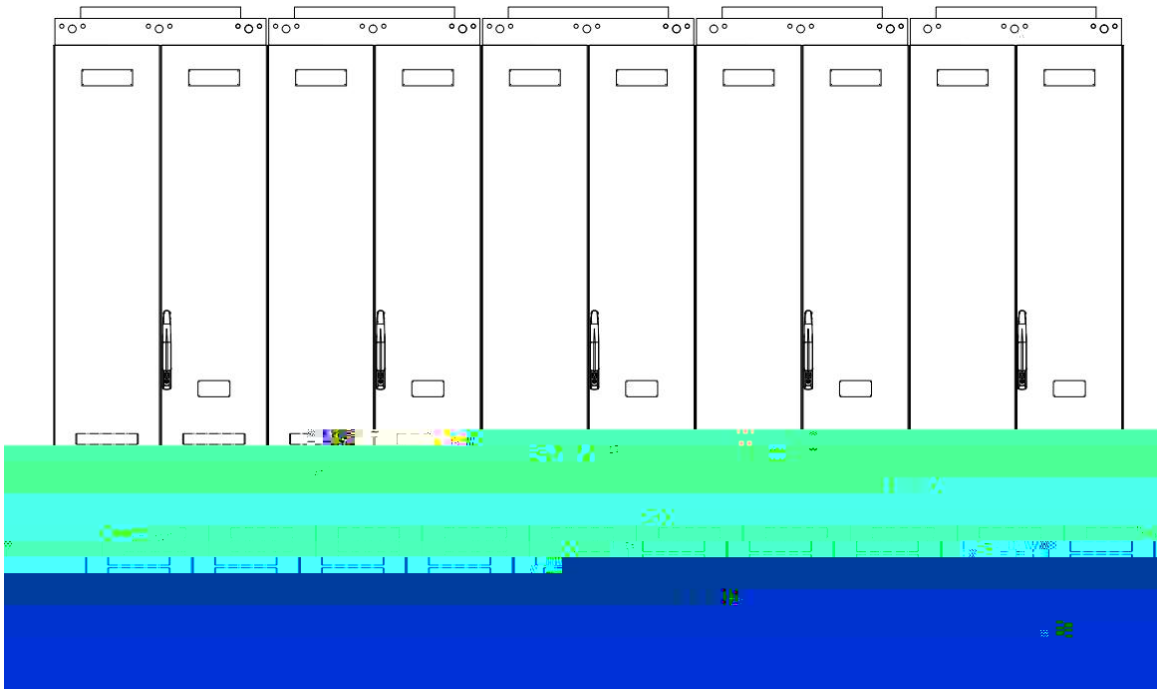
HF680N

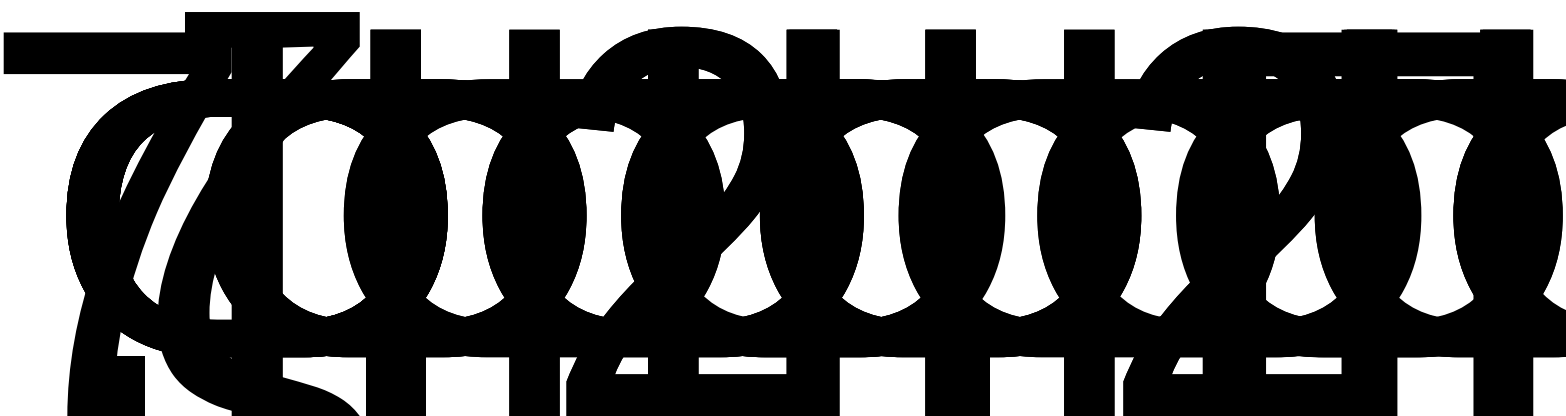
V1.06

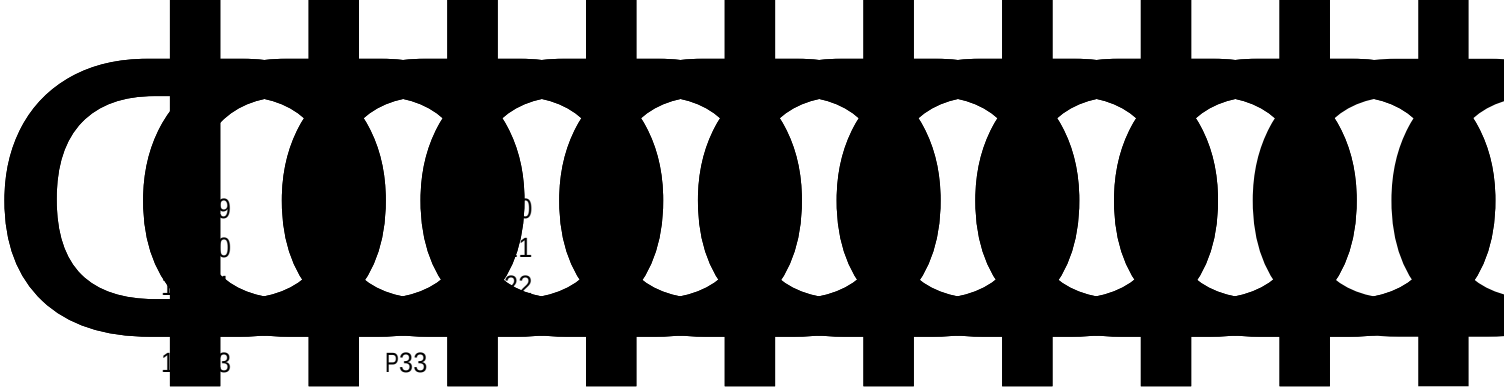
Wuhan Guide Technology Co.,Ltd.



HF680N

7.2.1
7.2.2





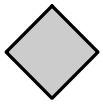
9 0
0 1
2

3 P33

11.
11.1
11.2
11.3

1.

1.1



1

RCD

RCM RCD

RCM

B RCD RCD

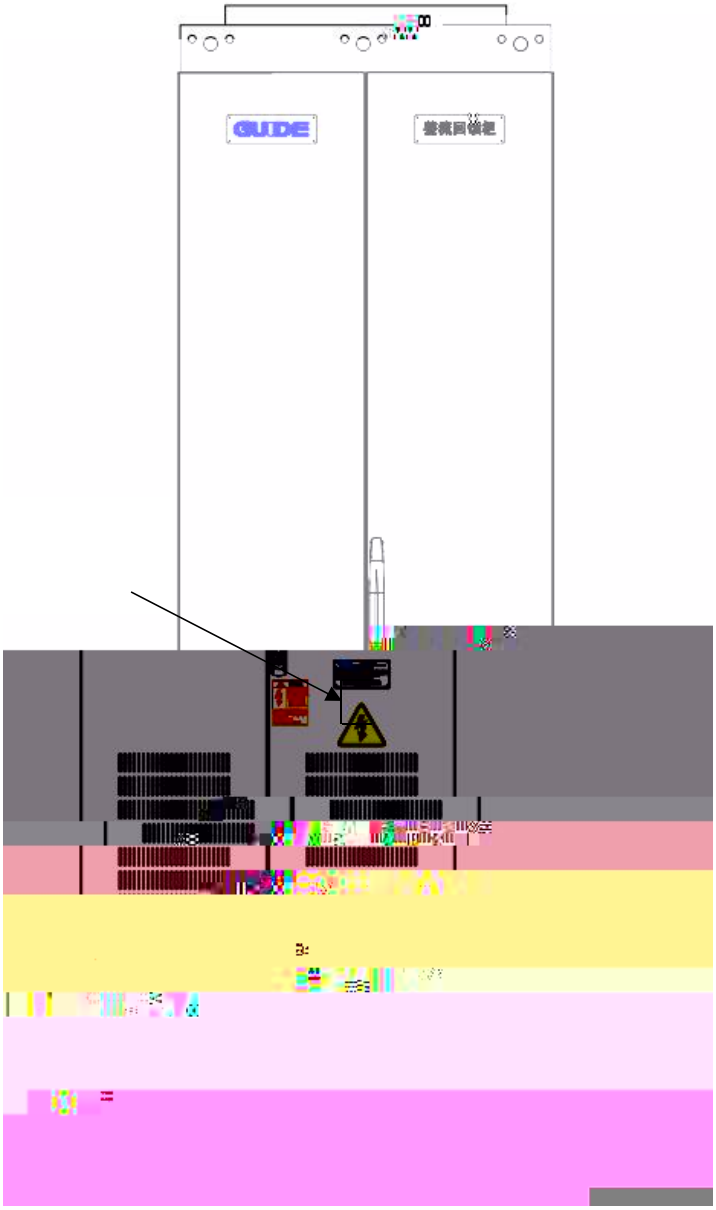
RCD RCD

2

500V 5MΩ

3

HF680N02C-400-4

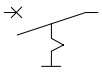


)

2.

2.1

HF680N LCL



2

2.4

⚠
1. / “ ” / 2. 3. - R S T - U V W - P N 4. 5 5.
⚠
1. 2. 3. 40 4. 1.2

2.4.1

-
- -20 +60
- 0% 95%
-
-
-

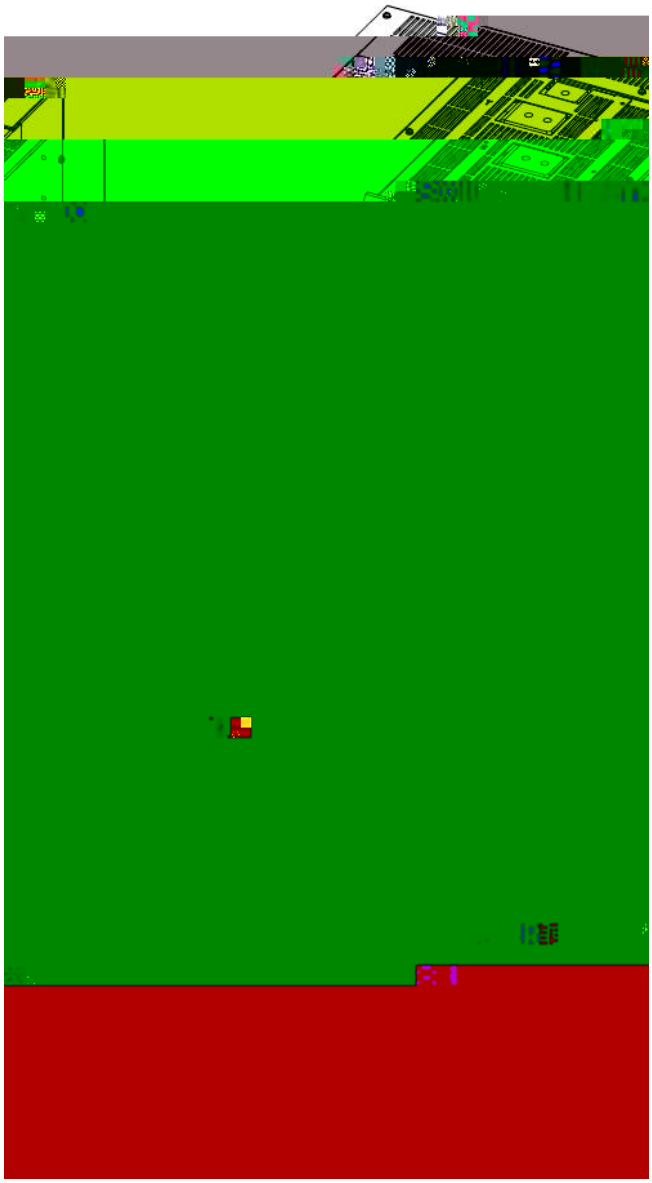
1 5

2.4.2

-
- -10 +40 +40 +50 1
  2% 50
- 95%RH
-
-
-
-
-
- 1000 1000 100 1%
  3000

2.4.3

j ¶-$A



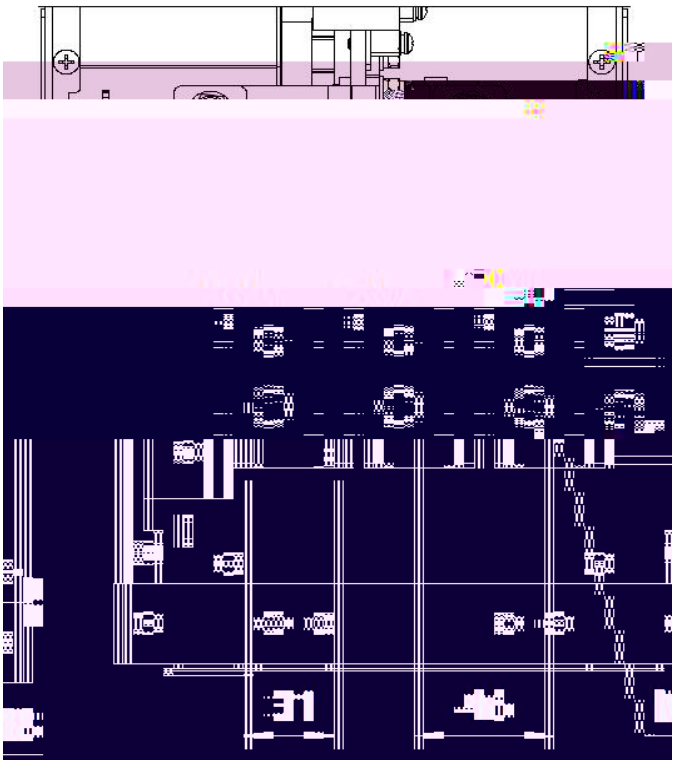
LCL

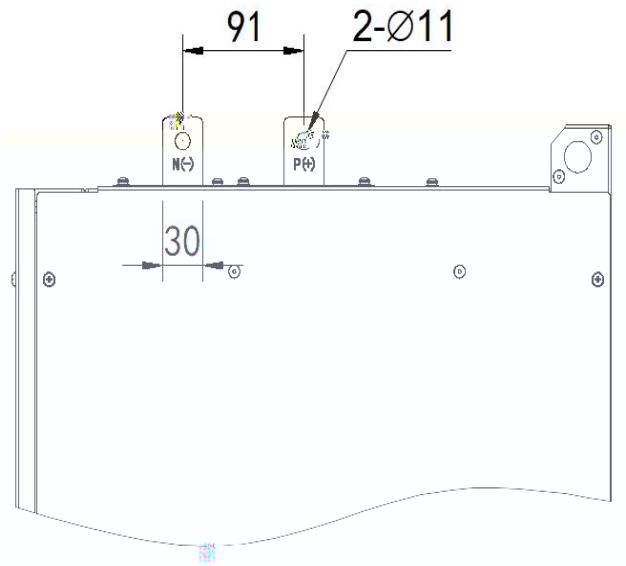
3.

3.1

LCL

B4





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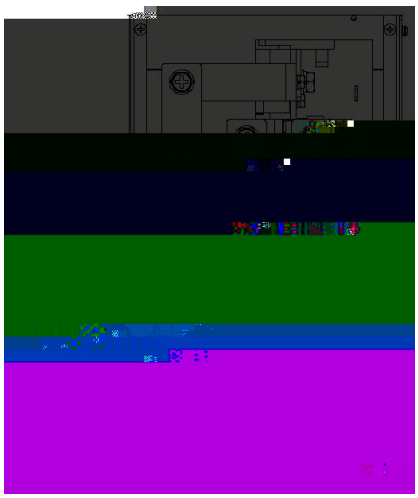
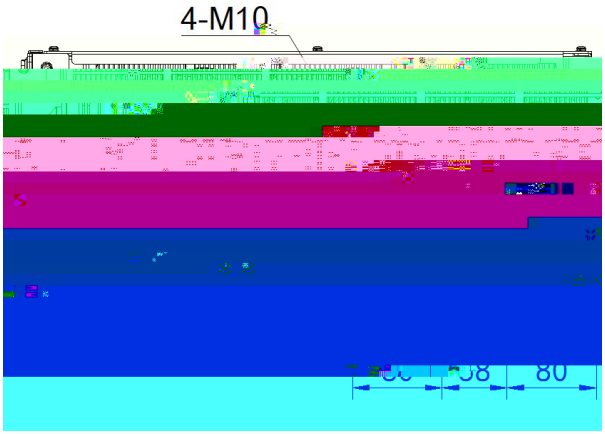
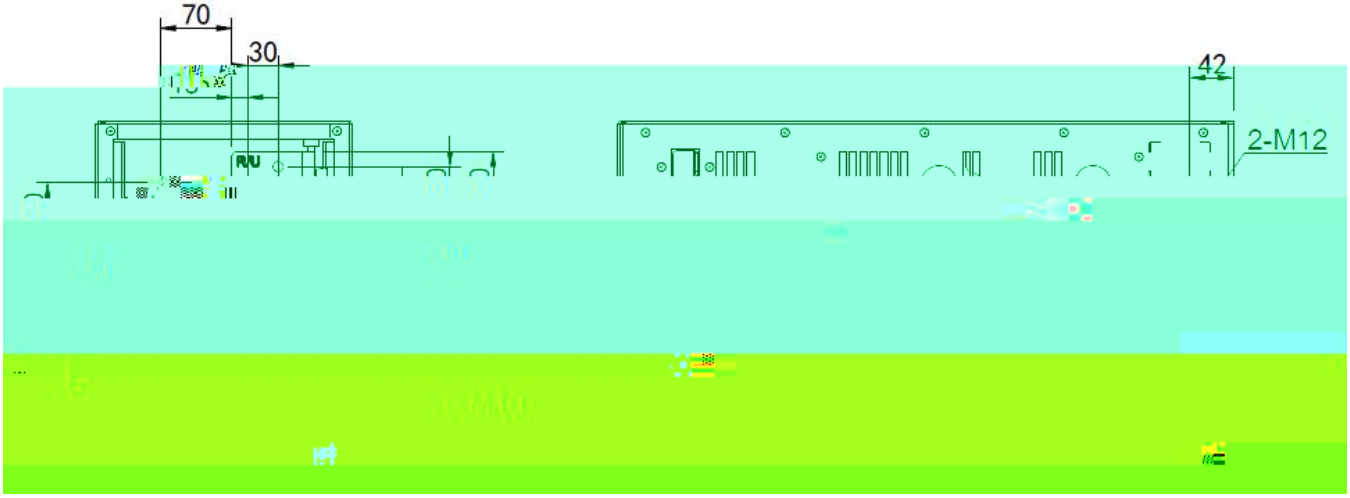


