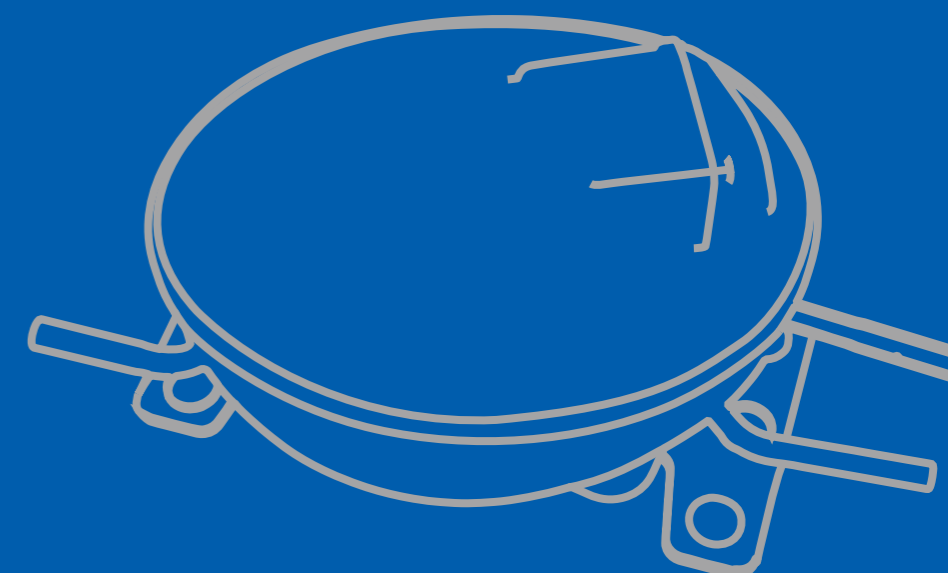


# 2022

## HERMETIC RECIPROCATING COMPRESSOR



**GMCC**

Committed to becoming an innovatio-driven  
corecomponent global leading manufacturer

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GMCC and Welling Appliance Component (Thailand) Co., Ltd.





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# COMPANY PROFILE

GMCC and Welling Appliance Component (Thailand) Co., Ltd. (abbreviated as GAT) is located in Ayutthaya, Thailand, specializing in research, development, design, production and sales of reciprocating compressors. As a leading Chinese compressor manufacturer, GMCC & Welling Bought Hitachi compressor Thailand factory in March 2021, which is the former of GAT. GAT has reserved the original Hitachi reciprocating compressor technology and achieved a more comprehensive technical development under GAT's efficient manufacturing system. As GAT's production layout becomes more mature, the annual capacity keep rising and we are aimed to achieve an annual capacity of 10 million units.

As a specialist in reciprocating compressor, GAT is committed to produce high performance, noiseless, durable, Non-CFC reciprocating compressor, which apply for refrigerator, freezer, multiple kind of commercial cooling products, all under ISO9001, ISO14001, IEC, UL standard, which can meet the needs of customer all over the world.

On compressor delivery, for Thai local customer GAT can provide delivery to destination on time, and for global market can also provide a customized service according to different request from customers.

GAT sincerely hope can provide the customer with valuable products and best service, customer's satisfaction is the most crucial thing to us. Keep manufacturing the reliable products is our mission, keep developing to step into the world is our persistent goal.

GAT Thailand factory  
Ayutthaya, Thailand



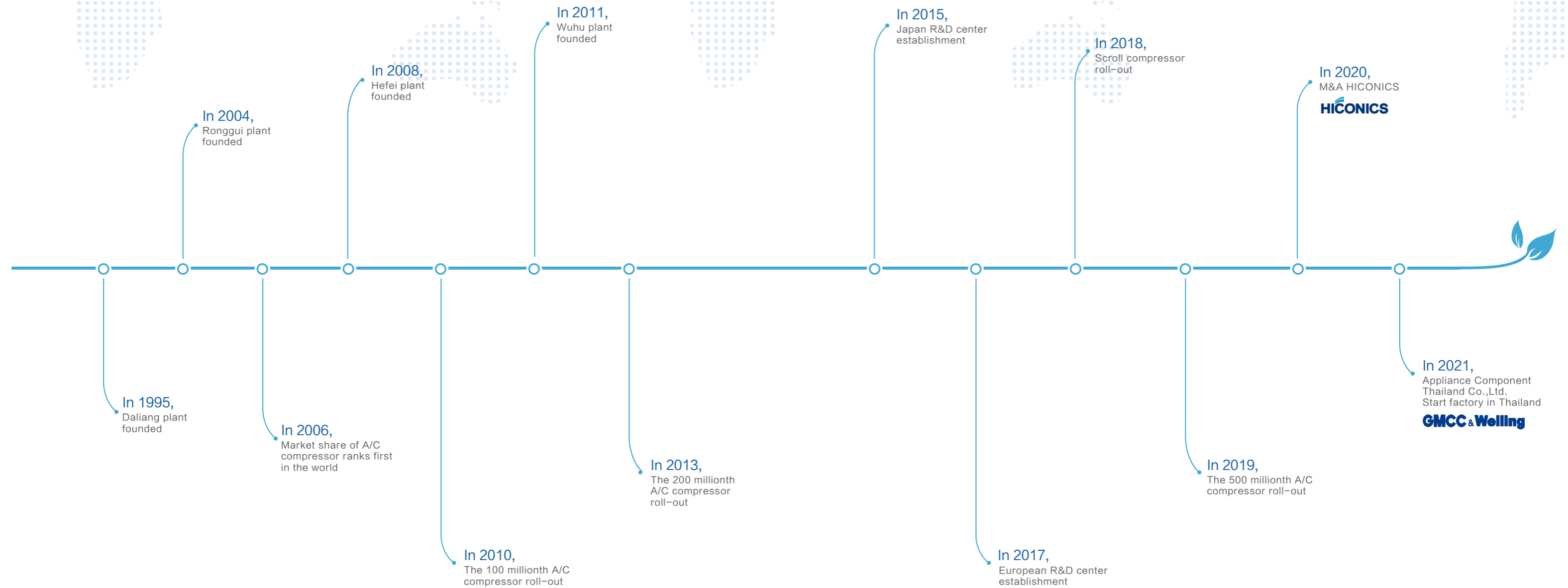
世界知名品牌的核芯之选  
A core choice for well-known brands around the world

GMCC Bought Hitachi compressor Thailand factory in March 2021, including Hitachi recip. comp. technology.

# GMCC

# OUR HISTORY

Through nearly 30 years' rapid development, the company has become the core component global leading manufacturer



# MANUFACTURING – OVERVIEW

## 1 intelligent factory + 1 overseas factory GMCC China factory

The biggest single base capacity factory in the world, located in Hefei, 45 millions capacity in 2022.

## GMCC Thailand factory ( GAT )

GMCC Bought Hitachi compressor Thailand factory in March 2021, including Hitachi recip. comp. technology.

After the acquisition, GMCC&Welling will carry out a comprehensive update of GAT's manufacturing management system. GAT plans to have an annual capacity of 10 million units after the production is completed as planned.

## Productresearch & development

GMCC China & GAT Thailand  
R&D Team

- Motor development team
- Structure development team
- Inverter board development team
- Fluid mechanic team
- Noise development team
- Oversea inverter development team



Hefei, Anhui



GAT, Ayutthaya, Thailand

# SMART MANUFACTURE

## Technology & Innovation

GMCC and Welling Appliance Component (Thailand) Co., Ltd.'s planning and implementation are mainly robot automation and automation equipment. In the future there will be continuous improvements, We will continue to use flexible production during production and respond quickly to customers



Automation equipment

## High quality & High reliability

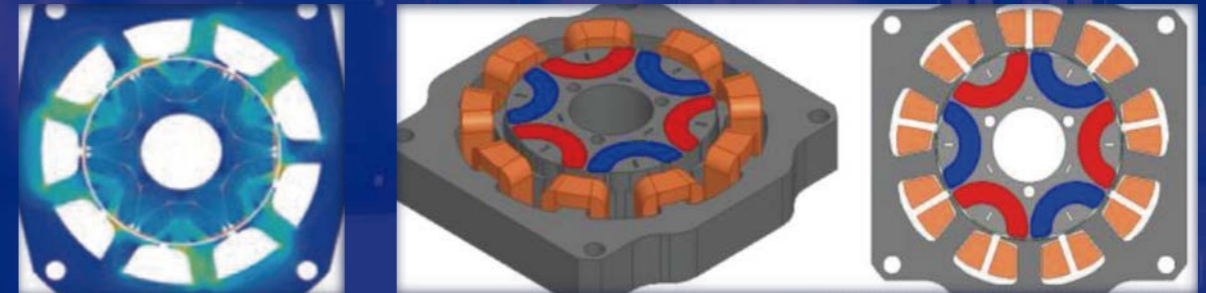
System performance equipment automatic measure test equipment in prouction line and QC inspection.

Compressor are checked strictly, bass quality control system. it's components are randomly measured in size, to ensure that critical parts are machined to strict specifications, And compressors that have passed various and rigorous durability tests are delivery to you.

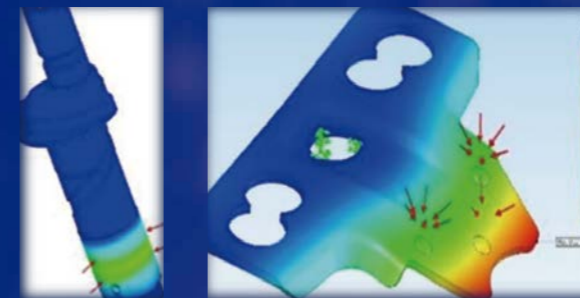


System performance equipment

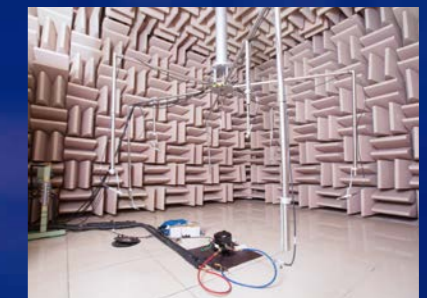
## R & D Testing & Analyzer



- Magnetic field analysis
- Advanced AI motor research
- Higher efficiency



- Stress & deformation testing and analysis
- Crankshaft lower friction loss
- Oil pumping better



Noise Room for noise and Vibration test



WL Series

WL Series	Cooling Capacity
R600a	( W )
Variable	68-255

Compressor variable for R600a refrigerant ultra-efficient, ultra-lownoise and low vibration and low insttation suitable for refrigerator and commercial product.



AL Series

AL Series	Cooling Capacity
R290	( W )
Fixed speed	121-550
Variable	194-651

Compressor for R290 refrigerant good overload low noise and low vibration for commercial product.



GL Series

GL Series	Cooling Capacity
R448A	( W )
R449A	/
Fixed speed	375-459

Compressor for R448A, R449A new refrigerant low noise and low vibration.



RL Series

RL Series	Cooling Capacity
R404A	( W )
Fixed speed	310-700
Variable	260-685

Compressor for R404A refrigerant good capacity, good overload, suitable for commercial product.



BL,BH Series

BL,BH Series	Cooling Capacity
R1234yf	( W )
Fixed speed	84-270
Variable	200-420

Compressor for R1234yf new refrigerant ultra-low noise and low vibration.



CL Series

CL Series	Cooling Capacity
R600a	( W )
Fixed speed	62-206
Variable	54-290

Compressor for R600a refrigerant medium-efficient, low insttation suitable for refrigerator and commercial product.



FL,FH Series

FL,FH Series	Cooling Capacity
R1234yf	( W )
Fixed speed	82-345
Variable	61-430

Compressor for R134a refrigerant good cooling suitable for refrigerator and commercial product.



HL Series

HL Series	Cooling Capacity
R513A	( W )
Fixed speed	90-370

Compressor for R513A new refrigerant ultra-lownoise suitable for commercial product.



AL Series

AL Series	Cooling Capacity
R290	( W )
Variable	127-546

Compressor variable for R290 refrigerant ultra-efficient, ultra-lownoise and low vibration and low insttation suitable for commercial product.



TL Series

TL Series	Cooling Capacity
R134a	( W )
Variable	64-345

Compressor variable for R134a refrigerant ultra-efficient, ultra-lownoise and low vibration and low insttation suitable for refrigerator and commercial product.



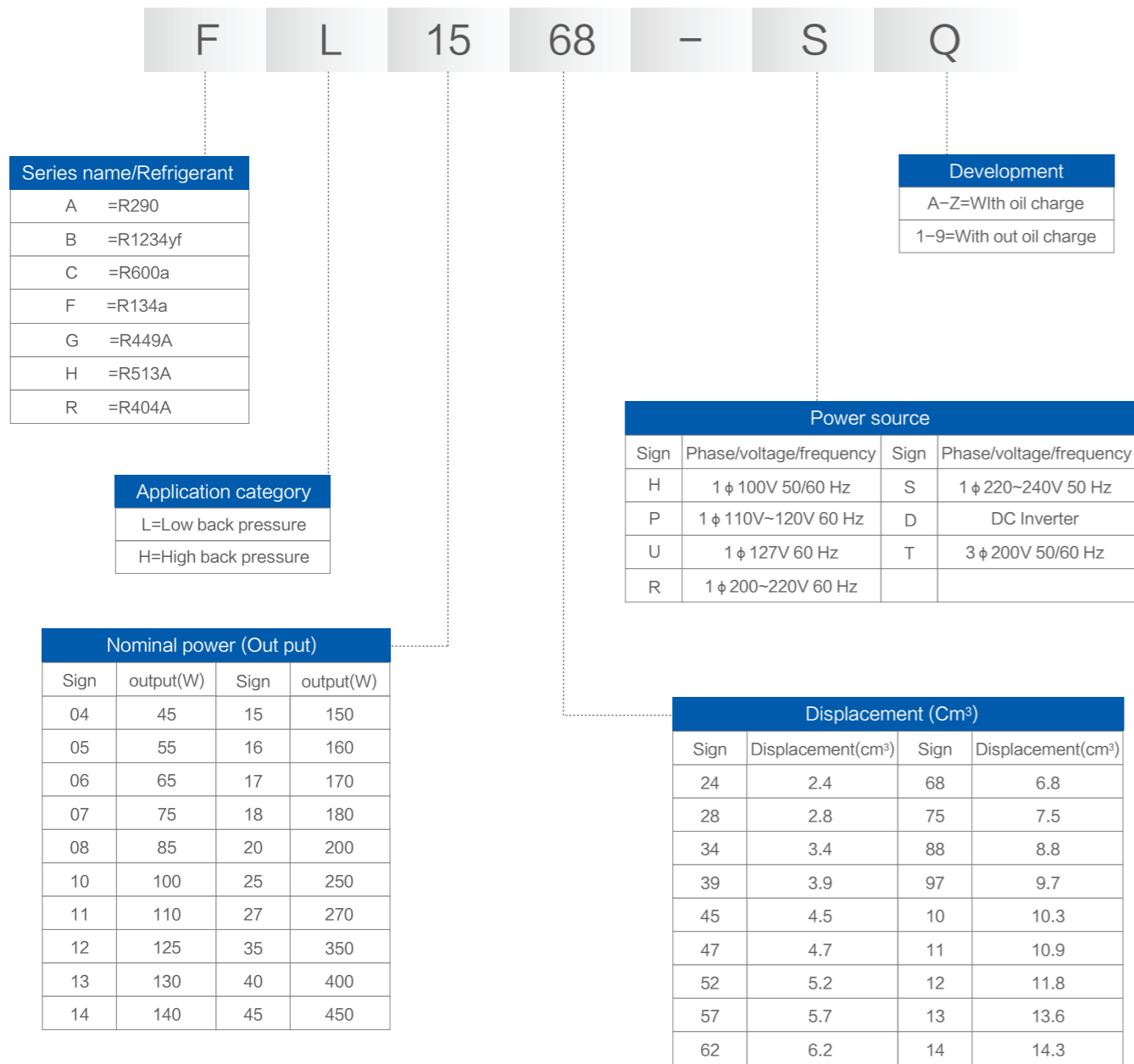
H Series

H Series	Cooling Capacity
R134a	( W )
R290	/
R600a	/
Fixed speed	80-410

Ultra-efficient, low noise, low vibration and wide cooling capacity range, good matching performance.

