
1.1	.....	1
1.2	.....	1
1.3	.....	5
1.4	.....	5
2.1	.....	7
2.2	.....	7
2.3	.....	8
2.4	.....	13
2.5	.....	14
2.6	.....	14
2.7	.....	16
3.1	.....	19
3.2	.....	20
3.3	.....	25
4.1	.....	31
4.2	.....	31

1.

1.1

1.2

1.2.1.

1						2021	9	1	
2							2024	11	1
3					591	2013	12	7	
645									
4					708	2019	4	1	
5									1
2019	1	1							
6								3	2015
5	29			80	2015	7	1		
7									16
2008	2	1							

8							44	2015	5
29				80		2015	7	1	
9									55
2015	3	23			79		2015	7	1
10							2	2019	9 1
11									2025 5
2025	1	27							
12									
		2020	3		2020	4	1		
13							<		>
			2021	12		2021	12	31	
2022	6		2022	4	2				
14									
			2025	4		2025	2	10	
15									
		2016	8		2016	2	5		
16					2015				
2015	5		2015	5	1				
17								2015	
					2015	80		2015	8 19
18									
	2011	95		2011	7	1			
19									
					2011	142		2011	7 1
20									
					2017	121		2017	11 13

1.2.2.

- | | |
|---|---------------|
| 1 | GB50156-2021 |
| 2 | GB6944-2012 |
| 3 | GB 12268-2012 |
| 4 | |

26

AQ 8001-2007

1.2.3.

1

2005 4

2

2002

11

3

2003 7

1.3

1

2

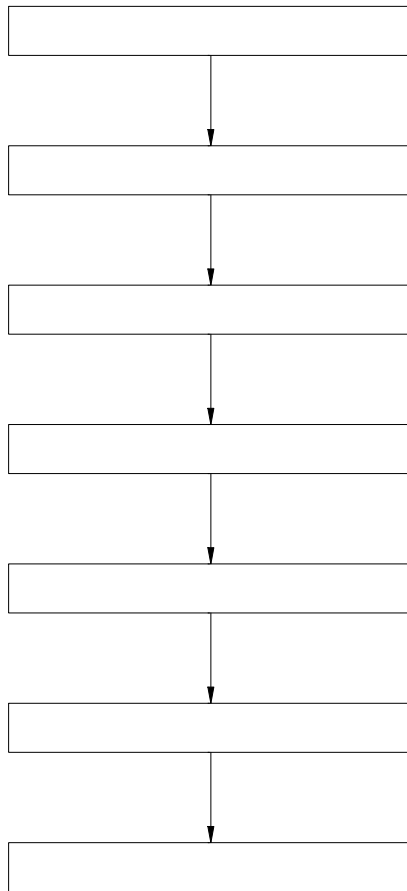
3

4

5

1.4

1-1



1.4-1

2.

