
GUIDE

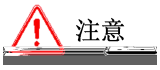
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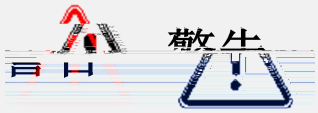
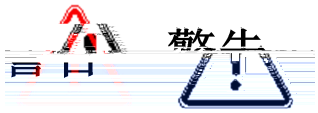
2

3 “ ” “ ” “ ”

4

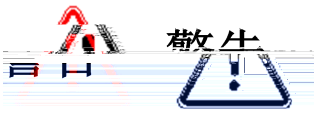
5

 危险	“ ”
 注意	“ ”
警告  警	“ ”

 危险 10
 U V W
 ,




3

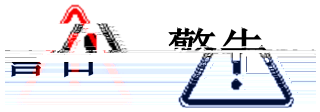


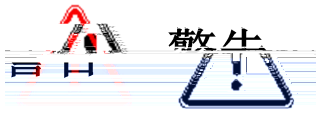
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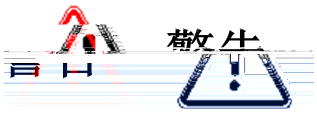
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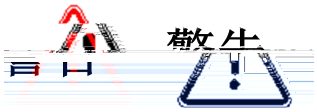
ESD

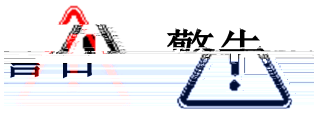




危险



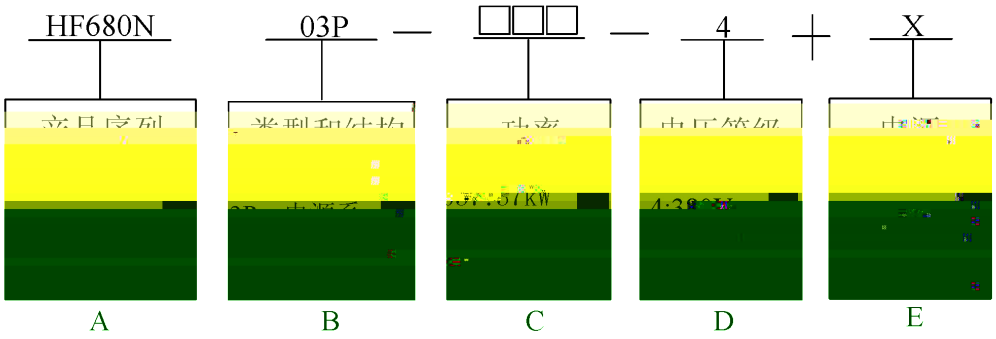




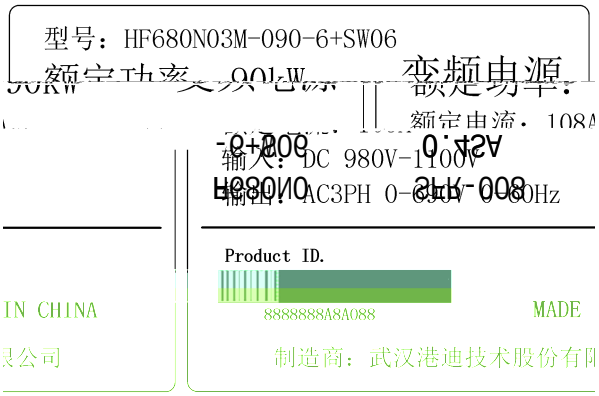
1
1.1
1.2
1.3
1.4
1.5
1.6
1.7
2
2.1
2.2
2.3
3
3.1
3.2
3.3
4
4.1 P0
4.2 P3
4.3 P4
4.4 P7
4.5 1 P8
4.6 2 P9
4.7 V/F P16
4.8 2 V/F P17
4.9 AFE/ P24
5
5.1
5.2
5.3
6
6.1
6.2
6.3
6.4
6.5

1

1.1



A	HF680N
B	03P: LC 03M:
C	3 380V:37kW~45kW 690V:55kW~90kW
D	4: :380V 6: :690V
E	:



HF680N03M-090-6+SW06 HF680N 90kW

690V

3PH

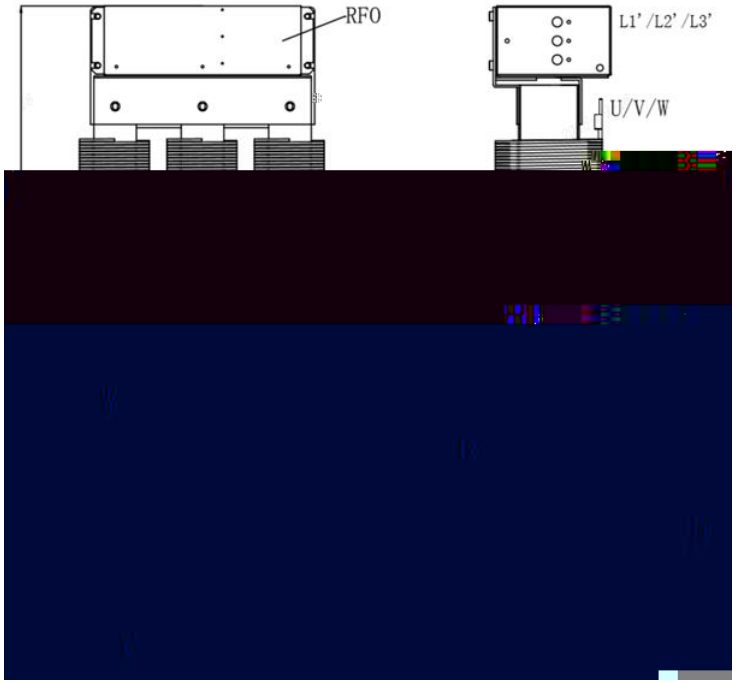
0-690V 0-60Hz

1.1.1

	VDC[V]	AC[V]	[A]	[kW]	LC+EMI	
			380V			
HF680N03P-030-4	540-1100	0-432	60	30	HF680N03M-055-6+SW06	SFR-0060-1M10-0.4SA-3058-YT
HF680N03P-037-4	540-1100	0-432	80	37	HF680N03M-075-6+SW06	SFR-0080-0M85-0.4SA-3058-YT
HF680N03P-045-4						

