

HVAC System

P series

中/大型机房解决方案



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Features of P series (P 系列产品特点):

Flexibility -- Modular design, beautiful appearance and uniform are good for module combination.

最大的灵活性 — 模块化设计，外观更美观、一致；模块间任意组合。

High efficiency fan -- Using the variable impeller high efficiency fan, the static pressure can be adjusted in 50Pa ~ 450Pa. Combined with the high pressure chamber with special design achieves the low noise.

高效风机 — 利用可变速新式叶轮高效风机，静压可在 50Pa~450Pa 调节，结合特殊设计的大静压室，使得空调低噪音得以实现。

Energy saving -- Due to the use of high efficiency fan and a scroll compressor, the power consumption of all series is greatly reduced (35% lower than traditional models), so as the operation and repair cost.

节能 — 由于使用高效风机和涡旋式压缩机，使得所有系列空调功耗大大降低（比传统型号低 35%），运行及维修费用低。

Intelligent -- Each module control consists of a new microcomputer controller.

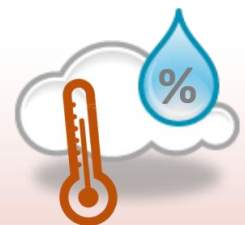
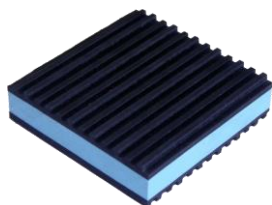
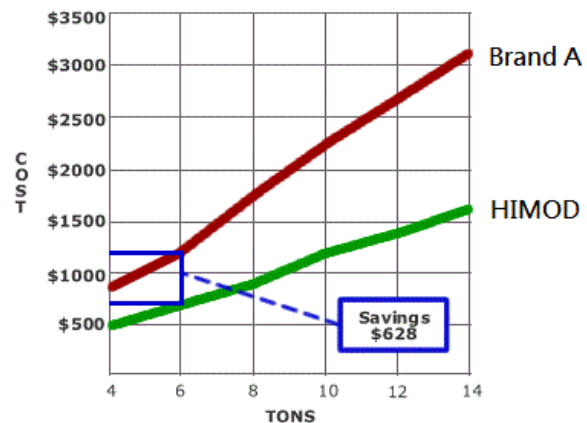
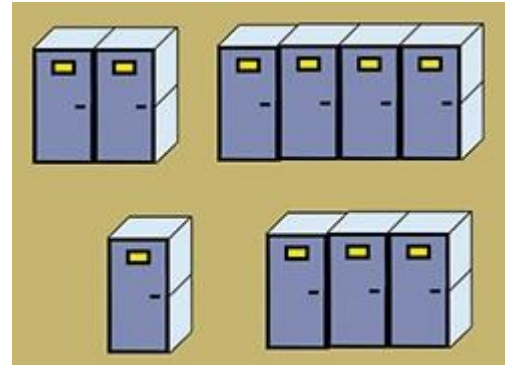
智能化控制 — 每个模块均由新型微电脑控制器控制。

Installation is simple and convenient to repair -- Totally frontal maintenance, disassembly simple repair, and mean time to repair are very short. The side of units without any redundancies saves the installation space. The feature includes the humidifier with automatic cleaning function, the heater with three grade electric heating, and air outlet device with mean air flow distribution.

安装维修简单方便 — 完全全正面维护，部件拆卸维修简单，非常短的平均故障修复时间。机组侧面无需留空间，节省安装空间。加湿且带自动冲洗功能，加热器采用三级电加热，出风口标配风流均流器。

A recycled industrial material is used in environmental protection -- All series plays a positive role in environmental protection.

