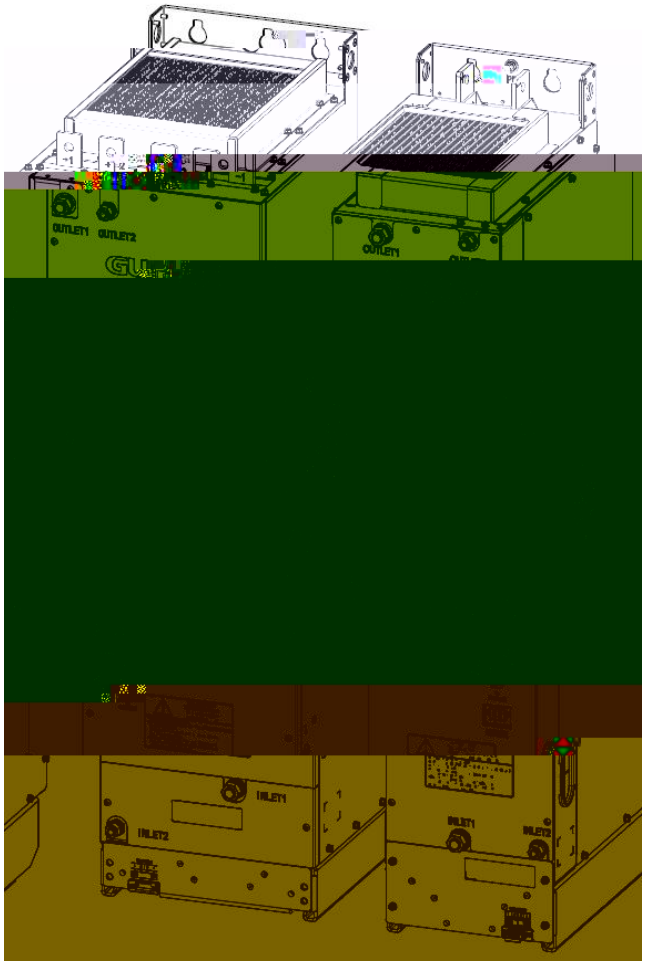
HF680NLC

400V 250-630kW

1.00

Wuhan Guide Technology Co.,Ltd.



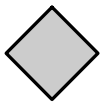
HF680NLC

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 P33 142
11. 152
11.1 152
11.2 153
11.3 157
12. 159
12.1 159
12.2 159
12.3 160
12.4 161
12.5 161

1.

1.1



1

RCD

RCM RCD

RCM

B RCD RCD

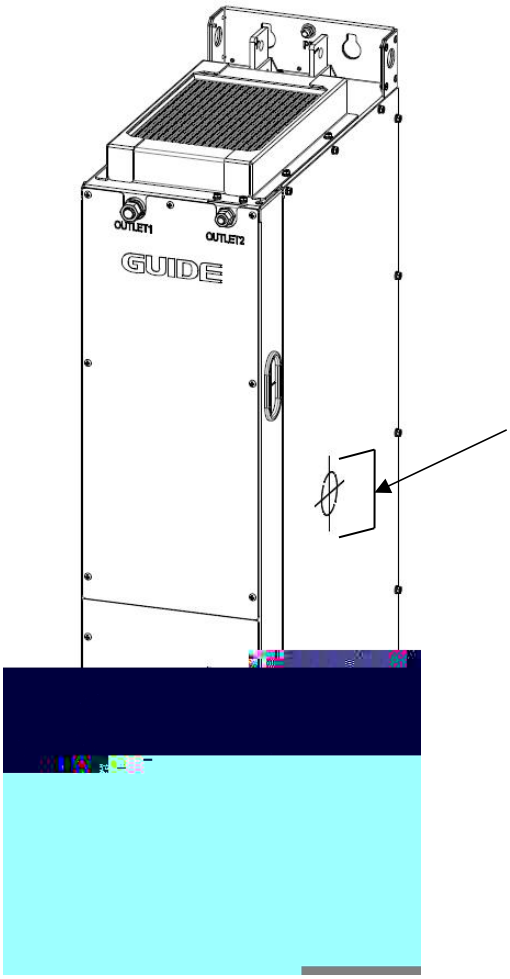
RCD RCD

2

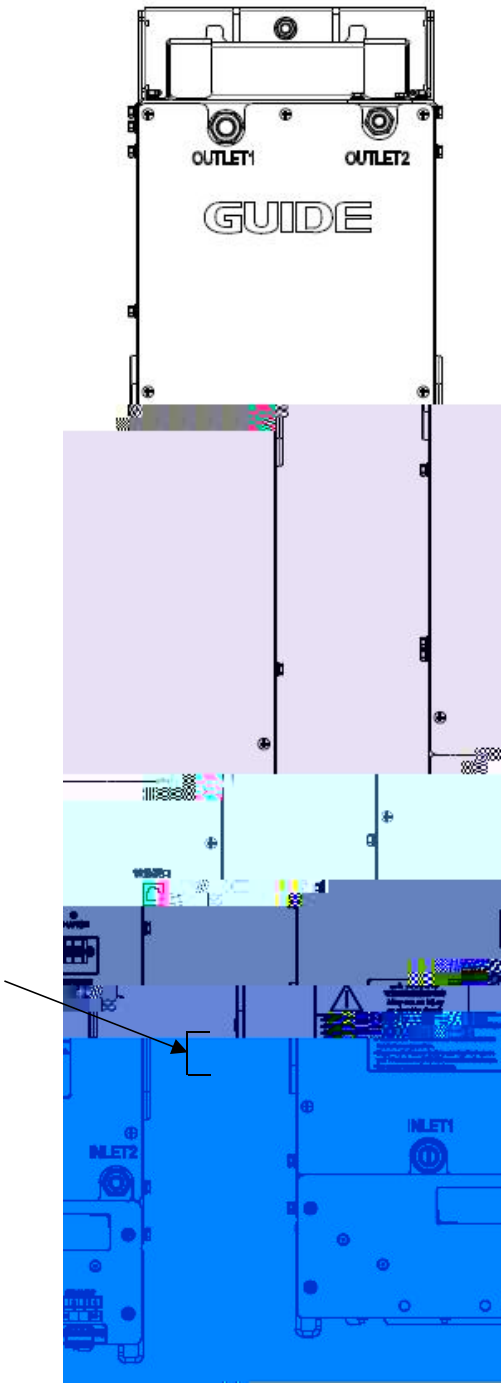
500V

5MΩ

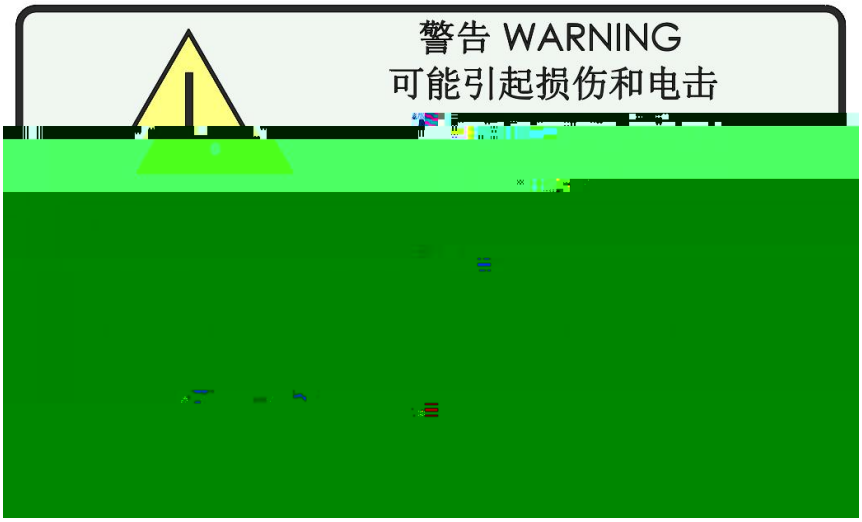
3



HF680NLC03M-630-4



HF680NLC03M-630-4



1.2

(1)

(2)

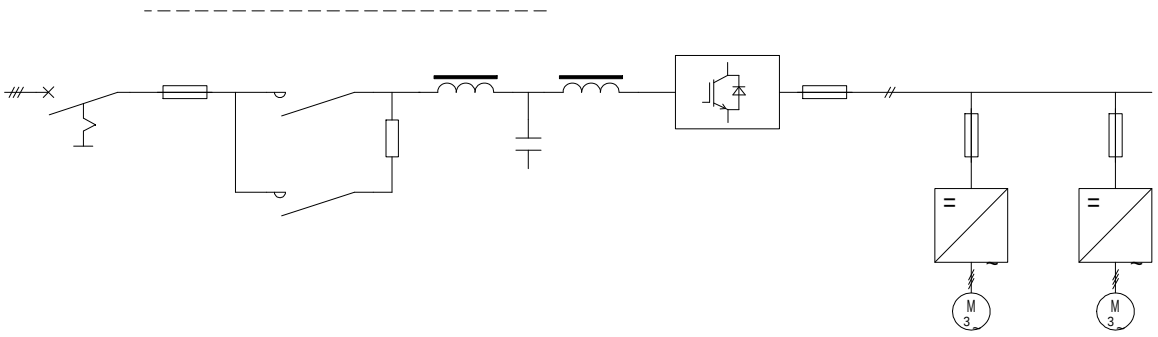
(3)

1.3

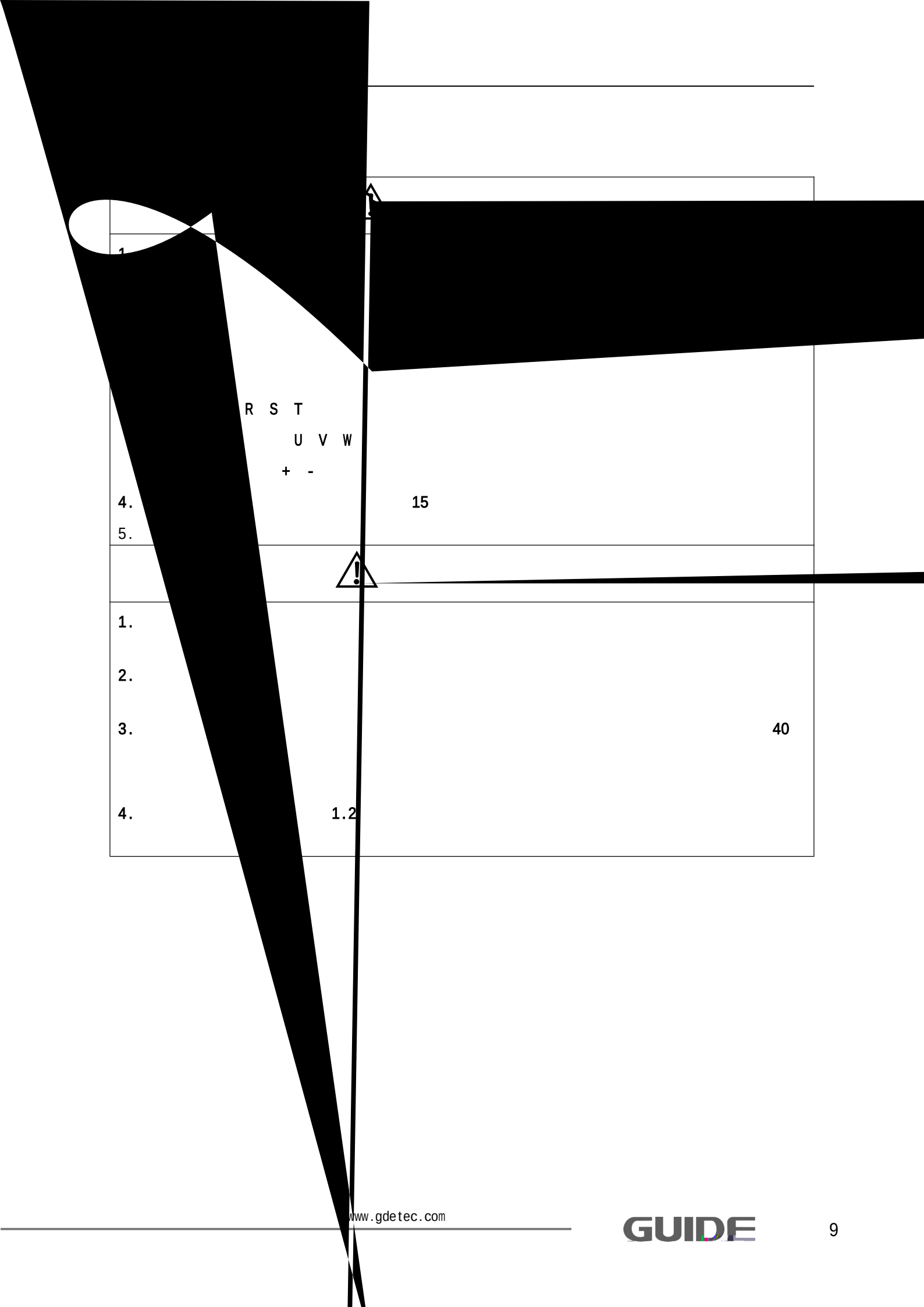
2.

