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1978 17.92%

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35

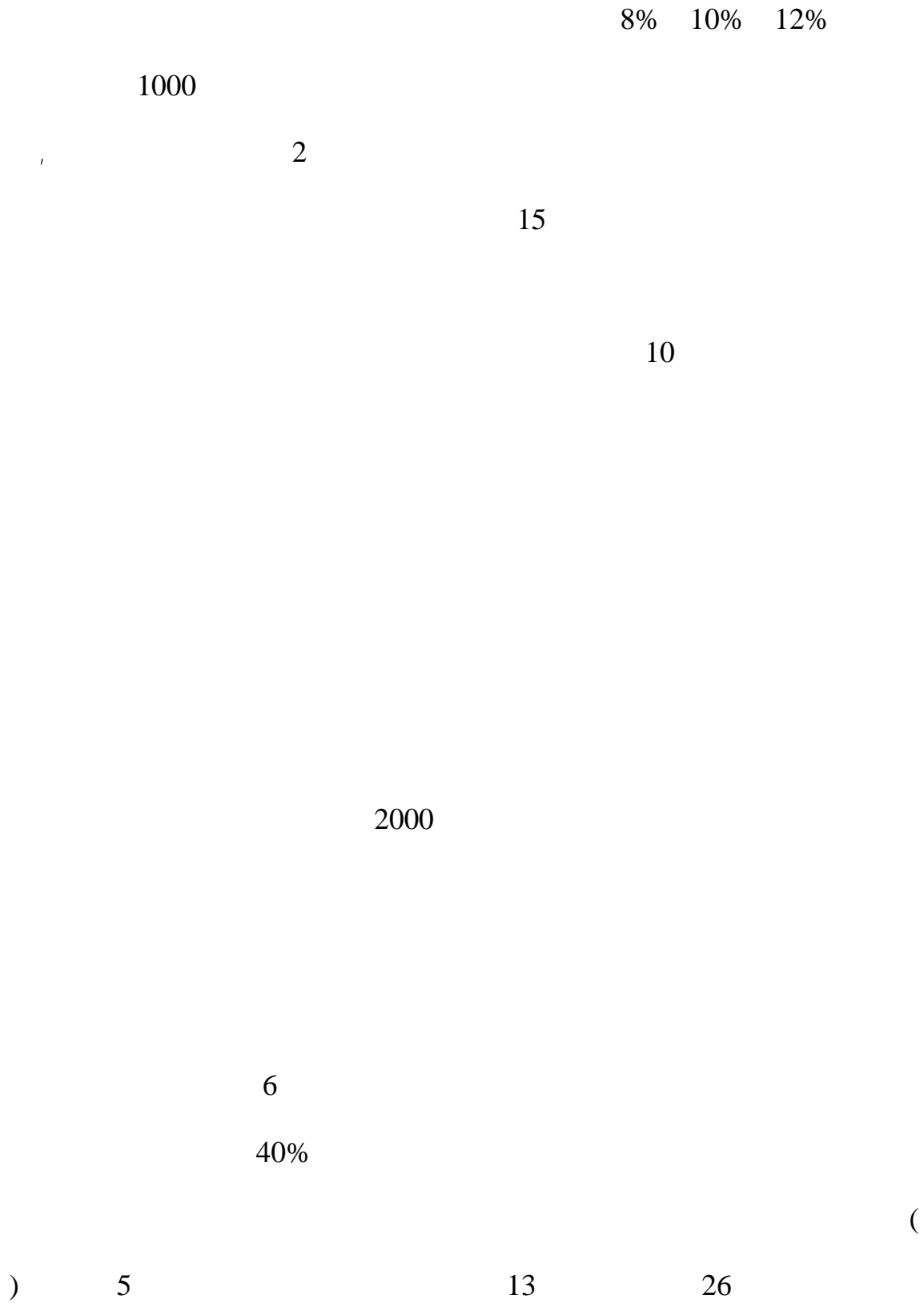
45%

2050

95%

85%

70



<http://news.ehvacr.com/news/2015/0427/95149.html>

| | | | | | | | |
|-----|------------|---------|-------------|-----------|---|-------------|--------|
| | | 1 | | 1 | | | |
| | 2016 | HCFCs | | | 5 | | |
| | (HCFC-22) | | (HCFC-141b) | | | (HCFC-142b) | |
| | (HCFC-123) | | (HCFC-124) | | | | |
| | 10% | | 2016 | HCFCs | | | |
| | | HCFC-22 | HCFC-141b | HCFC-142b | | | 274 |
| 279 | 66313 | 22845 | | 2016 | | HCFCs | |
| | | | | | | (2009 2010 | |
| |)35% | | | | | | |
| | | | | | | | 2015 |
| | | | 2016 | HCFC-22 | | | 67 059 |
| | 2015 | 8.83% | | 2016 | | HCFC-141b | |
| 2 | 665 | 2015 | | 27.25% | | | |
| | | | | | | (HFCs) | |
| | | | | | | TCL | |
| | | | | | | R290 | |

