

Rittal – The System.

Faster – better – everywhere.

特性曲线区域：温控系统



机箱机柜

配电组件

温控系统

IT基础设施

软件与服务

Rittal – The System.

Faster – better – everywhere.



机箱机柜

配电组件

温控系统

特性曲线区域

环境空气冷却装置

TopTherm 过滤器风扇, EMC 电磁兼容	
风扇气流量 20/25 - 900 m ³ /h	4 - 7
TopTherm 过滤器风扇, 采用 EC 技术	
风扇气流量 55 - 900 m ³ /h	8 - 9
TopTherm 顶装式风扇	
风扇气流量 400 - 800 m ³ /h	10
顶装式风扇, 顶部排气	
风扇气流量 360 m ³ /h	10
架装式风扇用于 482.6 mm (19")	
风扇气流量 320/480 m ³ /h	11
离心风扇	
风扇气流量 320 m ³ /h	11
空气 / 空气热交换器 TopTherm	
比热功率 17.5 - 90 W/K	12

冷却器

半导体空调	
有效冷却功率 100 W	13
壁挂式空调 TopTherm Blue e	
有效冷却功率 300 - 2500 W (115/230 V, 1~, 400 V, 2~)	13 - 16
壁挂式空调 TopTherm Blue e, 薄型	
有效冷却功率 1500 W (230 V, 1~, 400/460 V, 3~)	17
壁挂式空调 TopTherm Blue e	
有效冷却功率 1000 - 4000 W (400/460 V, 3~)	18 - 20
顶装式空调 TopTherm Blue e	
有效冷却功率 500 - 2000 W (115/230 V, 1~, 400 V, 2~)	21 - 23
顶装式空调 TopTherm Blue e	
有效冷却功率 3000 - 4000 W (400/460 V, 3~)	24
空调模块设计, 冷却模块 Blue e	
有效冷却功率 1500 - 2500 W (230 V, 1~, 400/460 V, 3~)	25 - 26

液体冷却

壁挂式空气 / 水热交换器	
有效冷却功率 300 - 7000 W	27 - 36
顶装式空气 / 水热交换器	
有效冷却功率 1875 - 4000 W	37 - 40
液体冷却柜 (LCP)	
有效冷却功率 10 kW	41
冷水机 TopTherm	
有效冷却功率 1 - 40 kW	42 - 43

机柜加热器

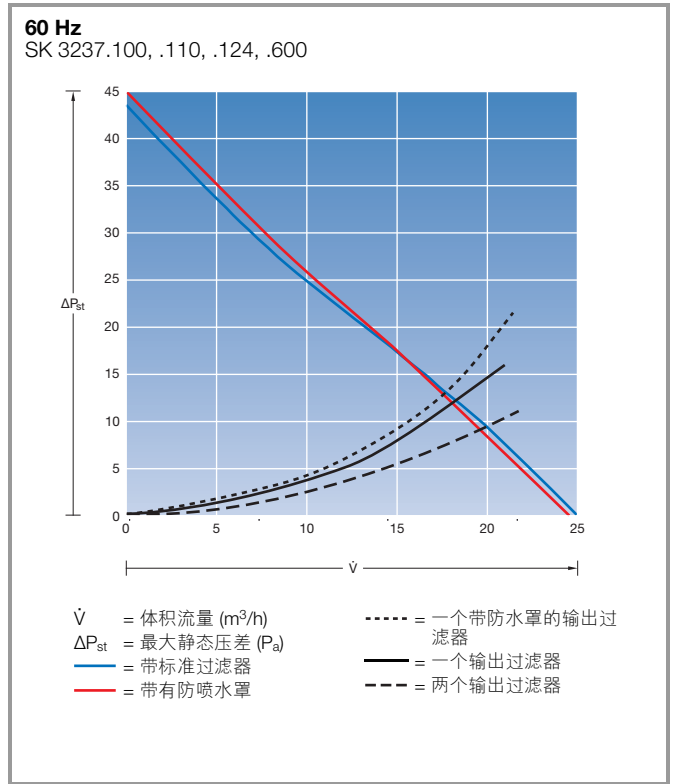
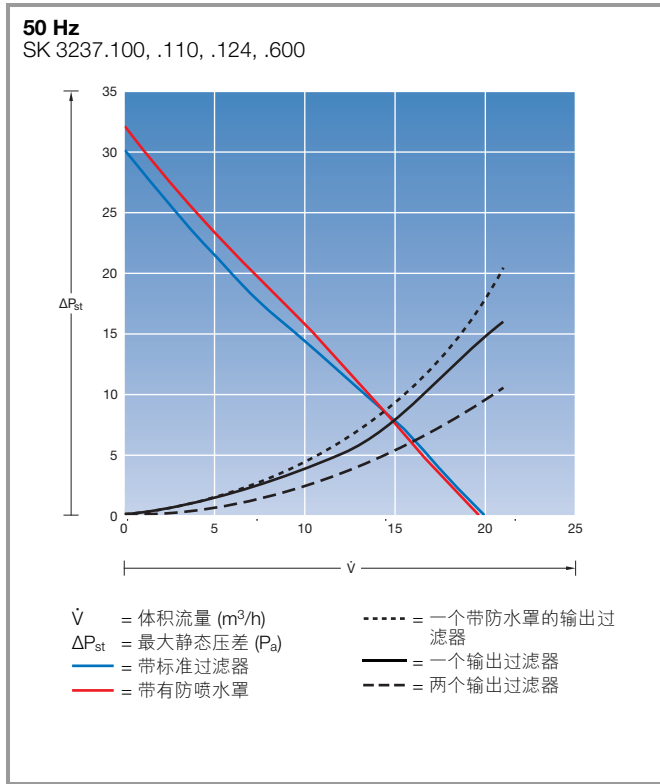
控制机柜加热装置, 无风扇	
加热功率 8 - 150 W	44
控制机柜加热装置, 带风扇	
加热功率 250 - 800 W	45



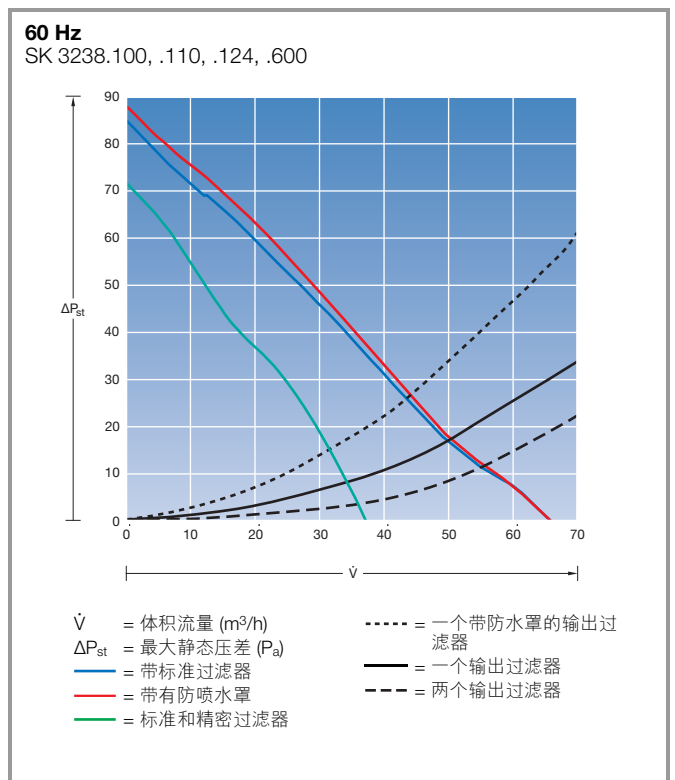
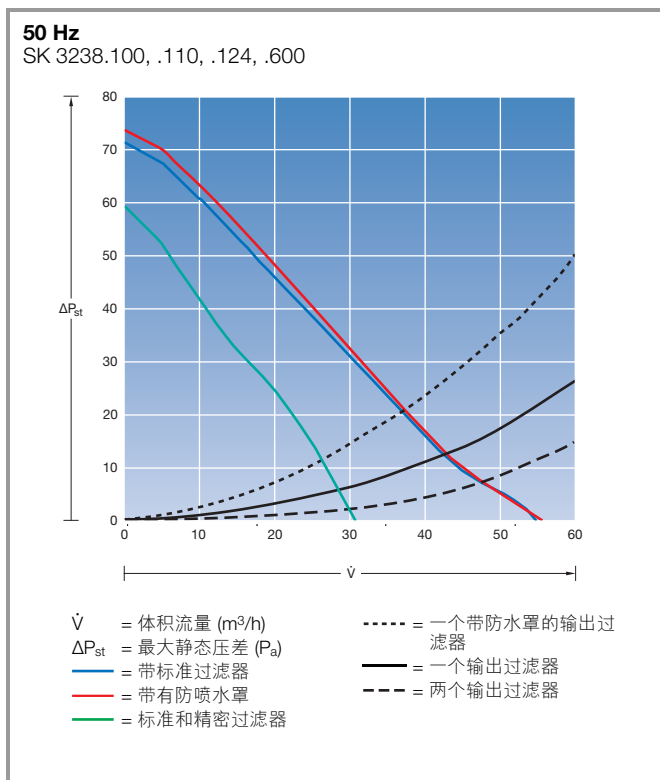
环境空气冷却装置

TopTherm 过滤器风扇, EMC 电磁兼容

风扇气流量 20/25 m³/h

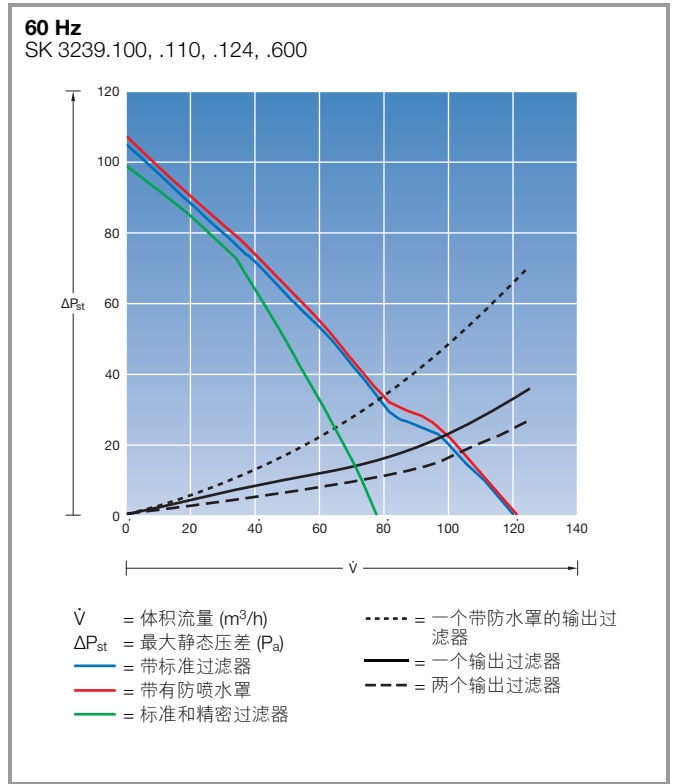
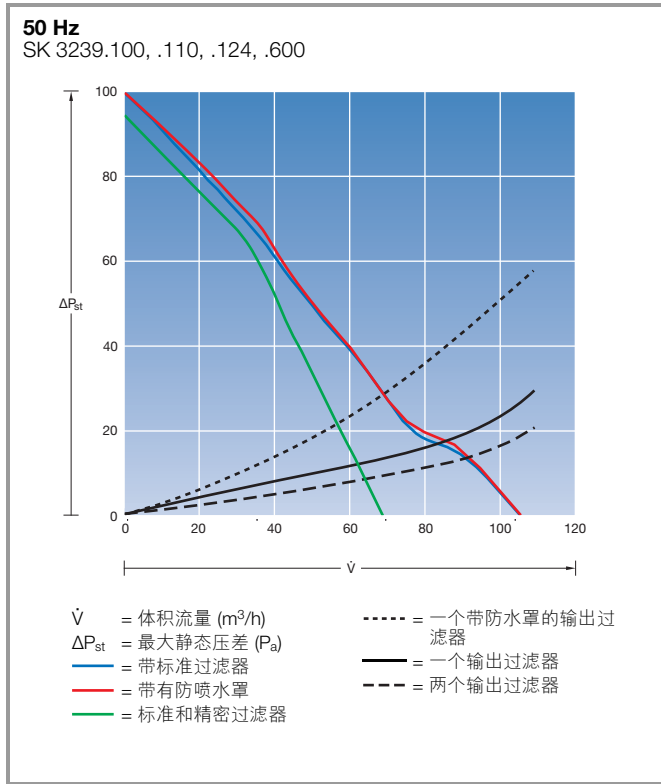


风扇气流量 55/66 m³/h

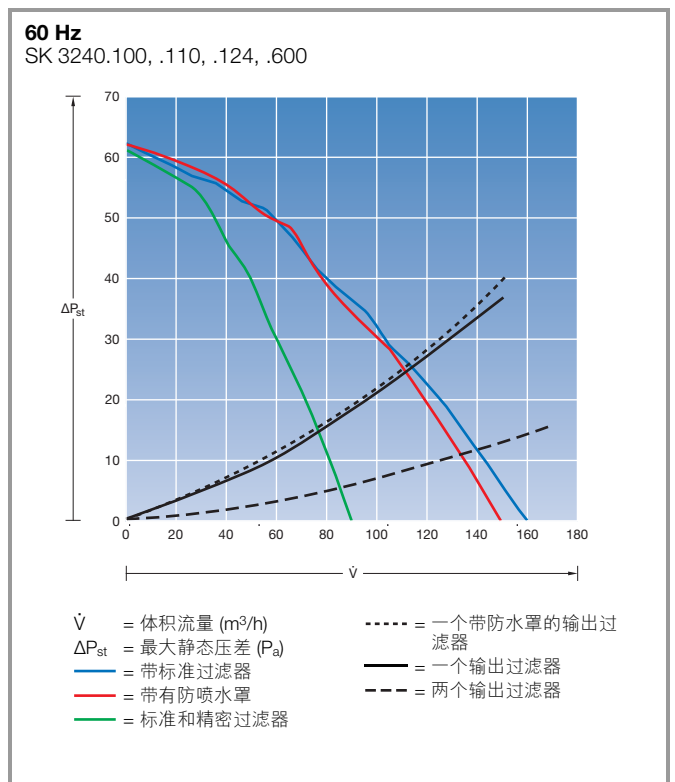
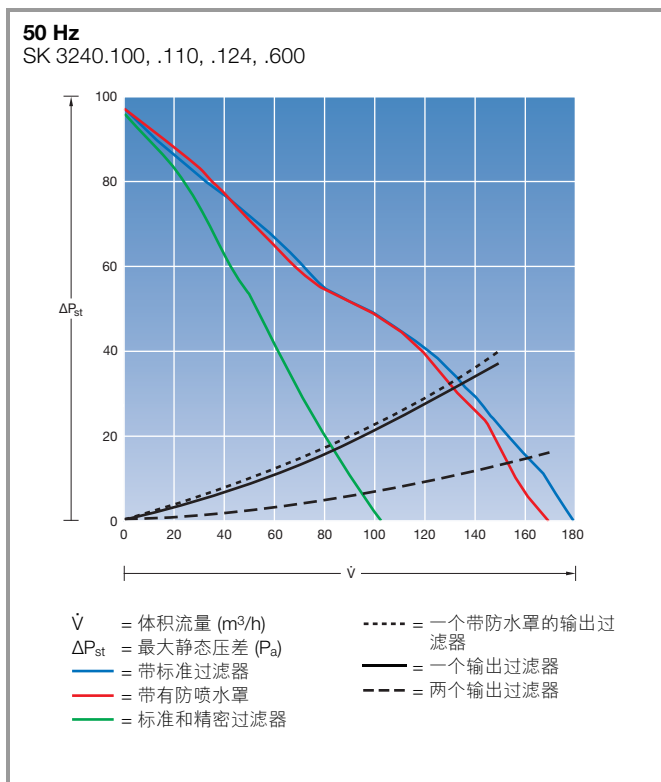


TopTherm 过滤器风扇, EMC 电磁兼容

风扇气流量 105/120 m³/h



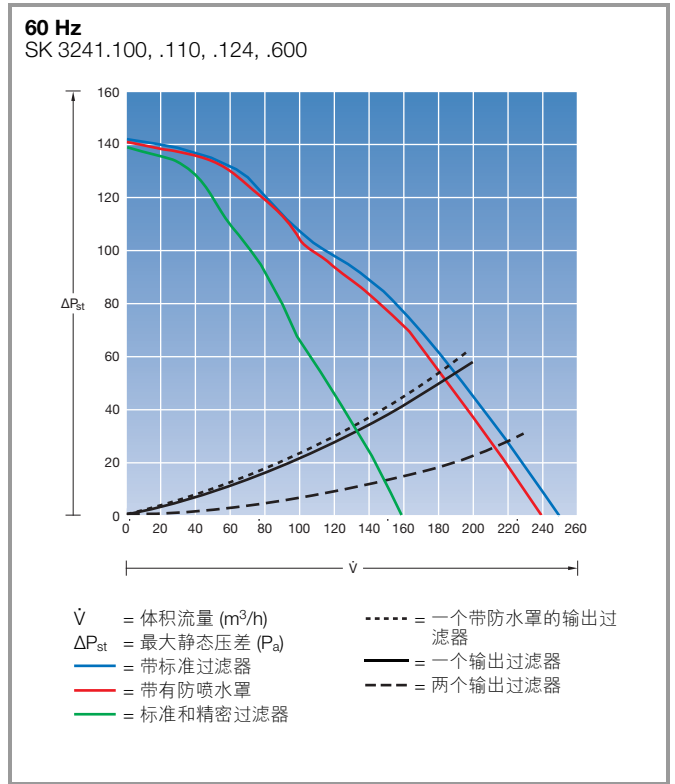
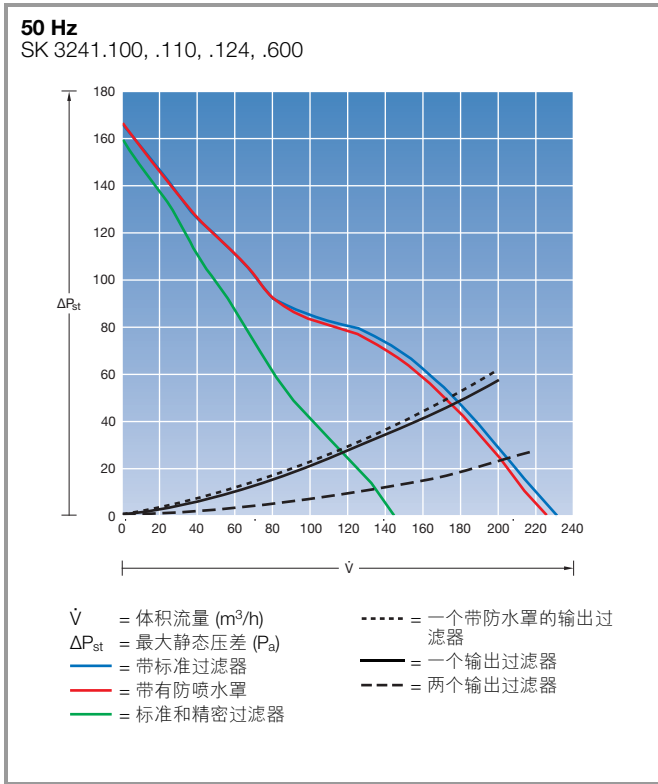
风扇气流量 180/160 m³/h



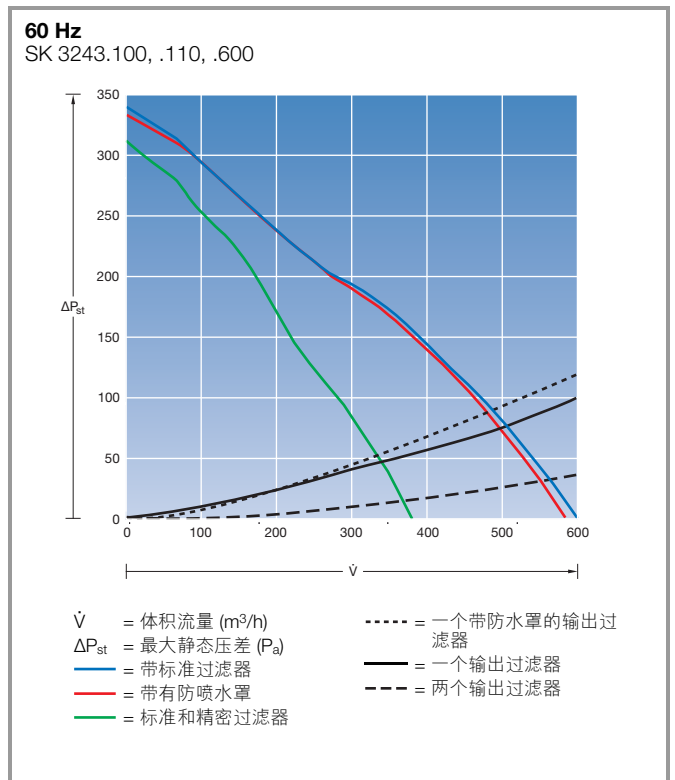
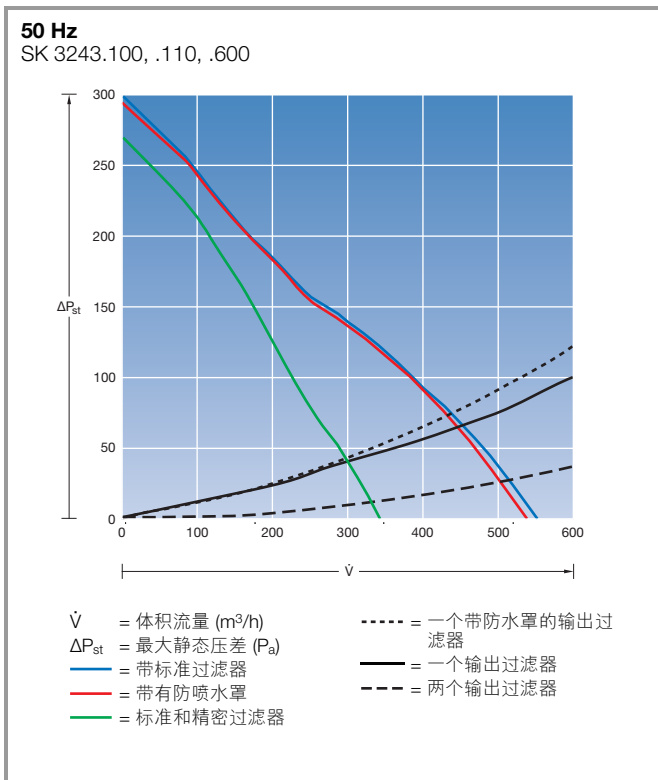
环境空气冷却装置

TopTherm 过滤器风扇, EMC 电磁兼容

风扇气流量 230/250 m³/h

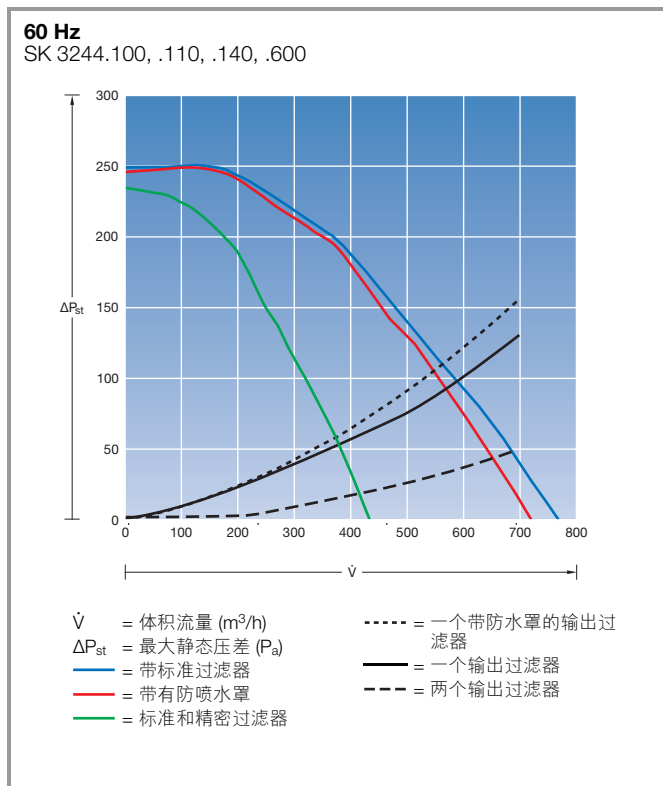
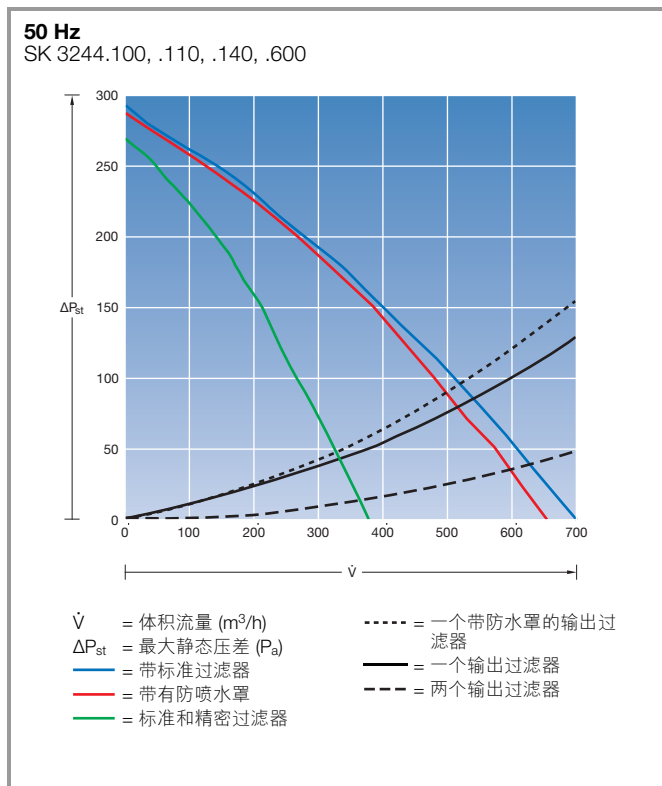


风扇气流量 550/600 m³/h

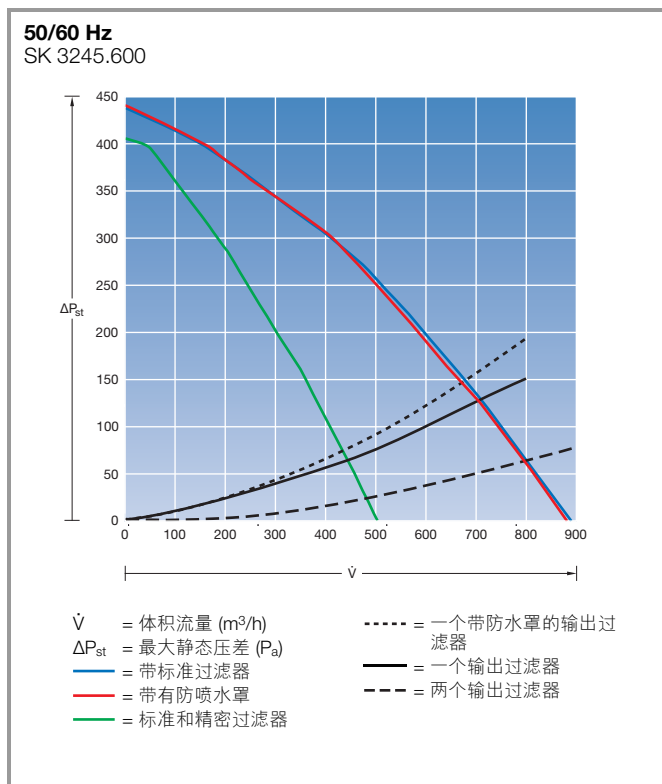


TopTherm 过滤器风扇, EMC 电磁兼容

风扇气流量 700/770 m³/h



风扇气流量 900 m³/h

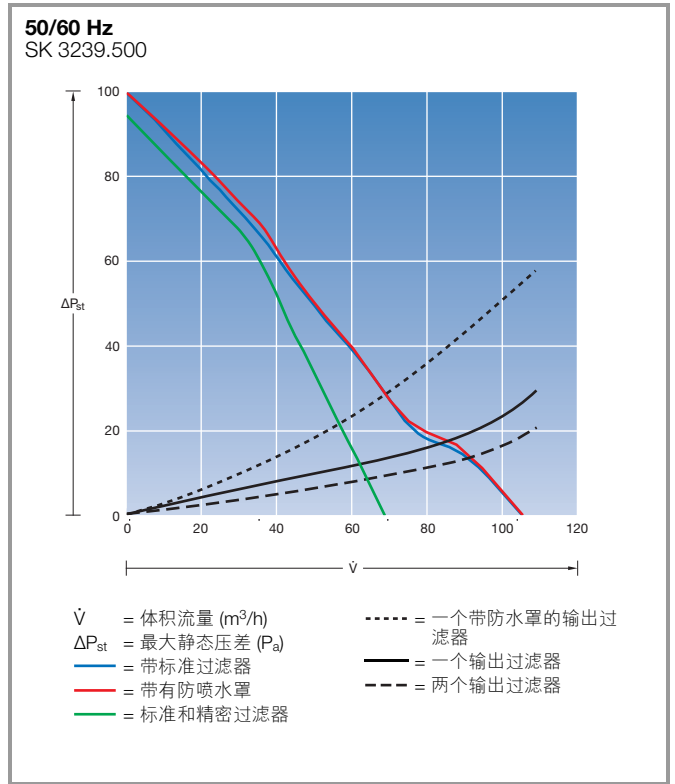
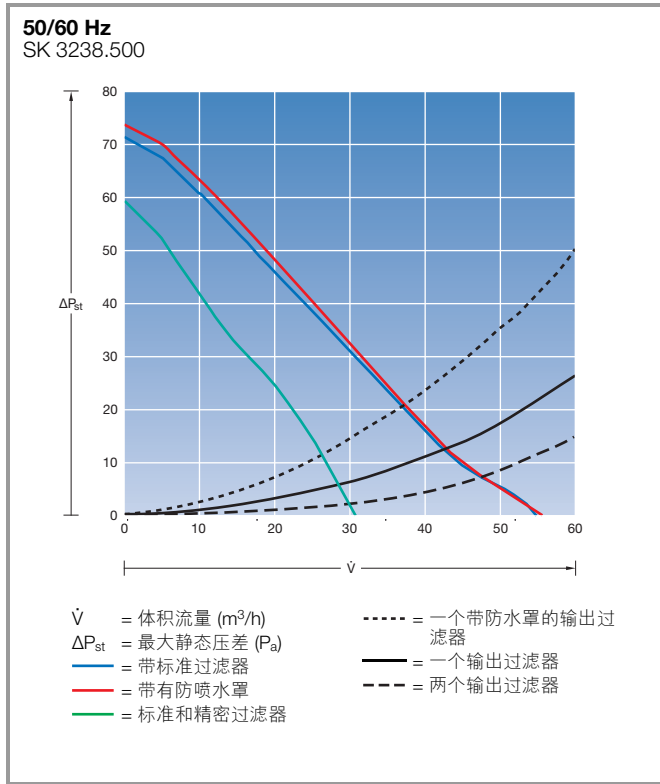


