



1、技术参数 Technical Data Sheet

1.1 R134a—LBP

型号 Model	电源 Power supply (V/Hz)	汽缸容积 Displacement (cm ³)	制冷量 Cooling Capacity (W)	COP (W/W)	电机类型 Motor Type	认证 Certification
S Series						
S55HL	220~240/50	5.5	145	1.20	RSIR	
		5.5	145	1.40	RSCR	
S60HL	220~240/50	6.1	168	1.25	RSIR	CCC CB
	220~240/50	6.1	168	1.40	RSCR	
S70HL	220~240/50	6.9	190	1.25	RSIR	CCC CB
S80H	220~240/50	7.9	225	1.35	RSIR	
S85H	220~240/50	8.4	235	1.45	RSIR	
F Series						
F52HL	220~240/50	5.2	145	1.25	RSIR	
F60HL	220~240/50	6.0	168	1.25	RSIR	
F70HL	220~240/50	6.9	190	1.25	RSIR	
F80H	220~240/50	7.9	225	1.35	RSIR	
F85H	220~240/50	8.4	235	1.45	RSIR	
E Series						
E80HL	220~240/50	8.1	225	1.35	RSIR	
E85HL	220~240/50	8.7	240	1.25	RSIR	
E95HL	220~240/50	9.3	265	1.20	RSIR	
E100HL	220~240/50	9.8	280	1.20	RSIR	
X Series						
X110HL	220~240/50	11.3	300	1.20	RSIR	
X130H	220~240/50	13.2	360	1.25	CSIR	
X130HL	220~240/50	13.2	360	1.25	CSIR	
*X140HL	220~240/50	13.8	370	1.25	CSIR	
X150H	220~240/50	15.3	410	1.25	CSIR	
X165HL	220~240/50	16.4	450	1.25	CSIR	
*X180H	220~240/50	18.1	500	1.20	CSIR	

“*”表示待开发产品

测试工况 Test conditions	按ASHRAE 标准According to ASHRAE
蒸发温度Evaporating temperature	-23.3℃
冷凝温度Condensing temperature	54.4℃
过冷温度Subcooling temperature	32.2℃
吸气温度Suction temperature	32.2℃



环境温度Ambient temperature	32.2℃
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使用工况范围及极限Working condition limit: R134a

最大环境温度Max ambient temperature	43[℃]
蒸发温度范围Evaporation temperature range	-35~-15[℃]
工作电压范围Working voltage range	187~242[V]
最大排气压力Max discharge pressure	1.79[Mpa] 表压 gauge pressure
最大允许壳温Max allowable housing temperature	95[℃]
最大排气温度Max discharge temperature	130[℃]
机壳最大承受压力max pressure housing endured	3.5 [Mpa] 表压 gauge pressure
低电压启动性能 Low voltage start	0.4/0.4Mpa(表压 gauge pressure)187V

1.2 R600a—LBP

型号 Model	电源 Power supply (V/Hz)	汽缸容积 Displacement (cm ³)	制冷量 Cooling Capacity(W)	COP (W/W)	电机类型 Motor Type	认证 Certification
S Series						
S70CL	220~240/50	6.9	115	1.20	RSIR	
S75CL	220~240/50	7.4	125	1.25	RSIR	CCC CB VDE
S80CL	220~240/50	7.9	135	1.30	RSIR	
S85CL	220~240/50	8.4	145	1.35	RSIR	
S90CL	220~240/50	9.0	155	1.35	RSIR	CCC CB VDE
F Series						
F60CL	220~240/50	6.0	100	1.60	RCSR	
F70CL	220~240/50	7.0	115	1.20	RSIR	
F80CL	220~240/50	7.9	135	1.25	RSIR	
F85CL	220~240/50	8.5	145	1.25	RSIR	
	220~240/50	8.5	145	1.40	RSIR	
	220~240/50	8.5	145	1.60	RSCR	
*F90CL	220~240/50	9.0	155	1.35	RSIR	
E Series						
E100CL	220~240/50	9.8	180	1.35	RSIR	
E110CL	220~240/50	11.3	195	1.35	RSIR	
E130CL	220~240/50	13.2	225	1.35	RSIR	
X Series						
X110CL	220~240/50	11.3	195	1.35	RSIR	
X130CL	220~240/50	13.2	225	1.35	RSIR	
*X140CL	220~240/50	13.8	235	1.35	RSIR	
*X150CL	220~240/50	15.3	265	1.35	RSIR	

“*”标识表示待开发产品



测试工况 Test conditions	按ASHRAE 标准According to ASHRAE
蒸发温度Evaporating temperature	-23.3℃
冷凝温度Condensing temperature	54.4℃
过冷温度Subcooling temperature	32.2℃
吸气温度Suction temperature	32.2℃
环境温度Ambient temperature	32.2℃

使用工况范围及极限Working condition limit: R600a

最大环境温度Max ambient temperature	43[℃]
蒸发温度范围Evaporation temperature range	-35~-15[℃]
工作电压范围Working voltage range	187~242[V]
最大排气压力Max discharge pressure	0.98[Mpa] (表压 gauge pressure)
最大允许壳温Max allowable housing temperature	95[℃]
最大排气温度Max discharge temperature	130[℃]
机壳最大承受压力max pressure housing endured	3.5 [Mpa] (表压 gauge pressure)
低电压启动性能 Low voltage start	0.25/0.25Mpa(表压 gauge pressure) 187V

1.3 R134a—HBP

型号Model	电源 Power supply (V/Hz)	汽缸容积 Displacement (cm ³)	制冷量 Cooling Capacity(W)	COP (W/W)	电机类型 Motor Type	认证 Certification
B Series						
B22G	220~240/50	2.2	185	1.80	RSIR	
B22GL	220~240/50	2.2	185	1.90	RSIR	
B22G5	110~120/60	2.2	225	1.80	RSIR	
B25G	220~240/50	2.6	220	1.80	RSIR	
	220~240/60		260	2.15	RSIR	
B25GL	220~240/50	2.6	220	1.80	RSIR	
B25G5	110~120/60	2.6	265	1.80	RSIR	
B25G5L	110~120/60	2.6	265	2.00	CSIR	UL CUL
B30G	220~240/50	3.1	260	1.80	RSIR/CSIR	CB VDE
	220~240/60		300	1.90	RSIR/CSIR	
B30GL	220~240/50	3.1	260	1.80	RSIR	
B30G5	110~120/60	3.1	315	1.80	RSIR	
B35G5	110~120/60	3.5	360	2.00	CSIR	
B38G	220~240/50	3.8	350	2.10	CSIR	CCC CB VDE
	220~240/60		405	2.30	CSIR	
B38G5L	110~120/60	3.8	420	2.10	CSIR	UL CUL
B43G	220~240/50	4.3	415	2.20	RSIR	
B43GL	220~240/50	4.3	415	2.20	RSIR	CCC CB VDE
F Series						



