8 ɳ Ꮒ ɒ ⱬ Ⱶ ɒ [2019] 708 2019 4 1

9 ɳ ɒ ⱬ Ⱶ ɒ [2009] 549 2009 5 1

10 ɻ . ɕ ɳ ɒ ⱬ Ⱶ ɒ [2013] 645 2013 12 7

11 ⱬ Ⱶ ɢ ɯ ɤ ο ʒ ɳ ƀ ⱬ ŭ [2010]23 2010 7 19

12 ɳ ɒ Ø ɲ ɱ

1.2.3 ‰

1 GB50016-2018]

2 GB50030-2013

3 ℡ ï ŋ GB 16912-2008

4 . o ʒ ‰ GB 50160-2008[2018]

5 . o ʒ ʒ ŋ ヽ SH/T 3047-2021

6 . ℡ SH/T 3017-2013

7 . o ʒ ﾇ GB50489-2009

8 . ㄇ SH/T3019-2016

9 . № L SH/T3092-2013

10 . Ḡ SH3137-2013

11 . ʐ SH/T 3038-2017

12 . ﾍ ㎜ ヽ № ‰ GB50453-2008

13 . ㏂ GB50650-2011 2022

14 ŵ ㎜ ,, ŋ GB50057-2010

15 . ㏂ ㎜ HG/T 20643-2012

16 ʒ ≠ ≠ ˇ ė ŋ GB 7231-

ﾇ ʒ

27 ضر 50515-2010

28 H` Hu GB/T 41-1986

29 ۷ غ غج N ь GB/T1 1-2022

30 Ę GB50058-2014

31 . ‰ GB/T 50779-2022

32 . ج ŋ Ώ GB15258-2009

33 . ج № غ 3 № r GB 30000.3-2013

34 . ج № غ 6 № ۷ ۸ r GB 30000.6-2013

35 . ج № غ 7 № r GB 30000.7-2013

36 . ج ŋ ий ṗ غ GB/T 16483-2008

37 ƀ شي ş ۷ ƀ ş № 3 № GBZ/T 229.3-2010

38 ş ‰ GB/T50115-2019

39 ŋ ھ غ ¯ ь └ ₩

GB/T 8196-2018

40 ƀ ş № GB/T 3608-2008

41 ş o ş ۷ ‰ GBZ1-2010

42 ƀ شي غج ş ṿ 1 № . غج ї̈ ş ‰

1 2˜ ќ ۷ GBZ2.1-2019/XG1-2022/XG2-2024

43 ƀ شي غج ş ṿ 2 № غج GBZ 2.2-2007

44 يقمم r ڪ ŋ SY/T 7354-2017

45 ş ۷ № GBZ/T 230-2010

46 . ˜ r غ r ‰ GB/T 50493-2019

47 ۷ ج O GB12268-2012

48 ۷ ´ GB 190-2009

49 ۸ ї̈ GB 50275-2010

50 ۷ . ج ۷ β GB 30077-2023

51 . o ş └ SH/T3060-2013

52 ї̈ GB 50974-2014

54 . GB/T 50746-2012

55 . GB50747-2012

56 . GB50873-2013

57 ‰ GB50013-2018

58 ‰ GB50014-2021

59 GB50019-2015

60 . SH/T 3004-2011

61 GB/T 13869-2017

62 ‰ GB 50217-2018

63 GB 50052-2009

64 GB 50054-2011

65 . HG/T 20549-1998

66 1 № GB 4053.1-2009

67 3 № GB4053.3-2009

68 GB/T 50062-2008

69 AQ3009-2007

70 . SH/T 3097-2017

71 GB12158-2006

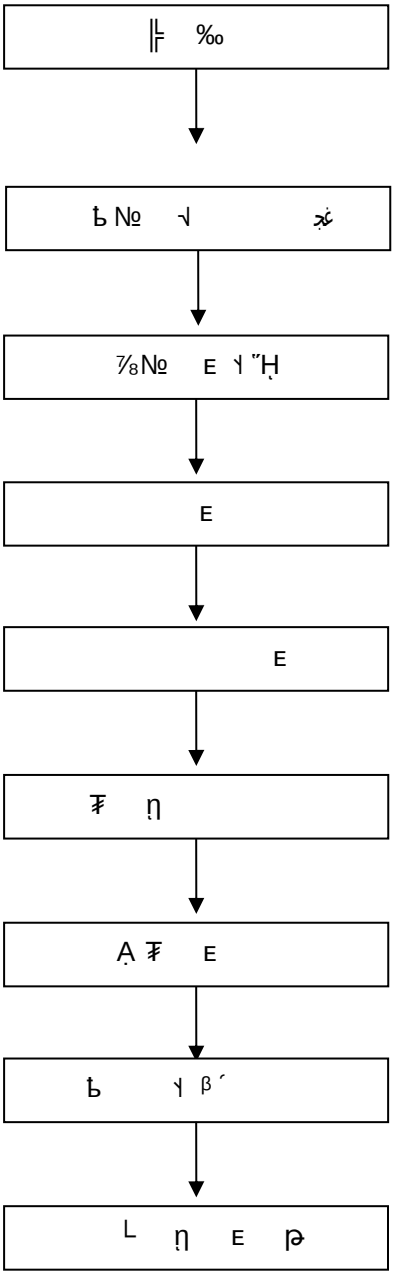
72 № HG/T20573-2012

73 GB50395-2007

74 GB50343-2012

75 . SH/T 3043-2014

76 GB/T21447-2018



Ũ

ضر ٧ Ð Й

1

شخ 9.3

35.4

٧ -28.3

≠ м شخ 24.5

м شخ -11.1

2

شخ 4.6m/s

25.7m/s

h h ٧

h h ķ.

