

2015

1674



2022

8

2023

1

1

1674



1.2

1.3

1.4

.....	1
.....	1
.....	1
.....	5

16 2 2
Ä - æ
10
30 ' È2008 □ 8 29 - æ¹ ~ - -" 80 ' AÒÈ

Ä11 Å6B@ñÉ3Q0E#0EB0B0YÄ05ANQD\$005M6YBZ"00E#10*4\$" P dB4 È\$d

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1 N N N N *

22
 [2011]95 2011 6 21

23
 [2011]142 2011 7 1

24
 [2016]8 2016 2 5

25
 2019 107

2019 10 28

26
 2017 121 2017 11 13

27
 341 2021

5 18

28
 2017 45 2017 12 23

29
 <
 > 2017 47 2017 12 28

30
 [2012]144 2012 8 30

31
 < >
 [2017]22 2017 11 28

32
 <
 > 2017 5 2017 9 13

33
 [2016]11 2016 7 6

34
 2018 21

2018 8 31

1.2.2.

1	GB50156-2021	
2	GB 6944-2025	
3	GB 12268-2025	
4	GB 18218-2018	
5	GB 17914-2013	
6	GB 55036-2022)	
7	GB 50058-2014	
8	AQ 3009-2007	
9	GB 6441-1986	
10	GB/T 13861-2022	
11	GB 50016-2014 2018	
12	GB 50140-2005	
13	GB 55037-2022	
14	GB 50057-2010	
15	GB 12158-2024	
16	GB/T 50610-2010	
17	GB20952-2020	
18	GB 50395-2007	
19	GB/T 29639-2020	
20	(GB/T12801-2025)	
21	(GB 5083-2023)	
22	YJ/T 9007-2019	
23	(AQ 3010-2022)	
24	AQ 3018-2008	
25	GB30871-2022	
26	XF/T 3004-2020	
27	-	SH/T

3178-2015

28

GB/T 13869-2017

29

AQ 8001-2007

1.2.3.

1

2005 4

2

2002

11

3

2003 7

1.3

1

2

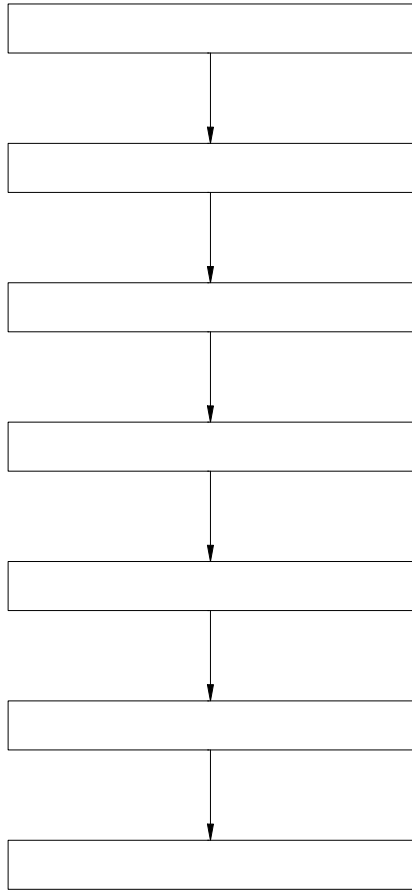
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4