SF

4

1

1

4

4

2 20m³

2 20m³

GB50156-2021

3.0.9

60m³

SIg 2023 SIg.2

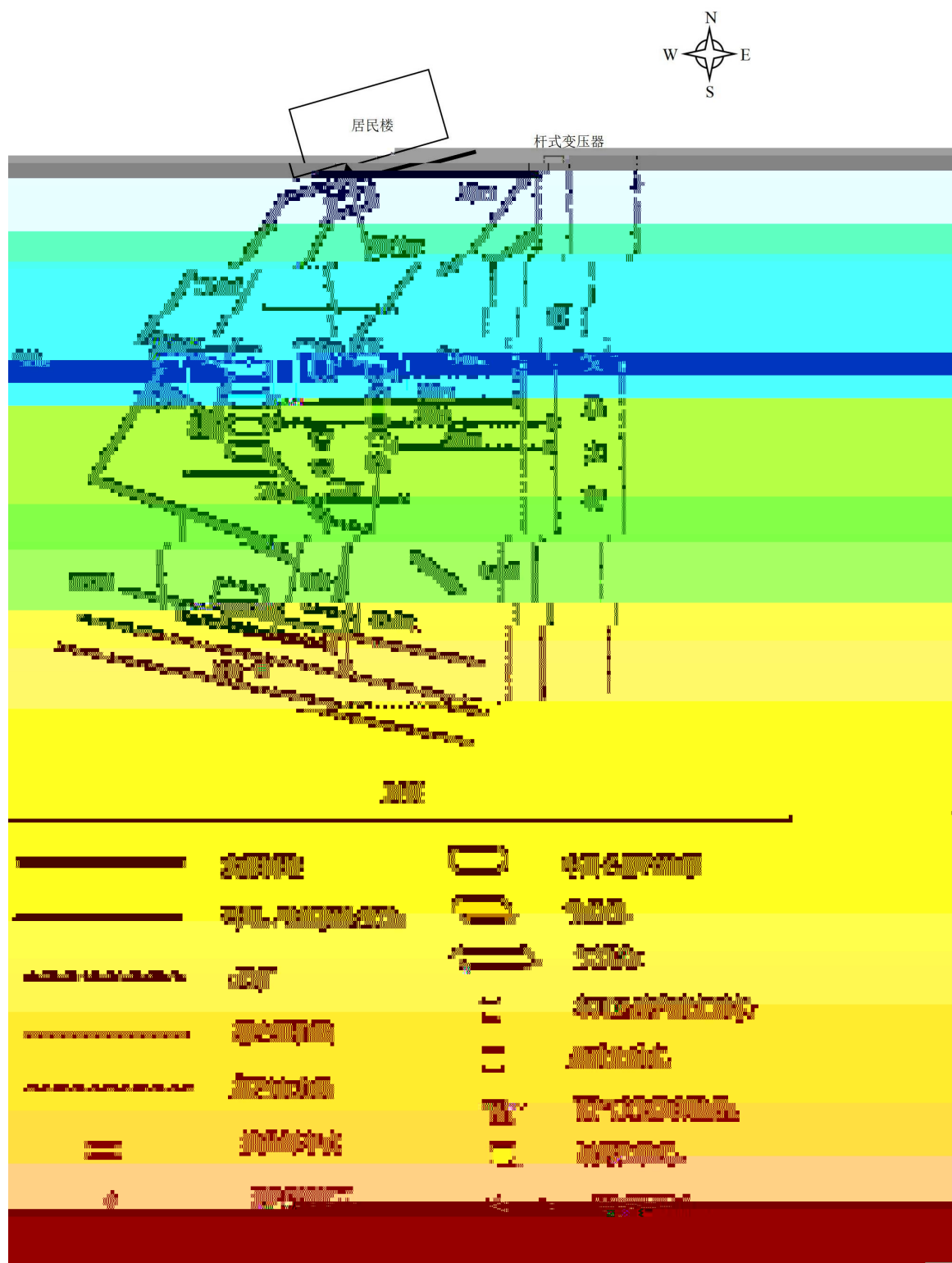
2.A

2."

2.3-1

2.3-1

2.3-2



2.3-1

2.3-1				m	
				10.5	48.5
	H=11m			5	27.5
				5.5	38
			-	-	-
				7	47.8
			-	5	20.5
				5	29
				10.5	37
	H=11m			5	22.5
				5	32.5
			-	-	-
				7	40.6
			-	5	20
				5	28.5
				10.5	51.5
	H=11m			5	34
				5	44
			-	-	-
				7	45.5
			-	5	12
				5	28
				9	45
	H=11m			5	28
				3	38
			-	-	-
				6	42
			-	5	26
				3	35
				9	33
	H=11m			5	16
				3	26

	-	-	-
		6	30.7
	-	5	37
		3	45.4
		9	51
H=11m		5	34
		3	44
	-	-	-
		6	45
	-	5	12
		3	28
		10.5	51.5
H=11m		5	34
		5	44
	-	-	-
		7	46
	-	5	30.9
		5	21
		5	29.5
		9	39.5
H=11m		5	16
		3	26
	-	-	-
		6	

