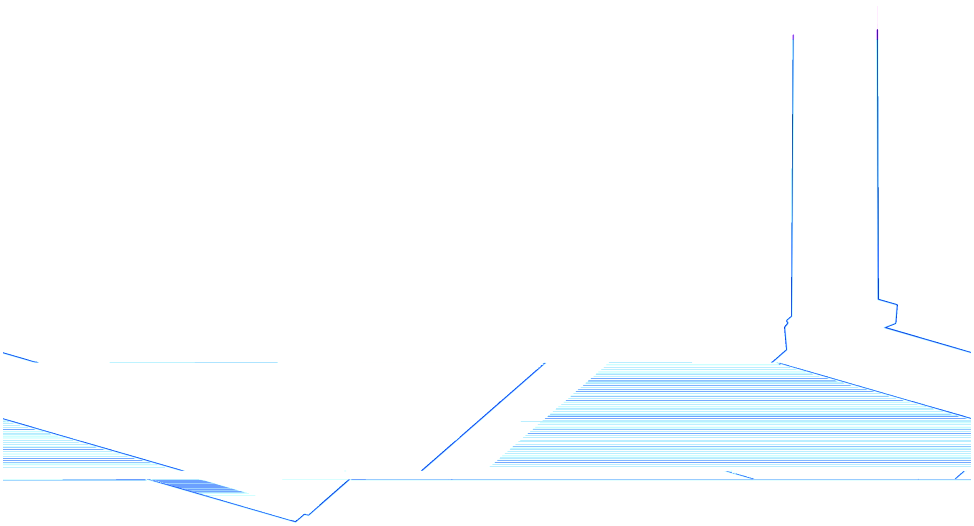
HF6000

V1.00





1. 5
2. 7
2.1. 7
2.2. 7
2.3. 8
2.4. 8
2.4.1. 9
2.4.2. 9
2.4.3. 10
2.4.4. 12
2.5. 13
2.6. 13
3. 14
3.1. 14
3.1.1. 14
3.1.2. 14
3.1.3. 15
3.1.4. 15
3.2. 16
3.2.1. 16
3.2.2. 17
3.2.3. 17
3.2.4. 18
3.2.5. 19
3.3. 20
3.3.1. 20
3.3.2. 20
3.3.3. 21
3.3.4. 21
3.3.5. 22
3.3.6. 22
3.3.7. 23
4. 24
4.1. 24
4.1.1. 24
4.1.2. 25
4.1.3. 25
4.1.4. 25
4.1.5. 26
4.2. 26
4.2.1. 27
4.2.2. 28
4.2.3. 28
4.2.4. 29
4.3. 29
4.3.1. 29
4.3.2. 29
4.3.3. 30
4.3.4. 30
5. 31
5.1. 31
5.2. 31
5.3. 32

5.3.1. 32
5.3.2. 32
5.4. 33
5.4.1. 33
5.4.2. 33
5.4.3. 33
5.4.4. 33
5.5. / 33
5.6. 33
5.6.1. 33
5.6.2. 34
5.6.3. 34
5.6.4. 34
5.6.5. 34
5.6.6. 34
5.6.7. 35
6. 36
6.1. 36
6.2. 36
6.3. 36
6.4. 37
6.5. 37
6.5.1. Ꞵ خ

9.4. 102
10. Modbus 103
10.1. 103
10.1.1. 103
10.1.2. 103
10.2. 103
10.3. 105
10.3.1. 105
10.3.2. 105
11. 107

HF6000 HF6000

ARM+DSP+FPGA

1.

	“ ”
	“ ”
	“ ” , PCBA
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	“ ”

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- HF6000
- IT



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2.1.

HF6000

2.2.

HF6000 /

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2

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92%

3.

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5

“ ” “ ”

6

7

“ - ” 10kV/6kV 50Hz 10kV/6kV

8

MODBUS-RTU RS485 PROFIBUS

9

1 380VAC 1 380VAC

2.3.

HF6000

		3 6KV	3 10KV
		6kV/10kV ± 10% 10%~ 35%	
		50/60Hz	
		690V	
		≥ 0.96 20%~100%	
		IEEE519 2014 GBT14549 93	
		0—6KV	0—10KV
		315—2800kVA	250—4500kVA
		0~50Hz/60Hz MAX120Hz 120~700Hz	
		≤ 2%	
		1 2	
		100 1 1000 1	
		DSP FPGA ARM	
		HMI /	
		± 0.4% ± 0.1%	
		0.1~6500.0	
		120%/1min	
		Modbus RS485 PROFIBUS-DP PROFINET	
		10	
		8	
		2 4~20mA	
		4 4~20mA 2 4~20mA/0~10V 2	
		10 ~+40 0 40	
		5%~95%	
		1000m 1000m 100m 1%	
		75dB	
		AC380V ± 10%	
	MTBF	50000h	
		≥ 96%	
		IP30	

2.4.

HF6000

2.4.1.

HF6000

HF6000PLC-1250-100/100-DB-X-XXX+X

HF6000

HF6000

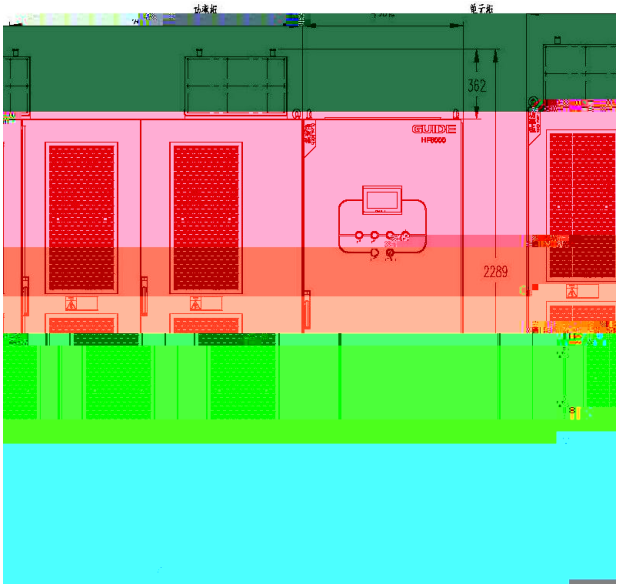
		HF6000：
		P：
		LC：
		1600：1600kVA710：710kVA
		100：10KV 060：6KV 033：3.3KV
		100：10KV 060：6KV 033：3.3KV
		D： R：
		B：
		N： A M
		001

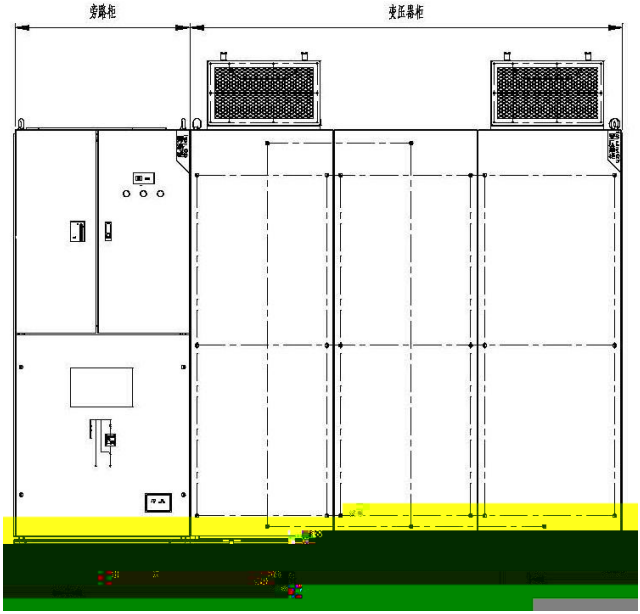
2.4.2.

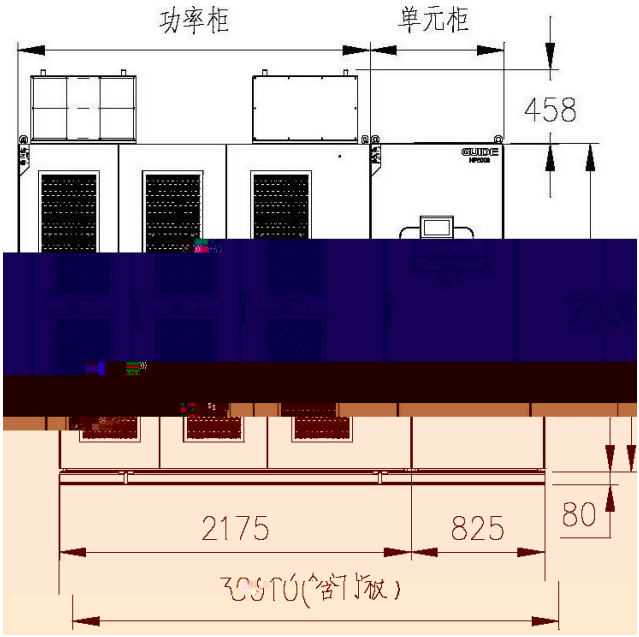
HF6000

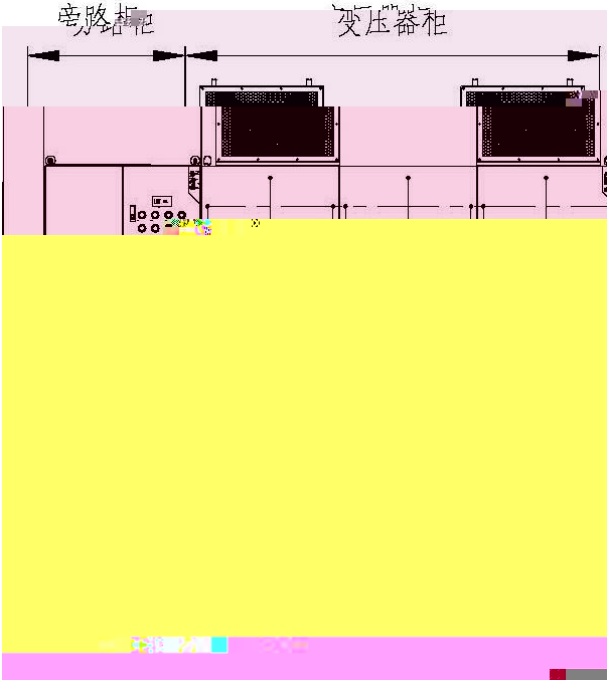


2.4.3.






功率柜
单元柜
458
2175
825
80


变压器柜

2.4.4.

HF6000 6kV

6KV					
	[A]	[kW]	[W × D × Hmm]		[T]
HF6000-315-060/060-DB-M	30	250	2450 × 1350 × 2100	B1	2.0
HF6000-355-060/060-DB-M	34	280			2.1
HF6000-400-060/060-DB-M	38	315			2.2
HF6000-450-060/060-DB-M	43	355			2.3
HF6000-500-060/060-DB-M	48	400			2.3
HF6000-560-060/060-DB-M	54	450			2.4
HF6000-630-060/060-DB-M	61	500			2.4
HF6000-710-060/060-DB-M	68	560			2.5
HF6000-800-060/060-DB-M	77	630	2750 × 1350 × 2000	B2	2.7
HF6000-900-060/060-DB-M	87	710			2.9
HF6000-1000-060/060-DB-M	96	800			3.0
HF6000-1120-060/060-DB-M	108	900			3.2
HF6000-1250-060/060-DB-M	120	1000			3.4
HF6000-1400-060/060-DB-M	135	1120			3.6
HF6000-1600-060/060-DB-M	154	1250			3.8
HF6000-1800-060/060-DB-M	173	1400	2900 × 1550 × 2100	B3	4.2
HF6000-2000-060/060-DB-M	192	1600			4.5
HF6000-2250-060/060-DB-M	217	1800			4.7
HF6000-2500-060/060-DB-M	241	2000			5.1
HF6000-2800-060/060-DB-M	269	2250			5.4

HF6000 10kV

10KV					
	[A]	[kW]	[W × D × Hmm]		[T]
HF6000-250-100/100-DB-M	14	200	2850 × 1350 × 2000	A1	2.3
HF6000-280-100/100-DB-M	16	220			2.3
HF6000-315-100/100-DB-M	18	250			2.4
HF6000-355-100/100-DB-M	20	280			2.4
HF6000-400-100/100-DB-M	23	315			2.5
HF6000-450-100/100-DB-M	26	355			2.5
HF6000-500-100/100-DB-M	29	400			2.5
HF6000-560-100/100-DB-M	32	450			2.6
HF6000-630-100/100-DB-M	36	500			2.6
HF6000-710-100/100-DB-M	41	560			2.7
HF6000-800-100/100-DB-M	46	630			2.8
HF6000-900-100/100-DB-M	52	710			2.9
HF6000-1000-100/100-DB-M	58	800			3.0
HF6000-1120-100/100-DB-M	65	900			3.1
HF6000-1250-100/100-DB-M	72	1000			3.3
HF6000-1400-100/100-DB-M	81	1120	3000 × 1550 × 2100	A2	4.7
HF6000-1600-100/100-DB-M	92	1250			4.9
HF6000-1800-100/100-DB-M	104	1400			5.1
HF6000-2000-100/100-DB-M	115	1600			5.3
HF6000-2250-100/100-DB-M	130	1800			5.5
HF6000-2500-100/100-DB-M	144	2000			5.7
HF6000-2800-100/100-DB-M	162	2250	4500 × 1350 × 2100	A3	7.4
HF6000-3000-100/100-DB-M	173	2400			7.6

HF6000-3150-100/100-DB-M	182	2500			7.8
HF6000-3500-100/100-DB-M	202	2800			8.0
HF6000-3750-100/100-DB-M	217	3000			8.2
HF6000-4000-100/100-DB-M	231	3150			8.3
HF6000-4500-100/100-DB-M	260	3550			8.5

1.
2.