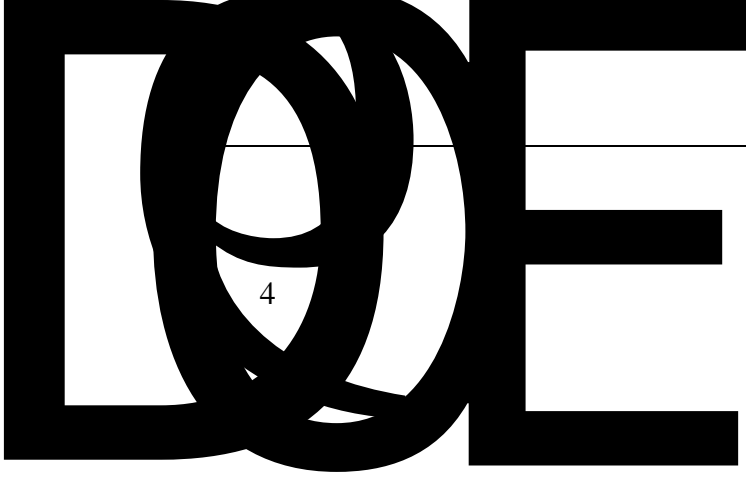
5

1.4

1-1



1.4-1



4

101.6Kpa

658mm

4.6m/s

25.7m/s

6

23.4d

7

15.0cm



8

1.17m

8

0.20g

2.3

16.8m

23.5m

1

25.6m

12m

0.2m

1.2m

0.6m

5.5m



			-	5	17.2
			-	-	-
	202			3	52.4
				6	63
				9	69
			-	-	-
			-	5	24
			-	-	-
	202			3	16.7

2-2

m

	0.5	0.6	0.5	0.6	-	-	-	-	-	-	-	-	-	-
	0.5	0.6	0.5	0.6	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	3	8.4
	-	-	-	-	-	-	-	-	-	-	-	-	2	8.4
	4	22.9	3	16.8	4	21	3.5	20.8	5	25.3	4	36.6	5	19.7
	7	30	6	25	7	29.2	6	29	7	36	6	41	-	-
	7	25.5	6	31.5	7	30	6	30.3	7	23.5	6	33	-	-
	10.5	29	9	25.6	10.5	26.3	9	26	10.5	48	9	56	-	-
	2	17.9	2	17.9	2	17.2	2	17.2	-	-	-	-	-	-

2.4

2.4-1

2.4-1

1			180m ²			
2			340m ²			H=5.5m
3			24m ²			-
4			48m ²			-

2.4-2

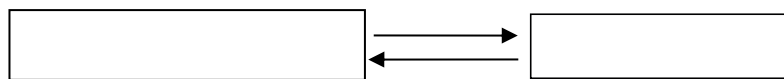
2.4-2

1		2	30m ³	-	SF
2		2	30m ³	-	SF
3					

斜拉桥

2.6

1.0 1.2
2.6-1 2.6-2 2.6-3 2.6-4



2.6-1



2.6-2

2.6-3

2.6-4

2.7

2.7.1

1

912103817683063731

2024 12 12

2

[2023]100073

2023 4 14

3

LNFYJC/B/TY2025003768

2026 4 10

4



6

4m 1

10

3

90%

3.

3.1

3.1.1

GB18218-2018

1

2

3.1.2

1

2

$$S=q_1/Q_1+q_2/Q_2+\dots+q_n/Q_n \quad 1$$

S

q₁ q₂... q_n

t



Q_1 $Q_2 \dots$ Q_n

t

3

3.1.3

3.1-1

3.1-1



3

1

30

2

3

2

3.3.5

3.3.6

3.3.7

1

2

4.

4.1

8

1
2
3
4
5
6
7
8

4.2

5.

8

5-1

5-1

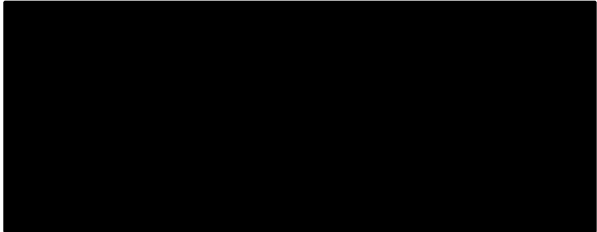
8
9
10

			4.0.4	
	4		GB50156-2021 4.0.12	
	5		GB50156-2021 4.0.13	
	1		GB50156-2021 5.0.1	
	2	6m 4m 8%	GB50156-2021 5.0.2	12m 8%
	3		GB50156-2021 5.0.3	
	4	“ ” “ ”	GB50156-2021 5.0.5	
	5	3m	GB50156-2021 5.0.6	

	1.2m			
	100mm	1.2m		
6			GB50156-2021 (5.0.7	
7			GB50156-2021 5.0.8	
8	300m ²		GB50156-2021 5.0.9	
9	4.0.4 “ ”	“ ”	GB50156-2021 5.0.10	4.0.4
10			GB50156-2021 5.0.11	
11	4.0.4	1.5	2.2m 25m	GB50156-2021 5.0.12

