

emily_huai@hanbell.cn
ir@hanbell.cn

1.	2014					021-51365368
2.	4.0					
3.			7			
4.						
5.	2015					
6.	R22					
7.					0	
8.		2015	1	1		
9.						
10.						
11.						
12.						
13.						
14.	2014					
15.	2017					

-
- | | |
|----------|-----|
| 16. | |
| 17. | |
| 18. | |
| 19. | |
| 20. | |
| 21. | 25% |
| 22. | |
| 23. | |
| 24. 530 | |
| 25. 2014 | |
| 26. | |
| 27. | |
| 28. | |
| 29. | |
| 30. 2014 | |
| 31. | |
| 32. 2015 | 16. |

1. 2014

2. HFCs

3.

4.

5.

6. 25%

7.

8.

9. ORC

10. 2015

1. --4GFC(Y)

2. •

3.

4.

5.

6.

7.

8.

9.

10.

11. 20

12.

13. FRIGOBLOCK

14.

15.

16.

17.

18.

19. .

20. EKOL

21.

22.

23.

24.

25. —

26.

1.

2. 2014 : ,

3.

1 2014

2014

APEC

.....

2014

18

1

6 13

5

2

2014 4 18

80

4

2014 1 13

2014

2014

5 APEC

2014 9 2 2014 (APEC) 11

6

2014 8 21 22

43

30

7

(2014-2020)

2014 6 7

(2014-2020)

2020

8

2014 3 24

(

)

3 24

9

2014 6 23

10

2014 9 22

5 (2014-2018)

2014

20

11

2014 9

300

2020

310

60 ()

300 2020

62% 60%

6 4 --

(7 8) (

1) () (

1)

12

2014 3 21

80%

95%

1 1.2 1.5

15

2014 7

20

100

20

100

()

16

2014 6

2014 ()

() 2014

2014

8.3 2015

() ()

2015 10 (

) 2016

V

2017 ()