3.
4.

2.5.

HF6000 /

2.6.

HF6000 GB GB/T
IEC SI GB GB/T
IEC

IEC61800- 3:2012	EMC
GB12668.3- 2012	3
IEC61800- 4:2002	:
IEC61800- 5- 1:2007+A1:2016	:
GB/T12668.501- 2013	:
IEC60204- 1:2016	– :
IEC60204- 11:2018	– :
IEEE519- 2014	
GBT14549- 93	
GB10233- 2017	
GB1094.1- 2017	1
GB1094.2- 2017	2
GB1094.3- 2017	3
GB1094.5- 2017	5
GB4208- 2017	IP
IEC60721- 3- 1:2018, :1K22	1
EC2C260721-3-2:( ),2018,2S6( )*	2

:2K13,	
IEC3S760721-3-3:( )*2019, :3K22,	3

3.

3.1.

HF6000 “ - ”

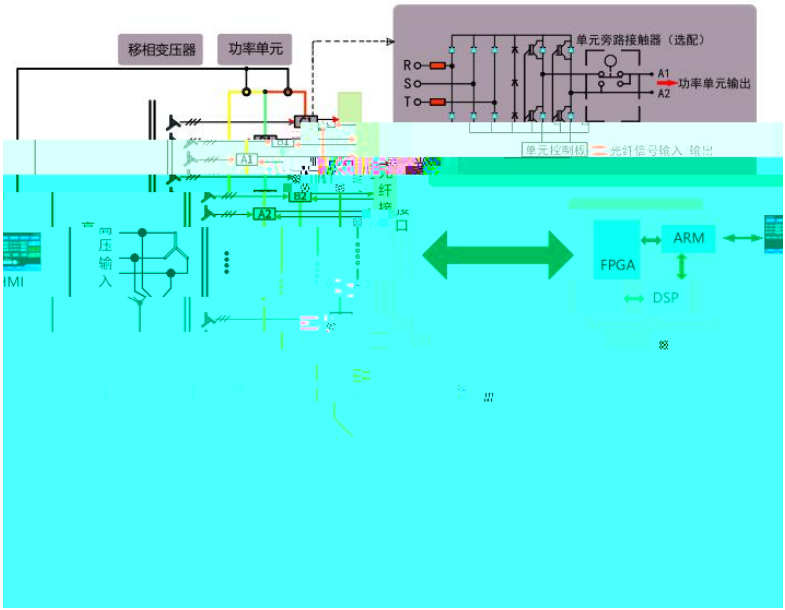
3*N 690V N

H

H PWM “ Y ”

3-1

3.1.1.



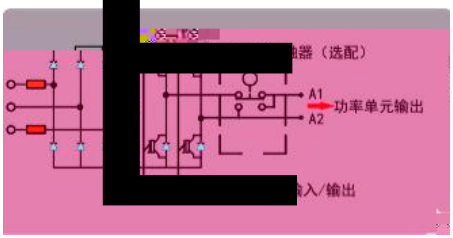
3-1

“ Y ”



3.1.2.

3-2



3-2

R S T		690V
A1 A2		

3.1.3.

HF6000

10 8

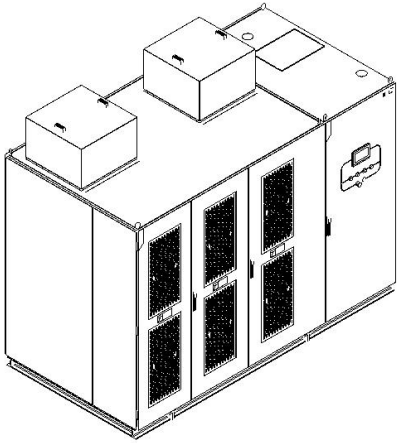
2 4 1D | [illegible]

3.2.

HF6000

HF6000

3-4



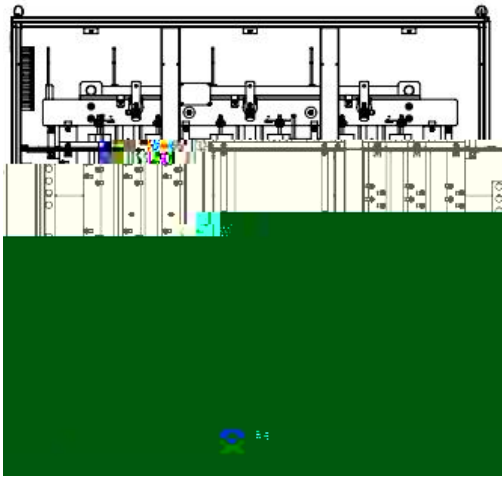
3-4 HF6000

3.2.1.

/ H

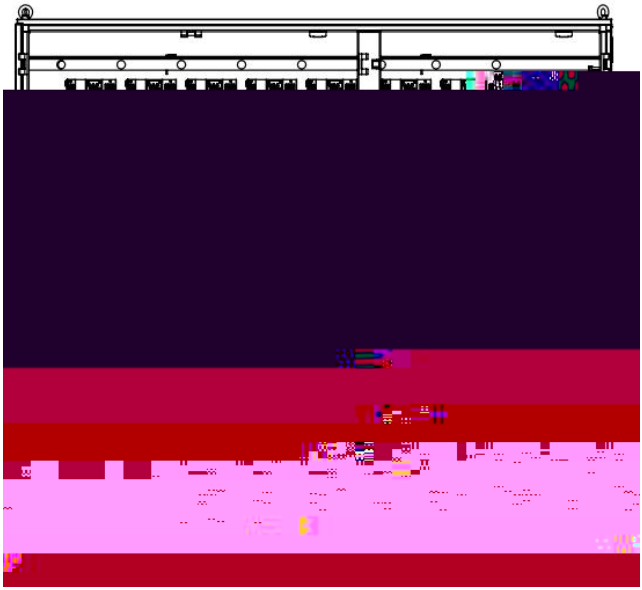
90 110

3-5



3-5

3.2.2.



“ ”

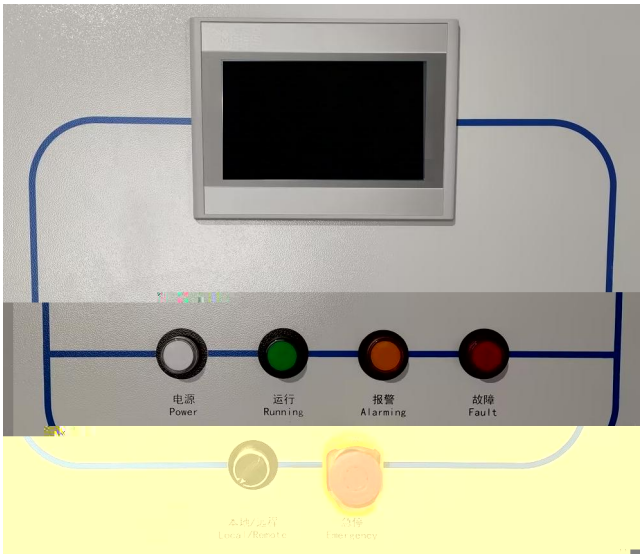
3.2.3.

HF6000

UPS

UPS

HF6000



3-7

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/ “ ”

“ ” PLC

DCS

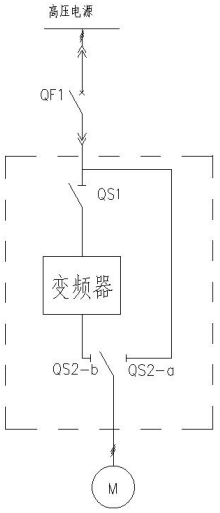
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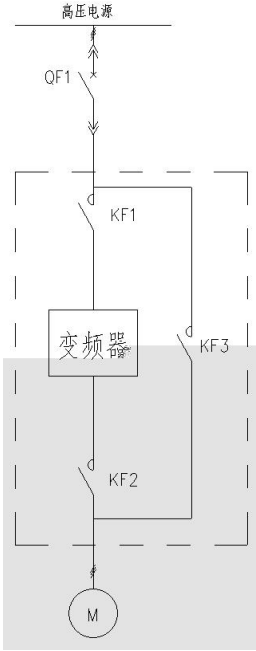
3.2.4.

3-8



KF1 KF2 KF3 KF2 KF3

3-9



3-9

3.2.5.

“ - - ”

IGBT

IGBT

8/5 10kV/6kV

THD

3.3.

3.3.1.

7

3.3.2.

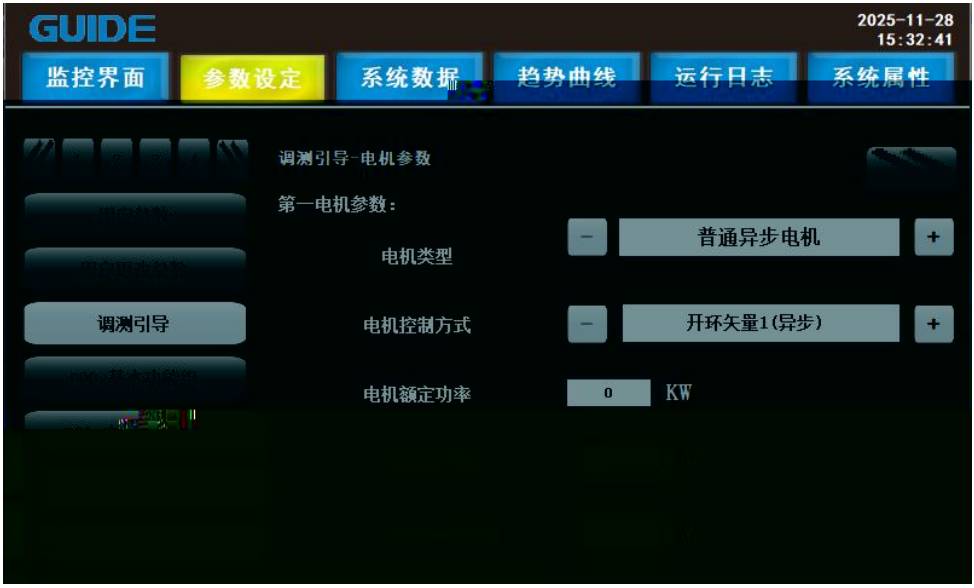


3-10

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2			

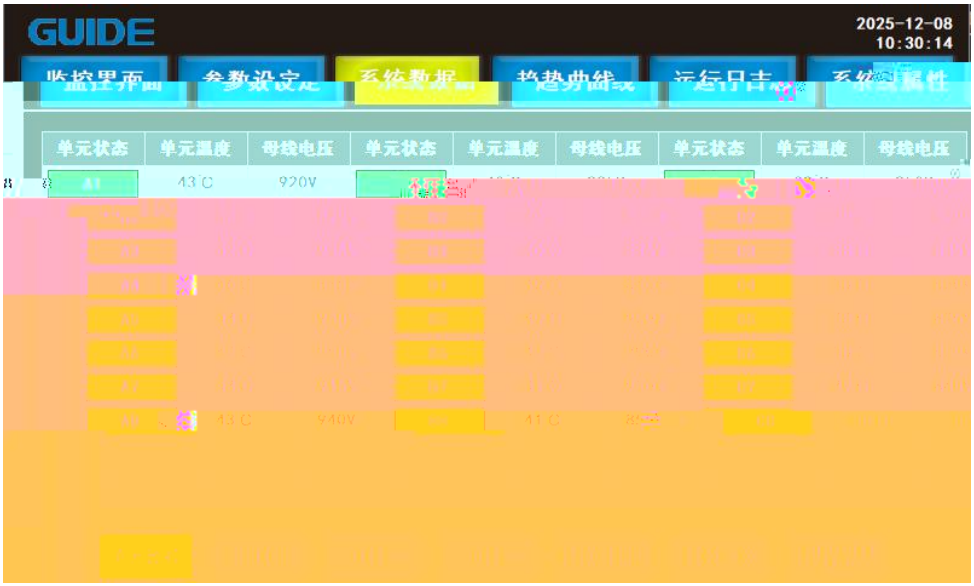
3			
4			

3.3.3.



3-11

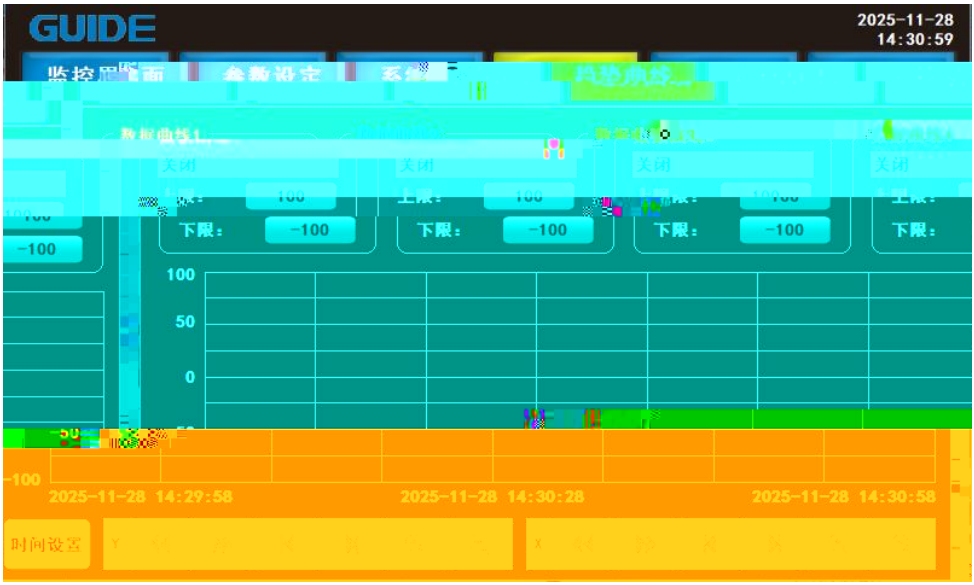
3.3.4.