37

2.3-2

m

2.4

2.4-1

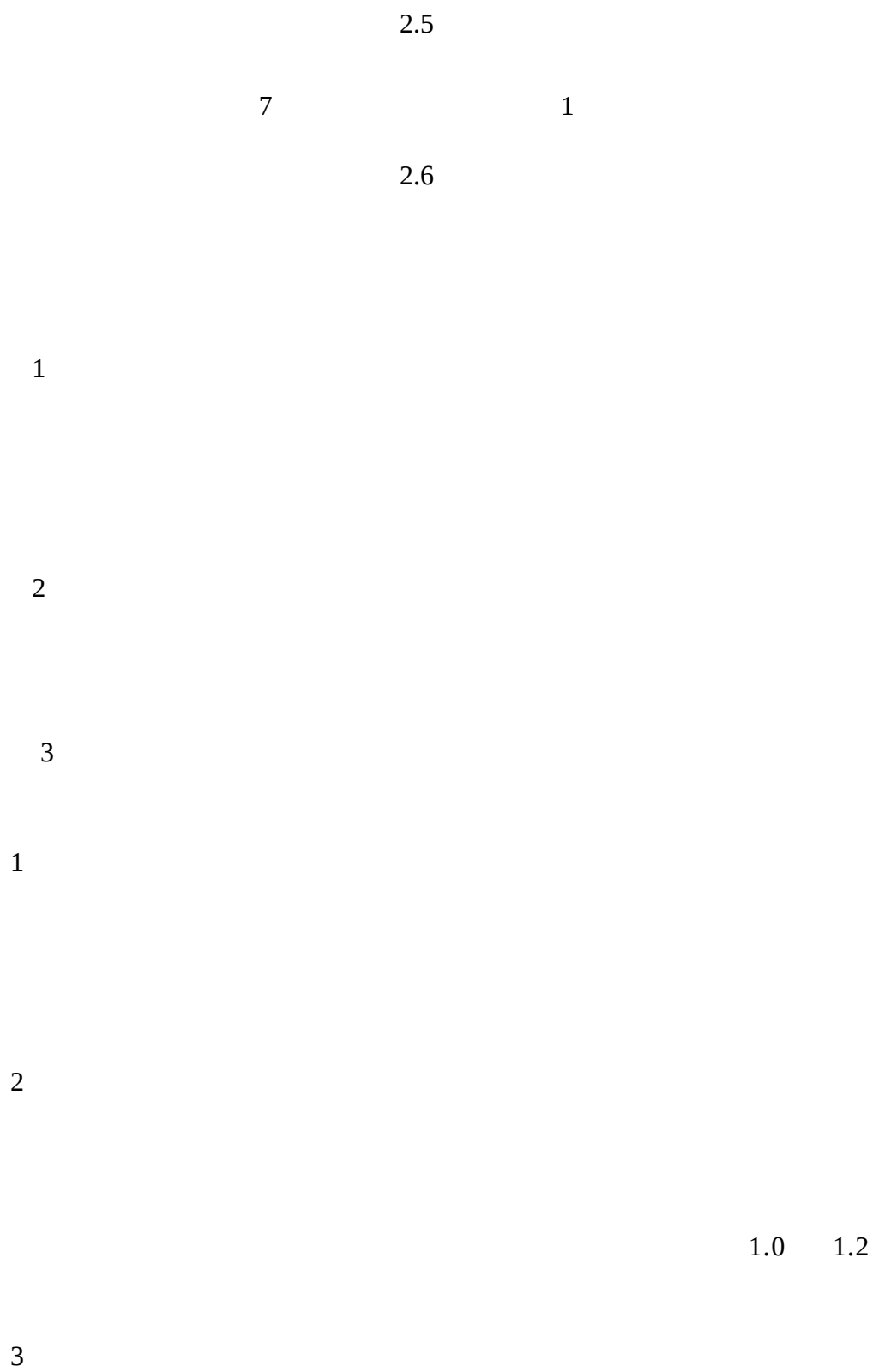
2.4-1

1			72m ²			-
2			-			
3			290m ²			H=7m

2.4-2

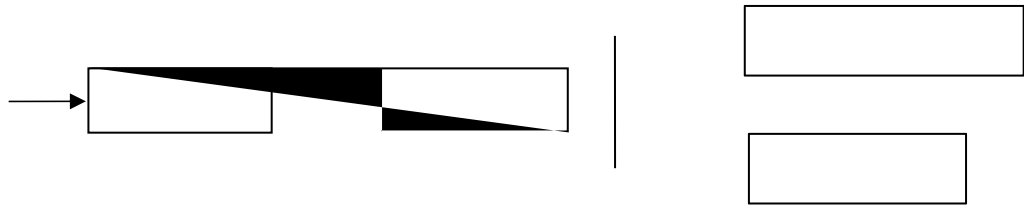
2.4-2

1		2	20m ³	-	SF
2		2	20m ³	-	SF
3		2	ICJSK-50H2222Q Q=5 50L/min		4 92#/95# ExdibmbIIAT3 Gb
4		2	ICJSK-50H2222Q Q=5 50L/min		2 ExdibmbIIAT3 Gb
5		1	SKADZ11K-1.2T		1.2m ³ :Exdib mbIIA T4 Gb
6		1	XFY-VR-M2/8A		Ex de ib IIB T4Gb+ExcIIBT4Gb
7		1	UZK-SA-LD-V5.1		4
8		1	WT-LLD V2.0		4
9		1	EVO™ 200		1
10	UPS	1	-		-
11		14	-		5 6 2 1



10min

2min



2.6-5

2.6-6

2.7

2.7.1

1

91210113761849260D

2023 7 17

2

[2022]000106

2022 05 31 2025 05 30

3

(1062017024)[2025]00390

2025 3 6 2025 9 5

210421197203152819

2024 11 29
2027 11 28

BRŽAŠ

3kg

2

35kg

2

7

14

5

6

4m 2

3m 1

3m

3.

3.1

3.1.1

GB18218-2018

1

2

3.1.2

1

2

$$S=q_1/Q_1+q_2/Q_2+.....+q_n/Q_n\geq 1$$