2017 10

() 2014

2017 11.2

17

2014 9 14

(5.68 0.05 0.89%) 25

25 1070.94 29.99%

2

18

2014

6 23

11 14

190 180 90

0 () 0.14 0.15

11 14 24

http://news.ehvacr.com/news/2014/1208/94051_2.html Top↑

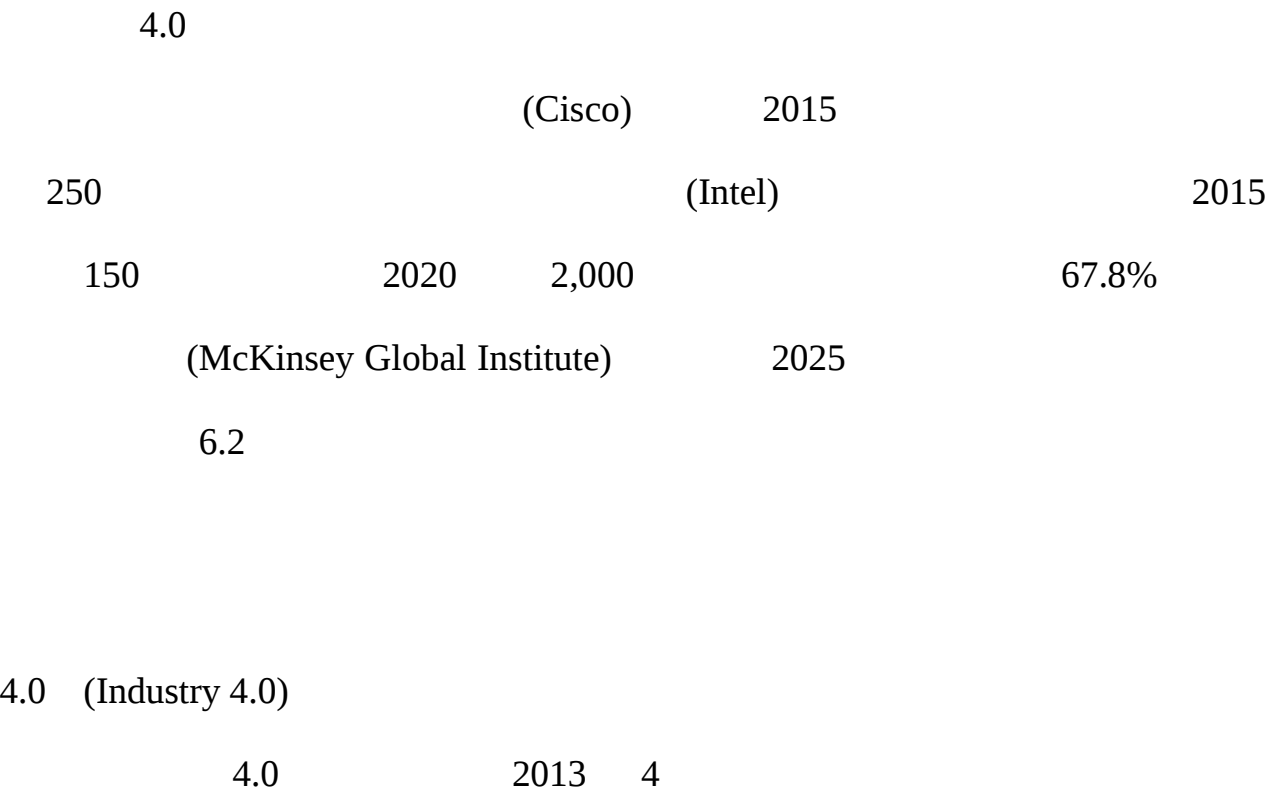
2 4.0

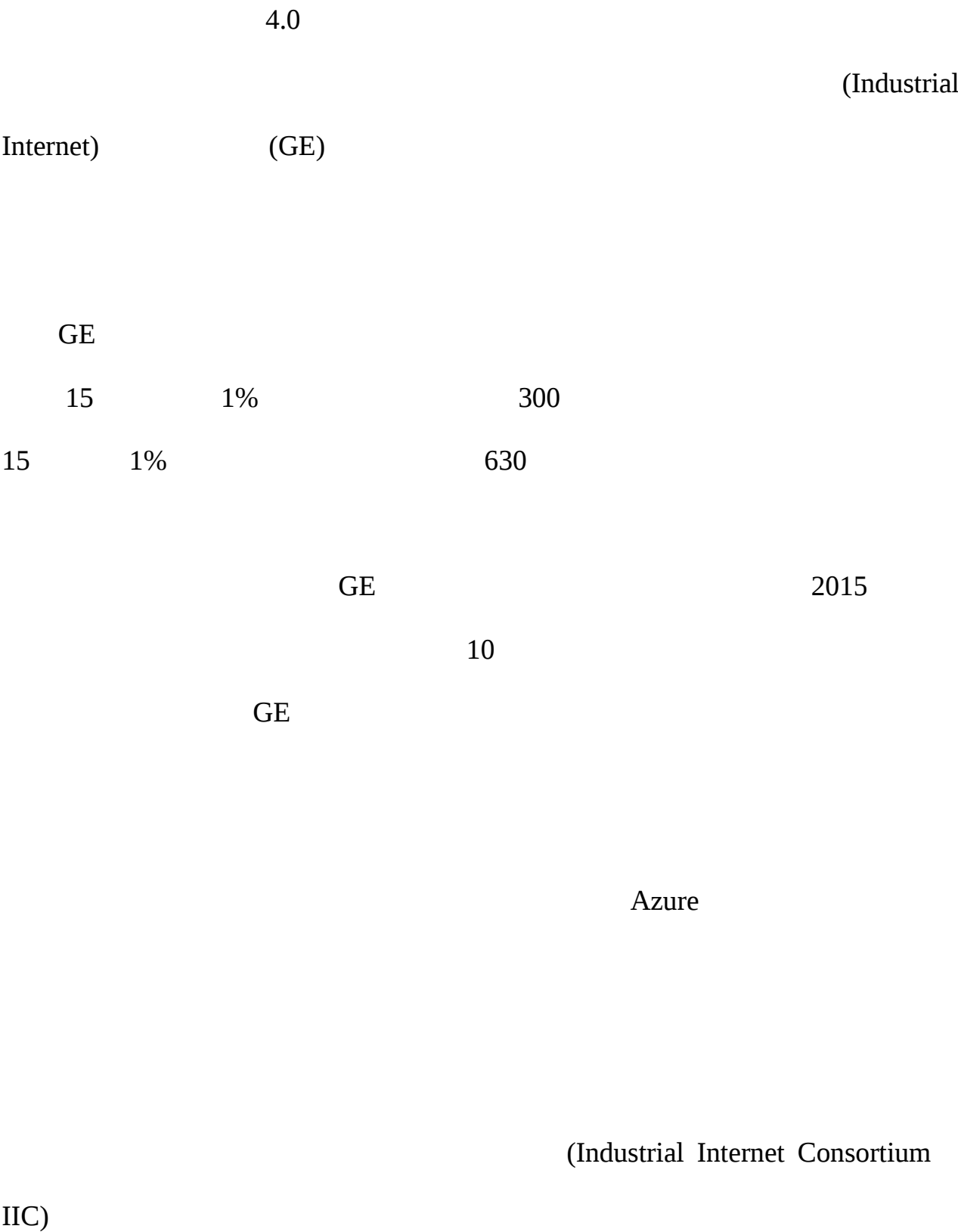
(Big

Data)

McKinsey

12





(Internet of Things)

AT T Cisco GE IBM

PTC

ThingWorx

.html' target='_blank'>

WebAccess

SRP(solution ready package)

(IDF)