2.1

HF680NLC LCL



2	2.8*8.8 2	2.8*8.8 2 HF680NLC03M 2
4	GDHF-KL4	GDHF-KL4 4 F680NLC03M 4
	GDHF-FB01	1 HF680NLC03M
	GDHF-CFBX1	HF680NLC03M
	GDHF-CFBY1	HF680NLC03
	GDHF-FB06	

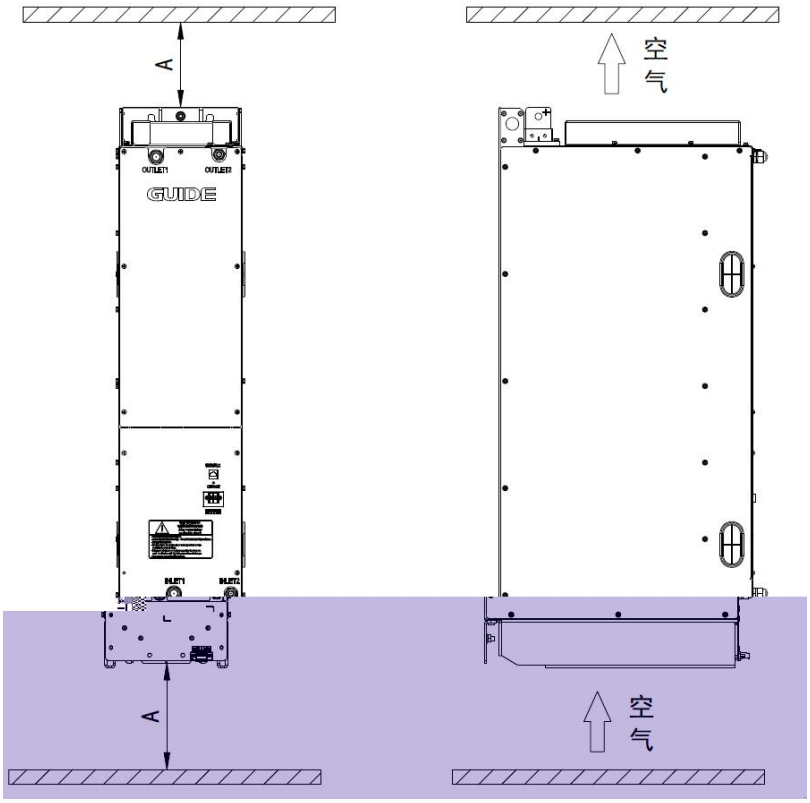

1
R S T
U V W
+ -
4.
15
5.
1.
2.
3.
40
4.
1.2

2.4.1

	10cm 5cm	6	
	0 +55 , +45 55 °C, (0.5% / 1) 0	-40 +70	-40 +70
	70 106 kPa 0.7 1.05	70 106 kPa 0.7 1.05	60 106 kPa 0.6 1.05
	1mm(5~13.2Hz) 7m/s2(13.2~100Hz)	1mm(5~13.2Hz) 7m/s2(13.2~100Hz)	3.5mm(2~9Hz) 10m/s2(9~200Hz) 15m/s2(200~ 500Hz)
		100m/s^2 11ms	100m/s^2 11ms
		250mm <100kg 100mm ≥100kg	250mm <100kg 100mm ≥100kg
	95%RH		
	1000 1000 100 1% 3000		
	2		
		/ / 6 4	
	L/min	INLET1 13L/min INLET2 10L/min 250kw	
		INLET1 15L/min INLET2 10L/min 280-400kw	
		INLET1 26L/min INLET2 12L/min 500-630kw	
	( )	55	

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

2.4.2



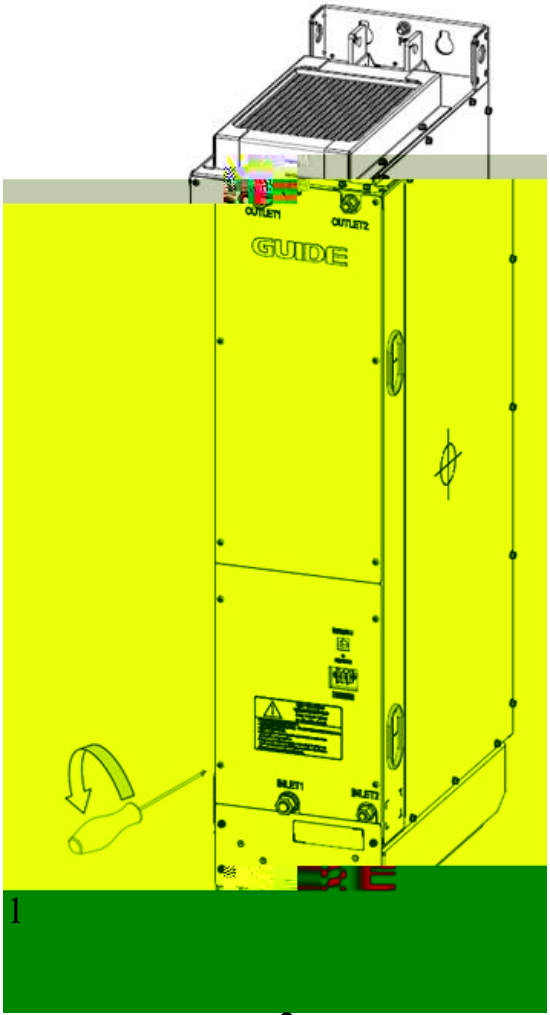
	A ≥ 250mm

50mm

2.4.3

1 11

2



1

2

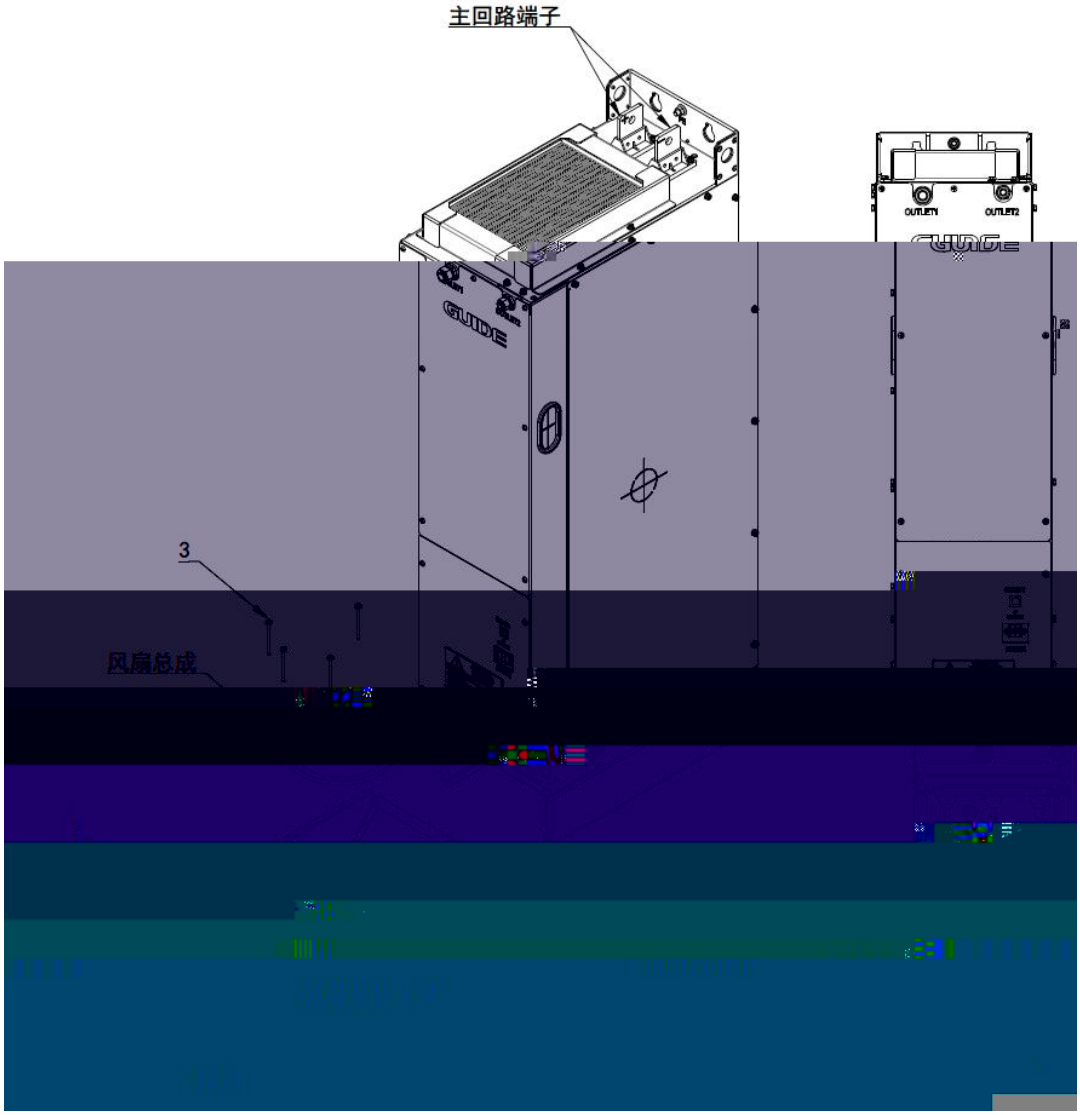
HF680NLC03M-630-4

2.4.4

2 1

4 2

4 3



HF680NLC03M-630-4

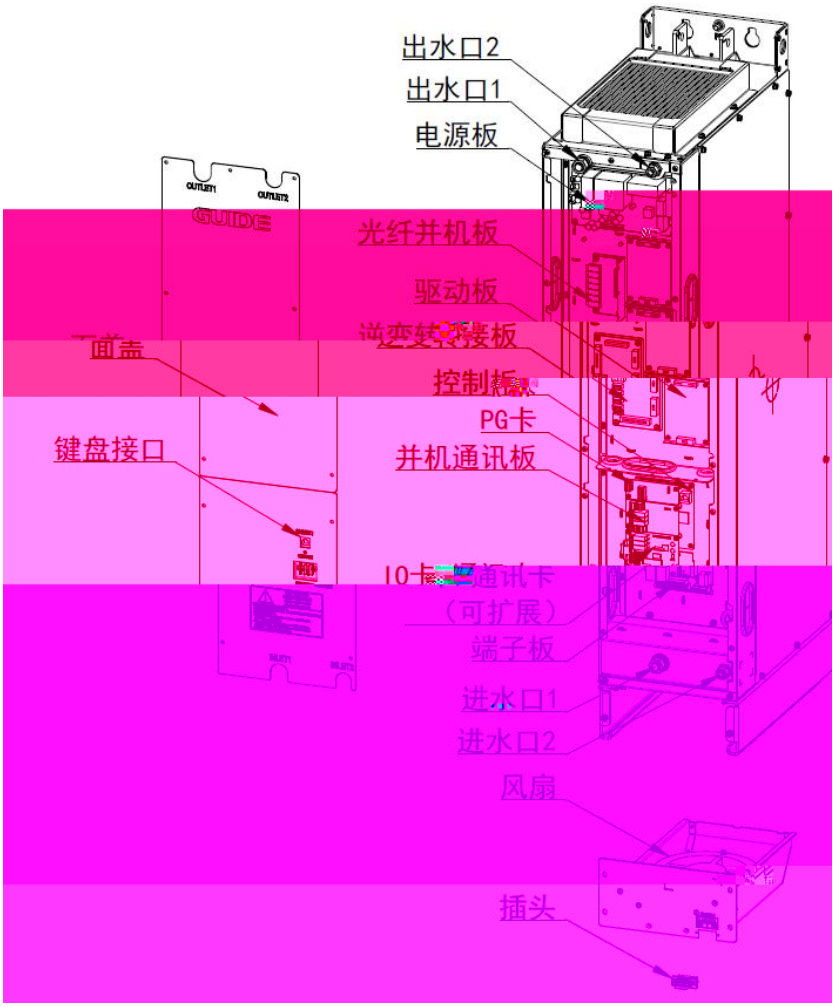
3.