F60GL	220~240/50	6.0	590	2.50	RSCR	
F70GL	220~240/50	7.0	700	2.40	RSCR	
E Series						
E80G	220~240/50	8.1	750	2.20	CSIR	
X Series						
X100G	220~240/50	9.8	950	2.00	CSIR	
X110G	220~240/50	11.3	1040	2.00	CSIR	
X120G	220~240/50	11.9	1100	2.20	CSIR	CCC
X150G	220~240/50	15.3	1420	2.00	CSR	

测试工况 Test conditions	按ASHRAE 标准According to ASHRAE
蒸发温度Evaporating temperature	7.2℃
冷凝温度Condensing temperature	54.4℃
过冷温度Subcooling temperature	46.1℃
吸气温度Suction temperature	35℃
环境温度Ambient temperature	35℃

使用工况范围及极限Working condition limit: R134a HBP

最大环境温度Max ambient temperature	43[℃]
蒸发温度范围Evaporation temperature range	-5~15[℃]
工作电压范围Working voltage range	187~242[V]
最大排气压力Max discharge pressure	1.79[Mpa] (表压 gauge pressure)
最大允许壳温Max allowable housing temperature	95[℃]
最大排气温度Max discharge temperature	130[℃]
机壳最大承受压力max pressure housing endured	3.5 [Mpa] (表压 gauge pressure)
低电压启动性能 Low voltage start	0.55/0.55Mpa(表压 gauge pressure) 187V

1.4 R290—LBP

型号Model	电源 Power supply (V/Hz)	汽缸容积 Displacement (cm ³)	制冷量 Cooling Capacity(W)	COP (W/W)	电机类型 Motor Type	认证 Certification
B Series						
B25U	220~240/50	2.6	105	1.30	RSIR	
B25BU	220~240/50	2.6	105	1.50	RSCR	
B30U5	110~120/60	3.1	150	1.30	RSIR/CSIR	
B35U	220~240/50	3.5	145	1.30	RSIR	
B35BU	220~240/50	3.5	145	1.55	RCSR	
*B43U	220~240/50	4.3	180	1.30	RSIR	
B43BU	220~240/50	4.3	180	1.55	RCSR	

测试工况 Test conditions	按ASHRAE 标准According to ASHRAE
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蒸发温度Evaporating temperature	-23.3℃
冷凝温度Condensing temperature	54.4℃
过冷温度Subcooling temperature	32.2℃
吸气温度Suction temperature	32.2℃
环境温度Ambient temperature	32.2℃

使用工况范围及极限Working condition limit: R290

最大环境温度Max ambient temperature	43[℃]
蒸发温度范围Evaporation temperature range	-35~-15[℃]
工作电压范围Working voltage range	187~254[V]
最大排气压力Max discharge pressure	2.2[Mpa] (表压 gauge pressure)
最大允许壳温Max allowable housing temperature	95[℃]
最大排气温度Max discharge temperature	120[℃]
机壳最大承受压力max pressure housing endured	3.5 [Mpa] (表压 gauge pressure)
低电压启动性能 Low voltage start	0.67/0.67Mpa(表压 gauge pressure) 187V

1.5 R290—HBP

型号Model	电源 Power supply (V/Hz)	汽缸容积 Displacement (cm ³)	制冷量 Cooling Capacity(W)	COP (W/W)	电机类型 Motor Type	认证 Certification
B Series						
B22N	220~240/50	2.2	265	2.20	CSIR	
B30N	220~240/50	3.1	380	2.40	CSIR	CCC VDE
E Series						
E80N	220~240/50	8.05	980	2.30	CSIR	

测试工况 Test conditions	按ASHRAE 标准According to ASHRAE
蒸发温度Evaporating temperature	7.2℃
冷凝温度Condensing temperature	54.4℃
过冷温度Subcooling temperature	46.1℃
吸气温度Suction temperature	35℃
环境温度Ambient temperature	35℃

使用工况范围及极限Working condition limit: R290

最大环境温度Max ambient temperature	43[℃]
蒸发温度范围Evaporation temperature range	-5~15[℃]
工作电压范围Working voltage range	187~252[V]
最大排气压力Max discharge pressure	2.2[Mpa] (表压 gauge pressure)
最大允许壳温Max allowable housing temperature	95[℃]
最大排气温度Max discharge temperature	120[℃]



机壳最大承受压力max pressure housing endured	3.5 [Mpa] (表压 gauge pressure)
低电压启动性能 Low voltage start	0.97/0.97Mpa(表压 gauge pressure) 187V

1.6 车载直流压缩机 (R134a)

型号Model	电源 Power supply (V/rpm)	汽缸容积 Displacement (cm ³)	制冷量 Cooling Capacity(W)	COP (W/W)	电机类型 Motor Type	认证 Certification
DL Series						
DL19H	12~24/2500	1.9	31	0.95	BLDC	
	12~24/3500		49	1.05		
DL22H	12~24/2500	2.2	39	1.20		
	12~24/3500		70	1.25		
DL25H	12~24/2500	2.6	45	1.20		
	12~24/3500		81	1.25		
DL30H	12~24/2500	3.1	53	1.15	BLDC	
	12~24/3500		92	1.15		