NIFE 100

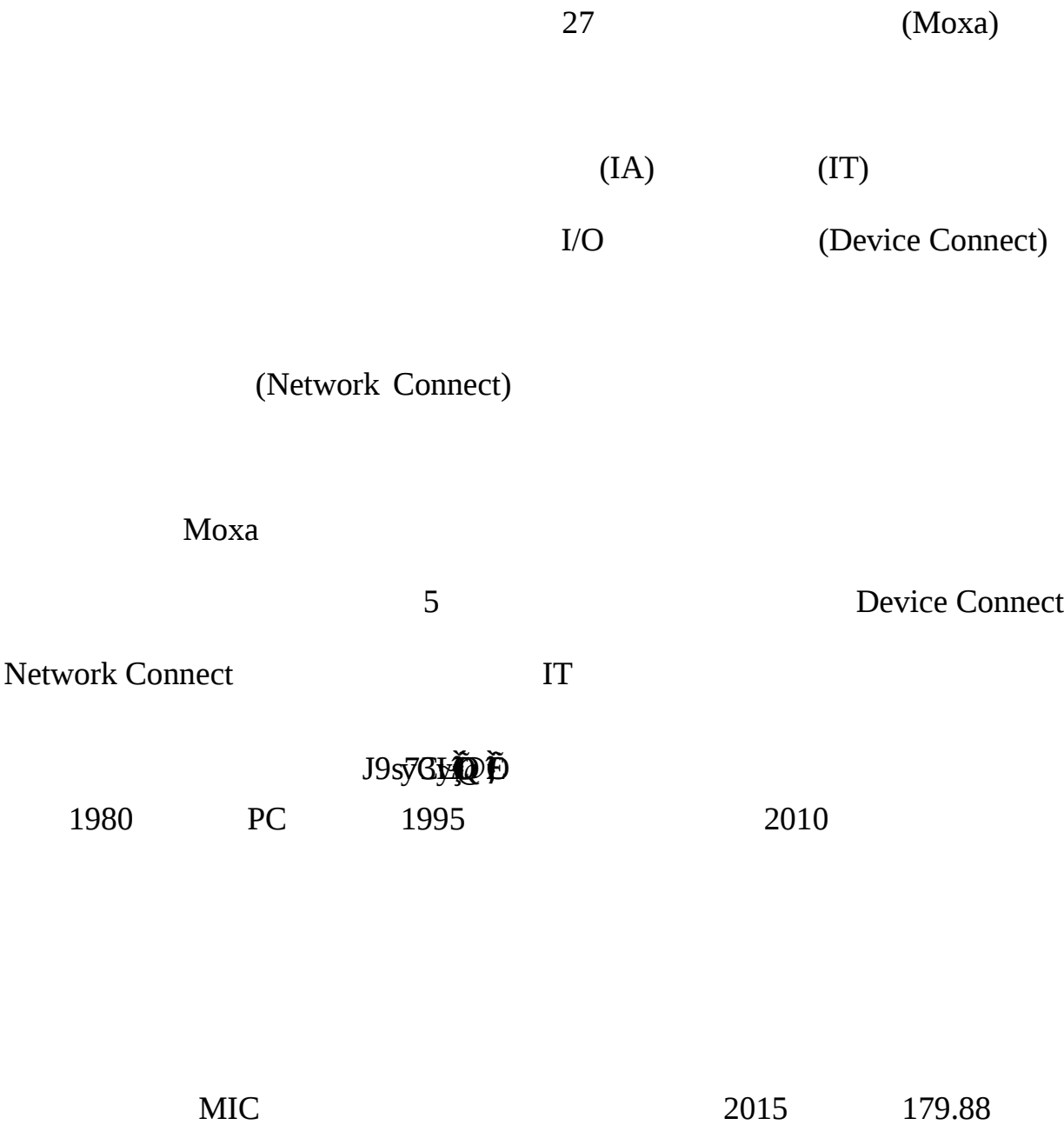
Intel

Atom E3826

Moon Island

I/O

NIFE 100



MIC

<http://www.iot-online.com/xingyeyingyong/si/2014/1225/25794.html> Top↑

3

7

(

2013 77 77)

?

(EMC)

77 2013 1 1

6

；

(2010 110) 77

7

1. 100

()

2.

(GB/T24915-2010)

3.

(GB/T24915-2010)

4.

()

(2009 166)

5. 70%

6.

7.

()

(2009 166)

77

2010 110

;

()

50%

77

4

1. ;

2. ;

3.
- ;
4.
- ;
5.
- ;
6.

<http://news.ehvacr.com/news/2014/1208/94054.html>

Top↑

4

2015 1 1

?

2014

E20

/

/

?

2013 9

PPP

PPP

PPP

PPP

?

2013

89.21%

80%

20%

2000

?

?

B2G B2C

(B2G)

(B2C)

B2C

5 2015

12 10

2015 (HCFCs)

10% R32 GWP()

2015

2013 R22 HCFCs

2015 10% 2020 35% 2025 67.5% 2030

2.5%

2015

HCFCs 2015

R32 R290

2015

8450 HCFCs 2015 HCFCs

983 ;

2015 NH3/CO2 ;

R32 ; R32

2014 11

12 HCFCs (25)

3600

7000 R22

HCFCs

(HFCs)

GWP

0

2014

2015 7 3

 3 1%

2015

2015

 41

24 97%

2015 2015

 8277 8285

<http://acc.chinaiol.com/o/1216/79146854.html> Top↑

8 2015 1 1

()

2015 1 1

" "

<http://news.ehvacr.com/news/2014/1208/94056.html> Top↑

9

2014

2014

8

2015

2015

2014

?2015

2015

IT

2014 9 19

DIY

1 4 8

2015

2014

7.08

8.5 ;

300%

2014

2015

?

<http://news.ehvacr.com/news/2014/1201/93965.html> Top↑

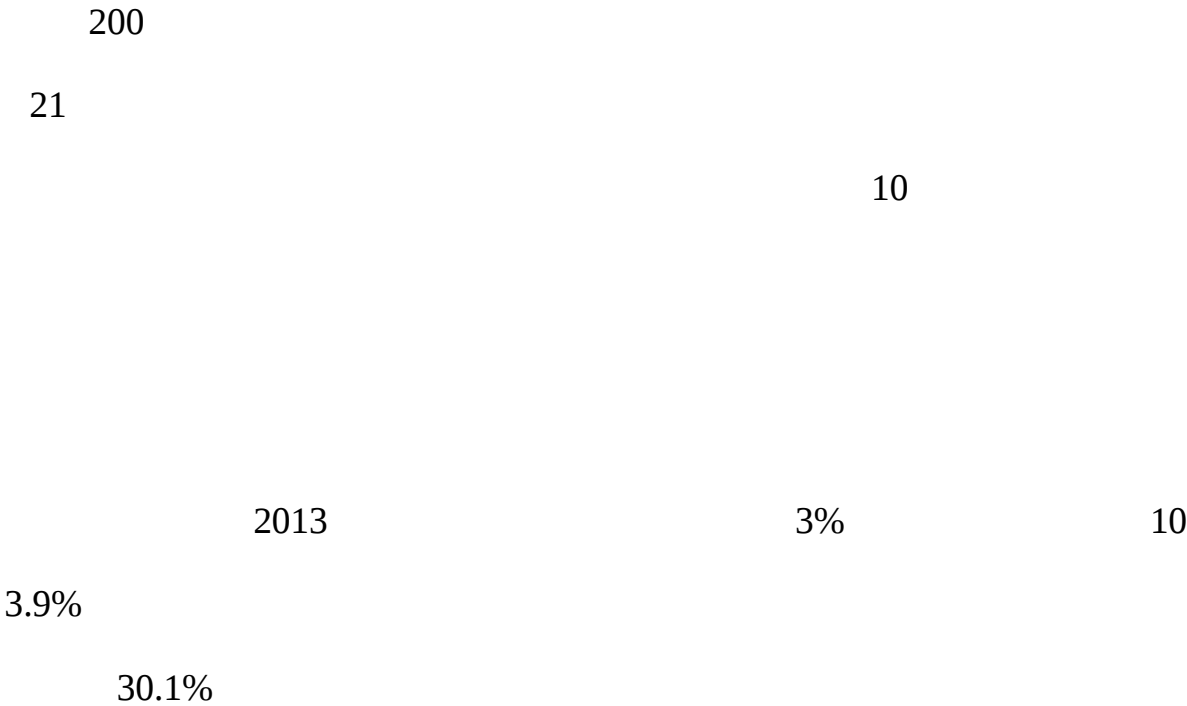
10

2014 1 8 291

85%

!

<http://news.ehvacr.com/news/2014/1202/93984.html>



21

1965

20

67% 100

2013 95.24 2012 4.2%
27.1%

2002

<http://news.ehvacr.com/news/2014/1204/94015.html> Top↑

12

31.8 2 350

100%
1751

305

39

<http://news.ehvacr.com/news/2014/1206/94039.html>

Top↑

13

470 6 15 37 4

274 6

110 3 85 6 3 5

90 15 37 4

3 5 130 11

30

8 8 46.6

3257

61

2.1 3.9

9.8

<http://news.ehvacr.com/news/2015/0126/94524.html> Top↑

14 2014

2012

12.2% 2013 7.2% 2014

3

?

