ZEL

GENERAL CATALOGUE

COMPRESSORS

R600a - R290 - R134a - R1234yf

All solutions inside.





We lead the refrigeration world.

扎努西电气机械天津压缩机有限公司(ZEL)前身为天津海河电冰箱压缩机公司,早在上世纪60年代,ZEL就开始借鉴国外技术研制、生产冰箱用压缩机;1987年,公司引进欧洲最先进的扎努西压缩机制造技术和生产线,以许可证的方式开始生产ZEL品牌的压缩机;1993年,与意大利扎努西建立了国内压缩机行业的第一家合资企业,并最早通过国际知名认证机构的质量体系认证,率先完成CFCs替代。多年来ZEL的产品一直得到国内外知名客户的一致好评。2013年,在制冷行业全球性优化重组的背景下,通过股权更迭,航天振邦精密机械有限公司成为了ZEL新的控股股东,带来了雄厚的资金支持和航天军工领域以及压缩机行业生产设备和零部件加工方面的丰富经验。

ZEL专业从事全封闭活塞式压缩机产品的研发和制造,产品可广泛应用于冰箱、冷柜及各种小型商用制冷设备。ZEL的产品范围广、种类齐全,覆盖了从R134a到R600a,从低背压(LBP)到中高背压(HMBP)、从定频到变频的范围,并能满足全球不同区域电压的需求。产品种类包括了自意大利引进的Tau和独立研发的Lambda、Zeta小型高效制冷压缩机共三大平台200多个型号规格。

随着新股东的进入,ZEL在新产品开发和技术创新方面将继续保持活力,并且进一步完善质量管理体系,提高产品品质和顾客满意度,ZEL将以全新的面貌积极参与市场竞争,加快推出更多优质、高效的压缩机产品,谱写扎努西品牌新的辉煌。

Zanussi Elettromeccanica Tianjin Compressor Co., Ltd (ZEL), was formerly known as Tianjin Haihe Refrigerator Compressor Company, and as early as the 1960s, ZEL began to learn from foreign technologies to develop and produce refrigerator compressors; In 1987, the company introduced the most advanced Zanussi compressor manufacturing technologies and production lines from Europe, and began to produce ZEL brand compressors under license; In 1993, it established the first joint venture with Zanussi, Italy in the Chinese compressor industry, and was the first to complete the CFCs replacement through the quality system certification of internationally renowned certification bodies. Over the years, ZEL's products have been well received by well-known customers at home and abroad. In 2013, in the context of global optimization and reorganization of the refrigeration industry, through the change of shares, Zhenbang Aerospace Precision Machinery Co.,Ltd. became the new controlling shareholder of ZEL, bringing strong financial support and rich experience in manufacturing equipment & parts processing of aerospace, military and compressor industries.

ZEL specializes in developing and manufacturing hermetic reciprocating compressors, which can be widely used in refrigerators, freezers and various small commercial refrigeration equipment. ZEL offers a wide range of products, from R134a to R600a, from Low Back Pressure (LBP) to Medium and High Back Pressure (HMBP), from fixed speed to variable speed, and can meet the voltage demands from different regions of the world. Product categories include Tau introduced from Italy and small but efficient Lambda & Zeta independently developed, a total of more than 200 models based on these three major platforms.

With the entry of the new shareholder, ZEL will continue to maintain its vitality in new product development & technological innovation, further improve its quality management system, and improve product quality & customer satisfaction. ZEL will actively participate in the market competition with a new face, accelerate the launch of more high-quality, efficient compressors, and achieve new success for ZEL brand.

mini compressors
a major innovation
小型、高效、绿色环保压缩机

Lambda

R600a, ASHRAE LBP工况条件下,
制冷量范围70W~200W,
COP最高达1.98W/W

R134a, AHAM工况条件下,
制冷量范围145W~230W,
COP最高达2.08W/W

Zeta

脱胎于Lambda平台的突破性产品,
目标是提供更具性价比的
高效压缩机平台

R600a, ASHRAE LBP工况条件下,
制冷量范围80W~170W,
铝电机版本COP最高达1.98W/W

Micro

综合Lambda和Zeta平台特点,
体积更小,
高性价比的中低效压缩机平台

R600a, ASHRAE LBP工况条件下,
制冷量50W~120W,
COP最高达到1.70W/W

Performance
Lambda and Zeta represent an ideal solution from small to medium refrigerators. Maximum COP of 2.00W/W* of Lambda while 1.98W/W* of Zeta with aluminum motor, combines top efficiency with compact dimensions in order to optimize performance in our customer's appliance.
*220-240V/50Hz, R600a, ASHRAE LBP conditions

Environment
ZEL has a consolidated tradition in environmentally friendly solutions. It has historically been the first compressor manufacturer to shift to non-CFC coolants starting in 1992, leading the transition to ozone safe technologies and also in choosing the R600a refrigerant. Lambda and Zeta are a further step towards innovation and energy-saving.

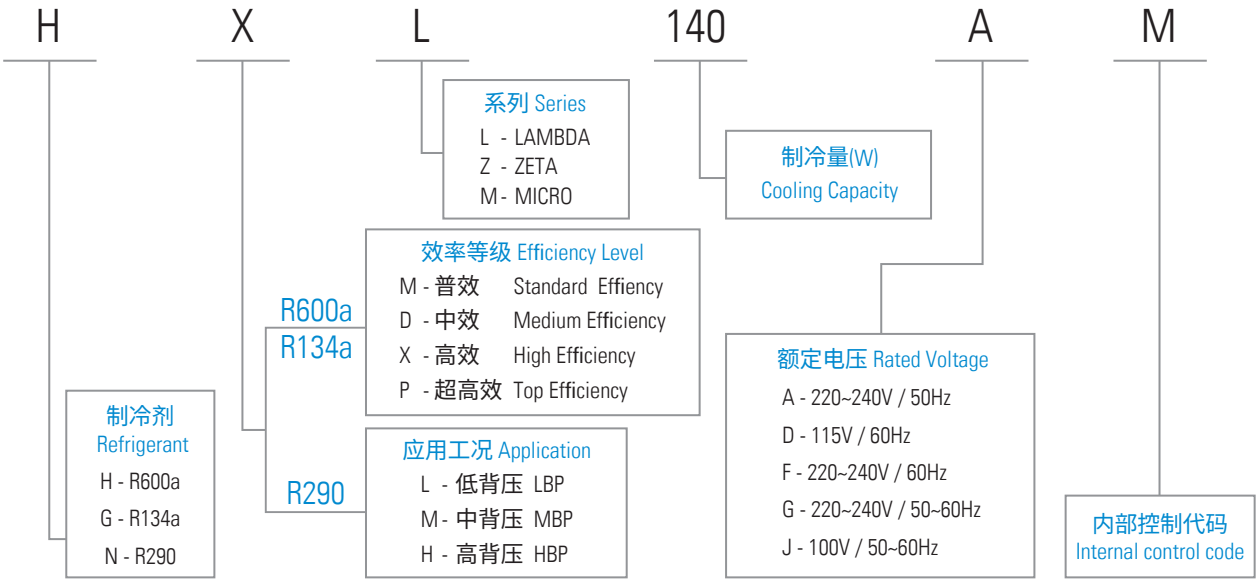
A global solution
A perfect complement to the Kappa Dual family, Lambda has been developed both in R600a and R134a version. ZEL strives to provide customers with competitive solutions suitable for all markets, to guarantee both local and international manufacturers with state-of-the-art compressors.

Compactness
Compared to ZEL's other platforms with similar performance characteristics, Lambda and Zeta represent a compact alternative with a 7% height reduction which allows to our customers to benefit with potential cabinet net volume increase.

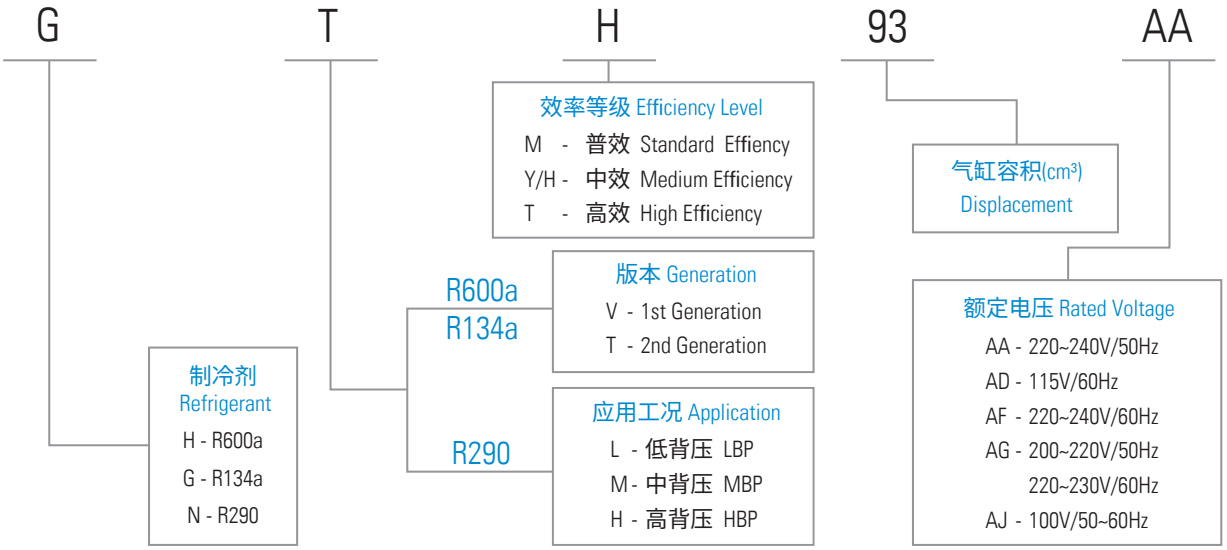


Nomenclature
命名规则

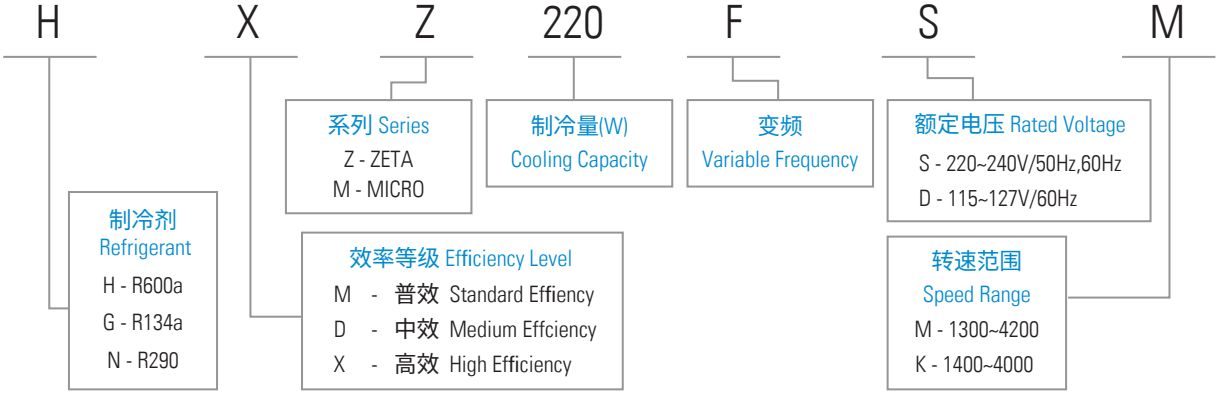
Lambda/Zeta/Micro



Tau



VSC



Variable Speed Range 变频系列

R600a

型号 Model	电机 Motor	频率 Freq.	排气量 Displ.	电机类型 Motor Type	制冷量 Cooling Capacity	制冷量 Cooling Capacity	输入功率 Input Power	性能系数 COP	高度 Height	重量 Net Weight	认证 Certification
		hz	cm^3		w	kcal/h	w	w/w	mm	kg	
Z系列变频压缩机 Z Series VSC											
220-240V/50Hz,60Hz											
普效系列 Medium Efficiency Range											
HDZ140FSM	AL	43(1300rpm)	6.2	PMSM	46	40	28	1.65	135.4	6.4	-
		53(1600rpm)			56	48	33	1.70			
		80(2400rpm)			84	72	48	1.75			
		100(3000rpm)			105	90	61	1.73			
		140(4200rpm)			145	125	86	1.68			
HDZ170FSM	AL	43(1300rpm)	7.26	PMSM	53	46	31	1.70	135.4	6.4	-
		53(1600rpm)			71	61	41	1.75			
		80(2400rpm)			106	91	59	1.80			
		100(3000rpm)			132	114	74	1.78			
		140(4200rpm)			170	146	100	1.70			
HDZ200FSM	AL	43(1300rpm)	8.6	PMSM	62	53	35	1.68	135.4	6.4	-
		53(1600rpm)			81	70	43	1.78			
		80(2400rpm)			125	108	66	1.82			
		100(3000rpm)			155	133	82	1.79			
		140(4200rpm)			203	175	115	1.67			
HDZ220FSM	AL	43(1300rpm)	9.2	PMSM	67	58	38	1.68	135.4	6.4	-
		53(1600rpm)			90	77	48	1.78			
		80(2400rpm)			134	115	70	1.82			
		100(3000rpm)			166	143	87	1.79			
		140(4200rpm)			217	187	123	1.67			
HDZ240FSM	AL	43(1300rpm)	10.3	PMSM	74	64	44	1.68	135.4	6.4	-
		53(1600rpm)			102	88	57	1.78			
		80(2400rpm)			153	132	84	1.82			
		100(3000rpm)			188	162	105	1.79			
		140(4200rpm)			234	201	140	1.67			
HDZ270FSM	AL	43(1300rpm)	11.4	PMSM	83	71	52	1.61	135.4	6.4	-
		53(1600rpm)			109	94	63	1.74			
		80(2400rpm)			169	145	94	1.80			
		100(3000rpm)			213	183	120	1.78			
		140(4200rpm)			250	215	153	1.63			
高效系列 High Efficiency Range											
HXZ140FSM	AL	43(1300rpm)	6.2	PMSM	46	40	27	1.72	140.4	6.8	-
		53(1600rpm)			56	48	32	1.77			
		80(2400rpm)			84	72	45	1.85			
		100(3000rpm)			105	90	57	1.83			
		140(4200rpm)			145	125	83	1.75			
HXZ170FSM	AL	43(1300rpm)	7.26	PMSM	53	46	30	1.75	140.4	6.8	-
		53(1600rpm)			71	61	38	1.85			
		80(2400rpm)			106	91	56	1.89			
		100(3000rpm)			132	114	70	1.88			
		140(4200rpm)			170	146	97	1.75			

注 NOTE

冷却方式	Cooling Type
静态冷却	Static Cooling
应用条件	Application
低背压	LBP
*即将发布	Release on progress

测试工况 TEST CONDITIONS(ASHRAE)

蒸发温度	Evaporating temperature	-23.3°C
冷凝温度	Condensing temperature	54.4°C
过冷温度	Subcooling temperature	32.2°C
吸气温度	Suction temperature	32.2°C
环境温度	Ambient temperature	32.2°C

单位换算 CONVERSION

1 Watt = 3.41 Btu/h = 0.86 kcal/h

Variable Speed Range
变频系列

R600a

型号 Model	电机 Motor	频率 Freq.	排气量 Displ.	电机类型 Motor Type	制冷量 Cooling Capacity	制冷量 Cooling Capacity	输入功率 Input Power	性能系数 COP	高度 Height	重量 Net Weight	认证 Certification
		hz	cm^3		w	kcal/h	w	w/w	mm	kg	
高效系列 High Efficiency Range											
HXZ200FSM	AL	43(1300rpm)	8.6	PMSM	62	53	35	1.78	140.4	6.8	-
		53(1600rpm)			81	70	43	1.89			
		80(2400rpm)			125	108	66	1.90			
		100(3000rpm)			155	133	82	1.89			
		140(4200rpm)			203	175	115	1.77			
HXZ220FSM	AL	43(1300rpm)	9.2	PMSM	67	58	38	1.78	140.4	6.8	-
		53(1600rpm)			90	77	48	1.89			
		80(2400rpm)			134	115	70	1.91			
		100(3000rpm)			166	143	87	1.90			
		140(4200rpm)			217	187	123	1.77			
HXZ240FSM	AL	43(1300rpm)	10.3	PMSM	74	64	42	1.78	140.4	6.8	-
		53(1600rpm)			102	88	54	1.88			
		80(2400rpm)			153	132	80	1.91			
		100(3000rpm)			188	162	99	1.89			
		140(4200rpm)			234	201	132	1.77			
HXZ270FSM	AL	43(1300rpm)	11.4	PMSM	83	71	49	1.71	140.4	6.8	-
		53(1600rpm)			109	94	59	1.84			
		80(2400rpm)			169	145	89	1.90			
		100(3000rpm)			213	183	114	1.87			
		140(4200rpm)			250	215	145	1.72			

M系列变频压缩机 M Series VSC

220-240V/50Hz, 60Hz

普效系列 Standard Efficiency Range

HMM100FSM*	AL	43(1300rpm)	4.2	PMSM	39	34	27	1.45	120	3.5	-
		53(1600rpm)			36	31	24	1.50			
		80(2400rpm)			57	49	37	1.55			
		100(3000rpm)			71	61	46	1.53			
		140(4200rpm)			100	86	68	1.48			
HMM120FSM*	AL	43(1300rpm)	5.3	PMSM	39	34	26	1.50	120	3.5	-
		53(1600rpm)			48	41	31	1.55			
		80(2400rpm)			72	62	45	1.60			
		100(3000rpm)			90	77	57	1.58			
		140(4200rpm)			125	108	82	1.53			
HMM140FSM*	AL	43(1300rpm)	6.2	PMSM	46	40	31	1.50	120	3.5	-
		53(1600rpm)			56	48	36	1.55			
		80(2400rpm)			84	72	53	1.60			
		100(3000rpm)			105	90	66	1.58			
		140(4200rpm)			145	125	95	1.53			

注 NOTE

冷却方式	Cooling Type
静态冷却	Static Cooling
应用条件	Application
低背压	LBP
*即将发布	Release on progress

测试工况 TEST CONDITIONS(ASHRAE)

蒸发温度	Evaporating temperature	-23.3°C
冷凝温度	Condensing temperature	54.4°C
过冷温度	Subcooling temperature	32.2°C
吸气温度	Suction temperature	32.2°C
环境温度	Ambient temperature	32.2°C