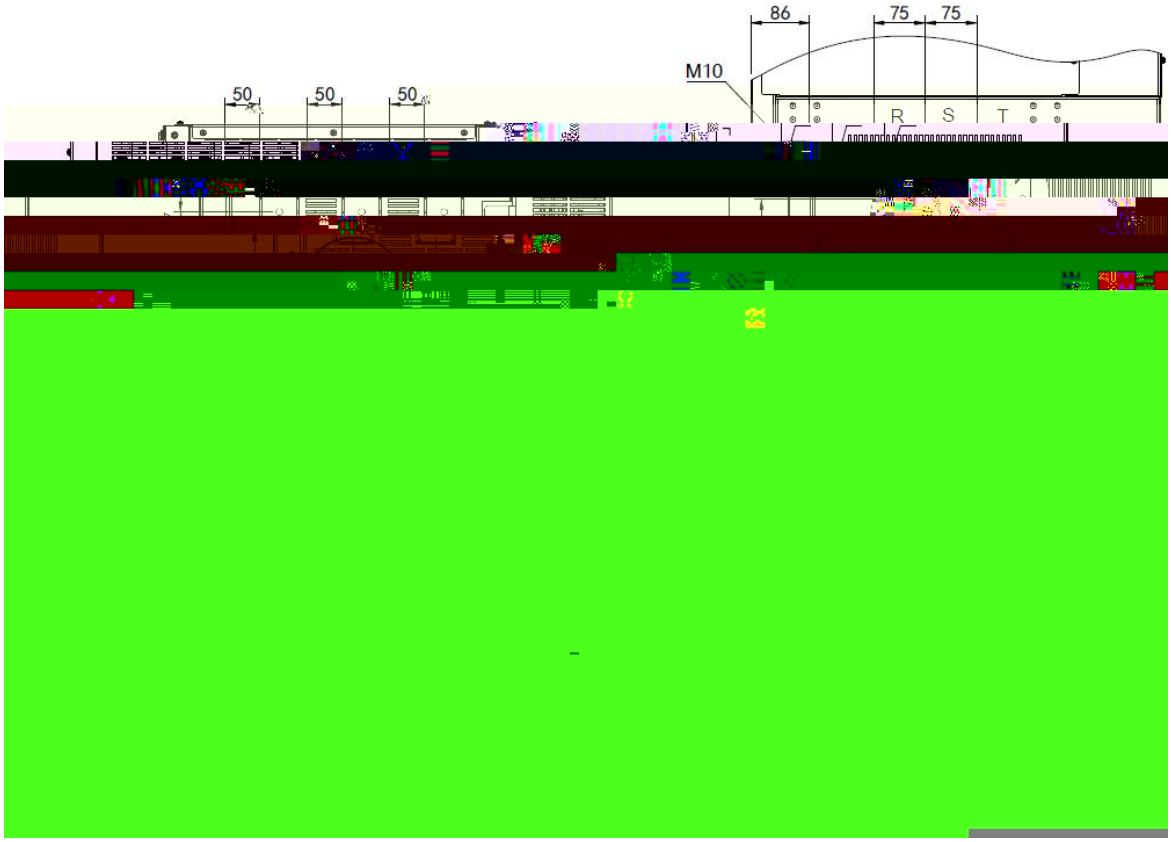


B6



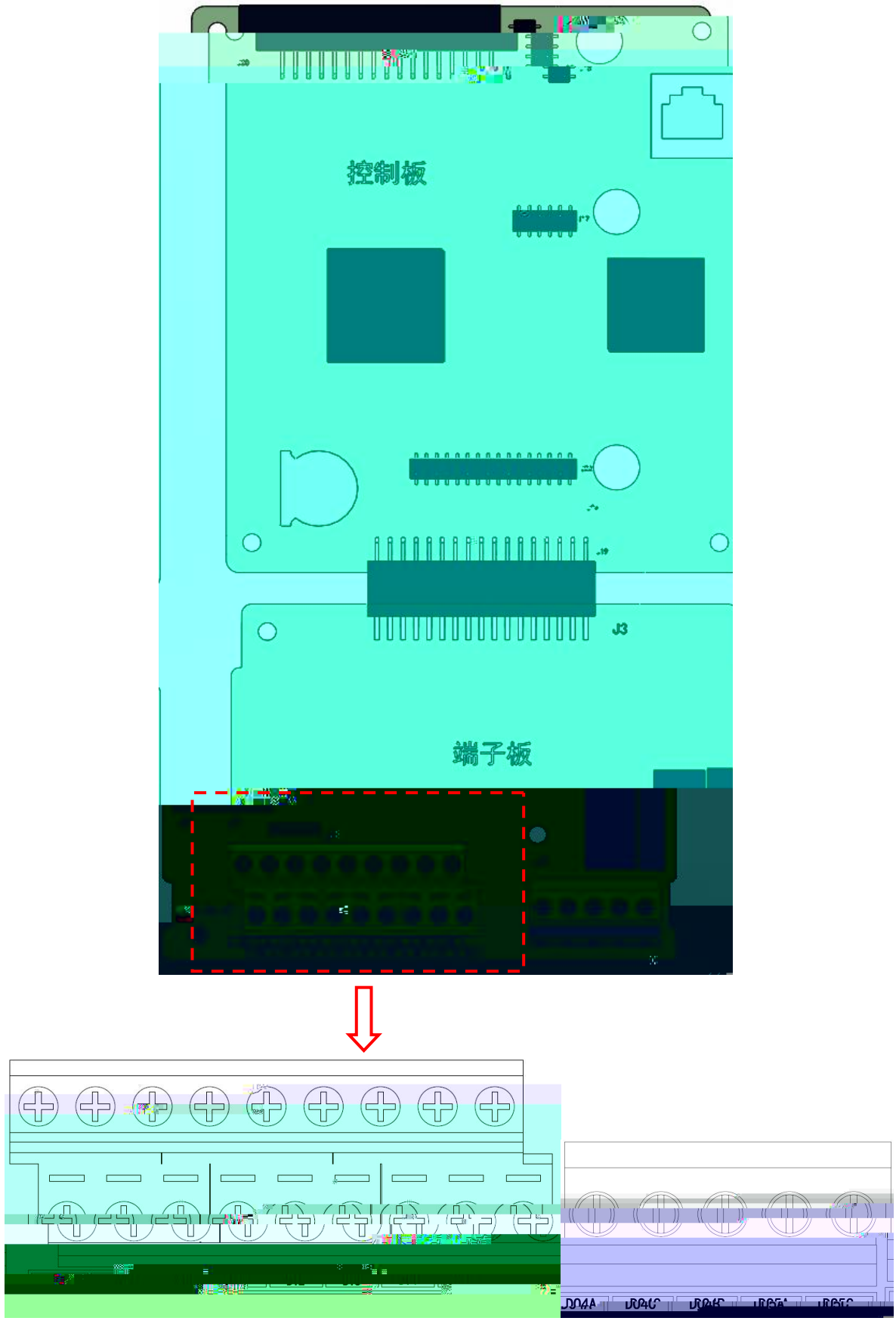
2 LCL

R S T	LCL
	LCL
P + N -	LCL
PTC	LCL



B6 LCL

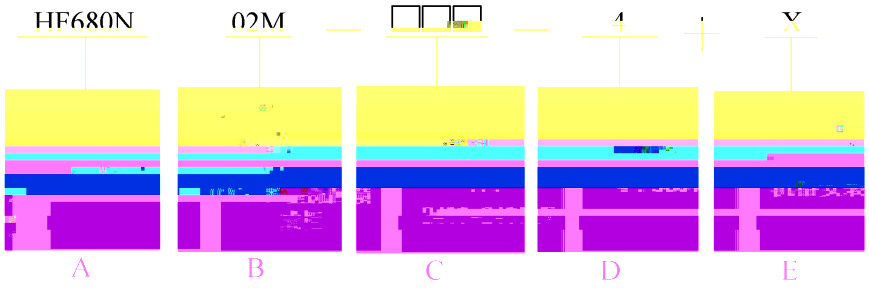
2



	+10V-GND	10V	+10V 50mA 1kΩ~5kΩ
	+24V-COM	24V	+24V 200mA
	PW		24V DI1~DI5 DO1 PW 24V
	AI1-GND	1	DC -10V~10V 100kΩ
	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	
	J3	AO2	

3.3



A	
B	02M 02C
C	132 132kW 2400 2400kW
D	4 380V
E	

MB01	Modbus RTU	DP01	Profibus DP
PN01	Profinet	CAN01	CANopen

Z1/ 100mm

Z2 200mm

Z3 250mm

Z4 300mm

HF680N02C-400-4 HF680N02C-400-4+Z1 400kW

100mm

620V

	Iac A	Idc A	Pdc kW	Idch A	Pdch kW	Pdch kW	
HF680N02M-132-4	265	308	191	213	132	132	B4
HF680N02M-185-4	330	384	238	298	185	185	B5
HF680N02M-250-4	485	564	350	403	250	250	
HF680N02M-315-4	545	634	393	508	315	315	
HF680N02M-355-4	610	710	440	573	355	355	B6
HF680N02M-400-4	668	777	482	645	400	400	
HF680N02M-450-4	720	838	519	726	450	450	
HF680N02C-250-4	485	564	350	403	250	250	
HF680N02C-315-4	545	634	393	508	315	315	
HF680N02C-355-4	610	710					B6

	Iac A					Pdch kW	
		Idc A	Pdc kW	Idch A	Pdch kW		
HF680N02C-2000-4	3600	4190	2597	3226	2000	2000	B6*5
HF680N02C-2400-4	4320	5027	3117	3871	2400	2400	B6*6

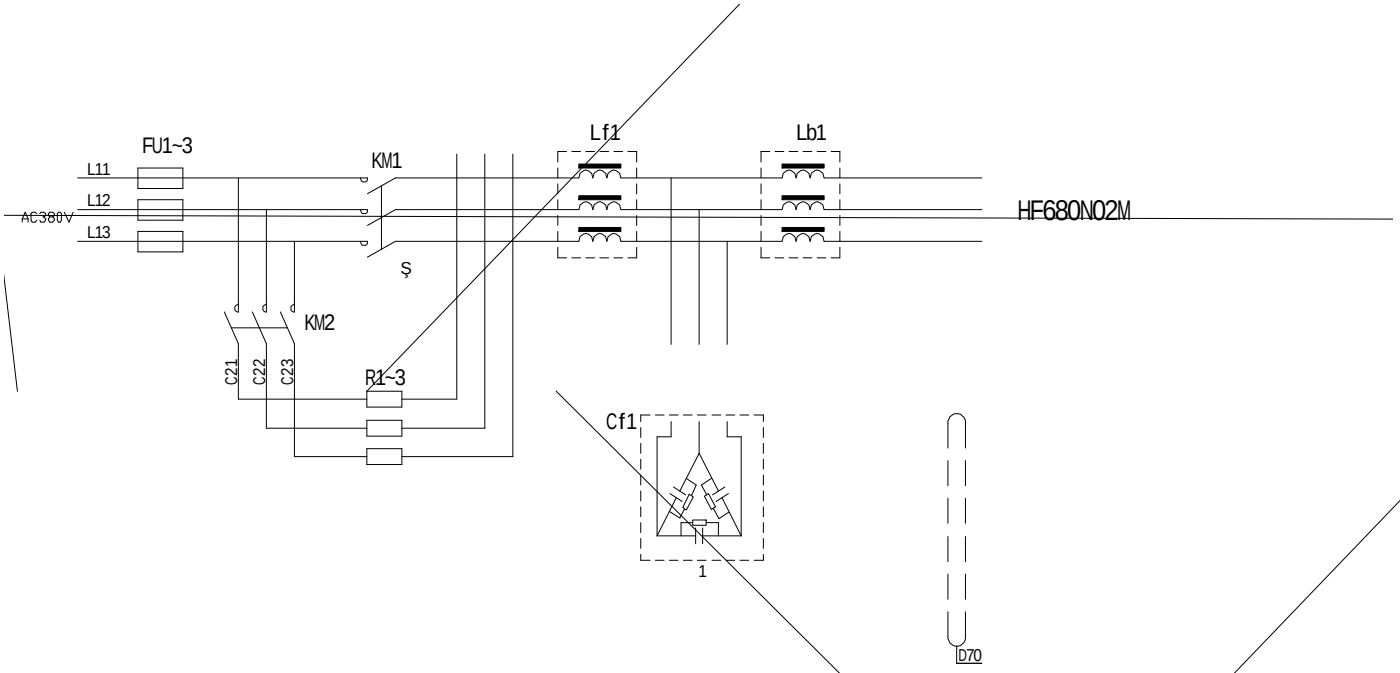
HF680N02M
HF680N02M

3.4

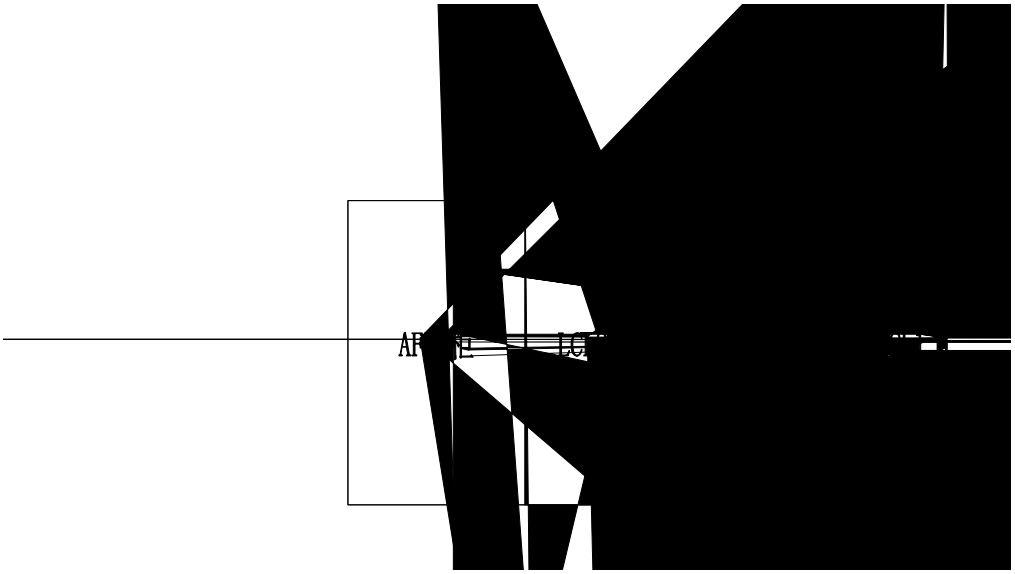
LCL

	LCL Lf Lb Cf	Lf	Lb	Cf	
HF680N02M-132-4	GDHF680N-LCL-132-4	ACL-132-4	PWM-132-4	CAP-132-4	3×7R5
HF680N02M-185-4					

3.5


FU1~3
KM1
Lf1
Lb1
L11
L12
L13
AC380V
HF680N02M
KM2
C21
C22
C23
R1~3
Cf1
1
D70

“ ”



3.8

IGBT

50%

0.999

3% GB/T 24337-2009

380V 480V -15% +10%

DP PN

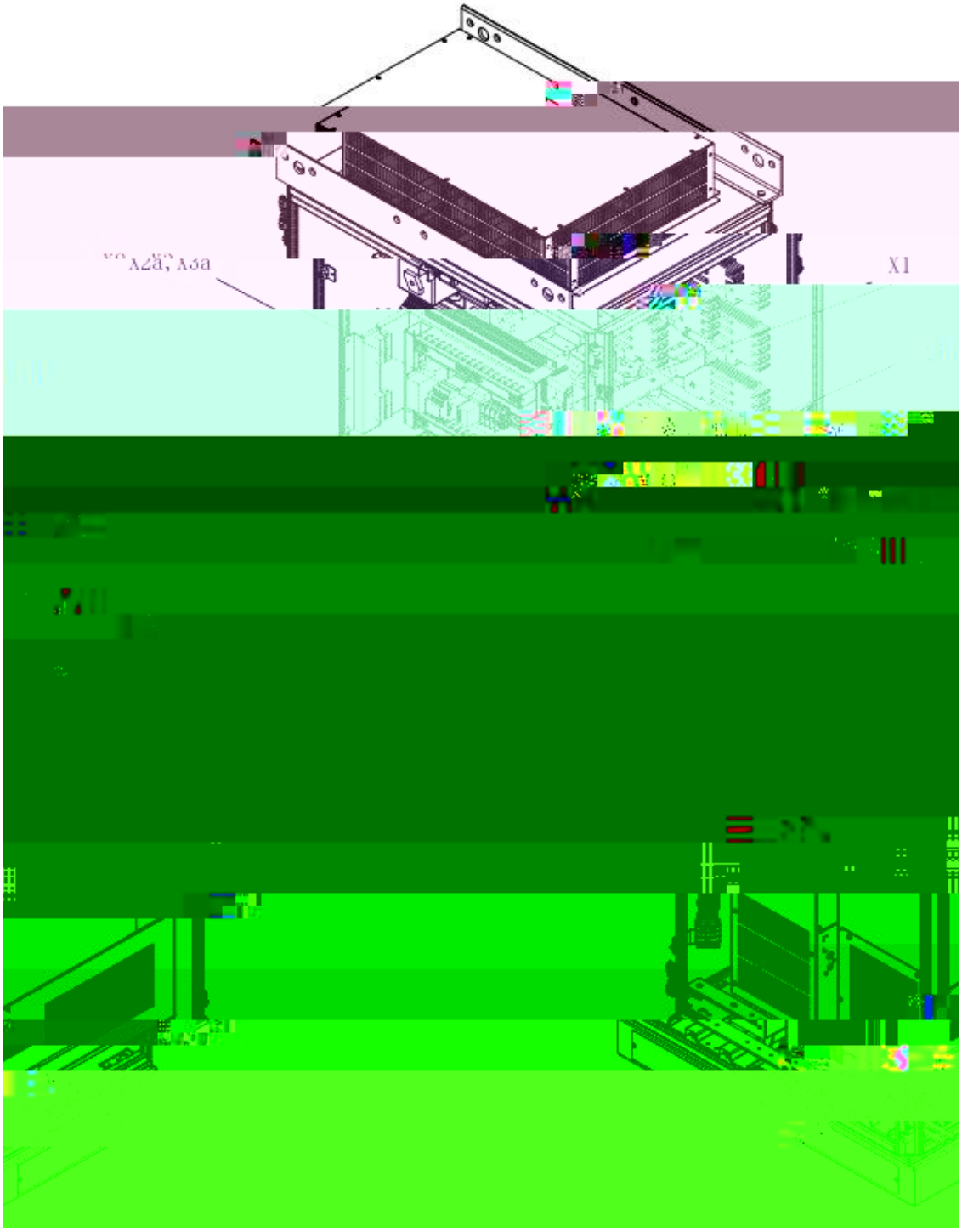
75kW 2400kW

3.9

1

2 450kW

450kW



2 b

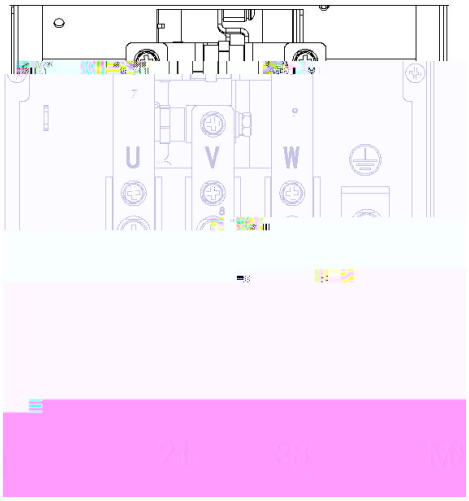
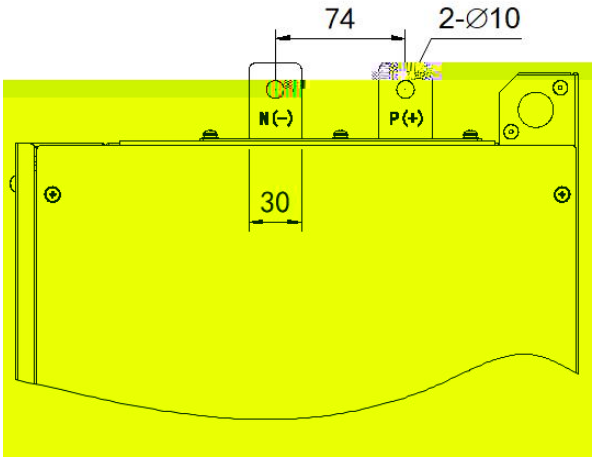
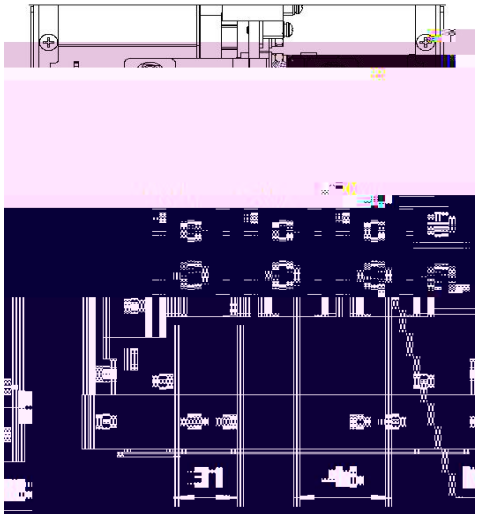
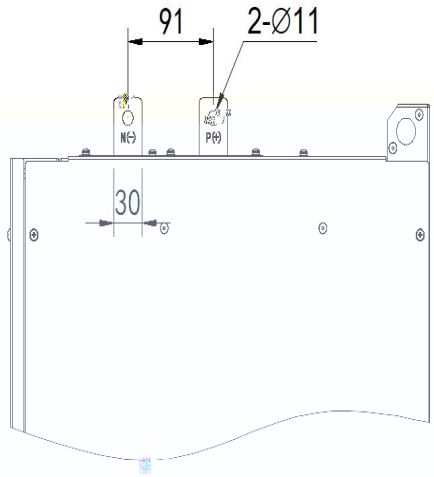
4.