EK

2004

5

<http://news.ehvacr.com/news/2015/0126/94536.html>

Top↑

15

2017

2017 1 1

(MEPS)

MEPS

(EER)

(CSPF)

MEPS

<http://news.ehvacr.com/news/2014/1224/94246.html>

Top↑

16

2006

2010 12

2011 6

12 15

AHRI

AHRI

64

AHRI

2013

2006

2006

50%

Honeywell 3M

24

<http://news.ehvacr.com/news/2014/1229/94281.html>

Top↑

()

70 ~90

70% 30%

40 ~60

52 72 / 50 ~70

60 14 26 /

5 73000

10 10t/h

87600

20

30

35

1%

<http://news.ehvacr.com/news/2015/0105/94308.html>

Top↑

18

15

3C

1

10

31

CEO

100

1000

CEO

B2C

<http://news.ehvacr.com/news/2014/1223/94222.html> Top↑

20

2014

		2014		3320
8300		2411	36.9%	8.5
	7	21.4%	1-10	583
		2014		100
	2014		110	
10%				

<http://news.ehvacr.com/news/2015/0108/94353.html> Top↑

21

25%

25%

2017

4700

<http://news.ehvacr.com/news/2015/0120/94468.html> Top↑

22

11	25			2000
		-	-	(Delhi-Chennai route)
	1754			21

()

AlexanderMisharin

2.8

(600)

1

1

5

40

200

380

—

—

!

—

5

<http://www.etyjx.com/2014/11/26715539957.shtml>

Top↑

23

12

5

(1)

(2)

(3)

<http://www.etyjx.com/2014/12/16716398837.shtml> Top↑

24 530

1 18

531.4 2014

2014

2014

—

—

；

—

<http://www.etyjx.com/2015/01/19716734507.shtml> Top↑

26

36

2013 19 2366

2020 50 2020

6000 4

5

9000

—

—

2020 9000

3 9500 1

1

6

9 4

6

4000

(20132030)

2013 2312

630 2017 3000

2030 -

4000 19 28

250 ;

2 139 ; 4

1 473 4 ; 8

183 3 ; 3

3

60

30

1

2014 1110

()

16

20

7

37

1110

12000

-

8

-645

12

322.5

6

181.1

;

5

1

141.4

1 2

52.3

355

1

2012

6

2016

12

2

2013

1

2017

4

-

6

-

+

183

117

135

48

2020

1 2

55

(

)

100

1

27.3

-L

25.6

1.7

2 27.7

5 - 137 89
; 4 147 2020
1 2 60

6 S1 S2 S3
195 103 ; 1 2 37.3
212.6
2

(2014—2030)
7 21
(2014—2030) () 2030

—

2030

3A

85% ;

97 28

;

17 6

143 4551

300

143 4551

1636

;

166

2014 18

2014 18

3 13 2

2015 1030

3 164 ;

2 91 4527

— 2015

5000

; ; ;

; BOT ;

300 3.8

6 24

2014 2016 300 3.8

22

2013 22.5

76% ; 100%

98%

2020	8000			
		(2010	2020)	
2020	8000	-6	7	8
	()			
	-			
		7		
	7			
	2020			
			3435	
3052	8000			
	()			
	7	632	(	456)
		5		636
2014	552			
6	8			
			3	
552				
	6			

2014

230

2013

4129

7

2014

230

197

100%

<http://news.ca168.com/201409/32893.html>

Top↑

27

12 1

2014

3

<http://www.compressor.cn/News/hyxx/2014/1203/76294.html>

Top↑

<http://www.compressor.cn/News/hyqx/2014/1125/76164.html>

Top↑

29

11 27

<http://news.ehvacr.com/news/2014/1204/94018.html> Top↑

31

—

—

10 14

18.32%~249.96%

14.78%~15.97%

11

1 23

-

-

-

6

18.56%~35.21%

26.33%~165.04%

20.86%~27.59%

-

20.38%

2015 1

-

WTO

-

WTO

WTO

WTO

WTO

—

—

—

WTO

32	2015		16.5%	40%
	2014	44GW		
		2014		
		TrendForce		
EnergyTrend		2015	51.4GW	
		57%	2014	(
	10	)	2014	2015
			10GW	
	2015			
				2014
				2015
2015				
	EnergyTrend		US\$17~20/kg	
	2015			

EnergyTrend 2015 US\$0.43/W

+PERC

PERC

M1/M2 4BB 4-busbar

2015 P

LID N

2015 50% 3.5GW

2014 3GW

50% 2013 46%

2015

34 2015

2015

2015

1.

2014 —2016

30%

2014

2015

2.

2014-2016

10%

2015

6 30

2015

3.

2014

2014

1/4

2015

2015

4.

2014

2015

2012

2012—2020 2015

50 2011

10 2015 50 50

5.