| | | | | | | | | |
|-------|------|------|------|------|--|------|------|-------|
| 2015 | R22 | | | | | | | |
| 1 | R22 | | | | | | | |
| | HCFC | 1 | 1 | | | | 2 | |
| | HCFC | | | | | | | |
| 2 | R22 | | | | | 10% | | |
| 2 | 25 | | 2015 | | | | | |
| 10% | | 2015 | | R22 | | | 10% | |
| | 9193 | | | | | 57 | | |
| 3 | | | | | | | | |
| | 2 | 25 | | 82 | | 2015 | | |
| | | | 10% | | | | | |
| 2030 | | | | 2015 | | 10% | 2025 | |
| 67.5% | 2030 | 2040 | | | | | | 15 |
| | R22 | | | 27.4 | | 14 | | 11%; |
| | | 26 | R22 | 1.4 | | 14 | 1.9 | |
| 4 | | | | | | | | |
| | | | | | | | | (HFC) |
| (ITC) | | | | | | | | |
| 5 | | | | | | | | |

7 16

(HFC)

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6

HCFC-22

2015 11

(FECO)

2015

(HCFCs)

2015

(HCFC-22)

FECO

4 HCFC-22

<http://www.hvacinfo.com.cn/List.asp?C-1-19995.html>

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2016 2 16

F-

Miguel Arias Canete

90%

1%

F-

F-

10

CO2

CO2

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2016

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2016

BUILD UP

<http://www.hvacinfo.com.cn/List.asp?C-1-20317.html>

5 2015

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GB/T50378—2006

2015 3

2014 7 29 497

JGJ343—2014 2015 3 1

5.3.2

2015 3

2014 9 1 539

CJJ/T223—2014 2015 3 1

2015 4

2014 7 31 505

JGJ/T347—2014 2015 4 1

2015 4

2014 7 31 507

CJJ200—2014 2015 4 1

1.0.5 4.2.6 11.1.3 14.9.11

2015 5

2014 10 20 599

JGJ/T285—2014 2015

5 1

2015 6

2014 11 5 621

JGJ/T346—2014 2015 6 1

2015 4

2014 9 29 568

JG/T448—2014

2015 4 1

<http://news.ehvacr.com/news/2015/0424/95143.html>

6

HCFCs

2015 4 23

HCFCs

1.5 HCFC-141b

2015

HCFCs

10%

2014

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HCFCs

5 HCFCs

HCFCs 58,864 8.8 /

HCFCs

HCFCs

<http://news.ehvacr.com/news/2015/0427/95161.html>

7

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55%

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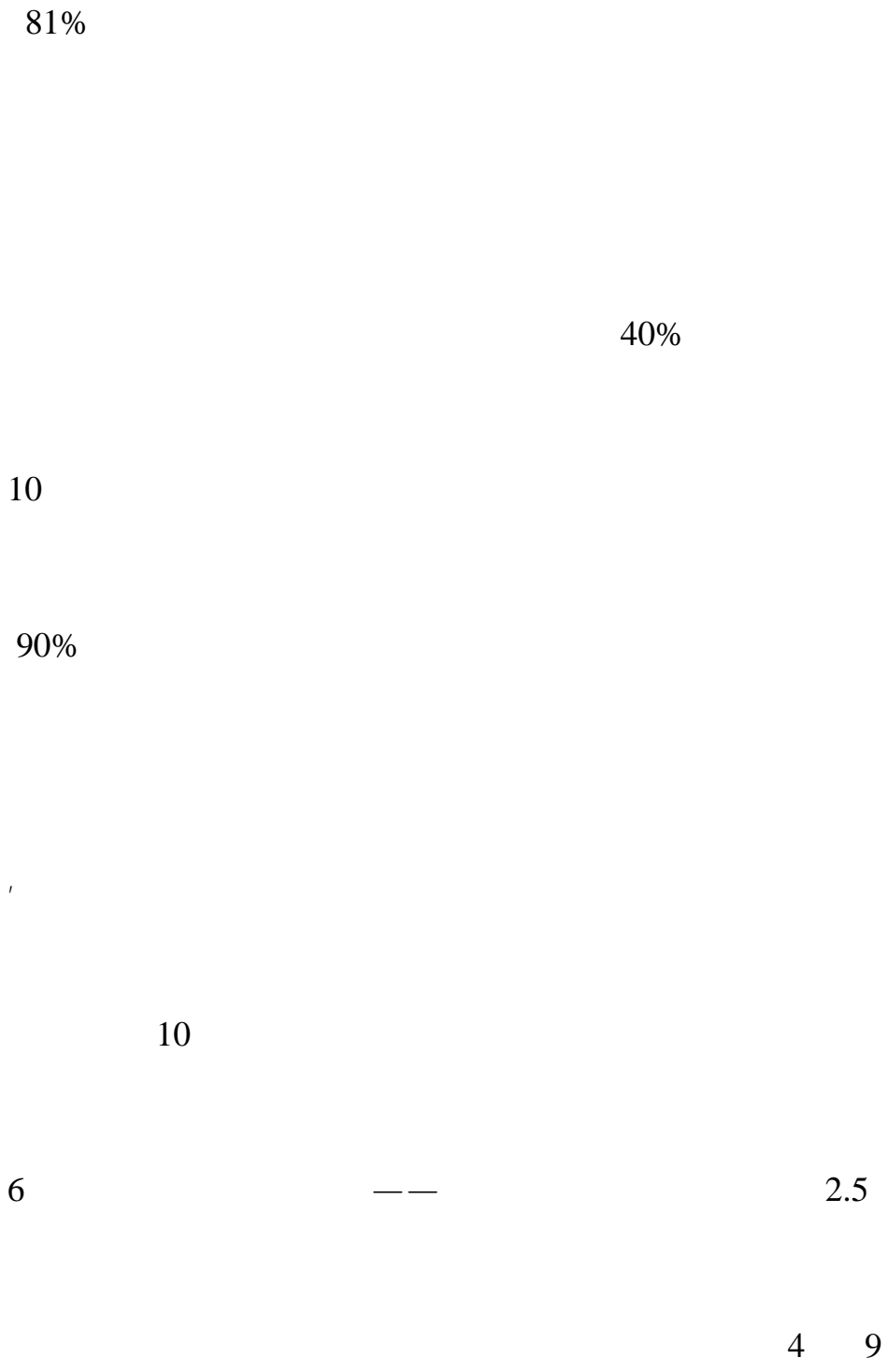
IPLV 13.18

