Master basic parameters and motor parameters			
Code	**Function**	**Setting range**	**Factory default**
P1.00	Keyboard setting frequency	0~P1.05	00.00Hz
P1.01	Control method	0:Vector without PG 1:V / F control	0
P1.02	Frequency setting mode	0:KEY 1:FIC: 4-20mA 2:Communication	0
P1.03	Operation mode	0: KEY 1: I/O 2: Communication control	1
P1.04	Enable reverse	0：Prohibit Reverse 1：Allow Reverse	0
P1.05	Upper limit frequency	0-600Hz	50.00Hz
P1.06	Lower limit frequency	00.00Hz	00.00Hz
P1.07	Acceleration time	Changing	3.00s
P1.08	Deceleration time	Changing	3.00s
P1.09	Stop mode	0-Deceleration stop; 1-Coast to stop	0
P1.12	Power Factor	0~200.0%	100.0%
P1.13	Carrier frequency	1.0-16.0k	change
P1.17	Factory Reset	8：Restore the factory value 23：Corresponding to the 4KW machine, the pressure, time factory default value and 4KW motor parameters can be restored with one click 24：Corresponding to the 7.5KW machine, the pressure, time factory default value and 7.5KW motor parameters can be restored with one click	0

P1.18	Parameter lock	0：Unlock parameters　1：Lock parameters	0
P1.19	Inverter maximum frequency	Rated motor frequency~600.00hz	50Hz
Master parameters			
P1.20	Motor type	0-Asynchronous；2-Synchronous	Refer to the motor
P1.21	Rated motor power	0.1~1000.0kW	Refer to the motor
P1.22	Rated motor voltage	0~690V	Refer to the motor
P1.23	Rated motor current	0.01~655.35A	Refer to the motor
P1.24	Rated motor frequency	0.00~600.00HZ	Refer to the motor
P1.25	Rated motor speed	0~65536rpm	Refer to the motor
P1.26	Motor Back EMF	0~380V	Refer to the motor
P1.28	Rated fan current	When select inverter fan, Inverter read current	Refer to the motor
P1.29	Minimum percentage of fan	0-100%	40.0%
P1.30	Auto-tune	1: Static state　2: dynamic state	0
P1.31	Stator resistance RS		
P1.32	LD		
P1.33	LQ		
P1.34	Inverter function code		
P1.35	Inverter data		
Group P2 Multi-function Output			
F2.30	Fan switch mode	0: Auto; 1 ON; 2 OFF	0
F2.34	Motor temperature alarm threshold	0~200℃	125℃
P2.29	Loading mode	0：Run after the load countdown, and run with a minimum frequency, time to, load action, the frequency begins to increase； 1：After running the load countdown, PID frequency	0

		begins to increase, timing to, load action	
Group P4 Multi-function input			
P4.00	S1 function	0： no function 1：running 8：Urgent stop often closed 9：Fault reset 33：Motor overheating protection	8
P4.01	S2 function		1
P4.02	S3 function		9
P4.13	FIC Minimum input	0.00V~P4.15	2.00V
P4.15	FIC Maximum input	P4.13~10.00V	10.00V
Group P5 Air compressor constant pressure control specific parameters (set P6.00 = 1 is valid)			
P5.00	Frequency pressure	P5.02~P5.01	9.00bar（g）
P5.01	Unloading pressure	P5.00~P5.23	10.00bar（g）
P5.02	Loading pressure	0~P5.00	8.00bar（g）
P5.03	Stop pressure	P5.23~P5.04	10.60bar（g）
P5.04	Pressure gauge range	P5.03~40.00bar（g）	16.00bar（g）
P5.08	Start-up delay	0~100s	0s
P5.09	Loading delay	0~3000s	3s
P5.10	Uninstall delay	(Machine minimum running time) (this running time)	
P5.11	Restart delay	0~3000s	4s
P5.12	Stop delay	①Equal to the unloading delay; ②Equto 0 (if manual shutdown during the unloading delay countdown)	
P5.22	Fan current coefficient		1000
P5.23	Sleep pressure	P5.01~P5.03	10.50bar（g）
P5.36	Fan minimum operating time (s)	0~60000s	600s
P5.37	Machine minimum running time (s)	0~60000s	360S

P5.53	Loading	0:No function; 1：running; 2：Fault；10:loading; 11:Fan of air compressor	10(loading)
P5.54	3phase 380V fan		11
Group P6			
P6.00	Compressor constant voltage control mode valid	0- Invalid 1- Valid	0
P6.02	Inverter fan temperature		75℃
P6.07	PID-P	0.0~200.0	100.0
P6.08	PID-I	0.0~200.0s	0.5s
P6.10	PID Steps	0.00~10.00Hz	2.50Hz
P6.21	PID feedback loss alarm mode	0: No warning 1: Warning but not stop, fault code “20” 2: warning and stop, fault code“20”	0
P6.22	PID feedback loss detection value	Range :0~10.0V (If 4~20mA is selected, it is disconnected if it is less than 2mA; set P622=2mA*500Ω=0.50V)	1.00V
P6.23	PID feedback loss detection value	0.0s~20.0s	1.0s
P6.24	PID setting		
Group P8 Advanced parameters			
P8.00	Group P8 Parameter Lock	0- LOCK 1- UNLOCK	1
P8.13	Phase sequence detection times	0~1000	300
P8.14	Temperature correction coefficient	0-200.0%	100%
P8.15	Inverter type	0- Synchronous，1- Asynchronous	0
P8.16	Fan work mode	1	1
Group P9			
P9.12	Input phase loss	0-Stop，1-Start	
P9.13	Phase sequence protection	0-Stop，1-Start	
Air Compressor Fault Type			
H-OP		Over voltage alarm	
H-OH		Over-temperature alarm	