3

شخ 616.6mm

142.2mm

4

/ا 150mm

35.01kg/m^2

5

شخ 26.9d

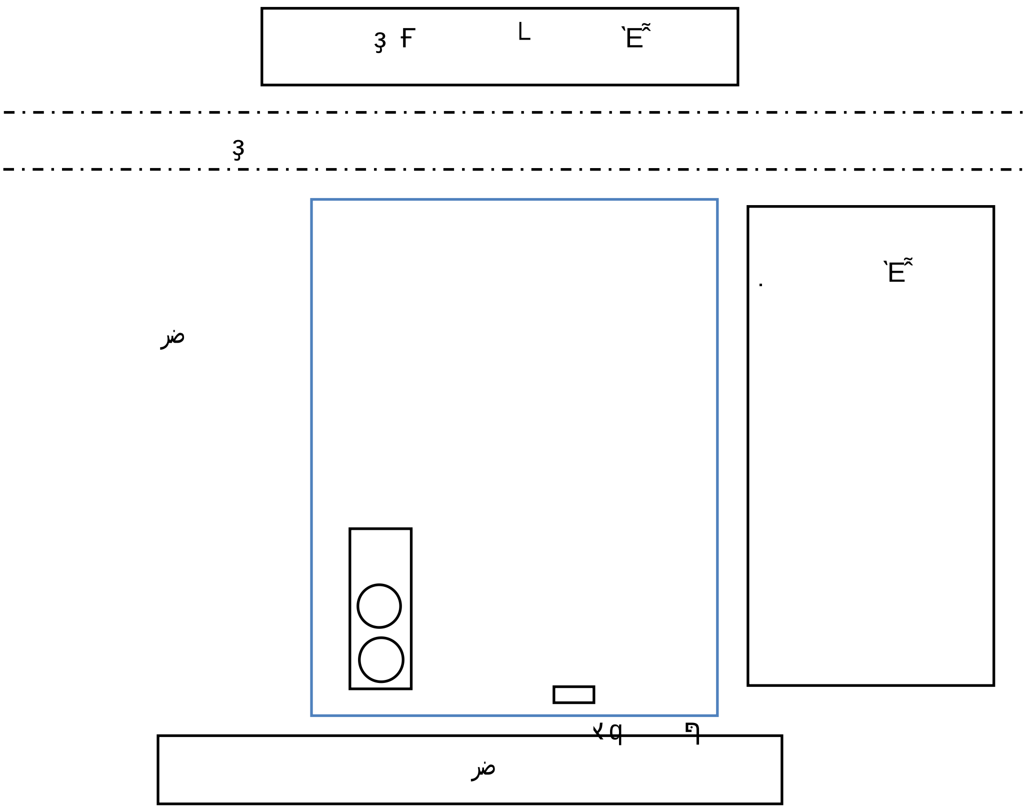
6 ضر

ضر 7

ꞁ ꟽ 220kV ꞁ ꞁ 20m ضر غ ί ꟽ ꞁ

ي 2.2-1 ɩ ' ي 2.2-2 ɩ ŋ ' 2-1

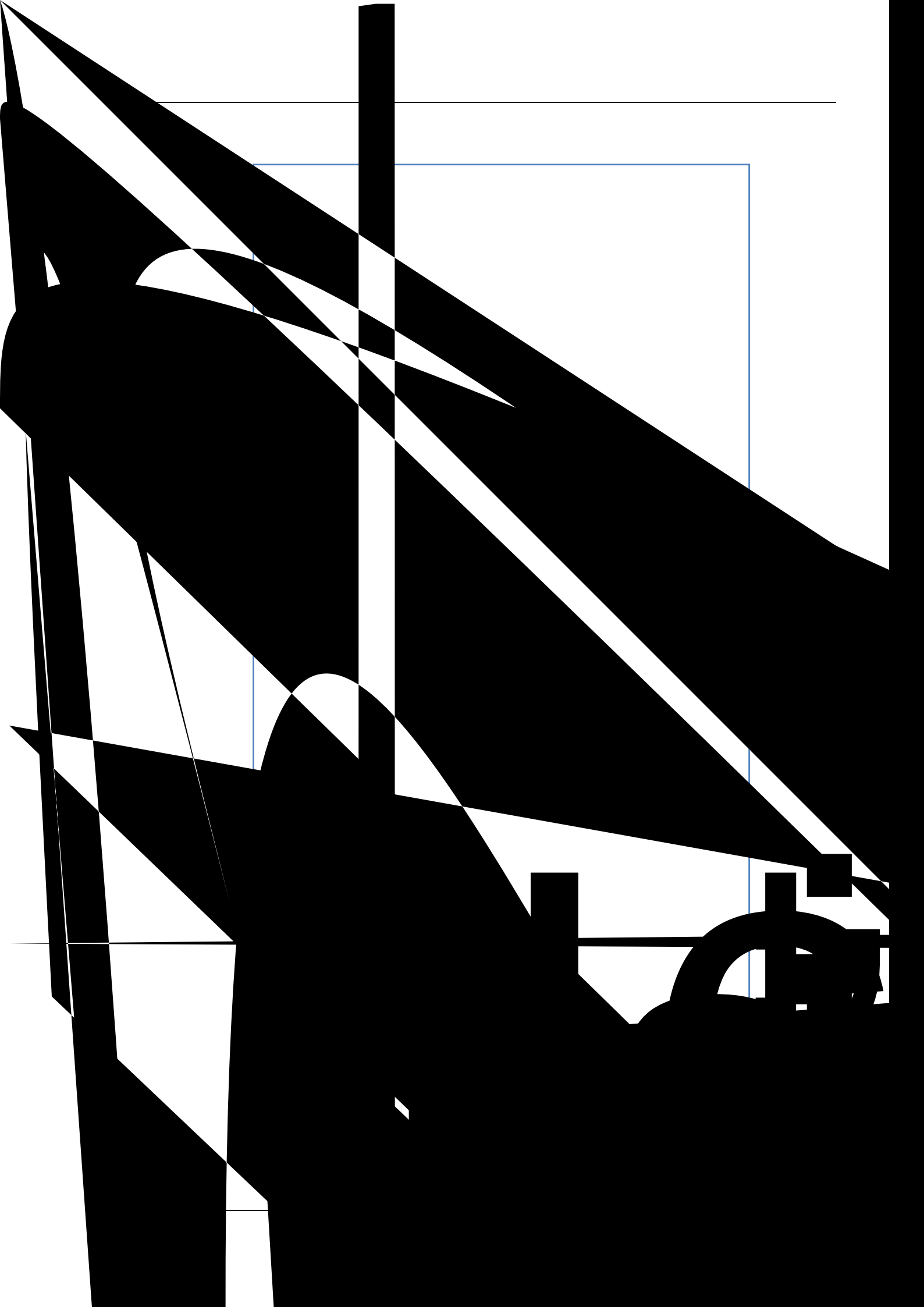
2.2-1



2.2-1

GB50016-2014
2018
3.4.1

10 58



2.3-1

					m	m	
1					10	56	GB50016-2014 2018 3.4.1
2					10	10	GB50016-2014 2018 3.4.1
3					10	12	GB50016-2014 2018 3.4.1
4					10	15	GB50016-2014 2018 3.4.1
5					10	22	GB50016-2014 2018 3.4.1
6					15	55	GB50016-2014 2018 4.2.1 4
7					10	22	GB50016-2014 2018 3.4.1
8					10	40	GB50016-2014 2018 3.4.1
9					15	51	GB50016-2014 2018

19		ᵕ ∧ ṗ	5	9	GB50016-2014 2018 4.2.9	ᵐ
20		ᵐ Ʒ	15	16	GB50016-2014 2018 4.2.1 4	ᵐ
21	⋮ ∧	ᵏ	4	4	GB50028-2006 2020 6.6.3 1	ᵐ
22	Ꮒ ∨ ᵕ	∨ ᵕ ₩ Ə	12	14	GB50016-2014 2018 3.4.1	ᵐ
23		ĸ ᵏ	12	24	GB50016-2014 2018 3.4.1	ᵐ
24	Ť Ʒ	. ᵏ	12	20	GB50016-2014 2018 3.4.1	ᵐ
25		∨ ᵕ ᵐ Ʒ	12	12	GB50016-2014 2018 3.4.1	ᵐ
26		ᵕ Ũ Ə	25	44	GB16912-2008 3	ᵐ

2.3-2

~	O	O	m	m	ч	
1	Ũ Ʒ Φ7960 × 11000mm	ṗ	0.5H=5.5	5.5	GB50016-2014 2018 4.2.5 3	ᵐ
2		Ũ Ʒ Φ7960 × 11000mm	0.4D=3.192	12	GB50016-2014 2018 4.2.2	ᵐ
3	Ũ Ʒ Φ7960×11000mm	ṗ	0.5H=5.5	5.5	GB50016-2014 2018 4.2.5 3	ᵐ
4		Ũ Ʒ Φ5000×5400mm	0.4D=3.192	12	GB50016-2014 2018 4.2.2	ᵐ

ᵖ ᵐ ᵀ

2.3-3

1		368.40	1202.52		12.45					3	2	2
2		298.59	96.32		5					1	1	1
3		475	312.5		9.8					2	2	3
4		367.2	367.2		9.8					2	2	3
5		1385.09	998.21		9.8					3	2	4
6		848.64	1382.16		14.3							

1			2.95t 7.5KW	1				
2			40L/	2	37MN		11	
3			1.1kW 380V	1				
4				5				
5				2				
1	V0301		ϵ3320×9000 V=50m³	1	S30408	-180	0.8	
2	V0303		ϵ2620×8390 V=30m³	1	16MnDR	-196	0.8	
3	V0302A		ϵ3224×9300 V=50m³	1	16MnDR	-37	2.2	
4	V0302B		ϵ2620×8390 V=30m³	1	16MnDR	-37	2.2	
5	P0301		100 450L/h 5.5KW	1		-180	27 16.5	

Ь Ѝ ˝ ´

28			550kg/h	1	304	-40		
29			6	1	304	-44		
30			50kg/	50	37MN		15	
31			50kg/	50	37MN		15	
32			50kg/	50	37MN		15	
33			50kg/	50	37MN		15	
34			40L/	16	37MN		11	
1	F0401		YQ Y W1400 QT- YC	1		200	0.8	
1	P0801		159mб/N	2		200	0.8	
2	P0802		159mб/N	2		200	0.8	
3	P0803		80mб/N	2		200	1.2	
4	V0801		500m³ Φ7960×11000	1		200		
5	V0802		500m³ Φ7960×11000	1		200		
6	V0803		100m³ Φ 5000×5400	1		200		
7	X0801		DN125	2	PPH	200	0.8	
8			1000*1500	1		200	8	
1			200m³/h	2			10-15kPa	0.1-0.4MPa
2			200t	1				

1

ᵅᵖ ḣ ԡ ԡ 1203m³/a ᶺ ᶬ

ᴸ ˜ ԡ DN150 ᴸ ԡ 80m³/h

ضي ᶺ ᶬ ṗ ضرفمي ᶺ ᶬ ˜ₒ Q Ẋ ᶦ ῞Ḥ

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№ ᴸ

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Ȅ̃ Ƕ ᶥ Ѣ Δ ῗ ῃ ᶺ ᵅᵖ ῗ ᶬ Δ ᶺ

ᶬ U Ƕ Ṗ Ƒ ȝ Ȅ̃ Ƕ ᶥ Ѣ Δ

ῗ ῃ ᶺ ᵅᵖ ῗ ᶬ Δ ᶺ ᶬ U Ƕ

Ṗ Ƒ ȝ Ȅ̃

ᶈ 2.5.8 ԡ 486m³ ᶬ ԡ

432m³ ῃ ᶺ ԡ 16000m² شخ 8.92mm Ӥ

V =10qF=10 × 8.92 × 1.6=142.72m³ ܲ ԡ 2m³/d ↕ V

=486+142.72+2=634.3m³

Ữ ԡ 45m³ Ƕ ԡ 619.2m³ ܲ ԡ

664.2m³ Ƕ ῗ Δ

1

10kV 1

6 VA 0kW

BD8.0/60-W 200L

2

90kW

UPS

3

‰

4.5m 2

GB50058-2014

IICT1 Gb

IP65

4

UPS 90min

LED LED

1

Φ12 10m × 10m

Φ12 m

´ ǐ ғ⌈ ɢ 100㎜ ƀ

⋎ ২ قمم r کج

3 ضر

ƀ ضر Ḡ

Ŧ r ̃Ḥ Ƕ ɦ ΰ ƕ . غ Ƕ

ꙇ 12 /h ضي ʊ Ӎ ჳ 3 EF-04 06 ج r Ḥ

Ƕ ɦ ΰ ƕ . Ƕ ꙇ 12 /h ضي ʊ Ӎ

ჳ 1 EF-07 ƕ . Ƕ ɦ ΰ ƕ . Ƕ

ꙇ 12 /h ضي ʊ Ӎ ჳ 1 EF-08 EF-01

02 04 08 شخ Ƅ Ƨ № ת ɳ Ω EF-03 Ƅ

r ת r ⌠ Ӎ 25% Ω ῤ

شخ ჳ ჳ

4 ٦ شخ ĩ شخ G ῤ

5 Ȅ ῤ ʍ ꙇ ɳ

ɳ 12 /h 1/3 Ӎ 2/3 ضي ẅ w

ʊ Ӎ ჳ 1 EF-01 10 /h ضي ẅ ٦

ʊ ჳ 1 AF-01 Ƅ Ω ῷ

Ṗ ῷ Ṗ ضي ῤ ჳ

6 ĭ ‌ ץ شخ Ä

2.7

1 Ḥ

~ L ȝ ~

ῤ L

2 Ḥ

1 ĩ

يج Ƒ " 119 " ضي Ɱ Ȅ

ჳ كح L كح ῷ كح

كح L Ƅ r L كح ضي Ȅ Ƚ Ļ ďM شم İ

1 L

L ṗ ṗ L ἇ ἳ h ꟷ ʐ

β ἇ ἳ ŋ L

L ضي`E ꟷ ṗ ŋ ꟷ Ʈ ἳ L

2 L

Ʈ L ת PLC Ʈ غ L

3

L ṗ UPS ƀ Ḡ L ἳ شي ת ضي ضي.