3.1

LCL

LCL

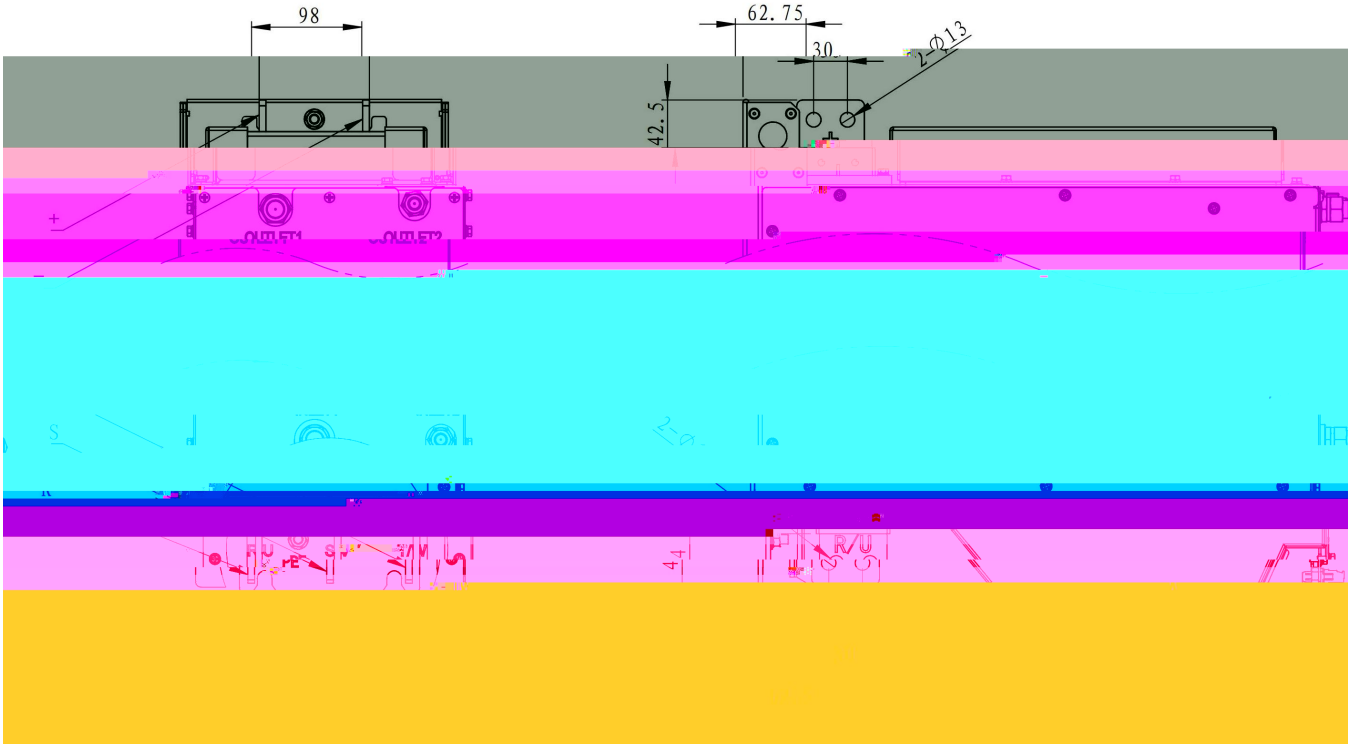
3.2



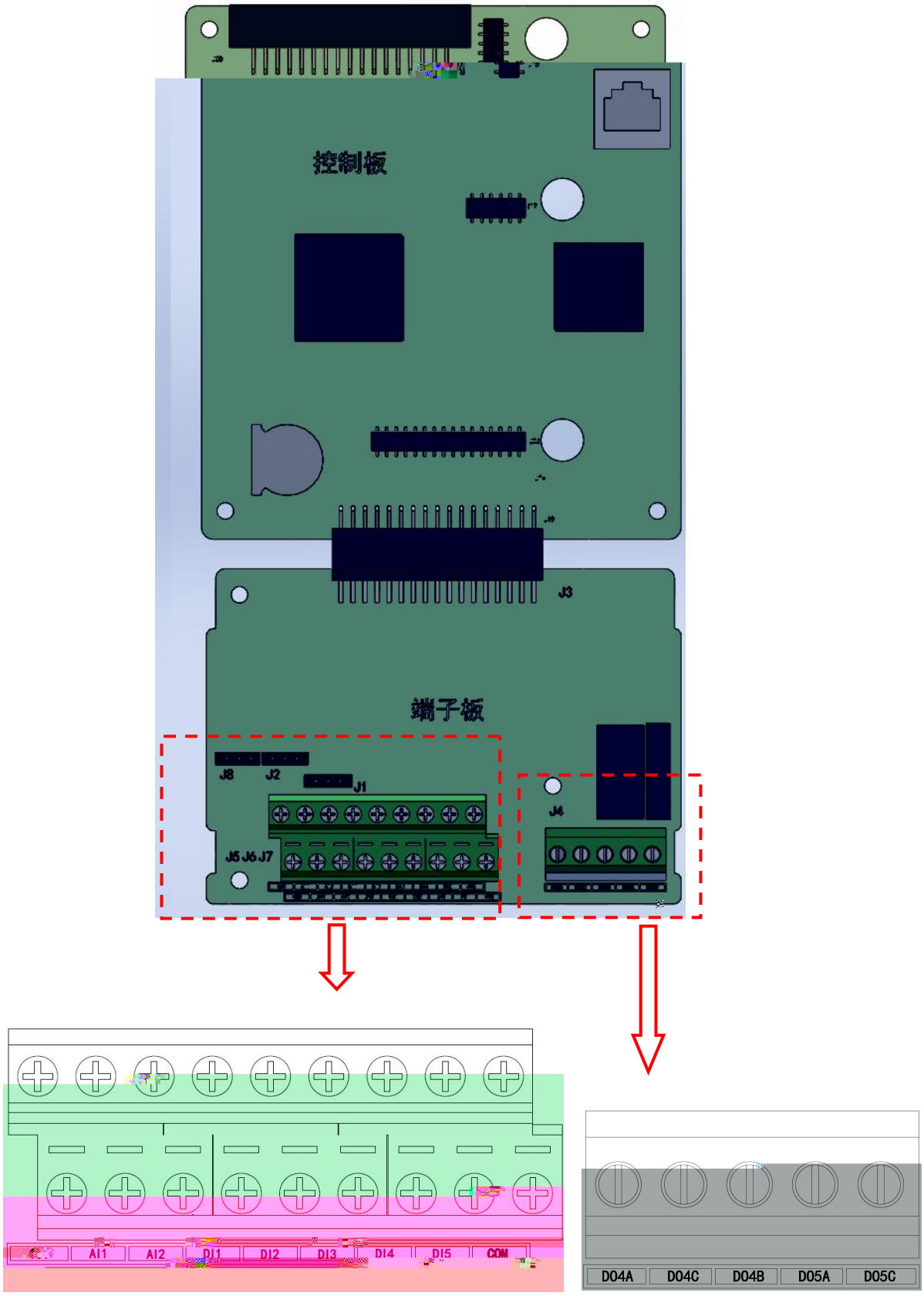
	MVSTBW 2.5/4-STF-5.08		
1 1	KFG2H1613-03	SMC	
1 1	T1613W	SMC	
2 2	KFG2H1209-03	SMC	
2 2	T1209W	SMC	

1

+	
-	



2


控制板
J3
端子板
J8
J2
J1
J4
J5 J6 J7
AI1
AI2
DI1
DI2
DI3
DI4
DI5
COM
DO4A
DO4C
DO4B
DO5A
DO5C

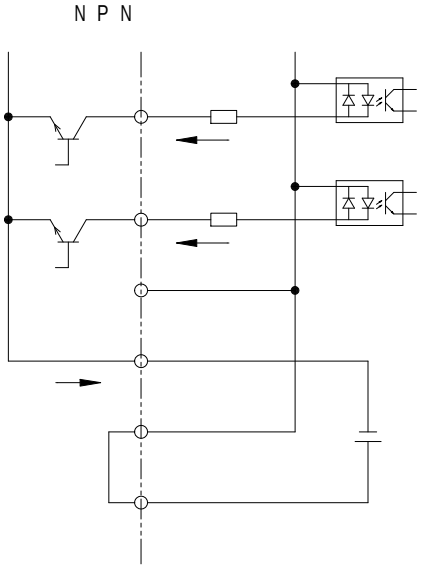
+10V 50mA

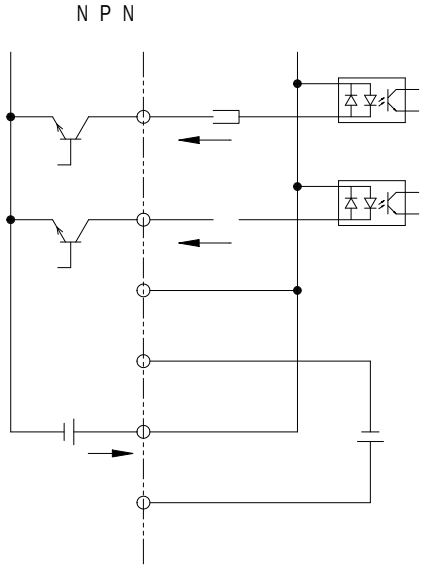
+10V-GND 10V ſ

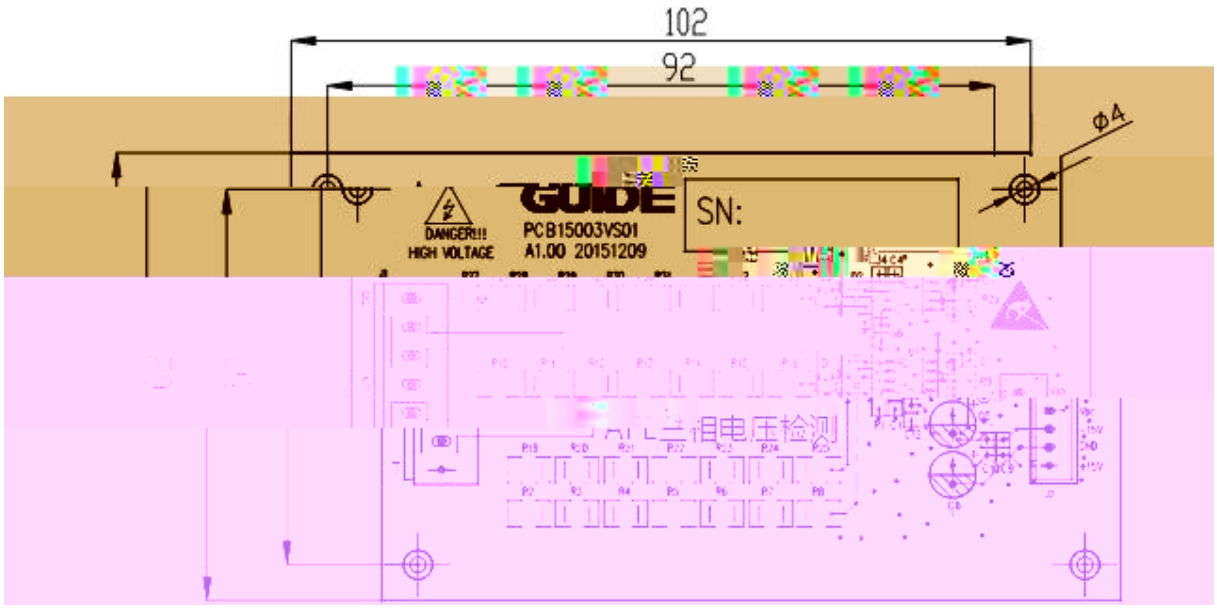
3

0V

NPN

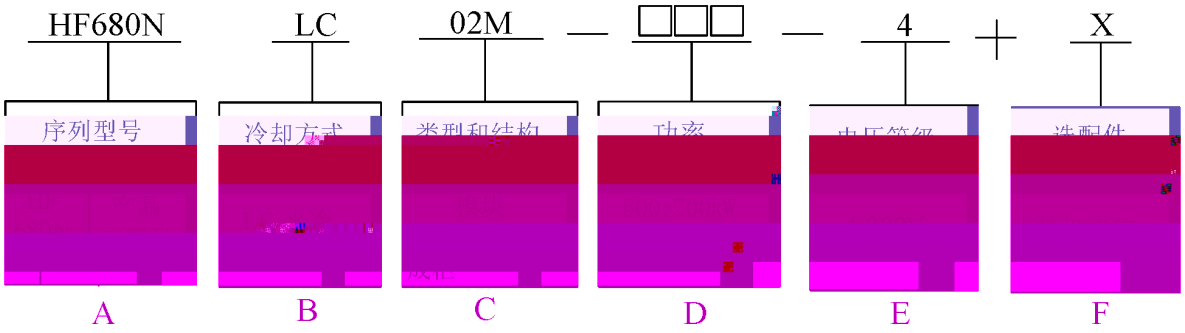






	J1	1121S-7P	
	J2	2001S-5P(T)	

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
PN	PN01	GDHF-APNX1	Profinet
CAN	CAN01	GDHF-ACNX1	CANopen

1 HF680NLC02M-500-4+PN01 400V/500kW Profinet

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

2 HF680NLC02M

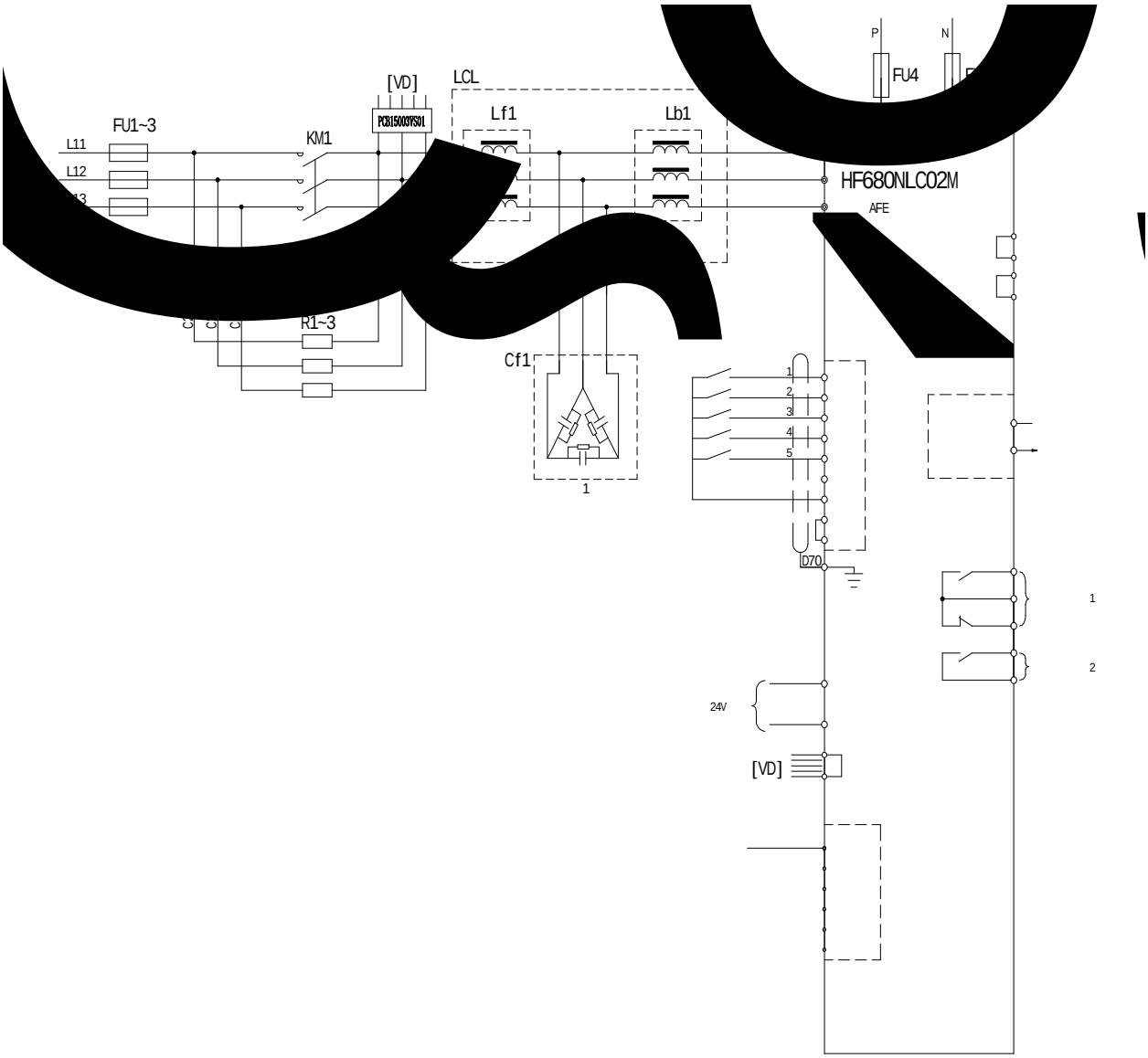
3.4

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


P
N
FU4
[VD]
LCL
FU1~3
KM1
Lf1
Lb1
L11
L12
HF680NLC02M
AFE
R1~3
Cf1
1
2
3
4
5
D70
1
2
24V
[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