NOTO	Motor overheating protection
ES	EMERGENCY stop
CO	Communication failure (inverter)
PHAS	Phase sequence fault
NNA	Pressure Sensor disconnection fault
djoH	Motor overtemperature alarm
Master inverter fault	
oC1 oC2 oC3	Over current
oU1 oU2 oU3	Over voltage
LU	Under voltage
CBC	Rapid current limit timeout
Lo	Output phase loss
oL1	Motor overload
oL2	Inverter overload
oH	Inverter overheat
IE	Current detection abnormal
CE	Communication timeout
EF	External fault
RAY	Relay abnormal
Inverter fan fault	
FoC1, FoC2, FoC3	Output short circuit
FUC1,FUC2,FUC3	Output short circuit
FoU1,FoU2,FoU3	Over voltage
FLU	Under voltage
Flo	Output phase loss
FoL1,FoL2,FoL3	Inverter overload
FoH	Inverter overheat

7.0 Inverter parameters

Symbols in the function table are described as follows:

"☆": It means that the set value of this parameter can be changed when the Inverter is in the shutdown and running state;

"★": It means that the set value of this parameter cannot be changed when the Inverter is in the running state;

"●": It means that the value of the parameter is the actual detected recorded value and cannot be changed;

"*": It indicates that the parameter is "manufacturer parameter", which is only set by the manufacturer and is forbidden to operate;

Brief table of basic function parameters:

Code	Function	Setting Range	Factory value	Symbol
P0 basic function group				
P0.00	G / P type is displayed	1: Model G (constant torque load model) 2: P type (fan and water pump load type)	Model determination	●
P0.01	Control mode selection	0: No PG vector control 1: Have a PG vector control 2: V / F control	0	★
P0.02	Command source selection	0: Keyboard instruction channel (LED inactive) 1: Terminal command channel (LED bright) 2: Communication instruction channel (LED flashing)	0	☆
P0.03	Main frequency source X selection	0: Digital setting (preset frequency P0.08, UP / DOWN can be modified, power loss without memory) 1: Digital setting (preset frequency P0.08, UP / DOWN modifiable, power memory) 2：FIV 3：FIC 4: Keep 5: PULSE Pulse setting (S3)	0	★

		6: Multiple instructions 7: Simple PLC 8：PID 9: Communication given		
P0.04	Secondary frequency source Y selection	Same as P0.03 (main frequency source X selection)	0	★
P0.05	Auxiliary frequency source Y range selection when superposition	0: relative to the maximum frequency 1: relative to the frequency source X	0	☆
P0.06	Range of the auxiliary frequency source Y upon superposition	0% ~ 150%	100%	☆
P0.07	Frequency source superposition selection	Individual bit: frequency source selection 0: Main frequency source X 1: Main and auxiliary operation results (Operation relationship is determined by the ten digits) 2: Main frequency source X and the auxiliary frequency source Y switch 3: Main frequency source X and the main and auxiliary operation results switch 4: Switch between the auxiliary frequency source Y and the main and auxiliary operation results Ten place: frequency source main and auxiliary operation relationship 0: Main + auxiliary	00	☆

		1: Master-auxiliary 2: Maximum value of both cases 3: Minimum value of both cases		
P0.08	Preset frequency	0.00Hz~ Maximum frequency (P0.10)	50.00Hz	☆
P0.09	Running direction	0: Direction same 1: Opposite direction	0	☆
P0.10	Maximun-frequency	50.00Hz ~ 600.00Hz	50.00Hz	★
P0.11	Upper limit frequency source	0: P0.12 setting 1：FIV 2：FIC 3: Keep 4: PULSE pulse setting 5: Communication given	0	★
P0.12	Upper limiting frequency	Lower limit frequency P 0.14 to maximum frequency P0.10	50.00Hz	☆
P0.13	Upper limit frequency bias	0.00Hz~ maximum frequency P0.10	0.00Hz	☆
P0.14	Lower limit frequency	0.00 Hz to upper limit frequency P0.12	0.00Hz	☆
P0.15	carrier frequency	0.5kHz ~ 8.0kHz	Model determination	☆
P0.16	Carrier frequency is adjusted with the temperature	0: No 1: Is	1	☆
P0.17	Acceleration time 1	0.00s ~ 65000s	Model determination	☆
P0.18	Slow down time 1	0.00s ~ 65000s	Model determination	☆
P0.19	Time unit of acceleration and deceleration	0:1 Seconds 1:0.1 Seconds 2:0.01 sec	1	★
P0.21	Auxiliary frequency source bias frequency upon superposition	0.00Hz~ the maximum frequency P0.10	0.00Hz	☆
P0.22	Frequency command resolution	2：0.01Hz	2	★
P0.23	Digital setting frequency shutdown memory selection	0: No memory 1: Memory	0	☆
P0.25	Acceleration of deceleration	0: Maximum frequency (P0.10)	0	

	time reference frequency	1: Set the frequency 2：100Hz		★
P0.26	Runtime frequency instruction UP/DOWN benchmark	0: Operating frequency 1: Set the frequency	0	★
P0.27	Command source bundle frequency source	Individual: action panel command binding frequency source selection 0: No binding 1: Number setting frequency 2：FIV 3：FIC 4: Keep 5: PULSE Pulse setting (S3) 6: Multi-section speed 7: Simple PLC 8：PID 9: Communication given Ten place: terminal command binding frequency source selection 100 bits: communication command binding frequency source selection Thousand bits: automatically run the binding frequency source selection	0000	☆
P1 Motor parameters				
P1.00	Motor type	2: Permanent magnet synchronous motor	2	★
P1.01	Motor rated power	0.1kW ~ 1000.0kW	Model determination	★
P1.02	Motor rated voltage	1V ~ 2000V	Model determination	★
P1.03	Rated current of motor	0.1A ~ 6553.5A	Model determination	★
P1.04	Rated frequency of motor	At 0.01Hz~ the maximum frequency	Model determination	★