1500 IPLV 12

200~800

2200

2014



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GB29540

GB/T18362

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(www.energylabel.gov.cn)

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<http://news.ehvacr.com/news/2015/0420/95083.html>

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<http://news.ehvacr.com/news/2015/0331/94949.html>

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2020 3.4% 2030

2.3%

<http://news.ehvacr.com/news/2015/0323/94878.html>

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<http://news.ehvacr.com/news/2015/0326/94909.html>

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|------|------|------|------|-----|
| | | 2015 | | 560 |
| 2018 | 1283 | | | |
| | | 2014 | 4000 | 1% |

2016



2010

1

67%

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<http://www.hvacinfo.com.cn/List.asp?C-1-20223.html>

13

2020

10%

13%

2020

9%

<http://www.hvacinfo.com.cn/List.asp?C-1-20403.html>

14

2020

50%

2 17

2020

30

50% 2030

2020

2020

30

50%

2030

65

PPP

<http://news.ehvacr.com/news/2016/0218/97872.html>

15

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COP 2.0W/W

R134a

R134a

R134a

COP 3.4W/W R134a

R134a

1.2

1.5%

2009

200L

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(DemandResponse)

37%

82%

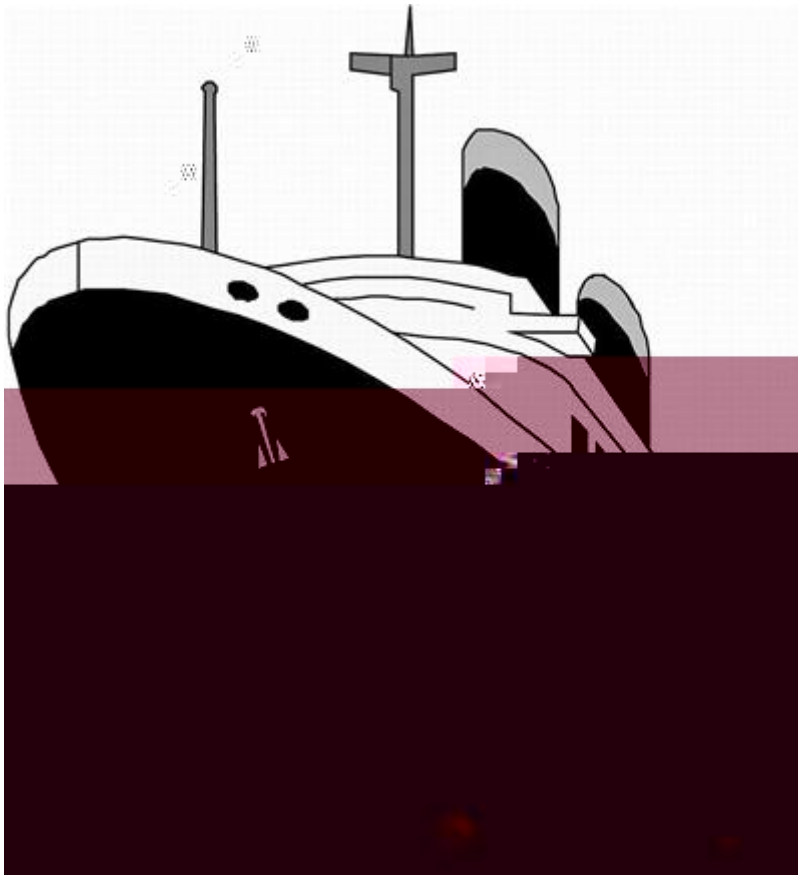
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2017



