GUIDE

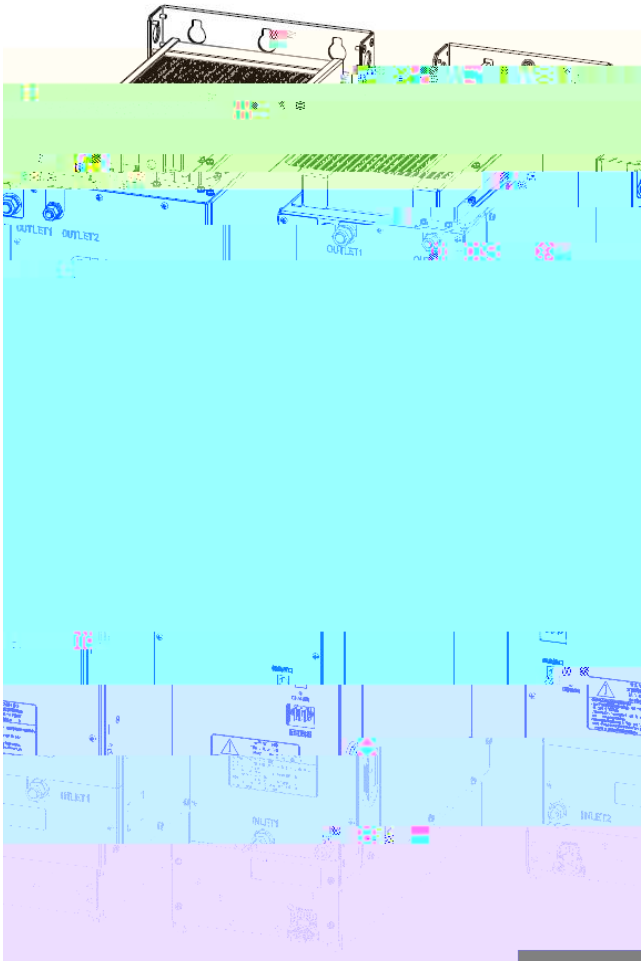
‡ J HF680NLC Δ

400V Ґ Р Є250-630kW

ə ө E1.00

ө Ї _ Н r

Wuhan Guide Technology Co.,Ltd.



HF680NLC

1. 1
1.1 1
1.2 5
1.3 5
2. 6
2.1 6
2.2 6
2.3 7
2.4 9
3. 14
3.1 14
3.2 14
3.3 20
3.4 21
3.5 22
3.6 23
3.7 23
4. 25
4.1 25
4.2 25
4.3 30
4.4 34
4.5 34
5. 35
5.1 35
6. 36
6.1 36
6.2 37
6.3 37
6.4 38
7. 45
7.1 45
7.2 46
8. 51
8.1 51
8.3 71
9. 77
9.1 77
10. 83
10.1 P2 83
10.2 P3 83
10.3 P4 85
10.4 P5 87
10.5 P6 88
10.6 P7 90
10.7 1 P8 92

10.8 2 P9 95
10.9 3 P10 98
10.10 4 P11 101
10.11 1 P12 104
10.12 2 P13 105
10.13 3 P14 107
10.14 4 P15 108
10.15 1 V/F P16 110
10.16 2 V/F P17 113
10.17 3 V/F P18 116
10.18 4 V/F P19 119
10.19 1 P20 122
10.20 2 P21 127
10.21 3 P22 132
10.22 4 P23 137
10.23 3.3 22 0

1.

1.1







1

RCD

RCM RCD

RCM

B RCD RCD

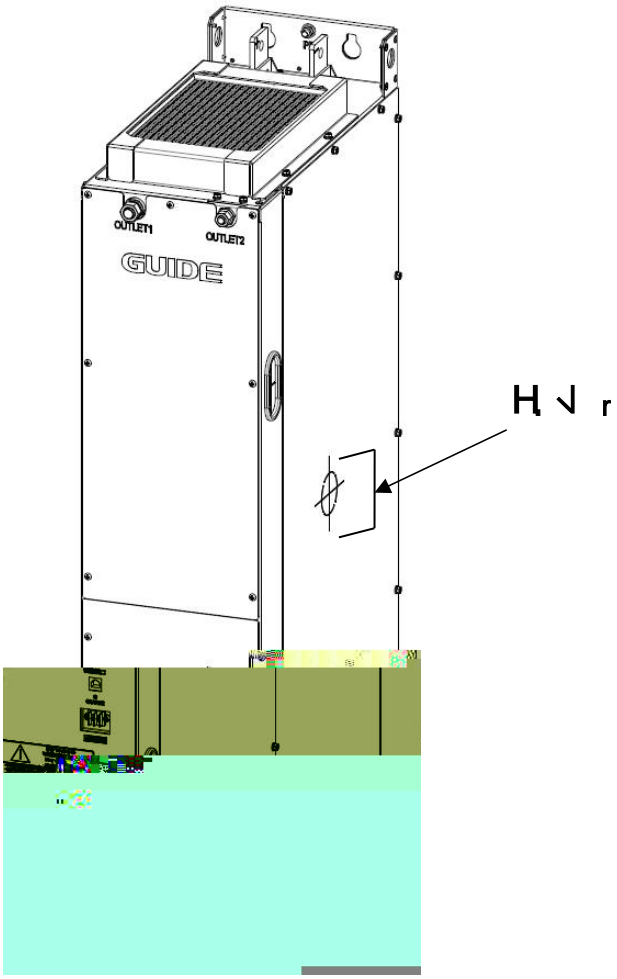
RCD RCD

2

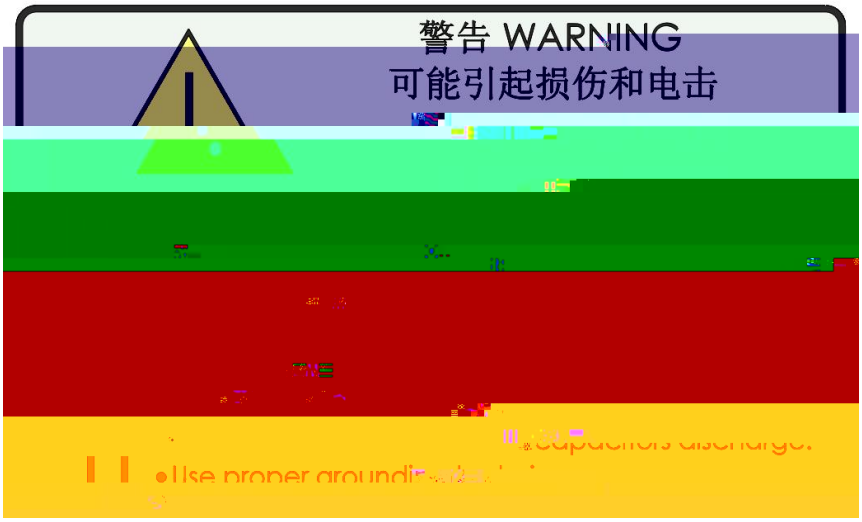
500V

5MΩ

3



HF680NLC03M-630-4



1.2

(1)

(2)

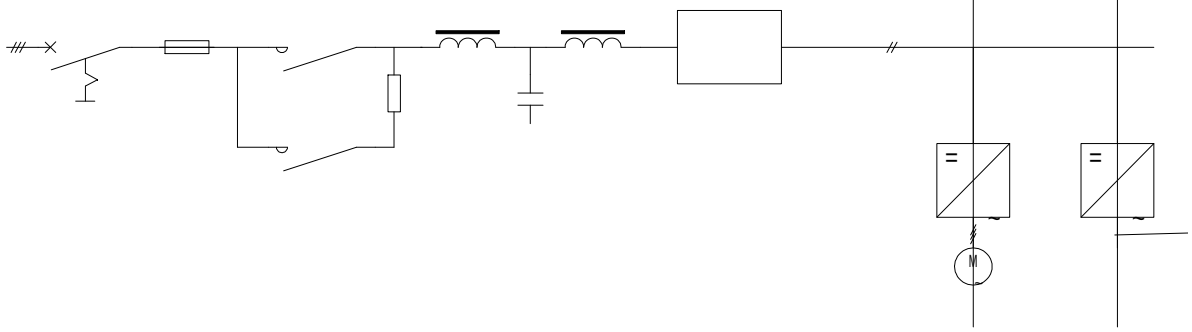
(3)

1.3

2.

2.1

HF680NLC LCL



2

2.4.1

		10
	MPa	0.6
	(kPa)	80~250
	(mm)	: ø16 ø13; ø12 ø9
		PA Teflon SMC T1613W T1209W

2.4.2



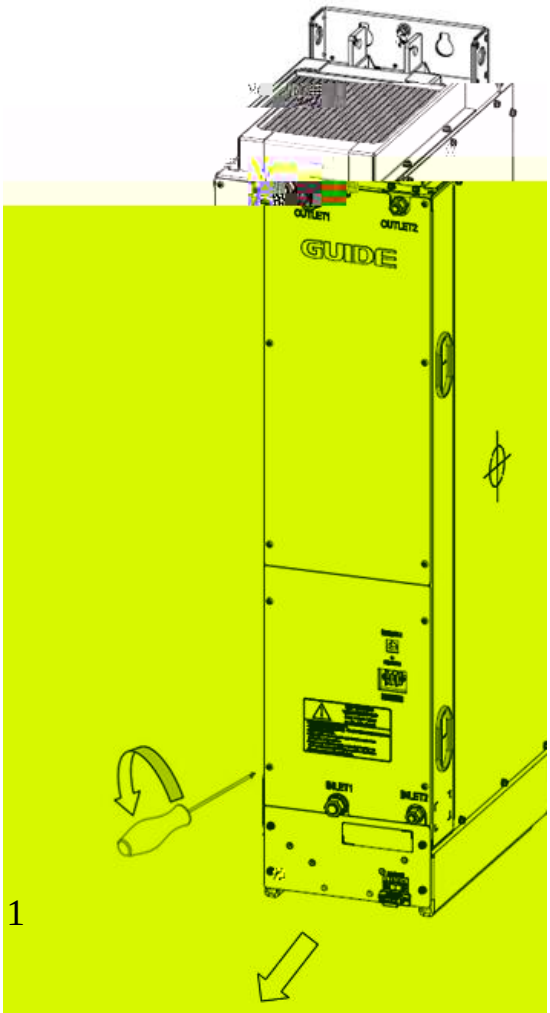
	A ≥ 250mm

50mm

2.4.3

1 11

2



HF680NLC03M-630-4

2.4.4

2 1

4 2

4 3

ك 4 ٱخĎU خ . İ ť

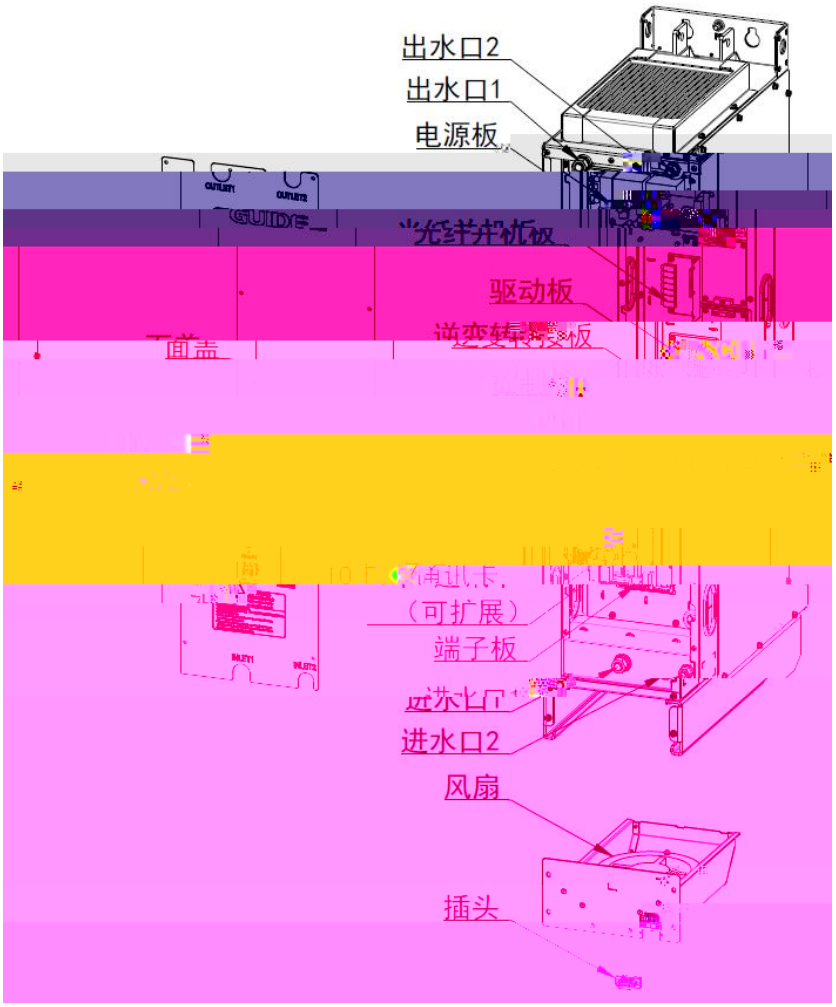
3.

