HF680N-6

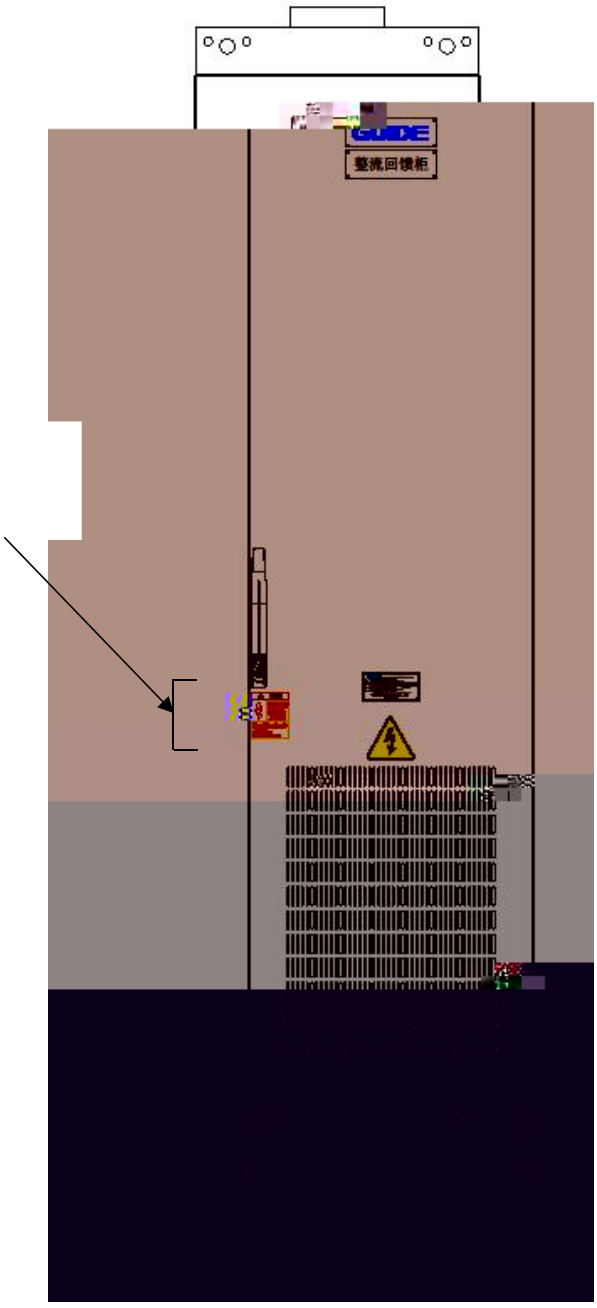
V1.00

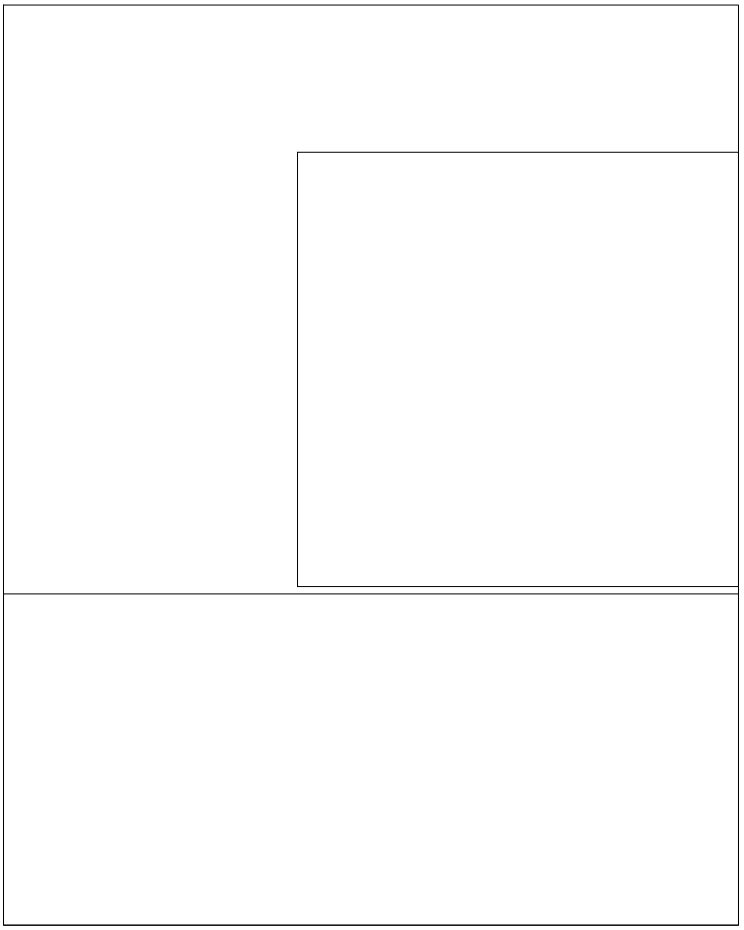
Wuhan Guide Technology Co.,Ltd.

HF680N

1

HF680N02C-630-6





1.2

(1)

(2)

(3)

1.3

2.

2.1

HF680N 690V LCL

6

*

2.2

1

AFE

V/F

2

		PID
		/
		/
		/
		/

2.3

GDHF-ADPX1 DP Profibus

DP GDHF-ADPX1 HF680N02M HF680N03M

GDHF-APGX1 PG

PG GDHF-APGX1 HF680N03M DHF ä " ˙

GDHF680N4MFB3 HF680N

GDHF680N4MFB3 1200kW

2

2.4.2

-
- -15 +40 +40 +50 1
  2% 50
- 95%RH
-
-
-
-
-
- 1000 1000 100 1%
  3000

2.4.3

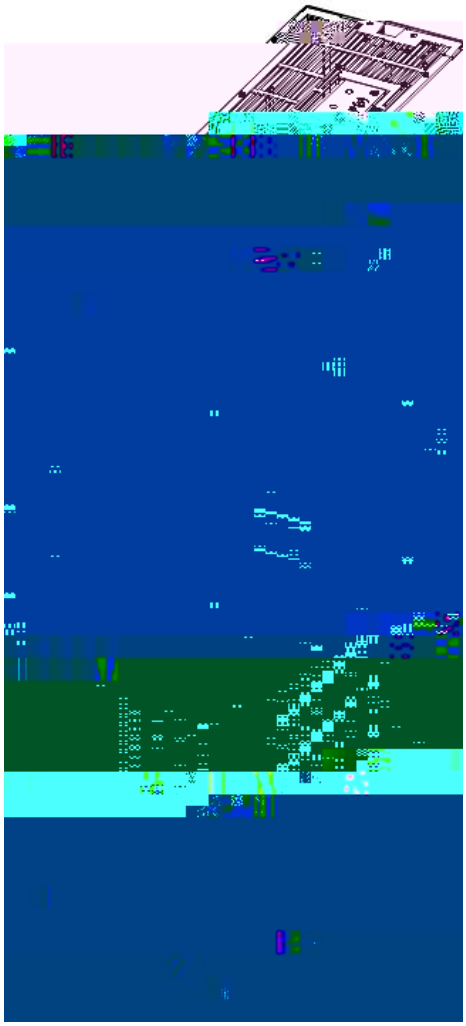
	A ≥ 200mm B ≥ 50mm

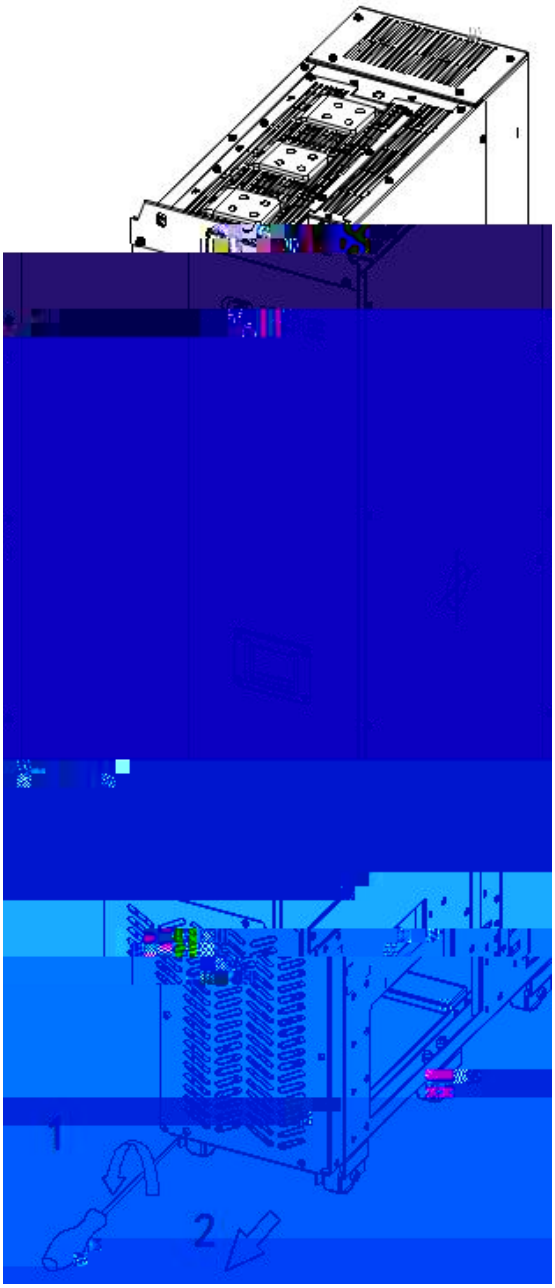
50mm

2.4.4

1 1

2 2





LCL

3.

3.1

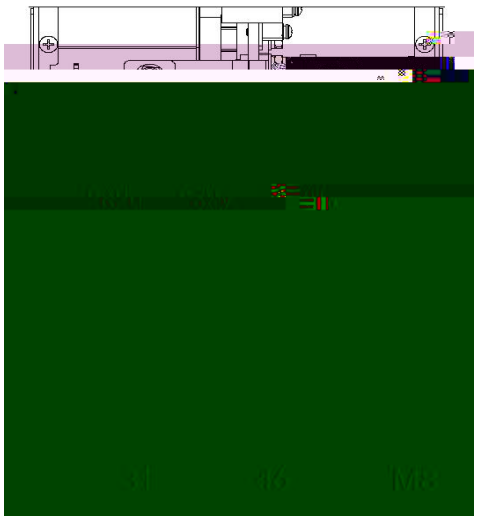
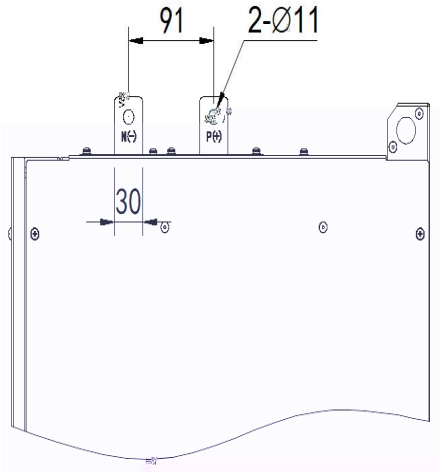
LCL

LCL

3.2

1

P +	
N -	
R/U S/V T/W	

B4	
	

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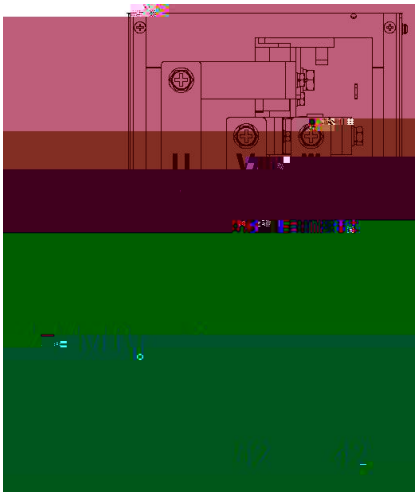
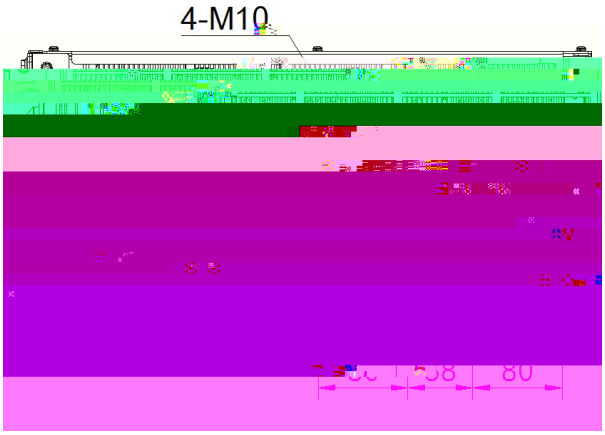
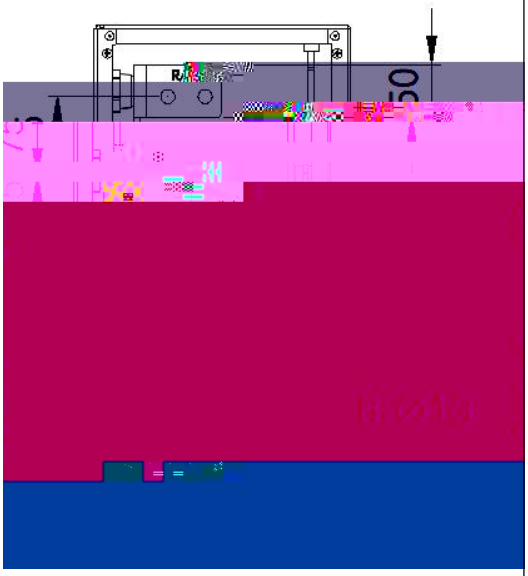
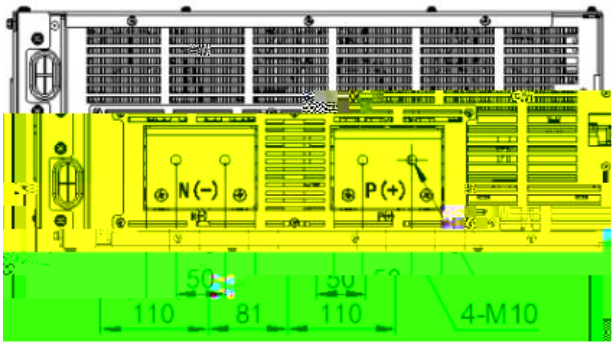
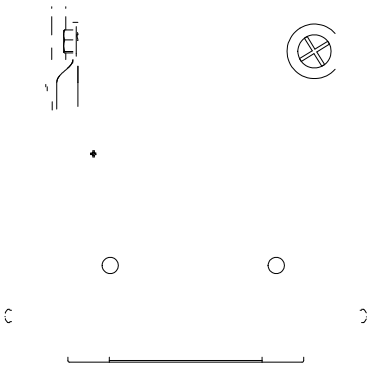
	
B7	
	

2 LCL

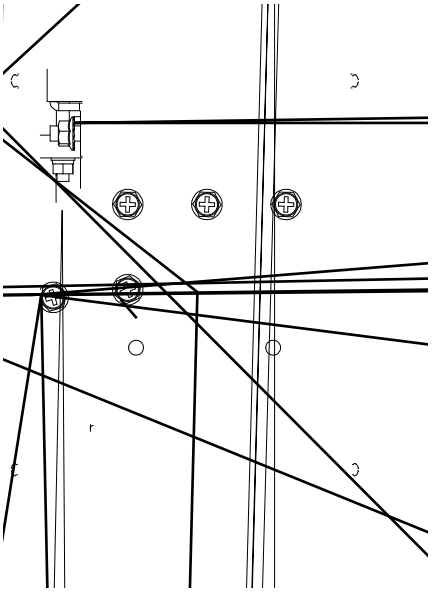
B4 B5 LCL

R S T	LCL
	LCL

B4 LCL



B5 LCL



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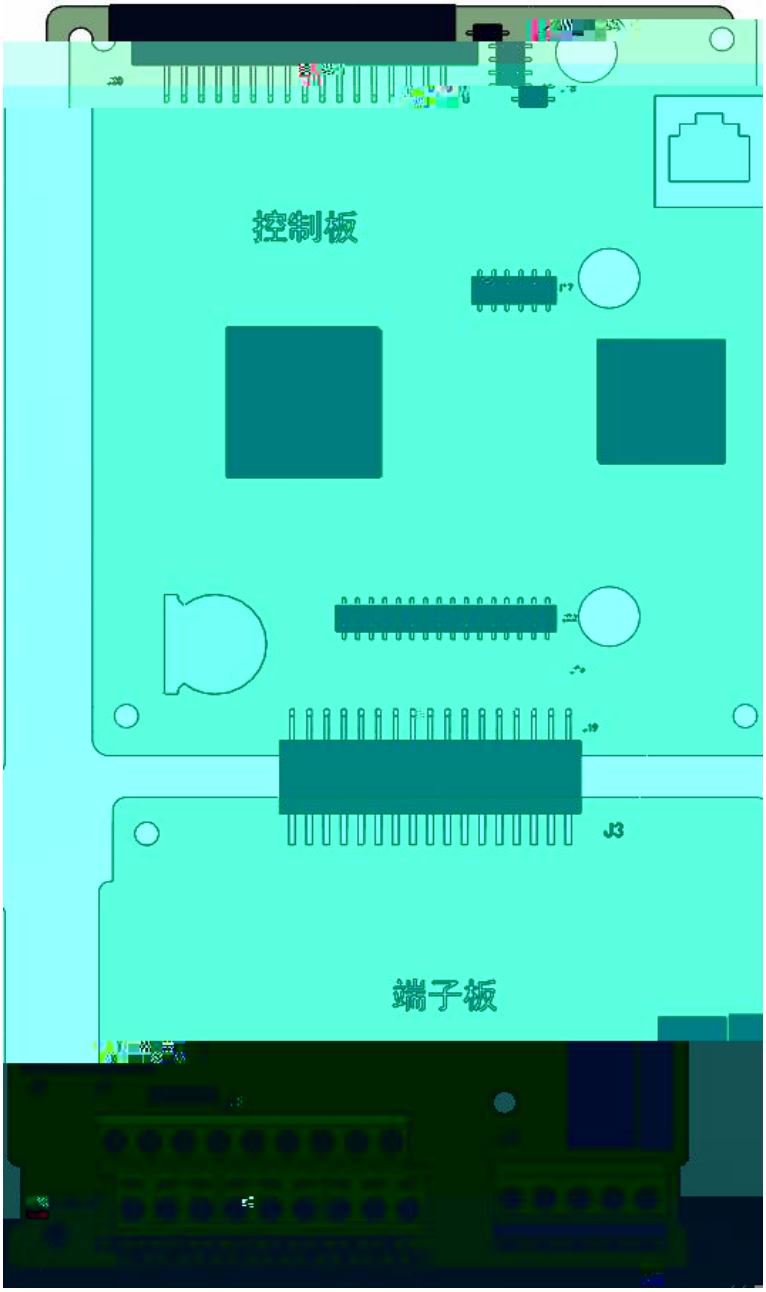
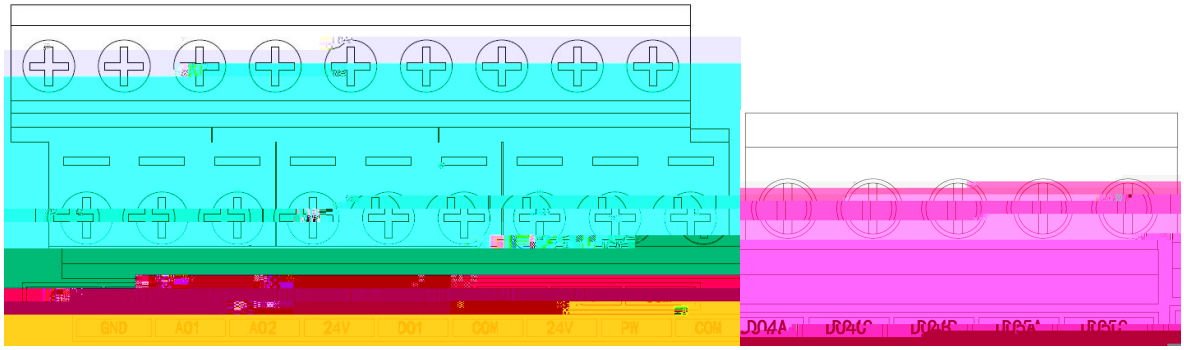
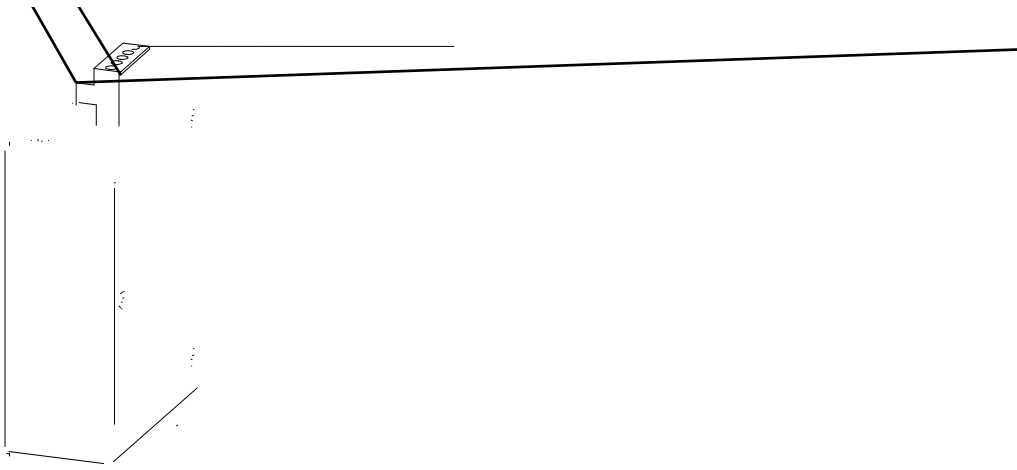
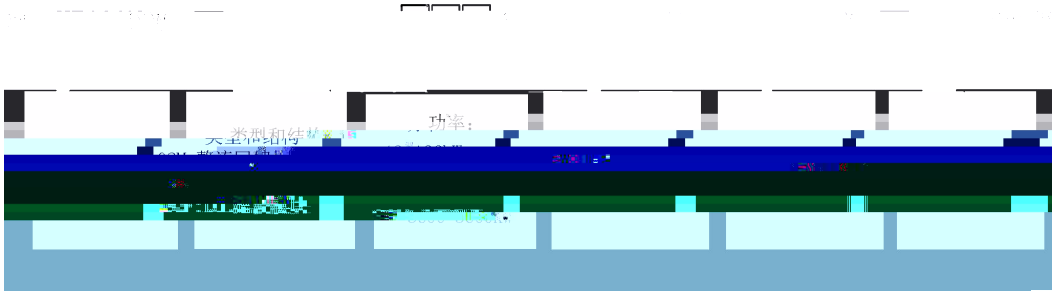




+10V-GND	10V	+10V 50mA 1kΩ~5kΩ
+24V-COM	24V	+24V 200mA
PW		24V DI1~DI5 DO1 PW 24V
AI1-GND	1	DC -10V~10V 100kΩ
AI2-GND	2 J1	-10VDC~10VDC/0mA~20mA 100kΩ 500Ω
DI1- PW	1	
DI2- PW	2	3.3kΩ
DI3- PW	3	9V~30V DI1-DI4
DI4- PW	4	500Hz DI5 20KHz
DI5- PW	5	
AO1-GND	1	J2 0V~10V 0mA~20mA
AO2-GND	2	J8 0V~10V 0mA~20mA
DO1-COM	1	0V~24V 0mA~50mA



