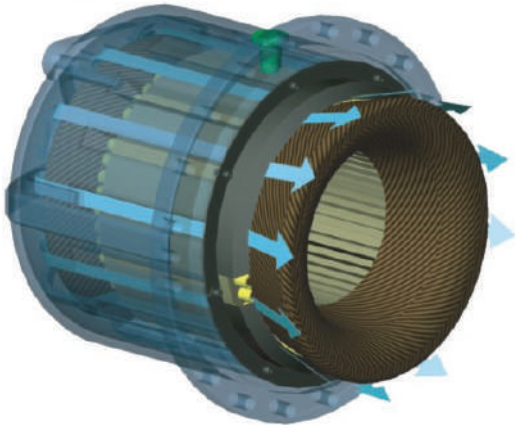


Innovative heavy duty design
Screw compressor suitable for
HFCs, HCs and HFOs

High-efficiency Model RC2 Series Screw Compressor



Highlights of RC2 Screw Compressor

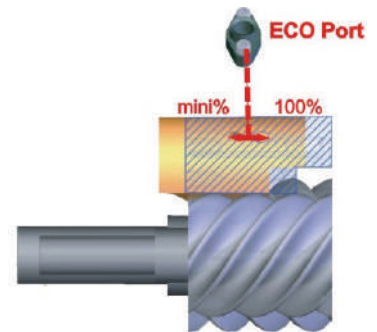


Energy-efficient Motor

- Semi-hermetic, flange-mount design
- Effective cooling by suction refrigerant gas
- Part winding, star-delta, DOL starter options available
- Variable frequency drive (VFD) option available
- Optimized housepower respond to refrigerant properties
- Cooling guide vane design on motor casing
- F-class motor insulation

Economizer (Sub-cooler) Operation

- Increasing cooling capacity at minimum additional power
- Stable middle pressure, easy to control
- Specially-designed gas flow passageway on slide valve
- Subcooling works also works at partial load



High-efficiency Screw Rotor Profile

- Five-to-six lobes patented rotor profile
- High displacement, low operation noise
- Excellent volumetric efficiency and minimum clearance
- Heat process and heavy-duty design
- In-house manufacturing technology
- Precisely machining and quality assurance

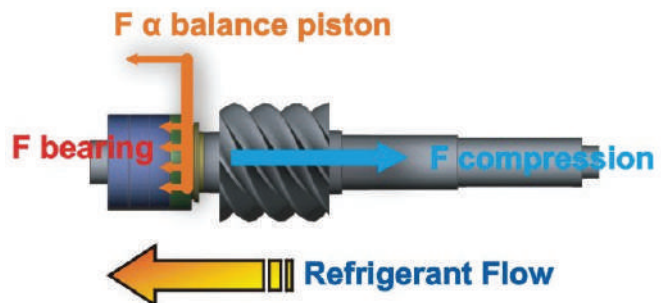
Dual Capacity Control

- Flanged-on solenoid valve, easy on installation
- Step or Continuous (Stepless) control mechanism
- High ingress protection
- Quick loading and unloading to target water temp.
- Special supply voltage on request



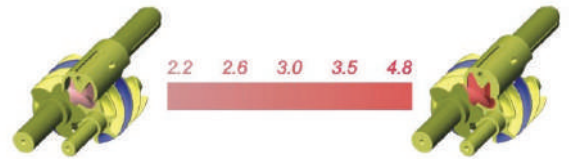
Durable Bearing Structure

- High-quality radial and axial bearings
- Anti-reverse rotation design
- α balance piston against axial thrust
- Long life cycle and service time
- Oversized bearings, heavy-duty



Wide Range VI Options

- Optimized selection - 2.2, 2.6, 3.0, 3.5, 4.8
- Minimum over- or under-compression
- Designed for applications of air-conditioning refrigeration, heat pump and process cooling
- Replaceable slide without chamber modification



Build-in Oil Separator

- Three-stage oil separation
- Low pressure drop and oil carry-over
- Fine demister mesh in oil separation
- High volume oil sump and inbuilt rust remover
- Pressure relief valve available