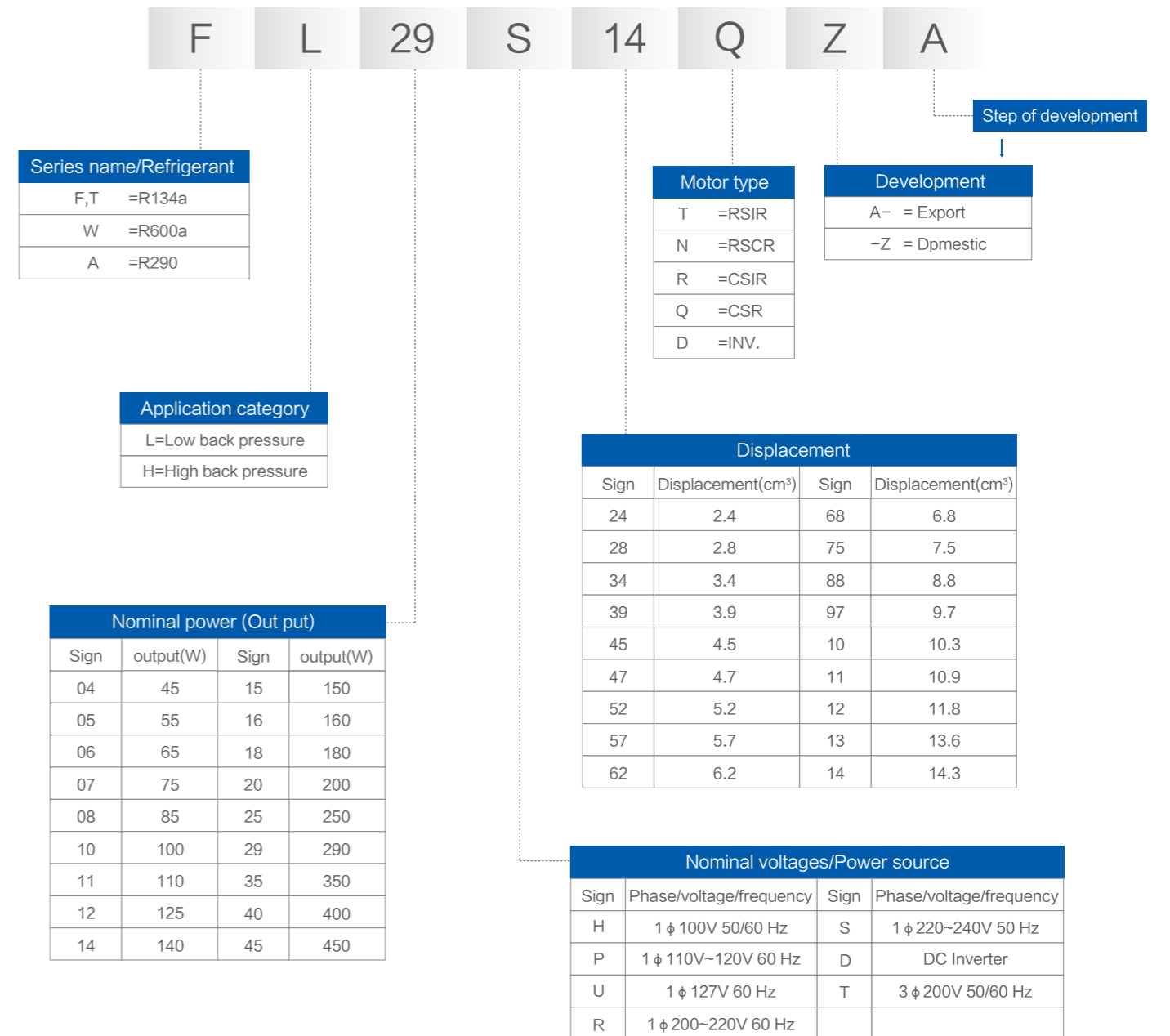
# PRODUCT NAMING RULES OF GAT STRUCTURE

## TYPE 1



FL1568-SQ = Refrigerant R134a, LBP, 6.8cm³, Power 220V~240V 50Hz

## TYPE 2

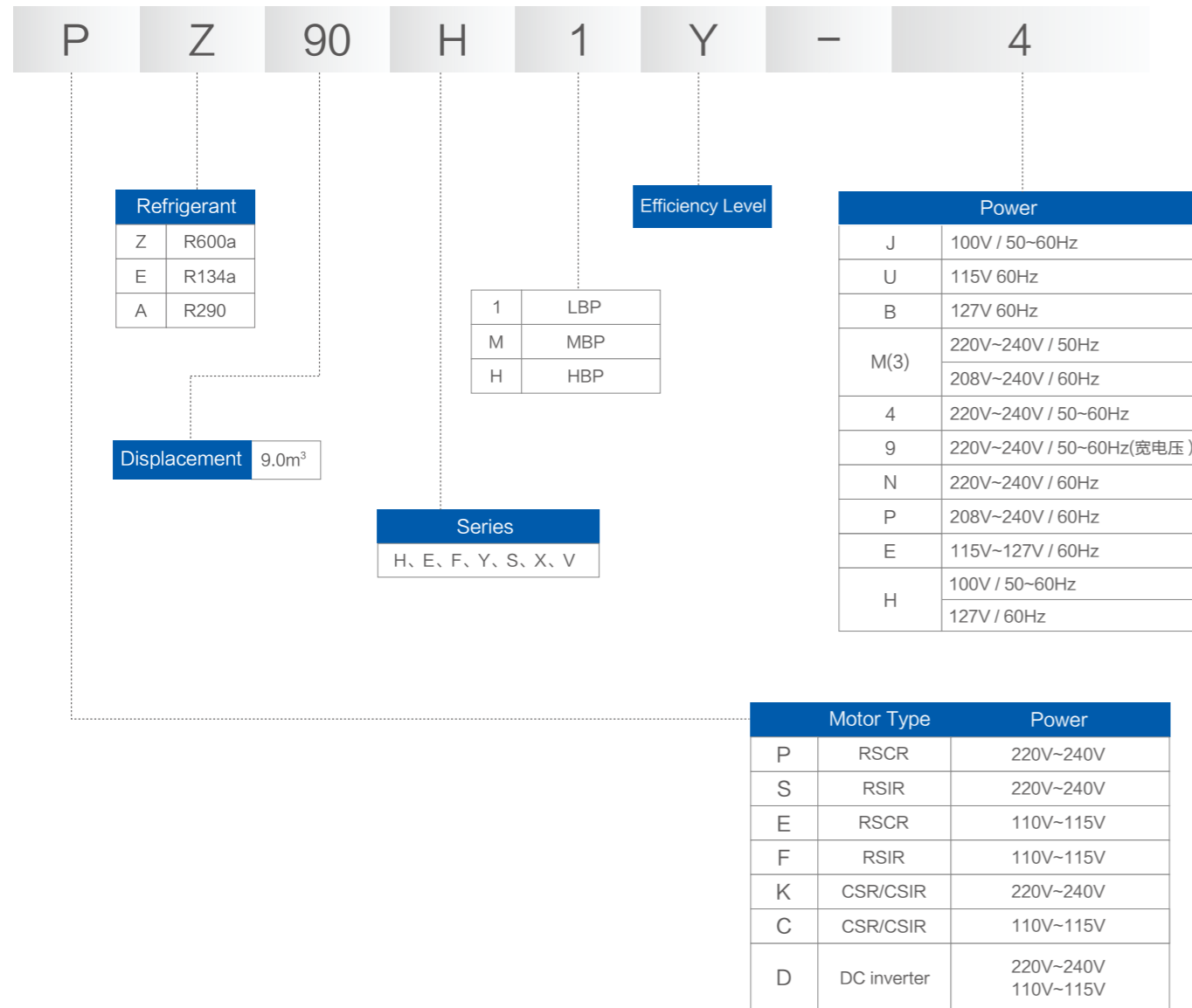


FL29S14QZA = Refrigerant R134a, LBP, 14.3cm³, Power 220V~240V 50Hz, Circuit CSR



# PRODUCT NAMING RULES OF GMCC STRUCTURE

## PRODUCT NAMING RULES



PZ90H1Y-4 = Circuit RSCR, Refrigerant R600a, 9.0cm<sup>3</sup>, LBP, Power 220V~240V 50Hz

## TESTING CONDITIONS

Test Condition	ASHRAE	ASHRAE	ASHRAE
	Low Back Pressure(LBP)	Medium Back Pressure(MBP)	High Back Pressure(HBP)
Evaporating Temperature	-23.3°C(-10°F)	-6.7°C(20°F)	7.2°C(45°F)
Condensing Temperature	54.4°C(130°F)	54.4°C(130°F)	54.4°C(130°F)
Liquid Temperature	32.2°C(90°F)	46.1°C(115°F)	46.1°C(115°F)
Return Gas Temperature	32.2°C(90°F)	35°C(95°F)	35°C(95°F)
Ambient Temperature	32.2°C(90°F)	35°C(95°F)	35°C(95°F)

## COOLING TYPE

Description	
ST	Static cooling: The compressor does not require forced cooling, but it must be installed in order to let the ambient air adequately cool it avoid overheating.
Fan	Fan cooling: The compressor requires forced cooling through the use of a fan.
Oil	Oil cooling: The compressor with pipe oil for cooling through.

## MOTOR TYPE

Description	
RSIR	Resistive Start - Inductive Run: no start capacitor, no run capacitor.
RSCR	Resistive Start - Capacitive Run: no start capacitor, run capacitor is needed to improve the efficiency.
CSIR	Capacitor Start - Inductive Run: no run capacitor, start capacitor is needed to improve the torque.
CSR	Capacitor Start and Run Inductive Run: CSR with capacitive run and start windings.
IR	Induction Run 3 Phase.
INV	Inverter: Must be used control circuit board.

## CONVERSION TABLE

1. W×3.412=Btu/h
2. W×0.864=kcal/h
3. kcal/h×1.163=W
4. kcal/h×3.968=Btu/h
5. EER=COP×3.412
6. Capacity(at 50HZ)×1.16=Capacity(at 60HZ)

Series	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	rpm	ASHRAE					Certification	Motor Description	Shell height (mm)
						(-23.3 / 54.4 / 32.2 °C)							
						Cooling Capacity			COP				
						W	kcal/h	Btu/h	W/W	Btu/Wh			

### R600a LBP DC Inverter

100V/220~240V/50~60 Hz

WL	WL14H92DPKA	9.2	FC	BLDC	1320	68	55	218	2.05	6.72	-	Al	146
					1620	85	66	263	1.95	6.21			
					3000	169	141	559	2.10	7.06			
					4320	228	196	777	1.97	6.72			
	WL14H92DPK	9.2	FC	BLDC	1320	68	59	235	2.15	7.40	-	Cu	146
					1620	85	74	293	2.00	6.93			
					3000	169	147	583	2.16	7.37			
	WL16H10DPBA	10.2	FC	BLDC	1320	81	70	276	2.00	6.82	-	Al	146
					1620	100	88	348	1.94	6.62			
					3000	200	172	682	2.08	7.10			
	WL16H10DPB	10.2	FC	BLDC	1320	81	68	269	2.06	7.03	-	Cu	146
					1620	100	84	334	1.98	6.76			
					3000	200	172	682	2.11	7.20			
	WL18H12DPAA★	12.0	FC	BLDC	1320	95	82	324	1.92	6.55	-	Al	146
					1620	112	96	382	1.95	6.65			
					3000	220	189	750	1.90	6.48			
	WL18H12DPA★	12.0	FC	BLDC	1320	95	82	324	2.02	6.89	-	Cu	146
					1620	112	96	382	2.08	7.10			
					3000	220	189	750	1.98	6.76			
					4320	268	230	914	1.75	5.97			

Remark ★ Under development

Series	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	rpm	ASHRAE					Certification	Motor Description	Shell height (mm)
						(-23.3 / 54.4 / 32.2 °C)							
						Cooling Capacity			COP				
						W	kcal/h	Btu/h	W/W	Btu/Wh			

### R600a LBP DC Inverter

100V/220~240V/50~60 Hz

CL	CL1275-DA	7.5	FC	BLDC	1,500	62	53	211	1.67	5.70	CB CCC UL	Cu	188
					3,000	130	112	443	1.73	5.90			
					4,300	186	160	634	1.66	5.66			
	CL1588-DAD	8.8	FC	BLDC	1,200	57	49	194	1.47	5.02	CB	Al	141
					1,500	76	65	259	1.53	5.22			
					3,000	155	133	529	1.58	5.39			
	CL1610-DZA	10.3	FC	BLDC	1,200	65	56	222	1.52	5.19	-	Al	153
					1,800	98	84	334	1.62	5.53			
					3,000	183	157	624	1.69	5.77			
	CL1711-DC	10.3	FC	BLDC	1,200	80	69	273	1.98	6.76	-	Cu	181
					1,500	110	95	375	1.80	6.14			
					3,000	204	175	696	1.77	6.04			
4,800					290	249	989	1.48	5.05				

### R134a LBP DC Inverter

100V/220~240V/50~60 Hz

FL	FL1557-DZ	5.7	FC	BLDC	1,200	61	52	208	1.53	5.22	-	Cu	188
					1,500	76	65	259	1.60	5.46			
					3,000	162	139	552	1.55	5.29			
	FL1875-DZ	7.5	FC	BLDC	1,200	80	69	273	1.43	4.88	-	Cu	188
					1,500	103	89	351	1.50	5.12			
					3,000	208	179	709	1.53	5.22			
	FL2511-DZ	10.9	FC	BLDC	1,200	127	109	433	1.35	4.61	-	Cu	188
					1,500	158	136	539	1.40	4.78			
					3,000	320	275	1,091	1.54	5.25			
					4,500	430	370	1,466	1.46	4.98			

Series	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	rpm	ASHRAE					Certification	Motor Description	Shell height (mm)
						(-23.3 / 54.4 / 32.2 °C)							
						Cooling Capacity			COP				
						W	kcal/h	Btu/h	W/W	Btu/Wh			

### R134a LBP DC Inverter

100V/220~240V/50~60 Hz

TL	TL14H54DPA	5.4	FC	BLDC	1,200	64	55	218	1.71	5.83	-	Cu	147
					1,500	80	69	273	1.79	6.11			
					3,000	169	145	576	1.77	6.04			
					4,500	245	211	835	1.65	5.63			
	TL16H62DPA	6.2	FC	BLDC	1,200	74	64	252	1.71	5.83	-	Cu	147
					1,500	95	82	324	1.80	6.14			
					3,000	198	170	675	1.77	6.04			
					4,500	285	245	972	1.64	5.60			
	TL18H76DPB	7.6	FC	BLDC	1,200	96	83	327	1.70	5.81	-	Al	146
					1,500	122	105	415	1.77	6.04			
					3,000	241	207	822	1.72	5.87			
					4,500	349	300	1,188	1.55	5.29			
TL18H76DPA	7.6	FC	BLDC	1,200	95	82	324	1.83	6.24	-	Cu	147	
				1,500	121	104	413	1.86	6.35				
				3,000	238	205	812	1.78	6.07				
				4,500	345	297	1,176	1.62	5.53				

### R290 LBP DC Inverter

100V/220~240V/50~60 Hz

AL	AL24H54DPA	5.4	FC	BLDC	1,500	127	109	433	1.51	5.15	-	Al	147
					3,000	272	234	928	1.60	5.46			
					4,200	386	332	1,316	1.61	5.49			
	AL35H76DPA	7.6	FC	BLDC	1,500	180	155	614	1.55	5.29	-	Al	147
					3,000	380	327	1,296	1.76	6.01			
					4,200	546	470	1,862	1.72	5.87			

Series	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	rpm	ASHRAE					Certification	Motor Description	Shell height (mm)
						(-23.3 / 54.4 / 32.2 °C)							
						Cooling Capacity			COP				
						W	kcal/h	Btu/h	W/W	Btu/Wh			

### R290 LBP DC Inverter

100V/220~240V/50~60 Hz

AL	AL4088-DZA	8.8	FC	BLDC	1,500	208	179	709	1.41	4.81	-	Al	188
					3,000	452	389	1,541	1.67	5.70			
					4,200	636	547	2,169	1.65	5.63			
	AL4088-DB	8.8	FC	BLDC	1,500	203	175	692	1.44	4.91	UL CCC	Cu	188
					3,000	463	398	1,579	1.77	6.04			
					4,200	651	560	2,220	1.74	5.94			
	AL4088-DZ	8.8	FC	BLDC	1,500	194	167	662	1.42	4.85	-	Cu	188
					3,000	450	387	1,535	1.75	5.97			
					4,200	640	550	2,182	1.68	5.73			
	AL65H12DPA★	12.0	FC	BLDC	1,500	271	233	924	1.25	4.27	-	Cu	200
					3,000	602	518	2,053	1.60	5.46			
					4,200	840	722	2,864	1.55	5.29			

Remark ★ Under development

### R1234yf LBP DC Inverter

100V/220~240V/50~60 Hz

BL	BL2511-DA	10.9	FC	BLDC	1,800	200	172	682	1.54	5.25	-	Cu	188
					3,000	320	275	1,091	1.52	5.19			
					4,500	420	361	1,432	1.42	4.85			

### R404A LBP DC Inverter

100V/220~240V/50~60 Hz

RL	RL4075-DB	7.5	FC	BLDC	1,500	210	181	716	1.37	4.67	-	Cu	188
					3,000	440	378	1,500	1.55	5.29			
					4,200	605	520	2,063	1.49	5.08			
	RL4075-DZ	7.5	FC	BLDC	1,500	247	212	842	1.32	4.50	-	Cu	200
					3,000	380	327	1,296	1.35	4.61			
					4,200	508	437	1,732	1.27	4.33			
RL4588-DZ	8.8	FC	BLDC	1,500	240	206	818	1.25	4.27	-	Cu	188	
				3,000	510	439	1,739	1.49	5.08				
				4,200	685	589	2,336	1.45	4.95				

Series	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	Power frequency	ASHRAE					Certification	Motor Description	Shell height (mm)
						(-23.3 / 54.4 / 32.2°C)							
						Cooling Capacity			COP				
						W	kcal/h	Btu/h	W/W	Btu/Wh			

### R600a LBP FIXED SPEED

220V~240V/50Hz

H	PZ45H1Z	4.5	ST	CSR	220V/50Hz	75	65	256	1.82	6.21	-	Al	175
	PZ45H1X	4.5	ST	RSCR	220V/50Hz	80	69	273	1.90	6.48	-	Al	178
CL	CL0545-SY	4.5	ST	RSCR	220V/50Hz	63	54	215	1.28	4.37	-	Al	177
H	PZ50H1X	5.0	ST	RSCR	220V/50Hz	87	75	297	1.87	6.38	CCC VDE	Al	178
	PZ50H1W	5.0	ST	RSCR	220V/50Hz	85	73	290	1.96	6.69	VDE	Cu	178
	PZ55H1C	5.5	ST	RSCR	220V/50Hz	98	84	334	1.69	5.77	CCC	Al	170
	PZ55H1X	5.5	ST	RSCR	220V/50Hz	100	86	341	1.88	6.41	CCC VDE	Al	178
	PZ55H1V	5.5	ST	RSCR	220V/50Hz	100	86	341	1.97	6.72	-	Al	178
	PZ55H1W	5.5	ST	RSCR	220V/50Hz	100	86	341	2.00	6.82	CCC	Al	178
	PZ59H1Y	5.9	ST	RSCR	220V/50Hz	100	86	341	1.85	6.31	CCC VDE	Al	178
	PZ65H1Z	6.5	ST	RSCR	220V/50Hz	116	100	396	1.75	5.97	CCC VDE	Al	170
	PZ65H1Y	6.5	ST	RSCR	220V/50Hz	116	100	396	1.83	6.24	CCC VDE	Al	178
	PZ65H1X	6.5	ST	RSCR	220V/50Hz	118	101	402	1.86	6.35	CCC VDE	Al	178
	PZ65H1V	6.5	ST	RSCR	220V/50Hz	118	101	402	1.90	6.48	-	Cu	178
	PZ75H1X	7.5	ST	RSCR	220V/50Hz	137	118	467	1.87	6.38	CCC VDE	Al	178
	PZ75H1W	7.5	ST	RSCR	220V/50Hz	137	118	467	1.95	6.65	CCC VDE	Al	178
	SZ80H1H	8.0	ST	RSIR	220V/50Hz	148	127	505	1.45	4.95	-	Al	170
	PZ80H1Y	8.0	ST	RSCR	220V/50Hz	150	129	512	1.83	6.24	CCC VDE	Al	170
	PZ80H1X	8.0	ST	RSCR	220V/50Hz	147	126	501	1.88	6.41	-	Al	178
	PZ80H1W	8.0	ST	RSCR	220V/50Hz	147	126	501	1.93	6.59	-	Al	178