单位换算 CONVERSION

1 Watt = 3.41 Btu/h = 0.86 kcal/h

Variable Speed Range
变频系列

R600a

型号 Model	电机 Motor	频率 Freq.	排气量 Displ.	电机类型 Motor Type	制冷量 Cooling Capacity	制冷量 Cooling Capacity	输入功率 Input Power	性能系数 COP	高度 Height	重量 Net Weight	认证 Certification
		hz	cm^3		w	kcal/h	w	w/w	mm	kg	
中效系列 Medium Efficiency Range											
HDM100FSM*	AL	43(1300rpm)	4.2	PMSM	39	34	25	1.55	120	4	-
		53(1600rpm)			36	31	23	1.60			
		80(2400rpm)			57	49	35	1.65			
		100(3000rpm)			71	61	44	1.63			
		140(4200rpm)			100	86	63	1.58			
HDM120FSM*	AL	43(1300rpm)	5.3	PMSM	39	34	24	1.60	120	4	-
		53(1600rpm)			48	41	29	1.65			
		80(2400rpm)			72	62	42	1.70			
		100(3000rpm)			90	77	54	1.68			
		140(4200rpm)			125	108	77	1.63			
HDM140FSM*	AL	43(1300rpm)	6.2	PMSM	46	40	29	1.60	120	4	-
		53(1600rpm)			56	48	34	1.65			
		80(2400rpm)			84	72	49	1.70			
		100(3000rpm)			105	90	63	1.68			
		140(4200rpm)			145	125	89	1.63			
高效系列 High Efficiency Range											
HXM100FSM*	AL	43(1300rpm)	4.2	PMSM	39	34	24	1.60	125	4.5	-
		53(1600rpm)			36	31	22	1.65			
		80(2400rpm)			57	49	34	1.70			
		100(3000rpm)			71	61	42	1.68			
		140(4200rpm)			100	86	61	1.63			
HXM120FSM*	AL	43(1300rpm)	5.3	PMSM	39	34	24	1.65	125	4.5	-
		53(1600rpm)			48	41	28	1.70			
		80(2400rpm)			72	62	41	1.75			
		100(3000rpm)			90	77	52	1.73			
		140(4200rpm)			125	108	74	1.68			
HXM140FSM*	AL	43(1300rpm)	6.2	PMSM	46	40	28	1.65	125	4.5	-
		53(1600rpm)			56	48	33	1.70			
		80(2400rpm)			84	72	48	1.75			
		100(3000rpm)			105	90	61	1.73			
		140(4200rpm)			145	125	86	1.68			

注 NOTE

冷却方式	Cooling Type
静态冷却	Static Cooling
应用条件	Application
低背压	LBP
*即将发布	Release on progress

测试工况 TEST CONDITIONS(ASHRAE)

蒸发温度	Evaporating temperature	-23.3°C
冷凝温度	Condensing temperature	54.4°C
过冷温度	Subcooling temperature	32.2°C
吸气温度	Suction temperature	32.2°C
环境温度	Ambient temperature	32.2°C

单位换算 CONVERSION

1 Watt = 3.41 Btu/h = 0.86 kcal/h

Variable Speed Range
变频系列

R134a

型号 Model	电机 Motor	频率 Freq.	排气量 Displ.	电机类型 Motor Type	制冷量 Cooling Capacity	制冷量 Cooling Capacity	输入功率 Input Power	性能系数 COP	高度 Height	重量 Net Weight	认证 Certification
		hz	cm^3		w	kcal/h	w	w/w	mm	kg	
Z系列变频压缩机 Z Series VSC											
220-240V/50Hz, 60Hz											
普效系列 Standard Efficiency Range											
GDZ220FSM*	AI	43(1300rpm)	5.3	PMSM	66	57	44	1.60	140.4	6.8	-
		53(1600rpm)			82	71	57	1.68			
		80(2400rpm)			123	106	84	1.72			
		100(3000rpm)			154	132	105	1.70			
		140(4200rpm)			215	185	140	1.65			
GDZ290FSM*	AI	43(1300rpm)	7.26	PMSM	91	78	57	1.60	140.4	6.8	-
		53(1600rpm)			112	96	67	1.68			
		80(2400rpm)			168	144	98	1.72			
		100(3000rpm)			210	181	124	1.70			
		140(4200rpm)			294	253	178	1.65			

R290

220-240V/50Hz, 60Hz											
普效系列 Standard Efficiency Range											
NDZ320FSM*	AI	53(1600rpm)	5.3	PMSM	110	95	69	1.60	140.4	6.8	-
		80(2400rpm)			184	158	108	1.70			
		100(3000rpm)			230	198	135	1.70			
		140(4200rpm)			325	280	197	1.65			
NDZ490FSM*	AI	53(1600rpm)	7.26	PMSM	185	159	112	1.65	140.4	6.8	-
		80(2400rpm)			284	244	162	1.75			
		100(3000rpm)			355	305	203	1.75			
		140(4200rpm)			490	421	288	1.70			

注 NOTE

冷却方式	Cooling Type
静态冷却	Static Cooling
应用条件	Application
低背压	LBP
*即将发布	Release on progress

测试工况 TEST CONDITIONS(ASHRAE)

蒸发温度	Evaporating temperature	-23.3°C
冷凝温度	Condensing temperature	54.4°C
过冷温度	Subcooling temperature	32.2°C
吸气温度	Suction temperature	32.2°C
环境温度	Ambient temperature	32.2°C

单位换算 CONVERSION

1 Watt = 3.41 Btu/h = 0.86 kcal/h

DC COMPRESSOR
直流压缩机

R134a

型号 Model	排气量 Displ.	电机类型 Motor Type	制冷量 Cooling Capacity	制冷量 Cooling Capacity	冷却方式 Cooling Type	性能系数 COP	认证 Certification
	cm³		w	kcal/h		w/w	
12-24V							
GM15DC	1.5	BLDC	48	41	FC	1.25	CE/ROHS
GM25DC	2.5	BLDC	64	55	FC	1.25	UL/CE/ROHS
GM35DC	3.5	BLDC	88	76	FC	1.3	CE/ROHS
GM45DC	4.5	BLDC	118	101	FC	1.35	CE/ROHS
GM55DC	5.5	BLDC	136	117	FC	1.38	CE/ROHS
GM65DC	6.5	BLDC	175	151	FC	1.42	CE/ROHS
GM75DC	7.5	BLDC	202	174	FC	1.45	CE/ROHS

R600a

12-24V							
HM15DC	1.5	BLDC	25	21	FC	1.25	CE/ROHS
HM25DC	2.5	BLDC	42	36	FC	1.3	CE/ROHS
HM35DC	3.5	BLDC	60	52	FC	1.35	CE/ROHS
HM45DC	4.5	BLDC	75	64	FC	1.4	CE/ROHS
HM55DC	5.5	BLDC	88	76	FC	1.45	CE/ROHS
HM65DC	6.5	BLDC	110	95	FC	1.5	CE/ROHS
HM75DC	7.5	BLDC	125	107	FC	1.55	CE/ROHS

注 NOTE

冷却方式 Cooling Type
静态冷却 Static Cooling
应用条件 Application
低背压 LBP
*即将发布 Release on progress

测试工况 TEST CONDITIONS(ASHRAE)

蒸发温度	Evaporating temperature	-23.3°C
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环境温度	Ambient temperature	32.2°C

单位换算 CONVERSION

1 Watt = 3.41 Btu/h = 0.86 kcal/h

Commercial Product Range 商用产品系列

Tau&LAMBDA R134a

型号 Model	电机 Motor	频率 Freq.	排气量 Displ.	电机类型 Motor Type	制冷量 Cooling Capacity	输入功率 Input Power	性能系数 COP	启动电容 Start Capacitor	运行电容 Run Capacitor	高度 Height	重量 Net Weight	认证 Certification	冷却方式 Cooling Type
			cm^3		w	w	w/w	μF	μF	mm	kg		S/F
HMBP Range中高背压系列 (+7.2°C/+54.4°C)													
220 -240 V/50Hz													
GL90TB	Al	50	7.5	CSIR	760	335	2.27	50	-	184	10.0	CCC/VDE	F
GL90TB B	Al	50	8.6	CSIR	870	387	2.25	50	-	184	10.2	CCC/VDE	F
GL10TB	Cu	50	9.3	CSIR	930	413	2.25	50	-	184	10.2	CCC/VDE	F
GL12TB	Cu	50	11.4	CSIR	1100	489	2.25	50	-	184	10.2	CCC/VDE	F
200 -220 V/50Hz, 220 -230 V/60Hz													
GL60TG	Al	50	5.3	CSIR	540	240	2.25	50	-	174	8.8	CCC/VDE	F
		60			640	262	2.44						
GL90TG	Cu	50	7.5	CSCR	740	240	2.25	50	6	184	10.2	-	F
		60			880	262	2.44						
LBP Range低背压系列													
220-240V/50Hz													
GTM93AA	Cu	50	10.0	RSCR	280	207	1.35	-	6	184	9.5	CCC/VDE	S
GTM93AA e	Al	50	10.0	CSCR	280	207	1.35	50	4	184	9.5	CCC/VDE	S
GTM10AA s	Cu	50	10.6	CSIR	300	226	1.33	50	-	184	9.6	CCC/VDE	F
GTM10AA e	Al	50	10.6	CSCR	300	226	1.33	50	4	184	9.6	CCC/VDE	F
GTM12AA e	Al	50	11.0	CSCR	320	241	1.33	50	4	184	9.6	CCC/VDE	F
GTM12AA s	Cu	50	12.0	CSIR	340	256	1.33	50	-	184	9.8	CCC/VDE	F
200-220V/50Hz, 220-230V/60Hz													
GTM93AG	Cu	50	9.3	CSIR	260	226	1.15	50	-	184	9.6	CCC/VDE	F
		60			310	235	1.32						

注 NOTE

冷却方式	Cooling Type
静态冷却	Static Cooling
应用条件	Application
低背压	LBP
*即将发布	Release on progress

测试工况 TEST CONDITIONS(ASHRAE)

蒸发温度	Evaporating temperature	-23.3°C
冷凝温度	Condensing temperature	54.4°C
过冷温度	Subcooling temperature	32.2°C
吸气温度	Suction temperature	32.2°C
环境温度	Ambient temperature	32.2°C

单位换算 CONVERSION

1 Watt = 3.41 Btu/h = 0.86 kcal/h

Commercial Product Range 商用产品系列

R290

型号 Model	电机 Motor	频率 Freq.	排气量 Displ.	电机类型 Motor Type	制冷量 Cooling Capacity	输入功率 Input Power	性能系数 COP	启动电容 Start Capacitor	运行电容 Run Capacitor	高度 Height	重量 Net Weight	认证 Certification	冷却方式 Cooling Type
			cm^3		w	w	w/w	μF	μF	mm	kg		S/F
LBP Range 低背压系列													
220 -240 V/50Hz													
中效系列 Medium Efficiency Range													Tau系列
NLT53AA	Al	50	5.3	RSCR	237	153	1.55	-	6	184	9.6	CCC/VDE	F
NLT57AA	Al	50	5.7	RSCR	257	166	1.55	-	5	184	9.6	CCC/VDE	F
NLT61AA	Al	50	6.1	RSCR	284	183	1.55	-	5	184	9.6	CCC/VDE	F
NLT66AA s	Al	50	6.6	CSCR	308	199	1.55	50	5	184	9.6		F
NLT75AA s	Al	50	7.5	CSCR	358	231	1.55	50	5	184	9.6		F
NLT80AA s	Al	50	8.0	CSCR	380	245	1.55	50	8	184	9.6	CCC/VDE	F
NLT86AA I	Cu	50	8.6	CSCR	420	275	1.53	50	8	184	10.7		F
NLT93AA I	Cu	50	9.3	CSCR	450	292	1.54	50	8	184	10.7		F
高效系列 High Efficiency Range													
NLT53AA I	Cu	50	5.3	RSCR	237	144	1.65	-	5	184	10.7	CCC/VDE	F
NLT57AA I	Cu	50	5.7	RSCR	257	156	1.65	-	6	184	10.7	CCC/VDE	F
NLT61AA I	Cu	50	6.1	RSCR	284	172	1.65	-	6	184	10.7	CCC/VDE	F
NLT66AA I	Cu	50	6.6	CSCR	308	187	1.65	50	6	184	10.7	CCC/VDE	F
NLT75AA I	Cu	50	7.5	CSCR	358	217	1.65	50	5	184	10.7	CCC/VDE	F
NLT80AA I	Cu	50	8.0	CSCR	380	230	1.65	50	8	184	10.7		F
220 -240 V/50Hz													Lambda系列
NLL160A	Al	50	3.7	RSCR	165	110	1.50	-	4	164	7.3	-	S
NLL200A	Al	50	4.6	RSCR	210	140	1.50	-	5	164	7.3	CCC/VDE	S
NLL200A I	Cu	50	4.6	RSCR	210	130	1.62	-	5	164	7.6	CCC/VDE	S
NLL240A	Cu/Al	50	5.3	RSCR	240	160	1.50	-	5	164	7.6	-	F
NLL260A	Cu/Al	50	5.7	RSCR	260	173	1.50	-	5	164	7.6	-	F
115 V/60Hz							-						Tau系列
NLT40AD	Cu	60	4.0	RSCR	230	144	1.60	-	10	184	10.7	-	S
NLT44AD	Cu	60	4.4	RSCR	245	153	1.60	-	10	184	10.7	-	F
NLT53AD	Cu	60	5.3	CSCR	290	181	1.60	50	4	184	10.7	-	F
NLT57AD	Cu	60	5.7	CSCR	310	194	1.60	50	4	184	10.7	UL	F
115 V/60Hz													Lambda系列
NLL155D	Cu/Al	60	3.4	RSCR	155	97	1.60	-	10	164	7.6	-	S
NLL175D	Cu/Al	60	3.4	RSCR	172	108	1.60	-	10	164	7.6	UL	S
NLL200D	Cu/Al	60	3.7	RSCR	200	125	1.60	-	10	164	7.6	TUV	S
MBP Range 中背压系列 (-6.7°C/+54.4°C)													
220 -240 V/50Hz													
NLT44AA	Al	50	4.4	RSCR	385	193	2.00	-	6	184	9.6	CCC/VDE	S
NLT53AA	Al	50	5.3	RSCR	442	221	2.00	-	6	184	9.6	CCC/VDE	F
NLT57AA	Al	50	5.7	RSCR	475	238	2.00	-	5	184	9.6	CCC/VDE	F
NLT61AA	Al	50	6.1	RSCR	510	255	2.00	-	5	184	9.6	CCC/VDE	F
NMT66AA	Cu	50	6.6	CSCR	550	268	2.05	50	5	184	10.7	-	F
NMT75AA	Cu	50	7.5	CSCR	570	285	2.00	50	5	184	10.7	-	F

注 NOTE

冷却方式	Cooling Type
静态冷却	Static Cooling
应用条件	Application
低背压	LBP
*即将发布	Release on progress

测试工况 TEST CONDITIONS(ASHRAE)

蒸发温度	Evaporating temperature	-23.3°C
冷凝温度	Condensing temperature	54.4°C
过冷温度	Subcooling temperature	32.2°C
吸气温度	Suction temperature	32.2°C
环境温度	Ambient temperature	32.2°C

单位换算 CONVERSION

1 Watt = 3.41 Btu/h = 0.86 kcal/h

Lambda

R600a

型号 Model	电机 Motor	排气量 Displ.	电机类型 Motor Type	频率 Freq.	制冷量 Cooling Capacity	制冷量 Cooling Capacity	输入功率 Input Power	性能系数 COP	启动电容 Start Capacitor	运行电容 Run Capacitor	高度 Height	重量 Net Weight	认证 Certification
		cm³		hz	w	kcal/h	w	w/w	μF	μF	mm	kg	
220-240V/50Hz													
普效系列 Standard Efficiency Range													
HML140A	Al	8.0	RSCR	50	140	120	90	1.56	-	3	152	6.3	CCC/VDE
HML140A I	Al	8.0	RSCR	50	140	120	88	1.60	-	3	161	6.9	-
HML155A	Al	8.6	RSCR	50	155	133	107	1.45	-	3	161	6.9	CCC/VDE
HML155A I	Al	8.6	RSCR	50	155	133	97	1.60	-	3	161	6.9	-
HML170A	Al	9.5	RSCR	50	170	146	115	1.48	-	3	161	6.9	CCC/VDE
HML170A I	Al	9.5	RSCR	50	170	146	106	1.60	-	3	161	6.9	-
HML190A	Al	10.5	RSCR	50	190	163	131	1.45	-	3	164	7.2	-
HML200A	Al	11.4	RSCR	50	200	172	133	1.50	-	4	164	7.2	CCC/VDE
中效系列 Medium Efficiency Range													
HDL100A	Al	5.7	RSCR	50	98	84	58	1.70	-	2.5	164	7.2	CCC/VDE
HDL125A	Al	7.0	RSCR	50	123	106	72	1.72	-	2.5	164	7.2	CCC/VDE
HDL140A	Al	8.0	RSCR	50	140	120	81	1.72	-	2.5	164	7.2	CCC/VDE
HDL155A	Al	8.6	RSCR	50	155	133	91	1.70	-	4	164	7.2	CCC
HDL170A	Al	9.5	RSCR	50	170	146	100	1.70	-	4	164	7.2	CCC
HDL190A	Cu/Al	10.5	RSCR	50	190	163	114	1.66	-	4	164	7.2	-
HDL200A	Cu/Al	11.4	RSCR	50	200	172	120	1.66	-	4	164	7.2	CCC
高效系列 High Efficiency Range													
HXL100A**	Cu	5.7	RSCR	50	98	84	52	1.88	-	2	161	7.3	CCC/VDE
HXL125A**	Cu	7.0	RSCR	50	125	108	65	1.91	-	2	161	7.3	CCC/VDE
HXL140A**	Cu	8.0	RSCR	50	140	120	73	1.91	-	2	161	7.3	CCC/VDE
HXL155A**	Cu	8.5	RSCR	50	155	133	82	1.88	-	2	161	7.3	CCC/VDE
HXL170A**	Cu	9.3	RSCR	50	175	151	93	1.88	-	2	164	7.3	CCC/VDE
HXL190A	Cu	10.5	RSCR	50	190	168	103	1.85	-	3	164	7.3	CCC
HXL200A	Cu	11.4	RSCR	50	200	172	111	1.80	-	3	164	7.3	-
超高效系列 Top Efficiency Range													
HPL100A	Cu	5.7	CSCR	50	100	86	51	1.96	15	2	161	7.3	CCC/VDE
HPL125A	Cu	7.0	CSCR	50	125	108	64	1.96	15	2	161	7.3	CCC/VDE
HPL140A	Cu	8.0	CSCR	50	140	120	71	1.98	15	2	161	7.3	CCC/VDE
160-260V/50Hz													
普效系列 Standard Efficiency Range													
HML100A T	Al	6.0	RSCR	50	103	89	71	1.45	-	2	152	6.3	-
HML125A T	Al	7.0	RSCR	50	125	112	83	1.50	-	2	152	6.3	CCC/VDE
HML140A T	Al	8.0	RSCR	50	140	120	97	1.45	-	3	161	6.3	CCC/VDE
HML155A T	Al	8.6	RSCR	50	155	133	111	1.40	-	3	161	6.9	-
HML170A T	Al	9.5	RSCR	50	170	146	113	1.50	-	3	164	7.2	CCC/VDE
中效系列 Medium Efficiency Range													
HDL100A T	Al	6.0	RSCR	50	103	89	62	1.65	-	2	161	6.9	-
HDL125A T	Al	7.0	RSCR	50	125	112	76	1.65	-	2	161	6.9	CCC/VDE
HDL140A T	Al/Cu	8.0	RSCR	50	140	120	85	1.65	-	3	164	7.2	CCC/VDE
HDL155A T	Cu/Al	8.6	RSCR	50	155	133	94	1.65	-	3	164	7.2	-
HDL170A T	Cu/Al	9.5	RSCR	50	170	146	103	1.65	-	3	164	7.2	CCC/VDE