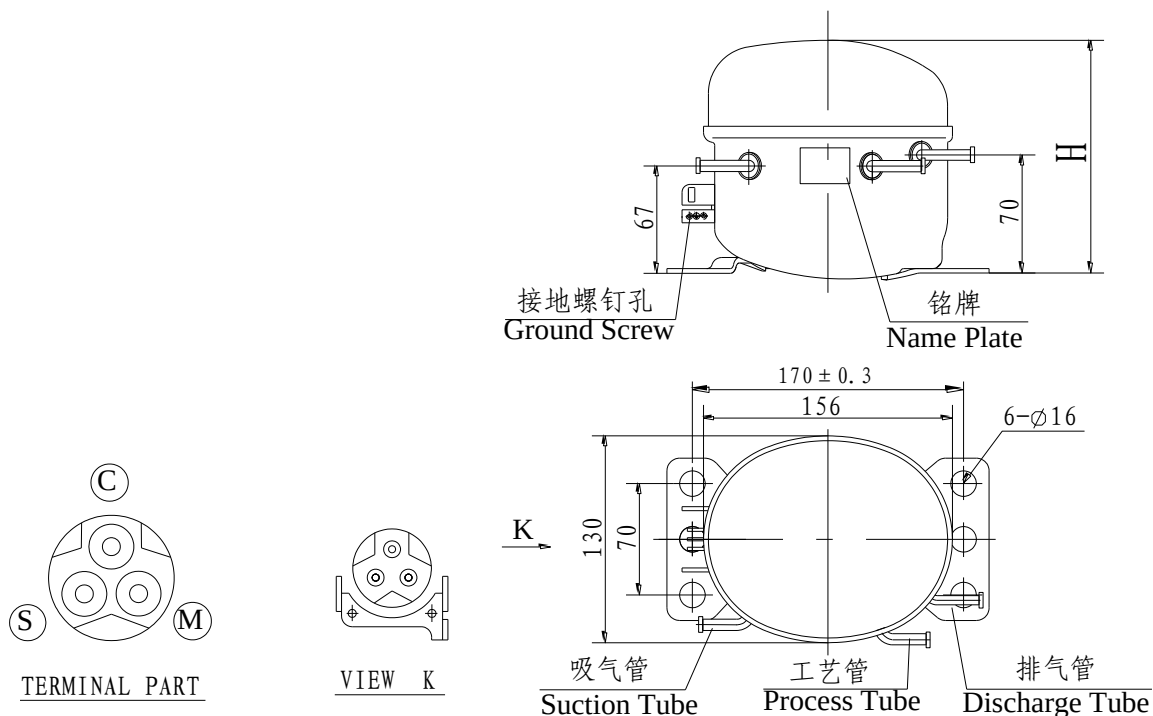
测试工况 Test conditions	按ASHRAE 标准According to ASHRAE
蒸发温度Evaporating temperature	-23.3℃
冷凝温度Condensing temperature	54.4℃
过冷温度Subcooling temperature	32.2℃
吸气温度Suction temperature	32.2℃
环境温度Ambient temperature	32.2℃

使用工况范围及极限Working condition limit: R134a

最大环境温度Max ambient temperature	43[℃]
蒸发温度范围Evaporation temperature range	-35~-15[℃]
工作电压范围Working voltage range	187~242[V]
最大排气压力Max discharge pressure	1.79[Mpa] 表压 gauge pressure
最大允许壳温Max allowable housing temperature	95[℃]
最大排气温度Max discharge temperature	130[℃]
机壳最大承受压力max pressure housing endured	3.5 [Mpa] 表压 gauge pressure
低电压启动性能 Low voltage start	0.4/0.4Mpa(表压 gauge pressure) 187V

2、外形图External view

2.1 B 系列



壳体高度和管径Housing height and dimension

型号Model	压缩机高度Height (mm)	连接铜管内径Tube internal diameter (mm)		
	H	S	P	D
B22G	141±2.5	Φ6.1～Φ6.2	Φ6.1～Φ6.2	Φ4.9～Φ5.0
B22GL				
B22G5				
B25G	145±2.5			
B25GL				
B25G5				
B38G				
B35G5				
B30G				
B30GL				
B30G5				
B25G5L	155±2.5			
B38G5L				
B43G	159±2.5			
B43GL				
S——吸气管 Suction tube		吸气管和工艺管可以互换		
P——工艺管Process tube		Connections on suction and process		
D——排气管Discharge tube		can be inverted		

2.2 S 系列



ALL DIMENSION

The technical drawing illustrates the dimensions of a vacuum pump. It includes three views: a top view of the terminal part, a side view, and a front view with detailed dimensions.

Terminal Part View: A circular view showing four terminals labeled C, S, and M, with a central circular feature.

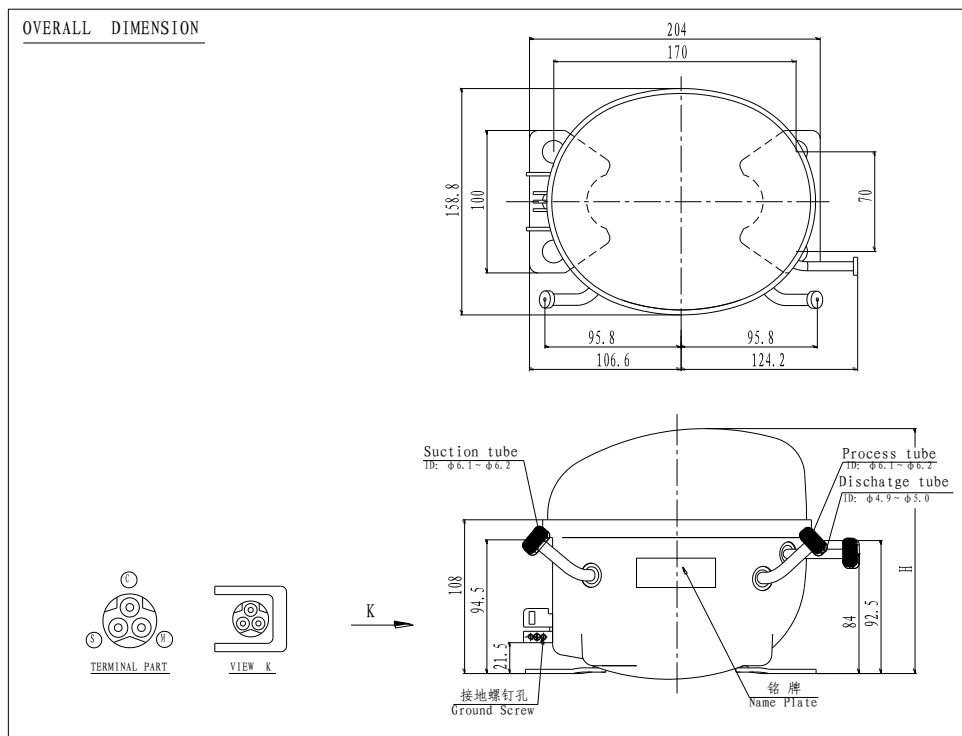
Side View: A view of the pump's profile showing the mounting base and the main body.