Complete Protection & Accessories

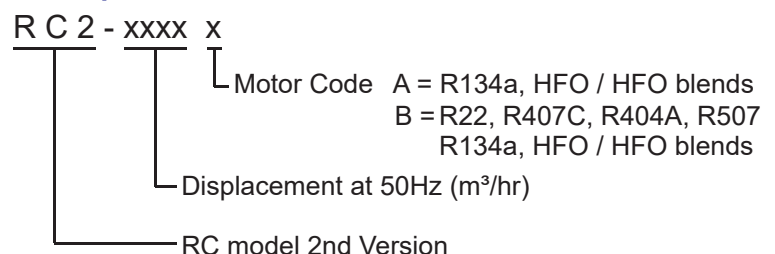
- Motor temperature Sensor
 - PT100 or PT1000 embedded inside motor winding
 - In-time motor temperature monitor
 - As control point for liquid injection to motor
- Discharge Port and Motor Temperature Thermistor
 - PTC embedded inside motor winding
 - Proactive and prompt reaction when overheating occurs
- Liquid Injection Connector (Motor and Chamber)
 - Available for additional cooling requirement
- Oil Cooler Connector
 - Available for oil cooler or external oil circuit design
- Oil Level Switch
 - Proactive and prompt reaction on insufficient lubricant
- Oil Heater (150W or 300W)
 - Maintain lubricant viscosity before compressor start
- Oil Pressure Connector
 - Monitor pressure differential (Ps-Po and Pd-Po)
 - Oil filter clogging monitor



Other Advantages

- Low noise level and minimum vibration
- Fewer quantity of parts in screw compressor than those in reciprocating compressor
- Easy for maintenance and overhaul
- Compact geometry, easy for layout

Compressor Nomenclature



Quality System and Certification

- ISO 9001, ISO 45001 quality system approved
- UL listed, CE conformity, ATEX and IECEx explosion proof model available (RC2-Exp)
- Approved by chiller performance standard ASHRAE 90.1, EU 2016/2281, GB 19577, ISEER

Technical Data RC2-A

MODEL	COMPRESSOR					MOTOR					Lubricant charge	WEIGHT
	Displacement 60 / 50Hz m ³ /hr	Rated Speed 60 / 50Hz	VI	Cap. Control (%)		Type	Nominal Hp		Starting	Voltage (V)		
				STEP	STEPLESS		60Hz	50Hz		60Hz	50Hz	L
RC2-100A	118/98	3550/2950	2.2	33, 66, 100	33~100	3 Phase, 2 Pole, Squirrel Cage, Induction Motor	23	19	Y-△	208 220 230 380 440 460 480 575	7	275
RC2-140A	165/137			33, 66, 100	33~100		32	26			7	280
RC2-180A	216/180			33, 66, 100	33~100		42	35			7	300
RC2-200A	233/193			25, 50, 75, 100	25~100		45	37			8	420
RC2-230A	277/230			35, 50, 75, 100	35~100		53	44			14	540
RC2-260A	309/257			25, 50, 75, 100	25~100		59	49			14	545
RC2-300A	352/293			25, 50, 75, 100	25~100		67	56			16	590
RC2-310A	371/308			35, 50, 75, 100	35~100		71	59			16	575
RC2-340A	407/339			35, 50, 75, 100	35~100		77	64			16	600
RC2-370A	440/366			35, 50, 75, 100	35~100		84	70			16	610
RC2-410A	490/407			25, 50, 75, 100	25~100		93	78	16	730		
RC2-470A	567/471			25, 50, 75, 100	25~100		108	90	18	800		
RC2-510A	611/508			35, 50, 75, 100	35~100		117	98	20	760		
RC2-550A	660/549			25, 50, 75, 100	25~100		126	105	23	820		
RC2-580A	702/583			35, 50, 75, 100	35~100		131	109	20	805		
RC2-620A	745/619			35, 50, 75, 100	35~100		137	114	23	850		
RC2-710A	858/713			35, 50, 75, 100	35~100		158	131	28	1100		
RC2-790A	952/791			30, 50, 75, 100	30~100		175	146	28	1140		
RC2-830A	993/825			30, 50, 75, 100	30~100		183	152	28	1150		
RC2-930A	1117/929			35, 50, 75, 100	35~100		212	176	28	1180		
RC2-1020A	1223/1017	25, 50, 75, 100	25~100	227	189	40	1500					
RC2-1130A	1350/1122	25, 50, 75, 100	25~100	248	206	40	1520					
RC2-1270A	1521/1268	25, 50, 75, 100	25~100	286	238	53	2100					
RC2-1530A	1847/1539	25, 50, 75, 100	25~100	331	275	53	2200					