注 NOTE

冷却方式 Cooling Type

静态冷却 Static Cooling

应用条件 Application

低背压 LBP

测试工况 TEST CONDITIONS(ASHRAE)

蒸发温度	Evaporating temperature	-23.3°C
冷凝温度	Condensing temperature	54.4°C
过冷温度	Subcooling temperature	32.2°C
吸气温度	Suction temperature	32.2°C
环境温度	Ambient temperature	32.2°C

单位换算 CONVERSION

1 Watt = 3.41 Btu/h = 0.86 kcal/h

*即将发布 Release on progress

**备选型号 (优先选用ZETA平台)

Lambda

R600a

型号 Model	电机 Motor	排气量 Displ.	电机类型 Motor Type	频率 Freq.	制冷量 Cooling Capacity	制冷量 Cooling Capacity	输入功率 Input Power	性能系数 COP	启动电容 Start Capacitor	运行电容 Run Capacitor	高度 Height	重量 Net Weight	认证 Certification
		cm^3		hz	w	kcal/h	w	w/w	μF	μF	mm	kg	
160-260V/50Hz													
高效系列 High Efficiency Range													
HXL100A T	Cu	6.0	RSCR	50	103	89	59	1.75	-	2	164	7.3	-
HXL125A T	Cu	7.0	RSCR	50	125	112	71	1.75	-	2	164	7.3	CCC/VDE
HXL140A T	Cu	8.0	RSCR	50	140	120	80	1.75	-	3	164	7.3	CCC/VDE
HXL155A T	Cu	8.6	RSCR	50	155	133	89	1.75	-	3	164	7.3	-
HXL170A T	Cu	9.5	RSCR	50	170	146	97	1.75	-	3	164	7.3	CCC/VDE
220-240V/60Hz													
普效系列 Standard Efficiency Range													
HML125F	Al	6.3	RSCR	60	130	112	87	1.50	-	2	152	6.3	CB
HML140F	Al	7.0	RSCR	60	145	125	97	1.50	-	3	152	6.3	CB
HML160F	Al	7.5	RSCR	60	160	138	107	1.50	-	3	161	6.9	CB
HML180F	Al	8.6	RSCR	60	180	155	120	1.50	-	5	164	7.3	CB
HML190F	Al	9.2	RSCR	60	195	163	130	1.50	-	5	164	7.2	CB
中效系列 Medium Efficiency Range													
HDL125F	Al	6.3	RSCR	60	130	112	79	1.65	-	2	161	7.2	CB
HDL140F	Al	7.0	RSCR	60	145	125	90	1.62	-	3	161	7.2	CB
HDL160F	Al	7.5	RSCR	60	160	138	98	1.64	-	3	161	7.2	CB
HDL180F	Cu/Al	8.6	RSCR	60	180	155	106	1.70	-	5	164	7.3	CB
HDL190F	Cu/Al	9.2	RSCR	60	195	163	112	1.70	-	5	164	7.2	CB
高效系列 High Efficiency Range													
HXL140F	Cu	7.0	RSCR	60	140	120	74	1.90	-	3	161	7.2	CB
HXL160F	Cu	7.5	RSCR	60	160	138	84	1.90	-	3	161	7.2	CB
HXL190F	Cu	9.2	RSCR	60	195	163	103	1.85	-	3	161	7.2	CB
220-240V/50-60Hz													
普效系列 Standard Efficiency Range													
HML125G	Al	7.5	RSCR	50	130	112	87	1.50	-	2	152	6.3	-
				60	153	132	96	1.60					
HML140G	Al	8.0	RSCR	50	140	120	97	1.45	-	4	161	6.9	CCC/VDE
				60	167	144	108	1.55					
HML155G	Al	8.6	RSCR	50	155	133	107	1.45	-	4	161	6.9	-
				60	180	155	116	1.55					
HML170G	Al	9.2	RSCR	50	165	142	114	1.45	-	4	161	6.9	-
				60	192	165	124	1.55					
中效系列 Medium Efficiency Range													
HDL140G	Al	8.0	RSCR	50	145	125	90	1.62	-	4	164	7.2	-
				60	170	146	99	1.72					
HDL155G	Al	8.6	RSCR	50	155	133	96	1.62	-	4	164	7.2	-
				60	180	155	105	1.72					
HDL170G	Cu/Al	9.2	RSCR	50	168	144	102	1.65	-	4	164	7.2	CCC/VDE
				60	200	172	116	1.72					

注 NOTE

冷却方式	Cooling Type
静态冷却	Static Cooling
应用条件	Application
低背压	LBP
*即将发布	Release on progress

测试工况 TEST CONDITIONS(ASHRAE)

蒸发温度	Evaporating temperature	-23.3°C
冷凝温度	Condensing temperature	54.4°C
过冷温度	Subcooling temperature	32.2°C
吸气温度	Suction temperature	32.2°C
环境温度	Ambient temperature	32.2°C

单位换算 CONVERSION

1 Watt = 3.41 Btu/h = 0.86 kcal/h

Lambda

R600a

型号 Model	电机 Motor	排气量 Displ.	电机类型 Motor Type	频率 Freq.	制冷量 Cooling Capacity	制冷量 Cooling Capacity	输入功率 Input Power	性能系数 COP	启动电容 Start Capacitor	运行电容 Run Capacitor	高度 Height	重量 Net Weight	认证 Certification
		cm³		hz	w	kcal/h	w	w/w	μF	μF	mm	kg	
220-240V/50-60Hz													
高效系列 High Efficiency Range													
HXL155G	Cu	8.6	RSCR	50	155	133	89	1.75	-	4	164	7.6	-
				60	180	155	97	1.85					
HXL185G	Cu	10.1	RSCR	50	185	159	106	1.75	-	4	164	7.6	CCC/VDE
				60	215	185	117	1.83					
115V/60Hz													
普效系列 Standard Efficiency Range													
HML125D	Al	6.3	RSCR	60	134	115	88	1.53	-	2	152	6.3	UL
HML140D	Al	7.0	RSCR	60	145	125	96	1.50	-	2	152	6.3	-
HML160D	Al	8.0	RSCR	60	165	142	110	1.50	-	2	161	6.9	-
HML180D	Al	8.6	RSCR	60	180	155	120	1.50	-	10	164	6.9	-
HML200D	Al	9.3	RSCR	60	200	172	133	1.50	-	10	164	6.9	-
中效系列 Medium Efficiency Range													
HDL125D	Al	6.3	RSCR	60	134	115	81	1.65	-	10	161	6.9	UL
HDL125D I	Cu/Al	6.3	RSCR	60	134	115	78	1.72	-	10	161	6.9	UL
HDL140D L	Al	7.0	RSCR	60	145	125	91	1.60	-	10	161	6.9	UL
HDL160D M	Al	7.5	RSCR	60	154	132	93	1.66	-	10	164	7.3	UL
HDL160D	Al	8.0	RSCR	60	165	142	99	1.66	-	10	164	7.3	-
HDL180D	Al	8.6	RSCR	60	180	155	106	1.70	-	10	164	7.3	-
HDL200D	Al	9.3	RSCR	60	200	172	119	1.68	-	10	164	7.3	UL
高效系列 High Efficiency Range													
HXL100D	Cu	5.3	RSCR	60	110	95	61	1.80	-	6	164	7.6	-
HXL125D	Cu	6.3	RSCR	60	134	115	74	1.80	-	6	164	7.6	-
HXL160D	Cu	8.0	RSCR	60	165	142	92	1.80	-	10	164	7.6	-
HXL180D	Cu	8.6	RSCR	60	180	155	100	1.80	-	10	161	7.6	-
HXL200D	Cu	9.3	RSCR	60	200	172	111	1.80	-	10	161	7.6	-
100V/50-60Hz													
普效系列 Standard Efficiency Range													
HML100J	Al	6.3	RSCR	50	110	95	79	1.40	-	2	161	7.3	-
				60	128	110	85	1.50	-				
HML125J	Al	7.0	RSCR	50	123	106	88	1.40	-	2	161	7.3	-
				60	142	122	95	1.50	-				
HML140J	Al	8.0	RSCR	50	138	119	99	1.40	-	2	161	7.3	-
				60	160	132	107	1.50	-				
中效系列 Medium Efficiency Range													
HDL100J	Al	6.3	RSCR	50	110	95	64	1.72	-	10	161	7.3	-
				60	128	110	73	1.75	-				
HDL125J	Cu	7.0	RSCR	50	123	106	72	1.72	-	10	161	7.3	-
				60	142	122	80	1.78	-				
HDL140J	Cu	8.0	RSCR	50	140	120	81	1.72	-	10	161	7.3	-
				60	160	138	91	1.75	-				

注 NOTE

冷却方式	Cooling Type
静态冷却	Static Cooling
应用条件	Application
低背压	LBP
*即将发布	Release on progress

测试工况 TEST CONDITIONS(ASHRAE)

蒸发温度	Evaporating temperature	-23.3°C
冷凝温度	Condensing temperature	54.4°C
过冷温度	Subcooling temperature	32.2°C
吸气温度	Suction temperature	32.2°C
环境温度	Ambient temperature	32.2°C

单位换算 CONVERSION

1 Watt = 3.41 Btu/h = 0.86 kcal/h

Lambda

R134a

型号 Model	电机 Motor	排气量 Displ.	电机类型 Motor Type	频率 Freq.	制冷量 Cooling Capacity	制冷量 Cooling Capacity	输入功率 Input Power	性能系数 COP	启动电容 Start Capacitor	运行电容 Run Capacitor	高度 Height	重量 Net Weight	认证 Certification
		cm^3		hz	w	kcal/h	w	w/w	μF	μF	mm	kg	
220-240V/50Hz													
普效系列 Standard Efficiency Range													
GML110A	Al	4.1	RSCR	50	113	97	84	1.35	-	2.5	152	6.3	CCC/VDE
GML125A	Al	4.3	RSCR	50	124	107	90	1.38	-	3	152	6.3	CCC/VDE
GML140A	Al	4.5	RSCR	50	140	120	104	1.35	-	3	152	6.3	CCC/VDE
GML160A	Al	5.7	RSCR	50	162	139	114	1.42	-	4	161	7.3	-
GML180A	Al	6.0	RSCR	50	178	153	125	1.42	-	4	164	7.3	CCC/VDE
GML200A M	Al	6.5	RSCR	50	190	163	128	1.48	-	5	164	7.3	CCC/VDE
GML200A	Al	7.0	RSCR	50	205	176	139	1.48	-	5	164	7.3	CCC/VDE
GML220A	Al/Cu	7.5	RSCR	50	220	189	149	1.48	-	4	164	7.3	-
GML240A	Al/Cu	8.6	RSCR	50	240	206	160	1.50	-	4	164	7.3	-
中效系列 Midium Efficiency Range													
GDL140A	Al	4.9	RSCR	50	148	127	95	1.55	-	3	161	7	-
GDL160A	Cu/Al	5.7	RSCR	50	167	144	108	1.55	-	4	164	7.6	CCC
GDL200A M	Cu/Al	6.5	RSCR	50	195	163	119	1.60	-	5	164	7.6	CCC
GDL200A	Cu/Al	7	RSCR	50	205	176	132	1.55	-	5	164	7.6	CCC
高效系列 High Efficiency Range													
GXL125A	Cu	4.3	RSCR	50	123	106	72	1.72	-	5	164	7.6	CCC
GXL140A	Cu	4.6	RSCR	50	138	119	80	1.72	-	5	164	7.6	-
GXL160A	Cu	5.7	RSCR	50	167	144	98	1.70	-	4	164	7.6	CCC/VDE
GXL200A M	Cu	6.5	RSCR	50	195	163	115	1.70		5	164	7.6	-
GXL200A	Cu	7	RSCR	50	205	176	120	1.70	-	5	164	7.6	CCC/VDE
220-240V/60Hz													
普效系列 Standard Efficiency Range													
GML140F	Al	4.3	RSCR	60	143	123	99	1.45	-	3	161	6.9	-
GML200F	Al	5.7	RSCR	60	200	172	138	1.45	-	4	164	7.2	-
中效系列 Midium Efficiency Range													
GDL140F	Al	4.3	RSCR	60	143	123	92	1.55	-	3	164	7.2	-
GDL200F	Cu/Al	5.7	RSCR	60	200	172	129	1.55	-	4	164	7.3	-
高效系列 High Efficiency Range													
GXL140F	Cu	4.3	RSCR	60	143	123	85	1.69	-	3	164	7.3	-
GXL200F	Cu	5.7	RSCR	60	200	172	120	1.67	-	4	164	7.3	-

注 NOTE

冷却方式	Cooling Type
静态冷却	Static Cooling
应用条件	Application
低背压	LBP
*即将发布	Release on progress

测试工况 TEST CONDITIONS(ASHRAE)

蒸发温度	Evaporating temperature	-23.3°C
冷凝温度	Condensing temperature	54.4°C
过冷温度	Subcooling temperature	32.2°C
吸气温度	Suction temperature	32.2°C
环境温度	Ambient temperature	32.2°C

单位换算 CONVERSION

1 Watt = 3.41 Btu/h = 0.86 kcal/h

Lambda

R134a

型号 Model	电机 Motor	排气量 Displ.	电机类型 Motor Type	频率 Freq.	制冷量 Cooling Capacity	制冷量 Cooling Capacity	输入功率 Input Power	性能系数 COP	启动电容 Start Capacitor	运行电容 Run Capacitor	高度 Height	重量 Net Weight	认证 Certification
		cm^3		hz	w	kcal/h	w	w/w	μF	μF	mm	kg	
220-240V/50-60Hz													
普效系列 Standard Efficiency Range													
GML70G	Al	2.9	RSCR	50	72	62	52	1.38	-	2	161	7.1	CCC/VDE
				60	86	74	59	1.45					
GML80G	Al	3.1	RSCR	50	80	69	58	1.38	-	2	152	6.3	CCC/VDE
				60	92	79	63	1.45					
GML90G	Al	3.4	RSCR	50	94	81	72	1.30	-	2.5	152	6.3	CCC/VDE
				60	110	95	76	1.45					
GML125G	Al	4.3	RSCR	50	122	105	90	1.35	-	3	161	7.3	CCC/VDE
				60	145	125	100	1.45					
GML140G	Al	4.5	RSCR	50	144	124	103	1.40	-	3	161	7.3	CCC/VDE
				60	168	144	108	1.55					
GML160G	Al	5.7	RSCR	50	162	139	114	1.42	-	4	161	7.3	CCC/VDE
				60	195	168	128	1.52					
220-240V/50-60Hz													
中效系列 Midium Efficiency Range													
GDL125G	Al	4.3	RSCR	50	123	106	82	1.50	-	3	164	7.2	CCC
				60	143	123	89	1.60					
GDL140G	Al/Cu	4.9	RSCR	50	149	128	99	1.50	-	3	164	7.2	CCC
				60	175	151	109	1.60					
GDL160G	Cu/Al	5.7	RSCR	50	167	144	111	1.50	-	4	164	7.3	CCC
				60	200	175	125	1.60					
高效系列 High Efficiency Range													
GXL125G	Cu	4.3	RSCR	50	123	106	74	1.67	-	3	164	7.6	CCC
				60	143	123	83	1.72					
GXL140G	Cu	4.9	RSCR	50	149	128	89	1.67	-	3	164	7.6	CCC
				60	175	151	102	1.72					
GXL160G	Cu	5.7	RSCR	50	167	144	103	1.62	-	4	164	7.6	CCC
				60	200	175	120	1.66					
160-260V/50Hz													
普效系列 Standard Efficiency Range													
GML110A T	Al	4.1	RSCR	50	113	97	87	1.30	-	2.5	152	6.3	CCC/VDE
GML125A T	Al	4.3	RSCR	50	123	106	94	1.30	-	3	152	6.3	-
GML140A T	Al	4.9	RSCR	50	148	127	110	1.35	-	3	161	6.9	CCC/VDE
GML160A T	Al	5.7	RSCR	50	162	139	114	1.42	-	4	164	7.3	-
中效系列 Midium Efficiency Range													
GDL110A T	Al	4.1	RSCR	50	113	97	75	1.50	-	2.5	164	7.2	CCC/VDE
GDL125A T	Al	4.3	RSCR	50	123	106	82	1.50	-	3	164	7.2	-
GDL140A T	Al	4.9	RSCR	50	148	127	99	1.50	-	3	164	7.2	CCC/VDE
GDL160A T	Cu/Al	5.7	RSCR	50	162	139	108	1.50	-	4	164	7.3	-
高效系列 High Efficiency Range													
GXL110A T	Cu	4.1	RSCR	50	113	97	71	1.60	-	2.5	164	7.6	CCC/VDE
GXL125A T	Cu	4.3	RSCR	50	123	106	77	1.60	-	3	164	7.6	-
GXL140A T	Cu	4.9	RSCR	50	148	127	93	1.60	-	3	164	7.6	CCC/VDE
GXL160A T	Cu	5.7	RSCR	50	162	139	101	1.60	-	4	164	7.6	-