ƀ 90min

4 ŋ L

1 PLC L ꟷ ʐ ἇ ת ضي PLC

Ʈ L

2 ɣ r Ữ ꟷ ʐ ת ꟷ ꟷ ʐ ת ɣ r Ữ

ŋ ╠ . ك ŋ ꟷ Ɣ ŋ

3 ɣ r Ữ β β ṿ Ả h Ữ Ʈ

ꟷ ꟷ ʐ ꟷ

4 ꟷ ʐ L ꟷ ʐ G 15.0MPa Ả

r Ḥ ꟷ ʐ ṿ 14.5MPa

5 ȝ r Ḥ شخ ŋ

6 Ữ ŋ Ḡ ת غ ȕ Ꙇ

h ´ Ɣ Ӎ ɜ

Ữ ƀ L

Ữ β غ β ك ƀ ℗

Ữ ɣ ɣ β ɣ ɣ β ƀ

7 ك ŋ ك ك ʍ ἱ ʍ

غ Ḡ ʍ ك ἱ

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2.7-1

2.7-1

500m³ ԿԿ 11m³/h [redacted]

3 ἳ Ⅎ

ᵝ ɢ ꟽ ꟿ . ᵕ Ȅ ῤ ῤ ẅ [redacted]

BD9.8/40-125-285 L ԿԿ Q=45L/s ԿԿ H=91m ʍ [redacted]

ƀ ˩ ɛ ԿԿ ԿԿ XBC10/40-W150-20 [redacted]

H=91m ضي ꟽ ꟿ ᵝ ῤ Ⅎ [redacted]

ԿԿ XBD8.8/2W-40DP ԿԿ Q=1.6L/s ԿԿ H=85m ʍ [redacted]

Ⅎ Ⅎ ʐ ɦ Ŧ Ⅎ ʐ ضي 0.96-1.0MPa [redacted]

Ⅎ ʐ Ӎ ⌠ ṿ 0.91MPa [redacted]

ɦ

4

Ⅎ

ضرفمي ضر Ӎ ἳ Ḡ ꟽ ԿԿ 150 [redacted]

ꟿ Ա ƀ ɢ 60m شخ ԿԿ Ң [redacted]

Ŧ₀ Ḃ ɢ ą ẅ ƕ [redacted]

ꟽ ꟽ Ң Ң Ḥ ⌠ ĸ ᵥ ᵝ [redacted]

ضرّ ẅ ƕ شخ 4 ɷ ῤ [redacted]

5

ꟿ Ȝ ʙ ῤ ꟽ نهٍ 3 PY [redacted]

Ꝺ 3% ꟽ ꟽ نهٍ [redacted]

5L/min·m² ᴸ ԿԿ 30min V0801 V0802 Ữ [redacted]

V0803 Ữ ԿԿ 1.64L/s Ữ شخ ɢ 10m [redacted]

№≢ ẅ ɷ 8L/s PCL كح ẅ [redacted]

0.432m³ V0803 Ữ ẅ ɷ 4L/s PC [redacted]

ԿԿ 6.985m³ ẅ 0.216m³ [redacted]

6 كح [redacted]

ẙ ᵻ Ḥ ρ [redacted]

᷉	ͰΉO	ش	͡ﻤﻘ ݣ	ݣ ᷉	
2	Ὲ	A	MF/ABC3	8	
		B	MP9	2	
		A	MT7	2	
3	w̄ Ə	C	MF/ABC8	14	
4	Һ	A	MF/ABC4	8	
5	ࣺ	A	MF/ABC4	16	
6	ᵥᵢᵢ Ʒ	B	MF/ABC4	36	
7	Ⅵ Ʒ	B	MF/ABC4	9	

7 ɰ

ڲ ɰ G ῢ Ⅵ Ț Ѣ ч 2km

w̄ ῢ ᷉ ض 5min ṗ ش

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' 2.7-3

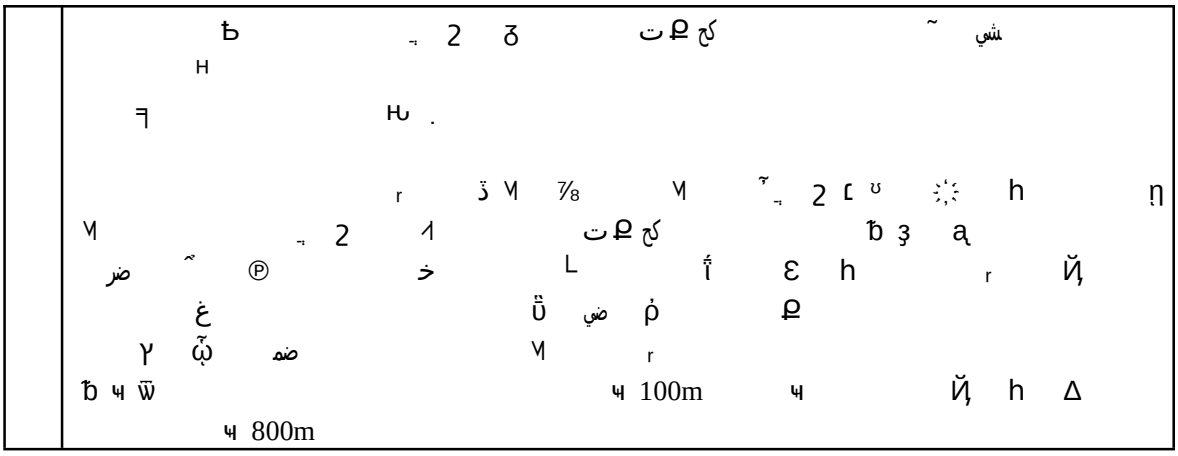
2.7-3

᷉	O	ʮ β	β
1	⁄ ت ₽ ݣ	2	
2	.	2	
3	ί ɷ /ᵥ	1	-
5	Ḃ r ת ᷉	2	L
6	ɷ /ᵥ	1	-
7	᷉	4	L
8	ɷ	1	W`E

9.		1648	1049	1333-74-0	r , ≠ 1 ₰ ∕ r	2.1		-	4.1-74.1	CT_1	-	

1 √ 2018 ⅞№
2 № √ . ҷ 2015 ⅞№
3 √ ≠ √ . ҷ 2015 - √ . ҷ № Ң ⅞№
4 ≠ ҽ ≠ ŭ √ Ҙ ⅞№
5 Ң √ ŭ √ ҷ O ⅞№

C.0.1-1



C.0.1-2

	O	UN	1072
	O oxygen		1072
	O_2	CAS	7782-44-7
	32.00		2.2

-118.4

MPa 5.08

kPa 506.62 -164

-218.8

-183.1

=1 1.14 -183

=1 01.43

C.0.1-3

CAS 124-38-9
UN 1013
642
2.2

carbon dioxide
CO_2

-56.6
-78.5
=1 1.56
=1 1.53

C.0.1-4

	Nitrogen N2	CAS 7727-37-9 UN 1066 172 2.2
	≥99.999 ≥99.5 ≥98.5 -209.8 -195.6 =1 0.81 -196 =1 0.97 kPa 1026.42 -173 -147 MPa 3.40	
	[ ] 18 [ ] 2 2 [ ] 30 [ ]	
	[ ] [ ] 2 2	

	⅃ ت ₽ ݣ ƀ ˜ ℗ r ۻ ˠ ₭ ₮ ݣ ˎ ḱ U ̔P ╠ ᾀ ݐ ۻۼ ˜ ˜

ກ ⅃ .

C.0.1-5

Ţ O
O argon
№ Ar

CAS ˜ 7440-37-1
UN ˜ 1006
˧ . ج ˜ 2505
ɦ ˧ 2.2

r
-189.2
-185.7
. =1 1.40 -186
G
=1 1.38

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[˧] ƀ ₮
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[ت ₽] ѿ ƀ

C.0.1-6

Ţ O
O helium
№ He

CAS‶ 74 59-7
UN‶ 10
ч . ج ‶ 1188
h ч 2.2

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-272.1
-268.9
=1 0.15 -271
. Ь G Ə
=1 0.14
h G ‶Ḥ
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[ ] ج Ь ‶ ك ɾ شي خ Ḡ شي ك ' ч

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217

345

=1 1.24

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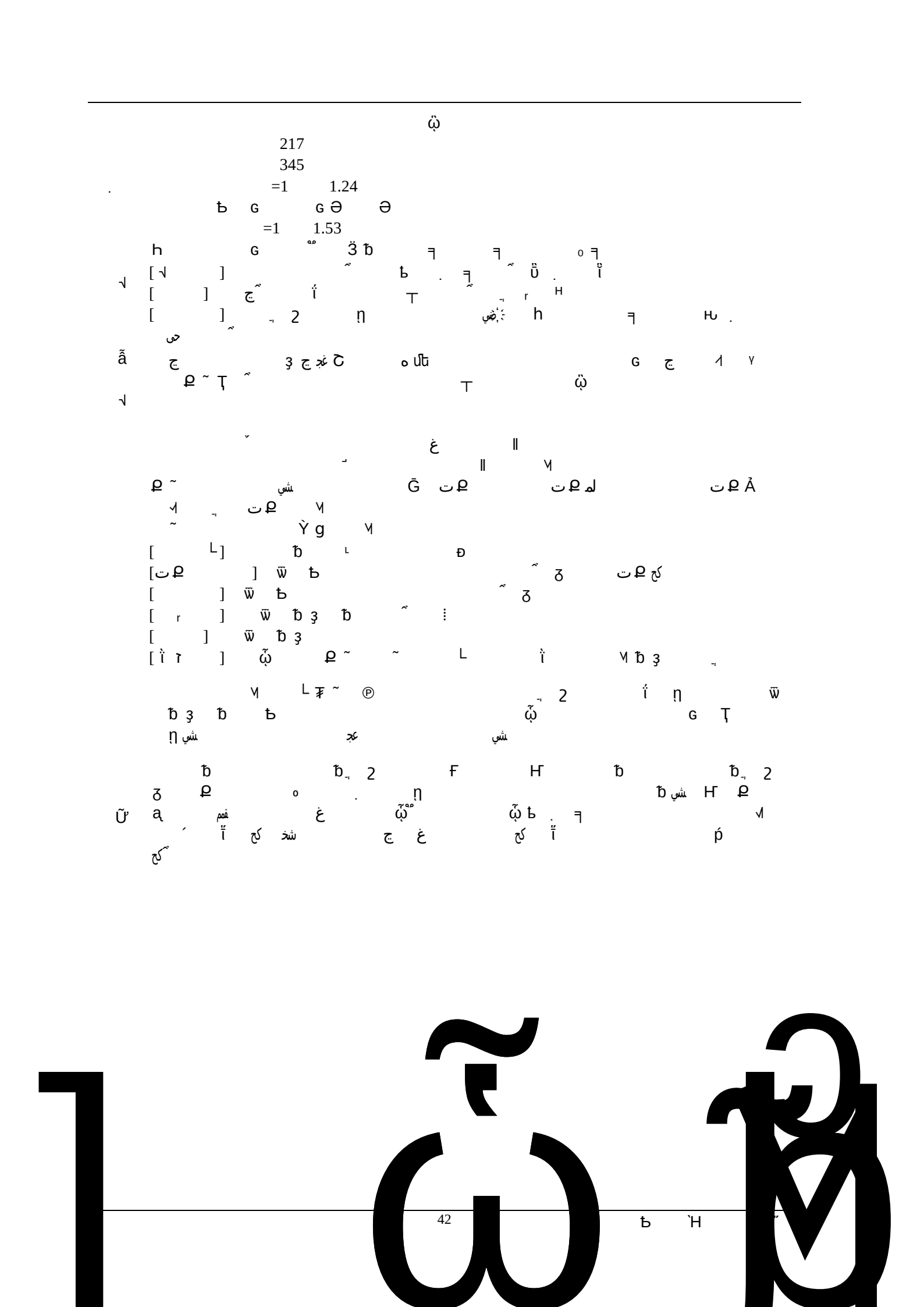
=1 1.53