HF680N03P-075-6	980-1100	0-690	86	75	HF680N03M-075-6+SW06	SFR-0115-1M30-0.7SA-3058-YT
HF680N03P-090-6	980-1100	0-690	108	90	HF680N03M-090-6+SW06	SFR-00115-1M30-0.7SA-3058-YT

1.1.2



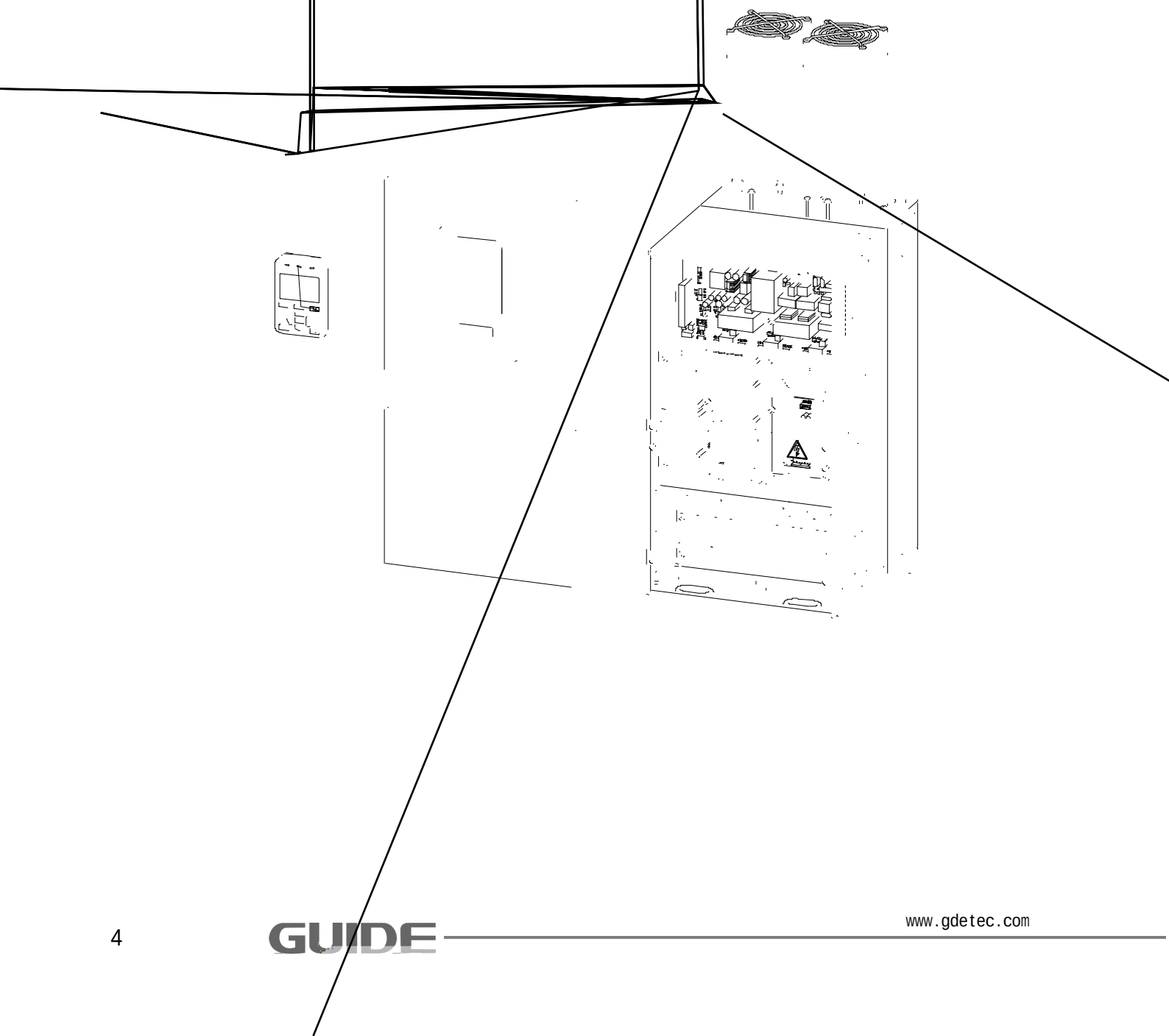
	(A)		mm H*W*D	(mm) * -C*D	Kg
380V					
SFR-0060-1M10-0.4SA-3058-YT	60		490*320*165	4*Φ11*18 243*124	40
SFR-0080-0M85-0.4SA-3058-YT	80		515*320*165	4*Φ11*18 243*124	45
SFR-0090-0M80-0.4SA-3058-YT	90		515*320*165	4*Φ11*18 243*134	47
690V					
SFR-0075-2M00-0.7SA-3058-YT	75		620*385*250	4*Φ11*18 243*200	85

SFR-0115-1M30-0.7SA-3058-YT	115		800*435*250	4*Φ11*18 243*200	118
SFR-0115-1M30-0.7SA-3058-YT	115		800*435*250	4*Φ11*18 243*200	118