注 NOTE

冷却方式 Cooling Type
静态冷却 Static Cooling
应用条件 Application
低背压 LBP
*即将发布 Release on progress

测试工况 TEST CONDITIONS(ASHRAE)

蒸发温度	Evaporating temperature	-23.3°C
冷凝温度	Condensing temperature	54.4°C
过冷温度	Subcooling temperature	32.2°C
吸气温度	Suction temperature	32.2°C
环境温度	Ambient temperature	32.2°C

单位换算 CONVERSION

1 Watt = 3.41 Btu/h = 0.86 kcal/h

Lambda

R134a

型号 Model	电机 Motor	排气量 Displ.	电机类型 Motor Type	频率 Freq.	制冷量 Cooling Capacity	制冷量 Cooling Capacity	输入功率 Input Power	性能系数 COP	启动电容 Start Capacitor	运行电容 Run Capacitor	高度 Height	重量 Net Weight	认证 Certification
		cm³		hz	w	kcal/h	w	w/w	μF	μF	mm	kg	
115V/60Hz 北美电压 North American Range													
普效系列 Standard Efficiency Range													
GML125D M	Al	3.7	RSCR	60	125	108	86	1.45	-	10	152	6.3	-
GML125D	Al	4.1	RSCR	60	136	117	94	1.45	-	10	152	6.3	UL
GML145D	Al	4.3	RSCR	60	145	125	92	1.57	-	10	164	7.1	UL
GML160D	Al	4.5	RSCR	60	160	138	103	1.56	-	10	164	7.3	-
GML175D	Al	4.9	RSCR	60	170	146	109	1.56	-	10	164	7.3	UL
GML190D	Al	5.3	RSCR	60	190	163	136	1.40	-	10	164	7.3	-
GML200D	Al	5.7	RSCR	60	200	172	143	1.40	-	10	164	7.3	UL
中效系列 Medium Efficiency Range													
GDL145D	Cu	4.3	RSCR	60	145	125	88	1.65	-	10	161	7.3	UL
GDL160D	Cu	4.5	RSCR	60	160	138	97	1.65	-	10	161	7.3	-
GDL175D	Cu	4.9	RSCR	60	175	151	106	1.65	-	10	161	7.3	UL
GDL200D M	Cu	5.3	RSCR	60	190	163	115	1.65	-	10	164	7.3	UL
GDL200D	Cu	5.7	RSCR	60	200	172	121	1.65	-	10	161	7.3	UL
高效系列 High Efficiency Range													
GXL160D	Cu	4.5	RSCR	60	160	138	93	1.73	-	10	164	7.6	-
GXL175D	Cu	4.9	RSCR	60	175	151	101	1.73	-	10	164	7.6	UL
GXL200D M	Cu	5.3	RSCR	60	190	163	110	1.73	-	10	164	7.6	UL
GXL200D	Cu	5.7	RSCR	60	200	172	116	1.73	-	10	164	7.6	UL
100V/50-60Hz 日本电压 Japan Range													
普效系列 Standard Efficiency Range													
GML110J	Al	4.1	RSCR	50	110	95	78	1.41	-	10	164	7.3	-
				60	125	108	85	1.47					
GML140J	Al	4.9	RSCR	50	145	125	100	1.45	-	10	164	7.3	-
				60	160	138	107	1.50					
中效系列 Medium Efficiency Range													
GDL110J	Cu	4.1	RSCR	50	110	95	73	1.50	-	10	164	7.6	-
				60	125	108	78	1.60					
GDL140J	Cu	4.9	RSCR	50	145	125	97	1.50	-	10	164	7.6	-
				60	160	138	100	1.60					

R1234yf

100V/50-60Hz 日本电压 Japan Range													
GML70J	Al	2.9	RSIR	50	80	69	62	1.30	-	-	152	6.3	-
				60	96	83	71	1.35					
GML125J	Al	4.3	RSIR	50	140	120	97	1.45	-	-	161	7.1	-
				60	168	144	112	1.50					
GML140J	Al	4.9	RSIR	50	160	138	110	1.45	-	-	164	7.3	-
				60	192	165	128	1.50					

注 NOTE

冷却方式	Cooling Type
静态冷却	Static Cooling
应用条件	Application
低背压	LBP
*即将发布	Release on progress

测试工况 TEST CONDITIONS(ASHRAE)

蒸发温度	Evaporating temperature	-23.3°C
冷凝温度	Condensing temperature	54.4°C
过冷温度	Subcooling temperature	32.2°C
吸气温度	Suction temperature	32.2°C
环境温度	Ambient temperature	32.2°C

单位换算 CONVERSION

1 Watt = 3.41 Btu/h = 0.86 kcal/h

Zeta

R600a

型号 Model	电机 Motor	排气量 Displ.	电机类型 Motor Type	频率 Freq.	制冷量 Cooling Capacity	制冷量 Cooling Capacity	输入功率 Input Power	性能系数 COP	运行电容 Run Capacitor	高度 Height	重量 Net Weight	认证 Certification
		cm^3		hz	w	kcal/h	w	w/w	μF	mm	kg	
220-240V/50Hz												
中效系列 Medium Efficiency Range												
HDZ100A M	Al	5.4	RSCR	50	92	79	52	1.78	2	163	7.3	CCC/VDE
HDZ100A	Al	5.7	RSCR	50	98	84	55	1.78	2	163	7.3	CCC/VDE
HDZ125A	Al	7.0	RSCR	50	126	108	70	1.80	2.5	163	7.3	CCC/VDE
HDZ140A	Al	7.5	RSCR	50	135	116	75	1.80	3	163	7.3	CCC/VDE
HDZ155A	Al	8.6	RSCR	50	155	133	87	1.78	4	163	7.3	CCC/VDE
HDZ170A	Al	9.2	RSCR	50	170	146	96	1.78	4	163	7.3	CCC/VDE
高效系列 High Efficiency Range												
HXZ100A	Al	5.7	RSCR	50	98	84	53	1.85	2	163	7.3	CCC/VDE
HXZ125A	Al	7.0	RSCR	50	126	108	68	1.86	2.5	163	7.3	CCC/VDE
HXZ140A	Al	7.5	RSCR	50	135	116	73	1.85	3	163	7.3	CCC/VDE
HXZ155A	Al	8.6	RSCR	50	155	133	84	1.84	4	163	7.3	-
HXZ170A	Al	9.2	RSCR	50	170	146	93	1.83	4	163	7.3	CCC/VDE
超高效系列 Top Efficiency Range												
HPZ100A	Cu	5.7	RSCR	50	98	84	51	1.94	2	163	7.9	CCC/VDE
HPZ125A	Cu	7.0	RSCR	50	126	108	65	1.95	2.5	163	7.9	CCC/VDE
HPZ140A	Cu	7.5	RSCR	50	135	116	68	1.98	2.5	163	7.9	CCC/VDE
HPZ155A	Cu	8.6	RSCR	50	155	133	79	1.95	4	163	7.9	CCC/VDE
HPZ170A	Cu	9.2	RSCR	50	170	146	88	1.93	4	163	7.9	CCC/VDE
220-240V/60Hz												
中效系列 Medium Efficiency Range												
HDZ100F	Al	4.9	RSCR	60	96	83	55	1.74	1.5	163	7.3	-
HDZ125F	Al	5.7	RSCR	60	125	108	71	1.76	2	163	7.3	-
HDZ140F	Al	7.0	RSCR	60	144	124	80	1.79	2.5	163	7.3	-
HDZ160F	Al	8.0	RSCR	60	170	146	96	1.78	3	163	7.3	-
HDZ190F	Al	9.2	RSCR	60	190	163	107	1.78	4	163	7.3	CB
115V/60Hz												
普效系列 Standard Efficiency Range												
HDZ100D	Al	5.3	RSCR	60	110	95	63	1.75	10	163	7.3	-
HDZ125D	Al	6.3	RSCR	60	125	108	71	1.75	10	163	7.3	UL
HDZ140D	Al	7.0	RSCR	60	144	124	82	1.75	10	163	7.3	-
HDZ160D	Al	8.0	RSCR	60	170	146	97	1.75	10	163	7.3	-
高效系列 High Efficiency Range												
HXZ100D	Al	5.3	RSCR	60	110	95	61	1.80	10	163	7.3	-
HXZ125D	Al	6.3	RSCR	60	125	108	69	1.80	10	163	7.3	-
HXZ140D	Al	7.0	RSCR	60	144	124	80	1.80	10	163	7.3	-
HXZ160D	Al	8.0	RSCR	60	170	146	94	1.80	10	163	7.3	-

注 NOTE

冷却方式	Cooling Type
静态冷却	Static Cooling
应用条件	Application
低背压	LBP
*即将发布	Release on progress

测试工况 TEST CONDITIONS(ASHRAE)

蒸发温度	Evaporating temperature	-23.3°C
冷凝温度	Condensing temperature	54.4°C
过冷温度	Subcooling temperature	32.2°C
吸气温度	Suction temperature	32.2°C
环境温度	Ambient temperature	32.2°C

单位换算 CONVERSION

1 Watt = 3.41 Btu/h = 0.86 kcal/h

Micro

R600a

型号 Model	电机 Motor	排气量 Displ.	电机类型 Motor Type	频率 Freq.	制冷量 Cooling Capacity	制冷量 Cooling Capacity	输入功率 Input Power	性能系数 COP	运行电容 Run Capacitor	高度 Height	重量 Net Weight	认证 Certification
		cm³		hz	w	kcal/h	w	w/w	μF	mm	kg	
220-240V/50Hz												
普效系列 Standard Efficiency Range												
HMM60A	AI	4.0	RSCR	50	60	52	50	1.20	2	162	5.4	-
HMM70A	AI	4.5	RSCR	50	70	60	58	1.20	2	162	5.4	-
HMM80A	AI	5.0	RSCR	50	80	69	62	1.30	2	162	5.4	-
HMM90A	AI	5.5	RSCR	50	92	79	66	1.40	2	162	5.4	CCC
HMM100A	AI	6.0	RSCR	50	100	86	69	1.45	2	162	5.4	CCC
HMM125A	AI	7.2	RSCR	50	125	108	86	1.45	2.5	162	5.4	CCC
HMM140A	AI	8.0	RSCR	50	140	120	97	1.45	3	162	5.4	CCC
HMM155A	AI	8.6	RSCR	50	155	133	107	1.45	3	162	5.4	CCC
中效系列 Midium Efficiency Range												
HDM90A	AI	5.5	RSCR	50	92	79	61	1.50	2	162	5.4	CCC
HDM100A	AI	6.0	RSCR	50	100	86	65	1.55	2	162	5.4	CCC
HDM125A	AI	7.2	RSCR	50	125	108	81	1.55	2.5	162	5.4	CCC
HDM140A	AI	8.0	RSCR	50	140	120	90	1.55	3	165	5.6	-
高效系列 High Efficiency Range												
HXM90A	AI	5.5	RSCR	50	92	79	58	1.60	2	165	5.8	-
HXM100A	AI	6.0	RSCR	50	100	86	61	1.65	2	165	5.8	-
HXM125A	AI	7.2	RSCR	50	125	108	76	1.65	2.5	165	5.8	-
HXM140A	AI	8.0	RSCR	50	140	120	85	1.65	3	165	5.8	-
115V/60Hz												
普效系列 Standard Efficiency Range												
HMM100D	AI	4.9	RSCR	60	98	84	70	1.40	8	162	5.4	-
HMM125D	AI	6.0	RSCR	60	120	103	83	1.45	10	162	5.4	-
中效系列 Midium Efficiency Range												
HDM100D	AI	4.9	RSCR	60	98	84	65	1.50	8	162	5.4	-
HDM125D	AI	6.0	RSCR	60	120	103	77	1.55	10	162	5.4	-
220-240V/50-60Hz												
普效系列 Standard Efficiency Range												
HMM90G	AI	5.5	RSCR	50	92	79	68	1.35	2	162	5.4	-
				60	110	95	76	1.45				
HMM100G	AI	6.0	RSCR	50	100	86	74	1.35	2	162	5.4	-
				60	120	103	83	1.45				
100V/50-60Hz												
普效系列 Standard Efficiency Range												
HMM90J	AI	5.5	RSCR	50	92	79	71	1.30	2	162	5.4	-
				60	110	95	79	1.40				
HMM100J	AI	6.0	RSCR	50	100	86	71	1.30	2	162	5.4	-
				60	120	103	86	1.40				
160-260V/50Hz												
普效系列 Standard Efficiency Range												
HMM90A T	AI	5.5	RSCR	50	92	79	71	1.30	2	162	5.4	CCC
HMM100A T	AI	6.0	RSCR	50	100	86	74	1.35	2	162	5.4	CCC

注 NOTE

冷却方式 Cooling Type
静态冷却 Static Cooling
应用条件 Application
低背压 LBP
*即将发布 Release on progress

测试工况 TEST CONDITIONS(ASHRAE)

蒸发温度	Evaporating temperature	-23.3°C
冷凝温度	Condensing temperature	54.4°C
过冷温度	Subcooling temperature	32.2°C
吸气温度	Suction temperature	32.2°C
环境温度	Ambient temperature	32.2°C

单位换算 CONVERSION

1 Watt = 3.41 Btu/h = 0.86 kcal/h

Micro

R134a

型号 Model	电机 Motor	排气量 Displ.	电机类型 Motor Type	频率 Freq.	制冷量 Cooling Capacity	制冷量 Cooling Capacity	输入功率 Input Power	性能系数 COP	运行电容 Run Capacitor	高度 Height	重量 Net Weight	认证 Certification
		cm^3		hz	w	kcal/h	w	w/w	μF	mm	kg	
220-240V/50Hz												
普效系列 Standard Efficiency Range												
GMM60A	AI	2.6	RSCR	50	60	52	50	1.20	2	162	5.4	-
GMM70A	AI	2.9	RSCR	50	70	60	58	1.20	2	162	5.4	-
GMM80A	AI	3.2	RSCR	50	80	69	67	1.20	2	162	5.4	-
GMM90A	AI	3.5	RSCR	50	90	77	69	1.30	2	162	5.4	-
GMM100A	AI	3.8	RSCR	50	100	86	71	1.40	2.5	162	5.4	-
GMM125A	AI	4.5	RSCR	50	125	108	89	1.40	2.5	165	5.6	CCC
GMM140A	AI	4.9	RSCR	50	140	120	100	1.40	3	165	5.6	CCC
GMM160A	AI	5.7	RSCR	50	162	139	116	1.40	3	165	5.6	CCC
中效系列 Midium Efficiency Range												
GDM100A	AI	3.8	RSCR	50	100	86	67	1.50	2.5	165	5.8	-
GDM125A	AI	4.5	RSCR	50	125	108	83	1.50	2.5	165	5.8	-
GDM140A	AI	4.9	RSCR	50	140	120	93	1.50	3	165	5.8	-
160-260V/50Hz												
普效系列 Standard Efficiency Range												
GMM100A T	AI	3.8	RSCR	60	100	86	77	1.30	2.5	162	5.4	-

注 NOTE

冷却方式	Cooling Type
静态冷却	Static Cooling
应用条件	Application
低背压	LBP
*即将发布	Release on progress

测试工况 TEST CONDITIONS(ASHRAE)

蒸发温度	Evaporating temperature	-23.3°C
冷凝温度	Condensing temperature	54.4°C
过冷温度	Subcooling temperature	32.2°C
吸气温度	Suction temperature	32.2°C
环境温度	Ambient temperature	32.2°C

单位换算 CONVERSION

1 Watt = 3.41 Btu/h = 0.86 kcal/h

Tau

R600a

型号 Model	电机 Motor	排气量 Displ.	电机类型 Motor Type	频率 Freq.	制冷量 Cooling Capacity	制冷量 Cooling Capacity	输入功率 Input Power	性能系数 COP	运行电容 Run Capacitor	高度 Height	重量 Net Weight	认证 Certification
		cm³		hz	w	kcal/h	w	w/w	μF	mm	kg	
220 -240 V/50Hz												
HPKD190A	Al	11.4	RSCR	50	212	182	123	1.72	5	184	9.6	CCC/VDE
HPKX190A	Cu	11.4	RSCR	50	212	182	115	1.85	5	184	10.1	CCC/VDE
HTH14AA	Al	14.0	RSCR	50	235	202	168	1.40	5	184	9.3	CCC/VDE
HTH14AA I	Al	14.0	RSCR	50	235	202	149	1.58	5	184	9.3	CCC/VDE
HKD14AA	Cu	14.0	RSCR	50	240	206	140	1.72	6	184	10.1	CCC/VDE
220 -240 V/50-60Hz												
HPKD200G	Cu/Al	12.0	RSCR	50	201	173	139	1.65	5	184	10.1	CCC/VDE
				60	245	211	142	1.72				
HTH12AG	Al	12.0	RSCR	50	205	176	146	1.40	5	184	9.6	-
				60	245	211	163	1.50				
HTH14AG	Al	14.0	RSCR	50	240	206	171	1.40	5	184	9.6	-
				60	283	243	189	1.50				
115 V/60Hz												
HPKD240D	Cu/Al	12.0	RSCR	60	245	211	153	1.60	10	184	10	-
HPKX240D	Cu	12.0	RSCR	60	245	211	148	1.65	10	184	10	-
100 V/50-60Hz												
HTH11AJ	Cu	11.0	RSCR	50	182	157	115	1.58	8	174	9	-
				60	200	172	125	1.60				
HTT10AJ	Cu	10.0	RSCR	50	173	149	98	1.77	10	184	10	-
				60	195	168	110	1.78				

注 NOTE

冷却方式	Cooling Type
静态冷却	Static Cooling
应用条件	Application
低背压	LBP
*即将发布	Release on progress

测试工况 TEST CONDITIONS(ASHRAE)

蒸发温度	Evaporating temperature	-23.3°C
冷凝温度	Condensing temperature	54.4°C
过冷温度	Subcooling temperature	32.2°C
吸气温度	Suction temperature	32.2°C
环境温度	Ambient temperature	32.2°C