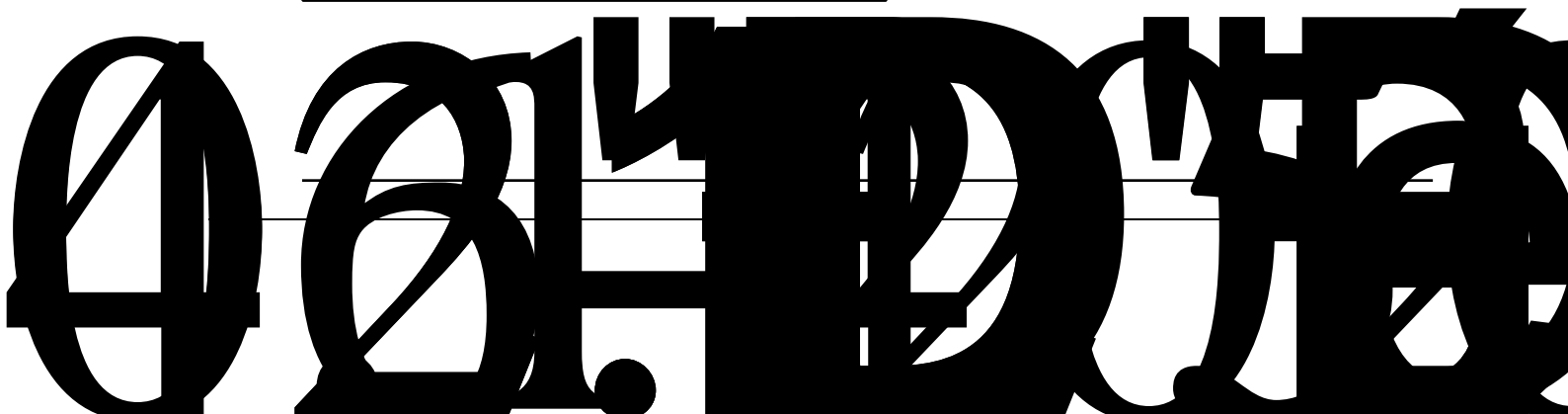
	4.0.4			
12	GB50156 5.0.13-1	GB50156-2021 5.0.13		
13	C	GB50156-2021 5.0.16		

5-4



2019-5051

89



5	10^9 10^9 $A=0.04Vt$	GB50156-2021 6.1.7	SF	
6.	11.2	GB50156-2021 6.1.8	SF	
7		GB50156-2021 6.1.9	SF	
8	$4mm$ $80mm$	GB50156-2021 6.1.10	SF	
9		GB50156-2021 6.1.11		
10	0.5m			

<p>/</p> <p>11</p> <p>12</p> <p>13</p>	<p>0.9m</p> <p>GB50156-2021</p> <p>6.1.12</p>
<p>0.3m</p>	<p>GB50156-2021</p> <p>6.1.13</p>
<p>90%</p>	<p>GB50156-2021</p> <p>6.1.14</p>
<p>95%</p>	<p>GB50156-2021</p> <p>6.1.15</p>

	6.2.3
4	GB50156-2021 6.2.4
5	GB50156-2021 6.2.5
1	GB50156-2021 6.3.1
2	GB50156-2021 6.3.2
3	GB50156-2021 6.3.3
4	100mm GB50156-2021 6.3.4

5

bb

GB 50156-2021
6.3.5

Å

6

GB50156-2021
6.3.6

7

50mm

GB50156-2021
6.3.7

1.0 1.2

25mm

f

P

F

8

50mm 100mm
45° T

150mm 200mm

	<p style="text-align: center;">4mm</p> <p style="text-align: center;">10^{10}</p> <p style="text-align: center;">$10^8 \cdot m$</p> <p style="text-align: center;">100kV</p>		<p style="text-align: center;">$10^8 \cdot m$</p> <p style="text-align: center;">10^{10}</p>	
	13	GB50156-2021 6.3.13		
	14	GB50156-2021 6.3.14		
	15	GB50156-2021 6.3.15	<p style="text-align: center;">2‰</p> <p style="text-align: center;">1%</p>	
	16	GB50156-2021 6.3.17	<p style="text-align: center;">0.5m</p> <p style="text-align: center;">0.2m</p> <p style="text-align: center;">0.5m</p>	