Front View: A detailed view of the pump's front face with the following dimensions and labels:

- Overall Width:** 172
- Mounting Flange Width:** 170 ± 0.3
- Overall Height:** 142.5
- Mounting Flange Height:** 70
- Mounting Holes:** 6 $\times \varnothing 16$
- Process Tube:** Labeled as 工艺管 (Gongyi Guan)
- Suction Tube:** Labeled as 吸气管 (Xiquan)
- Discharge Tube:** Labeled as 排气管 (Paiquan)
- Ground Screw:** Labeled as 接地螺钉孔 (Jiadi Luoxing Kong)
- Name Plate:** Labeled as 铭牌 (Mingpai)
- Height from Base to Mounting Flange:** 79
- Height from Base to Main Body:** 84
- Height from Base to Top:** H

型号Model	压缩机高度Height (mm)	连接铜管内径Tube internal diameter (mm)		
	H	S	P	D
S55HL	159.5±2.5	φ6.1～φ6.2	φ6.1～φ6.2	φ4.9～φ5.0
S60HL				
S70HL				
S80H				
S85H				
S70CL				
S75CL				
S80CL				
S85CL				
S90CL				

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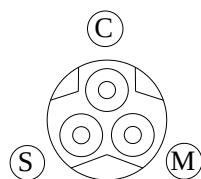
壳体高度和管径Housing height and dimension

型号Model	压缩机高度Height (mm)	连接铜管内径Tube internal diameter (mm)		
	H	S	P	D
E80HL	172 ± 2.5	$\phi 6.1 \sim \phi 6.2$	$\phi 6.1 \sim \phi 6.2$	$\phi 4.9 \sim \phi 5.0$
E80N				
E80G				
E85HL				
E95HL				
E100HL				
E100CL				
E110CL				
E130CL				

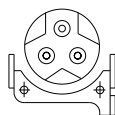
2.4 F 系列



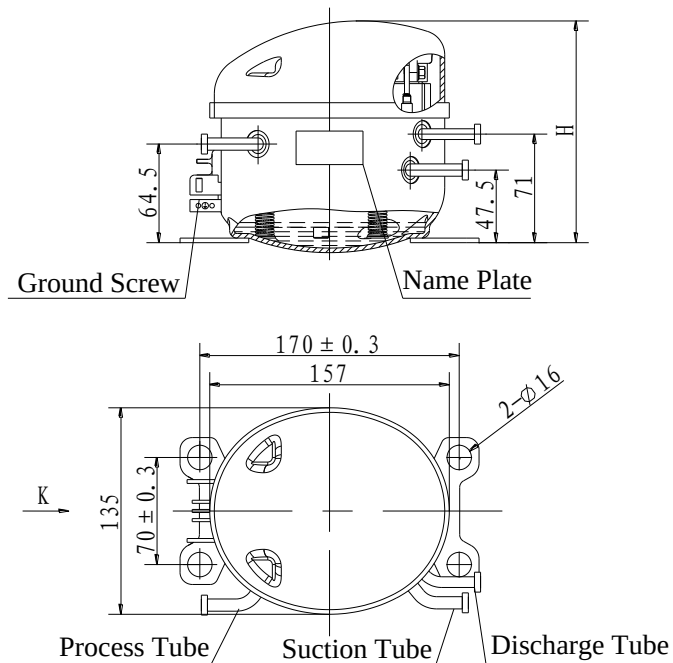
OVERALL DIMENSION



TERMINAL PART



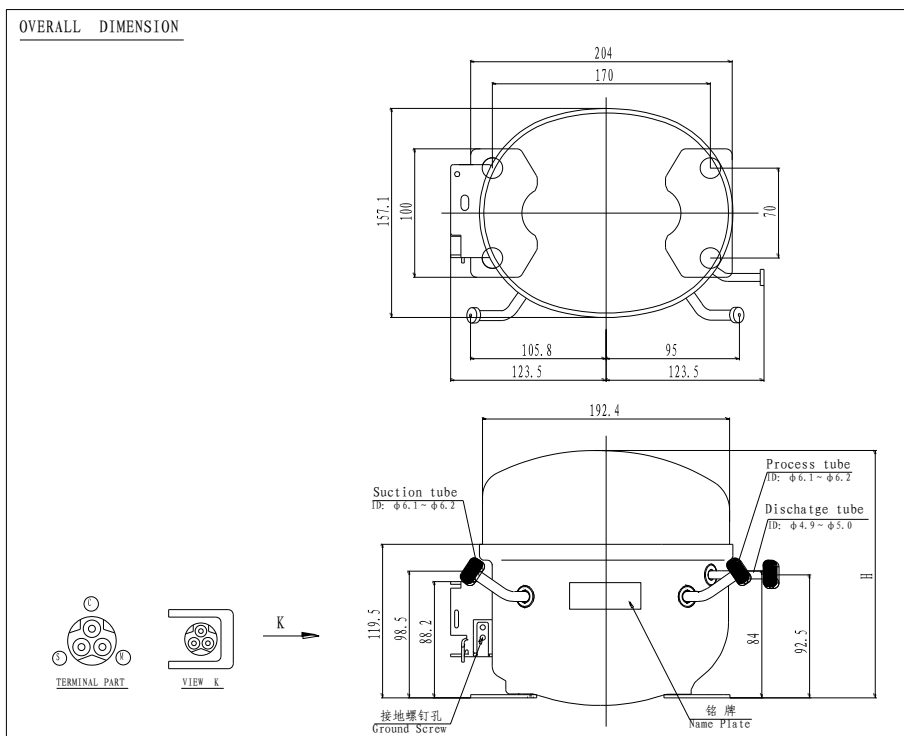
VIEW K



壳体高度和管径Housing height and dimension

型号Model	压缩机高度Height (mm)	连接铜管内径Tube internal diameter (mm)		
	H	S	P	D
F52HL	145±2.5	φ 6.1～φ 6.2	φ 6.1～φ 6.2	φ 4.9～φ 5.0
F60CL				
F70CL				
F80CL				
F85CL				
F60HL	155±2.5			
F60GL				
F70HL				
F80H				
F85H				
F90CL				
F70GL	158±2.5			