3.1

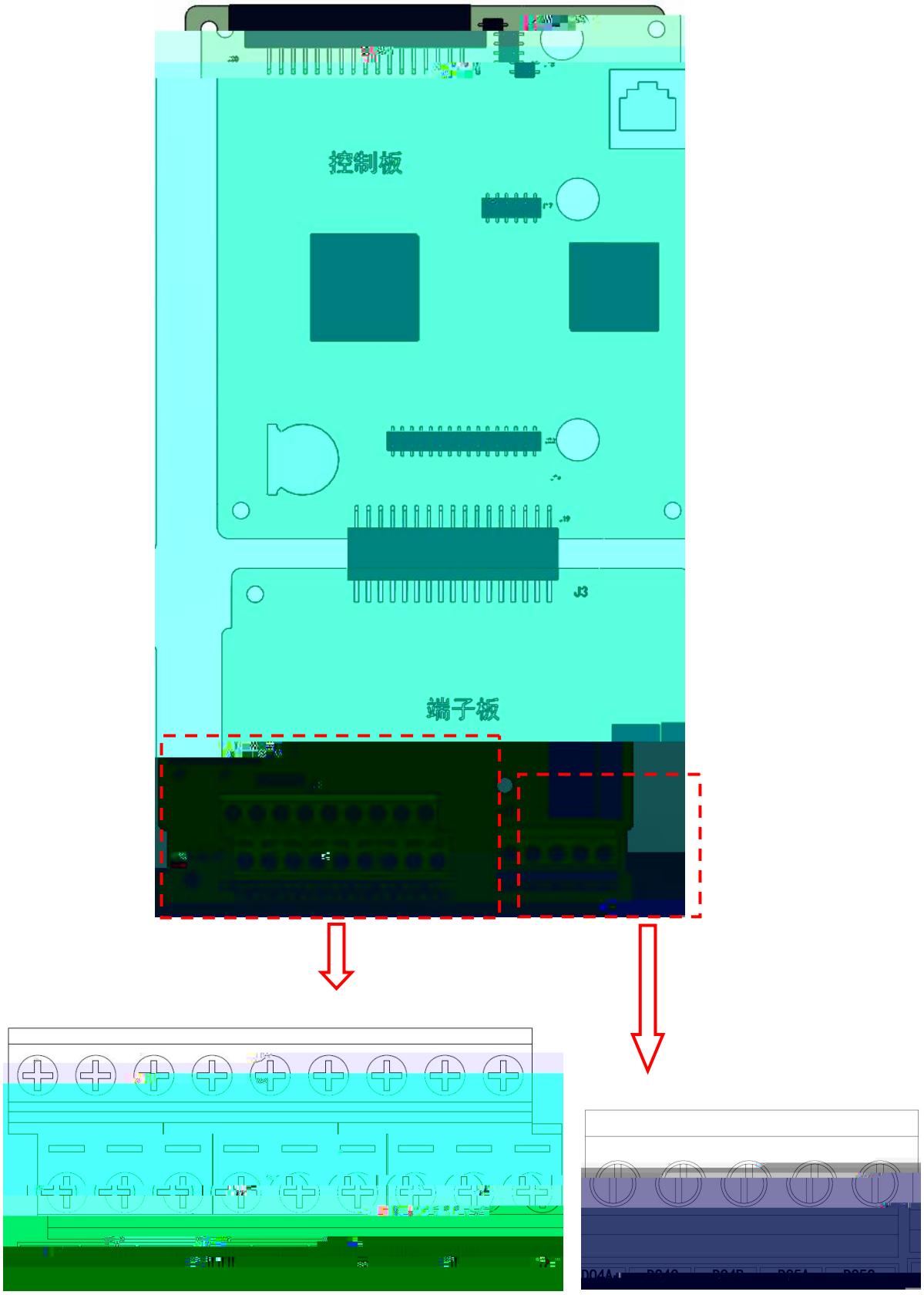
LCL

LCL

3.2



2



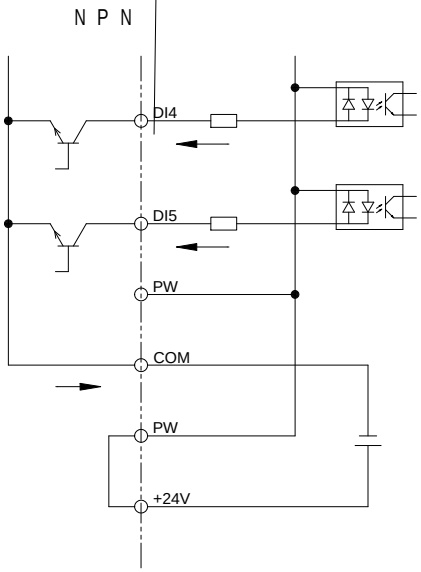
+10V 50mA

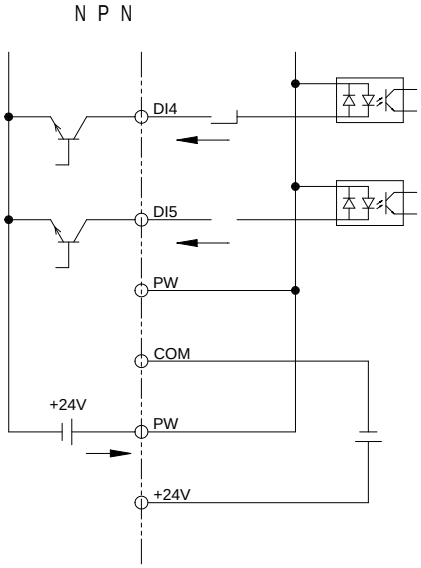
+10V-GND 10V ÿ

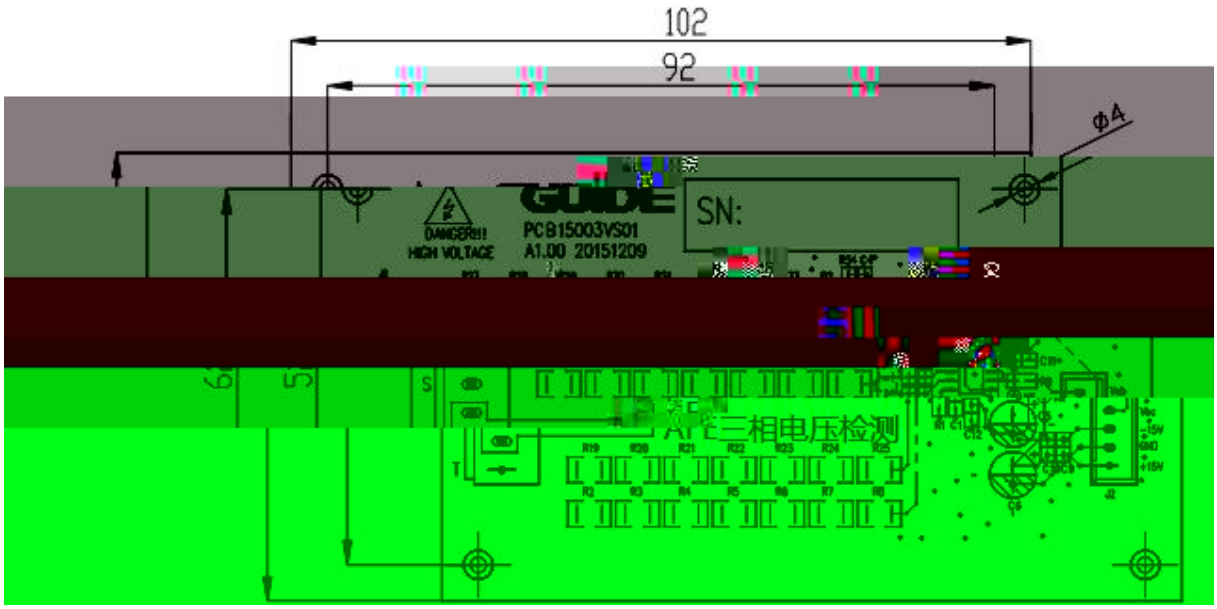
3

0V

NPN

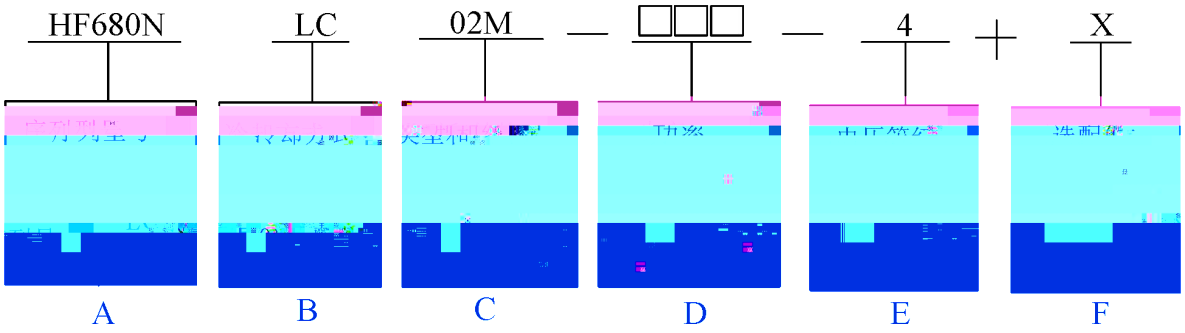






	J1	1121S-7P	
	J2	2001S-5P(T)	

3.3



A	
B	LC
C	02M 02C
D	500 500kW 630 630kW
E	4 380V
F	

Modbus RTU	MB01	GDHF-AMBX1	Modbus RTU
DP	DP01	GDHF-ADPX1	Profibus DP

620V

	[A]	[kW]		mm H*W*D	kg
HF680NLC02M-500-4	970	500	Q1	1100*253*525	120
HF680NLC02M-630-4	1103	630			

1 HF680NLC02M
LCD
2 HF680NLC02M

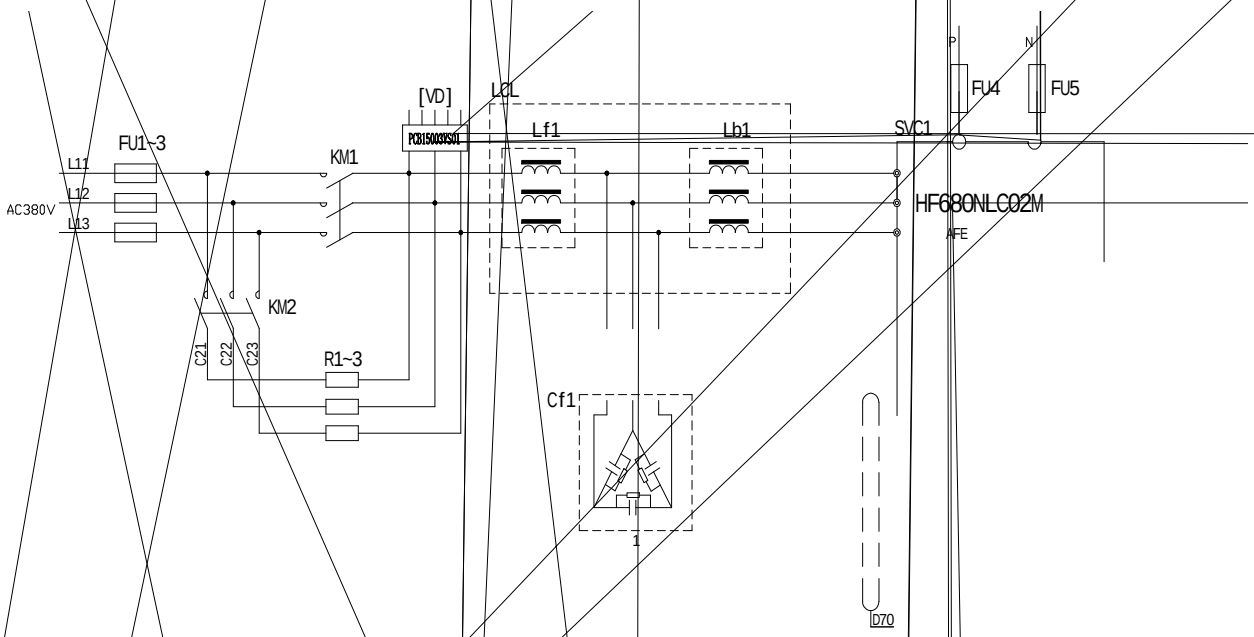
3.4

LCL

	Lf/μH	Lb/μH	Cf/μF	
HF680NLC02M-500-4	22uH	90uH	190uF	3×2R5
HF680NLC02M-630-4	18uH	71uH	240uF	3×2R5

1. LCL Lf Lb Cf

3.5


[VD]
LCL
Lf1
Lb1
SVC1
P
N
FU4
FU5
FU1~3
KM1
L11
L12
L13
AC380V
HF680NLC02M
AFE
KM2
C21
C22
C23
R1~3
Cf1
1
D70
[VD]

3.6

		380V 480V
		50 / 60Hz
		-15% +10%
		<AC320V 15ms
		AFE
		0.999
		3%
		150% 5 1 630KW 110% 5 1
		570V 710V
		1kHz 10kHz

3.7

IGBT

50%

0.999

3% GB/T 24337-2009

380V 480V -15% +10%

DP PN

IGBT

50%

0.999

3% GB/T 24337-2009

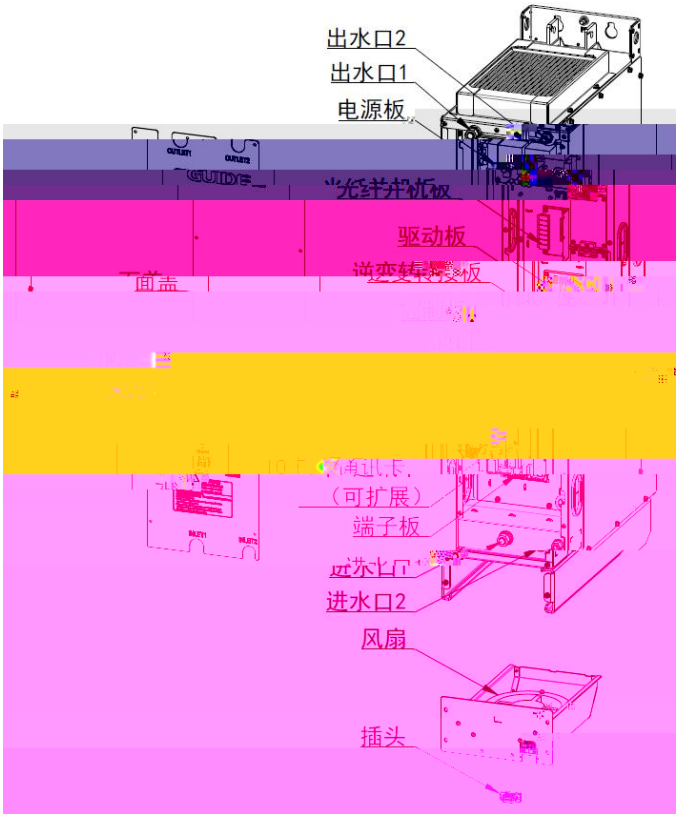
380V 480V -15% +10%

DP PN

4.