Nominal HP:

All above Nominal HP are not equal to the maximum compressor HP;
please refer to Hanbell selection software for power input in specified working condition.

Technical Data RC2-B

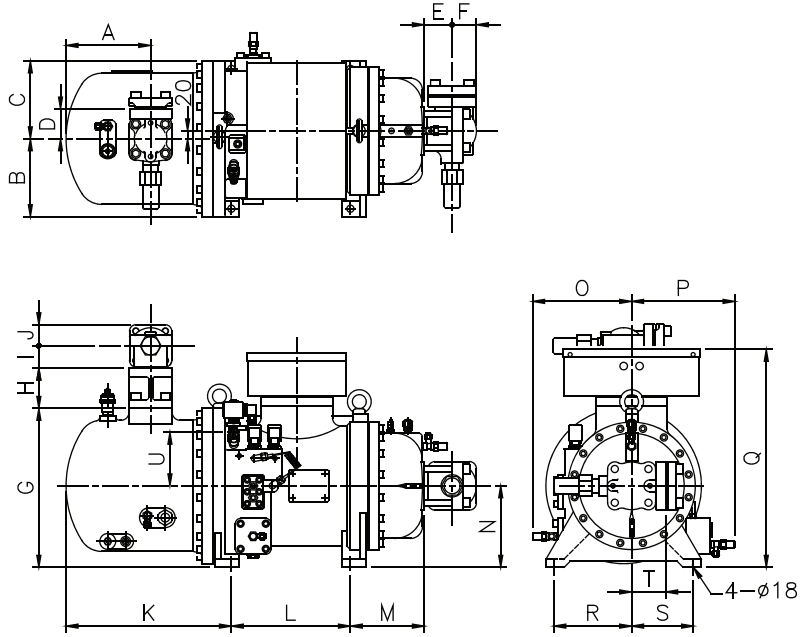
MODEL	COMPRESSOR					MOTOR					Lubricant charge	WEIGHT	
	Displacement	Rated	VI	Cap. Control (%)		Type	Nominal Hp		Starting	Voltage (V)			
	60 / 50Hz	Speed		STEP	STEPLESS		60Hz	50Hz		60Hz			50Hz
m ³ /hr	60 / 50Hz									L	kg		
RC2-100B	118/98			33, 66, 100	33~100	3 Phase, 2 Pole, Squirrel Cage, Induction Motor	38	31	Y-Δ	208	380	7	280
RC2-140B	165/137			33, 66, 100	33~100		50	41				7	285
RC2-180B	216/180			33, 66, 100	33~100		66	55				7	335
RC2-200B	233/193			25, 50, 75, 100	25~100		70	58				8	425
RC2-230B	277/230			35, 50, 75, 100	35~100		81	67				14	555
RC2-260B	309/257			25, 50, 75, 100	25~100		90	75				14	560
RC2-300B	352/293			25, 50, 75, 100	25~100		107	89				16	600
RC2-310B	371/308			35, 50, 75, 100	35~100		110	91				16	580
RC2-340B	407/339			35, 50, 75, 100	35~100		121	101				16	620
RC2-370B	440/366		2.2	35, 50, 75, 100	35~100		130	108				16	640
RC2-410B	490/407		2.6	25, 50, 75, 100	25~100		146	121	16	740			
RC2-470B	567/471		3.0	25, 50, 75, 100	25~100		170	141	18	810			
RC2-510B	611/508	3550/2950	3.5	35, 50, 75, 100	35~100		183	152	20	780			
RC2-550B	660/549		4.8	25, 50, 75, 100	25~100		195	162	23	850			
RC2-580B	702/583			35, 50, 75, 100	35~100		210	175	20	840			
RC2-620B	745/619			35, 50, 75, 100	35~100		220	183	23	880			
RC2-710B	858/713			35, 50, 75, 100	35~100		250	208	28	1100			
RC2-790B	952/791			30, 50, 75, 100	30~100		276	230	28	1180			
RC2-830B	993/825			30, 50, 75, 100	30~100		290	234	28	1215			
RC2-930B	1117/929			35, 50, 75, 100	35~100		334	278	28	1240			
RC2-1020B	1223/1017			25, 50, 75, 100	25~100	357	297	40	1540				
RC2-1130B	1350/1122			25, 50, 75, 100	25~100	393	327	40	1560				
RC2-1270B	1521/1268			25, 50, 75, 100	25~100	471	392	53	2200				
RC2-1530B	1847/1539			25, 50, 75, 100	25~100	534	443	53	2300				