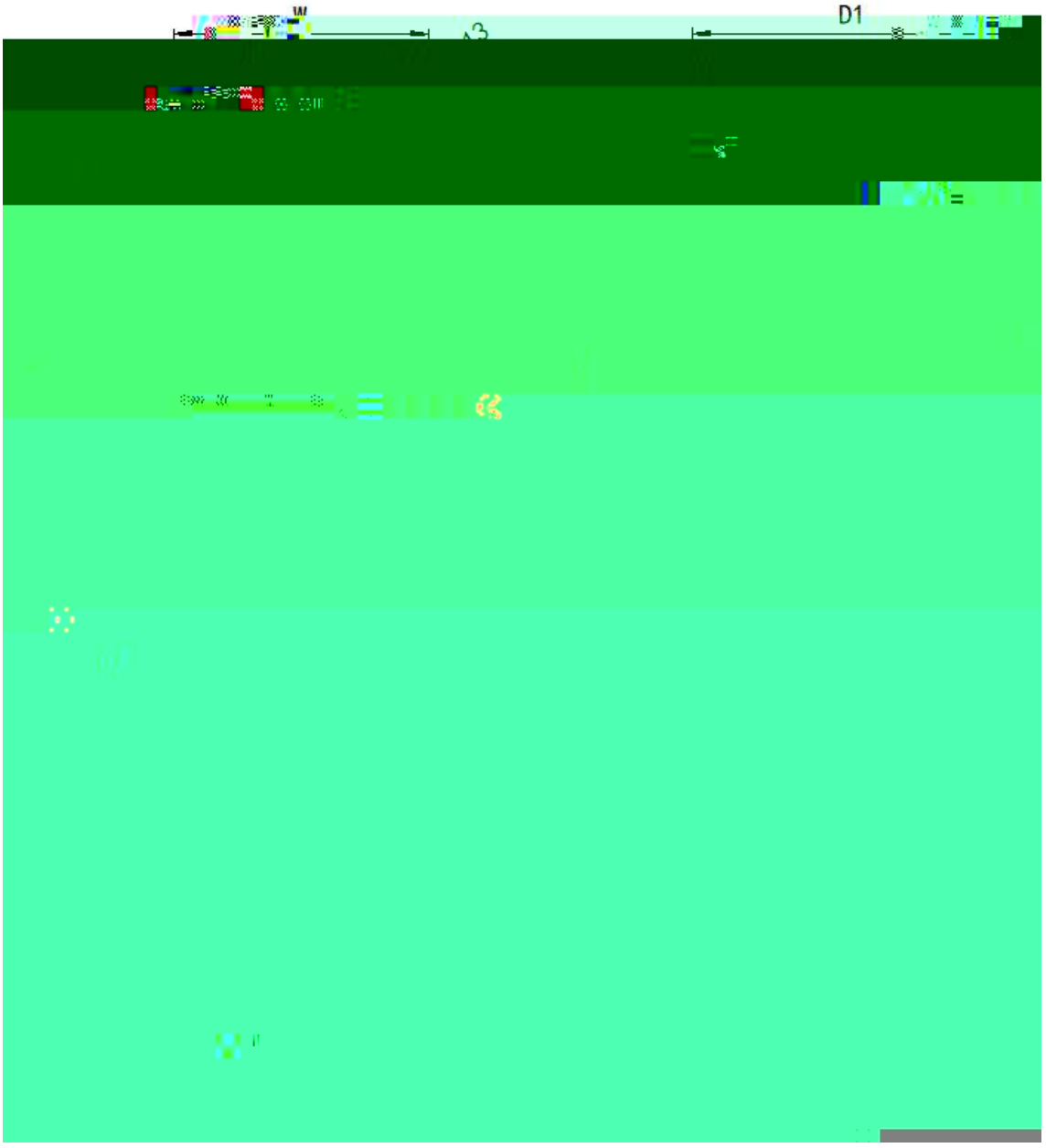
1 LCD

2 5 1 150%

1.2



1.3



1.4

	mm					mm			8.8	kg
	H1	H2	W	D1	D2	A	B1	B2		
HF680N03M-55-6	580	508	280	350	140	553	180	180	4-M12	30
HF680N03M-75-6										
HF680N03M-90-6										

1.5

		DC 540-1100V
		0V~690V 5%
		5%
		0Hz~60Hz
		150% 60s
		1.0 kHz~6.0kHz
		100%
		RS485
		/ AI1 AI2
		5 2 0 +10V 0mA/4mA 20mA
		3 1 2 2 0 +10V 0mA/4mA 20mA
	LCD	