2015 1 1

<http://www.chinesevacuum.com/ShowArticle.aspx?id=47646&pid=39> Top↑

35

— 200

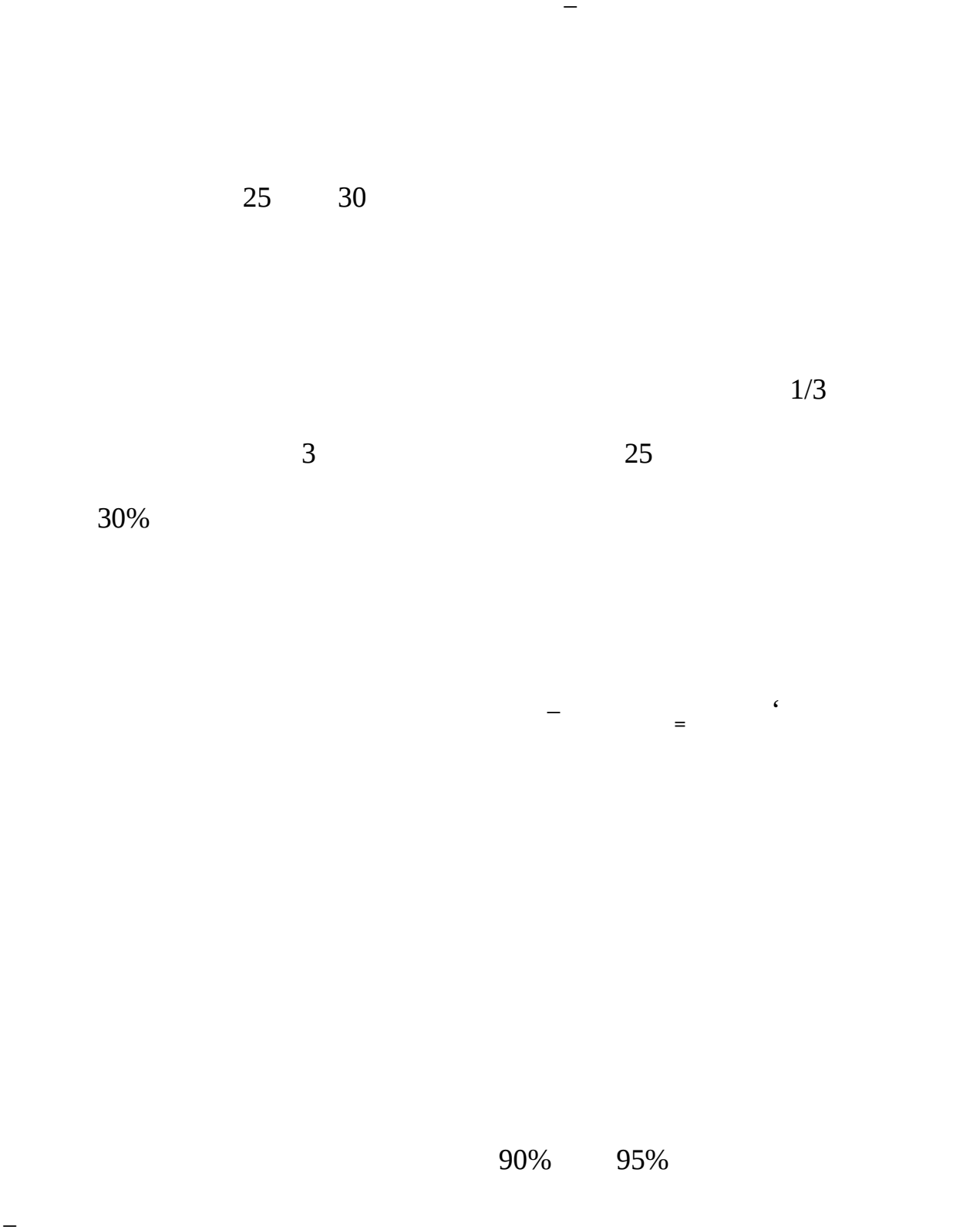
—

168

2014 5

168-x90 70.39°

1.5



<http://www.chinesevacuum.com/ShowArticle.aspx?id=46915&pid=39>

Top↑

37

11 20 (-)

-2014 3.79G

13G

2014 3.79G (

) 2.45G 1.34G

180 2013 200%

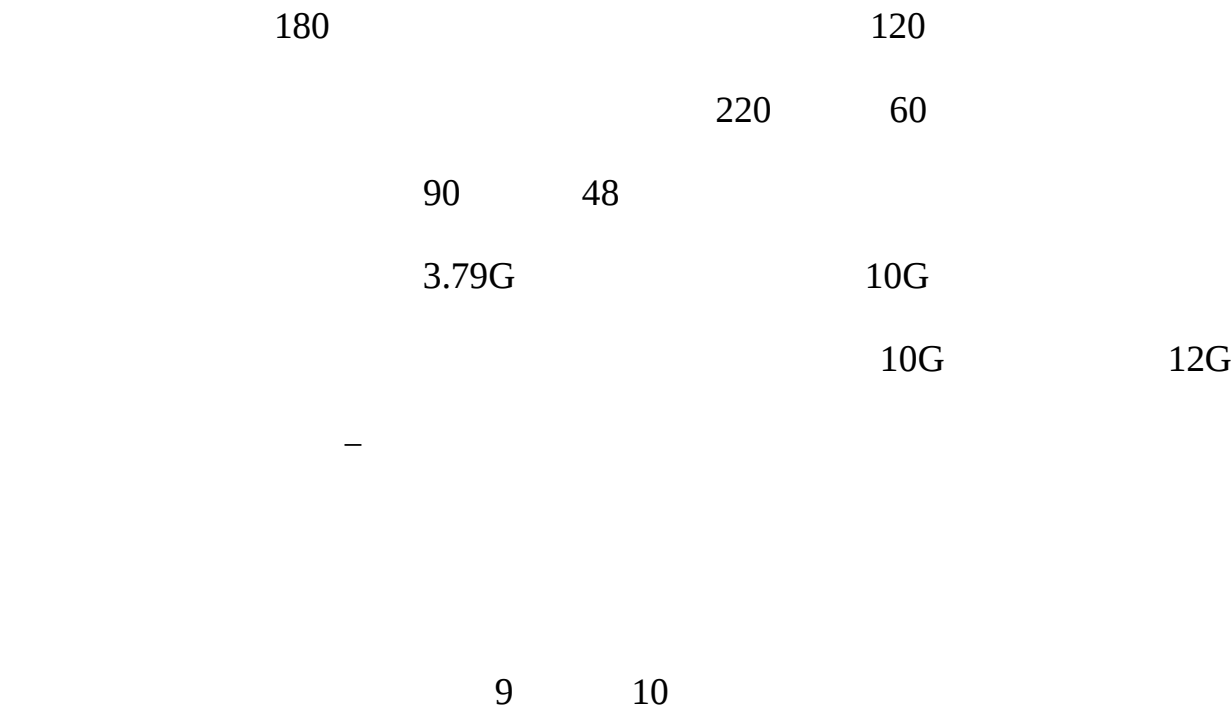
5.5G

13G

10G 13G

14G

1 25 2014



<http://www.chinesevacuum.com/ListArticle.aspx?pid=39&id=43>

Top↑

2014

2014

5

10 1

2014 32

5

2014	10	1
------	----	---

5

JB/T11882-2014

JB/T11883-2014 CNG

JB/T11884-2014

JB/T8935-2014

JB/T6430-2014

6

GB/T29736-2013

2014 6 1

11

CRAA430-433

CRAA430-433

CRAA430-433-

ISO18154

-LNG

-

2014

2

2015

20%

2014

10

5

3

2014 1 1

6

200

2015

30%

<http://news.ehvacr.com/news/2015/0128/94569.html>

Top↑

2 HFCs

2014 12 10

GWP

HCFCs

HFCs HCFCs

GWP

HCFCs

2007 9

19

HCFCs

, HCFC-22 HCFC-123

HCFC-124 HCFC-141b HCFC-142b

HCFC22 HCFC142b HCFC123

HCFCs

ODS

1992

HCFCs

3 HCFCs

2016

2013 HCFCs

10

2040

2030

HCFCs 2030

HCFCs

2013

R22 HCFCs

(2009 2010)