3-12

3.3.5.

1~4



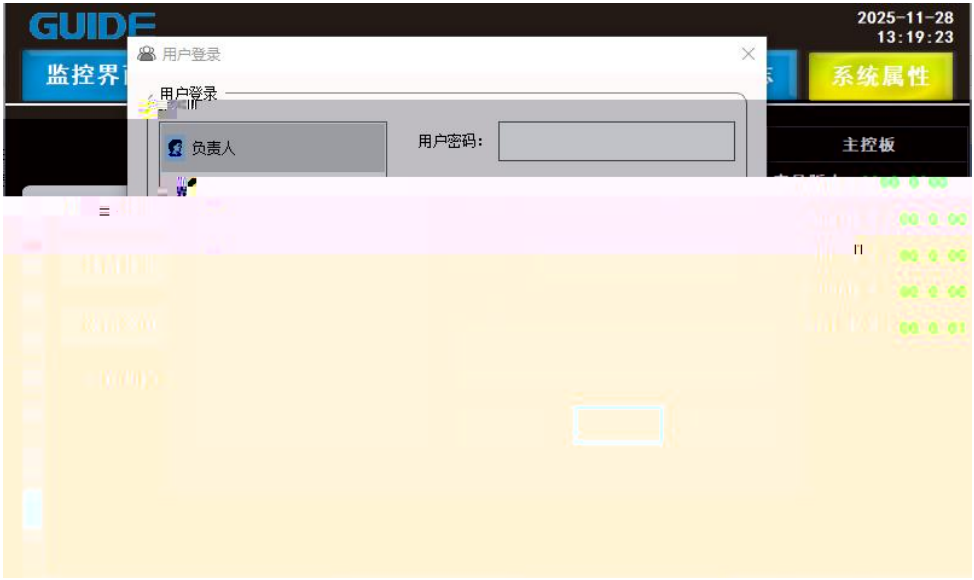
3-13

3.3.6.


GUIDE
2025-11-28
14:29:43
监控界面
参数设定
系统数据
趋势曲线
运行日志
系统属性
日期
时间
报警描述
2025/11/28
14:13:25
通讯故障
当前报警
操作日志
上一页
下一页

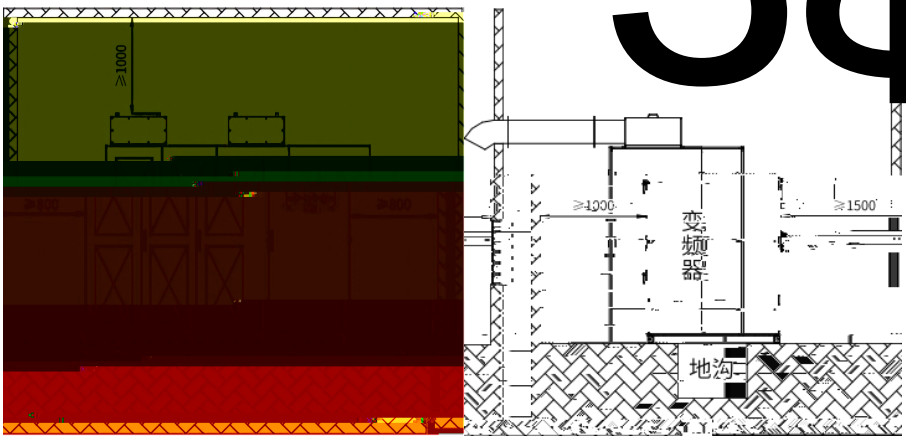
3-14

3.3.7.


GUIDE
2025-11-28
13:19:23
监控界
系统属性
用户登录
用户登录
负责人
用户密码:
主控板

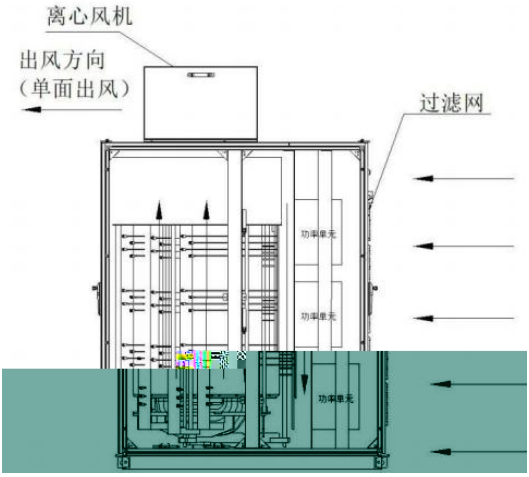
3-15

4.1.2.



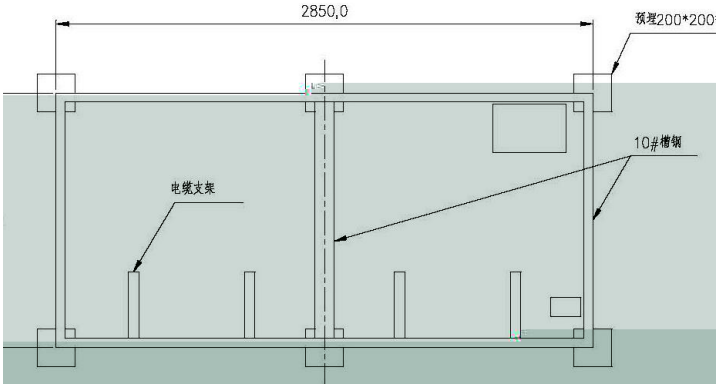
4-1 10kV 4500kVA 6kV 2800kVA mm

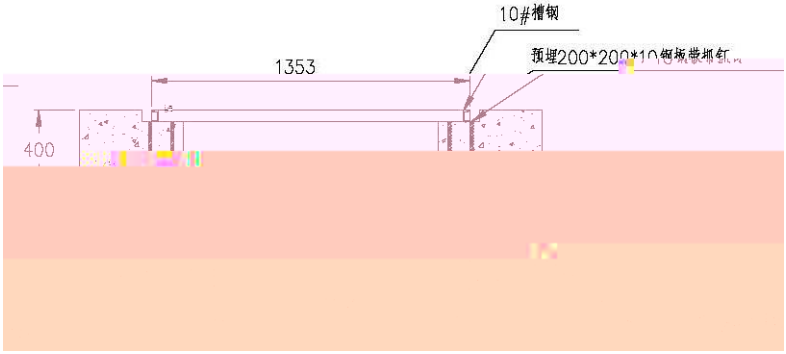
4.1.3.



4-2

4.1.4. †





4-3

4.1.5.

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<5mm

4.2.

4.2.1.

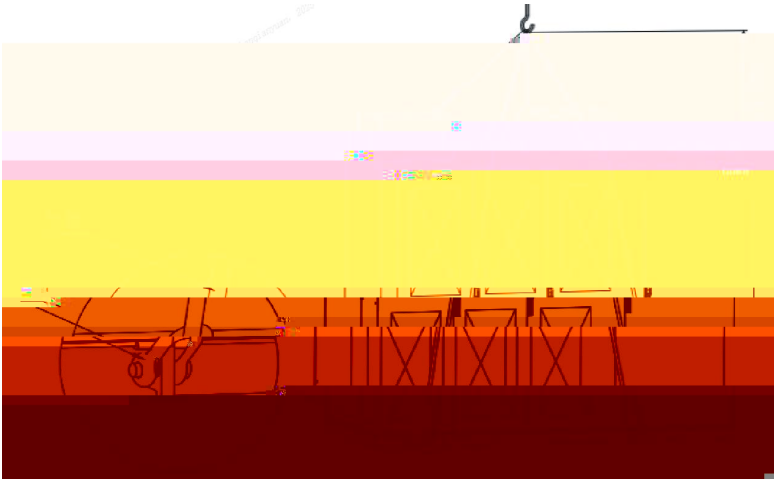
HF6000

4.2.1.1.

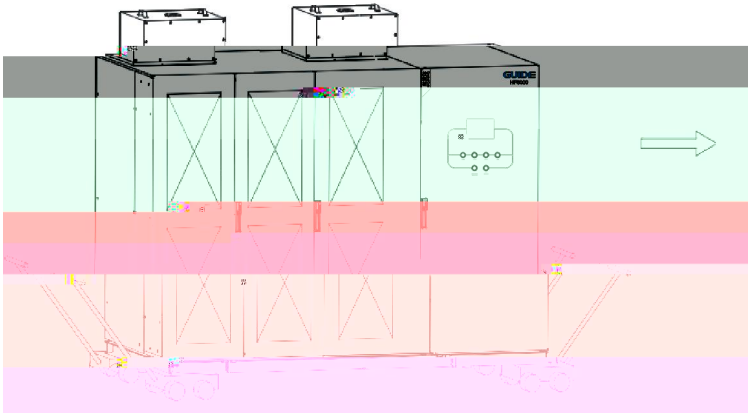
HF6000

4.2.1.2.

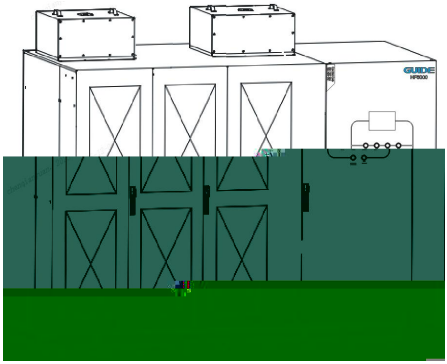
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4.2.2.

4.2.3.

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4.2.4.



◆

HF6000

4.3.

4.3.1.



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4.3.2.

4.3.2.1.



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R S T U V

W

4.3.2.2.



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● HF6000

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4.3.2.3.

	R			M10 25N.m M12 45N.m M16 100N.m
	S			
	T			
	U			
	V			
	W			

U V W R S T

4.3.2.4.

- EMC
-
-

4.3.2.5.

4Ω HF6000

50mm²



- ◆
- ◆
- ◆ ž
- ◆
- ◆ ŸX M0] 5 61
- ◆ U V W

4.3.3.

1) 0.5~4mm²( )
2) 0.5~1.5mm²
3) 0.5~1.5mm²
4) 0.5~1.5mm²

4.3.4.

-

100ms

-

D

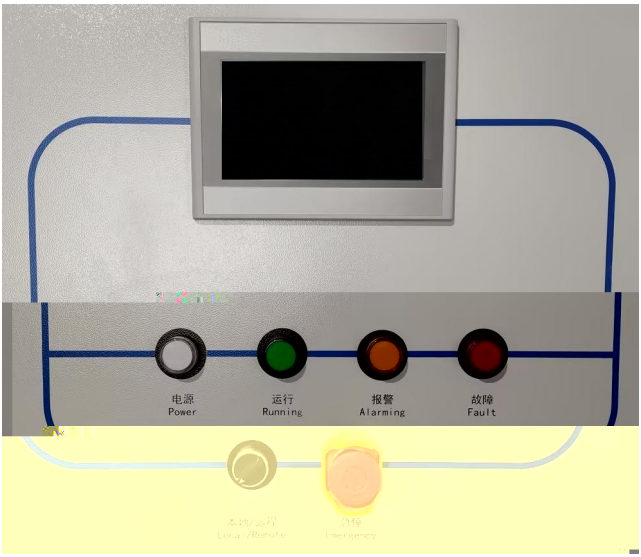
5.



◆ “1. ”

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5.1.



	,
/	“ ” “ ” PLC DCS

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◆ ,

5.3.

5.3.1.

“ / ” “ ”
“ ”

5.3.2.

“ / ” “ ”

5.4.

5.4.1.

“ / ” “ ”

“ / ” “ ” “ ”

5.4.2.

PID
4-20mA
PID

5.4.3.

“ / ” “ ”
“ / ” “ ” “ ”

5.4.4.

“ ”
“ ”

5.5. /

“
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5.6.

1)
2)
3)



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5.6.1.

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1)
2)

3)
4)
5) “ ”



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5.6.2.

1)
2) “ ”
/ “ 8. ”

3)
4)

5.6.3.

5.6.4.



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5.6.5.

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◆ 10

5.6.6.

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5) 10 “ 8. ”



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5.6.7.



◆ 10

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2) “ ”
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◆ “ ”	

■



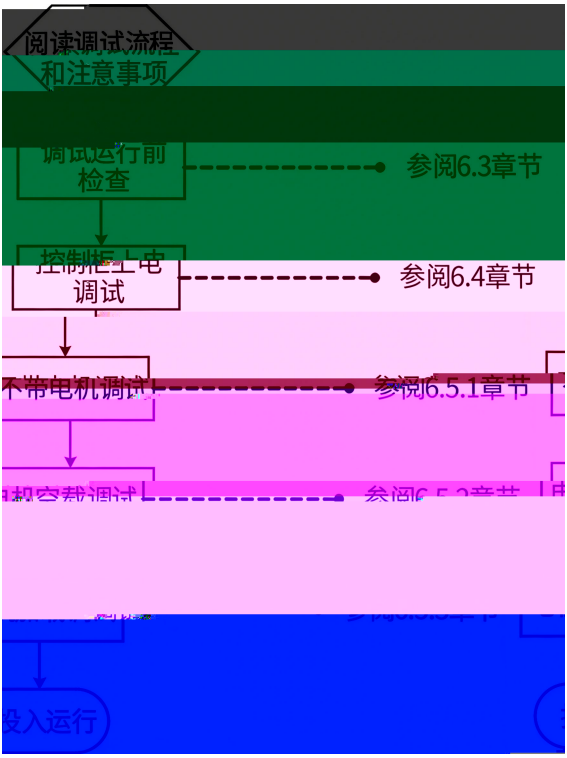
◆
◆
◆
◆
◆

6.