3.3



A	
B	02M 02C 02F LCL
C	132 132kW 2400 2400kW
D	6 690V
E	TL 12
F	

MB01	Modbus RTU	DP01	Profibus DP
PN01	Profinet	CAN01	CANopen

Z1/	100mm
Z2	200mm
Z3	250mm
Z4	300mm

HF680N02C-400-6 HF680N02C-400-6+Z1 400kW

100mm

1050V

690V	Iac[A]					
		Idc[A]	Pdc[kW]	Idc[A]	Pdc[kW]	
HF680N02M-132-6	115	152	160	126	132	B4
HF680N02M-160-6	139	238	250	152	160	
HF680N02M-250-6	218	300	315	238	250	B5
HF680N02M-315-6	274	381	400	300	315	B7
HF680N02M-400-6	349	476	500	381	400	
HF680N02M-500-6	436	533	560	476	500	
HF680N02M-560-6	488	600	630	533	560	
HF680N02M-630-6	549	676	710	600	630	
HF680N02C-315-6	274	381	400	300	315	B7
HF680N02C-400-6	349	476	500	381	400	
HF680N02C-560-6	488	600	630	533	560	
HF680N02C-630-6	549	676	710	600	630	
HF680N02C-800-6	697	1143	1200	762	800	2*B7
HF680N02C-1200-6 HF680N02C-1200-6-TL	1046	1714	1800	1143	1200	
HF680N02C-1800-6	1568	1905	2000	1714	1800	3*B7
HF680N02C-2000-6	1743	2286	2400	1905	2000	4*B7
HF680N02C-2400-6 HF680N02C-2400-6-TL	2091	2857	3000	2286	2400	
HF680N02C-3000-6	2614	3429	3600	2857	3000	5*B7
HF680N02C-3600-6 HF680N02C-3600-6-TL	3137	3619	3800	3429	3600	6*B7

1 HF680N02M

2 HF680N02M

3 HF680N02M B7 8uH

4 B7

3.4

3.4.1 LCL

	LCL
HF680N02M-160-6	GDHF680N02F-160-6
HF680N02M-250-6	GDHF680N02F-250-6
HF680N02M-315-6	GDHF680N02F-400-6
HF680N02M-400-6	GDHF680N02F-400-6
HF680N02M-500-6	GDHF680N02F-630-6
HF680N02M-560-6	GDHF680N02F-630-6
HF680N02M-630-6	GDHF680N02F-630-6

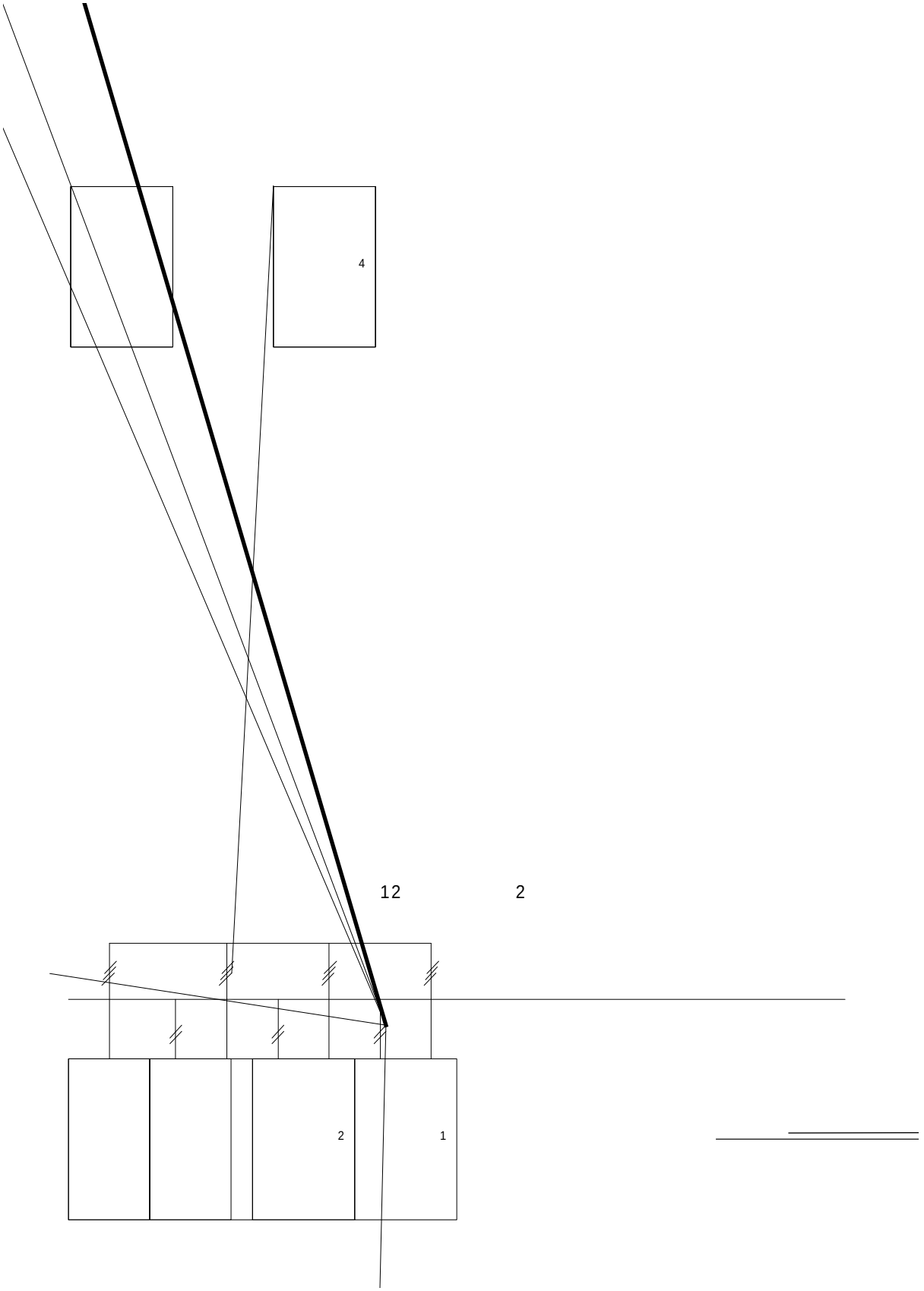
1.630kW LCL

3.4.2

630-2000KW	3×5R/400W	100A/1800V	63A	38A
2500-6300KW	3×2.5R/800W	100A/1800V	63A	38A

3.5

HF680N02M-6


4
12
2
2
1

		mm²	mm²	A	A
HF680N02M-132-6	115	25	35	160	160
HF680N02M-160-6	139	35	50	200	200
HF680N02M-250-6	218	70	95	315	315
HF680N02M-315-6	274	95	120	350	400
HF680N02M-400-6	349	2 × 50 150	2 × 70 185	500	500
HF680N02M-500-6	436	2 × 70 240	2 × 95 240	630	630
HF680N02M-560-6	488	2 × 95 240	2 × 95 300	630	700
HF680N02M-630-6	549	2 × 95 300	2 × 120	700	800

6	HF680N15C-630-6	HF680N02C-400-6	1
6	HF680N15C-630-6	HF680N02C-560-6	1
6	HF680N15C-630-6	HF680N02C-630-6	1
6	HF680N15C-800-6	HF680N02C-800-6	1
6	HF680N15C-1600-6	HF680N02C-1200-6	1
6	HF680N15C-2000-6	HF680N02C-1800-6	1
6	HF680N15C-2000-6	HF680N02C-2000-6	1
6	HF680N15C-2500-6	HF680N02C-2400-6	1
6	HF680N15C-3200-6	HF680N02C-3000-6	1

6	HF680N15C-4000-6	HF680N02C-3600-6	1
12	HF680N15C-1600-6-TL	HF680N02C-1200-6-TL	1
12	HF680N15C-2500-6-TL	HF680N02C-2400-6-TL	1
12	HF680N15C-4000-6-TL	HF680N02C-3600-6-TL	1

3.6

660V 690V

50 / 60Hz

-15% +10%

<AC530V 15ms

AFE

0.999

3%

150% 5 1

12 ע $

3.7

+ LCL		(kW)
HF680N02M-160-6 + GDHF680N02F-160-6	B4	4.6
HF680N02M-250-6 + GDHF680N02F-250-6	B5	7.3
HF680N02M-315-6 + GDHF680N02F-400-6	B7	8.8
HF680N02M-400-6 + GDHF680N02F-400-6		11.2
HF680N02M-500-6 + GDHF680N02F-630-6		14.0
HF680N02M-560-6 + GDHF680N02F-630-6		15.7
HF680N02M-630-6 + GDHF680N02F-630-6		17.6

3.8

(1) IGBT

(2) 50%

(3) 0.999

(4) 3% GB/T 24337-2009

(5) 660V 690V -15% +10%

(6) DP PN

(7)

(8) 132kW 4000kW

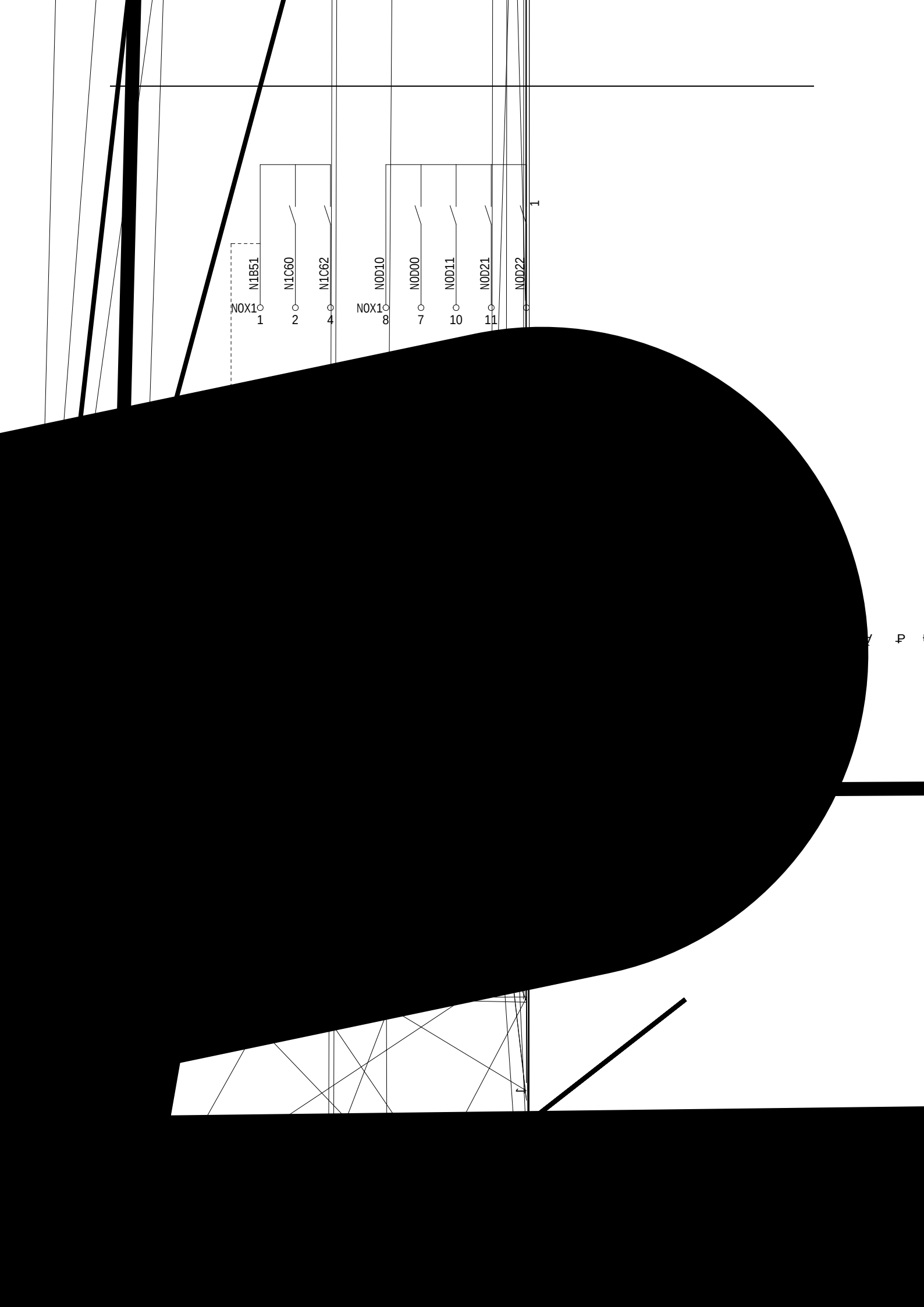
3.9 6

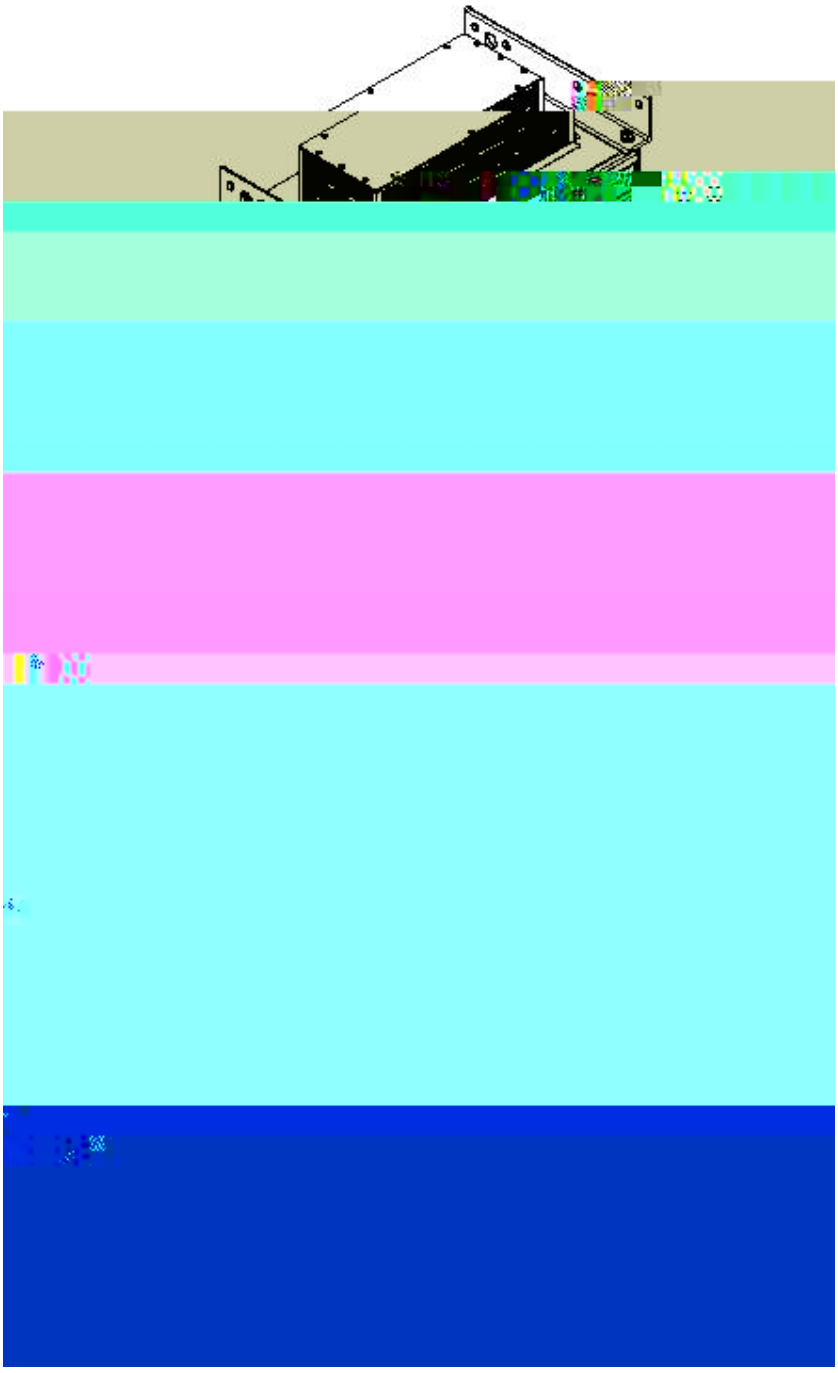
1

A 6

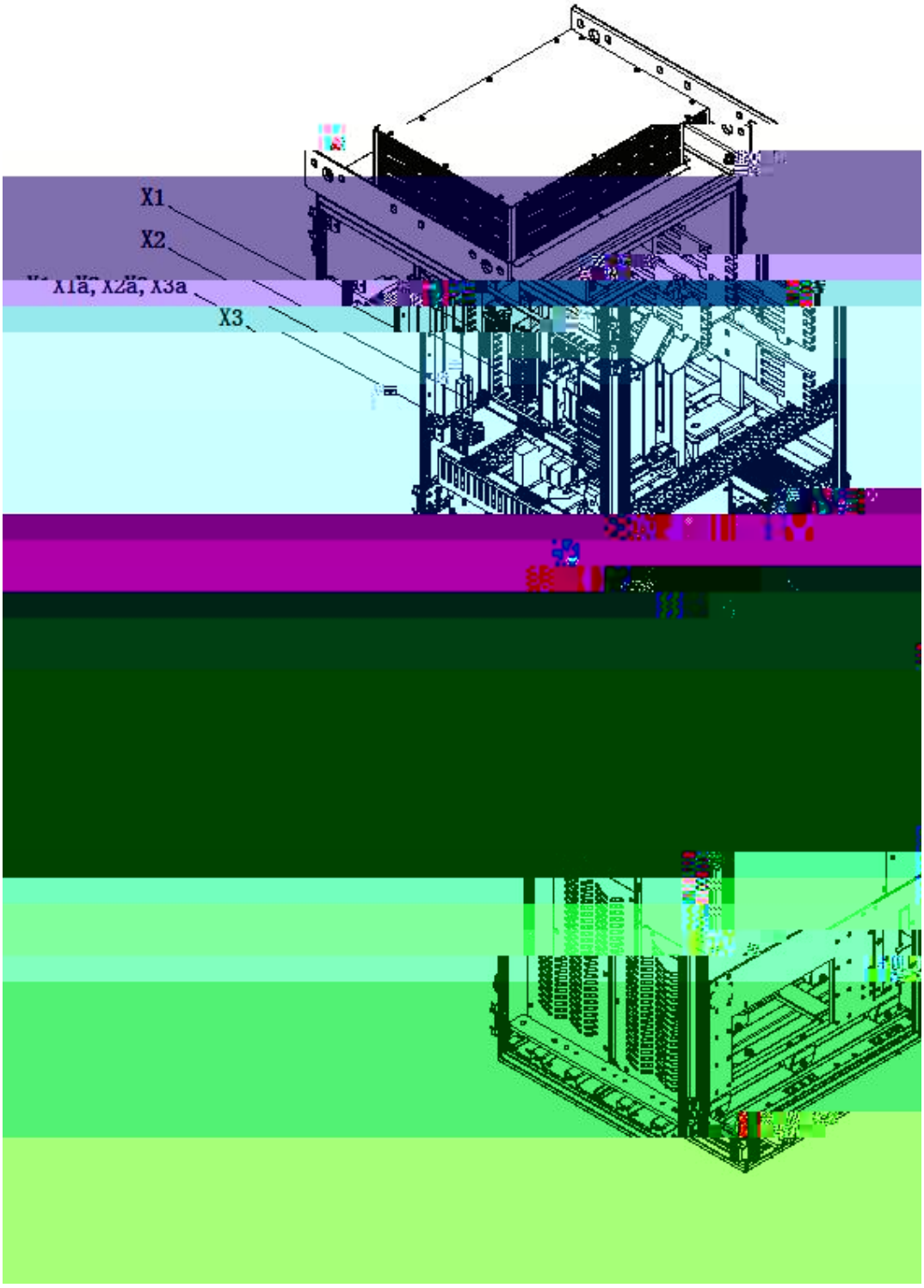
序号 乡

N1×1


N1B51
N1C60
N1C62
N0D10
N0D00
N0D11
N0D21
N0D22
N0X1
1
2
4
N0X1
8
7
10
11
1



a



1 ( ) b

4.

4.1

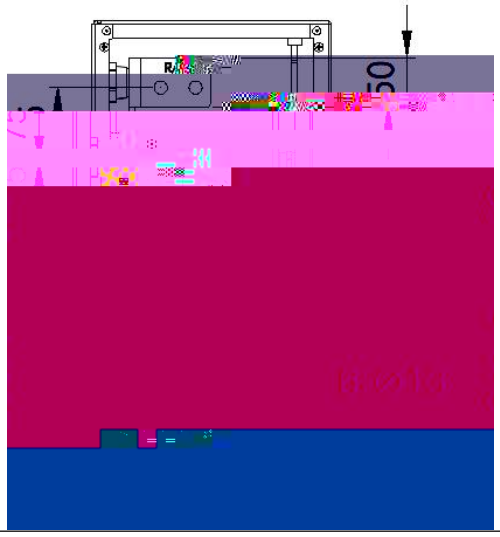
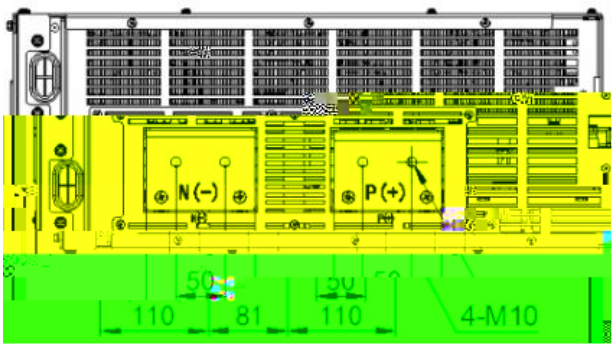
L