环境空气冷却装置

TopTherm 过滤器风扇，采用 EC 技术

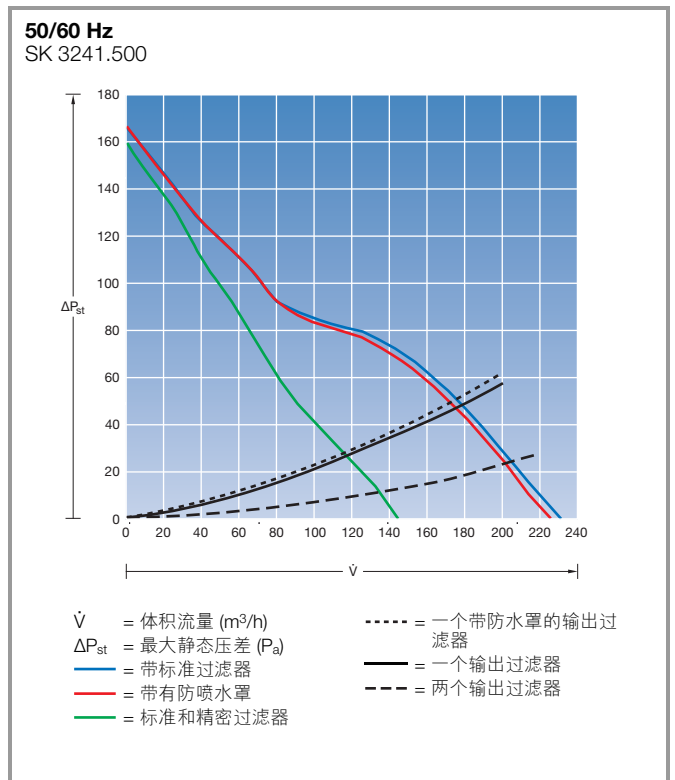
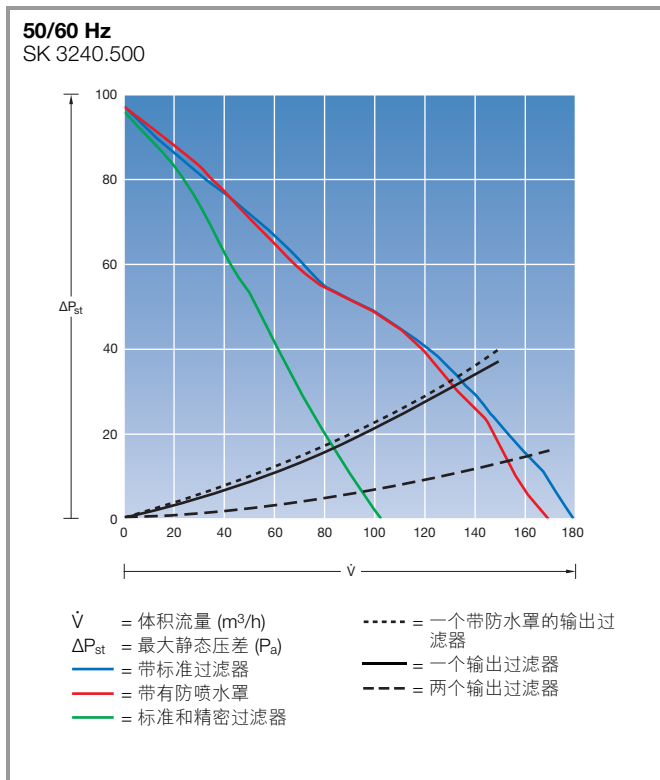
风扇气流量 55 m³/h

风扇气流量 105 m³/h



风扇气流量 180 m³/h

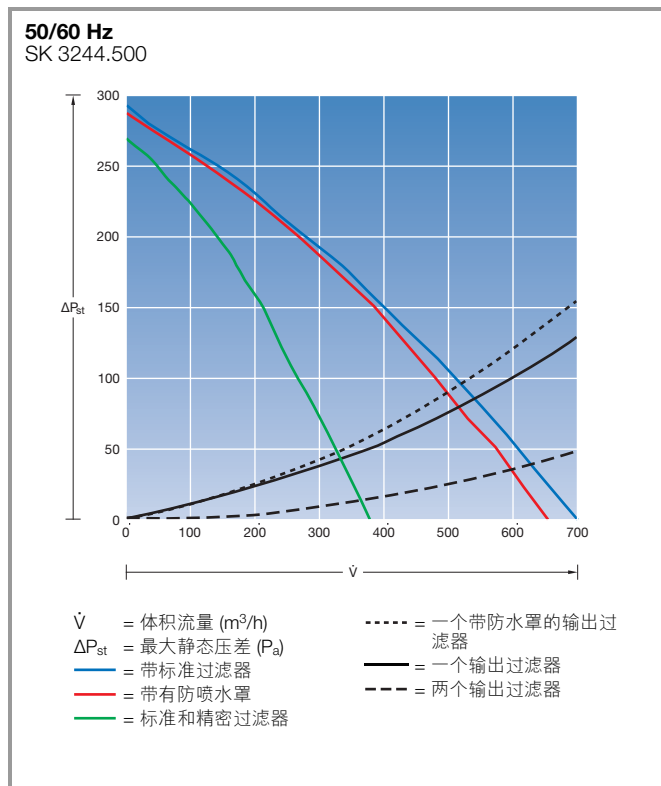
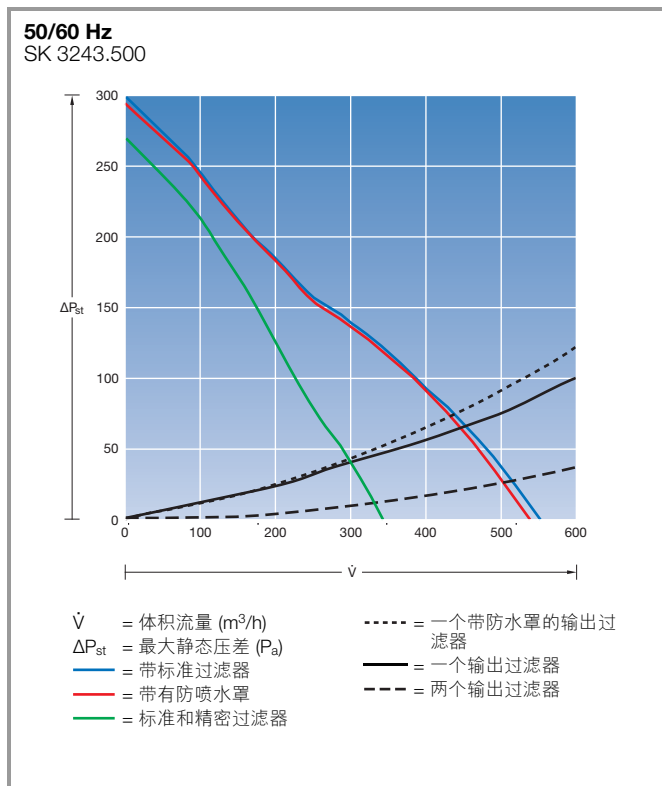
风扇气流量 230 m³/h



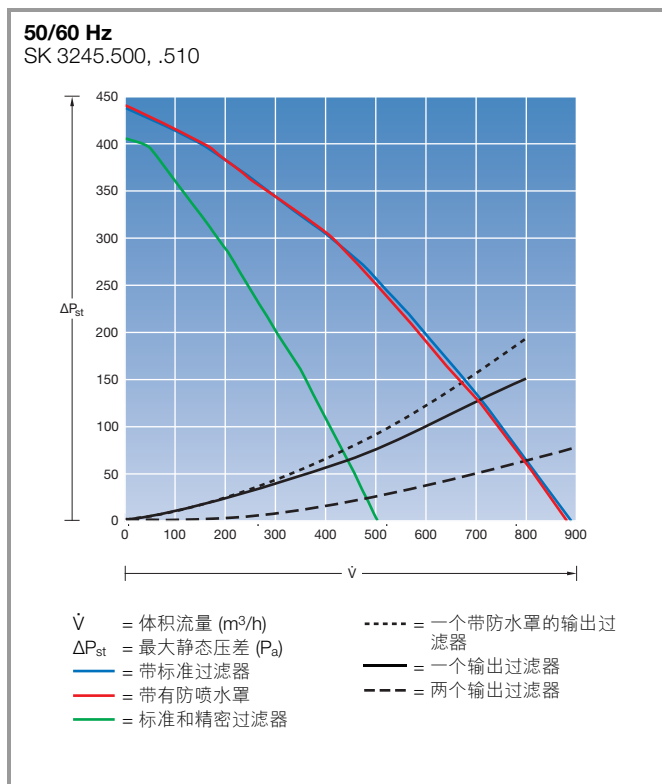
TopTherm 过滤器风扇，采用 EC 技术

风扇气流量 550 m³/h

风扇气流量 700 m³/h



风扇气流量 900 m³/h

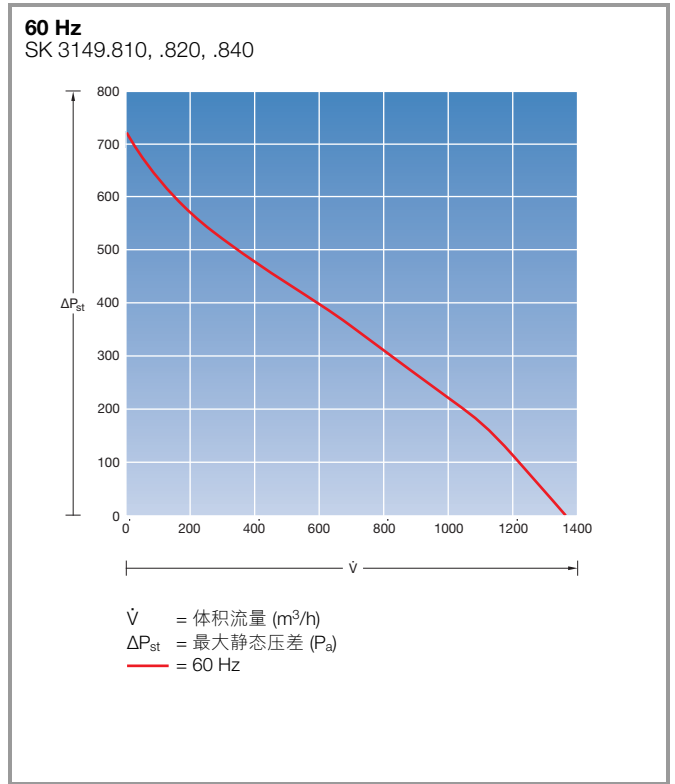
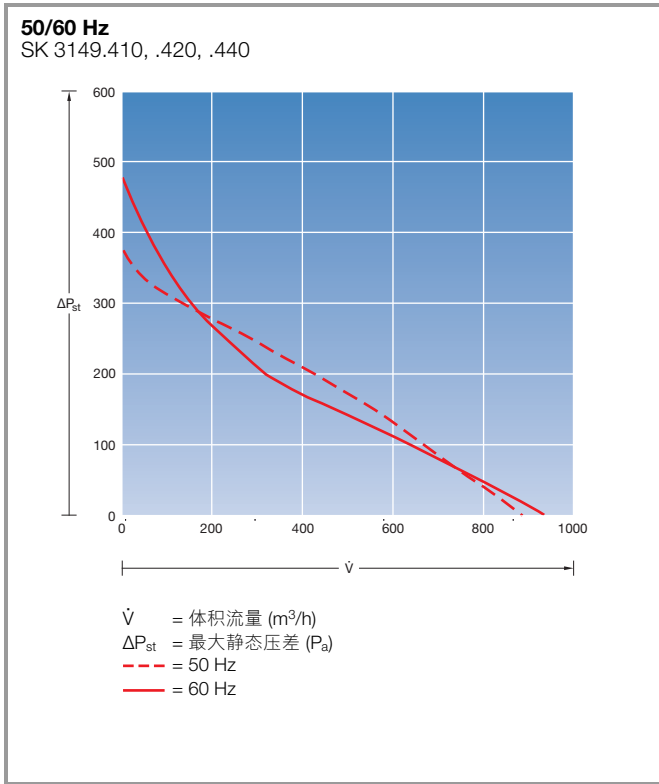


环境空气冷却装置

TopTherm 顶装式风扇

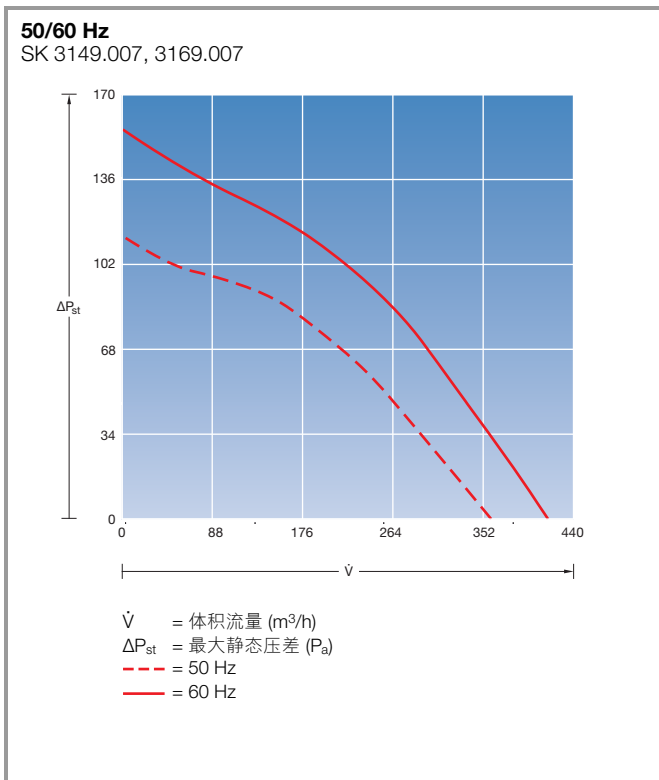
风扇气流量 400 m³/h

风扇气流量 800 m³/h



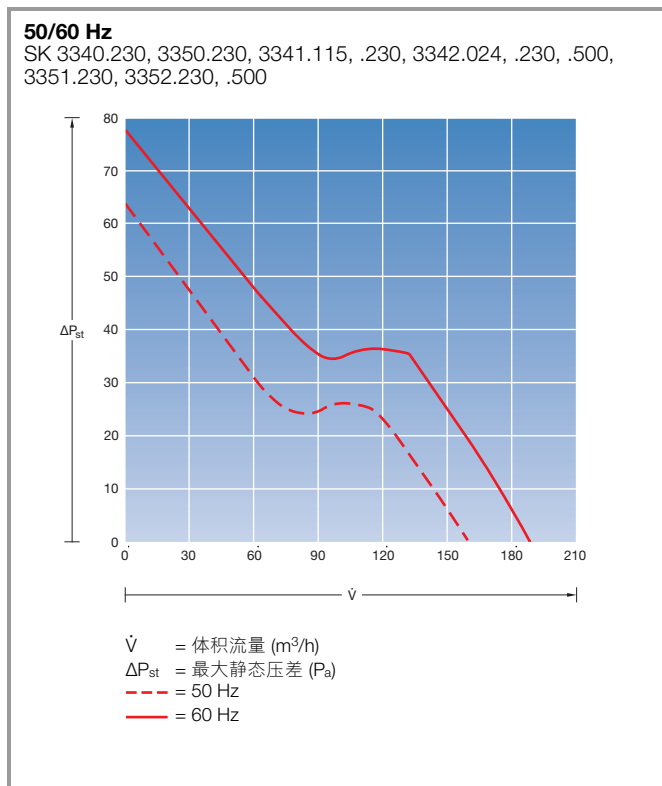
顶装式风扇，顶部排气

风扇气流量 360 m³/h



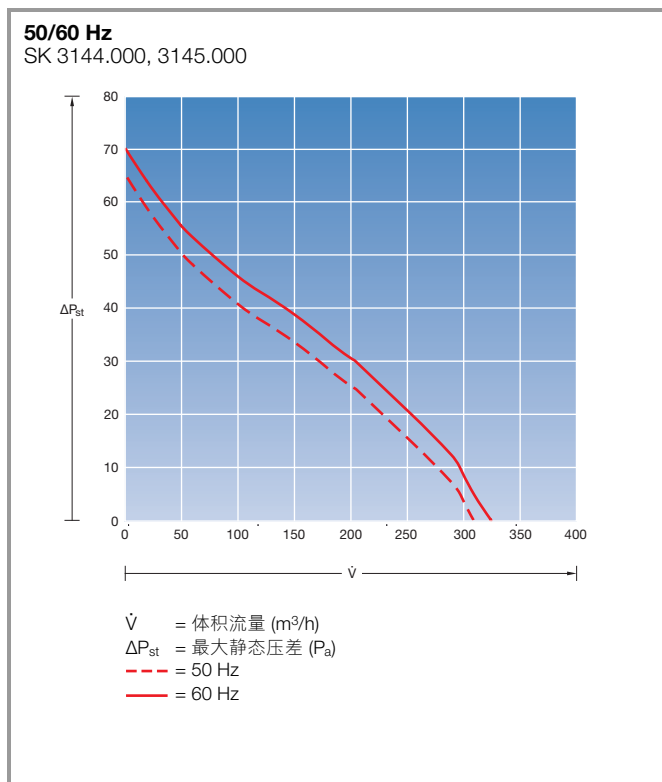
架装式风扇用于 482.6 mm (19")

风扇气流量 320/480 m³/h



贯流风扇用于 482.6 mm (19")

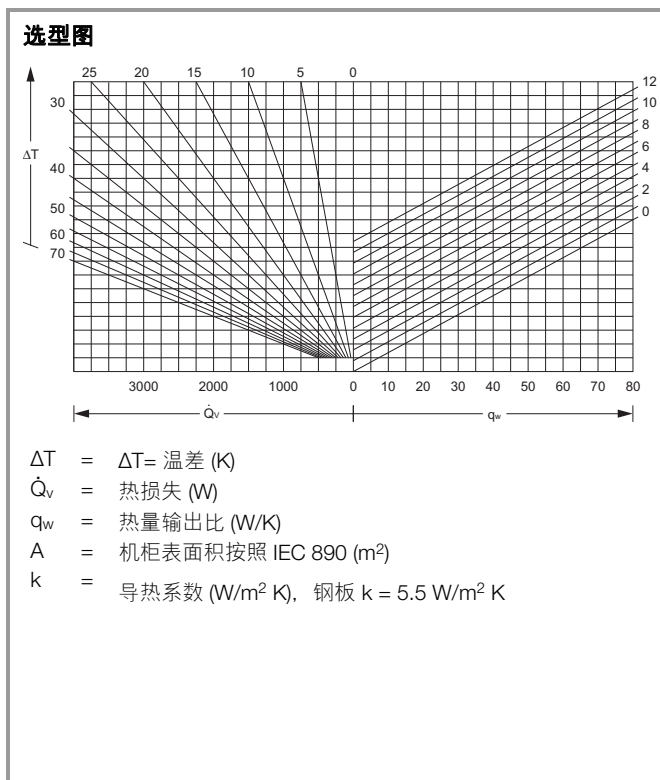
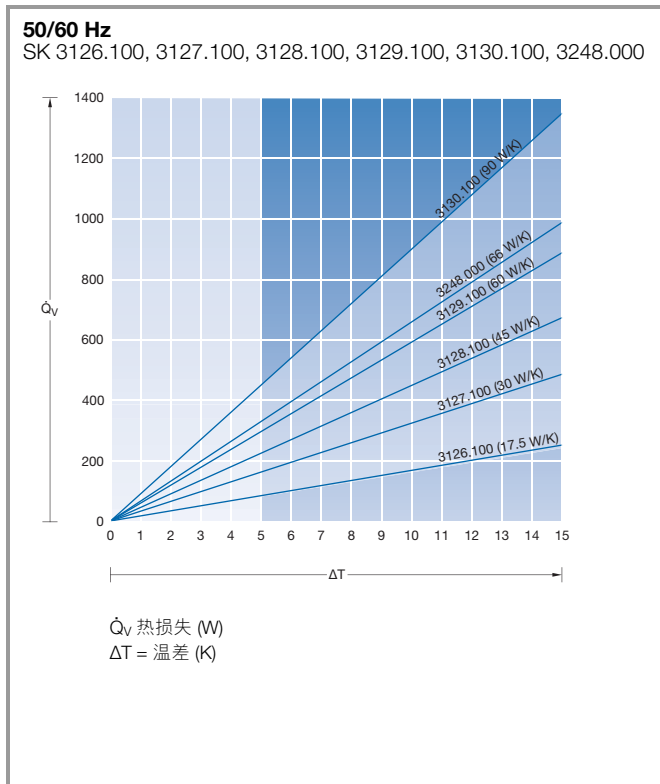
风扇气流量 320 m³/h



环境空气冷却装置

空气 / 空气热交换器 TopTherm

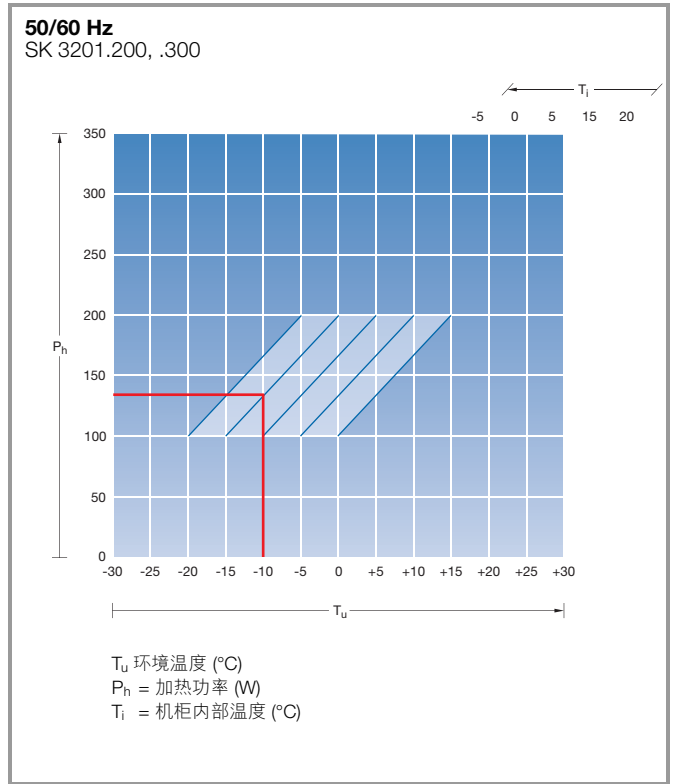
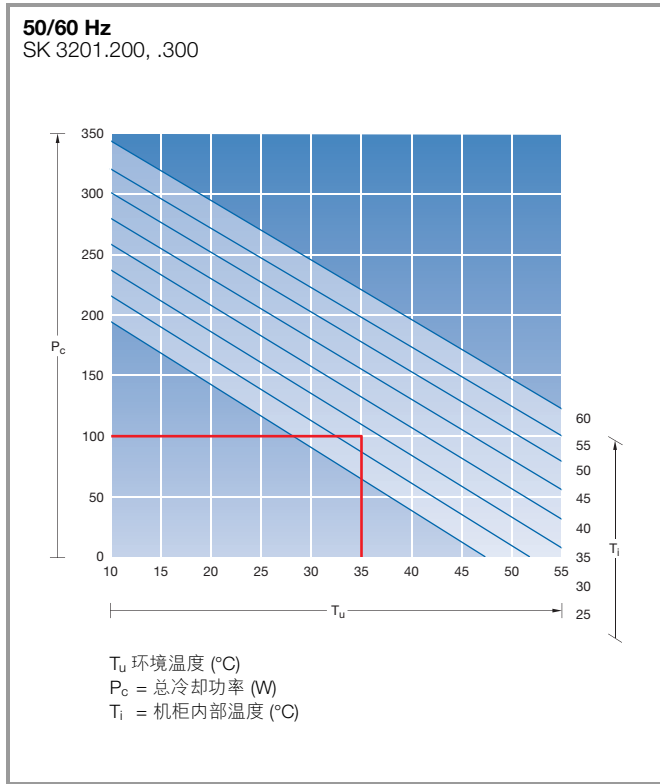
壁挂式, 比热功率 17.5 – 90 W/K, 带有调节器



半导体空调

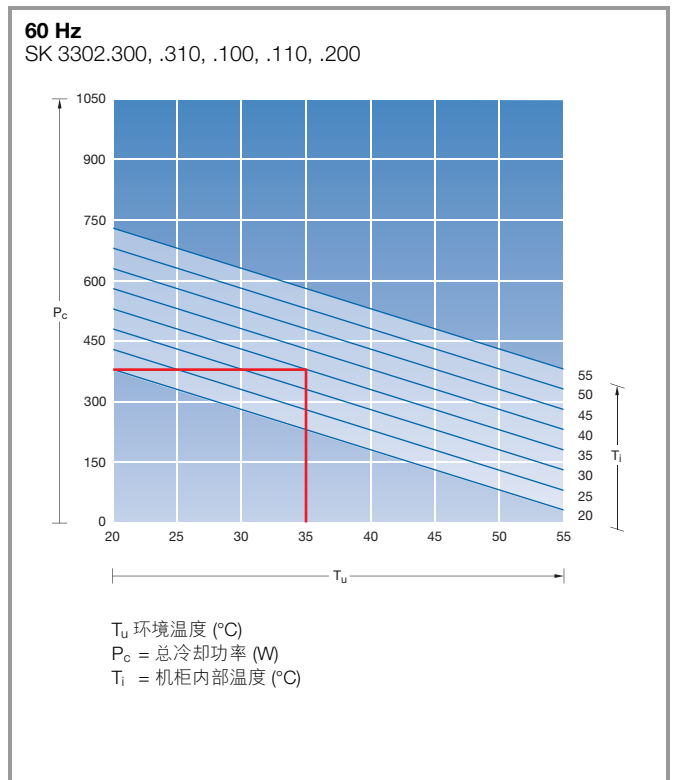
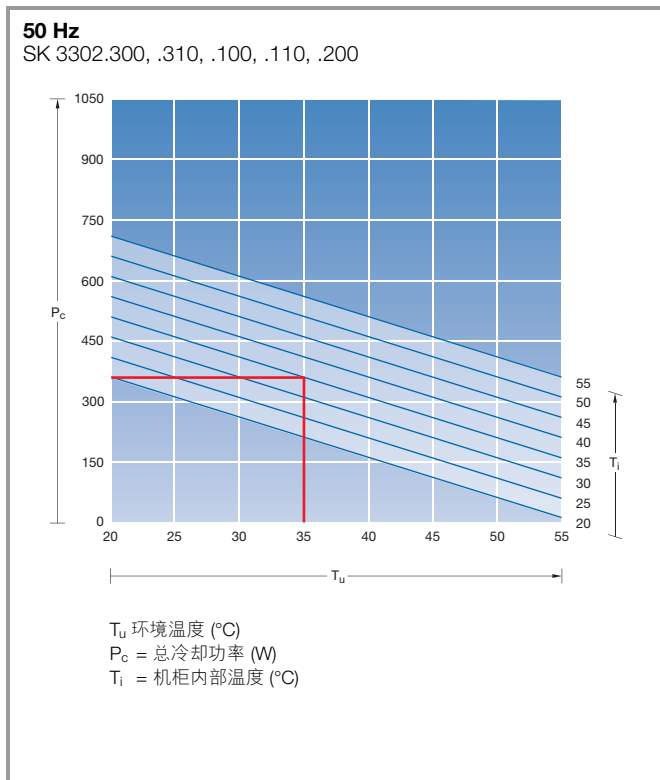
制冷功率