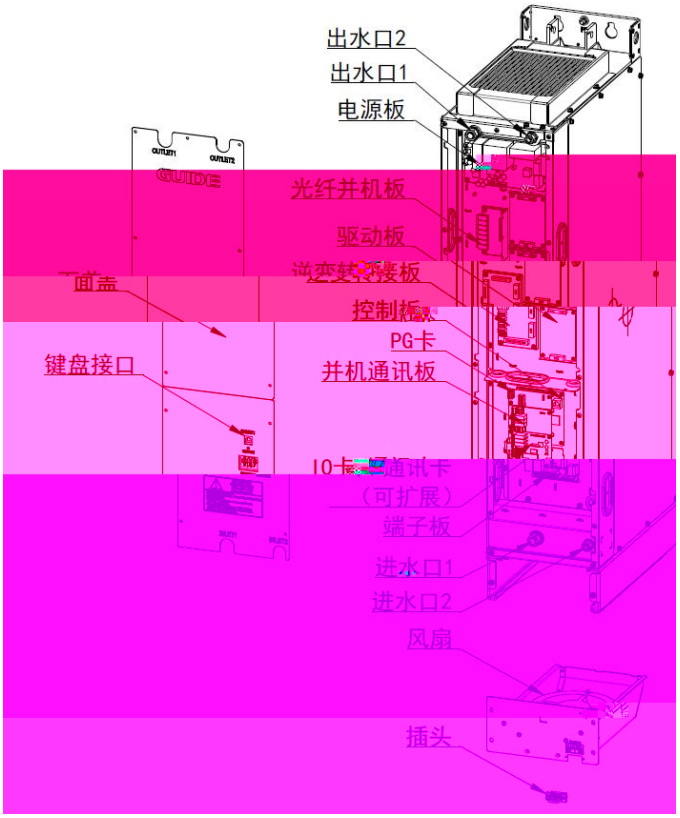
380V 480V -15% +10%

DP PN

4.

4.1

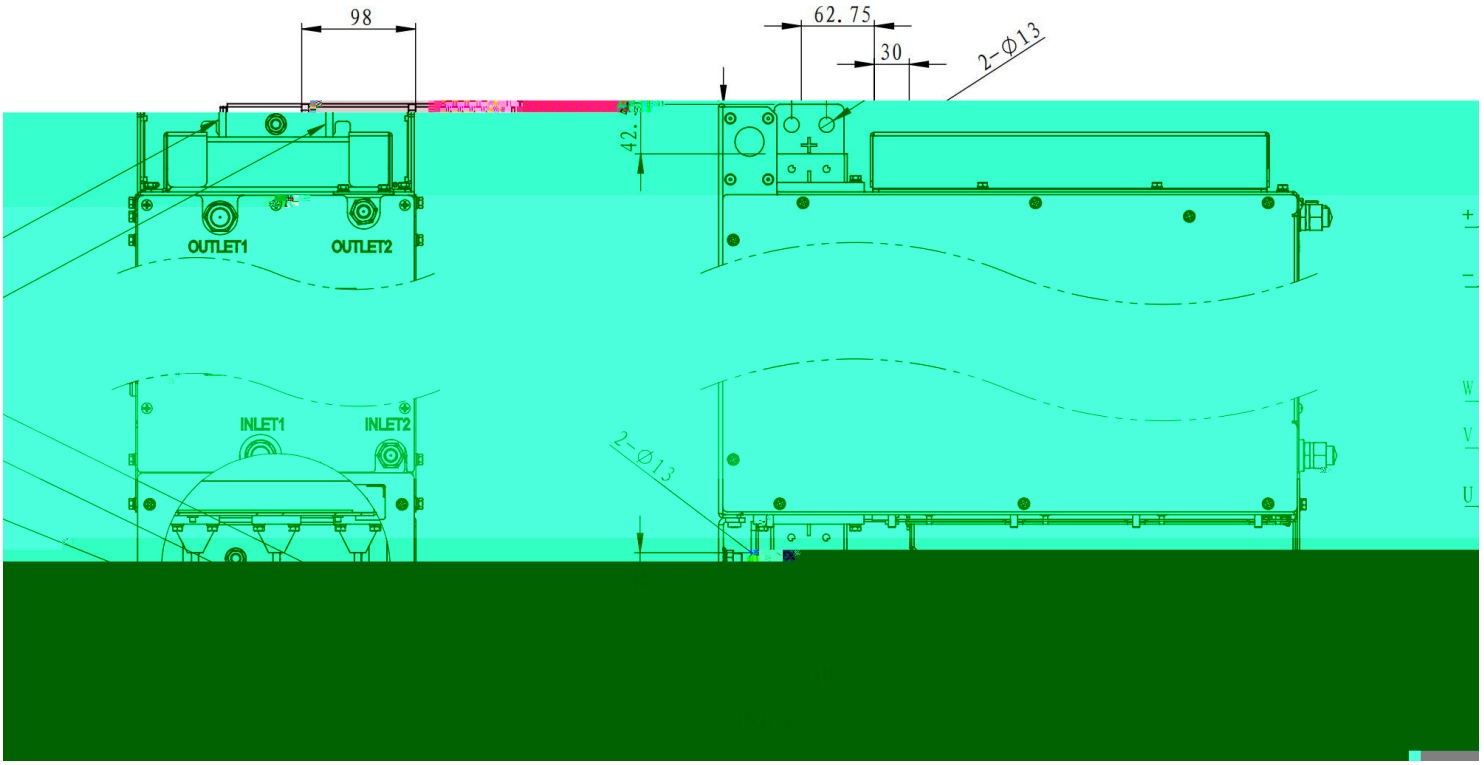
4.2



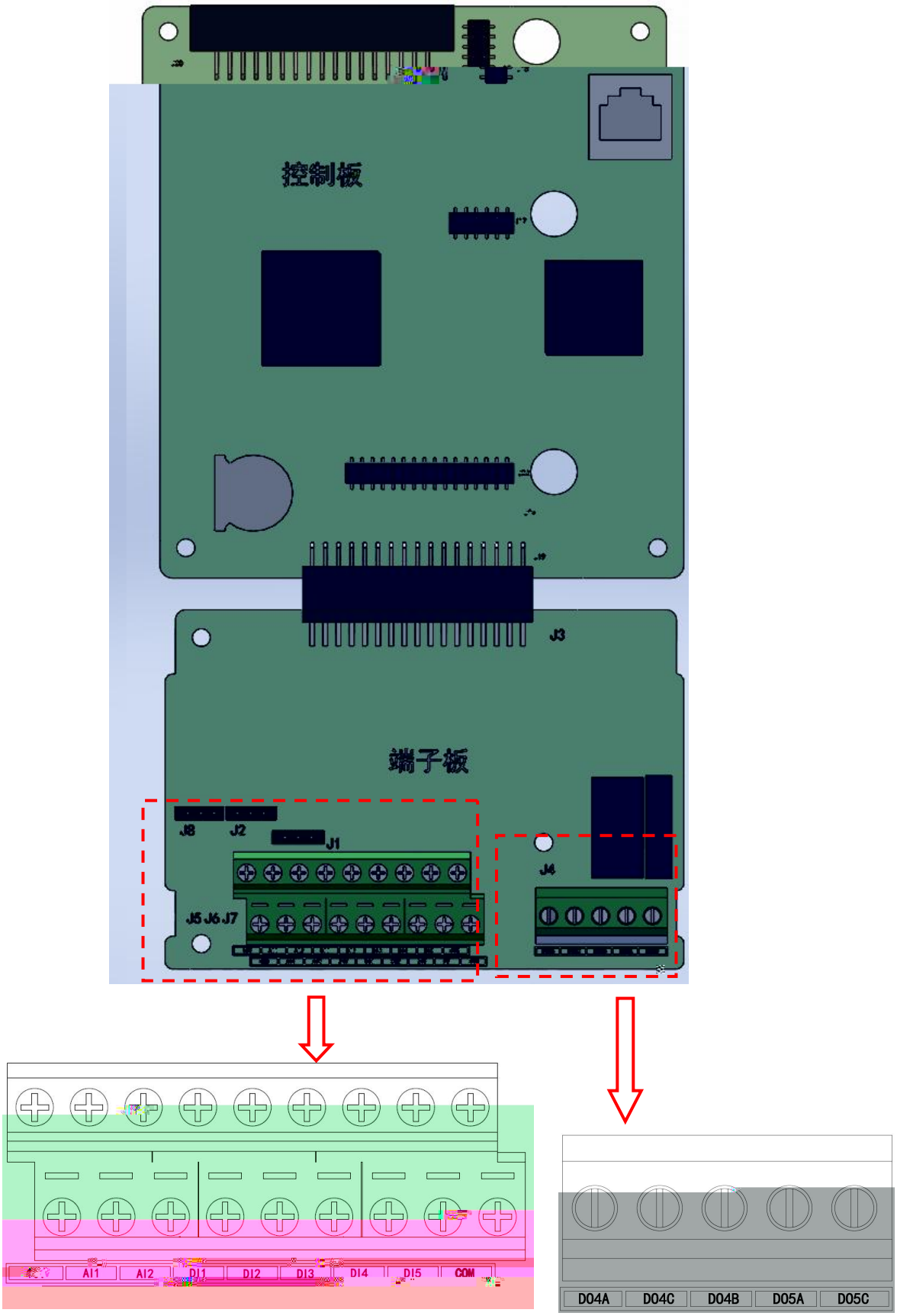
	MVSTBW 2.5/4-STF-5.08		
1 1	KFG2H1613-03	SMC	
1 1	T1613W	SMC	
2 2	KFG2H1209-03	SMC	
2 2	T1209W	SMC	

1

+	
-	
U V W	
PE	



2


控制板
J3
端子板
J8
J2
J1
J4
J5 J6 J7
AI1
AI2
DI1
DI2
DI3
DI4
DI5
COM
DO4A
DO4C
DO4B
DO5A
DO5C

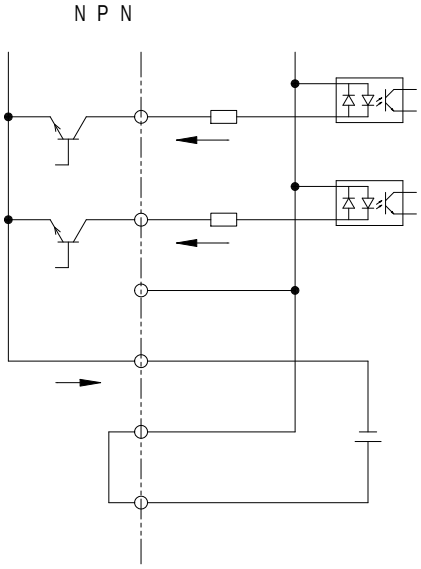
	+10V-GND	10V	+10V 50mA 1kΩ~5kΩ
	+24V-COM	24V	+24V 200mA
	PW		24V DI1~DI5 DO1 PW 24V
	AI1-GND	1	DC -10V~10V 100kΩ
	AI2-GND	2	-10VDC~10VDC/0mA~20mA J1 100kΩ 500Ω
	DI1- PW	1	3.3kΩ 9V~30V DI1-DI4 500Hz DI5 20KHz
	DI2- PW	2	
	DI3- PW	3	
	DI4- PW	4	
	DI5- PW	5	
	AO1-GND	1	J2 0V~10V 0mA~20mA
	DO1-PW	1	0V~24V 0mA~50mA
	DO4A-DO4C	1	250VAC 3A COS =0.4 30VDC 1A
	DO4B-DO4C	2	
	DO5A-DO5C	3	250VAC 2A COS =0.4 30VDC 1A