L

4.2

1

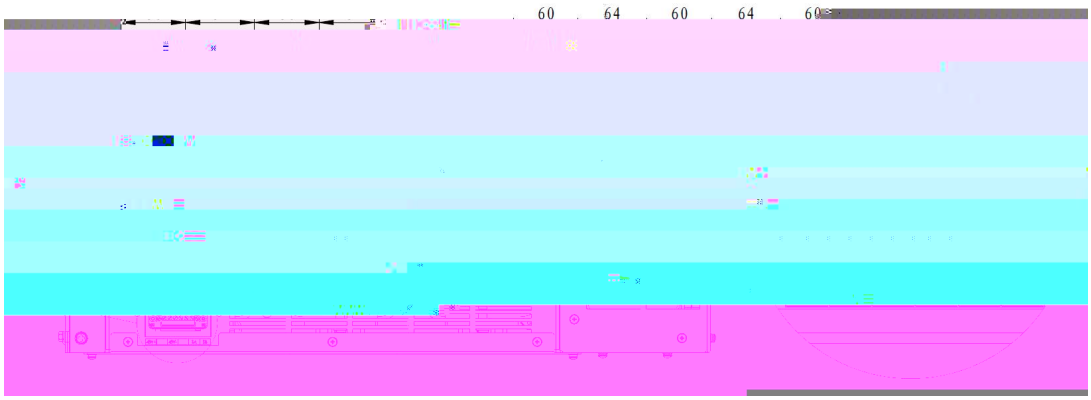
P +	
N -	
R/U S/V T/W	

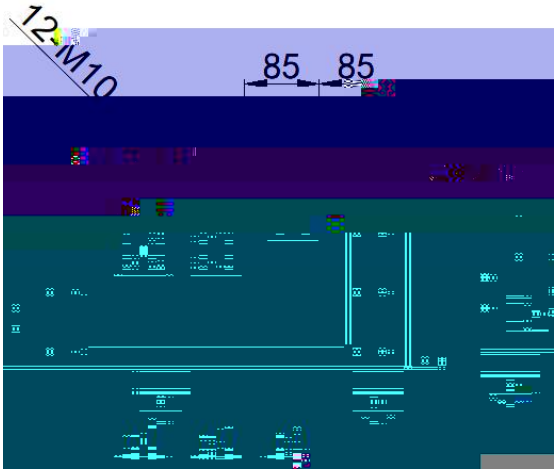
B7	
	

2 L

R S T	L
	L
48V+ 48V-	L
SA SB	L

B7 L





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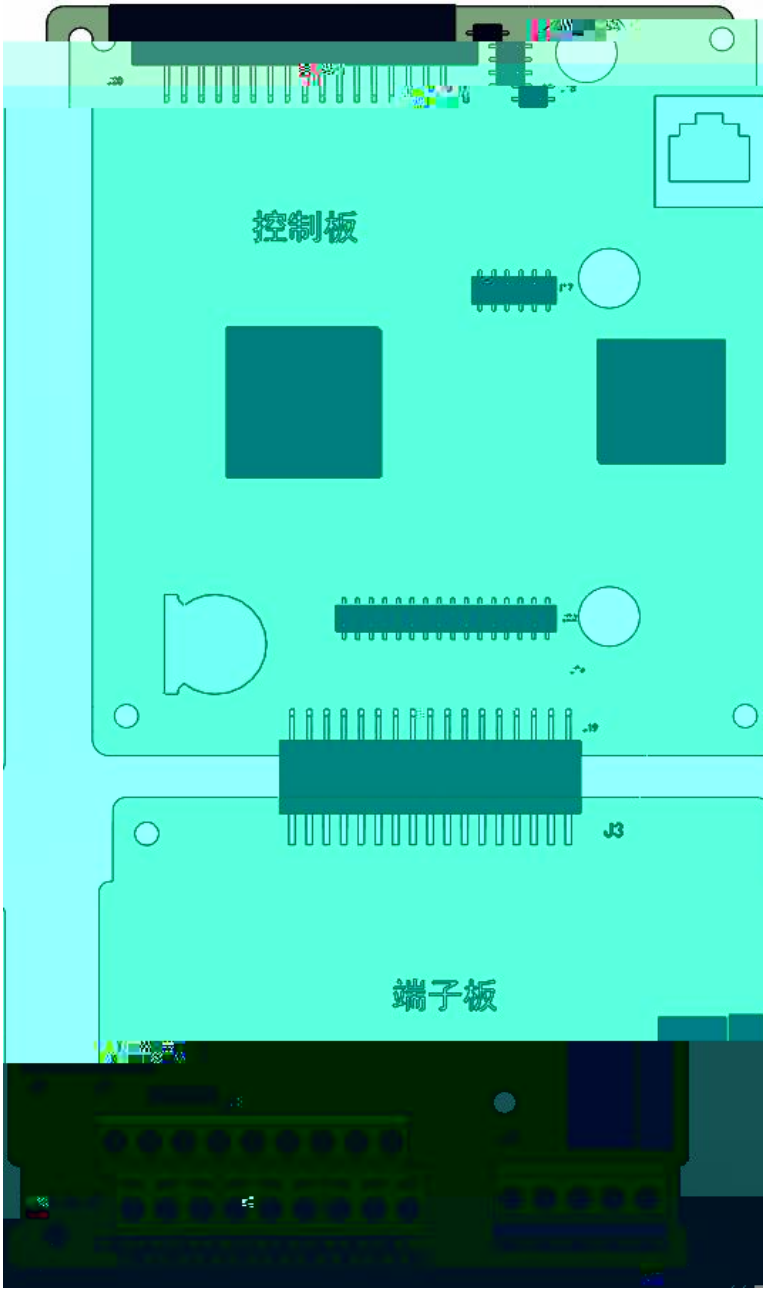
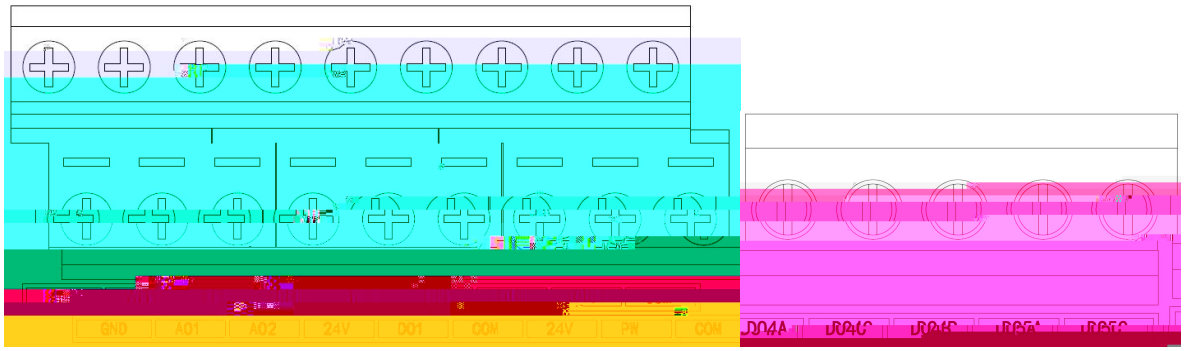




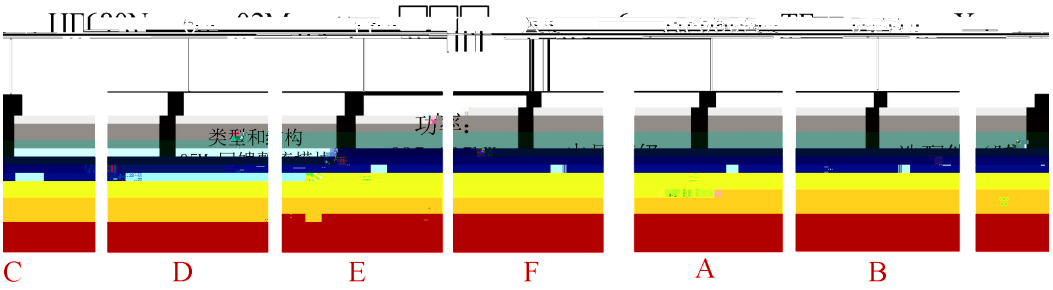
+10V-GND	10V	+10V 50mA 1kΩ~5kΩ
+24V-COM	24V	+24V 200mA
PW		24V DI1~DI5 DO1 PW 24V
AI1-GND	1	DC -10V~10V 100kΩ
AI2-GND	2	-10VDC~10VDC/0mA~20mA J1 100kΩ 500Ω

DI1- PW	1
DI2- PW	2
DI3- PW	3
DI4- PW	4
DI5- PW	5

3.3kΩ
9V~30V DI1-DI4
500Hz DI5 20KHz

AO1-GND	1	J2 0V~10V 0mA~20mA
AO2-GND	2	J8 0V~10V 0mA~20mA
DO1-COM	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

4.3



A

B 05

1 HF680N05M
2 HF680N05M

3 HF680N05M B7 8uH
4 B7

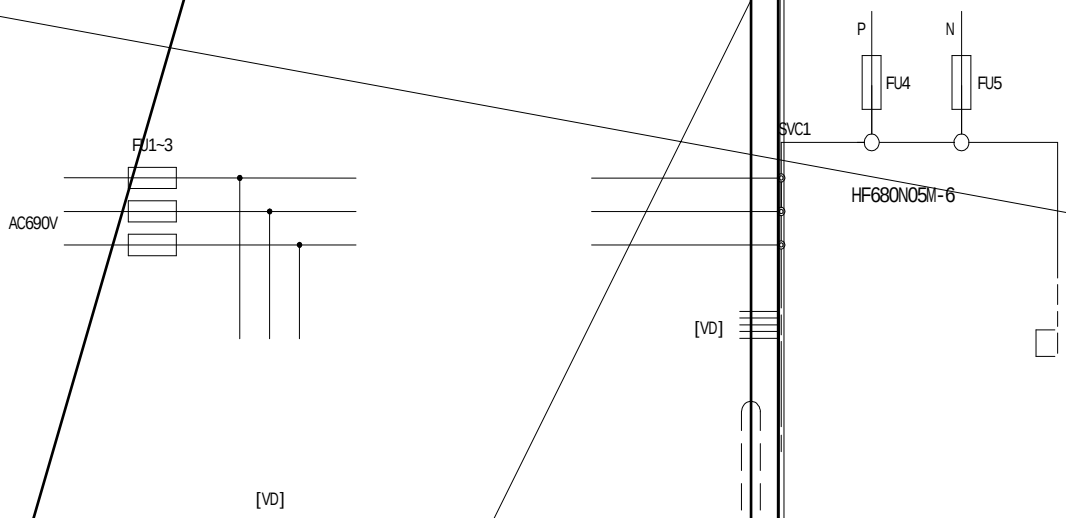
4.4

4.4.1 L

	L
HF680N05M-685-6	HF680N02F-685-6
HF680N05M-1030-6	HF680N02F-1030-6

1.1030kW L

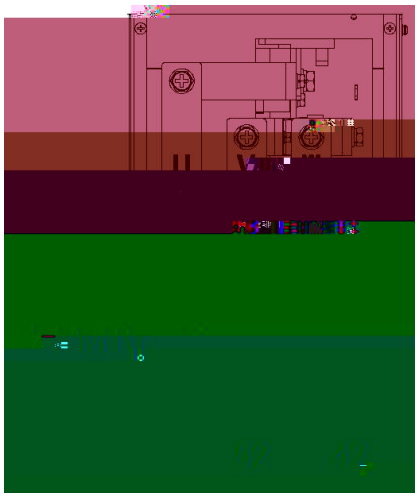
4.5

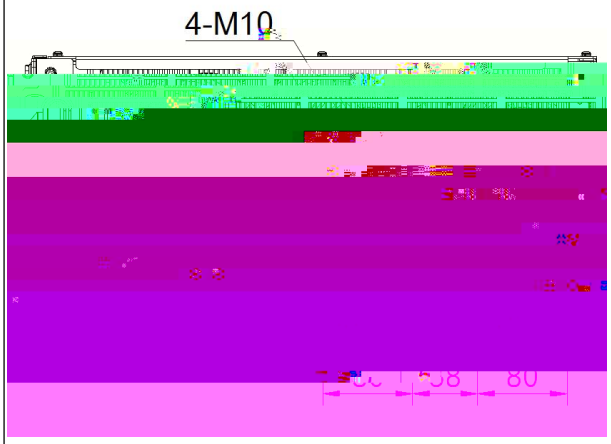


4.6

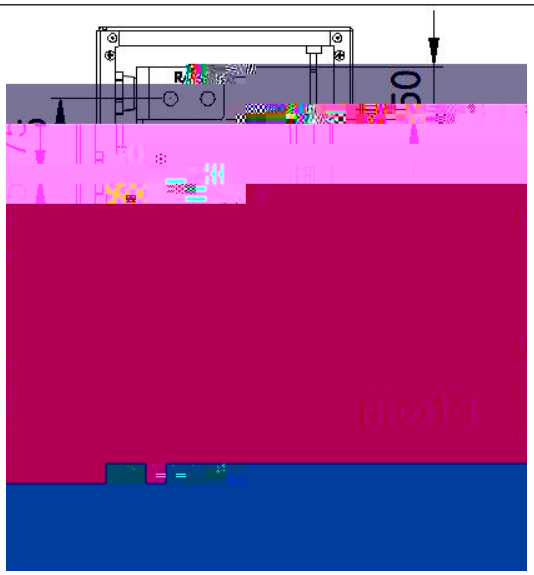
	660V 690V		
50 / 60Hz			
-15% +10%			
	<AC530V 15ms		
	0.95		
		150% 5	1
		180% 5	1
740V 975V			

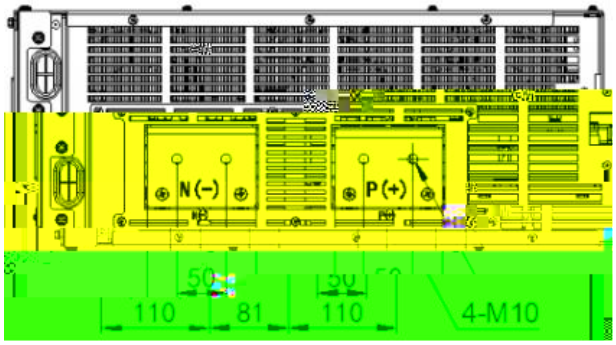
B5

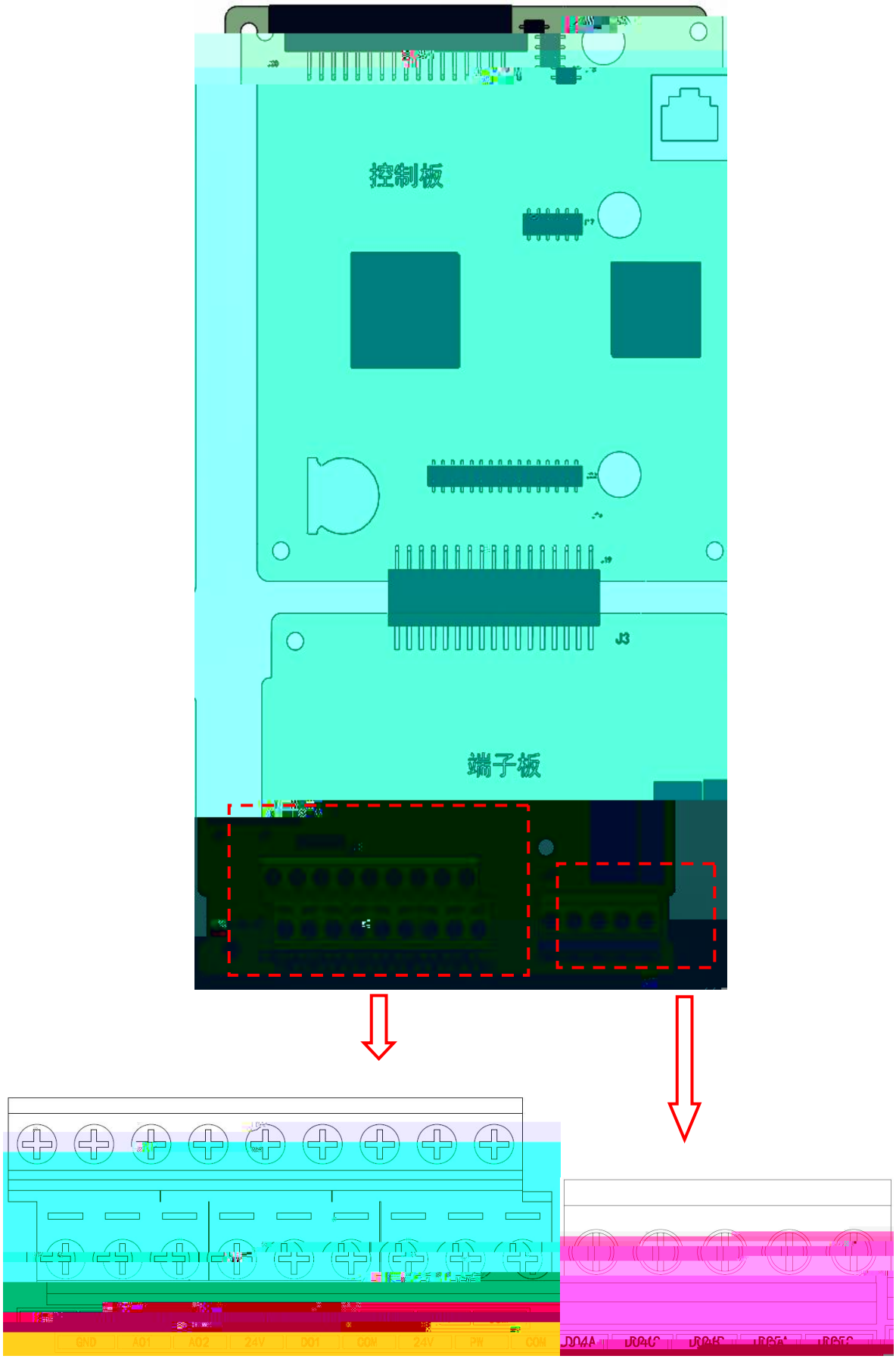




B7



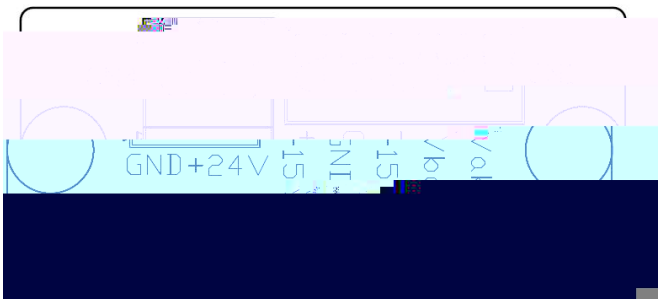



控制板
J3
端子板

	+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
	AO2-GND	2	J8 0V~10V 0mA~20mA
	DO1-COM	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

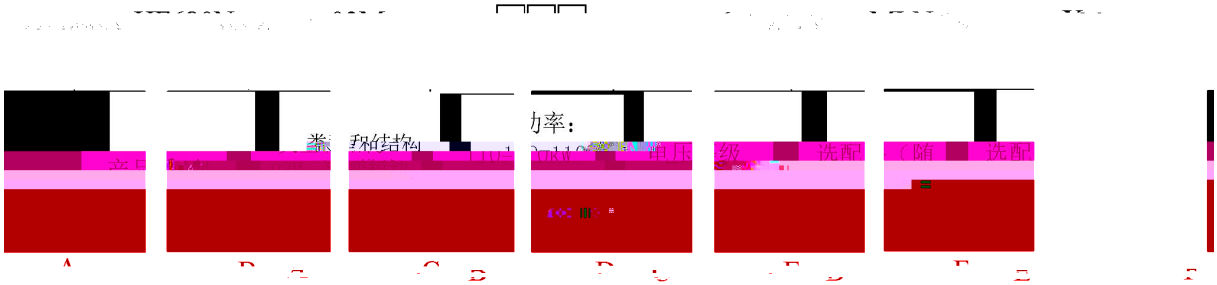
	J1	AI2	
	J2	AO1	
	J8	AO2	

3



DC+24V	CN4	+24V-GND	
	CN1		+15 -15 GND Vab Vac

5.3



A	
B	03M 03C
C	110 110kW 2000 2000kW
D	6 690V
E	MLN
F	

MB01	Modbus RTU	DP01	Profibus DP
PN01	Profinet	CAN01	CANopen
PG02			
STO	STO		

HF680N03M-250-6	290	250	230	200	
HF680N03M-315-6	355	315	295	250	
HF680N03M-355-6	390	355	358	315	
HF680N03M-400-6	420	400	395	355	
HF680N03M-450-6	472	450	425	400	B7
HF680N03M-500-6	545	500	477	450	
HF680N03M-560-6	600	560	548	500	
HF680N03M-630-6	675	630	605	560	
HF680N03M-710-6	735	710	678	630	
HF680N03M-315-6-MLN	355	315	295	250	
HF680N03M-355-6-MLN	390	355	358	315	
HF680N03M-400-6-MLN	420	400	395	355	
HF680N03M-450-6-MLN	472	450	425	400	B7A
HF680N03M-500-6-MLN	545	500	477	450	
HF680N03M-560-6-MLN	600	560	548	500	
HF680N03M-630-6-MLN	675	630	605	560	
HF680N03M-710-6-MLN	735	710	678	630	
HF680N03C-800-6	832	800	735	710	
HF680N03C-900-6	944	900	832	800	B7*2
HF680N03C-1000-6	1060	1000	944	900	
HF680N03C-1200-6	1292	1200	1060	1000	

HF680N03C-1600-6	1720	1600	1480	1400	B7*3
HF680N03C-1800-6	1858	1800	1730	1600	
HF680N03C-2000-6	2065	2000	1868	1800	

1. B7 8uH B7A

2. B7 B7A

3. 710KW 1400KW 2000KW 5 1 110%

5.4

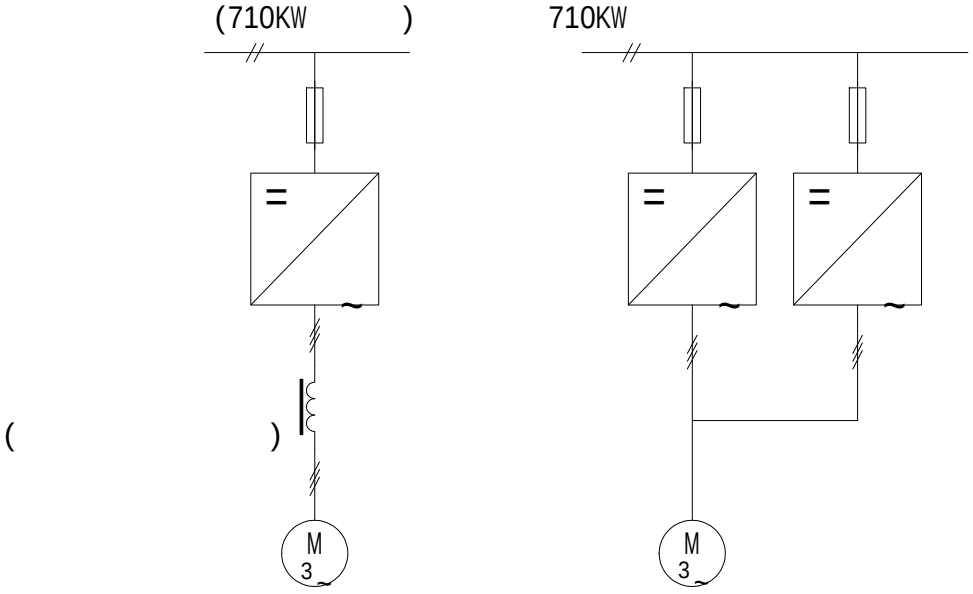
690V

HF680N03M-500-6 HF680N03M-500-6-MLN	545	0.020
HF680N03M-560-6 HF680N03M-560-6-MLN	600	0.020
HF680N03M-630-6 HF680N03M-630-6-MLN	675	0.020
HF680N03M-710-6 HF680N03M-710-6-MLN	735	0.016

(B7)

(710KW)

710KW



( )

HF680N03M-560-6	2×95	800
HF680N03M-630-6	3×70/2×120	900
HF680N03M-710-6	3×95/2×150	1000

1. 710kW

2. HF680N

5.6

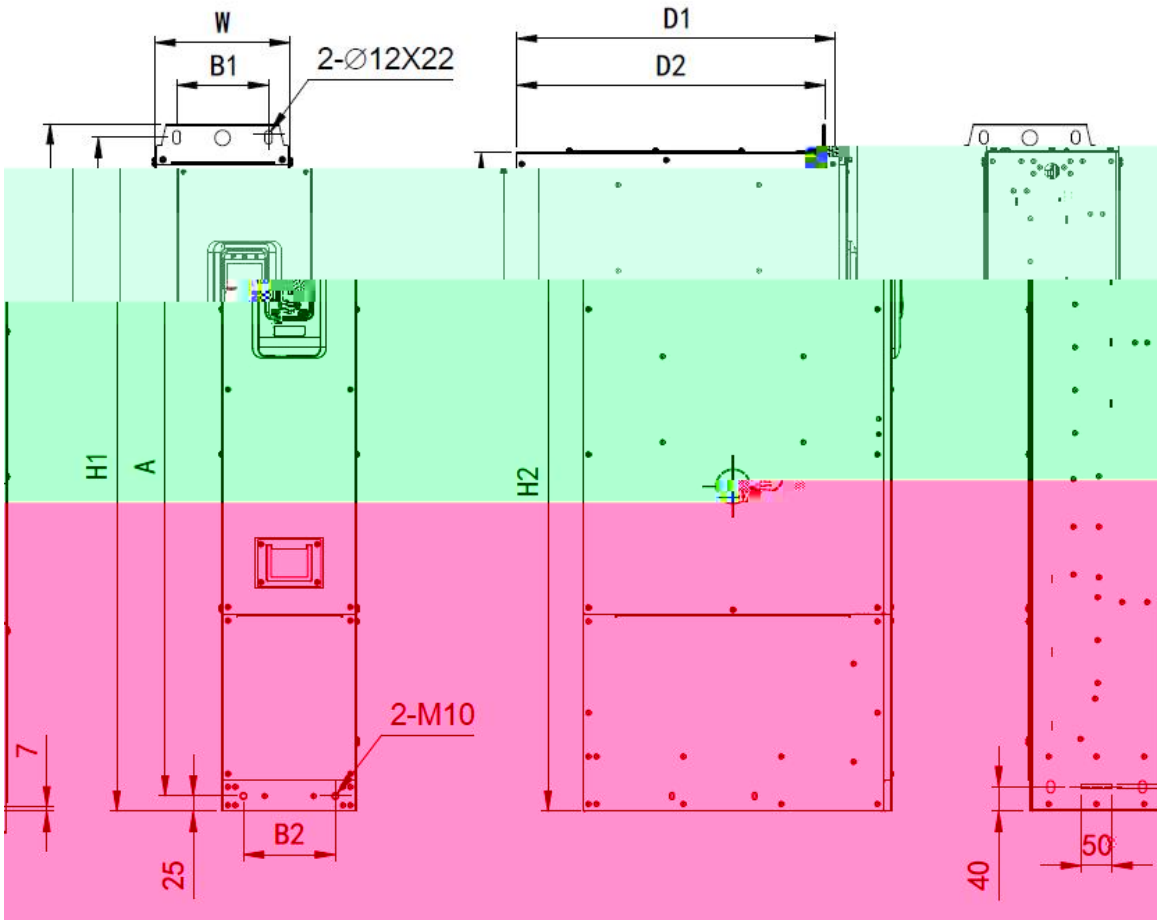
		800V 1150V
		(VC) (SVC) V/F
		Profibus DP
		660V 690V 5%
		0 300Hz
		0Hz/200%(VC SVC) 0.8Hz/150%(V/F)
		1kHz 10kHz
		150% 5 1 180% 5 1

