ZG-dSVG

V1.2

2014 01

ZG-dSVG

ZG-dSVG

ZG-dSVG

ZG-dSVG

1

ZG-dSVG

1.1

1. 1. 1

¥
¥

1. 1. 2

¥
¥

¥
¥
¥
¥
¥

1. 1. 3

¥
¥

¥

¥

¥

¥

1. 1. 4

¥

¥

¥

¥

¥

¥

¥

¥

¥

¥   5   45℃

1. 1. 5

¥

¥   30

¥

¥

¥

¥

¥

1. 1. 6

¥

1. 1. 7

¥　ZG-dSVG

ZG-dSVG

2

2.1

1)

    -15   45 ,   5K/h

2)

                                        90%(20)   5%/h,

3)

                        ,

4)

                                        1000m   1000m

5)

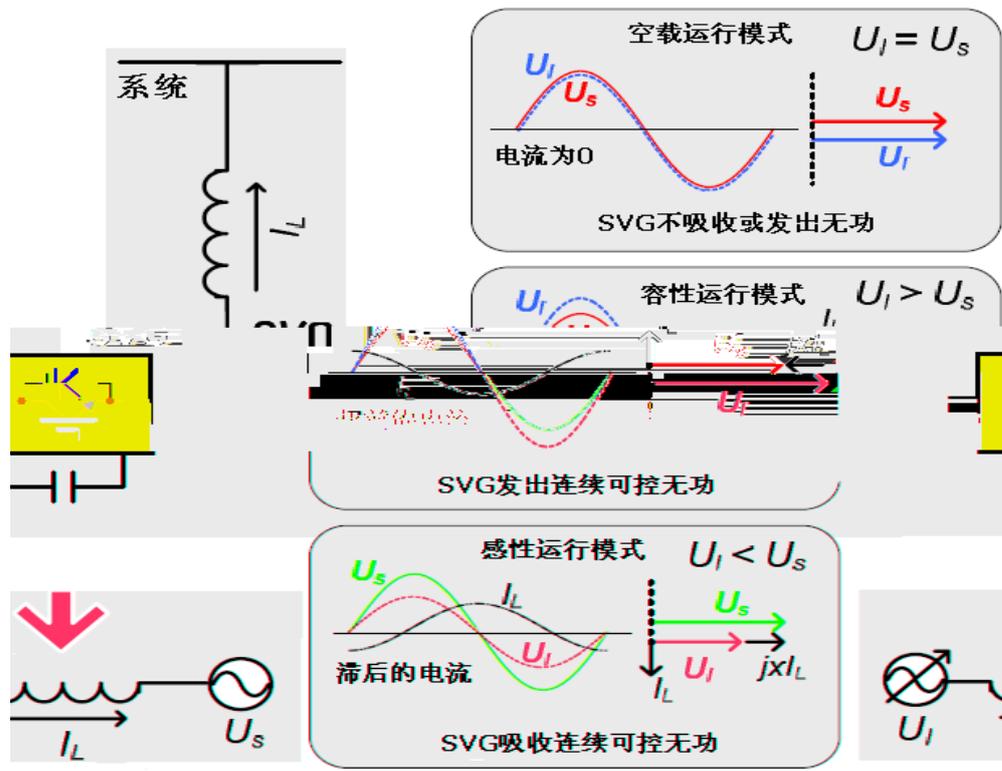   :   2Hz   9Hz   <0. 3mm

9Hz   200Hz,   5m/s^2 ,

6)

