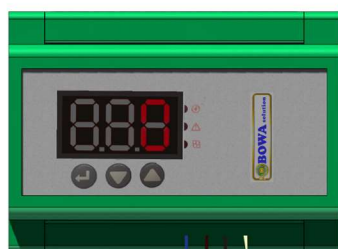
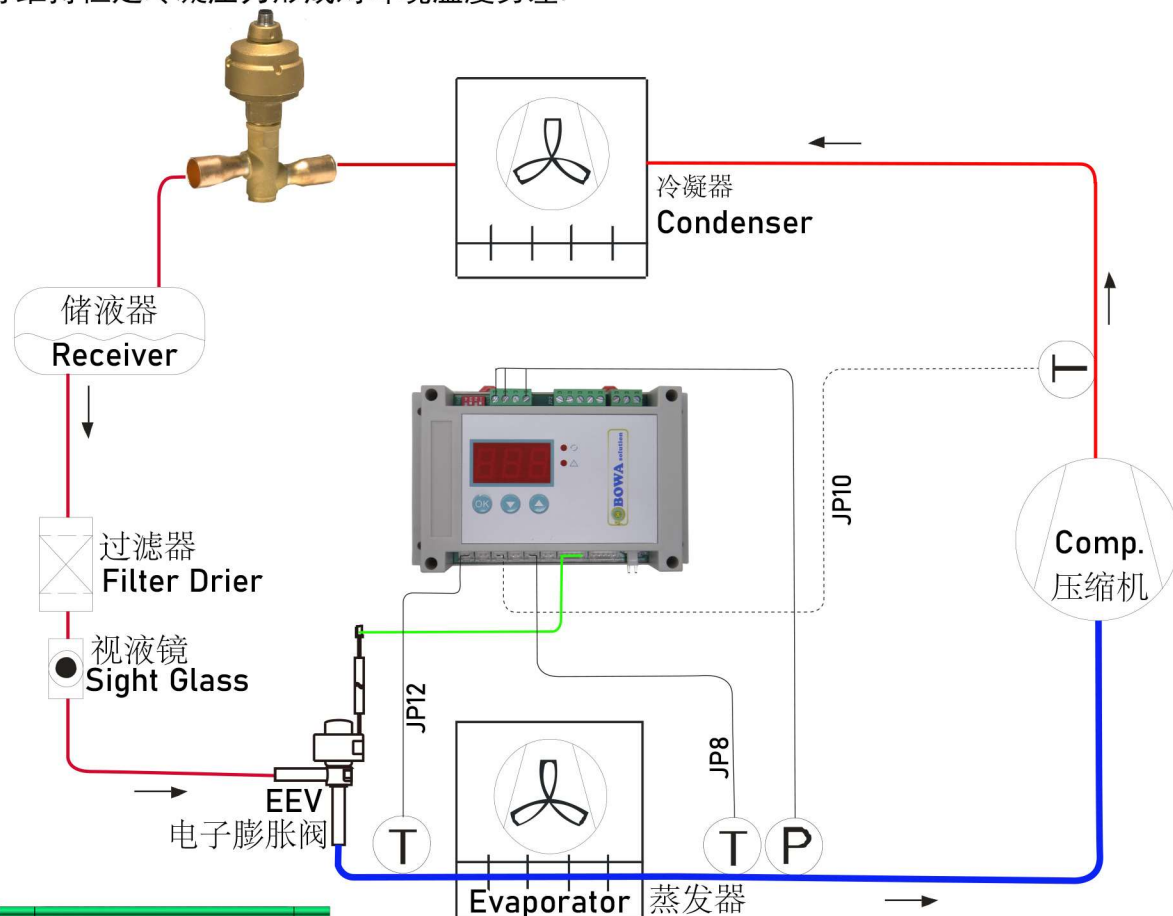


CBD electric head pressure (condensing pressure) regulator is used to maintain a constant and sufficiently high condensing pressure and temperature in heat pump dehumidifiers, refrigeration and air conditioning plant with air-cooled condensers.