5.7

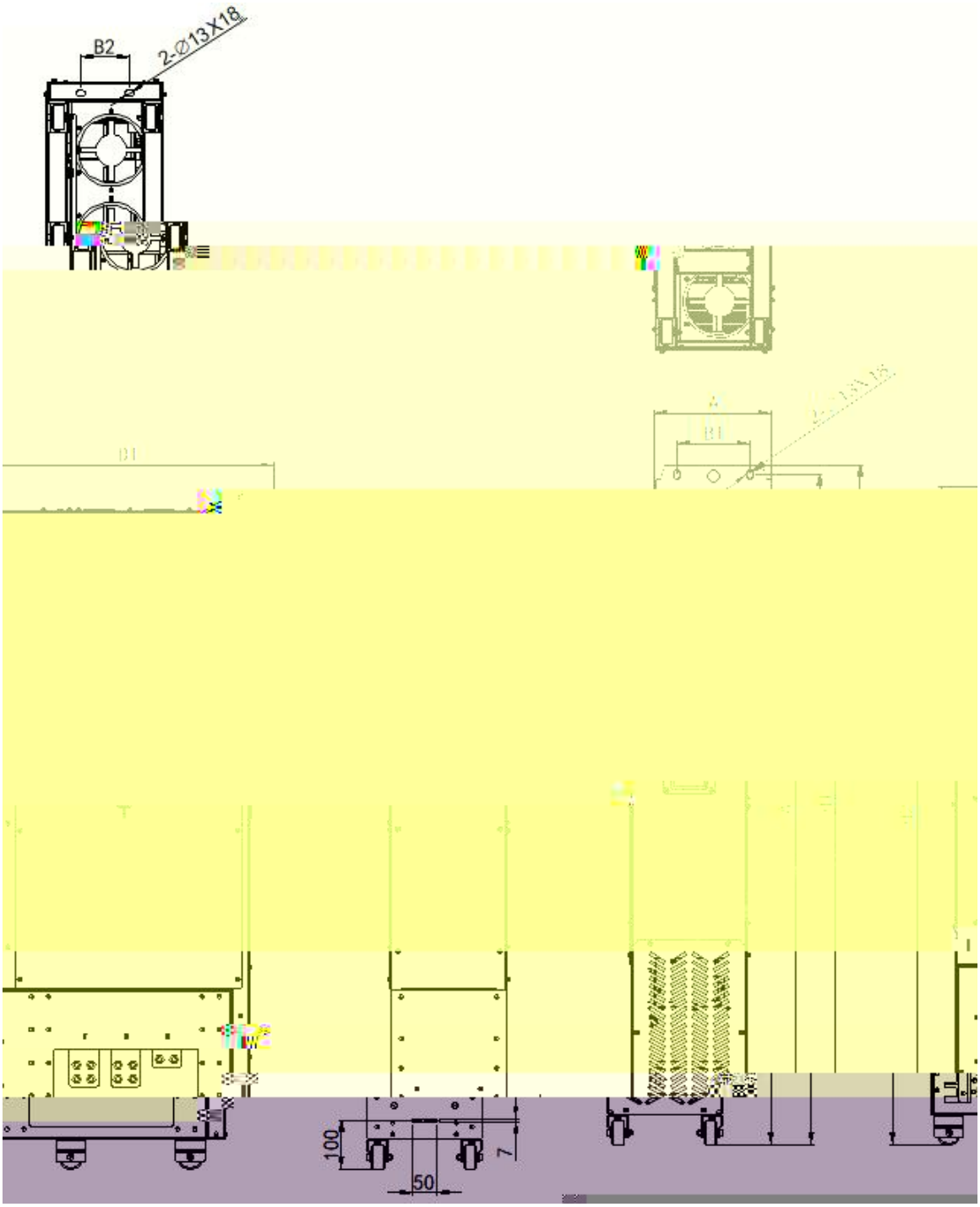
HF680N03M-110-6	B4	1.76	HF680N03M-630-6	B7	10.71
HF680N03M-132-6		2.11	HF680N03M-710-6		11.36
HF680N03M-160-6		2.56	HF680N03M-315-6-MLN	B7A	5.36
HF680N03M-200-6	B5	2.80	HF680N03M-355-6-MLN		6.04
HF680N03M-250-6		3.50	HF680N03M-400-6-MLN		6.80
HF680N03M-315-6	B7	5.36	HF680N03M-450-6-MLN		7.65
HF680N03M-355-6		6.04	HF680N03M-500-6-MLN		8.50
HF680N03M-400-6		6.80	HF680N03M-560-6-MLN		9.52
HF680N03M-450-6		7.65	HF680N03M-630-6-MLN		10.71
HF680N03M-500-6		8.50	HF680N03M-710-6-MLN		11.36
HF680N03M-560-6		9.52	/		

5.8

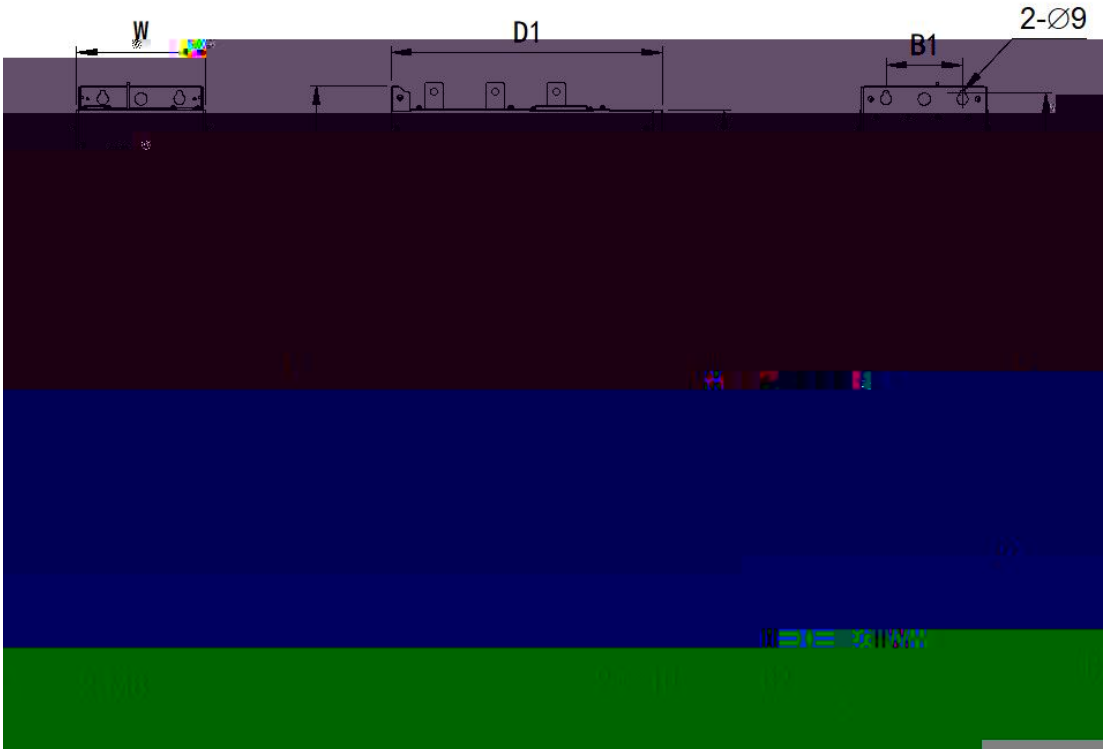
(1) 200%



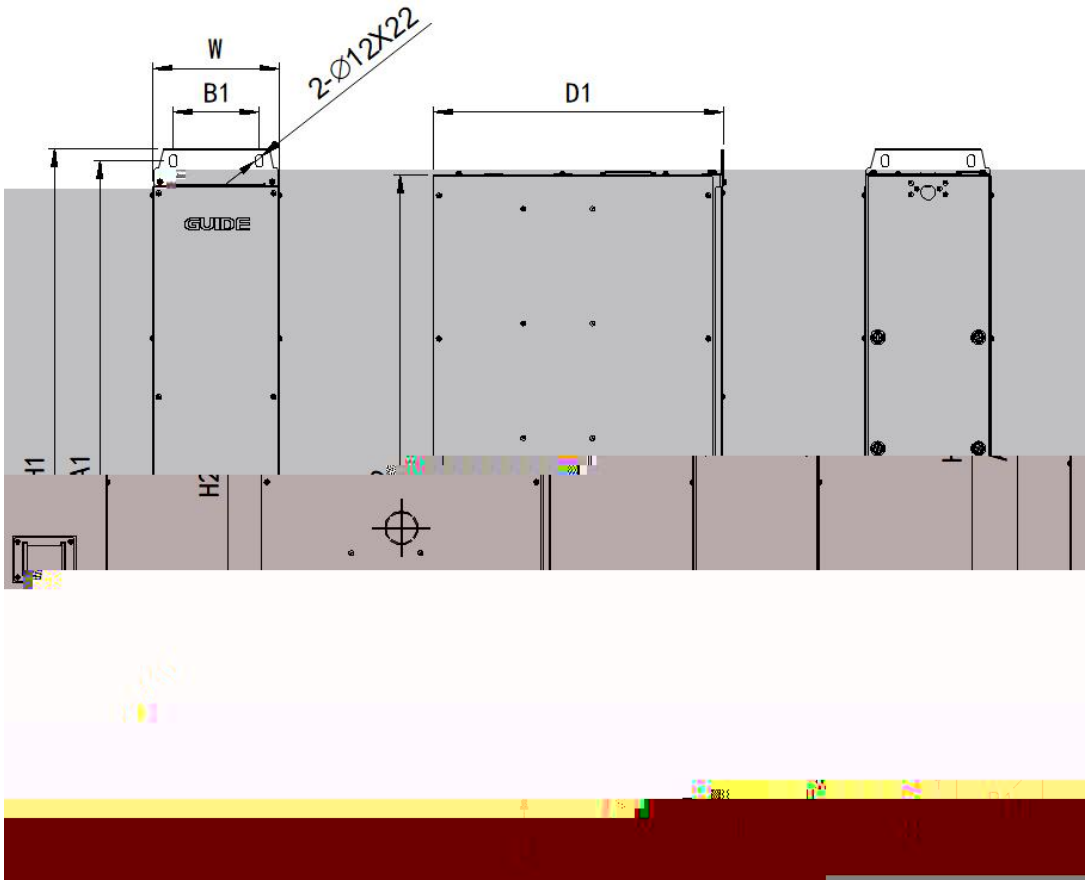
B5



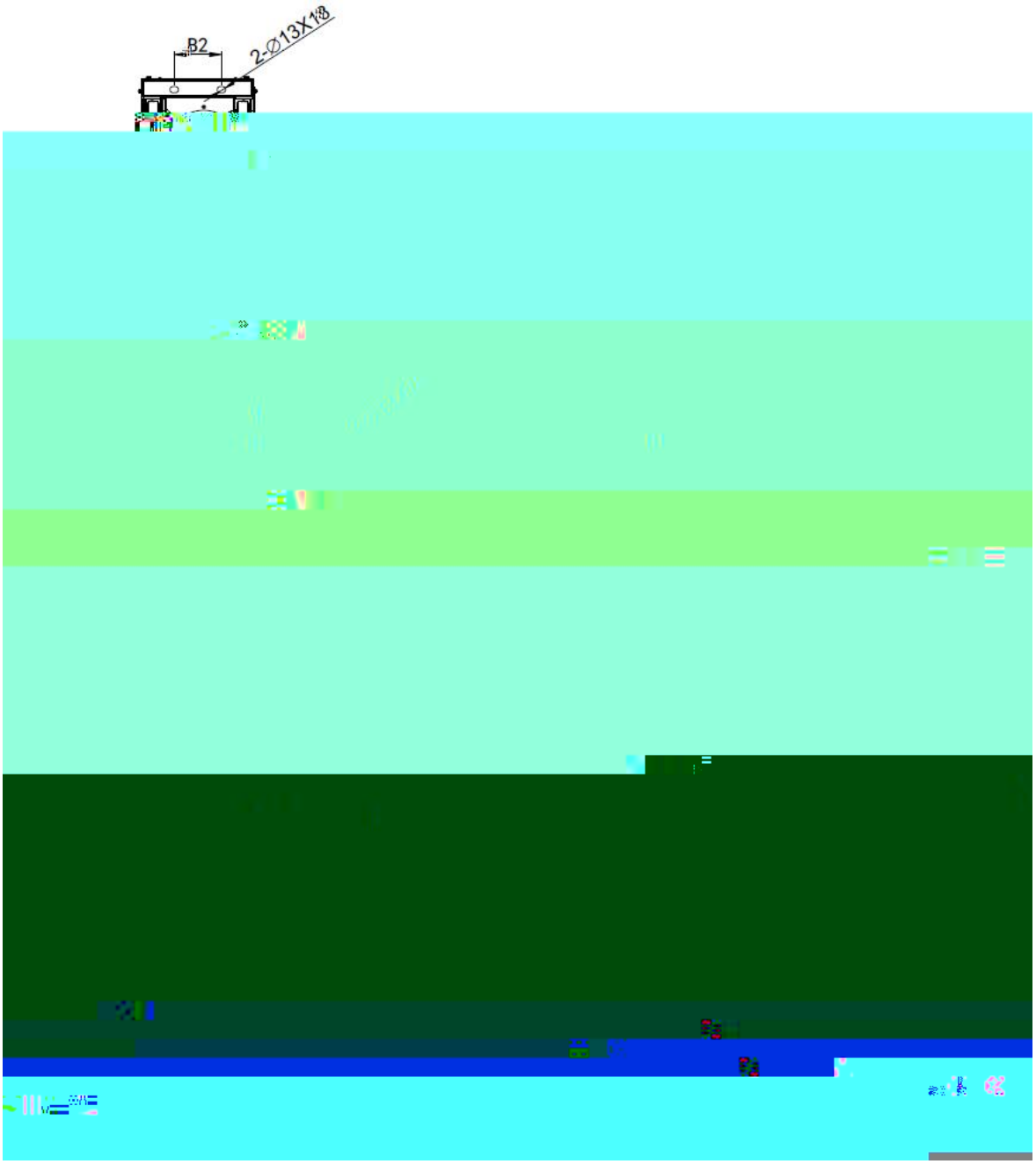
B7 ظم لم



132kW LCL



185kW LCL



B7 LCL

1.

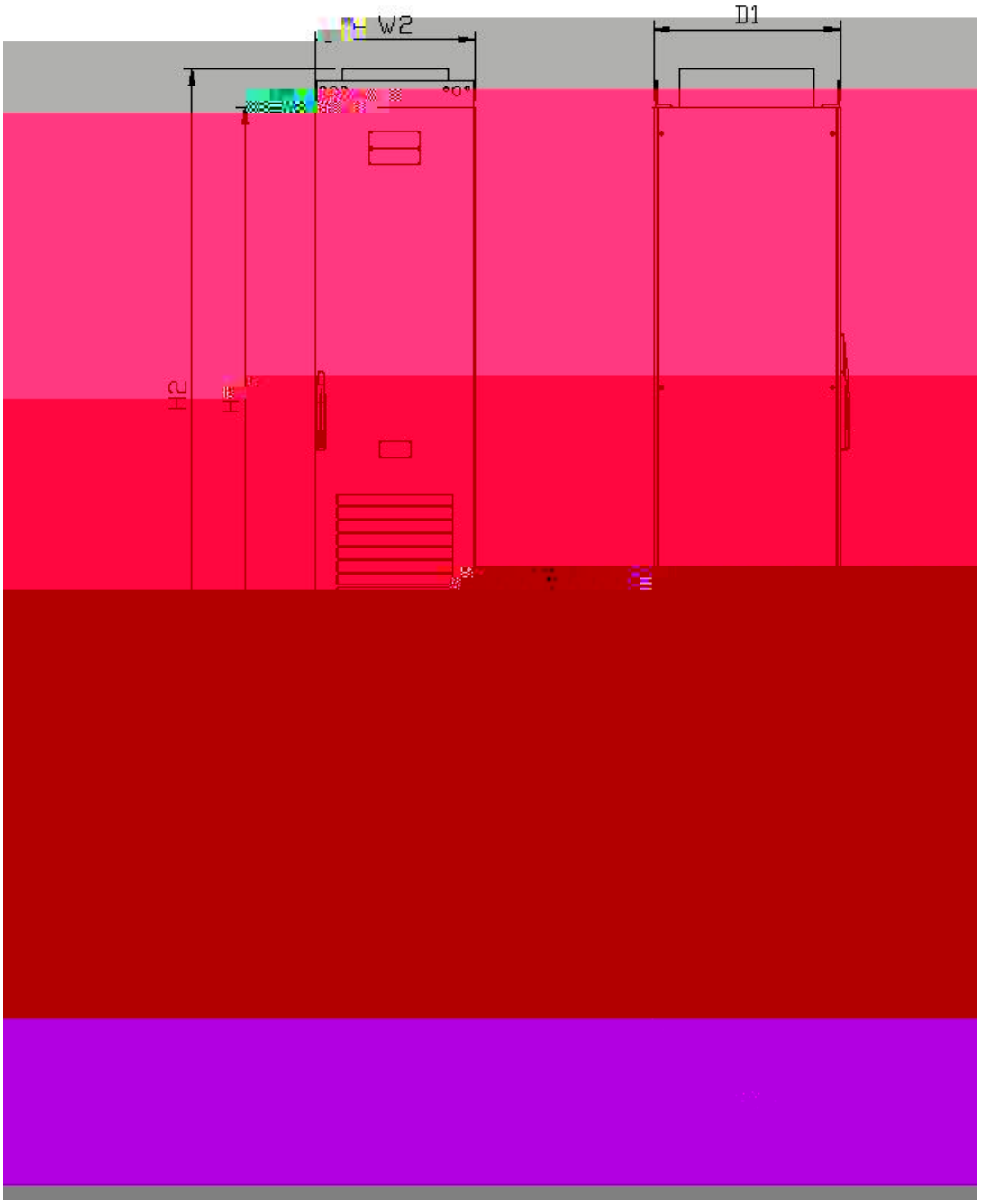
		mm					mm			=êC Ä8.8	kg
		H1	H2	W	D1	D2	A	B1	B2		
HF680N02M-132-6	B4	920	880	210	462	444	899	125	150	4-M8	55
HF680N02M-160-6											
HF680N02M-250-6	B5	1122	1075	221	522	505	1075	150	150	4-M10	80
HF680N02M-315-6	B7	1395	1350	240	600	/	1375	150	100	4-M12	145
HF680N02M-400-6											
HF680N02M-500-6											
HF680N02M-560-6											
HF680N02M-630-6											