    a   -20%   +15%

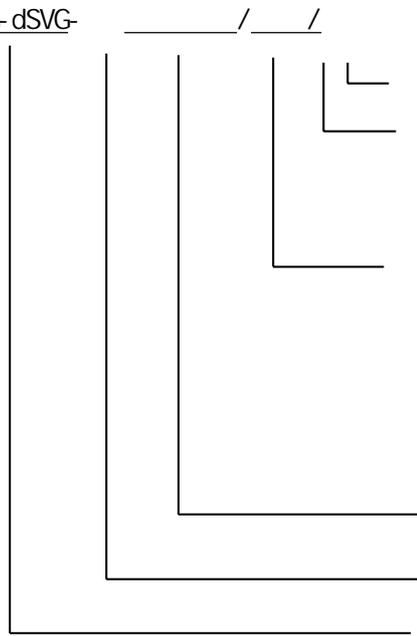   b   20kVA

            2.1

2.2

1   6kV   10kV   35kV

2   1—20 MVar

3

4   <5ms

5   <3%

6   SVG   >99%

7   <1000m

2.3

SVG   STATCOM

SVG   2-1

系统

空载运行模式 $U_l = U_s$

U_l
U_s
电流为0

SVG不吸收或发出无功

容性运行模式 $U_l > U_s$

U_l

SVG发出连续可控无功

感性运行模式 $U_l < U_s$

U_s I_L

滞后的电流 U_l jXI_L

SVG吸收连续可控无功

I_L U_s U_l

2-1SVG

2-1

$$I_1 = (U_S - U_1) \div jX_L$$ 2-1

2.4

ZG-dSVG

ZG-dSVG-　　　　/　　/

A-Z　0-9

" Y"　　" "

" W

03　　3kV

06　　6kV

10　　10kV

35　　35kV

kVar

n H　　n　H

10kV　　　　　　　± 2000kvar　　　12　H　　　　　　　　　　" "

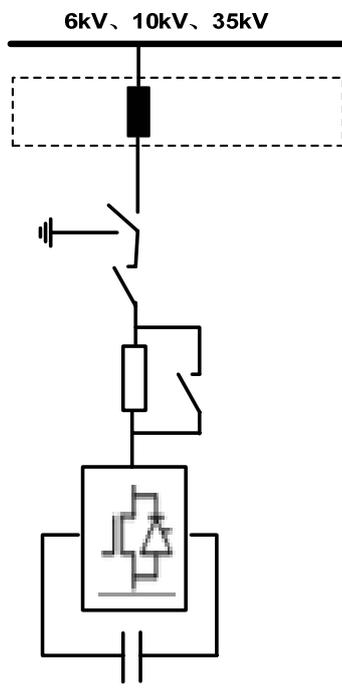A10　　　　　　ZG-dSVG-12H 2000/10Y/A10
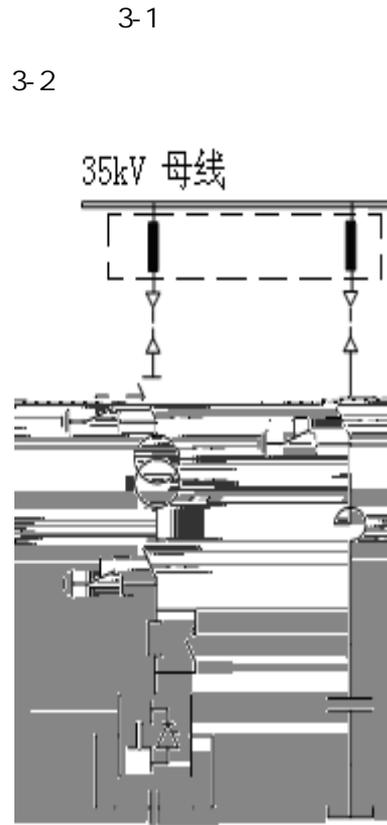
ZG-dSVG