CBD电动冷凝压力调节器或压头阀用于热泵干燥除湿系统，风冷制冷和空调设备等维持恒定冷凝压力形成环境温度势差。



## Model designation 型号说明

**CBD - 0.5**

阀类型  
Valve type

名义kV流量  
Rated kV flow

**Z**

制冷剂类型  
Refrigerant type

**HP**

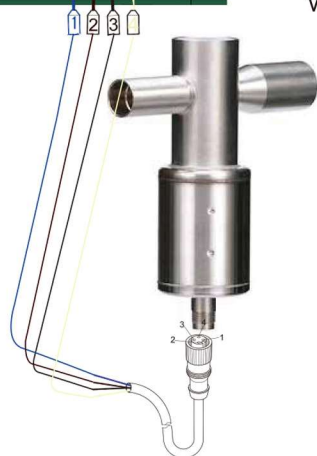
工况  
Working Conditions

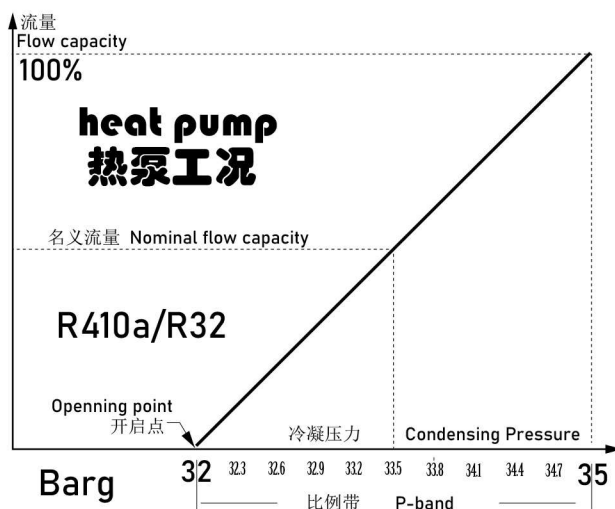
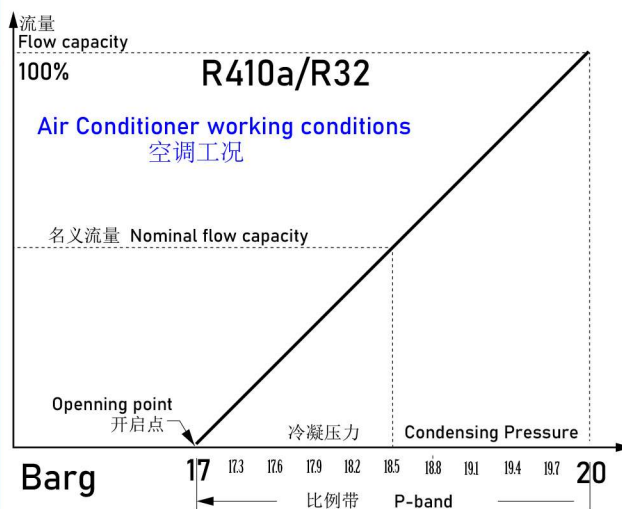
H: R22  
Z: R410a/R32  
M: R134a/R513a  
L: R290  
N: R407c  
S: R404a/R507

HP: 热泵工况  
Heat Pump  
AC: 空调工况  
Air conditioner  
SD: 冷冻工况  
Freezer

电动阀构成  
1- 脉冲调制器  
2- 压力变送器  
3- 阀门执行器

Electric regulator includes:  
1- Pulse modulator  
2- Pressure Transmitter  
3- valve executor





冷凝温度 Condensing Temp.: 30°C; 蒸发温度 Evaporating temp.: 0°C;

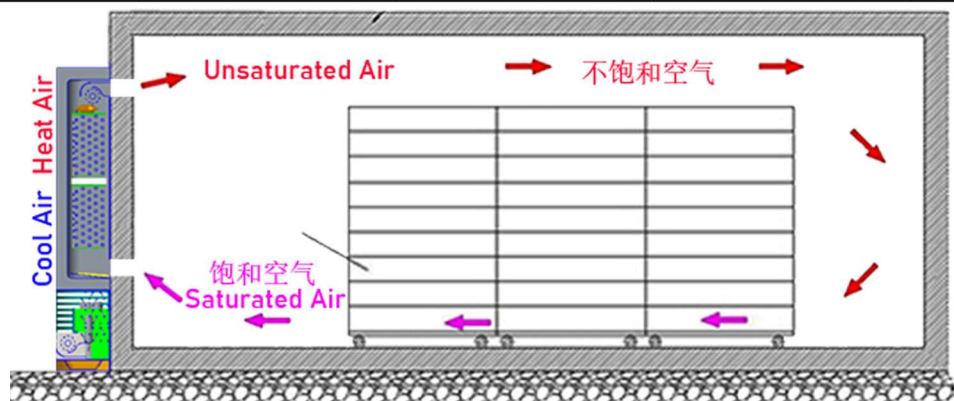
| 冷媒<br>Refrigerant | 进出阀压降<br>Pressure drop<br>across valve | 工况体积流量<br>Working Volume<br>flow | 工况质量流量<br>Working Mass Flow | 冷量<br>Cooling Capacity |
|-------------------|----------------------------------------|----------------------------------|-----------------------------|------------------------|
|                   | Bar                                    | m <sup>3</sup> /hour             | kgs/hour                    | kw                     |
| R410a             | 0.1                                    | 0.16                             | 160.59                      | 7.31                   |
|                   | 0.2                                    | 0.22                             | 227.11                      | 10.34                  |
|                   | 0.3                                    | 0.27                             | 278.15                      | 12.66                  |
|                   | 0.4                                    | 0.31                             | 321.19                      | 14.62                  |
|                   | 0.5                                    | 0.35                             | 359.10                      | 16.35                  |
|                   | 0.6                                    | 0.38                             | 393.37                      | 17.91                  |