4.1

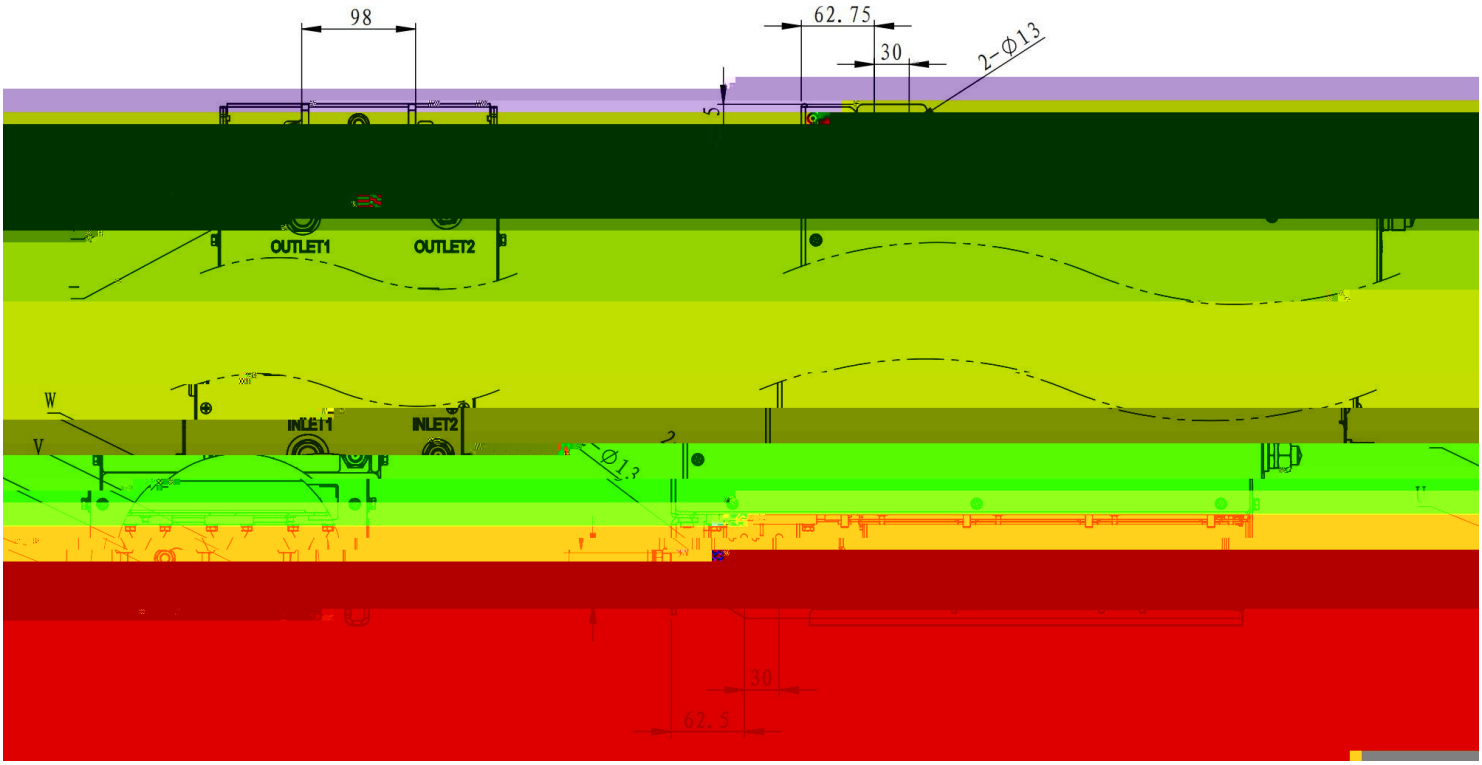
4.2



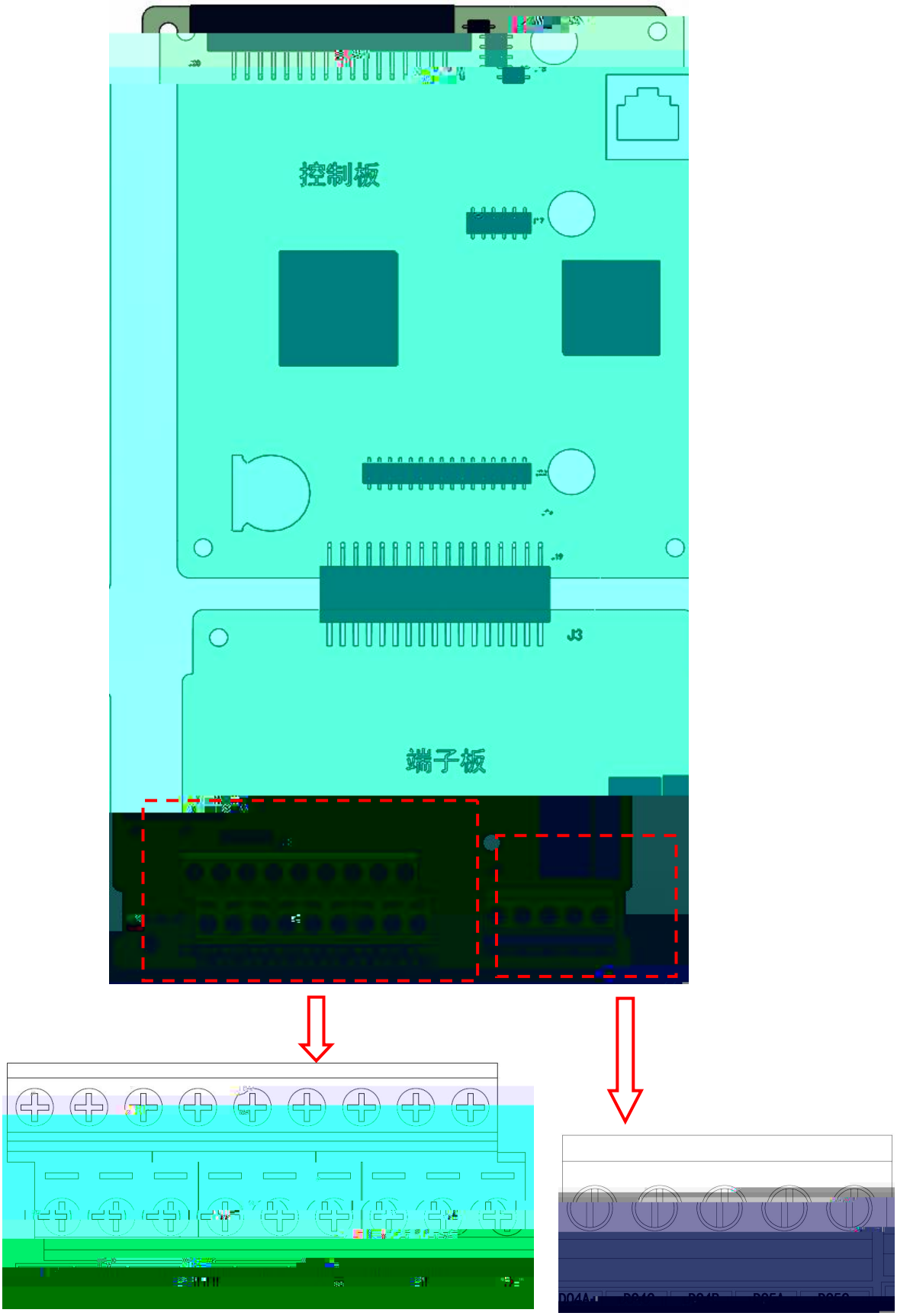
	MVSTBW 2.5/4-STF-5.08		
1 1	KFG2H1613-03	SMC	
1 1	T1613W	SMC	
2 2	KFG2H1209-03	SMC	
2 2	T1209W	SMC	

1

+	
-	
U V W	
PE	



2

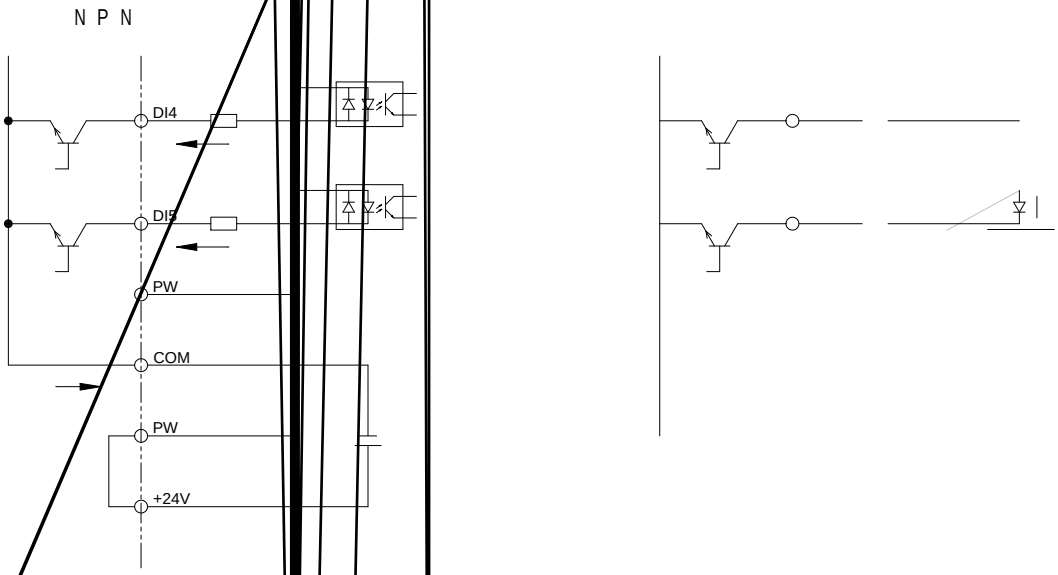


+10V-GND	10V	+10V 50mA 1kΩ~5kΩ
+24V-COM	24V	+24V 200mA
PW		24V DI1~DI5 DO1 PW 24V
AI1-GND	1	DC -10V~10V 100kΩ -10VDC~10VDC/0mA~20mA
AI2-GND	2	J1 100kΩ 500Ω
DI1- PW	1	

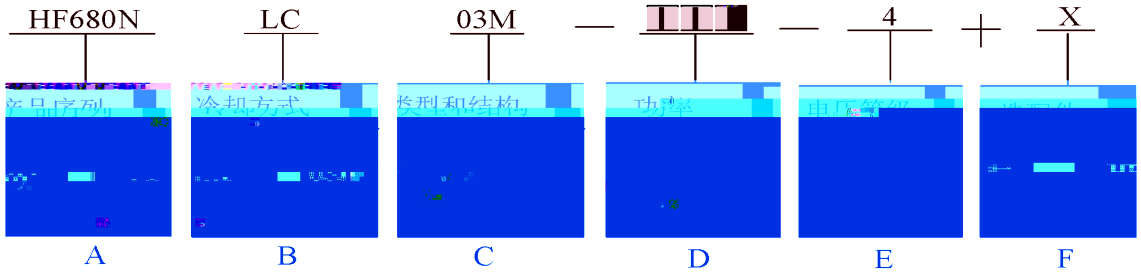
3

0V

NPN



4.3



A	
B	LC
C	03M 03C
D	250 250kW 630 630kW
E	4 380V
F	

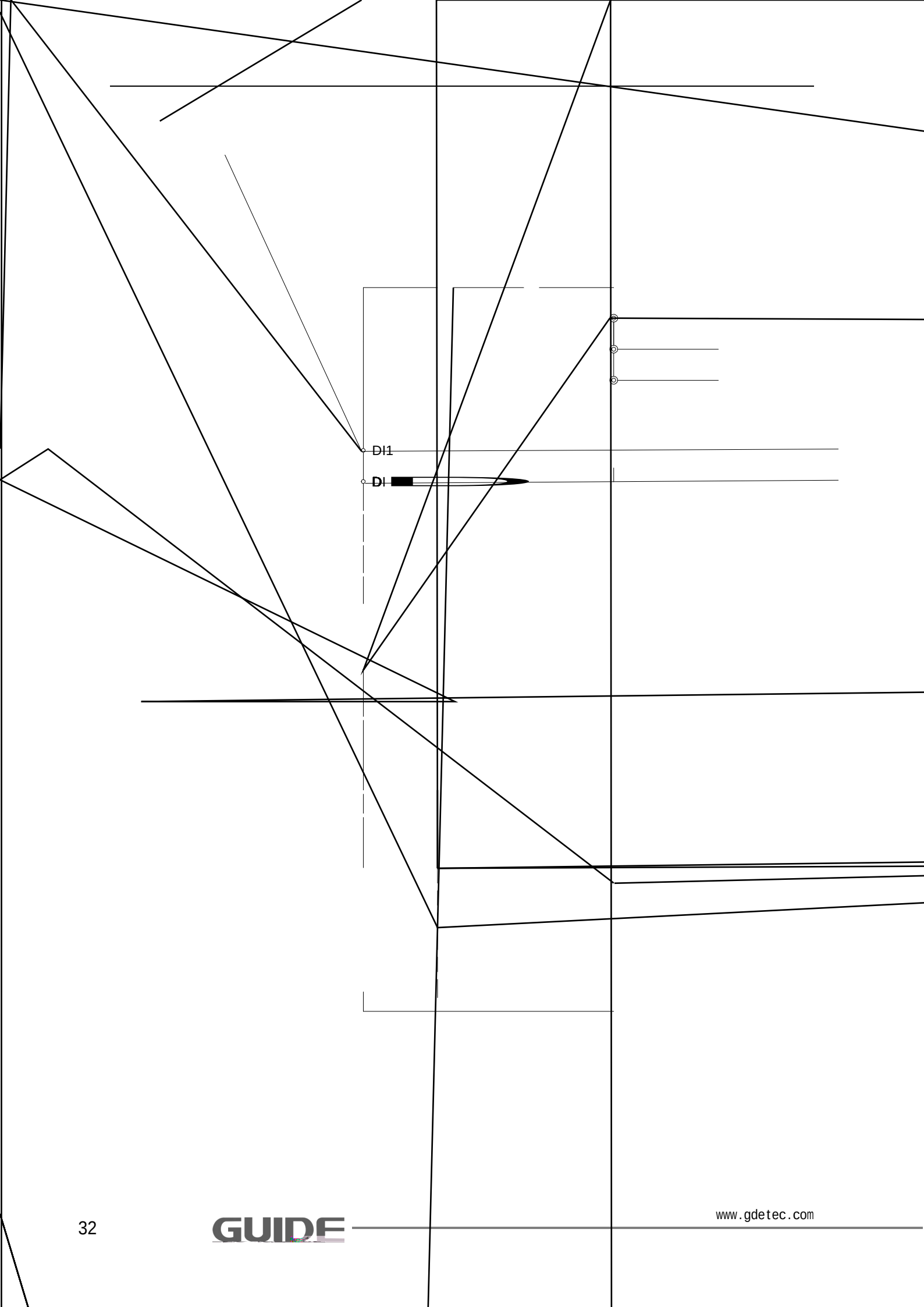
Modbus RTU	MB01	GDHF-AMBX1	Modbus RTU
DP	DP01	GDHF-ADPX1	Profibus DP
PN	PN01	GDHF-APNX1	Profinet

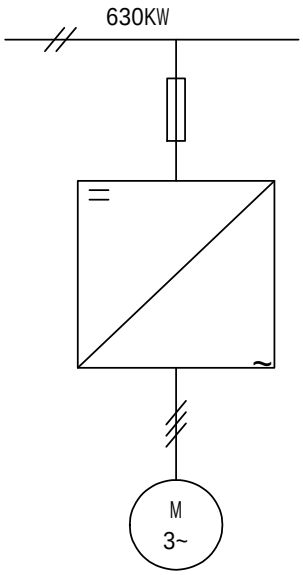
	[A]	[kW]		mm H*W*D	kg
HF680NLC03M-250-4	485	250	Q1	1100*253*525	120
HF680NLC03M-280-4	545	280			
HF680NLC03M-315-4	610	315			
HF680NLC03M-355-4	668	355			
HF680NLC03M-400-4	720	400			
HF680NLC03M-450-4	820	450			
HF680NLC03M-500-4	970	500			
HF680NLC03M-560-4	1030	560			
HF680NLC03M-630-4	1103	630			

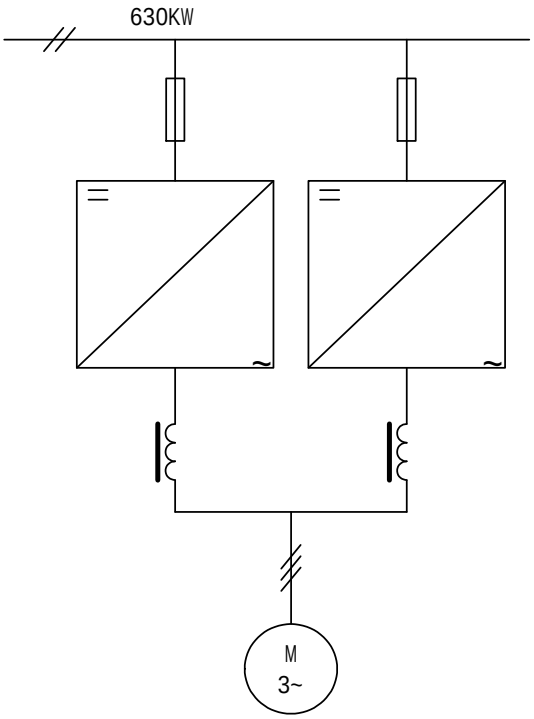
1 200%

2 50% HF680NLC03M

3 HF680NLC03M


DI1
DI



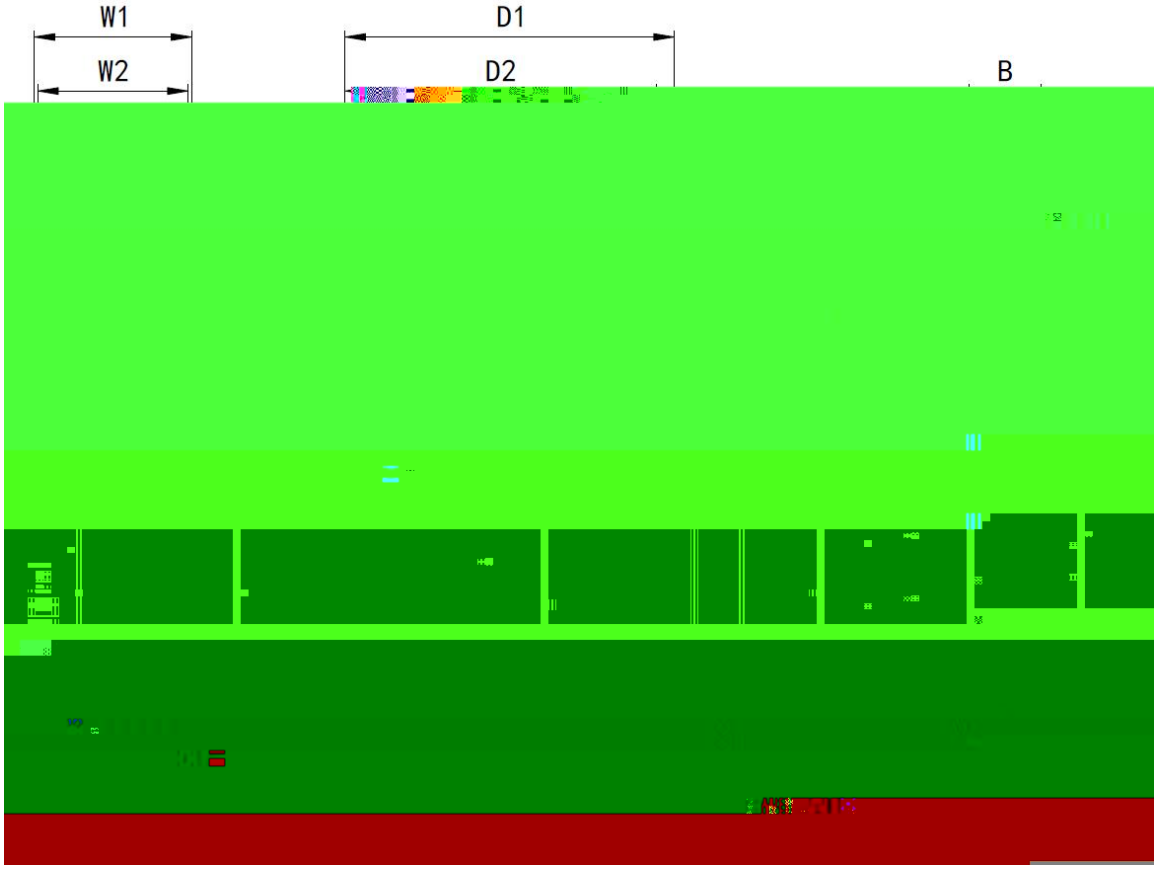


	mm²	V/A
HF680NLC03M-250-4	2 × 95	1000/600
HF680NLC03M-280-4	2 × 95	1000/700
HF680NLC03M-315-4	2 × 120	1000/700
HF680NLC03M-355-4	2 × 120	1000/800
HF680NLC03M-400-4	2 × 150	1000/900
HF680NLC03M-450-4	2 × 185	1000/1000
HF680NLC03M-500-4	4 × 95/2 × 240	1000/1200
HF680NLC03M-560-4	4 × 95/2 × 240	1000/1400
HF680NLC03M-630-4	4 × 120/2 × 300	1000/1600

630kW

5.