10kV　　　　600A
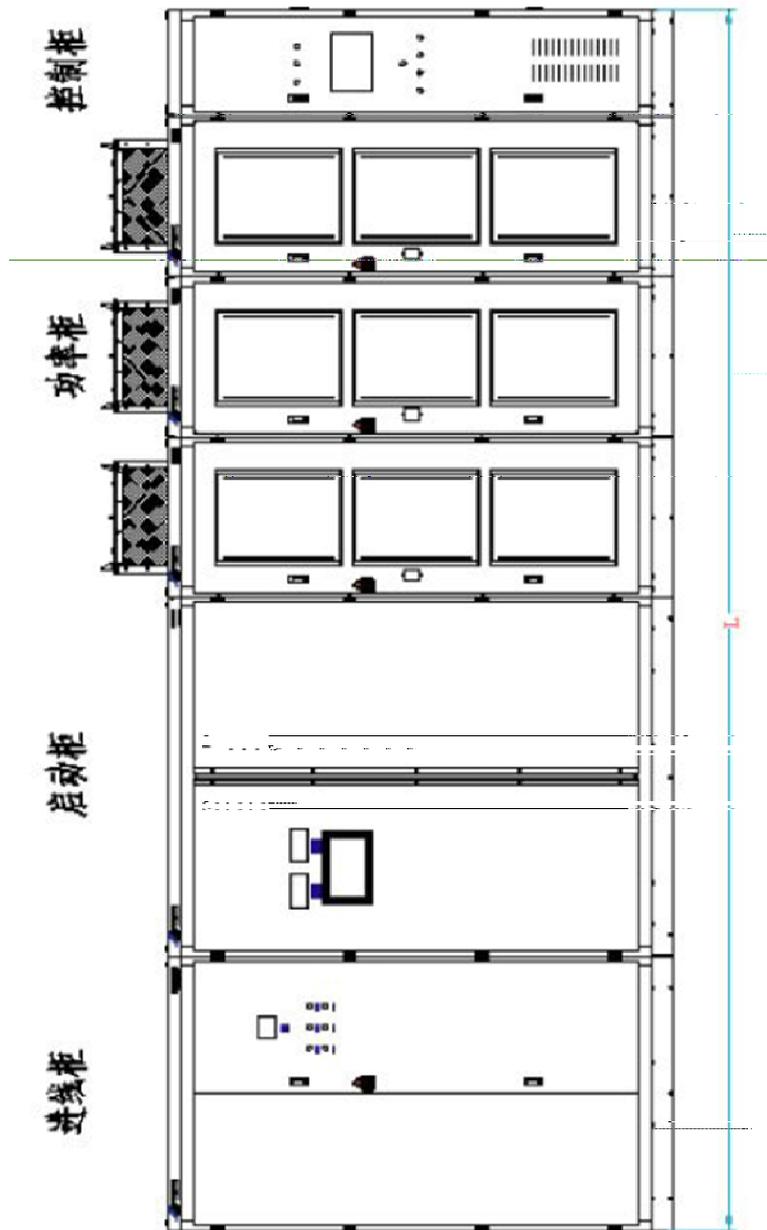
600A　　　　　　　　35kV

ZG-dSVG

3

3.1

ZG-dSVG

3-1

3-2

6kV、10kV、35kV

35kV 母线

3-1

3-2

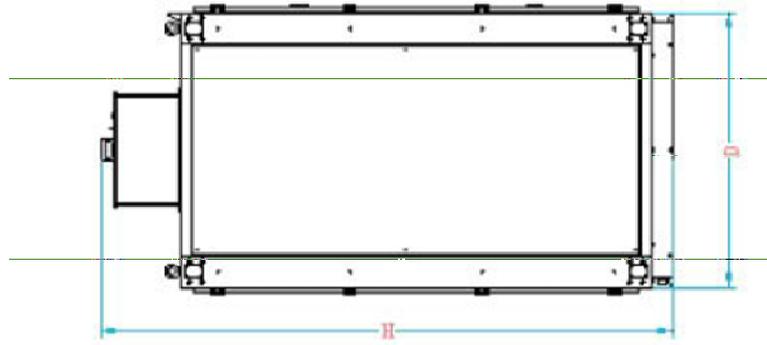ZG-dSVG

3-3

1

2

3

4   UPS

控制柜　功率柜　启动柜　进线柜

3-3　6kV　10kV ZG-dSVG

1　　　　　　10kV　　　　　　35kV