加热功率



壁挂式空调 TopTherm

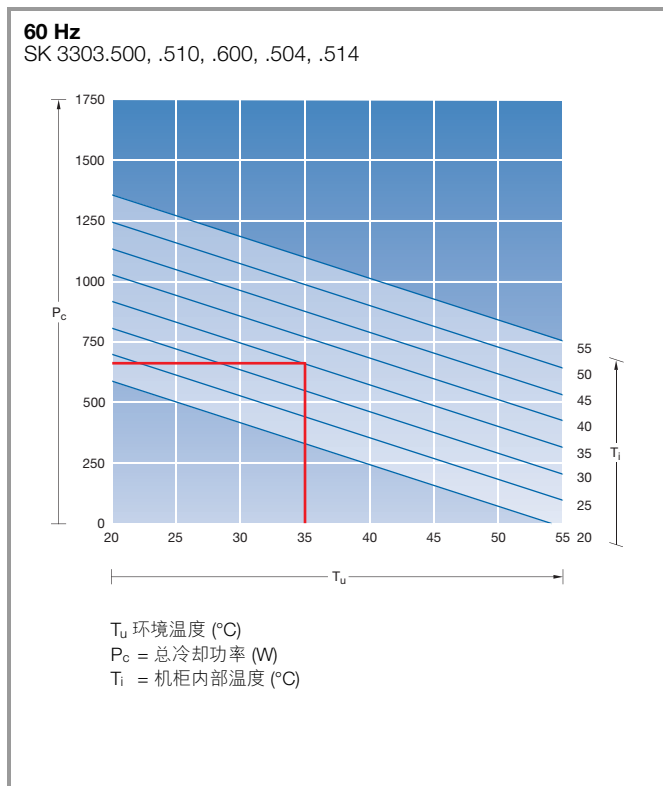
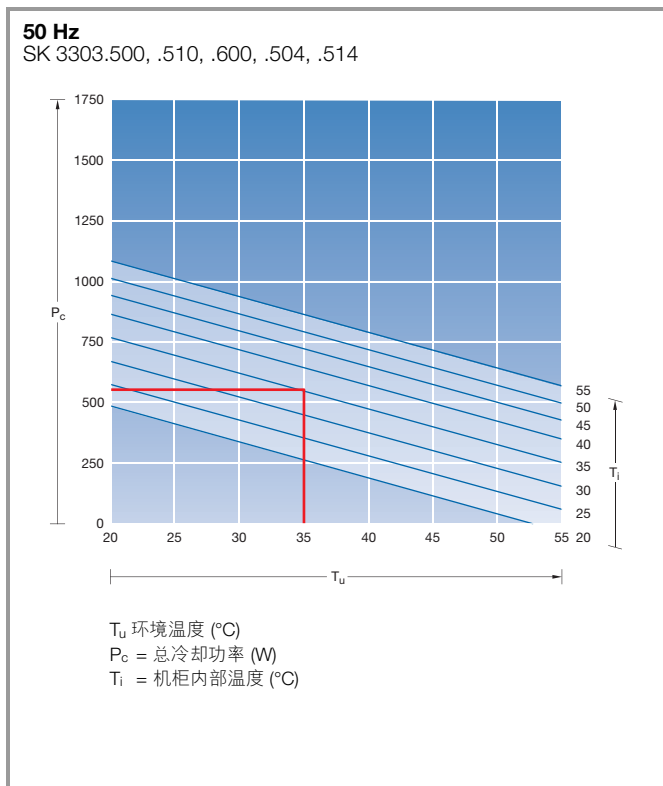
有效冷却功率 300 W (115/230 V, 1~)



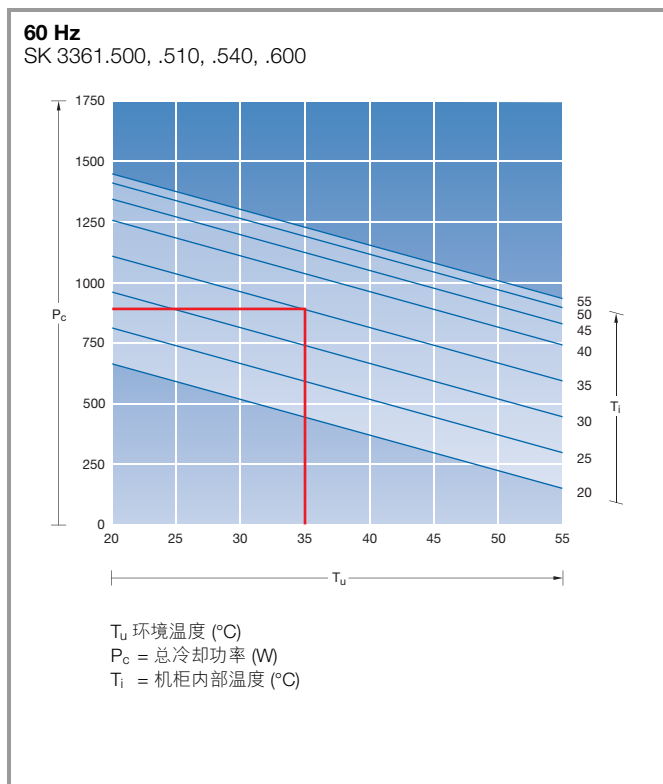
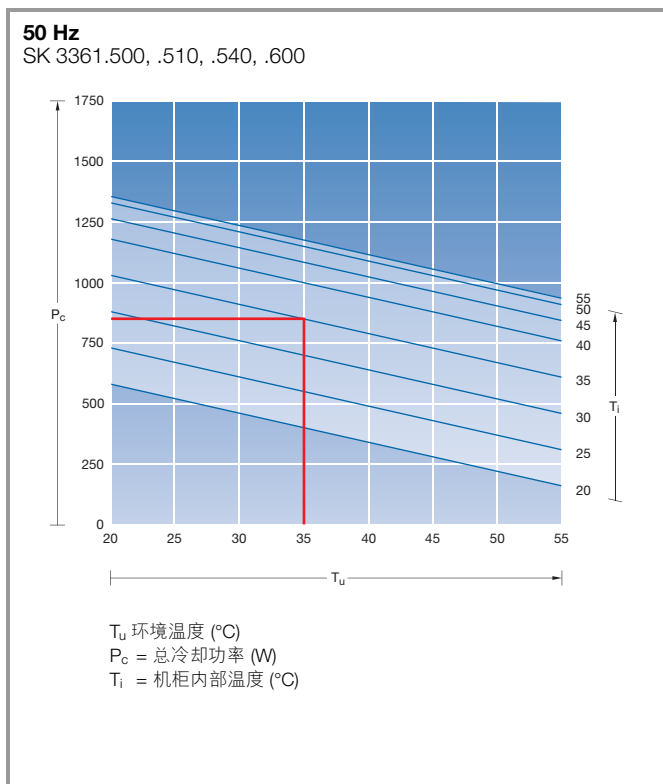
空调

壁挂式空调 TopTherm Blue e

有效冷却功率 500 W (115/230 V, 1~)

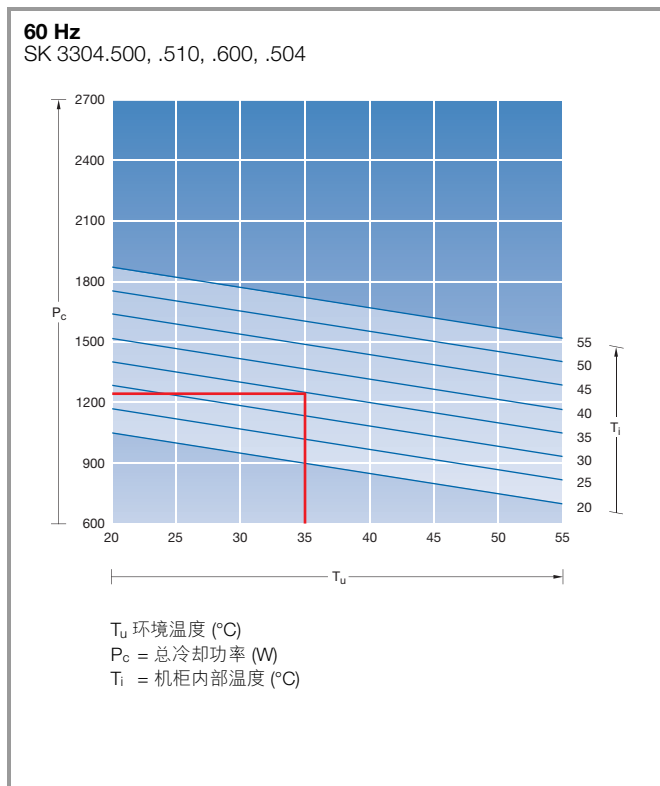
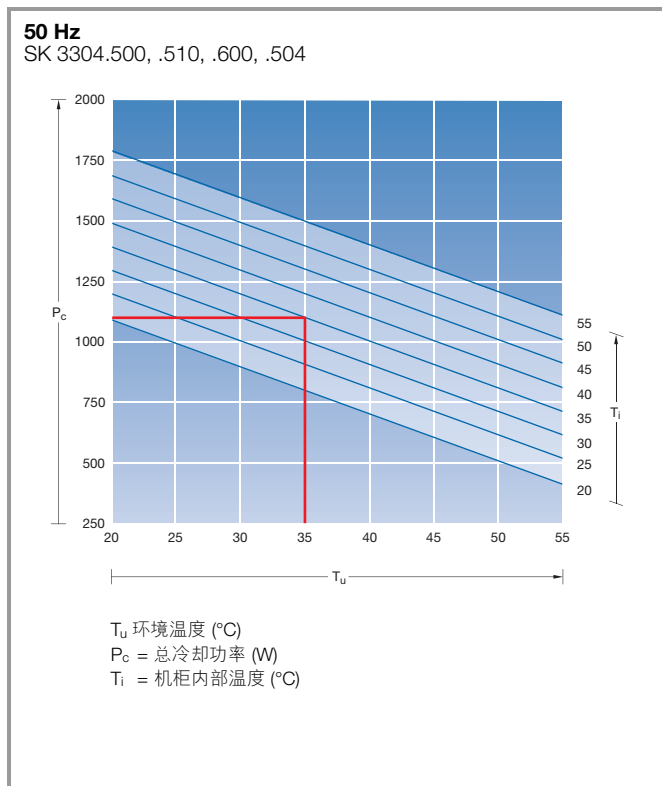


有效冷却功率 750 W (115/230 V, 1~, 400 V, 2~)

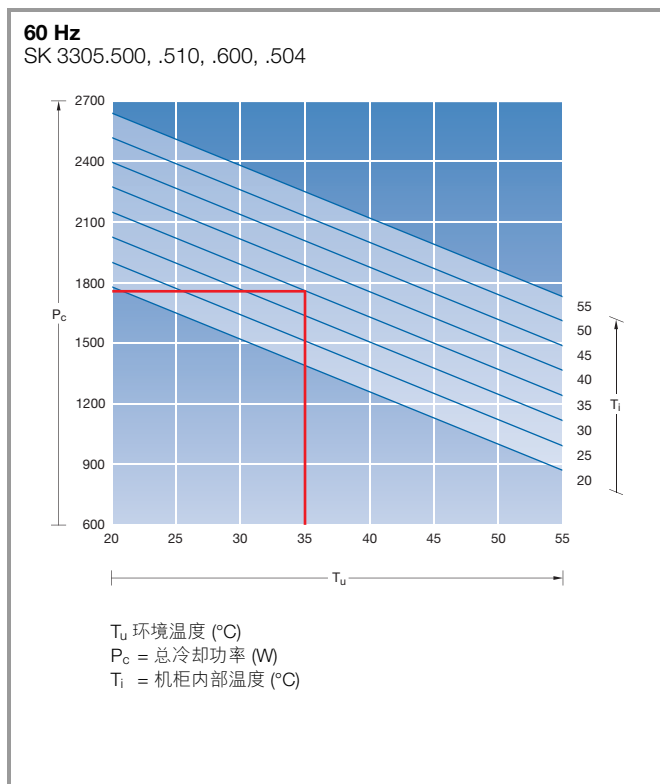
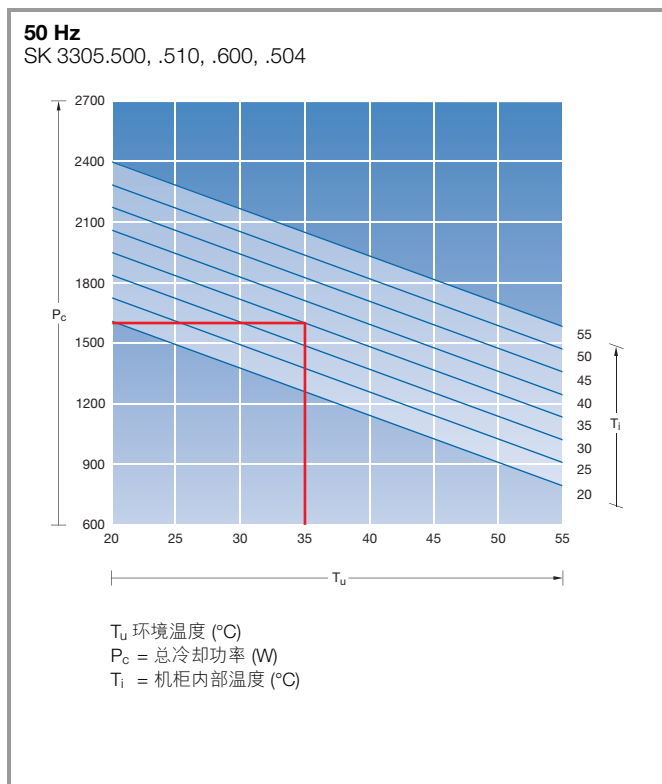


壁挂式空调 TopTherm Blue e

有效冷却功率 1000 W (115/230 V, 1~)



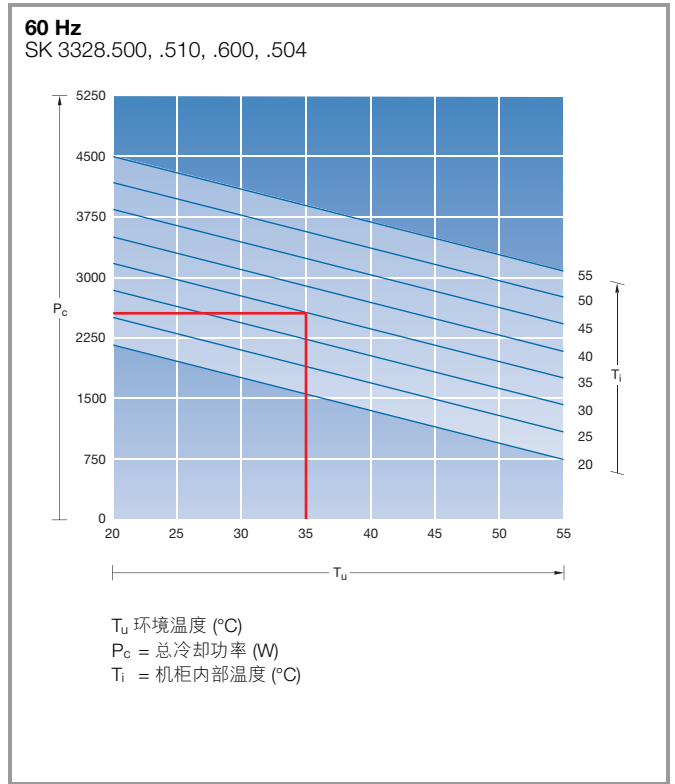
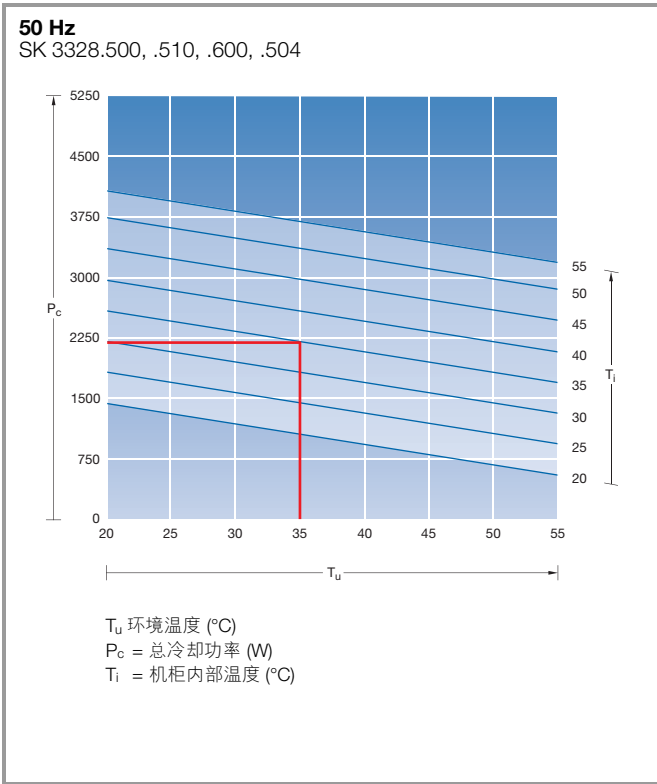
有效冷却功率 1500 W (115/230 V, 1~)



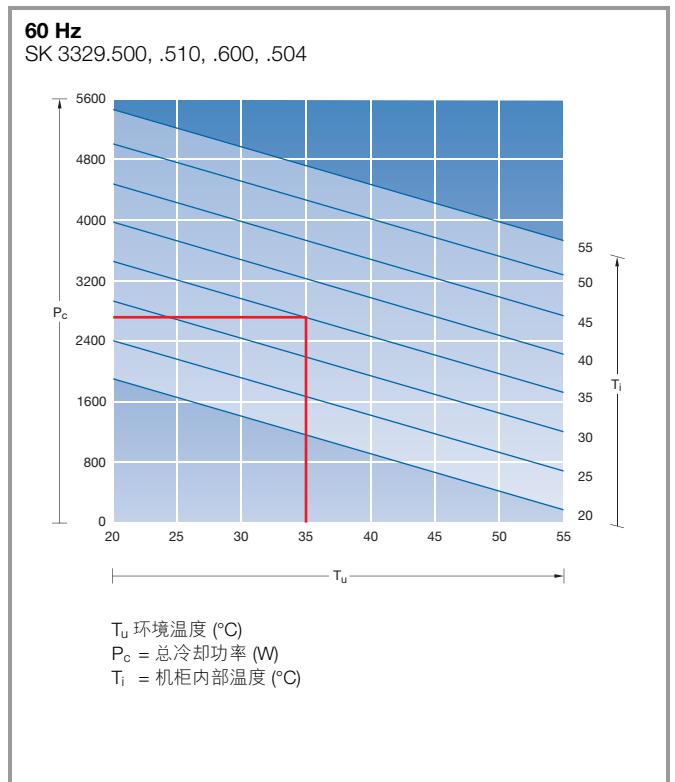
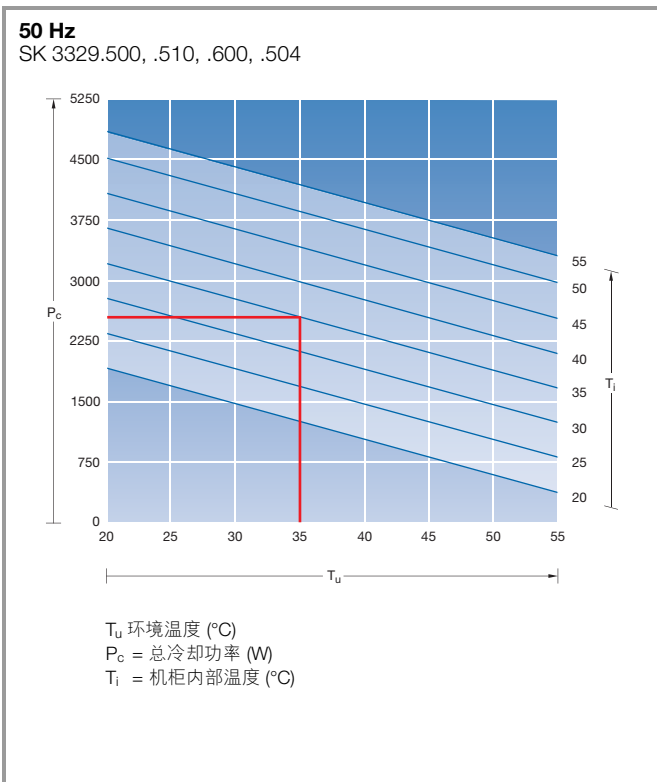
空调

壁挂式空调 TopTherm Blue e

有效冷却功率 2000 W (115/230 V, 1~)

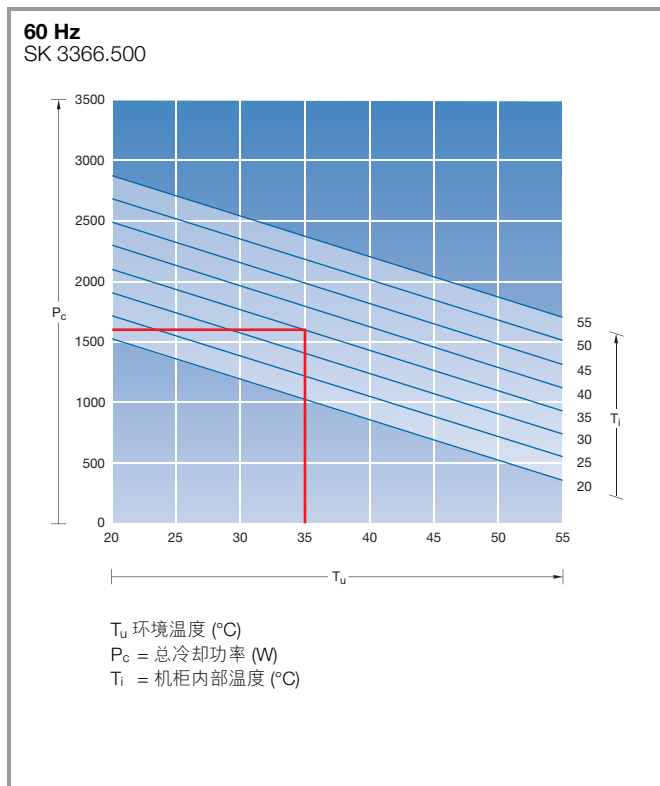
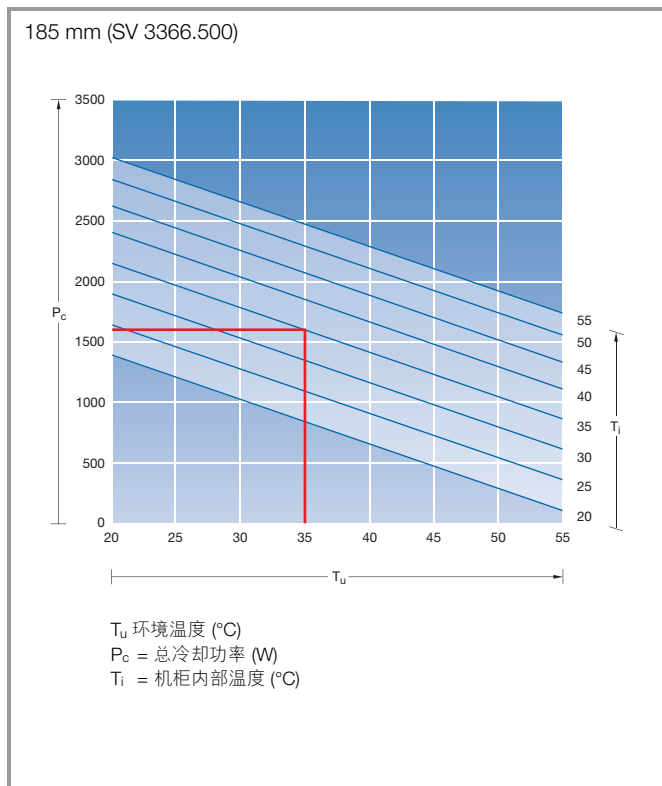


有效冷却功率 2500 W (115/230 V, 1~)

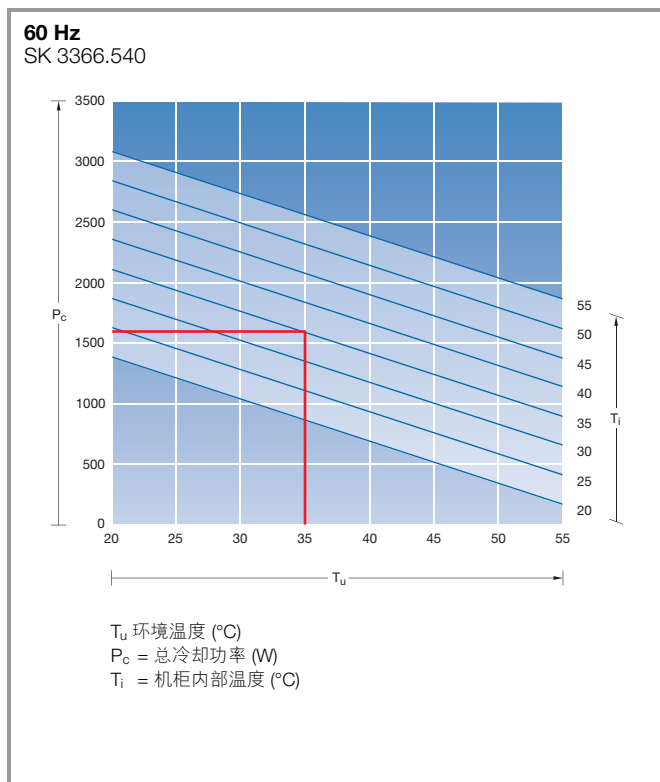
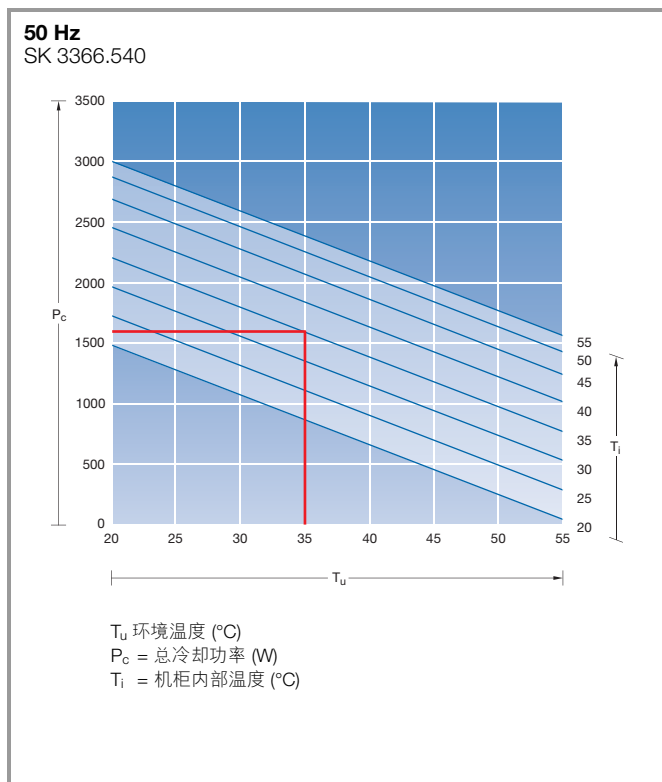


壁挂式空调 TopTherm Blue e, 薄型

有效冷却功率 1500 W (230 V, 1~)



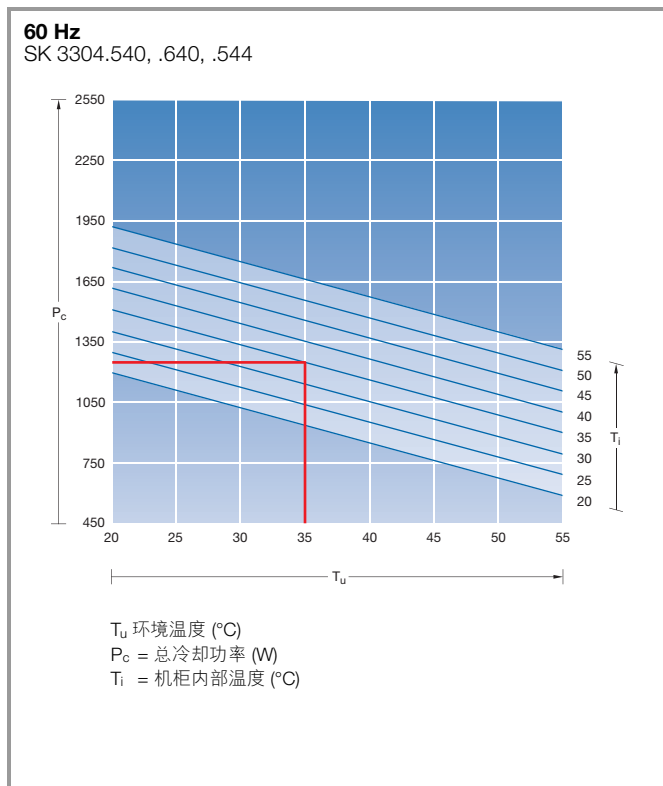
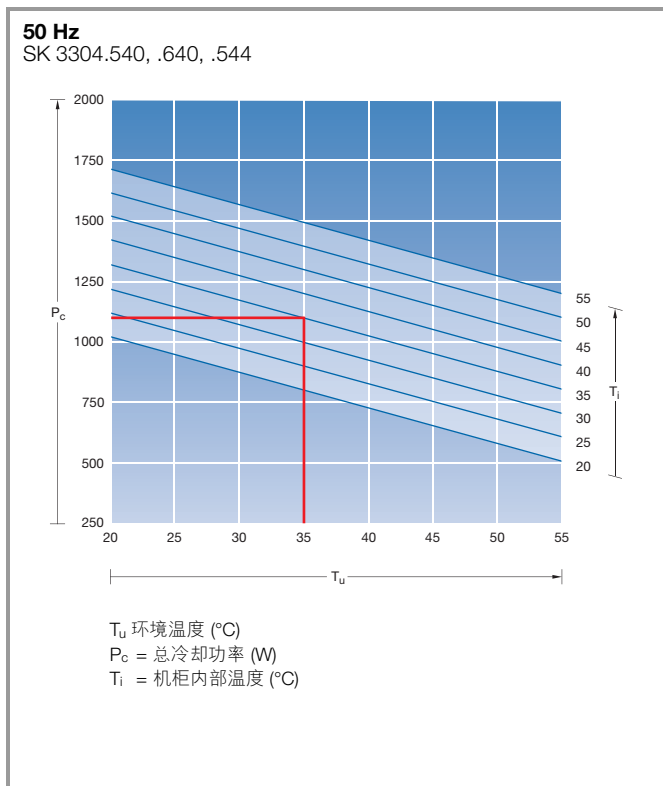
有效冷却功率 1500 W (400/460 V, 3~)