基于热泵除湿工况Basing on heat pump dehumidifier conditions

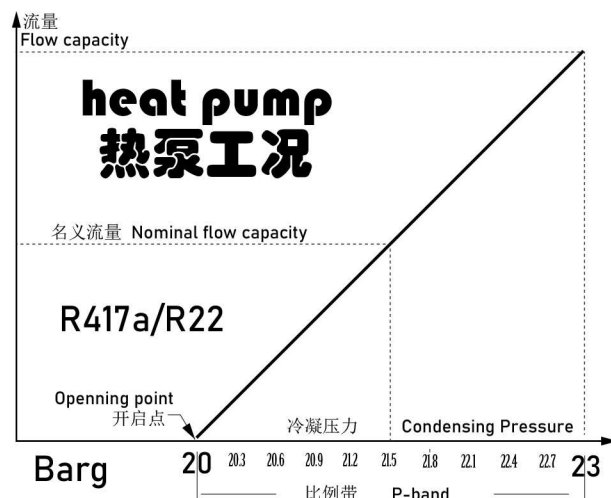
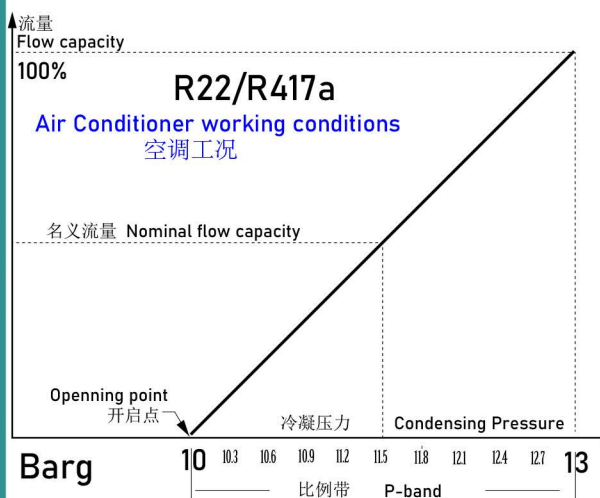
冷凝温度 Condensing Temp.: 55°C; 干球温度 D.B: 45°C

蒸发温度 Evaporating temp.: 10°C; Dew Point: 12°C 相对湿度RH: 15%

| 冷媒<br>Refrigerant | 进出阀压降<br>Pressure drop<br>across valve | 工况体积流量<br>Working Volume<br>flow | 工况质量流量<br>Working Mass Flow | 冷量<br>Cooling Capacity |
|-------------------|----------------------------------------|----------------------------------|-----------------------------|------------------------|
|                   | Bar                                    | m <sup>3</sup> /hour             | kgs/hour                    | kw                     |
| R410a             | 0.1                                    | 0.17                             | 147.48                      | 5.01                   |
|                   | 0.2                                    | 0.24                             | 208.57                      | 7.08                   |
|                   | 0.3                                    | 0.29                             | 255.44                      | 8.67                   |
|                   | 0.4                                    | 0.34                             | 294.96                      | 10.01                  |
|                   | 0.5                                    | 0.38                             | 329.77                      | 11.19                  |
|                   | 0.6                                    | 0.42                             | 361.25                      | 12.26                  |