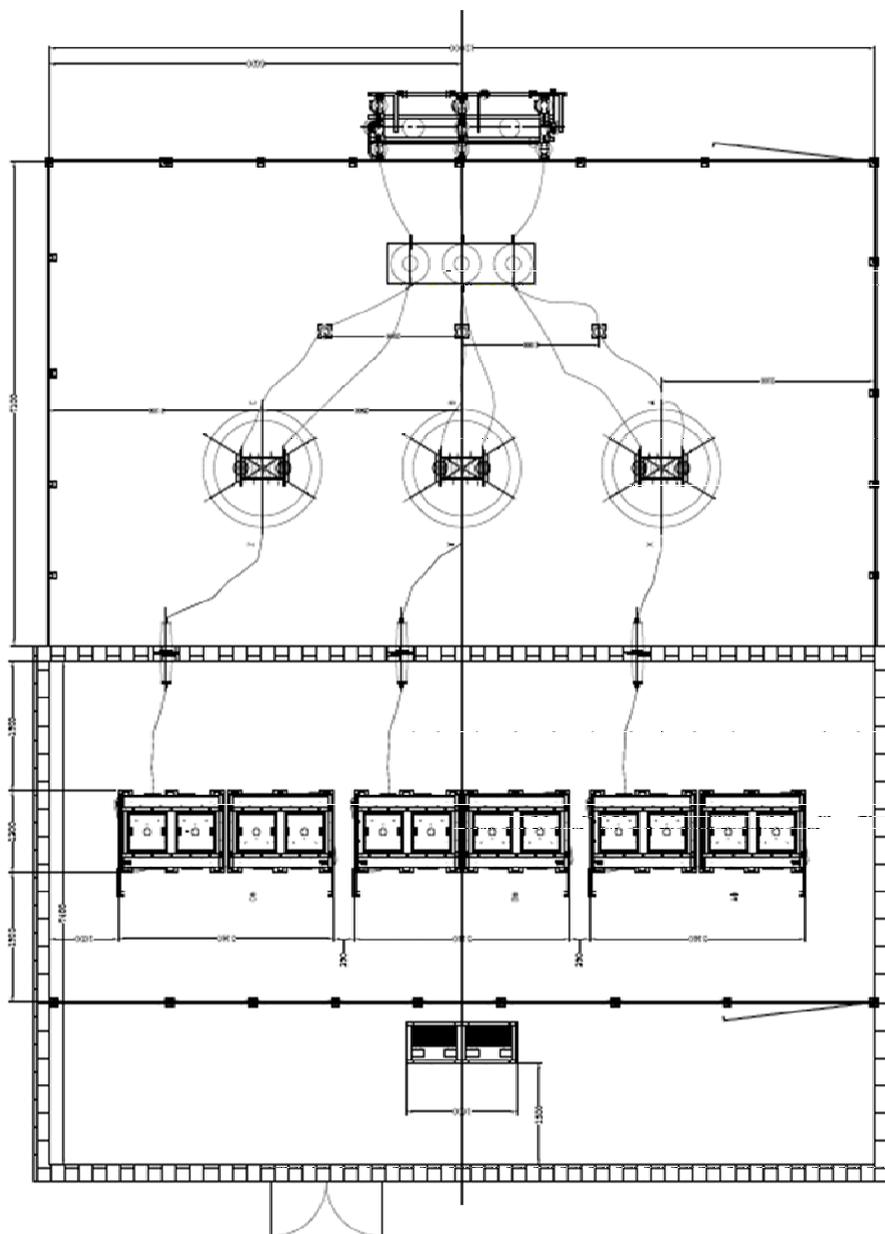
2

3　FC

4　FC

　　35kV　　　　ZG-dSVG
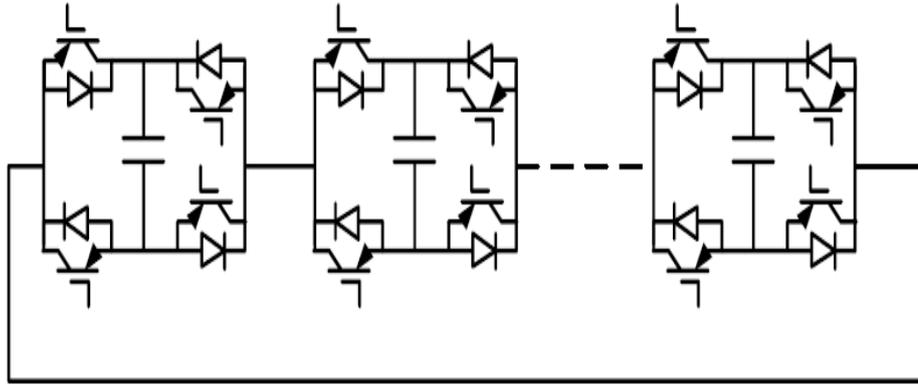
　3-4

3-4 35kV　　　　ZG-dSVG

3.2

1

3-5

3-5

1. ZG-dSVG
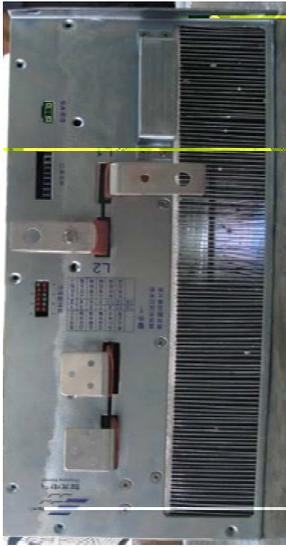
2.

3.

    IGBT   IGBT

3-6 3-7

3-6

3-7

2

ZG-dSVG

3-8

3

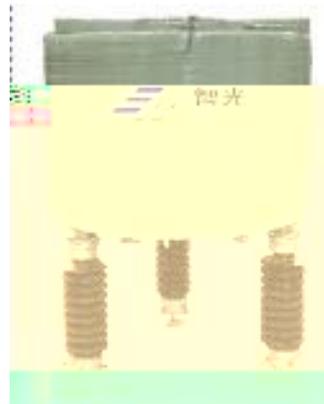3-9