Nominal HP:

All above Nominal HP are not equal to the maximum compressor HP; please refer to Hanbell selection software for power input in specified working condition.

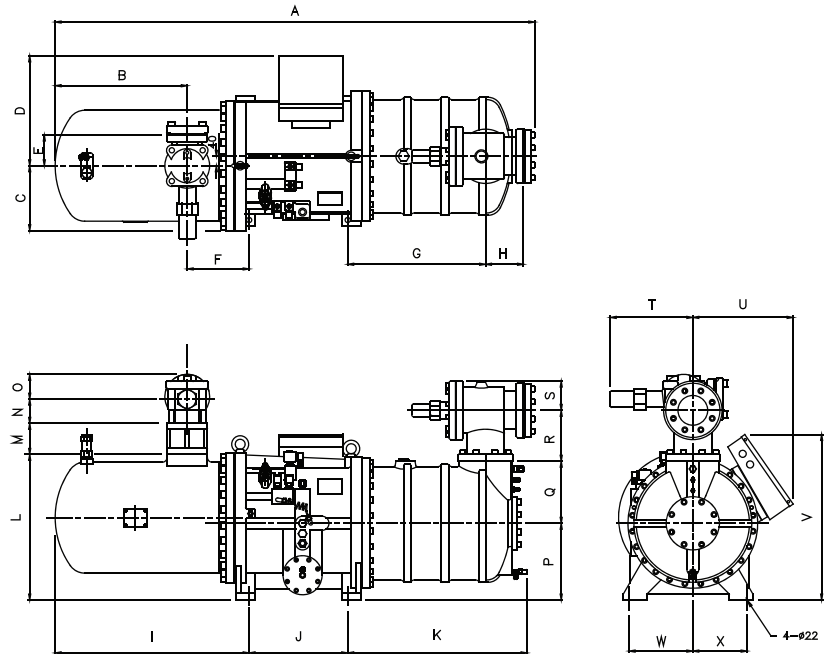
RC2-100~RC2-180 Outline

Note: Number in red indicate dimensions in which RC2-B differs from RC2-A (A / B)