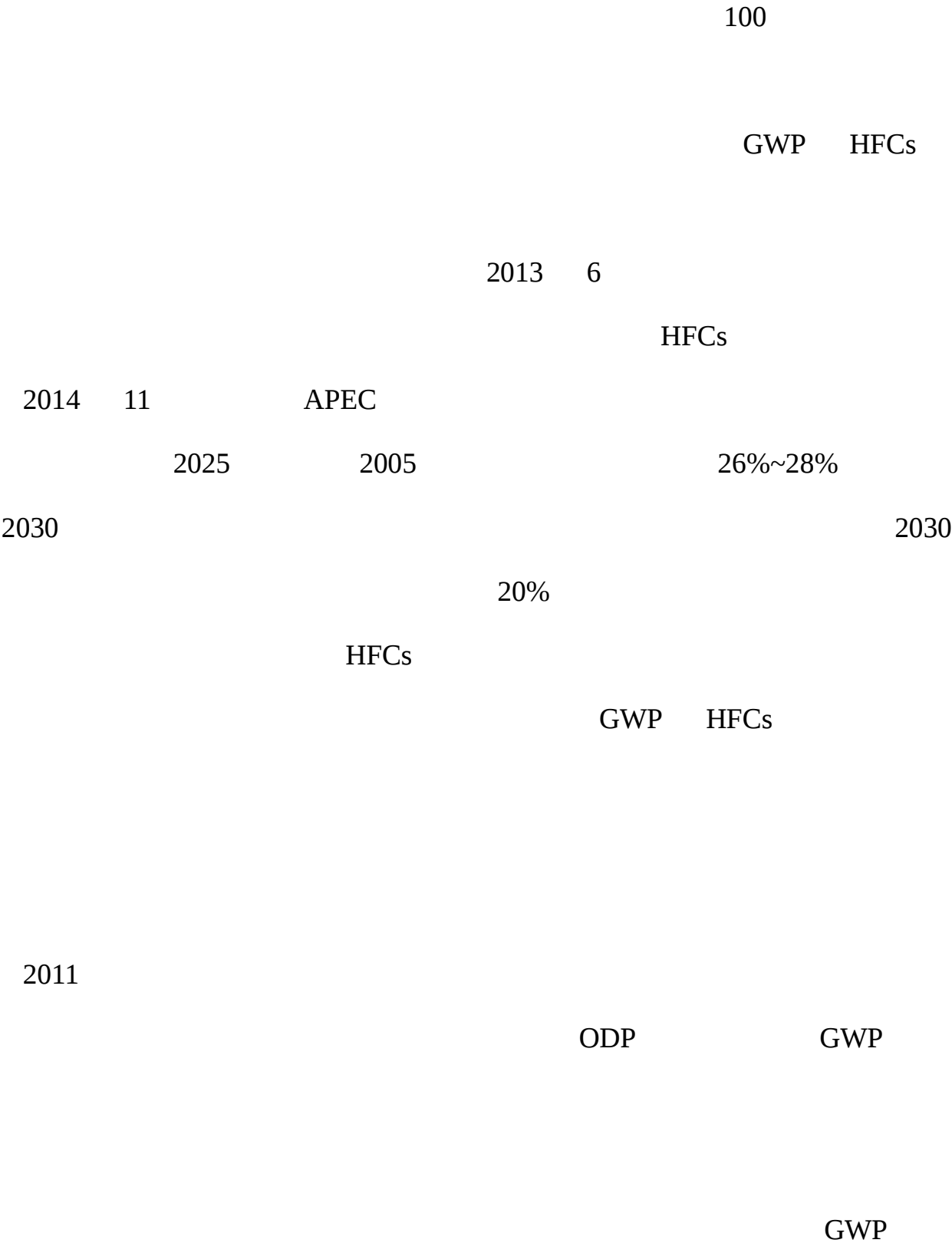
2015

10%

HCFC

8450

2020	2025	35%	67.5%	2030
	2.5%	2030	2040	
			"	HCFCs
HCFC			"	
			2014	11
12		HCFCs		
	25		3600	
7000	R22		15	24
		8000	R22	
			HCFCs	
2007		19		HCFCs
HFCs				
	ODS			
				HCFCs
		HFCs		
HFCs				
R134a	R410A	R407C	R404A	
2009				HFCs
				HFCs



<http://news.ehvacr.com/news/2014/1225/94255.html> Top↑

3

2012 41%

5

2012 165

2010-2012

;

;

