Ů ǫ ƨ ⁼

w س א n A ˘ ⁼ ɹ ⁼

ơ ضٔ ɵ ₦ Ů

1. 1
1.1 1
1.2 1
1.3 5
1.4 5
2. 7
2.1 7
2.2 7
2.3 8
2.4 14
2.5 15
2.6 15
2.7 16
3. 19
3.1 19
3.2 20
3.3 25
4. 31
4.1 31
4.2 31
5. 32
6. 60
7. 63
..... 64
..... 66

سخ

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
2019 78

21

2019 62 2019 12 26

22

2020 1 2020 5 30

23 341 2021

5 18

24

2017 45 2017 12 23

25

2012 144 2012 8 30

26 < >

2017 22 2017 11 28

27

2018 21

2018 8 31

28 < 2015 > “1674 [≤60] ”

“1674 ”

2022

8 2023 1 1

29 < 2015 >

2022 300 2023 1 1

30

2022 317 2022 12 20

1.2.2.

1 GB50156-2021

2 GB6944-2012

3 GB 12268-2012

4 GB 18218-2018

5 GB 17914 2013

6 GB 50058-2014

7 AQ 3009-2007

8 GB/T 6441-1986

9 GB/T 13861-2022

10 GB 50140-2005

11 GB 50057-2010

12 GB 12158-2006

13 GB/T 50610-2010

14 GB 50395-2007

15 GB/T 29639-2020

16 YJ/T 9007-2019

17 (AQ 3010 2022)

18 GB30871-2022

19 (XF/T 3004 2020)

20 GB55036-2022

21 GB/T 13869-2017

22 GB/T 34661-2017

23 GB/T 35579-2017

24 GB/T 50759-2022

25 AQ 8001-2007

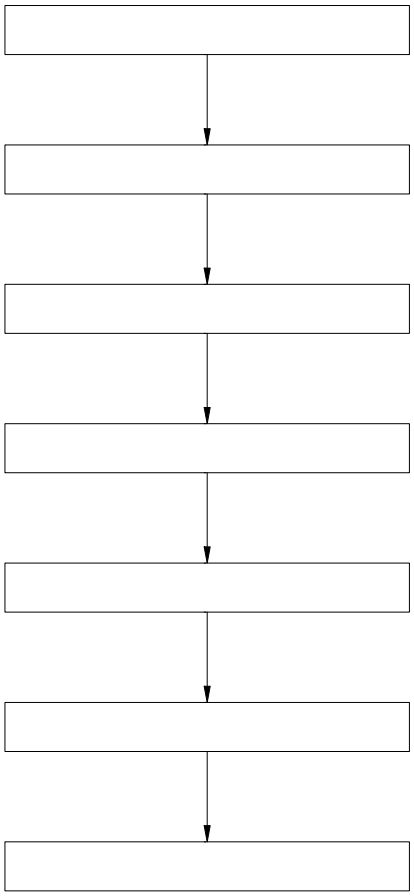
1.2.3.

1 2005 4

2 2002

11

3 2003 7



1 1

50mm 4m

8m

2-1

2-1 2-2

	2			6	31.5
			H=5m	5	24
				3	46
			-	-	-
	1			6	57
	2			6	45.5
			H=5m	5	38
				3	20
			-	-	-
	1			6	57
	2			6	50
			H=5m	5	45
				3	20

2.4

2-3

2-3

1			211m^2			-
2			1031m^2			H=6.5m
3			98m^2			-

2-4

2-4

1		2	30m^3	-	
2		2	30m^3	-	
3		3	SK52QF222K1		
4		1	SK52QF222K1		
5		1	-		
6		1	-		
7		16		-	6 1 7 5.5m 1 2 CNG
8		4	GT-FGA1000B		-
9		1	-		-
10		1	XFY-VR-M2/8A		Ex de ib BT4Gb+Exc CT4Gb 8m^3/h
11		1	SKADZ11K		1m^3 Exdib mb AT4Gb

2.5

10 1

2.6

1.0 1.2

+150Pa

2023 07 17

2

[2022]000142

2022 06 25

3

1062024001 [2025]00107

2025 09 12

4

2.7.2

1

2

a. 5

b.

c.