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300

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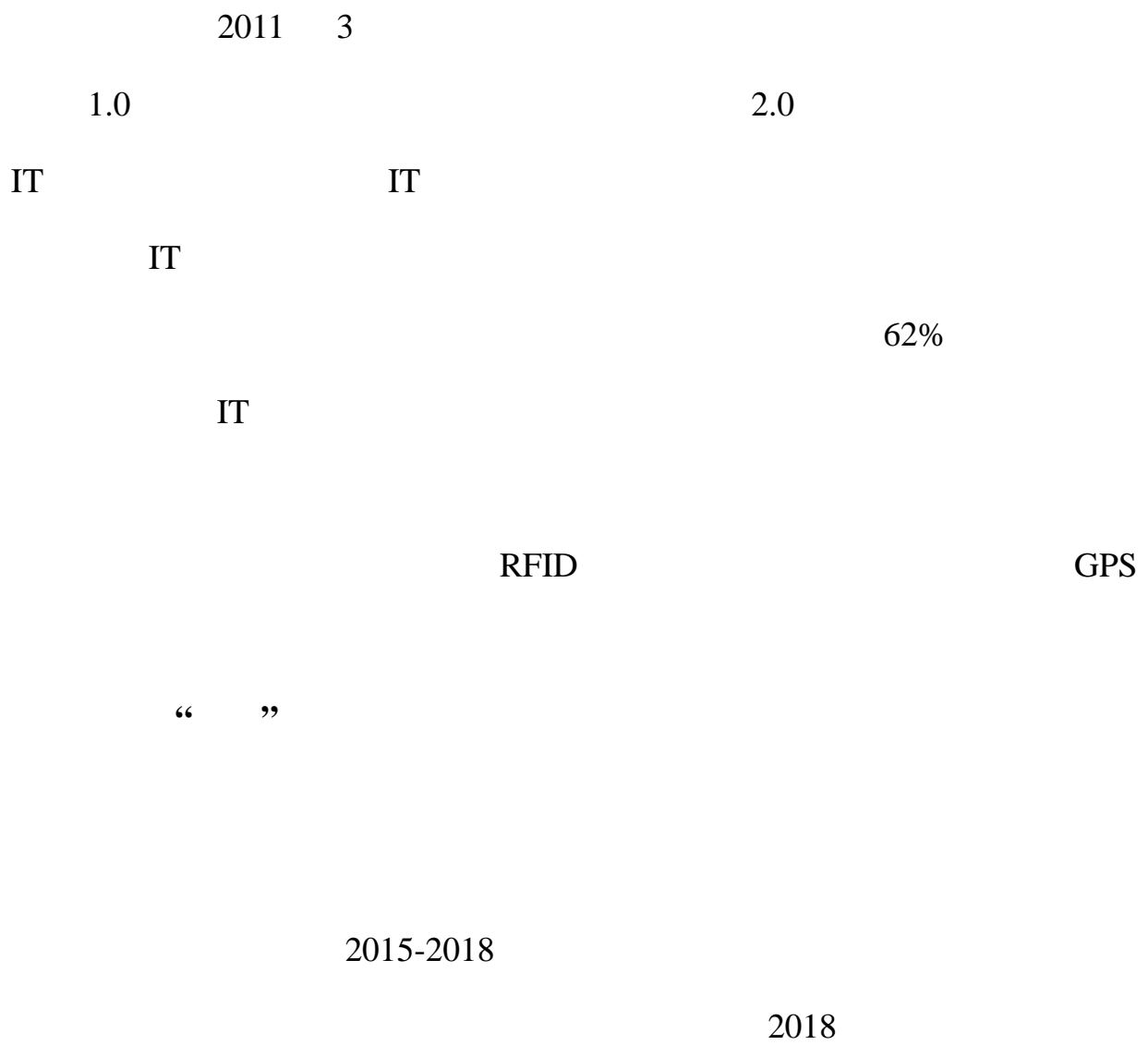
70%

10%

2015

“ ”

IBM



2015

CAD

TRIBON

PSPC

IBS

IBS

70

IBS

IMO

2025

2025

<http://www.compressor.cn/News/scdt/2016/0229/83168.html>

18

3

<http://www.compressor.cn/News/hyqx/2016/0311/83362.html>

19

2025

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2025

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28

<http://www.compressor.cn/News/hyqx/2016/0307/83285.html>

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2015

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JNP6123BEV

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CAN

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<http://www.compressor.cn/News/hyqx/2016/0106/82401.html>