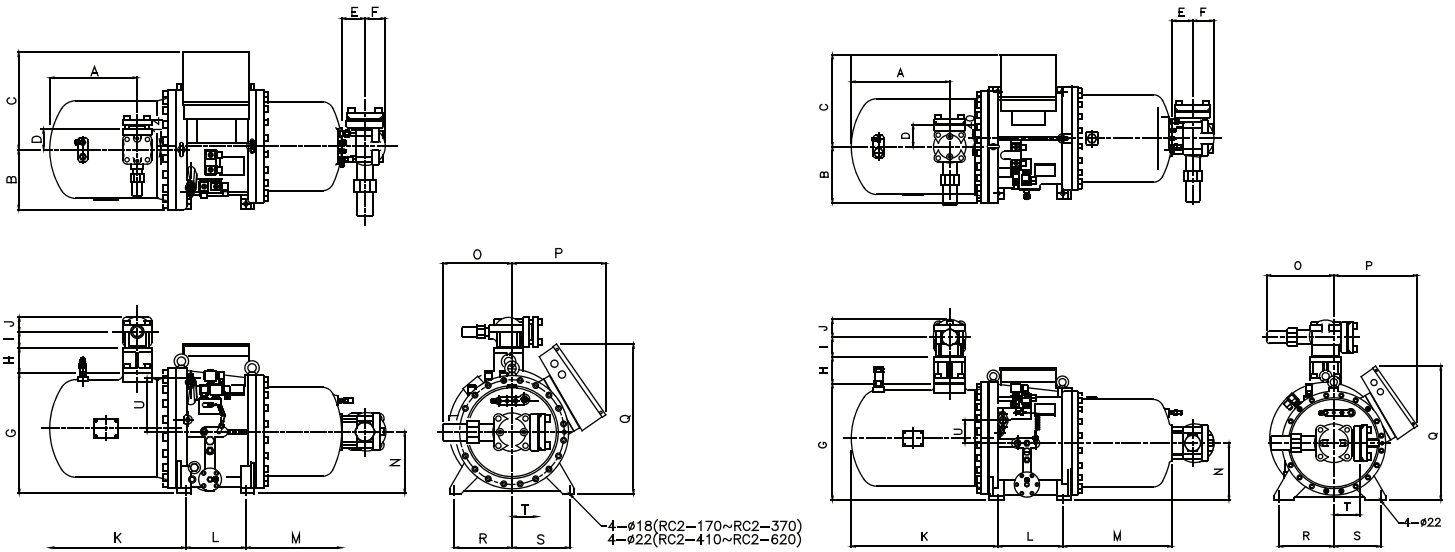


MODEL	Dimensions																				Unit: mm
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
RC2-100	213	196	196	75	70	61	400	101	57	53	416.5	300	186.5	205	249	260	548.5	196	156	86	135
RC2-140	213	196	196	75	70	61	400	101	57	53	416.5	300	186.5	205	249	260	548.5	196	156	86	135
RC2-180	283	196	196	75	81	68.5	410	101	57	53	486.5	386	196	205	239	362	548.5	196	156	95	123