Series	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	Power frequency	ASHRAE					Certification	Motor Description	Shell height (mm)
						(-23.3 / 54.4 / 32.2°C)							
						Cooling Capacity			COP				
						W	kcal/h	Btu/h	W/W	Btu/Wh			

### R600a LBP FIXED SPEED

220V~240V/50Hz

H	PZ80H1V	8.0	ST	RSCR	220V/50Hz	147	126	501	1.97	6.72	-	Cu	178
	PZ85H1H	8.5	ST	RSCR	220V/50Hz	165	142	563	1.55	5.29	CCC VDE	Al	164
	PZ90H1Z	9.0	ST	RSCR	220V/50Hz	170	146	580	1.78	6.07	CCC VDE	Al	170
	PZ90H1Y	9.0	ST	RSCR	220V/50Hz	170	146	580	1.88	6.41	CCC VDE	Al	178
	PZ90H1W	9.0	ST	RSCR	220V/50Hz	170	146	580	1.93	6.59	-	Al	178
	PZ90H1V	9.0	ST	RSCR	220V/50Hz	167	144	569	1.98	6.76	-	Cu	178
	SZ99H1H	9.9	ST	RSIR	220V/50Hz	185	159	631	1.49	5.08	CCC VDE	Al	170
	PZ99H1C	9.9	ST	RSCR	220V/50Hz	185	159	631	1.67	5.70	CCC VDE	Al	170
	PZ99H1Z	9.9	ST	RSCR	220V/50Hz	185	159	631	1.83	6.24	-	Al	178
	PZ99H1Y	9.9	ST	RSCR	220V/50Hz	185	159	631	1.88	6.41	CCC VDE	Al	178
	PZ99H1X	9.9	ST	RSCR	220V/50Hz	185	159	631	1.90	6.48	CCC	Al	178
	PZ99H1W	9.9	ST	RSCR	220V/50Hz	180	155	614	1.92	6.55	CCC	Cu	178

### R600a LBP FIXED SPEED

220V~240V/60Hz

H	PZ65H1Y-N	6.5	ST	RSCR	220~240V/60Hz	130	112	443	1.85	6.31	-	Al	178
	PZ75H1Y-N	7.5	ST	RSCR	220~240V/60Hz	155	133	529	1.85	6.31	-	Al	179

Series	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	Power frequency	ASHRAE					Certification	Motor Description	Shell height (mm)
						(-23.3 / 54.4 / 32.2 °C)							
						Cooling Capacity			COP				
						W	kcal/h	Btu/h	W/W	Btu/Wh			

### R600a LBP FIXED SPEED

220V~240V/50Hz & 208V~240V/60Hz

H	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	Power frequency	ASHRAE					Certification	Motor Description	Shell height (mm)
						(-23.3 / 54.4 / 32.2 °C)							
						Cooling Capacity			COP				
						W	kcal/h	Btu/h	W/W	Btu/Wh			
	PZ55H1Z-M	5.5	ST	RSCR	220~240V/50Hz	100	86	341	1.76	6.01	CB	Al	178
						208~240V/60Hz	116	100	396	1.81			
	PZ55H1W-M	5.5	ST	RSCR	220~240V/50Hz	100	86	341	1.90	6.48	CB	Cu	178
						208~240V/60Hz	116	100	396	1.95			
	PZ80H1Y-3	8.0	ST	RSCR	220~240V/50Hz	150	129	512	1.82	6.21	-	Al	178
						208~240V/60Hz	174	150	593	1.84			
	PZ90H1Y-3	9.0	ST	RSCR	220~240V/50Hz	170	146	580	1.82	6.21	CB	Al	178
						208~240V/60Hz	192	165	655	1.82			
	PZ99H1Y-3	9.9	ST	RSCR	220~240V/50Hz	188	162	641	1.83	6.24	CB	Al	178
						208~240V/60Hz	220	189	750	1.85			

### R600a LBP FIXED SPEED

220V~240V/50Hz (Wide Voltage)

H	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	Power frequency	ASHRAE					Certification	Motor Description	Shell height (mm)
						(-23.3 / 54.4 / 32.2 °C)							
						Cooling Capacity			COP				
						W	kcal/h	Btu/h	W/W	Btu/Wh			
	PZ50H1A-9	5.0	ST	RSCR	220V/50Hz	85	73	290	1.75	5.97	CB	Al	178
	PZ55H1Y-9	5.5	ST	RSCR	220V/50Hz	100	86	341	1.85	6.31	-	Al	178
	PZ65H1A-9	6.5	ST	RSCR	220V/50Hz	115	99	392	1.72	5.87	CB	Al	178
	PZ65H1Y-9	6.5	ST	RSCR	220V/50Hz	115	99	392	1.85	6.31	-	Al	178
	PZ65H1X-9	6.5	ST	RSCR	220V/50Hz	116	100	396	1.88	6.41	CB	Cu	178
	PZ75H1Y-9	7.5	ST	RSCR	220V/50Hz	145	125	494	1.83	6.24	-	Al	178
	SZ80H1H-9	8.0	ST	RSIR	220V/50Hz	146	126	498	1.39	4.74	-	Al	164
	PZ80H1Y-9	8.0	ST	RSCR	220V/50Hz	150	129	512	1.82	6.21	-	Al	178
	PZ90H1Z-9	9.0	ST	RSCR	220V/50Hz	162	139	552	1.78	6.07	CB	Al	178
	PZ90H1Y-9	9.0	ST	RSCR	220V/50Hz	165	142	563	1.82	6.21	-	Al	178
	SZ99H1H-9	9.9	ST	RSIR	220V/50Hz	178	153	607	1.45	4.95	-	Al	163.5

Series	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	Power frequency	ASHRAE					Certification	Motor Description	Shell height (mm)
						(-23.3 / 54.4 / 32.2 °C)							
						Cooling Capacity			COP				
						W	kcal/h	Btu/h	W/W	Btu/Wh			

### R600a LBP FIXED SPEED

220V~240V/50Hz (Wide Voltage)

H	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	Power frequency	ASHRAE					Certification	Motor Description	Shell height (mm)
						(-23.3 / 54.4 / 32.2 °C)							
						Cooling Capacity			COP				
						W	kcal/h	Btu/h	W/W	Btu/Wh			
	PZ99H1E-9	9.9	ST	RSCR	220V/50Hz	178	153	607	1.52	5.19	-	Cu	170
						PZ99H1Y-9	178	153	607	1.80	6.14	-	Al

### R600a LBP FIXED SPEED

220V~240V/50~60Hz

CL	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	Power frequency	ASHRAE					Certification	Motor Description	Shell height (mm)	
						(-23.3 / 54.4 / 32.2 °C)								
						Cooling Capacity			COP					
						W	kcal/h	Btu/h	W/W	Btu/Wh				
	CL0768-SE	6.8	ST	RSCR	220V/50Hz	121	104	413	1.25	4.27	CB	Al	177	
						220V/60Hz	142	122	484	1.36				4.64
	H	PZ80H1Z-4	8.0	ST	RSCR	220V/50Hz	150	129	512	1.75	5.97	-	Al	178
							220V/60Hz	174	150	593	1.83			
	CL	CL1188-SJ	8.8	ST	RSCR	220V/50Hz	152	131	518	1.32	4.50	CB	Al	181
							220V/60Hz	184	158	627	1.40			
	H	PZ90H1B-4	9.0	ST	RSCR	220V/50Hz	165	142	563	1.82	6.21	-	Al	178
							220V/60Hz	195	168	665	1.84			
	H	SZ99H1H-4	9.9	ST	RSIR	220V/50Hz	181	156	617	1.51	5.15	-	Al	178
							220V/60Hz	211	181	720	1.65			
	H	PZ99H1C-4	9.9	ST	RSCR	220V/50Hz	182	157	621	1.62	5.53	CB	Al	178
							220V/60Hz	213	183	726	1.73			
	H	PZ99H1Y-4	9.9	ST	RSCR	220V/50Hz	180	155	614	1.80	6.14	-	Al	178
							220V/60Hz	213	183	726	1.83			
	CL	CL1310-SY	10.3	ST	RSCR	220V/50Hz	177	152	604	1.37	4.67	-	Al	186
							220V/60Hz	206	177	702	1.45			

### R600a LBP FIXED SPEED

115V/60Hz

H	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	Power frequency	ASHRAE					Certification	Motor Description	Shell height (mm)
						(-23.3 / 54.4 / 32.2 °C)							
						Cooling Capacity			COP				
						W	kcal/h	Btu/h	W/W	Btu/Wh			
	EZ50H1Z-U	5.0	ST	RSCR	115V/60Hz	98	84	334	1.80	6.14	-	Al	178
						FZ50H1D-U	115	99	392	1.64	5.60	UL	Al

Series	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	Power frequency	ASHRAE					Certification	Motor Description	Shell height (mm)
						(-23.3 / 54.4 / 32.2°C)							
						Cooling Capacity			COP				
						W	kcal/h	Btu/h	W/W	Btu/Wh			

### R600a LBP FIXED SPEED

115V/60Hz

H	EZ50H1Y-U	5.5	ST	RSCR	115V/60Hz	115	99	392	1.82	6.21	UL	Al	178
	EZ50H1X-U	5.5	ST	RSCR	115V/60Hz	115	99	392	1.90	6.48	UL	Al	178
	EZ50H1V-U	5.5	ST	RSCR	115V/60Hz	122	105	416	1.95	6.65	-	Al	178
	EZ65H1A-U	6.5	ST	RSCR	115V/60Hz	137	118	467	1.75	5.97	-	Al	178
	EZ65H1Z-U	6.5	ST	RSCR	115V/60Hz	137	118	467	1.83	6.24	-	Al	178
	EZ65H1Y-U	6.5	ST	RSCR	115V/60Hz	137	118	467	1.88	6.41	UL	Al	178
	EZ65H1X-U	6.5	ST	RSCR	115V/60Hz	134	115	457	1.90	6.48	UL	Al	178
	EZ65H1W-U	6.5	ST	RSCR	115V/60Hz	137	118	467	1.92	6.55	-	Cu	178
	EZ75H1Y-U	7.5	ST	RSCR	115V/60Hz	155	133	529	1.88	6.41	-	Al	178
	EZ75H1X-U	7.5	ST	RSCR	115V/60Hz	156	134	532	1.92	6.55	UL	Al	178
	EZ75H1V-U	7.5	ST	RSCR	115V/60Hz	168	144	573	1.97	6.72	-	Cu	178
	EZ80H1A-U	8.0	ST	RSCR	115V/60Hz	173	149	590	1.77	6.04	UL	Al	174
	EZ80H1Y-U	8.0	ST	RSCR	115V/60Hz	170	146	580	1.85	6.31	-	Al	178
	EZ80H1Z-U	8.0	ST	RSCR	115V/60Hz	175	151	597	1.88	6.41	UL	Cu	178
	EZ80H1W-U	8.0	ST	RSCR	115V/60Hz	170	146	580	1.94	6.62	UL	Al	178
	EZ80H1V-U	8.0	ST	RSCR	115V/60Hz	170	146	580	1.96	6.69	UL	Cu	178
	FZ85H1D-U	8.5	ST	RSIR	115V/60Hz	185	159	631	1.62	5.53	UL	Al	170
	EZ85H1Z-U	8.5	ST	RSIR	115V/60Hz	185	159	631	1.85	6.31	-	Al	178
	EZ90H1H-U	9.0	ST	RSCR	115V/60Hz	190	163	648	1.40	4.78	-	Al	170
	EZ90H1D-U	9.0	ST	RSCR	115V/60Hz	192	165	655	1.65	5.63	UL	Al	178
EZ90H1A-U	9.0	ST	RSCR	115V/60Hz	195	168	665	1.78	6.07	-	Al	178	
EZ90H1Y-U	9.0	ST	RSCR	115V/60Hz	195	168	665	1.90	6.48	-	Cu	178	
EZ90H1W-U	9.0	ST	RSCR	115V/60Hz	195	168	665	1.95	6.65	-	Cu	178	

Series	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	Power frequency	ASHRAE					Certification	Motor Description	Shell height (mm)
						(-23.3 / 54.4 / 32.2°C)							
						Cooling Capacity			COP				
						W	kcal/h	Btu/h	W/W	Btu/Wh			

### R600a LBP FIXED SPEED

115V/60Hz

H	EZ90H1V-U	9.0	ST	RSCR	115V/60Hz	193	166	658	1.97	6.72	UL	Cu	178
	FZ99H1D-U	9.9	ST	RSIR	115V/60Hz	209	180	713	1.65	5.63	UL	Al	178
	EZ99H1Y-U	9.9	ST	RSCR	115V/60Hz	214	184	730	1.83	6.24	UL	Al	178
	EZ99H1V-U	9.9	ST	RSCR	115V/60Hz	215	185	733	1.97	6.72	-	Cu	178

### R600a LBP FIXED SPEED

100V/50~60Hz

H	EZ55H1Z-J	5.5	ST	RSCR	100V/50Hz	99	85	338	1.80	6.14	-	Al	170
					100V/60Hz	115	99	392	1.83	6.24			
	EZ75H1A-J	7.5	ST	RSCR	100V/50Hz	135	116	460	1.73	5.90	-	Al	178
					100V/60Hz	155	133	529	1.78	6.07			
	EZ80H1C-J	8.0	ST	RSCR	100V/50Hz	137	118	467	1.20	4.09	-	Al	178
					100V/60Hz	168	144	573	1.40	4.78			
	FZ80H1Y-J	8.0	ST	RSIR	100V/50Hz	150	129	512	1.67	5.70	-	Cu	178
					100V/60Hz	170	146	580	1.70	5.80			
	FZ90H1F-J	9.0	ST	RSIR	100V/50Hz	170	146	580	1.40	4.78	-	Al	170
					100V/60Hz	190	163	648	1.50	5.12			
	EZ99H1D-J	9.9	ST	RSCR	100V/50Hz	209	180	713	1.50	5.12	-	Al	178
					100V/60Hz	239	206	815	1.69	5.77			

### R134a LBP FIXED SPEED

220V~240V/50Hz

FL	FL06S34TAE	3.4	ST	RSIR	220~240V/50Hz	85	73	290	0.90	3.07	-	Al	165
	FL0739-SQ	3.9	ST	RSIR	220~240V/50Hz	114	98	389	1.20	4.09	-	Al	177
H	PE45H1C	4.5	ST	RSCR	220~240V/50Hz	130	112	443	1.65	5.63	CB	Al	178
FL	FL0847-SD	4.7	ST	RSIR	220~240V/50Hz	130	112	443	1.19	4.06	-	Al	177

Series	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	Power frequency	ASHRAE					Certification	Motor Description	Shell height (mm)
						(-23.3 / 54.4 / 32.2°C)							
						Cooling Capacity			COP				
						W	kcal/h	Btu/h	W/W	Btu/Wh			

### R134a LBP FIXED SPEED

220V~240V/50Hz

H	PE50H1J	5.0	ST	RSCR	220~240V/50Hz	157	135	535	1.30	4.44	-	AI	178
FL	FL1152-SB	5.2	ST	RSIR	220~240V/50Hz	143	123	488	1.27	4.33	-	AI	181
H	PE55H1A	5.5	ST	RSCR	220~240V/50Hz	170	146	580	1.75	5.97	-	AI	178
FL	FL1257-SR	5.7	ST	RSIR	220~240V/50Hz	160	138	546	1.25	4.27	-	AI	186
	FL12S57NAJ	5.7	ST	RSCR	220~240V/50Hz	167	144	569	1.39	4.74	CB	AI	186
FL	FL14S62TAD	6.2	ST	RSIR	220~240V/50Hz	175	151	597	1.30	4.44	-	AI	196
	PE65H1C	6.5	ST	RSCR	220~240V/50Hz	190	163	648	1.65	5.63	-	AI	178
H	PE65H1B	6.5	ST	RSCR	220~240V/50Hz	190	163	648	1.68	5.73	-	Cu	178
	FL15S68TAJ	6.8	ST	RSIR	220~240V/50Hz	195	168	665	1.22	4.16	-	AI	181
FL	FL18S75TAE	7.5	OIL	RSIR	220~240V/50Hz	208	179	709	1.26	4.30	-	AI	211
	PE75H1C	7.5	ST	RSCR	220~240V/50Hz	218	187	743	1.62	5.53	-	AI	178
H	PE75H1B	7.5	ST	RSCR	220~240V/50Hz	220	189	750	1.70	5.80	CB	Cu	178
	PE80H1F	8.0	ST	RSCR	220~240V/50Hz	240	206	818	1.50	5.12	-	AI	178
FL	FL20S88TAC	8.8	ST	RSIR	220~240V/50Hz	255	219	870	1.25	4.27	-	AI	211
	FL20S88NAAL	8.8	ST	RSCR	220~240V/50Hz	253	218	863	1.45	4.95	CB	AI	211
H	PE90H1D	9.0	ST	RSCR	220~240V/50Hz	275	237	938	1.58	5.39	-	AI	178
FL	FL29S14QZA	14.3	FC	CSR	220~240V/50Hz	345	297	1176	1.28	4.37	-	AI	211

### R134a LBP FIXED SPEED

220V~240V/50Hz (Wide Voltage)