21

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2020 20%

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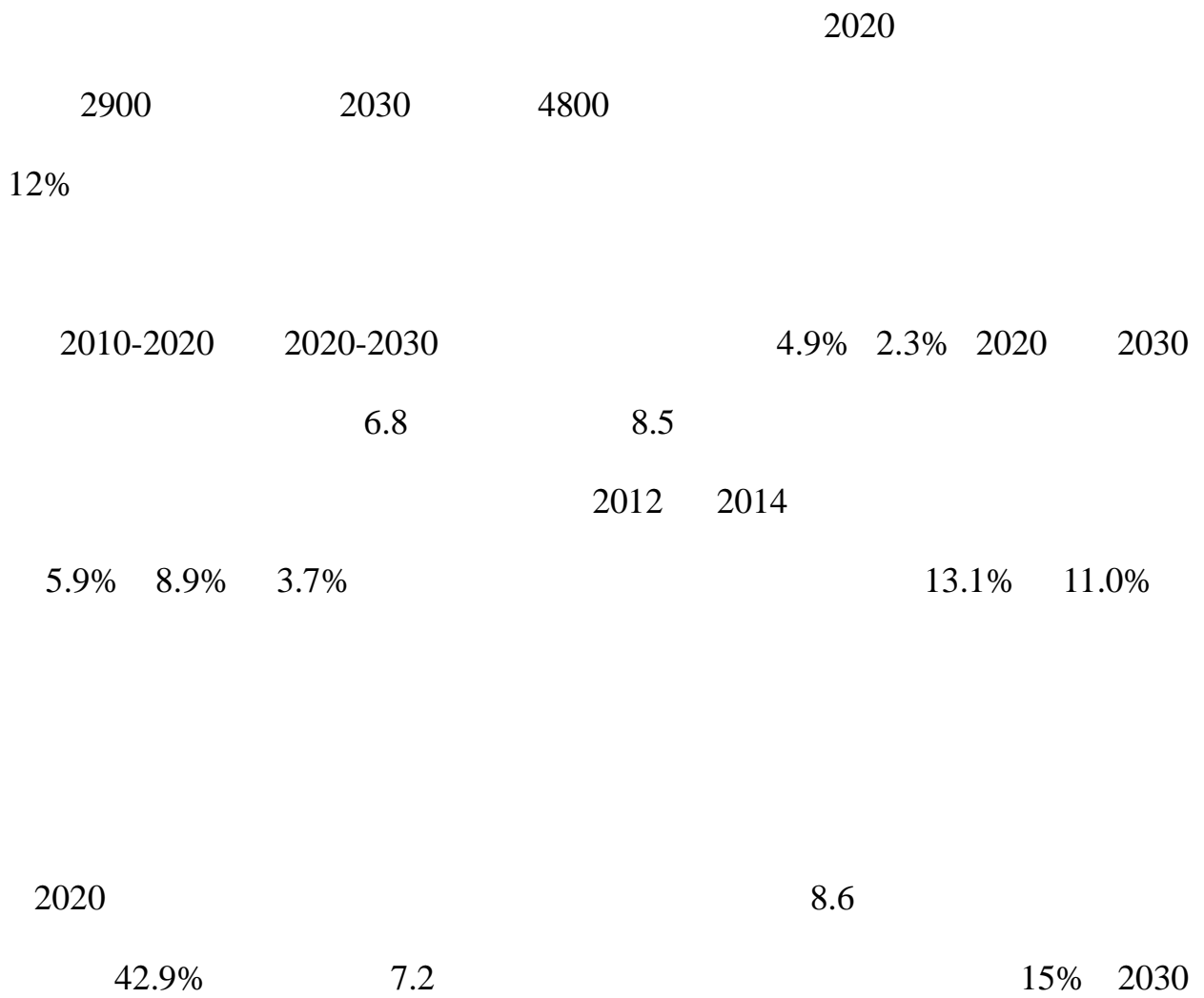
PC

<http://www.chinesevacuum.com/ShowArticle.aspx?id=52216&pid=39>

24

| | | | | | | |
|------|------|------|----|------|----|-----------|
| | 3 | 1 | | 2030 | | 2020 |
| 2030 | | | 48 | | 53 | 2016-2030 |
| | 1.4% | 2030 | | 3.9 | | 2014 |

| | | | | | | |
|------|-------|------|--|----|----|---|
| | 2020 | 2030 | | 41 | 43 | |
| 2016 | -2030 | 1.1% | | | | % |



| | | | | | |
|------|-------|-----------|----------------------|------|------------|
| | 14.4 | | 60% | | 11.7 |
| | 22% | 2020-2030 | | 90% | |
| | 2020 | | | 3.8 | |
| 1.3 | 2030 | | 4.5 | | 1.45 |
| | | 2030 | | | 2014 |
| | 18.8% | 16.9% | | | |
| | | | 2020 | | |
| 5300 | | 3800 | | 2015 | 2.2 |
| | 5.6% | 2030 | (7.200, 0.29, 4.20%) | | 1.36 |
| | 10000 | 2020-2030 | | 1.6 | 11.8% |
| | | | | | |
| 2020 | | 2.5 | | | 12.5% 2030 |
| | 4.5 | | 18.8% | | 9000 |
| | 10.6% | | | | |
| | | | | | |
| | 2020 | | 1.6 | 2014 | 5.4 |

| | | | | |
|------|------|------|----|-------|
| | 8% | 2000 | | 3% |
| 2030 | | 3.5 | | 14.6% |
| | 4200 | | 5% | |