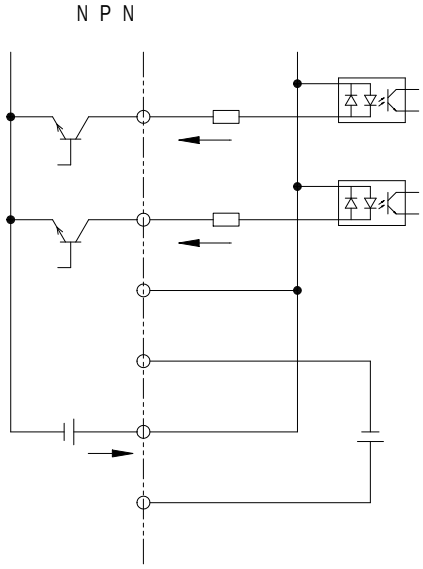
	J2	AO1	
	J1	AI2	

3

0V

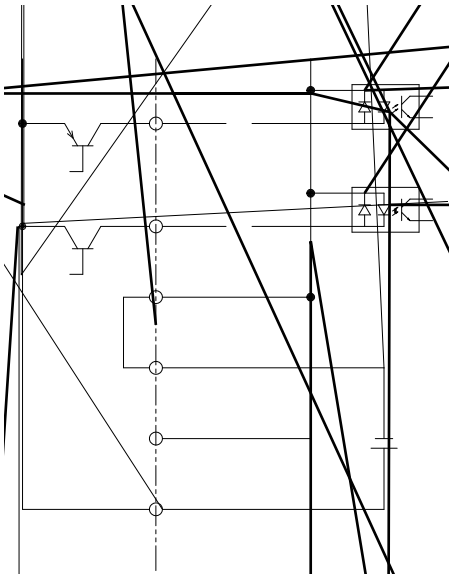
NPN



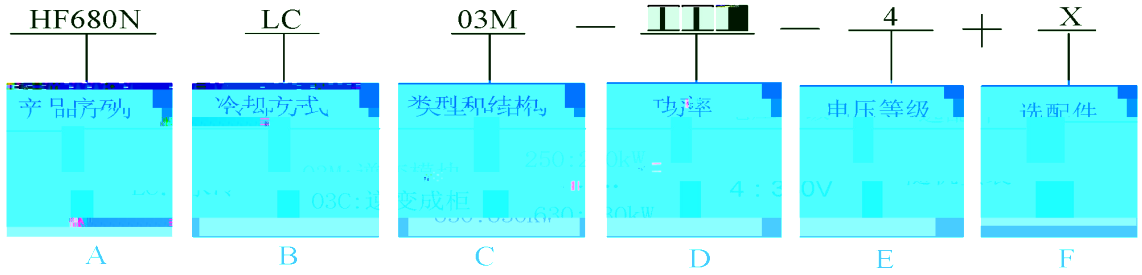


+24V

PNP



4.3



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

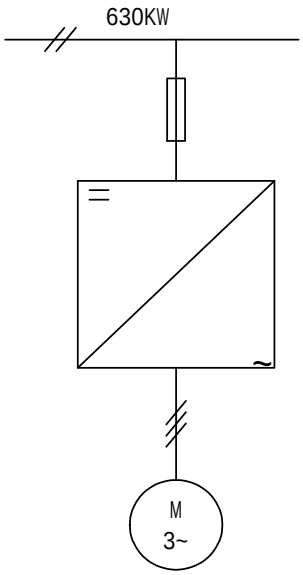
Modbus RTU	MB01	GDHF-AMBX1	Modbus RTU
DP	DP01	GDHF-ADPX1	Profibus DP
PN	PN01	GDHF-APNX1	Profinet
CAN	CAN01	GDHF-ACNX1	CANopen
PG	PG02	GDHF-APGX1	

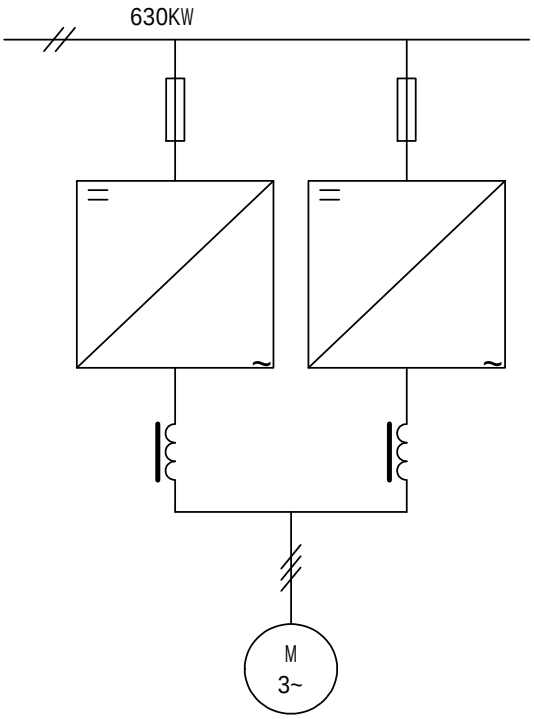
	[A]	[kW]		mm H*W*D	kg
HF680NLC03M-250-4	485	250	Q1	1100*253*525	120
HF680NLC03M-280-4	545	280			
HF680NLC03M-315-4	610	315			
HF680NLC03M-355-4	668	355			
HF680NLC03M-400-4	720	400			
HF680NLC03M-450-4	820	450			
HF680NLC03M-500-4	970	500			
HF680NLC03M-560-4	1030	560			
HF680NLC03M-630-4	1103	630			

1 200%

2 50% HF680NLC03M

3 HF680NLC03M





	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

4.4

		540V 700V
		24V 4A
		(VC) (SVC) V/F
		Profibus DP
		380V 460V 5%
		0 300Hz
		0Hz/200%(VC SVC) 0.8Hz/150%(V/F)
		1kHz 10kHz
		150% 5 1 630KW 110% 5 1

4.5

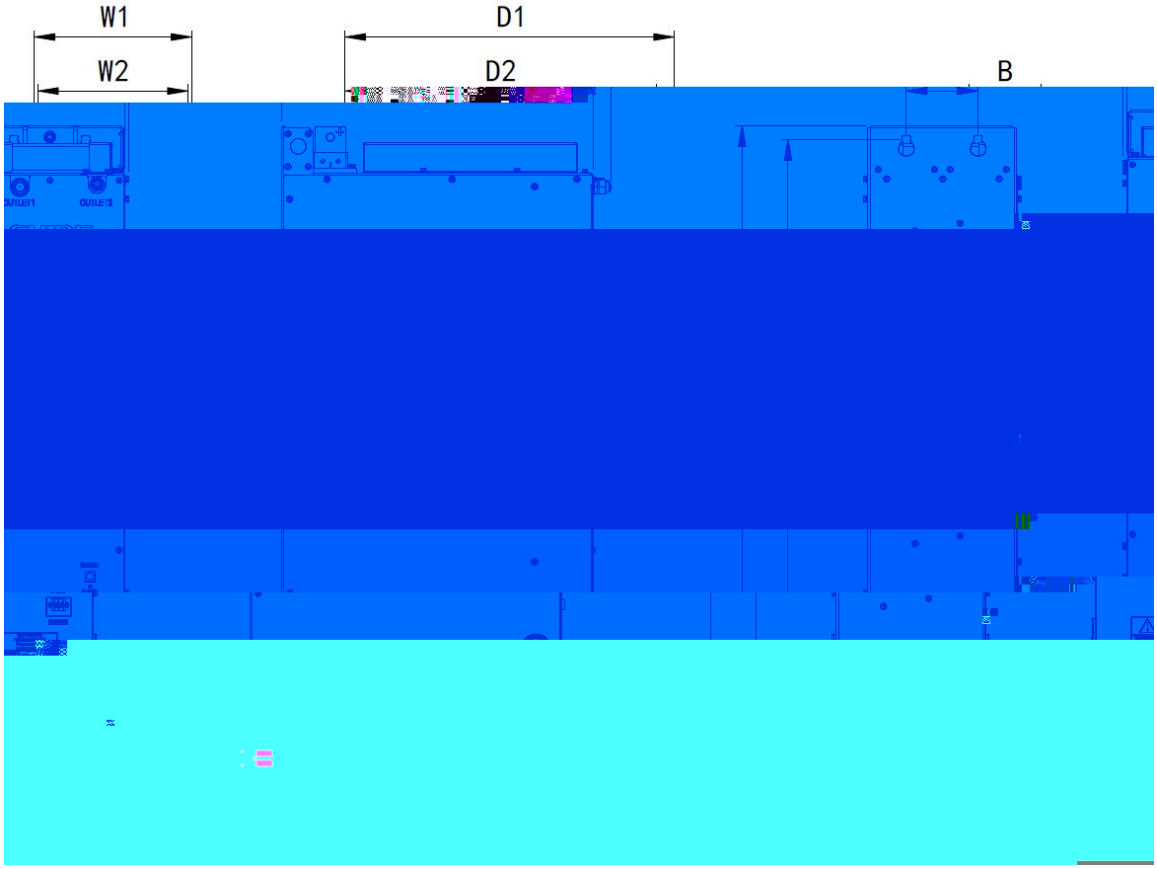
1 200%

2 50% HF680NLC03M

3 HF680NLC03M

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

6.2

▼

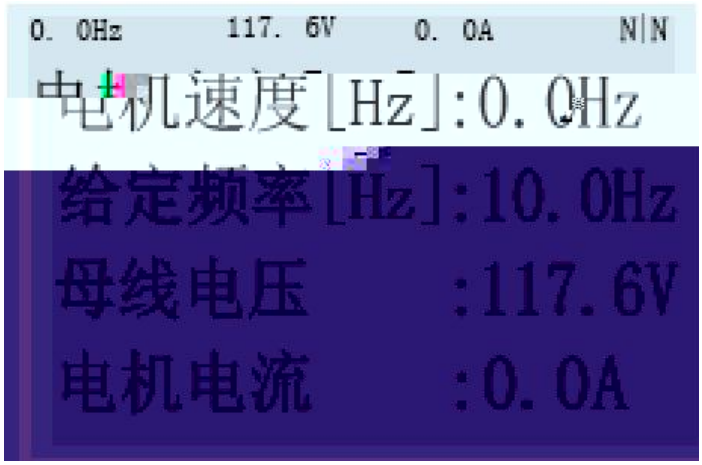
▲

ENTER

RUN STOP

LOCAL/REMOTE /

6.3



“ ” “ ” 2

|

	“ - ”
	:V
	A
	N|N W E

4

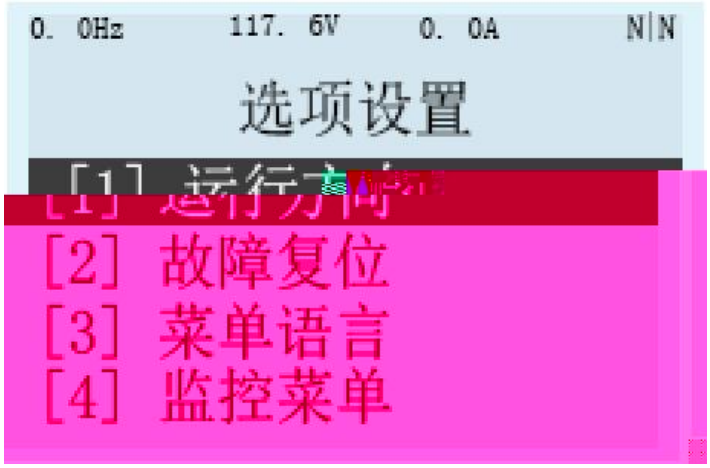
ENTER F1/F2

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	
4	Monitor Setting	
5	LCD Contrast	
6	Time Setting	
7	Version	

8	OLD COM	

6.4.2

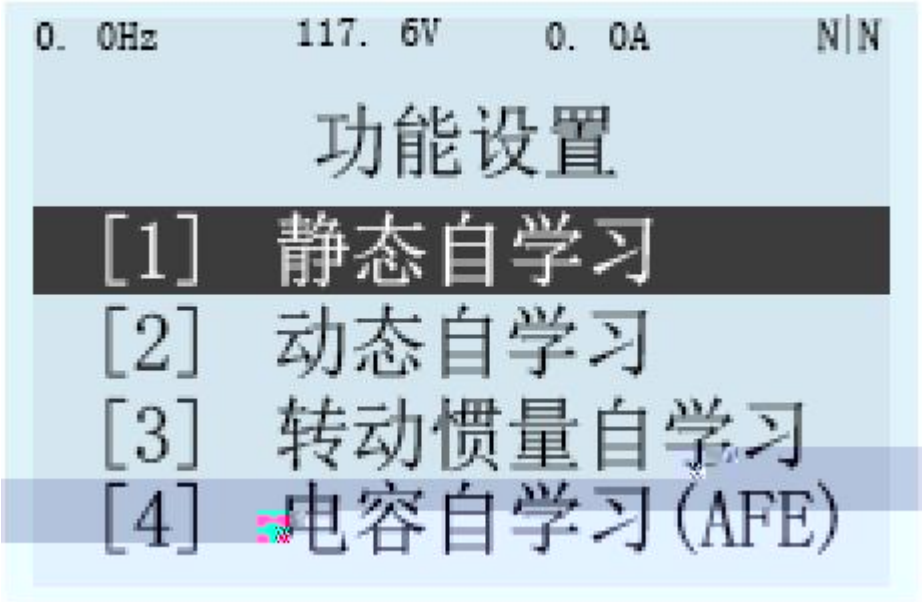
Parameter Setting

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

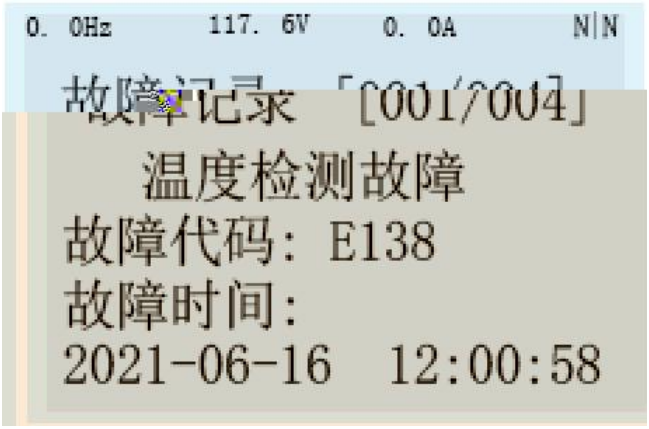
1

2

5

▼ ▲ “Enter”