2004

2011

2013

2013

2013

2

3

2009

2013

2012

4.5

<http://news.ehvacr.com/news/2015/0120/94466.html> Top↑

4

2014~2020

2005

2020

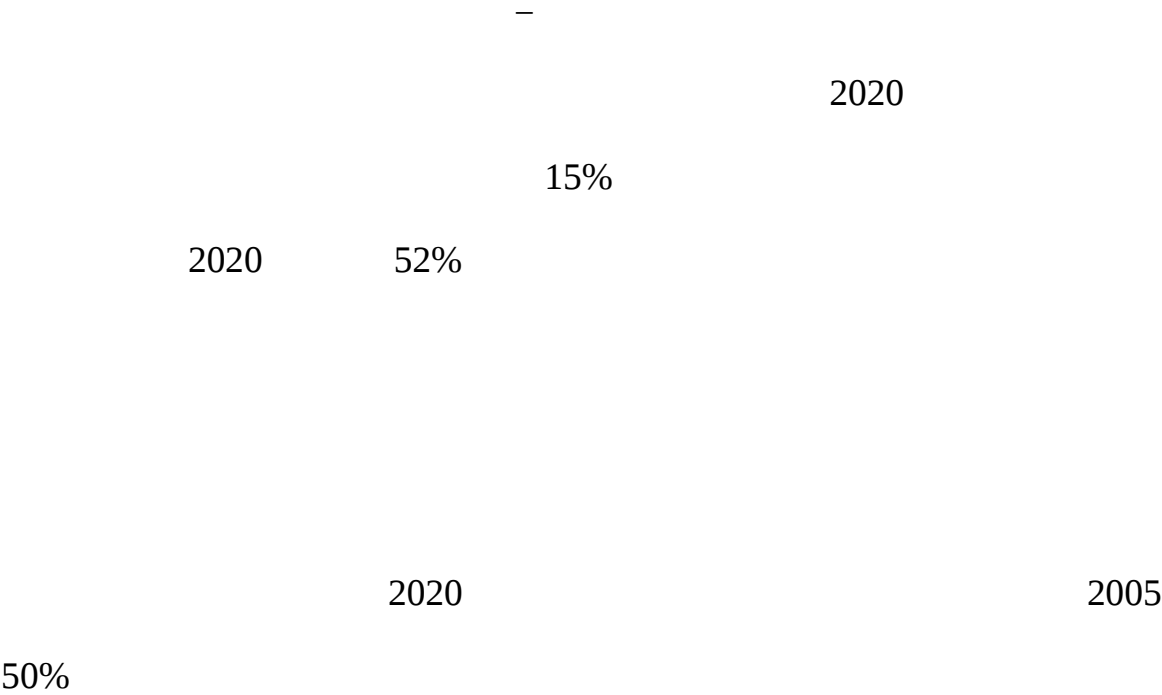
40%~45%

15%

2005

4000

13



—

<http://www.cinn.cn/xw/chanj/324780.shtml> Top↑

5

-15

-25

20

7

30%

-7

7 55%

30

100

<http://news.ehvacr.com/news/2015/0128/94567.html> Top↑

6

25%

25%

2017

4700

B2B

B2C

2012

4

80%-120%

2013

195%

1

<http://news.ehvacr.com/news/2015/0116/94433.html> Top↑

<http://news.ehvacr.com/news/2015/0116/94434.html> Top↑

8

330

330 /

2010

0.75

0.5 /

<http://news.ehvacr.com/news/2015/0106/94329.html> Top↑

1

1. ORC

2. ORC

3. ORC – ORC

ORC

ORC

ORC

1.

2. 30-40 1997

ORC

3.

ORC –

ORC

ORC

ORC

1.

2. ORC

ORC :

ORC

GE CAT

ORC

ORC

1.

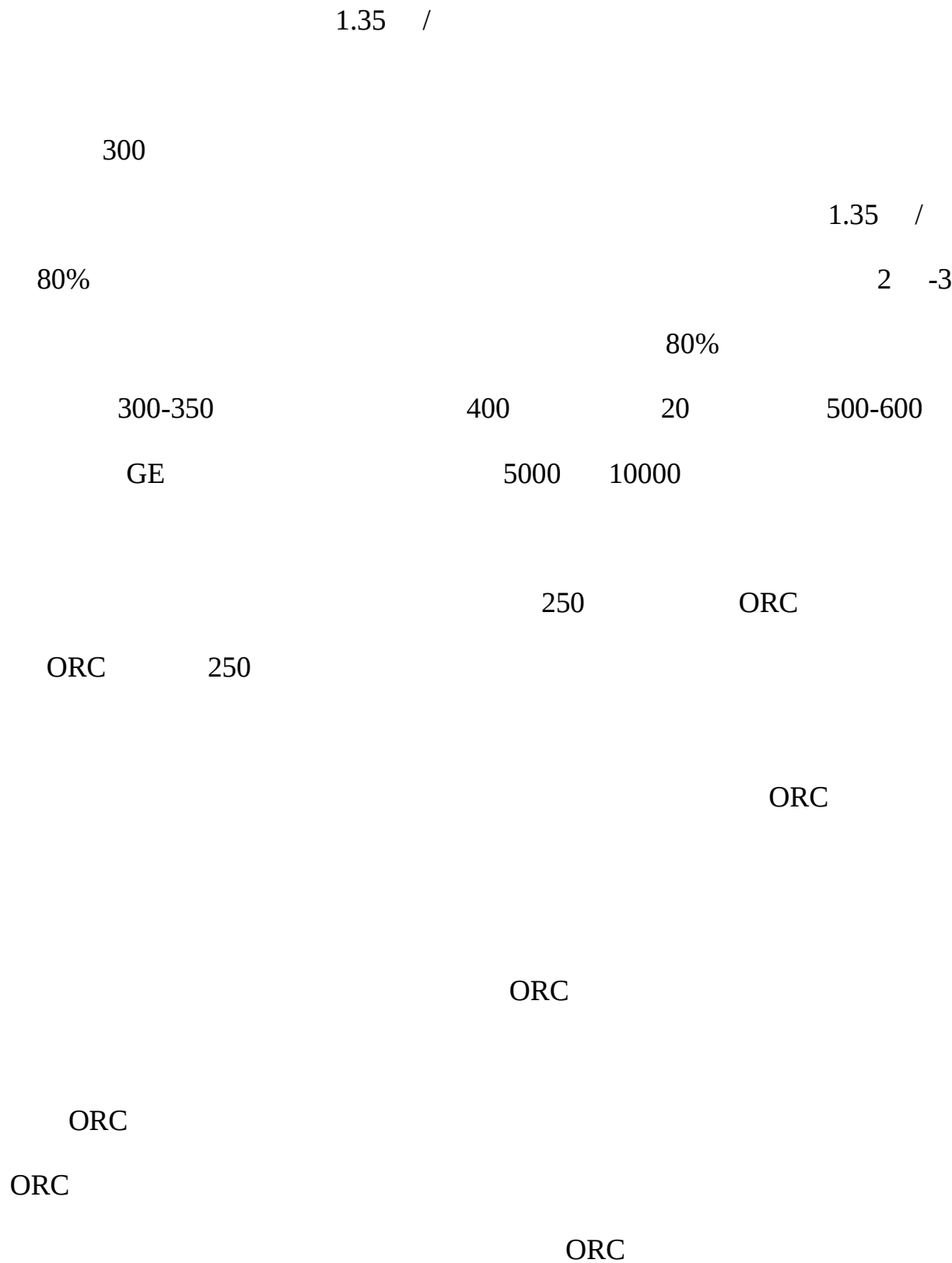
1.2 /

2.