6.1.

HF6000

6-1



6-1

6.2.



-
-
-
-
-

-
-
-

6.3.

1	□
2	□
3	□
4	□

6.5.2.



1	U V W	□
2	/	□
3	P00.01 “2” 2( )	□
4	5Hz	□
5		□

6.5.3.



1		□
2	/	□
3	/ “ ”	□
4	24	□
5		□

7.

7.1. P00

P00.01	1	0 1 1 2 2 3 VF 9 10	0~10	2

0 1
1
1

PG
2 2
2 1

3 VF
VF
9

10

PG

P02

P00.03	X	0 P00.08 UP/DOWN 1 P00.08 UP/DOWN 2 AI1 3 AI2 4 5 7 8 PLC 9 PID 10 PC 11 Modbus 12 DP/PN 13 HMI 14 CAN	0~14	0

15

0

P00.08 “ ” ▲ ▼

UP DOWN

P00.08 “ ”

1

P00.08 “ ” ▲ ▼

UP DOWN

▲ ▼

P00.23 “ ” P00.23

P00.23

2 AI1

3 AI2

4mA~20mA AI1 AI2 AI1 AI2

5

P23

7

DI

4 4 16 P12 16

“ ” “ ” P00.10

DI P04 P04

8 PLC

PLC 1~16 1~16

P12

9 PID

PID PID

P10 “PID ”

10 PC

11 Modbus

Modbus

12 PROFIBUS-DP/Profinet

PROFIBUS

13 HMI

HMI

14 CAN

CAN

P00.08		0.00~ P00.10	0.00~P00.10	50.00Hz

“ ”

P00.09		0 1	0~1	0

U V W

1.

2. **P00.09**

P00.10		50.00~600.00Hz	50.00~600.00	50.00Hz

100.0% P00.10

P00.11		0 P00.12 1 AI1 2 AI2 3 5 6	0~6	0

P00.12

AI1 AI2 y P00.03

P00.12		P00.14~ P00.10	P00.14~P00.10	50.00Hz
P00.13		0.00Hz~ P00.10	0.00~P00.10	0.00Hz

P00.13 P00.11

P00.14		0.00Hz~ P00.12	0.00~P00.12	3.00Hz

P00.14

P00.17	1	0.0s~6500.0s	0.0~6500.0	80.0s
P00.18	1	0.0s~6500.0s	0.0~6500.0	[illegible]

P00.21		0.00Hz~ P00.10	0.00Hz~P00.10	0.00Hz

P00.21 ,

P00.22		2:0.01Hz	0~2	0.01Hz

P00.23

		P		
		+		
		1		
		2		
		6 PULSE DI18		
P00.27	1	8 PLC 9 PID A PC B Modbus C DP/PN D HMI E CAN	0~E	H.0020
		1	0~E	
		Modbus	0~E	
		DP/PN	0~E	

4 15

X P00.03 P00.03 Ï 7-.1

L$x

P01.17		0.01%~200.00%	0.01~200.00	
P01.18		0.01%~200.00%	0.01~200.00	
P01.20		0.01%~200.00%	0.01~200.00	

P01.06~P01.10 P01.16~P01.20

“ ” P01.06

P01.08 “ ” 2 P01.10

“ ” P01.16 “ ” P01.16

P01.17~P01.20

“ ”

P01.27		1~65535	1~65535	1024

ABZ UVW

P01.30	ABZ AB	0 1	0~1	0

ABZ ABZ AB

ABZ AB

P01.36		0.0% 0.0%~70.0%	0.0~70.0	5.0%

0.0%

E020

P01.37		0 1 2	0~2	0

0

1

P01.01~P01.05

FVC P01.27

1

2

P00.17

30% P00.18

P01.00~P01.05

FVC P01.27 P01.28

P01.06 P01.08 P01.10

P01.17 P01.18 P01.20 AB

P01.30 PI P02.13~P02.16

HMI “

” → “ ”

“ ”

“ ” “ ”

7.3. P02 1

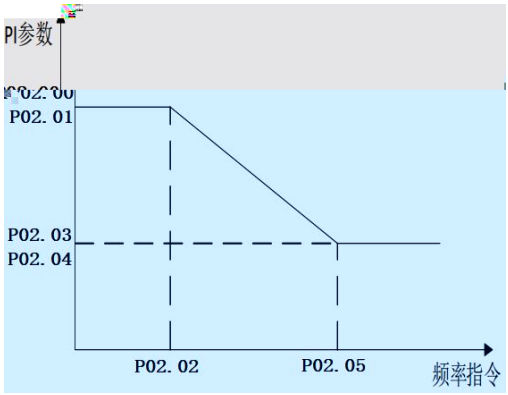
P02.00	1	0.000~1.000	0.000~1.000	0.025
P02.01	1	0.000~65.535	0.000~65.535	0.050
P02.02	1	0.00~P02.05	0.00~P02.05	5.00

P02.03	2	0.000~1.000	0.000~1.000	0.015
P02.04	2	0.000~65.535	0.000~65.535	0.025
P02.05	2	P02.02~P00.10	P02.02~P00.10	10.00
P02.08	kf	0.01~1.00	0.01~1.00	1.00

PI 1 P02.02 ,

PI P02.00 P02.01 2 PI P02.03 P03.04

1 2 PI PI 7-2



7-2 PI

PI

P02.09		0 P02.10 1 AI1 2 AI2 3 5 6 MIN AI1 AI2 7 MAX AI1 AI2 8	0~8	0
P02.10		0.0%~300.0%	0.0~300.0	120.0%
P02.12		0.0%~150.0%	0.0~150.0	1.0%

P02.09 P02.10

P02.12

P02.09 100% P02.10

P02.10 100%

P02.13		0.00~5.00	0.00~5.00	0.50
P02.14		0.0~6000.0	0.0~6000.0	25.0

PI

PI

PI

P02.23		0.00~10.00	0.00~10.00	1.72
P02.24		0.0~1200.0	0.0~1200.0	2.0
P02.25		0.0000~6.5535	0.0000~6.5535	0.0300
P02.26		0.000~10.000PU	0.000~10.000	1.000
P02.27		0.0~5.0s	0.0~5.0	0.5

PI

P02.24

P02.26 /

1.000 ,

7.4. P04

24 PLC

P04.00	DI1	1031	
P04.01	DI2	1020	
P04.02	DI3	33	
P04.03	DI4	1024	
P04.04	DI5	1026	
P04.05	DI6	1025	
P04.06	DI7	0	
P04.07	DI8	1	1
P04.08	DI9	2	1
P04.09	DI10	1003	1
P04.10	DI11	9	

41 1 4 1

42 2 4 2

43 PID PID PID P10.05~P10.07

44 1

45 2 1 2 W027 W028

46 /

50 1 / 1

51 1 / 1

52 1 / 1

53 1

54 1

56

57 E054

58 2 FWD

59 2 REV 2

60 2 2 P04.73 “ ”

61

63 W088-

66 2 / 2

67 2 / 2

68 2 / 2

69

1



| | | |

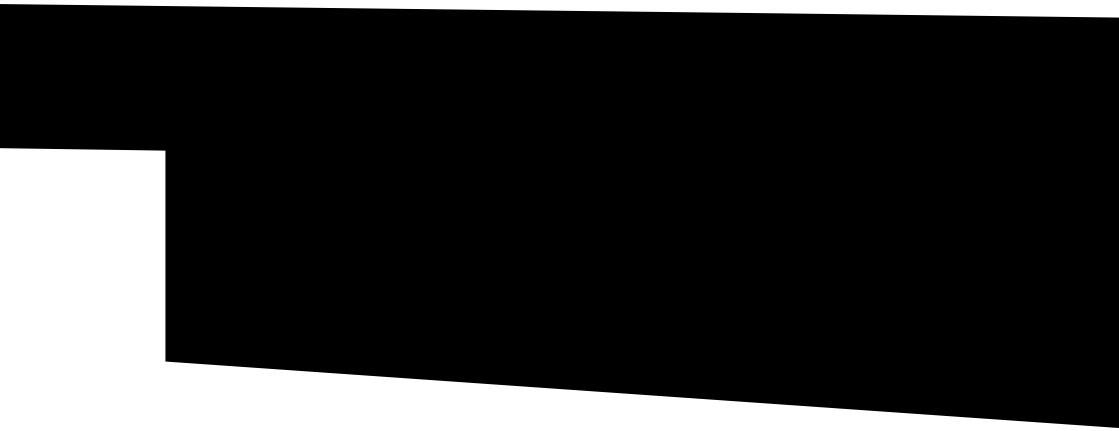
		/

■

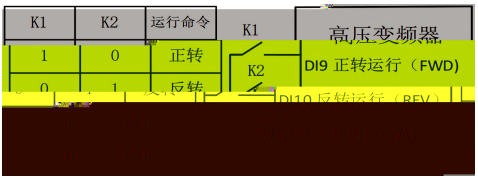
4 16 16 16

8

K4	K3	K2	K1		
OFF	OFF	OFF	OFF	0	P12.00
OFF	OFF	OFF	ON	1	P12.01
OFF	OFF	ON	OFF	2	P12.02







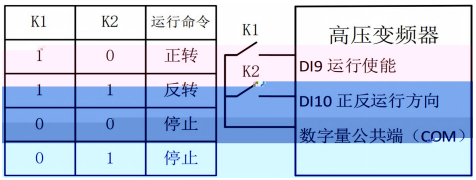
7-3 1

7-3 K1 K2 K1 K2

1 2 DI9 DI10 1

1

P04.73		H.x1	2
P04.08	DI9	1	FWD
P04.09	DI10	2	REV



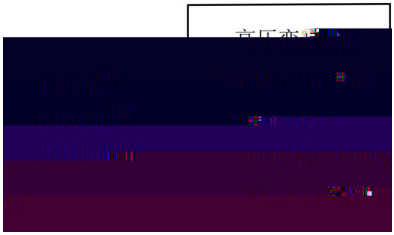
7-4 2

7-4 K1 K2 K2 K1

2 1 DI10 DI9 DI11

1 1

P04.73		H.x2	1
P04.08	DI9	1	FWD
P04.09	DI10	1003	
P04.10	DI11	2	REV



7-5 1

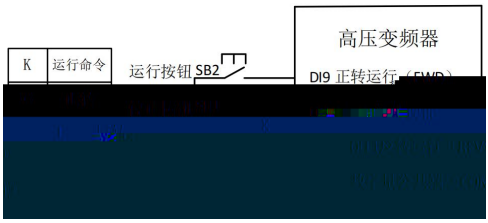
7-5 SB1 SB2 SB3

SB1 SB1 SB2

SB3 3

3 2 DI10 DI9 DI11

P04.73		H.x3	2
P04.08	DI9	1	
P04.09	DI10	1003	
P04.10	DI11	2	



7-6 2

7-6 SB1 SB2 K

K SB1 SB1

SB2

7.5. P05

34 PLC

P05.01	DO1	40
P05.02	DO2	1041
P05.03	DO3	62
P05.04~P05.05	DO4 ~DO5	0
P05.06	DO6	41
P05.07~P05.09	DO7 ~DO9	0
P05.10	DO10	75
P05.11	DO11	44
P05.12	DO12	15
P05.13	DO13	1001
P05.14	DO14	2
P05.15	DO15	45
P05.16	DO16	1
P05.17	DO17	67
P05.18	DO18	66
P05.19	DO19	0
P05.20	DO20	0
P05.21	DO21	0
P05.22	DO22	0
P05.23	DO23	0
P05.24	DO24	0
P05.25~P05.33	DO25 ~ DO33	0

0		
1		ON
2		ON
5		0 ON OFF
6		ON
7		10s ON
12		ON

14 ON

15 ON

16 AI1>AI2 AI1 AI2 ON

17 ON

18 ON

OFF

23 0 ON ON

24 ON

ON

1

40 2 E009-

3 P08.58

4

ON " J

J J

1

41 2

2 1 ON

44 1/16 ON

45 ON

46 HMI HMI 40 ON

47 ON

49

52 ON

53 ON

54 ON

55 ON

58

59

60

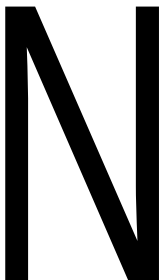
1 1

61 18 Ø 71PNÁ 1

ON

ON

62 P09.



69		ON
70		
71		ON
72		ON
75		ON
76		ON 1 2 3 4
77		
78		
79		
80	2	2 ON
81	2	2 ON
82	1/ 2	1 2
83	2	40 1 2 40- 1 2 1 83- 2 2 40- 1 1 83- 2
84		P08.65
87	1	1 1
88		
89	1	1 1
90	2	2 2
91	2	2 2
92	2	2 ON 2
93	2	2 ON 2
94	2	2 ON 2
95	2	2 ON 2
96	3	3 ON 3
97	3	3

ON 3

3 ON

98 3

1

2

3

Bit4 1

P06.01		0.0s~60.0s	0.0~60.0	0.0s
P06.03		0.00Hz~10.00Hz	0.00~10.00	1.00Hz
P06.04		0.0s~100.0s	0.0~100.0	0.0s

P06.03

3 PLC

1

P00.03 0

P00.08 2.00Hz.00Hz 2.00Hz

P06.03 5.00Hz 5.00Hz

P06.04 2.0s 2.0s

0.00Hz

3 .