4.1

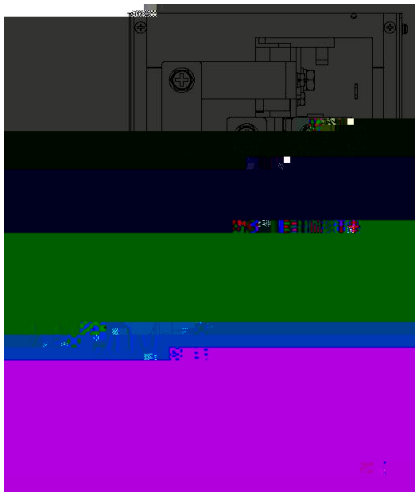
4.2

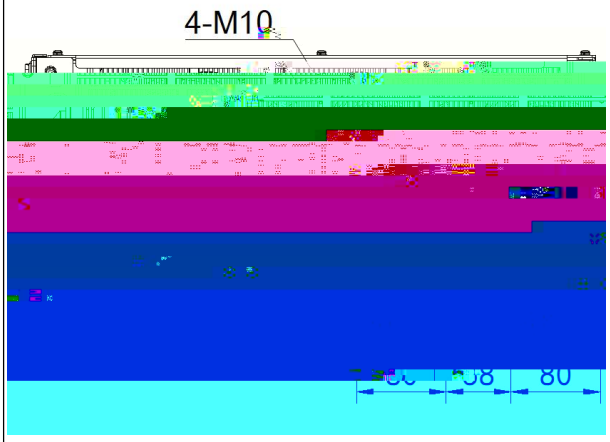
1

P +	
N -	
U V W	
	

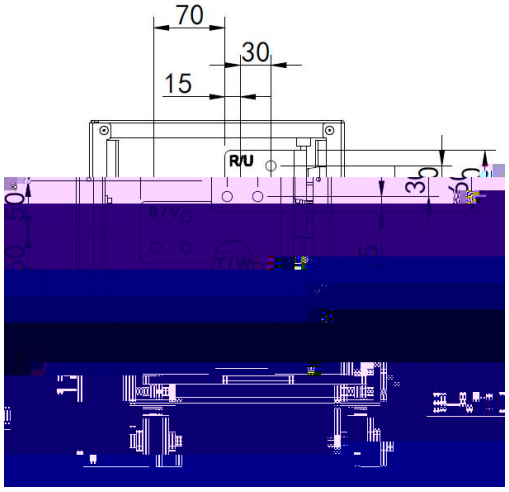
B3	
	
B4	
	

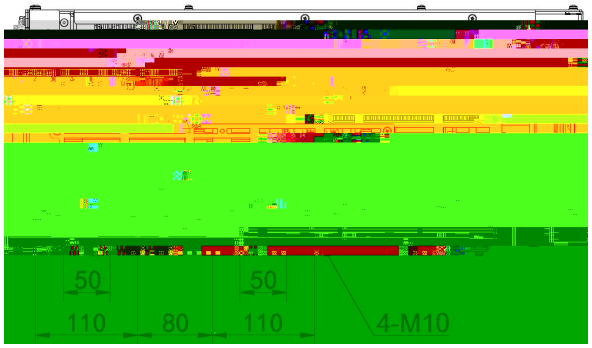
B5





B6



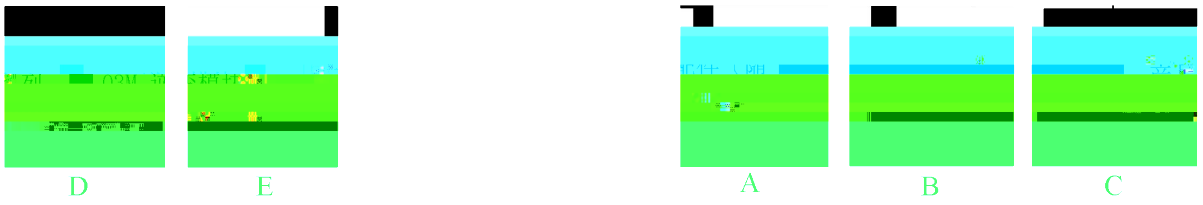


+10V-GND	10V	+10V	50mA

2

4.3

HF680N 03M — □□□ — 4 + X



A

B ɤ Γ

MB01	Modbus RTU	DP01	Profibus DP
PN01	Profinet	CAN01	CANopen
PG02			

Z1/ 100mm

Z2 200mm

Z3 250mm

Z4 300mm

1. HF680N03C-500-4 HF680N03C-500-4+Z1 500kW
100mm 250kW

2. HF680N03C-500-4+Z3 500kW 250mm
250kW

	[A]	[kW]	[A]	[kW]	
HF680N03M-037-4	75	37	71	30	B3
HF680N03M-045-4	94	45	76	37	
HF680N03M-055-4	115	55	96	45	
HF680N03M-075-4	155	75	118	55	
HF680N03M-090-4	188	90	157	75	B4
HF680N03M-110-4	215	110	190	90	
HF680N03M-132-4	265				

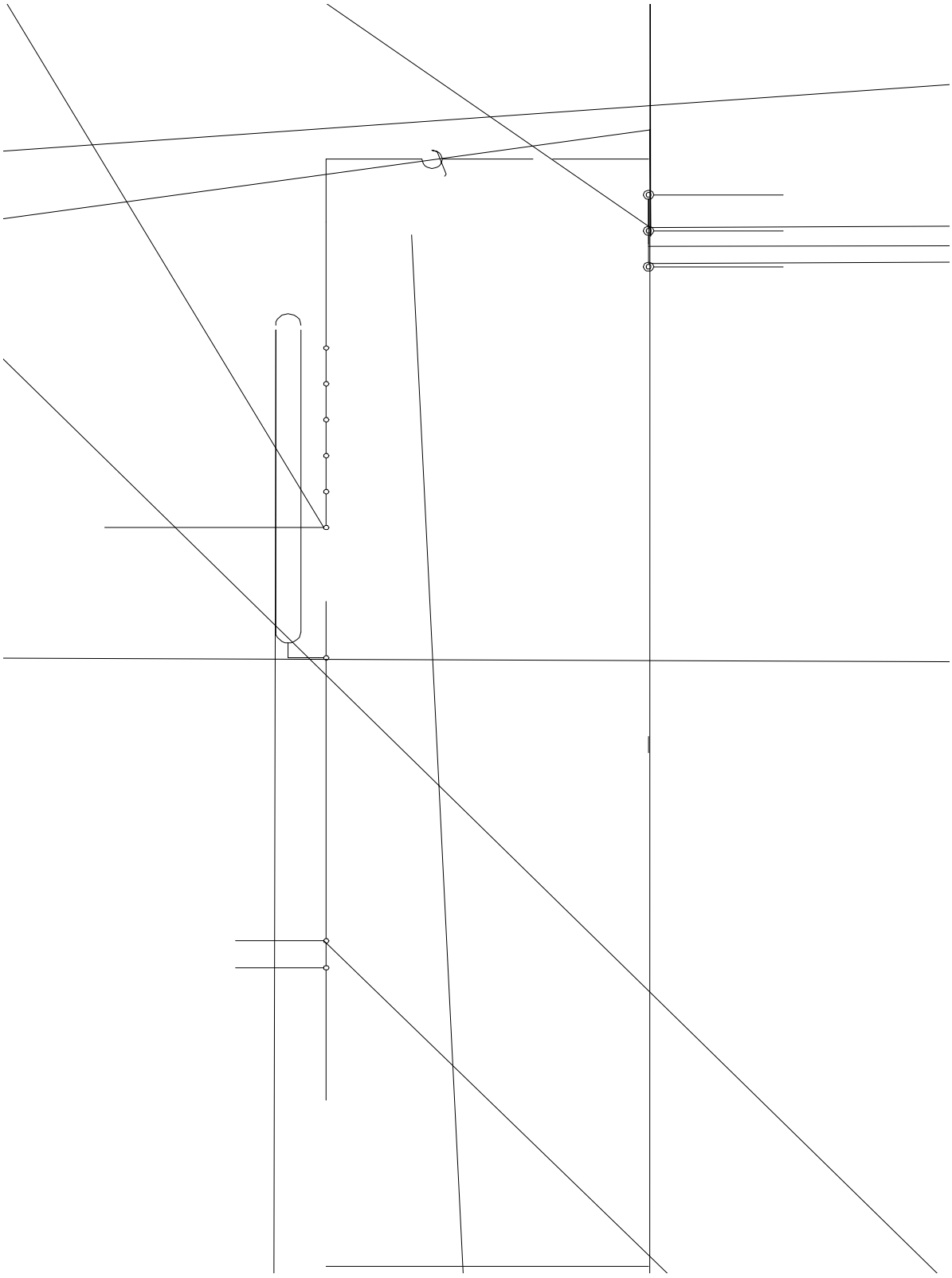
	[A]	[kW]	[A]	[kW]	
HF680N03M-200-4	415	200	367	185	
HF680N03M-220-4	438	220	418	200	
HF680N03M-250-4	485	250	440	220	
HF680N03M-280-4	545	280	487	250	B6
HF680N03M-315-4	610	315	548	280	
HF680N03M-355-4	668	355	615	315	
HF680N03M-400-4	720	400	670	355	
HF680N03M-450-4	820	450	725	400	
HF680N03C-500-4	970	500	823	450	B6*2
HF680N03C-560-4	1090	560	975	500	
HF680N03C-630-4	1220	630	1095	560	
HF680N03C-710-4	1336	710	1230	630	
HF680N03C-800-4	1440	800	1340	710	
HF680N03C-900-4	1620	900	1445	800	

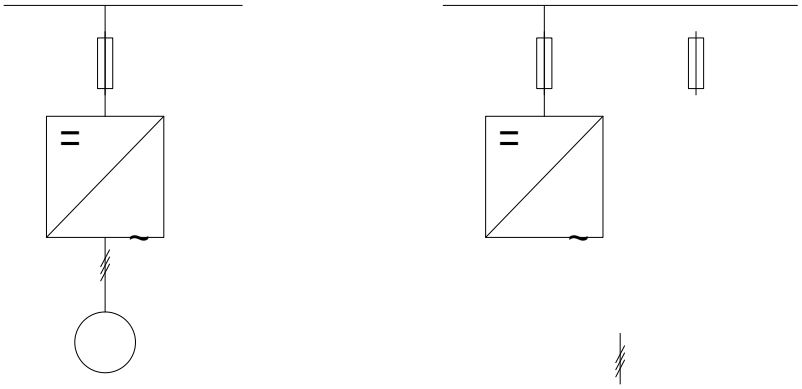
4.4

	1%			1%	
	A	mH		A	mH
37kW	75	0.09	185kW	365	0.02
45kW	94	0.07	200kW	396	0.02
55kW	115	0.06	220kW	438	0.02
75kW	155	0.05	250kW	485	0.01

90kW	188	0.04	280KW	545	0.01
110kW	215	0.03	315kW	610	0.01
132kW	265	0.03	355kW	668	0.01
160kW	303	0.02	400kW	720	0.01

4.5





4.6

		540V 700V
		(VC) (SVC) V/F
		Profibus DP
		380V 460V 5%
		0 300Hz
		0Hz/200%(VC SVC) 0.8Hz/150%(V/F)
		1kHz 10kHz
		150% 5 1 180% 5 1

4.7

		kW			kW
HF680N03M-037-4	B3	0.7	HF680N03M-200-4	B5	4.0
HF680N03M-045-4		0.9	HF680N03M-220-4		4.4
HF680N03M-055-4	B4	1.1	HF680N03M-250-4		5.0
HF680N03M-075-4		1.5	HF680N03M-280-4	B6	5.9
HF680N03M-090-4		1.8	HF680N03M-315-4		6.6
HF680N03M-110-4		2.2	HF680N03M-355-4		7.5
HF680N03M-132-4		2.6	HF680N03M-400-4		8.4
HF680N03M-160-4	B5	3.2	HF680N03M-450-4		9.5
HF680N03M-185-4		3.7	/	/	/

4.8

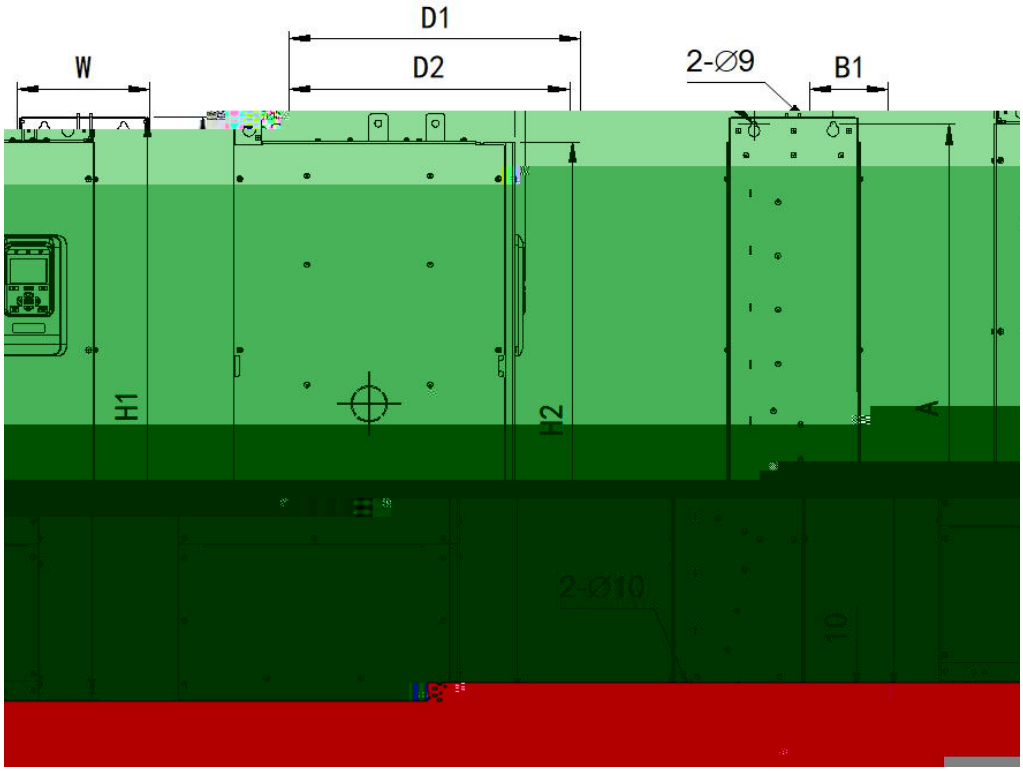
(1) 200%

(2) 50% HF680N

(3) HF680N

5.

5.1



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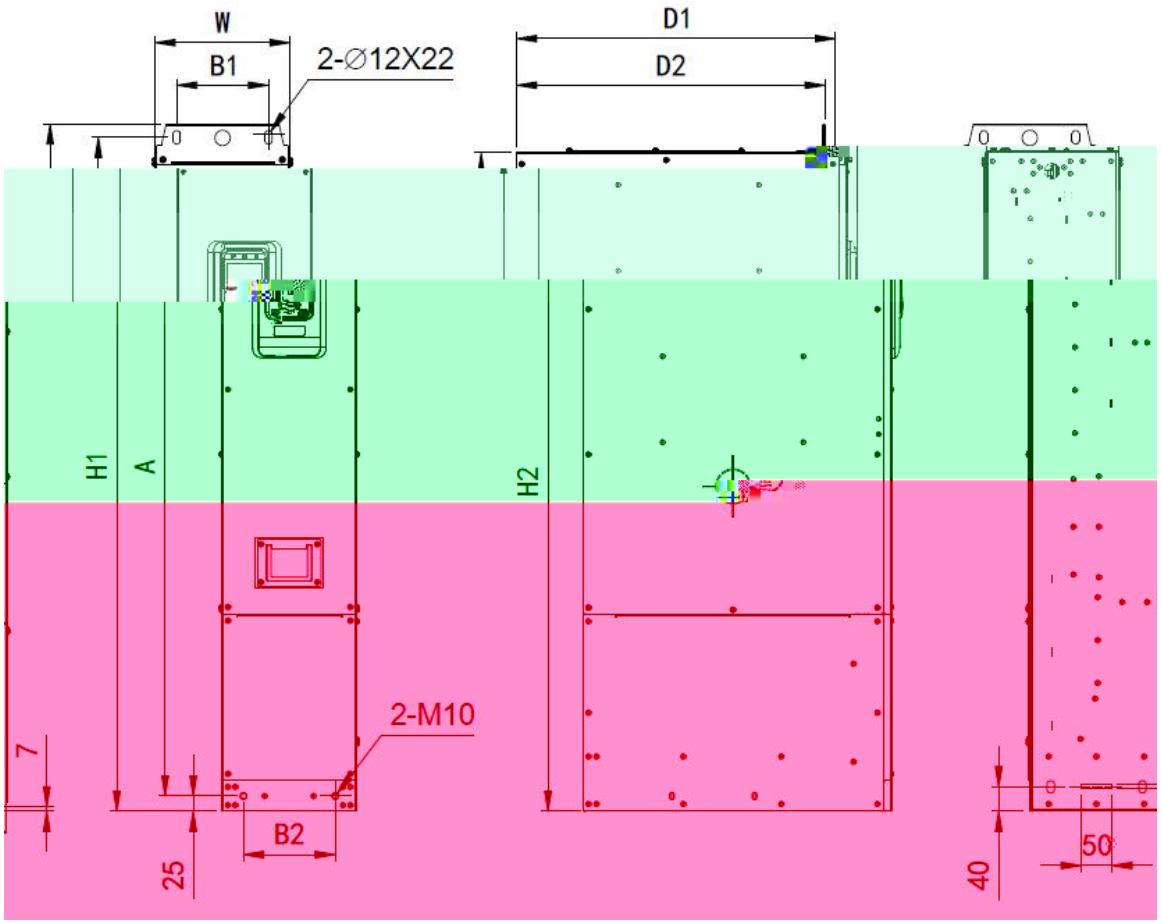