3

4

380V/220V TN-S

UPS

5

5

6

6 5kg 2 5kg

10 2 35kg 1 5kg

2 $2m^3$

7

16 6

1 7 5.5m 1

2 CNG

3.

3.1

Q_1 Q_2… Q_n—— t

3

3.1.3

23 ≤ 60 3-1

=1 3 4 -46 1.4 7.6% 415

530 0.813MPa

,

,

:

PC-TWA( )(mg/m^3) 300

:

:

1

2

3

4

1.5

5

1 30

2

3

1000m^3

1

2 ( ) ( )

0.5m^3

100mm

3

4

GB 7231

5

ɣ

5 0 -10 60 -20

50 -35 -50 45

15min

3.2.2

1

2

3

4

3.3

3-2

3-2

1			

2			
3			
4			
5			
6			

3.3.1

1

70m

6 46

سخ

3.3.4

3.3.5

ь к

2

4.

4.1

8

1

2

3

4

5

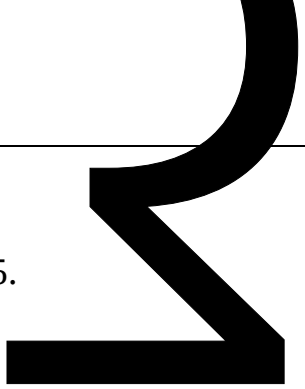
6

7

8

4.2

5.



8

5-1

5-1

	1		
	2		
	3		
	4		
	5		

5-2

5-3

1

GB50156-2021
3.0.4

2 GB50156 3.0.9

GB50156-2021
3.0.9 $30m^3$

3

GB50156-2021
3.0.25

16

4

GB50156-2021
3.0.27

3

4.0.4

GB50156-2021
4.0.4

4.0.4

4

GB50156-2021
4.0.12

5

GB50156-2021
4.0.13

1

GB50156-2021
5.0.1

3m

1.2m³

İ א n

	2.2m 4.0.4 1.5 25m 4.0.4	GB50156-2021 5.0.12		
	12 GB50156 5.0.13-1	GB50156-2021 5.0.13	2-1 2-2	
	13 C	GB50156-2021 5.0.16		

1

5-4

	1	GB50156-2021 6.1.1		
	2	GB50156-2021 6.1.2		
	3 6.1.4 0.08MPa	GB50156-2021 6.1.4	7mm 8mm	
	4 -			

GB50156-2021

SH/T317 6.1.5

5

$10^9\Omega$

$10^9\Omega$

GB50156-2021

6.1.7

A=0.04Vt

6.

11.2 GB50156-2021

6.1.8

7

GB50156-2021

6.1.9

8

	0.3m	6.1.12		
	11	GB50156-2021 6.1.13		
	12	GB50156-2021 6.1.14		
	13 90% 95%	GB50156-2021 6.1.15		
	14 0.8L/h	GB50156-2021 6.1.16		
	15 SH 3022	GB50156-2021 6.1.17	SH 3022	

1			GB50156-2021 6.2.1	
2		50L/min	GB50156-2021 6.2.2	5-50L/min
3			GB50156-2021 6.2.3	
4				

4

100mm

25mm

11

2KPa~3KPa

1.5KPa~2KPa

	1%		2‰ 1%	
	16 0.4m 0.2m 100mm	GB50156-2021 6.3.17	0.5m 0.2m 0.5m	
	17	GB50156-2021 6.3.18		
	18 6.3.12 1 2.8m/s 2	GB50156-2021 6.3.19		
	19 GB/T21447	GB50156-2021 6.3.20		
	20	GB50156-2021 6.5.1		
	21 GB50108	GB50156-2021 (6.5.2		