2.5 X 系列



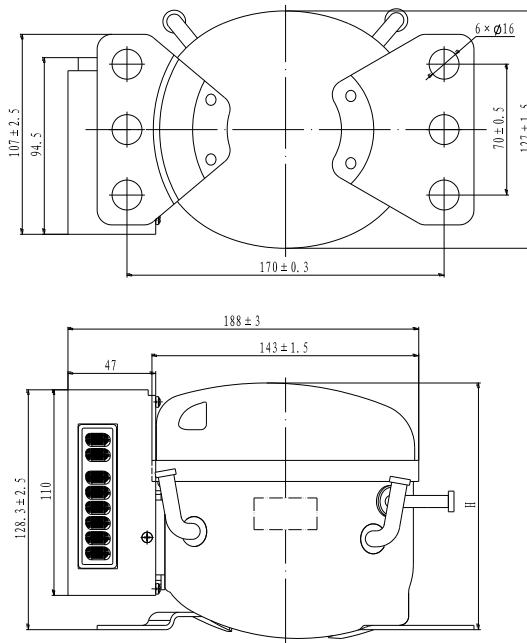
壳体高度和管径Housing height and dimension

型号Model	压缩机高度Height (mm)	连接铜管内径Tube internal diameter (mm)		
	H	S	P	D
X110HL	192.5 ± 2.5	$\phi 6.1 \sim \phi 6.2$	$\phi 6.1 \sim \phi 6.2$	$\phi 4.9 \sim \phi 5.0$
X110CL				
X130H				
X130CL				
X140CL				
X110G				
X120G				
X150CL				
X150H				
X130HL	207.5 ± 2.5			
X140HL				
X150G				

2.6 DL 直流压缩机系列



OVERALL DIMENSION



壳体高度和管径Housing height and dimension

型号Model	压缩机高度Height (mm)	连接铜管内径Tube internal diameter (mm)		
	H	S	P	D
DL19H	132 ± 2.5	φ 6.1 ~ φ 6.2	φ 6.1 ~ φ 6.2	φ 4.9 ~ φ 5.0
DL22H				
DL25H				
DL30H				

3、电器接线原理图 Electrical Diagram

RSIR (PTC 启动器)	RSCR (PTC 启动器)
RSIR (重锤启动器)	RSCR (重锤启动器)



CSIR (重锤启动器)	CSR (PTC 启动器)
MOTOR TYPE: CSIR	
C—公共 Commom	S—启动 Start
	M—运行 Run

4、使用注意事项Attention Items

4.1 请遵从从包装箱上的运输警告，装卸过程中切勿翻滚包装箱。

Please follow the transportation warning marks on the package for layer limitation. Do not roll the whole packages when loading or unloading.

4.2 运输过程中请始终保持压缩机垂直，不能倒置，并尽量避免碰撞和振动。

Please keep the compressor always vertically and never upset it during transportation while avoiding any vibration and shock.

4.3 摔过的压缩机不能保证能正常工作。

Tumbled compressor cannot be guaranteed for norm operation.

4.4 压缩机存储期限为从生产日前开始的 6 个月，如果超过期限，请检查压缩机内的氮气压力，必要时重新充灌。

Storage expiry is 6 months from the date of production. If it expired, please check the nitrogen pressure inside compressor and recharge it when it is necessary.



4.5 拔出橡皮塞后，请在 5 分钟内将压缩机与制冷系统连接，建议先从排气管拔橡皮塞。

After pulling off rubber plugs from the compressor tubes, please connect the compressor to the refrigeration system within 5minutes. It is advisable to take off the first plug from discharge tube.

4.6 真空状态下压缩机不得加高电压测试或进行启动测试。

High voltage test or start test is not permitted under vacuum condition.

4.7 避免液态制冷剂回流压缩机。

Avoid liquid refrigerant flow into the compressor.

4.8 压缩机接地线应永久牢固的接地。

The earth connection should be fixed firmly.

4.9 压缩机运转时应保持水平，最大允许的倾斜角度为 5° 。

The compressor must be mounted horizontally without tilting an angle more than 5° .

4.10 压缩机停机后必须间隔 5 分钟才能再次启动。

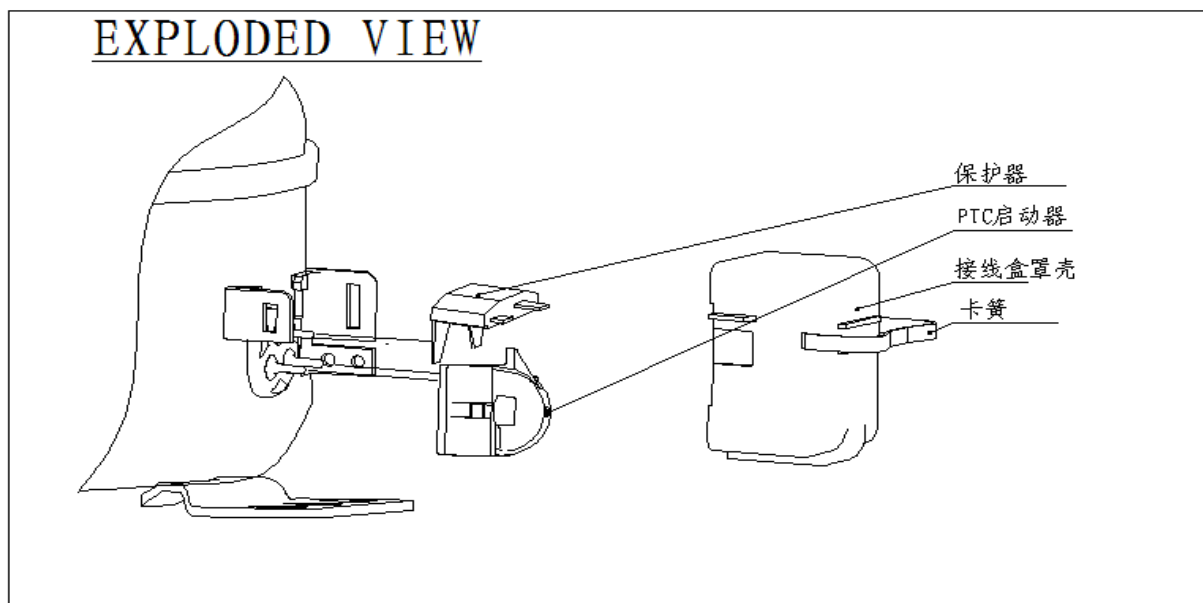
The compressor must not be restarted unless at an interval of more than 5 minutes.