单位换算 CONVERSION

1 Watt = 3.41 Btu/h = 0.86 kcal/h

Tau

R134a

型号 Model	电机 Motor	排气量 Displ.	电机类型 Motor Type	频率 Freq.	制冷量 Cooling Capacity	制冷量 Cooling Capacity	输入功率 Input Power	性能系数 COP	启动电容 Start Capacitor	运行电容 Run Capacitor	高度 Height	重量 Net Weight	认证 Certification
		cm³		hz	w	kcal/h	w	w/w	μF	μF	mm	kg	
220 -240 V/50Hz													
中效系列 Medium Efficiency Range													
GTH86AA	Al	8.6	RSCR	50	240	206	163	1.47	-	5	174	9.0	CCC/VDE
GTH93AA	Al	9.3	RSCR	50	260	224	174	1.49	-	5	184	9.7	CCC/VDE
高效系列 High Efficiency Range													
GTT75AA	Cu	7.52	RSCR	50	210	181	134	1.57	-	4	184	10.1	CCC/VDE
GKD86AA	Cu	8.6	RSCR	50	240	206	144	1.66	-	6	184	10.4	CCC/VDE
GKD86AA I	Cu	8.6	RSCR	50	240	206	141	1.70	-	6	184	10.4	CCC/VDE
GKD93AA	Cu	9.3	RSCR	50	270	232	163	1.66	-	6	184	10.4	CCC/VDE
200 -220 V/50Hz,220 -230 V/60Hz													
中效系列 Medium Efficiency Range													
GVY75AG	Al	7.5	RSCR	50	201	173	139	1.45	-	5	184	10.1	CCC/VDE
				60	232	200	157	1.48	-				
高效系列 High Efficiency Range													
GKD86AG	Cu	8.6	RSCR	50	245	211	163	1.50	-	5	184	10.1	-
				60	280	241	175	1.60	-				
GKD93AG	Cu	9.3	RSCR	50	290	249	193	1.50	-	5	184	10.1	-
				60	340	292	213	1.60	-				
115V/60Hz													
GVT66AD	Cu	6.6	RSCR	60	217	187	136	1.60	-	10	184	10	UL
GTT75AD	Cu	7.5	RSCR	60	251	216	157	1.60	-	10	184	10	UL
GKD66AD	Cu	6.6	RSCR	60	217	187	125	1.74	-	10	184	10	-
GKD75AD	Cu	7.5	RSCR	60	257	221	148	1.74	-	10	184	10	UL
GTM93AD	Cu	9.3	CSIR	60	305	262	226	1.35	50	-	184	10	UL
160 -260 V/50Hz													
超低电压起动系列 Low Start Voltage Range													
GVY57AA	Al	5.7	RSCR	50	160	138	113	1.42	-	4	174	8.8	CCC/VDE
GVY61AA	Al	6.1	RSCR	50	170	146	113	1.51	-	4	174	9.4	CCC/VDE
GVY66AA	Al	6.6	RSCR	50	180	155	124	1.45	-	4	174	8.6	CCC/VDE
GVY75AA	Al	7.5	RSCR	50	200	172	140	1.43	-	4	174	8.9	CCC/VDE

R1234yf

MBP Range 中背压系列 (-6.7°C/+54.4°C)

100 V/50Hz-60Hz

GVY44AJ	Cu	4.4	CSIR	50	310	267	141	2.20	50	-	184	10	-
				60	372	320	162	2.30					

LBP Range 低背压系列

100 V/50Hz-60Hz

GVY53AJ	Cu	5.3	RSIR	50	172	148	115	1.50	-	-	184	10	-
				60	206	177	133	1.55					
GVY57AJ	Cu	5.7	RSIR	50	185	159	123	1.50	-	-	184	10	-
				60	222	191	143	1.55					

注 NOTE

冷却方式	Cooling Type
静态冷却	Static Cooling
应用条件	Application
低背压	LBP
*即将发布	Release on progress

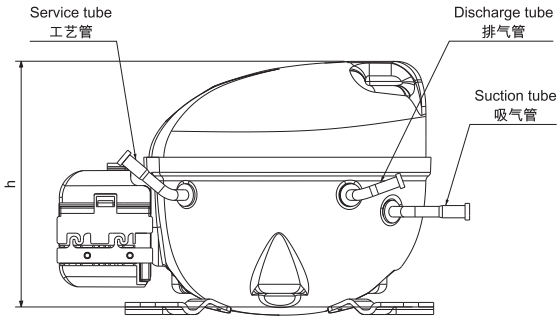
测试工况 TEST CONDITIONS(ASHRAE)

蒸发温度	Evaporating temperature	-23.3°C
冷凝温度	Condensing temperature	54.4°C
过冷温度	Subcooling temperature	32.2°C
吸气温度	Suction temperature	32.2°C
环境温度	Ambient temperature	32.2°C

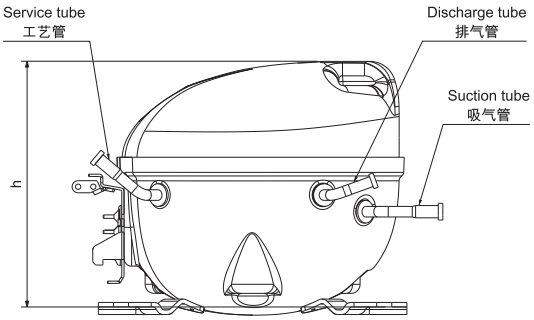
单位换算 CONVERSION

1 Watt = 3.41 Btu/h = 0.86 kcal/h

Outline drawings
外形尺寸

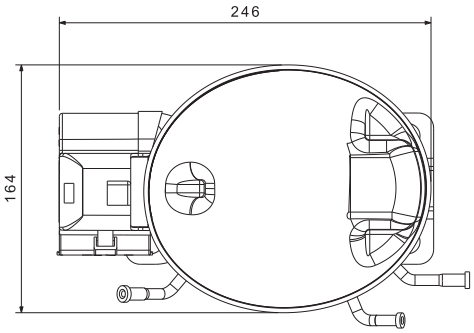


主视图

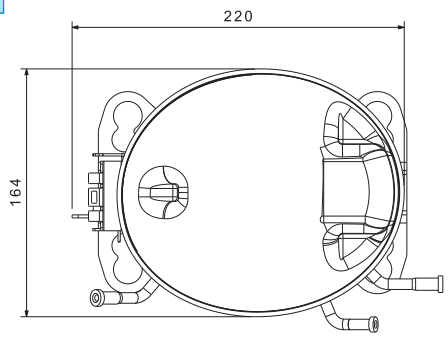


主视图

Zeta



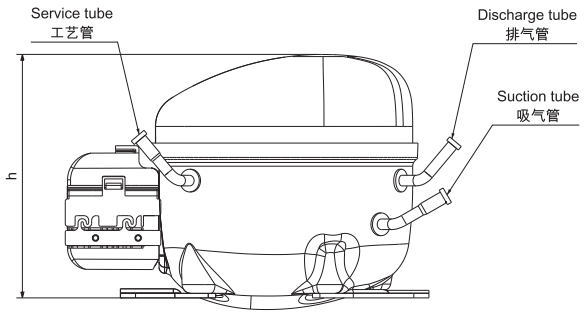
俯视图



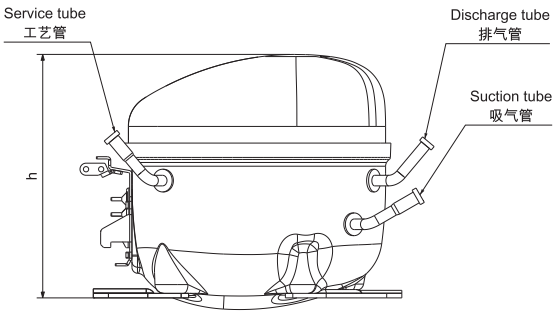
俯视图

H*Z
Standard Version
通用款

H*Z
For USA and Japan
北美/日本款

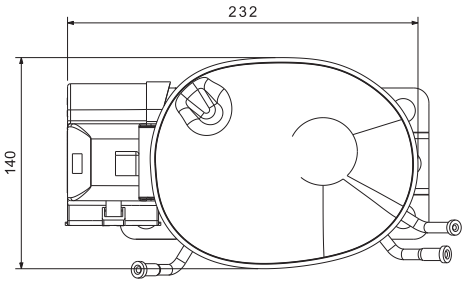


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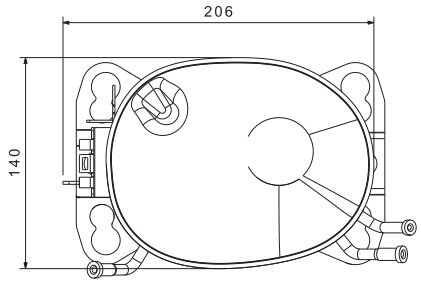


主视图

Lambda



俯视图

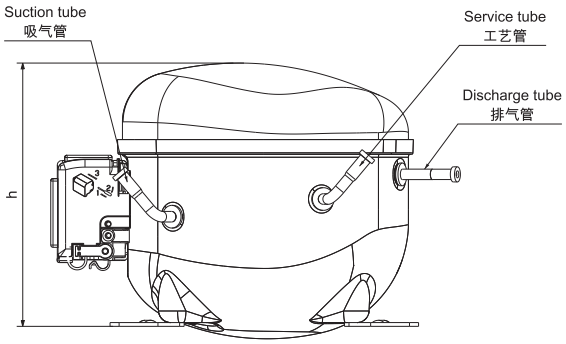


俯视图

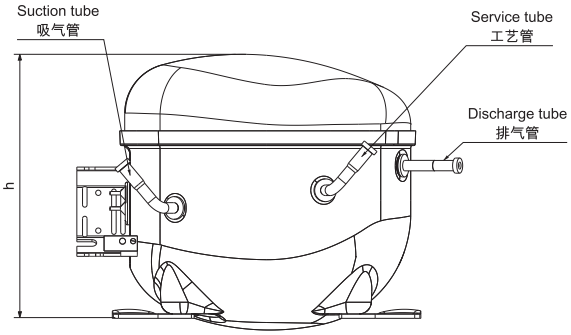
H*L-G*L
Standard Version
通用款

H*L-G*L
For USA and Japan
北美/日本款

Outline drawings
外形尺寸

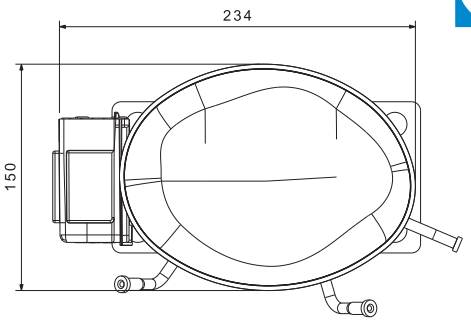


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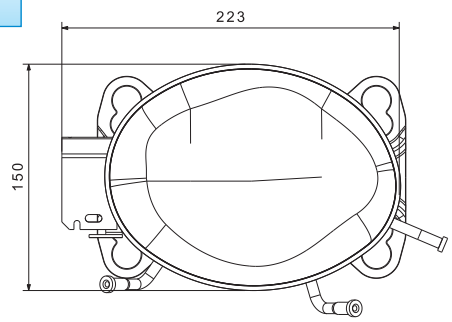