3-9

a

b

c

d

ZG-dSVG

SVG
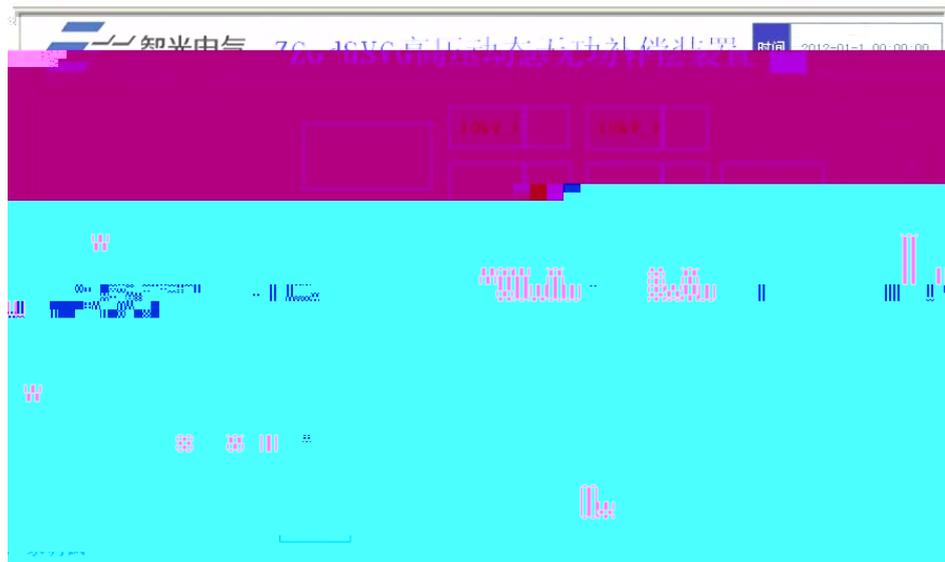
/

RS232/RS485

CAN   RJ45   Modbus

Profibus TCP/IP IEC61850   GPRS

GPRS

4

图3-10

1   windows XP

2

3   1-25

4   6

5

6

7

8

9

10

11

4

4.1

1

	/	

4-1

ZG-dSVG

4.3

TPC7063H TPC7062K

RS485

1

2

1.