环境保护 — 采用可循环使用的工业材料，对环境保护起着积极的作用。三明治夹层式面板结构，中间加阻燃隔热降噪材料，具有 A0 级防火性能。



暖通空调系统

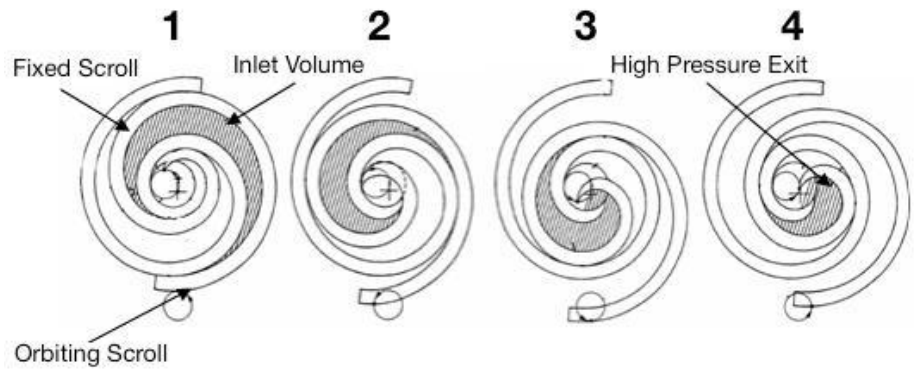
Copeland scroll compressor (谷轮涡旋压缩机) :

Unlike reciprocating technology with many moving parts, the Copeland scroll compressor has one scroll or spiral orbiting in path defined by a matching fixed scroll. The fixed scroll is attached to the compressor body. The orbiting scroll is couple to the crankshaft in orbit rather than rotated. The orbiting motion creates a series of gas pockets traveling between the two scrolls. On the outer portion of the scroll the pocket draws in gas, and then moves it to center of the scroll where it's discharged. As the gas moves in the increasing smaller inner pocket, the temperature and pressure increase to the desired discharged pressure.

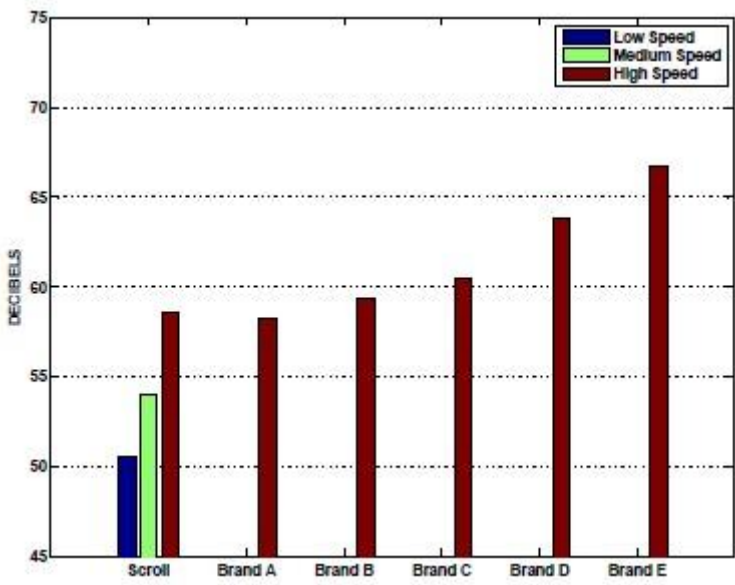
不像往复技术有许多移动部件，谷轮涡旋压缩机有一固定定义滚动或螺旋形轨道运行的路径。固定涡旋件连接于压缩机本体。绕动涡旋盘是耦接至在轨道上而非旋转。该轨道运动产生了一系列的气体口袋于两个涡旋盘之间。上滚动从外部口吸入气体，然后将其移动到涡旋中心在那里将它喷出。当气体移动而导致内部口袋增加，温度和气压即增至所需排放的压力。

Scroll compressor advantages: (涡旋压缩机优势)

