7.3 42
8 44
8.1 44
8.2 44
8.3 45
8.4 46
8.5 46
9 47
10 48
A 49
A.1 49
A.2 49
A.3 49
B 50
B.1 50
B.2 50
C 51
C.1 51
C.2 54
C.3 58
C.4 59
C.5 60
D 90
D.1 90
D.2 93
D.3 96
..... 97

1

1.1

1.2

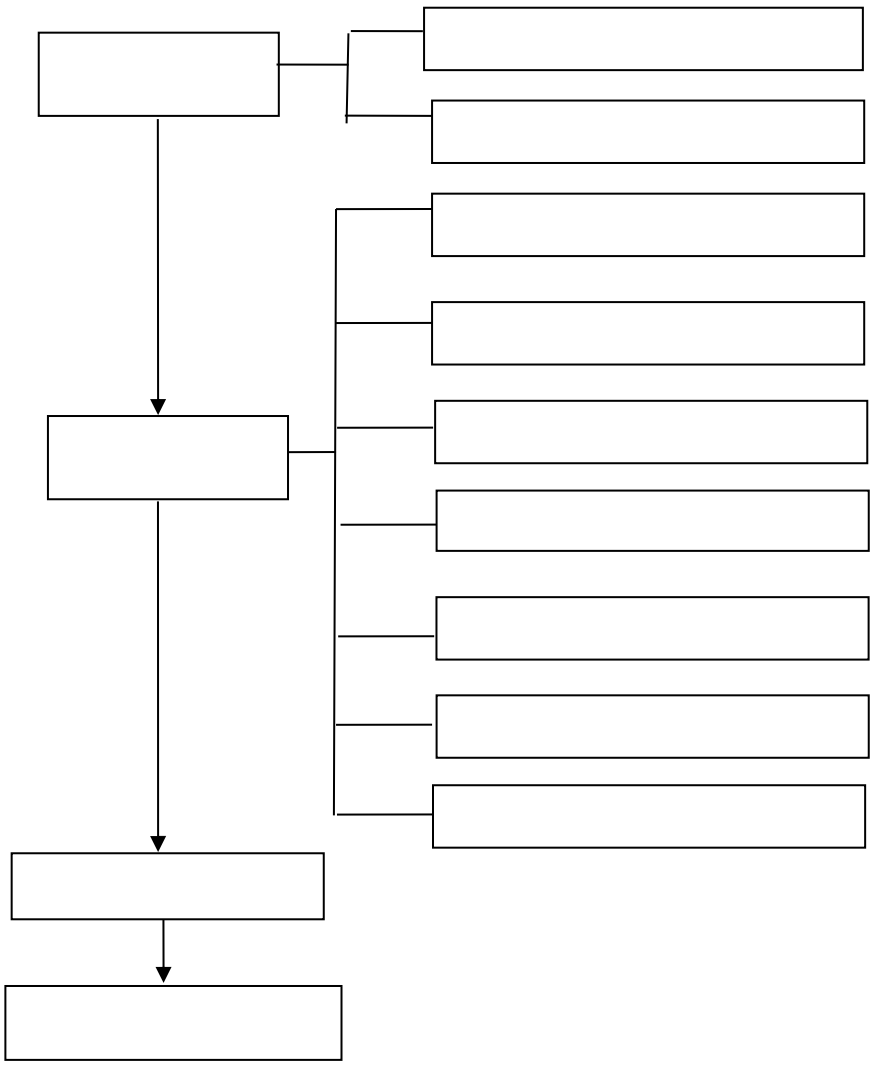
1.3

M100

$30m^3$ 1

1.4

1.4-1



1.4-1

2.1-1

1	SF	30m³ 50m³ 30m³ 50m³	1 1 1 1	30m³ 50m³ 50m³	1 1 1	V01
2		-		30m³	1	J03
		3		2		
		1		1		

2.2

2.2.1

SF

SS SF

FF

SF

“ ”