"　　　　"

2.

"　　　　"　　　　"　900970"

3.

"　　　　"

4.

"　　　　"

ZG-dSVG

5

5.1

1. 380V
2. "   /   "
3.
4.

5. "   "
6. "   "

5.2

1. 380V
2.
3. "   "

4. "   "
5.

"   "

5.3

1.

2.   380V

3.

4.

5.

6.

7.

5.4

1.

2.

3.

4.   3-6

5.

6.

7.

6

-10 (

) 45 (10

) 5K/h

6.1

22

6.3
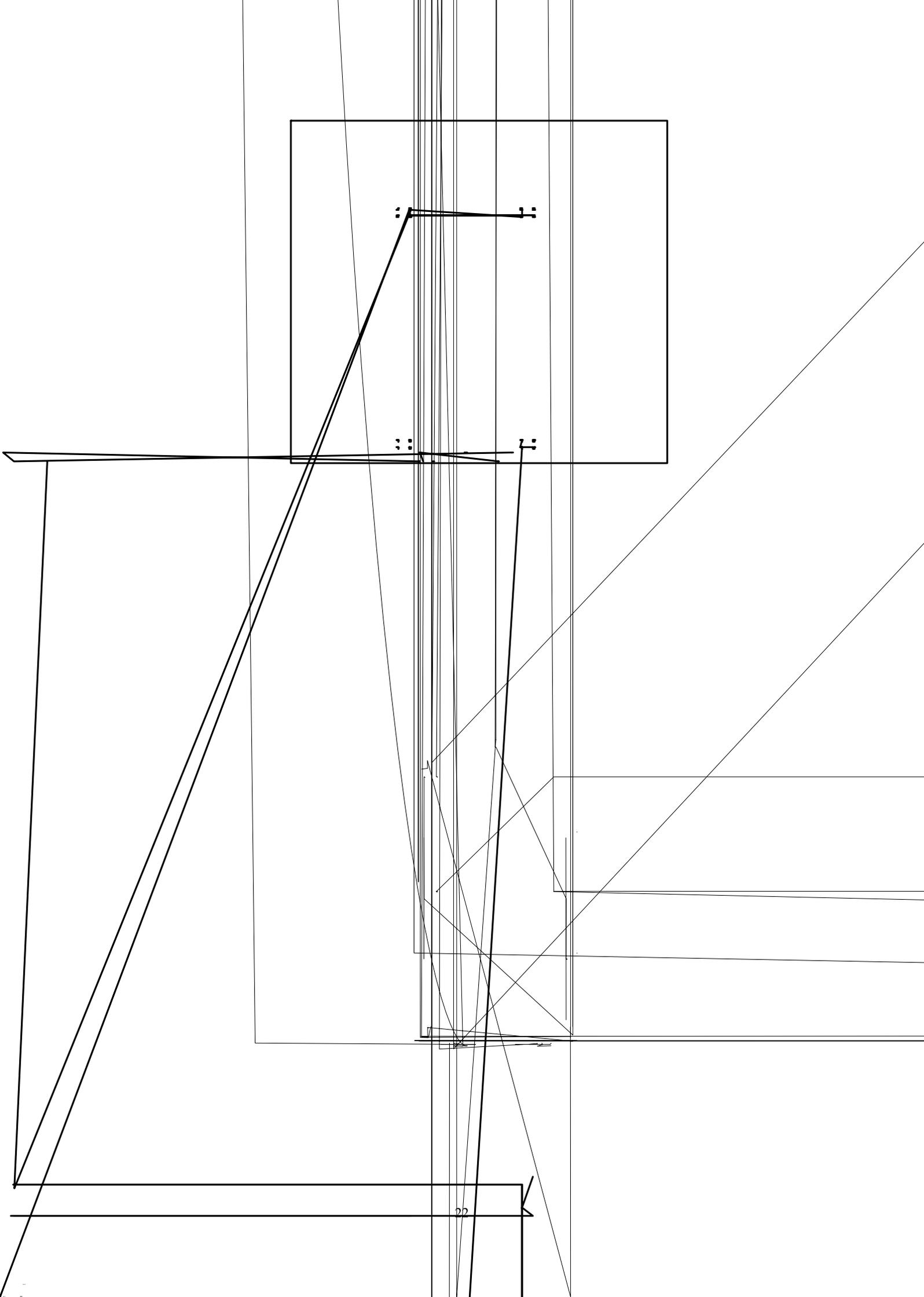
1

6-3

2   1
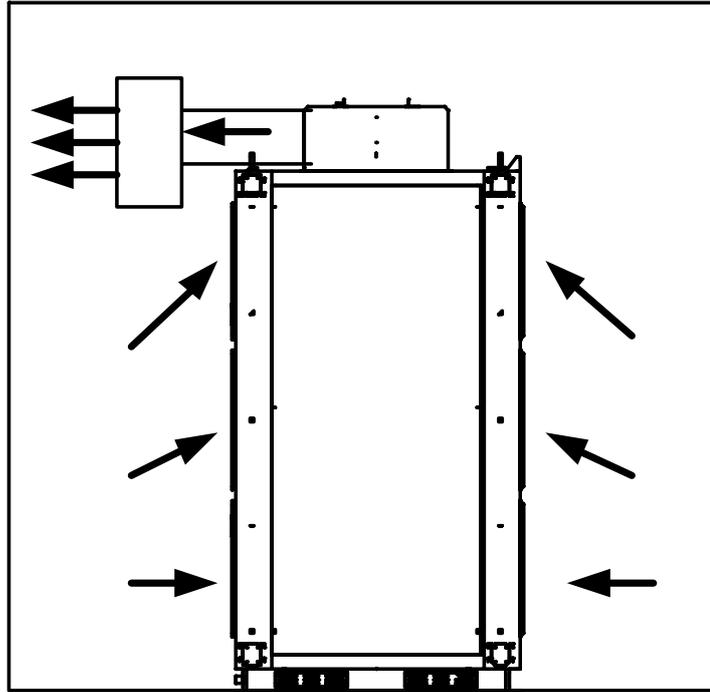
6.4

$$S= \left(3300\text{m}^3/\text{s} \times A1 + 7100\text{m}^3/\text{s} \times A2 \right) \div V \qquad 6\text{-}1$$

S   m²

A1   450   " 1"

A2   560   " 1"

V   2m/s

7

ZG-dSVG

7-1

7-1 ZG-dSVG

1		1.IGBT 2. 3. 4. 5.	1. 2. 3. 4.