P06.10		0 1	0~1	1

0

1

P06.16		1.0%~50.0%	1.0~50.0	20.0%

P06.17		0.01s~5.00s	0.01~5.00	3.00s

1.05 0Hz

P06.18		1.0%~50.0%	1.0~50.0	19.0%

P06.16 P06.18

P06.16 P06.18

P06.21		-90.0~90.0 °	-90.0~90.0 °	2.0

P06.22 0.0~5.0 °

P06.33	1	P06.32~10.000s	P06.32~10.000	0.100s

P06.33 8.008

P06.33

40ms~140ms

DI DO IO PLC

P06.34	2	P06.32~10.000s	P06.32~10.000	0.100s
P06.35	3	P06.32~10.000s	P06.32~10.000	0.100s
P06.36	4	P06.32~10.000s	P06.32~10.000	0.100s

P06.33

7.7. P07

P07.06		0h~65535h	0~65535	0h

P08.16

24 ON

P07.07		0h~65535h	0~65535	0h

P08.17

12 ON

P07.08		0~9999	0~9999	0
P07.23		0~9999	0~9999	0

∂∂ >i

7.

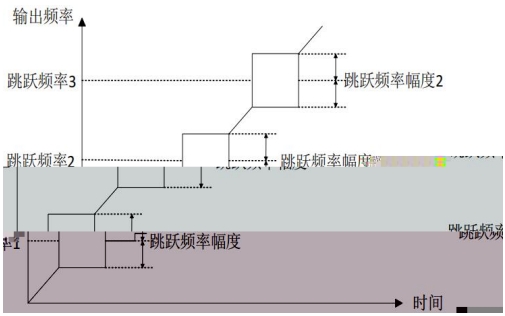
ę

06.

P08.69	3	0.00Hz~	0.00~	0.00Hz

0

7-8



7-8

P08.13		0 1	0~1	1

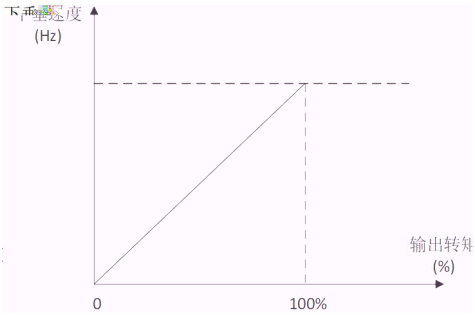
P08.13=1

P08.14		0 1 2	0~2	0

P08.15		0.00Hz~10.00Hz	0.00~10.00	0.00Hz

0

P08.15



7-9 -

= × × ÷10, P08.15=1.00 50Hz 50%

=50Hz × 50% × 1.00 ÷ 10=2.5Hz =50Hz-2.5Hz=47.5Hz

P08.18		0 1	0~1	1

1

1

1

P08.19		0.00Hz~	0.00~	50.00Hz
P08.20		0.0%~100.0%	0.0~100.0	5.0%

DO ON

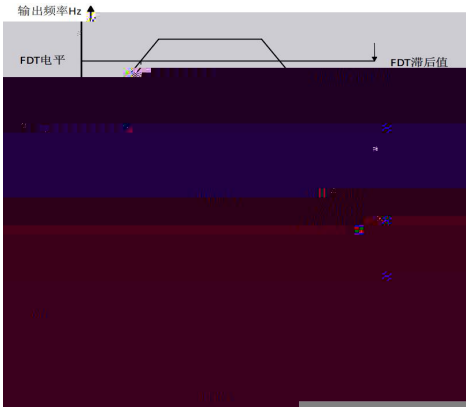
DO ON

P08.20

P08.19 FDT P08.19

3- FDT1 ON P08.20 DO

ON

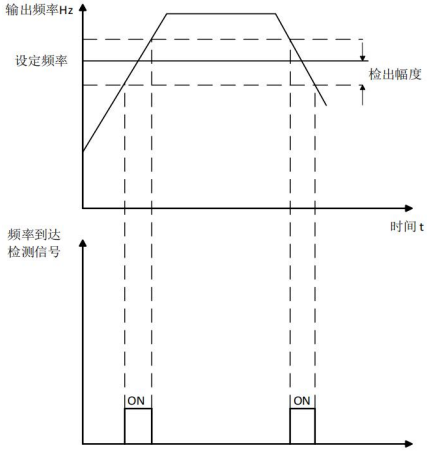


7-10 P13T

P08.21		0.00~100%	0.00~100	0.0%

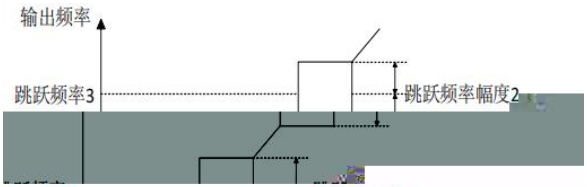
P08.21 4- ON

7-11



7-11

P08.22		0 1	0~1	0

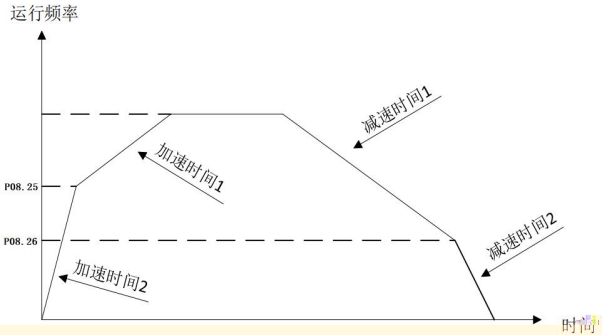


7-12

P08.25	1 2	0.00Hz~	0.00~	0.00Hz
P08.26	1 2	0.00Hz~	0.00~	0.00Hz

1 DI

DI



7-13

7-13 P08.25 2

P08.25 1

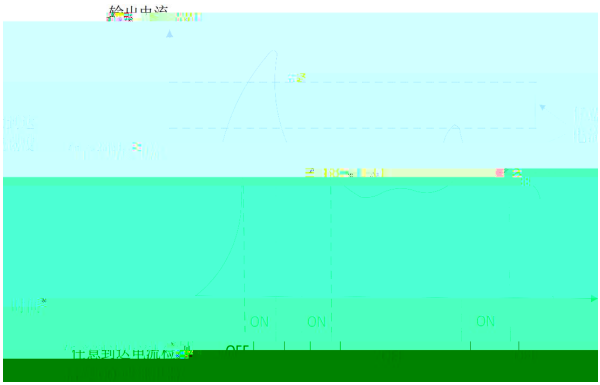
P08.26 1 P08.26

2

P08.27		0 1	0~1	0

P08.28		0.00Hz~	0.00~	50.00Hz
P08.29		0.0~100.0%	0.0~100.0	5.0%

P0



7-15

P08.52		0 1 → 2 →	0~2	0

1 P08.52 1

P08.53	1	0~FFFF	0~FFFF	H.0011

BIT0		0 1
BIT3		0 1
BIT4		0 1
BIT5		0 1
BIT7	IO	0 E047 1 E047
BIT9		0 1
BIT11		0 HMI 1
BIT13		0: HMI 1

P08.54	2	0~FFFF	0~FFFF	H.0000

BIT0		0 1 P06.00
BIT6	Modbus PROFIBUS	0 -30000~30000 1 -10000~10000

P08.55		50~100%	50~100	80%

E009-

P08.57	2	0~H.FF12	0~H.FF12	H.0000

P08.57

0

1

2

P08.58		30~3600s	30~3600	300s

“ ”

P08.59		0.00~10.00	0.00~10.00	0.50

5%

P08.55 E160-

0.00

P08.60		0Min 0Min~120Min	0~120	15min

0

0

P08.63		80.0~100.0%	80.0~100.0	100.0%

100.0% AO

*

P08.64		0~9s	0~9	0s

1. **P09.09**

P08.53 BIT4

2.

3.

P08.65		0~65535	0~65535	0

P08.65 84- ON 0

P08.66		0.0~600.0s	0.0~600.0	5.0s
P08.67		1.0~600.0s	1.0~600.0	30.0s

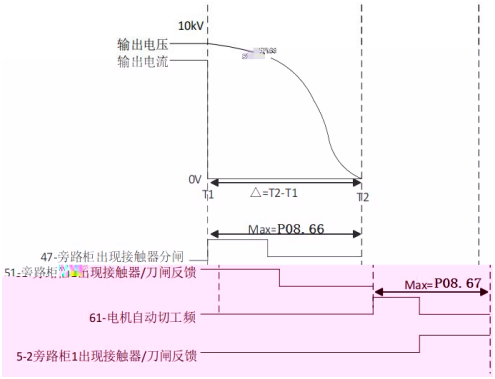
P08.66

P08.66 61- ON

61- P08.67

30

DCS 61-
DCS P08.67
P08.66



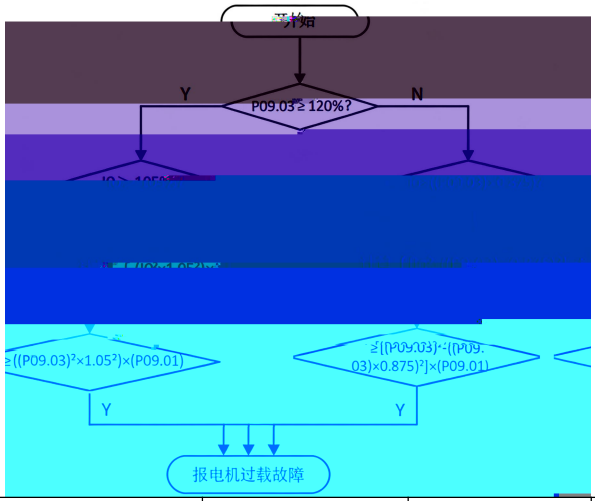
7-16

7.9. P09

P09.00		0 1	0~1	1
P09.01		0.01~600.00s	0.01~600.00	60.00s

P09.00=0

P09.00=1



P09.02		50%~100%	50~100	80%

DO

P09.03		10.0~220.0%	10.0~220.0	120.0%

100.0% ×

P09.01

P09.06		0.0~200.0%	0.0~200.0	125.0%

100.0%

P09.08		0.1~1000.0h	0.1~1000.0	1.0h
P09.09		0~20	0~20	3
P09.10	DO	0 1	0~1	0
P09.11		0.1~100.0s	0.1~100.0	2.0s
P09.79		0 1	0~1	0



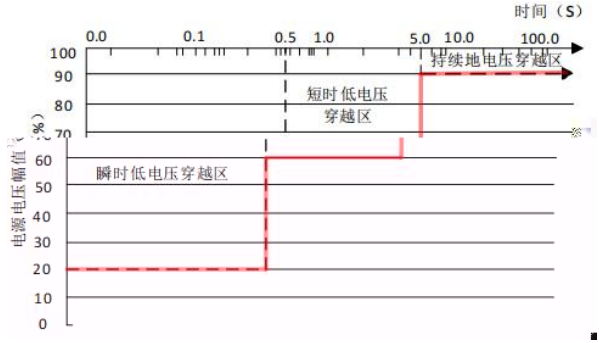
P09.28 500ms

P09.30		0.0~180.0% 100.0%	0.0~180.0	150.0%

P09.31		0.0~ P09.30-20.0 % 100.0%	0.0~ P09.30-20.0	120.0%

P09.31 P09.30 P09.30 20.0% P09.31
0.0%~180.0% P09.30 20.0% P09.31 0.0%~ P09.30-20.0% 100.0%

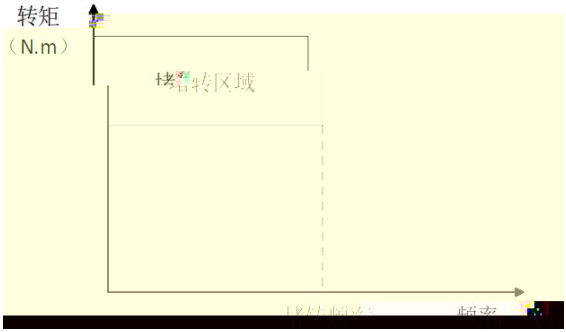
P09.38		0.000~1.000	0.000~1.000	0.000
P09.39		0.000~15.000	0.000~15.000	0.000
P09.59		0 1	0~1	0
P09.60		0.0~6500.0s	0.0~6500.0	60.0s
P09.61		0.0~6500.0s	0.0~6500.0	60.0s



7-17

	ms	
0% 20%	0,350]	
[20% 60%	0,500]	
[60% 80%	0,5000]	
[80% 120%	/	

P09.40		5.0~50.0Hz	5.0~50.0	20.0Hz
P09.41		0~400	0~400	20s



7-18

P09.40

P09.31

2 P09.41 P09.41 0s

P09.42		0.0~100.0	0.0~100.0	40.0%
P09.43		0~400s	0~400	20s

P09.42 P09.43

P09.47	1	E011 0 1 2 E012 E013 E015 E016	0~2	00000
P09.48	2	E020 0 1 SVC1 2 SVC1 3 SVC2 4 SVC2 - E021 0 1 E120 0 1 2 E121 DP/PN E052	0~4	22201

P09.49	3	1 E027 0 1 2 2 E028 E029 E030 0 1 2 7% PID E031	0~2	00000
P09.50	4	E042 0 1 2 E043 E051 PLC E039	0~2	00000
P09.51	5	E163 0 1 2 E061 0 1 E093 E097 E165	0~2	01012
P09.54		0 1 2 3 4	0~4	1
P09.55		60.0~100.0%	60.0~100.0	100.0%