2.3.2

SF FF SS

30

H=

2.3

2.3.1

61

1 H=10m

2.3-1

2.3.2

2396.8m^2

V01

0.2m

1.2m 1.2m

1 1

9m

2.3-2

2.3-1

2.3-2

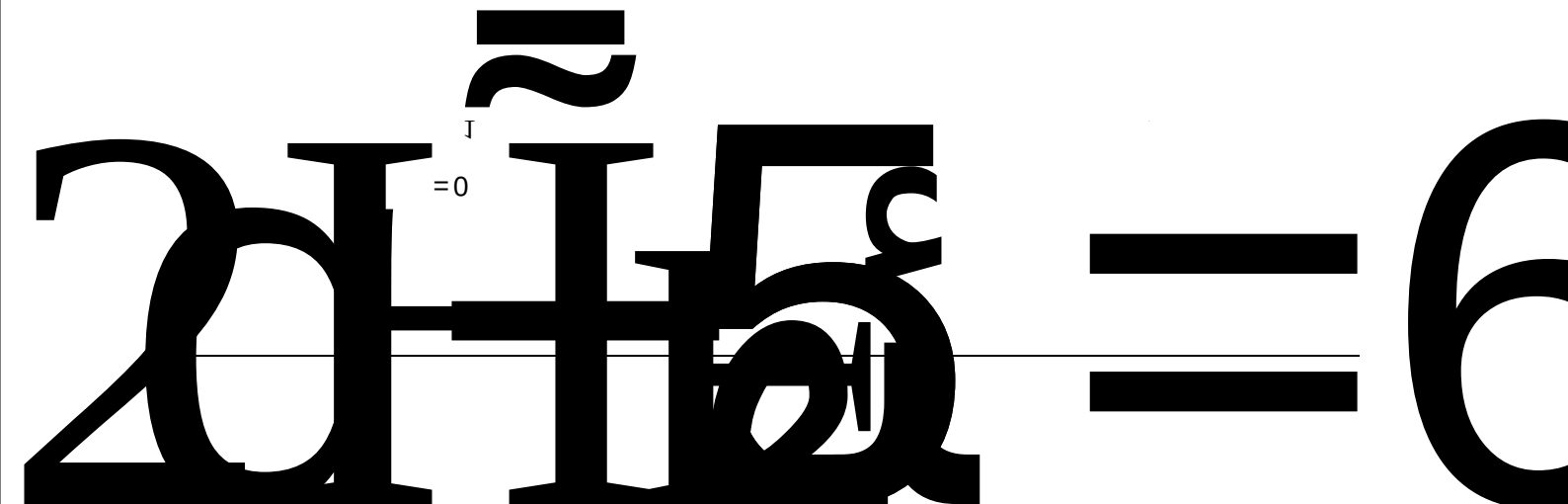
2.3-1 m

1	H=10m	0.75H ≥ 5m	11
		17.5	27
3	H=6m	0.75H	

²

²

²



	0.5	0.5	-	-	-	-	-	-
	0.5	0.5	-	-	-	-	-	-
	-	-	-	-	-	-	3	6
	-	-	-	-	-	-	3	6
	-	-	-	-	-	-	2	6
	4	19	4	15	5	5.5	5	23
	2	7	2	9	-	-	-	-