4.11 压缩机不得使用防冻剂和其它非规定油品。

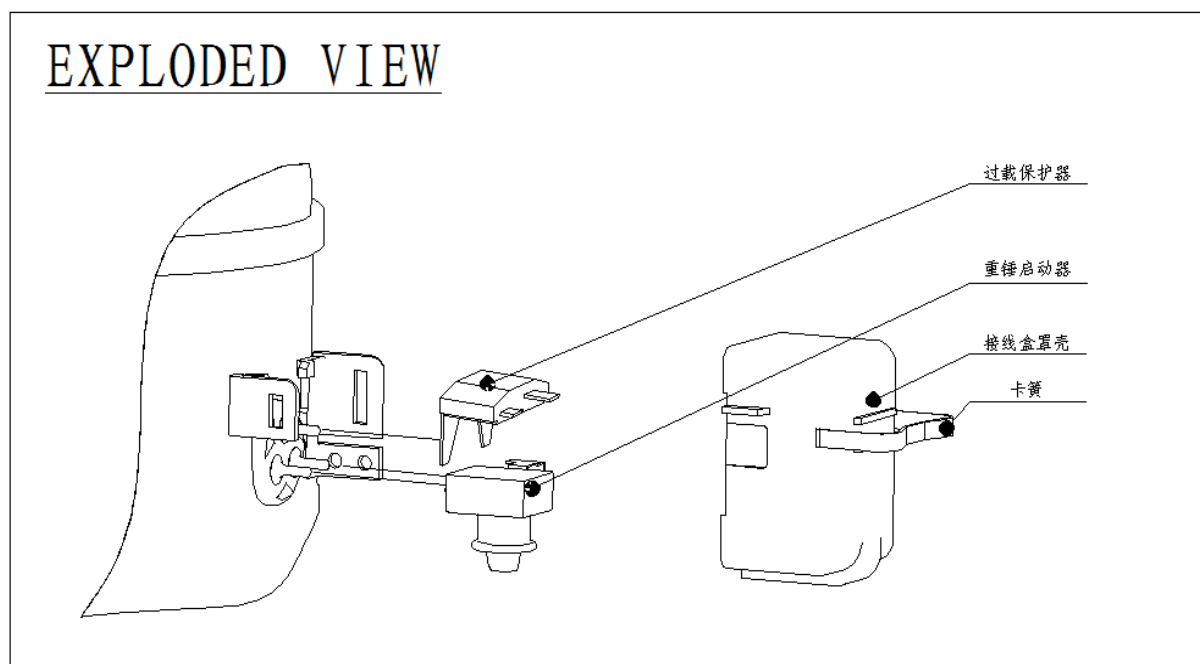
Antifreeze and other unspecified oil is not allowed to use in compressor.