3. ORC

ORC

1. ORC 75%-80% 15%



ORC

ORC

ORC

ORC

ORC

2014 11 Top↑

10 2015

IHS

2014

2014

2014

IHS

Ash Sharma

2015

--

IHS

2015

:2015

25%

2015

16%-25% 53GW 57GW

:

IHS 2015 CPV 37%

250MW

:

HIS 2015 4.7GW 2014

20%

:2015 775MW

:

IHS

1GW

:

	IHS	2015		27%
2014	24%			
:	100kW			30%
IHS			2015	100kW
	15.7GW	20154	13.2GW	
			70%	
			2015	2.2GW
:				
2015				
			EPC	
		1.4GW		
:				
2015			22	2015
	15GW		31%	
				7.6GW
:				
IHS	2015			10%

1.

--4GFC(Y)

ROADSTAR

ROADSTAR

SPHEROS

200 4GFC(Y)

SPHEROS

ROADSTAR

2011

100

Eberspächer S trak

2011

ROADSTAR

1,000 ROADSTAR

Eberspächer S trak

Wim Oud

ROADSTAR

Schkeuditz

ROADSTAR

4GFC(Y)

http://bao.hvacr.cn/201410_2051872.html Top↑

2. •

2014 11 26

http://bao.hvacr.cn/201412_2053375.html Top↑

3.

2014 8

XXXX

<http://info.hvacr.hc360.com/2014/11/171109539899.shtml>

Top↑

4.

?

19

4

;

12.66

1.29%

U+

U+

U+

TCL

1400		000651.SZ	2014
	1400.05	16.63%	
141.14		29.84%	

2015

1 9

360 CEO
360

360

<http://money.163.com/15/0131/01/AH8H73OT00253B0H.html> Top↑

6.

2 2

,

1% 2%

4

97

70%

<http://finance.eastday.com/c9/2015/0202/814218576.html>

Top↑

7.

10

+

+

160

<http://news.ehvacr.com/company/2014/1226/94263.html> Top↑

8.

50

50%

<http://news.ehvacr.com/company/2014/1224/94236.html> Top↑

9.

1 9

2014

2014 1

2012 , 2

<http://news.ehvacr.com/company/2015/0114/94414.html> Top↑

10.

ACDXHP 9 30

ACDXHP

--

<http://news.ehvacr.com/company/2015/0115/94425.html> Top↑

11.

20

20

20

MX

2014

MX7+

5%

IPLV

8.0

8.0

<http://news.ehvacr.com/company/2015/0129/94577.html>

Top↑

12.

2014 4

973

75 300

ORC

5-7

10-23

PM2.5

<http://news.ehvacr.com/company/2014/1124/93867.html>

Top↑

13. **FRIGOBLOCK**

2014 12 9 1 FRIGOBLOCK

2015

FRIGOBLOCK

FRIGOBLOCK 150 4100

FRIGOBLOCK

FRIGOBLOCK

Ray Pittard -FRIGOBLOCK

FRIGOBLOCK

FRIGOBLOCK

-

FRIGOBLOCK Peter Großkopf -

FRIGOBLOCK

FRIGOBLOCK

<http://www.compressor.cn/News/qyzc/2015/0112/76889.html> Top↑

14.

2015	1	5	Ingersoll Rand		
	Cameron			2015	1 1
		8.5			
			2013	4	
850		12		TURBO-AIR®	
MSG®					
—					
			Michael W. Lamach	—	

<http://www.compressor.cn/News/qyzc/2015/0108/76887.html> Top↑

15.

2015	1	11
------	---	----

11

200

2004

<http://www.compressor.cn/News/qyzc/2015/0106/76833.html> Top↑

17.

2015 1 14 1 16

—

<http://www.compressor.cn/News/qyzc/2015/0127/77186.html> Top↑

19. .

(Kalina)

— ()

;

(Kalina)

Energent

Energent

—

API

4

—
;

—

•

8 PTS916(1600)

;0 ; ;

0.5-10.3bar

37.4-45.7m 3min (BP) BASF

BASF BP

— .

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8

6

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4

— ()

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.

—Class Zero (-25 °C

50 °C)

ISO9001–ISO14001–OHSAS18001

.

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24

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PTS916(1600)

ZT55-10-50

ZT90-10-50 ZT145-10-50

· (24/7)

· ()

· ()

· (Downtime)

· (•)

· ()

· (•)

)

.

Top↑

EKOL

$$\left(\begin{array}{c} - \\ \end{array} \right)$$

-EKOL)

100%

75%

25%

EKOL

EPC

1991

EPC

70%

30

<http://www.compressor.cn/News/qyzc/2015/0125/77133.html> Top↑

22.

2013 1600 2022

3 2.5KM

3500

BLT

20m 3min 40m 3min 10

10

!

<http://www.compressor.cn/News/qyzc/2015/0128/77272.html>

Top↑

23.

SOGEVAC SV630B/750B

CE

<http://www.chinesevacuum.com/ShowArticle.aspx?id=47956&pid=39>

Top↑

24.

2015 1 15

(Pfeiffer_Vacuum)

125

2015

125

(Pfeiffer_Vacuum)

<http://www.chinesevacuum.com/ShowArticle.aspx?id=47017&pid=39>

Top↑

26.

SVF-E0-50

MOCVD

SVF-E0-50

VPSA

10

24V

20L/min-50L/min

<http://www.chinesevacuum.com/ShowArticle.aspx?id=47249&pid=39>

Top↑

1.

2014 10 31

2014

()

()

()

500

COP

;

2009

2010

<http://info.hvacr.hc360.com/2014/11/040846538901.shtml>

Top↑

2. 2014 : ,

--

, 7.68 ,

23.65%, 1.38 , 33.51%

0.56 2014 5%~35%,

, 1-9 , 19.35%,

,1-9 4.58%, 8.15%, 4.88%

9.08% , 34.44%, 35.61%

1-9 1.89 ,

7600 , 66.6%; 1.51 , 2000 ,

, 1-9

40%, ,

30%

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8.5 ，

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10

！ 5%~35%，

2014~2016 0.76 0.94 1.1 (

), PE 25.6 20.9 17.8

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<http://finance.qq.com/a/20141105/053257.htm> Top↑

3.

2014 10 9557

6.6% 1.26 7.8%

13228 / 1.1%

2014 12 18

2014

2014

2014