<http://www.chinesevacuum.com/ShowArticle.aspx?id=52067&pid=39>

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2016-2021

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<http://www.chinesevacuum.com/ShowArticle.aspx?id=52055&pid=39>

26

2013 8

0.56 /

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Mlex

70

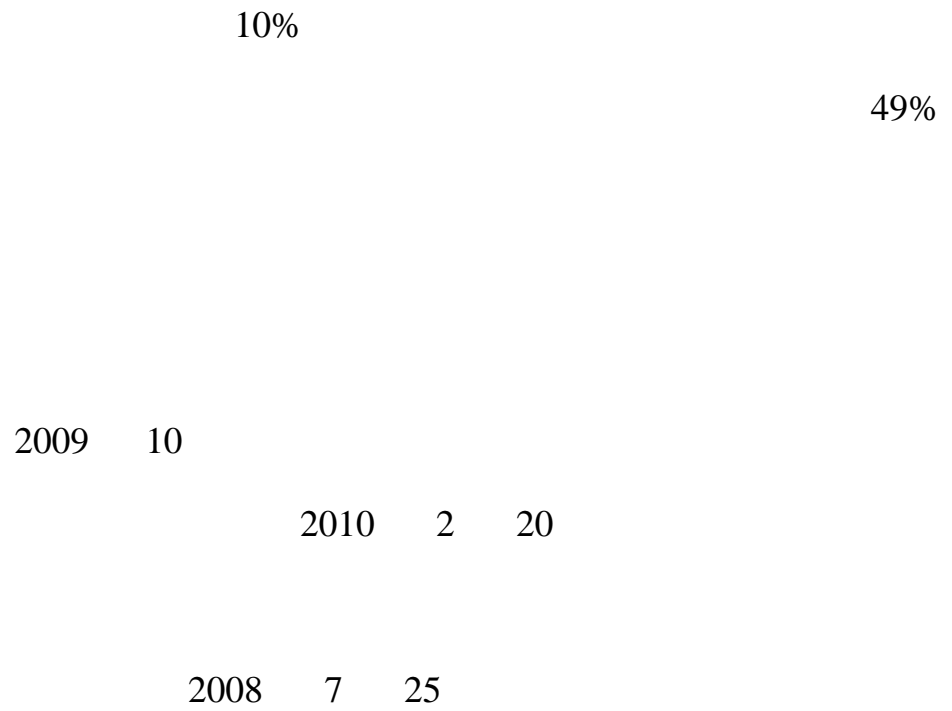
SOLAR WORLD

1/3

2000

2008 5

28



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WTO

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<http://www.chinesevacuum.com/ShowArticle.aspx?id=51816&pid=39>

27 2015

CSPPLAZA

2015

2014

421.1MWe

4940.1MWe

9.3%

160MW

2015

NOOR1

2015

12 27

2015

2015

100MW

KaXuSolarOne

2015

3

2

50MW

| | | | | |
|----------|---------------|----------------|-------|--------------|
| Bokpoort | 2015 | 12 | | REIPPPP |
| 50MW | Khi Solar One | | 2016 | |
| REIPPPP | 100MW | Xina Solar One | | 100MW Ilanga |
| CSP 1 | REIPPPP | B | 100MW | Kathu CSP |
| 100MW | Redstone | | | |
| | 110MW | | | |
| | 2015 | | | |
| | | 2015 | | |
| 2015 | | 300kWth | | |
| | 863 | | | |
| 1.5MWth | | | 800 | |
| | | 10MW | | 10MW |
| | | 15MWe | | |
| 10MW | | | | |
| | 2015 | 4940MW | | |
| | 2015 | | | |
| | | 2016 | | |
| | 2016~2017 | | 2018 | |
| 2016 | 10MW | | | 10MW |
| | | 15MWe | | 20MWe |
| | 10MW | | | |
| 2017 | 50MW | | | |

2018 1GW

<http://www.chinesevacuum.com/ShowArticle.aspx?id=51803&pid=39>

1

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2011

——— 1.2 2011 2012 3

7435.66 2011 61% 4

4600

2012

2011

30%

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3 2

1.5 3

900 1200 /

100 300 400 5

1400 1800 /

2 4 5

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|---------|------|------|------|-----|
| | | | 2011 | |
| ——— 1.2 | 2011 | 2012 | 3 | |
| 7435.66 | 2011 | 61% | 4 | |
| 4600 | | | | |
| 2012 | | | | |
| | | 2011 | | |
| 30% | | | | |
| 2012 | | | | |
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| 2012 | | | | |
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| 20% | | | | |
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| | | 3 | | |
| 2 | | | | 1.5 |
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2015 11 25