“ ”

“ ”

“ ” P09.54

4 P09.55

P09.67		0.0~50.0%	0.0~50.0	20.0%
P09.68		0.0~60.0s	0.0~60.0	5.0s

P09.67

P09.68 / E043-

0.0s

P09.69		0.0~50.0%	0.0~50.0	20.0%

P09.70		0.0~60.0s	0.0~60.0	0.0s

P09.69 P09.70 /
E042- 0.0s

P09.70 / E042-

P09.71		0~36000s	0~36000	0s

62- ON ,
P09.71 OFF
P08.53 P08.53 BIT8
0

P09.72	1	BIT0 0 1 P00.01=3 BIT1 0 1 BIT2 E018 0 1 BIT3 0 1 BIT4 A181 0 1 BIT5: E035 0 1: BIT6-15	0~FFFF	H.003E

1

BIT0		0 1 P00.01=3
BIT1		0 1
BIT2	E018	0 1
BIT3		0 1
BIT4	W181	0 1
BIT5	E035	0 1

BIT0
120 ° -120 °
BIT1

1.2,1.5	60s

1.5,1.65	20s
1.65	5s

1.2 1min 10min

BIT2 E018-

BIT3

E066

BIT4

RST RT

BIT5

30% 10s E035-

P08.24	0~60s	0~60	5s
P09.77	0~8	0~8	3
P09.78			

P10.02	PID	0 AI1 1 AI2 2 3 AI1~AI2 5 6 AI1+AI2 7 MAX |AI1| |AI2| 8 MIN |AI1| |AI2| 9	0~9	0

PID

PID 0.0%~100.0%

P10.03	PID	0 1	0~1	0

PID

PID PID

P10.12	PID	0.00~60.00s	0.00~60.00	0.00s
P10.13	PID	0.00~60.00s	0.00~60.00	0.00s

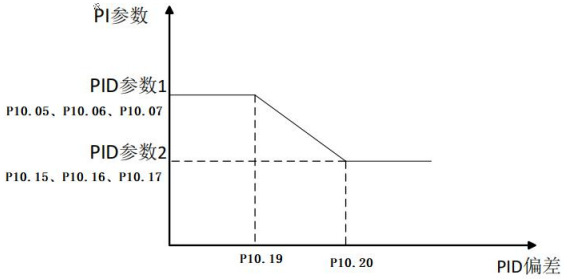
P10.12 PID

P10.13 PID

P10.15	Kp2	0.0~100.0	0.0~100.0	20.0
P10.16	Ti2	0.01~10.00s	0.01~10.00	2.00s
P10.17	Td2	0.00~10.000	0.00~10.000	0.000s
P10.18	PID	0 1 DI 2	0~2	0
P10.19	PID 1	0.0%~P10.20	0.0~P10.20	20.0%
P10.20	PID 2	P10.19~100.0%	P10.19~100.0	80.0%

PID PID

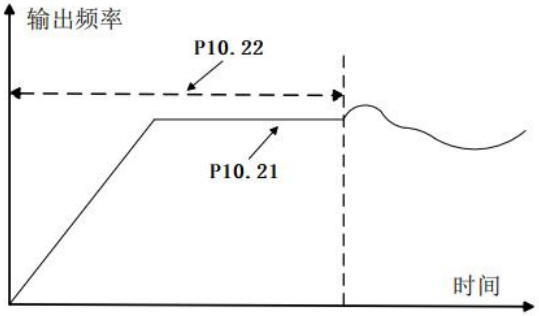
PID P10.15~P10.17
P10.05~P10.07
PID DI PID
DI 43 PID
1 P10.05~P10.07 2 P10.15~P10.17
PID 1P10.19 PID
1 PID 2P10.20 PID 2
1 2 PID PID 7-20



7-20 PID

P10.21	PID	0.0~100.0%	0.0~100.0	0.0%
P10.22	PID	0.00~650.00s	0.00~650.00	0.00s

PID PID P10.21 PID P10.22 PID
7-21 PID



7-21 PID

P10.23		0.00~100.00%	0.00~100.00	1.00%
P10.24		0.00~100.00%	0.00~100.00	1.00%

PID 2ms/ PID

P10.23 P10.24

P10.25	PID	0 1 0 1	0~1	00

DI 22 PID PID

PID

DI

PID ,

PID PID

P10.26	PID	0.0% 0.1%~100.0%	0.0~100.0	0.0%
P10.27	PID	0.0~20.0s	0.0~20.0	0.0s

PID

PID P10.26 PID P10.27 ,

P31

P10.28	PID	0 1	0~1	0

PID PID PID

7.11. P11

P11.00		0~199
P11.01		
P11.02		

P11.03		
P11.04		

0 ,

8

P11.05		
P11.06		
P11.07		
P11.08		
P11.09		
P11.10		
P11.11		
P11.15		
P11.16		
P11.17		
P11.18		P11.05~P11.11
P11.19		
P11.20		
P11.21		
P11.25		
P11.26		
P11.27		
P11.28		P11.05~P11.11
P11.29		
P11.30		
P11.31		
P11.35		
P11.36		
P11.37		
P11.38		P11.05~P11.11
P11.39		
P11.40		
P11.41		
P11.45		
P11.46		
P11.47		
P11.48		P11.05~P11.11
P11.49		
P11.50		
P11.51		
P11.55		0~199
P11.56		
P11.57		P11.55
P11.58		
P11.59		P11.55
P11.60		
P11.61		P11.55
P11.62		
P11.63		P11.55
P11.64		

7.12. P12

PLC

PLC PLC

P12.00	0	-100.0~100.0%	-100.0~100.0	0.0%
P12.01	1	-100.0~100.0%	-100.0~100.0	0.0%
P12.02	2	-100.0~100.0%	-100.0~100.0	0.0%
P12.03	3	-100.0~100.0%	-100.0~100.0	0.0%
P12.04	4	-100.0~100.0%	-100.0~100.0	0.0%
P12.05	5	-100.0~100.0%	-100.0~100.0	0.0%
P12.06	6	-100.0~100.0%	-100.0~100.0	0.0%
P12.07	7	-100.0~100.0%	-100.0~100.0	0.0%
P12.08	8	-100.0~100.0%	-100.0~100.0	0.0%
P12.09	9	-100.0~100.0%	-100.0~100.0	0.0%
P12.10	10	-100.0~100.0%	-100.0~100.0	0.0%
P12.11	11	-100.0~100.0%	-100.0~100.0	0.0%
P12.12	12	-100.0~100.0%	-100.0~100.0	0.0%
P12.13	13	-100.0~100.0%	-100.0~100.0	0.0%
P12.14	14	-100.0~100.0%	-100.0~100.0	0.0%
P12.15	15	-100.0~100.0%	-100.0~100.0	0.0%

PLC

-100.0%~100.0%

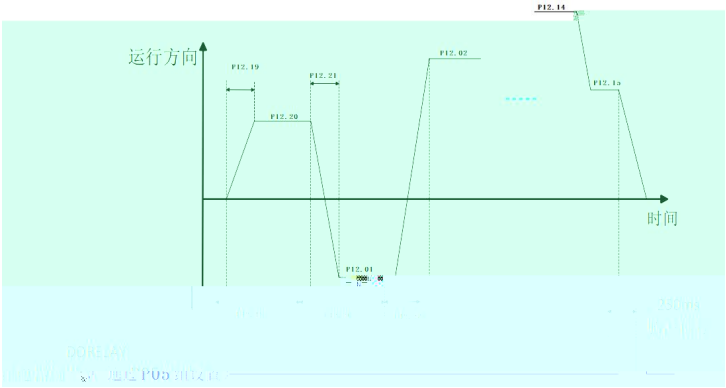
P00.10 PLC PID

DI P04

P12.16	PLC	0 1 2	0~2	0

PLC VF

7-22 PLC PLC P12.00~P12.15



7-22 PLC

PLC VF

0

1

2

P12.17	PLC	0 1 0 1	00~11	00

PLC PLC
PLC
PLC PLC
PLC

P12.18	PLC 0	0~6500.0s	0~6500.0	0.0s
P12.19	PLC 0	0~3s	0~3	0s
P12.20	PLC 1	0~6500.0s	0~6500.0	0.0s
P12.21	PLC 1	0~3s	0~3	0s
P12.22	PLC 2	0~6500.0s	0~6500.0	0.0s
P12.23	PLC 2	0~3s	0~3	0s
P12.24	PLC 3	0~6500.0s	0~6500.0	0.0s
P12.25	PLC 3	0~3s	0~3	0s
P12.26	PLC 4	0~6500.0s	0~6500.0	0.0s
P12.27	PLC 4	0~3s	0~3	0s
P12.28	PLC 5	0~6500.0s	0~6500.0	0.0s
P12.29	PLC 5	0~3s	0~3	0s
P12.30	PLC 6	0~6500.0s	0~6500.0	0.0s
P12.31	PLC 6	0~3s	0~3	0s
P12.32	PLC 7	0~6500.0s	0~6500.0	0.0s
P12.33	PLC 7	0~3s	0~3	0s
P12.34	PLC 8	0~6500.0s	0~6500.0	0.0s
P12.35	PLC 8	0~3s	0~3	0s
P12.36	PLC 9	0~6500.0s	0~6500.0	0.0s
P12.37	PLC 9	0~3s	0~3	0s
P12.38	PLC 10	0~6500.0s	0~6500.0	0.0s
P12.39	PLC 10	0~3s	0~3	0s
P12.40	PLC 11	0~6500.0s	0~6500.0	0.0s
P12.41	PLC 11	0~3s	0~3	0s
P12.42	PLC 12	0~6500.0s	0~6500.0	0.0s
P12.43	PLC 12	0~3s	0~3	0s
P12.44	PLC 13	0~6500.0s	0~6500.0	0.0s
P12.45	PLC 13	0~3s	0~3	0s
P12.46	PLC 14	0~6500.0s	0~6500.0	0.0s
P12.47	PLC 14	0~3s	0~3	0s
P12.48	PLC 15	0~6500.0s	0~6500.0	0.0s
P12.49	PLC 15	0~3s	0~3	0s
P12.50	PLC	0 s 1 h	0~1	0

P12.51	0	0 P12.00 1 AI1 2 AI2 3 5 PID 6 P00.08 UP/DOWN 7	0~7	0

0

0 P12.00

PLC

7.13. P13

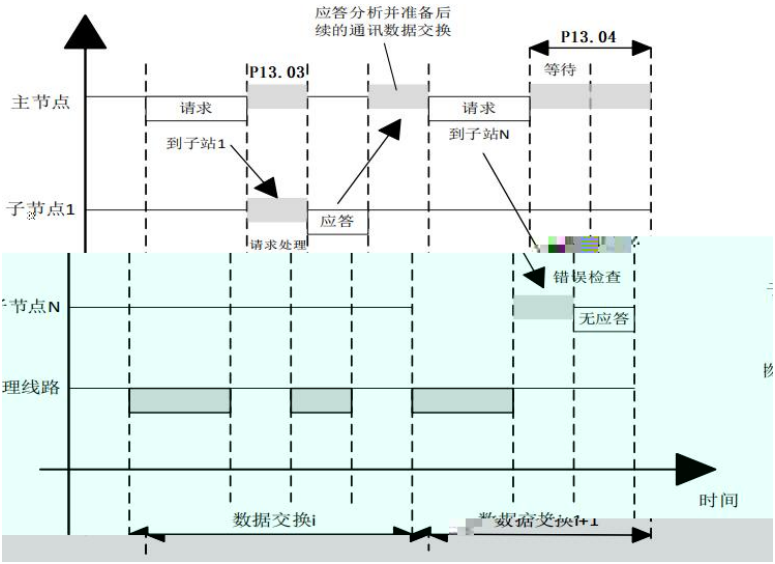
P13.00		Modbus 1 600bps 2 1200bps 3 2400bps 4 4800bps 5 9600bps 6 19200bps 7 38400bps 8 57600bps 9 115200bps CANlink 0 20Kbps 1 50Kbps 2 100Kbps 3 125Kbps 4 250Kbps 5 500Kbps 6 1Mbps	0~9	H.5005

P13.01		0 8-N-2 1 8-E-1 2 8-O-1 3 8-N-1	0~3	0

P13.02		1~247 0	0~247	1

0

P13.03		0~20ms	0~20	2ms



7-23 /

P13.04	MODBUS	0.0 0.1~60.0s	0.060.0	0.0s

0.0s

E016

P13.05		Modbus 0 Modbus 1 Modbus	0~1	0

1 Modbus 0

Modbus

P13.08	Profibus	0.0 0.1s~60.0s	0.0~60.0	0.0s

0.0s

DP/PN E052 P09.48

7.14. P16

P16.00		0~65535	0~65535	0

P16.00

P16.00 00000

P16.01		0 1	0~1	0

1

P16.01 1

P07.07 P07.06 P07.08 P07.23 P16

P22.08

7.15. P17

P17.00	/	0 1	0~1	0

DI 29 /

46 P17.00

/ P17.00 /

P17.00

P17.01		0 P17.03 1 AI1 2 AI2 3 5 6 MIN AI1,AI2 7 MAX AI1,AI2 8 9 CAN	0~9	0
P17.03		-200.0~200.0%	-200.0~200.0	150.0%

P17.01 100.0%

200.0%~200.0% 2

0 P17.03

P17.03

1 AI1

2 AI2

AI1 AI2 4.00~20.00mA

5

MODBUS-RTU 0x1002

2 -320.00~+320.00%

9 CAN

(P25

P17.05		0.00~ P00.10	0.00~ P00.10	50.00Hz
P17.06		0.00~ P00.10	0.00~ P00.10	50.00Hz