S——

q₁ q₂... q_n——

t

$$Q_1 \quad Q_2 \dots Q_n \text{---} t$$

3

3.1.3

$$23 \leq 60 \qquad 3.1-1$$

3.1-1		
1		200t
2		5000t

$$\begin{array}{ccccc}
 & & 40\text{m}^3 & & 0.75 \\
 30\text{t} & & 40\text{m}^3 & 0.89 & 35.6\text{t} \\
 S=30/200+35.6/5000=0.15+0.00712=0.15712<1
 \end{array}$$

3.2

3.2.1

$$\begin{array}{ccccc}
 & & 2^* & & 1\text{B} & & 2 \\
 1 & & - & & 2 & & - & & 2 \\
 & & 1630 & & & & & &
 \end{array}$$

$$\begin{array}{ccccccc}
 & & & & \text{E10} & & 92 \\
 95 & 98 & 3 & & =1 & 0.72 & 0.775 & & =1 & 3
 \end{array}$$

4 -46 1.4 7.6% 415~530
0.813MPa

，
，

PC-TWA 300mg/m³

1

2

3

4

1.5
5
1 30

15min

50m

300m

1674

-18

=1

0.87

0.9

5 0 -10 60 -20
50 -35 -50 45

15min

10

3.2.2

3.3

3.3-1

3.3-1

1			
2			
3			
4			

5			
6			
7			

3.3.1

1

3

4

5

3.3.2

1

2

3.3.3

3.3.4

3.3.5

3.3.6

3.3.7

1

2

4.