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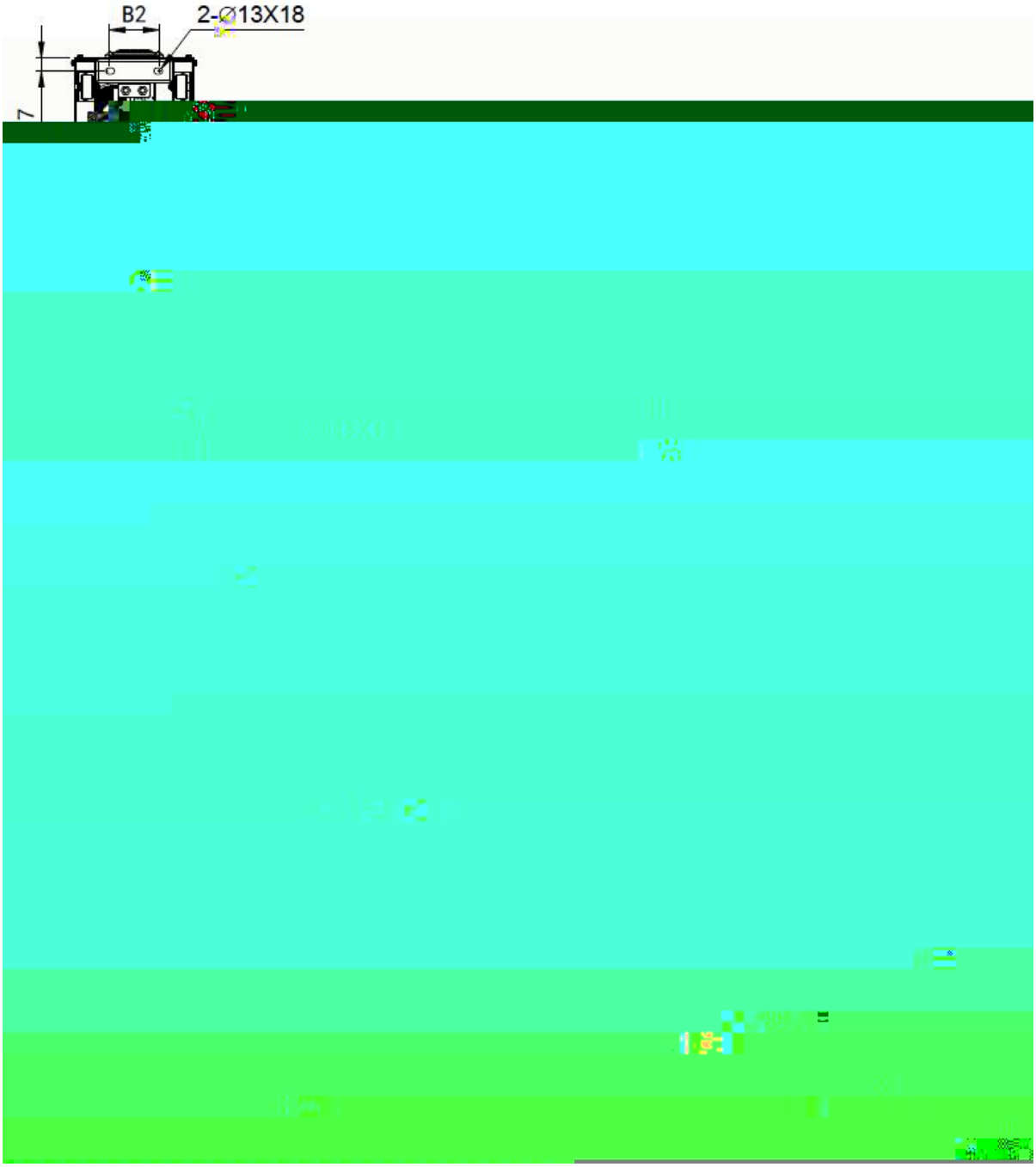
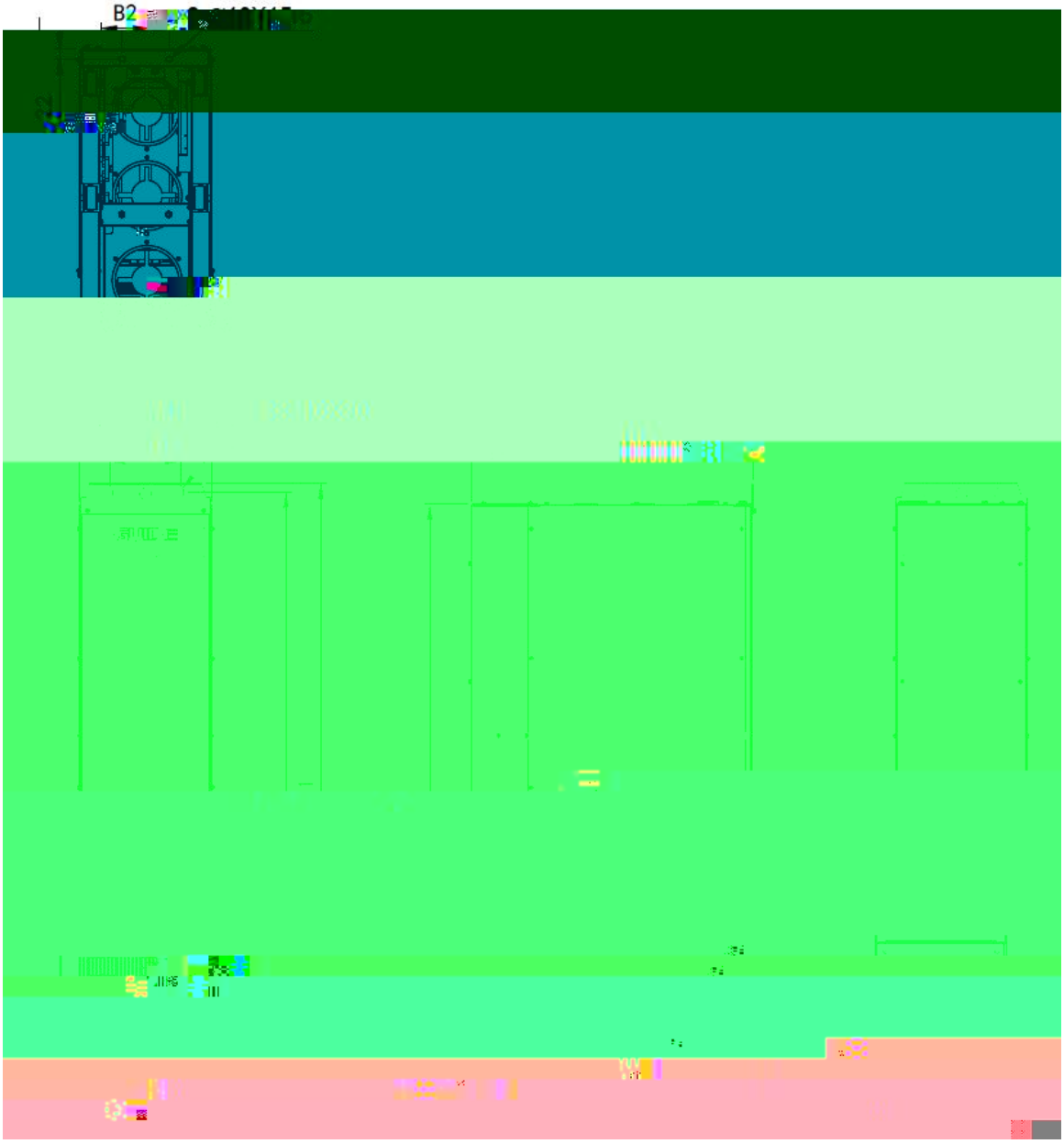


B6

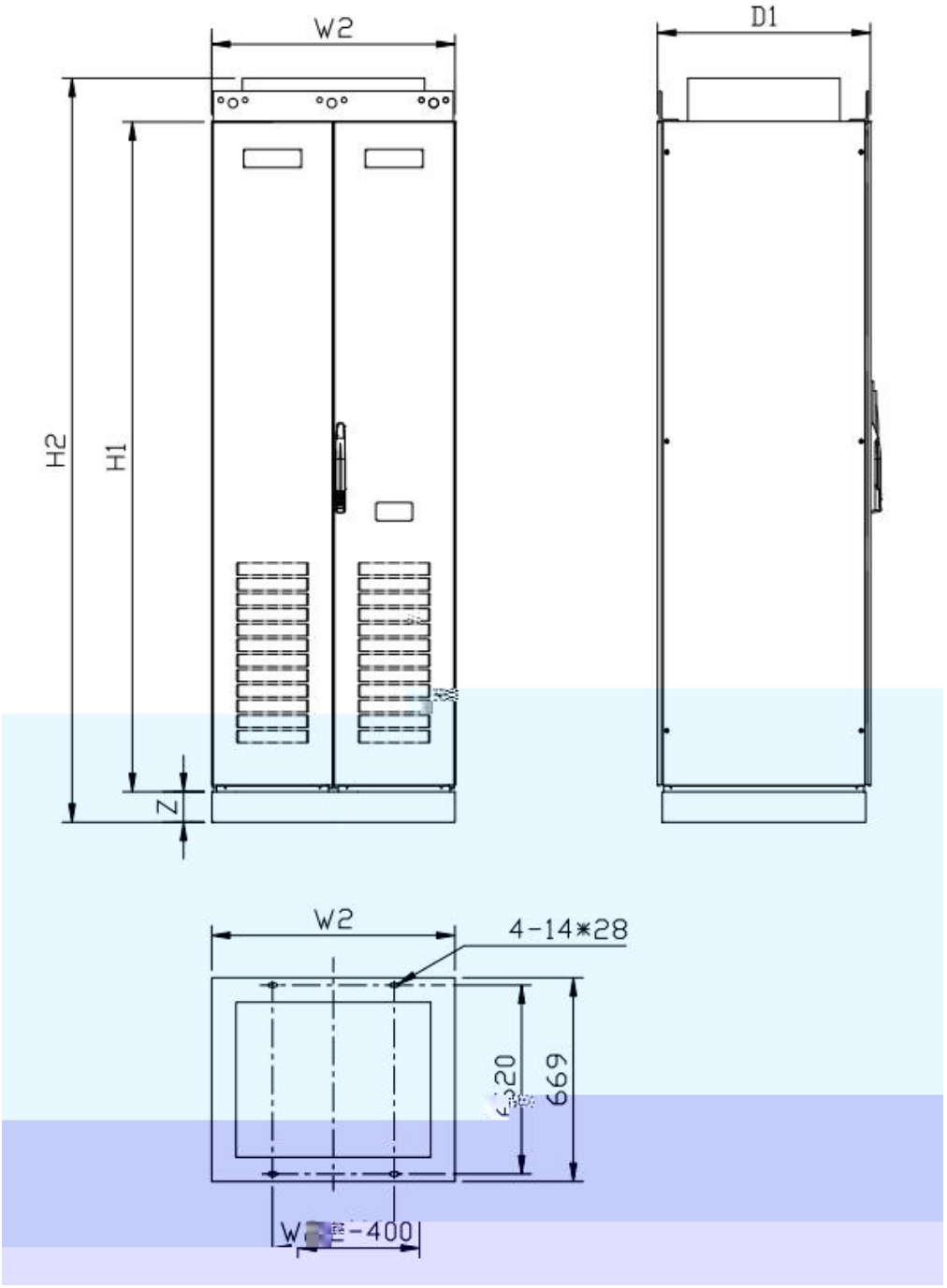


LCL

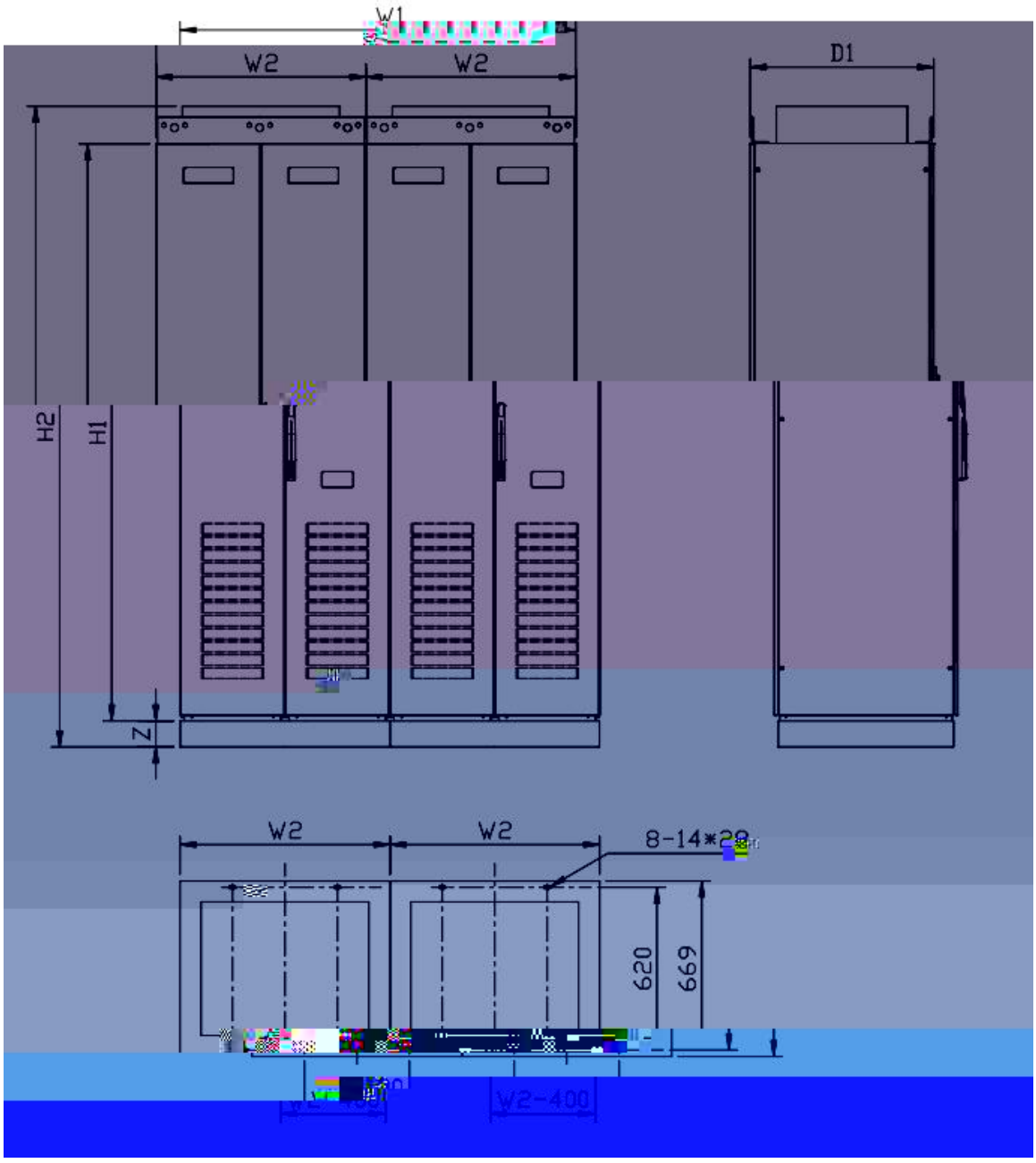
		mm						mm			kg
		H1	H2	W	D1	D2	A	B1	B2	8.8	
HF680N02M-075-4 HF680N02M-132-4	B4	920	880	210	462	444	899	125	150	4-M8	55
HF680N02M-185-4	B5										