P08.07 /P08.08

P17.07		0.00~650.00s	0.00~650.00	0.00s
P17.08		0.00~650.00s	0.00~650.00	0.00s

0.00s

0.00s

7.16. P22

P22.00		0.0~50.0us	0.0~50.0	20.0us

P22.08		0.000~65.535	0.000~65.535	37.994

P22.11		0 1	0~1	0
P22.12		0~125%	0~125	50%
P22.13		0.0~5.0s	0.0~5.0	0.5s
P22.14	PLL	0~5s	0~5	2s

P22.12

P22.13 P22.14

P22.18		BIT0 0 1 BIT1-3 BIT4 0 1: BIT5-8 BIT9 0 1 BIT10-14 BIT15 0 1	0~0xFFFF	0x8001

BIT0

BIT2

BIT15

P22.27		0.0~100.0 0.0	0.0~100.0	10.0
P22.28		0.0~100.0	0.0~100.0	5.0

P09.72BIT3

PI

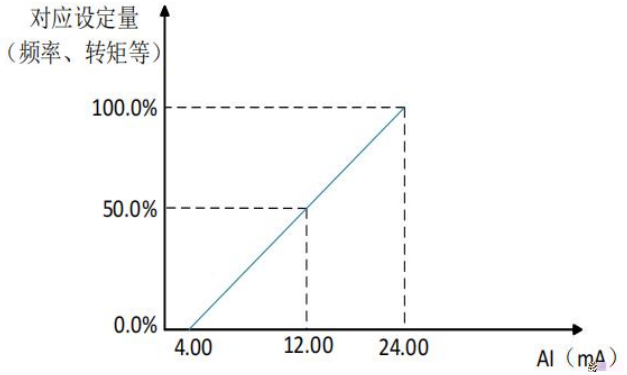
7.17. P23

P23.00	AI 1	0.00mA~P23.02	0.00~P23.02	4.00mA
P23.01	AI 1	-100.00~100.0%	-100.00~100.0	0.0%
P23.02	AI 1	P23.00~20.00mA	P23.00~20.00	20.00mA
P23.03	AI 1	-100.00~100.0%	-100.00~100.0	100.0%
P23.04	AI1	0.00~10.00s	0.00~10.00	0.10s
P23.05	AI 2	0.00mA~P23.07	0.00~P23.07	4.00mA
P23.06	AI 2	-100.00~100.0%	-100.00~100.0	0.0%
P23.07	AI 2	P23.00~20.00mA	P23.00~20.00	20.00mA
P23.08	AI 2	-100.00~100.0%	-100.00~100.0	100.0%
P23.09	AI2	0.00~10.00s	0.00~10.00	0.10s
P23.10	AI 3	0.00mA~P23.12	0.00~P23.12	4.00mA
P23.11	AI 3	-100.00~100.0%	-100.00~100.0	-100.0%
P23.12	AI 3	P23.10~20.00mA	P23.10~20.00	20.00mA
P23.13	AI 3	-100.00~100.0%	-100.00~100.0	100.0%

“ ” P23.02 “
” “ ” P23.00
0.0% P23.11 -100.0%
AI AI

100.0%

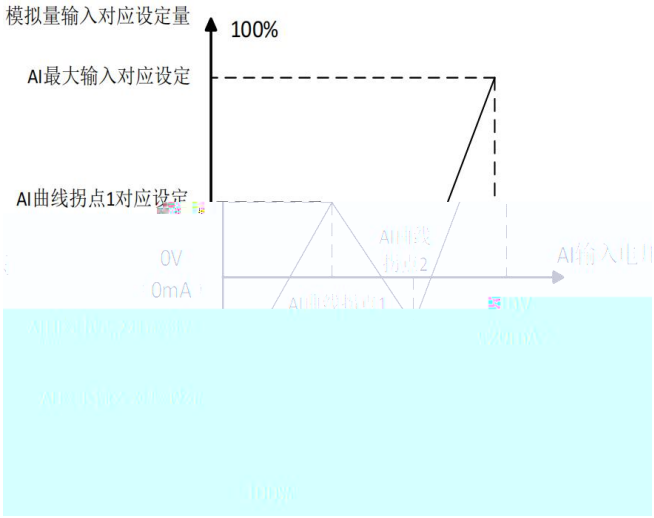
7-24 AI



7-24

P23.14	AI 4	0.00~P23.16	0.00~P23.16	4.00mA
P23.15	AI 4	-100.00~100.0%	-100.00~100.0	0.0%

P23.16	AI 4 1	P23.14~P23.18	P23.14~P23.18	8.80mA
P23.17	AI 4 1	-100.00~100.0%	-100.00~100.0	30.0%
P23.18	AI 4 2	P23.16~P23.20	P23.16~P23.20	13.60mA
P23.19	AI 4 2	-100.00~100.0%	-100.00~100.0	60.0%
P23.20	AI 4	P23.18~20.0mA	P23.18~20.0	20.00mA
P23.21	AI 4	-100.00~100.0%	-100.00~100.0	100.0%
P23.22	AI 5	0.00~P23.24	0.00~P23.24	4.00mA
P23.23	AI 5	-100.00~100.0%	-100.00~100.0	-100.0%
P23.24	AI 5 1	P23.22~P23.26	P23.22~P23.26	9.60mA
P23.25	AI 5 1	-100.00~100.0%	-100.00~100.0	-30.0%
P23.26	AI 5 2	P23.24~P23.28	P23.24~P23.28	14.40mA
P23.27	AI 5 2	-100.00~100.0%	-100.00~100.0	30.0%
P23.28	AI 5	P23.26~20.00mA	P23.26~20.00	20.00mA
P23.29	AI 5	-100.00~100.0%	-100.00~100.0	100.0%



7-25 -AI

AI 4 5 1 2 AI

AI 1 2

P23.30	AI1	-100.0~100.0%	-100.0~100.0	0.0%
P23.31	AI1	0.0~100.0%	0.0~100.0	0.5%
P23.32	AI2	-100.0~100.0%	-100.0~100.0	0.0%
P23.33	AI2	0.0~100.0%	0.0~100.0	0.5%
P23.34		-100.0~100.0%	-100.0~100.0	0.0%
P23.35		0.0~100.0%	0.0~100.0	0.5%
P23.36		-100.0~100.0%	-100.0~100.0	0.0%
P23.37		0.0~100.0%	0.0~100.0	0.5%

AI1~AI2

AI1 5.00V 4.90-5.10 AI1 10.00V
100.0% AI1 49.0%-51.0% AI1 50.0% AI1
1.0% AI1 AI1 50.0% AI1

		AI1 AI2		
P23.48 6.1	AI 1	1 1 2 2 3 3 4 4 5 5	1~5	1111

P26.14 AI1 AI2 1-5 P23.01 P23.29

P23.65	AO3	-100.0~+100.0%	-100.0~+100.0	20.0%
P23.66	AO3	-10.00~+10.00	-10.00~+10.00	0.80
P23.67	AO4	-100.0~+100.0%	-100.0~+100.0	20.0%
P23.68	AO4	-10.00~+10.00	-10.00~+10.00	0.80

AO

“b” “k” “Y” “X”

Y=kX b

AO1 AO2 AO3 AO4 100% 20mA

0mA~20mA

IO

P23.90	AI	AI1 BIT0 BIT1 AI1 AI2 BIT0 BIT1 AI2	0 1	2222

P23.90 AI1 AI2

“2” AI AI

7.18. P25

CANlink

CANlink

CANlink

P25.01		0 1 2~9	0~9	0

P25.01 0 1

2~9 2 P25.01

CANlink P13.00

P25.04		-100.00~100.00%	-100.00~100.00	0.00%
P25.05		-10.00~10.00	-10.00~10.00	1.00

2

b k x y

y=kx+b -100.00%~100.00%

P25.08		-100.00~100.00%	-100.00~100.00	0.00%
P25.09		-10.00~10.00	-10.00~10.00	1.00

2

b k x y

y=kx+b -100.00%~100.00%

P25.11		0.20~10.00Hz	0.20~10.00	0.5Hz

P25.21		1~8	1~8	1

P25.22,
P25.23 3 P25.21 3

P25.22		BIT0~7 1~8 BIT8~16 1~8 0 1	0x0000~0xFFFF	0
P25.23		BIT0~7 BIT8~15 0 1	0x0000~0xFFFF	0

P25.22 8 1~8
1 2
0x01 , 0x02 , P25.22 0x0102
P25.23 1~8 0 1 0
3 BIT2 1 P25.23 0x04
P13.00 --CANlink P25.01

CANlink 500k P25.01 1 P25.01 2

7.19. P26

P26.00		0 1 2 A	0x0~0x1A	0x0

P26.04 P26.05

P26.13 P26.14

A1
A2 P26.04 P26.05

P26.02		50~1000ms	50~1000	200ms

P26.02

P26.03		0.0~30.0s	0.0~30.0	7.0s
P26.04	1	BIT0:A1 BIT1:B1 BIT2:C1 BIT3:A2 ... BIT15:A6	0~1	0x0
P26.05	2	BIT0:B6 BIT1:C6 BIT2:A7 BIT3:B7 ... BIT15:C10	0~1	0x0

P26.03

E162-

P26.13	1		00000~33333	33333

P26.14	2		00000~33333	33333

P26.13 P26.14

P26.13 “3”

“2” “1” “0”

P26.13

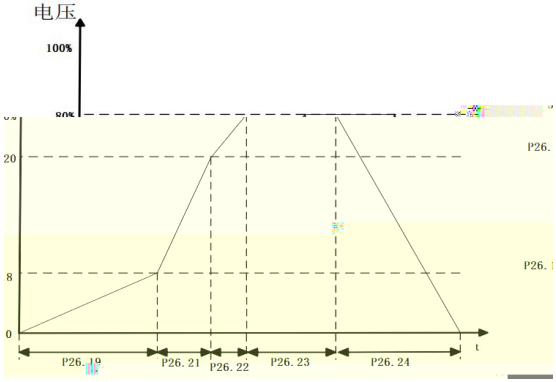
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		1	
	BIT1:	0	
		1	
	BIT0:	0	3 “ ” “ ”
		1	
	BIT1:	0	
		1	
	BIT0:	0	3
		1	
	BIT1:	0	
		1	
	BIT0:	0	3 “ ” “ ”
		1	
	BIT1:	0	
		1	
	BIT0:	0	3 “ ” “ ”
		1	
	BIT1:	0	
		1	

P26.14

	BIT0:	0	3 “ ” “ ”
		1	
	BIT1:	0	
		1	
	BIT0:	0	3
		1	
	BIT1:	0	
		1	

	BIT0:	0	3 “ ” “ ”
		1	
	BIT1:	0	
		1	
	BIT0:	0	3
		1	
	BIT1:	0	
		1	

P26.15		0:AO1 1:AO2	0~1	0
P26.18		0~80%	0~80	30.0%
P26.19		0.1~50.0s	0.1~50.0	8.0s
P26.20		5.0~78.0%	5.0~78.0	70.0%
P26.21		0.5~50.0s	0.5~50.0	4.0s
P26.22		0.0~10.0s	0.0~10.0	1.0s



7-27

P26.15

P26.18 P26.19

P26.20 P26.21 P26.22

P26.23		1.0~10.0s	1.0~10.0	2.0s
P26.24		0.0s		1.5s
P26.29		0~15%	0~15	7%

P26.23

P26.24

P26.29

7.20. P29

P29.00	AI1	1	4.500~8.000mA	4.500~8.000	
P29.01	AI1	1	4.500~8.000mA	4.500~8.000	
P29.02	AI1	2	16.000~19.999mA	16.000~19.999	

P29.03	AI1	2	16.000~19.999mA	16.000~19.999	
P29.04	AI2	1	4.500~8.000mA	4.500~8.000	
P29.05	AI2	1	4.500~8.000mA	4.500~8.000	
P29.06	AI2	2	16.000~19.999mA	16.000~19.999	
P29.07	AI2	2	16.000~19.999mA	16.000~19.999	
P29.08		1	4.500~8.000mA	4.500~8.000	
P29.09		1	4.500~8.000mA	4.500~8.000	
P29.10		2	16.000~19.999mA	16.000~19.999	
P29.11		2	16.000~19.999mA	16.000~19.999	
P29.12		1	4.500~8.000mA	4.500~8.000	
P29.13		1	4.500~8.000mA	4.500~8.000	
P29.14		2	16.000~19.999mA	16.000~19.999	
P29.15		2	16.000~19.999mA	16.000~19.999	

AI1 AI2 AI

U0 AI U00.21 U00.22 U00.23

AI U0

AI

AI1

1. AI1 5.000mA

AI1 P29.00

U00.21 P29.01

2. AI1 19.000mA

AI1 P29.02

U00.21 P29.03

P29.16	AO1	1	4.500~8.000mA	4.500~8.000	
P29.17	AO1	1	4.500~8.000mA	4.500~8.000	
P29.18	AO1	2	16.000~19.999mA	16.000~19.999	
P29.19	AO1	2	16.000~19.999mA	16.000~19.999	
P29.20	AO2	1	4.500~8.000mA	4.500~8.000	
P29.21	AO2	1	4.500~8.000mA	4.500~8.000	
P29.22	AO2	2	16.000~19.999mA	16.000~19.999	
P29.23	AO2	2	16.000~19.999mA	16.000~19.999	
P29.24	AO3	1	4.500~8.000mA	4.500~8.000	
P29.25	AO3	1	4.500~8.000mA	4.500~8.000	
P29.26	AO3	2	16.000~19.999mA	16.000~19.999	
P29.27	AO3	2	16.000~19.999mA	16.000~19.999	
P29.28	AO4	1	4.500~8.000mA	4.500~8.000	
P29.29	AO4	1	4.500~8.000mA	4.500~8.000	
P29.30	AO4	2	16.000~19.999mA	16.000~19.999	
P29.31	AO4	2	16.000~19.999mA	16.000~19.999	

AO

8.