P1.05	Motor rated speed	1rpm ~ 65535rpm	Model determination	★
P1.16	Synchronous motor stator resistance	0.001Ω ~ 65.535Ω (Inverter power <=55kW) 0.0001Ω ~ 6.5535Ω (Frequter power> 55kW)	Learning parameters	★
P1.17	Synchronizing motor D-axis inductor	0.01mH ~ 655.35mH (Inverter power <=55kW) 0.001mH ~ 65.535mH (Frequter power> 55kW)	Learning parameters	★
P1.18	Q-axis inductance of the synchronous motor	0.01mH ~ 655.35mH (Inverter power <=55kW) 0.001mH ~ 65.535mH (Frequter power> 55kW)	Learning parameters	★
P1.20	Synchronous motor with a reverse electromotive force	0.1V ~ 6553.5V	Learning parameters	★
P1.27	Number of encoder lines	1 ~ 65535	1024	★
P1.28	Encoder type	0: ABZ incremental encoder 1: UVW incremental encoder 2: Rotary transformer 3: A cosine encoder 4: provincial line UVW encoder	0	★
P1.30	ABZ incremental encoder AB phase sequence	0: Positive 1: Reverse	0	★
P1.31	Encoder installation angle	0.0 ~ 359.9°	0.0°	★
P1.32	UVW encoder has a UVW phase sequence	0: Positive 1: Reverse	0	★
P1.33	UVW encoder bias angle	0.0 ~ 359.9°	0.0°	★
P1.34	Rotary transformer pole-log	1 ~ 65535	1	★
P1.36	Speed feedback PG break detection time	0.0: No action 0.1s ~ 10.0s	0.0	★

P1.37	Self-learning choice	0: No operation 11: Synchronization machine static self-learning 12: Synchronization machine comprehensive self-learning	0	★
P2 group motor vector control parameters				
P2.00	Velocity-ring proportional gain of 1	1 ~ 100	10	☆
P2.01	Velocity loop integration time of 1	0.01s ~ 10.00s	0.50s	☆
P2.02	Switch frequency 1	0.00 ~ P2.05	5.00Hz	☆
P2.03	Velocity-loop proportional gain of 2	1 ~ 100	10	☆
P2.04	Velocity loop integration time 2	0.01s ~ 10.00s	1.00s	☆
P2.05	Switch frequency 2	P 2.02 to maximum frequency	10.00Hz	☆
P2.09	Torque upper limit source under speed control mode	0: Set of function code P2.10 1：FIV 2：FIC 3: Keep 4: PULSE pulse setting 5: Communication given 6：MIN（FIV,FIC） 7：MAX（FIV,FIC） Full range of options 1-7 corresponds to P2.10	0	☆
P2.10	Digital setting of torque limit under speed control mode (electric)	0.0% ~ 200.0%	150.0%	☆
P2.11	Torque ceiling source under speed control mode (power generation)	0: Set of function code P2.10 1：FIV 2：FIC 3: Keep 4: PULSE pulse setting	0	☆

		5: Communication given 6：MIN（FIV,FIC） 7：MAX（FIV,FIC） Full range of options 1-7 corresponds to P2.12		
P2.12	Number setting of torque upper limit under speed control mode (power generation)	0.0%～200.0%	150.0%	☆
P2.13	Excitation regulation proportional gain	0～60000	Learning parameters	☆
P2.14	Excitation regulation of integral gain	0～60000	Learning parameters	☆
P2.15	Torque regulation proportional gain	0～60000	Learning parameters	☆
P2.16	Torque adjustment integral gain	0～60000	Learning parameters	☆
P2.18	Synchronizer in weak magnetic mode	0: Weak magnetic ineffectiveness 1: Direct calculation mode 2: Automatic adjustment mode	1	☆
P2.19	Weak magnetic depth of the synchronizer	1～50	05	☆
P2.22	Generating torque cap is enabled	0: Invalid 1: valid	0	☆
P2.23	Synchronizer output voltage amplitude	0%~50%	5%	☆
P2.24	Current is detected at the initial position of the synchronmachine	50%~120%	120%	☆
P2.25	Synchronizer initial position angle detection	0 (detected for every run) 1 (No detection) 2 (first operation test)	0	☆
P2.27	Synchronizer convex pole rate adjusted gain	50~500	100	☆
P2.28	Maximum torque-to-current ratio control	0 (off), 1 (on)	0	☆
P2.36	Low-speed excitation current of the synchronous machine	0~80%	30%	☆