H	PE40H1C-9	4.0	ST	RSCR	220V/50Hz	110	95	375	1.65	5.63	-	AI	178
	PE45H1F-9	4.5	ST	RSCR	220V/50Hz	130	112	443	1.50	5.12	CB	AI	178
	SE50H1F-9	5.0	ST	RSIR	220V/50Hz	150	129	512	1.48	5.05	CB	AI	178
	PE50H1F-9	5.0	ST	RSCR	220V/50Hz	153	132	522	1.50	5.12	-	AI	178
	PE50H1C-9	5.0	ST	RSCR	220V/50Hz	153	132	522	1.63	5.56	CB	AI	178
	PE55H1F-9	5.5	ST	RSCR	220V/50Hz	163	140	556	1.55	5.29	CB	AI	178
	PE55H1D-9	5.5	ST	RSCR	220V/50Hz	170	146	580	1.60	5.46	-	AI	178

Series	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	Power frequency	ASHRAE					Certification	Motor Description	Shell height (mm)
						(-23.3 / 54.4 / 32.2°C)							
						Cooling Capacity			COP				
						W	kcal/h	Btu/h	W/W	Btu/Wh			

### R134a LBP FIXED SPEED

220V~240V/50Hz (Wide Voltage)

H	PE65H1F-9	6.5	ST	RSCR	220V/50Hz	190	163	648	1.51	5.15	-	AI	178
	PE65H1C-9	6.5	ST	RSCR	220V/50Hz	190	163	648	1.65	5.63	-	AI	178
	PE65H1H-9	6.5	ST	RSCR	220V/50Hz	195	168	665	1.55	5.29	CB	AI	178
	PE65H1B-9	6.5	ST	RSCR	220V/50Hz	190	163	648	1.70	5.80	-	Cu	178
	PE75H1H-9	7.5	ST	RSCR	220V/50Hz	220	189	750	1.45	4.95	CB	AI	178
	PE75H1C-9	7.5	ST	RSCR	220V/50Hz	220	189	750	1.65	5.63	-	AI	178
	PE80H1E-9	8.0	ST	RSCR	220V/50Hz	235	202	801	1.50	5.12	-	AI	178
	PE90H1F-9	9.0	ST	RSCR	220V/50Hz	280	241	955	1.50	5.12	-	AI	178
	PE90H1D-9	9.0	ST	RSCR	220V/50Hz	280	241	955	1.60	5.46	CB	AI	178

### R134a LBP FIXED SPEED

220V~240V/50~60Hz

FL	FL0634-SK	3.4	ST	RSIR	220~240V/50Hz	89	77	303	0.92	3.14	CB	AI	165
					220~240V/60Hz	102	88	348	1.02	3.48			
FL	FL0847-ST	4.7	ST	RSIR	220~240V/50Hz	135	116	460	1.23	4.20	-	AI	177
					220~240V/60Hz	164	141	559	1.30	4.44			
H	PE50H1F-4	5.0	ST	RSCR	220~240V/50Hz	155	133	529	1.60	5.46	CB	AI	178
					220~240V/60Hz	180	155	614	1.63	5.56			

### R134a LBP FIXED SPEED

220V~240V/50~60Hz

FL	FL11S52TZB	5.2	ST	RSIR	220~240V/50Hz	145	125	494	1.25	4.27	-	AI	181
					220~240V/60Hz	178	153	607	1.30	4.44			
H	PE55H1C-4	5.5	ST	RSCR	220~240V/50Hz	170	146	580	1.55	5.29	-	AI	178
					220~240V/60Hz	198	170	675	1.65	5.63			
FL	FL1257-RM	5.7	ST	RSCR	220~240V/50Hz	155	133	529	1.07	3.65	CB	AI	181
					220~240V/60Hz	175	151	597	1.16	3.96			

Series	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	Power frequency	ASHRAE					Certification	Motor Description	Shell height (mm)
						(-23.3 / 54.4 / 32.2 °C)							
						Cooling Capacity			COP				
						W	kcal/h	Btu/h	W/W	Btu/Wh			

### R134a LBP FIXED SPEED

220V~240V/50~60Hz

FL	FL14S62TAF	6.2	ST	RSCR	220~240V/50Hz	175	151	597	1.25	4.27	-	Al	196
					220~240V/60Hz	200	172	682	1.24	4.23			
H	PE65H1D-4	6.5	ST	RSCR	220~240V/50Hz	195	168	665	1.45	4.95	-	Al	178
					220~240V/60Hz	220	189	750	1.55	5.29			
	PE65H1C-4	6.5	ST	RSCR	220~240V/50Hz	195	168	665	1.55	5.29	-	Al	178
					220~240V/60Hz	220	189	750	1.65	5.63			
PE75H1F-4	7.5	ST	RSCR	220~240V/50Hz	220	189	750	1.40	4.78	-	Al	178	
				220~240V/60Hz	250	215	853	1.50	5.12				
PE75H1D-4	7.5	ST	RSCR	220~240V/50Hz	220	189	750	1.50	5.12	-	Cu	178	
				220~240V/60Hz	250	215	853	1.60	5.46				
FL	FL20S88TZA	8.8	ST	RSCR	220~240V/50Hz	255	219	870	1.25	4.27	-	Al	211
					220~240V/60Hz	295	254	1006	1.28	4.37			
FL	FL3014-SV	14.3	FC	CSR	220~240V/50Hz	360	310	1228	1.42	4.85	-	Cu	211
					220~240V/60Hz	410	353	1398	1.40	4.78			

### R134a LBP FIXED SPEED

100V/50~60Hz

FL	FL0528-HA	2.8	ST	RSIR	100V/50Hz	72	62	246	0.97	3.31	-	Cu	165
					100V/60Hz	82	71	280	1.00	3.41			
FL	FL0634-HJ	3.4	ST	RSIR	100V/50Hz	80	69	273	0.92	3.14	-	Cu	177
					100V/60Hz	92	79	314	1.00	3.41			

### R134a LBP FIXED SPEED

100V/50~60Hz

FL	FL0739-HB	3.9	ST	RSIR	100V/50Hz	94	81	321	0.97	3.31	-	Cu	179
					100V/60Hz	105	90	358	0.99	3.38			

Series	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	Power frequency	ASHRAE					Certification	Motor Description	Shell height (mm)
						(-23.3 / 54.4 / 32.2 °C)							
						Cooling Capacity			COP				
						W	kcal/h	Btu/h	W/W	Btu/Wh			

### R134a LBP FIXED SPEED

100V/50~60Hz

FL	FL0845-HB	4.5	ST	RSIR	100V/50Hz	106	91	361	1.00	3.41	-	Cu	179
					100V/60Hz	120	103	409	1.04	3.55			
	FL0847-HA	4.7	FC	RSCR	100V/50Hz	138	119	471	1.47	5.02	-	Cu	196
					100V/60Hz	168	144	573	1.50	5.12			
	FL1052-HD	5.2	FC	RSIR	100V/50Hz	128	110	436	1.19	4.06	CB	Cu	179
					100V/60Hz	146	126	498	1.22	4.16			
	FL1152-HG	5.2	FC	RSIR	100V/50Hz	135	116	460	1.00	3.41	-	Cu	179
					100V/60Hz	158	136	539	1.03	3.51			
	FL1257-HB	5.7	ST	RSIR	100V/50Hz	142	122	484	1.10	3.75	-	Cu	195
					100V/60Hz	167	144	569	1.16	3.96			
	FL1462-HB	6.2	ST	CSR	100V/50Hz	160	138	546	1.28	4.37	-	Cu	195
					100V/60Hz	186	160	634	1.22	4.16			
	FL1675-HF	7.5	FC	CSR	100V/50Hz	190	163	648	1.14	3.89	-	Cu	211
					100V/60Hz	218	187	743	1.20	4.09			
	FL1875-HF	7.5	FC	CSR	100V/50Hz	220	189	750	1.44	4.91	-	Cu	211
					100V/60Hz	257	221	876	1.35	4.61			
FL2088-HG	8.8	OIL	CSR	100V/50Hz	268	230	914	1.51	5.15	-	Cu	211	
				100V/60Hz	300	258	1023	1.47	5.02				
FL2088-HJ	8.8	FC	CSR	100V/50Hz	248	213	846	1.48	5.05	-	Cu	211	
				100V/60Hz	298	256	1016	1.44	4.91				

### R134a LBP FIXED SPEED

115V/60Hz

FL	FL0528-PB	2.8	FC	CSR	115V/60Hz	82	71	280	1.17	3.99	-	Cu	179
	FL0634-PD	3.4	ST	RSIR	115V/60Hz	92	79	314	0.95	3.24	-	Cu	177
H	EE45H1C-U	4.5	ST	RSCR	115V/60Hz	160	138	546	1.65	5.63	-	Al	178
	EE45H1A-U	4.5	ST	RSCR	115V/60Hz	141	121	481	1.72	5.87	-	Al	178



Series	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	Power frequency	ASHRAE					Certification	Motor Description	Shell height (mm)
						(-23.3 / 54.4 / 32.2 °C)							
						Cooling Capacity			COP				
						W	kcal/h	Btu/h	W/W	Btu/Wh			

### R134a LBP FIXED SPEED

115V/60Hz

H	EE45H1B-U	4.5	ST	RSCR	115V/60Hz	160	138	546	1.73	5.90	UL	Cu	178
	EE45H1Z-U	4.5	ST	RSCR	115V/60Hz	153	132	522	1.77	6.04	-	Cu	178
	EE50H1C-U	5.0	ST	RSCR	115V/60Hz	178	153	607	1.65	5.63	UL	Al	178
	EE50H1Z-U	5.0	ST	RSCR	115V/60Hz	178	153	607	1.69	5.77	UL	Cu	178
	EE50H1B-U	5.0	ST	RSCR	115V/60Hz	178	153	607	1.70	5.80	UL	Cu	178
	EE50H1A-U	5.0	ST	RSCR	115V/60Hz	178	153	607	1.75	5.97	UL	Cu	178
FL	FL1152-PD	5.2	ST	CSIR	115V/60Hz	146	126	498	1.16	3.96	-	Cu	196
H	EE55H1B-U	5.5	ST	RSCR	115V/60Hz	192	165	655	1.65	5.63	UL	Al	178
	EE55H1C-U	5.5	ST	RSCR	115V/60Hz	192	165	655	1.66	5.66	-	Al	178
	EE55H1A-U	5.5	ST	RSCR	115V/60Hz	192	165	655	1.75	5.97	UL	Cu	178
FL	FL1257-PM	5.7	ST	RSIR	115V/60Hz	175	151	597	1.09	3.72	-	Al	181
H	EE65H1H-U	6.5	ST	RSCR	115V/60Hz	223	192	760	1.50	5.12	-	Al	178
	EE75H1D-U	7.5	ST	RSCR	115V/60Hz	250	215	853	1.55	5.29	-	Al	178
	EE75H1F-U	7.5	ST	RSCR	115V/60Hz	255	219	870	1.58	5.39	-	Al	178
	EE75H1B-U	7.5	ST	RSCR	115V/60Hz	236	203	805	1.69	5.77	-	Cu	178
	EE80H1H-U	8.0	ST	RSCR	115V/60Hz	270	232	921	1.45	4.95	-	Al	181

### R134a LBP FIXED SPEED

127V/60Hz

FL	FL0634-UA	3.4	ST	RSIR	127V/60Hz	98	84	334	1.04	3.55	-	Cu	179
	FL0739-UA	3.9	ST	RSIR	127V/60Hz	114	98	389	1.05	3.58	-	Cu	179
H	EE50H1C-B	5.0	ST	RSCR	127V/60Hz	185	159	631	1.65	5.63	-	Al	178
FL	FL1152-UD	5.2	ST	RSCR	127V/60Hz	165	142	563	1.45	4.95	CB	Cu	188
	FL1257-UA	5.7	ST	RSIR	127V/60Hz	180	155	614	1.24	4.23	CB	Cu	180
	FL1462-UA	6.2	ST	RSIR	127V/60Hz	180	155	614	1.16	3.96	-	Cu	200
H	EE65H1E-B	6.5	ST	RSCR	127V/60Hz	223	192	760	1.56	5.32	CB	Cu	178
FL	FL1568-UD	6.8	ST	RSIR	127V/60Hz	228	196	777	1.29	4.40	-	Cu	200
H	EE75H1C-B	5.0	ST	RSCR	127V/60Hz	250	215	853	1.65	5.63	-	Al	178
FL	FL1875-UE	7.5	Fan	RSCR	127V/60Hz	260	224	887	1.52	5.19	CB	Cu	216
	FL2088-UB	8.8	OIL	RSCR	127V/60Hz	282	243	962	1.36	4.64	-	Cu	196

Series	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	Power frequency	ASHRAE					Certification	Motor Description	Shell height (mm)
						(7.2 / 54.4 / 35 °C)							
						Cooling Capacity			COP				
						W	kcal/h	Btu/h	W/W	Btu/Wh			

### R134a HBP FIXED SPEED

220V~240V/50Hz

FH	FH0634-SB	3.4	FC	RSIR	220~240V/50Hz	320	910	1091	1.83	6.24	-	Cu	165
	FH3014-SZ	14.3	FC	CSR	220~240V/50Hz	1450	910	4945	2.50	8.53	-	Cu	211

### R134a HBP FIXED SPEED

220V~240V/50~60Hz

FH	FH0739-SD	3.9	FC	RSIR	220~240V/50Hz	380	910	1296	2.00	6.82	UL	Cu	179
					220~240V/60Hz	440	1034	1500	2.00	6.82			
	FH1045-SA	4.5	FC	RSIR	220~240V/50Hz	440	378	1500	2.10	7.17	UL	Cu	179
					220~240V/60Hz	505	434	1722	2.10	7.17			
	FH2075-SWA	7.5	FC	CSR	220~240V/50Hz	780	910	2660	2.36	8.05	-	Al	211
					220~240V/60Hz	920	1034	3137	2.36	8.05			
	FH2588-SYA	8.8	FC	CSR	220~240V/50Hz	916	850	3124	2.29	7.81	-	Al	216
					220~240V/60Hz	1034	980	3526	2.20	7.51			
	FH2588-SWA	8.8	FC	CSR	220~240V/50Hz	922	910	3144	2.40	8.19	-	Al	216
					220~240V/60Hz	1066	1034	3635	2.33	7.95			
	FH2797-SA	9.7	FC	CSR	220~240V/50Hz	1000	860	3410	2.56	8.73	-	Cu	211
					220~240V/60Hz	1120	963	3819	2.36	8.05			
	FH2711-SB	10.8	FC	CSR	220~240V/50Hz	1140	980	3887	2.44	8.33	CB	Cu	198
					220~240V/60Hz	1325	1140	4518	2.47	8.43			
	FH2913-SB	13.4	FC	CSR	220~240V/50Hz	1350	1161	4604	2.45	8.36	-	Cu	211
					220~240V/60Hz	1550	1333	5286	2.38	8.12			
FH3014-SC	14.3	FC	CSR	220~240V/50Hz	1450	910	4945	2.50	8.53	-	Cu	211	
				220~240V/60Hz	1660	1034	5661	2.42	8.26				

### R134a HBP FIXED SPEED

200V/50~60Hz

FH	FH0634-RB	3.4	FC	RSIR	200V/50Hz	328	282	1118	1.86	6.35	-	Cu	165
					200V/60Hz	370	318	1262	1.83	6.24			

Series	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	Power frequency	ASHRAE					Certification	Motor Description	Shell height (mm)
						(7.2 / 54.4 / 35°C)							
						Cooling Capacity			COP				
						W	kcal/h	Btu/h	W/W	Btu/Wh			

### R134a HBP FIXED SPEED

200V/50~60Hz

FH	FH0739-RZ	3.9	FC	RSIR	200V/50Hz	375	323	1279	1.94	6.62	-	Cu	179
					200V/60Hz	420	361	1432	1.86	6.35			
	FH1045-RA	4.5	FC	RSIR	200V/50Hz	423	364	1442	2.07	7.06	-	Cu	179
					200V/60Hz	486	418	1657	2.01	6.86			
	FH1552-RZ	5.2	FC	RSIR	200V/50Hz	517	445	1763	2.14	7.30	-	Cu	179
					200V/60Hz	590	507	2012	2.10	7.17			
	FH2075-RC	7.5	FC	RSIR	200V/50Hz	700	602	2387	1.91	6.52	-	Cu	211
					200V/60Hz	790	679	2694	1.90	6.48			
	FH2588-RB	8.8	FC	RSIR	200V/50Hz	900	774	3069	2.14	7.30	-	Cu	211
					200V/60Hz	1020	877	3478	2.08	7.10			

### R134a HBP FIXED SPEED

100V/50~60Hz

FH	FH0634-HA	3.4	FC	RSIR	100V/50Hz	320	275	1091	1.80	6.14	-	Cu	165
					100V/60Hz	372	320	1269	1.78	6.07			
	FH0739-HA	3.9	FC	RSIR	100V/50Hz	390	335	1330	2.11	7.20	-	Cu	179
					100V/60Hz	440	378	1500	2.00	6.82			
	FH1045-HA	4.5	FC	RSIR	100V/50Hz	445	383	1517	2.23	7.61	-	Cu	179
					100V/60Hz	510	439	1739	2.13	7.27			
	FH1552-HB	5.2	FC	CSIR	100V/50Hz	555	477	1893	2.30	7.85	-	Cu	179
					100V/60Hz	640	550	2182	2.30	7.85			
	FH2075-HB	7.47	FC	CSIR	100V/50Hz	725	624	2472	2.05	6.99	-	Cu	211
					100V/60Hz	815	701	2779	1.95	6.65			
	FH2075-HC	7.47	FC	CSIR	100V/50Hz	688	592	2346	1.94	6.62	UL	Cu	211
					100V/60Hz	771	663	2629	1.85	6.31			
	FH2588-HB	8.83	FC	CSR	100V/50Hz	916	788	3124	2.41	8.22	-	Cu	211
					100V/60Hz	1034	889	3526	2.20	7.51			