2.3.3

2396.8m^2

2.3.4

-3

1 30m^3

2.3-3

-3

2.3-3

m^3

2.5-2

2.5.2

2.6

2.6.1

1

2

1 5

2 n ɀ

2.6.2

2.6.3

TN-S

95%

14

5 8 4.5m 1

3m

2.6.7

7 $2m^3$ 5kg 2

2kg 8 5kg 8

35kg 2 5kg 2

2.7

7 1

3

3.1

2015

3.1-1

3.1-1

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CAS UN

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3.2-1

3.2-1

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6.1

6.1.1

6.1-1

6.1-1

	t					
	23.7t					
		30m^3	0.79	23.7t		

6.1.2

6.1-2

6.1-2

1					
2					
3					
4					
5					
6					
7					

6.1.3

1

6.1-3

6.1-3

						TNT
1			23700kg	22.68×10^{3}kJ/kg	0.538×10^{9}kJ	78.02kg

2

6.1-4

6.1-4

1			23700kg	22.68×10^{3}kJ/kg	0.538×10^{9}kJ

6.2

6.2.1

6.2.2

6.2.3

C.5 9 205

23 182

6.2.4

200t 5000t 500t 0.3559<1

C.3

7

7.1

7.1.1

1

7.7

7 25.2

1 -12.7

38.3

-30.6

8.3

6.9

2

69%

6

3.2m/s

23m/s

7

28.3d

42d

8

6

1.40m

1

6

6

2

7.1.3

2396.8m^2

2.3-2

7.2

7.2.1

7.2-1

7.2-1 ¿ ž 1ý

±0.00 0.15 0.150

3‰ i 8%

3

1

450 7.5m

1.00m 6m

5.1.2

2

200 200

0.150m :

3

5.1.2

3

1 50m³ 1 30m³ 1 50m³ 1 30m³M100

160m³ 135m³

4 4.2.1-1 4.2.1-2

5

6

M100

7

2

4m 1 10m 12m

8

GB50156-2021

10m

12m

1.

M DN100 Q235

0.5m

	2. 4.8m 1.5m 0.2m 3. 2m	
3.1	AQ3020-2008 - - SH/T3178 GB/T8163-2018 GB50156-2021 15.5	
3.2	1 0.08MPa 2 DN50 20# 20# DN50 4mm DN100 DN100 SO-RF HG/T20592-2009 RF HG/T20610-2009 HG/T20613-2009 GB/T6175-2016 GB/T12459-2017 0.005 0.01 3 5-50L/min 4 100mm 45° 200mm 200mm 5 1 2 3 4 50mm 6 1 2 3	

90min

,

R≤4Ω

10Ω 4Ω

30Ω

“ ”

Φ10 10m×10m 12m×8m

1m 0.5m

“ ”

, Φ10

20mx20m 24mx16m 1m 0.5m

2 ≥Φ16 4 ≥Φ10 25m

4.3

30Ω

10Ω

30Ω

50×5×2500 40×4

0.7m

4.4

7

8 TSG Z6002-2010

9

10 10
5m

1
2

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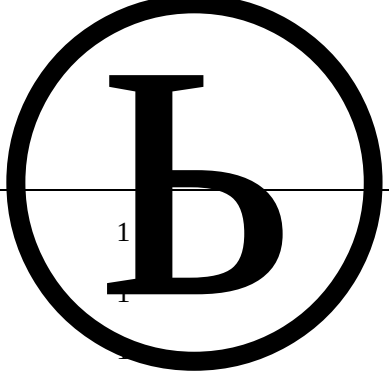
6.5



		1	
2	UZK-SB	1	
3		1	
4		2 1	
5		10	110
6		1	
7		2	
8		1 1	
9		1 1	
10		1 1	
11		1	
12	DN20	2	
13	DN40	1	N

			7
			1
			14
			1
18		5kg	1
			1
19	UPS	3000VA-1800W	1

6

2026 4 3

7.2.3

7.3

C.4

8

8.1

“

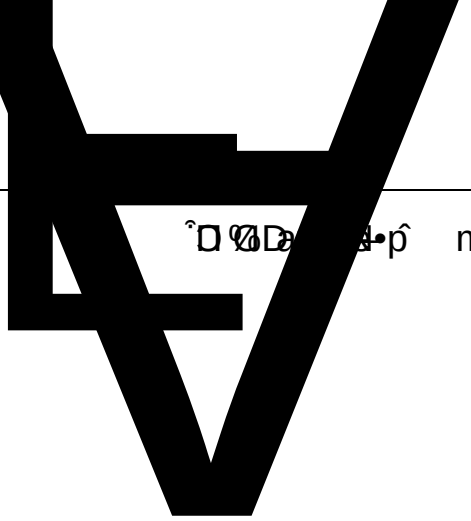
”

8.2

1

2

3 “ ”