5.1



	mm					mm			8.8	kg
	H1	W1	W2	D1	D2	A	B			
HF680NLC03M-250-4	1100	253	241	525	500	1055	115	4-φ13	4-M12	120
HF680NLC03M-280-4										
HF680NLC03M-315-4										
HF680NLC03M-355-4										
HF680NLC03M-400-4										
HF680NLC03M-450-4										
HF680NLC03M-500-4										
HF680NLC03M-560-4										
HF680NLC03M-630-4										

6.

6.1

HF680N F1

LOCAL/REMOTE F2 RUN STOP /RESET ENTER

ǎ ﷺ fl Ǫ

6.2

▼

▲

ENTER

RUN STOP

LOCAL/REMOTE /

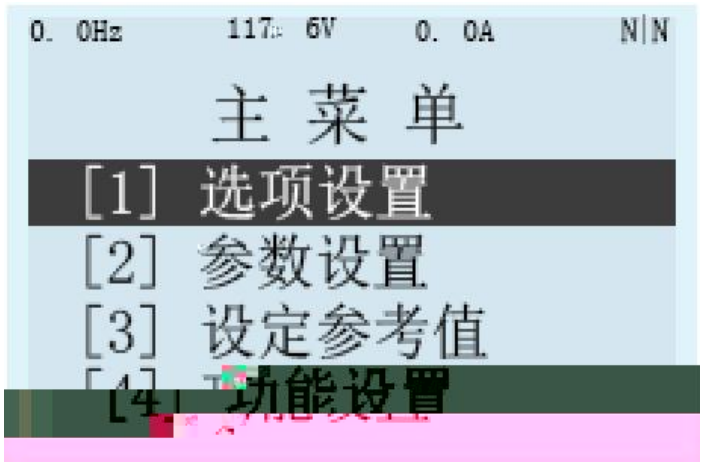
6.3



“ ” “ ” 2

|

	“ - ”
	:V
	A
	N|N W E



4

ENTER F1/F2

6.4

1	Option Set	
2	Parameter Setting	/
3	Reference Set	
4	Function Setting	
5	Fault Record	

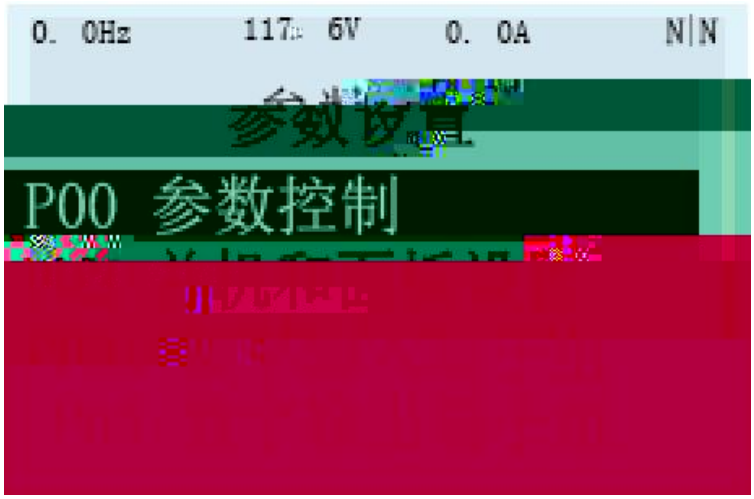
6	Security	

6.4.1

1	Choose Direction
2	Reset Error
3	Menu Language

8	OLD COM	

6.4.2



Parameter Setting

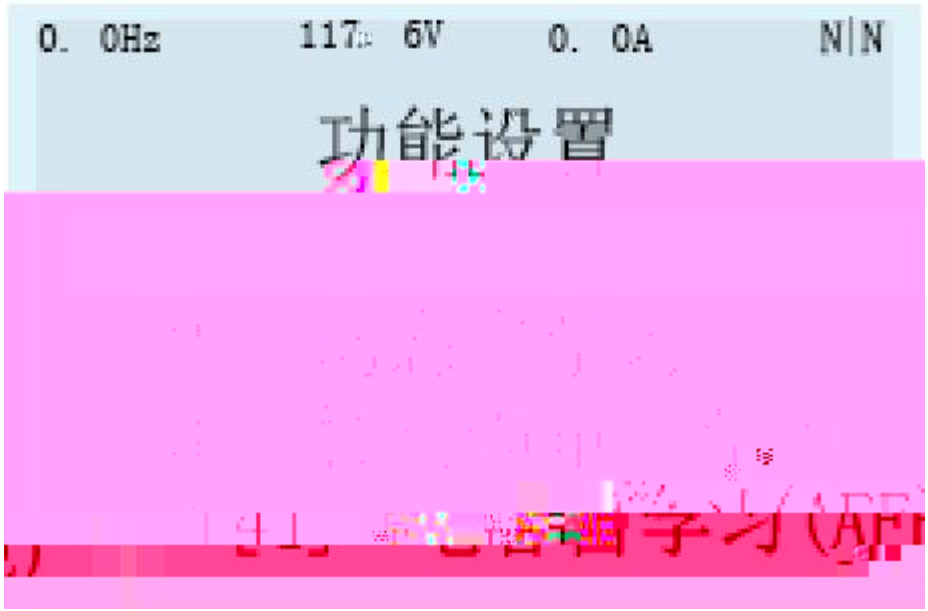
6.4.3



Reference Set

Reference Set	Speed	[Hz]	Hz
		[%]	%
	Torque	[%]	%
	Torque limiter	[%]	%
	1	[%]	1
	2	[%]	2

6.4.4



Function Setting

1	MotoTuning I
2	MotoTuning II
3	MotoTuning III
4	DC-Link Tuning (AFE) AFE
5	Shortcut Paras Setting
6	Parameter Initialization
7	Delete Fault Records
8	System Restart
9	Backup Parameter
10	Recover Parameter
11	Compare Parameter
12	Backup Para DSP DSP DSP
13	Restore Para DSP DSP DSP

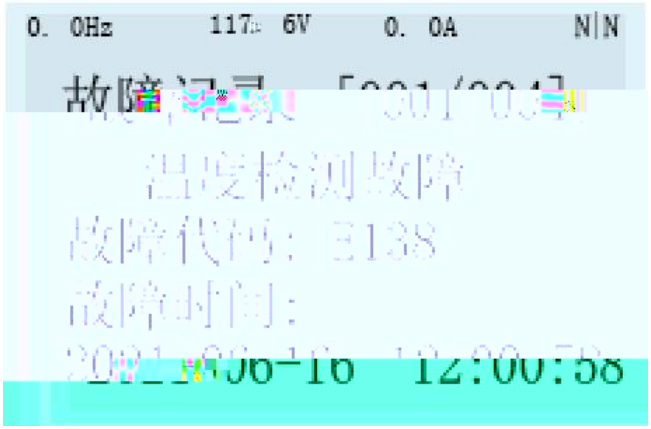
1

2

5

▼ ▲ “Enter”

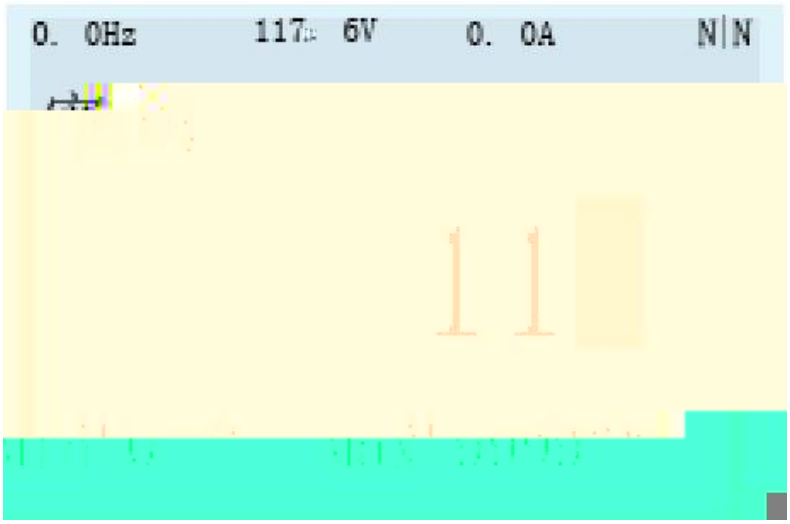
6.4.5



Fault Record

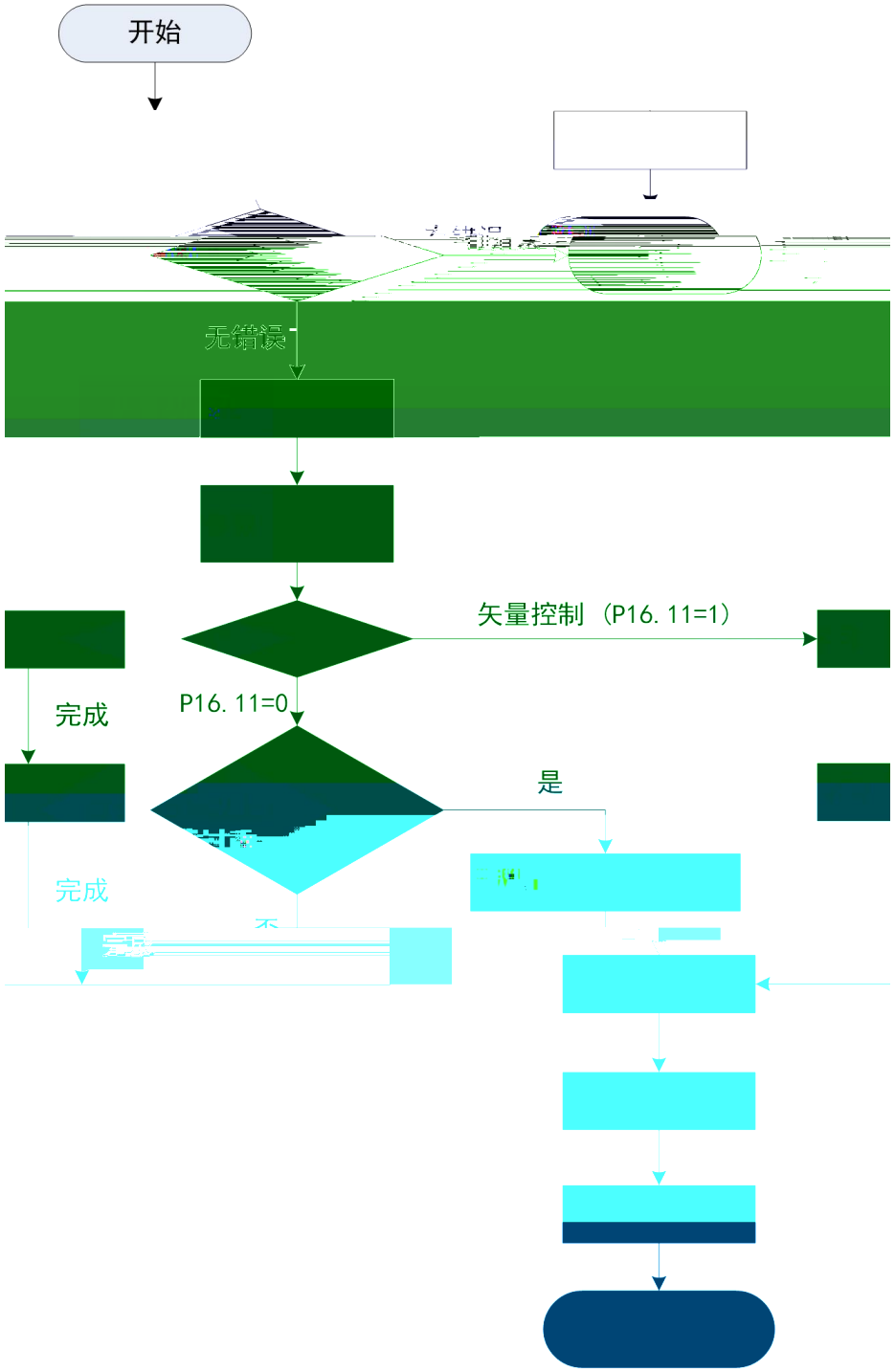
6.4.6

Access Permissions



7.

7.1



/

V/F P16.11=0 V/F

P16.11=2 P16.11=1

7.2

1
2
3
4 AC380~480V 50/60Hz
5 U,V,W
6
7 PG PG
Ä8 ; AÆ5óÐ(æ Ĵ Ĵ ف

7.2.1

5.4 “ ”

7.2.2

P16.2

P16.3

P16.4

P16.5

P16.6

P16.7 120 × P16.5 / P16.6

P16.9 Ø

P8.10		[0]I/O [1] 1 [2] 2 [3] [4]DP [5]MODBUS [6]	3
P8.3		[0] [1]	1
P7.0	[1]	0~300[%]	180%
P7.4	[1]	0~300[%]	235%
P7.19	[1]	100.0 720.0[%]	120%

7.2.3

∀
1

P16.11 [1] [2]æ ä " µm "

H

4

50%

7.2.4

HF680N

	7.5% 50% 50%
	1/ 5
	P16
	V/F

7.2.7

1

2 LOC/REM LOCAL LOCAL

3 ENTER [1] RUN

RUN 5Hz

8.