P2.37	Start carrier frequency	0.8kHZ~P0.15	4	☆
P2.38	SVC low-frequency braking mode	0 (Not adopted) 1 (shutdown shutdown) 2 (used for shutdown)	0	☆
P2.39	SVC low-frequency brake effective frequency	0~10.00Hz	2.00	☆
P2.40	SVC low frequency brake frequency change step size	0.0005~1.0000Hz	0.0010	☆
P2.41	SVC low-frequency brake current	0~80%	80	☆
P2.42	SVC velocity tracking	0 (off), 1 (on)	0	☆
P2.43	Zero servo enabling	0 (off), 1 (on)	0	☆
P2.44	Switch frequency	0.00~P2.02	0.30	☆
P2.45	Zero servo speed ring proportional gain	1~100	10	☆
P2.46	Zero-servo-speed loop integration time	0.01s~10.00s	0.50	☆
P2.47	Downtime prohibited reversal	0 (off), 1 (on) (Prevent motor reversal when slowing down to 0Hz)	0	☆
P2.48	Downtime Angle	0.0°~10.0° (Value is appropriately increased in the factory case)	0.8°	☆
P2.49	No tuning mode	0: Close 1: Power on and test once 2: Turn it on every time	0	☆
P2.50	Online antiEMF calculation	0: No calculation 1: Calculate	0	☆
P2.51	Low-speed load-frequency adjustment range	0~100%	0	☆
P6 Start-stop parameter group				
P6.00	Starting mode	0: Direct start	0	☆
P6.03	Start frequency	0.00Hz ~ 10.00Hz	0.00Hz	☆
P6.04	Start the frequency hold time	0.0s ~ 100.0s	0.0s	★

P6.07	Add deceleration mode	0: Linear acceleration and deceleration 1: S-curve acceleration and deceleration A 2: S-curve acceleration and deceleration of B	0	★
P6.08	S curve start period time scale	0.0% ~ （100.0%-P6.09）	30.0%	★
P6.09	S curve end period time scale	0.0% ~ （100.0%-P6.08）	30.0%	★
P6.10	Downtime method	0: Slow down and stop 1: Free to stop	1	☆
P6.15	Brake utilization rate	0% ~ 100%	100%	☆
P7 group keyboard and display				
P7.01	JOG functional parameter	0: No functional. 1: Keyboard command and remote operation switch. Switch of the command source, namely the current command source and the keyboard control (local operation). This key function is invalid if the current command source is keyboard controlled. 2: Forward and reverse switch to switch the direction of the frequency command through the JOG key. This feature is only valid if the command source is the action panel command channel. 3: Through the keyboard JOG key (JOG-FWD). 4: Reverse the keyboard JOG key (JOG-REV)	0	★
P7.02	STOP / RESET key function	0: STOP / RES key shutdown function only in keyboard mode 1: STOP / RES key shutdown function is valid in any operation mode	1	☆
P7.03	LED run display parameter 1	0000 ~ FFFF	1F	☆

		Bit 00: Operating Frequency 1 (Hz) Bit 01: Set Frequency (Hz) Bit 02: Bus voltage (V) Bit 03: Output voltage (V) Bit 04: output current (A) Bit 05: Output power (kW) Bit 06: Output torque is (%) Bit 07:, and the input terminal status Bit 08:, Output terminal status Bit 09: FIV voltage (V) Bit 10: FIC Voltage (V) Bit 11: reserved Bit 12: Count value Bit 13: Length value Bit 14:, with the load speed display Bit 15: PID setting		
P7.04	LED run display parameter 2	0000 ~ FFFF Bit00:PID feedback Bit 01: This is at the PLC stage Bit 02: PULSE input pulse frequency (kHz) Bit 03: Operating Frequency 2 (Hz) Bit 04: the remaining running time Bit 05: FIV pre front voltage (V) Bit 06: FIC correction front voltage (V) Bit 07: reserved Bit 08: Line speed Bit 09: Current Power-Up Time (Hour) Bit 10: Current running time (Min) Bit 11: PULSE Input pulse frequency (Hz) Bit 12: Communication settings	0	☆

		Bit 13: Encoder feedback speed (Hz) Bit 14: Main Frequency X Display (Hz) Bit 15: Auxiliary frequency Y display (Hz)		
P7.05	LED shutdown to display the parameters	0000 ~ FFFF Bit 00: Set Frequency (Hz) Bit 01: Bus voltage (V) Bit 02:, and the input terminal status Bit 03:, Output terminal status Bit 04: FIV voltage (V) Bit 05: FIC voltage (V) Bit 06: reserved Bit 07: Count value Bit 08: Length value Bit 09: PLC stage Bit 10: Load speed Bit 11: PID setting Bit 12: PULSE input pulse frequency (kHz)	33	☆
P7.06	Load speed display coefficient	0.0001 ~ 6.5000	1.0000	☆
P7.07	Inverter module, the radiator temperature	0.0℃ ~ 100.0℃	-	●
P7.09	Cumulative running time	0h ~ 65535h	-	●
P7.11	Software version number	-	-	●
P7.12	Load speed shows the decimal number	In the 0:0 decimal places 1:1 decimal place 2:2 decimal places In the 3:3 decimal places	1	☆
P7.13	Cumulative power time	0h ~ 65535h	-	●
P7.14	Accumulated power consumption	0~65535 degrees	-	●
P8 group auxiliary function				
P8.00	Point movement operation frequency	At 0.00Hz~ the maximum frequency	2.00Hz	☆