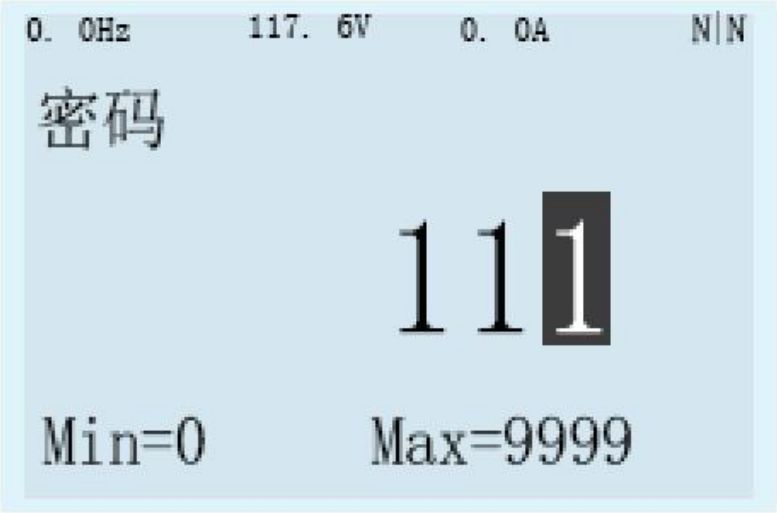
6.4.5



Fault Record

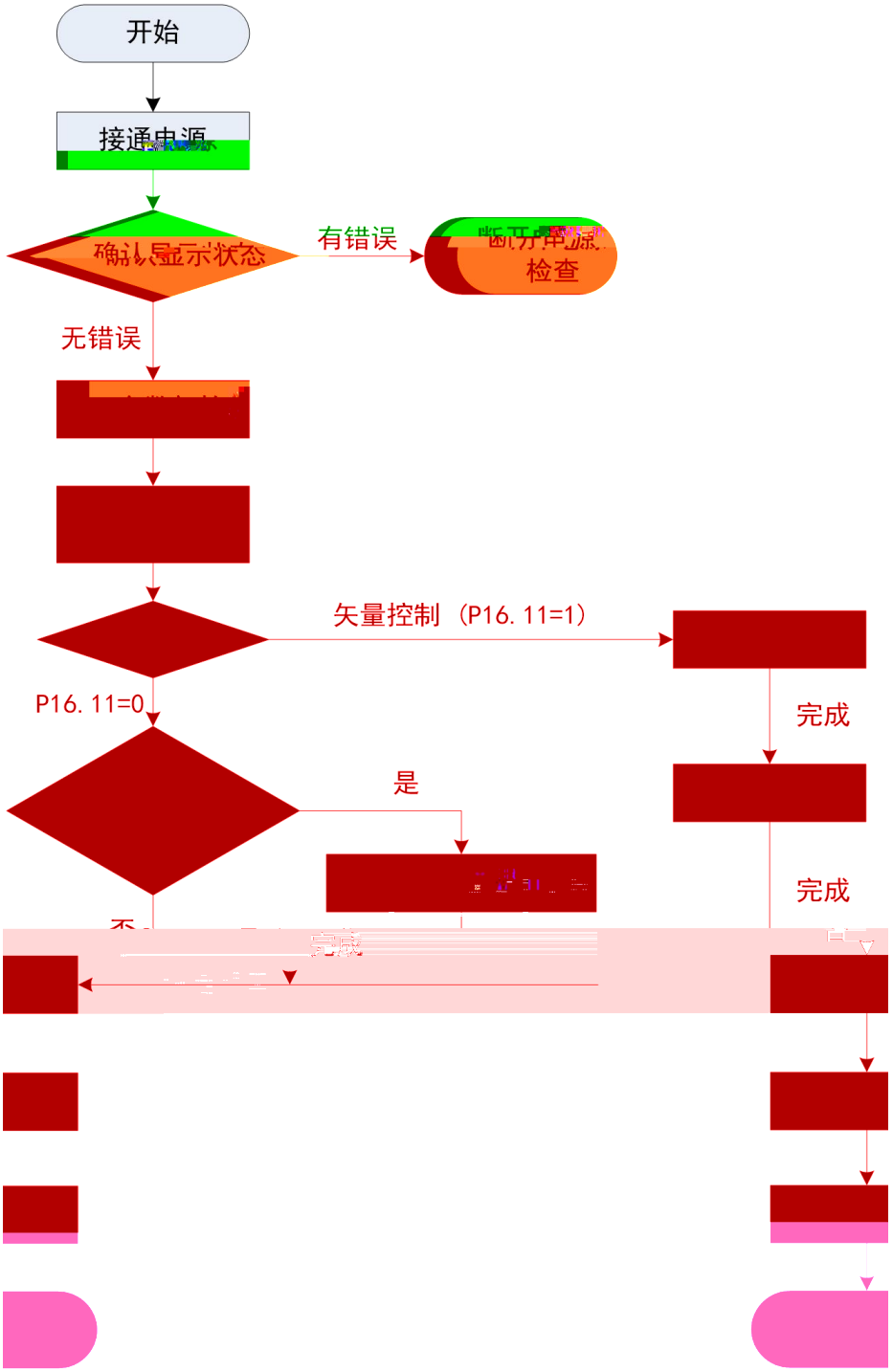
6.4.6

Access Permissions



7.

7.1



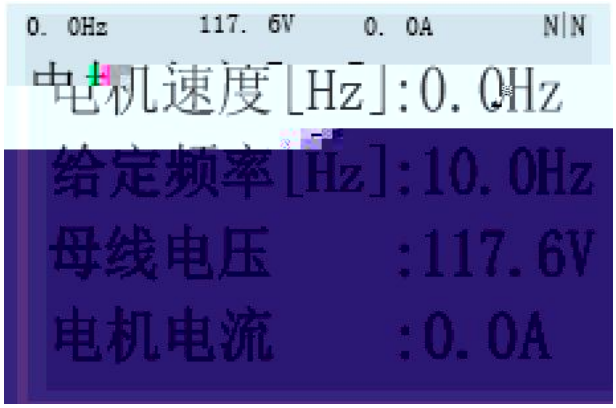
/

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
8
9
10



Warring/Error

N | E W | E

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 Ý

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]

[0] V/F

2

V/F

“

” “ ”

3

“

” “ ”

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

8.1.1

DI1 DI2

DI3: 14 DI4

DO2 DO3:

DO4 DO

DO5

1

380V 220V P0.1

“ ” “ ”

“ DO4A ” “ DO4C ” “ DO5A ”

“ DO5C ”

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 “ / ” “ ”

运行

103.23

IGBT 300s 103.31 AFE

49-51Hz 103.30 AFE

停止

P8.6 0.5s 运行 103.23

102.54 102.55 102.56

停止

P N **P N**

“ / ” “ ” **P24.21** **0**

电容自学习 停止

P24.28 **P24.21** **1**

“ / ” “ ”

PLC

8.1.2

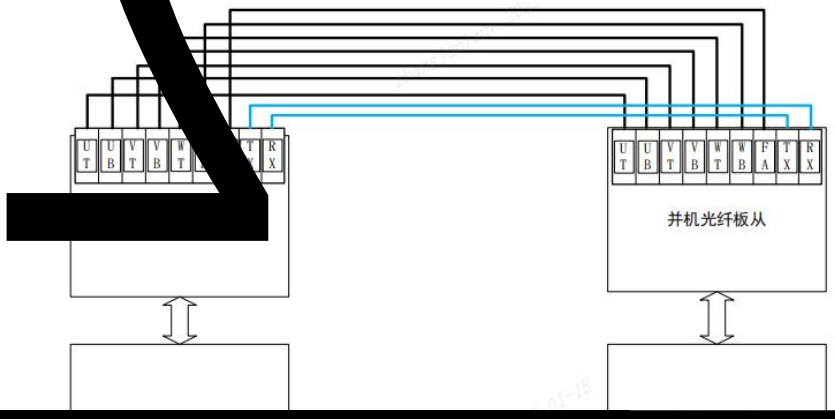
500kW 630kW 800kW

DI1 DI2 DI4

DO2

DO4 DO

DO5


并机光纤板从

P16.0	380V	
P16.2	1/2	800kW 400kW
P16.4	1/2	800kW 608A
P16.11	3	
P16.12	3	3K

P2.0	1	
P2.3	1	
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		800kW 800kW
P16.4		800kW 1216A

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

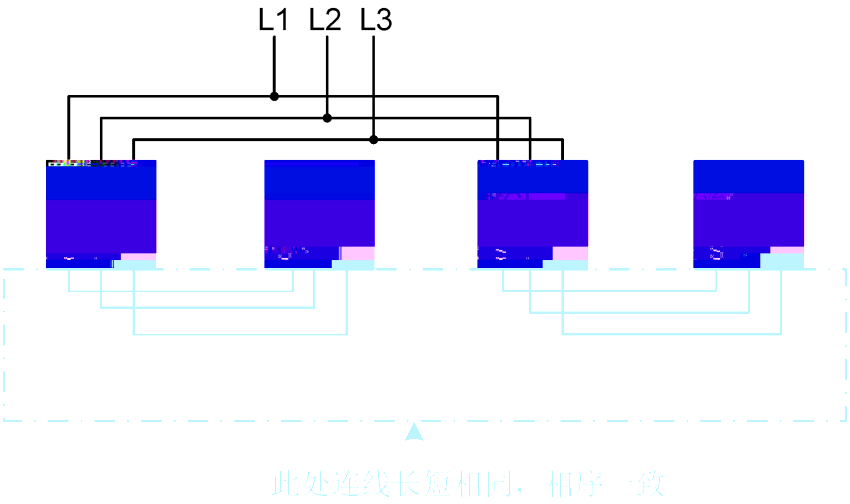
Local **P24.21** **0** “ ”

“ ” Stop P24.28

P24.21 **1**

Local/Remote Remote PLC

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 DO2

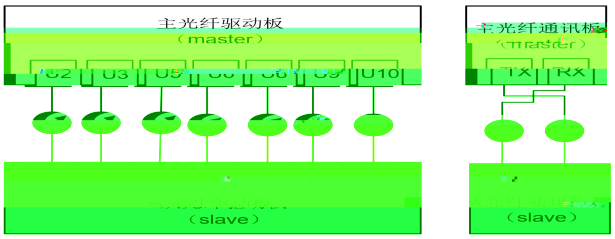
PLC DO4 DO5

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]																



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%	
P7.12	730V	430V 800V
P16.0	380V	
P16.2	1/2	800kW 400kW
P16.4	1/2	800kW 608A
P16.11	3	
P16.12	3	3K

P2.0	1	
P2.3	1	
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		800kW 800kW
P16.4		800kW 1216A
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

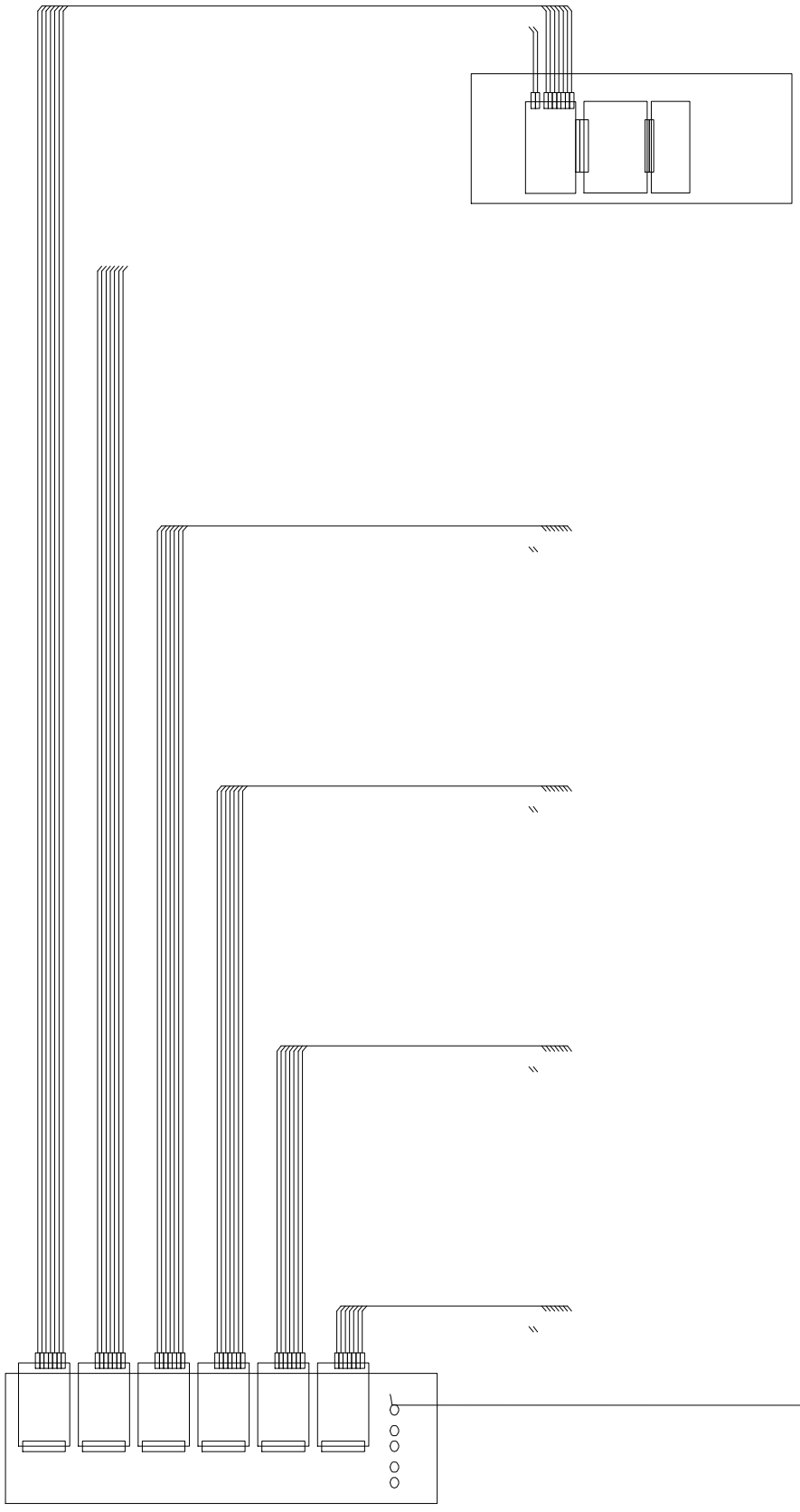
620V P16.0 380V P24.7
20V 620V
220V **220V**
101.2 [W1] 101.77 CAN
@ 101.80 CAN @ 0
380V “ / ” “ ” 运行

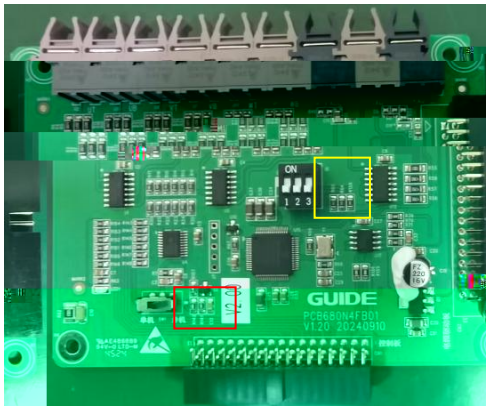
IGBT 300s 103.31
49-51Hz 103.30 AFE
停止
P8.6 **0.5s** 运行
103.23 102.54
102.55 102.56 113.11 A 102.54
停止
P N **P N**
“ / ” “ ” **P24.21** **0**
电容自学习 停止
P24.28 **P24.21** **1**