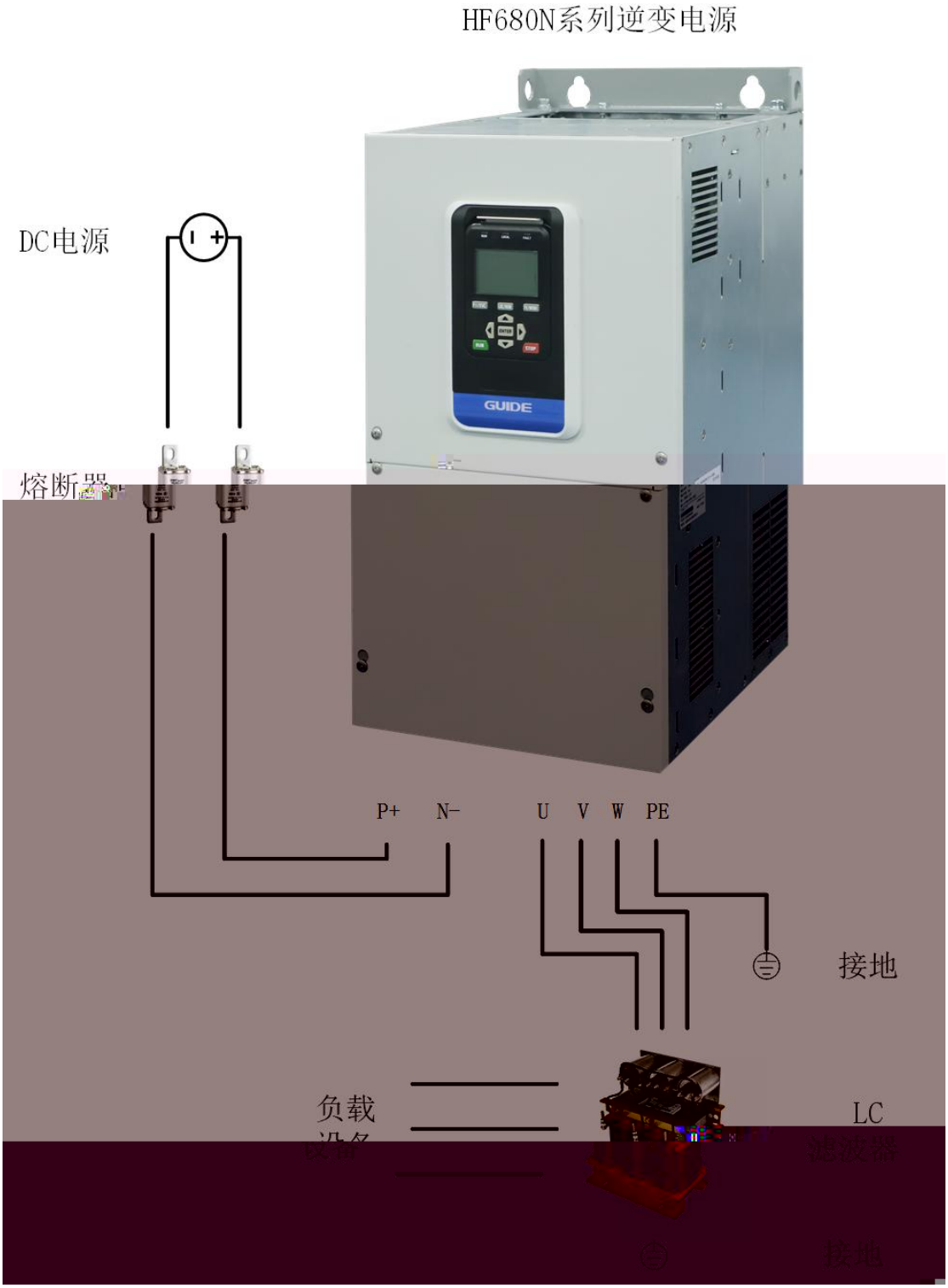
1.7


1. / “ ” / 2. 3. - U V W - P N 4. 10 5.

1. 2. 3. 40

2

2.1



HF630N

2.2

LC		PWM

2.3

		A	/ mm² CEFR 40%
380V	30kW	68	16
	37kW	86	16
	45kW	108	25
690V	55kW	68	16
	75kW	86	16
	90kW	108	25

3

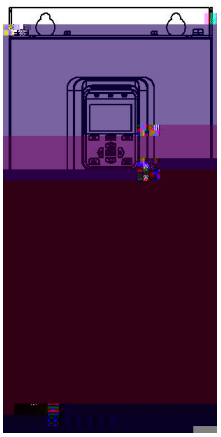
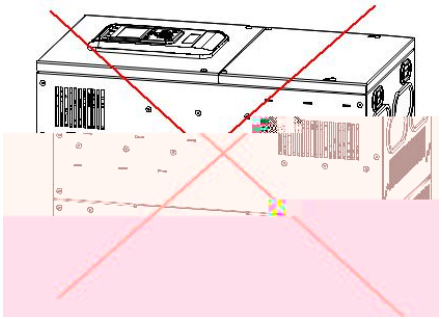
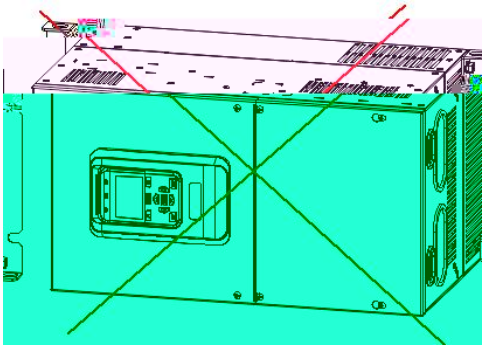
3.1

	10cm 5cm	6	
	-10 +40 40 1 1% 50 -10	-20 +60 1 /	-20 +60
	70 106 kPa 0.7 1.05	70 106 kPa 0.7 1.05	60 106 kPa 0.6 1.05
	10Hz ≤ f ≤ 57Hz 0.075mm 57Hz ≤ f ≤ 150Hz 9.8 m/s2	10Hz ≤ f ≤ 57Hz 0.075mm 57Hz ≤ f ≤ 150Hz 9.8 m/s2	I I
		100m/s² 11ms	100m/s² 11ms
		250mm <100kg 100mm ≥ 100kg	250mm <100kg 100mm ≥ 100kg
	95%RH		