主视图

Tau



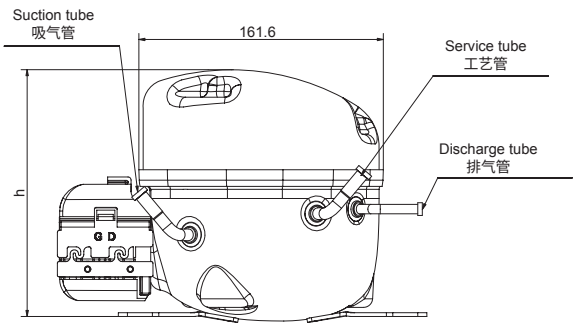
俯视图



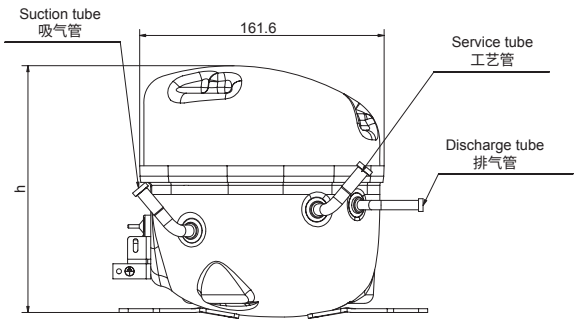
俯视图

OF-GV-GT-GK-HV-HT-HPK
Standard Version
通用款

OF-GV-GT-GK-HT
For USA and Japan
北美/日本款

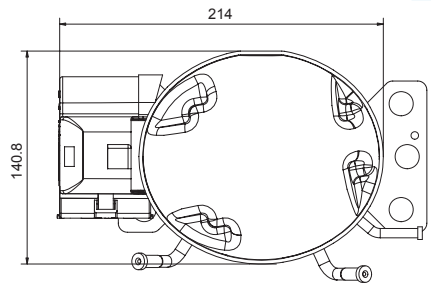


主视图

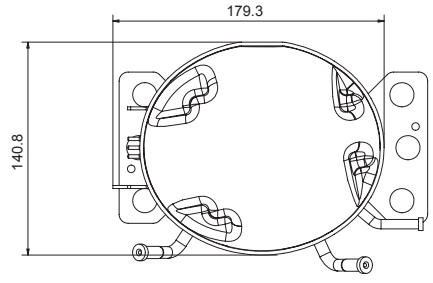


主视图

Micro



俯视图



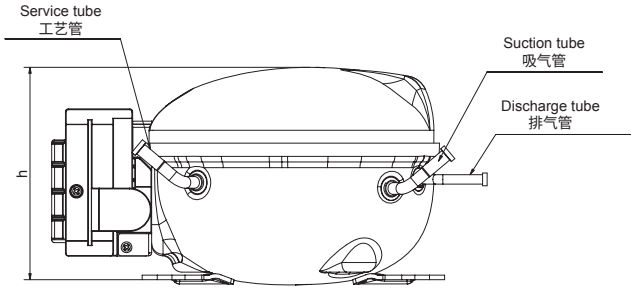
俯视图

H*M
Standard Version
通用款

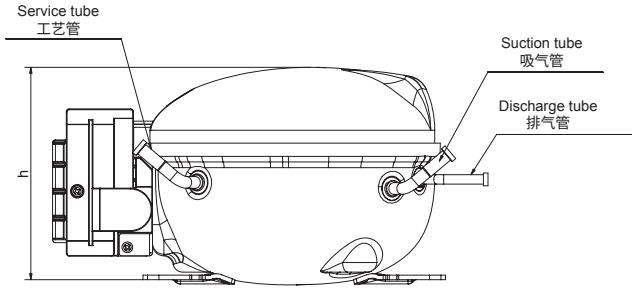
H*M
For USA and Japan
北美/日本款

Outline drawings
外形尺寸

Variable Speed Range
变频系列

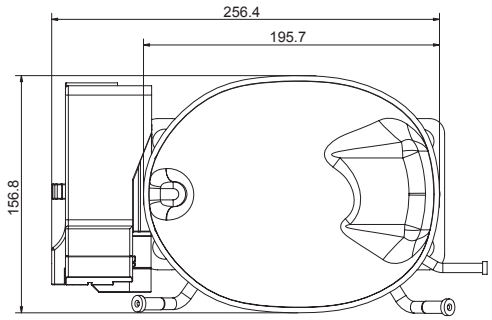


主视图



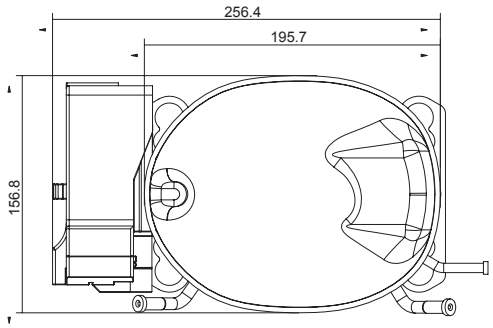
主视图

Z Series VSC



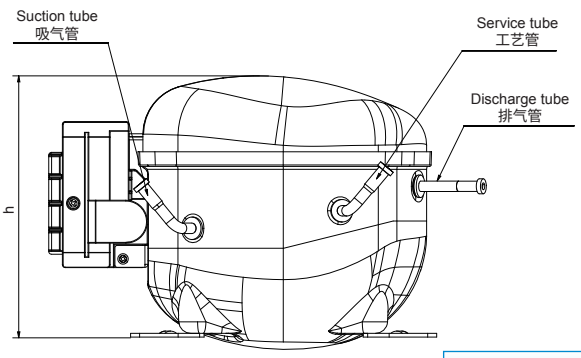
俯视图

H*Z
Standard Version
通用款

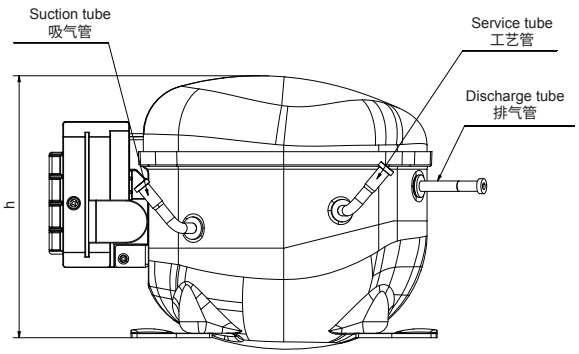


俯视图

H*Z
For USA and Japan
北美/日本款

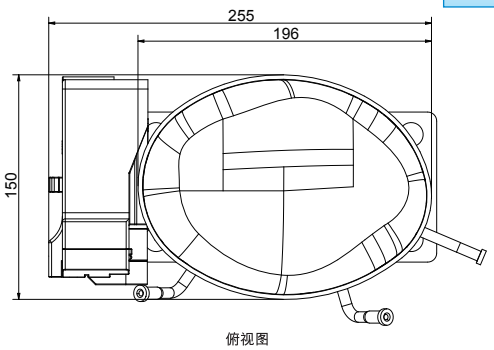


主视图



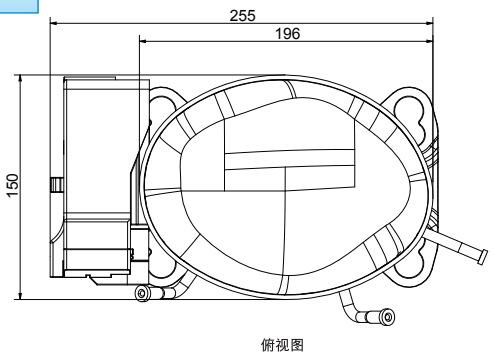
主视图

T Series VSC



俯视图

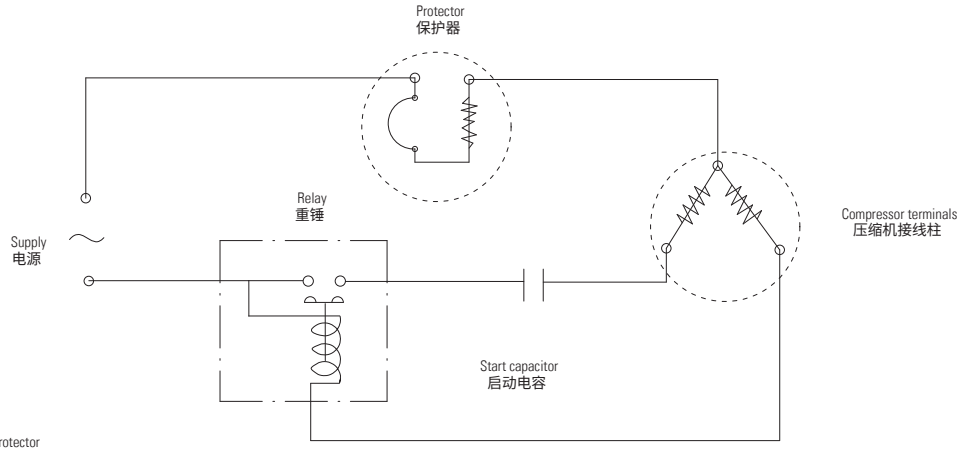
HKD-GKD-NKD
Standard Version
通用款



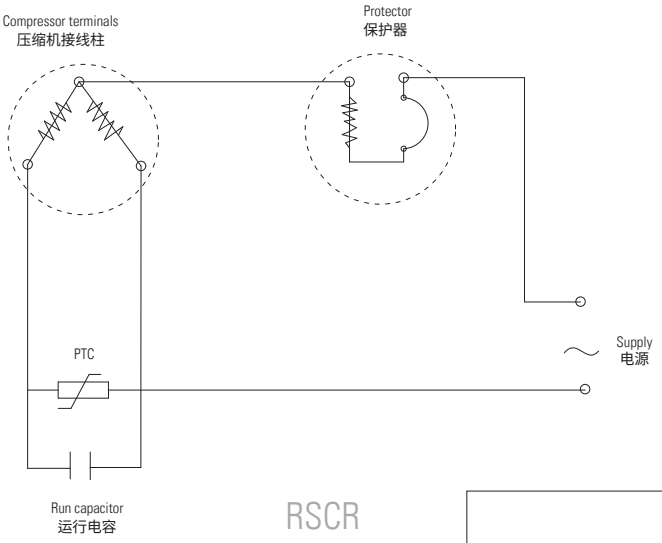
俯视图

HKD-GKD-NKD
For USA and Japan
北美/日本款

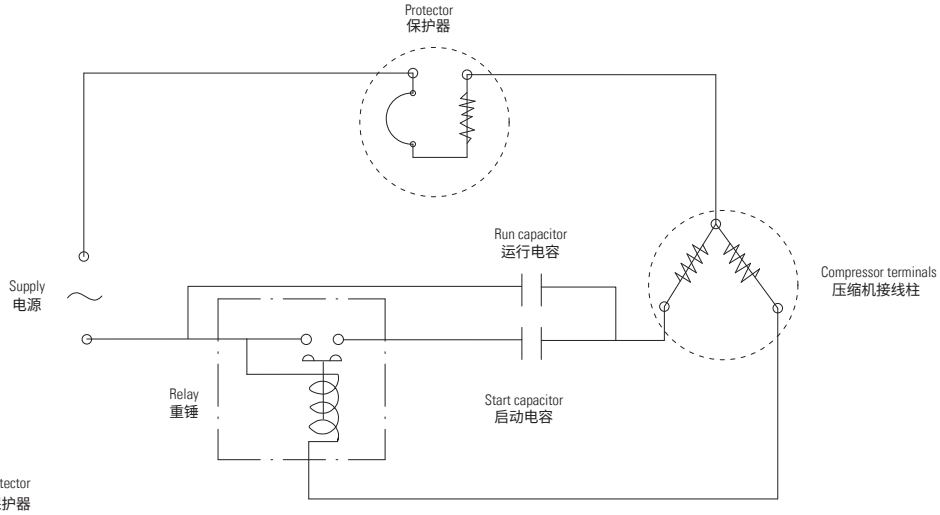
Electric wiring diagram
电气接线图



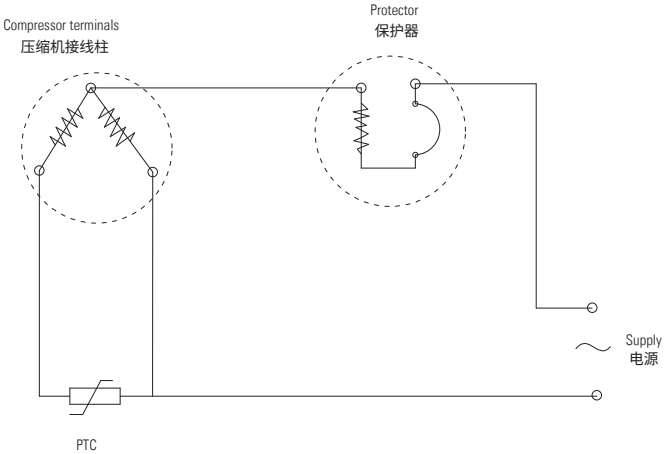
CSIR



RSCR



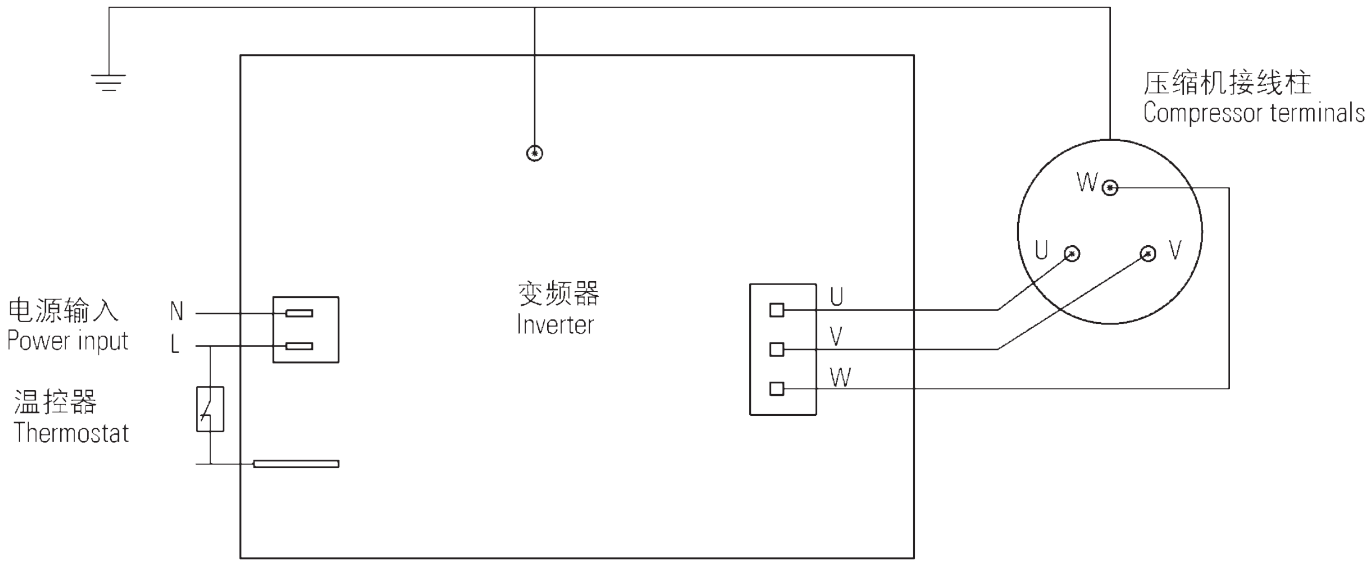
CSCR



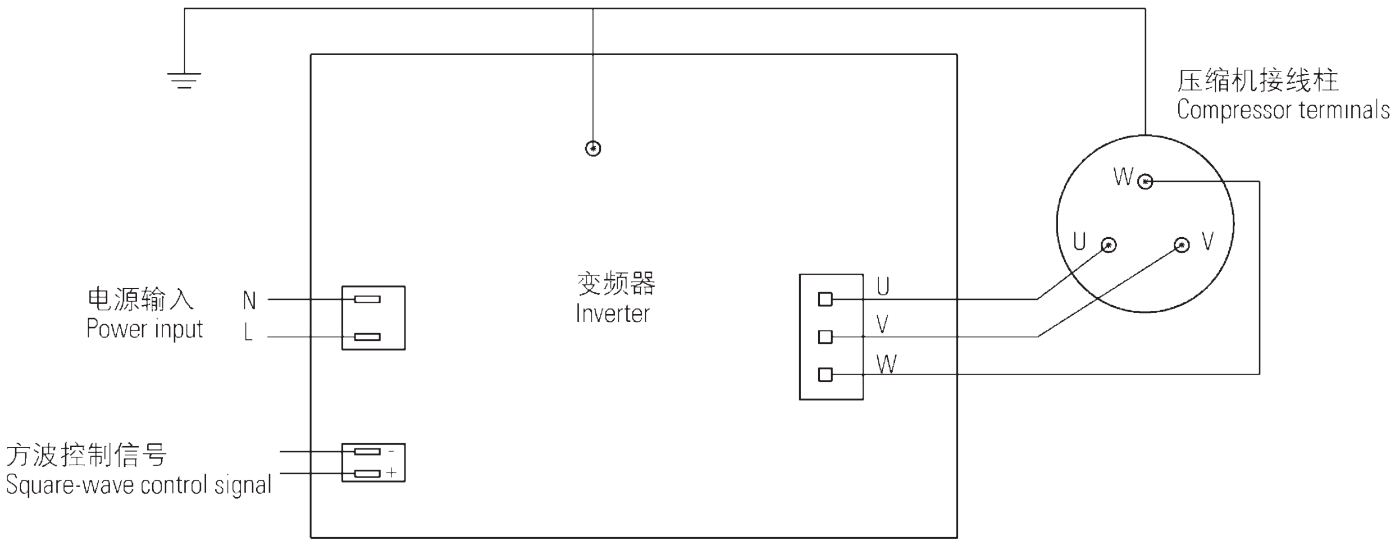
RSIR

Wiring Diagram of Inverter Compressor
变频压缩机接线图

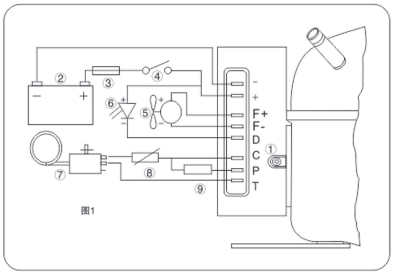
Wiring diagram of automatic logic control
机控自逻辑控制接线图



Wiring diagram of frequency control
电控频率控制接线图



HT_CC100DC12/24V-CINSTRUCTIONS
HT_CC100DC12/24V - C控制器说明书



速度设定表（表4）
Compressor speed settings （table4)

压缩机转速 Compressor speed	C/T(8) 间电阻 Resistor （8）
RPM	Ω
2000	0
2100	51
2200	100
2300	150
2400	200
2500	277
2600	330
2700	400
2800	490
2900	586
3000	692
3100	816
3200	963
3300	1137
3400	1331
3500	1523
停机	> 3000

工作电压设定表（表1）Operating voltage settings (table 1)

外接电阻(9) Resistor(9)	12V停机值 12V low V stop	12V开机值 12V start V	12V高压停机值 12V high V stop	24V停机值 24V low V stop	24V开机值 24V start V	24V高压停机值 24V high V stop
0	9.6	10.9	17.0	21.3	22.7	35
1.5	9.7	11.0	17.0	21.5	22.9	35
2.4	9.9	11.1	17.0	21.8	23.2	35
3.6	10.0	11.3	17.0	22.0	23.4	35
4.7	10.1	11.4	17.0	22.3	23.7	35
6.2	10.2	11.5	17.0	22.5	23.9	35
8.2	10.4	11.7	17.0	22.8	24.2	35
11	10.5	11.8	17.0	23.0	24.5	35
14	10.6	11.9	17.0	23.3	24.7	35
18	10.8	12.0	17.0	23.6	25.0	35
24	10.9	12.2	17.0	23.8	25.2	35
33	11.0	12.3	17.0	24.1	25.5	35
47	11.1	12.4	17.0	24.3	25.7	35
82	11.3	12.5	17.0	24.6	26.0	35
220	9.6	10.9	17.0	21.3	22.7	35

电源进线推荐表（表2）Recommended wire dimensions (table 2)

线号 AWG	线截面积 Corss section	12V 最大长度 Max. length for 12V		24V 最大长度 Max. length for 24V	
	(m ㎡)	(ft 、 m)		(ft 、 m)	
13	2.5	8	2.5	16	5
12	4	13	4	26	8
10	6	20	6	39	12
8	10	33	10	66	20

标准电池保护设定推荐表（表3）
Recommended protection settings for standard batteries (table 3)

12V 停机值 12V stop voltage	12V 开机值 12V start voltage	24V 停机值 24V stop voltage	24V 开机值 24V start voltage
10.4	11.7	22.8	24.2

表5 Table5

闪烁次数 Number of flashes	故障类型 Fault types
1	电压故障 --输入电压处于设定的范围之外 Voltage fault - the input voltage is out of the set range.
2	风扇电流故障 --风扇电流端输出电流大于 1A Fan current fault - The output current to the fan is greater than 1A.
3	压缩机启动故障 --压缩机电机堵转或系统压力太大 (>6kg) Compressor startup fault- the compressor motor is locked or the system pressure is too high (>6kg).
4	压缩机最小速度故障 --压缩机负荷过大或电机的转速过小 Minimum compressor speed fault - the compressor load is too large or the motor speed is too slow.
5	控制器温度故障 --控制器外壳温度太高 (>75 C°) Controller temperature fault - the controller shell's temperature is too high (>75C°).
6	控制器硬件故障 --控制器检测到不正常的参数 Controller hardware fault - the controller detects an abnormal parameter.

Instrucions
控制器说明

此控制器能自动适应双电压即直流12V和24V电源输入系统。直流12V系统时最大输入电压为17V;24V系统时最大输入电压为35V。
控制器工作环境温度不大于60 ° C；当控制器外壳温度过高时将停止压缩机而产生温度过高保护。
安装方式：如图1所示。将控制器三相输出插件紧插在压缩机的接线端上，控制器套入压缩机的装卡片后拧紧螺钉（1）。
电源连接：如图1所示。a、控制器的电源输入线直接连接至电池的正负极（2），控制器的（—）极连至电池的负极；控制器的（+）极连至电池的正极，否则控制器将不能正常工作，控制器具有电源反接保护。b、为了保护装置，必须在正电源连线中接入一个保险丝（3），并尽可能的靠近电池的正输出极；推荐12V系统采用15A;24V 系统采 用7.5A。c、如果加入主开关（4），则开关的最小通断电流值大于20A。d、电源线的选择（线截面积及长度）可参照表2，否则会因电源连线上的电压降影响到控制器的电池保护点的设置值。
电池的保护：如图1所示。a、控制器通过检测输入极（＋） 和（—）之间的电压值来确定停止压缩机及重新启动压缩机，用于保护不同的供电电池。b、标准电池的保护设置推荐值见表3；其他电压的设定可通过调节控制器的端子(C)和（P）的连接电阻 (9），具体数值参照表1
温度开关：如图1所示。a、温度开关(7）连接在控制器的C、T端，如果中间不连接任何电阻，则当温度开关闭合时压缩机的运行速度2000rpm。b、其他压缩机的设定转速可通过电阻（8） 来调节电流（mA） 获得，具体电阻数值参照表4。
外接风扇：如图1所示。a、控制器的端子（F+） 和（F-）之间可接入一个12V的直流风扇(5)，风扇的正极连接控制器的 （F+）端，负极连接控制器的（F-）端。当控制器的输入电压超出12V时，端子（F+）和（F-）之间输出的值总是保持12V。不管输入电压系统是12V还是24V，风扇必须是12V的直流风扇。b、控制器可持续输出0.5A的风扇驱动能力。
外接LED显示：如图1所示。a、控制器的端子（+）和（D）之间可接入一个10mA的LED （6） 用于显示故障，LED的阳极连接控制器的（＋） 端，阴极连接控制器的（D）端。b、当发生放障时，LED每3秒为循环，在每个循环中连续闪烁，根据不同的故障闪烁不同的次数，每次闪烁为0.4秒，持续闪烁3分钟。具体代码和闪烁次数如表5。

This controller can automatically adapt to dual voltages of DC 12V and 24V power input systems. For DC 12V system, the maximum input voltage is 17V; For 24V system, the maximum input voltage is 35V.

The ambient temperature of the controller operation shall not be higher than 60°C; When the temperature of the controller shell is too high, the compressor will be stopped and the overtemperature protection will be activated.

Installation method: as shown in Figure 1. Tighten the three-phase output plug-ins of the controller into the terminal of the compressor, insert the controller into the compressor terminal fence, and tighten the screw (1).

Power connection: as shown in Figure 1. a. The power supply input wire of the controller is directly connected to the positive and negative poles (2) of the battery, and the (-) terminal of the controller is connected to the negative pole of the battery; The (+) terminal of the controller is connected to the positive pole of the battery, otherwise the controller will not work normally, and the controller has reverse voltage protection. b. In order to protect the device, a fuse (3) must be connected in the positive power supply wire, and as close as possible to the positive output pole of the battery; 15A is recommended for the 12V system. 7.5A is used for 24V system. c. If the main switch (4) is added, the minimum breaking current value of the switch shall be greater than 20A. d. The selection of the power wire (the wire's cross section and length) can be referred to Table 2, otherwise the voltage drop on the power wire will affect the setting value of voltage, which is to protect the battery.

Battery protection: as shown in Figure 1. a. The controller determines to stop and restart the compressor by detecting the voltage between the input terminals (+) and (-), which is used to protect different power supply batteries. b. Recommended setting values of voltages to protect standard batteries are shown in Table 3; Other voltages can be set by adjusting the connected resistor (9) between the controller's terminals of (C) and (P), as shown in Table 1.