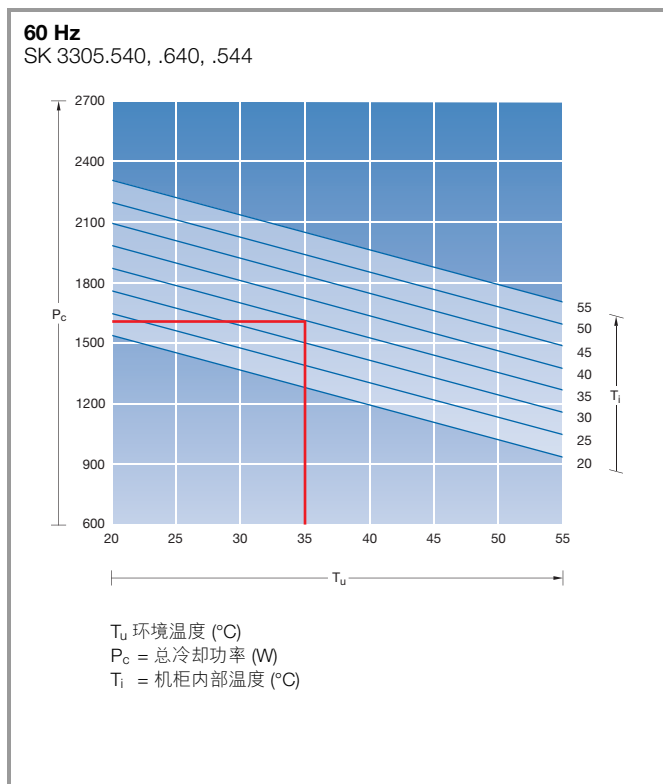
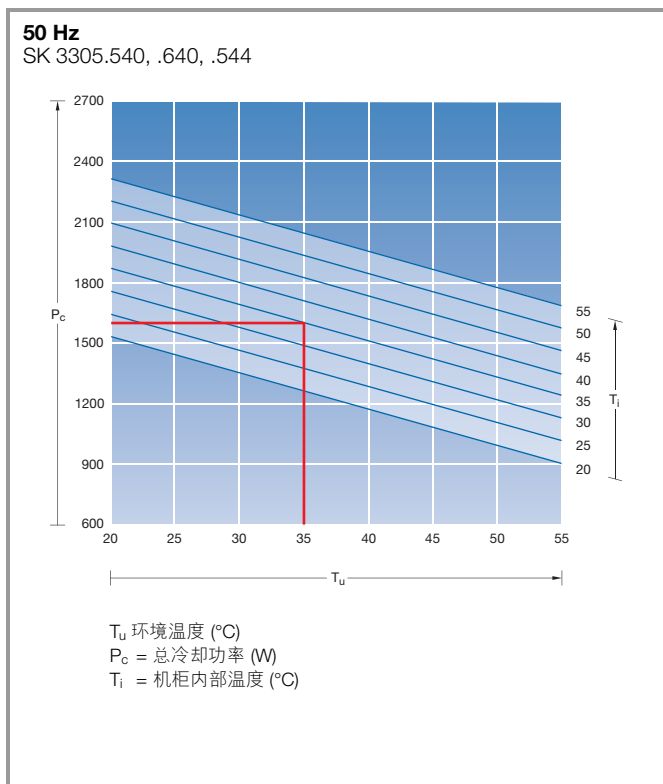
空调

壁挂式空调 TopTherm Blue e

有效冷却功率 1000 W (400/460 V, 3~)

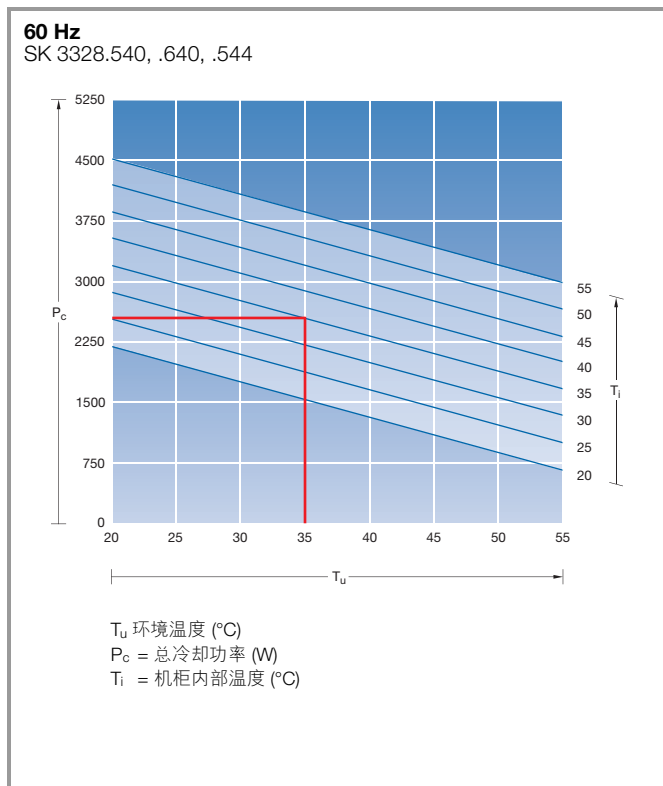
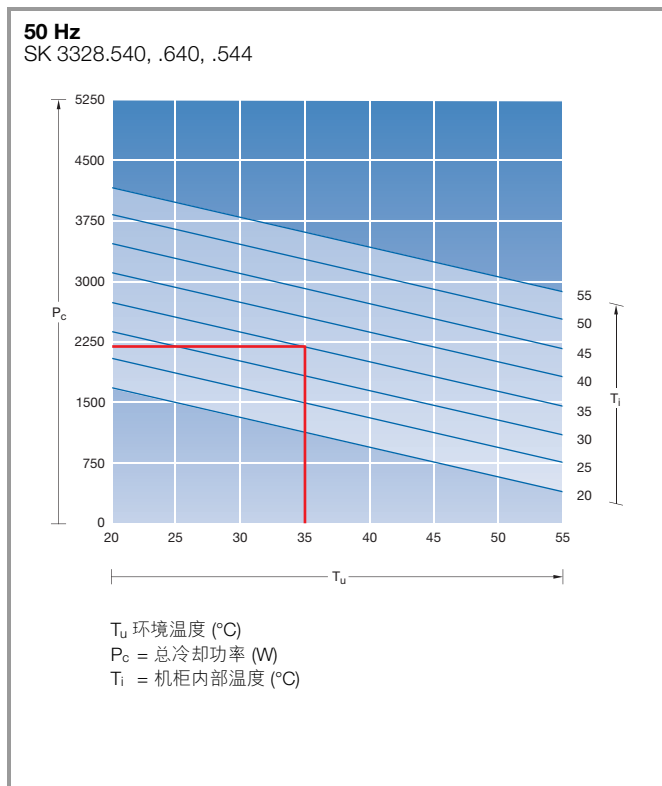


有效冷却功率 1500 W (400/460 V, 3~)

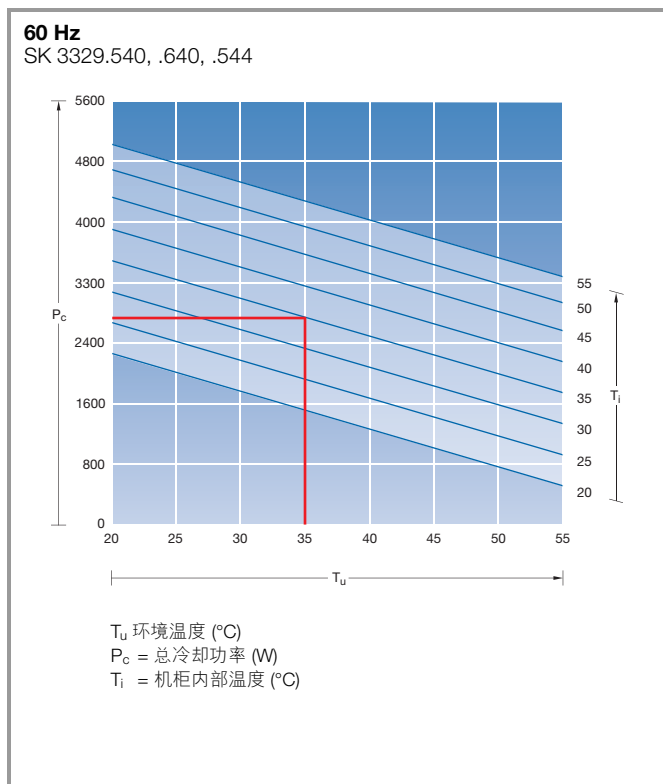
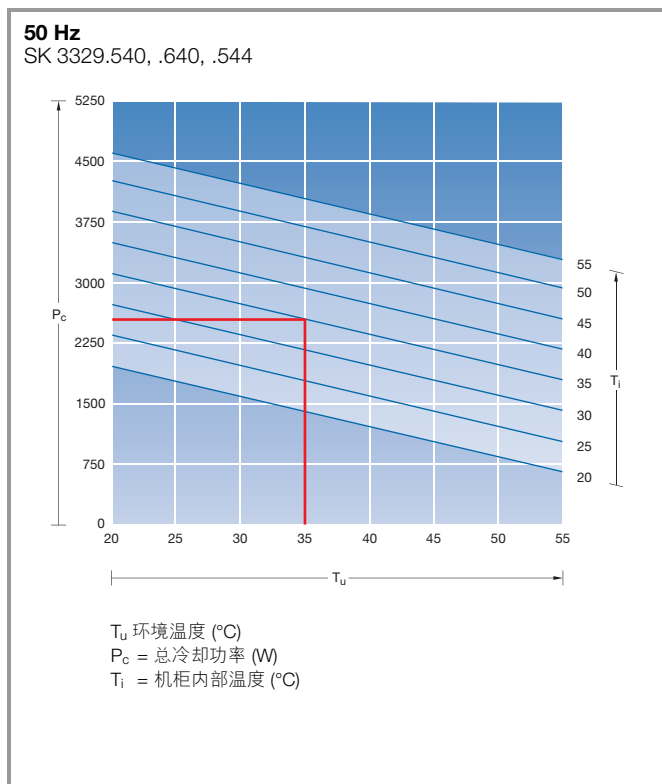


壁挂式空调 TopTherm Blue e

有效冷却功率 2000 W (400/460 V, 3~)



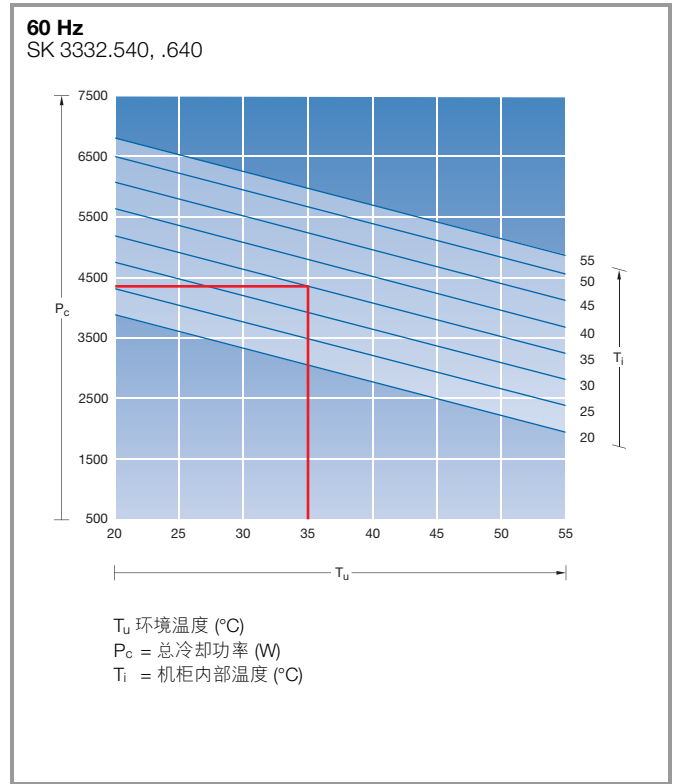
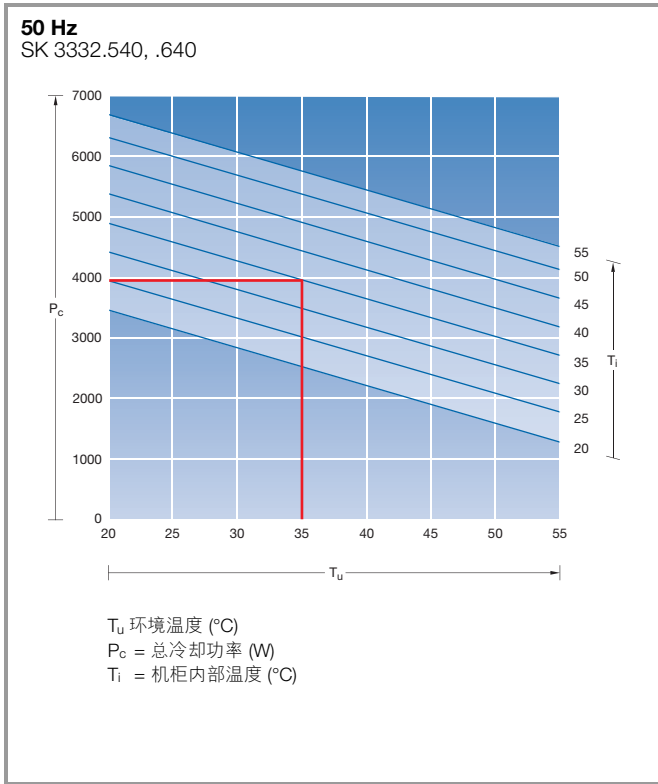
有效冷却功率 2500 W (400/460 V, 3~)



空调

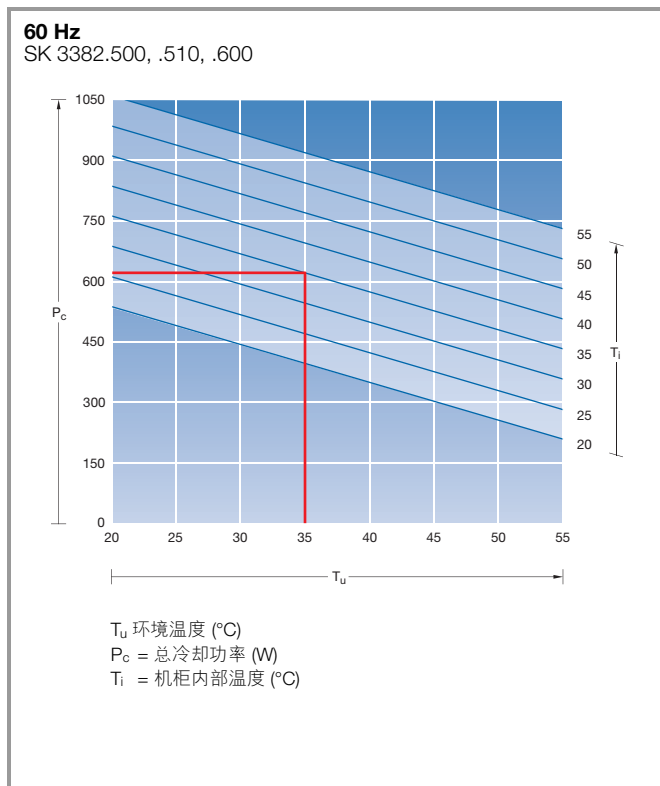
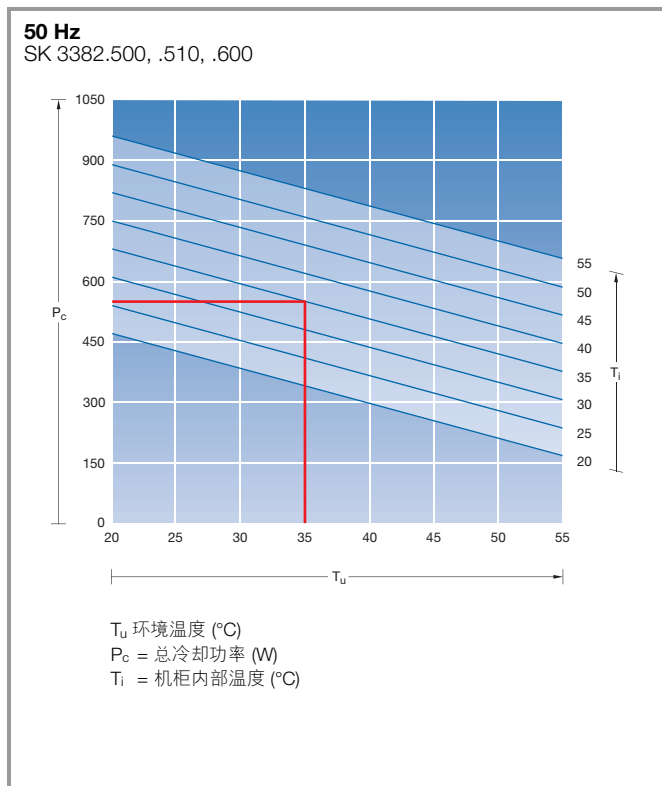
壁挂式空调 TopTherm Blue e

有效冷却功率 4000 W (400/460 V, 3~)

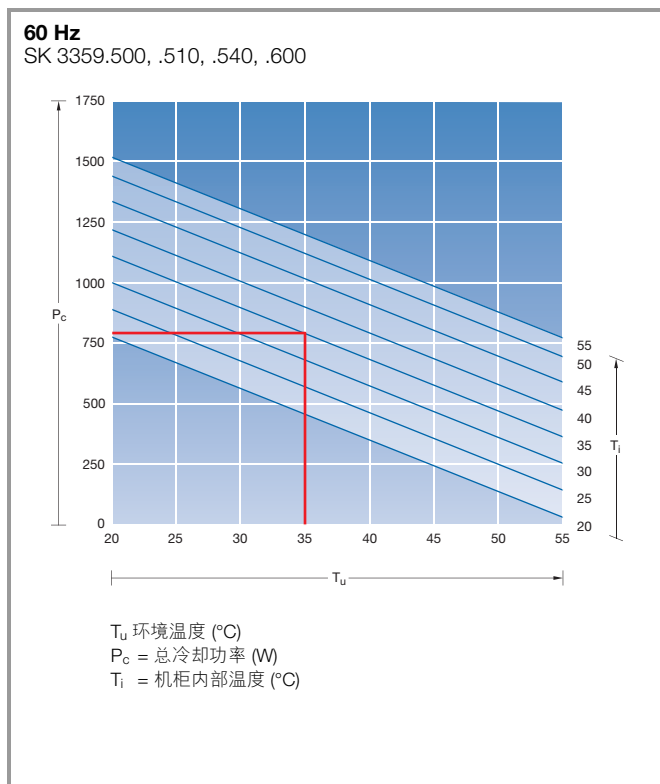
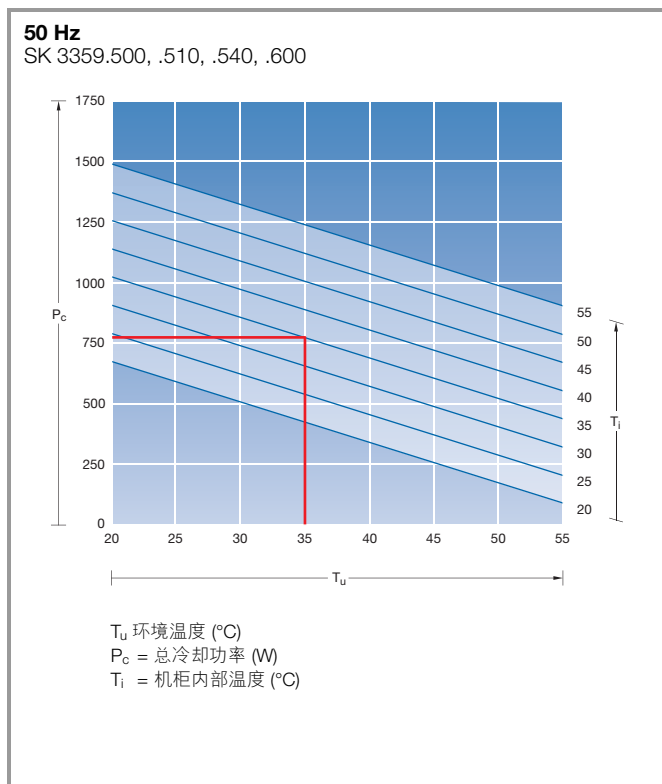


顶装式空调 TopTherm Blue e

有效冷却功率 500 W (115/230 V, 1~)



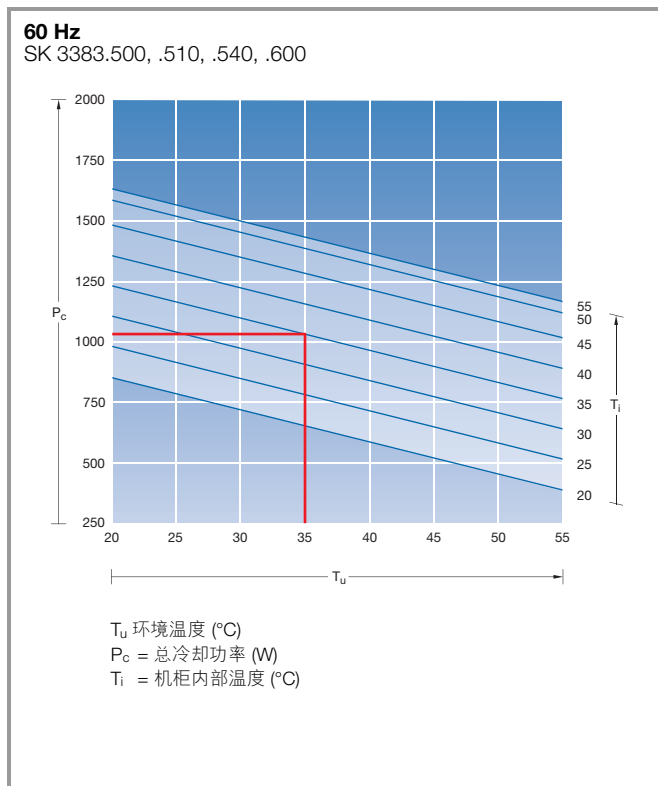
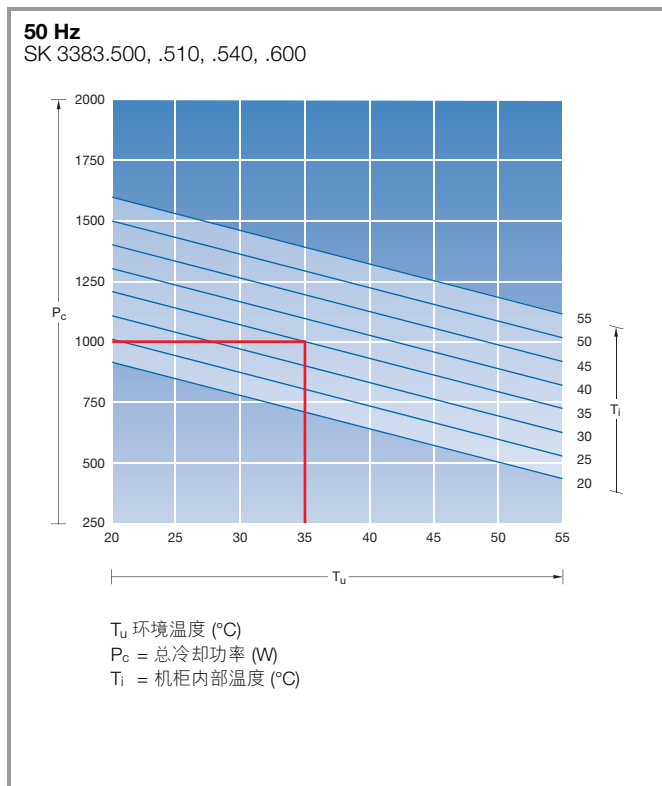
有效冷却功率 750 W (115/230 V, 1~, 400 V, 2~)



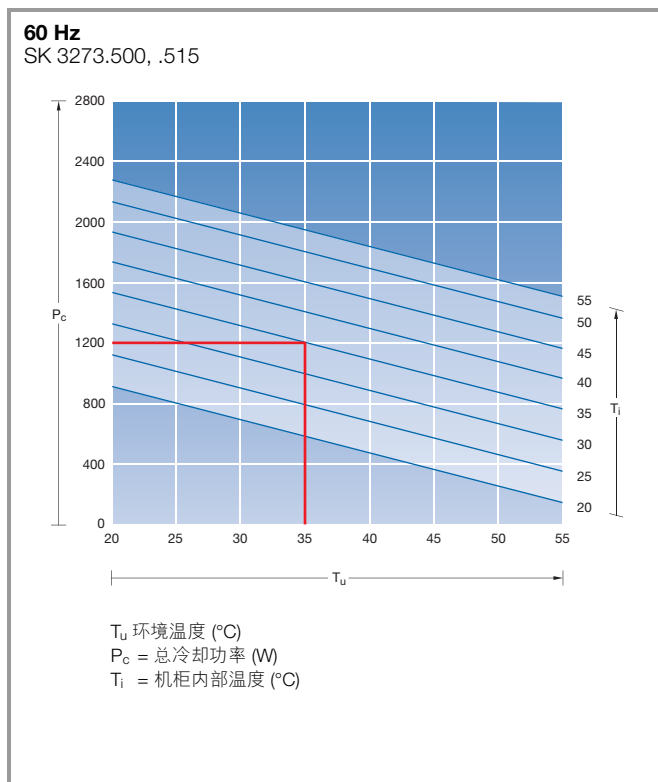
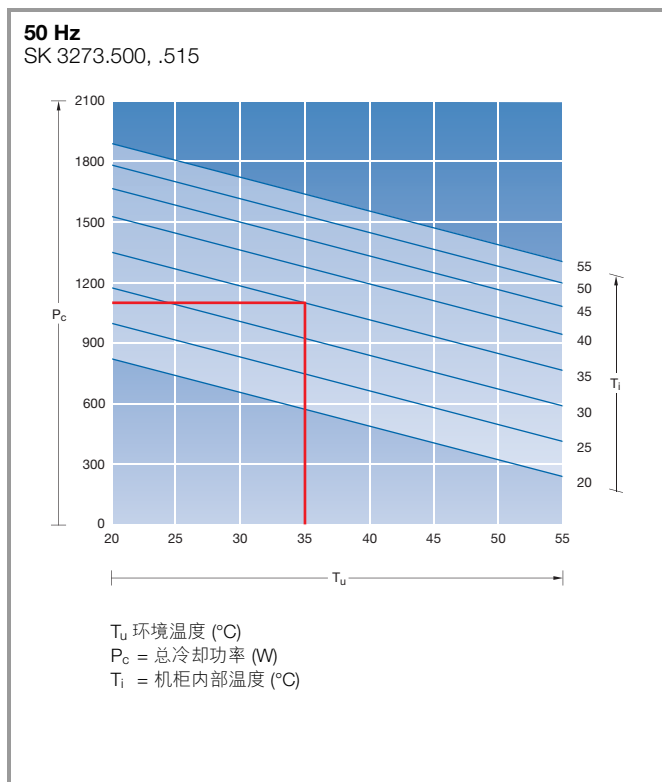
空调

顶装式空调 TopTherm Blue e

有效冷却功率 1000 W (115/230 V, 1~, 400 V, 2~)

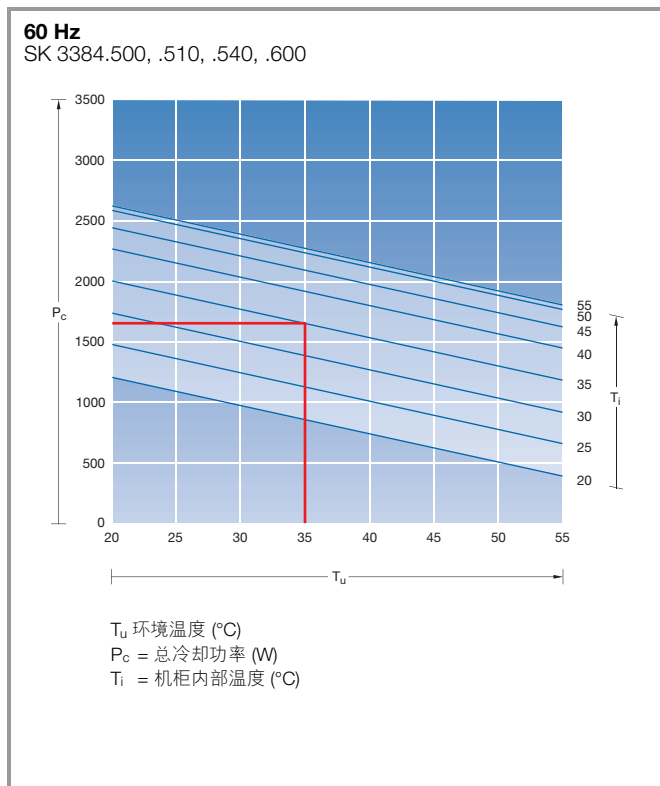
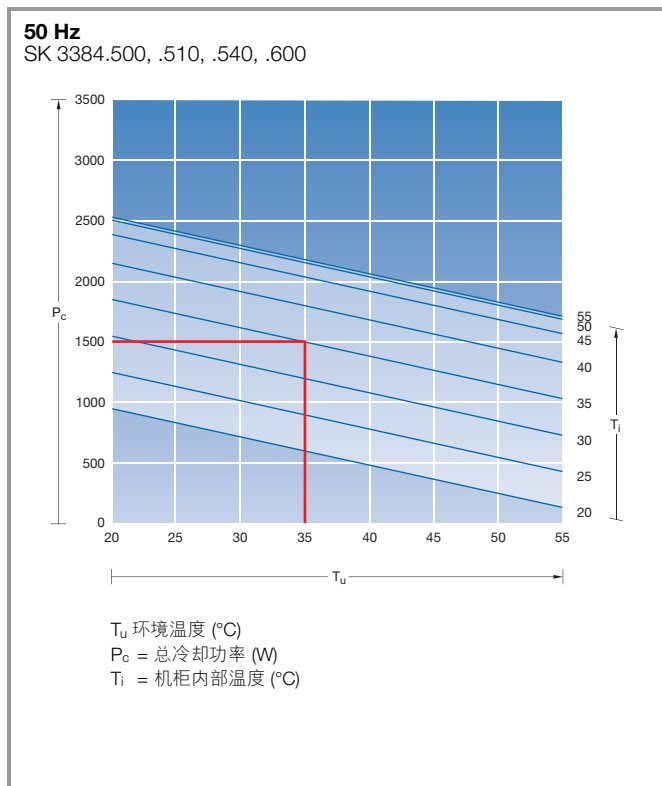