P8.01	Point motion acceleration time	0.0s ~ 6500.0s	20.0s	☆
P8.02	Point motion deceleration time	0.0s ~ 6500.0s	20.0s	☆
P8.03	Acceleration time 2	0.0s ~ 6500.0s	Model determination	☆
P8.04	Slow down time 2	0.0s ~ 6500.0s	Model determination	☆
P8.05	Acceleration time 3	0.0s ~ 6500.0s	Model determination	☆
P8.06	Slow down time 3	0.0s ~ 6500.0s	Model determination	☆
P8.07	Acceleration time 4	0.0s ~ 6500.0s	Model determination	☆
P8.08	Slow down time 4	0.0s ~ 6500.0s	Model determination	☆
P8.09	Jump frequency 1	At 0.00Hz~ the maximum frequency	0.00Hz	☆
P8.10	Jump frequency 2	At 0.00Hz~ the maximum frequency	0.00Hz	☆
P8.11	Jump frequency amplitude	At 0.00Hz~ the maximum frequency	0.01Hz	☆
P8.12	Forward and reverse dead zone time	0.0s ~ 3000.0s	0.0s	☆
P8.13	Reverse control enabling	0: Allow 1: prohibited	0	☆
P8.14	Set the frequency below the lower limit frequency operating mode	0: Run at the lower limit frequency 1: Downtime 2: Zero speed operation	0	☆
P8.15	Drop control	0.00Hz ~ 10.00Hz	0.00Hz	☆
P8.16	Set the cumulative power arrival time	0h ~ 65000h	0h	☆
P8.17	Sets the cumulative run arrival time	0h ~ 65000h	0h	☆
P8.18	Start protection options	0: no protection 1: protection	0	☆
P8.19	Frequency detection value (FDT 1)	At 0.00Hz~ the maximum frequency	50.00Hz	☆
P8.20	Frequency detection Lag value (FDT 1)	0.0%~100.0% (FDT 1 level)	5.0%	☆

P8.21	Frequency reaches the detected width	0.0%~100.0% (maximum frequency)	0.0%	☆
P8.22	Whether the jump frequency is effective during the acceleration and deceleration process	0: invalid 1: valid	0	☆
P8.25	Acceleration time 1 and acceleration time 2 switch the frequency point	At 0.00Hz~ the maximum frequency	0.00Hz	☆
P8.26	Ation time 1 and deceleration time 2 switch frequency points	At 0.00Hz~ the maximum frequency	0.00Hz	☆
P8.27	Terminal point motion is preferred	0: invalid 1: valid	0	☆
P8.28	Frequency detection value (FDT 2)	At 0.00Hz~ the maximum frequency	50.00Hz	☆
P8.29	Frequency detection Lag value (FDT 2)	0.0%~100.0% (FDT 2 level)	5.0%	☆
P8.30	Arbitrary arrival frequency detection value of 1	At 0.00Hz~ the maximum frequency	50.00Hz	☆
P8.31	Any arrival frequency detection width of 1	0.0%~100.0% (maximum frequency)	0.0%	☆
P8.32	Arbitrary arrival frequency detection value of 2	At 0.00Hz~ the maximum frequency	50.00Hz	☆
P8.33	Any arrival frequency detection width 2	0.0%~100.0% (maximum frequency)	0.0%	☆
P8.34	Zero-current detection level	0.0% ~ 300.0% 100.0% corresponds to the motor rated current	5.0%	☆
P8.35	Zero-current detection delay time	0.01s ~ 600.00s	0.10s	☆
P8.36	Output current exceeds the limit value	0.0% (not tested) 0.1% to 300.0% (rated current of the motor)	200.0%	☆
P8.37	Output current overrun detection delay time	0.00s ~ 600.00s	0.00s	☆
P8.38	Arbitrary arrival current of 1	0.0%~300.0% (rated current of the motor)	100.0%	☆
P8.39	Any reach current 1 width	0.0%~300.0% (rated current of the motor)	0.0%	☆
P8.40	Arbitrary arrival current 2	0.0%~300.0% (rated current of the motor)	100.0%	☆

P8.41	Any reach current 2 width	0.0%~300.0% (rated current of the motor)	0.0%	☆
P8.42	Time function selection	0: Invalid 1: valid	0	☆
P8.43	Timed running time selection	0: P8.44 Setting 1：FIV 2：FIC 3: Keep Simulated input range corresponds to P8.44	0	☆
P8.44	Time running time	0.0Min ~ 6500.0Min	0.0Min	☆
P8.45	Lower FIV input voltage	0.00V ~ P8.46	3.10V	☆
P8.46	Upper FIV input voltage protection value	P8.45 ~ 10.00V	6.80V	☆
P8.47	Module temperature arrives	0℃ ~ 100℃	75℃	☆
P8.48	Heat dissipation fan control	0: Fan operates during operation 1: Fan is always running	0	☆
P8.49	Wake up frequency	Dormant frequency (P8.51) ~ Maximum frequency (P0.12)	0.00Hz	☆
P8.50	Wake up delay time	0.0s ~ 6500.0s	0.0s	☆
P8.51	Dormancy frequency	0.00Hz~ Wake-Up Frequency (P8.49)	0.00Hz	☆
P8.52	Sleep delay time	0.0s ~ 6500.0s	0.0s	☆
P8.53	Set the arrival time of this run	0.0Min ~ 6500.0Min	0.0Min	☆
P8.54	Output power correction coefficient	0~200%	100%	☆
P8.55	Current correction coefficient	0~200%	100%	☆
P9 group failure and protection				
P9.00	Motor overload protection selection	0: Ban 1: allow	1	☆
P9.01	Motor overload protection gain	0.20 ~ 10.00	1.00	☆