5.2

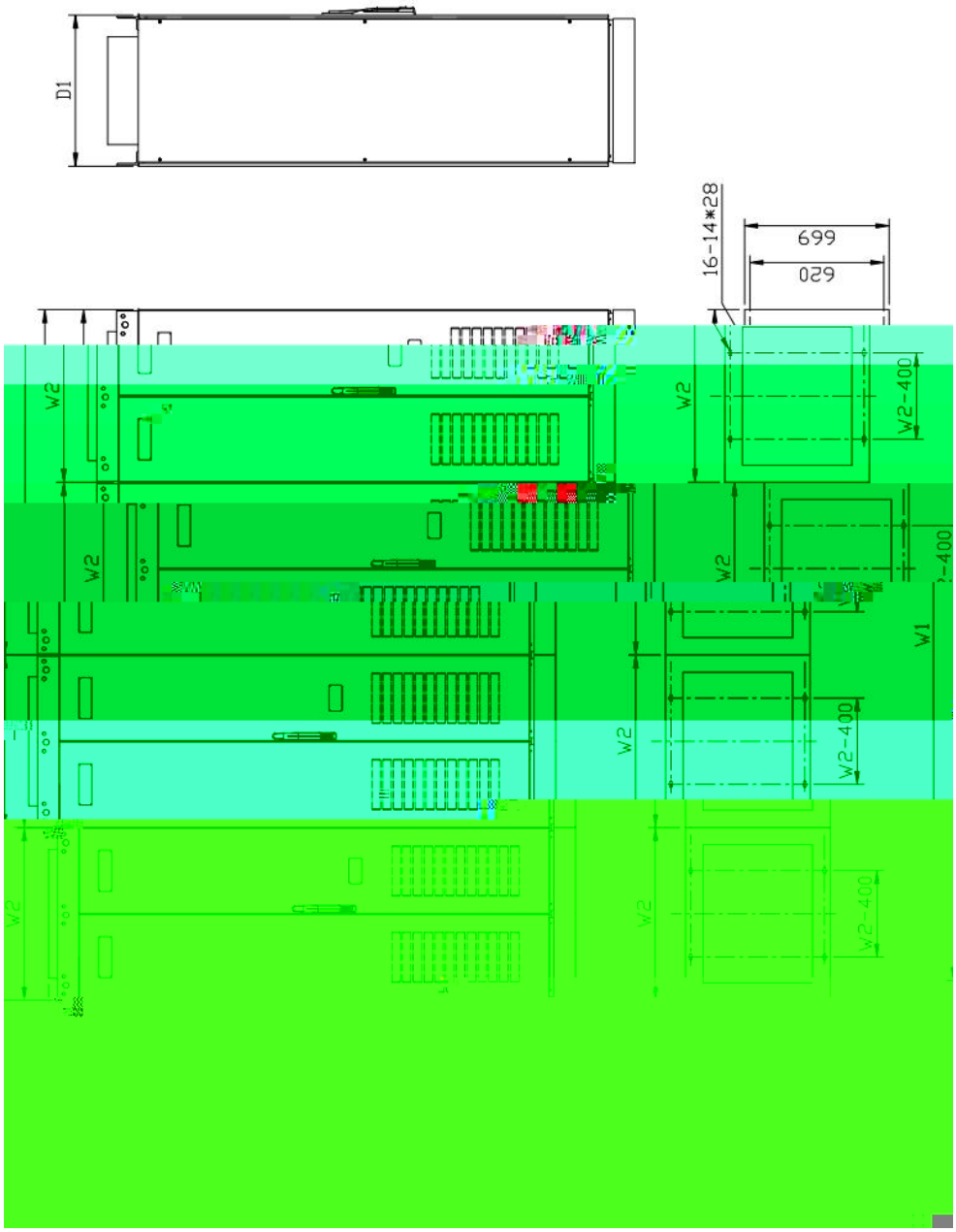
250kW~2400kW

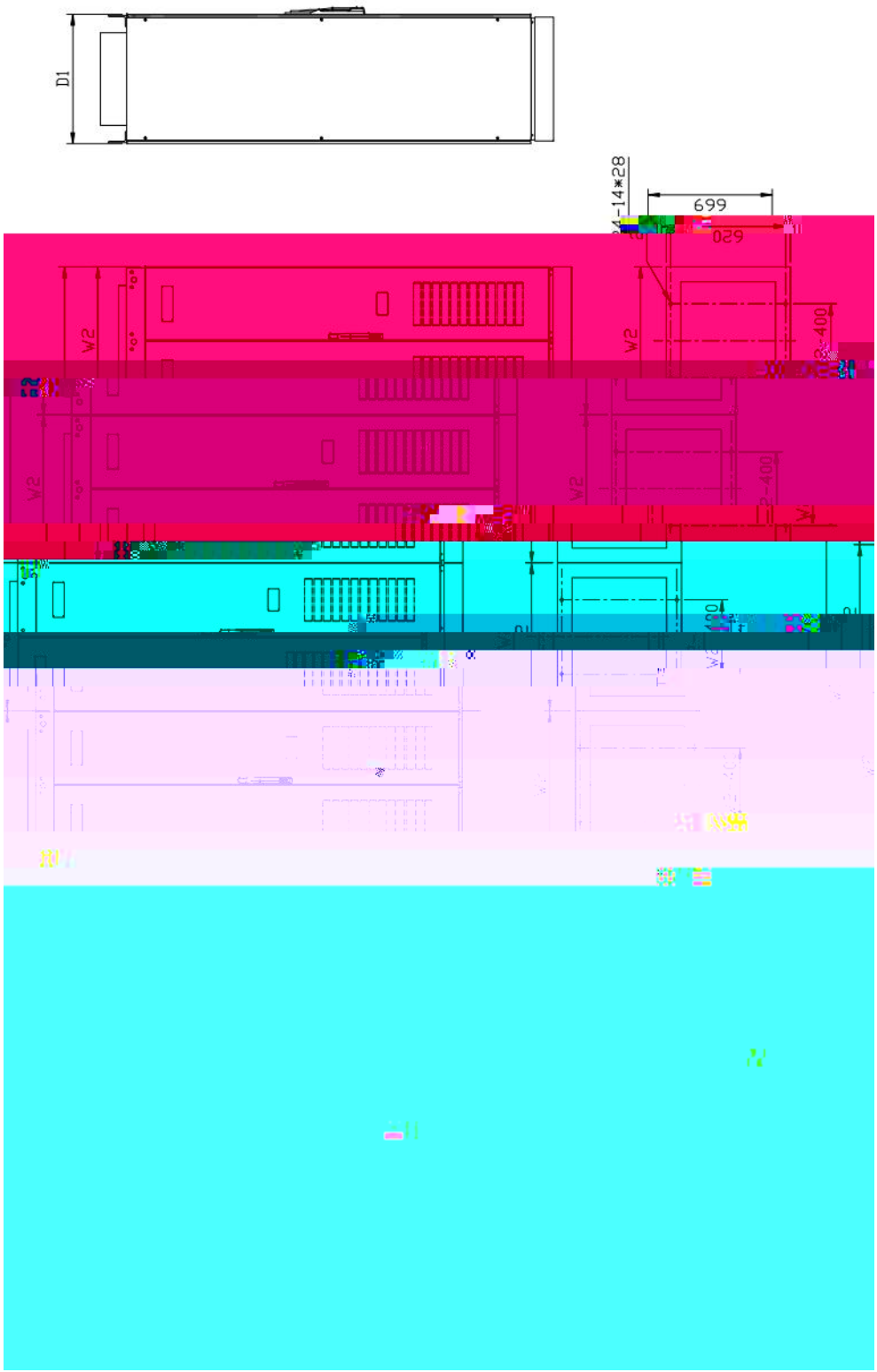


HF680N02C-250-4 HF680N02C-315-4 HF680N02C-400-4



HF680N02C-500-4 HF680N02C-630-4 HF680N02C-800-4


D1
16-14*28
699
620
W2
W2-400
W1


D1
699
620
W2
W2
W2
W2

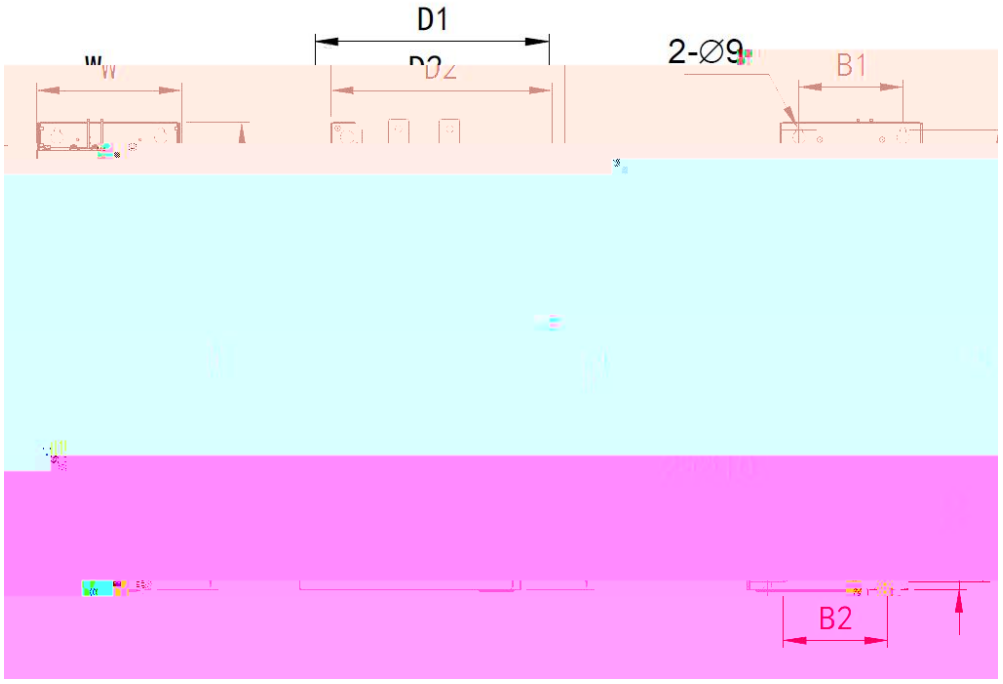
250kW 315kW 400kW

		mm						kg
		H1	H2	W1	W2	D1	Z	
1	HF680N02C-250-4 HF680N02C-250-4+Z1	2200	2440	/	800	700	100	1000
	HF680N02C-315-4 HF680N02C-315-4+Z1							
	HF680N02C-400-4 HF680N02C-400-4+Z1							
2	HF680N02C-250-4+Z2	2200	2540	/	800	700	200	1000
	HF680N02C-315-4+Z2							
	HF680N02C-400-4+Z2							
3	HF680N02C-250-4+Z3	2200	2590	/	800	700	250	1000
	HF680N02C-315-4+Z3							
	HF680N02C-400-4+Z3							
4	HF680N02C-250-4+Z4	2200	2640	/	800	700	300	1000
	HF680N02C-315-4+Z4							
	HF680N02C-400-4+Z4							

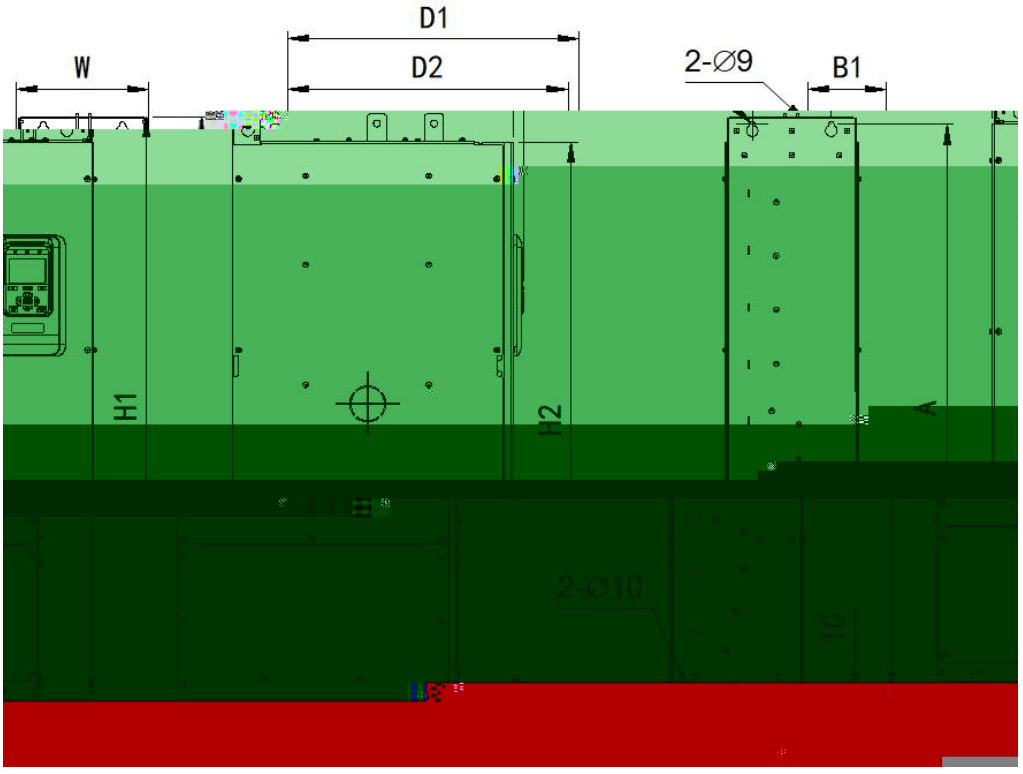
500kW 630kW 800kW

		mm						kg
		H1	H2	W1	W2	D1	Z	
1	HF680N02C-500-4 HF680N02C-500-4+Z1	2200	2440	1600	800	700	100	1800
	HF680N02C-630-4 HF680N02C-630-4+Z1							
	HF680N02C-800-4 HF680N02C-800-4+Z1							
2	HF680N02C-500-4+Z2	2200	2540	1600	800	700	200	1800
	HF680N02C-630-4+Z2							
	HF680N02C-800-4+Z2							
3	HF680N02C-500-4+Z3	2200	2590	1600	800	700	250	1800
	HF680N02C-630-4+Z3							
	HF680N02C-800-4+Z3							
4	HF680N02C-500-4+Z4	2200	2640	1600	800	700	300	1800
	HF680N02C-630-4+Z4							
	HF680N02C-800-4+Z4							

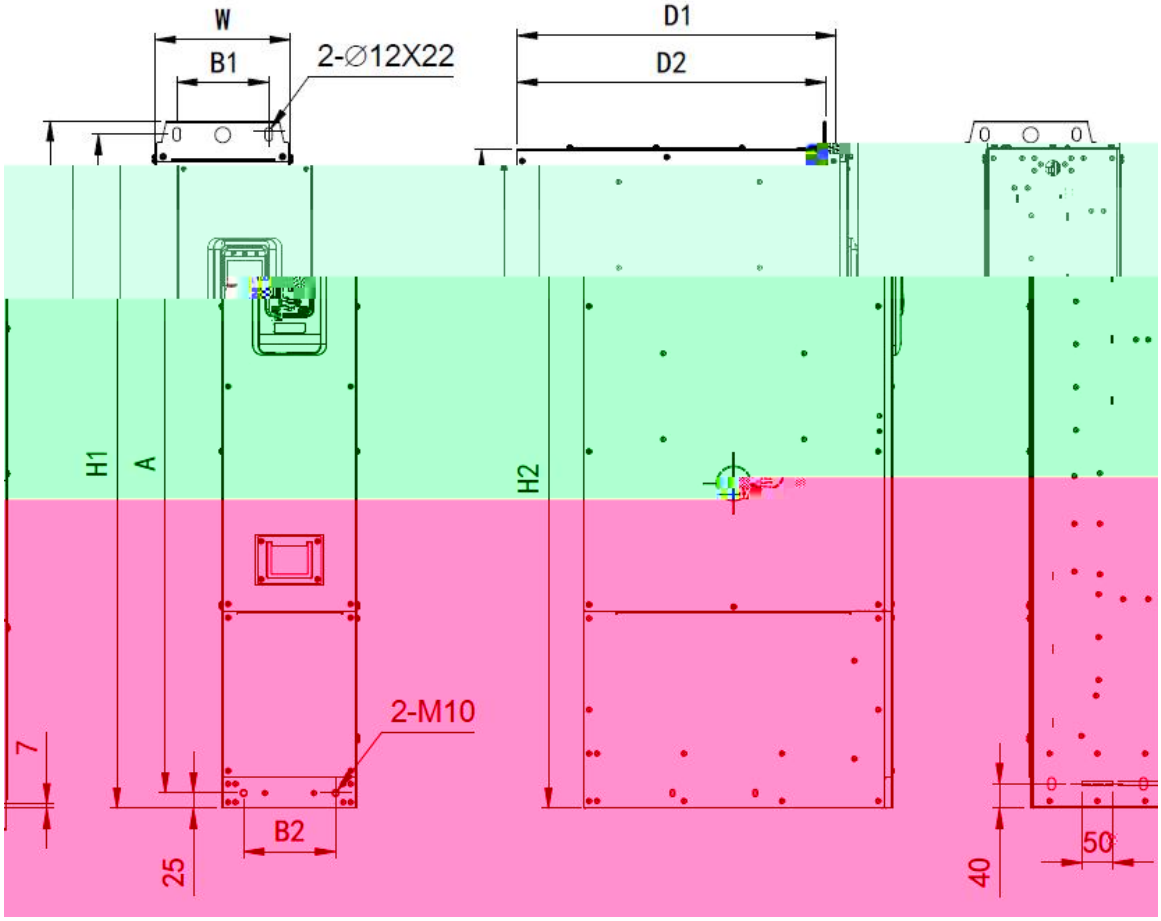
5.3



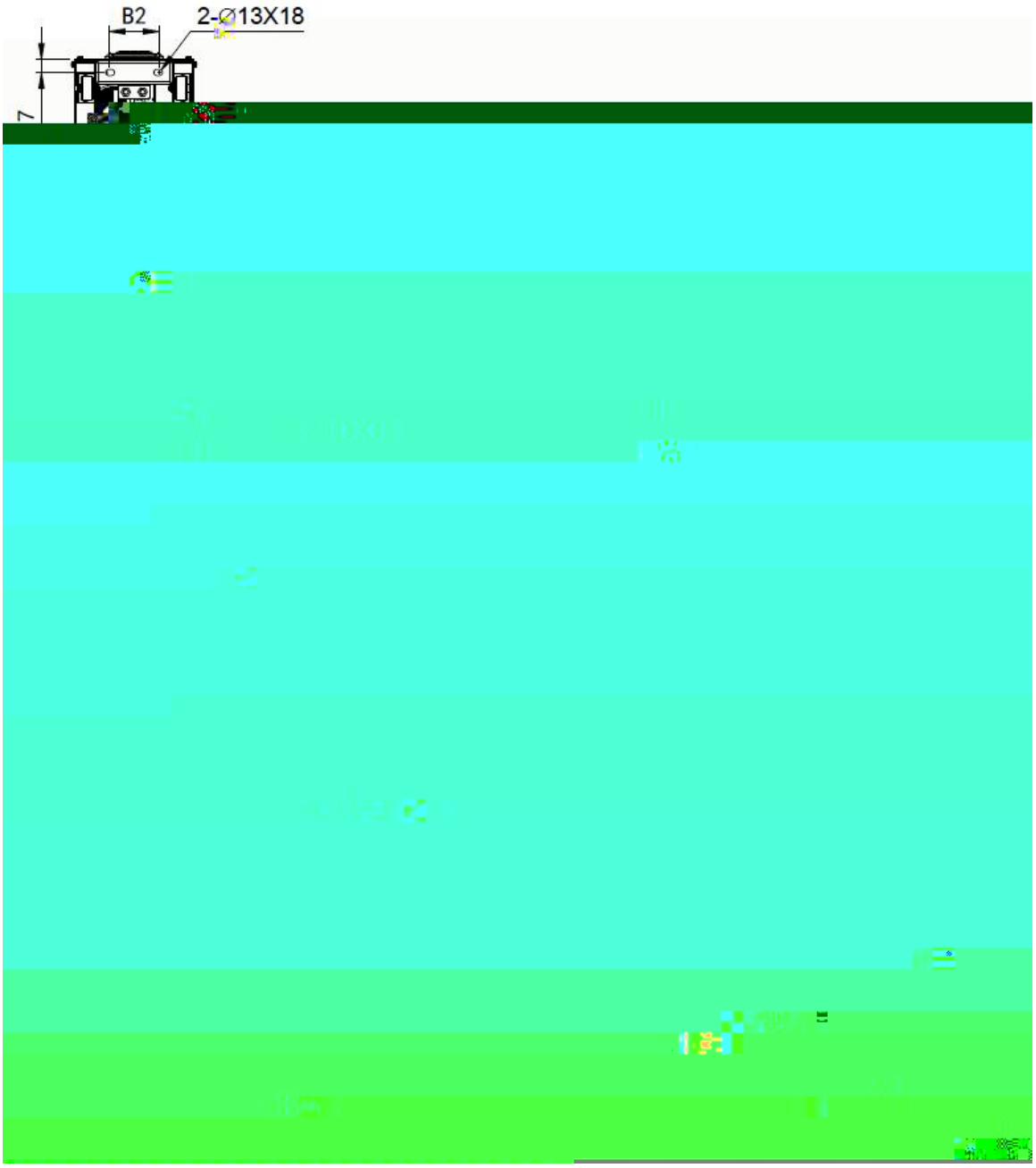
B3



B4



B5



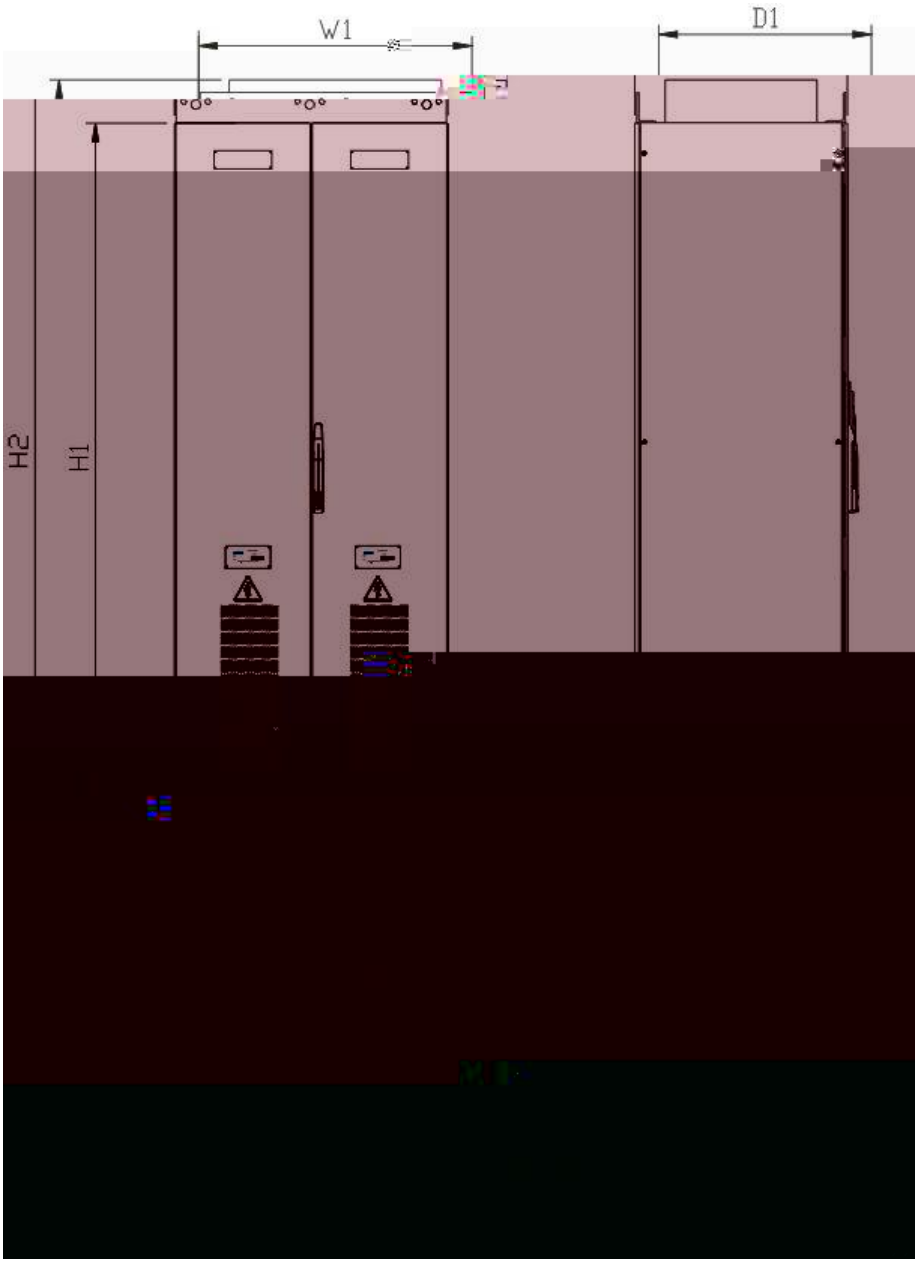
B6

mm

mm

8.8 kg

5.4



		mm					kg
		H1	H2	W1	D1	Z	
1	HF680N03C-500-4 HF680N03C-500-4+Z1	2200	2440	800	700	100	900
	HF680N03C-560-4 HF680N03C-560-4+Z1						
	HF680N03C-630-4 HF680N03C-630-4+Z1						
	HF680N03C-800-4 HF680N03C-800-4+Z1						
2	HF680N03C-500-4+Z2	2200	2540	800	700	200	900
	HF680N03C-560-4+Z2						
	HF680N03C-630-4+Z2						
	HF680N03C-800-4+Z2						
3	HF680N03C-500-4+Z3	2200	2590	800	700	250	900
	HF680N03C-560-4+Z3						
	HF680N03C-630-4+Z3						
	HF680N03C-800-4+Z3						
4	HF680N03C-500-4+Z4	2200	2640	800	700	300	900
	HF680N03C-560-4+Z4						
	HF680N03C-630-4+Z4						
	HF680N03C-800-4+Z4						