有效冷却功率 1100 W (115/230 V, 1~)

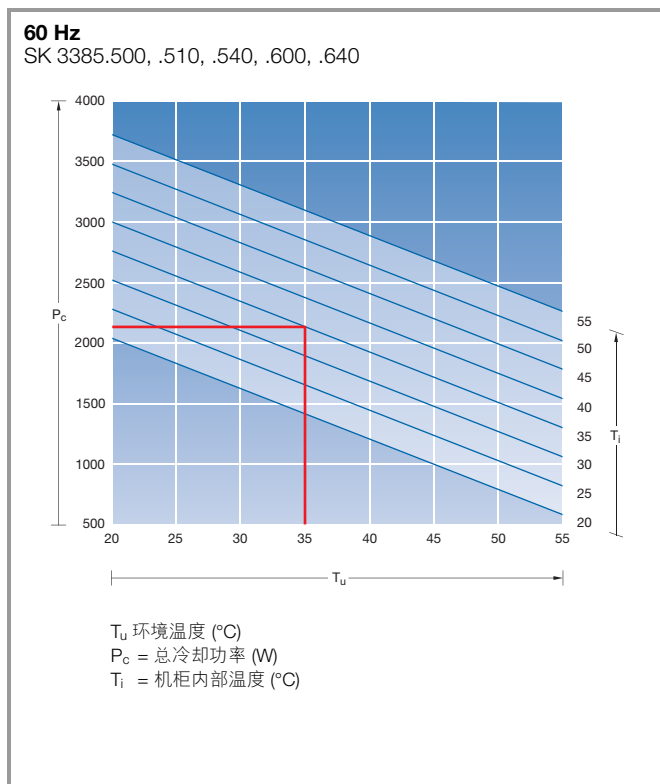
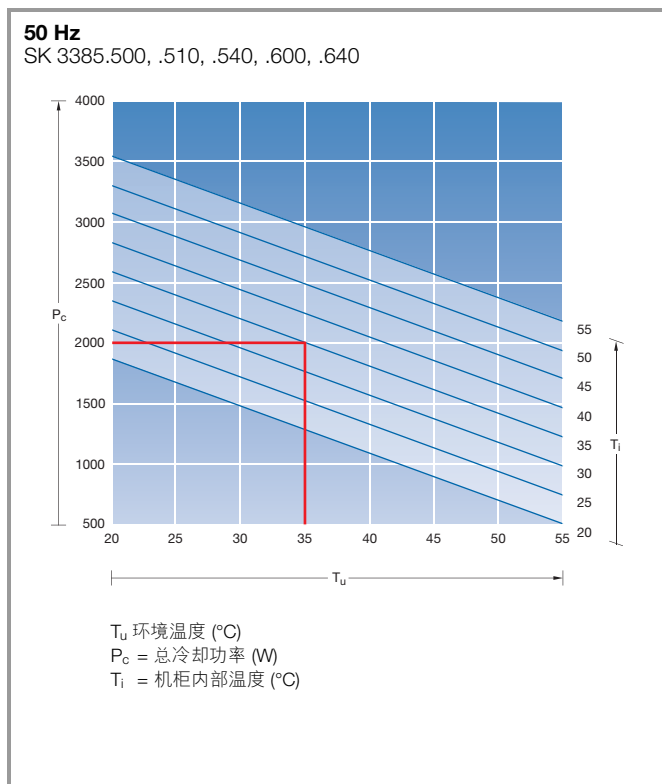


顶装式空调 TopTherm Blue e

有效冷却功率 1500 W (115/230 V, 1~, 400 V, 2~)



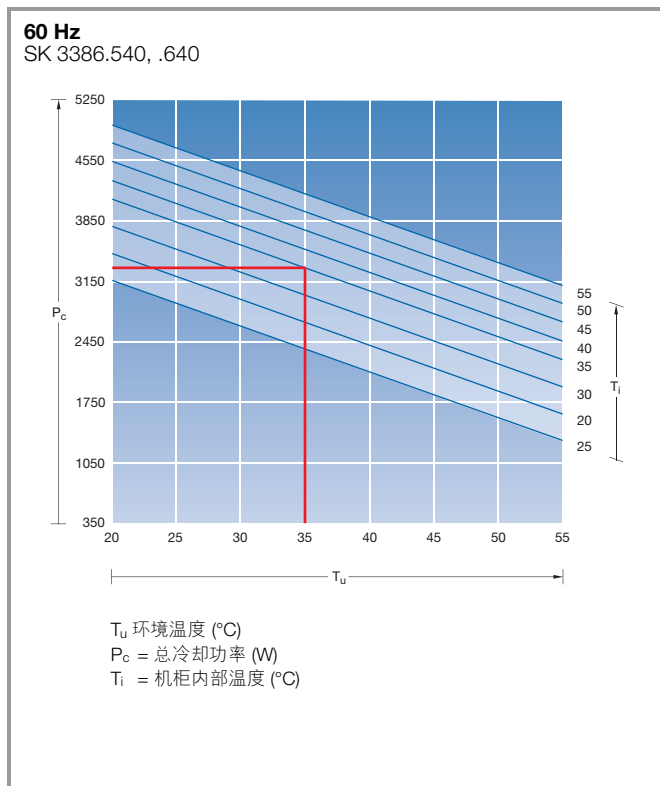
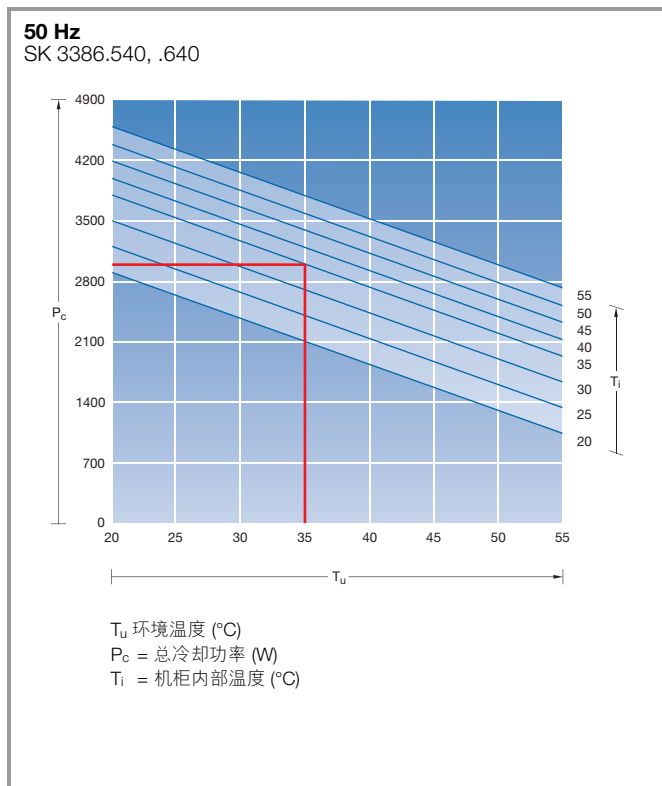
有效冷却功率 2000 W (115/230 V, 1~, 400 V, 2~)



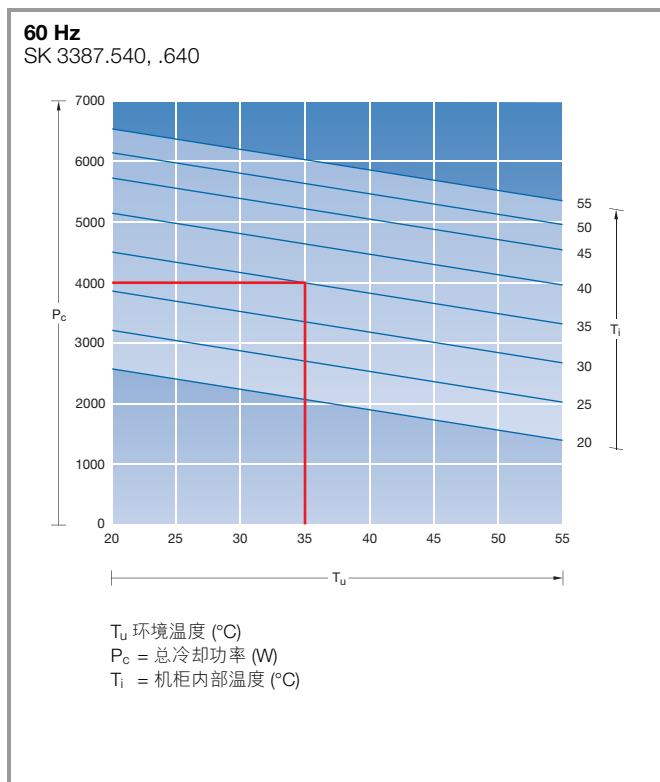
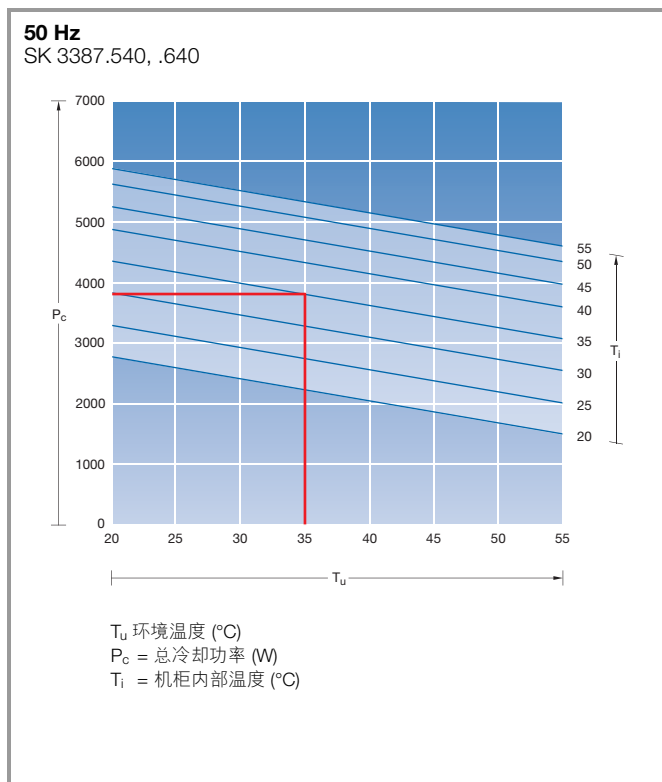
空调

顶装式空调 TopTherm Blue e

有效冷却功率 3000 W (400/460 V, 3~)

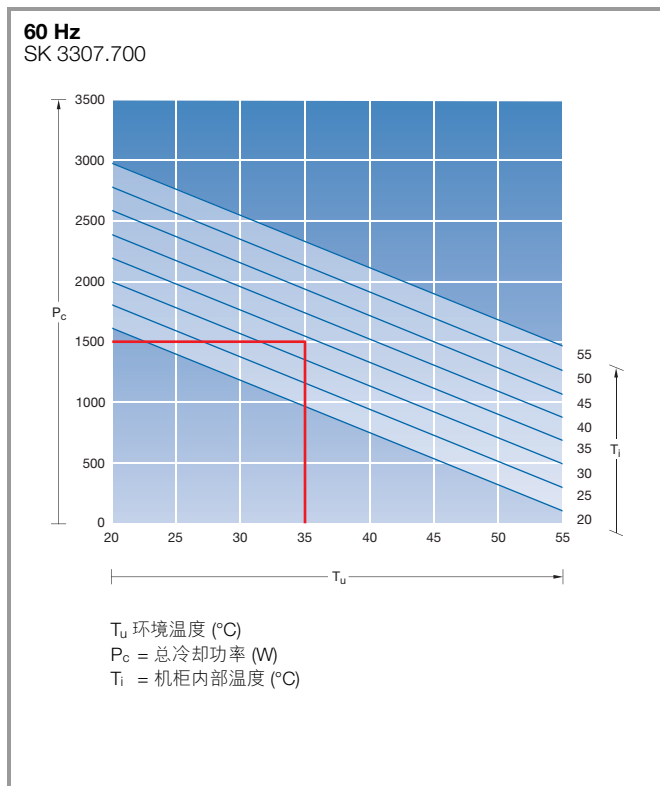
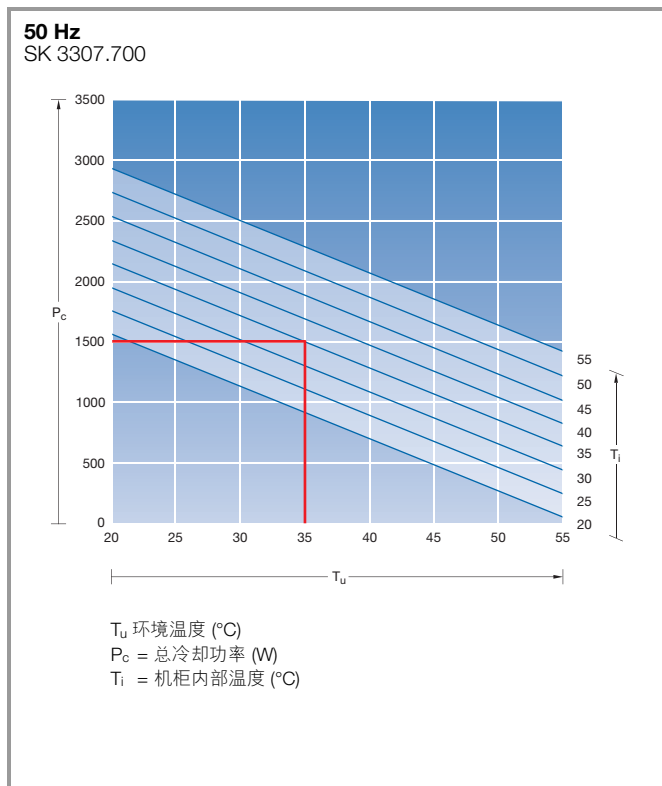


有效冷却功率 4000 W (400/460 V, 3~)

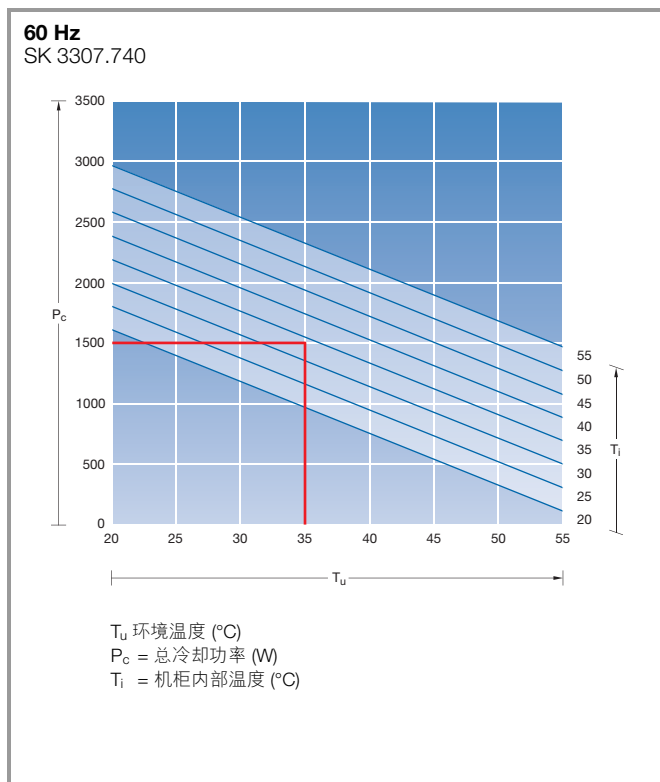
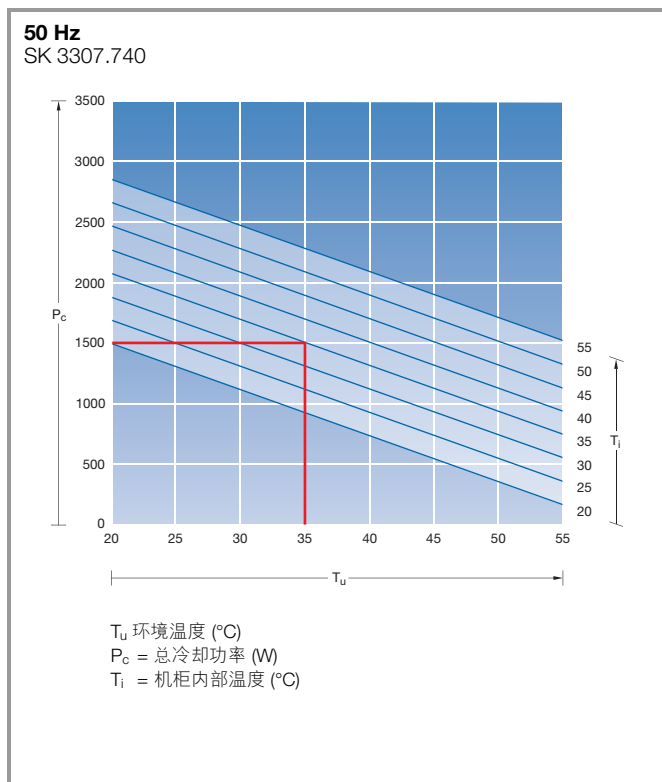


空调模块设计, 冷却模块 Blue e

有效冷却功率 1500 W (230 V, 1~)



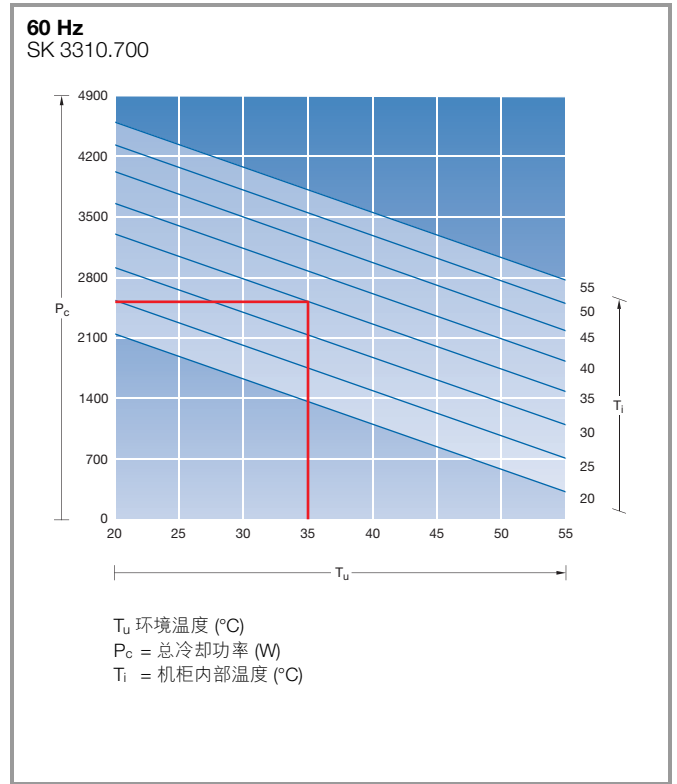
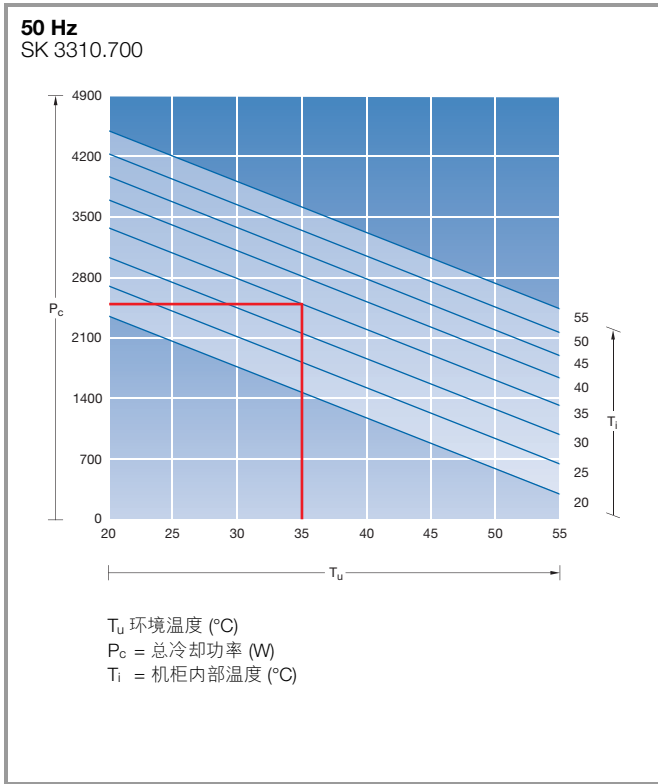
有效冷却功率 1500 W (400/460 V, 3~)



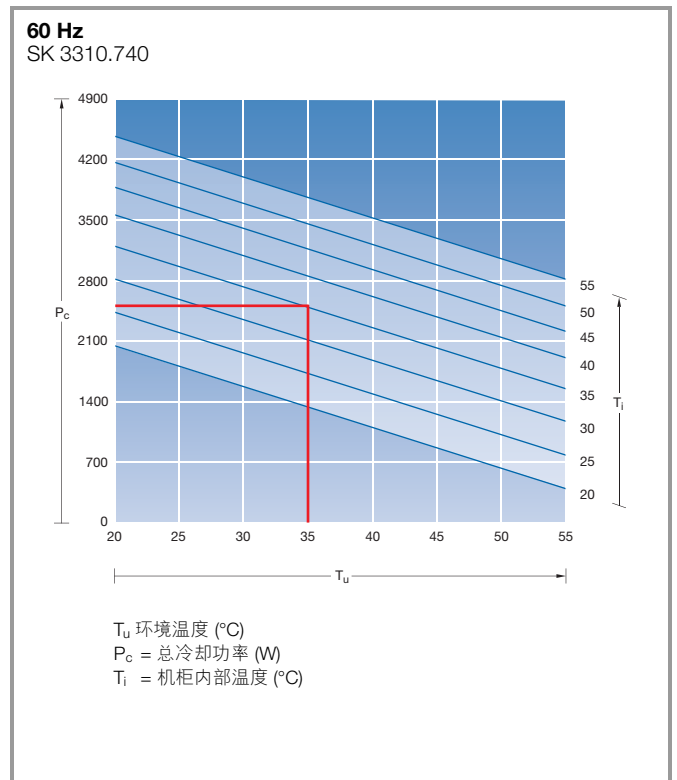
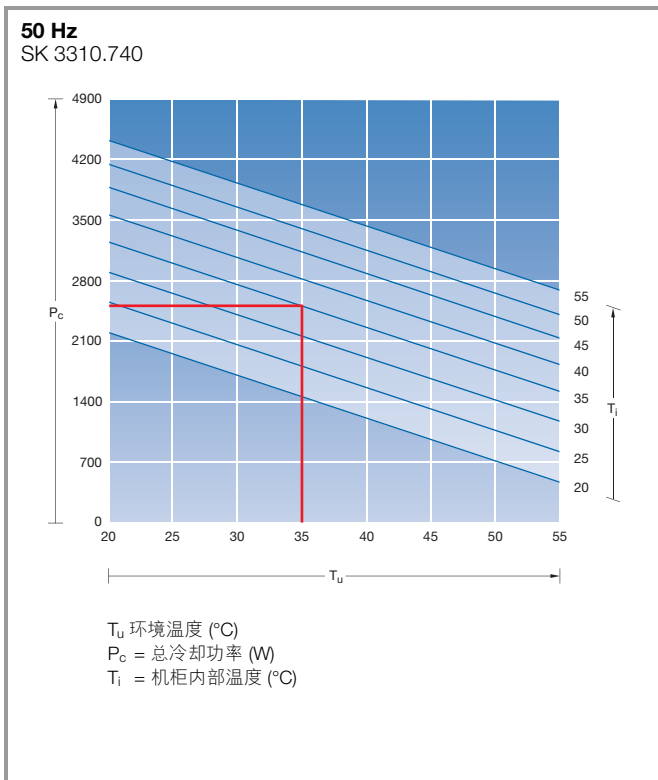
空调

空调模块设计, 冷却模块 Blue e

有效冷却功率 2500 W (230 V, 1~)



有效冷却功率 2500 W (400/460 V, 3~)

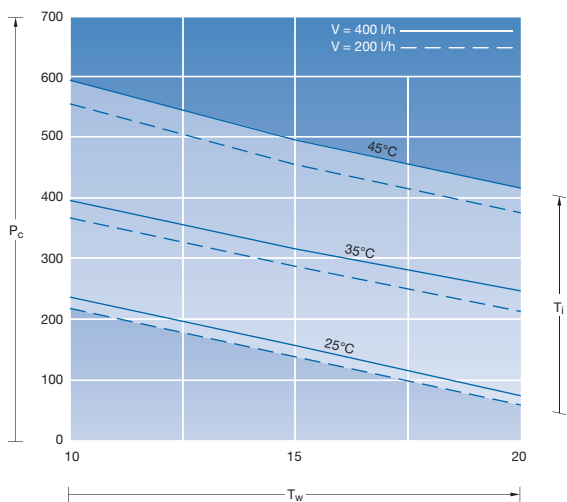


壁装式空气 / 水热交换器

有效冷却功率 300 W

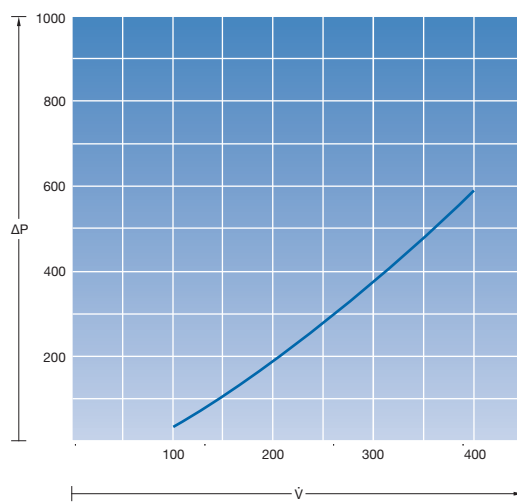
导水部件：铜 / 黄铜 (Cu/CuZn)

50/60 Hz
SK 3212.024, .115, .230



T_w = 进水温度 (°C)
 P_c = 总冷却功率 (W)
 T_i = 机柜内部温度 (°C)

水压图
SK 3212.024, .115, .230

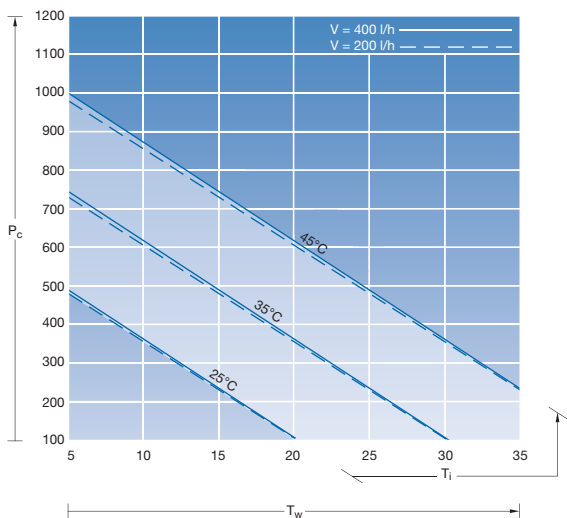


\dot{V} = 容积流量 (l/h)
 ΔP = 水压力 (mbar)

有效冷却功率 600 W

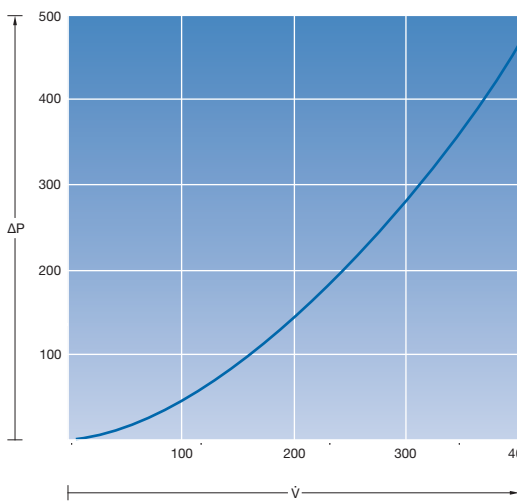
导水部件：铜 / 黄铜 (Cu/CuZn)

50/60 Hz
SK 3214.100



T_w = 进水温度 (°C)
 P_c = 总冷却功率 (W)
 T_i = 机柜内部温度 (°C)