LCL

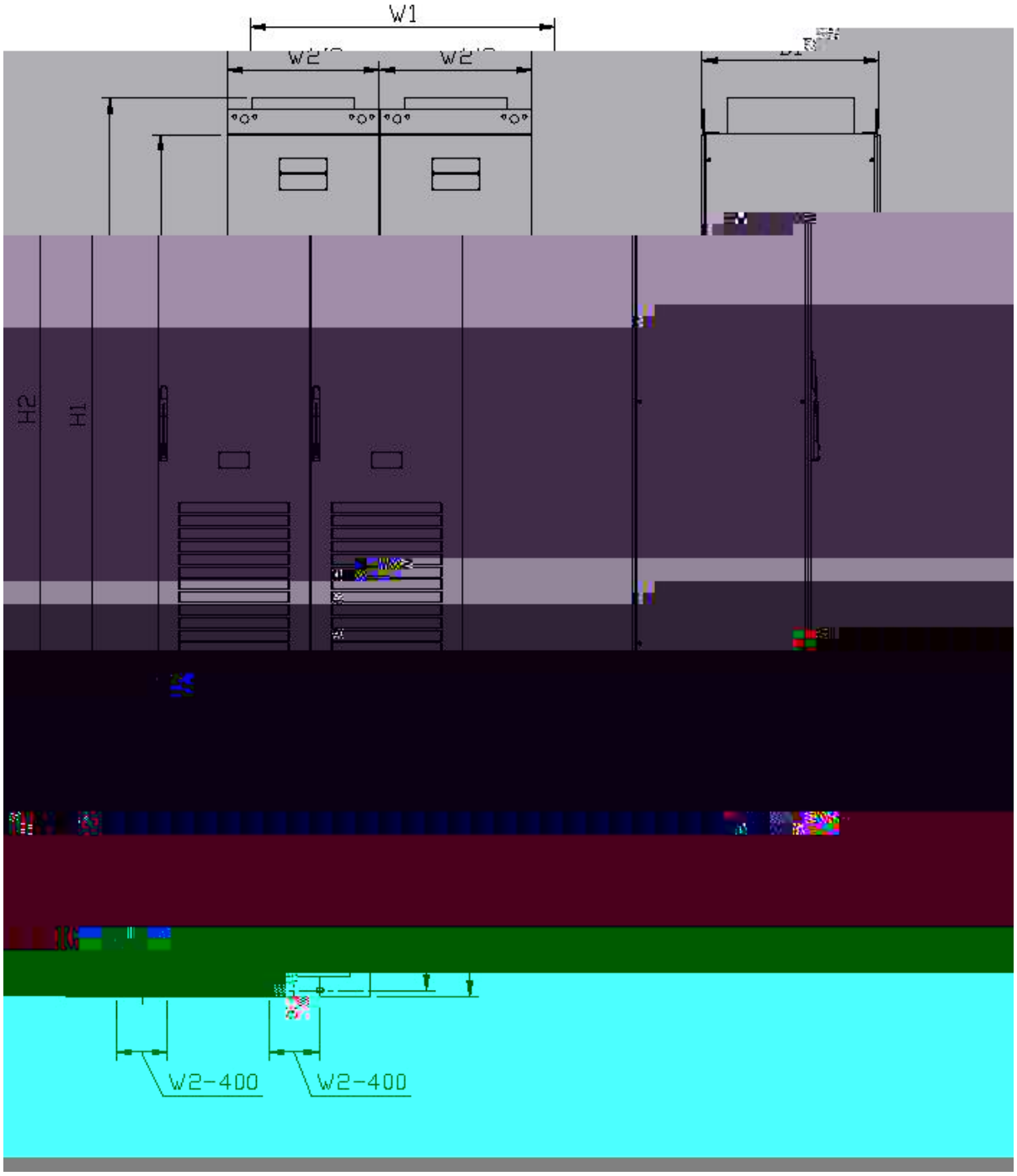
mm mm

6.2

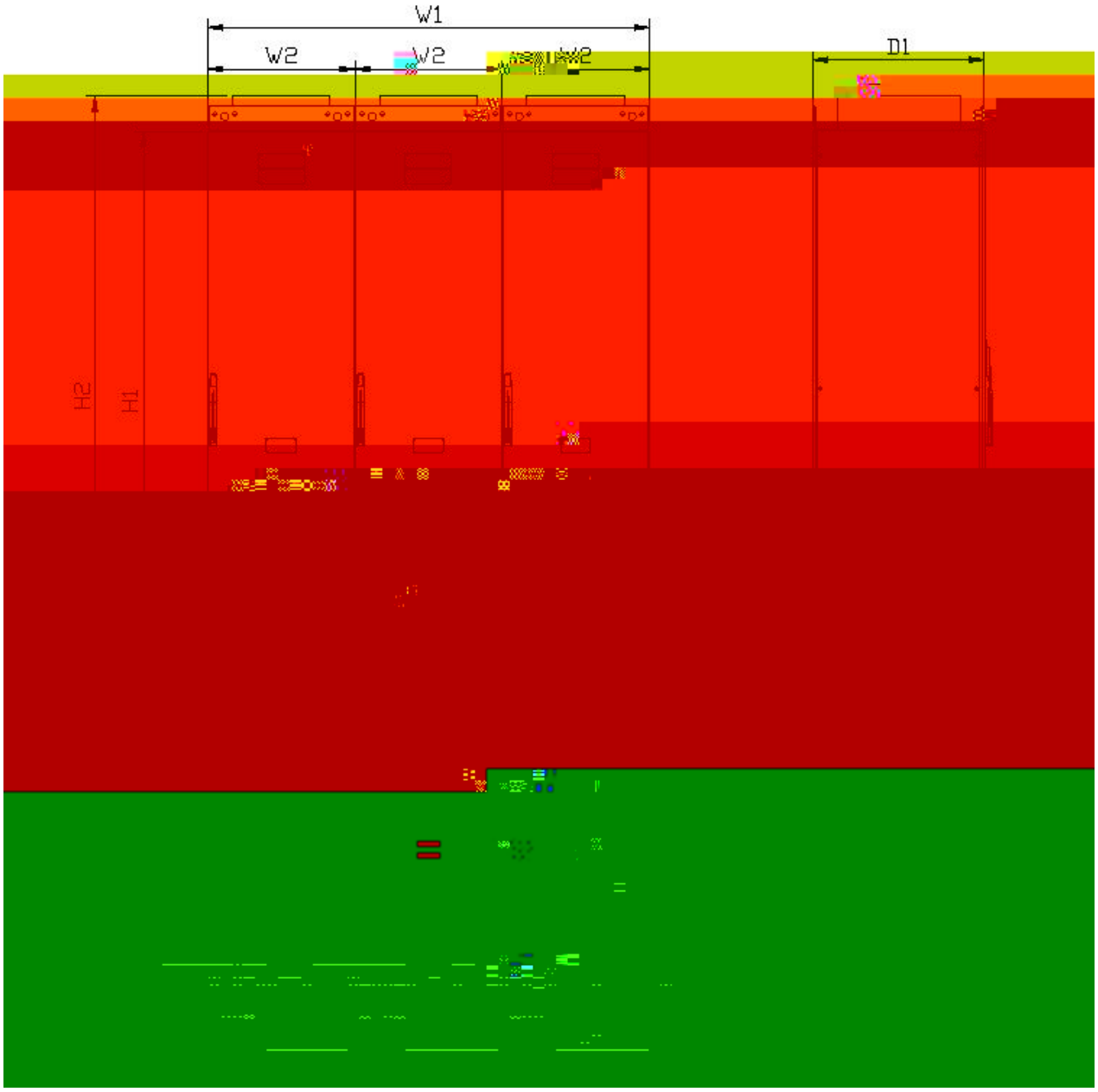
400kW~3600kW



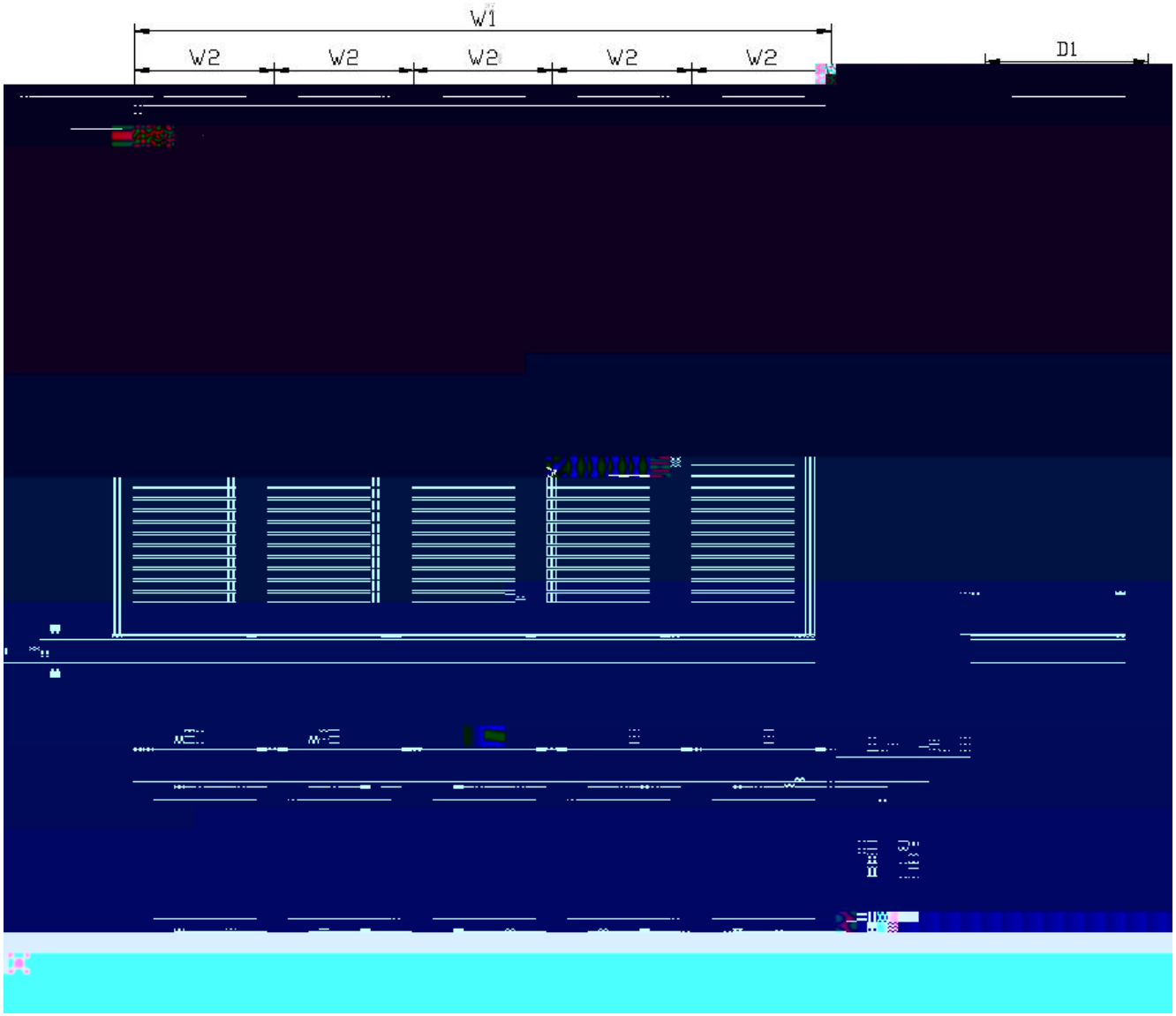
HF680N02C-400-6 HF680N02C-560-6 HF680N02C-630-6



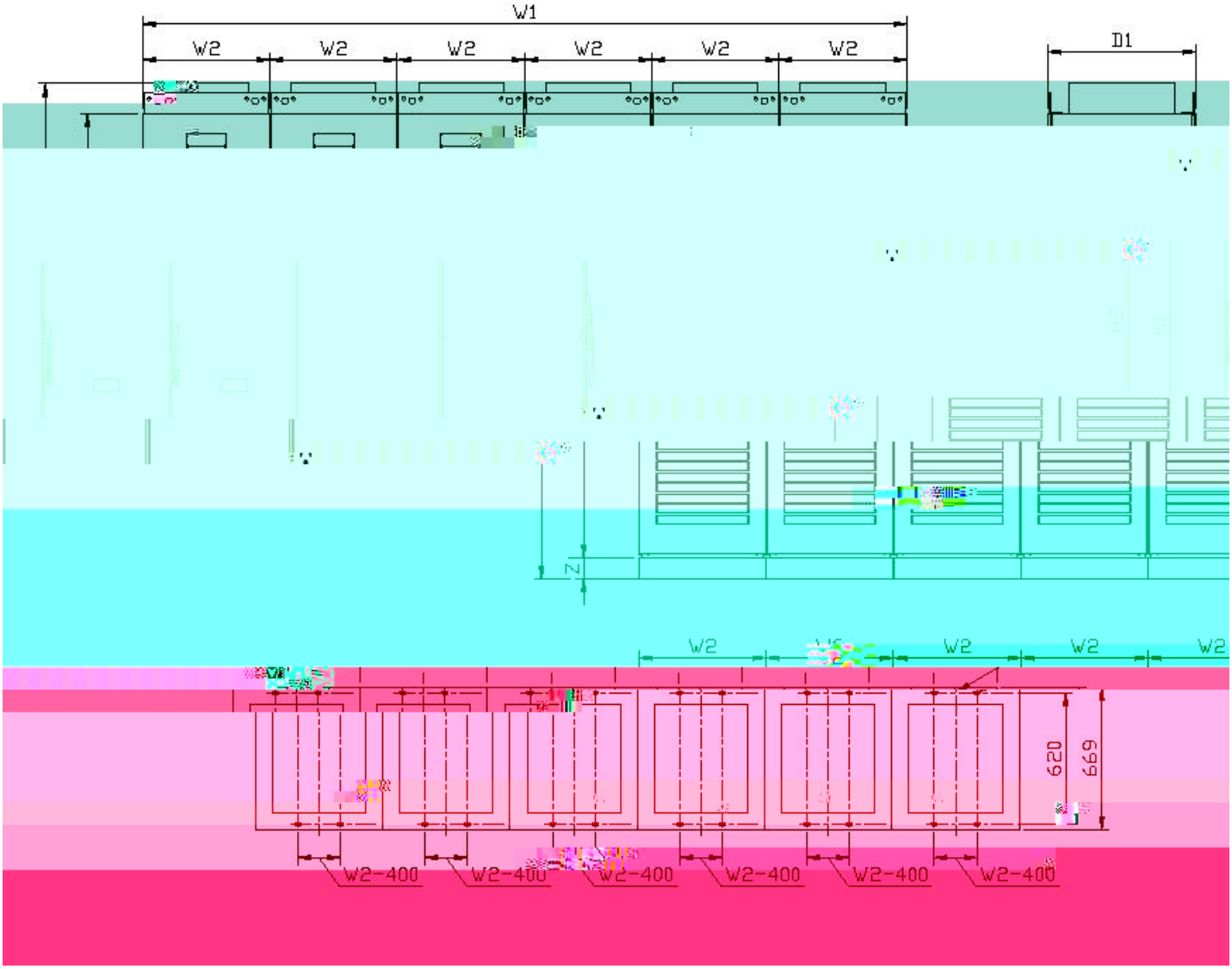
HF680N02C-800-6 HF680N02C-1200-6



HF680N02C-1800-6



HF680N02C-3000-6



HF680N02C-3600-6

400kW 560kW 630kW

		mm						kg
		H1	H2	W1	W2	D1	Z	
1	HF680N02C-400-6 HF680N02C-400-6+Z1	2200	2440	/	600	700	100	1000
	HF680N02C-560-6 HF680N02C-560-6+Z1							
	HF680N02C-630-6 HF680N02C-630-6+Z1							
2	HF680N02C-400-6+Z2	2200	2540	/	600	700	200	1000
	HF680N02C-560-6+Z2							
	HF680N02C-630-6+Z2							
3	HF680N02C-400-6+Z3	2200	2590	/	600	700	250	1000
	HF680N02C-560-6+Z3							
	HF680N02C-630-6+Z3							
4	HF680N02C-400-6+Z4	2200	2640	/	600	700	300	1000
	HF680N02C-560-6+Z4							
	HF680N02C-630-6+Z4							

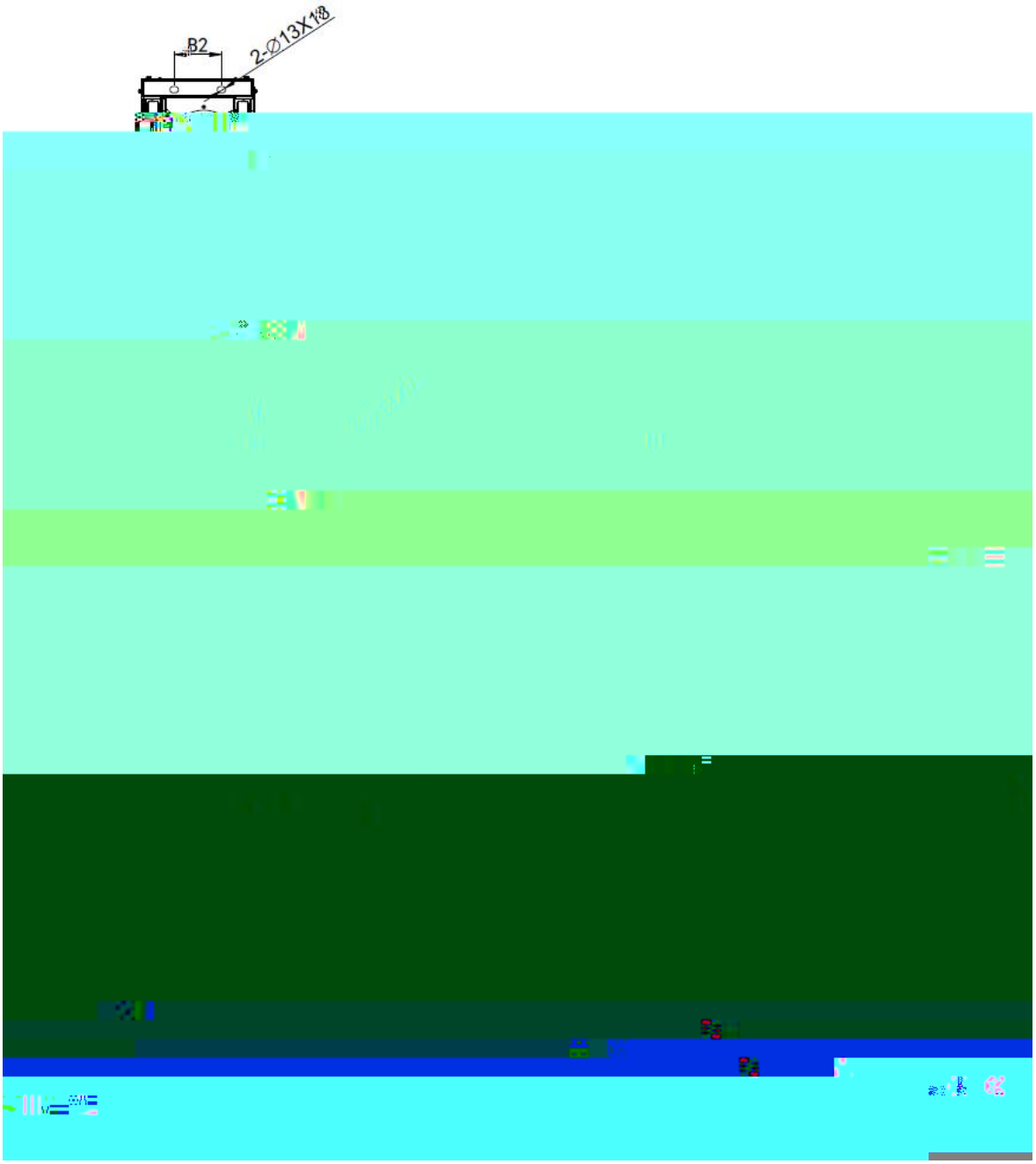
800kW 1200kW

		mm						kg
		H1	H2	W1	W2	D1	Z	
1	HF680N02C-800-6 HF680N02C-800-6+Z1	2200	2440	1200	600	700	100	1800
	HF680N02C-1200-6 HF680N02C-1200-6+Z1							
2	HF680N02C-800-6+Z2	2200	2540	1200	600	700	200	1800
	HF680N02C-1200-6+Z2							
3	HF680N02C-800-6+Z3	2200	2590	1200	600	700	250	1800
	HF680N02C-1200-6+Z3							
4	HF680N02C-800-6+Z4	2200	2640	1200	600	700	300	1800
	HF680N02C-1200-6+Z4							

1800kW

		mm						kg
		H1	H2	W1	W2	D1	Z	
1	HF680N02C-1800-6 HF680N02C-1200-6+Z1	2200	2440	1800	600	700	100	2800
2	HF680N02C-1800-6+Z2	2200	2540	1800	600	700	200	2800

			mm				
H1	H2	W1	W2	D1	Z		kg



B7 L

1.

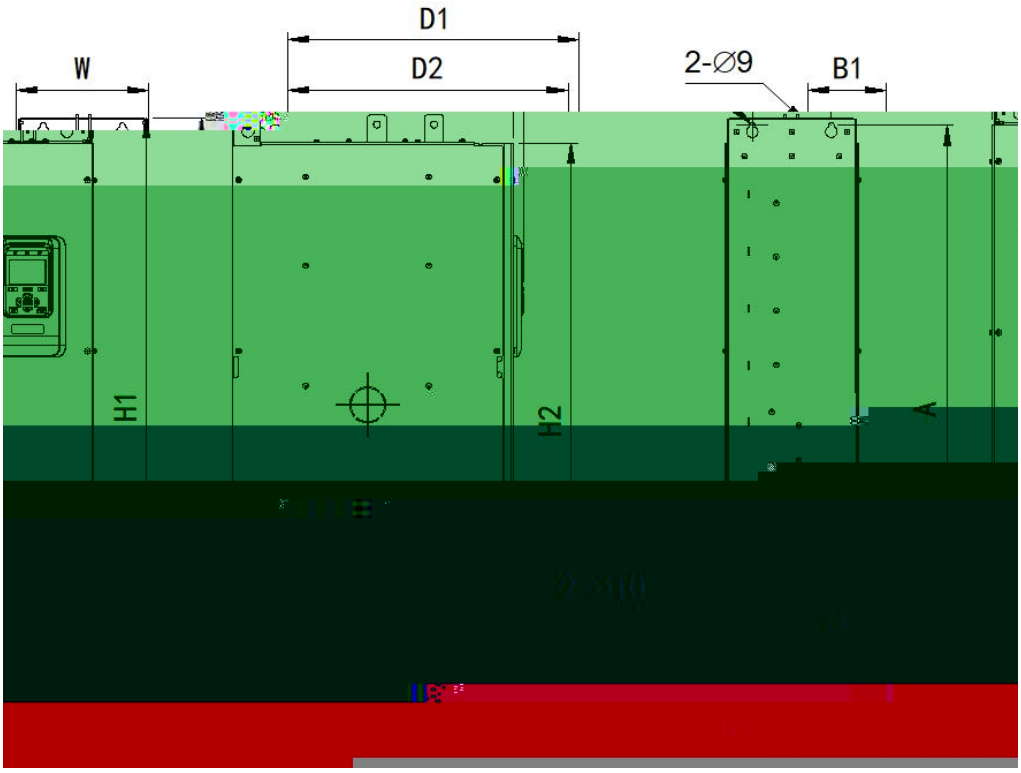
2. LCL

		mm					mm			8.8	kg
		H1	H2	W	D1	D2	A	B1	B2		
HF680N05M-685-6	B7	1395	1350	240	600	/	1375	150	100	4-M12	145
HF680N05M-1030-6											

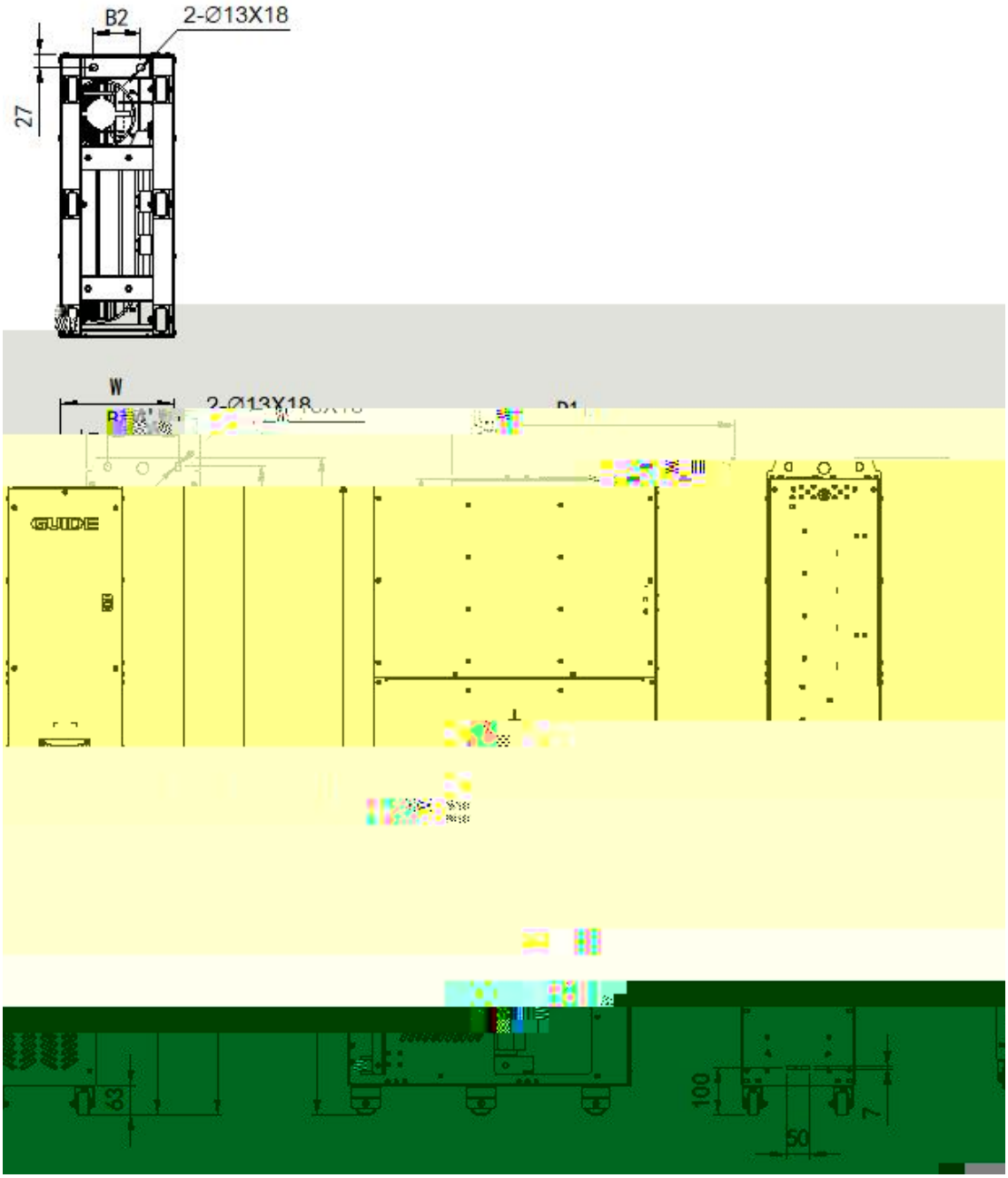
LCL

		mm					mm			8.8	kg
		H1	H2	W	D1	D2	A	B1	B2		
HF680N02F-685-6	B7	1395	1350	240	600	/	1375	150	100	4-M12	325
HF680N02F-1030-6											