6.2

▼

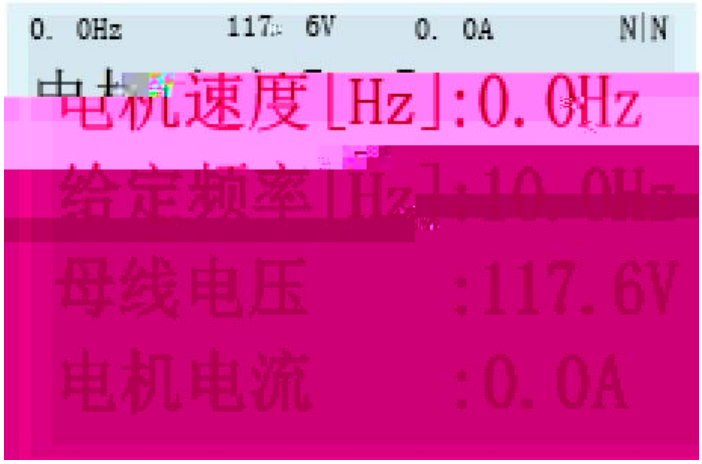
▲

ENTER

RUN STOP

LOCAL/REMOTE /

6.3

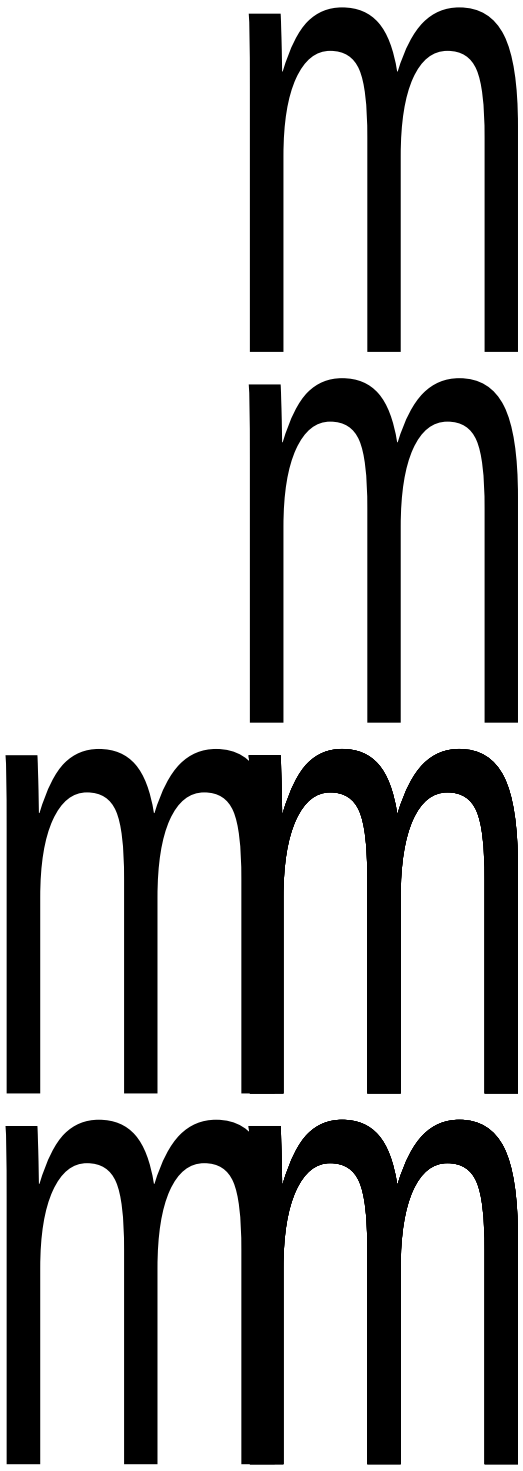


“ ” “ ” 2

|

4

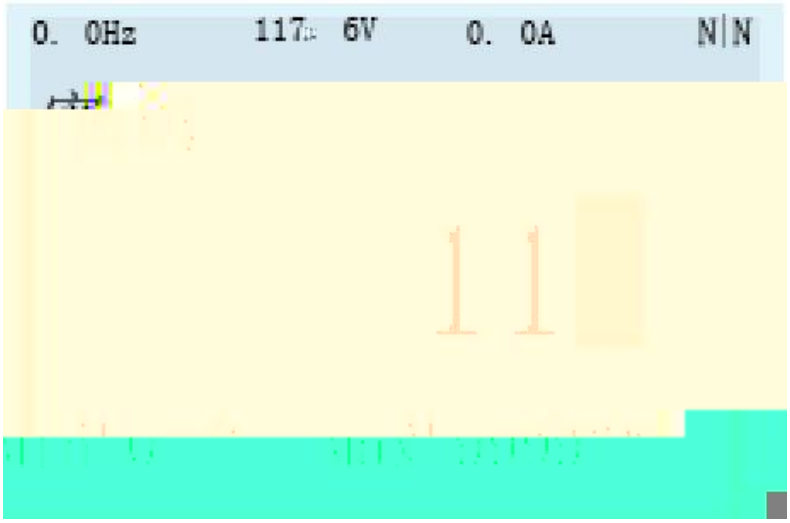
ENTER F1/F2



3	MotoTuning III
4	DC-Link Tuning (AFE)

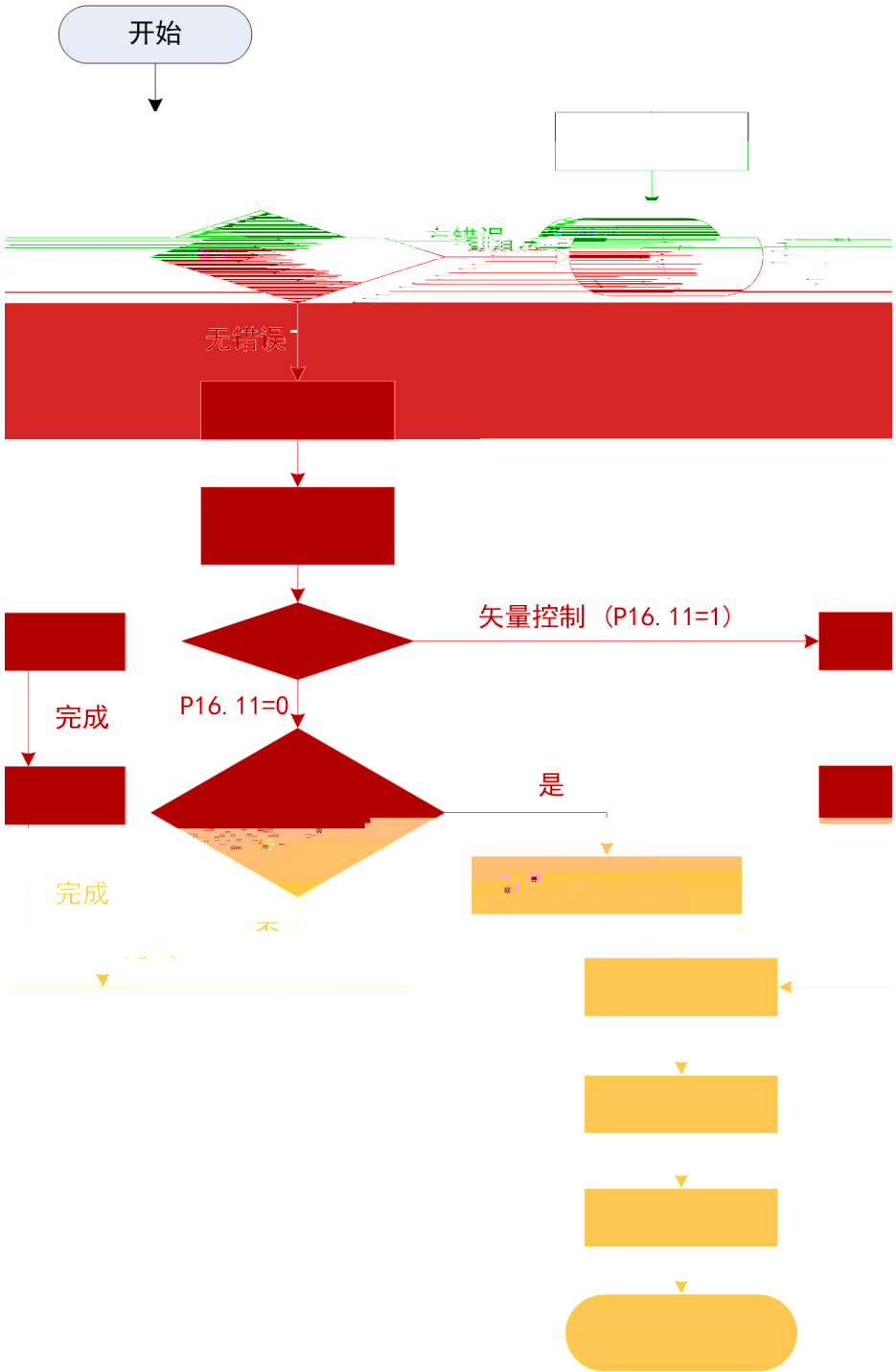
6.4.6

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

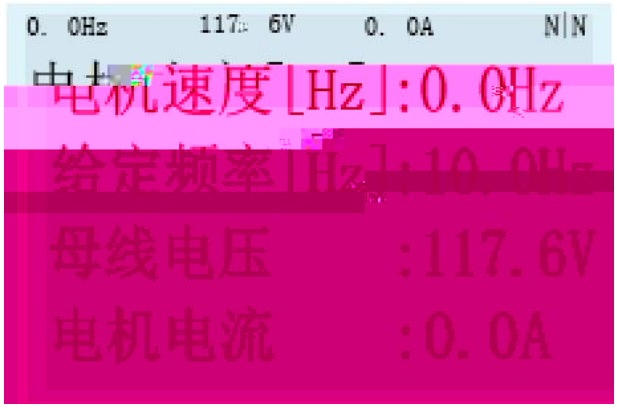
6

7 PG PG

8

9

10



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		120×P16.5/P16.7	
P16.11		[0]V/F [1] [2]	0
P16.14	V/F	[0] V/F [1] V/F [2]	0
P16.24		V/F	50 [Hz]
P8.16	1	P8.15	3
P8.35	1	P8.34	3
P8.0		[0] [1] [2]DP [3]MODBUS [4]	1

W

WW

W

WWWW

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

DI1 2 04

DI3: DI4

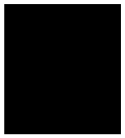
DO2 DO3:

D

DO

1

380V 220V P0.1


“ 
“ ”

“ DO4A ” “ DO4C ” “ DO5A ”

“ DO5C ” DO2 PLC

1

P3.0-P3.7 0 PLC DI “

” “ H:L ” DI

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 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**

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

P3.0		1
P3.1		20
P3.2		14
P3.3		5
P4.1	DO2	2
P4.2	DO3	1
P4.3	DO4	0
P4.4	DO5	32
P7.0		180%
P7.4		200%
P7.12		730V

LCL

DO

430V

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

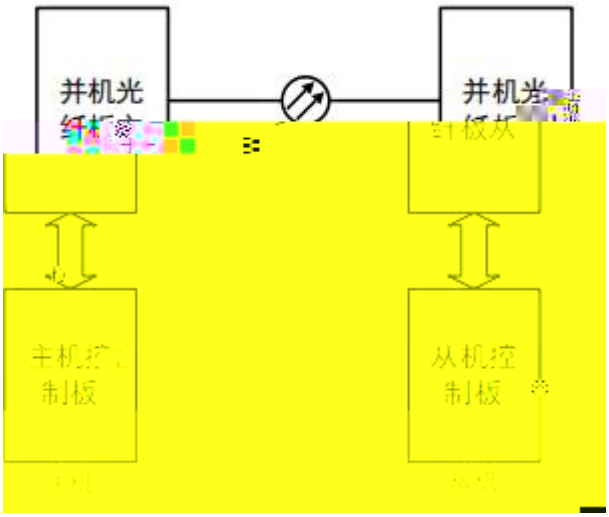
620V P16.0

DO2

DO4 DO

DO5

1



380V 220V P0.1

DI DO

DO

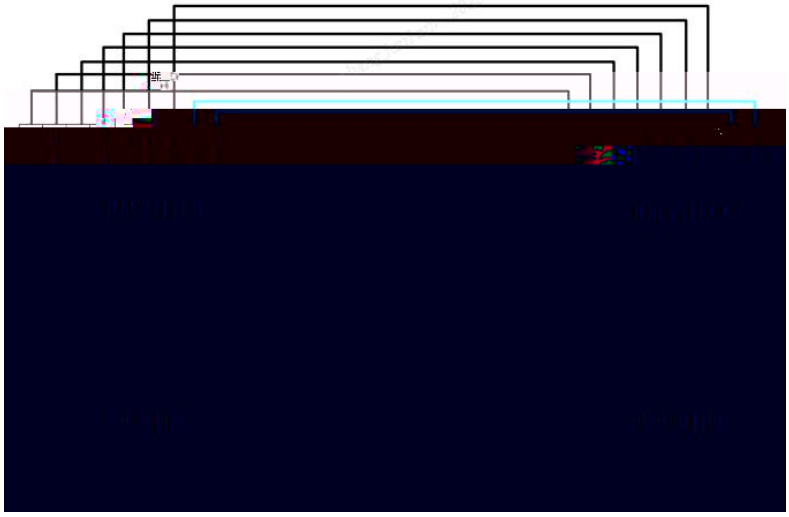
“ DO4A ” “ DO4C ” “ DO5A ”

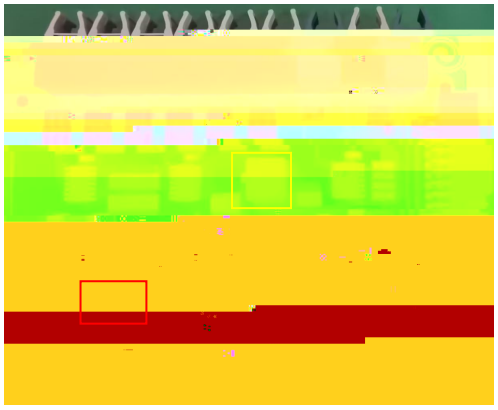
“ DO5C ” DO2 PLC

1

P3.0-P3.7 0 PLC DI “

” “ H:L ” DI 1





“ ”