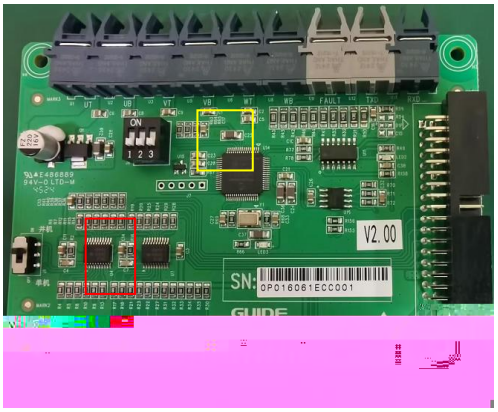
“ / ” “ ”
PLC

8.1.3

1200KW







PIN “ ”

PIN

DI1 DI2 DI4

DO2

DO4 DO

DO5

DI2

DO4 DO

DO5

380V **220V**

P0.1 400KW

P0.1

1 “ DO4A ” “ DO4C ” 1

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

GUIDE www.gdete.com

P16.12	3	3K

2.0	1
2.3	2 3 4 5
3.0	1
3.1	20
3.2	14
3.3	5

2

2

24.7	0	1.12

16.0 24.7 = 16.0

+ 24.7

≥

≥

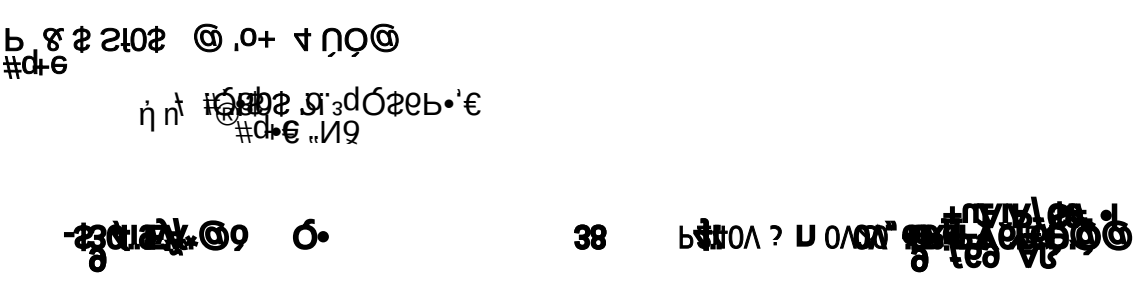
≥

≥

≥

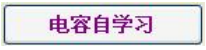
620 16.0 380 24.7 20

620



	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	113.46
4	113.68	113.69	113.70	113.65
5	113.87	113.88	113.89	113.84

“ / ” “ ”

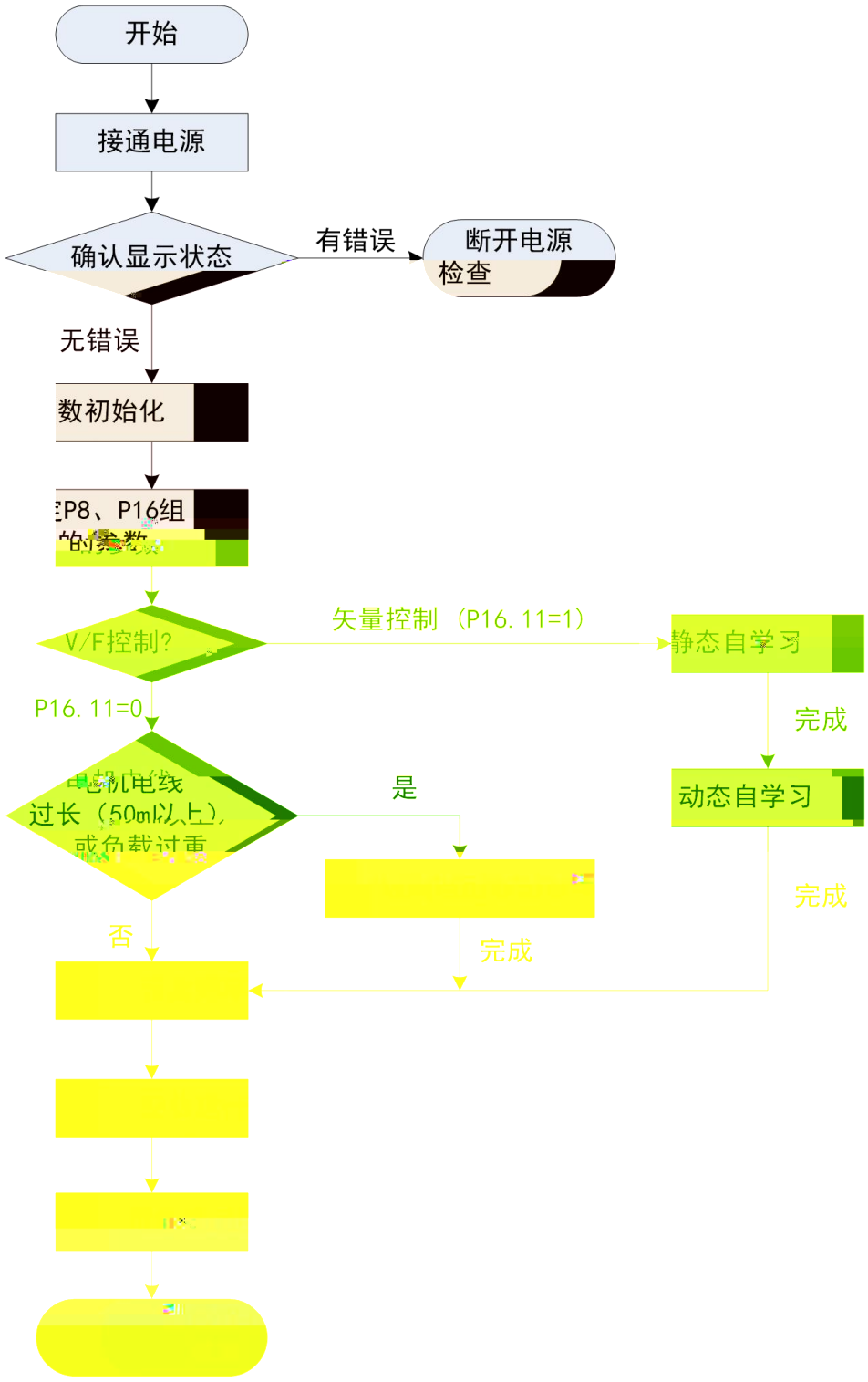


24.28

“ / ” “ ”

8.2

8.2


开始
接通电源
确认显示状态
有错误
断开电源
检查
无错误
数初始化
P8、P16组
矢量控制（P16. 11=1）
静态自学习
完成
P16. 11=0
是
动态自学习
完成
否
完成

/

V/F P16.11=0 V/F

P16.11=2 P16.11=1

8.3

8.3.1

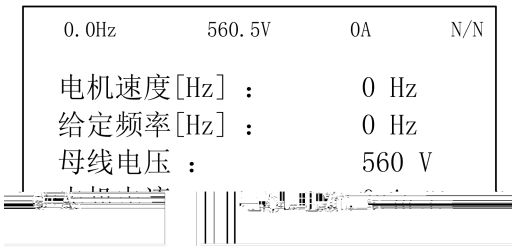
1 ±5V

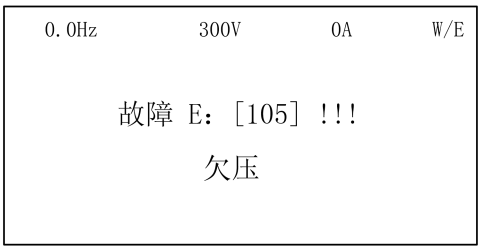
2 U,V,W

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		100
P8.16	1	P8.15	3
P8.17	2		200
P8.18	2	P8.15 P8.17	4
P8.33		0.1 10.0	1
P8.34	1		100
P8.35	1	P8.34	3
P8.36	2		200
P8.37	2	P8.34 P8.36	4

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		

9.1.3

P4.0 1 0 6 @

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			0 6500 [mF]	0[mF]	
P24.29			0 6500 [mF]	0	AFE
P24.30			0 6.5 [mH]	0	AFE

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	

0			
1			
2			
3			
4		.NC	
5			</RST
6	1	0	8.2
7	2	1	
8	3	2	
9	4	3	
10			
11			
12			
13		.NC	
14			
15		.NC	
16			
17		0	1 0 00 1
18		1	01 2 10 3 11 4
19			
20			AFE
21			
22	FUNC 22		
23	FUNC 23		

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

10.3 P4

10.4 P5

P5.0	AI1	[0] [1]0 +10V [2]-10 +10V [3]0 20mA	0 3	1	
P5.1	AI1	AI1	0.0 1000.0 [ms]	25.0[ms]	
P5.2	AI1	AI1	-10.00 10.00 [V]	0.000[V]	
P5.3	AI1	AI1	-20.00 20.00 [mA]	0.000[mA]	
P5.4	AI1	AI1	-10.00 10.00 [V]	0.000[V]	
P5.5	AI1	AI1	0.00 20.00 [mA]	0.000[mA]	
P5.6	AI1	AI1	-300.0 300.0 [%]	0.0[%]	
P5.7	AI1	AI1	-10.00 10.00 [V]	10.000[V]	
P5.8	AI1	AI1	0.00 20.00 [mA]	20.000[mA]	
P5.9	AI1	AI1	-300.0 300.0 [%]	100.0[%]	
P5.18	AI2	[0] [1]0 +10V [2]-10 +10V [3]0 20mA	0 3	3	

AI2

P5.19	AI2		0.0 1000.0 [ms]	25.0 [ms]
P5.20	AI2	AI2	-10.00 10.00 [V]	0.000[V]
P5.21	AI2	AI2	-20.00 20.00 [mA]	0.000[mA]
P5.22	AI2	AI2	-10.00 10.00 [V]	0.000[V]
P5.23	AI2	AI2	0.00 20.00 [mA]	0.000[mA]
P5.24	AI2	AI2	-300.0 300.0 [%]	0.0[%]
P5.25	AI2	AI2	-10.00 10.00 [V]	

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			300 500[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[%]	

P8.35	1	P8.34	0.0 300.0[s]	3.00[s]	
P8.36	2		0.0 300.0[%]	200.0[%]	
P8.37	2	P8.34 P8.36	0.0 300.0[s]	4.00[s]	
P8.38	3		0.0 300.0[%]	240.0[%]	
P8.39	3	P8.36 P8.38	0.0 300.0[s]	7.00[s]	
P8.40	4		0.0 300.0[%]	300.0[%]	
P8.41	4	P8.38 P8.40	0.0 300.0[s]	10.00[s]	
P8.42	5		0.0 300.0[%]	300.0[%]	
P8.43	5	P8.40 P8.42	0.0 300.0 [s]	10.00[s]	
P8.44	6		0.0 300.0 [%]	300.0[%]	
P8.45	6	P8.42 P8.44	0.0 300.0 [s]	10.00[s]	
P8.46	7		0.0 300.0 [%]	300.0[%]	
P8.47	7	P8.44 P8.46	0.0 300.0 [s]	10.00[s]	
P8.48	8		0.0 300.0 [%]	300.0[%]	
P8.49	8	P8.46 P8.48	0.0 300.0 [s]	10.00[s]	
P8.54			0.0 300.0[%]	0.0[%]	
P8.55		[0] [1]	0 1	0	
P8.56			0.00 300.00 [s]	3.00[s]	
P8.57		[0] [1]	0 1	1	
P8.58			0.00 300.00 [s]	1.50[s]	

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 [%]	

P9.18	2	P9.15 P9.17	0.0 300.0[s]	4.00 [s]	
P9.19	3		0.0 300.0[%]	240.0 [%]	
P9.20	3	P9.17 P9.19	0.0 300.0[s]	7.00 [s]	
P9.21	4		0.0 300.0[%]	300.0 [%]	
P9.22	4	P9.19 P9.21	0.0 300.0[s]	10.00 [s]	
P9.23	5		0.0 300.0[%]	300.0 [%]	
P9.24	5	P9.21 P9.23	0.0 300.0[s]	10.00 [s]	
P9.25	6		0.0 300.0[%]	300.0 [%]	
P9.26	6	P9.23 P9.25	0.0 300.0[s]	10.00 [s]	
P9.27	7		0.0 300.0[%]	300.0 [%]	
P9.28	7	P9.25 P9.27	0.0 300.0[s]	10.00 [s]	
P9.29	8		0.0 300.0[%]	300.0 [%]	
P9.30	8	P9.27 P9.29	0.0 300.0[s]	10.00 [s]	
P9.32		[0] [1]PROFIBUS [2]MODBUS [3]	0 3	0	
P9.33			0.1 10.0	1.0	
P9.34	1		0.0 300.0[%]	100.0 [%]	
P9.35	1	P9.34	0.0 300.0[s]	3.00[s]	
P9.36	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				

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			0.00 300.00 [s]	0.00 [s]	
P11.7			0.00 300.00 [s]	0.00 [s]	
P11.10		[0]I/O [1] 1 [2] 2 [3] [4]DP [5]MODBUS [6]	0 6	0	
P11.11					
P11.13		[0] [1]PROFIBUS [2]MODBUS [3]	0 3	0	
P11.14			0.1 10.0	1.0	
P11.15	1		0.0 300.0 [%]	100.0 [%]	
P11.16	1	P11.15	0.0 300.0 [s]	3.00 [s]	
P11.17	2		0.0 300.0 [%]	200.0 [%]	