Series	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	Power frequency	ASHRAE					Certification	Motor Description	Shell height (mm)
						(7.2 / 54.4 / 35°C)							
						Cooling Capacity			COP				
						W	kcal/h	Btu/h	W/W	Btu/Wh			

### R134a HBP FIXED SPEED

100~110V/50~60Hz

FH	FH2797-PA	9.7	FC	CSR	100~110V/50Hz	1000	860	3410	2.50	8.53	-	Cu	211
					100~110V/60Hz	1120	963	3819	2.33	7.95			
	FH2913-PA	13.4	FC	CSR	100~110V/50Hz	1350	1161	4604	2.33	7.95	-	Cu	211
					100~110V/60Hz	1550	1333	5286	2.28	7.78			

### R134a HBP FIXED SPEED

100~110V/60Hz

FH	FH0634-PA	3.4	FC	RSIR	100~120V/60Hz	372	320	1269	1.78	6.07	-	Cu	165
	FH0739-PA	3.9	FC	RSIR	100~120V/60Hz	440	378	1500	2.00	6.82	-	Cu	165
	FH1045-PA	4.5	FC	RSIR	100~120V/60Hz	510	439	1739	2.13	7.27	-	Cu	179
	FH2075-PA	7.5	FC	CSIR	100~120V/60Hz	820	705	2796	1.95	6.65	-	Cu	211
	FH2075-PB	7.5	FC	RSIR	100~120V/60Hz	815	701	2779	1.95	6.65	-	Cu	211
	FH2588-PA	8.8	FC	CSIR	115V/60Hz	1034	889	3526	2.20	7.51	-	Cu	211

Series	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	Power frequency	ASHRAE					Certification	Motor Description	Shell height (mm)
						(-23.3 / 54.4 / 32.2°C)							
						Cooling Capacity			COP				
						W	kcal/h	Btu/h	W/W	Btu/Wh			

### R290 LBP FIXED SPEED

220V~230V/50Hz

AL	AL6512-SZA	11.8	FC	CSR	220V/50Hz	550	473	1876	1.45	4.95	-	Al	216
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### R290 LBP FIXED SPEED

220V~240V/50Hz

AL	AL1228-SA	2.8	ST	CSR	220V/50Hz	121	104	413	1.33	4.54	-	Cu	196
	AL1739-SB	3.9	ST	CSR	220V/50Hz	182	157	621	1.45	4.95	CB	Cu	196

Series	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	Power frequency	ASHRAE					Certification	Motor Description	Shell height (mm)
						(-23.3 / 54.4 / 32.2 °C)							
						Cooling Capacity			COP				
						W	kcal/h	Btu/h	W/W	Btu/Wh			

### R290 LBP FIXED SPEED

220V~240V/50Hz

H	PA50H1E	5.0	ST	RSCR	220V/50Hz	240	206	818	1.55	5.29	-	Al	178
	PA50H1B	5.0	ST	RSCR	220V/50Hz	240	206	818	1.70	5.80	-	Cu	178
	PA59H1B	5.9	FC	RSCR	220V/50Hz	290	249	989	1.70	5.80	-	Cu	178

### R290 LBP FIXED SPEED

220V~240V/60Hz

AL	AL1228-RA	2.8	ST	CSR	220V/60Hz	147	126	501	1.36	4.64	-	Cu	196
	AL1739-RA	3.9	ST	CSR	220V/60Hz	211	181	720	1.41	4.81	-	Cu	196

### R290 LBP FIXED SPEED

220V~240V/50~60Hz

AL	AL2252-SZA	5.2	ST	CSR	220~240V/50Hz	250	215	853	1.52	5.19	-	Al	186
					220~240V/60Hz	287	247	979	1.52	5.19			
	AL3068-SZA	6.8	ST	CSR	220~240V/50Hz	320	275	1091	1.46	4.98	-	Al	200
					220~240V/60Hz	375	323	1279	1.50	5.12			
AL4088-SZA	8.83	ST	CSR	220~240V/50Hz	400	344	1364	1.45	4.95	-	Al	216	
				220~240V/60Hz	480	413	1637	1.48	5.05				

Series	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	Application	Cooling Capacity														Certification	Motor Description	Shell height (mm)
						Rating point		Ashrae														
						-23.3°C/54.4°C		(W) cooling capacity														
						W	COP	(°C) Evaporating temperature														
						W	W/W	-40°C	-35°C	-30°C	-25°C	-20°C	-15°C	-10°C	-5°C	0°C	5°C	10°C				

### R290 L/MBP Light Commercial

220V~240V/50Hz

H	PA65H1C	6.5	FC	RSCR	LBP	324	1.62	135	180	233	300	372	463	-	-	-	-	-	-	CCC	Al	178
	PA65H1B	6.5	FC	RSCR	LBP	324	1.70	135	180	233	300	372	463	-	-	-	-	-	-	-	Cu	178
	PA70H1E	7.0	FC	RSCR	LBP	340	1.55	142	189	245	315	391	486	-	-	-	-	-	-	-	Al	178
	SA75H1J	7.5	FC	RSCR	LBP	370	1.30	154	206	266	343	425	529	-	-	-	-	-	-	-	Al	178
	PA80H1C	8.0	FC	RSCR	LBP	395	1.53	165	219	284	366	454	564	-	-	-	-	-	-	CCC / CB	Al	178
	PA90H1E	9.0	FC	RSCR	LBP	455	1.50	185	247	320	421	523	650	-	-	-	-	-	-	-	Cu	178
	PA45HHA	4.5	FC	CSIR	L/MBP	205	1.50	85	114	147	190	236	293	360	446	539	-	-	-	-	Al	178
	PA50HHA	5.0	FC	CSIR	L/MBP	245	1.50	102	136	176	227	282	350	430	533	645	-	-	-	-	Cu	178
	PA59HHA	5.9	FC	CSIR	L/MBP	295	1.50	110	148	185	255	320	405	480	630	720	-	-	-	CCC / TUV	Al	178
	PA65HHA	6.5	FC	CSIR	L/MBP	323	1.50	126	163	229	293	370	458	546	693	786	-	-	-	-	Al	178
	PA80HHA	8.0	FC	CSIR	MBP	395	1.50	-	-	-	-	449	544	655	802	901	-	-	-	TUV	Cu	178
	PA90HHA	9.0	FC	CSIR	MBP	445	1.50	-	-	-	-	490	614	719	906	1018	-	-	-	TUV	Cu	178
PA99HHA	9.9	FC	CSIR	MBP	475	1.50	-	-	-	-	535	618	753	892	1085	-	-	-	TUV	Cu	178	

### R290 L/MBP Light Commercial

220V~240V / 50/60Hz

H	PA65H1E-4	6.5	FC	RSCR	LBP	324	1.55	135	180	233	300	372	-	-	-	-	-	-	-	-	Cu	178
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### R290 L/MBP Light Commercial

115V / 60Hz

H	EA59H1D	5.9	FC	RSCR	LBP	330	1.60	138	183	237	306	379	471	579	717	868	-	-	-	Al	178	
	EA59H1A	5.9	FC	RSCR	LBP	330	1.75	138	183	237	306	379	471	579	717	868	-	-	-	-	Cu	178
	EA65H1E	6.5	FC	RSCR	LBP	370	1.55	154	206	266	343	425	529	649	804	974	-	-	-	-	Al	178
	EA65H1B	6.5	FC	RSCR	LBP	370	1.70	154	206	266	343	425	529	649	804	974	-	-	-	-	Cu	178
	EA70H1D	7.0	FC	RSCR	LBP	400	1.60	167	222	288	370	460	571	702	870	1053	-	-	-	-	Cu	178
	EA45HHA	4.5	FC	RSCR	L/MBP	260	1.50	65	95	150	215	275	360	435	575	650	-	-	-	-	Al	178
	EA50HHA	5.0	FC	CSIR	L/MBP	300	1.50	98	128	185	250	315	400	482	628	720	-	-	-	-	Al	178
	EA59HHA	5.9	FC	CSIR	L/MBP	345	1.50	150	188	255	320	380	470	558	730	820	-	-	-	-	Cu	178
	EA65HHA	6.5	FC	CSIR	L/MBP	375	1.50	175	215	280	345	425	515	605	755	850	-	-	-	-	Cu	178

Series	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	Power frequency	ASHRAE					Certification	Motor Description	Shell height (mm)
						(-23.3 / 54.4 / 32.2°C)							
						Cooling Capacity			COP				
						W	kcal/h	Btu/h	W/W	Btu/Wh			

### R404A LBP FIXED SPEED

220V~230V/50Hz

RL	RL7012-SZA	11.8	FC	CSR	220V/50Hz	620	533	2,114	1.33	4.54	-	Al	216
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### R404A LBP FIXED SPEED

220V~240V/50Hz

RL	RL2557-SA	5.7	FC	CSR	220~240V/50Hz	300	258	1,023	1.33	4.54	-	Cu	211
	RL3568-SA	6.8	OIL	CSR	220~240V/50Hz	380	327	1,296	1.27	4.33	-	Cu	211
	RL4075-SB	7.5	OIL	CSR	220~240V/50Hz	430	370	1,466	1.35	4.61	CCC/CB	Cu	211
	RL4588-SC	8.8	OIL	CSR	220~240V/50Hz	490	421	1,671	1.27	4.33	CCC	Cu	211
	RL4588-SZ	8.8	FC	CSR	220~240V/50Hz	490	421	1,671	1.21	4.13	-	Cu	211

### R404A LBP FIXED SPEED

220V~240V/60Hz

RL	RL2557-RA	5.7	FC	CSR	220~240V/60Hz	360	310	1,228	1.32	4.50	-	Cu	211
	RL3568-RZ	6.8	FC	CSR	220~240V/60Hz	450	387	1,535	1.32	4.50	-	Cu	211
	RL7012-RA	11.8	FC	CSR	220~240V/60Hz	700	602	2,387	1.36	4.64	-	Cu	216

### R404A LBP FIXED SPEED

110V~120V/60Hz

RL	RL2557-PB	5.7	FC	CSR	110~120V/60Hz	365	314	1,245	1.32	4.50	-	Cu	211
	RL4588-PAS	6.8	OIL	CSR	110~120V/60Hz	570	490	1,944	1.29	4.40	CCC	Cu	211

### R404A LBP FIXED SPEED

3Phase 200V/50~60Hz

RL	RL3062-TB	6.2	FC	IR	3φ'200V/50Hz	340	292	1,159	1.33	4.54	-	Cu	211
					3φ'200V/60Hz	400	344	1,364	1.31	4.47			

Series	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	Power frequency	ASHRAE					Certification	Motor Description	Shell height (mm)
						(-23.3 / 54.4 / 32.2°C)							
						Cooling Capacity			COP				
						W	kcal/h	Btu/h	W/W	Btu/Wh			

### R404A LBP FIXED SPEED

3Phase 200V/50~60Hz

RL	RL3568-TA	6.8	FC	IR	3φ'200V/50Hz	370	318	1,262	1.32	4.50	-	Cu	211
					3φ'200V/60Hz	430	370	1,466	1.26	4.30			
	RL4075-TB	7.5	FC	IR	3φ'200V/50Hz	410	353	1,398	1.37	4.67	-	Cu	211
					3φ'200V/60Hz	470	404	1,603	1.34	4.57			
	RL4588-TA	8.8	OIL	IR	3φ'200V/50Hz	470	404	1,603	1.30	4.44	-	Cu	211
					3φ'200V/60Hz	530	456	1,807	1.23	4.20			
	RL4588-TC	8.8	FC	IR	3φ'200V/50Hz	470	404	1,603	1.30	4.44	-	Cu	211
					3φ'200V/60Hz	530	456	1,807	1.23	4.20			

### R404A LBP FIXED SPEED

100V/50~60Hz

RL	RL2557-HB	5.7	Fan	CSR	100V/50Hz	310	267	1,057	1.34	4.57	-	Cu	211
					100V/60Hz	365	314	1,245	1.36	4.64			
	RL3062-HAS	6.2	OIL	CSR	100V/50Hz	350	301	1,194	1.25	4.27	CCC	Cu	211
					100V/60Hz	420	361	1,432	1.31	4.47			
	RL3568-HB	6.8	Fan	CSR	100V/50Hz	380	327	1,296	1.26	4.30	-	Cu	211
					100V/60Hz	450	387	1,535	1.32	4.50			
	RL4075-HAS	7.5	OIL	CSR	100V/50Hz	430	370	1,466	1.30	4.44	CCC	Cu	211
					100V/60Hz	490	421	1,671	1.32	4.50			
	RL4075-HB	7.5	Fan	CSR	100V/50Hz	430	370	1,466	1.30	4.44	CB	Cu	211
					100V/60Hz	490	421	1,671	1.32	4.50			
	RL4588-HS	8.8	OIL	CSR	100V/50Hz	490	421	1,671	1.25	4.27	CCC	Cu	211
					100V/60Hz	570	490	1,944	1.29	4.40			
	RL4588-HC	8.8	Fan	CSR	100V/50Hz	490	421	1,671	1.25	4.27	-	Cu	211
					100V/60Hz	570	490	1,944	1.29	4.40			

Series	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	Power frequency	ASHRAE					Certification	Motor Description	Shell height (mm)
						(-23.3 / 54.4 / 32.2°C)							
						Cooling Capacity			COP				
						W	kcal/h	Btu/h	W/W	Btu/Wh			

### R1234yf LBP FIXED SPEED

220V~240V/50Hz

BL	BL2088-SA	8.8	FC	CSR	220~240V/50Hz	275	237	938	1.44	4.91	CB	Cu	211
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### R1234yf LBP FIXED SPEED

220V~240V/60Hz

BL	BL2088-RA	8.8	FC	CSR	220~240V/60Hz	321	276	1,095	1.40	4.78	-	Cu	211
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### R1234yf LBP FIXED SPEED

100V/50~60Hz

BL	BL1568-HA	6.8	ST	RSIR	100V/50Hz	177	152	604	1.13	3.86	-	Cu	196
					100V/60Hz	206	177	702	1.18	4.03			
	BL2088-HA	8.8	FC	CSR	100V/50Hz	270	232	921	1.42	4.85	-	Cu	211
					100V/60Hz	320	275	1,091	1.42	4.85			

Series	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	Power frequency	ASHRAE					Certification	Motor Description	Shell height (mm)
						(7.2 / 54.4 / 35°C)							
						Cooling Capacity			COP				
						W	kcal/h	Btu/h	W/W	Btu/Wh			

### R1234yf HBP FIXED SPEED

100V/50~60Hz

BH	BH1552-HA	5.2	ST	RSIR	100V/50Hz	528	454	1,800	2.15	7.34	UL	Cu	179
					100V/60Hz	612	526	2,087	2.15	7.34			
	BH2075-HA	7.5	FC	CSR	100V/50Hz	677	582	2,309	1.82	6.21	UL	Cu	211
					100V/60Hz	755	649	2,575	1.72	5.87			

Series	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	Power frequency	ASHRAE					Certification	Motor Description	Shell height (mm)
						(-23.3 / 54.4 / 32.2°C)							
						Cooling Capacity			COP				
						W	kcal/h	Btu/h	W/W	Btu/Wh			

### R513A LBP FIXED SPEED

220V~240V/50Hz

HL	HL1568-SA	6.8	ST	CSIR	220~240V/50Hz	216	186	737	1.34	4.57	CCC/CB	Cu	200
	HL2088-SA	8.8	OIL	CSR	220~240V/50Hz	270	232	921	1.38	4.71	CCC/CB	Cu	211
	HL2711-SA	10.8	FC	CSR	220~240V/50Hz	323	278	1,101	1.36	4.64	CCC/CB	Cu	211

### R513A LBP FIXED SPEED

220V~240V/60Hz

HL	HL1568-RA	6.8	ST	CSIR	220~240V/60Hz	253	218	863	1.28	4.37	-	Cu	200
	HL2088-RA	8.8	OIL	CSR	220~240V/60Hz	316	272	1,078	1.29	4.40	-	Cu	211
	HL2711-RA	10.8	FC	CSR	220~240V/60Hz	370	318	1,262	1.33	4.54	-	Cu	211

### R513A LBP FIXED SPEED

100V/50~60Hz

HL	HL1568-HA	6.8	Fan	CSR	100V/50Hz	213	183	726	1.41	4.81	-	Cu	216
					100V/60Hz	249	214	849	1.42	4.85			
	HL2088-HA	8.8	OIL	CSR	100V/50Hz	280	241	955	1.41	4.81	-	Cu	211
					100V/60Hz	324	279	1,105	1.42	4.85			
	HL2711-HA	10.8	Fan	CSR	100V/50Hz	327	281	1,115	1.32	4.50	-	Cu	216
					100V/60Hz	371	319	1,265	1.28	4.37			

### R513A LBP FIXED SPEED

110V/60Hz

HL	HL0528-PA	2.8	ST	RSIR	110V/60Hz	90	77	307	0.97	3.31	-	Cu	165
	HL1568-PA	6.8	ST	CSIR	110V/60Hz	251	216	856	1.31	4.47	-	Cu	200
	HL2088-PA	8.8	OIL	CSR	110V/60Hz	305	262	1,040	1.39	4.74	-	Cu	211
	HL2711-PA	10.8	FC	CSR	110V/60Hz	374	322	1,275	1.28	4.37	-	Cu	216

Series	Model	Displac (cm <sup>3</sup> )	Cooling Type	Motor Type	Power frequency	ASHRAE					Certification	Motor Description	Shell height (mm)
						(-23.3 / 54.4 / 32.2°C)							
						Cooling Capacity			COP				
						W	kcal/h	Btu/h	W/W	Btu/Wh			

### R448A/R449A LBP FIXED SPEED

220V~240V/50Hz

GL	Model	Displac	Cooling Type	Motor Type	Power frequency	W	kcal/h	Btu/h	W/W	COP	Certification	Motor Description	Shell height
	GL2557-SA	5.7	FC	CSR	220~240V/50Hz	248	213	846	1.28	4.37	CCC	Cu	211
	GL4588-SA	8.8	FC	CSR	220~240V/50Hz	375	323	1,279	1.20	4.09	-	Cu	211