5、接线示意图 Accessories and Assembly

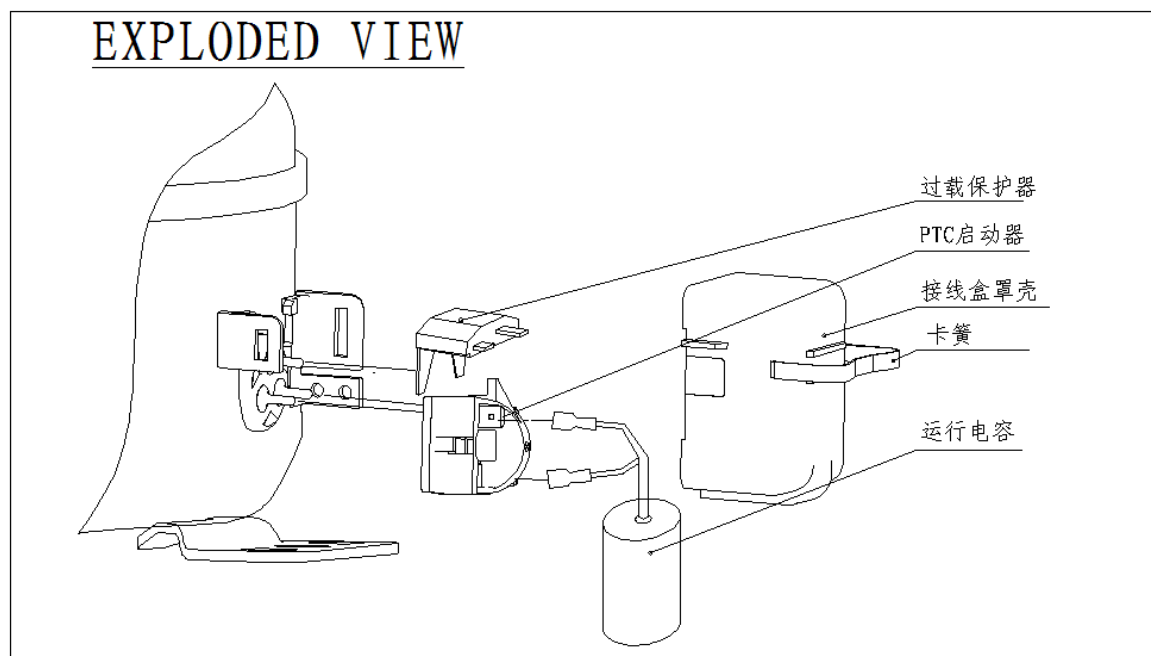
5.1 RSIR 方式接线示意图（PTC 启动器）



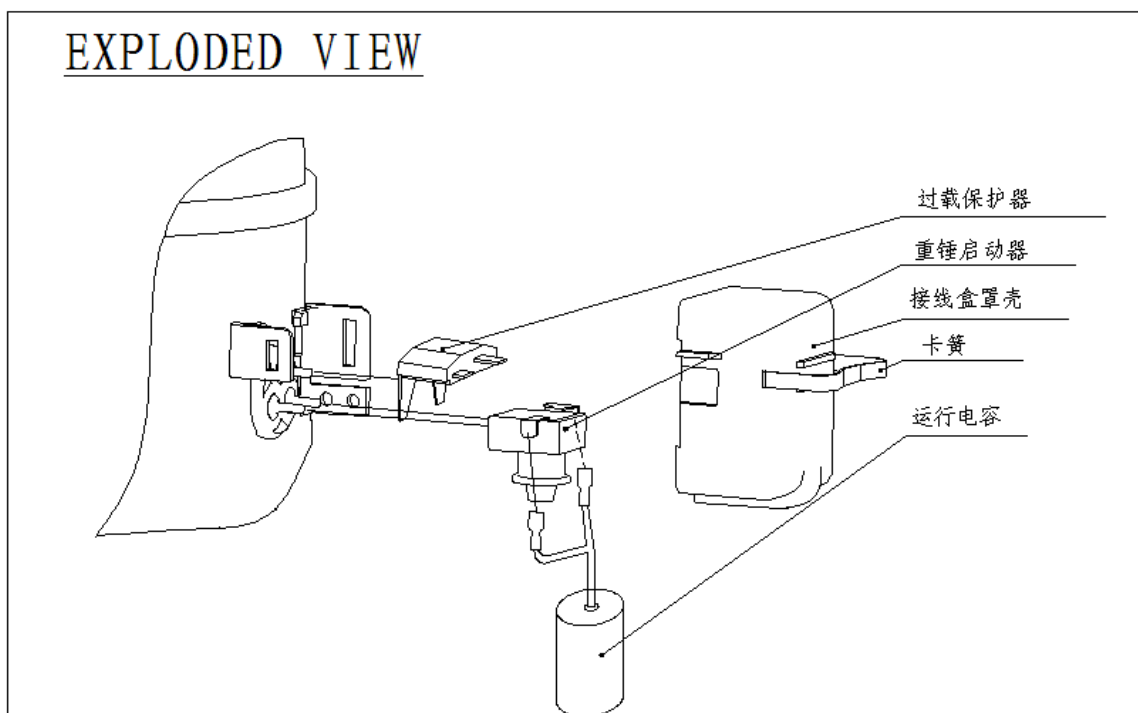
5.2 RSIR 方式接线示意图（重锤启动器）



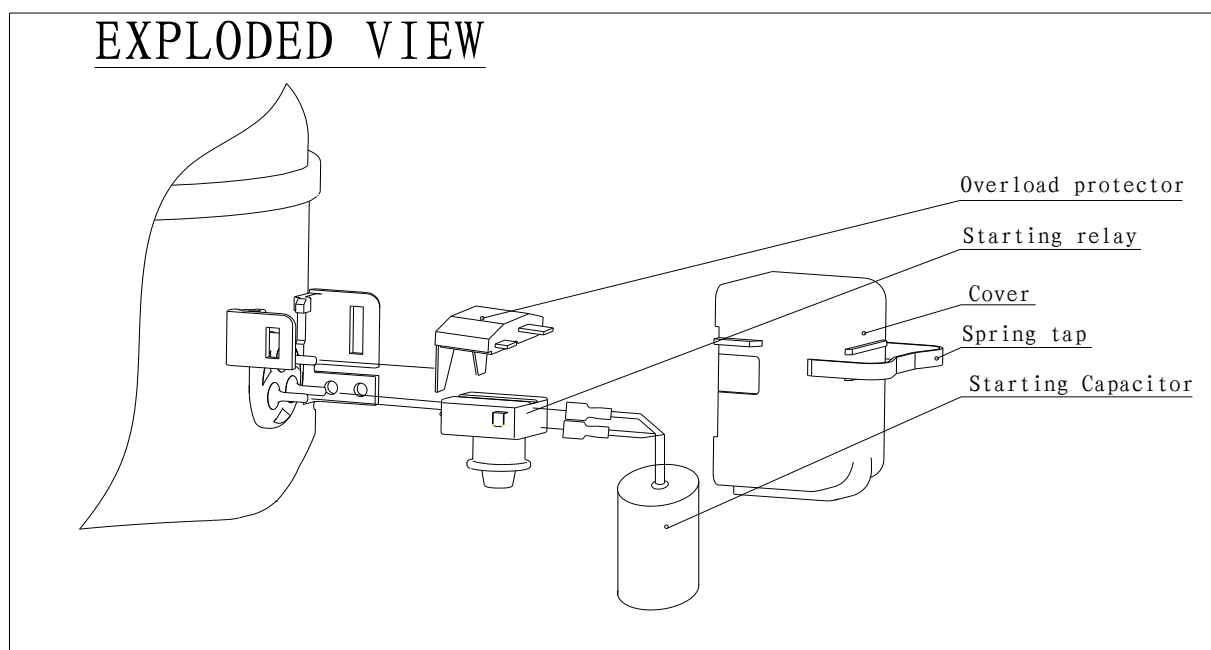