3 ل ل غجـ ٥٥ ا غجـ

1 ضي ضي ضي Ţ Ɱ

ą ضي . Ɗρ

شخ

2 ŋ Ḡ Ḡ ŋ ا β

ŋ

3 Ь ضر ¬ 2 H` Hu

4 Ь ŋ L Ь ã ŋ ŋ Ḡ

5 Ғ ʒ ƀ¬ 2 ƀ ƀ ʒ

Ǐ ا ƀ ʒ ɒ

ضر ~ شخ ل ضي ڪ ṗ غجـ ˜ غ

ŋ ˜ H

Ь ٥٥ Ỿ ˜ ضر Ь ـ ا غجـ

ɾ H¬ Hu ƀ ¬ r ~ ضر Ⱳ ɳ ɳ Ǐ ∫

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№ Hu Ɗρ Ɗρ H Hᒣ Ь ¬ r

β ˜

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ч Ɗρ ġ Hu

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ضي ضي Ɗρ ل G Ǐ

ا ‖ Ɗρ ₩ Ɗρ Ţ Ь p˜ شخ ٥٥ غ

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H Ɗρ Hu ˜ ġ

5 к ~ √ ђ ʒ Ч Ș

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ђ ʒ № ₄ G ‰ 2m ɣ Ċ 2m ˆ ثخ

ђ ʒ خ ш Ч ђ ʒ

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ʒ ˜ ђ № ђ ʒ Ь ،

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Δ № Ꜧ ħ /ı غ Ꜧ Ữ β γ ƀ ɥ

˜ ⁘ ƀ ˩ ˜ Ꜧ Ữ Ţ №

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₮ ΰ

1 L r ⁞

2 2 к ƀ ʐ ƀ Ţ ɱ 2 ἐ ƀ ἐ ƀ

ŋ ч Ꜧ

3 ƀ

4 Ữ Ḡ Ī ƀ ⌠ β

5 ƀ ŋ ƀ ʐ ˩ . ƀ

⅞№ е ≀ ″Ḥ ч е ė е Ⱶ ⅞№ е ≀ ″Ḥ Ь. Ḃ ɢ ŋ

е ƀ . е ƀ ė ⁞ е ƀ Ӟ ≠ ɢ ѽ ė ŋ

е ‰ ... ї̆ ч ج ض ≀ . ج Ţ ض

≀ غ Ь № ⁚⁚ ї r ’ ỉ ⅞№ ч Й, 5

ɷ е ≀ ″Ḥ

4.1-1

˜	е ≀ ″Ḥ	Ⱨ ṗ
1	ŋ	´ ŋ °° ŋ °° └ Ⱨ
2	Ⱡ ї̆	≀ Ь ≀ Ⱡ ŋ
3		₩ ˜Ḥ ⁚⁚ ‰ ˜Ḥ Ũ ≀ ⱨ .
4		r № Ũ
5	ѐ ї̆ ↑ °°	└ └ └ Ḥ ⌐ └

°° Ɣ ї̆ ŋ е ↕ ŋ е ↕ ≀

. ج ŋ е ↕ ỉ е е ė

4.2-1

4.2-1

˜	е	≀ ″Ḥ	е	ŭ
1	ŋ	ɷ	ŋ Ⱡ ї̆ ѐ ї̆ ↑ °°	... ŋ Ⱡ ї̆ ѐ ї̆ ↑ °° Ь ...

2	ɺ	ɛ	№Ữ	Ữ Ữ Ữ Ữ	Ữ Ữ Ƕ .	ɺ ʐ ɦ	ɣ ῞Ḥ : ƀ ɲ	Ỵ ɣ ῞Ḥ ṻ ɺ
3	Ṃ	№ QRA	Ữ Ṃ	Ữ	Ữ	ⱷ‥	Ữ Ṃ ǵ ᴪ ∞ Ƕ	ﻘﻤﻢ № ˜ ἴ

GB 18218-2018

1

2

S=q1/Q1+q2/Q2……+qn/Qn ≥ 1

S

q1 q2… qn

Q1 Q2…Qn

№

№

№

1 №

GB18218 U R

2 R

$$R \quad {}_1\frac{q_1}{Q_1} \quad {}_2\frac{q_2}{Q_2} \quad {}_n\frac{q_n}{Q_n}$$

R- №

q₁ q₂ … qₙ— ۷ . ج ضي ضي ۷ β Ʊ

Q₁ Q₂ … Qₙ— Ь ۷ . ج Ϫ ۷ β Ʊ

β ₁ β ₂… β n— Ь ۷ . ج

α— ۷ . ج ۷ ۸ ۸ ¬ 2

3 β ŭ ẏ

۷ ″Ḥ ṗ ۷ . ج ≠ Ь □ β ẏ 5.1-1

5.1-1 ↓ ҽ ۷ . ج β ẏ ŭ ẏ

≠	˜	β ẏ
	J1	4
	J2	1
	J3	2
	J4	2
	J4	1
	W1.1	2
	W1.2	2
	W1.3	2
r	W2	1.5
	W3	
. r	W4	1
r	W5.1	1
	W5.2	1.5
	W5.3	1
	W5.4	1
ĭ	W6.1	1
	W6.2	1.5
.	W7.1	1
	W7.2	1.5
r ĕ ⁄ r	W8	1
. ⁄ r ĕ r	W9.1	1
	W9.2	1

ؤ r	W10	1
₮ r ۼ	W11	1

4 α ǚ ṿ

ܩ . ݘ ܩ ܬ ܡ h 500㎜ ݢ ṗ δ o ܬ

2 α ṿ 5.1-2

5.1-2 α ǚ ṿ

ܬ ̃ 2	α
100 ܋	2.0
50 99	1.5
30 49	1.2
1 29	1.0
0	0.5

5 № ‰

₮ R ṿ 5.1-3 ܩ . ݘ ܩ ≢

5.1-3 ܩ . ݘ ܩ ≢ ۼ R ṿ ̃

ܩ . ݘ ܩ ≢	R ṿ
ẅ	R ≥ 100
Ꮒ	50 ≤ R 100
܋	10 ≤ R 50
ܤ	R<10

ǐ G ܩ ҹ ẅ ̃Ḥ ṗ Ữ

50 ̃Ḥ ܋ ̃Ḥ 36 ɷ ẅ Ữ ܡ ṗ 1 ȼ#â Ữ

0 ш 50m^3 ܋ ‰ ̃Ḥ 16

5.1-4

~	١ ״Ḥ O		O	١ . ضي	X t	q/Q
1	٥٥ ١ ״Ḥ	₩ ״Ḥ ١ ״Ḥ		0.43	200	0.00215
2		‰ ״Ḥ ١ ״Ḥ		0.0[illegible]2	5	0.001604
3	Ũ ١ ״Ḥ	Ũ ١ ״Ḥ		57.14	200	0.2857
4		ʜ Ũ ١ ״Ḥ		0.001	5	0.0002

₩ Ũ ч 5kg ضي 50+36 ×5/1000=0.43t ↕ S ₩ =0.43/200=0.00215 1 ١ . ج ١

‰ ״Ḥ ṗ 16 ч 0.5kg ‰ ״Ḥ 6 ״Ḥ ‰ ṗ Ơ ч 3.5852g ضي 16×0.5+0.0035852×6 /1000=0.00802t ↕ S ʜ =0.00802/5=0.001604 1 ١ . ج ١

Ũ Ũ 50m3 ״Ḥ Ũ ץ 1m3 800m3 ‰ ₮ ‰ Ѝ Ũ 50×800/22.4 ×32×10-3t=57.14t ↕ S Ũ =57.14/200=0.2857 1 ١ . ج ١

ʜ 2 40L ч 0.5kg ضي 2×5/1000=0.001t ↕ S ʜ =0.001/5=0.0002 1 ١ . ج ١

.

1.

2.

3.

10.

11.

18.	[illegible]	[illegible]	[illegible]	[illegible]
19.	[illegible]	[illegible]	[illegible]	[illegible]
20.	[illegible]	[illegible]	[illegible]	[illegible]
21.	[illegible]	[illegible]	[illegible]	[illegible]
22.	[illegible]	[illegible]	[illegible]	[illegible]

[illegible] 22 [illegible]

[illegible]	[illegible]	[illegible]		
1.	[illegible]	[illegible] 3.0.1	[illegible]	[illegible]
2.	[illegible]	[illegible] 3.0.5	[illegible]	[illegible]
3.	[illegible]	[illegible] 3.0.6	[illegible]	[illegible]
4.	[illegible]	[illegible] 3.0.8	[illegible]	[illegible]
5.	[illegible]	[illegible] 3.0.9	[illegible]	[illegible]
6.	[illegible]	[illegible] 3.0.10	[illegible]	[illegible]
7.	[illegible]	[illegible] 3.0.12	[illegible]	[illegible]
8.	[illegible]	[illegible] 3.0.14	[illegible]	[illegible]

ϖ ϒ ج ضِ Ũ ϖ ϒ 5.5m ɑ

ɑ Ũ شخ ϖ ɑ Ũ شخ ϖ ɑ

ϖ Ũ ϖ Ũ

ϒ ь ɢ 2 Ũ ϒ

2. تمج ϒ ضي ь β

3.1.7 ϒ

تمج

11.