4.1

	7		
	8		
	9		
	10		
	11		
	12		
	13		
	14		
	15		
	16		
	17		
	18		
	1		
	2		
	3		
	1		
	1		
	2	GB/T29639-2020	
	3		
	1		
	2		
	3		

5-3

5

GB50156-2021

4.0.13

1

GB50156-2021

5.0.1

2

4m

6m

6m

8% G+X

GB50156-2021

5.0.2

8%

3

GB50156-2021

5.0.3

4

” “

”

“

GB50156-2021

5.0.5

”

” “

“

5

:Ex d ib mb

3m

11A T4 Gb

GB50156-2021

5.0.6

1.2m³

100mm

1.2m

7

GB50156-2021

5.0.8

8

GB50156-2021

300m²

5.0.9

9

4.0.4

1

GB50156-2021

5.0.10

“ ” “

”

10

GB50156-2021

5.0.11

11

2.2m

4.0.4

1.5

25m

GB50156-2021

5.0.12

4.0.4

12

		5.0.15	
A			
14			
		C	GB50156-2021
		5.0.16	

	6	GB/T 51344	GB 50156-2021 6.1.6		
	7	$10^9\Omega$ $10^9\Omega$ $6.1.7$ $A=0.04V_t$ $6.1.7$ A —— m^2 V_t —— m^3	GB 50156-2021 6.1.7		
	8	11.2	GB 50156-2021 6.1.8		
	9		GB 50156-2021 6.1.9		
	10	80mm 4mm	GB 50156-2021 6.1.10		

11

GB 50156-2021

6.1.11

12

0.5m

0.9m

0.3m

GB 50156-2021

6.1.12

0.5m

13

	50L/min	GB 50156-2021 6.2.2	5-50L/min	
	3	GB 50156-2021 6.2.3		
	4	GB 50156-2021 6.2.4		
	5	GB 50156-2021 6.2.5		
	6 “ ”	GB 50156-2021 6.6.1		
	7	GB 50156-2021 6.6.2		
	8 6.2 1 2 3 4 5	GB 50156-2021 6.6.4		
	9	GB 50156-2021 6.6.5		

		GB 50156-2021 6.3.5		
	6	GB 50156-2021 6.3.6		
	7	1 50mm 1.0 1.2 25mm	50mm GB 50156-2021 6.3.7 25mm	
	8	50mm 100mm 45° T 150mm 200mm 200mm	100mm GB 50156-2021 6.3.8 45° 150mm	

$10^8 \Omega \cdot \text{m}$	GB 50156-2021
$10^{10} \Omega$	6.3.13

14

GB 50156-2021
6.3.14

2‰ GB 50156-2021 2‰
6.3.15
1‰ 1‰

6.3.15 GB 50156-2021
1% 6.3.16

e. d
GEBOJ2e-505E

D., 6

21	6.3.20	
	GB 50156-2021	
22	6.5.1	
	GB 50156-2021	
23	6.5.4	
		6.3
6.3		
	5mm	
	GB 50156-2021	
	6.5.5	
		0.5%
24	5%	



5-5

	1 2 2 5kg 1 5kg 1 6L 2 2 1 35kg 15m 5 2m³ 2 2m³	GB50156-2021 12.1.1	6 2m³ 5kg 8 35kg 2 5kg 2	
	2 GB50140	GB50156-2021 12.1.2	5kg 4 3kg 2	
	1 0.25m 0.25m	GB50156-2021 12.3.2		
	2	GB50156-2021 12.3.3		