水压图
SK 3214.100



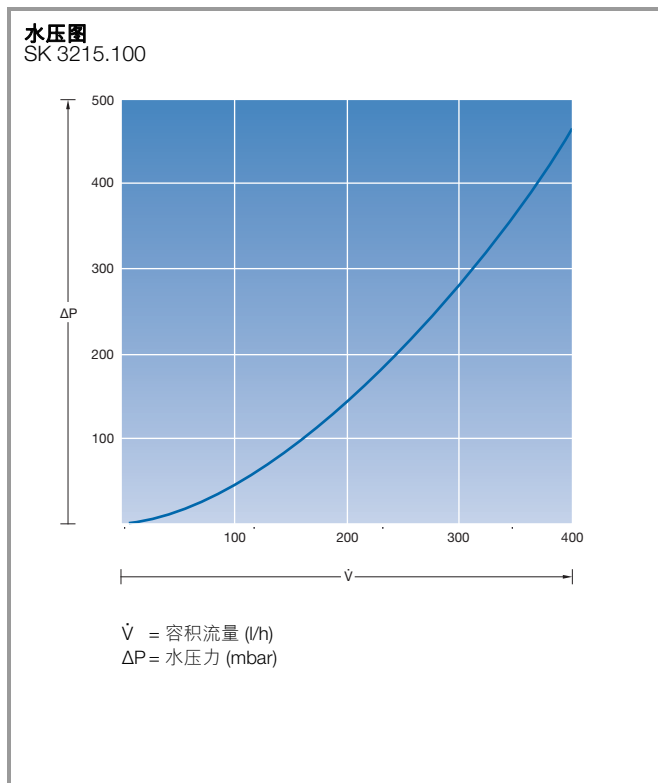
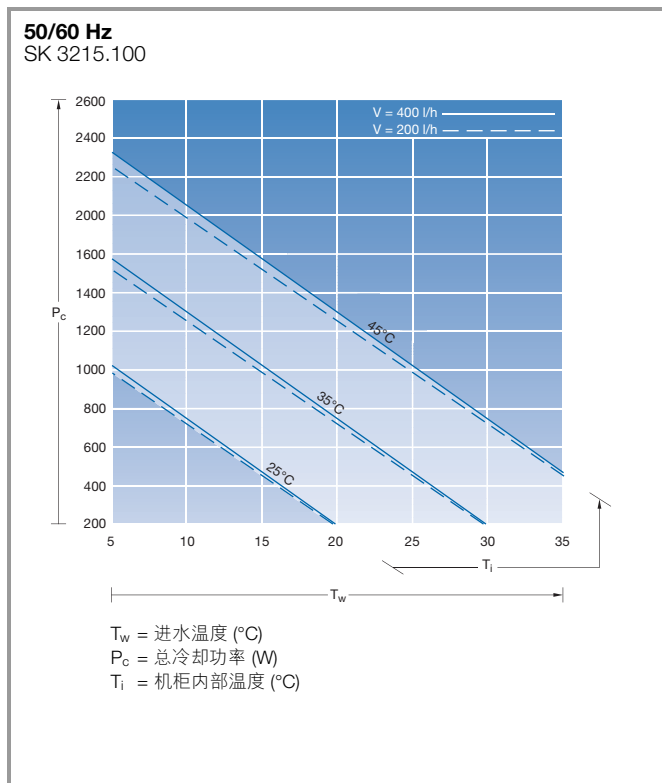
\dot{V} = 容积流量 (l/h)
 ΔP = 水压力 (mbar)

液体冷却

壁装式空气 / 水热交换器

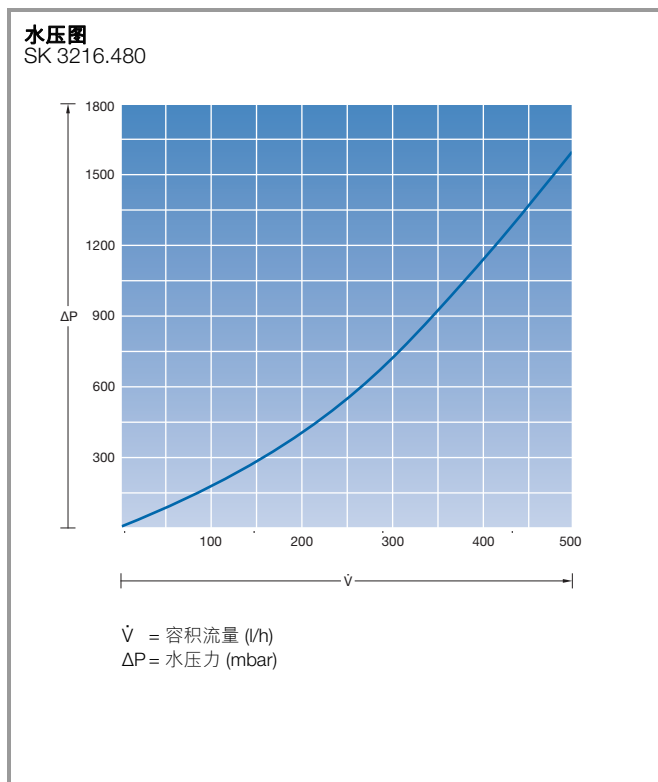
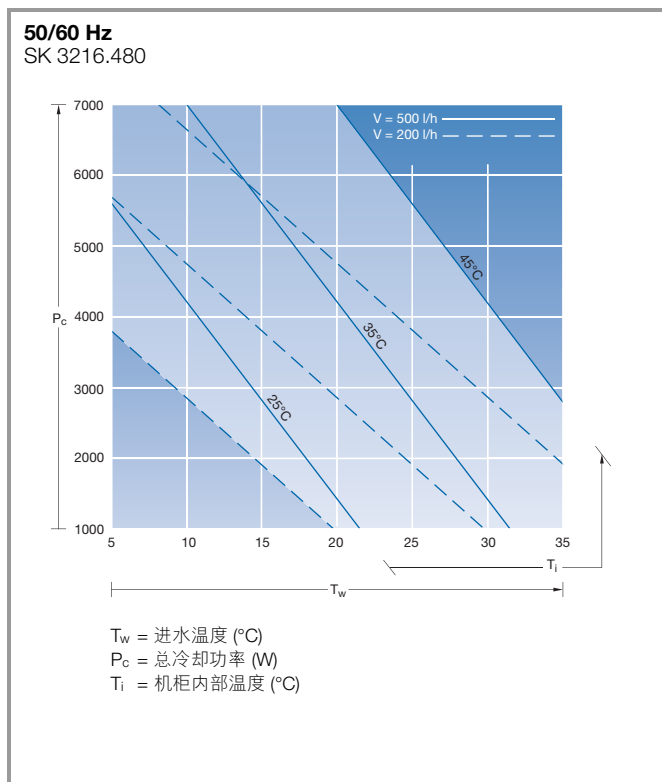
有效冷却功率 1250 W

导水部件：铜 / 黄铜 (Cu/CuZn)



有效冷却功率 7000 W

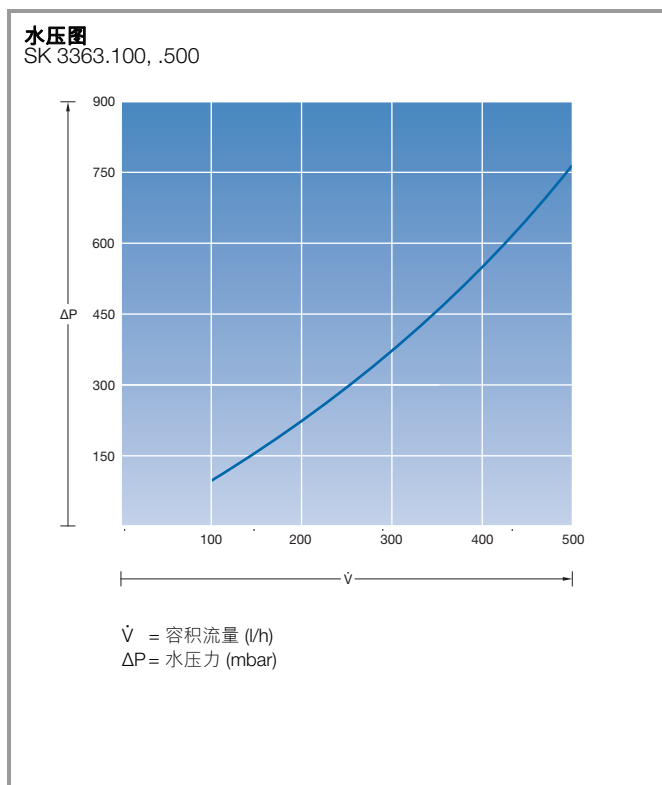
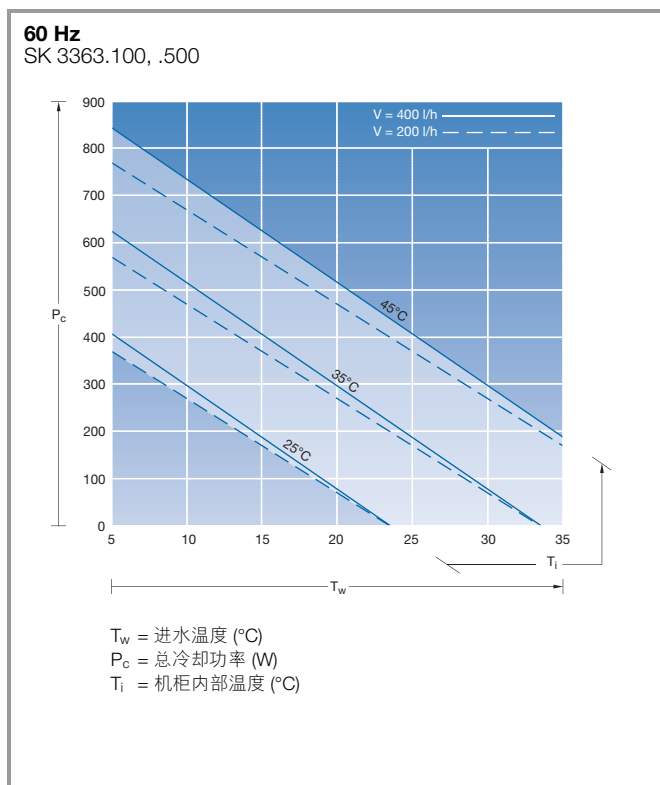
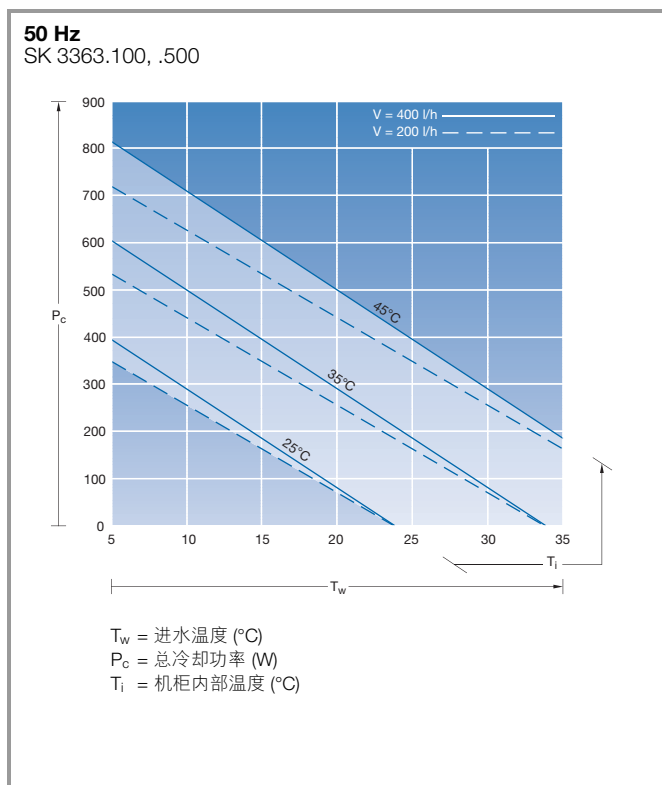
导水部件：铜 / 黄铜 (Cu/CuZn)



壁装式空气 / 水热交换器

有效冷却功率 500 W

导水部件：铜 / 黄铜 (Cu/CuZn)

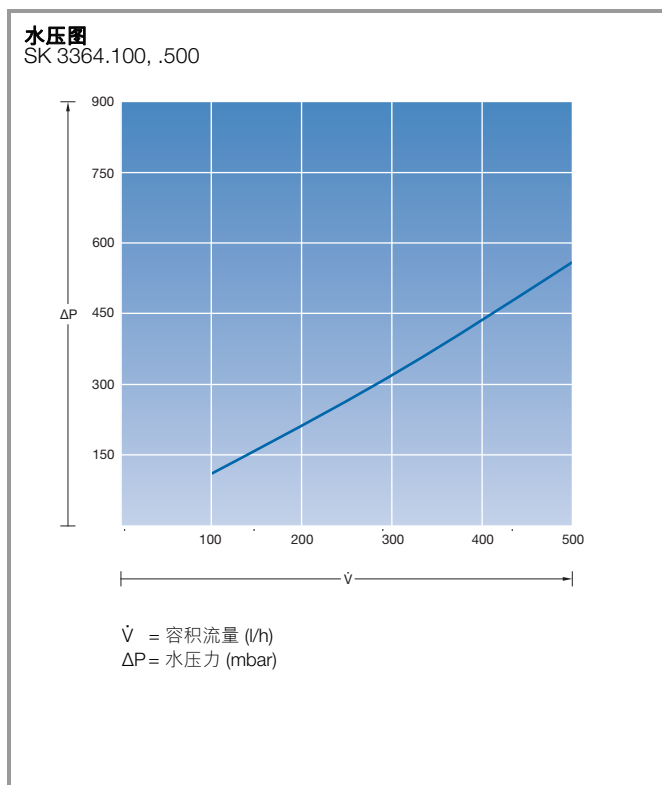
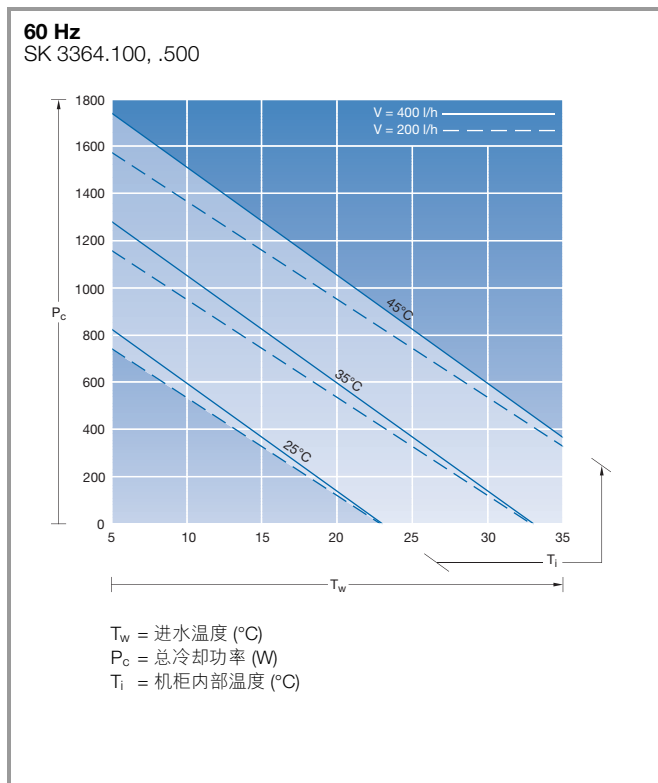
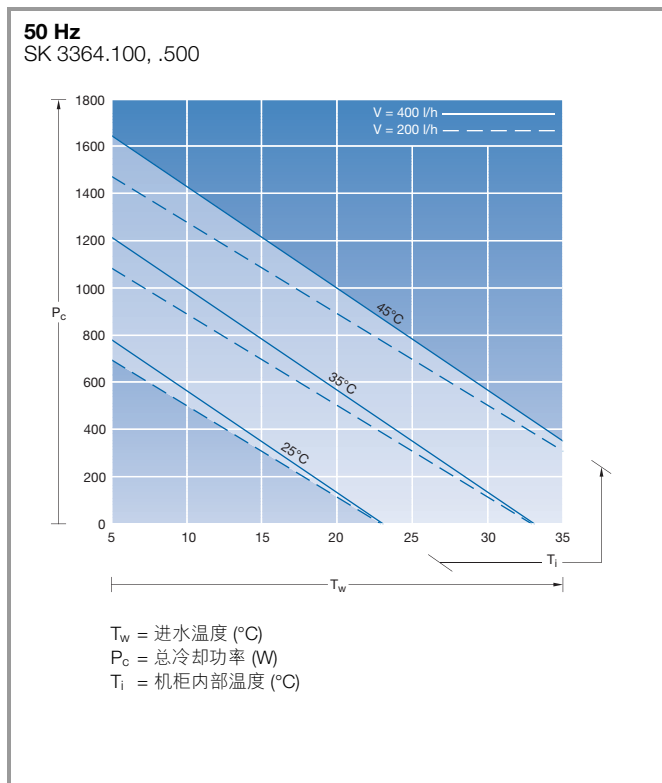


液体冷却

壁装式空气 / 水热交换器

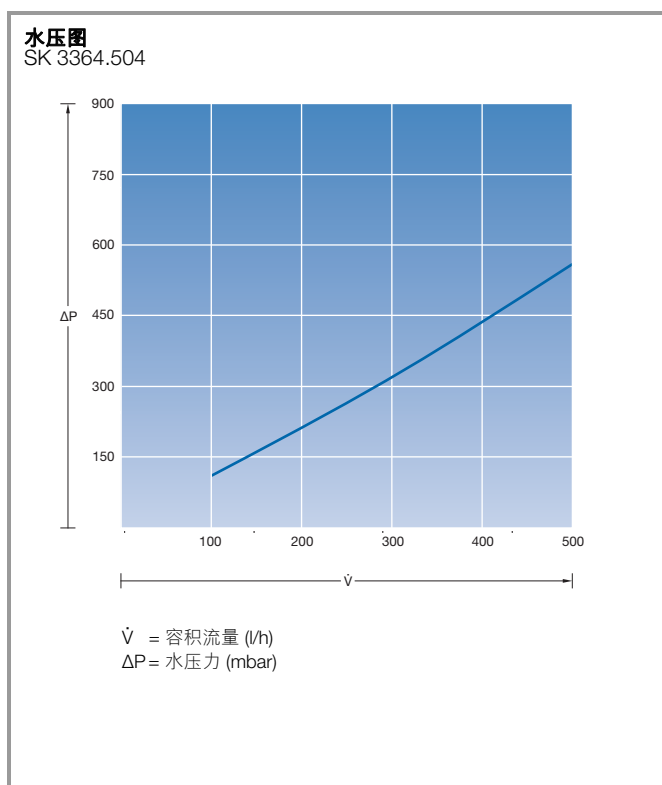
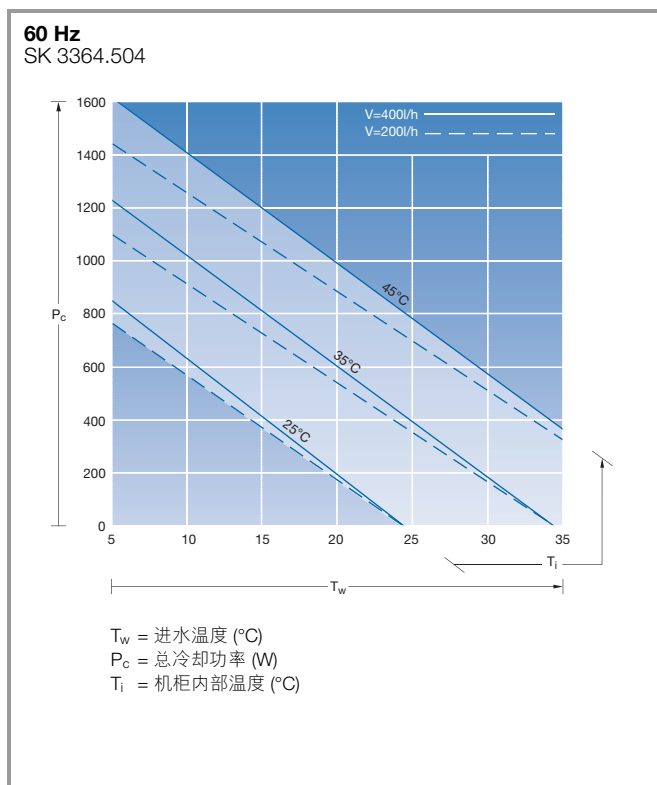
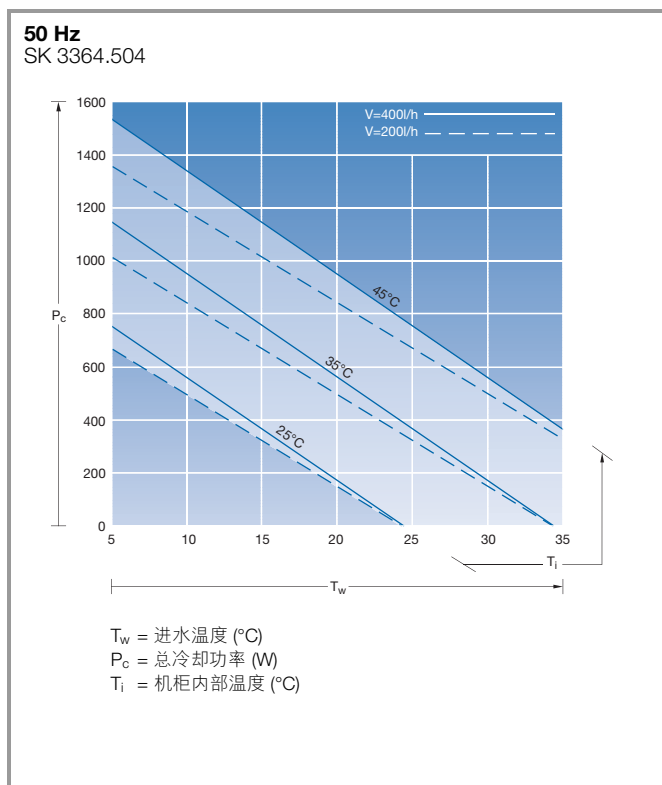
有效冷却功率 1000 W

导水部件：铜 / 黄铜 (Cu/CuZn)



壁装式空气 / 水热交换器

有效冷却功率 1000 W
 导水部件：不锈钢 (1.4571)

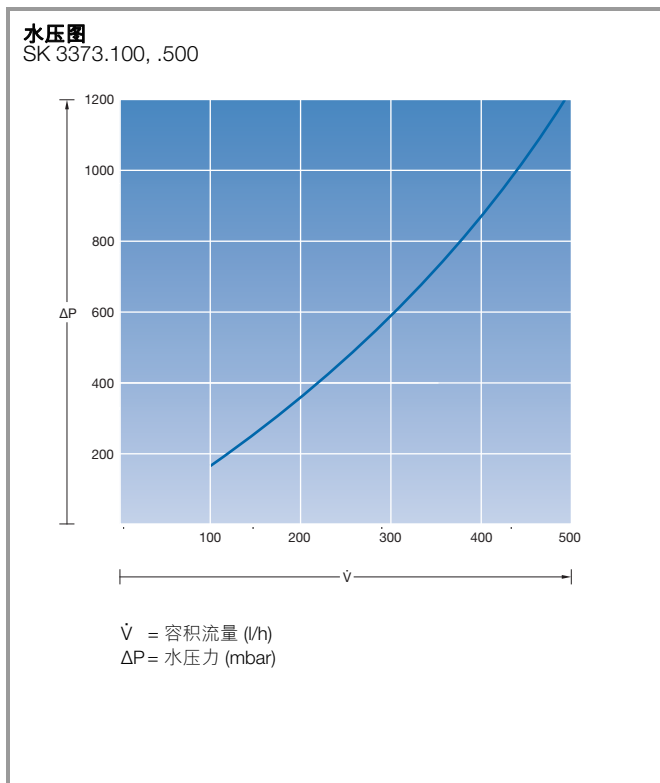
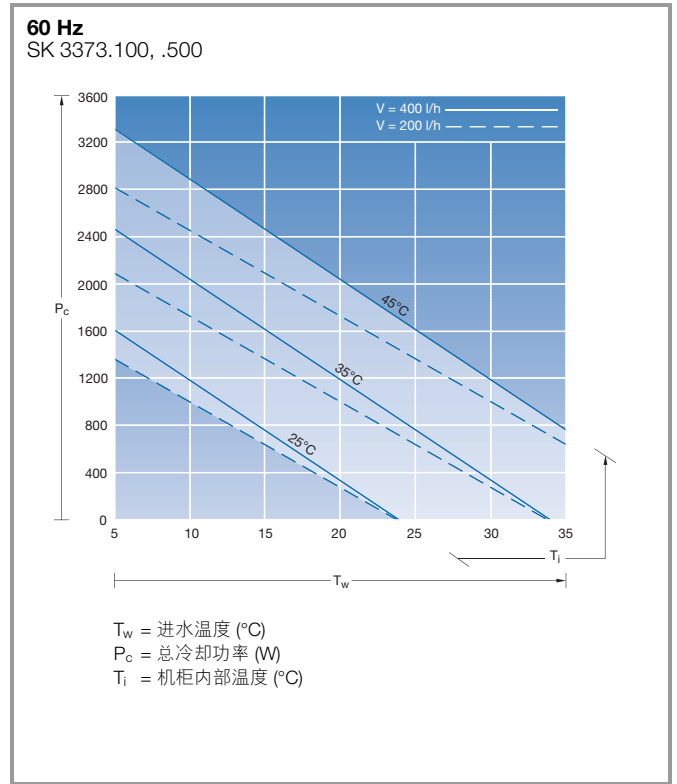
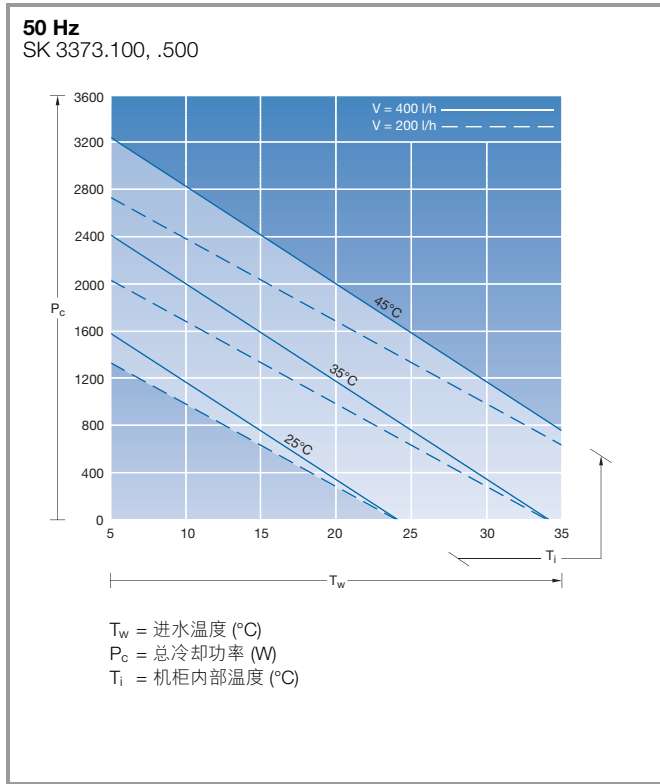


液体冷却

壁装式空气 / 水热交换器

有效冷却功率 2000 W

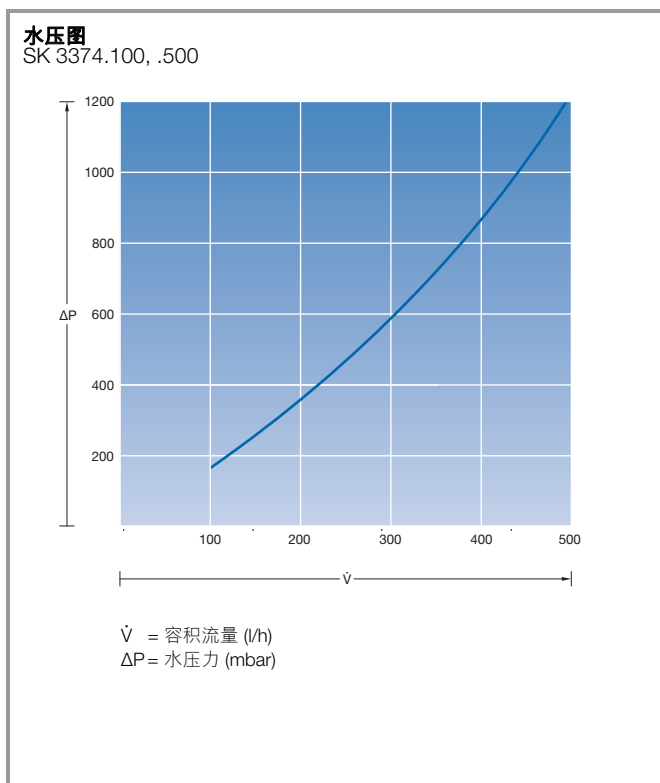
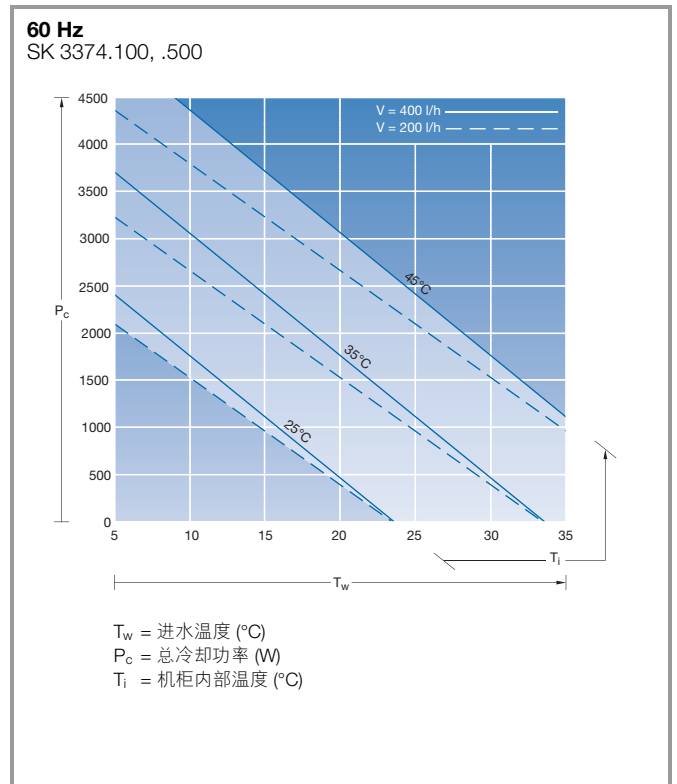
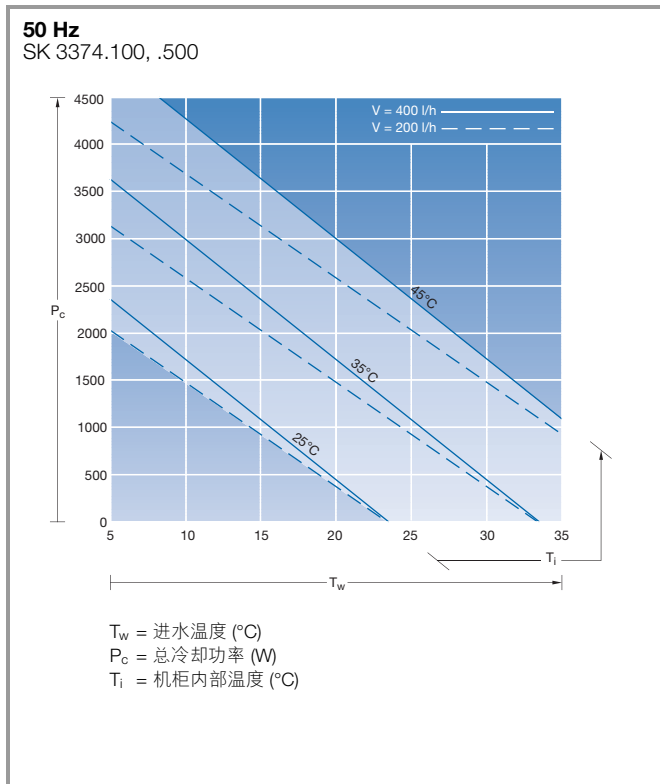
导水部件：铜 / 黄铜 (Cu/CuZn)