冷凝温度 Condensing Temp.: 30°C; 蒸发温度 Evaporating temp.: 2°C;

| 冷媒<br>Refrigerant | 进出阀压降<br>Pressure drop<br>across valve | 工况体积流量<br>Working Volume<br>flow | 工况质量流量<br>Working Mass Flow | 冷量<br>Cooling Capacity |
|-------------------|----------------------------------------|----------------------------------|-----------------------------|------------------------|
|                   | Bar                                    | m <sup>3</sup> /hour             | kgs/hour                    | kw                     |
| R22               | 0.1                                    | 0.15                             | 171.08                      | 7.64                   |
|                   | 0.2                                    | 0.21                             | 241.94                      | 10.80                  |
|                   | 0.3                                    | 0.25                             | 296.31                      | 13.23                  |
|                   | 0.4                                    | 0.29                             | 342.15                      | 15.27                  |
|                   | 0.5                                    | 0.33                             | 382.54                      | 17.08                  |
|                   | 0.6                                    | 0.36                             | 419.05                      | 18.71                  |

冷凝温度 Condensing Temp.: 30°C; 蒸发温度 Evaporating temp.: -10°C;

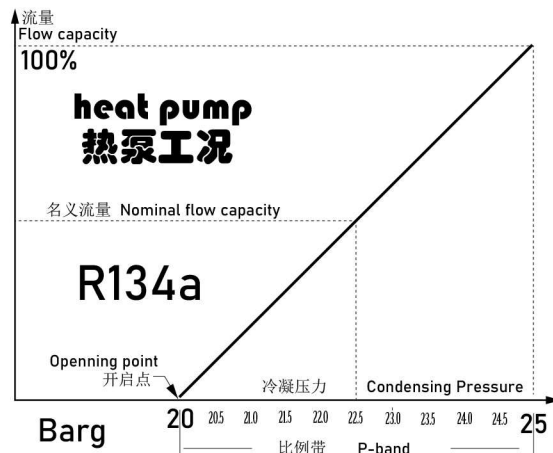
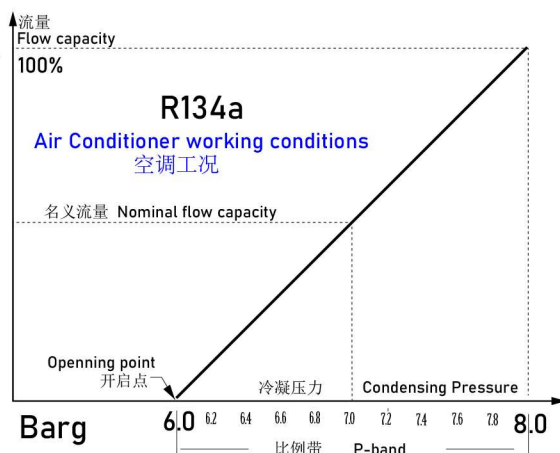
| 冷媒<br>Refrigerant | 进出阀压降<br>Pressure drop<br>across valve | 工况体积流量<br>Working Volume<br>flow | 工况质量流量<br>Working Mass Flow | 冷量<br>Cooling Capacity |
|-------------------|----------------------------------------|----------------------------------|-----------------------------|------------------------|
|                   | Bar                                    | m <sup>3</sup> /hour             | kgs/hour                    | kw                     |
| R22               | 0.1                                    | 0.15                             | 171.08                      | 7.43                   |
|                   | 0.2                                    | 0.21                             | 241.94                      | 10.51                  |
|                   | 0.3                                    | 0.25                             | 296.31                      | 12.87                  |
|                   | 0.4                                    | 0.29                             | 342.15                      | 14.86                  |
|                   | 0.5                                    | 0.33                             | 382.54                      | 16.61                  |
|                   | 0.6                                    | 0.36                             | 419.05                      | 18.20                  |

基于热泵除湿工况 Basing on heat pump dehumidifier conditions

冷凝温度 Condensing Temp.: 55°C; 干球温度 D.B: 45°C

蒸发温度 Evaporating temp.: 10°C; Dew Point: 12°C 相对湿度 RH: 15%

| 冷媒<br>Refrigerant | 进出阀压降<br>Pressure drop<br>across valve | 工况体积流量<br>Working Volume<br>flow | 工况质量流量<br>Working Mass Flow | 冷量<br>Cooling Capacity |
|-------------------|----------------------------------------|----------------------------------|-----------------------------|------------------------|
|                   | Bar                                    | m <sup>3</sup> /hour             | kgs/hour                    | kw                     |
| R22               | 0.1                                    | 0.15                             | 162.17                      | 5.85                   |
|                   | 0.2                                    | 0.22                             | 229.35                      | 8.28                   |
|                   | 0.3                                    | 0.27                             | 280.89                      | 10.14                  |
|                   | 0.4                                    | 0.31                             | 324.35                      | 11.71                  |
|                   | 0.5                                    | 0.34                             | 362.63                      | 13.09                  |
|                   | 0.6                                    | 0.38                             | 397.24                      | 14.34                  |