200mm

500mm

200mm

10mm

30mm

23

GB50156-2021

6.5.4

24

	25 3.5mm	GB50156-2021 6.5.6	3.5mm	

7

5-5

1

2 5kg

1 5kg 1

2

GB50156-2021

12.3.3

1

ь Ӊ ˮ ˊ

9

GB50156-2021
13.2.11

10

5 GB50156-2021
13.2.12

11

GB50156-2021
13.2.13

12

2

1V

5.0.5

3

3

14.1.3

2m

2

12

5

		GB50156-2021 14.2.13		
	11 5.0.13 25m 3.0h	GB50156-2021 14.2.14		
	12	GB50156-2021 14.2.15		
	13	GB50156-2021 14.2.16		
	1	GB50156-2021 14.3.1		

6

5-8

1				
2				

3	“ ”			
4				
5				
6				
7				
8				
9				
10				

11 ″ ´

19				
20				

20 20

14 6

5-9

5	5	0	0
33	33	0	0
22	19	0	3
45	38	0	7
8	8	0	0
28	27	0	1

2		35kg	1	1
		5kg	-	2
			$2m^3$	$2m^3$
			5	6
3		5kg	-	10
		CO_2	-	2

6.

1

2

3

“ ” “

” “ ”

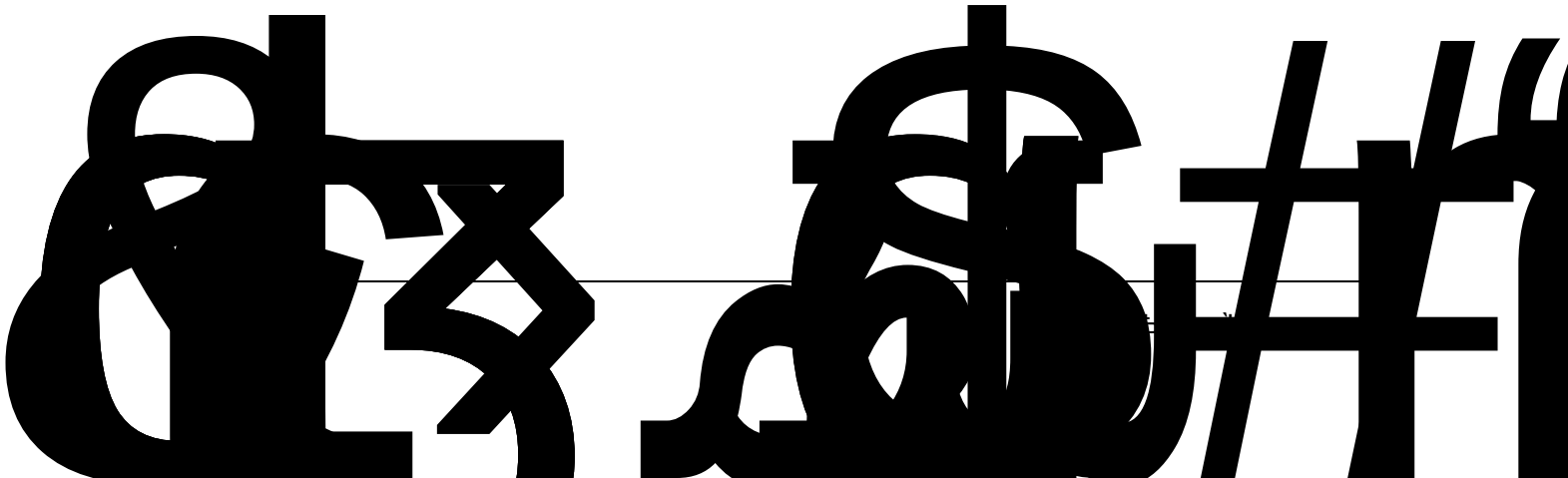
4

5

6 “ ” “
”

7

8 m



7.

GB50156-2021

1.

GB50058-2014

1 0

2 1

3 2

2. 1

3. å ⅄

ь Ӊ ˮ ˊ