壁装式空气 / 水热交换器

有效冷却功率 3000 W

导水部件：铜 / 黄铜 (Cu/CuZn)

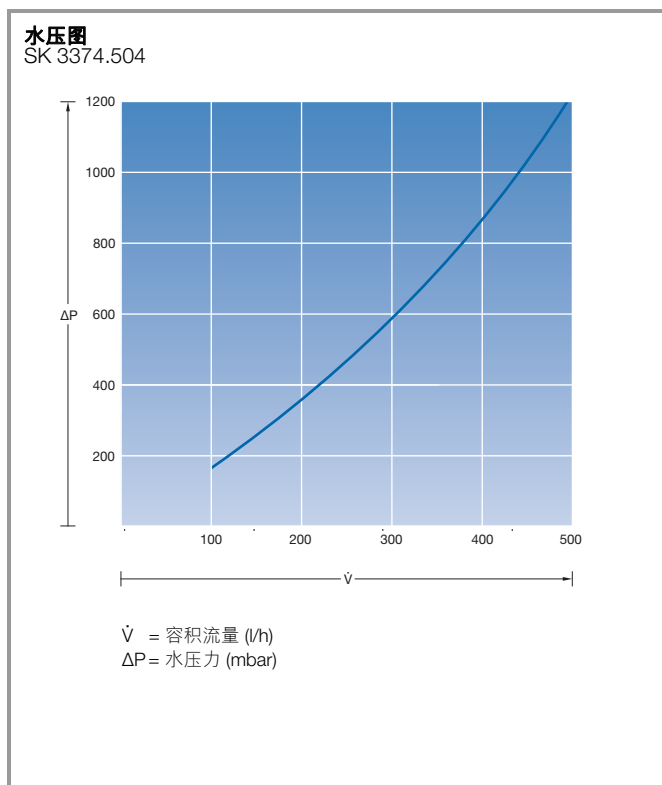
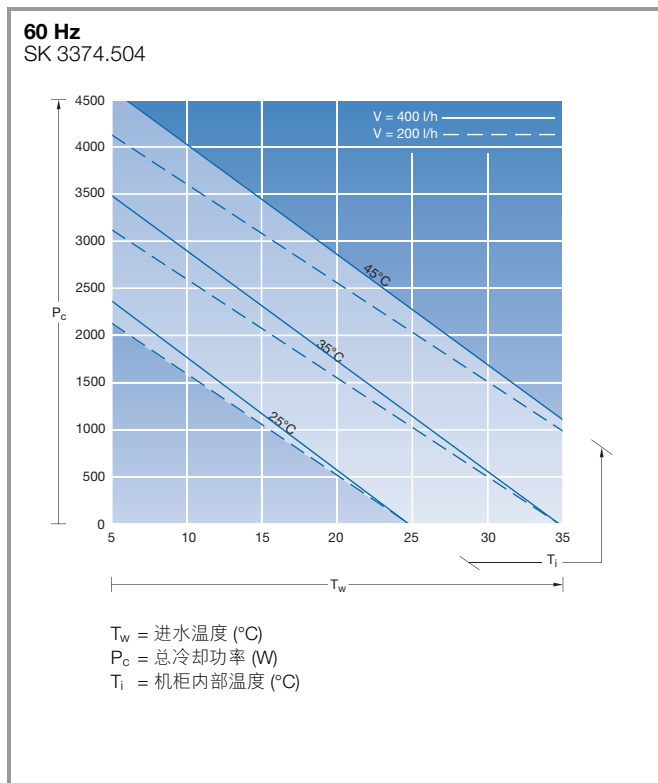
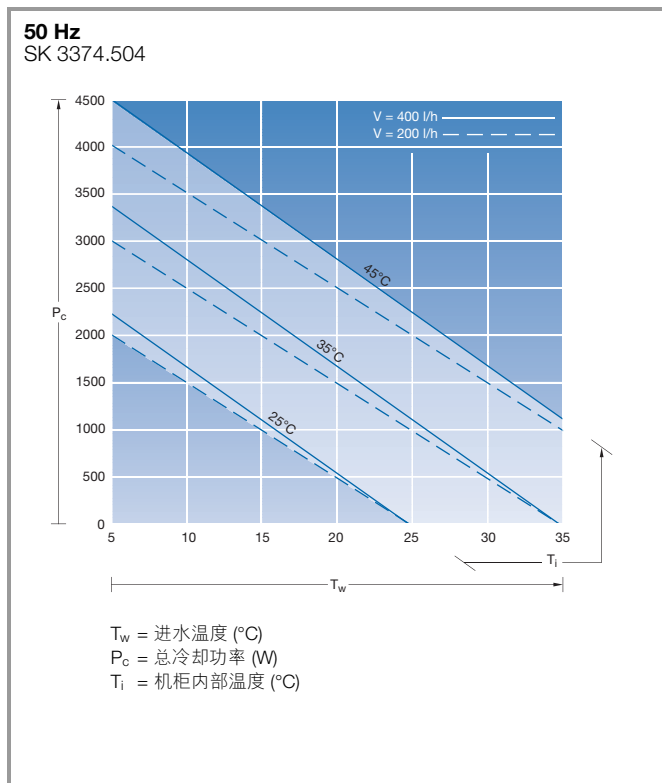


液体冷却

壁挂式空气 / 水热交换器

有效冷却功率 2500 W

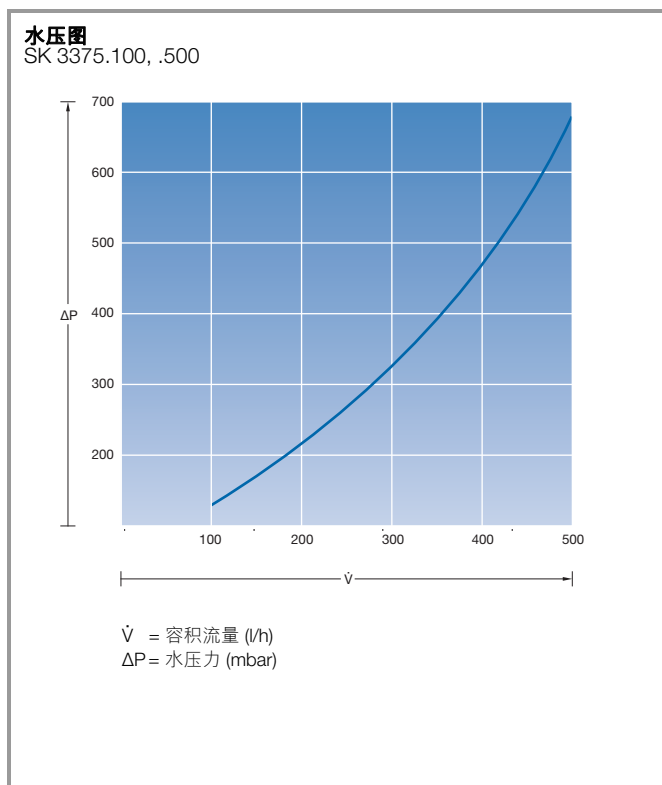
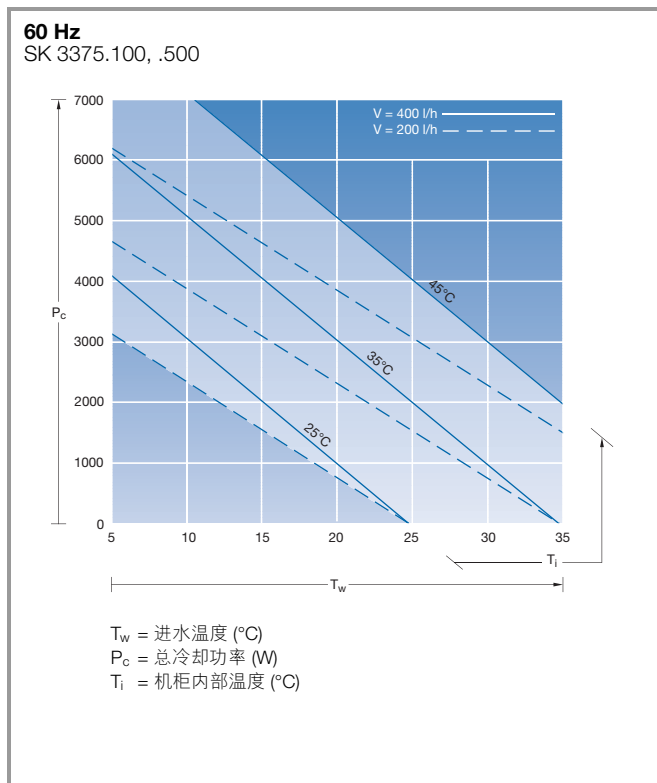
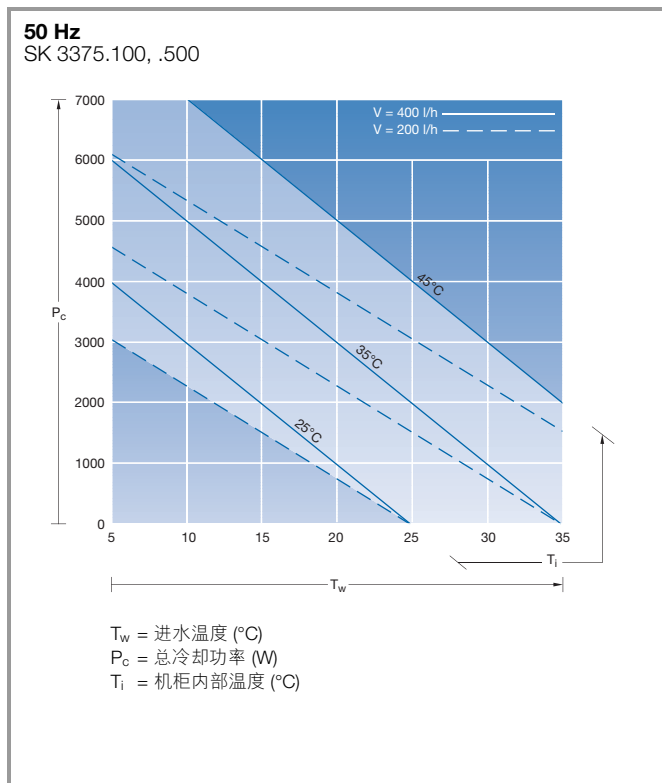
导水部件：不锈钢 (1.4571)



壁装式空气 / 水热交换器

有效冷却功率 5000 W

导水部件：铜 / 黄铜 (Cu/CuZn)

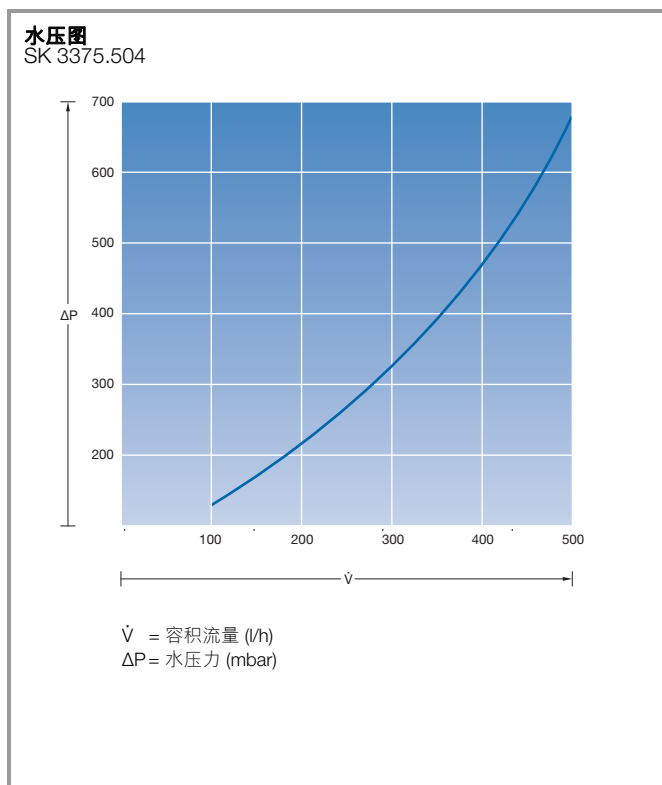
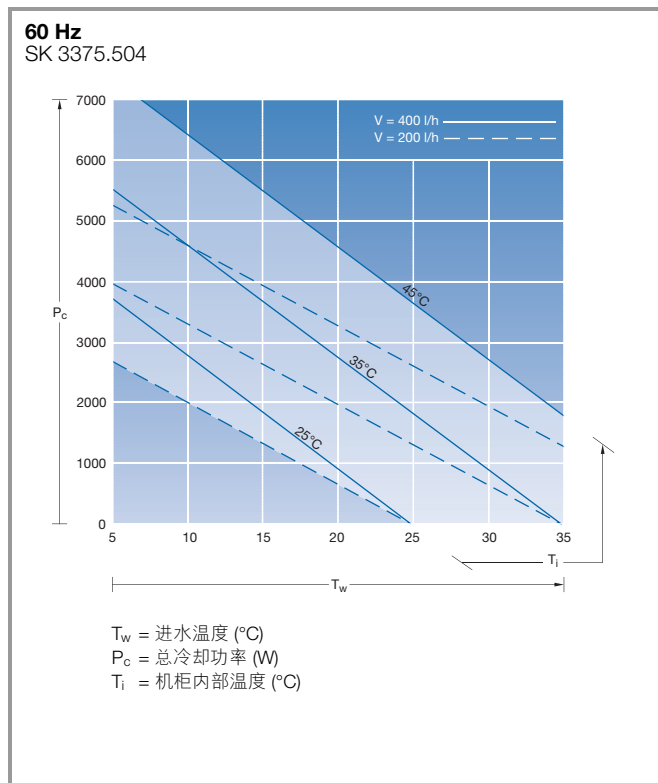
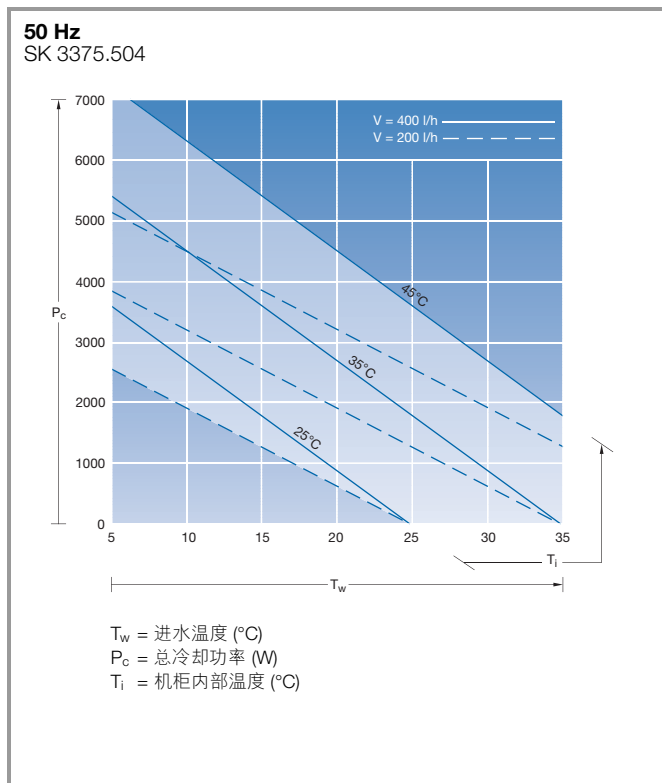


液体冷却

壁装式空气 / 水热交换器

有效冷却功率 4000 W

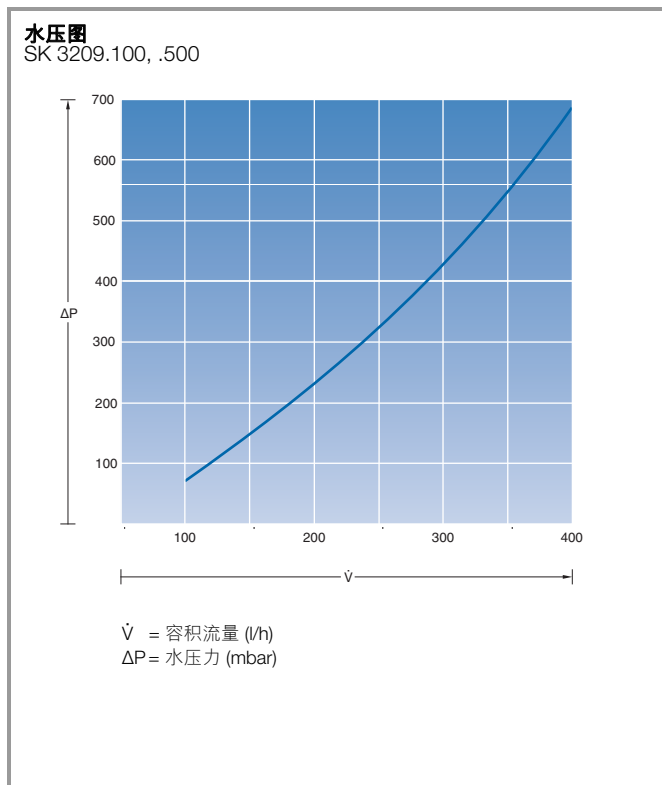
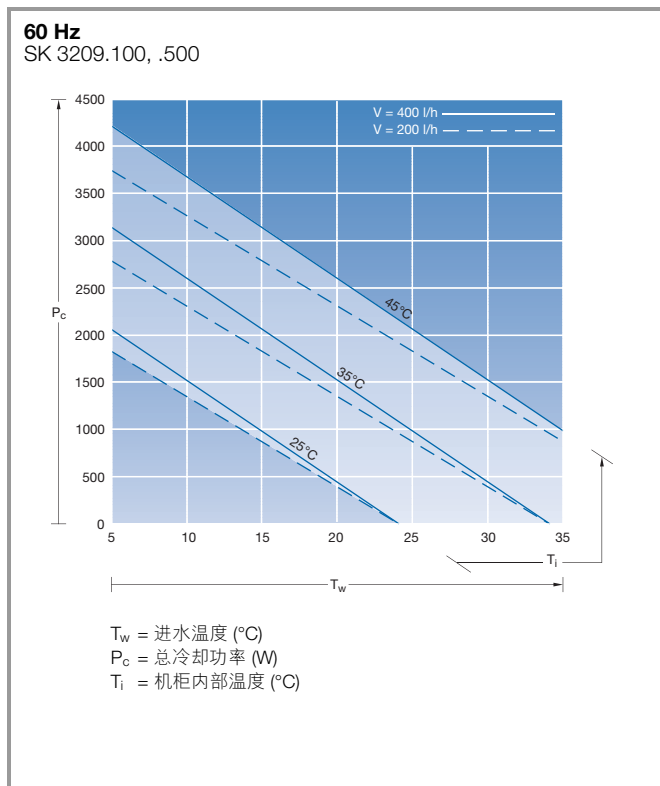
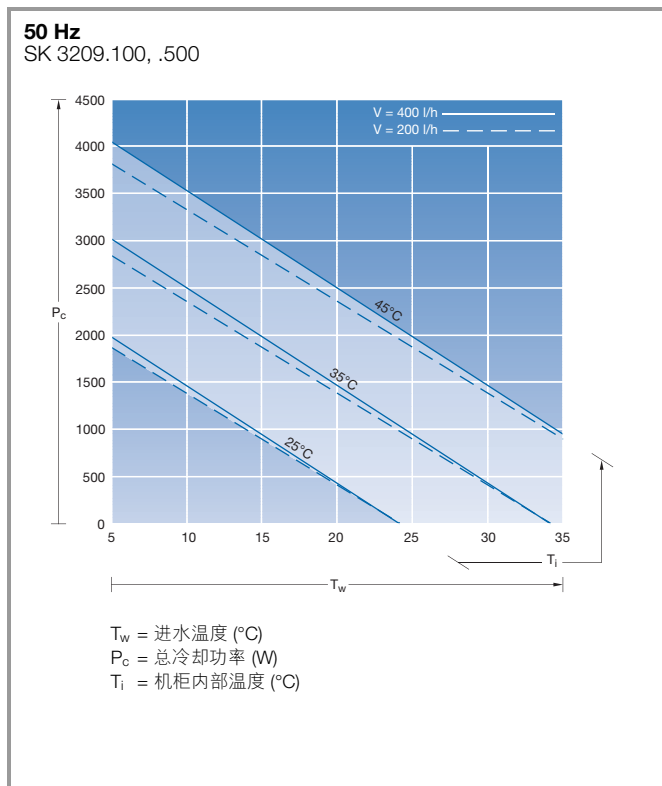
导水部件：不锈钢 (1.4571)



顶装式空气 / 水热交换器

有效冷却功率 2500 W

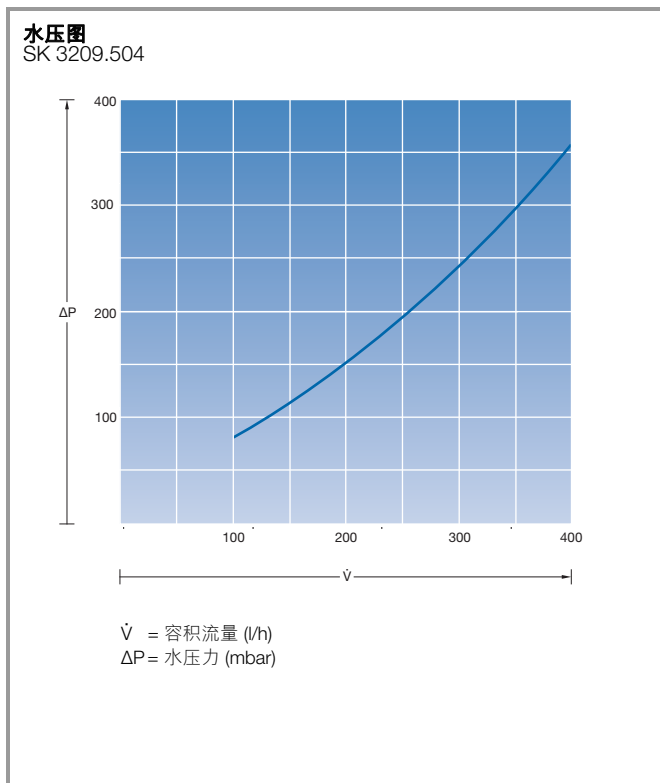
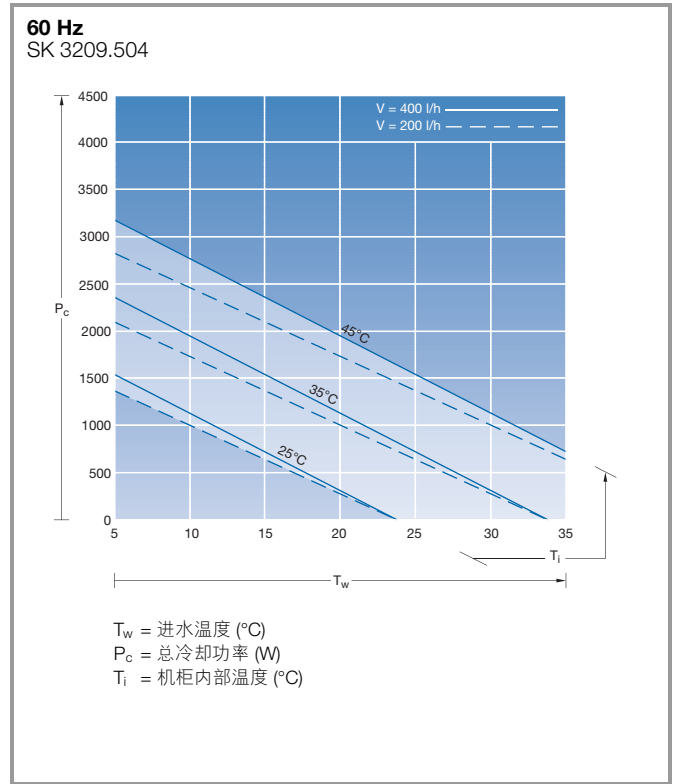
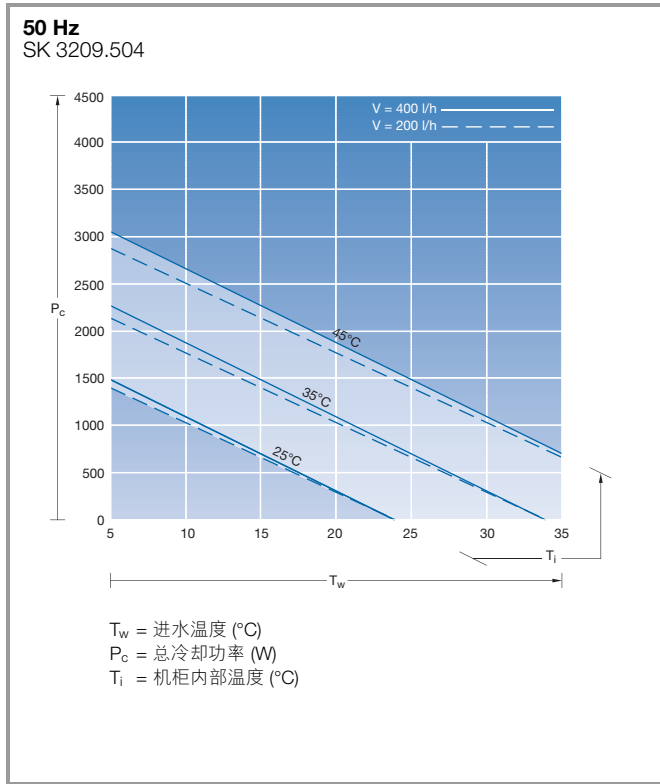
导水部件：铜 / 黄铜 (Cu/CuZn)