5.3 RSCR 方式接线示意图（PTC 启动器）



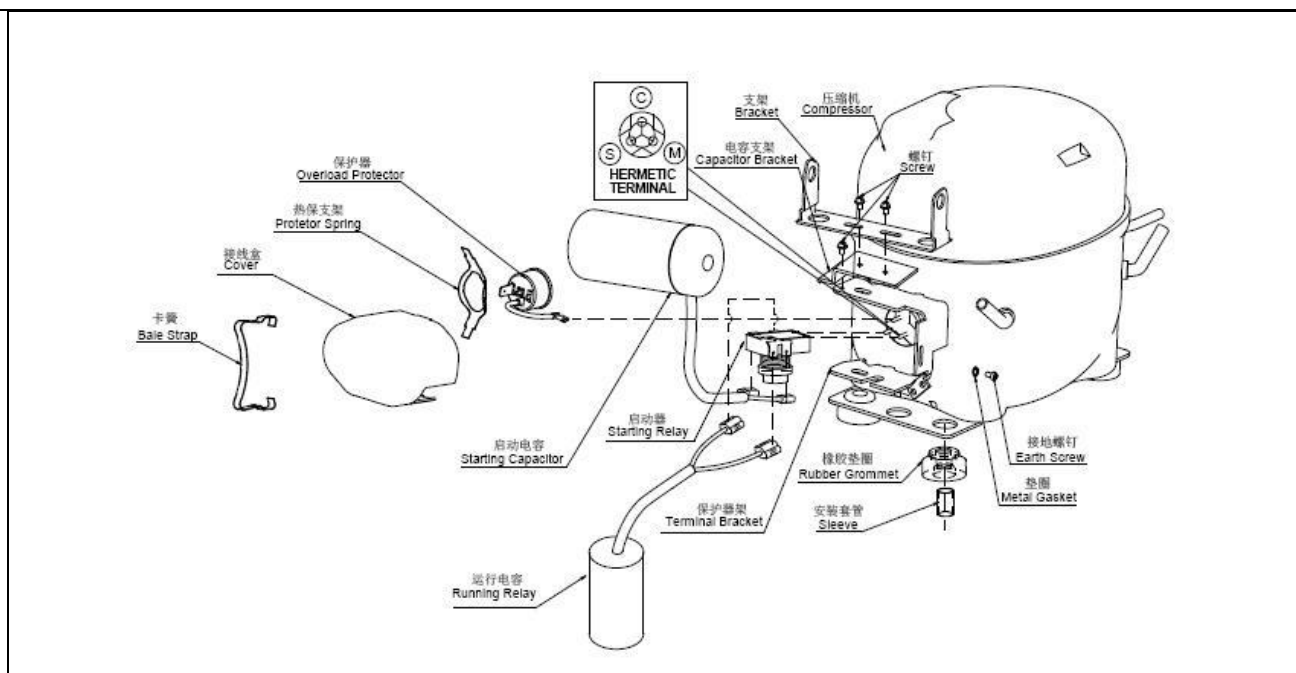
5.4 RSCR 方式接线示意图（重锤启动器）



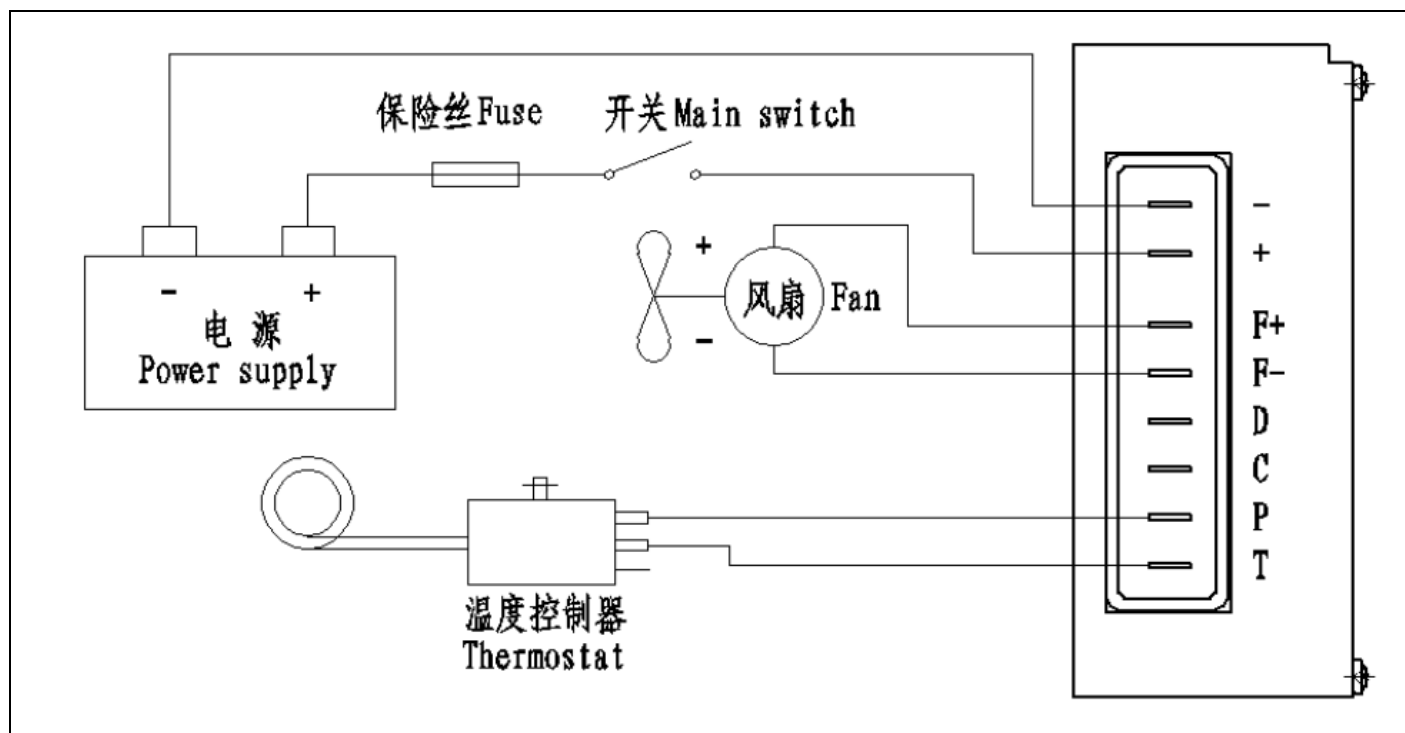
5.5 CSIR 方式接线示意图（重锤启动器）



5.6 CSR 方式接线示意图（重锤式启动器）



5.7 机械温控模式接线图（直流变频）



5.8 电子通讯模式接线图（直流变频）