2		1. 2. 3. 4.	1. 2. 3. 4.
3		1. PT 2. 3. 4. 5. 6. 7.	1.　　　　　　　　SVG 　　PT 2. 3. 4. 5. 6.
4		1. 2. 3. 4. 5.	1. 2. 3. 4. 5.
5	/	1. 2. 3. 4. 5.	1. 2. 3. 4.
6		1.PT	1.

		2. 3.	2.
7	1/2	1. 2. 3. 4.	1. 2. 3.
8		1. 2. 3. 4.	1. 2. 3.
9		1. 2. 3. 4.	1. 2. 3.
10		1. 2. 3.	1. 2.
11		1. 2.	1. 2.
12		1. 2. 3. 4.	1. 2. 3.
13		1.UPS 2. 3. 4.	1.　　　　　　UPS 2. 3. 4.
14			1. 2.
15		1. 2. 3.　　　　　　PT 4.	1. 2. 3.　　　　　　　　SVG 　PT 4.
16	/ /	1. 2. 3.	1. 2. 3.
17		1. 2.± 15V 3. 4.	1. 2.　　± 15V 3. 4.

7-2

<div style="text-align:center">7-2 ZG-dSVG</div>

1		" "
2		
3	/	" / "
4		
5	/	" / "
6		" "
7	/	" / "

8

8.1

8.2

1   "

2

3

4

5

8.5