P9.02	Motor overload early warning factor	50% ~ 100%	80%	☆
P9.03	Overpressure stall gain	0 ~ 100	0	☆
P9.04	Over-voltage stall protection voltage	120% ~ 150%	130%	☆
P9.05	Overloss speed gain	0 ~ 100	20	☆
P9.06	Over-drain speed protection current	100% ~ 200%	150%	☆
P9.07	Power up to ground short circuit protection selection	0: Invalid 1: valid	1	☆
P9.09	Number of automatic reset	0 ~ 20	0	☆
P9.10	Fault YO action during automatic reset elect	0: Do not move 1: Action	0	☆
P9.11	Automatic fault reset interval time	0.1s ~ 100.0s	1.0s	☆
P9.12	Enter the missing phase-protection selection	0: Ban 1: allow	1	☆
P9.13	Output the missing phase protection selection	0: Ban 1: allow	1	☆
P9.14	First-time fault type	0: No fault 1: Keep 2: Accelerated overcurrent 3: Decelerated overcurrent 4: Constant speed over current 5: Accelerate the overvoltage 6: Deceleration overvoltage 7: Constant speed overvoltage 8: Buffered resistance to overload 9: Underpressure 10: Inverter overload 11: Motor overload 12: Enter missing phase	-	●
P9.15	Second failure type	13: Output-phase deficiency 14: Module is overheated 15: External failure 16: Communication is abnormal 17: abnormal	-	●

		18: Abnormal current detection 19: Motor self-learning is abnormal 20: Encoder / PG card is abnormal 21: abnormal parameter reading and writing 22: Inverter hardware is abnormal 23: Motor short circuit to the ground 24: Keep 25: Keep		
P9.16	Third (most recent) failure type	26: Run time arrives 27: User-defined fault 1 28: User-defined fault 2 29: Power-up on the time to arrive 30: Loading 31: PID feedback is lost during the runtime 40: Fast current limit timeout 41: Switch the motor during operation 42: Excessive speed deviation 43: Motor overspeed 45: Motor over-temperature 51: Initial position error	-	●
P9.17	Frequency at the third (latest) failure	-	-	●
P9.18	Current at the third (latest) failure	-	-	●
P9.19	Bus voltage at the third (latest) failure	-	-	●
P9.20	Third time (last time), enter the terminal status during the failure	-	-	●
P9.21	Third (latest), the output terminal status during the failure	-	-	●
P9.22	Frequter status at the third (latest) failure	-	-	●

P9.23	Power time for the third (latest) failure	-	-	●
P9.24	Run time for the third (latest) failure	-	-	●
P9.27	Frequency at the second failure	-	-	●
P9.28	Current at the second fault	-	-	●
P9.29	Bus voltage during the second failure	-	-	●
P9.30	Enter the terminal status for the second failure	-	-	●
P9.31	Output terminal status at the second failure	-	-	●
P9.32	Inverter status during the second failure	-	-	●
P9.33	Power-on time during the second failure	-	-	●
P9.34	Run time for the second failure time	-	-	●
P9.37	Frequency at the first failure	-	-	●
P9.38	Current at the first fault	-	-	●
P9.39	Bus voltage at the first failure	-	-	●
P9.40	Enter the terminal status at the first failure	-	-	●
P9.41	Output terminal status at the first failure	-	-	●
P9.42	Frequter status at the first failure	-	-	●
P9.43	Power time during the first failure	-	-	●
P9.44	Run time during the first failure	-	-	●
PID function in PA group				
PA.00	PID for a given source	0: PA.01 setting 1：FIV 2：FIC	0	☆

		3: Keep 4: PULSE Pulse setting (S3) 5: Communication given 6: Multiple instructions are given		
PA.01	PID values are given	0.0% ~ 100.0%	50.0%	☆
PA.02	PID feedback source	0：FIV 1：FIC 2: Keep 3：FIV-FIC 4: PULSE Pulse setting (S3) 5: Communication given 6：FIV+FIC 7：MAX（|FIV|, |FIC|） 8：MIN（|FIV|, |FIC|）	0	☆
PA.03	PID application direction	0: Positive effect 1: Counteraction	0	☆
PA.04	PID given the feedback range	0 ~ 65535	1000	☆
PA.05	Proportional gain of Kp 1	0.0 ~ 100.0	20.0	☆
PA.06	Integral the time, Ti1	0.01s ~ 10.00s	2.00s	☆
PA.07	Differential time, Td 1	0.000s ~ 10.000s	0.000s	☆
PA.08	PID reversal cutoff frequency	From 0.00 to the maximum frequency	0.00Hz	☆
PA.09	PID deviation limit	0.0% ~ 100.0%	0.0%	☆
PA.10	PID differential limit amplitude	0.00% ~ 100.00%	0.10%	☆
PA.11	PID given the time of change	0.00 ~ 650.00s	0.00s	☆
PA.12	PID feedback filtering time	0.00 ~ 60.00s	0.00s	☆

PA.13	PID output filter time	0.00 ~ 60.00s	0.00s	☆
PA.15	Proportional gain of KP 1	0.0 ~ 100.0	20.0	☆
PA.16	Integration time Ti2	0.01s ~ 10.00s	2.00s	☆
PA.17	Differential time, Td 2	0.000s ~ 10.000s	0.000s	☆
PA.18	PID parameter switching condition	0: Don't switch 1: Switch through the S-terminal 2: Automatic switch according to the deviation	0	☆
PA.19	PID parameter switching deviation 1	0.0% ~ PA.20	20.0%	☆
PA.20	PID parameter switching deviation 2	PA.19 ~ 100.0%	80.0%	☆
PA.21	PID starter	0.0% ~ 100.0%	0.0%	☆
PA.22	PID initial value holding time	0.00 ~ 650.00s	0.00s	☆
PA.23	Two output deviation positive maximum value	0.00% ~ 100.00%	1.00%	☆
PA.24	Two output deviation reverse maximum	0.00% ~ 100.00%	1.00%	☆
PA.25	PID integration attribute	Individual bit: integral separation 0: invalid 1: valid Ten place: stop integration after output to the limit 0: Continue the points 1: Stop points	00	☆
PA.26	PID feedback loss detection value	0.0%: not judging the feedback loss 0.1% ~ 100.0%	0.0%	☆
PA.27	PID feedback loss detection time	0.0s ~ 20.0s	0.0s	☆
PA.28	PID shutdown operation	0: Stop without operation 1: Operation during shutdown	0	☆
PC group of multiple instructions, simple PLC				