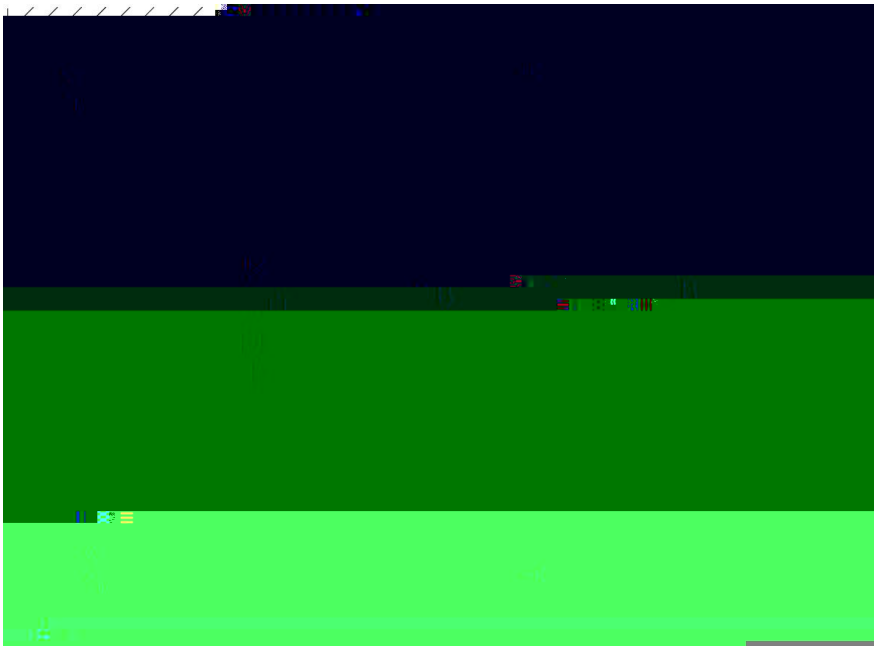
	1000 1000 100 1% 3000
	2

3.2

3.2.1

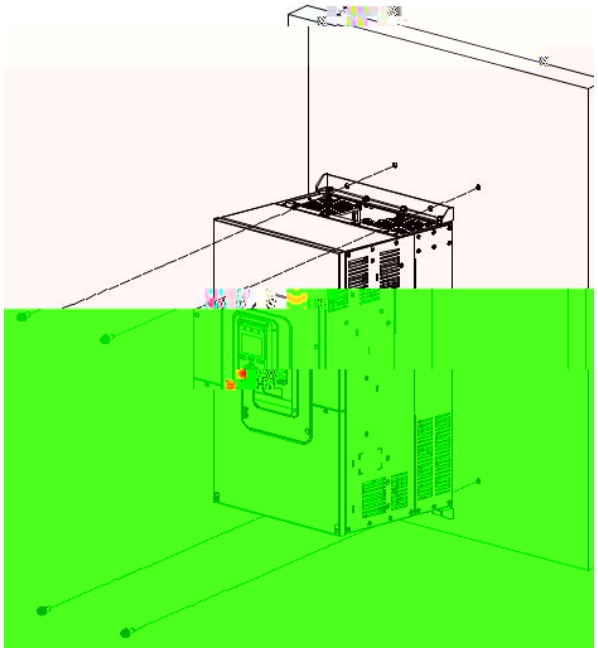
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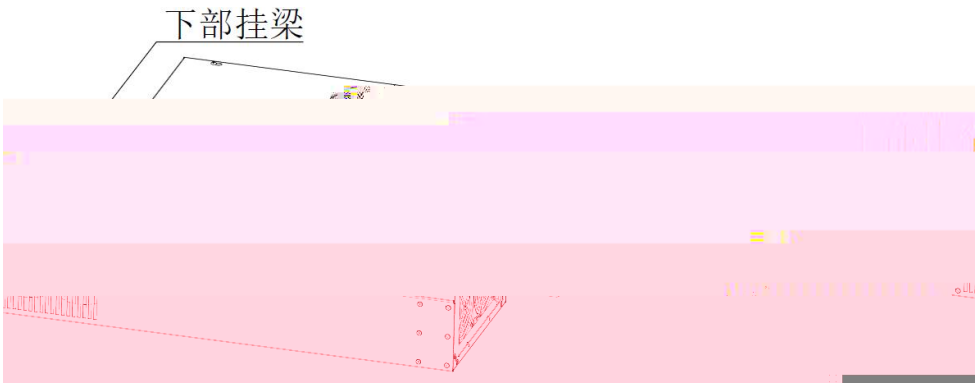
	(mm)	
55kW 90kW	A ≥ 250	B ≥ 50

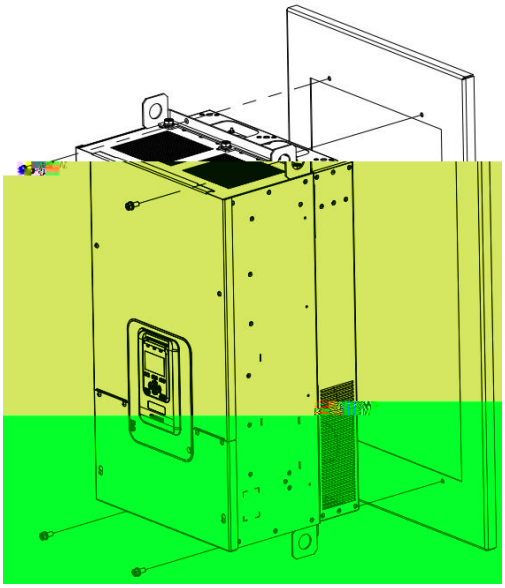
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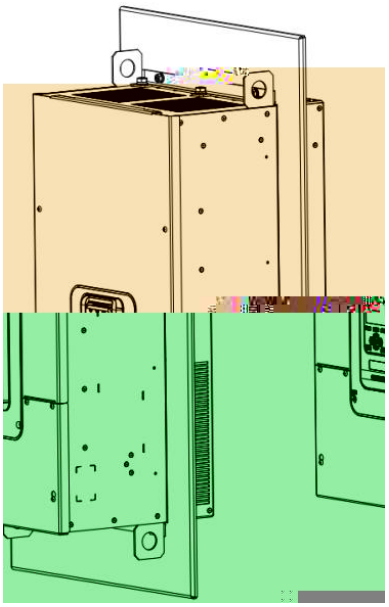
1