5 HCFCs

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| | | | 5 | 50 |
| 50-100 | 100-200 | 200-400 | 400 | |

7

2015 6 GB/T17791-2007

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2015 10 1

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2015

<http://www.hvacrinfo.com.cn/List.asp?C-1-20186.html>

3 2015

2015

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(2016-2020)

2015 12 17

2020

2015 09 29

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2015 8 19

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(2015-2020)

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<http://www.hvacinfo.com.cn/list.asp?C-1-20205-2.Html>

4 2015

2015

2025



2015

| | | | | | |
|------|------|------|------|------|-------|
| | | 2015 | | 2015 | |
| | 1000 | | 2626 | | 99663 |
| 2014 | | 28% | 42% | 100 | |
| | 26 | | | | 1178 |

8 26 120

8 31

30 70

3 3000

450 10

2015

+

12 20

2016 1 1

<http://www.hvacrinfo.com.cn/List.asp?C-1-19716.html>

5

AirCompressor

| 表1 行业生命周期主要特征在表 | | | | |
|-----------------|-------|------|---------|-------|
| | 初创期 | 成长期 | 成熟期 | 衰退期 |
| 市场需求 | 狭小 | 快速增长 | 缓慢增长或停滞 | 缩小 |
| 竞争者 | 少数 | 数目增加 | 许多对手 | 数目减少 |
| 顾客 | 创新的顾客 | 市场大众 | 市场大众 | 延迟的买者 |
| 现金流量表 | 负的 | 适度的 | 高的 | 低的 |
| | 高风险 | 高风险 | 低风险 | |

1999

2000-2010

2011

1999

2000

2011

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SCAD

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GHH

ROTORCOMP

TAMROTOR

GHH

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| 表2 空气压缩机行业及其主要子行业成熟度分析 | | | |
|------------------------|-----|-----|-----|
| 空气压缩机分类 | 容积型 | 动力型 | 热力型 |
| | 成熟 | 成熟 | 一般 |

2013

76

2014

244

3%

10%

2015

2016

1

2

1

20%

1 2

2

70%

<http://www.compressor.cn/magazinearticle/2016/0225/83104.html>

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2013

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2013

40

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<http://news.ehvacr.com/news/2015/0423/95125.html>

1

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ZW

<http://www.chinahvacr.com/hyzxnews/show.php?itemid=3131845>

2 :

2016 3 7

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(15.980 -0.02 -0.12%)

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<http://www.chinahvacr.com/hyzxnews/show.php?itemid=3132015>