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]	
P12.37			0.00 2.00 [s]	0.50 [s]	

10.12 2 P13

P13.0		[0] [1]	0 1	1	
P13.1		[0][%] [1][Hz] [2][rpm]	0 2	1	
P13.2	1		0.0 3000.0	10.0	
P13.3	2		0.0 3000.0	20.0	
P13.4	3		0.0 3000.0	35.0	
P13.5	4		0.0 3000.0	50.0	
P13.6	5		0.0 3000.0	50.0	
P13.7	6		0.0 3000.0	50.0	
P13.8	7		0.0 3000.0	50.0	
P13.9	8		0.0 3000.0	50.0	
P13.10	9		0.0 3000.0	50.0	

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 [s]	0.00 [s]	
P13.27			0.00 2.00 [s]	0.00 [s]	
P13.28			0.00 2.00 [s]	0.07 [s]	
P13.29			0.00 2.00 [s]	0.07 [s]	
P13.32			0.0 20.0 [%]	0.0 [%]	
P13.33			0.0 20.0 [%]	0.0 [%]	
P13.34			0.00 2.00 [s]	0.00 [s]	
P13.35			0.00 2.00 [s]	0.00 [s]	
P13.36			0.00 2.00 [s]	0.50 [s]	
P13.37			0.00 2.00 [s]	0.50 [s]	

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]	

10.15 1 V/F P16

P16.0			320 460 [V]	380 [V]	
P16.2			0.0 4000.0 [kW]	 [kW]	
P16.3			320 460 [V]	380 [V]	
P16.4			0.0 6500.0 [A]	 [A]	
P16.5			0.0 300.0 [Hz]	50.0 [Hz]	
P16.6			0 6000 [rpm]	1465 [rpm]	
P16.7			2 12 [pole]	4 [pole]	
P16.9			0 7200 [rpm]	1500 [rpm]	
P16.11		[0]V/F [1] [2] [3] [4]	0 4	0	
P16.12			1.00 10.00 [kHz]	3.00 [kHz]	
P16.14	V/F	[0] V/F [1] V/F [2]	0 3	0	
P16.15		[0] [1]	0 1	0	
P16.16			2 500 [ms]	500 [ms]	
P16.17	V/F	[0] [1]	0 1	0	
P16.18			10 1000 [ms]	200 [ms]	
P16.19		[0] [1]	0 1	0	

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		ä "		

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 [%]	

10.17 3 V/F P18

P18.0			320 460 [V]	380 [V]	
P18.2			0.0 4000.0 [kW]	 [kW]	
P18.3			320 460 [V]	380 [V]	
P18.4			0.0 6500.0 [A]	 [A]	
P18.5			0.0 300.0 [Hz]	50.0 [Hz]	
P18.6			0 6000 [rpm]	1465 [rpm]	
P18.7			2 12 [pole]	4 [pole]	
P18.9			0 7200 [rpm]	1500 [rpm]	
P18.11		[0]V/F [1] [2] [3] [4]	0 4	0	
P18.12			1.00 10.00 [kHz]	3.00 [kHz]	
P18.14	V/F	[0] V/F [1] V/F [2]	0 3	0	
P18.15		[0] [1]	0 1	0	
P18.16			2 500 [ms]	500 [ms]	
P18.17	V/F	[0] [1]	0 1	0	
P18.18			10 1000 [ms]	200 [ms]	
P18.19		[0] [1]	0 1	0	
P18.22			0.00 100.00 [s]	0.00 [s]	

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	

P18.48		[0] [1]PID 1 [2]PID 2 [3]	0 3	0	
P18.49	@		0 300	0	
P18.50			0.00 300.00 [s]	0.00 [s]	
P18.51			0.0 150.0 [%]	70.0 [%]	
P18.52			0.00 5.00 [Hz]	0.00 [Hz]	
P18.54			0.00 300.00 [s]	0.00 [s]	
P18.55			0.0 150.0 [%]	75.0 [%]	
P18.56			0.00 5.00 [Hz]	0.00 [Hz]	
P18.59			0.0 1000.0 [%]	100.0 [%]	
P18.60			0.0 1000.0 [%]	100.0 [%]	
P18.61			0.0 1000.0 [%]	100.0 [%]	
P18.62			0.0 1000.0 [%]	100.0 [%]	
P18.64	V/F	V/F	0.0 1000.0 [%]	100.0 [%]	
P18.66		V/F	0.0 1000.0 [%]	100.0 [%]	
P18.67			0.0 1000.0 [%]	100.0 [%]	
P18.68			0.0 1000.0 [%]	100.0 [%]	
P18.69			0.0 1000.0 [%]	100.0 [%]	
P18.70			0.0 1000.0 [%]	100.0 [%]	

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]	0 1	0	
P20.1		[0] [1] 1 [2] 2 [3] [4] P20.3 [5]DP [6]MODBUS [7]	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] P20.8 P20.9 [2] 1 [3] 2 [4] [5]DP [6]MODBUS [7]	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 [%]	
P20.10			0 300	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			0.0 300.0 [%]	0.0 [%]	
P20.20		[0] [1]	0 1	0	
P20.21		[0] [1]	0 1	0	
P20.22			0.0 300.0 [%]	160.0 [%]	
P20.23			0.0 200.0 [%]	20.0 [%]	
P20.24			0.0 300.0 [%]	100.0 [%]	
P20.25			0.0 200.0 [%]	100.0 [%]	
P20.26			0.0 1000.0 [%]	0.0 [%]	
P20.27			0.00 15.00 [%]	2.00 [%]	
P20.28		[0] P20.16 P20.17 [1] [2] [3]DP	0 3	0	

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 [%]	
P20.56			0.0 1000.0 [%]	100.0 [%]	
P20.57		[0] [1]	0 1	0	
P20.58			0.0 125.0 [%]	100.0 [%]	
P20.59			1.0 25.0 [%]	2.5 [%]	
P20.60	DROOP	0 DROOP	0.0 100.0 [%]	0.0 [%]	
P20.61	DROOP	DROOP	30 2000 [ms]	50 [ms]	
P20.62			0.0 1000.0 [%]	100.0 [%]	
P20.63			0.0 1000.0 [%]	100.0 [%]	
P20.66	1	1	0.0 1000.0 [%]	100.0 [%]	
P20.67	2	2	0.0 1000.0 [%]	100.0 [%]	
P20.69			0.00 2.00 [%]	1.00 [%]	
P20.70			0.00 2.00 [%]	1.00 [%]	
P20.71		[0] [1]	0 1	0	
P20.72		[0] [1]	0 1	1	

P20.73		[0] × 1 [1] × 10	0 1	0	
P20.74			0.00 650.00 [mOhm]	0.00 [mOhm]	
P20.75			0.70 1.00	0.90	
P20.76	1	1	90.0 110.0 [%]	100.0 [%]	
P20.77	2	2	90.0 110.0 [%]	100.0 [%]	
P20.78			0.00 650.00 [mOhm]	0.00 [mOhm]	
P20.79			0.00 65.50 [mH]	0.000 [mH]	
P20.80	1	1	0.800 1.350	1.140	
P20.81	2	2	0.800 1.350	0.940	
P20.82	3	3	0.800 1.350	1.080	
P20.83	4	4	0.800 1.350	0.950	
P20.84			0.00 655.00 [mH]	0.00 [mH]	
P20.85	85%	85%	40.0 150.0 [%]	108.0 [%]	
P20.86	87.5%	87.5%	40.0 150.0 [%]	106.5 [%]	
P20.87	90%	90%	40.0 150.0 [%]	105.0 [%]	
P20.88	92.5%	92.5%	40.0 150.0 [%]	103.5 [%]	
P20.89	95%	95%	40.0 150.0 [%]	102.0 [%]	
P20.90	102.5%	102.5%	40.0 150.0 [%]	99.0 [%]	
P20.91	105%	105%	40.0 150.0 [%]	96.5 [%]	
P20.92	110%	110%	40.0 150.0 [%]	93.0 [%]	
P20.93	115%	115%	40.0 150.0 [%]	88.5 [%]	
P20.94	120%	120%	40.0 150.0 [%]	83.0 [%]	

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] [1] 1 [2] 2 [3] [4] P21.3 [5]DP [6]MODBUS [7]	0 7	0	
P21.2			0 7	0	
P21.3			-300.0 300.0 [%]	0.0 [%]	
P21.4	@		0 300	0	
P21.5			0 1000 [ms]	0 [ms]	
P21.6			0.0 200.0 [%]	100.0 [%]	

[0]

[< w

P21.7

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	2	90.0 110.0 [%]	100.0 [%]	
P21.78			0.00 650.00[mOhm]	0.00 [mOhm]	
P21.79			0.00 65.50[mH]	0.000 [mH]	
P21.80	1	1	0.800 1.350	1.140	
P21.81	2	2	0.800 1.350	0.940	
P21.82	3	3	0.800 1.350	1.080	
P21.83	4	4	0.800 1.350	0.950	
P21.84			0.00 655.00[mH]	0.00 [mH]	
P21.85	85%	85%	40.0 150.0[%]	108.0 [%]	
P21.86	87.5%	87.5%	40.0 150.0[%]	106.5 [%]	
P21.87	90%	90%	40.0 150.0 [%]	105.0 [%]	
P21.88	92.5%	92.5%	40.0 150.0 [%]	103.5 [%]	
P21.89	95%	95%	40.0 150.0 [%]	102.0 [%]	
P21.90	102.5%	102.5%	40.0 150.0 [%]	99.0 [%]	

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		0.0 200.0[%]	100.0[%]
P23.26		0.0 000.0[%]	0.0[%]
P23.27		0.00 15.00[%]	2.00[%]
P23.28	[0] P23.16 P23.17 [1] [2] [3]DP	0 3	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

P23.52			0.0 1000.0[%]	100.0[%]	
P23.53	Kp		0.0 1000.0[%]	100.0[%]	
P23.54	Ki		0.0 1000.0[%]	100.0[%]	
P23.55			0.0 1000.0[%]	100.0[%]	
P23.56			0.0 1000.0[%]	100.0[%]	
P23.57		[0] [1]	0 1	0	
P23.58			0.0 125.0[%]	100.0[%]	
P23.59			1.0 25.0[%]	2.5[%]	
P23.60	DROOP	0 DROOP	0.0 100.0[%]	0.0[%]	
P23.61	DROOP	DROOP	30 2000[ms]	50[ms]	
P23.62			0.0 1000.0[%]	100.0[%]	
P23.63			0.0 1000.0[%]	100.0[%]	
P23.66	1	1	0.0 1000.0[%]	100.0[%]	
P23.67	2	2	0.0 1000.0[%]	100.0[%]	
P23.69			0.00 2.00[%]	1.00[%]	
P23.70			0.00 2.00[%]	1.00[%]	
P23.71		[0] [1]	0 1	0	
P23.72		[0] [1]	0 1	1	
P23.73		[0] × 1 [1] × 10	0 1	0	
P23.74			0.00 650.00[mOhm]	0.00 [mOhm]	
P23.75			0.70 1.00	0.90	
P23.76	1	1	90.0 110.0[%]	100.0[%]	
P23.77	2	2	90.0 110.0[%]	100.0[%]	
P23.78			0.00 650.00[mOhm]	0.00 [mOhm]	

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]	7-3	0 48	0	
P33.46	[W0]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000 [5] [%] × 1 [6] [%] × 10 [7] [%] × 100	0 7	0	
P33.47	[W1]	7-3	0 48	0	
P33.48	[W1]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000 [5] [%] × 1 [6] [%] × 10 [7] [%] × 100	0 7	0	
P33.49	[W2]	7-3	0 48	0	
P33.50	[W2]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000 [5] [%] × 1 [6] [%] × 10 [7] [%] × 100	0 7	0	
P33.51	[W3]	7-3	0 48	0	
P33.52	[W3]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000 [5] [%] × 1 [6] [%] × 10 [7] [%] × 100	0 7	0	
P33.53	[W4]	7-3	0 48	1	

P33.54	[W4]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000 [5] [%] × 1

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.

11.1

W01	SYS_NOT_RDY	(Ready)	
W02	NO_DRV_ENABLE	[ ]	P3
W03	LOCAL_EM	[ ]	P3
W04	REMOTE_EM	[ ]	P3
W06	O.T	P7.14( )	
W09	DP P/B ALARM	DP	DP
W10	MODBUS MODBUS ALARM	Modbus	Modbus
W15	PARAMETER ERROR		
W18	Temp_Sensing Fail		
W20	SLV_NOT_RDY		
W21	1 SLV1_CAN_ERR	1	1
W22	2 SLV2_CAN_ERR	2	2
W23	3 SLV3_CAN_ERR	3	3
W24	4 SLV4_CAN_ERR	4	4
W25	5 SLV5_CAN_ERR	5	5

11.2

[E050]	U ERR_UT not reset	IGBT IGBT
[E051]	U ERR_UT not reset	IGBT IGBT
[E052]	V ERR_UT not reset	IGBT IGBT
[E053]	V ERR_UT not reset	IGBT IGBT
[E054]	W ERR_UT not reset	IGBT IGBT
[E055]	W ERR_UT not reset	IGBT IGBT
[E056]	ERR_SLAVE_FAULT not reset	
[E100]	OV	P8.35(1) P7.12( )
[E105]	UV	P7.13( )
[E110]	OC	P7.4([1]) P7.4( )
[E111]	OL	P7.48 P7.49
[E112]	ZC	P7.8

[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]

[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. > 40
1. < @ " 4
2.

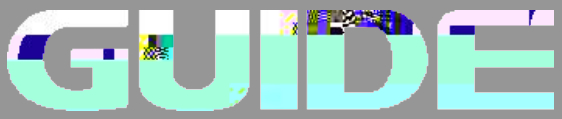
12.4

5 "

680

400 250-630

1.00



1

2

3

Wuhan Guide Technology Co.,Ltd.

6

430223

86-027-87927230

shfw@gdetec.com

www.gdetec.com

400-0077-570

.,