2

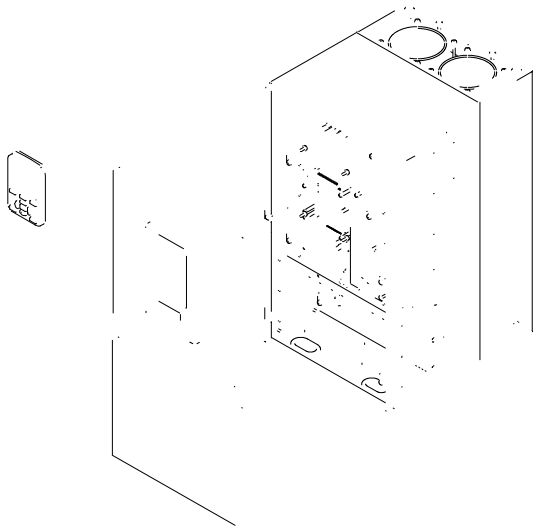




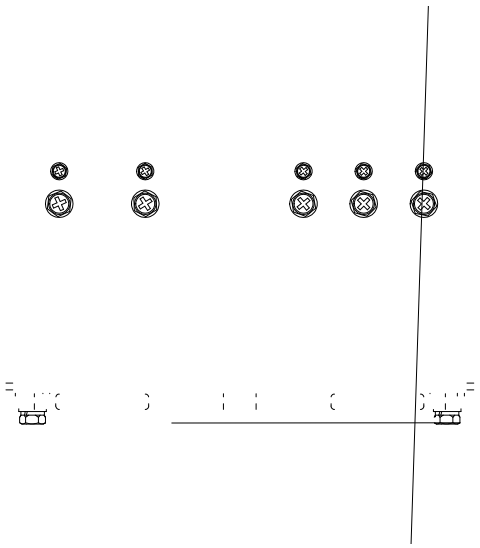


3.2.4

1



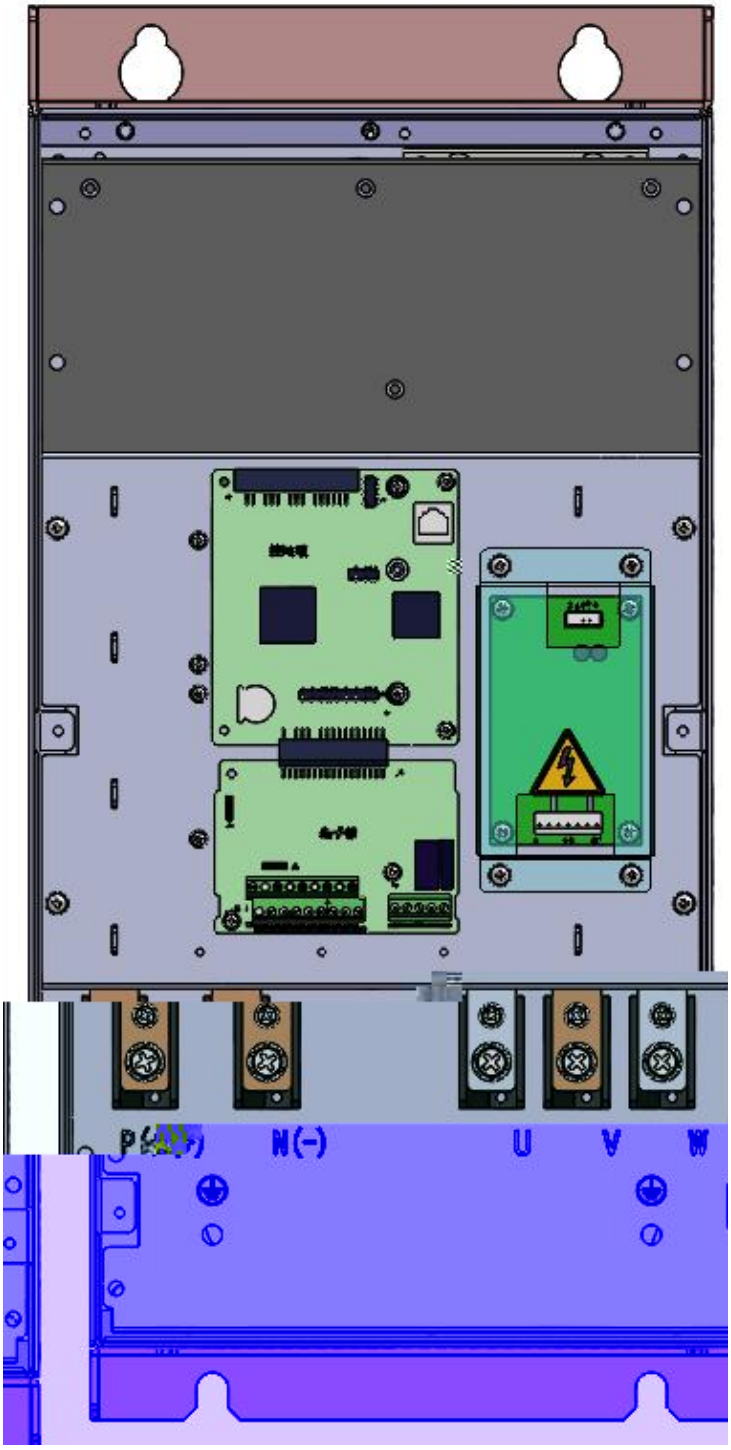
3.3.2

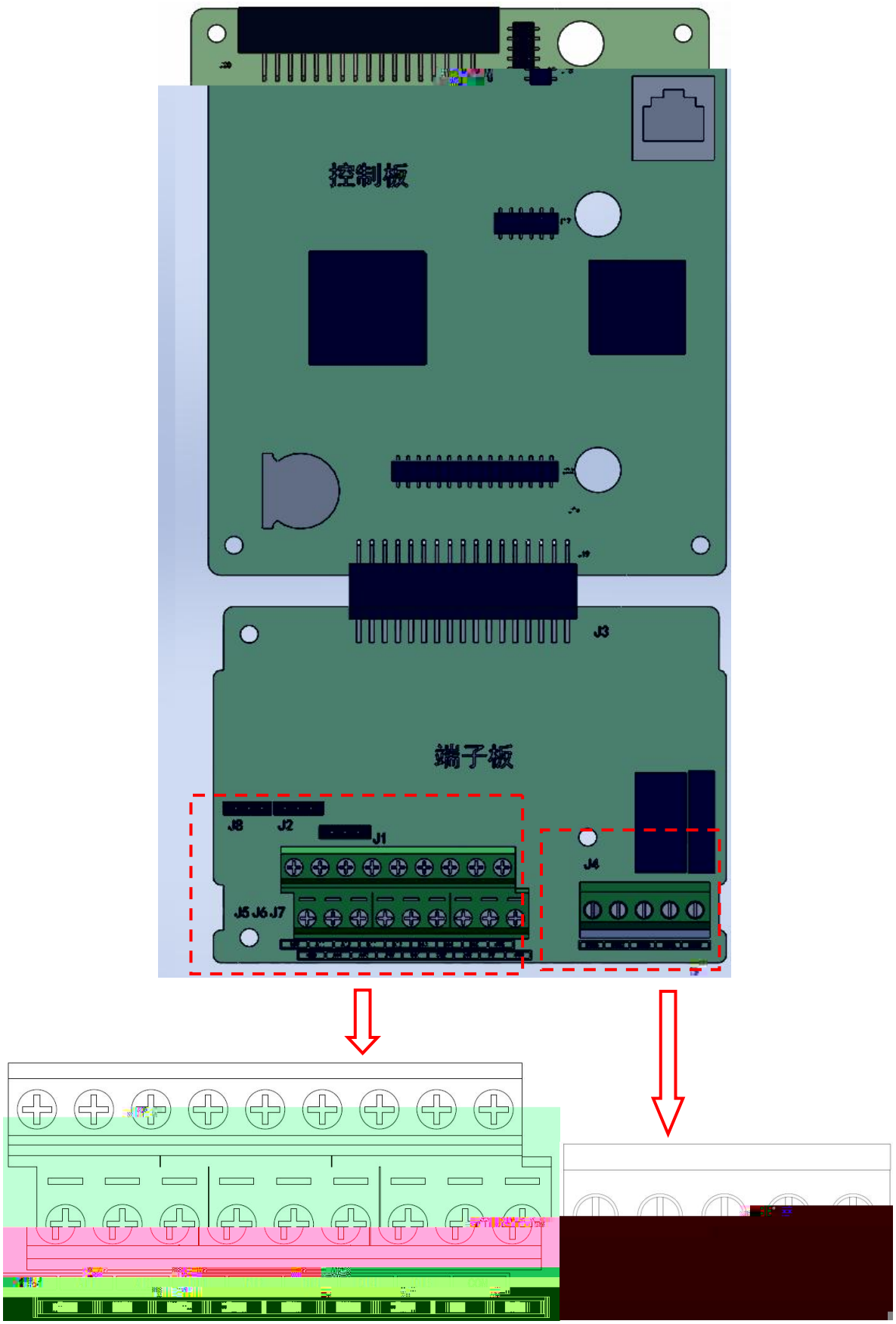


3.3.3

1		
2	10	
3	U V W	
4		
5		
6	LC LC	
7	10cm	
8	0.75mm² 50m	
9	10cm	
10		
11		

3.3.4



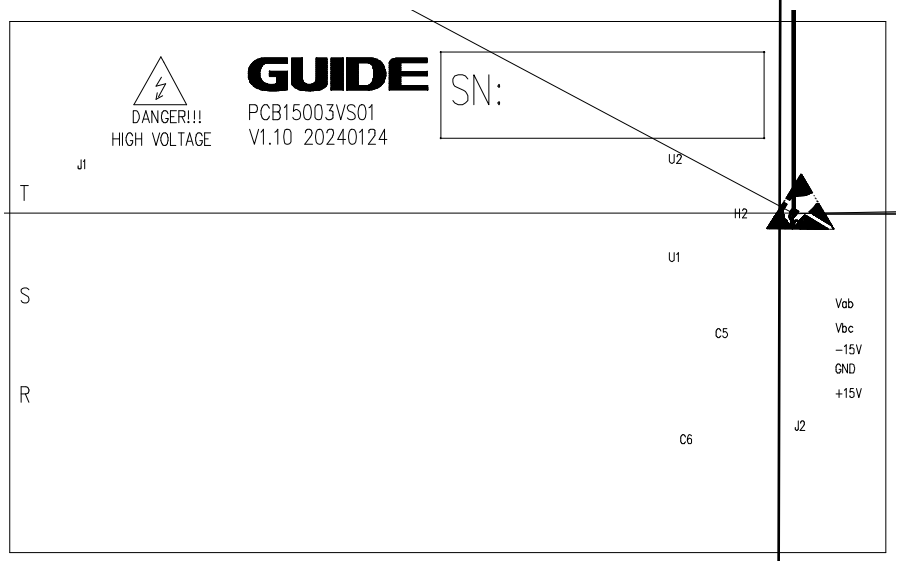

控制板
J3
端子板
J8
J2
J1
J4
J5 J6 J7

	+10V-GND	10V	+10V 50mA 1k Ω~5kΩ
	+24V-COM	24V	+24V 200mA
	PW		24V DI1~DI5 DO1 PW 24V
	AI1-GND	1	DC -10V~10V 100k Ω
	AI2-GND	2	-10VDC~10VDC/0mA~20mA J1 100kΩ 500 Ω
	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
	AO2-GND	2	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 AO2	

	J1	AI2		

3.3.5


DANGER!!!
HIGH VOLTAGE
GUIDE
PCB15003VS01
V1.10 20240124
SN:
J1
T
S
R
U2
H2
U1
C5
C6
J2
Vab
Vbc
−15V
GND
+15V



4.2 P3

P3.0	1		0 41	0	
P3.1	2		0 41	0	
P3.2	3		0 41	0	
P3.3	4		0 41	0	
P3.4	5		0 41	0	
P3.5	6		0 41	0	
P3.6	7		0 41	0	
P3.7	8		0 41	0	
P3.8	9		0 41	0	