12.
4.0m
3.5m

13.

14.

3.0.15

6.0.8

7.0.2 8m

7.0.6

2.	ཛ ݣ Ũ ༎ ῧ ༏	. ೦ ʒ ‰ 6.2.22	Ũ Ѣ ཛ L	⁚
3.	˜ ༏ Ũ ༎ β غ β ݣ ˜ ˩ ℗	. ೦ ʒ ‰ 6.2.23	Ũ β	⁚
4.	Ũ ₮ο ༎	. ೦ ʒ ‰ 6.2.25	Ũ ₮ο	⁚
5.	Ũ ₮ο ༎ ᾧ ɷ ℗ Ũ ₮ο ҉ ༎ ᾧ ɷ ƀ Ũ ༎ ῗ	. Ũ Ⴘ 5.3.7	Ũ ₮ο ᾧ ɷ ℗ Ũ ₮ο ҉ ᾧ ɷ ƀ Ũ ῗ	⁚
6.	ӆ Ũ ༎ ˠ ˠ β ˠ ˠ β ༎ Ả	. Ũ Ⴘ 5.4.4	Ũ ˠ ˠ β Ѣ	⁚
7.	Ũ ༎ ת ݩ ҉ ༎ ض Ɏ҉ 700mm~1500mm	. Ũ Ⴘ 5.4.6	Ũ ض Ɏ҉ 1300mm	⁚
8.	༎ Ũ β Ḥ ˜ D L Ţ	. Ũ Ⴘ 5.4.11	Ũ β Ḥ˜ D L Ţ	⁚
9.	˩ Đ ༎ ˜ ῃ ݜ	. ೦ ʒ ῃ Ⴗ 4.6.2	˩ Đ ˜	⁚
10.	G Ⴗ Ħ ᵒᵒ غ ༎ Ḫ ᴧ ῗ	. ೦ ʒ ῃ Ⴗ 5.1.4	Ḫ ῗ	⁚
11.	. ṗ ḵ ῢ غ ༎ ῧ ῗ Ḡ ༎ ⁚ ῗ ↕ GB/T 4272	. ೦ ʒ ῃ Ⴗ 5.2.2	ݾ GB/T 4272 Ḡ	⁚
12.	ί . H Ⴗ ᵒᵒ ༎⁚ غ ῗ خ	. ೦ ʒ ῃ Ⴗ 5.6.1	ݾ ῃ خ	⁚
13.	ί . H Ⴗ ᵒᵒ ὶ ༎ Ḡ ƀ ʒ ݽ Ḡ ƀ ʒ ݽ Ⴗ ƀ ʒ	. ೦ ʒ ῃ Ⴗ 5.6.3	ݾ ƀ ῗ	⁚
14.	ί . H Ⴗ ƀ ʒ Ⴘ ༎ ݣ ݣ ῃ ض Ⴘ ƀ 2 ɷ ج	. ೦ ʒ ῃ Ⴗ 5.6.5	ί Ũ Ⴘ 2˜ ݣ	⁚
15.	. ῃ ༎ ݷ ˜ ῃ غ ῃ 5 № ῃ ą ӆ ↕ Ѣ GB/T 2893.5	. ೦ ʒ ῃ Ⴗ 6.1.1	ῃ	⁚

16.	[illegible]	6.1.2	[illegible]	[illegible]
17.	[illegible]	6.1.4	[illegible]	[illegible]
[illegible]				
18.	[illegible]	4.0.18	[illegible]	[illegible]
19.	[illegible]	4.0.21	[illegible]	[illegible]
20.	[illegible]	4.0.23	[illegible]	[illegible]
21.	[illegible]	4.0.24	[illegible]	[illegible]
22.	[illegible]	6.0.5	[illegible]	[illegible]
23.	[illegible]	6.0.11	[illegible]	[illegible]
24.	[illegible]	6.0.16	[illegible]	[illegible]
25.	[illegible]	8.0.5	[illegible]	[illegible]
26.	[illegible]	8.0.7	[illegible]	[illegible]
27.	[illegible]	8.0.8	[illegible]	[illegible]
28.	[illegible]	8.0.10	[illegible]	[illegible]
29.	[illegible]	11.0.2	[illegible]	[illegible]

30. 11.0.4 4.5m

31.

	ẩ ₮ ᵴ 2 ˜ ˩ ﺸﻳ Ꞁ ﻛﺢ	r ﻍ r ‰ 4.1.6		
43.	ﻛﺢ Ꞁ ﺿﺮﺴﺠ ﺿﺮ 1.5m~2.0m	˜ r ﻍ r ‰ 6.1.3	Ч 1.5m	ﹰ
ẗ ʇ				
44.	ą ﺸﻴﻳ ỉ Đ Ꞁ ﹰ ỉ	ﻬ ỉ ŋ 1 № 4.5.2	┘	ﹰ
45.	Ӎ ﺿﺮ ﺿﺮ 1.2m ỉ Ɣ ˜ ƀ Ꞁ	ﻬ ỉ ŋ 3 № ȝ ỉ 4.1.1	˜ ﺸﺦ	ﹰ
46.	ﺿﻲ ˜ ỉ ƀ ˜ ą ẩ ﻛﺢ Đ ﺸﻴﻳ ﺝ Ꞁ ﺿﻲ	ﻬ ỉ ŋ 3 № ȝ ỉ 4.1.2	˜	ﹰ
47.	˜ ỉ ƀ ȝ ﺸﻲ ‰ G 2m Ƅ Ꞁ ᵞ G 900mm G G 2m G 20m ˜ ỉ ƀ ȝ ﺸﻲ Ꞁ Ƅ ᵞ G 1050mm Ƅ G 20m ˜ ỉ ƀ ȝ ﺸﻲ Ꞁ Ƅ ᵞ G 1200mm	ﻬ ỉ ŋ 3 № ȝ ỉ 5.2	ﹰ	ﹰ
48.	ﺿﻲ ˜ ﺿﺮ Ꜧ Ꞁ Ƅ G 100mm ẗ ﺿﺮ Ꞁ Ƅ G 10mm	ﻬ ỉ ŋ 3 № ȝ ỉ 5.6.1	ﺿﻲ ˜ ﺿﺮ Ꜧ Ч 100mm ẗ ﺿﺮ G 10mm	ﹰ
49.	˜ Ꞁ Ƅ G 750mm ᵴ Ẽ ˜ ˜ ⁝ ᵖ Ƅ G 450mm	ﻬ ỉ ŋ 3 № ȝ ỉ 6.1.1	Ɱ ˜ Ƅ G 750mm	ﹰ
50.	1 ᒪ ŋ ᵝ Ꞁ ᒪ ˜ 2 ŋ ℗ ﻘﻤ ŋ Đ Ꞁ ﻴﺠ ‰ ﻘﻤ ﻘﻤ Ꞙ Ǚ ﻘﻤ Đ 3 ŋ Đ ᒪ Ꞁ ﹰ ˜ ŋ	ﻬ ᐱ ʐ ﻛﺢ ŋ 9.1.1	ᵞ Ư ŋ ﺸﺦ ẩ ﹰ Đ	ﹰ

	4 ŋ ɒ ₹ ʌ ϖ ϖ ϱ Đ ғ ضّ ϱ ϖ 5 ŋ ɒ ∟ ŋ ɒ Ь ˜ ŋ			
51.	ŋ ϖ Й ↓ 1 ʌ ϖ ض ʌ ʐ ᴄᴋ ⅄ № ض Ь ʌ ʐ ᴄᴋ ϖ ŋ ϖ 2 ʌ ʐ ᴄᴋ Ь ʌ ʜ ė ɒ ї Ь G ʌ o ї 3 ʌ ʐ ᴄᴋ ₩ ₡ o ϖ ʜ ₡ ʜ ₡ ⅄ ʌ ↕ o ˜o G ʌ o ė 4 ʌ Ь ʌ ʐ ᴄᴋ ʜ ₩ Ь ч ŋ ض ض ŋ Ь ʌ ʐ ᴄᴋ ʜ G ↙ ч Ţ ↙ : : : : ʌ ʐ ᴄᴋ ч Ḃ G ŋ Ь ą ʏ β ŋ ‰ ғ ∟ ˜ ض ʌ Ь ʌ ʐ ᴄᴋ ʜ ʌ ʐ ᴄᴋ Ḡ ŋ ₰ ė Ь ʌ ŋ 5 ŋ U ą	ᴄᴋ ϖ ŋ 9.1.3	ŋ Ь ї Ь G ʌ o ŋ ŋ ╟ G ŋ	
52.	ʌ ʐ β ϒ Ḃ G ƀ ї ⌡ ˝ ˩ Ь ≠ ڑ	ᴄᴋ ϖ ŋ 9.2.1.3	ʌ ʐ β Ḃ G˩ 2	
53.	β ϒ ض Ḃ G β ϒ ↕ ₰ ї ɾ ↑ ϖϖ ʌ ʐ ᴄᴋ Ţ	ᴄᴋ ϖ ŋ 9.2.2.2	β G Ḃ G β D W	

	[illegible]			
54.	[illegible]	[illegible] 7.1.1.4	PLC [illegible]	[illegible]
55.	[illegible] 2m [illegible]	[illegible] 7.3.2.1	[illegible]	[illegible]
56.	[illegible]	[illegible] 7.3.3.1	[illegible]	[illegible]
57.	[illegible] 2 [illegible] 2m [illegible]	[illegible] 7.3.3.2	[illegible]	[illegible]
58.	[illegible] 2 [illegible]	[illegible] 7.3.3.3	[illegible]	[illegible]
59.	[illegible]	[illegible] 7.3.5.3	[illegible]	[illegible]
60.	[illegible]	[illegible] 11.5.1	[illegible] 2 [illegible]	[illegible]
61.	[illegible] 2 [illegible] 10s [illegible] 15m [illegible]	[illegible] 11.5.2	[illegible]	[illegible]

[illegible] 61 [illegible]