	1	AQ3010-2022 4.4		
	2	AQ3010-2022 4.4		
	3	XF/T 3004-2020 4.5		
	4	GB/T50493 XF/T 3004-2020 8.1		
	5	XF/T 3004-2020 8.2		

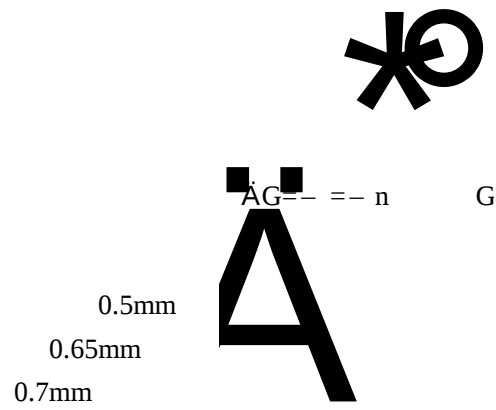
0

5-6

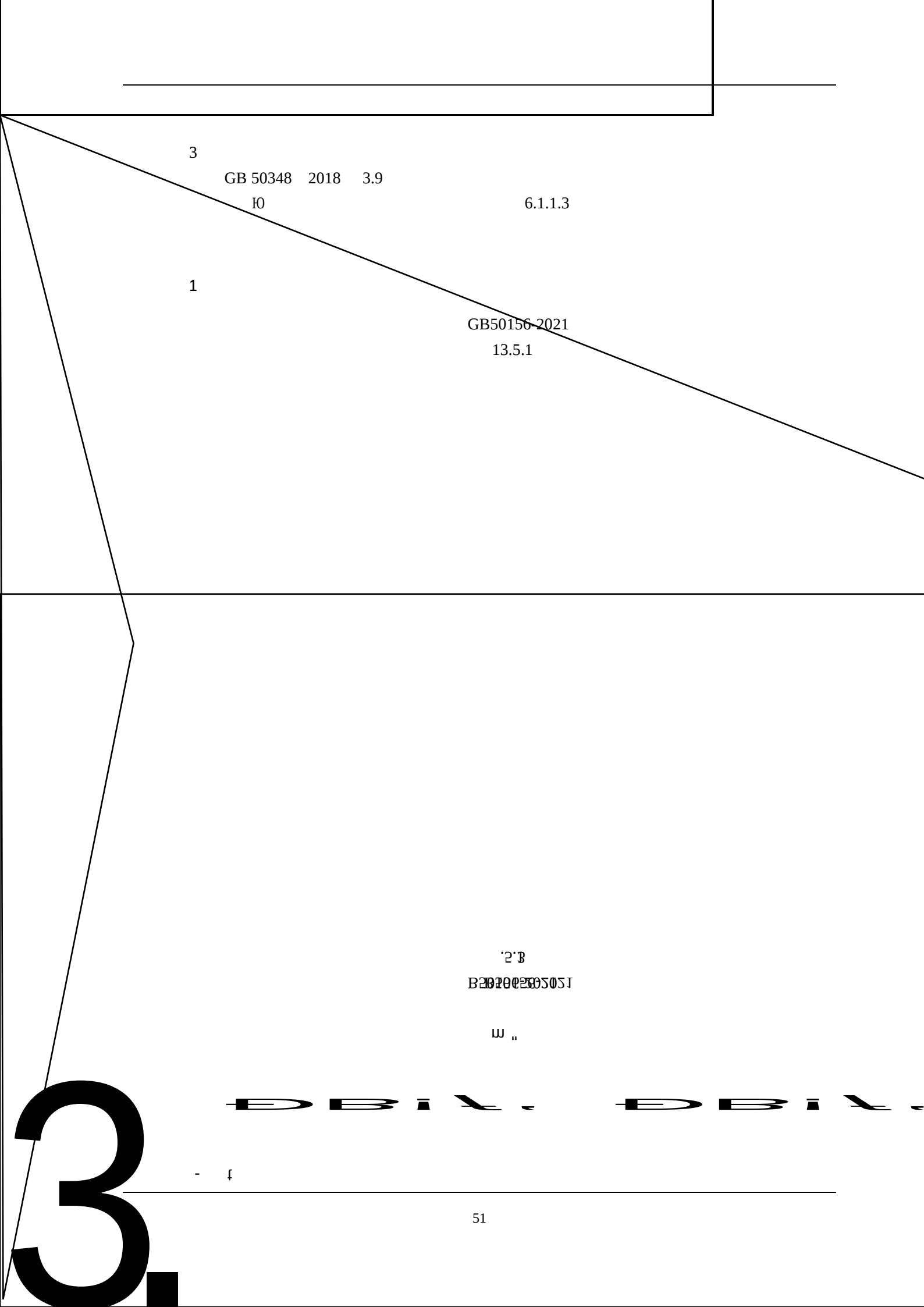
	1	GB50156-2021 13.1.1		
	2 380/220V	GB50156-2021 13.1.2	380/220V	
	3 90min	GB50156-2021 13.1.3	90min	