P3.9	10		0 41	0	
P3.10	11		0 41	0	
P3.11	12		0 41	0	

0		
1		
5		</RST
17	0	1 0 00
18	1	1 01 2
29	UP	(P24.11)
30	DOWN	(P24.11)
31	UP	0.01Hz
32	DOWN	0.01Hz

4.3 P4

P4.0	1		0 64	0	
P4.1	2		0 64	0	
P4.2	3		0 64	0	
P4.3	4		0 64	0	
P4.4	5		0 64	32	
P4.5	6		0 64	0	
P4.6	7		0 64	0	
P4.16	1		0 500	0	
P4.17	2		0 500	0	
P4.18	3		0 500	0	
P4.19	4		0 500	0	

0		
1		
2		ON
32		2s

4.4 P7

P7.4	[1]	1	0.0 300.0 [%]	235.0 [%]	
P7.5	[2]	2	0.0 300.0 [%]	235.0 [%]	
P7.12			600 1200 [V]	1250 [V]	
P7.13			300 900 [V]	800 [V]	

P7.14			60.0 100.0 [ ]	87.5 [ ]	
P7.15			50.0 100.0 [ ]	80.0 [ ]	
P7.17			0~1200V	1000V	
P7.18			0~1200V	1200V	
P7.35		[0] [1]	0~1	1	
P7.36		[0] [1]	0~1	1	
P7.37		[0] [1]	0~1	1	
P7.38		[0] [1]	0~1	1	
P7.39			0~50s	10s	
P7.40			0~50s	5s	
P7.41			0~50s	10s	
P7.42			0~50s	5s	
P7.43			0~50s	5s	P7.17 P7.18
P7.44			0~50s	2s	
P7.52	A		0~6000A		1.2*1.8*
P7.53	A		0~6000A		1.5*1.8*
P7.59		[0] [1]	0~1	0	
P7.60			0~3s	0.5s	