PC.00	Multiparagraph instruction 0	-100.0% ~ 100.0%	0.0%	☆
PC.01	Multiparagraph Directive 1	-100.0% ~ 100.0%	0.0%	☆
PC.02	Multiparagraph Directive 2	-100.0% ~ 100.0%	0.0%	☆
PC.03	Multiparagraph Directive 3	-100.0% ~ 100.0%	0.0%	☆
PC.04	Multiparagraph Directive 4	-100.0% ~ 100.0%	0.0%	☆
PC.05	Multiparagraph Directive 5	-100.0% ~ 100.0%	0.0%	☆
PC.06	Multiparagraph Directive 6	-100.0% ~ 100.0%	0.0%	☆
PC.07	Multiparagraph Directive 7	-100.0% ~ 100.0%	0.0%	☆
PC.08	Multiparagraph instruction 8	-100.0% ~ 100.0%	0.0%	☆
PC.09	Multiparagraph Directive 9	-100.0% ~ 100.0%	0.0%	☆
PC.10	Multiparagraph Directive 10	-100.0% ~ 100.0%	0.0%	☆
PC.11	Multiparagraph Directive 11	-100.0% ~ 100.0%	0.0%	☆
PC.12	Multiparagraph Directive 12	-100.0% ~ 100.0%	0.0%	☆
PC.13	Multiparagraph Directive 13	-100.0% ~ 100.0%	0.0%	☆
PC.14	Multiparagraph Directive 14	-100.0% ~ 100.0%	0.0%	☆
PC.15	Multiparagraph Directive 15	-100.0% ~ 100.0%	0.0%	☆
PC.16	Simple PLC operation mode	0: Stop after a single operation 1: Maintain the final value at the end of a single run 2: Always cycle	0	☆
PC.17	Simple PLC power memory selection	One bit: power loss memory selection 0: Power loss without memory 1: ELECTRIC memory Ten-place: shutdown memory selection	00	☆

		0: Stop without memory 1: Stop memory		
PC.18	Simple PLC paragraph 0 run time	0.0s（h）～6553.5s（h）	0.0s(h)	☆
PC.19	Select the acceleration and deceleration time of the simple PLC in paragraph 0	0～3	0	☆
PC.20	Easy PLC paragraph 1 run time	0.0s（h）～6553.5s（h）	0.0s(h)	☆
PC.21	Paragraph 1 of acceleration and deceleration time selection of simple PLC	0～3	0	☆
PC.22	Easy PLC paragraph 2 run time	0.0s（h）～6553.5s（h）	0.0s(h)	☆
PC.23	Simple PLC paragraph 2 acceleration and deceleration time selection	0～3	0	☆
PC.24	Simple PLC paragraph 3 run time	0.0s（h）～6553.5s（h）	0.0s(h)	☆
PC.25	Simple PLC paragraph 3 of acceleration and deceleration time selection	0～3	0	☆
PC.26	Simple PLC paragraph 4 run time	0.0s（h）～6553.5s（h）	0.0s(h)	☆
PC.27	Paragraph 4 of acceleration and deceleration time selection of simple PLC	0～3	0	☆
PC.28	Easy PLC paragraph 5 run time	0.0s（h）～6553.5s（h）	0.0s(h)	☆
PC.29	Simple PLC paragraph 5 selection of acceleration and deceleration time	0～3	0	☆
PC.30	Simple PLC paragraph 6 run time	0.0s（h）～6553.5s（h）	0.0s(h)	☆
PC.31	Paragraph 6 of acceleration and deceleration time selection of simple PLC	0～3	0	☆
PC.32	Simple PLC paragraph 7 run time	0.0s（h）～6553.5s（h）	0.0s(h)	☆
PC.33	Paragraph 7 of acceleration and deceleration time selection of simple PLC	0～3	0	☆