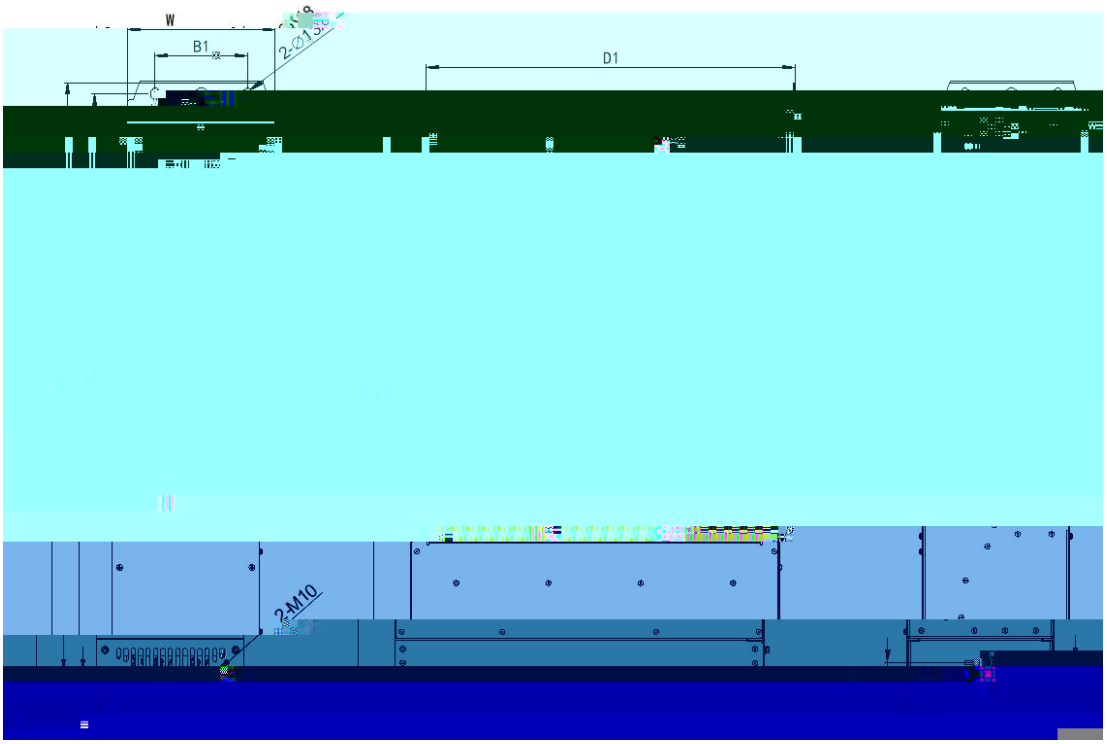
6.4



B4



B7



B7A

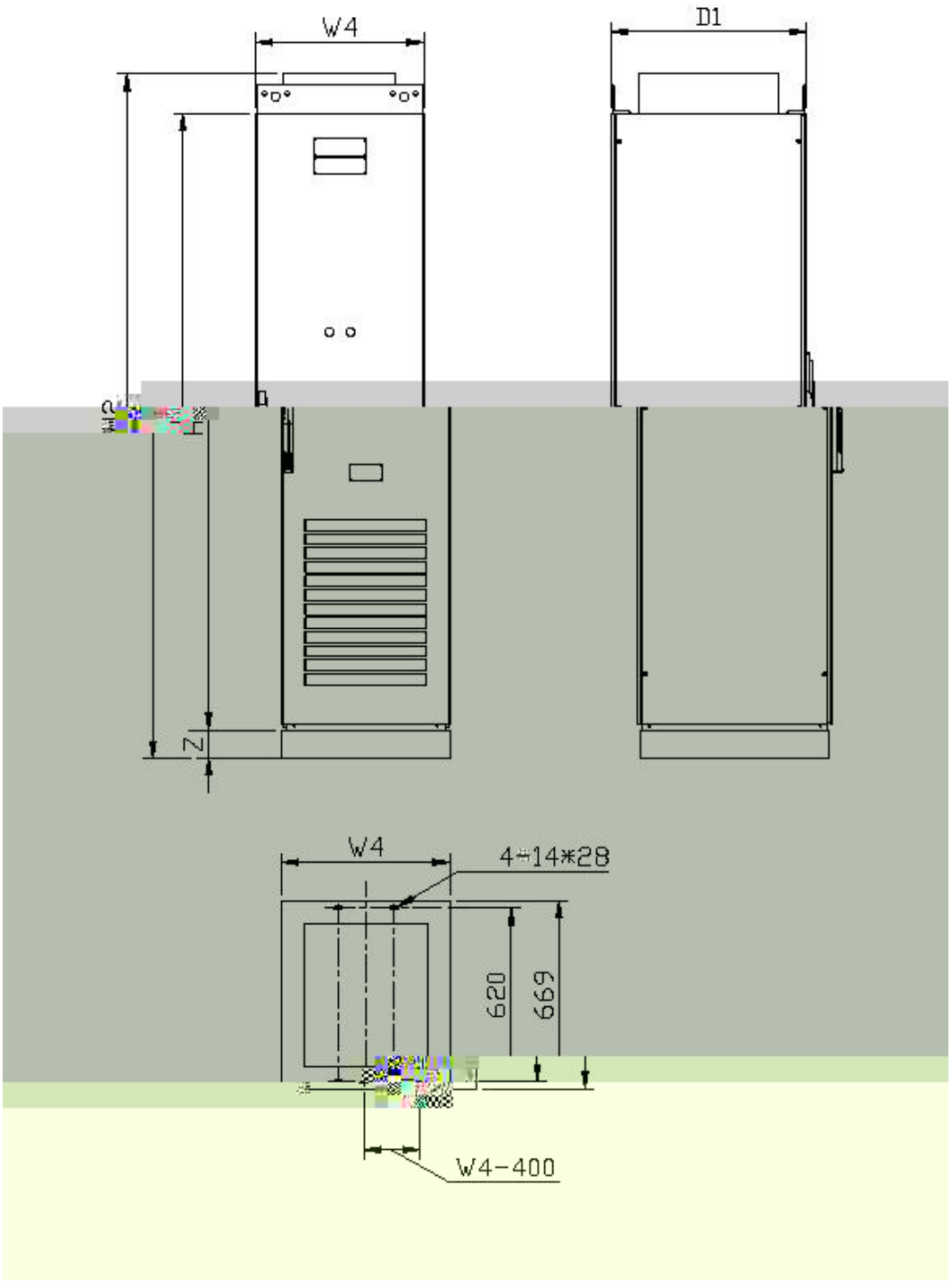
1.

2.B7A

3.B7A

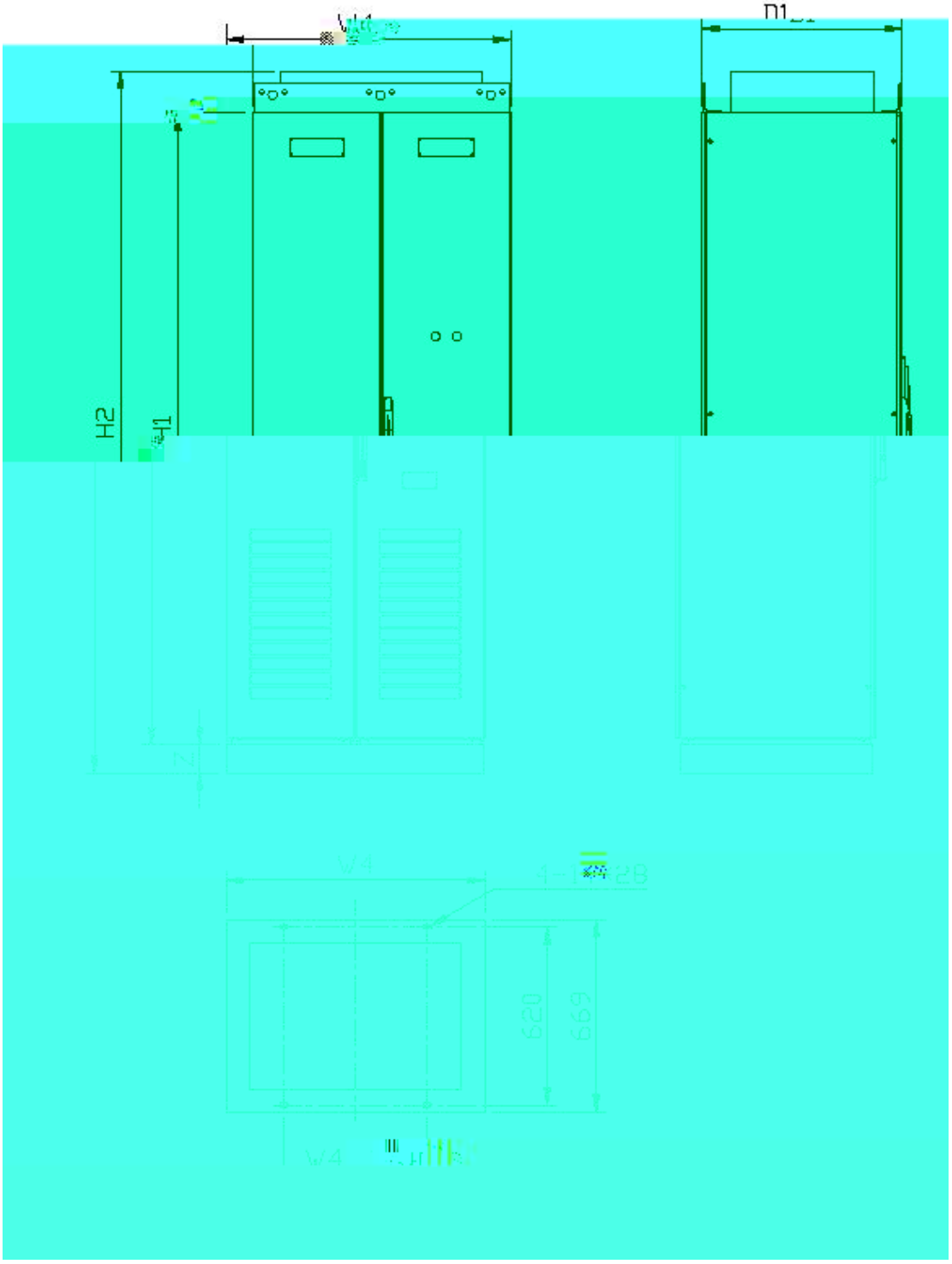
		mm					mm			
		H1	H2	W	D1	D2	A	B1	B2	8.8 kg
HF680N03M-110-6										
	B4	920	880	210	462					

6.5



HF680N03C-800-6 HF680N03C-900-6 HF680N03C-1000-6 HF680N03C-1200-6

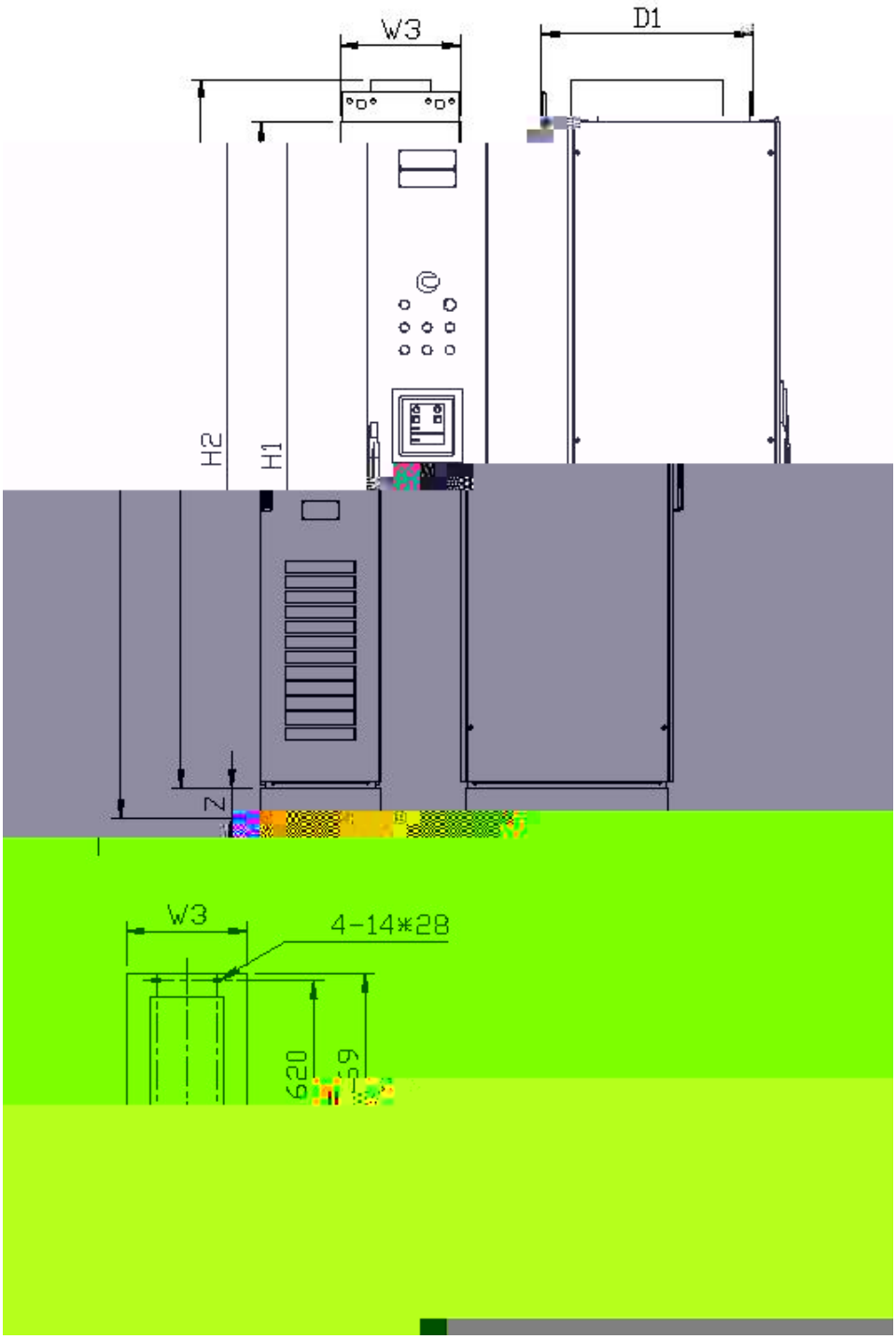
HF680N03C-1400-6



HF680N03C-1600-6　HF680N03C-1800-6　HF680N03C-2000-6

		mm					kg
		H1	H2	W4	D1	Z	
1	HF680N03C-800-6 HF680N03C-800-6+Z1	2200	2440	600	700	100	900
	HF680N03C-900-6 HF680N03C-900-6+Z1						
	HF680N03C-1000-6 HF680N03C-1000-6+Z1						
	HF680N03C-1200-6 HF680N03C-1200-6+Z1						
	HF680N03C-1400-6 HF680N03C-1400-6+Z1						
	HF680N03C-1600-6 HF680N03C-1600-6+Z1	2200	2440	900	700	100	1500
	HF680N03C-1800-6 HF680N03C-1800-6+Z1						
	HF680N03C-2000-6 HF680N03C-2000-6+Z1						
2	HF680N03C-800-6+Z2	2200	2540	600	700	200	900
	HF680N03C-900-6+Z2						
	HF680N03C-1000-6+Z2						
	HF680N03C-1200-6+Z2						
	HF680N03C-1400-6+Z2						
	HF680N03C-1600-6+Z2	2200	2540	900	700	200	1500
	HF680N03C-1800-6+Z2						
	HF680N03C-2000-6+Z2						
3	HF680N03C-800-6+Z3	2200	2590	600	700	250	900
	HF680N03C-900-6+Z3						
	HF680N03C-1000-6+Z3						

5.5



HF680N15C-630-6 HF680N15C-800-6

		mm					kg
		H1	H2	W3	D1	Z	
1	HF680N15C-630-6 HF680N15C-630-6+Z1	2200	2440	400	700	100	700
	HF680N15C-800-6 HF680N15C-800-6+Z1						
	HF680N15C-1600-6 HF680N15C-1600-6+Z1	2200	2440	600	700	100	900
	HF680N15C-2000-6 HF680N15C-2000-6+Z1						
	HF680N15C-2500-6 HF680N15C-2500-6+Z1						
	HF680N15C-3200-6 HF680N15C-3200-6+Z1						
	HF680N15C-4000-6 HF680N15C-4000-6+Z1						
2	HF680N15C-630-6+Z2	2200	2540	400	700	200	700
	HF680N15C-800-6+Z2						
	HF680N15C-1600-6+Z2	2200	2540	600	700	200	900
	HF680N15C-2000-6+Z2						
	HF680N15C-2500-6+Z2						
	HF680N15C-3200-6+Z2						
	HF680N15C-4000-6+Z2						
3	HF680N15C-630-6+Z3	2200	2590	400	700	250	700
	HF680N15C-800-6+Z3						
	HF680N15C-1600-6+Z3	2200	2590	600	700	250	900
	HF680N15C-2000-6+Z3						
	HF680N15C-2500-6+Z3						
	HF680N15C-3200-6+Z3						

7.

7.1

7.2

▼

▲

ENTER

RUN STOP

LOCAL/REMOTE /

7.3

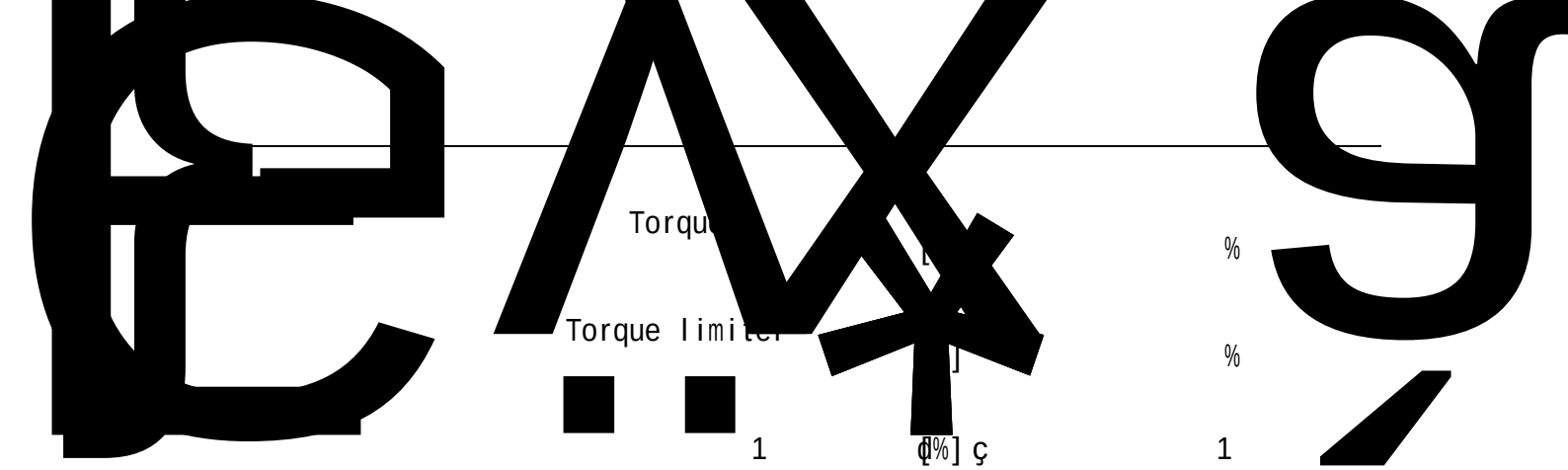
“ ” “ ” 2

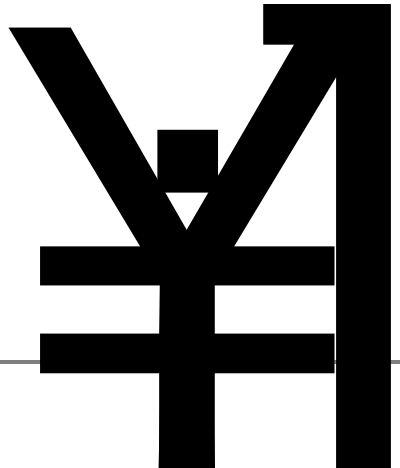
|

	“ - ”
	:V
	A
	N|N W E

8	OLD COM	

7.4.2





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

ter ”

8.

8.1

8.1.1

DI1 DI2

DI3: 14 DI4

DO1 DO2:

DO4 DO

DO5

1

690V 220V P0.1

“ ” “ ”

“ DO4A ” “ DO4C ” “ DO5A ”

“ DO5C ” DO1 PLC

1

P3.0-P3.7 0 PLC DI “

” “ H:L ” DI 1

P3.0	1	
P3.1	20	
P3.2	14	LCL
P3.3	5	
P4.1 DO1	2	

P4.2 DO2	1	
P4.3 DO4	0	DO
P4.4 DO5	32	
P7.0	180%	
P7.4	200%	
P7.12	1200V	
P8.6	300s	!” 300s 0.5s
P16.0	690V	
P16.2		400kW 400kW
P16.4		400kW 353A
P16.11	3	
P16.12	3	3K
P24.7	0V	ADJ

P16.0 P24.7 =P16.0 +P24.7

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

690V **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

P16.0 680V 10
680V ≤ P16.0 700V 10
700V ≤ P16.0 720V
720V ≤ P16.0 740V 11
740V ≤ P16.0 760V 1120V
P16.0 760V 1140V
1060V P16.0 690V P24.7
20V 1060V

690V “ / ” “ ”

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

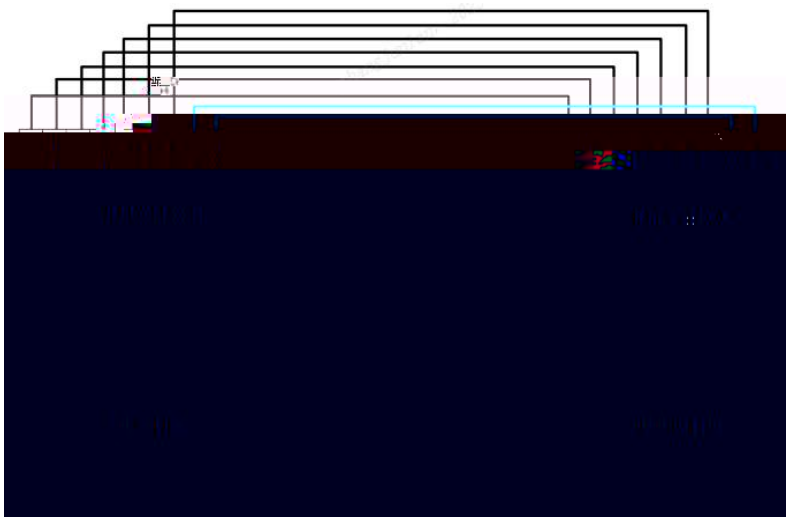
P24.28 **P24.21** **1**

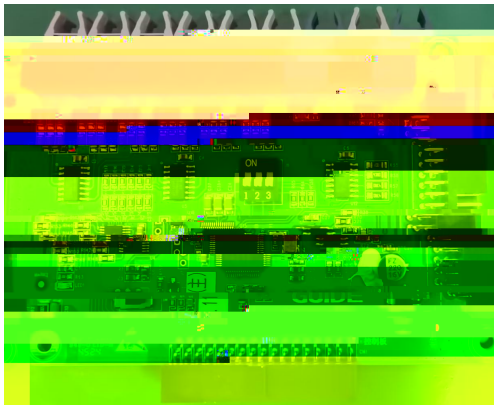
“ / ” “ ”

PLC

8.1.2

800kW





PIN

“ ” PIN

P16.0	690V	
P16.2	1/2	800kW 800kW
P16.4	1/2	800kW 670A
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 DO1 2