冷凝温度 Condensing Temp.: 30°C; 蒸发温度 Evaporating temp.: 0°C;

| 冷媒<br>Refrigerant | 进出阀压降<br>Pressure drop<br>across valve | 工况体积流量<br>Working Volume<br>flow | 工况质量流量<br>Working Mass Flow | 冷量<br>Cooling Capacity |
|-------------------|----------------------------------------|----------------------------------|-----------------------------|------------------------|
|                   | Bar                                    | m³/hour                          | kgs/hour                    | kw                     |
| R134a             | 0.1                                    | 0.15                             | 172.30                      | 7.13                   |
|                   | 0.2                                    | 0.21                             | 243.67                      | 10.09                  |
|                   | 0.3                                    | 0.25                             | 298.43                      | 12.35                  |
|                   | 0.4                                    | 0.29                             | 344.60                      | 14.27                  |
|                   | 0.5                                    | 0.32                             | 385.28                      | 15.95                  |
|                   | 0.6                                    | 0.36                             | 422.05                      | 17.47                  |

冷凝温度 Condensing Temp.: 30°C; 蒸发温度 Evaporating temp.: -10°C;

| 冷媒<br>Refrigerant | 进出阀压降<br>Pressure drop<br>across valve | 工况体积流量<br>Working Volume<br>flow | 工况质量流量<br>Working Mass Flow | 冷量<br>Cooling Capacity |
|-------------------|----------------------------------------|----------------------------------|-----------------------------|------------------------|
|                   | Bar                                    | m³/hour                          | kgs/hour                    | kw                     |
| R134a             | 0.1                                    | 0.15                             | 172.30                      | 6.86                   |
|                   | 0.2                                    | 0.21                             | 243.67                      | 9.71                   |
|                   | 0.3                                    | 0.25                             | 298.43                      | 11.89                  |
|                   | 0.4                                    | 0.29                             | 344.60                      | 13.73                  |
|                   | 0.5                                    | 0.32                             | 385.28                      | 15.35                  |
|                   | 0.6                                    | 0.36                             | 422.05                      | 16.81                  |

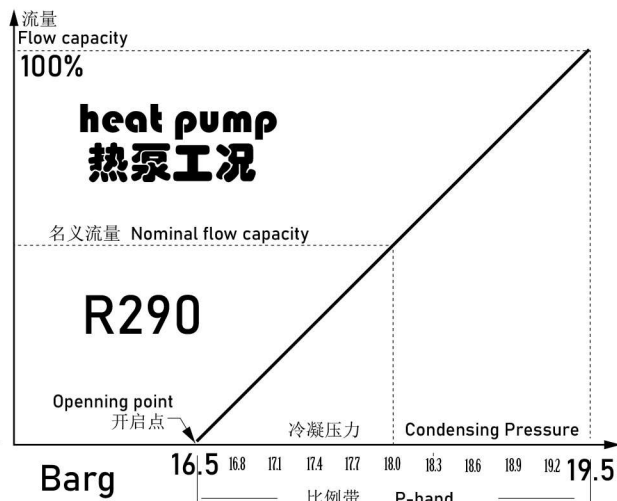
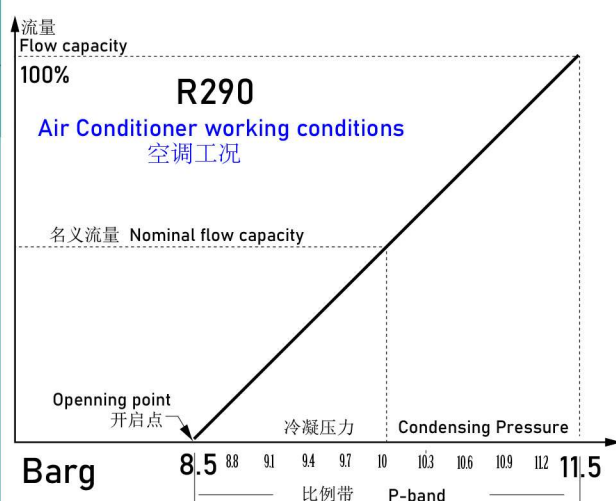
基于热泵除湿工况 Basing on heat pump dehumidifier conditions