8.1

8.1.1

DI1 DI2

DI3: 14 DI4

DO2 DO3:

DO4 DO

DO5

1

380V 220V P0.1

“ ” “ ”

“ DO4A ” “ DO4C ” “ DO5A ”

“ DO5C ”

P4.3 DO4 0

AFE ” Stop

P8.6 **0.5s** Run

A B C

Stop

P N P N Local/Remote

Local **P24.21** **0** “ ”

“ ” Stop P24.28

P24.21 **1**

Local/Remote Remote PLC

2

380V **220V**

http://www.guide-edrive.com

P0.1

P16.11 0 V/F P4.1 57 P4.3 58

P4.4 59

100.15 100.16 100.17 1

DO2 PLC DO4 DO5

100.15 100.16 100.17 0

参数	名称	值	单位
100.15	DO 功能本地测试 1	1	
100.16	DO 功能本地测试 2	0	
100.17	DO 功能本地测试 3	0	

P3.0-P3.7 0 PLC DI DI

DI 1

参数	名称	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
101.5	数字量输入端子 [01 ~ 16]																
101.6	数字量输出端子 [01 ~ 16]																

P3.0	1	
P3.1	20	
P3.2	14	LCL
P3.3	5	
P4.1 DO2	2	
P4.2 DO3	1	
P4.3 DO4	0	DO
P4.4 DO5	32	
P7.0	180%	
P7.4	200%	
P7.12	730V	430V 800V
P8.6	300s	300s 0.5s
P16.0	380V	
P16.2		400kW 400kW
P16.4		400kW 640A
P16.11	3	
P16.12	3	3K
P24.7	0V	ADJ

P16.0 P24.7 =P16.0

+P24.7 P16.0

P16.0 ≤ 375V 580V

375V P16.0 ≤ 400V 600V

400V P16.0≤430V 630V

430V P16.0≤450V 665V

450V P16.0≤460V 680V

P16.0 460V 700V

620V P16.0 380V P24.7

20V 620V

380V “ /F 0; ” “ ”

运行 103.23

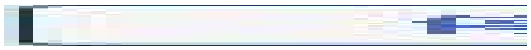
IGBT 300s 103.31 AFE

49-51Hz 103.30 AFE

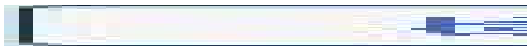
停止

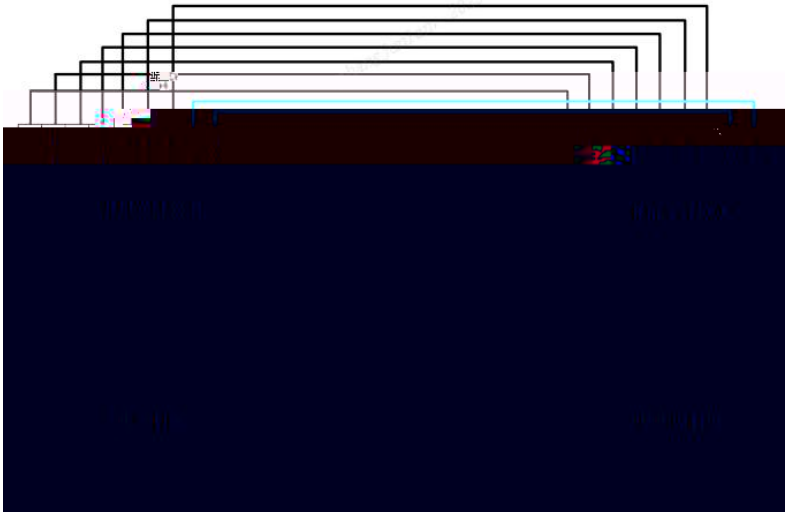
P8.6 0.5s 运行 È 103.23

102.54 102.55 102.56



P N PÃN









PIN

Ä

P16.0	380V			
P16.2		1/2	800kW	400kW
P16.4		1/2	800kW	608A
P16.11				

P16.11	3	
P16.12	3	3K
P24.7	0V	ADJ

P16.0 P24.7 =P16.0

+P24.7 P16.0

P16.0 ≤ 375V 580V

375V P16.0 ≤ 400V 600V

400V P16.0 ≤ 430V 630V

430V P16.0 ≤ 450V 665V

450V P16.0 ≤ 460V 680V

P16.0 460V 700V

620V P16.0 380V P24.7

20V 620V

220V **220V**

[W1]

380V Local/Remote Local Run

IGBT 300s

“ AFE ” 49-51Hz “ AFE ”

Stop

P8.6 **0.5s** Run

A B C

Stop

P N **P N** Local/Remote

Local **P24.21** **0** “ ”

“ ” Stop P24.28

P24.21 **1**

Local/Remote Remote PLC FTT•

2

380V 220V P0.1

DI DO

DO

P16.11 0 V/F P4.1 57 P4.3 58 P4.4

59

100.15 100.16 100.17 1

100.15 100.16 100.17 0 ,

参数	名称	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
101.5	数字量输入端子 [01 ~ 16]																
101.6	数字量输出端子 [01 ~ 16]																

bJ

P2.0 2

P3.2 14 LCL

P4.3 DO4 0 DO

P4.4 DO5 32

P4.1 DO2 2

P7.0 180%

P7.4 200%

430V

P7.12 730V 800V

P16.0 380V

P16.2 0

P3.1		20		
P3.2		ϱ „14	LCL	
P3.3		5		
P4.1	DO2	2		
P4.2	DO3	1		
P4.3	DO4	0	DO	
P4.4	DO5	32		
P7.0		180%		
P7.4		200%		
				430V
P7.12		730V	800V	
				300s
P8.6		300s	0.5s	
P16.0		380V		
P16.2			800kW	800kW
P16.4			800kW	1216A
P16.11		3		
P16.12		3		3K
				ADJ
P24.7		0V		

620V 6.0 380V P24.7

20V 620V

È 220V 220V

[W1] 101.77 CAN

@ 101.80 CAN @ 0

380V “ / ’F9j “ ” 运行

IGBT 300s 103.31

49-51Hz 103.30 AFE

停止

P8.6 0.5s 运行

103.23 102.54

102.55 102.56 113.11 A$ 102.54

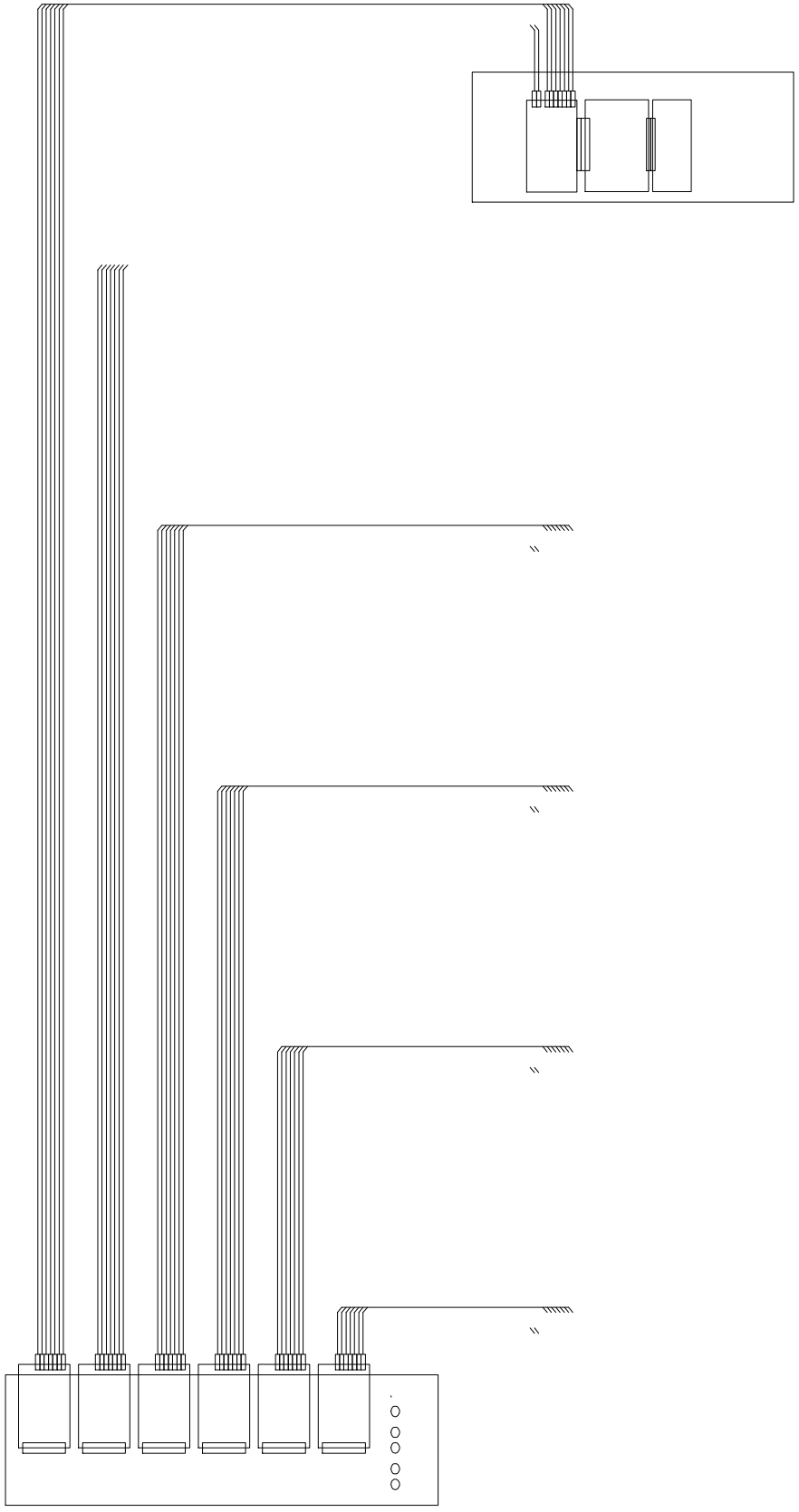
停止

˚Q P ÃM ظ ّ O¸Q È

停工

₱

停工



1 “ D05A ” “ D05C ” 1

D02 PLC 1

P3.0-P3.7 0 PLC DI 

DI DI 1

参数	名称	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
101.5	数字量输入端子 [01 ~ 16]																
101.6	数字量输出端子 [01 ~ 16]																