“

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8.1.

W007			
W011		1. 2. 3. 4. 5.	1. P09.01~P09.03 2. 3. 4. 5. IO
W012		1. 2. 3. 4.	1. 2. RST 3. 4. IO
W013		1. 2. 3. 4.	1. 2. 3. 4. IO
W015		DI	
W016		1. 485/CAN 2. 3. P13	1. 485/CAN 2. 3.
W020		1.P01 2. PG 3.PG 4.24V 15V 5. 6.	1. P01 2. PG 3.PG 4. 24V 15V IO 5. 6. IO
W023		1. 2. 3.	1. UVW

		4. 5.	2. 3. 4. UVW 100MΩ 5. IO
W027	1	1. DI 1 2.IO	1. 2. DI IO
W028	2	1. DI 2 2.IO	1. 2. DI IO
W029			
W031	PID	PID P10.26	PID P10.26
W036		1. 2. 3. 4.	1. 2. 3. 4. IO
W039	PLC	1.PLC 2.PLC 3.PLC	1. PLC 2. PLC RUN 3. PLC
W042		1. 2. 3. 4. PG 5.PG 6.24V 15V 7. 8.	1. P01 2. 3. P09.69 4. PG 5.PG 6. 24V 15V IO 7. IO 8.
W043		1. 2. 3. 4. PG 5.PG 6.24V 15V 7. 8.	1. P01 2. 3. P09.69 4. PG 5.PG 6. 24V 15V IO 7. IO 8.
W046		1.24V 2. 3.IO DI 4.	1. 24V 2. 3. DI IO 4. IO
W051			

		1.DP/PN PLC		1. DP/PN PLC	
W052	DP/PN	2.DP/PN		2. DP/PN	
		3.DP/PN PLC		3. Profibus	P13.08
		1.		1.	
		2.		2.	
W080		3.		3.	
		4.		4.	
		5.		5.	
		1.AI1~AI2			
W082		2.P23.90 AI	AI ¡ א		

			5. IO
W120		1. 2. 3. 4.	1. RST 2. 3. IO 4.
W121		1. 2. 3.	1. UVW 2. 3. IO
W123		1. 2. 3. P09.40 P09.41	1. 2. 3.
W163		1. 2.	1. P06.24 2.
W165			1. DI 2. DO DO
W180			1. 2.
W181		1. 2.	1. IO 2. IR IT
W182		1. 2.	1. HMI 2.
W183			
W184		1. 2. 3. P06.16 4.	1. UVW 2. 3. P06.16 P01.10 4. IO
W185		1. 2.	1. 2.
W186		6-1	
W187		1. 2.	

W188		1. 2. RS2	1. 2.

8.2.

E002		1. 2. 3.P01 4.P09.30 5. 6. 7. 8. 9. T1 T2	1. 2. ±15V M 3. P01 4. P09.30 5. 6. 7. 8. 9.
E003		1. 2. 3.P01 4.P09.30 5. 6. 7. 8. 9. T1 T2	1. 2. ±15V M 3. P01 4. P09.30 5. 6. 7. 8. 9.
E004		1. 2. 3.P01 4.P09.30 5. 6. 7. 8. 9. T1 T2	1. 2. ±15V M 3. P01 4. P09.30 5. 6. 7. 8. 9.
E009		1. 2. 3. 4. 5.	1. 2. RST 3. 4.

			5. IO
E010		1. 2. 3.	1. 2. 3.
E011		1. 2. 3. 4. 5.	1. P09.01~P09.03 2. 3. 4. 5. IO
E012		1. 2. 3. 4.	1. 2. RST 3. 4. IO
E013		1. 2.	1. 2.
E015		DI	
E016		1. 485/CAN 2. 3. P13	1. 485/CAN 2. 3.
E018		1. 2. 3.IO ±15V 4.	1. 2. ±15V M 3. IO ±15V 4. IO
E019		1. 2. 3. 4. 5. 6. 7.P01 8.	1. 2. ±15V M 3. UVW 4. 5. 6. 7. P01 8. IO
E020		1.P01 2. PG 3.PG 4.24V 15V 5. 6.	1. P01 2. PG 3.PG 4. 24V 15V IO 5. 6. IO
E021		EEPROM	

E026			
E027	1	1. DI 1 2.IO	1. 2. DI IO
E028	2	1. DI 2 2.IO	1. 2. DI IO
E029			
E031	PID	PID P10.26	PID P10.26
E032		1. 2. 3. 4. 5.	1. RST 2. 3. RST 4. IO 5.
E034		1. 2. 3. 4.	1. 2. 3. IO 4.
E035		1. 2.	1. 2.
E036		1. 2. 3. 4.	1. 2. 3. 4. IO
E037		1. 2. 3. 4.	1. 2. RST 3. 4. IO
E038		1. 2. 3. 4.P01	1. 2. 3. IO 4. P01
E039	PLC	1.PLC 2.PLC 3.PLC	1. PLC 2. PLC RUN 3. PLC
E041		1.DI	1. DI

		2.DI 3.	2. DI DI IO 3. IO
E042		1. 2. 3. 4. PG 5.PG 6.24V 15V 7. 8.	1. P01 2. 3. P09.69 4. PG 5.PG 6. 24V 15V IO 7. IO 8.
E043		1. 2. 3. 4. PG 5.PG 6.24V 15V 7. 8.	1. P01 2. 3. P09.69 4. PG 5.PG 6. 24V 15V IO 7. IO 8.
E044		1. 2. 3. 4. 5. 6. 7. 8.	1. 2. 3. 4. 5. 6. 7.P26.29 8. IO
E046		1.24V 2. 3.IO DI 4.	1. 24V 2. 3. DI IO 4. IO
E047	IO	1.IO 2.	1. IO 2. IO
E048		1. DSP ARM 2. DSP 3.	1. 2. 3.
E051			
E052	DP/PN	1.DP/PN PLC 2.DP/PN 3.DP/PN	1. DP/PN PLC 2. DP/PN 3. Profibus P13.08
E054		1. 57- 2.	1. 2. 3. 4.

E055		1. 2.P01	1. 2. P01
E057		1. 40 2. 3. 4. 5. 6. 7. IO 8.	1. 2. 3. 4. 5. 6. 7. 8. IO
E058		1. 2. 3. 4.IO DI 5.	1. 2. 3. 4. DI IO 5. IO
E059		1. 2. 3.IO DI 4.	1. 2. 3. DI IO 4. IO
E120		1. 2. 3. 4.	1. RST 2. 3. IO 4.
E121		1. 2. 3.	1. UVW 2. 3. IO
E122		1. 2. 3. P06.16 4.	1. UVW 2. 3. P06.16 P01.10 4. IO
E157			
E160		1. 2. 3. 4. 5. 6.	1. RST 2. 3. IO 4.

E069		1. 2. 3.	1. -5% 2. 3.
E070		1. 2. 3. 4.	1. 2. 3. 4.
E071			

8.4.

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9.

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9.1.

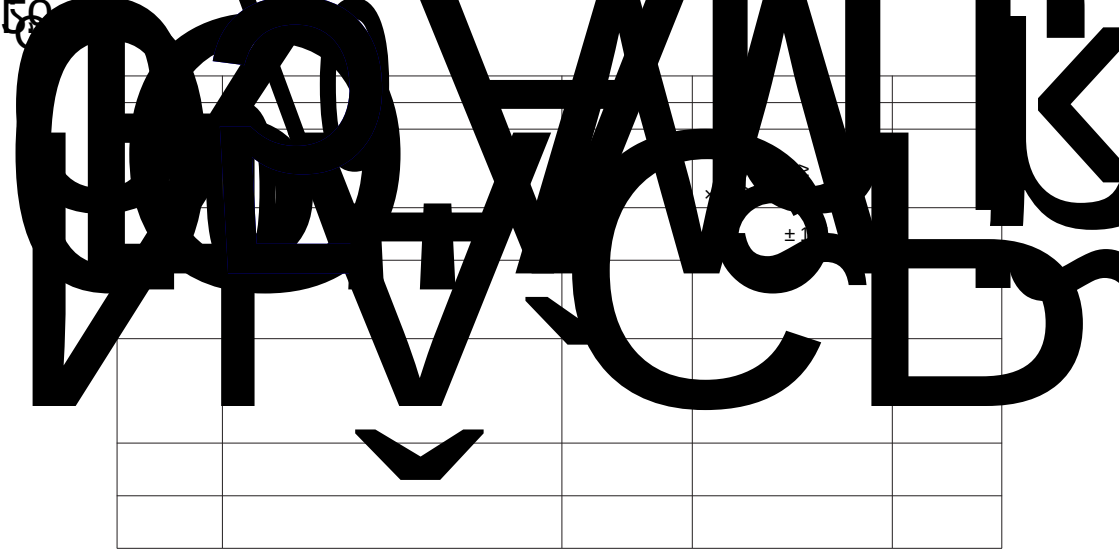
1)
2)
3)

4)
5)

6)
7) “
8) 20V

9.2.

1)
2)
3) ч ч ч) N



9.4.

R

10. Modbus

RS485 Modbus-RTU 485

10.1.

10.1.1.

RS485 “ ” PC/PLC

10.1.2.

1

I/O 485+ 485-

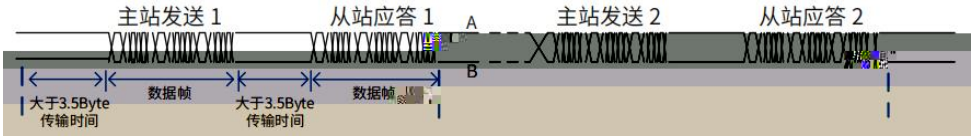
2

PC PLC HMI

1~247

3

Modbus-RTU 3.5Byte



Modbus-RTU “ / ”

“ / ” (PC)

(PLC) “ / ”

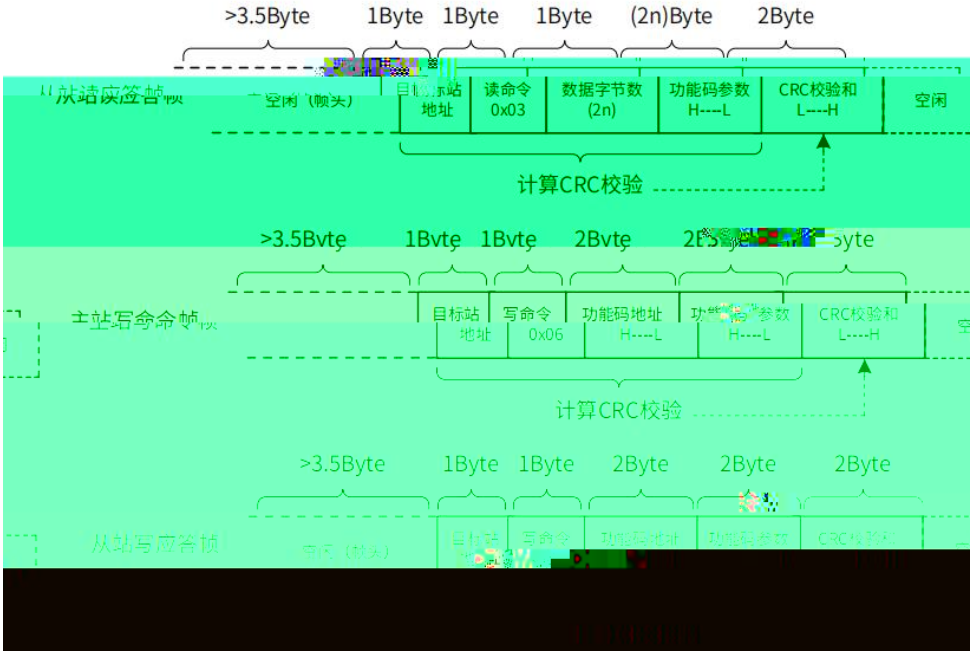
10.2.

Modbus Word

0x03 0x06



485 n 100





■ 0x03 0x06

START	3.5
ADR	1~247
CMD	03 06
H	16
L	
H	1 1
L	1
H	
L	
CRCCHK	CRC16
CRCCHK	CRC
END	3.5

■ CRC

CRC CyclicalRedundancyCheck RTU CRC CRC

U00 “10.2 ”
U00 70H U00.23 7017H
U0X 7XH U00
b
3000H 485

3000H	0001
	0002
	0003

c
8000H
9

8000H	0~199

2.
a
1000H 485
-30000~30000

1000H	-30000~30000

b
PID PID
1002H 485 -30000~30000

1002H	–30000~30000

c
485 485

2000H	0001
	0002
	0005
	0006
	0007

11.

PG

PG

PCBGY6000PGC01	+15V
PCBGY6000PGC02	



◆ PG

◆ CN1 CN4

12-1

	15V/300mA	
	+15V	
	5.08mm	
1	A+	A
2	A	A
3	B+	B
4	B	B
5	Z+	Z
6	Z	Z
7	PE	
8	COM	
9	15V	15V

12-2

	10kHz	
	7VRMS	
	3.5VRMS ± 27%	
	0.5	
	3.81mm	
1	EXC+	+
2	EXC-	-
3	SIN	+
4	SINLO	-
5	COSLO	-
6	COSLO	+
7	PE	