### R448A/R449A LBP FIXED SPEED

100V/50~60Hz

GL	Model	Displac	Cooling Type	Motor Type	Power frequency					Certification	Motor Description	Shell height
					100V/50Hz							
	100V/60Hz											
	W	kcal/h	Btu/h	W/W	COP							
	GL2557-HA	5.7	FC	CSR	249	214	849	1.25	4.27	-	Cu	211
	GL4588-HA	8.8	FC	CSR	294	253	1,003	1.29	4.40			
	GL2557-HA	5.7	FC	CSR	387	333	1,320	1.16	3.96	-	Cu	211
	GL4588-HA	8.8	FC	CSR	459	395	1,565	1.27	4.33			

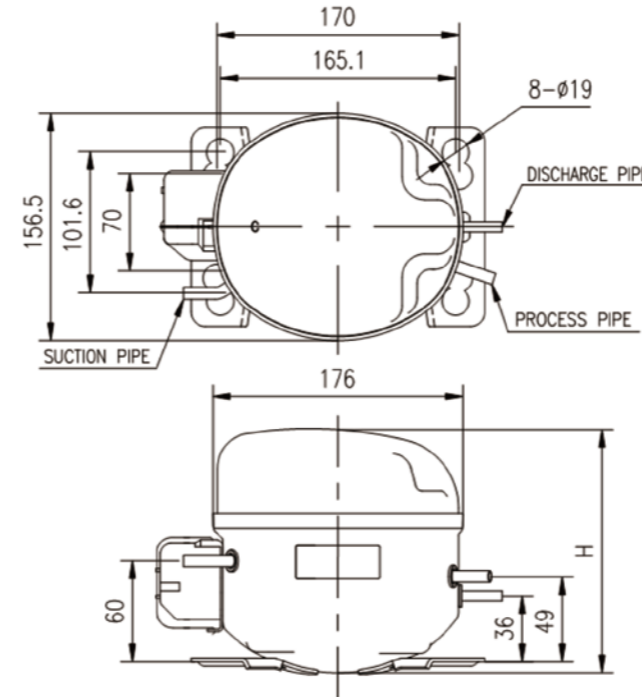
### R448A/R449A LBP FIXED SPEED

110V/60Hz

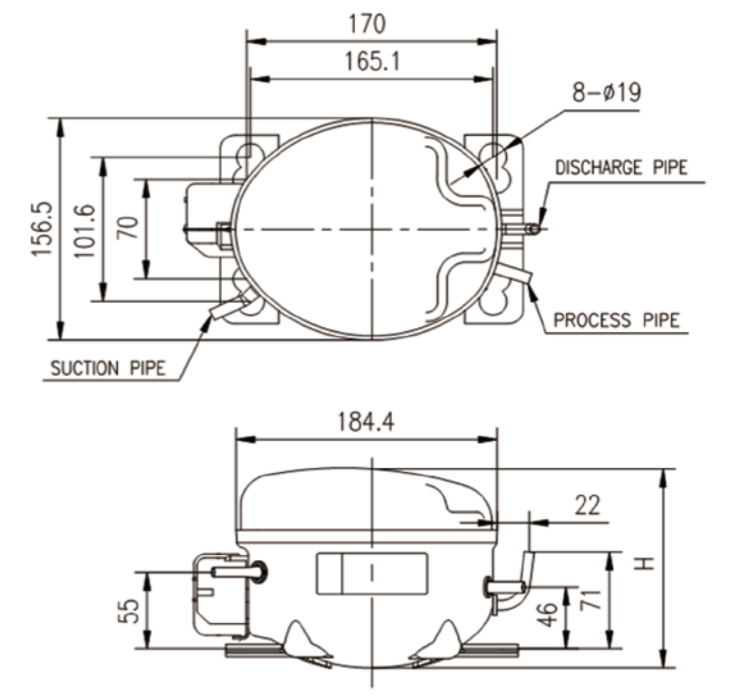
GL	Model	Displac	Cooling Type	Motor Type	Power frequency	W	kcal/h	Btu/h	W/W	COP	Certification	Motor Description	Shell height
	GL4588-PA	8.8	FC	CSR	110V/60Hz	450	387	1,535	1.20	4.09	-	Cu	211

## Outline drawing of compressor GAT structure (A)

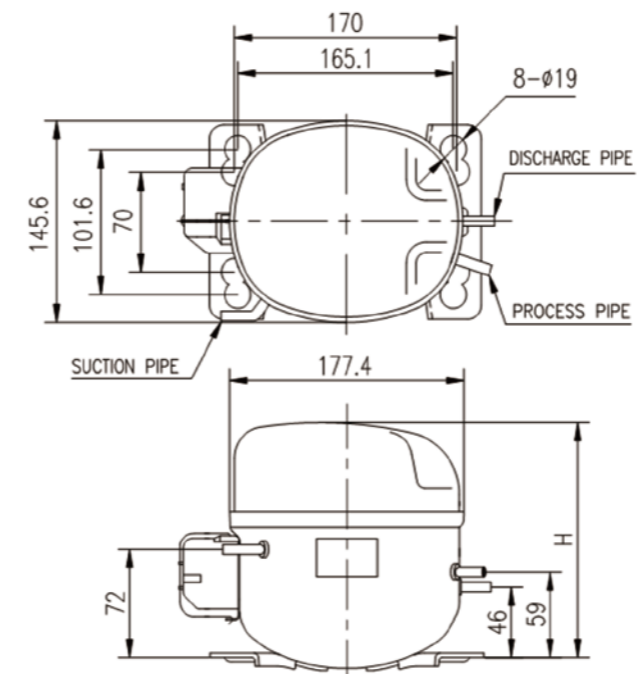
### Series CL



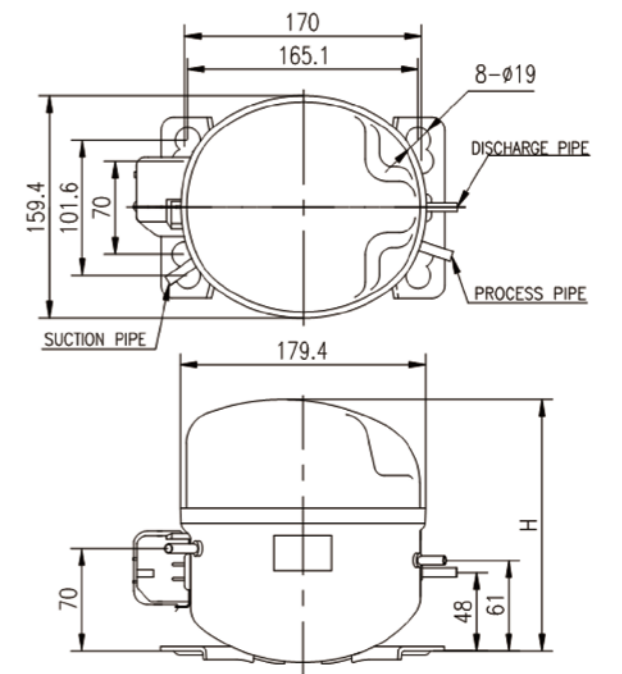
### Series WL, AL, TL



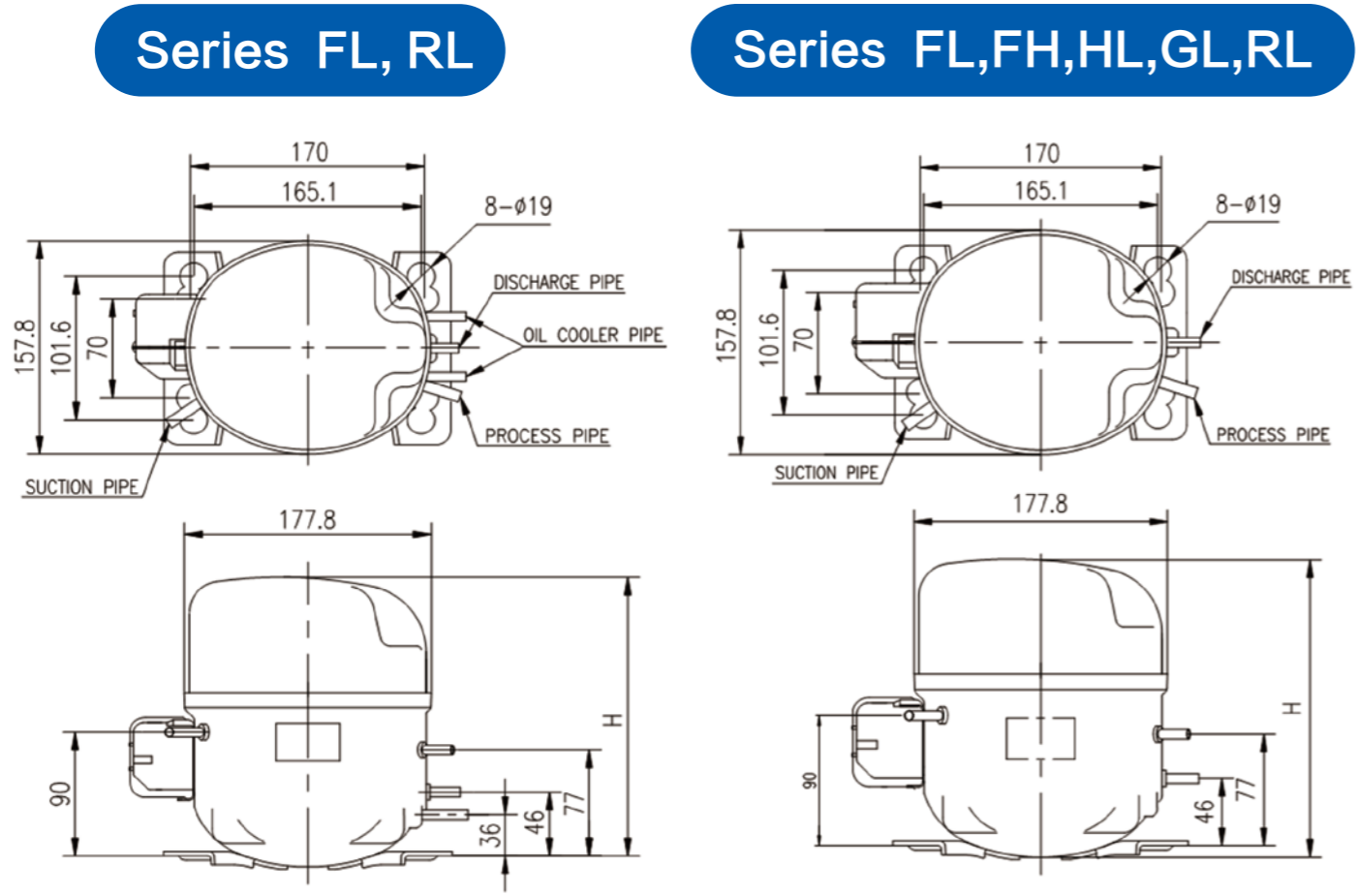
### Series FL



### Series AL, BL, BH



## Outline drawing of compressor GAT structure ( B )

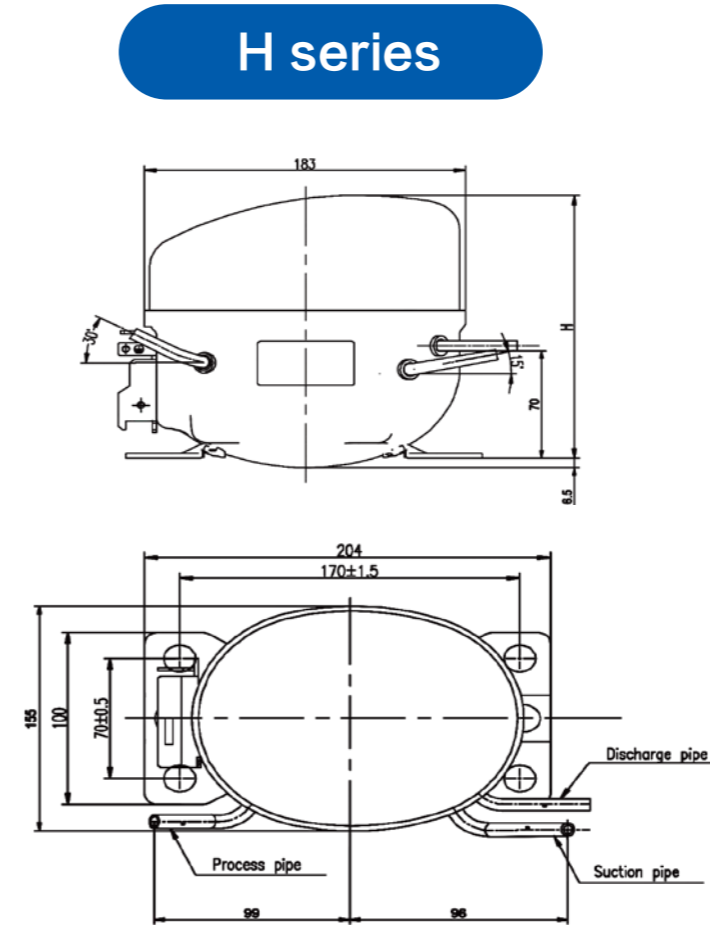


REMARK

DIMENSION	SUCTION TUBE	PROCESS TUBE	DISCHARGE TUBE	OIL-COOLER TUBE
ALL MODEL	$\phi$ 8(OD) $\times$ 6.5(ID)	$\phi$ 8(OD) $\times$ 6.5(ID)	$\phi$ 6.95(OD) $\times$ 4.95(ID)	$\phi$ 6.95(OD) $\times$ 4.95(ID)

UNIT: mm

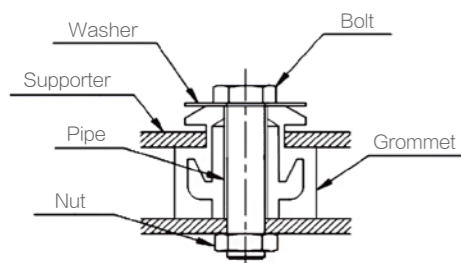
## Outline drawing of compressor GMCC structure



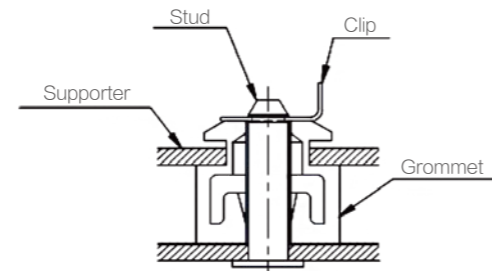
Series	Height(mm)
H	187/178/170/164

## Mounting of compressor

TYPE 1

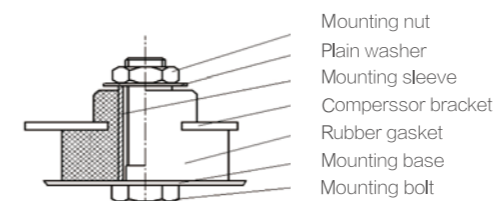


TYPE 2

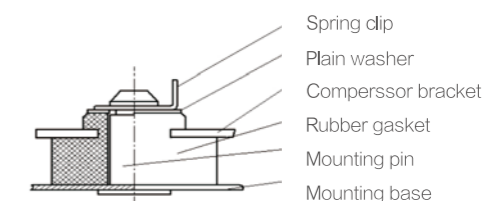


## Mounting of compressor

TYPE 3



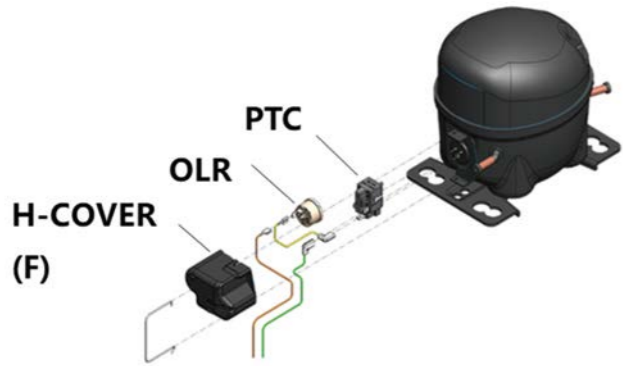
TYPE 4



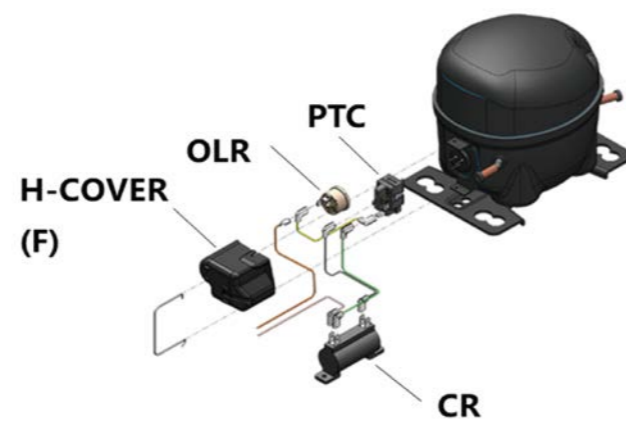
## Instillation of accessories current GAT structure (A)

