emily_huai@hanbell.cn
ir@hanbell.cn
021-51365368

1. 2014
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

3

2014 3

22 4 1

LNG 9

6 10 9 17

39

4000 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

4.0

(Cisco) 2015

250 (Intel) 2015

150 2020 2,000 67.8%

(McKinsey Global Institute) 2025

6.2

4.0 (Industry 4.0)

4.0 2013 4

4.0

(Industrial

Internet) (GE)

GE

15 1% 300

15 1% 630

GE 2015

10

GE

Azure

(Industrial Internet Consortium

IIC)

(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

27 (Moxa)

(IA) (IT)

I/O (Device Connect)

(Network Connect)

Moxa

5 Device Connect

Network Connect IT

J9sy7C3yzQ0

1980 PC 1995 2010

MIC 2015 179.88

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

http://news.ehvacr.com/news/2015/0106/94319.html Top↑

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

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

200

21

10

2013 3% 10

3.9%

30.1%

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↑

17

( )

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

6

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)

– ‖

– ‖

– ‖ – ‖

– ‖ –

‖

– ‖

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/hykx/2014/1203/76294.html Top↑

28

http://www.compressor.cn/News/hykx/2014/1125/76164.html Top↑

29

11 27

32

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

– ‖

– ‖

– ‖

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–　‖

– ‖ – ‖ WTO

– ‖

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http://www.chinesevacuum.com/ShowArticle.aspx?id=47221&pid=39 Top↑

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

http://www.chinesevacuum.com/ShowArticle.aspx?id=47395&pid=39 Top↑

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

‖–

‖

25 30

1/3

3 25

30%

– = ‘

‖

90% 95%

–

‖

– ‖

– ‖–

‖

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

‖

180 120

220 60

90 48

3.79G 10G

10G 12G

–

‖

9 10

– ‖

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

1 2014

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

100

GWP HFCs

2013 6

HFCs

2014 11 APEC

2025 2005 26%~28%

2030 2030

20%

HFCs

GWP HFCs

2011

ODP GWP

GWP

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

– ‖

2020

15%

2020 52%

2020 2005

50%

– ‖

–

‖

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↑

7

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

8

330

330 /

2010

0.75

0.5 /

10 2014

2013 850 370

100

2012 2015

1300 780

2430

2015

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

9 ORC

(Organic Rankine Cycle ORC)

( )

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%

2. 70%-80% ORC 3 /

0.7-0.8 / ORC 2-3

ORC 150

260

ORC

1

ORC

9 4

2

25%-30%

40%-50% 1000 kw

3

1.35 /

300

1.35 /

80% 2 -3

80%

300-350 400 20 500-600

GE 5000 10000

250 ORC

ORC 250

ORC

ORC

ORC

ORC

ORC

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%

http://pv.semi.org.cn/a/grid/snec_editcommend/24883.html Top↑

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

10

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

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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 ³/min (BP) BASF

BASF BP

– .

.

8

6

‖

•

4

—— ( )

• •

.

.

–Class Zero‖ (-25 ℃

50 ℃)

ISO9001–ISO14001–OHSAS18001 ·

.

24

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PTS916(1600) ZT55-10-50

ZT90-10-50 ZT145-10-50

· (24/7)

· ( )

· ( )

· (Downtime)

· (•)

· ( )

· (•

)

.

http://www.compressor.cn/News/qyzc/2015/0123/77139.html Top↑

20. EKOL

1 22 (– ‖)

EKOL spol.s.r.o.(–EKOL‖)

EKOL 100%

EKOL 75%

EKOL 25%

EKOL

EPC

EKOL 1991

EPC

70%

30

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

22.

2013 1600 2022

3 2.5KM

3500

BLT

20m³/min 40m³/min 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%

,

,

, , ; ,

,

,

8.5 ,

( ) , ; , ,

10

! 5%~35%,

2014~2016 0.76 0.94 1.1 (

), PE 25.6 20.9 17.8

,

: , ;

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