Temperature switch: as shown in Figure 1. a. Temperature switch (7) is connected to the C and T terminals of the controller. If no resistor is connected in-between, the compressor will run at 2000 RPM when the temperature switch is closed. b. Other RPM of the compressor can be obtained by adjusting the current (mA) through the resistor (8), and the specific resistor is referred to Table 4.

External fan: as shown in Figure 1. a. One 12V DC fan (5) can be connected between the (F+) and (F-) terminals of the controller. The positive pole of the fan is connected to the (F+) terminal of the controller, and the negative pole of the fan is connected to the (F-) terminal of the controller. When the input voltage of the controller exceeds 12V, the output value between the terminals (F+) and (F-) will always remain 12V. No matter if the input voltage system is 12V or 24V, the fan must be a 12V DC fan. b. The controller can continuously output 0.5A to drive the fan.

External LED display: as shown in Figure 1. a. One 10 mA LED (6) can be connected between the (+) and (D) terminals of the controller to display faults, the positive pole of the LED is connected to the (+) terminal of the controller, and the negative pole of the LED is connected to the (D) terminal of the controller. b. When the fault occurs, the LED will flash a number of times. The number of flashes depends on the fault types. Each flash takes 0.4 seconds, the flashes work in cycles, with 3 seconds of each cycle, and the cycles are repeated for 3 minutes. The specific flash frequency and fault types are shown in Table 5.

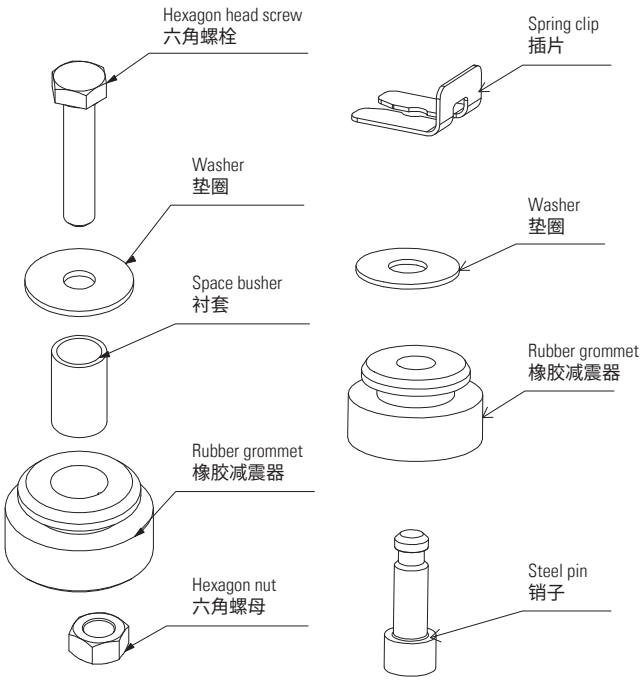
注意事项：

1、控制器通电前，请仔细阅读说明书；并检查连线是否正确，不正确的连线可能损坏控制器；
2、控制器输入电压值不能大于直流36V.

Notes:

1、Before the controller power on, please read the instructions carefully, and check whether the connection is correct. Incorrect connection may damage the controller;
2、The input voltage of controller shall not be greater than DC 36V.

Mounting accessories
底脚附件连接示意图



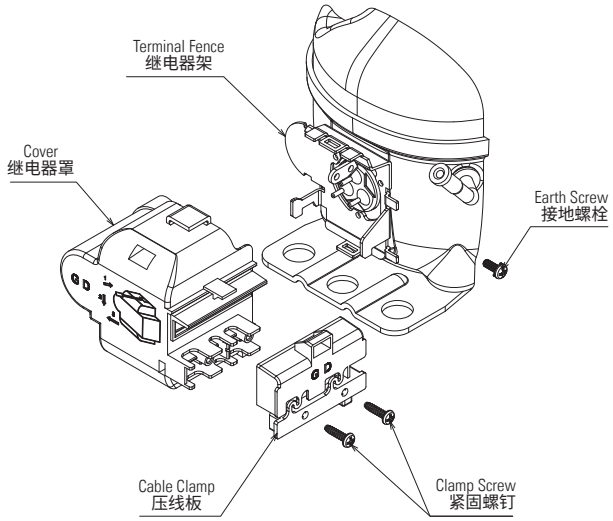
Standard
螺栓安装

Snap-On
锁扣安装

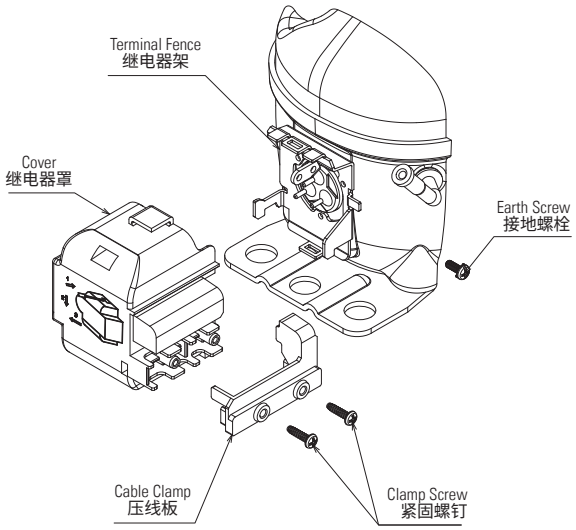
Electrical Components Assembly
电气附件安装

Lambda/Zeta/Micro

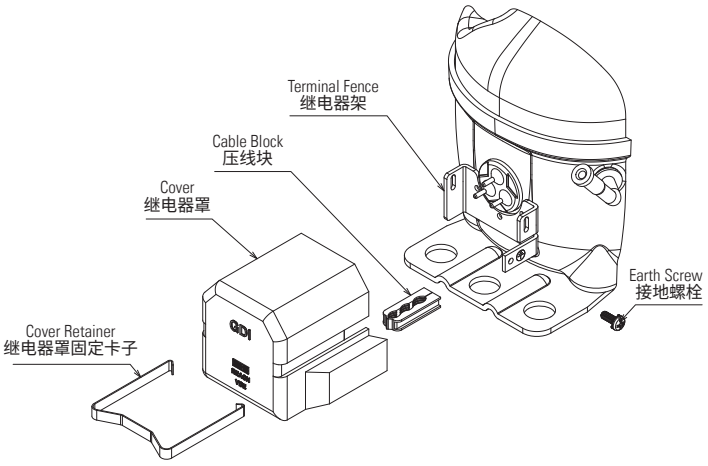
GD



GD-3

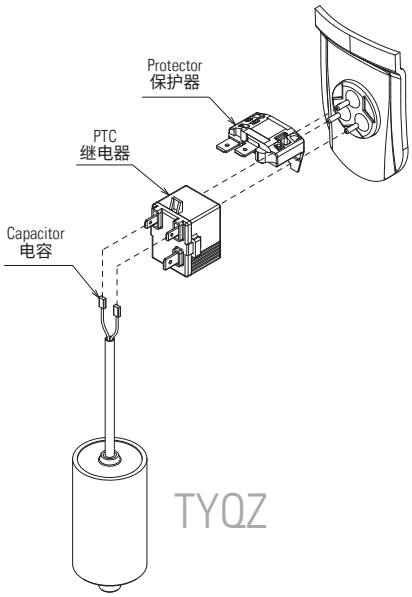


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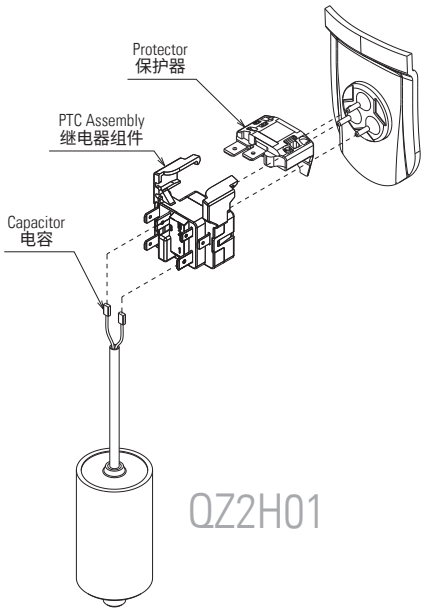


Electrical Components Assembly
电气附件安装

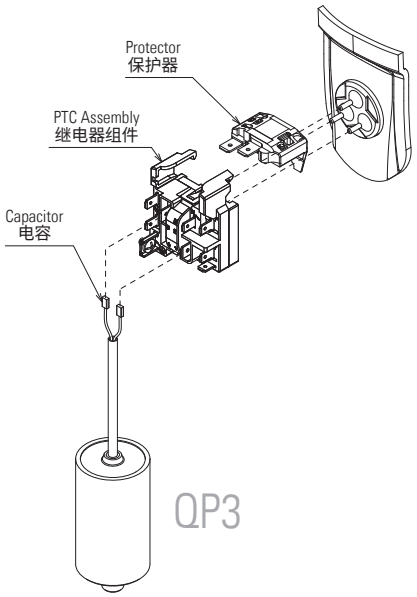
Lambda/Zeta/Micro



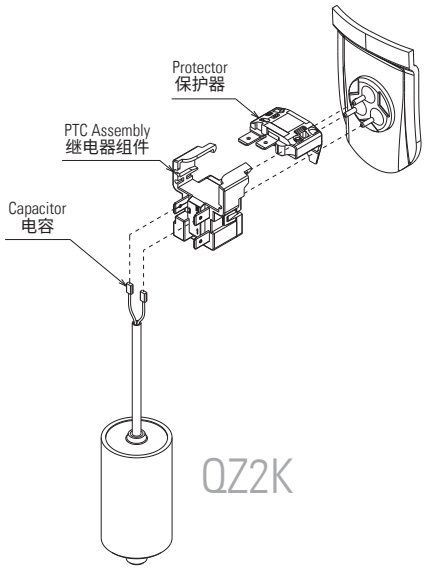
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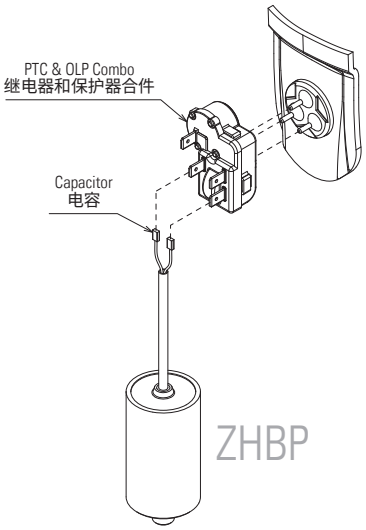
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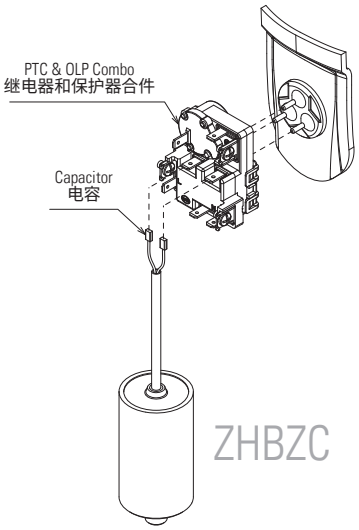
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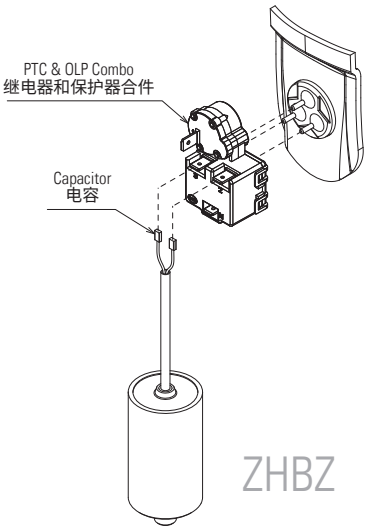
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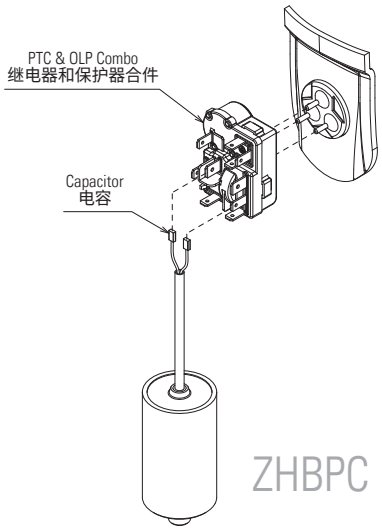
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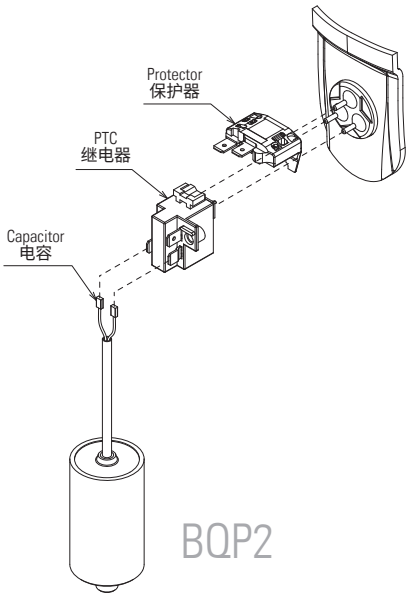
ZHBZC



ZHBZ



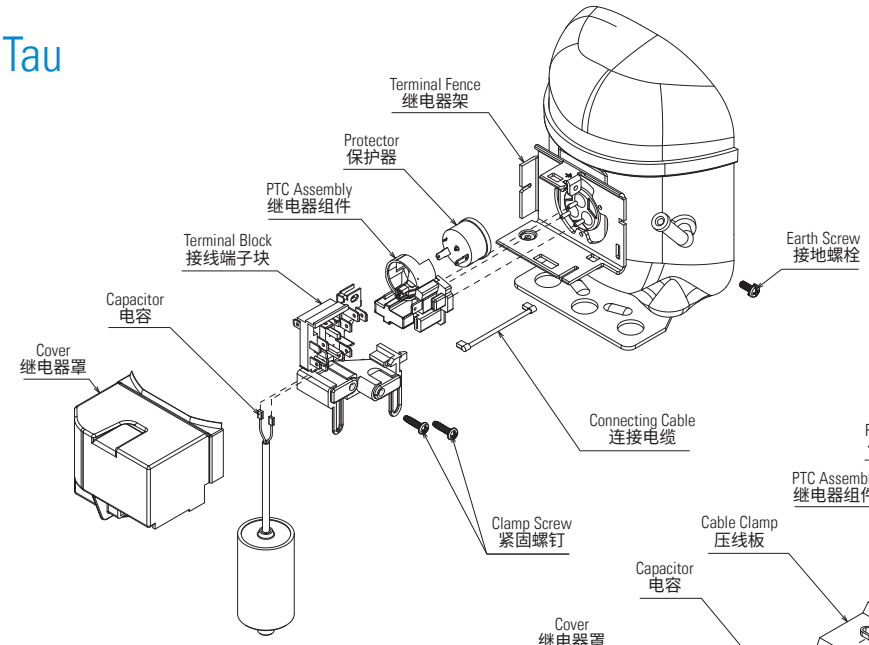
ZHBPC



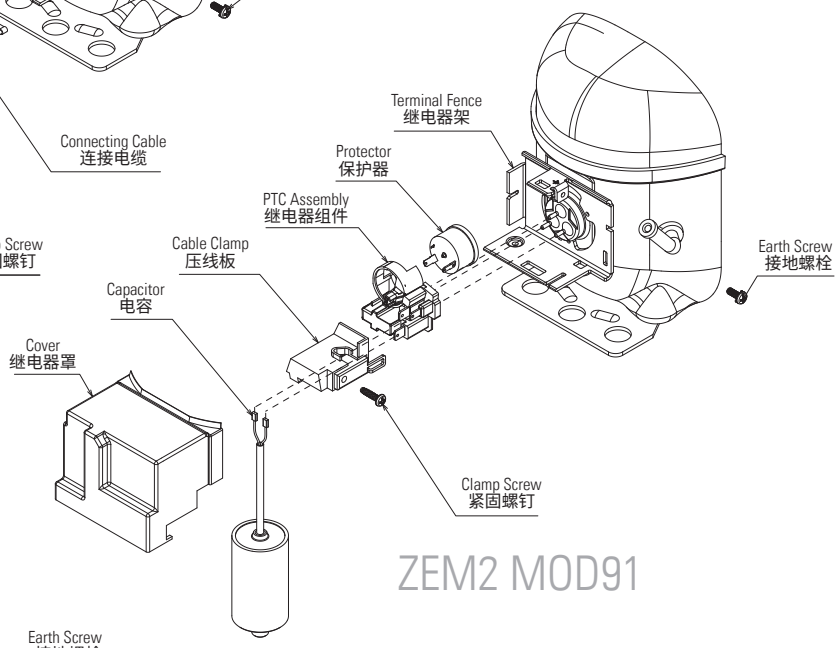
BQP2

Electrical Components Assembly
电气附件安装

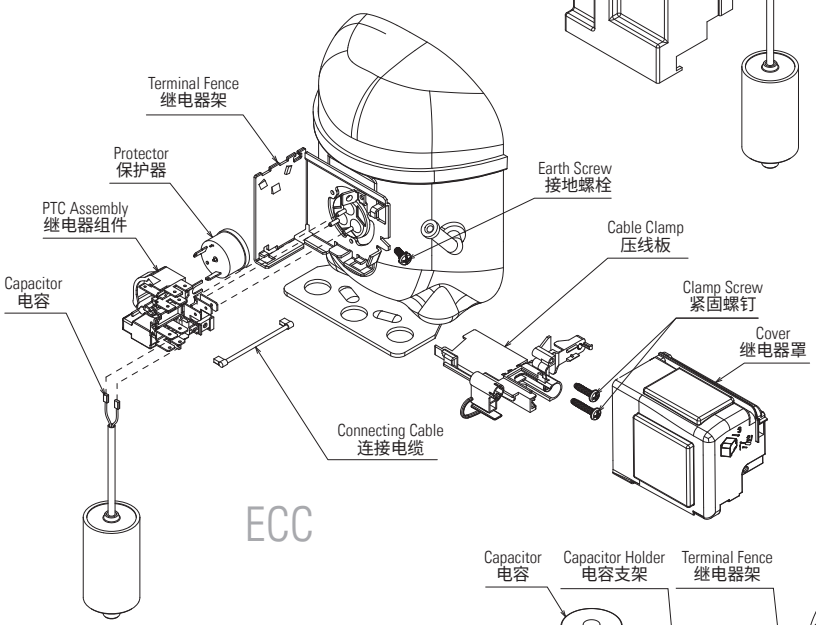
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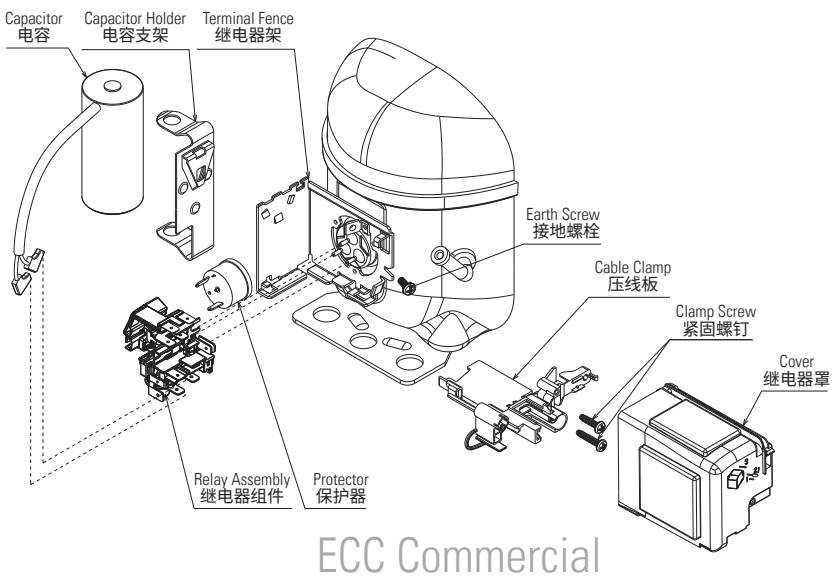
ZEM2 MOD90