Assembly H-COVER (Type F)  
OLR STANDARD Motor Type: RSIR/RSCR/CSIR/CSR

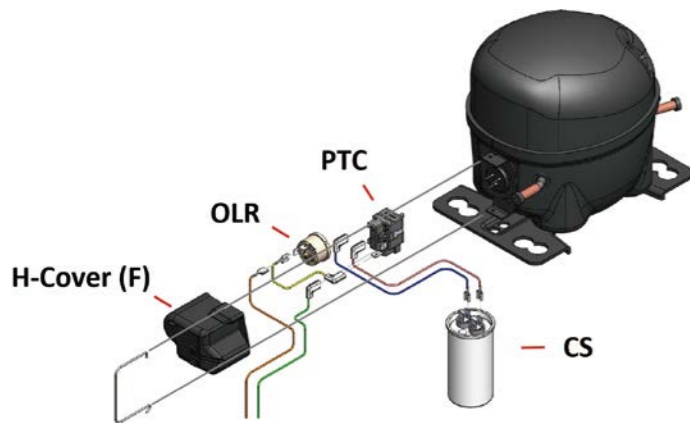
RSIR



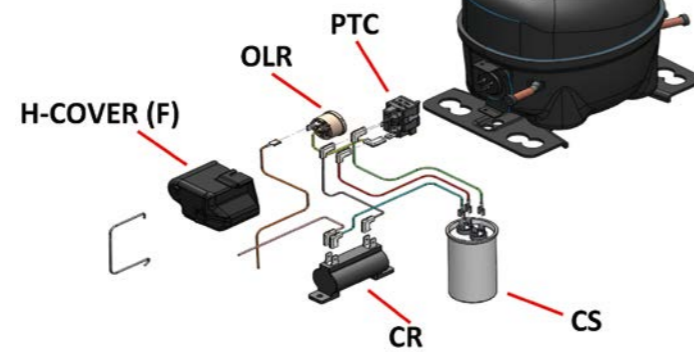
RSCR



CSIR

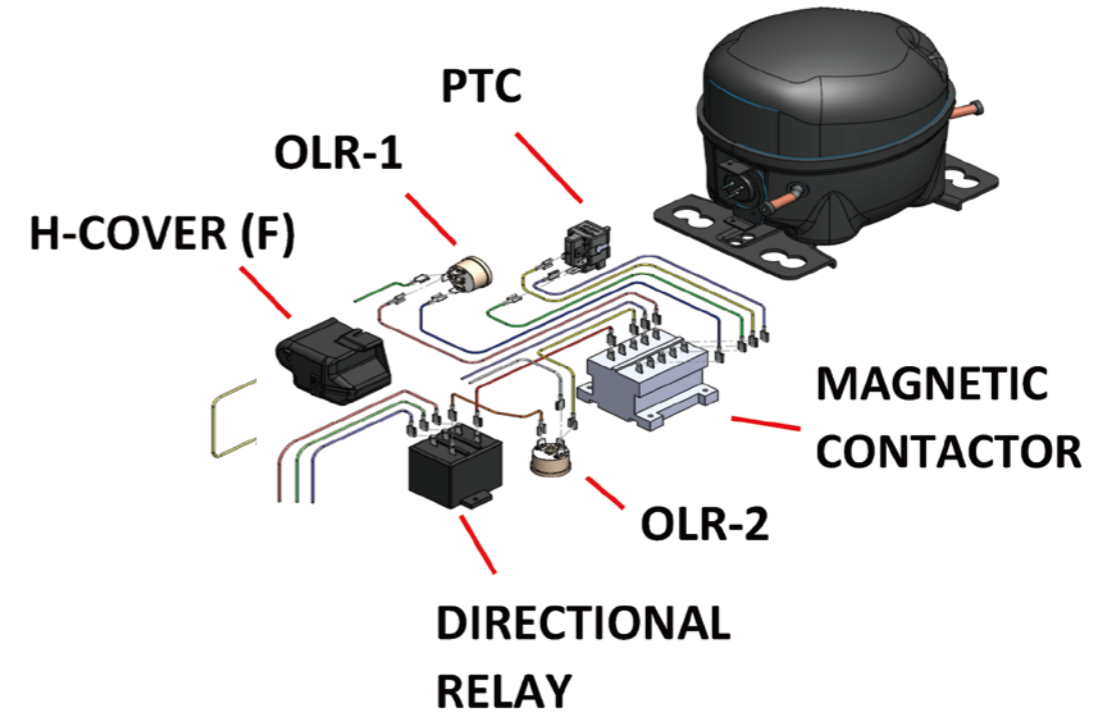


CSR

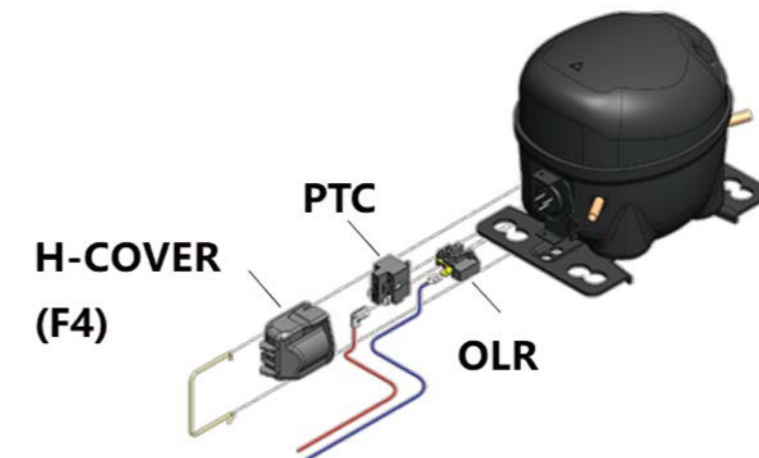


## Instillation of accessories current GAT structure (B)

Assembly H-COVER (Type F)  
OLR STANDARD Motor Type: IR 3 PHASE



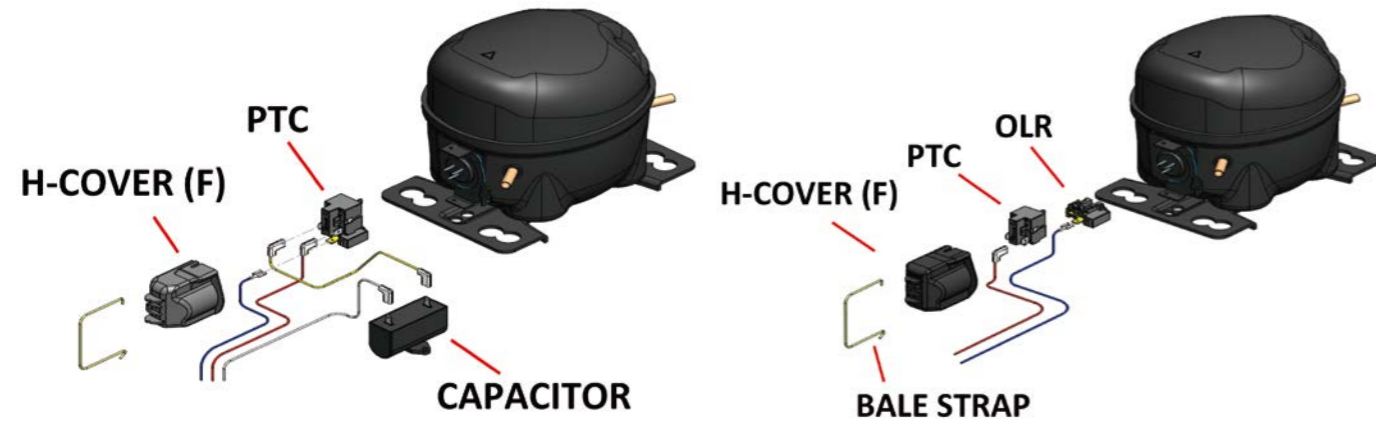
Assembly H-COVER (Type F4)  
OLR PLUG-IN Motor Type: RSIR



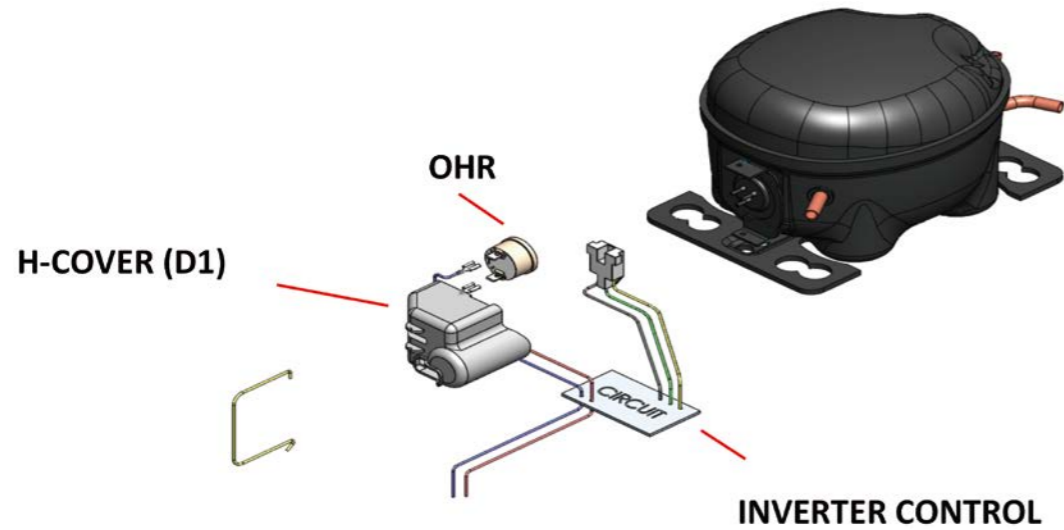


## Instillation of accessories current GAT structure (C)

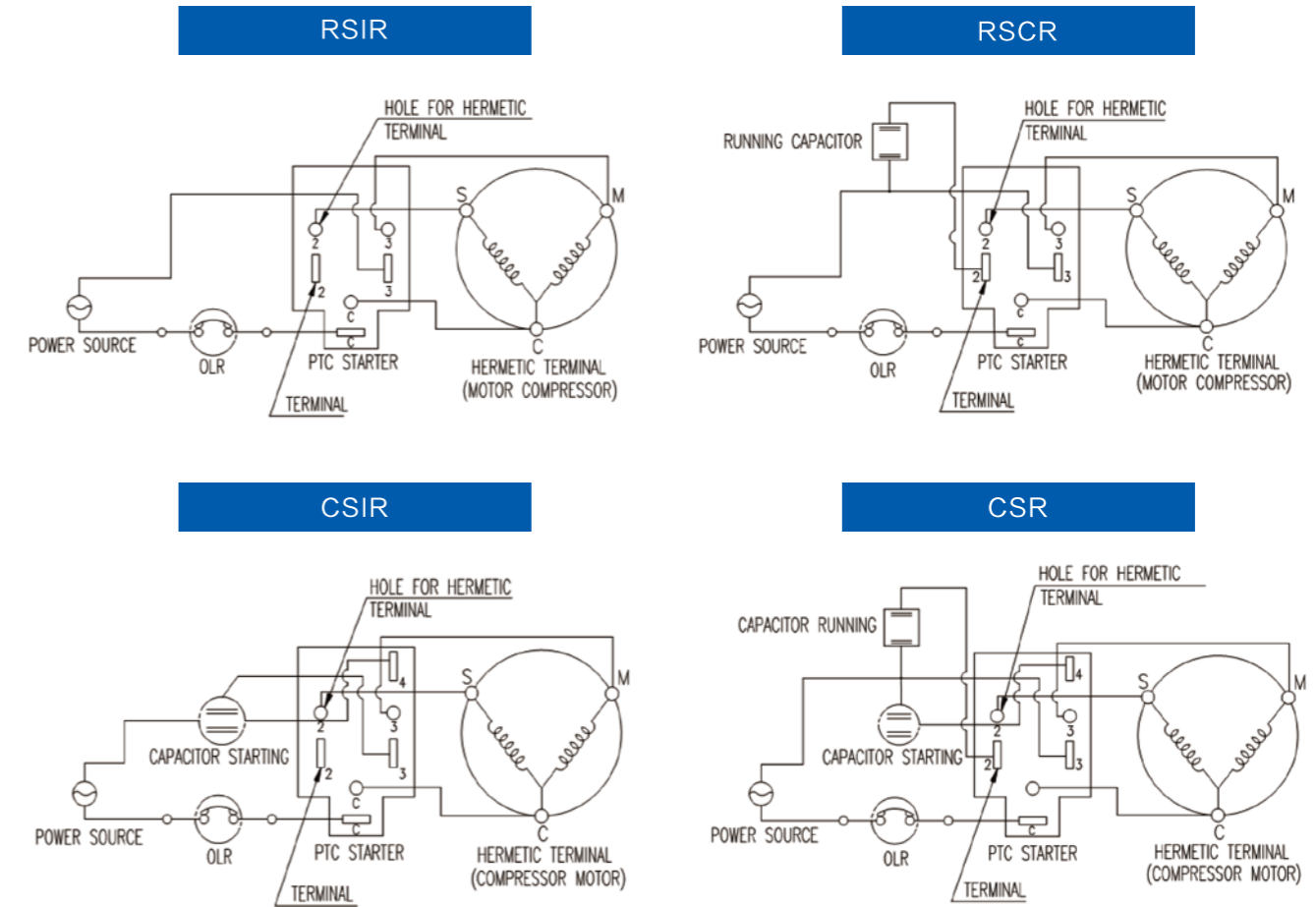
Assembly H-COVER (Type F7)  
OLR PLUG-IN Motor Type: RSIR/RSCR



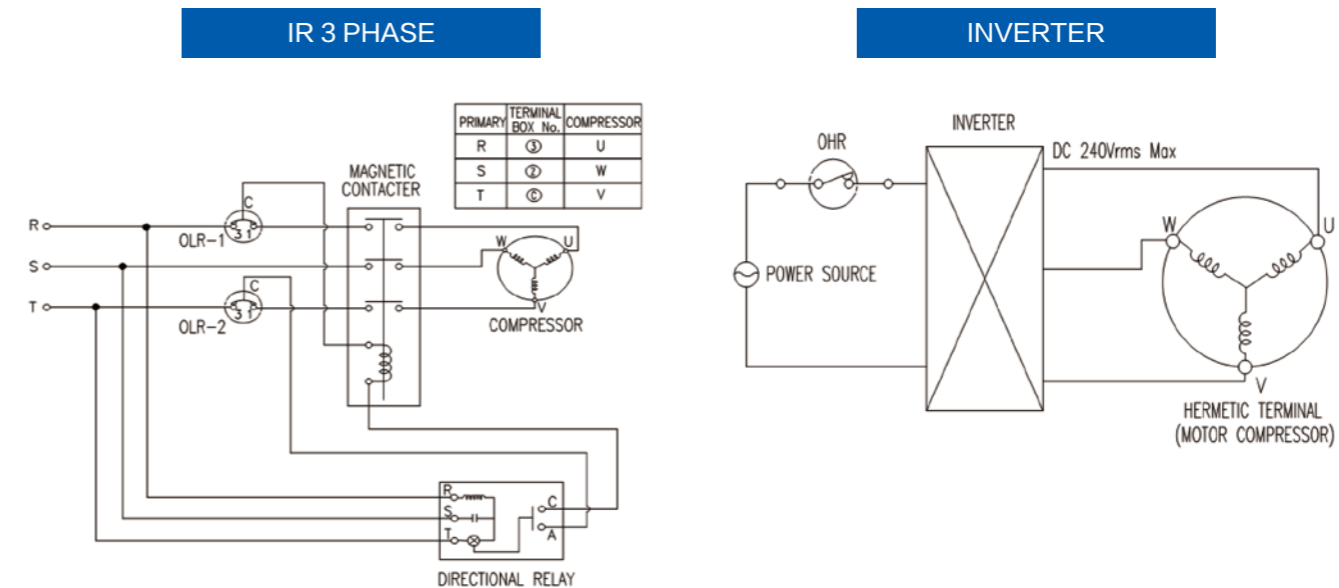
Assembly H-COVER (Type D1)  
OHR STANDARD Motor Type: BLDC (INVERTER)



## Electric wiring diagram current GAT structure (A)

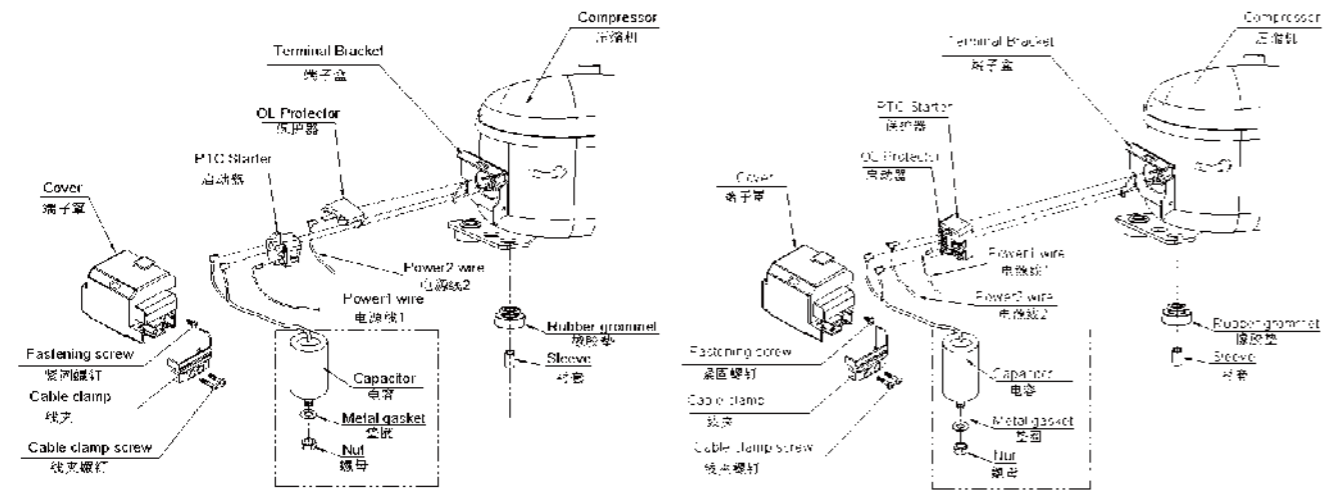


## Electric wiring diagram current GAT structure (B)



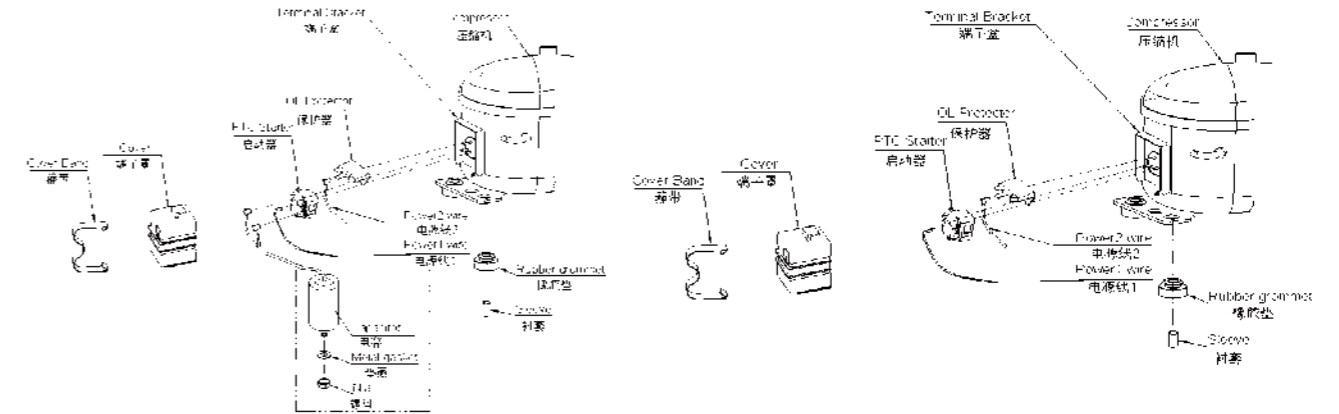
## Instillation of accessories GMCC structure (A)