	100mm	4mm	6.5.3		
		200mm			
		10mm 30mm			
23			GB 50156-2021 6.5.4		
24	5mm	6.3	GB50156-2021 6.5.5		
		5%			
25		3.5mm	GB50156-2021 6.5.6	3.5mm	

5-5

1
2
1 5kg
6L
15m
1
2 5kg
1
2 2
35kg
1
5

	1	AQ3010-2022 4.4		
	2	AQ3010-2022 4.4		
	3	XF/T 3004-2020 8.1		
	4	XF/T 3004-2020 8.4		

5-6

	4	4.5m 4.5m	5m	GB50156-2021 13.1.4		
	3m					
	5			GB50156-2021 13.1.5		
	6	LPG LNG CNG		GB50156-2021 13.1.6		
	7	GB50058		GB50156-2021 13.1.7		
8	IP44		GB50156-2021 13.1.8	IP44		
	1			GB50156-2021 13.2.1	2	
	2		4	GB50156-2021 13.2.2		
	3	LPG		GB50156-2021 13.2.4		
	4					



00

0.00

	5	GB50156-2021 13.2.12		
	11	GB50156-2021 13.2.13		
	12	GB50156-2021 13.2.14		
	13 100	GB50156-2021 13.2.15		
	14 1	GB50156-2021 13.2.16	1	
	1	5.0.1		
	2	5.0.5		
	3	5.0.8		

GB50156-2021

12

14.1.4

5

300cm²/m²

2

3

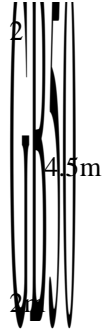
GB50156-2021

14.1.5

1

GB50156-2021

14.2.1



«Група»

5-9

	5	5	0	0
	31	31	0	0
	22	19	0	3
	45	39	0	6
	8	8	0	0
	28	26	0	2
	16	11	0	5
	20	11	0	9
	175	150	0	25

6.

1

2

3

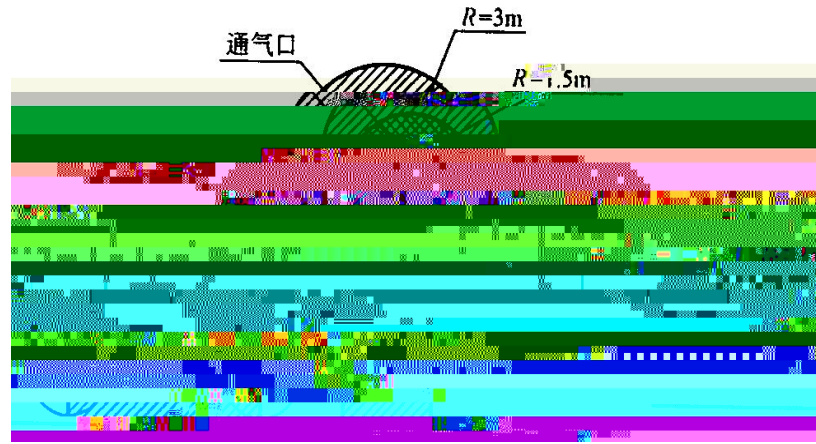
4

5

3
1.5m

3m

2



2

5.

1

0

3

2

1.5m 0.75m

0.5m

1

3

1.5m

1m

3m 2m

1.5m

2

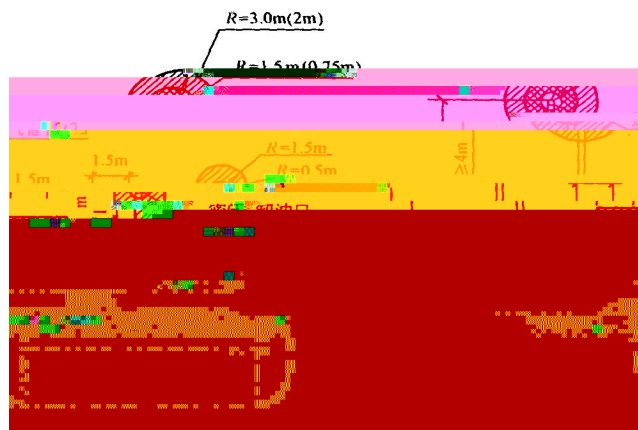
4

1

1m

1.5m

2



3

1

2

3

4

5

6

7

8

9

10

11