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8.4

8.5

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GB30871-2022

10

A

A.1

A.2

A.3

B

B.1

GB18218-2018

1

2

B.2

C

C.1

C.1.1

C.1.1-1

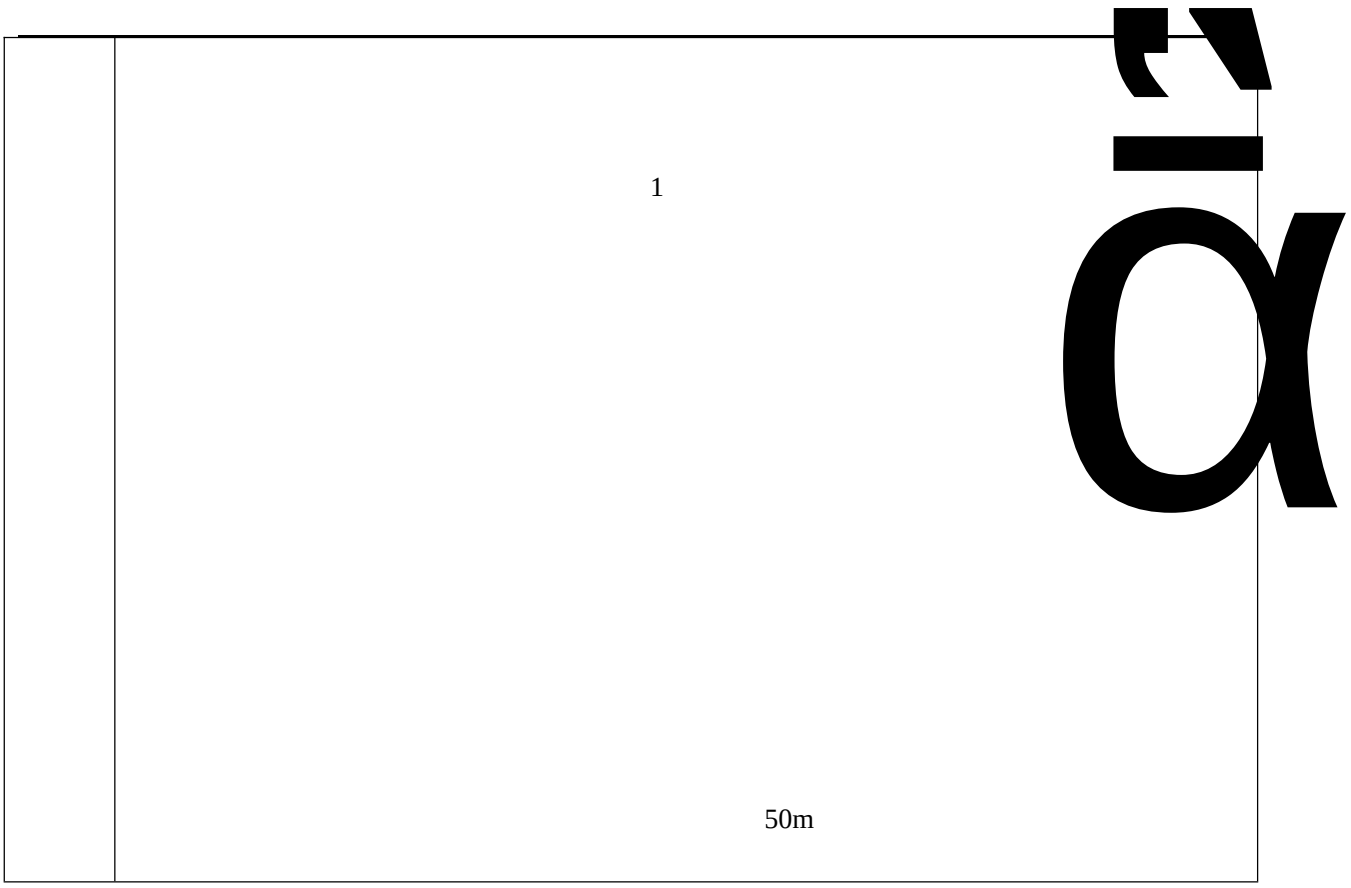
		CAS	67-56-1		
Methyl alcohol	Methanol			3	6.1
CH_4O			32.04		