ZEM2 MOD91



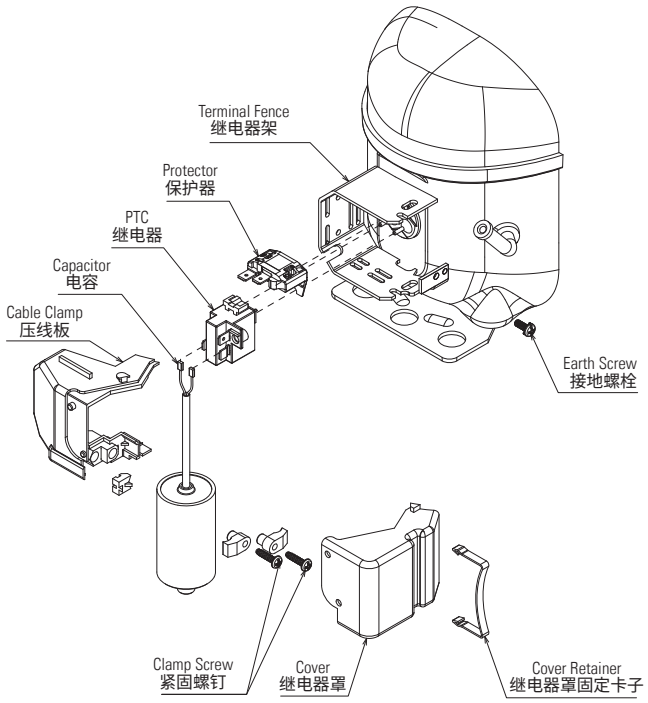
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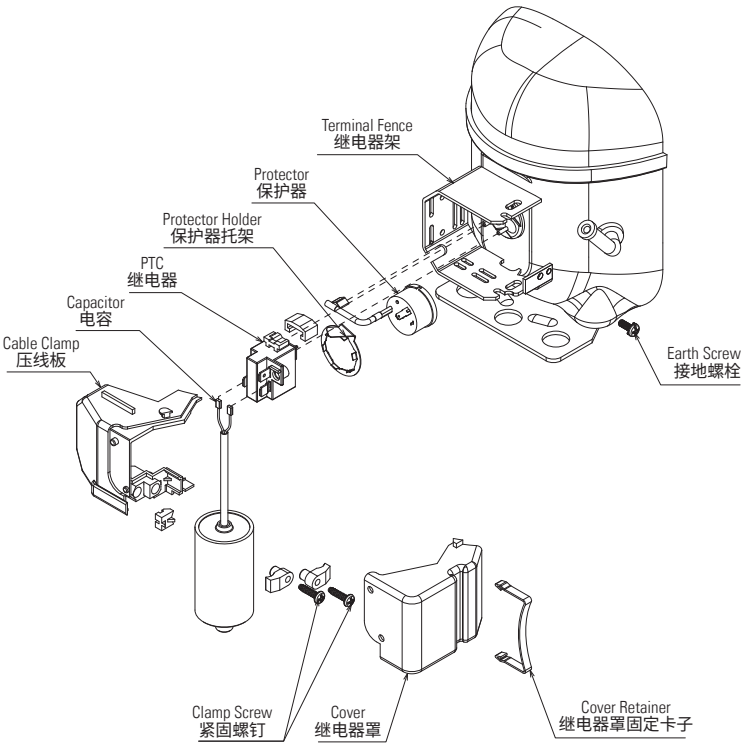


ECC Commercial

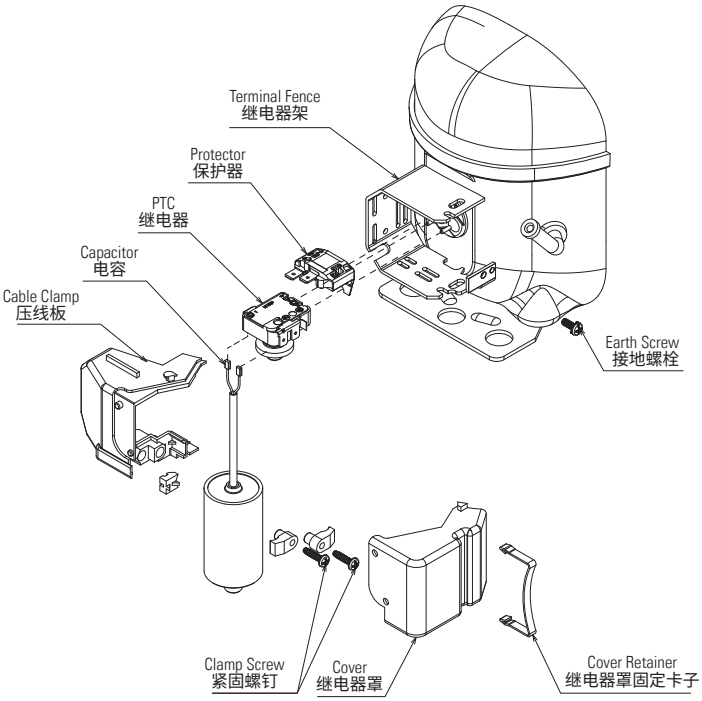
Electrical Components Assembly
电气附件安装

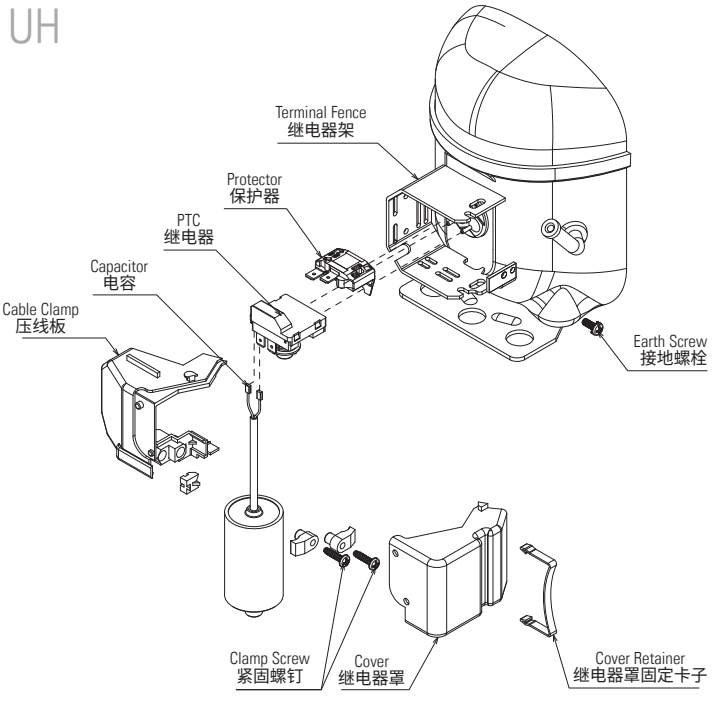
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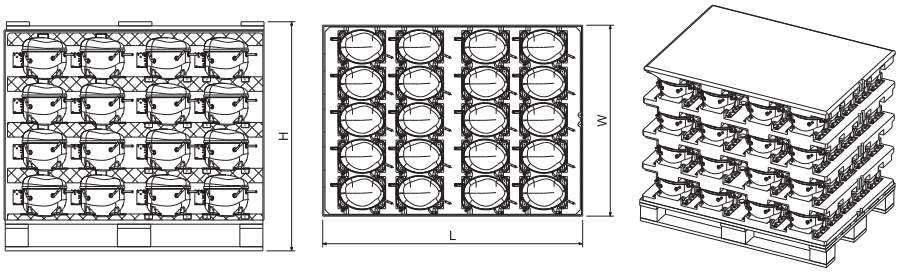
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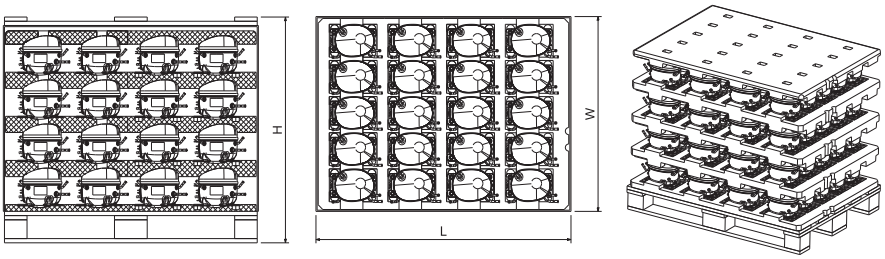


Packaging
包装

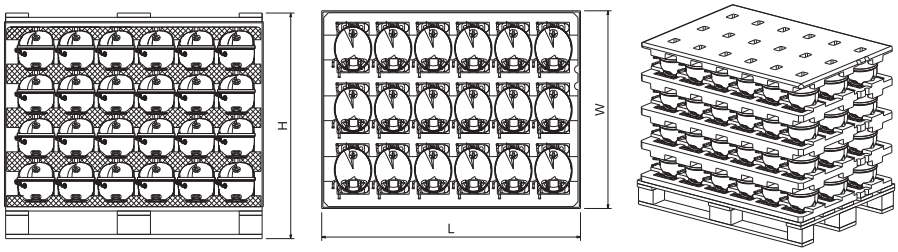
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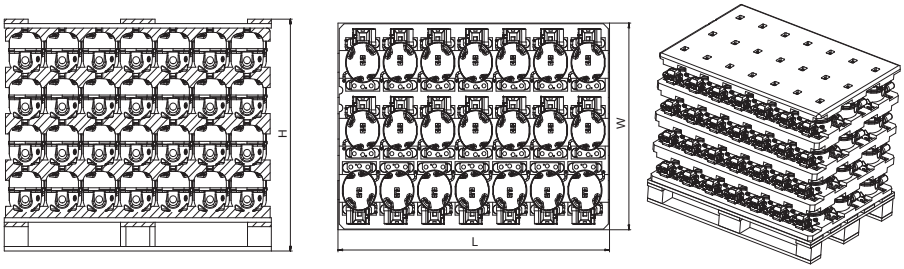
Lambda



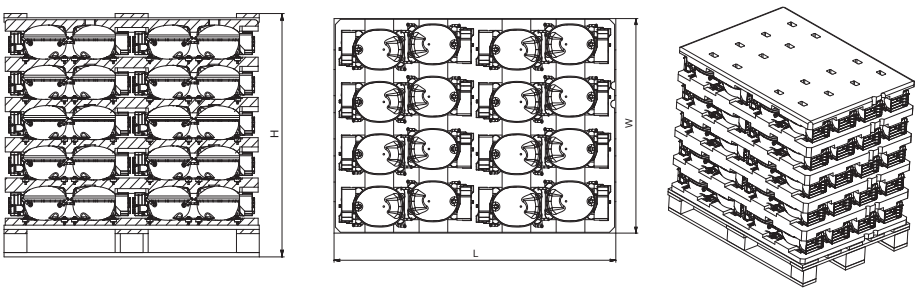
Zeta



Micro



Z Series VSC



系列 Series	包装数量(台/包) Quantity (pcs/pallet)	包装外形尺寸(长×宽×高) Outline dimensions (L×W×H)	适用领域 Applicable domain	备注 Notes	20尺集装箱装载数量 Qty in 20'Container
Tau	80	1120×840×955/1000/1040	出口 Export	4层 4Layers	2,240/2,160
	100	1120×840×1150/1200/1250	国内 Domestic	5层 5Layers	
LAMBDA	80/92	1120×840×930/960	出口 Export	4层 4Layers	2,240/2,576
	100/115	1120×840×1100/1150	国内 Domestic	5层 5Layers	
Zeta	72	1120×840×960	出口 Export	4层 4Layers	2,016
	90	1120×840×1150	国内 Domestic	5层 5Layers	
Micro	84	1120×840×930/960	出口 Export	4层 4Layers	2,352
	105	1120×840×1100/1150	国内 Domestic	5层 5Layers	
Z Series VSC	80	1120×840×1040	出口 Export	5层 5Layers	2,240
	96	1120×840×1210	国内 Domestic	6层 6Layers	

一、产品通用要求 General Product Requirements

1、压缩机拔掉橡胶塞后，15分钟内必须装机，以免污物和潮气进入。

After the rubber plug of the compressor is removed, the compressor must be installed within 15 minutes, to avoid the entry of dirt and moisture.

2、压缩机在存放运输或安装时，不得倾斜或倒置，同时避免撞击。

When the compressor is stored, transported or installed, it shall not be tilted or inverted, and it shall avoid impact.

3、压缩机工作时与水平状态倾斜不大于5°。

When the compressor is working, the inclination between the compressor and the horizontal shall not be greater than 5°

4、压缩机内注有扎努西认可的最佳量的专用冷冻油，不得随意倒出或添加。

The compressor is filled with the most suitable amount of special refrigeration oil approved by ZEL, and the refrigeration oil shall not be casually poured out or added into.

5、为了保证系统压力平衡，压缩机运行时间不得少于4分钟。

In order to ensure the balance of system pressure, the compressor shall not run for less than 4 minutes.

6、压缩机不能承受高压或者在真空条件下启动、运行，不能用压缩机进行系统抽真空。

The compressor can not withstand high pressure, or can not start and run under vacuum conditions. The compressor shall not be used to vacuumize the refrigeration system.

7、制冷系统设计时应充分考虑系统的回油。

When designing the refrigeration system, the oil return of the system shall be fully considered.

8、压缩机的工作环境温度不能高于43℃。在最高室温(43℃)时，连续运转，冷凝压力和最高峰值压力不应超过下表值。

The ambient temperature of the compressor operation cannot be higher than 43 ℃. When the compressor continues to work at the maximum ambient temperature (43 ℃), the constant condensing pressure and the transient condensing pressure shall not exceed the values in the following table.

制冷剂Refrigerant	R600a	R134a	R290
最大冷凝压力Max.constant condensing pressure	0.87MPa	1.59MPa	2.01MPa
最大峰值冷凝压力Max. transient condensing pressure	0.98MPa	2.0MPa	2.44MPa
最高排气温度Max. discharging temperature	110 ℃	120 ℃	130 ℃

9、如果需要将压缩机的使用蒸发温度范围加大， 必须经过扎努西认可。

If it is necessary to extend the evaporating temperature range of the compressor, it must be approved by ZEL.

10、压缩机应存放于干燥处。

The compressor shall be stored in a dry place.

11、压缩机附件(如启动继电器、过载保护器等)交货时未安装在压缩机上，而是装在附件箱内。

Compressor accessories (such as starting relays, overload protectors, etc.) are not installed on the compressor at the time of delivery, but packed in the carton for accessories.

12. 在使用中您有什么要求，请告诉我们，以便更好地为您服务。

If you have any requirements in use, please tell us so that we can serve you better.

二、R134a 及R290 系统特殊要求 Special Requirements for R134a and R290 Systems

1、R134a、R290压缩机的敞口时间应尽可能短，最多10分钟。

It's necessary to keep R134a or R290 compressors without rubber plugs as short time as possible (max.10 minutes).

2、R134a、 R290压缩机内注有扎努西认可的专用酯类油，不得随意倒出或添加。

R134a and R290 compressors are filled with special ester oil approved by ZEL, and the ester oil shall not be casually poured out or added into.

3、R134a、 R290系统应使用与R134a、 R290相适应的干燥过滤器。

R134a and R290 systems shall use the filter dryers suitable for R134a and R290.

4、抽真空和充注装置必须专门用于R134a和R290。

The vacuum pump and the charging device must be specially used for R134a and R290.

5、制冷系统应严格控制含氯量、水份含量、石蜡和硅油含量。

The refrigeration system shall strictly control the content of chlorine, water, paraffin, and silicone oil.

6、与R134a和R290相容性不能确定的有机物在制冷系统中不能使用。

Organic substances whose compatibility with R134a and R290 is uncertain shall not be used in the refrigeration system.

三、R290 应用说明 R290 Application Introduction

R290制冷剂简介: R290制冷剂又称丙烷,属于天然制冷剂中的一种,具有良好的热力性能,价格低廉,而且R290的分子中不含有氯原子,因而ODP值为零,对臭氧层不具有破坏作用,R290的GWP值接近0,对温室效应没有影响,完全环保。

R290 refrigerant, also known as propane, belongs to one of the natural refrigerants, and has good thermal performance with a low price. R290 molecules do not contain chlorine atoms, so its ODP value is zero, and it does not have a damaging effect on the ozone layer. Its GWP value is close to 0, and doesn't cause the greenhouse effect, completely environmentally friendly.

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