2.	ᐥ ṗ Ꮒ ع ŵ	· 5.3.1	Ꮒ ع ŵ	⁘
3.	Ꮯ r ĩ Ꮋ Ꞁ ~ ᵕ p r o ع Ӌ ↓ ъ ~ 1 ъ Ʈ Ս 40C 2 . ĩ	· ⲟ ȝ ‰ 7.3.1	ᵕ ~ ᵕ	⁘
4.	ᵕ Ꞁ ى Л ъ ɢ 200mm ṗ Ꞁ № ъ 30m ɥ ɥ ъ ɢ 2m	· ⲟ ȝ ‰ 7.3.2	ᵕ	⁘
5.	ع Ꞁ Ḡ ĩ ~ ع ض Ӌ	4.1.9	ع ع ض Ӌ ~	⁘
6.	ك ك ع ъ ƀ ч ԝ ك	٧ ᐥ 3.1.10	ك ك ع ƀ ч ԝ ك	⁘
7.	▼ φ ƀ Ḡ ك ƀ ч ك ع Ꞁ Ḡ r	٧ ᐥ 3.1.12	Ḡ r	⁘
8.	№ Ꞁ ƀ ч Ḡ ض Ʈ r ŵ №	· ⲟ ȝ ‰ 9.1.6	ض ٢ ض	⁘
9.	ʑ Ꞁ ض ɣ ض ṗ Ꞁ ض ᐣ ض ṗ ع ⁘ ɯ خ ṗ ɣ ĩ ъ Ð	ᐣ ʑ 5.1.1	ض ᐣ ض ض ع	⁘
10.	Ꞁ ъ ٧ ɢ ≢ ع ≢ r ṗ r ⁘ ≢ ع ≢	ᐣ ʑ 5.2.3	≢ CT1	⁘
11.	ъ ᐥ ɥ Ꞁ Ꮋ	ᐣ ʑ 5.4.3 2	Ꮋ	⁘
12.	ض r ᐥ ṗ Ꞁ Ʈ	ᐣ ʑ 5.4.3 6	Ʈ	⁘
13.	Ꞁ Ḡ ع Ḡ	٧ ᐥ 6.1.1	Ꭷ Ḡ ع Ḡ	⁘
14.	ض ᐣ ṗ	ᐣ	ض	⁘

15.	‰ 5.1.9		
16.		4.1.1	
17.		4.1.2	
18.	B	4.3.1	

Ь Ѝ ˝ ´

		6.1.4		
45.		‰ 8.12.1		
46.		3.1.2		
47.	1.3m-1.5m	6.3.2	β	
48.		‰ 3.0.1		
49.		‰ 3.0.2		
50.		‰ 3.0.3	24h	
51.		‰ 3.0.4		
52.		‰ 3.0.6	2	
53.		‰ 3.0.8		
54.				

10m 4.2.1

4m

55. IP65 6.1.4 IP65

56. IP65 7.4.3 IP65

57. ‰ — 150mm 8.5.3

58. 120m ‰ 8.5.6 120m

59. 60m ‰ 8.5.7 60m

60.

64.		12.0.13		
65.		12.0.14		
66.		12.0.15		
67.	1 1.3m 1.5m 2 3 150mm	‰	1.3m	
68.		6.3.1		
69.		5.1.14	h	
70.		5.1.16		
71.		6.6.3		
72.		6.6.4		
73.		9.2		

74. 9.5

75. m

7. m

7

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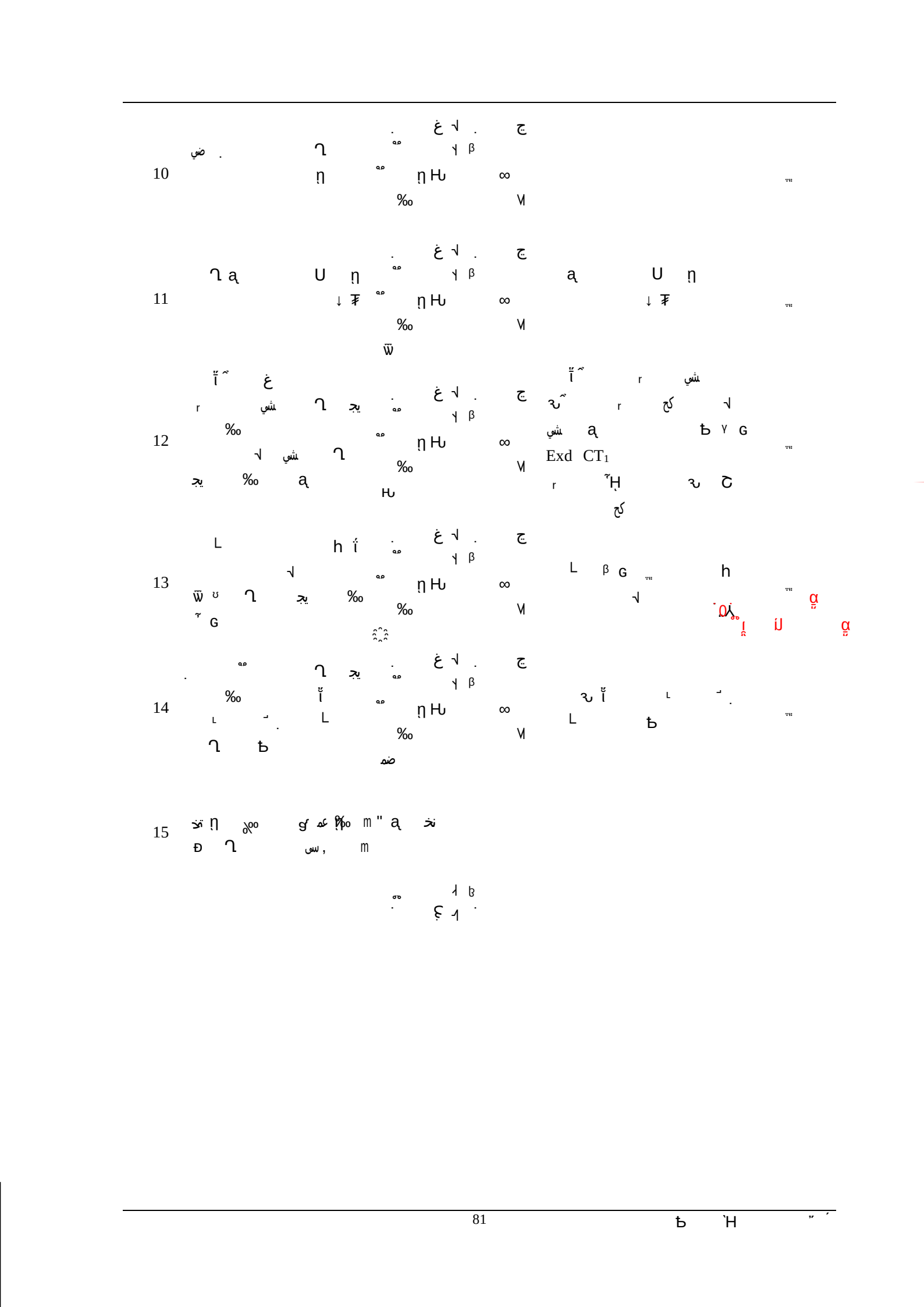
ˬ ŋ Ƕ ∞
‰ ƙ

ǐ " Ą ŵ "

3



19

5.2-13ˆ ঽ ῃ ᴇ ῃ ῎ № ↓ Έ

﹍ 215 ᴇ ῥ ἳ Ţ 6 ᴇ ῥ Ѣ ῃ ᴇ ῀ ἳ φ 209 ᴇ ῥ ᴇ ﭫ ч ﹍

“ ֊ ᴇ ” ֊ Ḥ Ţ Ữ Ữ Ữ ჩ . Ữ Ữ ɣ ἵ Ữ ћ ֊ ᴇ ɣ . ֊ Ḥ ֊

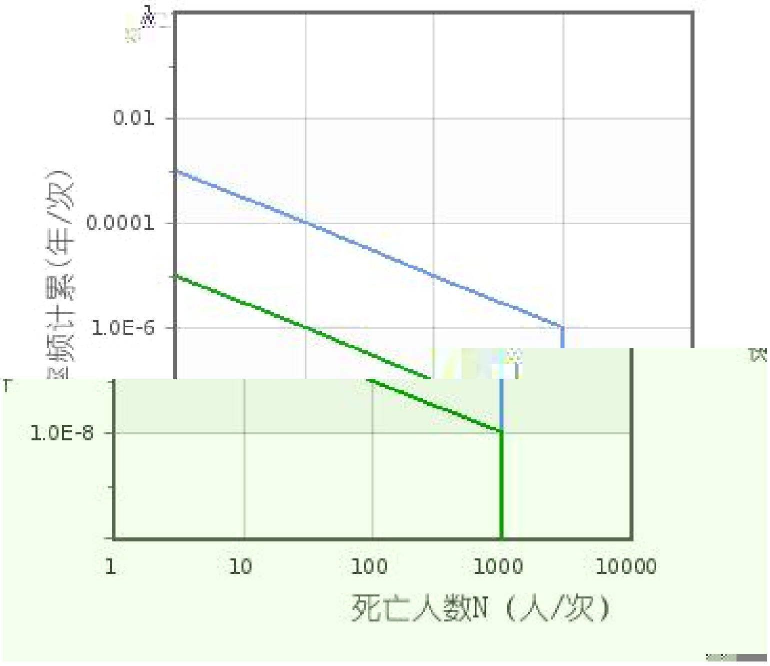
щ ֊ ᴇ ΰ ṿ № ‰ ﻎ ֊ № ₮ ֊ Ḥ ֊ ֊

ɷ ͓ Ẋ ͓ 2 ɢ ѿ ﺸﻴ ғ Ḡ ɢ Ü ˦ . ڃ Ҥ
` ɣ β ɥ

˦ . ڃ ᵒᵒ ᵹ Ữ ‰ GB36894-2018 ˦ . ڃ
ᵒᵒ ᵹ Ữ ԱԼ ἶ ɷ ͓ Ѣ 5.4-1 Ţ ᷉ ṿ

	ɷ ͓ ˜ ἶ ‰ ṿ	
	≤	ﺿﻲ ≤
ѿ ѿ	3×10^{-7}	3×10^{-6}
ѿ Ҥ	3×10^{-6}	1×10^{-5}
ѿ ⁞	1×10^{-5}	3×10^{-5}