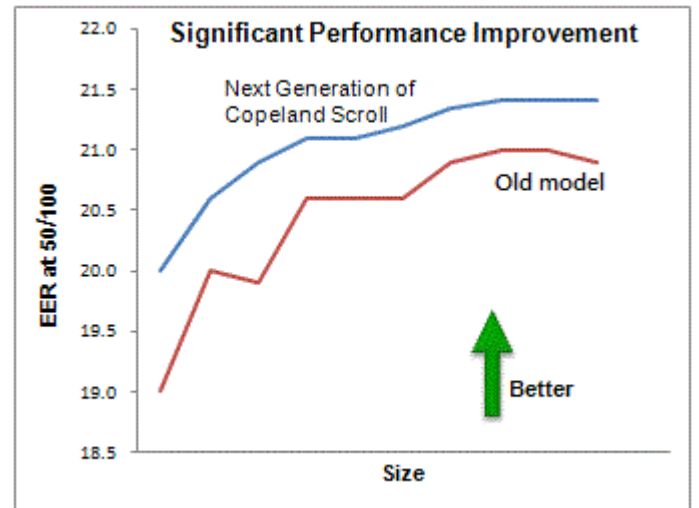
- Fewer parts (部件少)
- High performance (高性能)
- Saving energy (节能)
- Compact (紧凑)
- Reduce sound level (低噪声)
- Reliability (可靠)
- Durability (耐久)



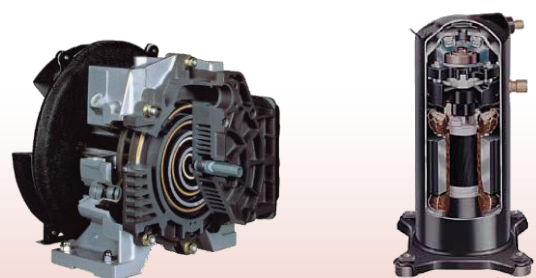
4 stages of a scroll compressor (涡旋压缩机的4阶段工作)



Sound level (压缩机噪声比较)



Performance (性能比较)



HVAC system

Specifications for P series (P 系列规格):

Direct expansion air-cooling/water-cooling A/W (Air flow: above/below)									
直接膨胀风冷, 水冷型-A/W(送风方式: 上送风/下送风)									
Model (型号)		P06	P07	P08	P09	P10	P11	P16	P17
Total cooling cap. (总冷量)	kW	21.5	27.9	30.2	32.8	35.7	39.2	50.0	58.5
Humidity cap. (湿冷量)	kW	21.0	25.7	28.0	30.2	34.0	38.6	45.7	55.1
Hum. Heat ratio (湿热比)		0.98	0.92	0.93	0.92	0.95	0.98	0.91	0.94
EER (效能比)		3.43	3.35	3.65	3.45	3.69	3.62	3.69	3.45
The cold air ratio(冷风比)	w/m ³ /h	3.58	4.16	3.78	3.38	3.43	3.56	3.35	3.98
Compressor Q. (压缩机数量)	n	1	1	1	1	1	1	1	1
Input power (输入功率)	kW	4.4	5.9	6.0	6.9	7.0	7.8	13.7	12.0
Wind rate (风量)	m ³ /h	6000	6700	8000	9700	10400	11000	15000	14700
Max. Pressure (最大风压-上/下风送)	Pa	50 Max. to 450(最大可调整到 450)							
Fan input power (风机输入功率)	kW	1.87	2.42	2.28	2.61	2.68	3.04	4.96	4.94
Noise (噪音-下送风)	dB(A)	51	54	53	55	56	58	58	58
Humidity (加湿量)	kg/h	9	9	9	9	13	13	13	13
Power of hum.(加湿功率)	kW	5.8	5.8	5.8	5.8	9.0	9.0	9.0	9.0
Heating power (加热功率)	kW	5.85	5.85	7.5	7.5	15	15	15	15
Temperature accuracy (温度控制精度)	°C	+/-0.5							
Humidify accuracy (湿度控制精度)	%	+/-3							
Length (长度)	mm	1200	1200	1200	1200	1200	1200	1850	1850
Width (宽度)	mm	800	800	800	800	800	800	850	850
Height (高度)	mm	1800	1800	1800	1800	1800	1800	2000	2000
Weight (重量)	kg	260	270	425	430	575	580	600	620



The standard diameter and electrical data series (标准管径及电气技术数据):