Assembly Cable clamp type terminal box Motor type : RSCR

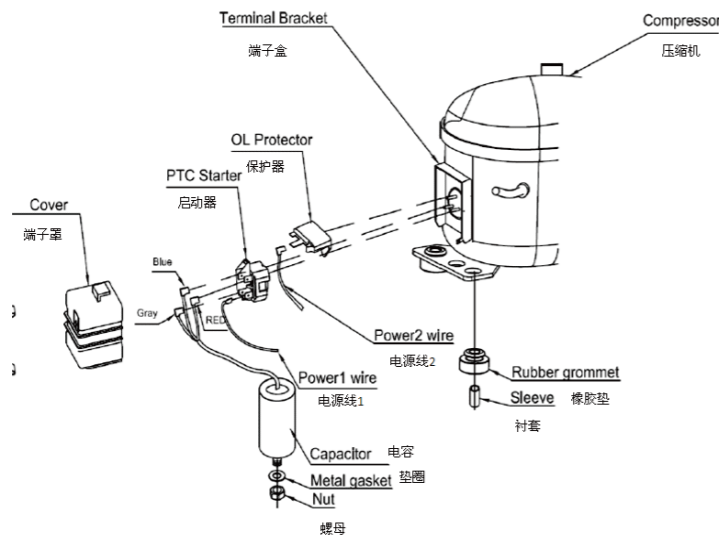


## Instillation of accessories GMCC structure (B)

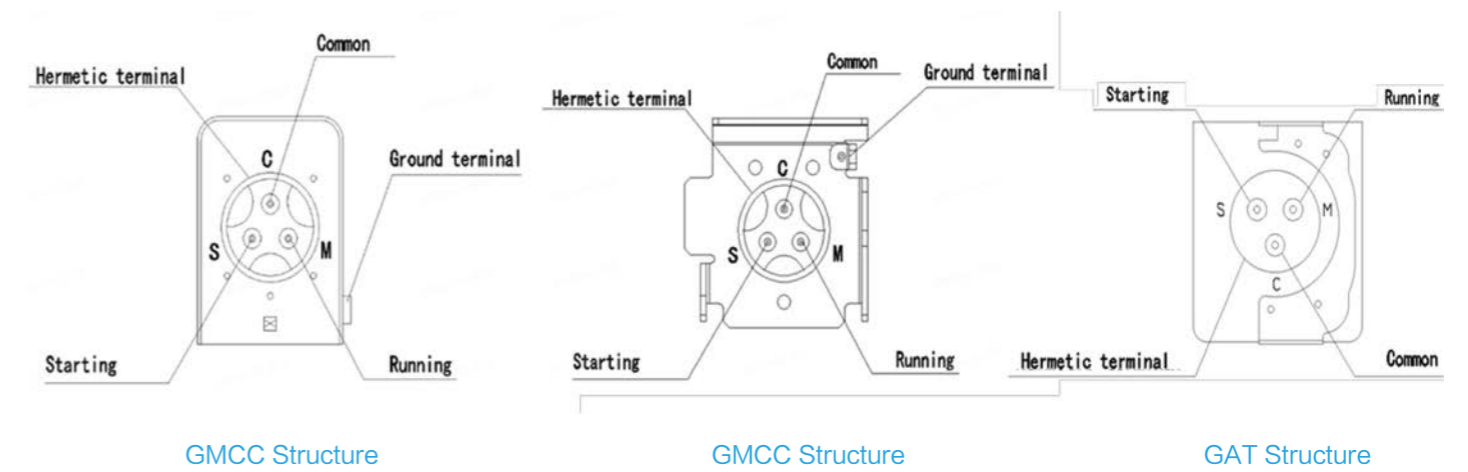
Assembly Cover band type terminal box Motor type : RSCR/RSIR



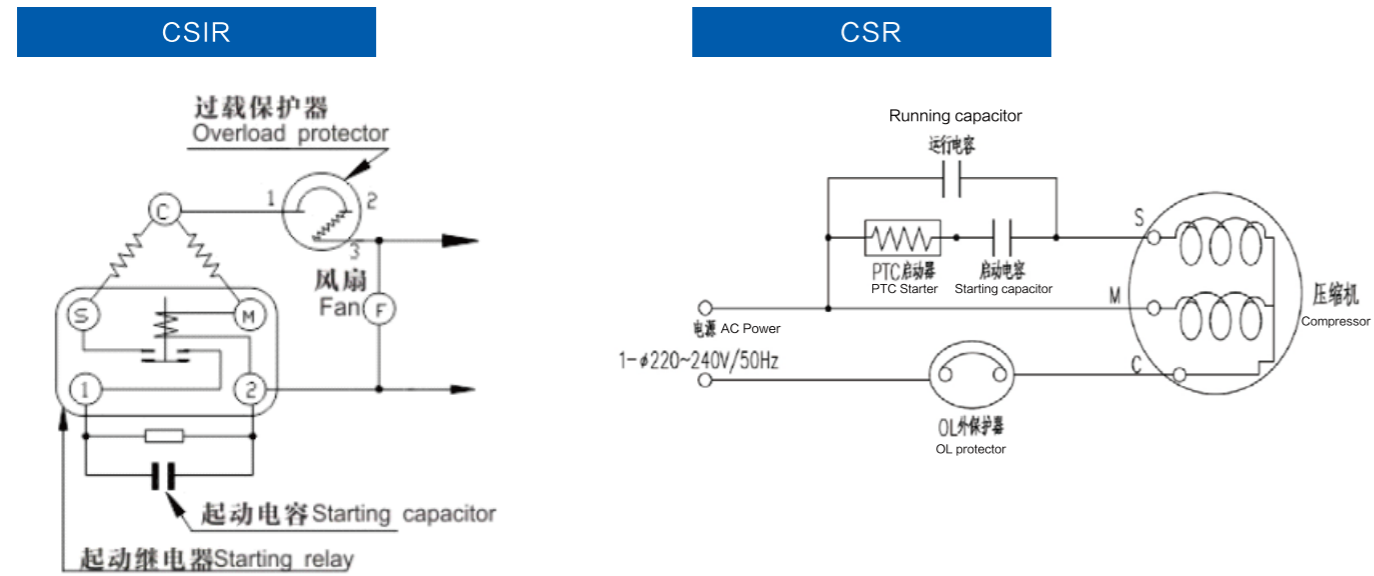
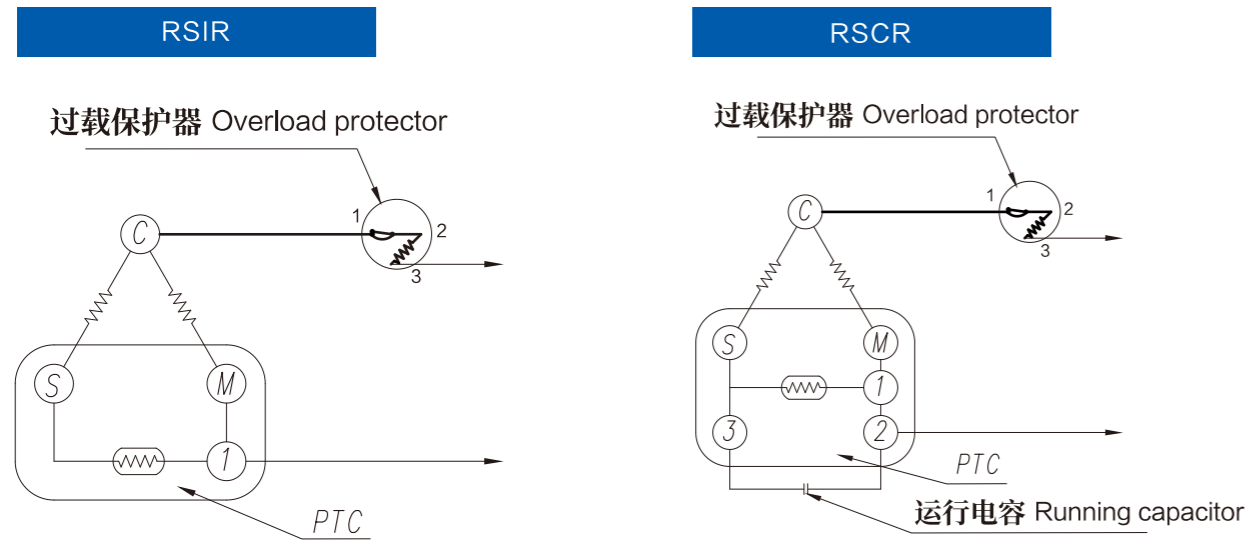
Assembly cover band type terminal box Motor type : CSR



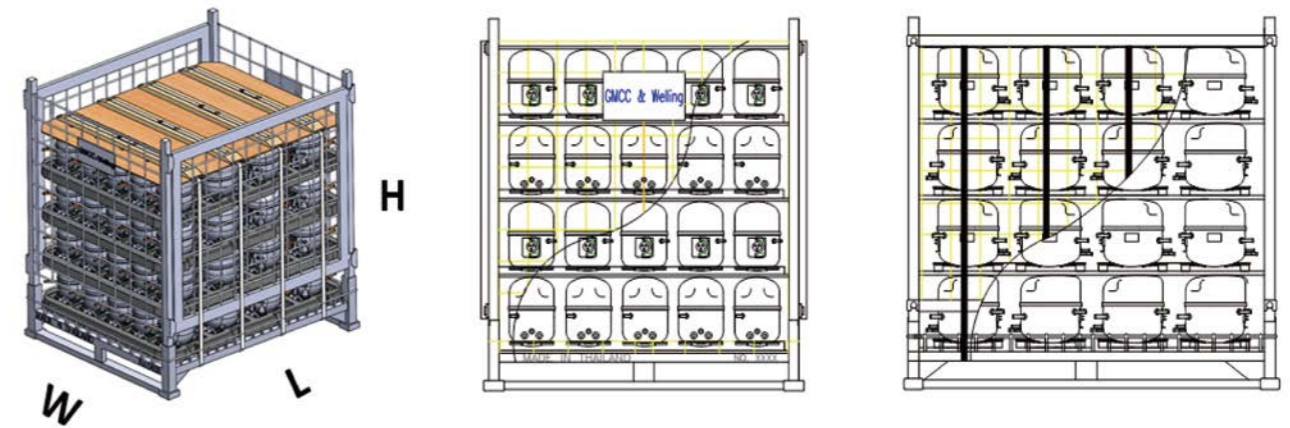
Terminal wiring instruction



## Electric wiring diagram GMCC structure

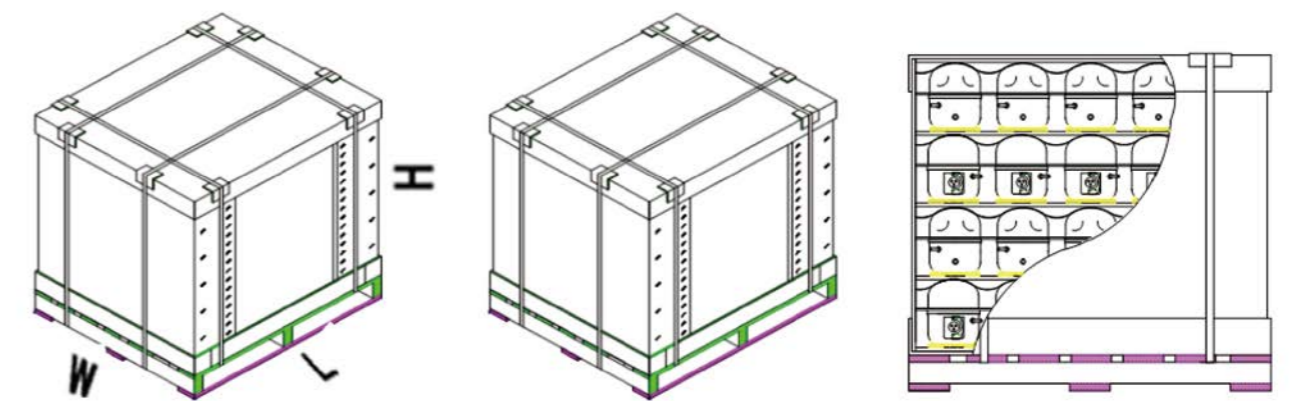


## Compressor packing current GAT structure



Comp Height (mm)	External Dimensions			No.of Layers	Quantity (Unit)
	L (mm)	W (mm)	H (mm)		
142~182	1145	970	1140	5	100
183~216	1145	970	1140	4	80

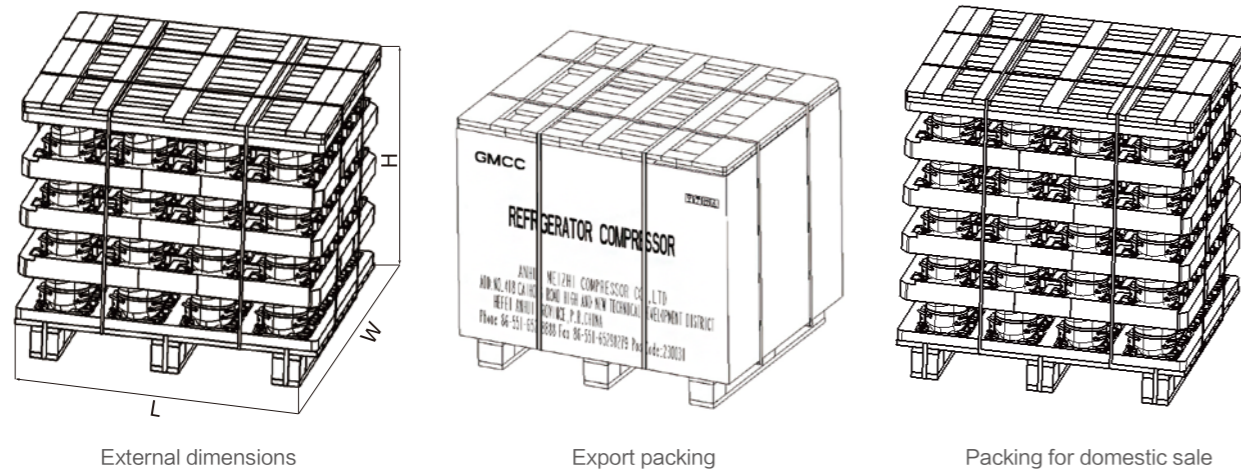
One way pallet domestic and export do not have to return pallet.



Comp Height (mm)	External Dimensions			No.of Layers	Quantity (Unit)
	L (mm)	W (mm)	H (mm)		
142~182	1120	954	1025/1095	5	100
183~216	1120	954	977/1035	4	80

## Compressor packing GMCC structure

The packing is divided into export packing and packing for domestic sale, as shown below respectively



Product Series	External Dimensions			No. of Layers	Quantity (Unit)	Gross Weight (kg)
	L (mm)	W (mm)	H (mm)			
Q series	1100	920	980/1200	3/4	54/72	600~975
H/X series	1100	920	1027/1200	4/5	96/100/120	471~1056
E series	1100	920	1120/1190	4/5	112/120/140	520~920

The number of layers of a single package for export packing is to be determined according to the dimensions of the container and load carrying requirements.

## General technical description



- 1、The compressor under vacuum condition should not be tested at high voltage or tested for startup;
- 2、The compressor may be started up at 85% of nominal voltage under 0.3MPa(G)(for R600a) or 0.5MPa(G) for (R134a) or 0.85Mpa ( G ) for (R290) balance pressure;
- 3、When filling the refrigerant into the compressor, there will appear the phenomenon of stratification that the refrigerant is on the top and refrigerant oil is at bottom , in this case, please don't immediately start up the compressor, if you do so, the mechanical components may be scratched due to insufficient amount of lubricating refrigerant oil ; moreover, the pressure has not achieved equilibrium, which will cause poor startup;



- 1、During the handling of the compressor , it is required to keep the compressor in vertical position, don't place it upside down and avoid impact and vibration as far as possible;
- 2、Electric components like starter , protector etc. of the compressor must adopt the specifications specified by our company;
- 3、Pull out the rubber plug , please connect the compressor with the refrigerating system within 5 minutes, it is not allowed to let any dust or moisture in the air enter the compressor;
- 4、Do not apply positive bending force to the suction and exhaust pipes;
- 5、It is forbidden to fill any non-specified liquid into the compressor;
- 6、The refrigerating system should not contain chlorine series residue (rust remover, cleaning agent(containing R113 etc.), and the amount of residual organic matter should be below 100mg;
- 7、The refrigerant charge should not exceed the specified amount;
- 8、Do not wrongly connect the external power lines of the compressor, if they are connected wrongly the compressor will be reversed and cannot be used any longer;
- 9、The wires in the terminal cover of the compressor must use high temperature resistant ones;



- 1、The warehouse storage period of the compressor after delivery should preferably not exceed 6months; If the storage period exceeds 6 months, please check if the dry nitrogen gas in the compressor is sufficient, and make up it, if necessary.
- 2、Please store the compressor in a well ventilated dry place and try to avoid moisture;