Ψ r ´



Ε ⋎ η ̀Ε ΰ № Ε Đ ݧ ⏋

ɷ غ ψ ⋎ ⊤ ݧ ⏋ . ج ⏋ ⍦

1 ɷ ‰

‰O GB 36894-2018

‰ ݧ 5.4-2 ⏋ β /

	⋎	
ѿ	1.00E-05	
Ⴑ	3.00E-06	
⁞	3.00E-07	

2 ⋎ ᾰ

ضي ⋎

ضر قمم № عجه

Ţ

C

⏋ ʐ pa 101325

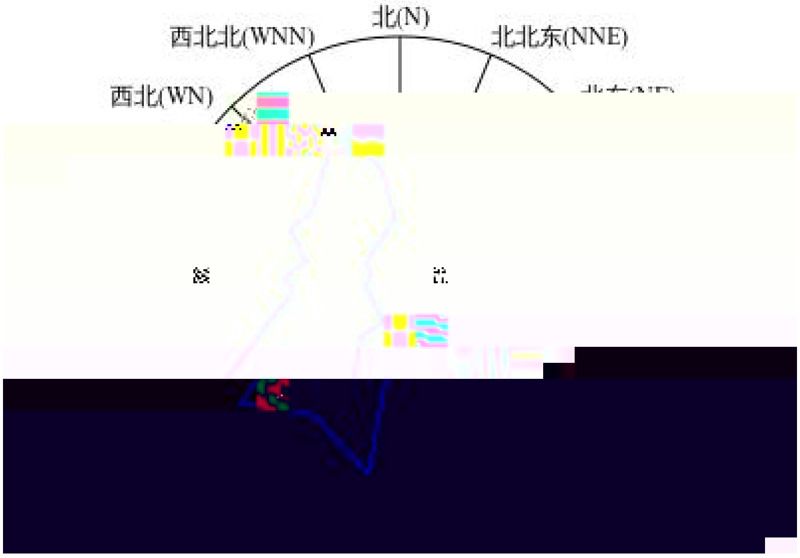
شخ m/s 4.6

kg/mб 1.293

K 298

\l ضر № 0.03

h يحـ ضر



5.4-2

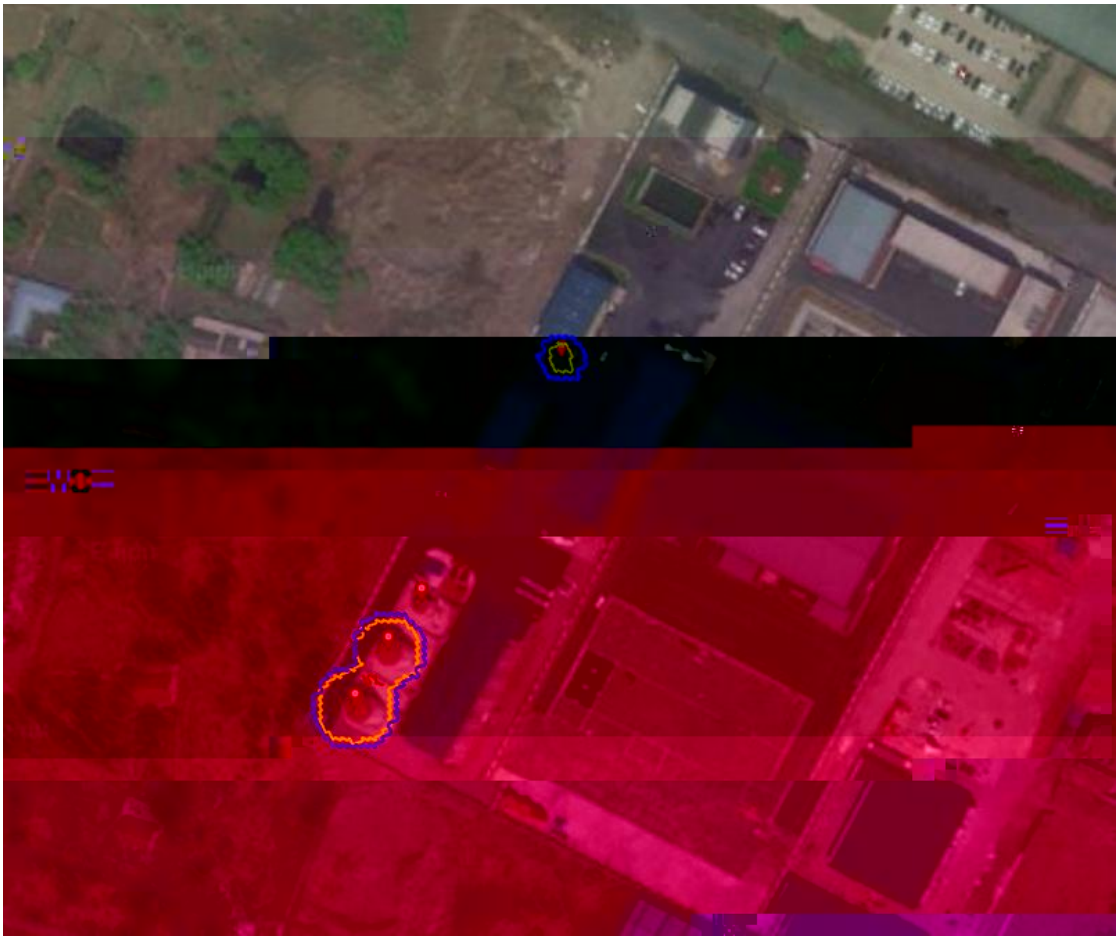
3 Ⴘ r ᠍ يحـ

᠍ Ẋ ᠍ r 100% G ẅ √ شي ғ Ḡ G Ü̈ Hႎ