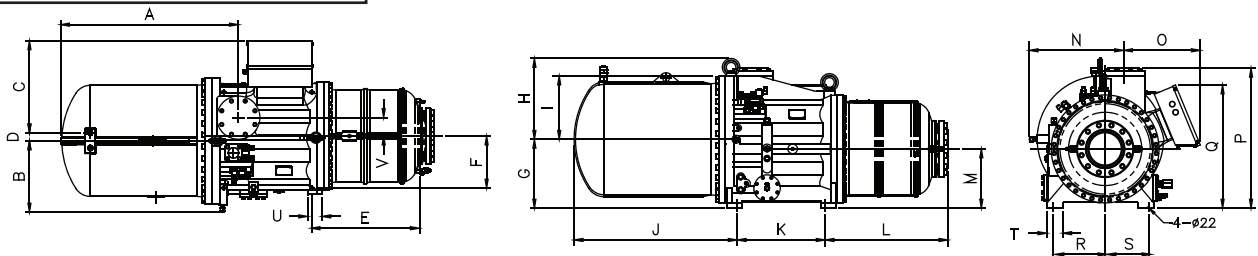
RC2-710~RC2-930 Outline



MODEL	Dimensions																							Unit: mm	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
RC2-710	1898.5 /1968.5	560	275	466	130	262.5	514.5 /584.5	161	822.5	353	690 /760	617	131.5	103	105	325	263	215.5	124	350	426	701	270	230	269
RC2-790	1963.5 /2033.5	560	275	466	130	262.5	514.5 /584.5	161	822.5	418	690 /760	617	131.5	103	105	325	263	215.5	124	350	426	701	270	230	230
RC2-830	1963.5 /2033.5	560	275	466	130	262.5	514.5 /584.5	161	822.5	418	690 /760	617	131.5	103	105	325	263	215.5	124	350	426	701	270	230	230
RC2-930	2033.5 /2087.5	560	275	466	130	262.5	584.5 /638.5	161	822.5	418	760 /814	617	131.5	103	105	325	263	215.5	124	350	426	701	270	230	230

RC2-200~RC2-580 Outline
RC2-550~RC2-620 Outline


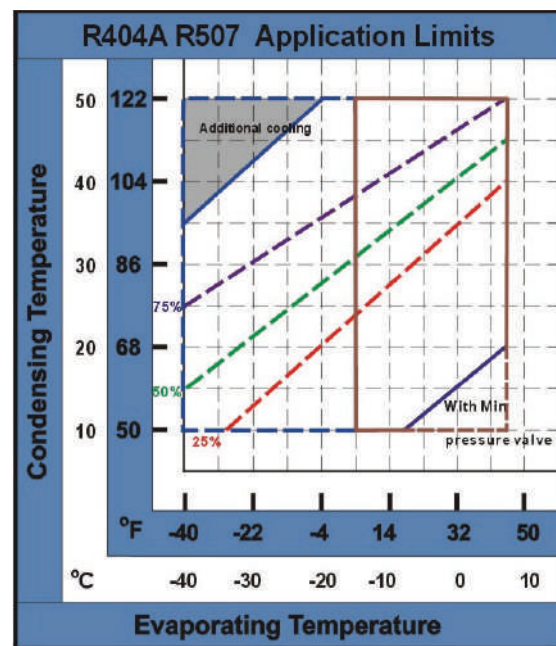
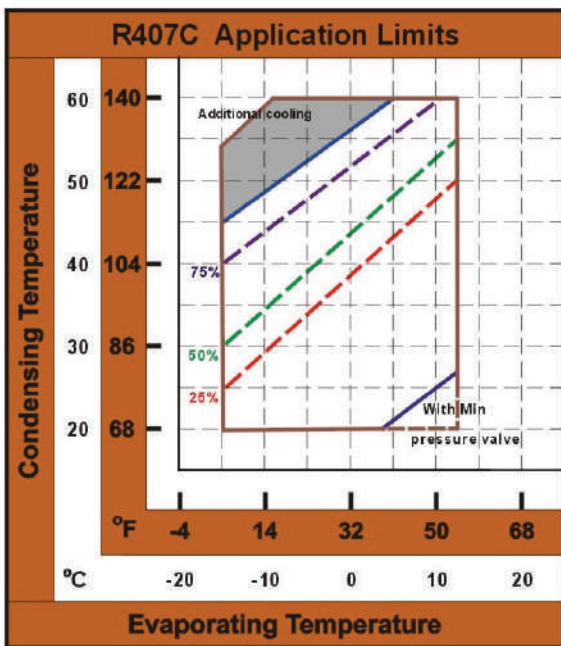
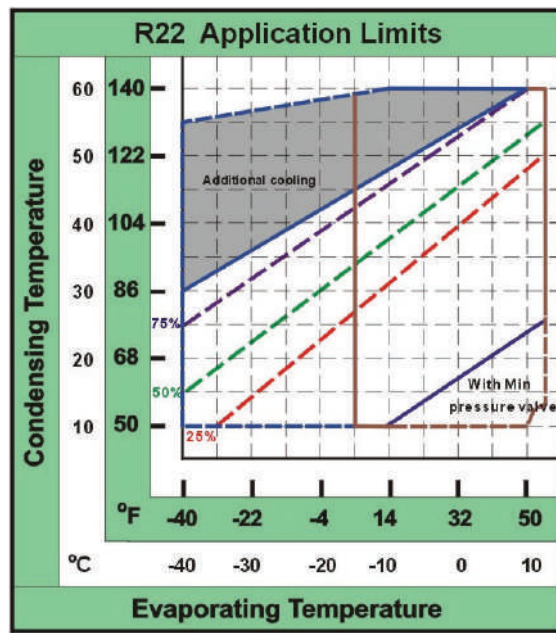
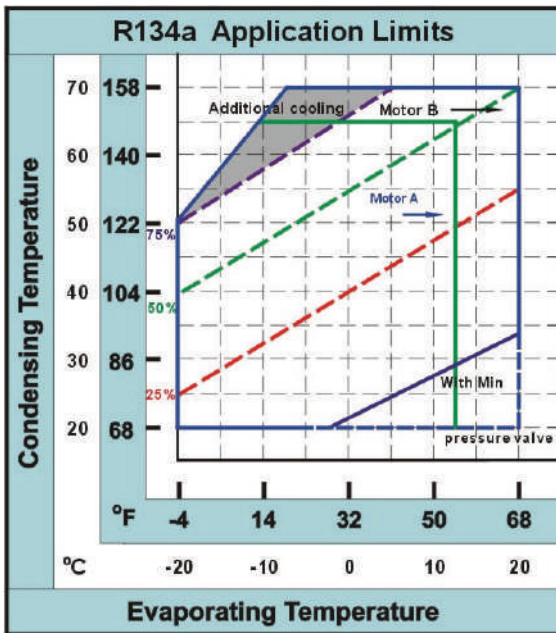
MODEL	Dimensions																				Unit: mm
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
RC2-200	345	229	378	75	82	69	447	101	57	53	536	228	341/386	225	245	362	592	225	225	95	196
RC2-230	365	250	405	86	97	85	502	106	67	61	567	251	399	257	289	391	624	240	240	107	225
RC2-260	365	250	405	86	97	85	502	106	67	61	567	251	399	257	289	391	624	240	240	107	225
RC2-300	408	250	405	86	97	85	502	106	67	61	610	285	399/444	257	289	391	624	240	240	107	229