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

P16.0 ≤ 375V 580V

375V P16.0 ≤ 400V 600V

400V P16.0 ≤ 430V 630V

430V P16.0 ≤ 450V 665V

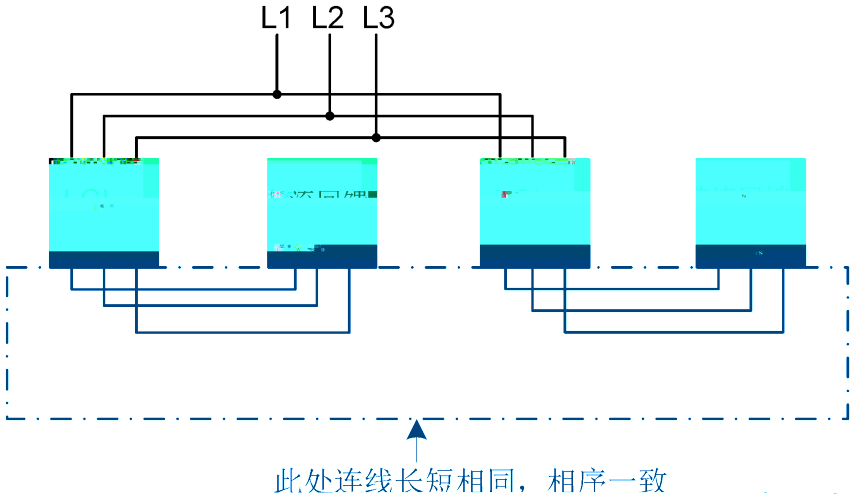
450V P16.0 ≤ 460V 680V

P16.0 460V 700V

620V P16.0 380V P24.7

20V 620V

2^0



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

P2.0	2
P3.2	14

P3.3		5
P4.1	DO2	2
P4.2	DO3	1
P4.3	DO4	0
P4.4	Ã¶1	

DO

20V 620V

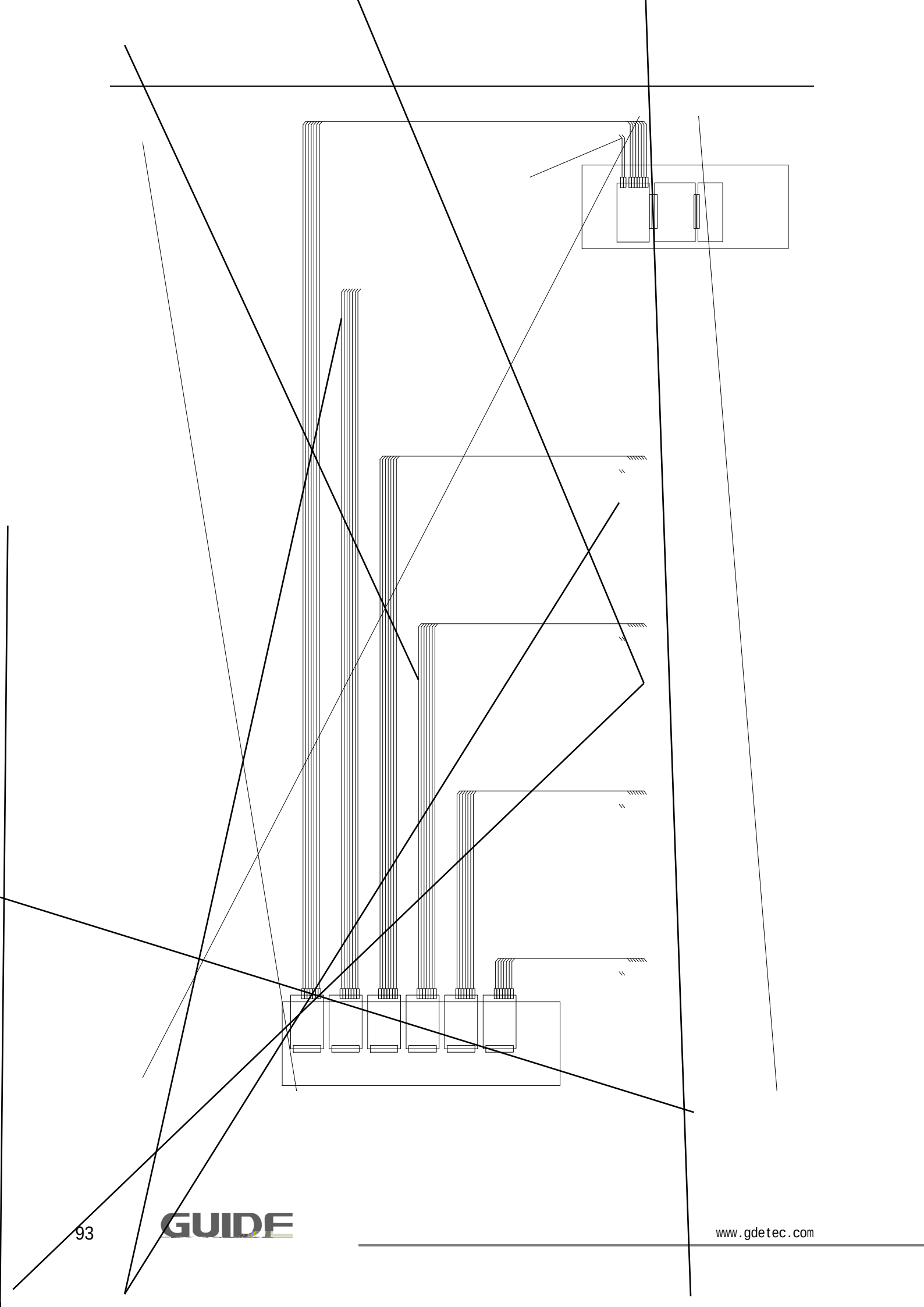
220V 220V

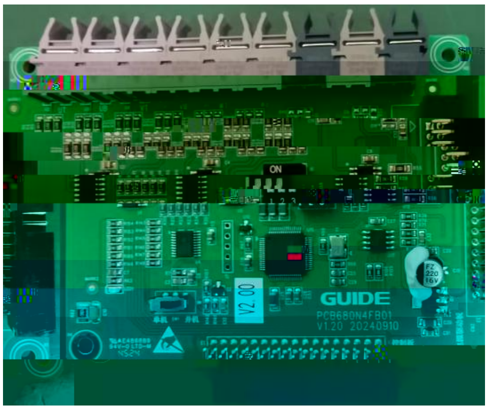
101.2 [W1] 101.77 CAN

@ 101.80 CAN @ 0

380V “ / ” “ ” 运行

IGBT 300s



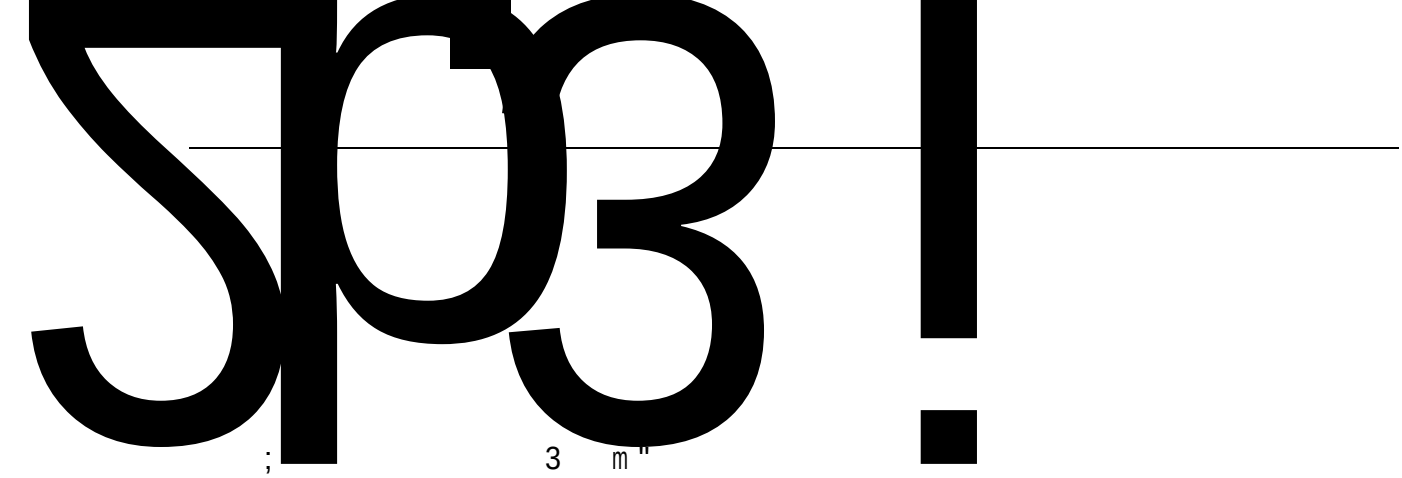


“ ”

%ῶ 400KW

ď Ď⅞ ě Ᵽ у γ ö


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

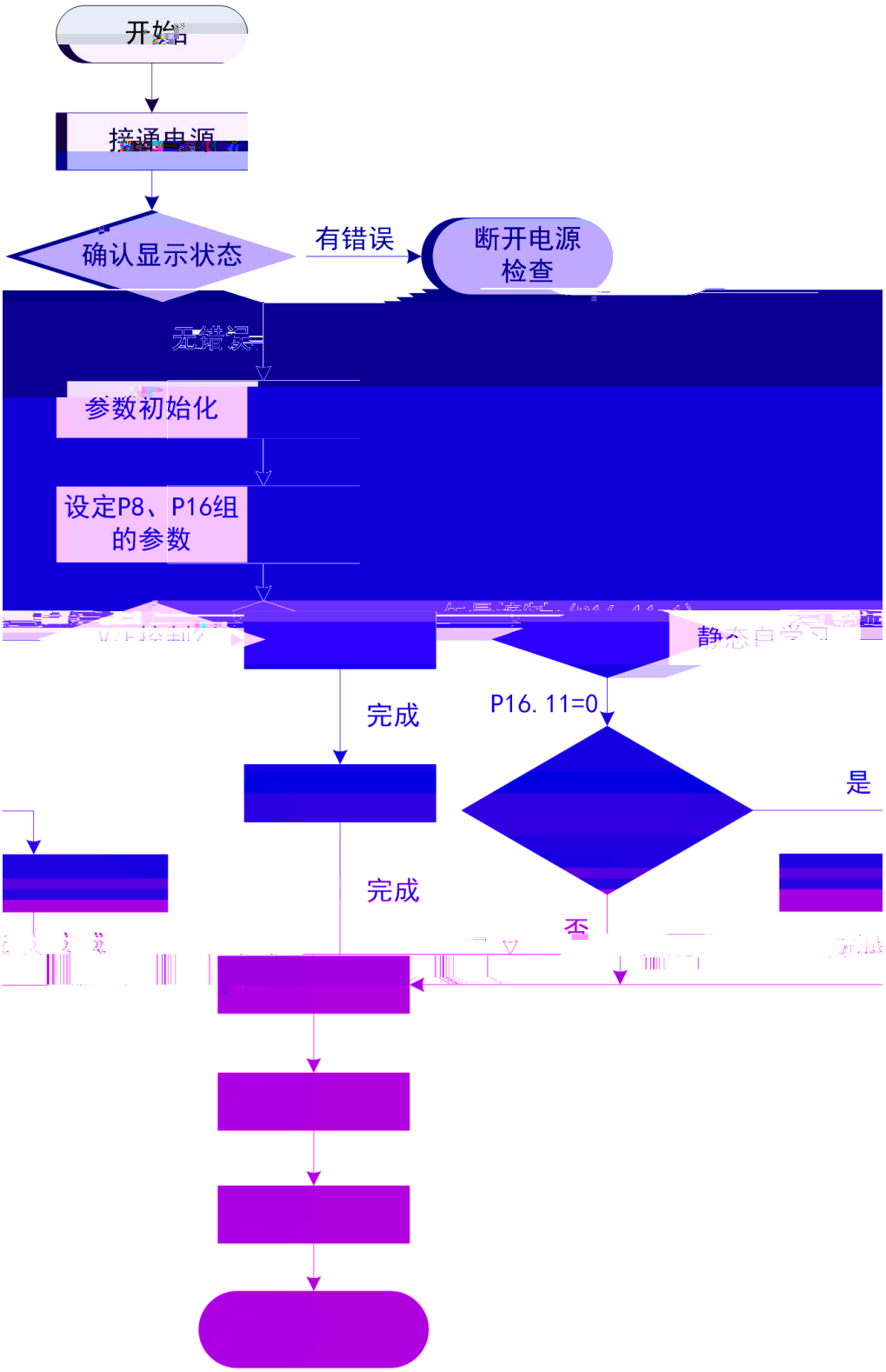


; 3 m"

ă Î LuÕ4ï Aî m"

“ ” “ ” j

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
参数初始化
设定P8、P16组
的参数
静态自学习
完成
P16. 11=0
是
完成
否

/

V/F P16.11=0 V/F

P16.11=2 P16.11=1

8.3

8.3.1

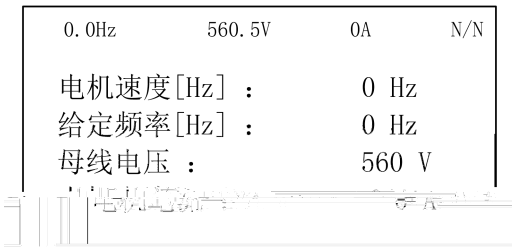
1 ±5V

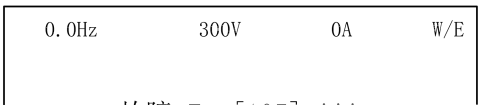
2 U,V,W

3

4 PG PG

8.3.2





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% 5 0% 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

	[0]			450kW
	[1]			[0]
P2.0		0	2 0	450kW
	[2]			[1] [2]
P2.2	[0] Ē			

0		
1		
5		</RST
14		
15	.NC	
20		

9.1.3

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		

9.1.4

P7.0 [1]

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

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 01 2 10 3 11 4
18	1	
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

18	1	2
19	2	3
20	3	4
21	FUNC 21	
22		
23		
24 31	FUNC 24 FUNC 31	
32		AFE
33 48	FUNC 33 FUNC 48	
49	PROFIBUS 1	PROFIBUS 1
50	PROFIBUS 2	PROFIBUS 2
51	PROFIBUS 3	PROFIBUS 3
52	PROFIBUS 4	PROFIBUS 4
53	PROFIBUS 5	PROFIBUS 5
54 56	FUNC 54 FUNC 56	
57	1	
58	2	
59	3	
60	4	
61	1	1
62	2	2
63	3	3
64	4	4

10.4 P5

P5.0	AI1	[0] [1]0 +10V [2]-10 +10V [3]0 20mA AI1	0 3	1
P5.1	AI1			0.0

AI2

P5.19 AI2

10.5 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	

10.6 P7

P7.0	[1]	1	0.0 300.0 [%]	180.0 [%]
P7.1	[2]			

P7.22	[4]		4			100.0 [%]	720.0 [%]	120.0 [%]	
P7.23	1	M1	1			0.00 [s]	3.00 [s]	0.50 [s]	
P7.24	1	M2	2			0.00 [s]	3.00 [s]	0.50 [s]	
P7.25	1	M3	3			0.00 [s]	3.00 [s]	0.50 [s]	
P7.26	1	M4	4			0.00 [s]	3.00 [s]	0.50 [s]	
P7.27	1		1			0.00 [s]	3.00 [s]	2.00 [s]	
P7.28	2		2			0.00 [s]	3.00 [s]	2.00 [s]	
P7.29	3		3			0.00 [s]	3.00 [s]	2.00 [s]	
P7.30	4		4			0.00 [s]	3.00 [s]	2.00 [s]	
P7.31						0.0 [%]	100.0 [%]	25.0 [%]	
P7.32						0.00 [s]	5.00 [s]	1 [s]	i
P7.33						0.0 [s]	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 [s]	60.00 [s]	60.00 [s]	
P7.50	2		2			0.0 [%]	300.0 [%]	200.0 [%]	
P7.51	2			2		0.00	5.0	ä	

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 [s]	300.0 [s]	4.00
P8.19	3			0.0 [%]	300.0 [%]	240.0
P8.20	3	P8.17	P8.19	0.0 [s]	300.0 [s]	7.00
P8.21	4					

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				

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 [%]	

10.9 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	2		0.0 300.0 [%]	200.0 [%]	

P	0.0	300.0	4.00
		[s]	[s]
P	0.0	300.0	240.0
		[%]	[%]
P	0.0	300.0	7.00
		[s]	[s]
P	0.0	300.0	300.0
		[%]	[%]
P	0.0	300.0	
		[s]	

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

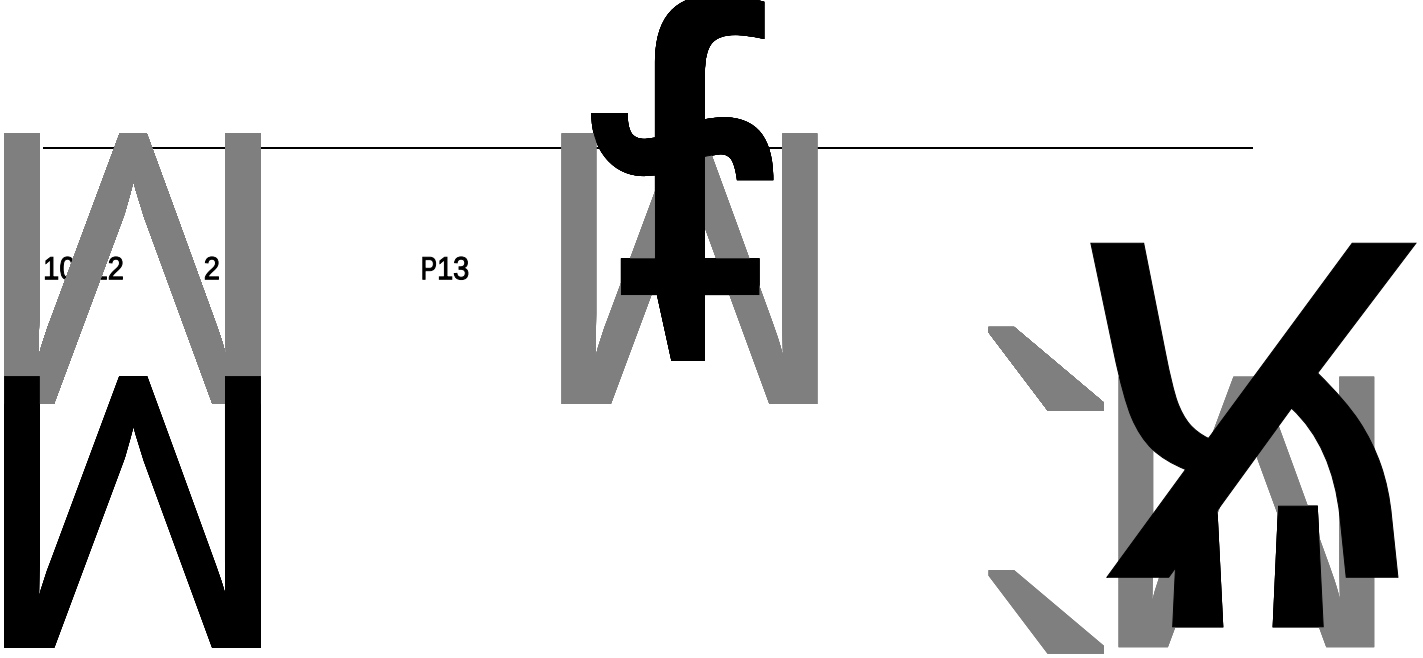
P11.0		[0] [1] [2]DP [3]MODBUS [4]	0 4	0	
P11.1					
P11.2					
P11.3		[0] [1]	0 1	0	
P11.6			0.00 300.00 [s]	0.00 [s]	
P11.7			0.00 300.00 [s]	0.00 [s]	
P11.10		[0]I/O [1] 1 [2] 2 [3] [4]DP [5]MODBUS [6]	0 6	0	
P11.11					
P11.13		[0] [1]PROFIBUS [2]MODBUS [3]	0 3	0	
P11.14			0.1 10.0	1.0	
P11.15	1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

P11.37	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					

P111111



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			0.000 [s]	2.00	0.00 [s]

0.00

P14.27

10.14 4 P15

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]
P16.2			

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 V/F 5		0.0 125.0 [%]	100.0 [%]
P17.44 V/F 6		0.0 300.0 [Hz]	50.0 [Hz]
P17.45 V/F 6		0.0 125.0 [%]	100.0 [%]
P17.46 V/F @		0 300	0
P17.47 @		0 300	0

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 [,	

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	

10.18 4 V/F P19

P19.0			320 460 [V]	380 [V]	
P19.2			0.0 4000.0 [kW]	 [kW]	
P19.3			320 460 [V]	380 [V]	
P19.4			0.0 6500.0 [A]	 [A]	
P19.5			0.0 300.0 [Hz]	50.0 [Hz]	
P19.6			0 6000 [rpm]	1465 [rpm]	
P19.7			2 12 [pole]	4 [pole]	
P19.9			0 7200 [rpm]	1500 [rpm]	
P19.11		[0]V/F [1] [2] [3] [4]	0 4	0	
P19.12			1.00 10.00 [kHz]	3.00 [kHz]	
P19.14	V/F	[0] V/F [1] V/F [2]	0 3	0	
P19.15		[0] [1]	0 1	0	
P19.16			2 500 [ms]	500 [ms]	
P19.17	V/F	[0] [1]	0 1	0	
P19.18			10 1000 [ms]	200 [ms]	
P19.19		[0] [1]	0 1	0	

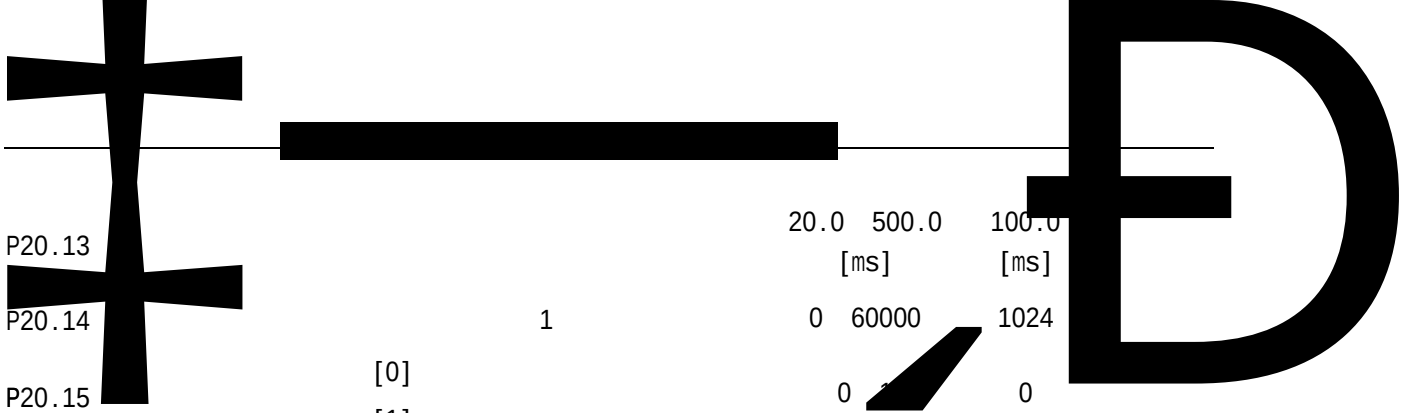
P19.22			0.00 100.00 [s]	0.00 [s]
P19.23	V/F		0.00 300.00 [Hz]	0.00 [Hz]
P19.24	V/F		0.00 300.00 [Hz]	50.00 [Hz]
P19.25			0.0 120.0 [%]	100.0 [%]
P19.26	V/F	V/F	0.00 10.00 [%]	0.75 [%]
P19.27			0.0 200.0 [%]	100.0 [%]
P19.30			0.0 100.0 [%]	0.0 [%]
P19.33	V/F	/F	0 6	2
P19.34	V/F	1	0.0 300.0 [Hz]	5.0 [Hz]
P19.35	V/F	1	0.0 125.0 [%]	11.5 [%]
P19.36	V/F	2	0.0 300.0 [Hz]	50.0 [Hz]
P19.37	V/F	2	0.0 125.0 [%]	100.0 [%]
P19.38	V/F	3	0.0 300.0 [Hz]	50.0 [Hz]
P19.39	V/F	3	0.0 125.0 [%]	100.0 [%]
P19.40	V/F	4	0.0 300.0 [Hz]	50.0 [Hz]
P19.41	V/F	4	0.0 125.0 [%]	100.0 [%]
P19.42	V/F	5	0.0 300.0 [Hz]	50.0 [Hz]
P19.43				

6

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 [î İ	

10.19 1 P20

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



P20.13		20.0 [ms] 500.0	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] ضغز لم ŋ v [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 [%]