冷凝温度 Condensing Temp.: 75°C; 干球温度 D.B: 65°C

蒸发温度 Evaporating temp.: 15°C; Dew Point: 21°C 相对湿度 RH: 10%

| 冷媒<br>Refrigerant | 进出阀压降<br>Pressure drop<br>across valve | 工况体积流量<br>Working Volume<br>flow | 工况质量流量<br>Working Mass Flow | 冷量<br>Cooling Capacity |
|-------------------|----------------------------------------|----------------------------------|-----------------------------|------------------------|
|                   | Bar                                    | m³/hour                          | kgs/hour                    | kw                     |
| R134a             | 0.1                                    | 0.16                             | 155.79                      | 3.91                   |
|                   | 0.2                                    | 0.23                             | 220.32                      | 5.53                   |
|                   | 0.3                                    | 0.28                             | 269.83                      | 6.78                   |
|                   | 0.4                                    | 0.32                             | 311.58                      | 7.83                   |
|                   | 0.5                                    | 0.36                             | 348.35                      | 8.75                   |
|                   | 0.6                                    | 0.39                             | 381.60                      | 9.59                   |





冷凝温度 Condensing Temp.: 30°C; 蒸发温度 Evaporating temp.: 0°C;

| 冷媒<br>Refrigerant | 进出阀压降<br>Pressure drop<br>across valve | 工况体积流量<br>Working Volume<br>flow | 工况质量流量<br>Working Mass Flow | 冷量<br>Cooling Capacity |
|-------------------|----------------------------------------|----------------------------------|-----------------------------|------------------------|
|                   | Bar                                    | m³/hour                          | kgs/hour                    | kw                     |
| R290              | 0.1                                    | 0.23                             | 110.01                      | 8.57                   |
|                   | 0.2                                    | 0.32                             | 155.58                      | 12.12                  |
|                   | 0.3                                    | 0.39                             | 190.55                      | 14.85                  |
|                   | 0.4                                    | 0.45                             | 220.02                      | 17.15                  |
|                   | 0.5                                    | 0.51                             | 245.99                      | 19.17                  |
|                   | 0.6                                    | 0.56                             | 269.47                      | 21.00                  |

冷凝温度 Condensing Temp.: 30°C; 蒸发温度 Evaporating temp.: -10°C;

| 冷媒<br>Refrigerant | 进出阀压降<br>Pressure drop<br>across valve | 工况体积流量<br>Working Volume<br>flow | 工况质量流量<br>Working Mass Flow | 冷量<br>Cooling Capacity |
|-------------------|----------------------------------------|----------------------------------|-----------------------------|------------------------|
|                   | Bar                                    | m³/hour                          | kgs/hour                    | kw                     |
| R290              | 0.1                                    | 0.23                             | 110.01                      | 8.25                   |
|                   | 0.2                                    | 0.32                             | 155.58                      | 11.66                  |
|                   | 0.3                                    | 0.39                             | 190.55                      | 14.29                  |
|                   | 0.4                                    | 0.45                             | 220.02                      | 16.50                  |
|                   | 0.5                                    | 0.51                             | 245.99                      | 18.44                  |
|                   | 0.6                                    | 0.56                             | 269.47                      | 20.20                  |

基于热泵除湿工况 Basing on heat pump dehumidifier conditions

冷凝温度 Condensing Temp.: 55°C; 干球温度 D.B: 45°C

蒸发温度 Evaporating temp.: 10°C; Dew Point: 12°C 相对湿度 RH: 15%

| 冷媒<br>Refrigerant | 进出阀压降<br>Pressure drop<br>across valve | 工况体积流量<br>Working Volume<br>flow | 工况质量流量<br>Working Mass Flow | 冷量<br>Cooling Capacity |
|-------------------|----------------------------------------|----------------------------------|-----------------------------|------------------------|
|                   | Bar                                    | m³/hour                          | kgs/hour                    | kw                     |
| R290              | 0.1                                    | 0.24                             | 104.70                      | 6.42                   |
|                   | 0.2                                    | 0.34                             | 148.07                      | 9.08                   |
|                   | 0.3                                    | 0.41                             | 181.35                      | 11.12                  |
|                   | 0.4                                    | 0.48                             | 209.40                      | 12.84                  |
|                   | 0.5                                    | 0.53                             | 234.12                      | 14.36                  |
|                   | 0.6                                    | 0.58                             | 256.47                      | 15.73                  |