PC.34	Easy PLC paragraph 8 run time	0.0s（h）～6553.5s（h）	0.0s(h)	☆
PC.35	Paragraph 8 of acceleration and deceleration time selection of simple PLC	0～3	0	☆
PC.36	Simple PLC paragraph 9 run time	0.0s（h）～6553.5s（h）	0.0s(h)	☆
PC.37	Selection of the acceleration and deceleration time of the simple PLC in paragraph 9	0～3	0	☆
PC.38	Easy PLC paragraph 10 run time	0.0s（h）～6553.5s（h）	0.0s(h)	☆
PC.39	Paragraph 10 of acceleration and deceleration time selection of simple PLC	0～3	0	☆
PC.40	Easy PLC paragraph 11 run time	0.0s（h）～6553.5s（h）	0.0s(h)	☆
PC.41	Paragraph 11 of simple PLC	0～3	0	☆
PC.42	Simple PLC paragraph 12 run time	0.0s（h）～6553.5s（h）	0.0s(h)	☆
PC.43	acceleration and deceleration time of simple PLC	0～3	0	☆
PC.44	Simple PLC paragraph 13 run time	0.0s（h）～6553.5s（h）	0.0s(h)	☆
PC.45	Simple PLC paragraph 13: selection of acceleration and deceleration time	0～3	0	☆
PC.46	Simple PLC paragraph 14 run time	0.0s（h）～6553.5s（h）	0.0s(h)	☆
PC.47	Paragraph 14 of acceleration and deceleration time selection of simple PLC	0～3	0	☆
PC.48	Simple PLC paragraph 15 run time	0.0s（h）～6553.5s（h）	0.0s(h)	☆
PC.49	Simple PLC paragraph 15: selection of acceleration and deceleration time	0～3	0	☆
PC.50	Simple PLC running time unit	0: s (seconds) 1: h (hours)	0	☆
PC.51	Multi-paragraph instruction 0 given way	0: Function code PC.00 is given	0	☆

		1：FIV 2：FIC 3: Keep 4: PULSE pulse 5：PID 6: preset frequency (P0.08), UP / DOWN can be modified		
Pd group communication parameters				
PD.00	Baud rate	Individual bit: MODBUS 0：300BPS 1：600BPS 2：1200BPS 3：2400BPS 4：4800BPS 5：9600BPS 6：19200BPS 7：38400BPS 8：57600BPS 9：115200BPS	0005	☆
PD.01	data format	0: No check (8-N-2) 1: even check (8-E-1) 2: odd check (8-O-1) 3：8-N-1	0	☆
PD.02	This machine address	1~247,0 is for broadcast address	1	☆
PD.03	answering delay	0ms ~ 20ms	2	☆

PD.04	Communication timeout time	0.0 (invalid), 0.1s~60.0s	0.0	☆
PD.05	Data transfer format selection	1: Standard MODBUS protocol	30	☆
PD.06	Communication to read the current resolution	0：0.01A 1：0.1A	0	☆
PP group user function code				
PP.00	User password	0 ~ 65535	0	☆
PP.01	Parameter initialization	0: No operation 01: Restore the factory parameters, excluding the motor parameters 02: Clear the record information	0	★
L5 group controls the optimization parameters				
L5.00	DPWM switching upper limit frequency	At 5.00Hz~ the maximum frequency	8.00Hz	☆
L5.01	PWM modulation mode	0: Asynchronous modulation 1: Synchronous modulation	0	☆
L5.02	Selection of dead zone compensation mode	0: No compensation 1: Compensation mode 1 2: Compensation mode 2	1	☆
L5.03	Random PWM depth	0: Random PWM is invalid 1~10: PWM carrier frequency random depth	0	☆
L5.04	Fast flow limiting enabling	0: Don't make it 1: Enable	1	☆
L5.05	Maximum output voltage coefficient	100%~120%	110%	☆
L5.06	Underpressure point setting	120.0V~1500V	Model determination	☆
L5.07	No PG optimization mode selection	2: Optimization mode 2	2	☆
L5.08	Time adjustment of dead zone	100% ~ 200%	150%	☆
L5.09	Overpressure point setting	200.0V~820.0V	Model determination	☆

Brief Table of monitoring parameters:

Code	Function	Minimum unit
D0 group basic monitoring parameters		
D0.00	Running frequency (Hz)	0.01Hz
D0.01	Set Frequency (Hz)	0.01Hz
D0.02	busbar voltage (V)	0.1V
D0.03	Output voltage (V)	1V
D0.04	Output (A)	0.01A
D0.05	Output power (kW)	0.1kW
D0.06	Output torque (%)	0.1%
D0.07	S input mode	1
D0.08	YO output state	1
D0.09	FIV voltage (V)	0.01V
D0.10	FIC voltage (V)	0.01V
D0.11	Continue to have	
D0.12	Count value	1
D0.13	Length value	1
D0.14	Load speed is shown	1
D0.15	PID setting	1
D0.16	PID feedback	1
D0.17	PLC stage	1
D0.18	PULSE Input pulse frequency (kHz)	0.01kHz
D0.19	Feedback speed (in 0.1Hz)	0.1Hz
D0.20	Remaining running time	0.1Min
D0.21	FIV correction before the voltage	0.001V
D0.22	FIC voltage before correction	0.001V
D0.23	Continue to have	
D0.24	linear velocity	1m/Min
D0.25	Current power time	1Min
D0.26	Current run time	0.1Min
D0.27	PULSE input pulse frequency	1Hz

D0.28	Communication set value	0.01%
D0.29	Encoder feedback speed	0.01Hz
D0.30	Primary frequency X is shown	0.01Hz
D0.31	Auxiliary frequency Y is shown	0.01Hz
D0.32	View any memory address value	1
D0.33	Synchronizer rotor position	0.1°
D0.34	Motor temperature value	1℃
D0.35	Target torque, (%)	0.1%
D0.36	Rotation position	1
D0.37	Power factor Angle	0.1°
D0.38	ABZ position	1
D0.39	VF separates the target voltage	1V
D0.40	VF separates the output voltage	1V
D0.41	S input status is visually displayed	1
D0.42	YO input status is visually displayed	1
D0.43	S Function Status Visual Display 1 (Function 01-Function 40)	1
D0.44	S Function Status Visual Display 2 (Function 41-Function 80)	1
D0.59	Set the frequency of (%)	0.01%
D0.60	Running frequency (%)	0.01%
D0.61	Inverter state	1