P20.31			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 [s]	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 [%]

P20.77	2		2		
P20.78				90.0 [%]	110.0 [%]
P20.79				0.00 [mOhm]	650.00 [mOhm]
P20.80	1		1	0.00 [mH]	65.50 [mH]
P20.81	2		2	0.800	1.350
P20.82	3		3	0.800	1.350
P20.83	4		4	0.800	1.350
P20.84				0.00 [mH]	655.00 [mH]
P20.85		85%	85%	40.0 [%]	150.0 [%]
P20.86		87.5%	87.5%	40.0 [%]	150.0 [%]
P20.87		90%	90%	40.0 [%]	150.0 [%]
P20.88		92.5%	92.5%	40.0 [%]	150.0 [%]
P20.89		95%	95%	40.0 [%]	150.0 [%]
P20.90		102.5%	102.5%	40.0 [%]	150.0 [%]
P20.91		105%	105%	40.0	-50.0

10.20 2 P21

P21.0		[0] [1]		0 1	0
P21.1		[0] [1] 1 [2] 2 [3] [4] [5]DP [6]MODBUS [7]	P21.3	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 [%]
P21.7		[0] [1] P21.9 [2] 1 [3] 2 [4] [5]DP [6]MODBUS [7]	P21.8	0 7	0
P21.8		P21.7 [1]		0.0 300.0 [%]	200.0 [%]
P21.9					

P21.14		1	0	60000	1024
P21.15	[0] [1]		0	1	0
P21.16			0.0		

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]	
P21.44			25 1000 [ms]	250 [ms]	
P21.45			0.0 100.0 [%]	22.0 [%]	
P21.46			0.0 100.0 [%]	18.0 [%]	
P21.47			0.0 200.0 [%]	92.0 [%]	
P21.48			0.0 200.0 [%]	87.0 [%]	
P21.49			0.0 150.0 [%]	100.0 [%]	
P21.51			0.0 1000.0 [%]	100.0 [%]	
P21.52			0.0 1000.0 [%]	100.0 [%]	
P21.53	Kp		0.0 1000.0 [%]	100.0 [%]	

P21.54	Ki		0.0 1000.0 [%]	100.0 [%]	
P21.55			0.0 1000.0 [%]	100.0 [%]	
P21.56			0.0 1000.0 [%]	100.0 [%]	
P21.57		[0] [1]	0 1	0	
P21.58			0.0 125.0 [%]	100.0 [%]	
P21.59			1.0 25.0 [%]	2.5 [%]	
P21.60	DROOP	0 DROOP	0.0 100.0 [%]	0.0 [%]	
P21.61	DROOP	DROOP	30 2000 [ms]	50 [ms]	
P21.62			0.0 1000.0 [%]	100.0 [%]	
P21.63			0.0 1000.0 [%]	100.0 [%]	
P21.66	1	1	0.0 1000.0 [%]	100.0 [%]	
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] [2] [3] [4] [5]DP [6]MODBUS [7]	1 2	P22.3	0 7	0
P22.2	22.2					

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 [%]	

P22.77	2		2	90.0 [%]	110.0 [%]	100.0 [%]
P22.78				0.00 [mOhm]	650.00 [mOhm]	0.00 [mOhm]
P22.79				0.00 [mH]	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

10.22 4 P23

P23.0	[0] [1]		0 1 0
P23.1	[0] [1] 1 [5]D]]2D3 [2] 2 4] [3] [4] P23.3 [5]DP		

[ ]3∀

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 1000.0 [%]	0.0 [%]	
P23.27			0.00 15.00 [%]	2.00 [%]	
P23.28		[0] P23.16 P23.17 [1] [2] [3]DP	0 3	0	
P23.30		[0] P23.31 P23.32 [1] 1 [2] 2 [3]	0 3	0	
P23.31			0.0 100.0 [%]	5.0 [%]	

P23.32		0.0 100.0 [%]	5.0 [%]
P23.34	[0] [1]	0 1	0
P23.35		0.0 100.0 [s]	0.0 [s]
P23.36		50.0 150.0 [%]	110.0 [%]
P23.37		0.0 150.0 [%]	100.0 [%]
P23.38		0.0 100.0 [%]	25.0 [%]
P23.39 .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 [ms]	2000 [ms] 50 [ms]
P23.62					0.0 [%]	1000.0 [%] 100.0 [%]
P23.63					0.0 [%]	1000.0 [%] 100.0 [%]
P23.66		1		1		

P23.78			0.00 [mOhm]	650.00 [mOhm]	0.00 [mOhm]
P23.79			0.00 [mH]	65.50 [mH]	0.000 [mH]
P23.80	1	1	0.800	1.350	1.140
P23.81	2	2	0.800	1.350	0.940
P23.82	3	3	0.800	1.350	1.080
P23.83	4	4	0.800	1.350	0.950
P23.84			0.00 [mH]	655.00 [mH]	0.00 [mH]
P23.85	85%	85%	خه		

82%

10.23 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	

P33.54	[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	

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	

P33.70	[W12]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000 [5] [%] × 1 [6] [%] × 10 [7] [%] × 100	0 7	0	
P33.71	[W13]	7-3	0 48	0	
P33.72	[W13]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000 [5] [%] × 1 [6] [%] × 10 [7] [%] × 100	0 7	0	
P33.73	[W14]	7-3	0 48	0	
P33.74	[W14]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000 [5] [%] × 1 [6] [%] × 10 [7] [%] × 100	0 7	0	
P33.75	[W15]	7-3	0 48	0	
P33.76	[W15]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000 [5] [%] × 1 [6] [%] × 10 [7] [%] × 100	0 7	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

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		

[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] TEMP_SENSING FAIL

[E139]

[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	

11.3

-
-
- DC15V
- D05
- D05
-

- ON
- COM

- ON
- COM (
)

12.4

5

5

(400-0077-570)

1 40

2 80%

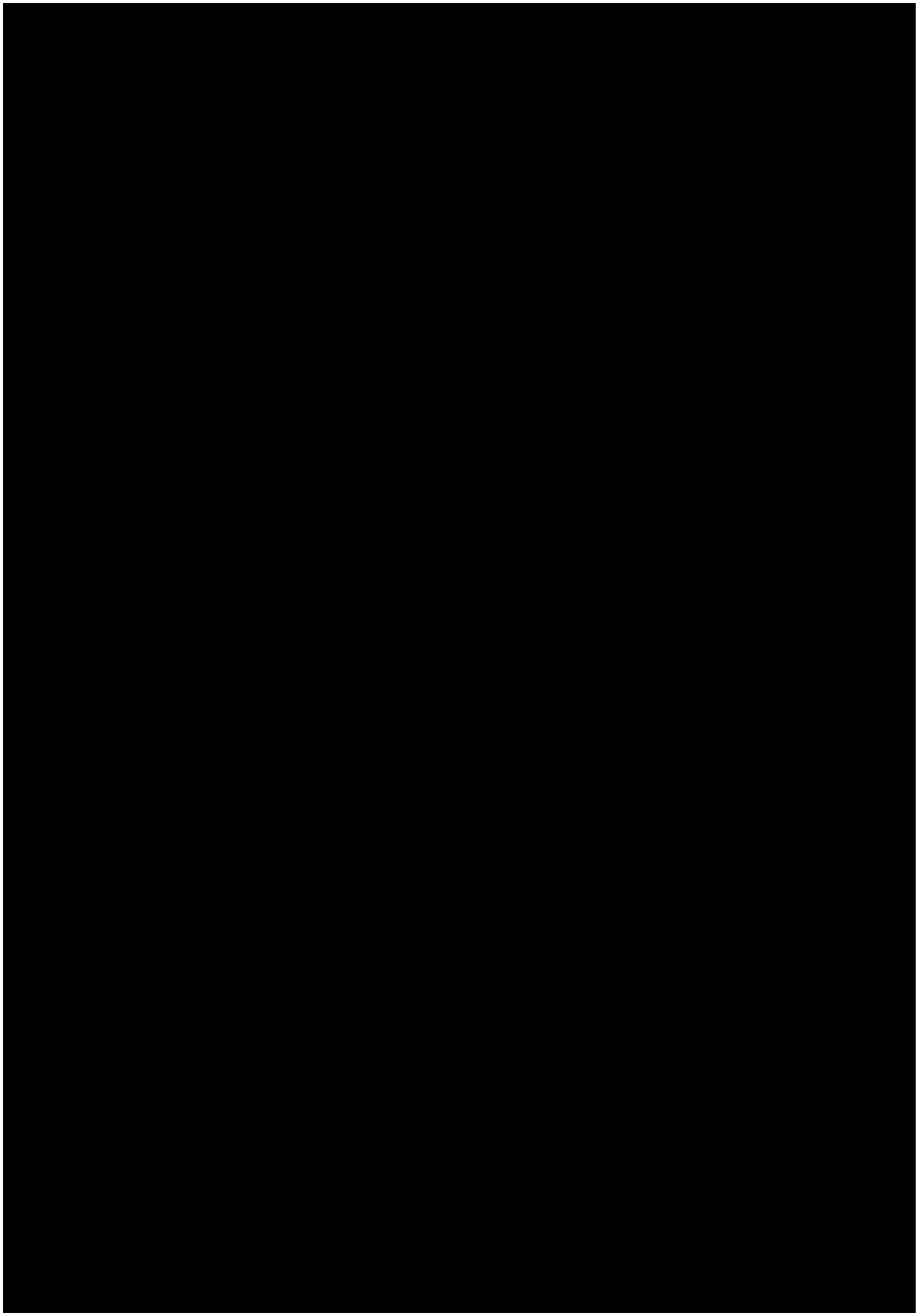
3 24 /

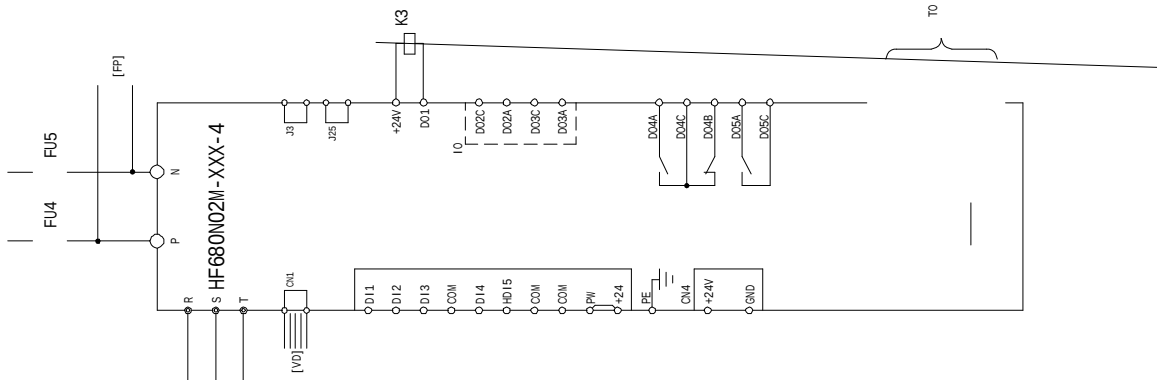
12.5

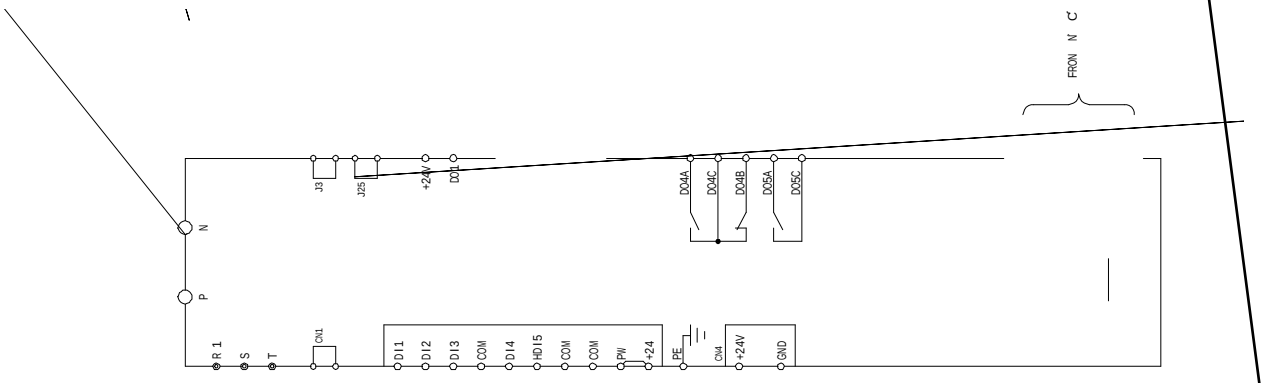
1

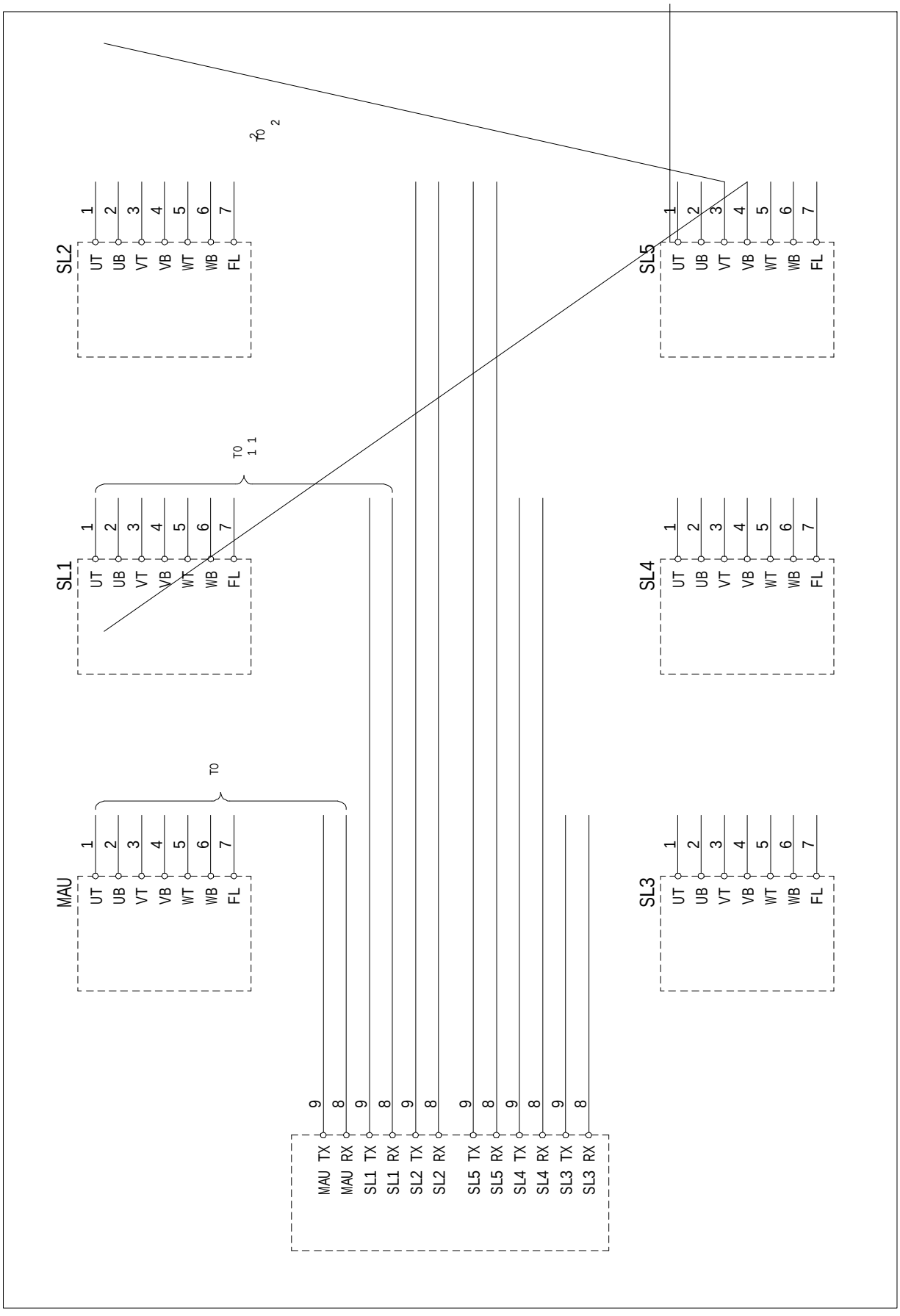
2

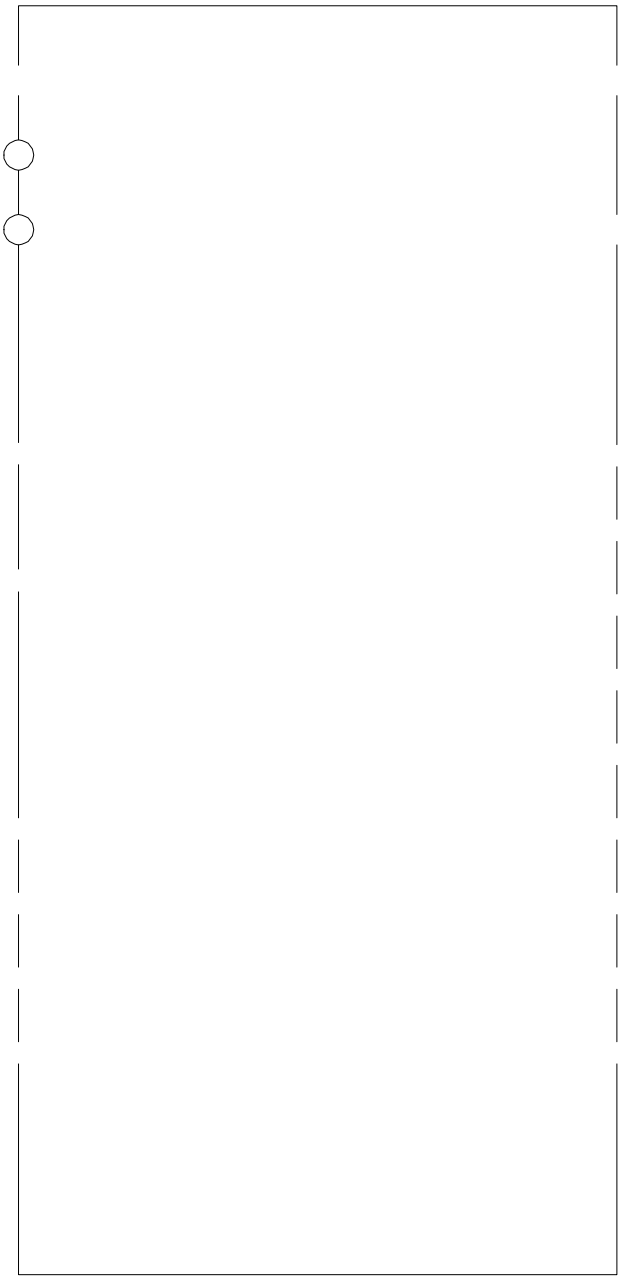
5




K3
TO
[FP]
FU5
FU4
HF680N02M-XXX-4
N
P
R
S
T
CN1
[VD]
J5
J25
+24V
DO1
I/O
DO2C
DO2A
DO3C
DO3A
DO4A
DO4C
DO4B
DO5A
DO5C
DI1
DI2
DI3
COM
DI4
HDI5
COM
COM
PW
+24
PE
CN4
+24V
GND


FRON N C
J3
J25
+24V
DO1
DO4A
DO4C
DO4B
DO5A
DO5C
N
P
R 1
S
T
CN1
DI1
DI2
DI3
COM
DI4
HDI5
COM
COM
PW
+24
PE
CN4
+24V
GND


SL2
SL5
SL1
SL4
MAU
SL3
UT
UB
VT
VB
WT
WB
FL
1
2
3
4
5
6
7
TO 2
TO 1 1
TO
MAU TX
MAU RX
SL1 TX
SL1 RX
SL2 TX
SL2 RX
SL5 TX
SL5 RX
SL4 TX
SL4 RX
SL3 TX
SL3 RX
9
8



1
2
3

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