Model (型号)	Tube diameter for air (气管直径) (mm)	Tube diameter for liquid (液管直径) (mm)	Running current (运行电流) FLA(A)	Current protection (断路器保护电流) I _Δ n=0.3A(400V)	Min. cable diameter (最小电缆线直径) (mm)
S03/S04/S05/W03/W04/W05	12×1	12×1	16.9	32A	6
S07/W08	16×1	12×1	17.5	32A	6
S10/W10	16×1	12×1	18.5	32A	6
S12	16×1	12×1	20	32A	6
S13/W13	18×1	16×1	22	32A	6
S16/S17/S18/W16/W18	18×1	16×1	24	32A	10
S20/S21/W21	18×1	16×1	28	50A	10
S23/W23	18×1	16×1	30	50A	10
S25/M25/W26	22×1	18×1	31	50A	10
S29/M29	22×1	18×1	43.1	50A	10
M32	22×1	18×1	45.2	50A	10
M34	18×1	16×1	45.4	50A	16
M35	28×1	22×1	47.9	63A	10
M41	28×1	22×1	52.7	63A	16
M42	22×1	18×1	46.8	63A	16
M47	28×1	22×1	57.5	63A	16
M50	22×1	18×1	64.5	80A	25
M58	22×1	22×1	68.3	80A	25
M66	28×1	22×1	69.3	80A	25
28A/W/F/D/H	22×1	18×1	45.2	50A	10
34A/W/F/D/H	28×1	22×1	47.9	50A	10
40A/W/F/D/H	28×1	22×1	52.7	63A	16
26A/W/F/D/H	18×1	18×1	40.2	50A	16
32A/W/F/D/H	18×1	18×1	44.4	50A	16
42A/W/F/D/H	22×1	18×1	46.8	63A	16
46A/W/F/D/H	22×1	18×1	55.2	63A	25
55A/W	22×1	18×1	69.3	80A	25
65A/W	28×1	22×1	69.3	80A	25
81A/W	28×1	22×1	75.2	100A	35
99A/W	28×1	22×1	83.6	100A	35

P.S. The diameter of gas or liquid tube and electrical parameters will be adjusted in accordance with local regulations. The list above is for reference only.

附：气/液管径及电气参数会依照当地法规规定而调整，上述表列仅供参考。



Parameters for outdoor units (室外机参数):

Model (型号)	Length (长度) (mm)	Width (宽度) (mm)	Height (高度) (mm)	Weight (重量) (kg)
S03/S04/W03/W04	780	260	540	45
S05/S07/W05	840	285	610	50
S08/W08	830/880	310/360	710/800	52/55
S10/W10	880	360	800	55
S12/S13/W13	830/930	310/390	1260/1270	60/64
S16/S17/S18/W16/W18	930	390	1270	68
S20/S21/S23/S25/M25/P06/W21/W23/W26	1220	450	1180	80
S20/S21/S23/S25/M25/P06/W21/W23/W26 (Optional)	940	1120	935	83
S29/M29/P07/P08/P09/E08/26U/28U	1220	450	1180	95
S29/M29/P07/P08/P09/E08/26U/28U (Optional)	940	1120	1195	99
M32/M34/M35/P10/32U/34U	1500	450	1180	130
M32/M34/M35/P10/32U/34U (Optional)	940	1120	1195	133
M41/M42/Q11/P11/E14/42U	1500	450	1425	149
M41/M42/Q11/P11/E14/42U (Optional)	1190	1190	1425	154
M47/M50/Q14/P16/40U	2165	450	1180	168
M47/M50/Q14/P16/40U (Optional)	1880	1120	1030	172
M58/P17/E16/E17/46U/55U	2165	450	1180	184
M58/P17/E16/E17/46U/55U (Optional)	1880	1120	1030	189
Q17/E18	2400	450	1180	246
Q17/E18 (Optional)	1880	1120	1195	252
M66/Q19/65U	2640	450	1180	260
M66/Q19/65U (Optional)	1880	1120	1195	268
L83U	2820	1120	1030	281
Q22/Q25U	2820	1120	1195	293
L99U/Q29U	2820	1120	1195	311

P.S. (备注): The parameters for non-standard products do not shown in here, if necessary, please contact the manufacturer. The new design of components and structures for the unit will change depending on the actual situation.

非标准型号机型参数不列在此处，如果有需要，请和生产厂家联系。新机型所使用的元件及机组内部的设计会根据实际状况而有所变动。



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