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1 23

AHRI CEO Stephen Yurek

COO John Lanier

AHRI

AHRI

AHRI

EnergyStar

AHRI

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AHRI

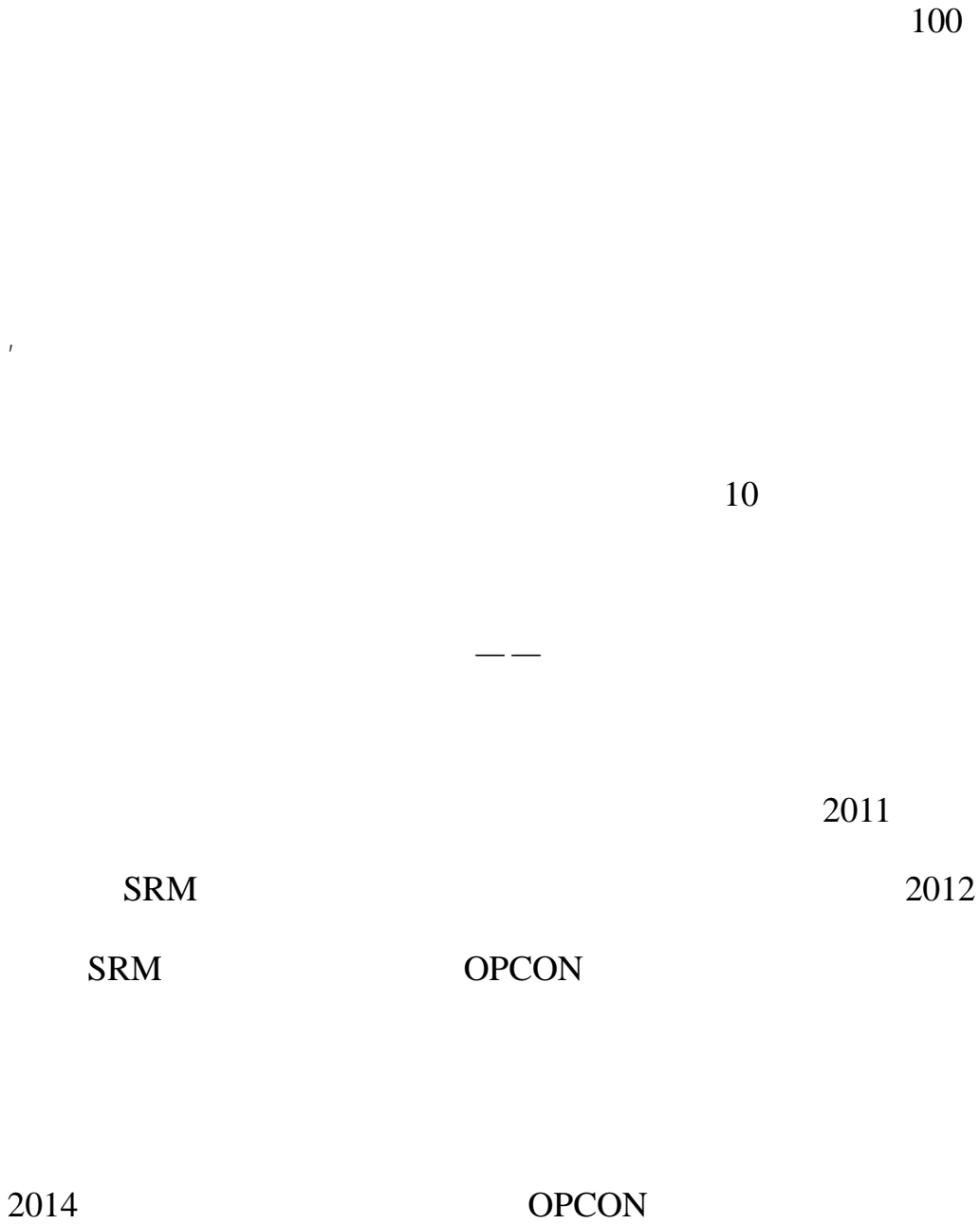
AHRI

<http://www.chinahvacr.com/hyzxnews/show.php?itemid=3131856>

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(AHR EXPO)



3000

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140

<http://www.chinahvacr.com/hyzxnews/show.php?itemid=3131857>

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40% 30%

30%

70%

2015

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2020

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2009

24%

Microstaq

MEMS

Microlux

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2016

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2016

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ZL201320303178.4

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2016 3 17

<http://www.compressor.cn/News/qyzc/2016/0318/83532.html>

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<http://www.compressor.cn/News/qyzc/2016/0122/82654.html>

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ISO9001

ISO14001

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<http://www.compressor.cn/News/qyzc/2016/0309/83328.html>

10

2015

2016

<http://www.compressor.cn/News/qyzc/2016/0316/83473.html>

11

OGFDS

OGFDS

1200

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<http://www.compressor.cn/News/qyzc/2016/0302/83216.html>

12

2016 2 23

836517

<http://www.compressor.cn/News/qyzc/2016/0228/83153.html>

13

| | | | | | | | |
|---------|---------|---------|------|------|--|--------|--------|
| | | | 2005 | 3 | | 2016 | 1 |
| | | 2015 | 1-10 | 2014 | | 2013 | |
| 5560.64 | 6175.71 | 5377.44 | | ; | | 408.69 | 185.23 |
| -269.04 | | | | | | | |

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<http://www.compressor.cn/News/qyzc/2016/0214/82943.html>

14

2016

30%~40%

.....

<http://www.compressor.cn/News/qyzc/2016/0225/83083.html>

15

3 15

969

4749

ONE STOP WAREHOUSE PTY LTD 51%

OSW

986.07%

2 27

| | | | |
|------|------|------|--------|
| | 2015 | 81 | 200.8% |
| 6.44 | | 6.25 | |

OSW

OSW 4

11 OSW

4514.5 178

12

2016

2

EPC

1GW 2016

300MW

http://www.semi.org.cn/pv/news_show.aspx?ID=17739&classid=12

John Munck

Andries Desiron Mark S. Taylor Glenn Vinck Joeri

Coeckelbergs Jens Boeckx Werner De Bruyn

(GHS VSD+)

2015

Ronnie Leten

Peter Wallenberg

Tomas Lundin Tylong Li Stephen Chen Lancer Chen

John Munck

1991

Peter Wallenberg

1996

2016 4 26

<http://www.comvac.cn/qydt/qykx/2016/0229/50407.html>

QSV

QSV

VSD

QSV

50%

QSV

QSV Airlogic®

<http://www.comvac.cn/qydt/qyqx/2016/0106/50221.html>

1

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2016-02-03

2 3

002158

2015 1-12

8.9

10.12%

-5.13%

8.75%

1.58

13.65%

-4.68%

36.66%

88,960.37

10.12%

17,714.88

15.14%

15,831.25

13.65%

19.16%

9.41%

<http://mt.sohu.com/20160202/n436688039.shtml>

2

2012 8

2015

2015

2016-02-29



2012 8

2015

2015

2016 3 3

<http://cxjs.newscn.com/a/2016-02-29/327697.html>