220V

1 2 3 4 5

AFE

P2.0 2

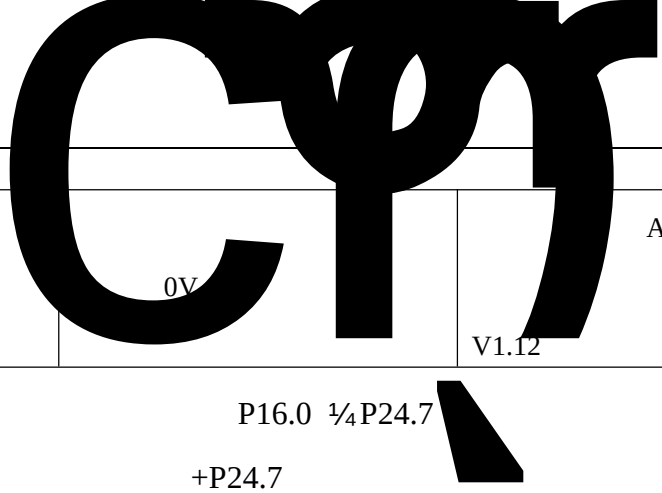
P3.1 20

P3.2

P16.12	3	3K

AFE

P2.0	1	
P2.3	2 3 4 5	2 2
P3.0	1	
P3.1	20	
P3.2	14	LCL
P3.3	5	



P24.7	0V	ADJ V1.12

P16.0 ¼P24.7 =P16.0

+P24.7

P16.0 ≤ 375V **580V**

375V P16.0 ≤ 400V **600V**

400V P16.0 ≤ 430V **630V**

430V P16.0 ≤ 450V **665V**

450V P16.0 ≤ 460V **680V**

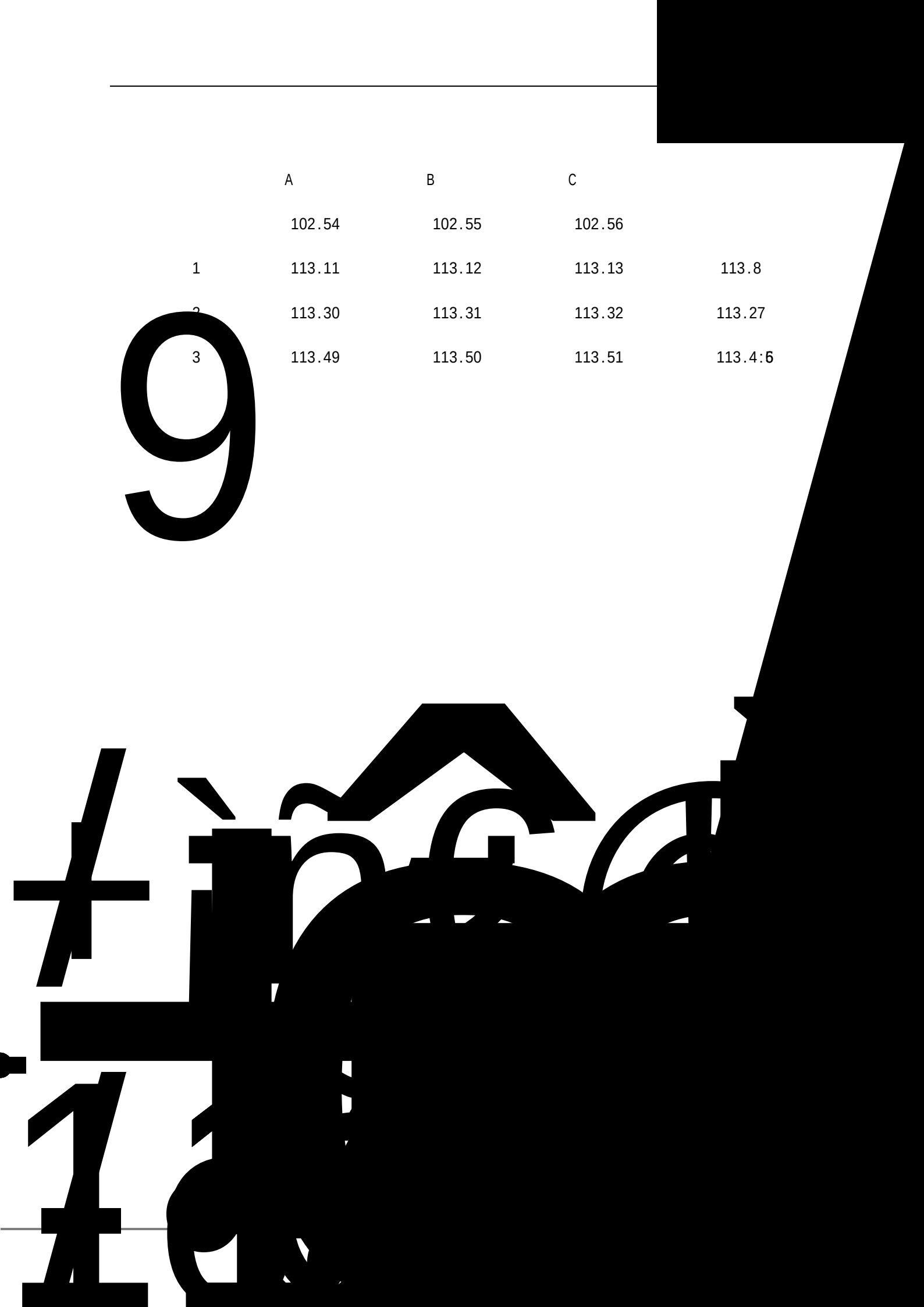
P16.0 460V **700V**

620V P16.0 380V P24.7 20V

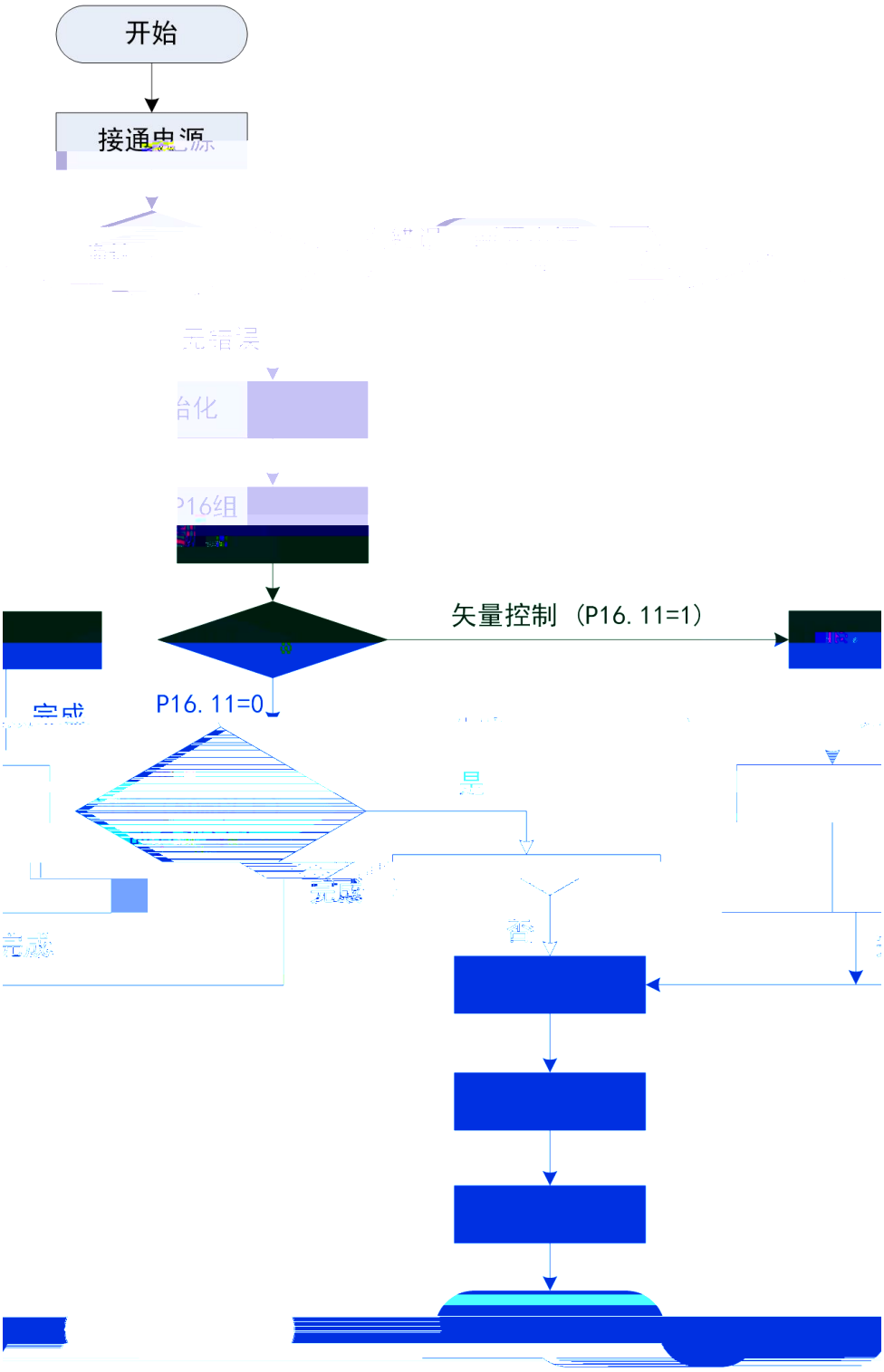
620V

220V **220V**

	A	B	C	
	102.54	102.55	102.56	
1	113.11	113.12	113.13	113.8
2	113.30	113.31	113.32	113.27
3	113.49	113.50	113.51	113.4:6



8.2



/

V/F P16.11=0 V/F

P16.11=2 P16.11=1

8.3

8.3.1

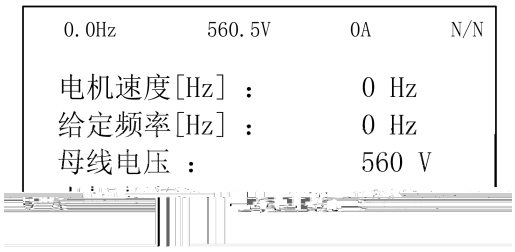
1 ±5V

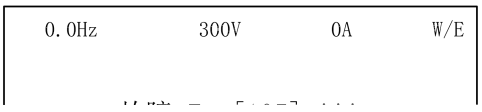
2 U,V,W

3

4 PG PG

8.3.2





8.3.3

6

8.3.4

P8.0	[0] [1] [2]DP [3]MODBUS [4]	1
P8.3	[0] [1]	1
P8.6	0 300s	0
P8.7	0 300s	0
P8.10	[0]I/O [1] 1 [2] 2 [3] [4]DP [5]MODBUS [6]	3
P8.14	0.1 10.0	1
P8.15	1	

P16.0		380V
P16.2		
P16.3		
P16.4		
P16.5		
P16.6		
P16.7		(120×P16.5 / P16.6)
P16.9		(120×P16.5 / P16.7)
P16.11		[0]V/F [1] [2]

8.3.5

5

P16.11 [1] [2]

[0] V/F

6

V/F (P20.74)

P20.74

P20.78 P20.79 P20.84

“

” “ ”

7

P20.79 P20.84

P20.85~P20.97

“

” “ ”

8

50%

P20.98 P20.98

8.3.6

HF680N

	7.5% 50% 50%
	1/5
	P16
	V/F

8.3.7

1

2 LOCAL/REMOTE LOCAL LOCAL

3 RUN RUN

5Hz

4

5 4 50Hz

6 STOP

8.3.8

1

2

3

4

5

6 STOP

1

2

1

2

8.3.9

9.

9.1

9.1.1

P2.0		[0] [1] [2]	0 2	0	450kW [0] 450kW [1] [2]
P2.2		[0] [1]	0 1	0	
P2.3			0 5	1	

9.1.2

P3.0	1		0 32	1	
P3.1	2		0 32	2	
P3.2	3		0 32	5	
P3.3	4		0 32	6	
P3.4	5		0 32	7	
P3.5	6		0 32	8	
P3.6	7		0 32	0	
P3.7	8		0 32	0	

0		
1		
5		</RST
14		
15	.NC	
20		0

9.1.3

P4.0 Å 1 0

0		
1		
2		ON
32		

9.1.4

P7.0	[1]		0.0 300.0 [%]	180.0 [%]	
P7.4	[1]		0.0 300.0 [%]	235.0 [%]	
P7.12			600 820 [V]	800 [V]	
P7.13			300 500 [V]	350 [V]	
P7.14			60.0 100.0 [ ]	87.5 [ ]	
P7.47			0.0 300.0 [%]	100.0 [%]	
P7.48	1	1	0.0 300.0 [%]	150.0 [%]	
P7.49	1	1	0.00 60.00 [s]	60.00 [s]	
P7.50	2	2	0.0 300.0 [%]	200.0 [%]	
P7.51	2	2	0.00 5.00 [s]	5.00 [s]	
P7.95			0.0 20.0 [s]	15.00 [s]	

9.1.5

P8.0		[0] [1] [2]DP [3]MODBUS [4]	0 4	0	
P8.6			0.00 300.00 [s]	0.00 [s]	IGBT

9.1.6

P16.0			320 460 [V]	380 [V]	
P16.2			0.0 4000.0 [kW]	[kW]	
P16.4			0.0 6500.0 [A]	[A]	
P16.11		[0]V/F [1] [2] [3] [4]	0 4	0	[3]
P16.12			3 8 [kHz]	3 [kHz]	3 8kHz

9.1.7 AFE

P24.0		[0] [1] 1 [2] 2 [3] [4]DP [5]MODBUS [6]		0 6	0	AFE	[0]
P24.1	@			0 347	0		
P24.2		[0] [1] 1 [2] 2 [3] DP [4]MODBUS [5]		0 5	0	AFE	[0]
P24.3	@			0 347	0		
P24.7	ADJ			-30 30[V]	0[V]		
P24.12	Kp			0 1000[%]	100[%]		
P24.13	Ki			0 1000[%]	100[%]		
P24.14	@			0 1000[%]	200[%]		
P24.15	@			0 1000[%]	200[%]		
P24.16	Kp			0 1000[%]	100[%]		
P24.17	Ki			0 1000[%]	100[%]		

P24.21			[0] [1]	0 1	0	
P24.22				0 300[ms]	30[ms]	
P24.25			[0] [1]	0 1	1	
P24.26				0 150[%]	100[%]	
P24.27	PWM	LB	LB	0 65 [mH]	0	AFE
P24.28	2					

10.

10.1 P2

P2.0		[0] [1] [2]	0 2	0	
P2.1		[0] [1]DP	0 1	0	
P2.2		[0] [1]	0 1	0	
P2.3			0 5	1	

10.2 P3

P3.0	1		0 32	1	
P3.1	2		0 32	2	
P3.2	3		0 32	5	
P3.3	4		0 32	6	
P3.4	5		0 32	7	
P3.5	6		0 32	8	
P3.6	7		0 32	0	
P3.7	8		0 32	0	
P3.12		[0] [1]	0 1	0	

24		
25	FUNC 25	
26		
27	FUNC 27	
28		
29	FUNC 29	

10.3 P4

10.4 P5

P6.7	AO1	AO1 (P6.0 [13])	0.0 100.0[%]	0.0[%]	
P6.8	AO1	AO1	0.0 1000.0 [ms]	10.0[ms]	
P6.14	AO2	7-1	0 14	4	
P6.15	2		0 1000	0	
P6.16	AO2	AO2	-300.0 300.0[%]	0.0[%]	
P6.17	AO2	AO2	-300.0 300.0[%]	100.0[%]	
P6.18	AO2 [mA V]	AO2	0.0 100.0[%]	0.0[%]	
P6.19	AO2 [mA V]	AO2	0.0 100.0[%]	100.0[%]	
P6.20	AO2	AO2	-100.00 100.00[%]	0.00[%]	
P6.21	AO2	AO2 (P6.14 [13])	0.0 100.0[%]	0.0[%]	
P6.22	AO2	AO1	0.0 1000.0[ms]	10.0[ms]	

7-1

0		
1		
2		
3		
4		
5		

6		
7		
8	(%)	( )
9		
10		
11	(%)	(150)
12	DP	Profibus
13		P6.7 P6.21
14		

10.6 P7

P7.0	[1]	1	0.0 300.0[%]	180.0[%]
P7.1	[2]	2	0.0 300.0[%]	180.0[%]
P7.2	[3]	3	0.0 300.0[%]	180.0[%]
P7.3	[4]	4	0.0 300.0[%]	180.0[%]
P7.4	[1]	1	0.0 300.0[%]	235.0[%]
P7.5	[2]	2	0.0 300.0 [%]	235.0[%]
P7.6	[3]	3	0.0 300.0[%]	235.0[%]
P7.7	[4]	4	0.0 300.0[%]	235.0[%]
P7.8	[1]	1	0.0 100.0[%]	20.0[%]
P7.9	[2]	2	0.0 100.0[%]	20.0[%]
P7.10	[3]	3	0.0 100.0 [%]	20.0[%]
P7.11	[4]	4	0.0 100.0[%]	20.0[%]
P7.12			600 820[V]	800[V]
P7.13			300 [V] 500[V]	350[V]
P7.14			60.0 100.0[ ]	87.5[ ]
P7.15			50.0 100.0[ ]	80.0[ ]
P7.19	[1]	1	100.0 720.0[%]	120.0[%]
P7.20	[2]	2	100.0 720.0[%]	120.0[%]
P7.21	[3]	3	100.0 720.0[%]	120.0[%]
P7.22	[4]	4	100.0 720.0[%]	120.0[%]
P7.23	1 M1	1	0.00 3.00[s]	0.50[s]

P7.24

P7.74			300 500[V]	460[V]	
P7.75			0.0 1000.0[%]	100.0[%]	
P7.76			0.00 300.00[s]	1.00[s]	
P7.77			0.0 200.0[%]	15.0[%]	
P7.94		[0] [1]	0 1	1	
P7.95		AFE	0.0 3000.0[s]	15.0[s]	
P7.96			0.00 300.00[s]	0.00[s]	

10.7 1 P8

P8.0		[0] [1] [2]DP [3]MODBUS [4]	0 4	0	
P8.1					
P8.2					
P8.3		[0] [1]	0 1	0	
P8.6			0.00 300.00 [s]	0.00[s]	
P8.7			0.00 300.00 [s]	0.00[s]	
P8.10		[0]I/O [1] 1 [2] 2 [3] [4]DP [5]MODBUS [6]	0 6	0	
P8.11					

P8.13		[0] [1]PROFIBUS [2]MODBUS [3]	0 3	0	
P8.14			0.1 10.0	1.0	
P8.15	1		0.0 300.0 [%]	100.0[%]	
P8.16	1	P8.15	0.0 300.0 [s]	3.00[s]	
P8.17	2		0.0 300.0 [%]	200.0[%]	
P8.18	2	P8.15 P8.17	0.0 300.0[s]	4.00[s]	
P8.19	3		0.0 300.0[%]	240.0[%]	
P8.20	3	P8.17 P8.19	0.0 300.0[s]	7.00[s]	
P8.21	4		0.0 300.0[%]	300.0[%]	
P8.22	4	P8.19 P8.21	0.0 300.0[s]	10.00[s]	
P8.23	5		0.0 300.0[%]	300.0[%]	
P8.24	5	P8.21 P8.23	0.0 300.0[s]	10.00[s]	
P8.25	6		0.0 300.0[%]	300.0[%]	
P8.26	6	P8.23 P8.25	0.0 300.0[s]	10.00[s]	
P8.27	7		0.0 300.0[%]	300.0[%]	
P8.28	7	P8.25 P8.27	0.0 300.0[s]	10.00[s]	
P8.29	8		0.0 300.0[%]	300.0[%]	
P8.30	8	P8.27 P8.29	0.0 300.0[s]	10.00[s]	
P8.32		[0] [1]PROFIBUS [2]MODBUS [3]	0 3	0	
P8.33			0.1 10.0	1.0	
P8.34	1		0.0 300.0[%]	100.0[%]	

10.8 2 P9

P9.0		[0] [1] [2]DP [3]MODBUS [4]	0 4	0	
P9.1					
P9.2					
P9.3		[0] [1]	0 1	0	
P9.6			0.00 300.00[s]	0.00[s]	
P9.7			0.00 300.00[s]	0.00[s]	
P9.10		[0]I/O [1] 1 [2] 2 [3] [4]DP [5]MODBUS [6]	0 6	0	
P9.11					
P9.13		[0] [1]PROFIBUS [2]MODBUS [3]	0 3	0	
P9.14			0.1 10.0	1.0	
P9.15	1		0.0 300.0 [%]	100.0 [%]	
P9.16	1	P9.15	0.0 300.0 [s]	3.00[s]	
P9.17	2		0.0 300.0 [%]	200.0 [%]	

P9.37	2	P9.34 P9.36	0.0 300.0 [s]	4.00 [s]	
P9.38	3		0.0 300.0 [%]	240.0 [%]	
P9.39	3	P9.36 P9.38	0.0 300.0 [s]	7.00 [s]	
P9.40	4		0.0 300.0 [%]	300.0 [%]	
P9.41	4	P9.38 P9.40	0.0 300.0 [s]	10.00 [s]	
P9.42	5		0.0 300.0 [%]	300.0 [%]	
P9.43	5	P9.40 P9.42	0.0 300.0 [s]	10.00 [s]	
P9.44	6		0.0 300.0 [%]	300.0 [%]	
P9.45	6	P9.42 P9.44	0.0 300.0 [s]	10.00 [s]	
P9.46	7		0.0 300.0 [%]	300.0 [%]	
P9.47	7	P9.44 P9.46	0.0 300.0 [s]	10.00 [s]	
P9.48	8		0.0 300.0 [%]	300.0 [%]	
P9.49	8	P9.46 P9.48	0.0 300.0 [s]	10.00 [s]	
P9.54			0.0 300.0 [%]	0.0 [%]	
P9.55		[0] [1]	0 1	0	
P9.56			0.00 300.00 [s]	3.00 [s]	
P9.57		[0] [1]	0 1	1	
P9.58			0.00 300.00 [s]	1.50 [s]	

10.9 3 P10

		[0]			
		[1]			
P10.0		[2]DP	0	4	0
		[3]MODBUS			
		[4]			
P10.1	4				

P10.18	2	P10.15 P10.17	0.0 300.0 [s]	4.00 [s]	
P10.19	3		0.0 300.0 [%]	240.0 [%]	
P10.20	3	P10.17 P10.19	0.0 300.0 [s]	7.00 [s]	
P10.21	4		0.0 300.0 [%]	300.0 [%]	
P10.22	4	P10.19 P10.21	0.0 300.0 [s]	10.00 [s]	
P10.23	5		0.0 300.0 [%]	300.0 [%]	
P10.24	5	P10.21 P10.23	0.0 300.0 [s]	10.00 [s]	
P10.25	6		0.0 300.0 [%]	300.0 [%]	
P10.26	6	P10.23 P10.25	0.0 300.0 [s]	10.00 [s]	
P10.27	7		0.0 300.0 [%]	300.0 [%]	
P10.28	7	P10.25 P10.27	0.0 300.0 [s]	10.00 [s]	
P10.29	8		0.0 300.0 [%]	300.0 [%]	
P10.30	8	P10.27 P10.29	0.0 300.0 [s]	10.00 [s]	
P10.32		[0] [1]PROFIBUS [2]MODBUS [3]	0 3	0	
P10.33			0.1 10.0	1.0	
P10.34	1		0.0 300.0 [%]	100.0 [%]	
P10.35	1	P10.34	0.0 300.0 [s]	3.00 [s]	
P10.36	2		0.0 300.0 [%]	200.0 [%]	