液体冷却

顶装式空气 / 水热交换器

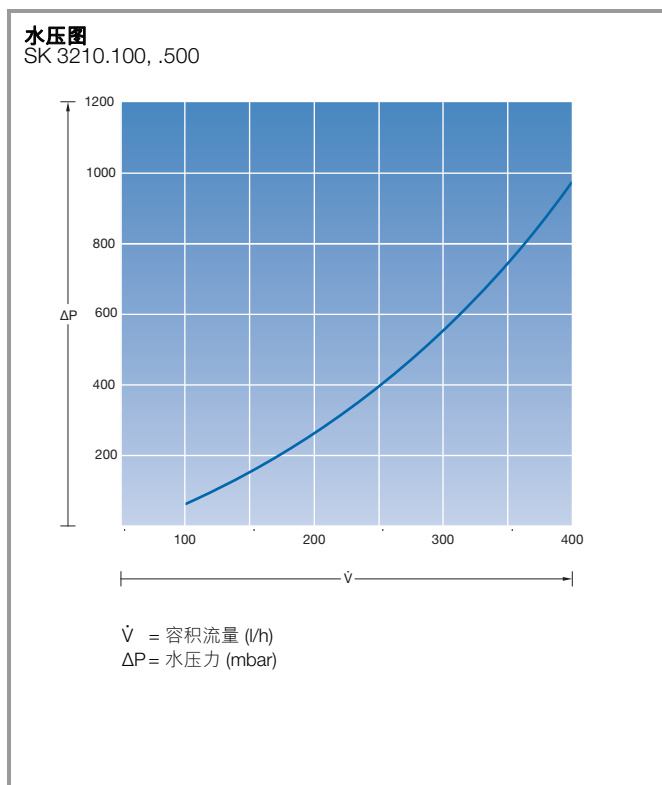
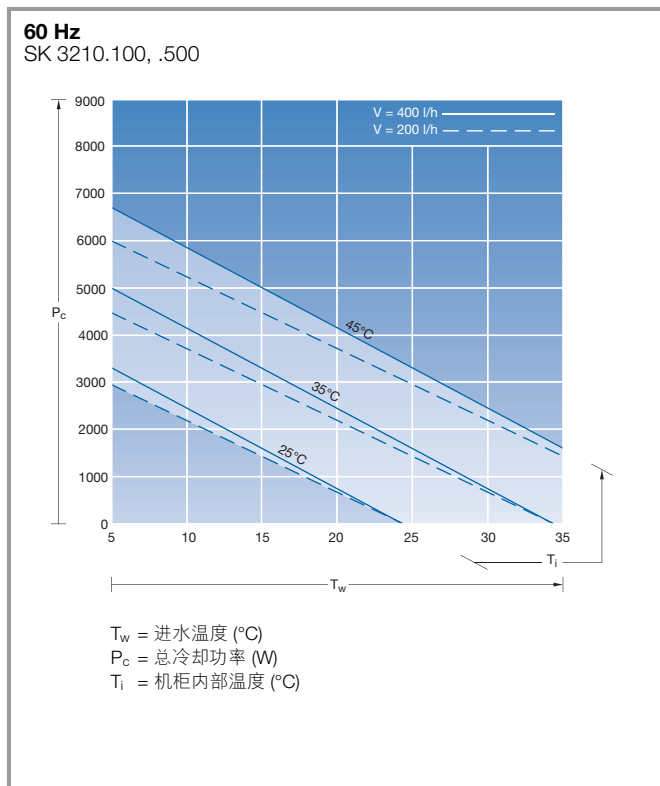
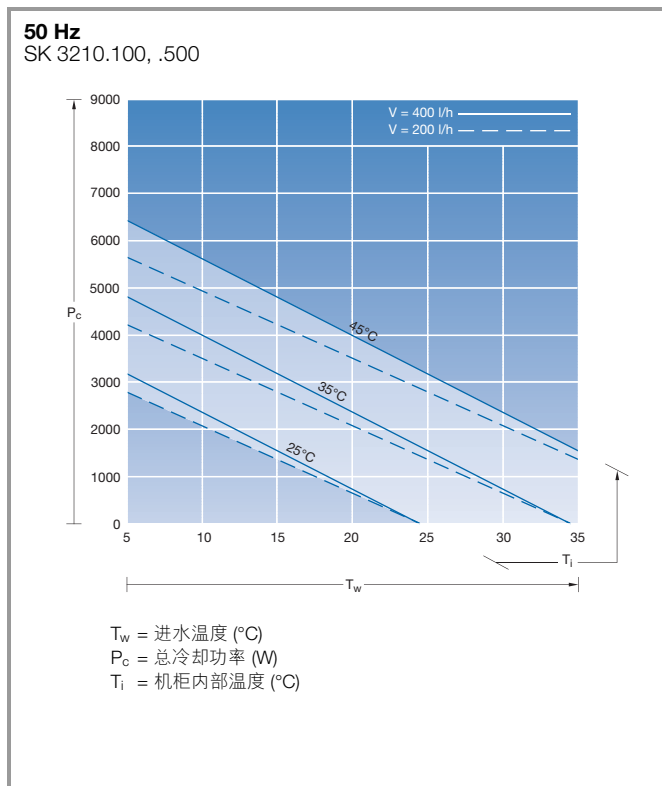
有效冷却功率 1875 W
 导水部件：不锈钢 (1.4571)



顶装式空气 / 水热交换器

有效冷却功率 4000 W

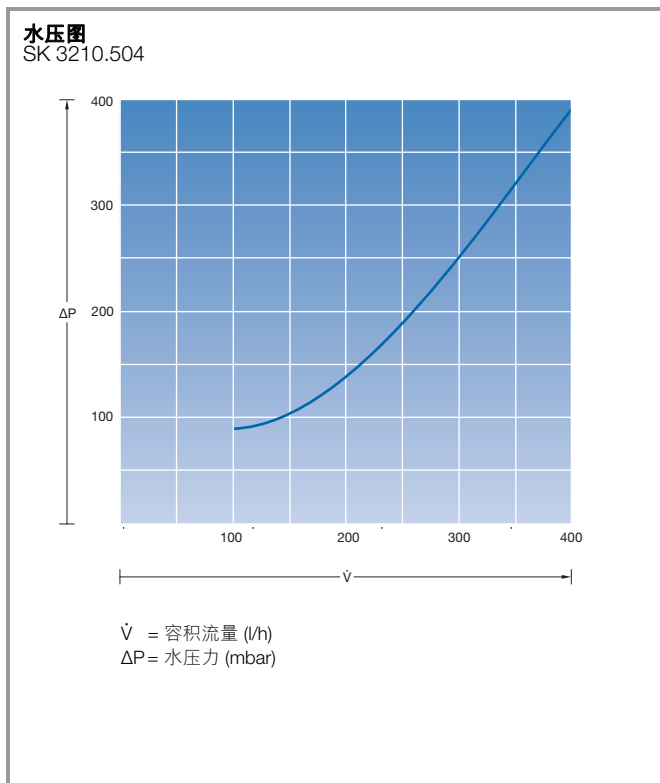
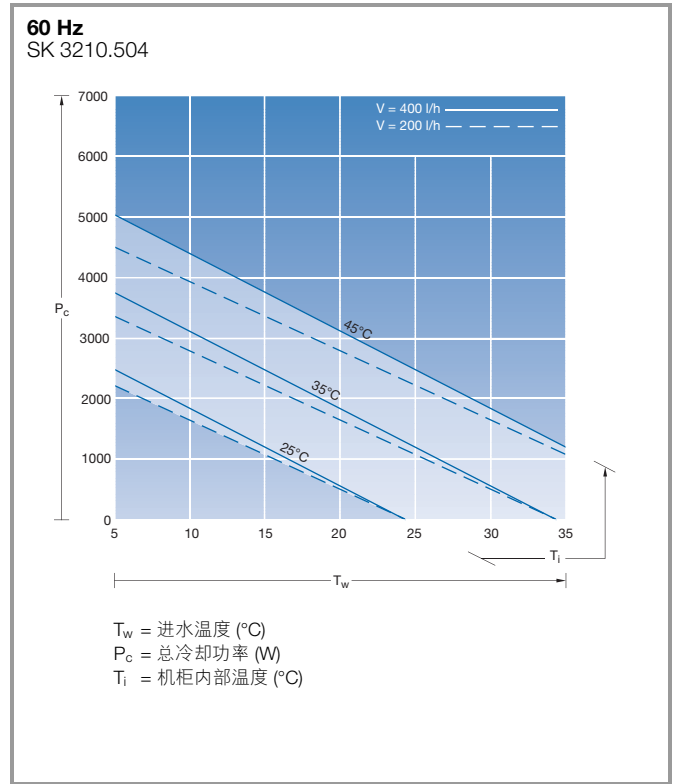
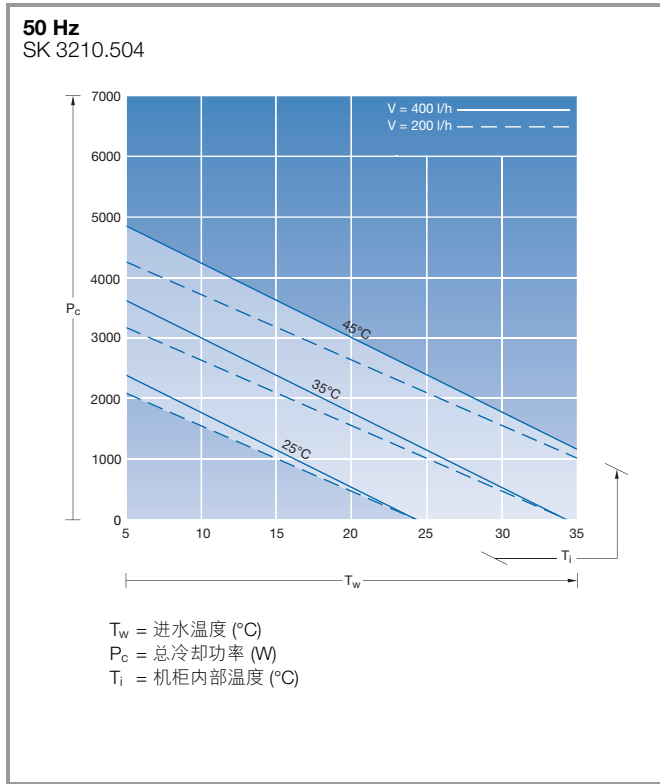
导水部件：铜 / 黄铜 (Cu/CuZn)



液体冷却

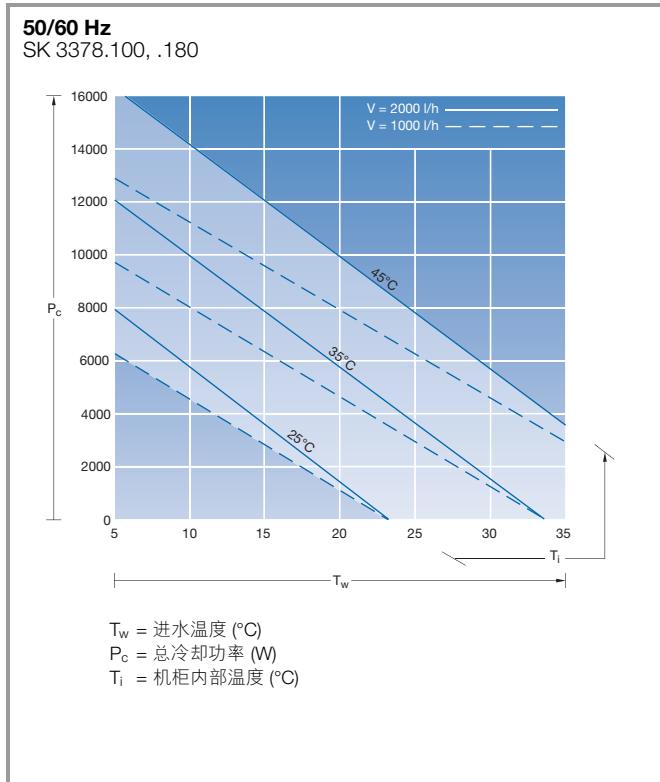
顶装式空气 / 水热交换器

有效冷却功率 3000 W
 导水部件：不锈钢 (1.4571)



液体冷却柜 (LCP)

有效冷却功率 10 kW, LCP 工业机柜
 导水部件: 铜 / 黄铜 (Cu/CuZn)

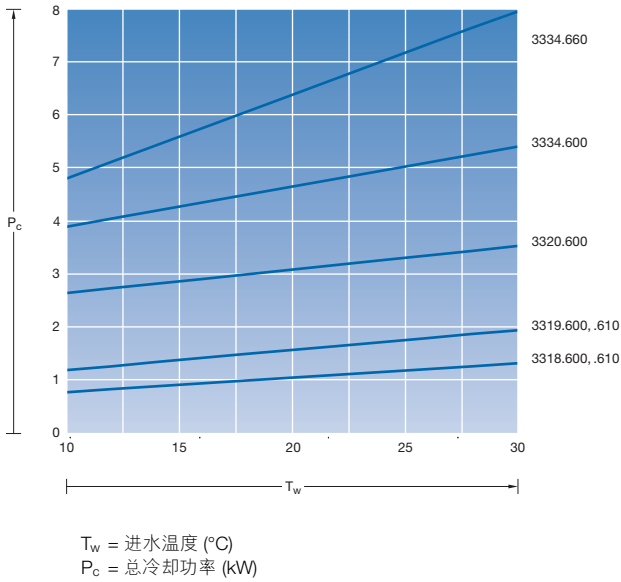


液体冷却

冷水机 TopTherm

有效冷却功率 1 – 6 kW

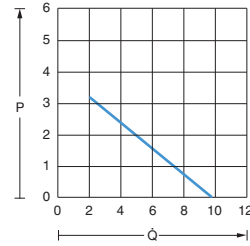
50 Hz 在 $T_u = 32^\circ\text{C}$ (环境温度)



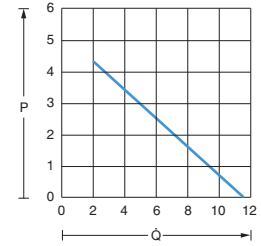
泵特性曲线

SK 3318.600/SK 3318.610/ SK 3319.600/SK 3319.610

50 Hz

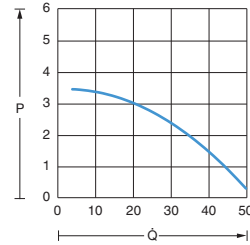


60 Hz

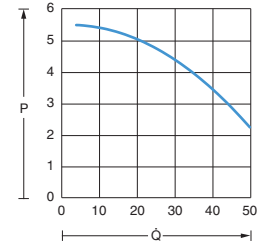


SK 3320.600/SK 3334.600/SK 3334.660

50 Hz



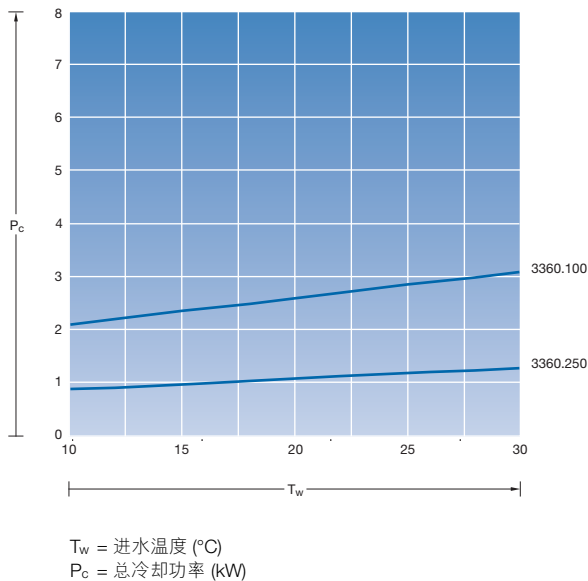
60 Hz



P = 外部静压 [bar]
 Q = 输送流量 [l/min]

壁挂式, 有效冷却功率 1 – 2.5 kW

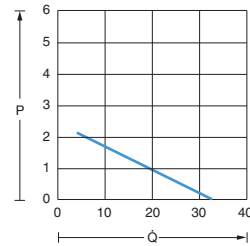
50 Hz 在 $T_u = 32^\circ\text{C}$ (环境温度)



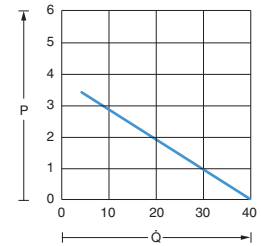
泵特性曲线

SK 3360.100, .250

50 Hz



60 Hz

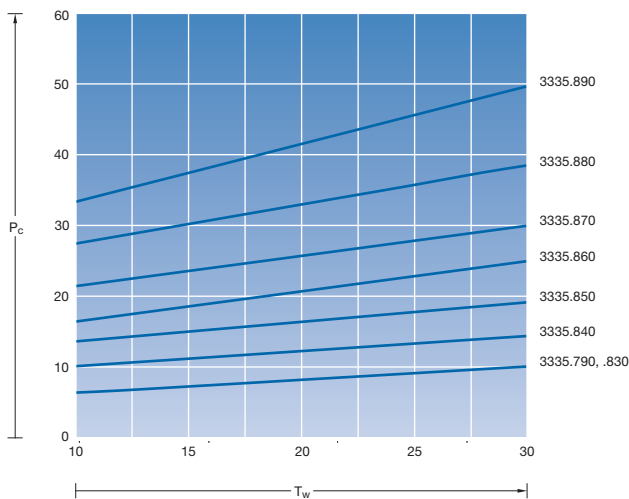


P = 外部静压 [bar]
 Q = 输送流量 [l/min]

冷水机 TopTherm

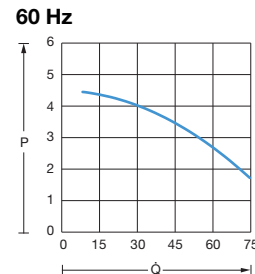
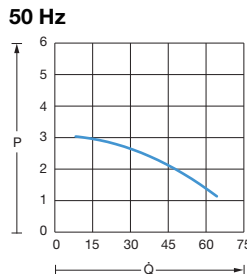
有效冷却功率 8 - 40 kW

50 Hz 在 $T_u = 32^\circ\text{C}$ (环境温度)

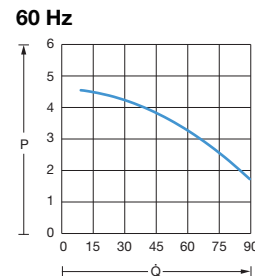
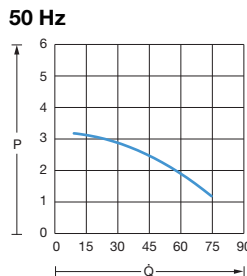


T_w = 进水温度 ($^\circ\text{C}$)
 P_c = 总冷却功率 (kW)

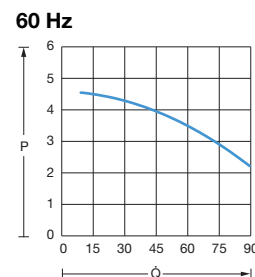
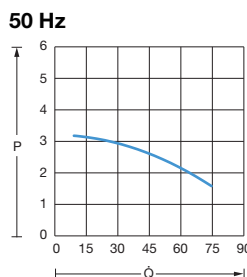
泵特性曲线
 SK 3335.850



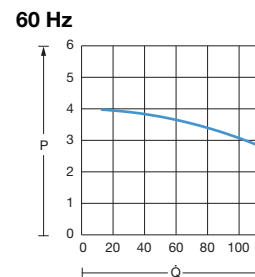
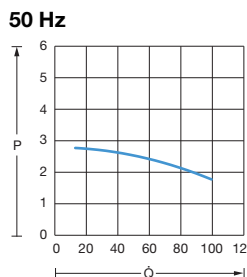
SK 3335.860



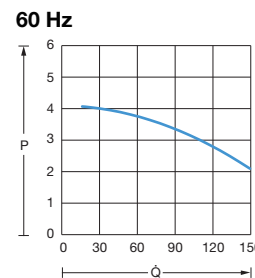
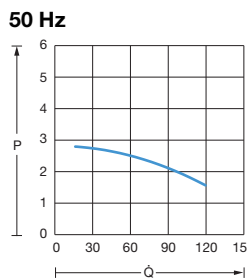
SK 3335.870



SK 3335.880

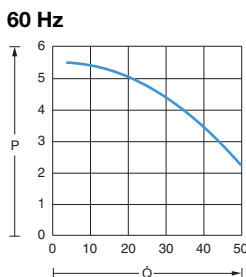
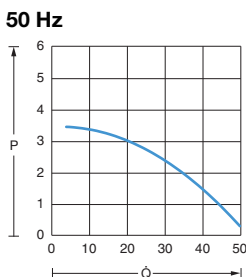


SK 3335.890

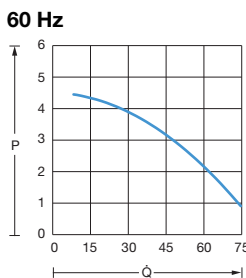
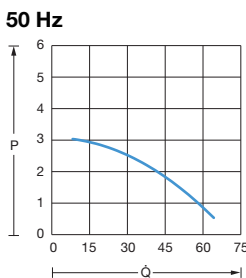


P = 外部静压 [bar]
 \dot{Q} = 输送流量 [l/min]

泵特性曲线
 SK 3335.790, .830



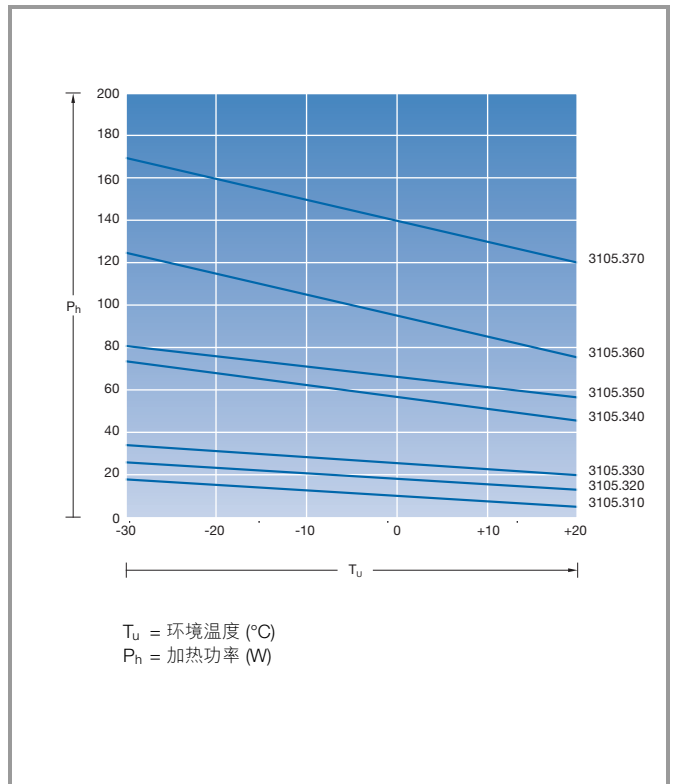
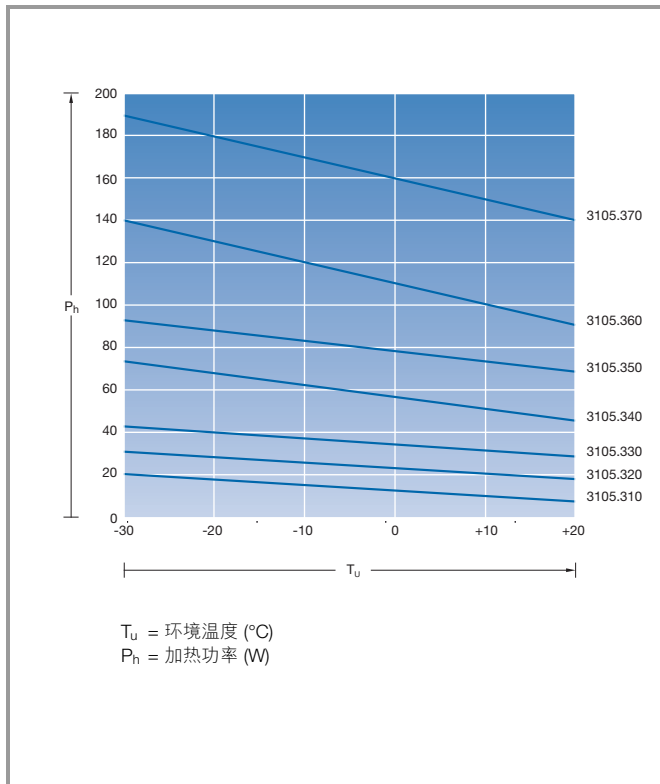
SK 3335.840



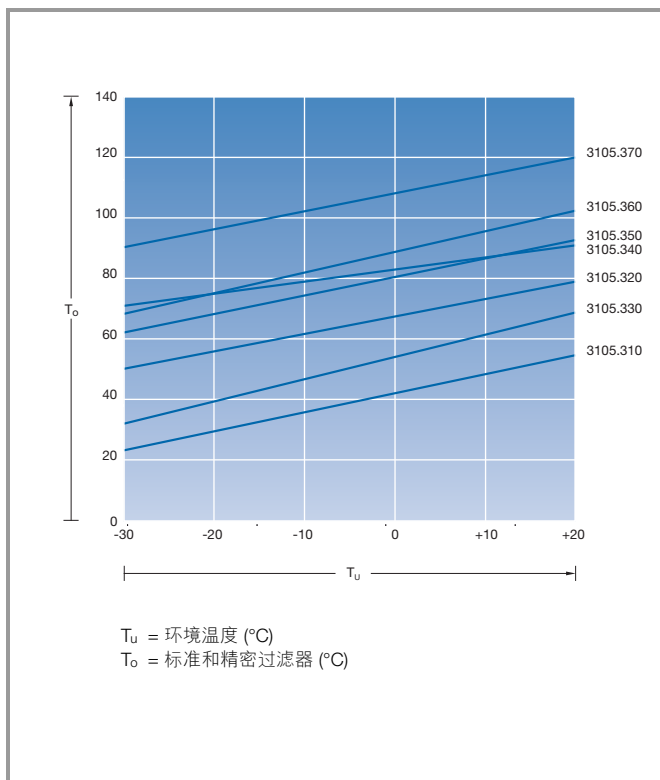
机柜加热器

控制机柜加热装置, 无风扇
230 V

110 V



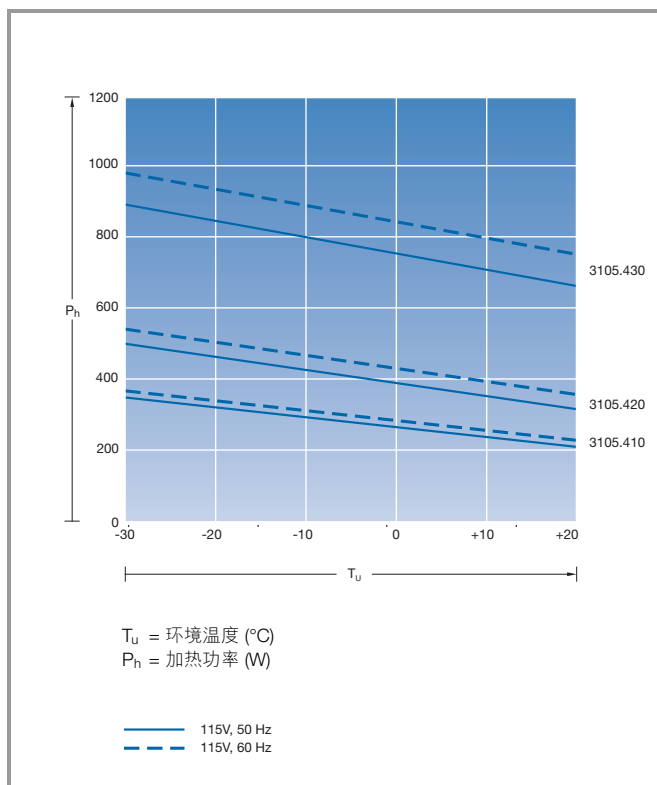
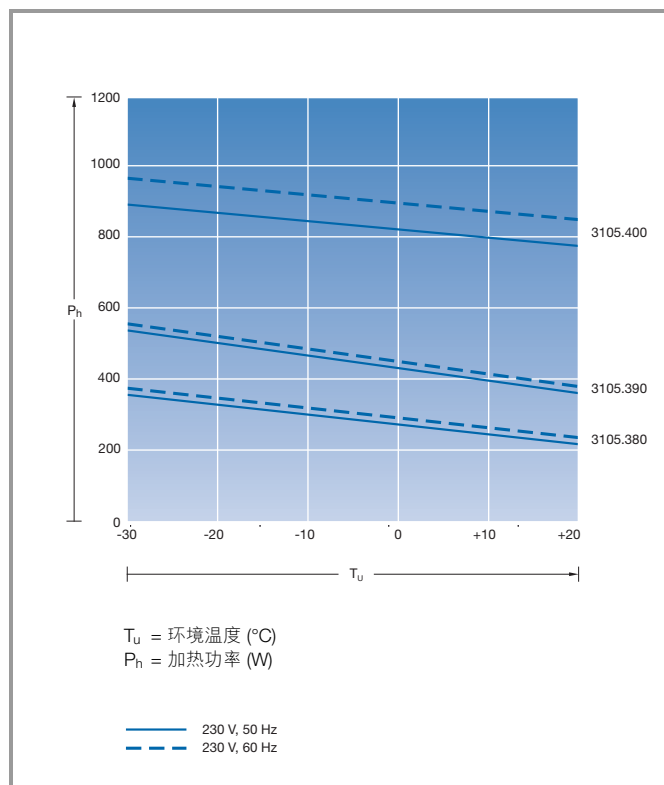
最高表面温度



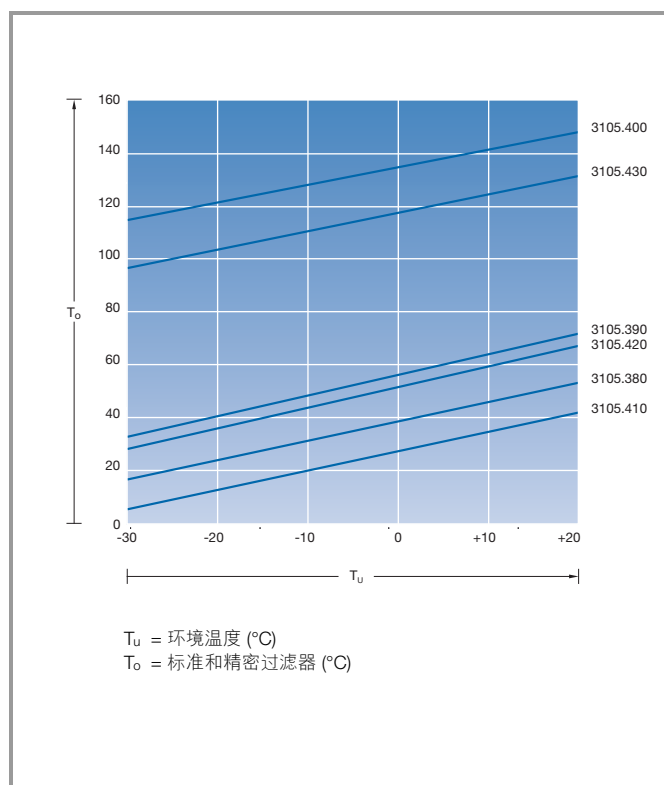
控制机柜加热装置，带风扇

230 V, 50/60 Hz

115 V, 50/60 Hz



最高表面温度



Rittal – The System.

Faster – better – everywhere.

- 机箱机柜
- 配电组件
- 温控系统
- IT 基础设施
- 软件与服务

通过二维码，
您可获得全球威图的联系方式。



www.rittal.com/contact