32.04 -97.8 64.7
=1 0.79 =1 1.1
7.95MPa 240 12.26kPa 20
1.3288 11 5.5% 44.0%
464 0.215mJ

1

2

30min



C.1.2

C.2

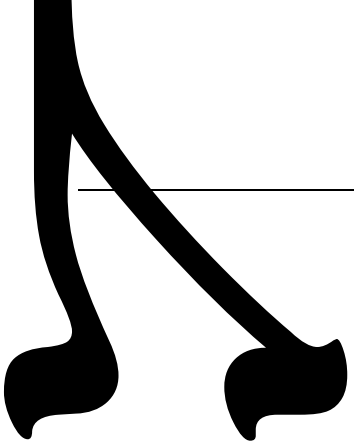
C-1

C-1

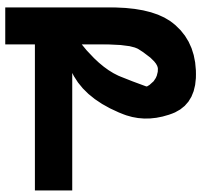
1					
2					
3					
4					
5					
6					
7					

C.2.1

1



C.2.4



C.2.5

2

C.4

C

2002 ×× 1 2

15

C.4.2

2002 × × ×× 1

4 18t

C.5

C.5.1

C.5-1

C.5-1

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1

GB50156-2012 2014

3.0.13 3.0.14 3.0.15

4

GB50156-2021

3.0.25

14

5

GB50156-2021

3.0.27

1

5.1

	GB50156-2012 2014 5.0.12		GB50156-2021 5.0.12	
	2 2.2m 4.0.4 1.5 25m 4.0.4	GB50156-2021 5.0.12	2.3-2	
	3 GB50156-2012 2014 5.0.2	6.2	GB50156	
	4 4m 6m 8%	GB50156-2021 5.0.2	10m 8%	
	5 GB50156-2012 2014 5.0.13 A B C	6.3	GB50156 5.0.13 A B C	
	6 GB50156 5.0.13	GB50156-2021 5.0.13	2.3-2	
	7 C	GB50156-2021		

		5.0.16		
	8 “ ” “ ”	6.4	“ ” “ ”	
	9 GB50156-2012 2014	6.5	GB50156	
	10	GB50156-2021 5.0.7		
	11	GB50156-2021 5.0.8		
	12 = 14.2.10 = 300m^2	GB50156-2021 5.0.9		
	13 4.0.4 “ ” “ ”	GB50156-2021 5.0.10		

C.5.4

C.5-4

C.5-4

0.08MPa

10 -

SF

- GB

SH/T3178 50156-2021

6.1.5

SF

11

GB50156-2021

6.1.9

12

80mm

4mm SF

GB50156-2021

6.1.10

-

100mm 4mm

200mm

10mm

30mm

GB50156-2012 2014	6.2	7.2.1	
2			
		7.2.2	
3			
		7.2.3	
4			

7.3.2

3

10

7.3.3

4

1.0 1.2

25mm

25mm

10

50mm

100mm 45°

T

100mm

45°

GB50156-2021

6.3.8

150mm

150mm 200mm

11

FŸR#(DR8Ð1Åð

2kPa~3kPa GB50156-2021

1.5kPa~2kPa 6.3.11

14

GB/T8163

4mm

4mm

12.3

GB50156-2012 2014 10.3 8.3

3

0.25m

0.25m GB50156-2021

12.3.2

4

GB50156-2021

12.3.3

C.5.6

C.5-6

C.5-6

	7	GB50156-2021 13.1.5		
	8	GB50156-2021 13.1.6		
	9 GB50058-2014	GB50156-2021 13.1.7		
	10 IP44	GB50156-2021 13.1.8	IP44	
	1 2	GB50156-2021 13.2.1	SF 2	
	2 4Ω	GB50156-2021 13.2.2		
	3 LPG	GB50156-2021 13.2.4		
	4 0.5mm 0.65mm	GB50156-2021 13.2.6		