P7.61			0~600V	350V	
P7.62			0~720V	465V	
P7.67			0~600V	330V	
P7.68			0~720V	485V	
P7.90			0~65 Hz	48 Hz	
P7.91			0~65 Hz	52 Hz	
P7.92			0~65 Hz	45 Hz	
P7.93			0~65 Hz	55 Hz	
P7.94		[0] [1]	0~1	1	

4.5 1 P8

P8.0		[0] [1] [2]DP [3]MODBUS [4]	0 4	0	

P8.10		[0]I/O [1] 1 [2] 2 [3] [4]DP [5]MODBUS [6]	0 6	0	

4.6 2 P9

P9.0		[0] [1] [2]DP [3]MODBUS	0 4	0	
P9.10		[0]I/O [1] 1 [2] 2 [3] [4]DP [5]MODBUS	0 6	0	0 P16.13 1 1 2 . 2 2 1 . 3 104.11 4 DP/PN 5 MODBUS

4.7 V/F P16

.3			320 46 [V]	380 [V]	
P17.4			0.0 6500 [A]	[A]	
P17.11	[0]V/F		0 2	0	0
P17.12			1.00 10.00 [kHz]	3.00 [kHz]	
P17.14 V/F	[0] V/F [1] V/F [2] [3] 4 5		0 5	0	[4] 5
P17.23	V/F		0.00 300.00 [Hz]	0.00 [Hz]	
P17.24	V/F		0.00 300.00 [Hz]	50.00 [Hz]	

P24.10	DROOP	DROOP	0~15V	5V	
P24.11			0~5V	1V	
P24.12	KP	KP	0~1000%	100	
P24.13	KI	KI	0~1000%	100	
P24.18			5~100ms	10ms	
P24.19		0	0~60s	5s	
P24.20		0	0~60s	5s	
P24.23		0	0~10%	5%	100%
P24.29		LC C	0~6500mF	0	

5

1 MODBUS

P2.5	MODBUS ID		Modbus	modbus
P2.6	MODBUS	5	57600BPS	
P2.7	MODBUS	1	RS485	
P3.0	1	1		
P3.1	2	36	Droop	
P3.2	3	31	UP	
P3.3	4	32	DOWN	
P3.4	5	29	UP	
P3.5	6	30	DOWN	
P3.6	7	5		
P4.01	2	1		
P4.03	4	2		
P4.04	5	32		
P8.0		3	Modbus	
P8.10		5	Modbus	
P16.14	V/F	5		
P16.24		52	HZ	
P24.4	DROOP	100	%	
P24.5	DROOP	20	ms	
P24.6	DROOP	0.5	HZ	
P24.8	DROOP	100	%	
P24.9	DROOP	20	ms	
P24.10	DROOP	10	V	
P24.11		0.3	V	
P24.12	KP	100	%	KP
P24.13	KI	100	%	KI

P24.23		5	%	0 100%
P24.29		*	LC C	

2 MODBUS

P2.5	MODBUS ID		Modbus	modbus
P2.6	MODBUS	5	57600BPS	
P2.7	MODBUS	1	RS485	
P3.0	1	1		
P3.1	2	36	Droop	
P3.2	3	31	UP	
P3.3	4	32	DOWN	
P3.4	5	29	UP	
P3.5	6	30	DOWN	
P3.6	7	5		
P4.01	2	1		
P4.03	4	2		
P4.04	5	32		
P8.0		3	Modbus	
P8.10		5	Modbus	
P16.14	V/F	4		
P16.24		52	HZ	
P24.4	DROOP	100	%	
P24.5	DROOP	20	ms	
P24.6	DROOP	0.5	HZ	
P24.8	DROOP	100	%	
P24.9	DROOP	20	ms	
P24.10	DROOP	10	V	

P24.11		0.3	V	
P24.23		5	%	0 100%
P24.29		*	LC C	C

3

P7.35		[0] [1]
P7.36		[0] [1]
P7.37		[0] [1]
P7.38		[0] [1]

1

2

3

4

5.1

W01	SYS_NOT_RDY	(Ready)	
W02	NO_DRV_ENABLE	[ ]	P3

W03	LOCAL_EM	[ ]	P3
W04	REMOTE_EM	[ ]	P3
W06	OT	P7.14( )	
W09	DP P/BALARM	DP	DP
W10	MODBUS MODBUS ALARM	Modbus	Modbus
W15	PARAMETER ERROR		
W27			
W28			
W29			
W30			
W31			
W32			
W33			

5.2

[E052]	U IGBT ERR_UT not reset	IGBT IGBT
[E054]	V IGBT ERR_UT not reset	IGBT IGBT
[E055]	W IGBT ERR_UT not reset	IGBT IGBT
[E100]	OV	
[E105]	UV	P7.13( )
[E110]	OC	P7.4( )
[E120]	IGBT OT	
[E140]	LineUV	
[E145]		
[E147]		
[E148]		
[E149]		

[E152]	U IGBT PDP[U]	IGBT IGBT
[E154]	V IGBT PDP[V]	IGBT IGBT
[E155]	W IGBT PDP[W]	IGBT IGBT
[E156]	Hardware OC	
[E180]	DP P/B ERROR	
[E181]	DP P/B_EM	CW0.4
[E200]	LOCAL_EM	[ ] P3
[E201]	REMOTE_EM	[ ] P3
[E202]	Modbus MODBUS EMERGENCY	Modbus CW0.4
[E203]	DRIVE DISABLED	DP
[E204]	DI ERR DUPLICATE DI SET	DI
[E210]	Panel Error	
[E220]	CRC MEMORY CRC ERR	
[E221]	PARAMETER ERROR	

5.3

	• • ON	• • ON
	•	• • •
	•	• •
	•	•

6

1.

2.

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4.

1.=¥ŸU @ñ2 C Wb!p CMOS

2.

6.2

	1. 2.	1. > 40 < 95% 2.
	1. 2.	1. 2.
	1. 2. 3.	1. 2. 3.
	1. 2.	1. 2.

6.3

	2	1 2
PCB		

6.4

5

5

(400-0077-570)

1 40

2 80%

3 24 /

6.5

1

2

5

1

2

3