P10.37	2	P10.34 P10.36	0.0 300.0 [s]	4.00 [s]	
P10.38	3		0.0 300.0 [%]	240.0 [%]	
P10.39	3	P10.36 P10.38	0.0 300.0 [s]	7.00 [s]	
P10.40	4		0.0 300.0 [%]	300.0 [%]	
P10.41	4	P10.38 P10.40	0.0 300.0 [s]	10.00 [s]	
P10.42	5		0.0 300.0 [%]	300.0 [%]	
P10.43	5	P10.40 P10.42	0.0 300.0 [s]	10.00 [s]	
P10.44	6		0.0 300.0 [%]	300.0 [%]	
P10.45	6	P10.42 P10.44	0.0 300.0 [s]	10.00 [s]	
P10.46	7		0.0 300.0 [%]	300.0 [%]	
P10.47	7	P10.44 P10.46	0.0 300.0 [s]	10.00 [s]	
P10.48	8		0.0 300.0 [%]	300.0 [%]	
P10.49	8	P10.46 P10.48	0.0 300.0 [s]	10.00 [s]	
P10.54			0.0 300.0 [%]	0.0 [%]	
P10.55		[0] [1]	0 1	0	
P10.56			0.00 300.00 [s]	3.00 [s]	
P10.57		[0] [1]	0 1	1	
P10.58			0.00 300.00 [s]	1.50 [s]	

10.10 4 P11

P11.0	[0] [1] [2]DP [3]MODBUS [4]	0	4	0
P11.1				
P11.2				
P11.3	[0] [1]	0	1	0
P11.6		0.00 [s]	300.00	0.00 [s]



P11.18	2	P11.15 P11.17	0.0 300.0 [s]	4.00 [s]	
P11.19	3		0.0 300.0 [%]	240.0 [%]	
P11.20	3	P11.17 P11.19	0.0 300.0 [s]	7.00 [s]	
P11.21	4		0.0 300.0 [%]	300.0 [%]	
P11.22	4	P11.19 P11.21	0.0 300.0 [s]	10.00 [s]	
P11.23	5		0.0 300.0 [%]	300.0 [%]	
P11.24	5	P11.21 P11.23	0.0 300.0 [s]	10.00 [s]	
P11.25	6		0.0 300.0 [%]	300.0 [%]	
P11.26	6	P11.23 P11.25	0.0 300.0 [s]	10.00 [s]	
P11.27	7		0.0 300.0 [%]	300.0 [%]	
P11.28	7	P11.25 P11.27	0.0 300.0 [s]	10.00 [s]	
P11.29	8		0.0 300.0 [%]	300.0 [%]	
P11.30	8	P11.27 P11.29	0.0 300.0 [s]	10.00 [s]	
P11.32		[0] [1]PROFIBUS [2]MODBUS [3]	0 3	0	
P11.33			0.1 10.0	1.0	
P11.34	1		0.0 300.0 [%]	100.0 [%]	
P11.35	1	P11.34	0.0 300.0 [s]	3.00 [s]	
P11.36	2		0.0 300.0 [%]	200.0 [%]	

P11.37	2	P11.34 P11.36	0.0 300.0 [s]	4.00 [s]	
P11.38	3		0.0 300.0 [%]	240.0 [%]	
P11.39	3	P11.36 P11.38	0.0 300.0 [s]	7.00 [s]	
P11.40	4		0.0 300.0 [%]	300.0 [%]	
P11.41	4	P11.38 P11.40	0.0 300.0 [s]	10.00 [s]	
P11.42	5		0.0 300.0 [%]	300.0 [%]	
P11.43	5	P11.40 P11.42	0.0 300.0 [s]	10.00 [s]	
P11.44	6		0.0 300.0 [%]	300.0 [%]	
P11.45	6	P11.42 P11.44	0.0 300.0 [s]	10.00 [s]	
P11.46	7		0.0 300.0 [%]	300.0 [%]	
P11.47	7	P11.44 P11.46	0.0 300.0 [s]	10.00 [s]	
P11.48	8		0.0 300.0 [%]	300.0 [%]	
P11.49	8	P11.46 P11.48	0.0 300.0 [s]	10.00 [s]	
P11.54			0.0 300.0 [%]	0.0 [%]	
P11.55		[0] [1]	0 1	0	
P11.56			0.00 300.00 [s]	3.00 [s]	
P11.57		[0] [1]	0 1	1	
P11.58			0.00 300.00 [s]	1.50 [s]	

10.11 1 P12

P12.0		[0] [1]	0 1	1	
P12.1		[0][%] [1][Hz] [2][rpm]	0 2	1	
P12.2	1		0.0 3000.0	10.0	
P12.3	2		0.0 3000.0	20.0	
P12.4	3		0.0 3000.0	35.0	
P12.5	4		0.0 3000.0	50.0	
P12.6	5		0.0 3000.0	50.0	
P12.7	6		0.0 3000.0	50.0	
P12.8	7		0.0 3000.0	50.0	
P12.9	8		0.0 3000.0	50.0	
P12.10	9		0.0 3000.0	50.0	
P12.11	10		0.0 3000.0	50.0	
P12.12	11		0.0 3000.0	50.0	
P12.13	12		0.0 3000.0	50.0	
P12.14	13		0.0 3000.0	50.0	
P12.15	14		0.0 3000.0	50.0	
P12.16	15		0.0 3000.0	50.0	
P12.17	16		0.0 3000.0	50.0	
P12.22			0.0 20.0 [%]	2.0 [%]	
P12.23			0.0 20.0 [%]	0.0 [%]	
P12.24			0.0 200.0 [%]	30.0 [%]	
P12.25			0.0 200.0 [%]	20.0 [%]	
P12.26			0.00 2.00 [s]	0.00 [s]	

P12.27		0.00 2.00 [s]	0.00 [s]	
P12.28		0.00 2.00 [s]	0.07 [s]	
P12.29		0.00 2.00 [s]	0.07 [s]	
P12.32		0.0 20.0 [%]	0.0 [%]	
P12.33		0.0 20.0 [%]	0.0 [%]	
P12.34		0.00 2.00 [s]	0.00 [s]	
P12.35		0.00 2.00 [s]	0.00 [s]	
P12.36		0.00 2.00 [s]	0.50 [s]	
P12.3-2		0.00 2.00 [s]	0.50 [s]	

10.12 P13

P13.0		[1]	0 1 1	
P13.1		[0][%] [1][Hz] [2][rpm]	0 2 1	
P13.2	1		0.0 3000.0	
P13.3	2		0.0 3000.0	
P13.4	3		0.0 3000.0	
P13.5	4		0.0 3000.0	
P13.6	5		0.0 3000.0	
P13.-2 P13.8	-22		0.0 3000.0	
P13.9	8		0.0 3000.0	
P13.10	9		0.0 3000.0	

P13.11	10		0.0	3000.0	50.0
P13.12	11		0.0	3000.0	50.0
P13.13	12		0.0	3000.0	50.0
P13.14	13		0.0	3000.0	50.0
P13.15	14		0.0	3000.0	50.0
P13.16	15		0.0	3000.0	50.0
P13.17	16		0.0	3000.0	50.0
P13.22			0.0	20.0	2.0
			[%]		[%]
P13.23			0.0	20.0	0.0
			[%]		[%]
P13.24			0.0	200.0	30.0
			[%]		[%]
P13.25			0.0	200.0	20.0
			[%]		[%]
P13.26			0.00	2.00	0.00
			[s]		[s]
P13.27			0.00	2.00	0.00
			[s]		[s]
P13.28			0.00	2.00	0.07
			[s]		[s]
P13.29			0.00	2.00	0.07
			[s]		[s]
P13.32			0.0	20.0	0.0
			[%]		[%]
P13.33					

10.13 3 P14

P14.0		[0] [1]	0 1	1
P14.1		[0][%] [1][Hz] [2][rpm]	0 2	1
P14.2	1		0.0 3000.0	10.0
P14.3	2		0.0 3000.0	20.0
P14.4	3		0.0 3000.0	35.0
P14.5	4		0.0 3000.0	50.0
P14.6	5		0.0 3000.0	50.0
P14.7	6		0.0 3000.0	50.0
P14.8	7		0.0 3000.0	50.0
P14.9	8		0.0 3000.0	50.0
P14.10	9		0.0 3000.0	50.0
P14.11	10		0.0 3000.0	50.0
P14.12	11		0.0 3000.0	50.0
P14.13	12		0.0 3000.0	50.0
P14.14	13		0.0 3000.0	50.0
P14.15	14		0.0 3000.0	50.0
P14.16	15		0.0 3000.0	50.0
P14.17	16		0.0 3000.0	50.0
P14.22			0.0 20.0 [%]	2.0 [%]
P14.23			0.0 20.0 [%]	0.0 [%]
P14.24			0.0 200.0 [%]	30.0 [%]
P14.25			0.0 200.0 [%]	20.0 [%]
P14.26			0.00 2.00 [s]	0.00 [s]

P14.27	0.00 [s]	2.00 [s]	0.00 [s]
P14.28	0.00 [s]	2.00 [s]	0.07 [s]
P14.29	0.00 [s]	2.00 [s]	0.07 [s]
P14.32	0.0 [%]	20.0 [%]	0.0 [%]
P14.33	0.0 [%]	20.0 [%]	0.0 [%]
P14.34	0.00 [s]	2.00 [s]	0.00 [s]
P14.35	0.00 [s]	2.00 [s]	0.00 [s]
P14.36	0.00 [s]	2.00 [s]	0.50 [s]
P14.37	0.00 [s]	2.00 [s]	

P15.11	10		0.0 3000.0	50.0	
P15.12	11		0.0 3000.0	50.0	
P15.13	12		0.0 3000.0	50.0	
P15.14	13		0.0 3000.0	50.0	
P15.15	14		0.0 3000.0	50.0	
P15.16	15		0.0 3000.0	50.0	
P15.17	16		0.0 3000.0	50.0	
P15.22			0.0 20.0 [%]	2.0 [%]	
P15.23			0.0 20.0 [%]	0.0 [%]	
P15.24			0.0 200.0 [%]	30.0 [%]	
P15.25			0.0 200.0 [%]	20.0 [%]	
P15.26			0.00 2.00 [s]	0.00 [s]	
P15.27			0.00 2.00 [s]	0.00 [s]	
P15.28			0.00 2.00 [s]	0.07 [s]	
P15.29			0.00 2.00 [s]	0.07 [s]	
P15.32			0.0 20.0 [%]	0.0 [%]	
P15.33			0.0 20.0 [%]	0.0 [%]	
P15.34			0.00 2.00 [s]	0.00 [s]	
P15.35			0.00 2.00 [s]	0.00 [s]	
P15.36			0.00 2.00 [s]	0.50 [s]	
P15.37			0.00 2.00 [s]	0.50 [s]	

P16.22			0.00 100.00 [s]	0.00 [s]	
P16.23		V/F	0.00 300.00 [Hz]	0.00 [Hz]	
P16.24		V/F	0.00 300.00 [Hz]	50.00 [Hz]	
P16.25			0.0 120.0 [%]	100.0 [%]	
P16.26	V/F	V/F	0.00 10.00 [%]	0.75 [%]	
P16.27			0.0 200.0 [%]	100.0 [%]	
P16.30			0.0 100.0 [%]	0.0 [%]	
P16.33	V/F	V/F	0 6	2	
P16.34	V/F 1		0.0 300.0 [Hz]	5.0 [Hz]	
P16.35	V/F 1		0.0 125.0 [%]	11.5 [%]	
P16.36	V/F 2		0.0 300.0 [Hz]	50.0 [Hz]	
P16.37	V/F 2		0.0 125.0 [%]	100.0 [%]	
P16.38	V/F 3		0.0 300.0 [Hz]	50.0 [Hz]	
P16.39	V/F 3		0.0 125.0 [%]	100.0 [%]	
P16.40	V/F 4		0.0 300.0 [Hz]	50.0 [Hz]	
P16.41	V/F 4		0.0 125.0 [%]	100.0 [%]	
P16.42	V/F 5		0.0 300.0 [Hz]	50.0 [Hz]	
P16.43	V/F 5		0.0 125.0 [%]	100.0 [%]	
P16.44	V/F 6		0.0 300.0 [Hz]	50.0 [Hz]	
P16.45	V/F 6		0.0 125.0 [%]	100.0 [%]	
P16.46	V/F @		0 300	0	
P16.47	@		0 300	0	

P16.48		[0] [1]PID 1 [2]PID 2 [3]	0 3	0	
P16.49	@		0 300	0	
P16.50			0.00 300.00 [s]	0.00 [s]	
P16.51			0.0 150.0 [%]	70.0 [%]	
P16.52			0.00 5.00 [Hz]	0.00 [Hz]	
P16.54			0.00 300.00 [s]	0.00 [s]	
P16.55			0.0 150.0 [%]	75.0 [%]	
P16.56			0.00 5.00 [Hz]	0.00 [Hz]	
P16.59			0.0 1000.0 [%]	100.0 [%]	
P16.60			0.0 1000.0 [%]	100.0 [%]	
P16.61			0.0 1000.0 [%]	100.0 [%]	
P16.62			0.0 1000.0 [%]	100.0 [%]	
P16.64	V/F	V/F	0.0 1000.0 [%]	100.0 [%]	
P16.66		V/F	0.0 1000.0 [%]	100.0 [%]	
P16.67			0.0 1000.0 [%]	100.0 [%]	
P16.68			0.0 1000.0 [%]	100.0 [%]	
P16.69			0.0 1000.0 [%]	100.0 [%]	
P16.70			0.0 1000.0 [%]	100.0 [%]	

10.16 2 V/F P17

P17.0			320 460 [V]	380 [V]	
P17.2			0.0 4000.0 [kW]	 [kW]	
P17.3			320 460 [V]	380 [V]	
P17.4			0.0 6500.0 [A]	 [A]	
P17.5			0.0 300.0 [Hz]	50.0 [Hz]	
P17.6			0 6000 [rpm]	1465 [rpm]	
P17.7			2 12 [pole]	4 [pole]	
P17.9			0 7200 [rpm]	1500 [rpm]	
P17.11		[0]V/F [1] [2] [3] [4]	0 4	0	
P17.12			1.00 10.00 [kHz]	3.00 [kHz]	
P17.14	V/F	[0] V/F [1] V/F [2]	0 3	0	
P17.15		[0] [1]	0 1	0	
P17.16			2 500 [ms]	500 [ms]	
P17.17	V/F	[0] [1]	0 1	0	
P17.18			10 1000 [ms]	200 [ms]	
P17.19		[0] [1]	0 1	0	

P17.22			0.00 100.00 [s]	0.00 [s]
P17.23		V/F	0.00 300.00 [Hz]	0.00 [Hz]
P17.24		V/F	0.00 300.00 [Hz]	50.00 [Hz]
P17.25			0.0 120.0 [%]	100.0 [%]
P17.26	V/F	V/F	0.00 10.00 [%]	0.75 [%]
P17.27			0.0 200.0 [%]	100.0 [%]
P17.30				

P17.48		[0] [1]PID 1 [2]PID 2 [3]	0 3	0	
P17.49	@		0 300	0	
P17.50			0.00 300.00 [s]	0.00 [s]	
P17.51			0.0 150.0 [%]	70.0 [%]	
P17.52			0.00 5.00 [Hz]	0.00 [Hz]	
P17.54			0.00 300.00 [s]	0.00 [s]	
P17.55			0.0 150.0 [%]	75.0 [%]	
P17.56			0.00 5.00 [Hz]	0.00 [Hz]	
P17.59			0.0 1000.0 [%]	100.0 [%]	
P17.60			0.0 1000.0 [%]	100.0 [%]	
P17.61			0.0 1000.0 [%]	100.0 [%]	
P17.62			0.0 1000.0 [%]	100.0 [%]	
P17.64	V/F	V/F	0.0 1000.0 [%]	100.0 [%]	
P17.66		V/F	0.0 1000.0 [%]	100.0 [%]	
P17.67			0.0 1000.0 [%]	100.0 [%]	
P17.68			0.0 1000.0 [%]	100.0 [%]	
P17.69			0.0 1000.0 [%]	100.0 [%]	
P17.70			0.0 1000.0 [%]	100.0 [%]	