RC2-310	408	250	405	86	97	85	502	106	67	61	610	251	444	257	289	391	624	240	240	107	225
RC2-340	408	250	405	95	103	105	502	121	81	69	610	285	447/492	257	310	391	624	240	240	130	228
RC2-370	408	250	405	95	103	105	502	121	81	69	610	285	447/492	257	310	391	624	240	240	130	228
RC2-410	392	275	453	95	103	105	553	120	81	69	613	288	433	275	315	413	655	270	230	130	255
RC2-470	440	275	453	95	103	105	553	120	81	69	661	320	433/478	275	315	413	655	270	230	130	255
RC2-510	465	275	453	107	103	105	560	131.5	96.5	88	696	288	484	275	331	413	655	270	230	130	254
RC2-550	484	275	451.5	107	103	105	572	131.5	96.5	88	720	320	580/536	280	331	411.5	659	270	230	130	112
RC2-580	465	275	453	107	103	105	560	131.5	96.5	88	696	320	484	275	331	413	655	270	230	130	255
RC2-620	484	275	451.5	107	220	124	572	131.5	96.5	88	720	320	525	280	331	411.5	659	270	230	161	112

RC2-1020~RC2-1530 Outline


MODEL	Dimensions											Unit: mm
	A	B	C	D	E	F	G	H	I	J	K	
RC2-1020/1130	1120	350	480	45	656	325	410	365	350	1000	470	
RC2-1270/1530	1112	445	575	50	677	325	430	505	395	1020	550	

MODEL	Dimensions											Unit: mm
	L	M	N	O	P	Q	R	S	T	U	V	
RC2-1020/1130	723	370	451	499	715	728	325	275	100	100	60	
RC2-1270/1530	768	370	590	480	825	770	325	275	100	90	115	

RC2-100~RC2-930 Application Limits



To apply the refrigerant not listed above, please contact Hanbell for application guide.



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HBCE-RC2-20-A(500)