P4.2 DO2 1

P4.3 DO4 0

DO

P4.4 DO5 32

P7.0 180%

P7.4 200%

P7.12 1200V

300s

P8.6 300s

0.5s

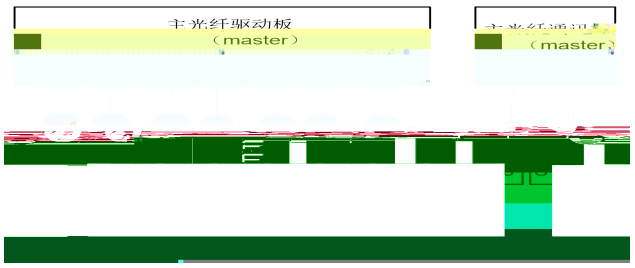
P16.0 690V

P16.2 800kW 800kW

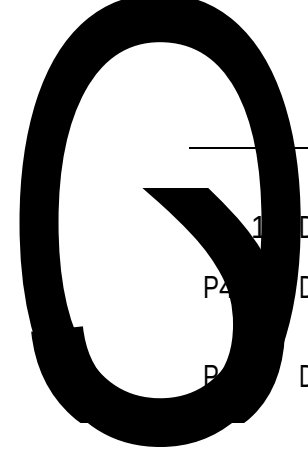
P16.4 800kW 832A

P16.11 3

690V 220V



P2.0	2	
P3.2	14	L- ł P א ȯ



1	D01	2
P4	D02	1
P	D04	0

20V 1060V

220V **220V**

220V 101.2

[W1] 101.77 CAN @ 101.80 CAN

@ 0

690V “ / ” “ ” 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

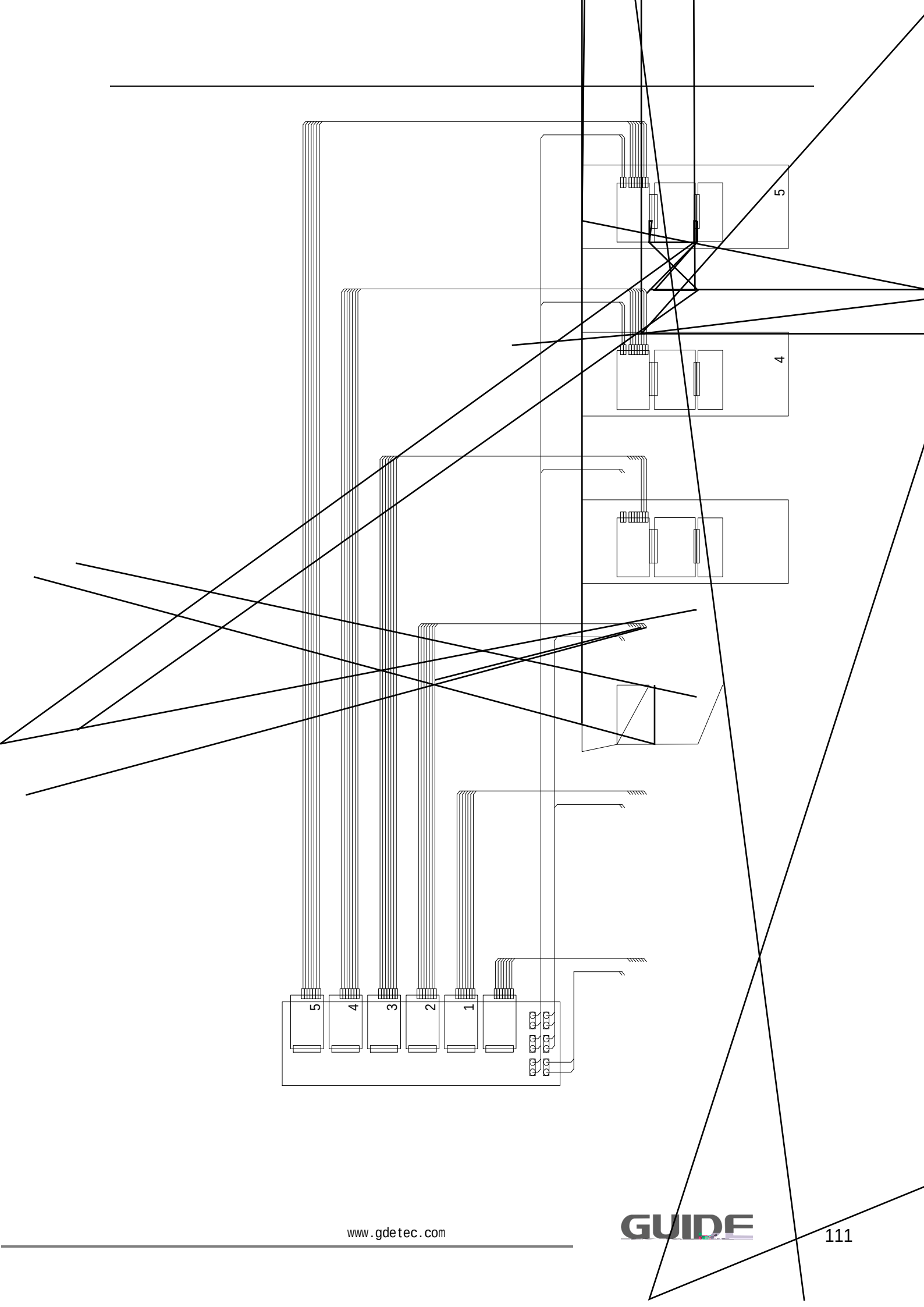
P24.28 **P24.21** **1**

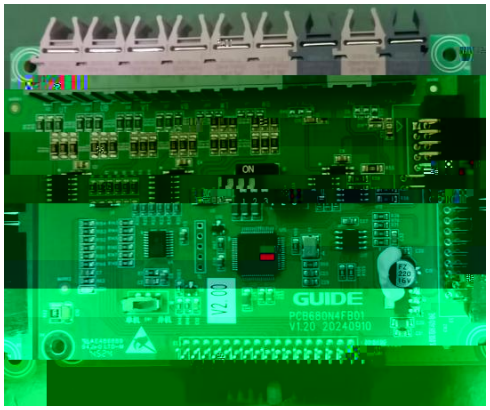
“ / ” “ ”

PLC

8.1.3

1200KW


5
4
5
4
3
2
1


ON
GUIDE
PCB680N4FB01
V1.20 20240910

P24.7	0V	ADJ V1.12

P16.0 P24.7 =P16.0

+P24.7

P16.0 680V	1020V
680V ≤ P16.0 700V	1040V
700V ≤ P16.0 720V	1070V
720V ≤ P16.0 740V	1100V
740V ≤ P16.0 760V	1120V
P16.0 760V	1140V

1060V P16.0 690V P24.7

20V 1060V

220V **220V**

101.2 [W1] 101.77 CAN

@ 101.80 CAN @ 0

380V “ / ” “ ” 运行

AFE 2s

IGBT **P8.06** **300** 300s IGBT

103.31 49-51Hz **103.30** **AFE**

停止

P8.06 **0.5s** 运行

103.23 102.54

102.55 102.56

停止

	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

P N P N

“ / ” “ ” P24.21 0

电容自学习 停止

P24.28 P24.21 1

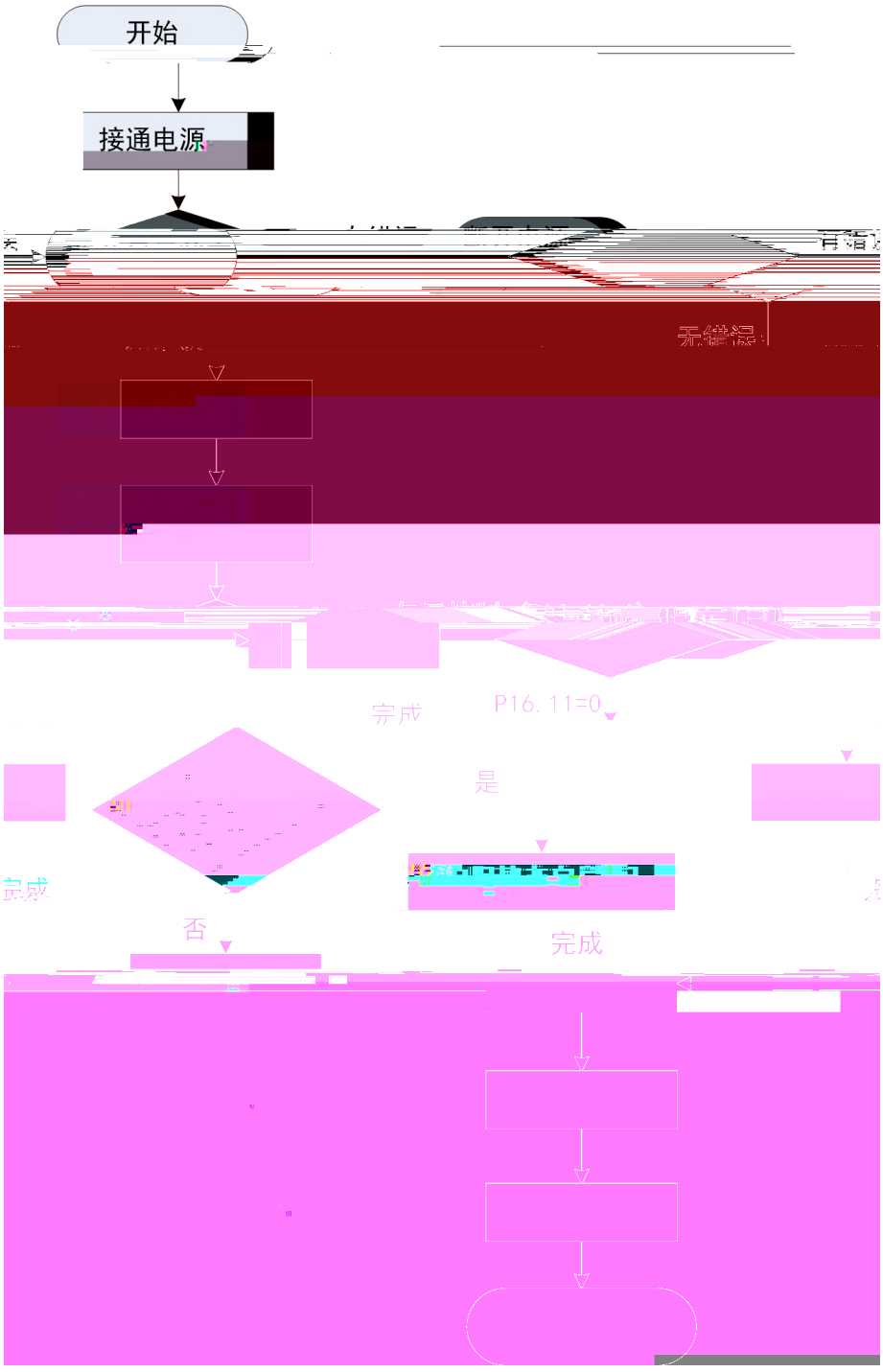
“ / ” “ ”

PLC

8.2

9.

9.1



/

V/F P16.11=0 V/F

P16.11=2 P16.11=1

9.2

9.2.1

1 ±5V

2 U,V,W

3

4 PG PG

9.2.2

9.2.3

6

9.2.4

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]

“

” “ ”

4

50%

P20.98 P20.98

9.2.6

HF680N

	7.5% 5 0% 50%
	1/5
	P16
	V /F

9.2.7

1

2 LOCAL/REMOTE LOCAL LOCAL

3 RUN RUN

5Hz

4

5 4 50Hz

6 STOP

9.2.8

1

2

3

4

5

6 STOP

1

2

1

10.

10.1

10.1.1

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	

10.1.2

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

0		
1		
5		</RST
14		
15	.NC	
20		

10.1.3

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	0	[32]

0		
1		
2		ON
32		

10.1.4

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]

P8.6			0.00 300.00 [s]	0.00 [s]	IGBT

10.1.6

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

10.1.7 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 .

P24.28			0 6500 [mF]	0[mF]	
P24.29			0 6500 [mF]	0	AFE
P24.30			0 6.5 [mH]	0	AFE

11.

11.1 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	

11.2 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

.NC
4

</RST
5

ʟC И
6 1 0

7 2 1

8 3 2 8.2

9 4 3

10

11

12

.NC
13

14

.NC
15

16

17 0 1 0 00

1 01 2 10 3 11
18 1
4

19

20 AFE

21

22 FUNC 22

23 FUNC rC N

11.3 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	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 8.3

2 ON

3 8.3

4

5

6 1

7 2 [6] [9]

8 3

9 4

10 FUNC 10

11

12

13

14

15

16

18 1 2

19 2 3

20 3 4

21 [redacted] [redacted] [redacted] P7.54 [redacted]

22 Ɇ ɔ ɳ

11.4 P5

P5.0 0AI1	[0] [1]0 +10V [2]-10 +10V [3]0 20mA

[]0

P5.19	AI2	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]	10.000 [V]	
P5.26	AI2	AI2	0.00 20.00 [mA]	20.000 [mA]	
P5.27	AI2	AI2	-300.0 300.0 [%]	100.0 [%]	

11.5 P6

P6.0	AO1		7-1		0 14	2
P6.1		1			0 1000	0
P6.2	AO1		AO1		-300.0 300.0 [%]	0.0 [%]
P6.3	AO1		AO1		-300.0 300.0 [%]	100.0 [%]
P6.4	AO1	[mA V]	AO1		0.0 100.0 [%]	0.0 [%]
P6.5	AO1	[mA V]	AO1		0.0 100.0 [%]	100.0 [%]
P6.6	AO1		AO1		-100.00 100.00 [%]	0.00 [%]
P6.7	AO1		AO1 [13]	(P6.0		

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

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[illegible] D i[illegible]

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	1 M2	2	0.00 3.00 [s]	0.50 [s]	
P7.25	1 M3	3	0.00 3.00 [s]	0.50 [s]	
P7.26	1 M4	4	0.00 3.00 [s]	0.50 [s]	
P7.27	1	1	0.00 3.00 [s]	2.00 [s]	
P7.28	2	2	0.00 3.00 [s]	2.00 [s]	
P7.29	3	3	0.00 3.00 [s]	2.00 [s]	
P7.30	4	4	0.00 3.00 [s]	2.00 [s]	
P7.31			0.0 100.0 [%]	25.0 [%]	
P7.32			0.00 5.00 [s]	1 [s]	
P7.33			0.0 1000.0 [s]	360.0 [s]	
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]	
P7.52		[0] [1] PT1 [2] PT2 [3] PT1,PT2	0 3	0	
P7.53			30 200 [ ]	110 [ ]	
P7.54			30 200 [ ]	90 [ ]	

P7.55		[0] [1]	0 1	0	
P7.56			0.0 200.0 [%]	120.0 [%]	
P7.57			0.0 12.0 [s]	5 [s]	
P7.58	STO	[0] [1]	0 1	0	
P7.59		[0] [1]	0 1	1	
P7.60			0.10 3.00 [s]	0.30 [s]	
P7.61	1	[0] [1]	0 1	0	
P7.62	2	[0] [1]	0 1	0	
P7.64		[0] [1]	0 1	0	
P7.65			-25 100 [V]	0 [V]	
P7.66			-25 100 [V]	0 [V]	
P7.69		[0] [1]	0 1	0	
P7.70			-25 100 [V]	0 [V]	
P7.73		[0] [1]	0 1	0	
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]	

110.7	1	P8

P8.15

P8.18 2

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]	

11.8 2 P9

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 [%]	

11.9 3 P10

P10.0		[0] [1] [2]DP [3]MODBUS [4]		0 4	0
P10.1					
P10.2					
P10.3		[0] [1]		0 1	0
P10.6				0.00 300.00 [s]	0.00 [s]
P10.7				0.00 300.00 [s]	0.00 [s]
P10.10		[0]I/O [1] 1 [2] 2 [3] [4]DP [5]MODBUS [6]		0 6	0
P10.11					
P10.13		[0] [1]PROFIBUS [2]MODBUS [3]		0 3	0
P10.14				0.1 10.0	1.0
P10.15	1			0.0 300.0 [%]	100.0 [%]
P10.16	1		P10.15	0.0 300.0 [s]	3.00 [s]
P10.17				0.0 300.0 [%]	200.0 [%

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 [%]	

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]	

11.10 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 [%]	

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

11.11 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]	

11.12 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	0.0
P13.12	11		.0	50.0
P13.13	12		.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					

13 3 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	M.0				

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]	

11.15 1 V/F P16

P16.0

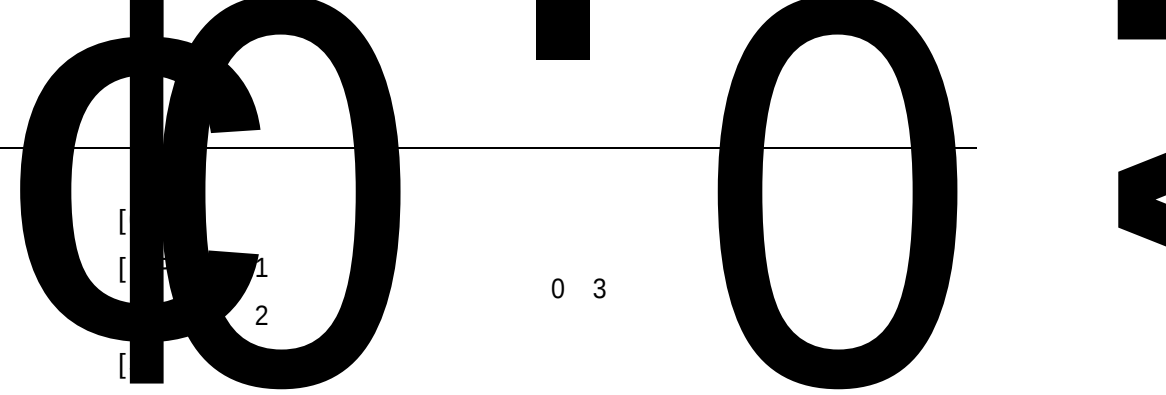
P16.22	0.00 100.00 [s]	

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 [î ¡	

11.16 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]		

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			0.0 100.0 [%]	0.0 [%]
P17.33	V/F	V/F	0 6	2
P17.34	V/F	1	0.0 300.0 [Hz]	5.0 [Hz]
P17.35	V/F	1	0.0 125.0 [%]	11.5 [%]
P17.36	V/F	2	0.0 300.0 [Hz]	50.0 [Hz]
P17.37	V/F	2	0.0 125.0 [%]	100.0 [%]
P17.38	V/F	3	0.0 300.0 [Hz]	50.0 [Hz]
P17.39	V/F	3	0.0 125.0 [%]	100.0 [%]
P17.40	V/F	4	0.0 300.0 [Hz]	50.0 [Hz]
P17.41	V/F	4	0.0 125.0 [%]	100.0 [%]
P17.42	V/F	5	0.0 300.0 [Hz]	50.0 [Hz]
P17.43	¡	אn		



P17.48		1 2	0 3	
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 [%]

11.17 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	-00(,	

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			

11.18 4 V/F P19

PR

P19.22		0.00 100.00 [s]	0.00 [s]
P19.23	V/F	0.00 300.00 [Hz]	0.00 [Hz]
P19.24	V/F	0.00 300.00 [Hz]	50.00 [Hz]
P19.255			

11.19 1 P20

P20.0		[0] [1]			0 1	0
P20.1		[0] [1] [2] [3] [4] [5]DP [6]MODBUS [7]	1 2	P20.3	0 7	0
P20.2	20.2					

P20.13			20.0 [ms] 500.0	100.0 [ms]
P20.14		1	0 60000	1024
P20.15	[0] [1] .0 v		(,	

P20.31	0.0 [%]	100.0 [%]	5.0 [%]
P20.32	0.0 [%]	100.0 [%]	5.0 [%]

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							

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	125%	125%	40.0 150.0 [%]	77.0 [%]	
P20.96	130%	130%	40.0 150.0 [%]	70.5 [%]	
P20.97	135%	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 [%]	

1 0

7 0

7 0

300.0 0.0

%] [%]

300 0

%]

0.0

P21.54	Ki			0.0 [%]	1000.0 [%]
P21.55				0.0 [%]	1000.0 [%]
P21.56				0.0 [%]	1000.0 [%]
P21.57		[0] [1]		0	1
P21.58				0.0 [%]	125.0 [%]
P21.59				1.0 [%]	25.0 [%]
P21.60	DROOP		0 DROOP	0.0 [%]	100.0 [%]
P21.61	DROOP		DROOP .61خه		

WW

11.21 3 P22

P22.0		[0] [1]		0 1	0
P22.1		[0] [1] 1 [2] 2 [3] [4] [5]DP [6]MODBUS [7]	P22.3	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 [%]
P22.7		[0] [1] P22.9 [2] 1 [3] 2 [4] [5]DP [6]MODBUS [7]	P22.8	0 7	0
P22.8		P22.6			

P22.31		0.0 [%] 100.0 [%]	5.0
P22.32		0.0 [%] 100.0 [%]	5.0
P22.34	[0] [1]	0 1	

P22.77	2	2	90.0 110.0 [%]	100.0 [%]	
P22.78			0.00 650.00 [mOhm]	0.00 [mOhm]	
P22.79			0.00 65.50 [mH]	0.000 [mH]	
P22.80	1	1	0.800 1.350	1.140	
P22.81	2	2	0.800 1.350	0.940	
P22.82	3	3	0.800 1.350	1.080	
P22.83	4	4	0.800 1.350	0.950	
P22.84			0.00 655.00 [mH]	0.00 [mH]	
P22.85	85%	85%	40.0 150.0 [%]	108.0 [%]	
P22.86	87.5%	87.5%	40.0 150.0 [%]	106.5 [%]	
P22.87	90%	90%	40.0 150.0 [%]	105.0 [%]	
P22.88	92.5%	92.5%	40.0 150.0 [%]	103.5 [%]	
P22.89	95%	95%	40.0 150.0 [%]	102.0 [%]	
P22.90	102.5%	102.5%	40.0 150.0 [%]	99.0 [%]	
P22.91	105%	105%	40.0 150.0 [%]	96.5 [%]	
P22.92	110%	110%	40.0 150.0 [%]	93.0 [%]	
P22.93	115%	115%	40.0 150.0 [%]	88.5 [%]	
P22.94	120%	120%	40.0 150.0 [%]	83.0 [%]	
P22.95	125%	125%	40.0 150.0 [%]	77.0 [%]	
P22.96	130%	130%	40.0 150.0 [%]	70.5 [%]	
P22.97	135%	135%	40.0 150.0 [%]	63.5 [%]	
P22.98		( )	0.01 300.00 [s]	0.75 [s]	
P22.99			0.00 10.00 [%]	0.00 [%]	

11.22 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		

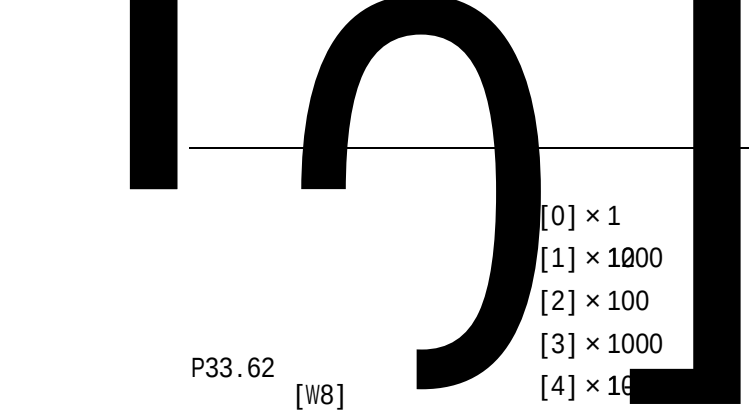
P23.54	Ki		0.0 1000.0 [%]	100.0 [%]	
P23.55			0.0 1000.0 [%]	100.0 [%]	
P23.56			0.0 1000.0 [%]	100.0 [%]	
P23.57		[0] [1]	0 1	0	
P23.58			0.0 125.0 [%]	100.0 [%]	
P23.59			1.0 25.0 [%]	2.5 [%]	
P23.60	DROOP	0 DROOP	0.0 100.0 [%]	0.0 [%]	
P23.61	DROOP	DROOP	30 2000 [ms]	50 [ms]	
P23.62			0.0 1000.0 [%]	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 [%]	

11.23 P33

P33.0	Profibus	[0] [1]	0 1	0	
P33.1		PLC	1 255	1	
P33.2		[0]PPO 1 [1]PPO 2 [2]PPO 5 [3]GUIDE	0 3	2	
P33.3			0 16	14	
P33.4			0 16	14	
P33.5		[0] [1] [2] [3]	0 3	0	
P33.6			0 1000 [ms]	50 [ms]	
P33.7		[0] [1]	0 1	0	
P33.8			0.0 10.0 [s]	3.0 [s]	
P33.13	[W0]	7-2	0 37	0	
P33.14	[W0]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000	0 4	0	
P33.15	[W1]	7-2	0 37	0	
P33.16	[W1]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000	0 4	0	
P33.17	[W2]	7-2	0 37	0	

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	

P33.54	[W4]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000 [5] [%] × 1 [6] [%] × 10 [7] [%] × 100	0 7	0	
P33.55	[W5]	7-3	0 48	19	
P33.56	[W5]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000 [5] [%] × 1 [6] [%] × 10 [7] [%] × 100	0 7	2	
P33.57	[W6]	7-3	0 48	26	
P33.58	[W6]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000 [5] [%] × 1 [6] [%] × 10 [7] [%] × 100	0 7	6	
P33.59	[W7]	7-3	0 48	30	
P33.60	[W7]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000 [5] [%] × 1 [6] [%] × 10 [7] [%] × 100	0 7	1	
P33.61	[W8]	7-3	0 48	14	



[0] × 1
[1] × 10
[2] × 100
[3] × 1000
[4] × 10
[5] [%] × 1
[6] [%] × 10
[7] [%] × 100

P33.62	[W8]		0	7	0
P33.63	[W9]	7-3	0	48	13
P33.64	[W9]		0	7	0
P33.65	[W10]	7-3	0	48	40
P33.66	[W10]		0	7	6
P33.67	[W11]	7-3	0	6	

P33.70	[W12]	[0] × 15] [%³⁄Ø5]"[%+] [1] × 10 [2] × 100 [3] × 1000 [4] × 10000 [5] [%]

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

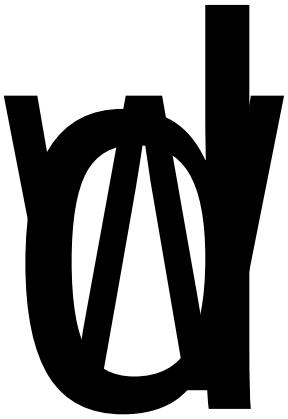
12.