P18.23	V/F	0.00 300.00 [Hz]	0.00 [Hz]
P18.24	V/F	0.00 300.00 [Hz]	50.00 [Hz]
P18.25		0.0 120.0 [%]	100.0 [%]
P18.26 V/F	V/F	0.00 10.00 [%]	0.75 [%]
P18.27		0.0 200.0 [%]	100.0 [%]
P18.30		0.0 100.0 [%]	0.0 [%]
P18.33 V/F	V/F	0 6	2
P18.34 V/F 1		0.0 300.0 [Hz]	5.0 [Hz]
P18.35 V/F 1		0.0 125.0 [%]	11.5 [%]
P18.36 V/F 2		0.0 300.0 [Hz]	50.0 [Hz]
P18.37 V/F 2		0.0 125.0 [%]	100.0 [%]
P18.38 V/F 3		0.0 300.0 [Hz]	50.0 [Hz]
P18.39 V/F 3		0.0 125.0 [%]	100.0 [%]
P18.40 V/F 4		0.0 300.0 [Hz]	50.0 [Hz]
P18.41 V/F 4		0.0 125.0 [%]	100.0 [%]
P18.42 V/F 5		0.0 300.0 [Hz]	50.0 [Hz]
P18.43 V/F 5		0.0 125.0 [%]	100.0 [%]
P18.44 V/F 6		0.0 300.0 [Hz]	50.0 [Hz]
P18.45 V/F 6		0.0 125.0 [%]	100.0 [%]
P18.46 V/F @		0 300	0
P18.47 @		0 300	0

10.18 4 V/F P19

P19.0

P19.48		[0] [1]PID 1 [2]PID 2 [3]	0 3	0	
P19.49	@		0 300	0	
P19.50			0.00 300.00 [s]	0.00 [s]	
P19.51			0.0 150.0 [%]	70.0 [%]	
P19.52			0.00 5.00 [Hz]	0.00 [Hz]	
P19.54			0.00 300.00 [s]	0.00 [s]	
P19.55			0.0 150.0 [%]	75.0 [%]	
P19.56			0.00 5.00 [Hz]	0.00 [Hz]	
P19.59			0.0 1000.0 [%]	100.0 [%]	
P19.60			0.0 1000.0 [%]	100.0 [%]	
P19.61			0.0 1000.0 [%]	100.0 [%]	
P19.62			0.0 1000.0 [%]	100.0 [%]	
P19.64	V/F	V/F	0.0 1000.0 [%]	100.0 [%]	
P19.66		V/F	0.0 1000.0 [%]	100.0 [%]	
P19.67			0.0 1000.0 [%]	100.0 [%]	
P19.68			0.0 1000.0 [%]	100.0 [%]	
P19.69			0.0 1000.0 [%]	100.0 [%]	
P19.70			0.0 1000.0 [%]	100.0 [%]	

10.19 1 P20

P20.0		[0] [1]	ﾒﾆｭ ｴﾘｱ	0 1	0
P20.1		[0] [1] [2] [3] [4] [5]DP [6]MODBUS [7]	1 2 P20.3	0 7	0
P20.2				0 7	0
P20.3				-300.0 300.0 [%]	0.0 [%]
P20.4	@			0 300	0
P20.5				0 1000 [ms]	0 [ms]
P20.6				0.0 200.0 [%]	100.0 [%]
P20.7		[0] [1] P20.9 [2] [3] [4] [5]DP [6]MODBUS [7]	P20.8 1 2	0 7	0
P20.8		P20.7 [1]		0.0 300.0 [%]	200.0 [%]
P20.9		P20.7 [1]		0.0 300.0 [%]	200.0 [%]

P20.11			0 1000 [ms]	0 [ms]
P20.13			20.0 500.0 [ms]	100.0 [ms]
P20.14		1	0 60000	1024
P20.15	[0] [1]		0 1	0
P20.16			0.0 300.0 [%]	100.0 [%]
P20.17			0.0 300.0 [%]	100.0 [%]
P20.18			0.0 300.0 [%]	0.0 [%]
P20.19				

P20.30		[0] P20.31 P20.32 [1] 1 [2] 2 [3]	0 3	0	
P20.31			0.0 100.0 [%]	5.0 [%]	
P20.32			0.0 100.0 [%]	5.0 [%]	
P20.34		[0] [1]	0 1	0	
P20.35			0.0 100.0 [s]	0.0 [s]	
P20.36			50.0 150.0 [%]	110.0 [%]	
P20.37			0.0 150.0 [%]	100.0 [%]	
P20.38			0.0 100.0 [%]	25.0 [%]	
P20.39			0.0 120.0 [%]	100.0 [%]	
P20.40			0.0 150.0 [%]	100.0 [%]	
P20.41			0.0 150.0 [%]	135.0 [%]	
P20.42		[0] [1]	0 1	1	
P20.43			25 1000 [ms]	75 [ms]	
P20.44			25 1000 [ms]	250 [ms]	
P20.45			0.0 100.0 [%]	22.0 [%]	
P20.46			0.0 100.0 [%]	18.0 [%]	
P20.47			0.0 200.0 [%]	92.0 [%]	
P20.48			0.0 200.0 [%]	87.0 [%]	

P20.49		0.0 [%]	150.0 [%] 100.0
P20.51		0.0 [%]	1000.0 [%] 100.0
P20.52		0.0 [%]	1000.0 [%] 100.0
P20.53	Kp	0.0 [%]	1000.0 [%] 100.0
P20.54	Ki	0.0 [%]	1000.0 [%] 100.0
P20.55		0.0 [%]	1000.0 [%] 100.0

P20.95	12 5%	125%	40.0 150.0 [%]	77.0 [%]	
P20.96	13 0%	130%	40.0 150.0 [%]	70.5 [%]	
P20.97	13 5%	135%	40.0 150.0 [%]	63.5 [%]	
P20.98		( )	0.01 300.00 [s]	0.75 [s]	
P20.99			0.00 10.00 [%]	0.00 [%]	

10.20 2 P21

P21.0 [0]
[1] 0 1 0

P21.1

[0]

[8, - ,

P21.7

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P21.25			0.0 200.0 [%]	100.0 [%]	
P21.26			0.0 1000.0 [%]	0.0 [%]	
P21.27			0.00 15.00 [%]	2.00 [%]	
P21.28		[0] P21.16 P21.17 [1] [2] [3]DP	0 3	0	
P21.30		[0] P21.31 P21.32 [1] 1 [2] 2 [3]	0 3	0	
P21.31			0.0 100.0 [%]	5.0 [%]	
P21.32			0.0 100.0 [%]	5.0 [%]	
P21.34		[0] [1]	0 1	0	
P21.35			0.0 100.0 [s]	0.0 [s]	
P21.36			50.0 150.0 [%]	110.0 [%]	
P21.37			0.0 150.0 [%]	100.0 [%]	
P21.38			0.0 100.0 [%]	25.0 [%]	
P21.39			0.0 120.0 [%]	100.0 [%]	
P21.40			0.0 150.0 [%]	100.0 [%]	
P21.41			0.0 150.0 [%]	135.0 [%]	
P21.42		[0] [1]	0 1	1	
P21.43			25 1000 [ms]	75 [ms]	

P21.67	2		2	0.0 1000.0 [%]	100.0 [%]
P21.69				0.00 2.00 [%]	1.00 [%]
P21.70				0.00 2.00 [%]	1.00 [%]
P21.71		[0] [1]		0 1	0
P21.72		[0] [1]		0 1	1
P21.73		[0] × 1 [1] × 10		0 1	0
P21.74				0.00 650.00 [mOhm]	0.00 [mOhm]
P21.75				0.70 1.00	0.90
P21.76	1		1	90.0 110.0 [%]	100.0 [%]
P21.77	2				

P21.91	105%	105%	40.0 150.0 [%]	96.5 [%]	
P21.92	110%	110%	40.0 150.0 [%]	93.0 [%]	
P21.93	115%	115%	40.0 150.0 [%]	88.5 [%]	
P21.94	120%	120%	40.0 150.0 [%]	83.0 [%]	
P21.95	125%	125%	40.0 150.0 [%]	77.0 [%]	
P21.96	130%	130%	40.0 150.0 [%]	70.5 [%]	
P21.97	135%	135%	40.0 150.0 [%]	63.5 [%]	
P21.98		( )	0.01 300.00 [s]	0.75 [s]	
P21.99			0.00 10.00 [%]	0.00 [%]	

10.21 3 P22

P22.0		[0] [1]	0 1	0	
P22.1		[0] [1] 1 [2] 2 [3] [4] P22.3 [5]DP [6]MODBUS [7]	0 7	0	
P22.2			0 7	0	
P22.3			-300.0 300.0[%]	0.0[%]	
P22.4	@		0 300	0	
P22.5			0 1000[ms]	0[ms]	
P22.6			0.0 200.0[%]	100.0[%]	

P22.24			0.0 300.0[%]	100.0[%]	
P22.25			0.0 200.0[%]	100.0[%]	
P22.26			0.0 1000.0[%]	0.0[%]	
P22.27			0.00 15.00[%]	2.00[%]	
P22.28		[0] P22.16 P22.17 [1] [2] [3]DP	0 3	0	
P22.30		[0] P22.31 P22.32 [1] 1 [2] 2 [3]	0 3	0	
P22.31			0.0 100.0[%]	5.0[%]	
P22.32			0.0 100.0[%]	5.0[%]	
P22.34		[0] [1]	0 1	0	
P22.35			0.0 100.0[s]	0.0[s]	
P22.36			50.0 150.0[%]	110.0[%]	
P22.37			0.0 150.0[%]	100.0[%]	
P22.38			0.0 100.0[%]	25.0[%]	
P22.39			0.0 120.0[%]	100.0[%]	
P22.40			0.0 150.0[%]	100.0[%]	
P22.41			0.0 150.0[%]	135.0[%]	
P22.42		[0] [1]	0 1	1	
P22.43			25 1000[ms]	75[ms]	
P22.44			25 1000[ms]	250[ms]	

P22.45	0.0	100.0[%]	22.0[%]
P22.46	0.0	100.0[%]	18.0[%]
P22.47	0.0	200.0[%]	92.0[%]
P22.48	0.0	200.0[%]	87.0[%]
P22.49	0.0	150.0[%]	100.0[%]
P22.51	0.0	1000.0[%]	100.0[%]
P22.52	0.0	1000.0[%]	100.0[%]
P22.53			

P22.

P22.99			0.00 10.00 [%]	0.00[%]	

10.22 4 P23

P23.0		[0] [1]	0 1	0	
P23.1		[0] [1] 1 [2] 2 [3] [4] P23.3 [5]DP [6]MODBUS [7]	0 7	0	
P23.2			0 7	0	
P23.3			-300.0 300.0[%]	0.0 [%]	
P23.4	@		0 300	0	
P23.5			0 1000[ms]	0 [ms]	
P23.6			0.0 200.0[%]	100.0 [%]	
P23.7		[0] [1] P23.8 P23.9 [2] 1 [3] 2 [4] [5]DP [6]MODBUS [7]	0 7	0	
P23.8		P23.7 [1]	0.0 300.0[%]	200.0 [%]	
P23.9		P23.7 [1]	0.0 300.0[%]	200.0 [%]	
P23.10			0 300	0	

P23.11		0 1000 [ms]	0 [ms]
P23.13		20.0 500.0 [ms]	100.0 [ms]
P23.14	1	0 60000	1024
P23.15	[0] [1]	0 1	0
P23.16		0.0 300.0[%]	100.0[%]
P23.17		0.0 300.0[%]	100.0[%]
P23.18		0.0 300.0[%]	0.0[%]
P23.19		0.0 300.0[%]	0.0[%]
P23.20	[0] [1]	0 1	0
P23.21	[0] [1]	0 1	0
P23.22		0.0 300.0[%]	160.0[%]
P23.23		0.0 200.0[%]	20.0[%]
P23.24		0.0 300.0[%]	100.0[%]
P23.25		00.0[%]	

[0]

P23.31 P23.32

P23.30 0 3 0

[1] 1

[2] 2

[3]

P23.31 0.0 100.0[%] 5.0[%]

P23.32 0.0 -¾

P23.

P23.79

P33.31	[W9]	7-2	0 37	0	
P33.32	[W9]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000	0 4	0	
P33.33	[W10]	7-2	0 37	0	
P33.34	[W10]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000	0 4	0	
P33.35	[W11]	7-2	0 37	0	
P33.36	[W11]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000	0 4	0	
P33.37	[W12]	7-2	0 37	0	
P33.38	[W12]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000	0 4	0	
P33.39	[W13]	7-2	0 37	0	
P33.40	[W13]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000	0 4	0	
P33.41	[W14]	7-2	0 37	0	
P33.42	[W14]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000	0 4	0	
P33.43	[W15]	7-2	0 37	0	

P33.44	[W15]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000	0	4	0
P33.45	[W0]				

P33.62	[W8]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000 [5] [%] × 1 [6] [%] × 10 [7] [%] × 100	0 7	0	
P33.63	[W9]	7-3	0 48	13	
P33.64	[W9]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000 [5] [%] × 1 [6] [%] × 10 [7] [%] × 100	0 7	0	
P33.65	[W10]	7-3	0 48	40	
P33.66	[W10]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000 [5] [%] × 1 [6] [%] × 10 [7] [%] × 100	0 7	6	
P33.67	[W11]	7-3	0 48	0	
P33.68	[W11]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000 [5] [%] × 1 [6] [%] × 10 [7] [%] × 100	0 7	0	
P33.69	[W12]	7-3	0 48	0	

7-2

0	
1	0
2	1
3	2
4	3
5	4
6	[32]
7	[32]
8	32_MSW
9	32_LSW
10	
11	
12	0 @32bit
13	1 @32bit
14	2 @32bit
15	3 @32bit
16	4 @32bit
17	5 @32bit
18	[Hz]
19	[rpm]
20	[%]
21	[%]
22	[%]
23	[Hz]
24	
25	
26	1[%]
27	2[%]
28	
29	
30 37	SET_W12 19

7-3

0	
1	0
2	1
3	2
4	3
5	4
6	5
7	0 @32bit
8	1 @32bit
9	2 @32bit
10	3 @32bit
11	4 @32bit
12	5 @32bit
13	[32]
14	[32]
15	32bit_MSW
16	32bit_LSW
17	
18	
19	
20	[rpm]
21	[rpm]
22	
23	
24	
25	
26	
27	A
28	B

29	C
30	
31	
32	
33	1
34	2
35	
36	
37	
38	
39	
40	
41 48	AW22 29

11.

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11.2

[E050] U
ERR_UT n

[E113]	MIP	
[E114]	MOP	
[E115]	OS	P7.19 P7.19
[E116]	SLVC Fail	P7.23
[E117]	MOTOR STALL	P20.14 P20.15
[E118]	PG ERROR	P20.14 P20.15
[E119]	SPEED ABNORMAL	P20.14 P20.15 P7.31 P7.32
[E121]	IGBT1 OT1	
[E122]	IGBT2 OT2	
[E123]	IGBT3 OT3	
[E124]	IGBT4 OT4	
[E125]	IGBT5 OT5	
[E126]	IGBT6 OT6	
[E127]	IGBT7 OT7	
[E128]	IGBT8 OT8	
[E137]	FAN STALL	

[E138] خ

[E160]	SLVE FAULT	
[E161]	SLV_NOT_RDY	
[E162]	1 SLV1_CAN_ERR	1
[E163]	2 SLV2_CAN_ERR	2
[E164]	3 SLV3_CAN_ERR	3
[E165]	4 SLV4_CAN_ERR	4
[E166]		

11.3

		•	• DC15V
		•	• DO5 • DO5 •
		•	• DO4 •

		• • ON • COM	• • ON • COM ( )
		•	•
		•	• •
		•	•
		•	•
		•	• •
		•	•
		•	•
		•	•
		• ON	• ON
		•	• V W
		•	• /

12.

1 2 3 4
1 CMOS 2 3

12.1

12.2

1.
2.

1. > 40
< ä " " 4

12.4

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‡ J HF680NLC Δ

400V Ґ Р Є250-630kW

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