GB50156-2021
13.1.4

GB50156-2021
13.1.5



11		GB50156-2021	
		13.2.13	
12		GB50156-2021	
		13.2.14	
13	100Ω	GB50156-2021	
		13.2.15	
14		GB50156-2021	
	1	13.2.16	1
1			
		6.1.2.1	
2			
		6.1.2.2.1	
3			
		6.1.2.2.2	
1			
		6.1.1.1	
2	U		



3

GB 50348 2018 3.9

10

6.1.1.3

1

GB50156-2021

13.5.1

2.3

B2000205051

W ..

DBIL DBIL

- f

2

12

5

GB50156-2021

14.1.4

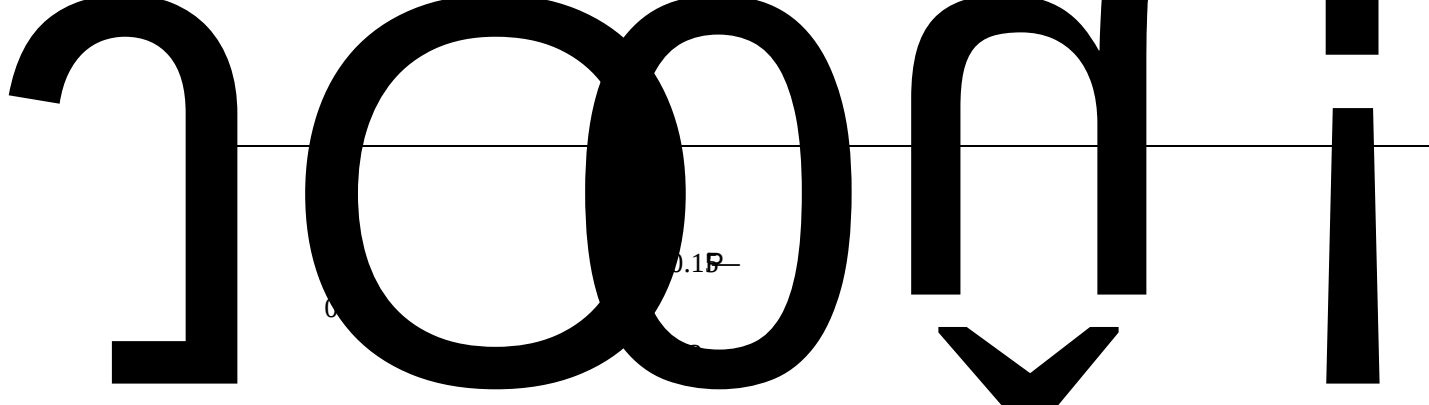
300cm²/m²

2



GB50156-2021





GB50156-2021

14.2.3

100mm

0.5m

Ó 20 2 9 -

„000E2-b „V+00M•

„BTB09! „W Ó V†v B00@ Ó „ 2 •D@••
„E BE „V+00M•

x

3

“ ”

2.3-1

4

13			2.3-2	
14				
15				
16				
17				
18				
19				
20			40m ³ 40m ³	

6

“ ” “ ”

7

8

9

10

11

[2018]74

12

7.

GB50156-2021

1.

GB50058-2014

1 0

2 1

3 2

2.

1

3.

1

1

1

2

4.5m

0.15m

3m

2



1

4.

2

1

0

2

1.5m

0.5m

1

3

3m

1.5m

2

2

5.

3

1

0

2

5

-
- 1
 - 2
 - 3
 - 4
 - 5
 - 6
 - 7
 - 8
 - 9
 - 10
 - 11
 - 12