0.7mm

5

GB50156-2021

13.2.7

	13 100Ω	GB50156-2021 13.2.15		
	14 1	GB50156-2021 13.2.16	1	
	1	GB50156-2021 13.5.1		
	2. 1 3	GB50156-2021 13.5.2		
	3.	GB50156-2021 13.5.4		

C.5.7

C.5-7

C.5-7

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GB50156-2012 2014 12

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140kw

2m GB50156-2021
14.1.3

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2m

GB50068-2014

GB50009

GB/T50011-2010

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0.2m

0.6m

GB50156-2021 0.9m

14.2.3 0.5m

100mm

0.5m

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GB50156-2021

14.2.7

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	7 B GB50016	GB50156-2021 14.2.11	B	
	8 3h	GB50156-2021 14.2.12		
	9	GB50156-2021 14.2.13		
	10 5.0.13 25m 3.0h	GB50156-2021 14.2.14		
	11	GB50156-2021 14.2.15		
	12	GB50156-2021 14.2.16		
	1	GB50156-2021 14.3.1		

C.5.8

C.5-8

C.5-8

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GB50156-2012 2014 13 GB50156-2021 11 15

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GB50156-2021 15.1.1

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1 2 3 4 5 6 7 8 GB50156-2021 15.1.3

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GB50156-2021 15.1.5

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GB50156-2021 15.2.1

	1 2 “ ” TSG21 “ ” 3 “ ” “ ” 4 4 GB/T150.4-2011 LNG 5 GB/T18442.5 5 1 NB/T47003.1-2022 6 “ ” 7 GB50517 8	GB50156-2021 15.2.2		
	7 1 2.5 5 0.1MPa 0.1MPa 10min 0.08MPa 30min	GB50156-2021 15.2.10	SF	

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35kpa

30min

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GB/T150.4

SH/T3074

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C.5.10

C.5-10

	5	5	0	0
	38	38	0	0
	24	22	0	2
	55	53	0	2
	11	11	0	0
	27	25	0	2
	17	10	0	7
	8	8	0	0
	20	10	0	10
	205	182	0	23

C.5-9

9 205 23

182

D

D.1

1 88 2021 9 1

2 81 2021 4 29

3 25 2024 11 1

4 591 645 2013 12 7

5 708 2019 4 1

6 13 47 2020 3 30

7 2025 14 34 2025 5 29

8 13 103 2022 11 09

9 23 2024 10 1

10 3 2015 5 29 80 2015 7 1

2 2019

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2018 21 2018 8 31

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1 GB 50156-2021

2 GB/T 41884-2022

3 M100 GB/T42416-2023

4 GB 6944-2025

5 GB 12268-2025

6 7 GB 30000.7-2013

7 22 GB 30000.22-2013

8 23 GB 30000.23-2013

9 27 GB 30000.27-2013

10 28 GB 30000.28-2013

11 GB 18218-2018

12 GBZ/T 230-2010

13 1 GBZ 2.1-2019

14 2 GBZ 2.2-2007

15 GB 50058-2014

16 AQ 3009-2007

17 GB/T 6441-2025

18 GB/T 13861-2022

19 2018 GB 50016-2014

20 GB 55037-2022

21 GB 55036-2022

22 GB 50140-2005

23 GB 50057-2010

24 GB 12158-2024

25 GB/T 50610-2010

26 1

GB/T 22380.1-2017

27 2

GB/T 22380.2-2019

28 3

GB/T 22380.3-2019

29 1 GB/T 30040.1-2013

30 -

SH/T 3178-2015

31 GB 20952-2020

32 GB 50395-2007

33 GB/T 29639-2020

34 GB 50343-2012

35 GB/T 12801-2008

36 GB 5083-2023

37 GB 55036-2022

38 YJ/T 9007-2019

39 AQ 3010-2022

40 AQ 3018-2008

41 GB 30871-2022

42 XF/T 3004-2020

43 GB 2894-2025

44 GB/T 13869-2017

45 AQ 8001-2007

D.3

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