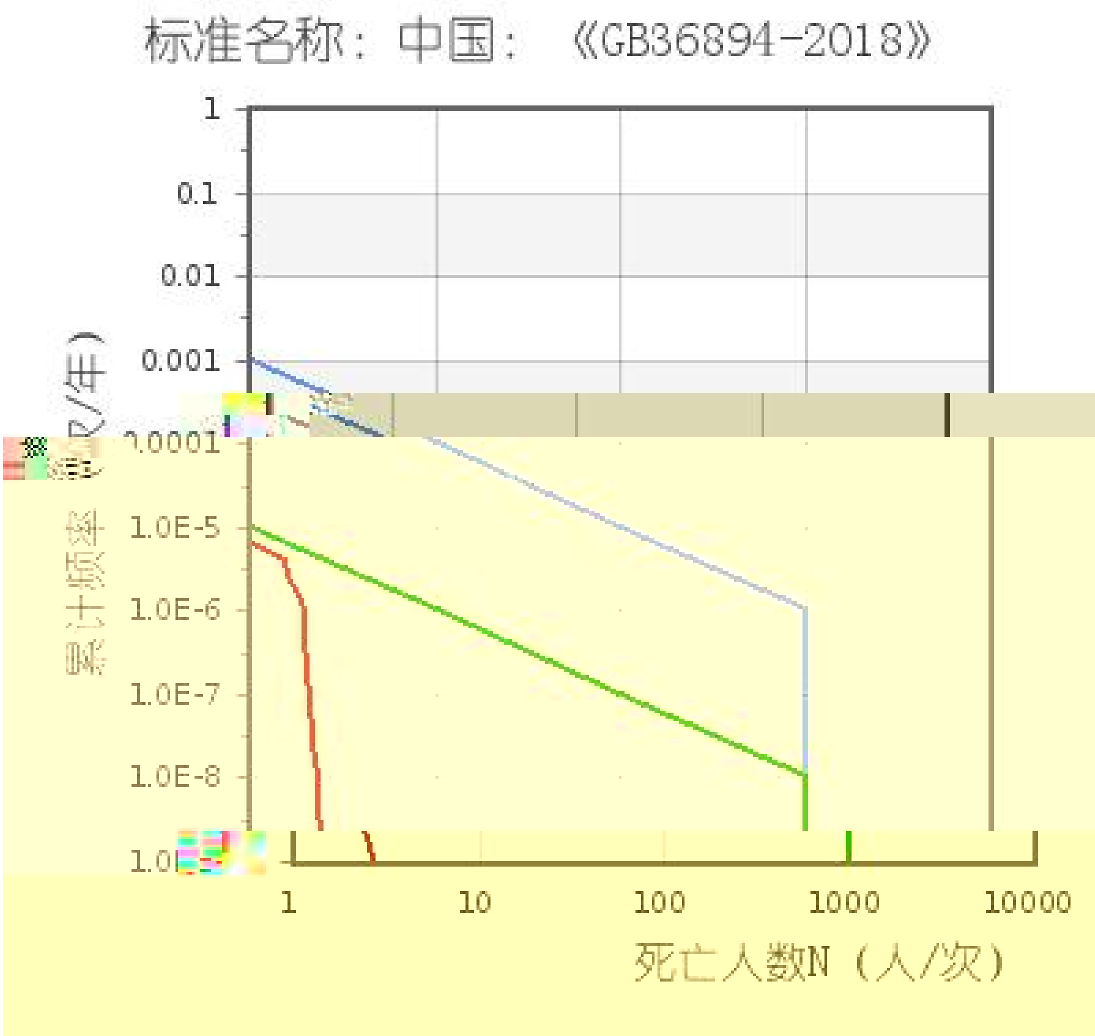
` ˧ β ч / ᠍ ‰ ᠍ ṿ ̃Ḥ

№ Ⴘ ṗ Ŋ ४ ᠍ Ӣ يحـ

ѣ `H ˝ ´



5.4-3



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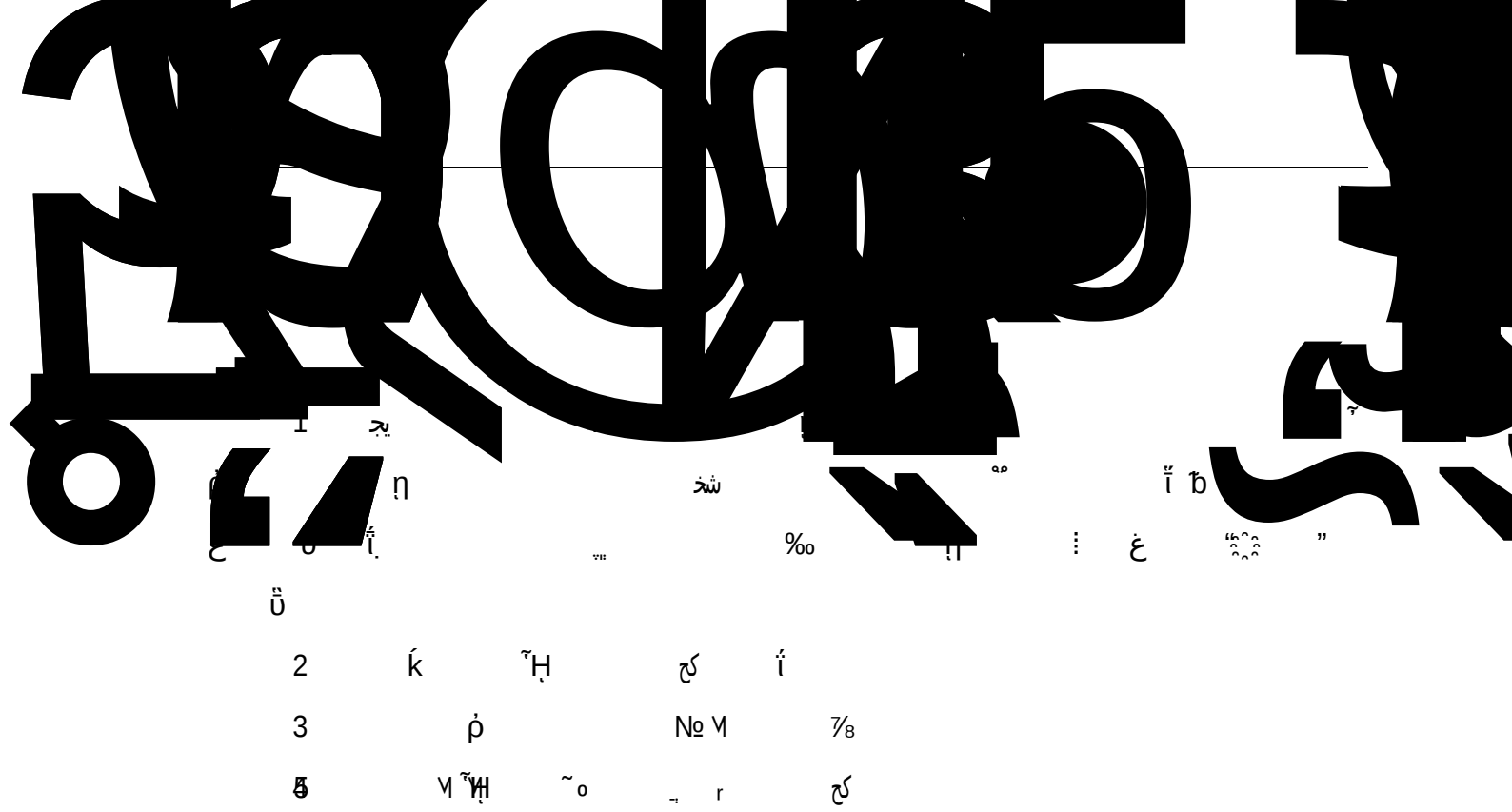

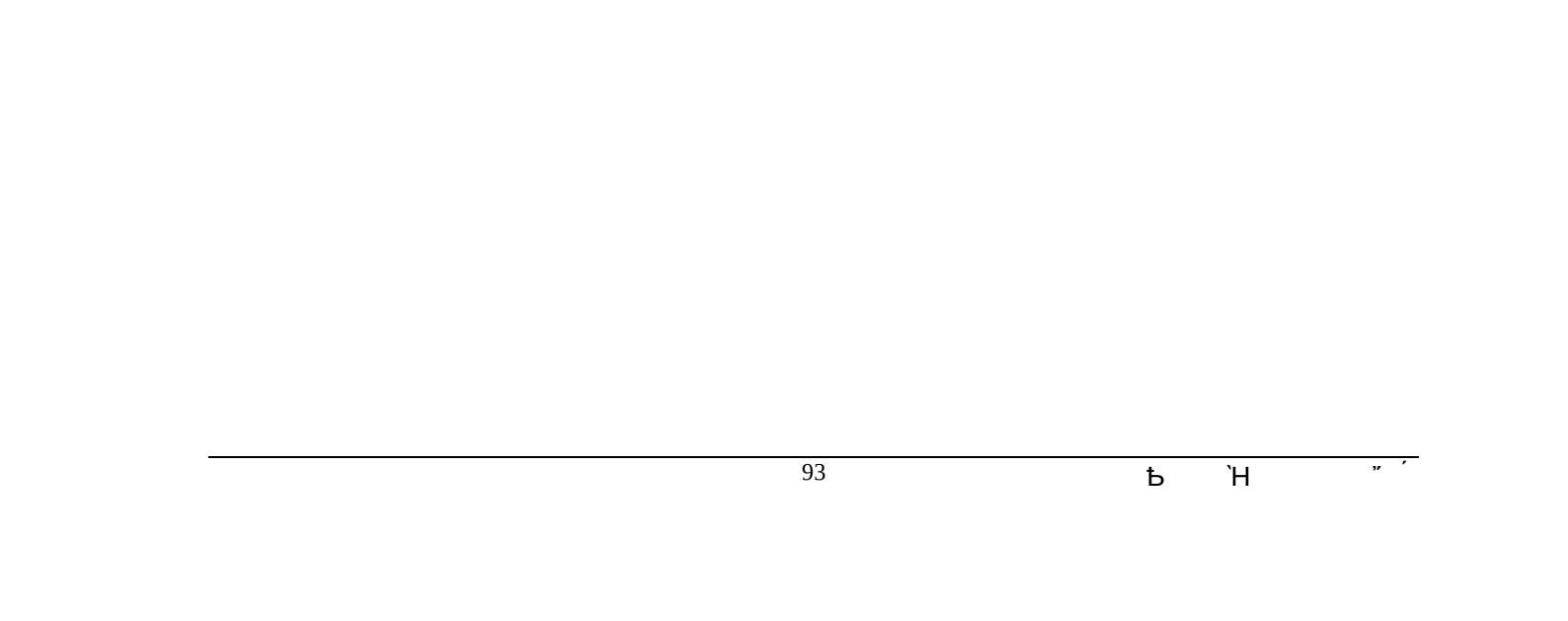

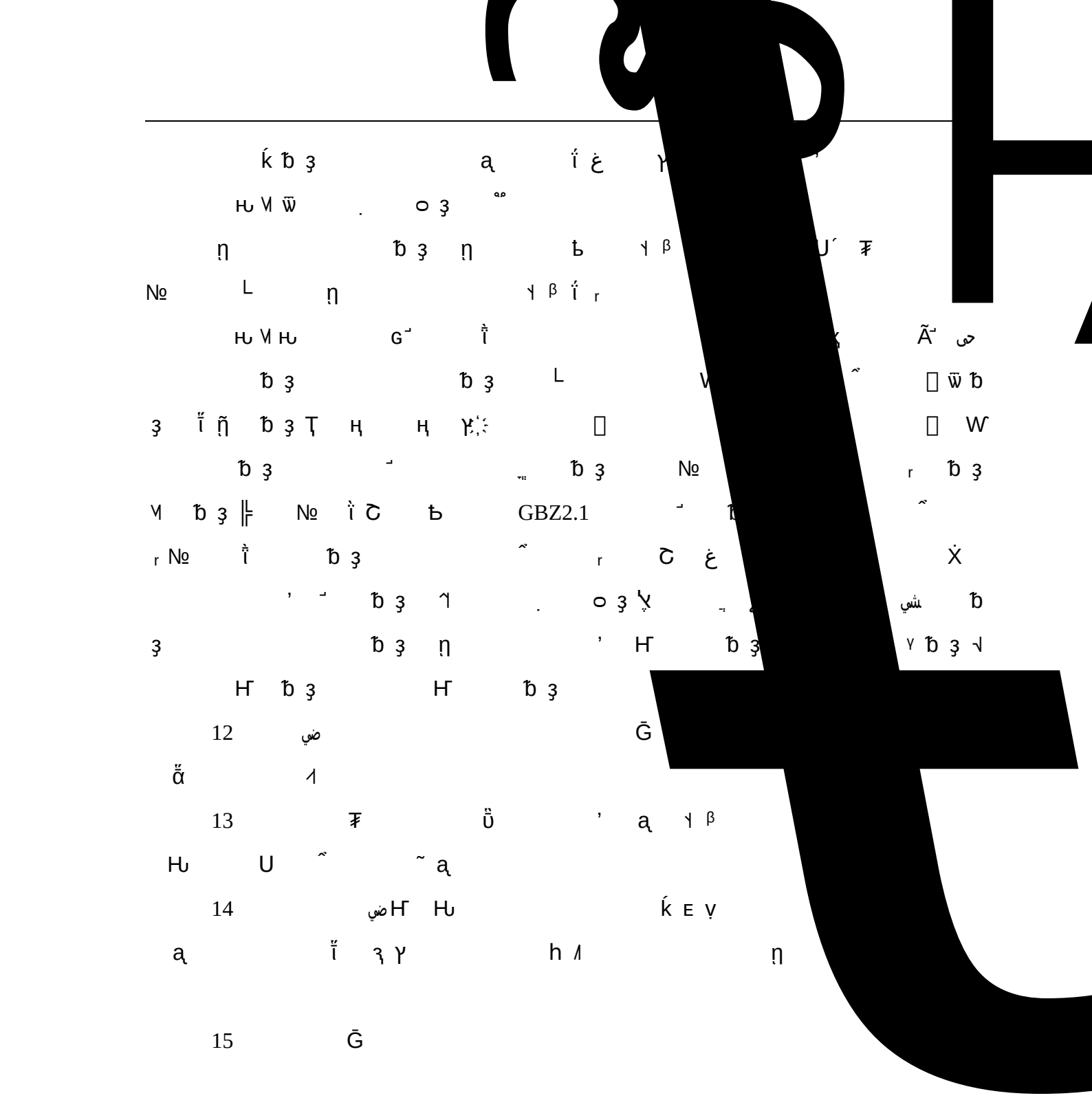

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第 20 章

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