12.1

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

12.2

[E113]	MIP		
[E114]	MOP		
[E115]	OS	P7.19	P7.19
[E116]	SLVC Fail	P7.23	
[E117]	MOTOR STALL		P20.14 P20.15
[E118]	1 PG1 ERROR		



[E138]	TEMP_SENSING FAIL	
[E139]	Pre_Charging Fail	P7.95
[E140]	Line UV	
[E141]	Line OPEN	
[E142]	Line Detection Error	
[E143]	Line SW Fail	DI
[E144]	Line SW SHORT	
[E145]	(AFE) Line OV	P16.0
[E146]	(AFE) Line Over_Freq	
[E147]	2 PG2 ERROR	2
[E152]	U IGBT	IGBT IGBT
[E154]	V IGBT	IGBT IGBT
[E155]	W IGBT	IGBT IGBT
[E156]	Hardware OC	IGBT IGBT
[E158]	Motor OT	
[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]	5 SLV5_CAN_ERR	5
[E170]	MOTOR TUNING FAIL	P7.33
[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
[E203]	DRIVE DISABLED	DP
[E210]	Panel Error	
[E220]	CRC MEMORY CRC ERR	
[E221]	PARAMETER ERROR	
[E231]	STO1	STO1 “ Low ” ,STO1/STO2
[E232]	STO2	STO2 “ Low ” ,STO1/STO2
[E233]	STO3	STO1/STO2 “ Low ”

12.3

		•	• DC15V
		•	• D05 • D05 •
		•	• D04 •

-
- ON
- COM

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- ON
- COM ( )

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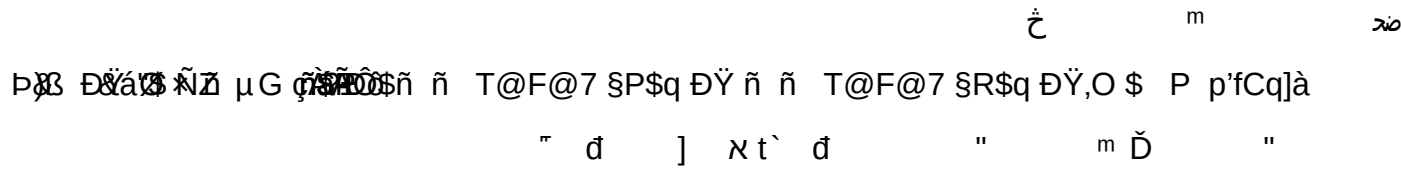
13.

1. 2. 3. 4.

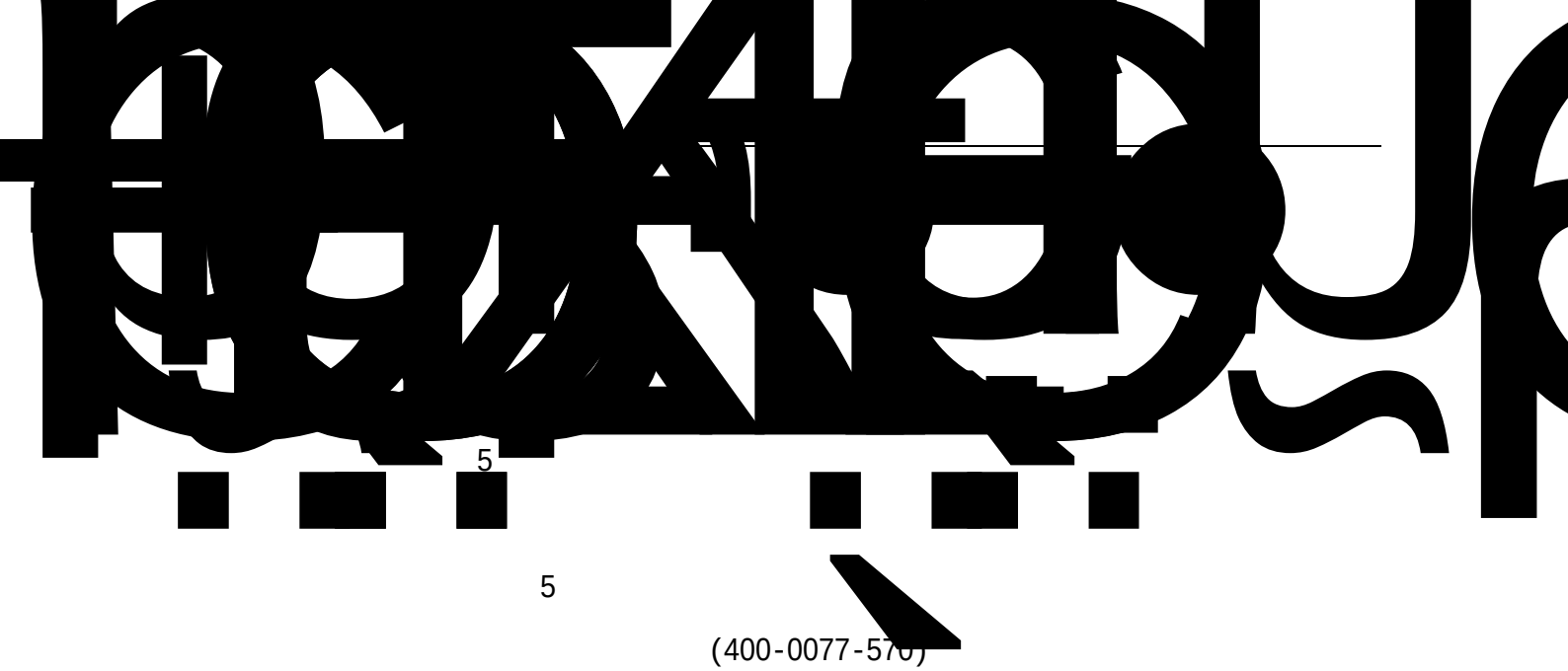
1. CMOS 2. 3.

13.1



[redacted]

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



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(400-0077-570)

1 40
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2 80%
3 24 /

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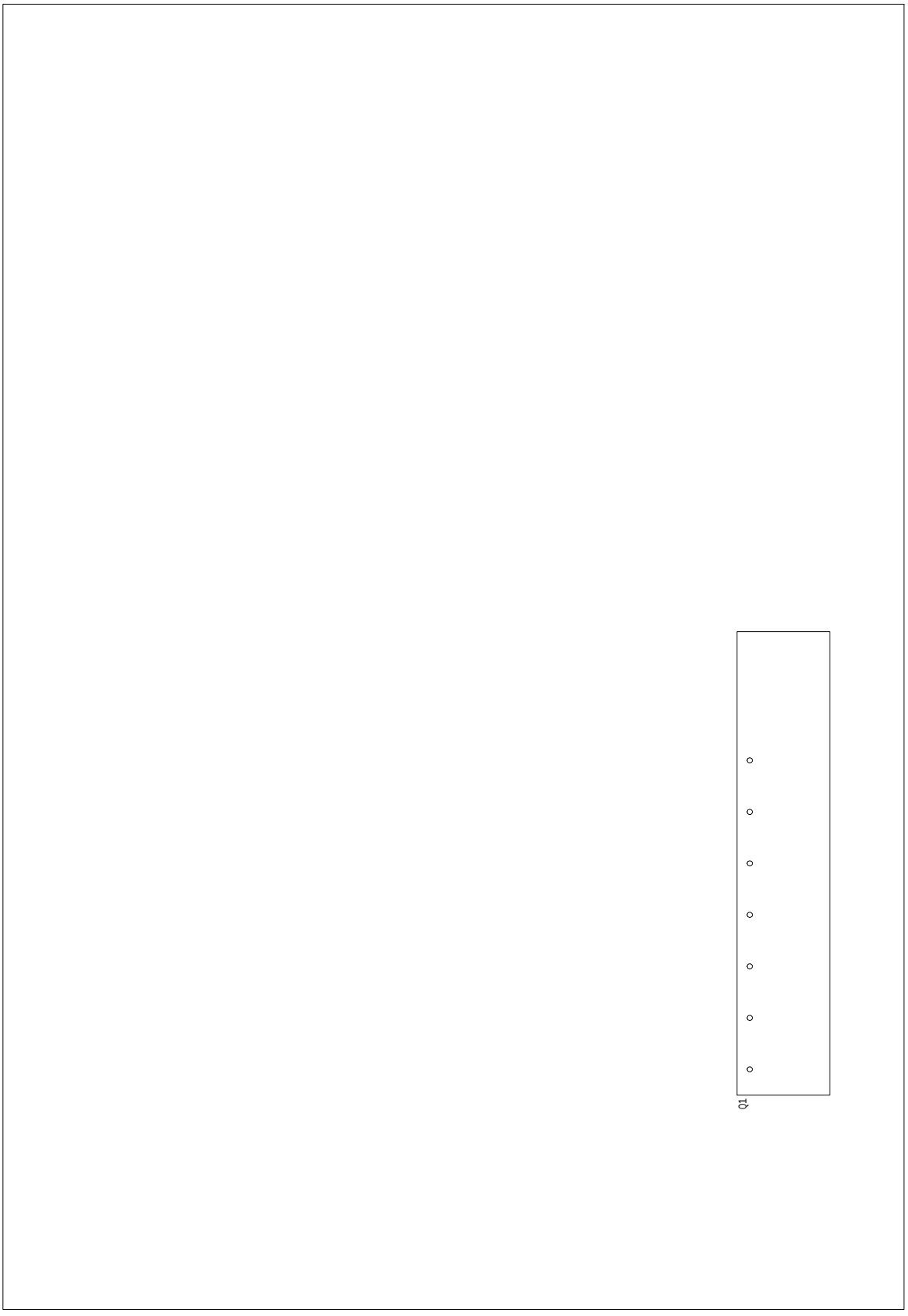
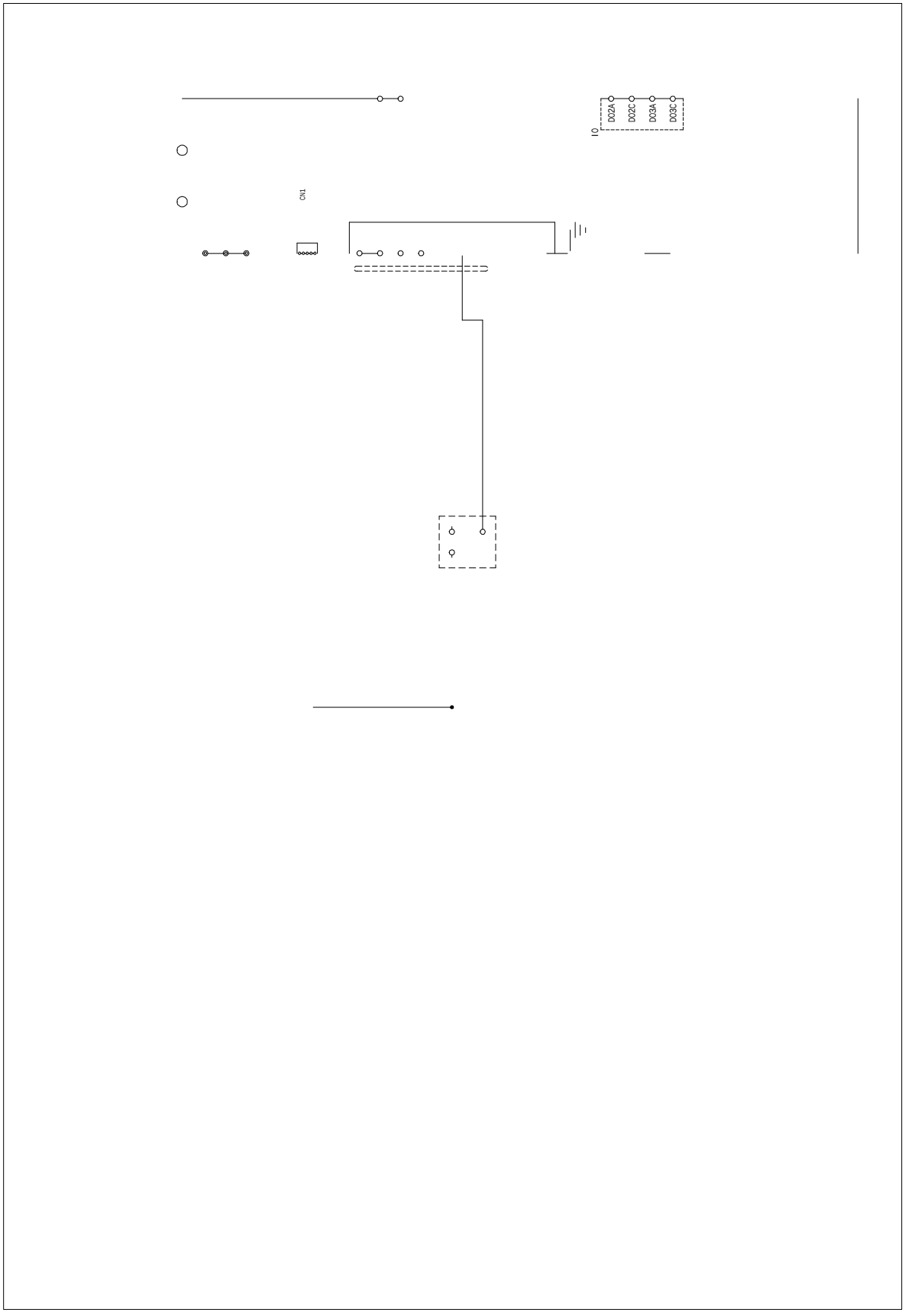
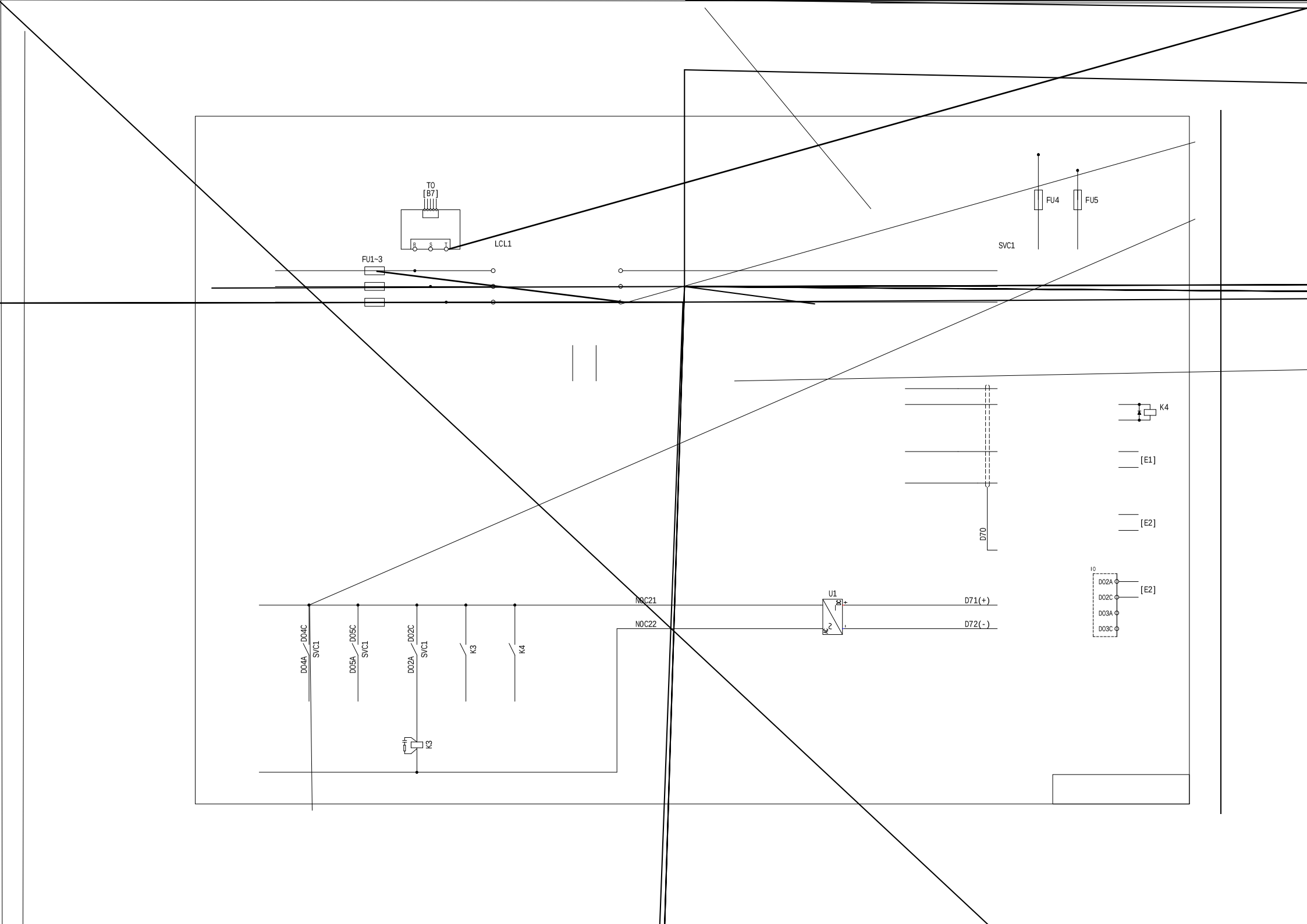
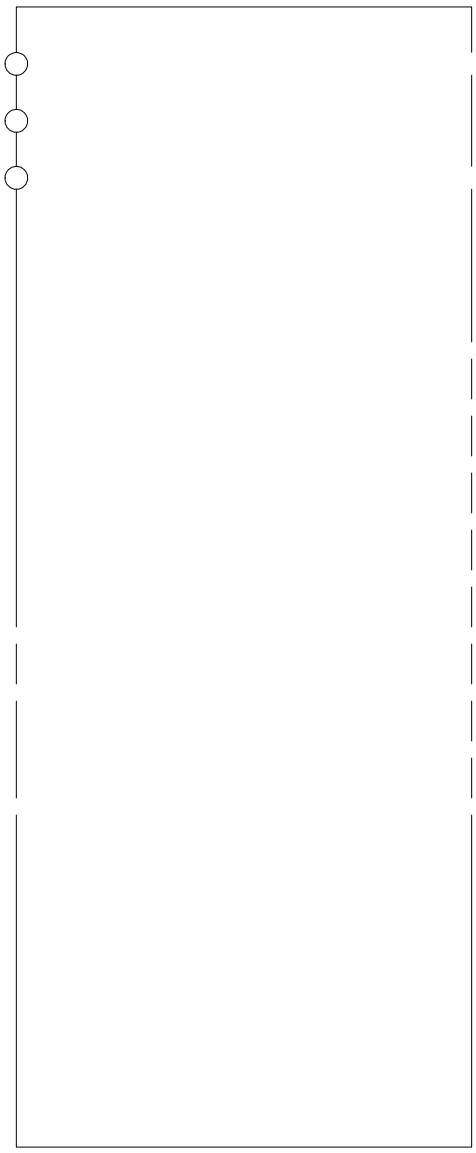
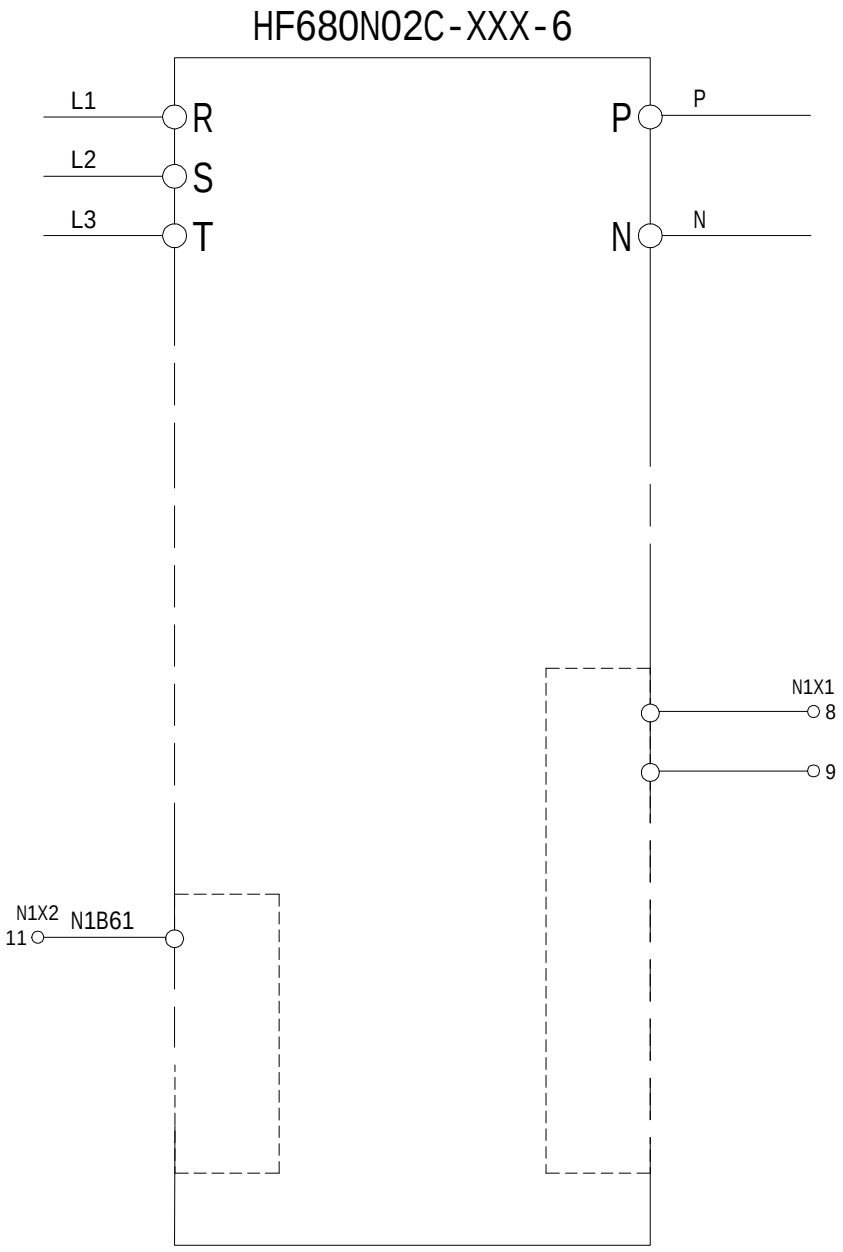

Q1


D02A
D02C
D03A
D03C
IO
CN1

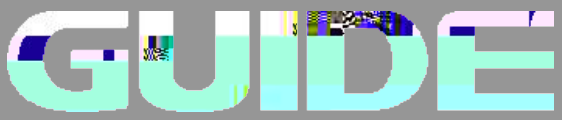

T0
[B7]
R
S
T
LCL1
FU1~3
FU4
FU5
SVC1
K4
[E1]
[E2]
D70
I0
DO2A
DO2C
DO3A
DO3C
[E2]
U1
NOC21
NOC22
D71(+)
D72(-)
DO4A
DO4C
SVC1
DO5A
DO5C
SVC1
DO2A
DO2C
SVC1
K3
K4
K3




HF680N02C-XXX-6
L1
L2
L3
R
S
T
P
N
P
N
N1X1
8
9
N1X2
11
N1B61

HF680N

1.00



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